CodeArts

Getting Started

 Issue
 03

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This section describes the basic operation process of CodeArts.



Figure 1-1 Basic operation process

Prerequisites

- 1. You have purchased CodeArts. For details, see **Purchasing CodeArts**.
- 2. To deploy applications on a host, you need to prepare a host with an EIP. You can use an existing host or **purchase a Huawei Cloud ECS**.

Configuring a Project

CodeArts Req is the basis for using services on CodeArts. You need to create a project, add project members, and add work items based on your project plan.

Step 1 Create a project.

- 1. Log in to the CodeArts console.
- 2. Click 💿 and select a region.
- 3. Click Access Service.
- 4. Click Create Project.
- 5. Click **Scrum**, enter a project name, and click **OK**.
- **Step 2** Add a project member.
 - 1. Go to the created project, and choose **Settings** > **General** > **Members** from the navigation pane.

In the upper right of the list, click Add Members or Invite via Links.

You can add members in any of the following ways:

- Add users in your enterprise
- Import users from other projects
- Invite users from other enterprises
- Import users from agencies

Figure 1-2 Adding members

		Add Members	🔗 Invite via Lir	nks	C Export Members
	Users from N	1y Enterprise		Operation	1
	Users from C	other Projects	:26:51		
าล(Users from C)ther Enterprises			
nin	Importing Us	ers from a Agency	:26:50		

Step 3 Create a work item.

- 1. Click a project, choose **Work**, and click the **Work Items** tab.
- 2. Click **Create Work Item**, select a work item type, and enter information such as the title, priority, and handler.

----End

For more operations on CodeArts Req, see CodeArts Req User Guide.

Configuring a Code Repository

The code repository is based on Git to manage versions of project code. Therefore, you need to install the Git client locally in advance.

- **Step 1** Install and configure the Git client.
 - 1. Download the installation package from the **Git website** and install the Git client with the default configurations on the local host.
 - 2. Run **Git Bash** and enter the following commands to configure the username and email address:

git config --global user.name "<*name*>" git config --global user.email "<*email_address*>"

- 3. Generate a pair of SSH keys: The generated key is stored in ~/.ssh/id_rsa.pub. ssh-keygen -t rsa -C "*email_address*"
- 4. Display the key content. cat ~/.ssh/id_rsa.pub
- **Step 2** Create a code repository.
 - 1. Go to the created project and choose **Code** > **Repo**.
 - 2. Click **New Repository**.
 - 3. Select Common, Template, or Import, and click Next.
 - 4. Enter the basic information such as the repository name, and click OK.
 - 5. After a code repository is created, click the repository name on the repository list page to view the files in the repository.

Step 3 Clone or push code.

- 1. Click the username in the upper right corner of the page and choose **This Account Settings** from the drop-down list.
- 2. In the navigation bar, choose **Repo** > **SSH Keys**.
- 3. Click Add SSH Key, enter the name, enter the key generated in Installing and Configuring the Git Client, agree to statements, and click OK.
- 4. Return to the CodeArts Repo page and click the name of the repository to be cloned.
- 5. Click **Clone/Download** to copy the repository SSH download link.
- 6. Run **Git Bash** and enter the following command to clone the cloud repository to your local address: git clone *repository_SSH_URL*
- 7. After editing the code locally, enter the following commands in sequence in Git Bash to save the code and push it to the code repository: git add . git commit -m "commit_message" git push origin master
- 8. Return to CodeArts Repo to view the updated file.

----End

For more operations on CodeArts Repo, see CodeArts Repo User Guide.

Configuring a Pipeline

CodeArts Pipeline integrates with CodeArts Check, CodeArts Build, and CodeArts Deploy tasks. You can flexibly configure tasks in the pipeline as required. The pipeline is optional.

- CodeArts Check performs static and security checks. The code check is optional.
- CodeArts Build compiles the source code of software into a target file and packs the configuration file and resource file. Build is optional. For some projects, such as PHP and Node.js frontend code, you do not need to configure build tasks.

- CodeArts Deploy deploys a software package or code to a VM or container. Deployment is optional. For some projects, such as mobile app development, this deployment mode is not required.
- **Step 1** Create a code check task.
 - 1. Go to the created project and choose **Code** > **Check**.
 - 2. Click **Create Task**, select the code repository to check, and click **New** next to the repository name.
 - 3. Enter the created task, go to the **Overview** tab page and click **Start Check**.
 - 4. After the task is successfully executed, you can view the check result, issues, and suggestions.

