

云数据库 TaurusDB

## API 参考

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<https://securitybulletin.huawei.com/enterprise/cn/security-advisory>

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# 1 使用前必读

## 1.1 概述

云数据库 TaurusDB是华为自研的最新一代企业级高扩展海量存储云原生数据库，完全兼容MySQL。基于华为最新一代DFV存储，采用计算存储分离架构，128TB的海量存储，数据0丢失，既拥有商业数据库的高可用和性能，又具备开源低成本效益。

### 说明

DFV (Data Function Virtualization) 是一个与数据库垂直整合的高性能，高可靠的分布式存储系统。存储集群采取池化部署，可以有效提升存储使用效率。

您可以使用本文档提供API对数据库实例进行相关操作。支持的全部操作请参见[API概览](#)。

## 1.2 调用说明

云数据库 TaurusDB提供了REST (Representational State Transfer) 风格API，支持您通过HTTPS请求调用，调用方法请参见[如何调用API](#)。

## 1.3 终端节点

终端节点 (Endpoint) 即调用API的[请求地址](#)，不同服务不同区域的终端节点不同。TaurusDB服务提供的终端节点信息如[表1-1](#)所示。

表 1-1 TaurusDB 终端节点信息

产品名称	区域名称	区域	终端节点 (Endpoint)	协议类型
云数据库 TaurusDB	华北-北京四	cn-north-4	gaussdb.cn-north-4.myhuaweicloud.com	HTTPS
云数据库 TaurusDB	华北-乌兰察布一	cn-north-9	gaussdb.cn-north-9.myhuaweicloud.com	HTTPS

产品名称	区域名称	区域	终端节点 ( Endpoint )	协议类型
云数据库 TaurusDB	华东-上海一	cn-east-3	gaussdb.cn-east-3.myhuaweicloud.com	HTTPS
云数据库 TaurusDB	华南-广州	cn-south-1	gaussdb.cn-south-1.myhuaweicloud.com	HTTPS
云数据库 TaurusDB	华南-广州-友好用户环境	cn-south-4	gaussdb.cn-south-4.myhuaweicloud.com	HTTPS
云数据库 TaurusDB	土耳其-伊斯坦布尔	tr-west-1	gaussdbformysql.tr-west-1.myhuaweicloud.com	HTTPS
云数据库 TaurusDB	西南-贵阳一	cn-southwest-2	gaussdb.cn-southwest-2.myhuaweicloud.com	HTTPS
云数据库 TaurusDB	亚太-新加坡	ap-southeast-3	gaussdb.ap-southeast-3.myhuaweicloud.com	HTTPS
云数据库 TaurusDB	亚太-曼谷	ap-southeast-2	gaussdbformysql.ap-southeast-2.myhuaweicloud.com	HTTPS
云数据库 TaurusDB	亚太-雅加达	ap-southeast-4	gaussdb.ap-southeast-4.myhuaweicloud.com	HTTPS
云数据库 TaurusDB	华北-北京二	cn-north-2	gaussdb.cn-north-2.myhuaweicloud.com	HTTPS
云数据库 TaurusDB	中国-香港	ap-southeast-1	gaussdbformysql.ap-southeast-1.myhuaweicloud.com	HTTPS
云数据库 TaurusDB	拉美-圣保罗一	sa-brazil-1	gaussdb.sa-brazil-1.myhuaweicloud.com	HTTPS
云数据库 TaurusDB	俄罗斯-莫斯科二	ru-northwest-2	gaussdb.ru-northwest-2.myhuaweicloud.com	HTTPS
云数据库 TaurusDB	非洲-约翰内斯堡	af-south-1	gaussdb-mysql.af-south-1.myhuaweicloud.com	HTTPS

产品名称	区域名称	区域	终端节点 ( Endpoint )	协议类型
云数据库 TaurusDB	乌兰察布-汽车一	cn-north-11	gaussdbformysql.cn-north-11.myhuaweicloud.com	HTTPS
云数据库 TaurusDB	中东-利雅得	me-east-1	gaussdb-mysql.me-east-1.myhuaweicloud.com	HTTPS
云数据库 TaurusDB	华北-乌兰察布二零一	cn-north-5	gaussdbformysql.cn-north-5.myhuaweicloud.com	HTTPS