For more operations on CodeArts Check, see CodeArts Check User Guide.

- **Step 2** Create a build task.
 - 1. Go to the created project and choose **CICD** > **Build** in the navigation bar.
 - 2. Click **Create Task** and configure task information as required.
 - a. Basic information: Configure the following information and click **Next**.

Table 1-1 Basic information

ltem	Suggestion
Task Name	Enter a custom name.
Code Source	Select Repo .
Source Code Repository	Select the code repository created in Configuring a Code Repository .
Branch	Select a repository branch as required.

- b. **Build Template**: You can select a built-in or **Blank Template** and click **Next**.
- 3. Configure the build actions, parameters, execution plan. Click **Create and Run**.
- 4. After the task is complete, you can view the build result and logs.

For more operations on CodeArts Build, see CodeArts Build User Guide.

- **Step 3** Create and deploy an application.
 - Go to the created project. In the navigation bar, choose Settings > General > Basic Resources, create a host cluster, and add the hosts prepared in Prerequisites to the cluster.
 - 2. Go to the created project and choose **CICD** > **Deploy** from the navigation bar.
 - 3. Click Create Application and configure task information as required.
 - a. Basic information: Enter a custom application name and click **Next**.
 - b. Select a deployment template. You can select a built-in or **Blank Template**. Then click **OK**.

- 4. Configure the deployment actions, parameters, and environments as required, and click **Save & Deploy**.
- 5. After the application is successfully deployed, you can view the deployment result, logs, and error information on the page.

For more operations on CodeArts Deploy, see CodeArts Deploy User Guide.

- **Step 4** Configure a pipeline.
 - 1. Go to the created project and choose **CICD** > **Pipeline** from the navigation bar.
 - 2. Click the **Pipelines** tab, click **Create Pipeline**, and configure pipeline information.
 - a. Basic information: Configure the following information and click **Next**.

Item	Suggestion
Project	Enter a custom name.
Pipeline Source	Select Repo .
Repository	Select the code repository created in Configuring a Code Repository .
Default Branch	Select a repository branch as required.

Table 1-2 Pipeline basic information

- b. Template: Select a built-in or **Blank Template**. Then click **Confirm**.
- 3. Configure the task orchestration, parameters, and execution plan as required, and click **Save and Run**.
- 4. After the task is successfully executed, click it to view details.

For more operations on CodeArts Pipeline, see CodeArts Pipeline User Guide

----End

2 Using CodeArts to Quickly Set Up a Project (ECS)

This section describes how to use the built-in code repository of CodeArts to develop, build, and deploy projects for continuous delivery.

The following describes deployment using ECS. For details about deployment using Cloud Container Engine (CCE), see Using CodeArts to Quickly Set Up a Project (CCE).

Preparations

- 1. You have purchased CodeArts. For details, see Purchasing CodeArts.
- 2. You have **purchased an ECS**. The following table lists the mandatory configurations. You can select the configurations that are not listed in the table based on the site requirements. After the purchase is complete, add inbound rules for ports 22 and 8080 by referring to **Configuring Security Group Rules**.

Category	ltem	Suggestion
Basic Billing Settings Mode		Select Pay-per-use .
	CPU Architect ure	Select x86 . If this configuration item does not exist, ignore it.
	Specifica tions	Select 2 vCPUs and 4 GB or higher.
	Image	Select Public Image > CentOS > CentOS 7.6 64bit (40GB).
Network	EIP	Select Auto assign.
Settings	Billed By	Select Bandwidth .

 Table 2-1 Configuring advanced settings

Category	ltem	Suggestion
Advance d	Login Mode	Select Password .
Settings	Passwor d	Enter a custom password.

Creating a Project

A project is the basis for using services on CodeArts. Subsequent operations can be performed only after a project is created.

- Step 1 Log in to the CodeArts console.
- **Step 2** Click ¹ and select a region.
- Step 3 Click Access Service.
- Step 4 Click Create Project.
- Step 5 Select Scrum, enter the project name Demo, and click OK.