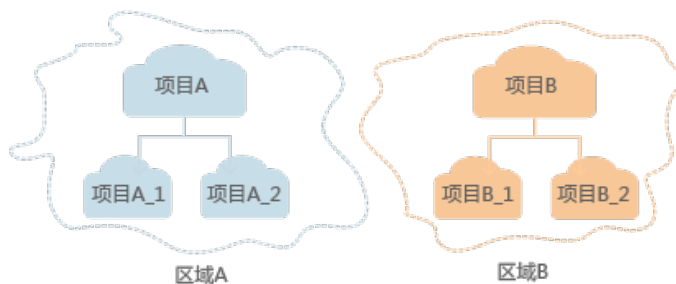
## 1.4 约束与限制

- 暂不支持单机版实例调用API。
- 更详细的限制请参见具体API的说明。

## 1.5 基本概念

- 账号  
用户注册时的账号，账号对其所拥有的资源及云服务具有完全的访问权限，可以重置用户密码、分配用户权限等。由于账号是付费主体，为了确保账号安全，建议您不要直接使用账号进行日常管理工作，而是创建用户并使用他们进行日常管理工作。
- 用户  
由账号在IAM中创建的用户，是云服务的使用人员，具有身份凭证（密码和访问密钥）。  
在[我的凭证](#)下，您可以查看账号ID和用户ID。通常在调用API的鉴权过程中，您需要用到账号、用户和密码等信息。
- 区域  
指云资源所在的物理位置，同一区域内可用区间内网互通，不同区域间内网不互通。通过在不同地区创建云资源，可以将应用程序设计的更接近特定客户的要求，或满足不同地区的法律或其他要求。
- 可用区  
一个可用区是一个或多个物理数据中心的集合，有独立的风火水电，AZ内逻辑上再将计算、网络、存储等资源划分成多个集群。一个Region中的多个AZ间通过高速光纤相连，以满足用户跨AZ构建高可用性系统的需求。
- 项目  
区域默认对应一个项目，这个项目由系统预置，用来隔离物理区域间的资源（计算资源、存储资源和网络资源），以默认项目为单位进行授权，用户可以访问您账号中该区域的所有资源。如果您希望进行更加精细的权限控制，可以在区域默认的项目中创建子项目，并在子项目中购买资源，然后以子项目为单位进行授权，使得用户仅能访问特定子项目中资源，使得资源的权限控制更加精确。

图 1-1 项目隔离模型



同样在[我的凭证](#)下，您可以查看项目ID。

- 企业项目

企业项目是项目的升级版，针对企业不同项目间资源的分组和管理，是逻辑隔离。企业项目中可以包含多个区域的资源，且项目中的资源可以迁入迁出。

关于企业项目ID的获取及企业项目特性的详细信息，请参见《[企业管理服务用户指南](#)》。

# 2 API 概览

通过使用TaurusDB接口，您可以使用TaurusDB查询资源配额、设置资源配额、修改资源配额的功能。

类型	说明
<a href="#">查询数据库引擎的版本</a>	获取指定数据库引擎对应的数据库版本信息。
<a href="#">查询数据库规格</a>	获取指定数据库引擎版本对应的规格信息。
<a href="#">实例管理</a>	包含TaurusDB实例的创建、重启、删除、实例信息修改等接口。
<a href="#">备份管理</a>	包含TaurusDB备份的创建、设置、删除等接口。
<a href="#">参数模板管理</a>	包含TaurusDB参数模板的创建、修改、复制、对比、删除等接口。
<a href="#">配额管理</a>	包含TaurusDB配额的设置、修改等接口。
<a href="#">数据库代理</a>	包含TaurusDB数据库代理的开启、扩容、规格变更、代理信息修改等接口。
<a href="#">日志管理</a>	包含TaurusDB日志的开启、设置、关闭等接口。
<a href="#">标签管理</a>	包含TaurusDB标签的添加、删除等接口。
<a href="#">数据库用户管理</a>	包含TaurusDB数据库用户的创建、信息修改、授权、删除等接口。
<a href="#">数据库管理</a>	包含TaurusDB数据库的创建、信息修改、删除等接口。
<a href="#">SQL限流</a>	包含TaurusDB SQL限流功能的开启、设置、删除等接口。
<a href="#">任务中心</a>	包含TaurusDB任务中心任务的获取、取消、删除等接口。
<a href="#">智能诊断</a>	包含获取指标异常的实例数和实例信息。
<a href="#">HTAP-标准版</a>	包含HTAP标准版实例的创建、重启、数据同步、删除等接口。

类型	说明
HTAP-轻量版	包含HTAP轻量版实例的创建、重启、数据同步、删除等接口。



# 3 如何调用 API

## 3.1 构造请求

本节介绍REST API请求的组成，并以调用IAM服务的[获取用户Token](#)说明如何调用API，该API获取用户的Token，Token可以用于调用其他API时鉴权。您还可以通过这个视频教程了解如何构造请求调用API：<https://bbs.huaweicloud.com/videos/102987>。

### 请求 URI

请求URI由如下部分组成：

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

尽管请求URI包含在请求消息头中，但大多数语言或框架都要求您从请求消息中单独传递它，所以在此单独强调。

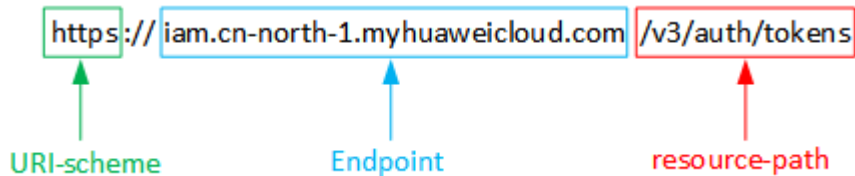
表 3-1 URI 中的参数说明

参数	描述
URI-scheme	表示用于传输请求的协议，当前所有API均采用HTTPS协议。
Endpoint	指定承载REST服务端点的服务器域名或IP，不同服务不同区域的Endpoint不同，您可以从 <a href="#">地区和终端节点</a> 获取。 例如IAM服务在“华北-北京一”区域的Endpoint为“iam.cn-north-1.myhuaweicloud.com”。
resource-path	资源路径，即API访问路径。从具体API的URI模块获取，例如“获取用户Token”API的resource-path为“/v3/auth/tokens”。
query-string	查询参数，是可选部分，并不是每个API都有查询参数。查询参数前面需要带一个“？”，形式为“参数名=参数取值”，例如“limit=10”，表示查询不超过10条数据。

例如您需要获取IAM在“华北-北京一”区域的Token，则需使用“华北-北京一”区域的Endpoint（iam.cn-north-1.myhuaweicloud.com），并在[获取用户Token](#)的URI部分找到resource-path（/v3/auth/tokens），拼接起来如下所示。

```
https://iam.cn-north-1.myhuaweicloud.com/v3/auth/tokens
```

图 3-1 URI 示意图



### 说明

为查看方便，在每个具体API的URI部分，只给出resource-path部分，并将请求方法写在一起。这是因为URI-scheme都是HTTPS，而Endpoint在同一个区域也相同，所以简洁起见将这两部分省略。

## 请求方法

HTTP请求方法（也称为操作或动词），它告诉服务你正在请求什么类型的操作。

表 3-2 HTTP 方法

方法	说明
GET	请求服务器返回指定资源。
PUT	请求服务器更新指定资源。
POST	请求服务器新增资源或执行特殊操作。

在[获取用户Token](#)的URI部分，您可以看到其请求方法为“POST”，则其请求为：

```
POST https://iam.cn-north-1.myhuaweicloud.com/v3/auth/tokens
```

## 请求消息头

附加请求头字段，如指定的URI和HTTP方法所要求的字段。例如定义消息体类型的请求头“Content-Type”，请求鉴权信息等。

详细的公共请求消息头字段请参见[表3-3](#)。

表 3-3 公共请求消息头

名称	描述	是否必选	示例
Content-Type	发送的实体的MIME类型。推荐用户默认使用application/json，如果API是对象、镜像上传等接口，媒体类型可按照流类型的不同进行确定。	是	application/json
Host	请求的服务器信息，从服务API的URL中获取。值为hostname[:port]。端口缺省时使用默认的端口，https的默认端口为443。	否 使用AK/SK认证时该字段必选。	code.test.com or code.test.com:443
Content-Length	请求body长度，单位为Byte。	否	3495
X-Project-Id	project id，项目编号。请参考 <a href="#">获取项目ID</a> 章节获取项目编号。	否	e9993fc787d94b6c886cb aa340f9c0f4
X-Auth-Token	用户Token。 用户Token也就是调用 <a href="#">获取用户Token</a> 接口的响应值，该接口是唯一不需要认证的接口。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。	否 使用Token认证时该字段必选。	注：以下仅为Token示例片段 MIIPAgYJKoZlhvcNAQcCo ...ggg1BBIIlNPXsidG9rZ
X-Language	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"> <li>en-us</li> <li>zh-cn</li> </ul>	否	en-us

对于[获取用户Token](#)接口，由于不需要认证，所以只添加“Content-Type”即可，添加消息头后的请求如下所示。

```
POST https://iam.cn-north-1.myhuaweicloud.com/v3/auth/tokens
Content-Type: application/json
```

## 请求消息体（可选）

该部分可选。请求消息体通常以结构化格式（如JSON或XML）发出，与请求消息头中Content-Type对应，传递除请求消息头之外的内容。若请求消息体中的参数支持中文，则中文字符必须为UTF-8编码。

每个接口的请求消息体内容不同，也并不是每个接口都需要有请求消息体（或者说消息体为空），GET、DELETE操作类型的接口就不需要消息体，消息体具体内容需要根据具体接口而定。

对于[获取用户Token](#)接口，您可以从接口的请求部分看到所需的请求参数及参数说明。将消息体加入后的请求如下所示，加粗的斜体字段需要根据实际值填写，其中***username***为用户名，***domainname***为用户所属的账号名称，***\*\*\*\*\****为用户登录密码，***xxxxxxxxxxxxxxxxxxxx***为project的名称，如“cn-north-1”，您可以从[地区和终端节点](#)获取。

### 说明

scope参数定义了Token的作用域，上面示例中获取的Token仅能访问project下的资源。您还可以设置Token的作用域为某个账号下所有资源或账号的某个project下的资源，详细定义请参见[获取用户Token](#)。

```
POST https://iam.cn-north-1.myhuaweicloud.com/v3/auth/tokens
Content-Type: application/json
```

```
{
  "auth": {
    "identity": {
      "methods": [
        "password"
      ],
      "password": {
        "user": {
          "name": "username",
          "password": "*****",
          "domain": {
            "name": "domainname"
          }
        }
      }
    },
    "scope": {
      "project": {
        "name": "xxxxxxxxxxxxxxxxxxxx"
      }
    }
  }
}
```

到这里为止这个请求需要的内容就具备齐全了，您可以使用[curl](#)、[Postman](#)或直接编写代码等方式发送请求调用API。对于获取用户Token接口，返回的响应消息头中“x-subject-token”就是需要获取的用户Token。有了Token之后，您就可以使用Token认证调用其他API。

## 3.2 认证鉴权

调用接口有如下两种认证方式，您可以选择其中一种进行认证鉴权。

- Token认证：通过Token认证通用请求。
- AK/SK认证：通过AK（Access Key ID）/SK（Secret Access Key）加密调用请求。推荐使用AK/SK认证，其安全性比Token认证要高。

## Token 认证

### 📖 说明

Token的有效期为24小时，需要使用一个Token鉴权时，可以先缓存起来，避免频繁调用。

Token在计算机系统中代表令牌（临时）的意思，拥有Token就代表拥有某种权限。Token认证就是在调用API的时候将Token加到请求消息头，从而通过身份认证，获得操作API的权限。

Token可通过调用**获取用户Token**接口获取，调用本服务API需要project级别的Token，即调用**获取用户Token**接口时，请求body中auth.scope的取值需要选择project，如下所示。

```
{
  "auth": {
    "identity": {
      "methods": [
        "password"
      ],
      "password": {
        "user": {
          "name": "username",
          "password": "*****",
          "domain": {
            "name": "domainname"
          }
        }
      }
    },
    "scope": {
      "project": {
        "name": "xxxxxxxx"
      }
    }
  }
}
```

在**构造请求**中以调用**获取用户Token**接口为例说明了如何调用API。

获取Token后，再调用其他接口时，您需要在请求消息头中添加“X-Auth-Token”，其值即为Token。例如Token值为“ABCDEFJ...”，则调用接口时将“X-Auth-Token: ABCDEFJ...”加到请求消息头即可，如下所示。

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

您还可以通过这个视频教程了解如何使用Token认证：<https://bbs.huaweicloud.com/videos/101333>。

## AK/SK 认证

### 📖 说明

AK/SK签名认证方式仅支持消息体大小12MB以内，12MB以上的请求请使用Token认证。

AK/SK认证就是使用AK/SK对请求进行签名，在请求时将签名信息添加到消息头，从而通过身份认证。

- AK(Access Key ID)：访问密钥ID。与私有访问密钥关联的唯一标识符；访问密钥ID和私有访问密钥一起使用，对请求进行加密签名。
- SK(Secret Access Key)：与访问密钥ID结合使用的密钥，对请求进行加密签名，可标识发送方，并防止请求被修改。



```
{
  "token": {
    "expires_at": "2019-02-13T06:52:13.855000Z",
    "methods": [
      "password"
    ],
    "catalog": [
      {
        "endpoints": [
          {
            "region_id": "az-01",
            .....