----End

Creating a Code Repository

You can use a code repository to manage project code versions. This section describes how to use the built-in template **Java Web Demo** to create a code repository.

- **Step 1** On the navigation bar, choose **Code** > **Repo**.
- Step 2 Click New Repository.
- Step 3 Select Template, and click Next.
- Step 4 On the page displayed, select Java Web Demo and click Next.
- **Step 5** Enter the code repository name **Web-Demo** and click **OK**.

----End

Checking Code

You can use CodeArts Check to perform static code check and control code quality.

Step 1 On the navigation bar, choose Code > Check. The automatically created task Web-Demo-codecheck is displayed on the page.

NOTE

This section uses built-in tasks associated with code repository templates. In an actual development project, click **Create Task**. For details, see **Creating a Code Check Task**. Step 2 Locate the row that contains the task and click Execute immediately.

If the code check task has been run, click the task name to access overview page and click **Start Check** to run the task again.

Step 3 When **Step 3** Is displayed, the task is successfully executed. Click the task name, go to the **Overview** tab page, and view the check result.

If the task fails, check and fix errors based on the message displayed on the page.

----End

Building and Archiving Software Packages

You can use CodeArts Build to compile the source code of the software into a target file, packs the configuration file and resource file, and archives them to a release repo.

Step 1 In the navigation bar, choose CICD > Build. The automatically created build task Web-Demo-cloudbuild is displayed.

NOTE

This section uses built-in tasks associated with code repository templates.

In an actual development project, you need to click **Create Task** and create a task based on the service scenario. For details, see **Creating a Build Task**.

- **Step 2** Click \triangleright in the row where the task is located to start the task. If a dialog box is displayed, confirm the parameter settings and click **Confirm**.
- **Step 3** When Sis displayed, the task is successfully executed. Click the task name. On the **Build History** page that is displayed, find the **Build ID** of the latest build in the list and record the ID.

If the build fails, rectify the fault based on the failed action information and error information in logs.

Figure 2-1 Build ID

Build ID

#20230401.1

Step 4 Choose **Artifact** in the navigation bar and click the **Release Repos** tab.

In the repository named after the project, go to the folder named after the build task and the folder named after the build number in sequence to find the generated software package **demoapp.jar**.

Release Repos • 😙 Advanced Search :	Homepage / Demo / Attfact / Release Repos Percent Package Type: generic Created By: devops Created At: Apr 1, 2023 09.47.16 GMT+08.00 Description:	Settings
web-Demo-cloudbuild 20230401.1 demoapp.jar	Demo / Web-Demo-cloudbuild / 20230401.1 / demospp.jar	觉 Delete
	Details Repository Name Demo Repository Type	3

Figure 2-2 Viewing the software package

----End

Deploying the Build Package

You can use CodeArts Deploy to deploy software packages in the release repo to a VM and run it.

- **Step 1** Configuring the Target Host
 - 1. In the navigation bar, choose **Settings** > **General** > **Basic Resources**.
 - 2. Click **Create Host Cluster**, enter the name **hosts**, set the OS to **Linux**, and click **Save**.
 - 3. Click **Add Target Host**. In the dialog box that is displayed, configure the following information, agree to statements, and click **OK**.

Table 2	-2 Add	a target	host
---------	--------	----------	------

ltem	Suggestion
Host Name	Enter a custom host name. For easy identification, set this parameter to the name of the ECS purchased on Preparations .
IP	Enter the IP address of the ECS purchased in Preparations .
Username	Enter root .
Password	Enter the password set when you purchase the ECS in Preparations .
SSH Port	Enter 22 .

4. A host record is displayed on the page. If **Succeed** is displayed in the **Verification Result** column, the host is added successfully.

If the host fails to be added, check the host configuration based on the failure details.

Step 2 Choose **CICD** > **Deploy** from the navigation bar. The automatically created application **Web-Demo-deploy** is displayed on the page.

NOTE

This section uses built-in applications associated with code repository templates.

In an actual development project, click **Create Application** and create an application based on the service scenario. For details, see **Creating an Application**.