```

当接口调用出错时，会返回错误码及错误信息说明，错误响应的Body体格式如下所示。

```
{
  "error_code": "AS.0001",
  "error_msg": "The format of message is error"
}
```

其中，“error\_code”表示错误码，“error\_msg”表示错误描述信息。

# 4 API (推荐)

## 4.1 查询数据库引擎的版本

### 4.1.1 查询数据库引擎的版本

#### 功能介绍

获取指定数据库引擎对应的数据库版本信息。

#### 调用方法

请参见[如何调用API](#)。

#### URI

GET /v3/{project\_id}/datastores/{database\_name}

表 4-1 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
database_name	是	String	数据库引擎。支持的引擎如下，不区分大小写：gaussdb-mysql。



## 请求参数

表 4-2 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-3 响应 Body 参数

参数	参数类型	描述
datastores	Array of <a href="#">MysqlEngineVersionInfo</a> objects	数据库版本信息列表。

表 4-4 MysqlEngineVersionInfo

参数	参数类型	描述
id	String	数据库版本ID，该字段不会有重复。
name	String	数据库版本号，只返回两位数的大版本号。
version	String	兼容的开源数据库版本号，返回三位开源版本号。
kernel_version	String	数据库内核版本号，返回完整的四位版本号。

状态码： 400

表 4-5 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-6 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询TaurusDB数据库的版本信息。

```
GET https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/datastores/gaussdb-mysql
```

## 响应示例

状态码： 200

Success.

```
{  
  "datastores": [ {  
    "id": "87620726-6802-46c0-9028-a8785e1f1921",  
    "name": "8.0",  
    "version": "8.0.22",  
    "kernel_version": "2.0.28.18"  
  } ]  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;
```

```
public class ShowGaussMySqlEngineVersionSolution {  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        ShowGaussMySqlEngineVersionRequest request = new ShowGaussMySqlEngineVersionRequest();  
        request.withDatabaseName("{database_name}");  
        try {  
            ShowGaussMySqlEngineVersionResponse response = client.showGaussMySqlEngineVersion(request);  
            System.out.println(response.toString());  
        } catch (ConnectionException e) {  
            e.printStackTrace();  
        } catch (RequestTimeoutException e) {  
            e.printStackTrace();  
        } catch (ServiceResponseException e) {  
            e.printStackTrace();  
            System.out.println(e.getHttpStatusCode());  
            System.out.println(e.getRequestId());  
            System.out.println(e.getErrorCode());  
            System.out.println(e.getErrorMsg());  
        }  
    }  
}
```

## Python

```
# coding: utf-8  
  
import os  
from huaweicloudsdkcore.auth.credentials import BasicCredentials  
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion  
from huaweicloudsdkcore.exceptions import exceptions  
from huaweicloudsdkgaussdb.v3 import *  
  
if __name__ == "__main__":  
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    # variables and decrypted during use to ensure security.  
    # In this example, AK and SK are stored in environment variables for authentication. Before running this  
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak = os.getenv("CLOUD_SDK_AK")  
    sk = os.getenv("CLOUD_SDK_SK")  
    projectId = "{project_id}"  
  
    credentials = BasicCredentials(ak, sk, projectId)  
  
    client = GaussDBClient.new_builder() \  
        .with_credentials(credentials) \  
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \  
        .build()  
  
    try:  
        request = ShowGaussMySqlEngineVersionRequest()
```

```
request.database_name = "{database_name}"
response = client.show_gauss_my_sql_engine_version(request)
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowGaussMySQLEngineVersionRequest{}
    request.DatabaseName = "{database_name}"
    response, err := client.ShowGaussMySQLEngineVersion(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.

状态码	描述
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.2 查询数据库规格

### 4.2.1 查询数据库规格

#### 功能介绍

获取指定数据库引擎版本对应的规格信息。

#### 调用方法

请参见[如何调用API](#)。

#### URI

GET /v3/{project\_id}/flavors/{database\_name}

表 4-7 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	<b>参数解释:</b> 租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。 <b>约束限制:</b> 不涉及。 <b>取值范围:</b> 只能由英文字母、数字组成,且长度为32个字符。 <b>默认值:</b> 不涉及。

参数	是否必选	参数类型	描述
database_name	是	String	<b>参数解释：</b> 数据库引擎名称。 <b>约束限制：</b> 不涉及。 <b>取值范围：</b> gaussdb-mysql。 <b>默认值：</b> 不涉及。

表 4-8 Query 参数

参数	是否必选	参数类型	描述
availability_zone_mode	是	String	<b>参数解释：</b> 可用区模式。 <b>约束限制：</b> 不涉及。 <b>取值范围：</b> <ul style="list-style-type: none"><li>• single: 单可用区。</li><li>• multi: 多可用区。</li></ul> <b>默认值：</b> 单可用区。
version_name	否	String	<b>参数解释：</b> 数据库版本号。 <b>约束限制：</b> 目前仅支持兼容MySQL 8.0。 <b>取值范围：</b> 8.0。 <b>默认值：</b> 8.0。

参数	是否必选	参数类型	描述
spec_code	否	String	<p><b>参数解释:</b> 资源规格编码。例如： gaussdb.mysql.xlarge.x86.4。</p> <ul style="list-style-type: none"> <li>“gaussdb.mysql”代表产品。</li> <li>“xlarge”代表计算规格为4U。</li> <li>“x86”代表CPU架构为x86。</li> <li>“4”表示vCPU和内存为1:4。</li> </ul> <p>更多规格说明请参考<a href="#">数据库实例规格</a>。</p> <p><b>约束限制:</b> 不涉及。</p> <p><b>取值范围:</b> 不涉及。</p> <p><b>默认值:</b> 不涉及。</p>

## 请求参数

表 4-9 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	<p><b>参数解释:</b> 用户Token。 通过调用IAM服务<a href="#">获取用户Token</a>接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。</p> <p><b>约束限制:</b> 不涉及。</p> <p><b>取值范围:</b> 不涉及。</p> <p><b>默认值:</b> 不涉及。</p>

参数	是否必选	参数类型	描述
X-Language	否	String	<b>参数解释:</b> 请求语言类型。 <b>约束限制:</b> 不涉及。 <b>取值范围:</b> <ul style="list-style-type: none"><li>• en-us</li><li>• zh-cn</li></ul> <b>默认值:</b> en-us。

## 响应参数

状态码: 200

表 4-10 响应 Body 参数

参数	参数类型	描述
flavors	Array of <a href="#">MysqlFlavorsInfo</a> objects	<b>参数解释:</b> 实例规格信息列表。

表 4-11 MysqlFlavorsInfo

参数	参数类型	描述
vcpus	String	<b>参数解释:</b> CPU大小。例如: 1表示1U。 <b>取值范围:</b> 不涉及。
ram	String	<b>参数解释:</b> 内存大小, 单位为GB。 <b>取值范围:</b> 不涉及。



参数	参数类型	描述
type	String	<b>参数解释:</b> 规格类型。 <b>取值范围:</b> <ul style="list-style-type: none"><li>arm: 独享型arm规格。</li><li>x86: 独享型x86规格。</li><li>generalX86: 通用型X86规格。</li></ul>
id	String	<b>参数解释:</b> 规格ID, 规格的唯一标识。 <b>取值范围:</b> 不涉及。
spec_code	String	<b>参数解释:</b> 资源规格编码, 同创建指定的spec_code。例如: gaussdb.mysql.xlarge.x86.4。 <ul style="list-style-type: none"><li>“gaussdb.mysql”代表产品。</li><li>“xlarge”代表计算规格为4U。</li><li>“x86”代表CPU架构为x86。</li><li>“4”表示vCPU和内存为1:4。</li></ul> 更多规格说明请参考 <a href="#">数据库实例规格</a> 。 <b>取值范围:</b> 不涉及。
version_name	String	<b>参数解释:</b> 数据库版本号。 <b>取值范围:</b> 8.0。
instance_mode	String	<b>参数解释:</b> 实例类型。目前仅支持Cluster。 <b>取值范围:</b> Cluster。
az_status	Map<String,String>	<b>参数解释:</b> 规格所在AZ的状态。 <b>取值范围:</b> <ul style="list-style-type: none"><li>normal: 在售。</li><li>unsupported: 暂不支持该规格。</li><li>sellout: 售罄。</li></ul>

状态码: 400

表 4-12 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-13 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询TaurusDB数据库实例指定规格的详细信息。

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/flavors/gaussdb-mysql?
version_name=8.0&spec_code=gaussdb.mysql.xlarge.x86.4&availability_zone_mode=single
```