- Step 3 Click *** and choose Edit from the drop-down list.
- **Step 4** Click the **Environment Management** tab and configure the host environment.
 - 1. Click **Create Environment**, enter the environment name **host-group**, select the resource type **Hosts** and operating system **Linux**, and click **Save**.
 - 2. A new environment record is added to the list. Click the environment name. In the window that is displayed, click the **Resource** tab.
 - 3. Click **Import Host**. In the dialog box that is displayed, select the host cluster created in **Step 1** from the drop-down list, select the host from the list, and click **Import**.
 - 4. A message is displayed, indicating that the import is successful. Close the window.
- **Step 5** Click the **Parameters** tab and set task parameters by referring to the following table.

Parameter Name	Value
host_group	Select the environment name host-group added in Step 4 .
package_url	This parameter is not required. Click 🗐 in the corresponding row to delete it.
service_port	Enter 8080 .
package_name	Enter demoapp .

Step 6 Click the **Deployment Actions** tab and configure information.

- **Stop Spring Boot**: If you perform this step for the first time, this step will fail because no service is running on the target host. Therefore, do not select **Enable this action**.
- Install the JDK: Change the JDK version to **openjdk-1.8.0**.
- Select the deployment source. Set the parameters based on the following table.

Item	Value
Source	Click Build task .
Build Task	Select Web-Demo-cloudbuild.
Download Path	Enter /usr/local/\${package_name}/.

Table 2-3 Deployment source configuration

- Health Test Through URLs: This step is optional. Determine whether to enable it as required. (In this document, do not select **Enable this action**.)
- **Step 7** Click **Save & Deploy**. If a dialog box is displayed, confirm the parameter settings and click **OK**.

Wait until Successful is displayed on the page. If the deployment fails, rectify the fault based on the failed action information and error information in logs.

Step 8 View the deployment result.

Open a new browser page and enter the access address **http://IP:8080/test**. **IP** is the IP address of the ECS purchased in **Preparations**.

If the following information is displayed, the deployment is successful.

Figure 2-3 Deployment result



hello world

----End

Configuring a Pipeline

You can use a CodeArts pipeline to connect code check, build, and deployment tasks. When code changes, the pipeline is automatically triggered for continuous delivery.

Step 1 Choose CICD > Pipeline from the navigation bar. On the Pipelines tab, the automatically created pipeline Web-Demo-pipeline is displayed.

NOTE

This document uses the built-in pipeline associated with the code repository template. In an actual development project, click **Create Pipeline** and create a pipeline based on the service scenario. For details, see **Creating a Pipeline**.

- Step 2 Click *** and choose Edit from the drop-down list.
- Step 3 On the Task Orchestration tab page, configure the pipeline.
 - 1. APITest is not involved in this document. Therefore, remove the API test task from the pipeline.

Click 🗐 corresponding to **apitest**. In the dialog box that is displayed, click **OK**.

Figure 2-4 Deleting a job
ii Deploy-And-Test 2 job(s)
ල deploy
🕆 apitest 🗖 🗊
+ Parallel job
C Pass Conditions

- 2. Click the **codecheck** task.
- 3. Click the **deploy** job, associated the build task **cloudbuild**, and set other parameters based on the parameter settings in **Deploying the Build Package**.
- **Step 4** Click the **Execution Plan** tab, select **Code Commit**, select **master** from the branch filter drop-down list.

Figure 2-5 Configuring the execution plan



- **Step 5** Click **Save** to exit the editing mode.
- **Step 6** Go to **Deploy**, edit the deployment actions, and select **Enable this action** in **Stop Spring Boot**.
- **Step 7** Go to the code repository and search for and open the **TestController.java** file.

Click *(*), change **hello world** to **hello world again**, submit the information, and click **OK**.

Figure 2-6 Modifying code

8	<pre>public class TestController {</pre>
9	
10	
11	@RequestMapping
12	<pre>public String index() {</pre>
13	return "hello world again";
14	Ъ
15	
16	}
17	

Step 8 Return to the Pipeline page. You can see that the pipeline is running.

When \checkmark is displayed, access **http://IP:8080/test** again. The following figure shows the access result.

If the task fails to be executed, check the failure cause. You can open the step details page to view the task logs and rectify the fault based on the logs.

Figure 2-7 Pipeline execution result



----End

Releasing Resources

To avoid unnecessary fees, you can release resources after completing this example.

NOTICE

Released resources cannot be restored. Exercise caution when performing this operation.

- **Step 1** Delete a project.
 - 1. Choose **Settings** > **General** > **Basic Information**.
 - 2. Click **Delete Project**, in the displayed dialog box, enter the project name and click **Delete**.

Step 2 Delete the ECS.

1. Log in to the ECS console, locate the ECS to be deleted in the list, click **More**, and choose **Delete** from the drop-down list.

2. Select all options in the dialog box that is displayed and click **Yes**.

----End

3 Using CodeArts to Quickly Set Up a Project (CCE)

This section describes how to use the built-in code repository of CodeArts to develop, build, and deploy projects for continuous delivery.

The following describes deployment using CCE. For details about deployment using ECS, see **Using CodeArts to Quickly Set Up a Project (ECS)**.

Preparations

- 1. You have purchased CodeArts. For details, see Purchasing CodeArts.
- You have purchased a CCE cluster. The cluster is configured according to Table 3-1 and Table 3-2. Default values can be retained for configurations not listed in the tables.

Category	ltem	Suggestion
Basic Settings	Billing Mode	Select Pay-per-use .
	Cluster Version	You are advised to select the latest version.
Network Settings	Network Model	Select VPC network.
	VPC	Select a VPC. If no proper VPC is available in the list, click Create VPC to create one.
	Master Node Subnet	Select a subnet. If no proper subnet is available in the list, click Create Subnet to create one.
	Containe r CIDR Block	Select Auto select.

Table 🔅	3-1	Cluster	configurations
---------	-----	---------	----------------

Category	Item	Suggestion
Compute Settings	Billing Mode	Select Pay-per-use .
	Node Type	Select Elastic Cloud Server (VM).
	Specificat ions	Select 2 vCPUs and 8 GB memory or higher.
	Containe r Engine	Select Docker .
	OS	Select Public image > CentOS 7.6.
	Login Mode	Select Password.
	Password	Enter a password.
Network Settings	Node IP	Select Random.
	EIP	Select Do not use .

 Table 3-2 Node configurations

3. You have **created an organization** in SoftWare Repository for Container (SWR). In this example, organization name **web-demo** is used as an example.

Creating a Project

A project is the basis for using services on CodeArts. Subsequent operations can be performed only after a project is created.

- Step 1 Log in to the CodeArts console.
- **Step 2** Click ⁽²⁾ and select a region.
- Step 3 Click Access Service.
- Step 4 Click Create Project.
- Step 5 Select Scrum, enter the project name Demo, and click OK.

----End

Creating a Code Repository

You can use a code repository to manage project code versions. This section describes how to use the built-in template **Java Web Demo** to create a code repository.

- **Step 1** On the navigation bar, choose **Code** > **Repo**.
- Step 2 Click New Repository.
- Step 3 Select Template, and click Next.

Step 4 On the page displayed, select **Java Web Demo** and click **Next**.

Step 5 Enter the code repository name **Web-Demo** and click **OK**.

----End

Preparing a Dockerfile

A Dockerfile is a text file that contains the instructions and descriptions required for building an image. For details about Dockerfile, see the **Docker official website**.

- **Step 1** Click a repository name to go to the repository.
- Step 2 Click Create above the file list. Select Create File from the drop-down list.

Figure 3-1 Creating a file

Web-Demo / 🕂	- Create 🔨
🚞 Web-De	Create File

Step 3 Enter the file name Dockerfile and then enter the following content:

FROM openjdk:8-alpine ADD target /demo COPY ./target/demoapp.jar /demo CMD ["java","-jar","/demo/demoapp.jar"]

Step 4 Enter a commit message and click OK.

----End

Building and Pushing an Image

Use a build task to compile the software source code into an image and push and archive the image to SWR.

Step 1 In the navigation bar, choose **CICD** > **Build**.

Step 2 Click Create Task and configure task information.

1. Basic information: Configure the following information and click **Next**.

Table 3-3 Basic information

Item	Suggestion
Task Name	Enter a custom name (Web-Demo-docker as an example).
Code Source	Select Repo .
Source Code Repository	Select Web-Demo .
Branch	Select master.

2. Build Template: Select the Blank Template and click Next.

Step 3 Configure build actions.