## 响应示例

状态码： 200

Success.

```
{
  "flavors": [ {
    "vcpus": "4",
    "ram": "16",
    "type": "x86",
    "id": "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
    "spec_code": "gaussdb.mysql.xlarge.x86.4",
    "instance_mode": "Cluster",
    "version_name": "8.0",
    "az_status": {
      "az1": "normal",
      "az2": "normal"
    }
  }
]
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
```

```
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowGaussMySQLFlavorsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ShowGaussMySQLFlavorsRequest request = new ShowGaussMySQLFlavorsRequest();
        request.withDatabaseName("{database_name}");
        try {
            ShowGaussMySQLFlavorsResponse response = client.showGaussMySQLFlavors(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)
```

```
client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = ShowGaussMySQLFlavorsRequest()
    request.database_name = "{database_name}"
    response = client.show_gauss_my_sql_flavors(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowGaussMySQLFlavorsRequest{
        request.DatabaseName = "{database_name}"
    }
    response, err := client.ShowGaussMySQLFlavors(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.3 实例管理

### 4.3.1 创建数据库实例

#### 功能介绍

创建云数据库TaurusDB实例。

#### 调用方法

请参见[如何调用API](#)。

#### URI

POST /v3/{project\_id}/instances

表 4-14 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

## 请求参数

表 4-15 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-16 请求 Body 参数

参数	是否必选	参数类型	描述
region	是	String	区域ID。
name	是	String	实例名称。用于表示实例的名称，同一租户下，同类型的实例名可重名。 取值范围：最小为4个字符，最大为64个字符且不超过64个字节（注意：一个中文字符占用3个字节），必须以字母或中文开头，区分大小写，可以包含字母、数字、中划线、下划线或中文，不能包含其他特殊字符。
datastore	是	<a href="#">MysqlDatastoreInReq</a> object	数据库信息。
mode	是	String	实例类型，目前仅支持Cluster。
flavor_ref	是	String	规格码。使用可参考 <a href="#">查询数据库规格</a> 响应消息表5中的“spec_code”。

参数	是否必选	参数类型	描述
vpc_id	是	String	<p>虚拟私有云ID，获取方法如下：</p> <ul style="list-style-type: none"> <li>方法1：登录虚拟私有云服务的控制台界面，在虚拟私有云的详情页面查找VPC ID。</li> <li>方法2：通过虚拟私有云服务的API接口查询，具体操作可参考<a href="#">查询VPC列表</a>。</li> </ul>
subnet_id	是	String	<p>子网的网络ID，获取方法如下：</p> <ul style="list-style-type: none"> <li>方法1：登录虚拟私有云服务的控制台界面，单击VPC下的子网，进入子网详情页面，查找网络ID。</li> <li>方法2：通过虚拟私有云服务的API接口查询，具体操作可参考<a href="#">查询子网列表</a>。</li> </ul>
password	是	String	<p>数据库密码。</p> <p>取值范围：至少包含以下字符的三种：大小写字母、数字和特殊符号 .!@#\$%^*_-=+?,()&amp;，长度8~32个字符。</p> <p>建议您输入高强度密码，以提高安全性，防止出现密码被暴力破解等安全风险。如果您输入弱密码，系统会自动判定密码非法。</p>
availability_zone_mode	是	String	<p>可用区类型。</p> <p>取值范围：</p> <ul style="list-style-type: none"> <li>single：单可用区。</li> <li>multi：多可用区。</li> </ul>
slave_count	是	Integer	<p>只读节点个数。单次接口调用最多支持创建9个只读节点。</p>
charge_info	是	<b>MysqlChargeInfo</b> object	<p>计费类型信息，支持包年包月和按需，默认为按需。</p> <p>说明：DeC专属云账号不支持创建包年/包月实例。</p>

参数	是否必选	参数类型	描述
security_group_id	否	String	安全组ID。如果实例所选用的子网开启网络ACL进行访问控制, 则该参数非必选。如果未开启ACL进行访问控制, 则该参数必选。获取方法如下: <ul style="list-style-type: none"> <li>方法1: 登录虚拟私有云服务的控制台界面, 在安全组的详情页面查找安全组ID。</li> <li>方法2: 通过虚拟私有云服务的API接口查询, 具体操作可参考<a href="#">查询安全组列表</a>。</li> </ul>
configuration_id	否	String	参数模板ID。使用可参考 <a href="#">查询参数模板</a> 中响应消息表5的“id”。
backup_strategy	是	<b>MysqlBackupStrategy</b> object	自动备份策略。
time_zone	否	String	时区。默认时区为UTC。
master_availability_zone	否	String	主可用区ID, 创建单可用区实例选填, 多可用区实例必填, 请参考 <a href="#">地区和终端节点</a> 。
volume	否	<b>MysqlVolume</b> object	volume信息。创建包年/包月实例可选。创建按需实例时不可选。
tags	否	Array of <b>MysqlTags</b> objects	标签列表, 根据标签键值对创建实例。 <ul style="list-style-type: none"> <li>{key}表示标签键, 不可以为空或重复。</li> <li>{value}表示标签值, 可以为空。</li> </ul> 如果创建实例时同时使用多个标签键值对, 中间使用逗号分隔, 最多包含10组。
lower_case_table_names	否	Integer	表名大小写是否敏感, 默认值是1。 取值范围: <ul style="list-style-type: none"> <li>0: 表名被存储成固定且表名称大小写敏感。</li> <li>1: 表名将被存储成小写且表名称大小写不敏感。</li> </ul>



参数	是否必选	参数类型	描述
enterprise_project_id	否	String	企业项目ID。如果账户开通企业项目服务则该参数必选，未开启该参数不可选。
dedicated_resource_id	否	String	专属资源池ID，只有开通专属资源池后才支持此参数。
restore_point	否	<b>MySQLRestorePoint</b> object	备份恢复信息。
tde_info	否	<b>MySQLTdeInfo</b> object	透明数据加密配置信息，支持AES256、SM4加密算法。 透明加密功能目前处于公测阶段，如需使用，请提交工单联系客服人员申请权限。

表 4-17 MySQLDatastoreInReq

参数	是否必选	参数类型	描述
type	是	String	数据库引擎，现在只支持gaussdb-mysql。
version	是	String	数据库版本。 两位数的大版本号，获取方法请参见 <a href="#">查询数据库引擎的版本</a> 返回的name字段。
kernel_version	否	String	内核数据库版本。如果需要指定具体的内核版本，请联系客服人员添加白名单。 完整的四位内核数据库版本，获取方法请参见 <a href="#">查询数据库引擎的版本</a> 返回的kernel_version字段。

表 4-18 MySQLChargeInfo

参数	是否必选	参数类型	描述
charge_mode	是	String	计费模式。 取值范围： <ul style="list-style-type: none"> <li>prePaid: 预付费，即包年/包月。</li> <li>postPaid: 后付费，即按需付费。</li> </ul>

参数	是否必选	参数类型	描述
period_type	否	String	订购周期类型。 取值范围： <ul style="list-style-type: none"> <li>month: 包月。</li> <li>year: 包年。</li> </ul> 说明：“charge_mode”为“prePaid”时生效，且为必选值。