- 1. Click Add Build Actions, find Build with Maven in the list, and click Add.
- 2. Click Add step. In the step list, find Build Image and Push to SWR. Click Add.
- 3. Configure **Build Image and Push to SWR** by referring to the following table. (Retain the default values for the fields not listed in the table.)

ItemSuggestionOrganizationEnter the organization name web-demo created in
Preparations.Image Tagv1.0.0

 Table 3-4 Configuring image information

Step 4 After the configuration is complete, click **Create and Run**.

When \checkmark is displayed, the task is successfully executed. If the build fails, rectify the fault based on the failed action information and error information in logs.

Step 5 Log in to the SWR console. In the navigation pane, choose My Images.

There is a record whose **Name** is **demo** and **Organization** is **web-demo**.

Click the image name to view details. The image version is **v1.0.0**.

Figure	3-2	Viewing	images
--------	-----	---------	--------

Name	demo			Organization	web-demo	
Туре	Private			Category	Other	
Tags	1			Pulls	0	
Space Used	82.6 MB			Created	Apr 01, 2023 1	9:30:39 GMT+08:00
Tags Descri	ption Pull/Push	Permissions	Sharing	Triggers	Retention	Synchronization Records
Sync De	elete					
Tag		Size		Ima	age Pull Command	
v1.0.0		82.6 MB		doc	cker pull swr.	Contraction of the State of the



Creating a Workload

Create a Deployment on CCE to deploy and run the demo image.

- **Step 1** Log in to the CCE console and click the cluster purchased in **Preparations** to go to the details page.
- **Step 2** In the navigation bar, choose **Workloads**. Click **Create Workload**, complete the configuration by referring to the following table, and click **Create Workload**.

Category	ltem	Suggestion	
Basic Info	Workload Type	Select Deployment .	
	Workload Name	User-defined. In this example, enter web-demo .	
	Pods	Enter 1 .	
Container Settings	lmage Name	Click Select Image . In the dialog box that is displayed, select demo and click OK .	
	Pull Policy	Select Always .	
	lmage Tag	Select v1.0.0 .	
Advanced Settings	Upgrade Mode	Set Upgrade Mode to Replace upgrade.	

Table	3-5	Creating	workload
-------	-----	----------	----------

Step 3 A message is displayed, indicating that the creation is successful. Click the **View Workload Details** to go back to the details page. There is one record in the **Pods**.

If the pod status is **Running**, click the **Access Mode** tab, click **Create**, configure the service by referring to the following table, and click **OK**.

If the instance status is abnormal, rectify the fault by referring to **Workload Abnormalities**.

ltem	Suggestion
Service Name	User-defined. In this example, enter web-demo .
Service Type	Select LoadBalancer.
Service Affinity	Select Cluster-level .
Load Balancer	Choose Shared > Auto Create . Then enter a load balancer name (use web-demo-test in this example) and check the box next to "I have read Notes on Using Load Balancers". NOTE If your account already has a load balancer, choose Shared > Use existing and select an existing load balancer.

 Table 3-6 Configuring access mode

ltem	Suggestion
Port	• Set Protocol to TCP .
	• Set Container Port to 8080 .
	• Set Service Port to 8080.

Step 4 Move the cursor to the load balancer name in a displayed list under Service Type when • web-demo is displayed next to a service name. Copy the Public IP displayed in the dialog box.

Figure 3-3 Copy Access Address

Pods	Access Mode	Containers	Auto Scaling	Scheduling Polic	Name	web-demo-test		rkloads				
Create	Delete									Ente	r a name.	QC
🖌 🖌 da	ota (remaining/total):L	oad Balancer (49 /50)	Listener (99/100)	Backend ECS (499/50								
	Service ↓Ξ	Select	or	N		Shared		0	Access Port:Container Port/Protocol (?)	Created	Operation	
	web-demo	app	web-demo versio	an <mark>v1</mark>	Status default	Running web-demo-test [2]	-	(Cluster IP) (Load Balancer IP) (Load Balancer IP)	8080 -> 8080 / TCP	1 hours ago	Manage Pod View Eve	ents More •

Step 5 Open a new browser page and enter **http://IP:8080/test** in the address box. Replace **IP** with the public network address copied in **Step 4**.

If the following information is displayed, the image has been deployed and started running.





----End

Deploying an image

You can create applications on Deploy to automatically deploy images.

- **Step 1** Return to the CodeArts page and choose **CICD** > **Deploy** in the navigation bar.
 - 1. Click **Create Application**, enter the application name (**web-demo-k8s** as an example), and click **Next**.
 - 2. Select the Blank Template and click OK.
- **Step 2** Search for and add Step **Kubernetes Quick Deployment (CCE Cluster)** to the step list. Configure the steps by referring to the following table.

ltem	Suggestion			
Region	Select the region where the cluster located.			
Cluster Name	Select the cluster purchased in Preparations .			
Namespace	In this document, select default .			
Workload	Select web-demo .			
Container	Select a container name configured when Create Workload is selected.			

 Table 3-7 Configuring deployment actions

Step 3 Click Save & Deploy.

If Successful is displayed, the test is successful. If the deployment fails, rectify the fault based on the failed action information and error information in logs.

----End

Configuring a Pipeline to Automatically Update Image Deployment

Configure a pipeline to integrate the code repository, build, and deployment. When a code commit action occurs in the code repository, the pipeline is automatically executed for continuous delivery.

Step 1 Choose **CICD** > **Pipeline** from the navigation bar.

Step 2 Click **Create Pipeline** and configure the pipeline.

1. **Basic information**: Configure the following information and click **Next**.

ltem	Suggestion			
Project	Enter pipeline-web-demo .			
Pipeline Source	Select Repo .			
Repository	Select Web-Demo.			
Default Branch	Select master .			

 Table 3-8 Pipeline basic information

2. Template: Select Blank Template and click OK.

Step 3 Configure a workflow.

1. Click *P* next to **Stage_1**. In the **Edit Stage** dialog box, enter the name **Build** and click **Confirm**.

Figure 3-5 Editing the stage name

1	Stage_1 2 1 iob(s)	Edit Stage	ĭ X
		*Stage Name	
-2		Build	
		Always Run 💿	
	+ Parallel job	🔿 Yes 💿 No	
	C Pass Conditions	Confirm Cancel	

2. Click NewJob.

Click Add next to Build in the NewJob window.

Figure 3-6 Adding a job



3. Configure task information by referring to the following table and click **OK**.

Table 3-9 Editing a build task

ltem	Suggestion			
Name	Enter a custom name (use the default value in this document).			
Select Task	Select Web-Demo-docker.			
Repository	Select Web-Demo .			

- 4. Click **Stage** and change the stage name to **Deploy**.
- 5. Click **Job** and add the **Deploy** extension.
- 6. Select **web-demo-k8s** and select the job name configured in **Step 3.3**.
- **Step 4** Click the **Execution Plan** tab, select **Code commit**, select **master** from the branch filter drop-down list, and click **Save**.

Figure 3-7 Configuring the execution plan

Code con	nmit		
*Filter Bran	ich 🖁		
Include	•	master	-
+ Add			

Step 5 Go to the code repository and search for and open the **TestController.java** file.

Click *(*), change **hello world** to **hello world again**, submit the information, and click **OK**.

Figure 3-8 Modifying code



Step 6 Return to the Pipeline page. You can see that the pipeline is running.

When \checkmark is displayed, access **http://IP:8080/test** again. The following figure shows the access result.

If the task fails to be executed, check the failure cause. You can open the step details page to view the task logs and rectify the fault based on the logs.

Figure 3-9 Pipeline execution result



----End

Releasing Resources

To avoid unnecessary fees, you can release resources after completing this example.

NOTICE

Released resources cannot be restored. Exercise caution when performing this operation.

Step 1 Delete a project.

- 1. Choose Settings > General > Basic Information.
- 2. Click **Delete Project**, in the displayed dialog box, enter the project name and click **Delete**.

Step 2 Delete the organization and the image.

- 1. Log in to the SWR console.
- 2. On the **My Images** page, select the image created in this example, and click **Delete**. In the displayed dialog box, click **Yes**.
- 3. On the **Organizations** page, click the name of the organization to be deleted. Click **Delete**. In the dialog box that is displayed, click **Yes**.
- **Step 3** Delete the cluster.
 - 1. Log in to the CCE console. In the list, locate the cluster to be deleted and click $\overline{\mathbf{U}}$.
 - 2. Select all options in the dialog box that is displayed and click **Yes**.

----End