period_num	否	Integer	“charge_mode”为“prePaid”时生效，且为必选值，指定订购的时间。 取值范围： <ul style="list-style-type: none"> <li>“period_type”为“month”时，取值为1~9。</li> <li>“period_type”为“year”时，取值为1~3。</li> </ul>
is_auto_renew	否	String	创建包年/包月实例时可指定，表示是否自动续订，续订的周期和原周期相同，且续订时会自动支付。 <ul style="list-style-type: none"> <li>true: 为自动续订。</li> <li>false: 为不自动续订，默认该方式。</li> </ul>
is_auto_pay	否	String	创建包年/包月实例时可指定，表示是否自动从客户的账户中支付，此字段不影响自动续订的支付方式。 <ul style="list-style-type: none"> <li>true: 为自动支付，默认该方式。</li> <li>false: 为手动支付。</li> </ul>

表 4-19 MysqlBackupStrategy

参数	是否必选	参数类型	描述
start_time	是	String	自动备份开始时间段。自动备份将在该时间一个小时内触发。 取值范围：非空，格式必须为hh:mm-HH:MM且有效，当前时间指UTC时间。 <ol style="list-style-type: none"> <li>HH取值必须比hh大1。</li> <li>mm和MM取值必须相同，且取值必须为00。</li> </ol>

参数	是否必选	参数类型	描述
keep_days	否	String	自动备份保留天数，取值范围：1-732。

表 4-20 MysqlVolume

参数	是否必选	参数类型	描述
size	是	String	磁盘大小。默认值为10，单位GB。 取值范围：10~128000，必须为10的整数倍。

表 4-21 MysqlTags

参数	是否必选	参数类型	描述
key	是	String	标签键。最大长度36个unicode字符。key不能为空或者空字符串，不能为空格。 字符集：A-Z, a-z, 0-9, '-', '_', UNICODE字符 (\u4E00-\u9FFF)。
value	是	String	标签值。最大长度43个unicode字符。可以为空字符串。 字符集：A-Z, a-z, 0-9, '-', '_', '.', '_', UNICODE字符 (\u4E00-\u9FFF)。

表 4-22 MysqlRestorePoint

参数	是否必选	参数类型	描述
source_instance_id	是	String	源实例ID。
restore_time	否	Long	需要恢复的时间点。(Point-In-Time Recovery, PITR)。
backup_id	否	String	备份文件ID。

参数	是否必选	参数类型	描述
type	否	String	备份类型。当参数为空时，backup_id不能为空，即默认按备份文件恢复。 当参数不为空时，取值范围： <ul style="list-style-type: none"><li>• backup：表示按备份文件恢复。</li><li>• timestamp：表示按时间点恢复。</li></ul>

表 4-23 MysqlTdeInfo

参数	是否必选	参数类型	描述
enable_tde	是	Boolean	是否打开透明加密功能。
encryption_type	是	String	透明加密算法，支持AES256、SM4加密算法。

## 响应参数

状态码： 201

表 4-24 响应 Body 参数

参数	参数类型	描述
instance	<a href="#">MysqlInstanceResponse</a> object	实例信息
job_id	String	实例创建的任务ID。 仅创建按需实例时会返回该参数。
order_id	String	订单号，创建包年包月时返回该参数。

表 4-25 MysqlInstanceResponse

参数	参数类型	描述
id	String	实例ID，严格匹配UUID规则。
name	String	实例名称。用于表示实例的名称。
status	String	实例状态。
datastore	<a href="#">MysqlDatastoreInfoRes</a> object	数据库信息。

参数	参数类型	描述
mode	String	实例类型，仅支持Cluster。
configuration_id	String	参数组ID。
port	String	数据库端口信息。
backup_strategy	<a href="#">MysqlBackupStrategy</a> object	自动备份策略。
enterprise_project_id	String	企业项目ID。
region	String	区域ID，与请求参数相同。
availability_zone_mode	String	可用区模式，与请求参数相同。
master_availability_zone	String	主可用区ID。
vpc_id	String	虚拟私有云ID，与请求参数相同。
security_group_id	String	安全组ID，与请求参数相同。
subnet_id	String	子网ID，与请求参数相同。
flavor_ref	String	规格码，与请求参数相同。
charge_info	<a href="#">MysqlChargeInfo</a> object	计费类型信息，支持包年包月和按需，默认为按需。
volume	<a href="#">MysqlVolumeResponse</a> object	volume信息。创建包年/包月实例有返回。

表 4-26 MysqlDatastoreInRes

参数	参数类型	描述
type	String	数据库引擎，现在只支持gaussdb-mysql。
version	String	数据库版本。
kernel_version	String	内核数据库版本。

表 4-27 MysqlBackupStrategy

参数	参数类型	描述
start_time	String	自动备份开始时间段。自动备份将在该时间一个小时内触发。 取值范围：非空，格式必须为hh:mm-HH:MM且有效，当前时间指UTC时间。 1. HH取值必须比hh大1。 2. mm和MM取值必须相同，且取值必须为00。
keep_days	String	自动备份保留天数，取值范围：1-732。

表 4-28 MysqlChargeInfo

参数	参数类型	描述
charge_mode	String	计费模式。 取值范围： <ul style="list-style-type: none"><li>prePaid：预付费，即包年/包月。</li><li>postPaid：后付费，即按需付费。</li></ul>
period_type	String	订购周期类型。 取值范围： <ul style="list-style-type: none"><li>month：包月。</li><li>year：包年。</li></ul> 说明：“charge_mode”为“prePaid”时生效，且为必选值。
period_num	Integer	“charge_mode”为“prePaid”时生效，且为必选值，指定订购的时间。 取值范围： <ul style="list-style-type: none"><li>“period_type”为“month”时，取值为1~9。</li><li>“period_type”为“year”时，取值为1~3。</li></ul>
is_auto_renew	String	创建包年/包月实例时可指定，表示是否自动续订，续订的周期和原周期相同，且续订时会自动支付。 <ul style="list-style-type: none"><li>true：为自动续订。</li><li>false：为不自动续订，默认该方式。</li></ul>

参数	参数类型	描述
is_auto_pay	String	创建包年/包月实例时可指定，表示是否自动从客户的账户中支付，此字段不影响自动续订的支付方式。 <ul style="list-style-type: none"> <li>• true: 为自动支付，默认该方式。</li> <li>• false: 为手动支付。</li> </ul>

表 4-29 MysqlVolumeResp

参数	参数类型	描述
size	Integer	磁盘大小。单位GB。 取值范围：10~128000，为10的整数倍。

状态码： 400

表 4-30 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-31 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

- 创建计费模式为按需计费，自动备份开始时间是08:00-09:00的实例。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances
{
  "name": "gaussdb-mysql-instance1",
  "region": "br-iaas-odin1",
  "charge_info": {
    "charge_mode": "postPaid"
  },
  "datastore": {
```

```
"type": "gaussdb-mysql",
"version": "8.0"
},
"mode": "Cluster",
"flavor_ref": "gaussdb.mysql.xlarge.arm.4",
"vpc_id": "3cedfc54-b105-4652-a4e0-847b11576b58",
"subnet_id": "c1cfa53c-65d3-431e-8552-326bf310c7ad",
"security_group_id": "fc577a1a-f202-424a-977f-24faec3fdd55",
"configuration_id": "43570e0de32e40c5a15f831aa5ce4176pr07",
"password": "****",
"backup_strategy": {
  "start_time": "08:00-09:00"
},
"availability_zone_mode": "single",
"slave_count": 1,
"enterprise_project_id": 0
}
```

- 将备份文件恢复到按需计费的新实例。

POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances

```
{
  "name": "gaussdb-mysql-instance2",
  "region": "br-iaas-odin1",
  "charge_info": {
    "charge_mode": "postPaid"
  },
  "datastore": {
    "type": "gaussdb-mysql",
    "version": "8.0"
  },
  "mode": "Cluster",
  "flavor_ref": "gaussdb.mysql.xlarge.arm.4",
  "vpc_id": "3cedfc54-b105-4652-a4e0-847b11576b58",
  "subnet_id": "c1cfa53c-65d3-431e-8552-326bf310c7ad",
  "security_group_id": "fc577a1a-f202-424a-977f-24faec3fdd55",
  "configuration_id": "43570e0de32e40c5a15f831aa5ce4176pr07",
  "password": "****",
  "backup_strategy": {
    "start_time": "08:00-09:00"
  },
  "availability_zone_mode": "single",
  "slave_count": 1,
  "enterprise_project_id": 0,
  "restore_point": {
    "source_instance_id": "7033e7c3cf93438797d44ad7ae0a7d95in07",
    "backup_id": "77fbf305376b4cbea0ae491257b6aaf9br07",
    "type": "backup"
  }
}
```

- 按时间点恢复到按需计费的新实例。

POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances

```
{
  "name": "gaussdb-mysql-instance3",
  "region": "br-iaas-odin1",
  "charge_info": {
    "charge_mode": "postPaid"
  },
  "datastore": {
    "type": "gaussdb-mysql",
    "version": "8.0"
  },
  "mode": "Cluster",
  "flavor_ref": "gaussdb.mysql.xlarge.arm.4",
  "vpc_id": "3cedfc54-b105-4652-a4e0-847b11576b58",
  "subnet_id": "c1cfa53c-65d3-431e-8552-326bf310c7ad",
  "security_group_id": "fc577a1a-f202-424a-977f-24faec3fdd55",
  "configuration_id": "43570e0de32e40c5a15f831aa5ce4176pr07",
```



```
"password" : "****",
"backup_strategy" : {
  "start_time" : "08:00-09:00"
},
"availability_zone_mode" : "single",
"slave_count" : 1,
"enterprise_project_id" : 0,
"restore_point" : {
  "source_instance_id" : "7033e7c3cf93438797d44ad7ae0a7d95in07",
  "restore_time" : 1673852043000,
  "type" : "timestamp"
}
}
```

- 创建周期为一个月的包年/包月实例。

POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances

```
{
  "name" : "gaussdb-mysql-instance4",
  "region" : "br-iaas-odin1",
  "charge_info" : {
    "charge_mode" : "prePaid",
    "period_type" : "month",
    "period_num" : 1,
    "is_auto_renew" : false,
    "is_auto_pay" : true
  },
  "volume" : {
    "size" : 10
  },
  "datastore" : {
    "type" : "gaussdb-mysql",
    "version" : "8.0"
  },
  "mode" : "Cluster",
  "flavor_ref" : "gaussdb.mysql.xlarge.arm.4",
  "vpc_id" : "3cedfc54-b105-4652-a4e0-847b11576b58",
  "subnet_id" : "c1cfa53c-65d3-431e-8552-326bf310c7ad",
  "security_group_id" : "fc577a1a-f202-424a-977f-24faec3fdd55",
  "configuration_id" : "43570e0de32e40c5a15f831aa5ce4176pr07",
  "password" : "****",
  "backup_strategy" : {
    "start_time" : "08:00-09:00"
  },
  "availability_zone_mode" : "single",
  "slave_count" : 1,
  "enterprise_project_id" : 0,
  "restore_point" : {
    "source_instance_id" : "7033e7c3cf93438797d44ad7ae0a7d95in07",
    "restore_time" : 1673852043000,
    "type" : "timestamp"
  }
}
```

## 响应示例

状态码： 201

Success.

- 创建按需实例。

```
{
  "instance" : {
    "id" : "5eebbb4c0f9f4a99b42ed1b6334569aain07",
    "name" : "gaussdb-mysql-instance1",
    "status" : "BUILD",
    "region" : "br-iaas-odin1",
    "charge_info" : {
```

```
"charge_mode" : "postPaid"
},
"datastore" : {
  "type" : "gaussdb-mysql",
  "version" : "8.0",
  "kernel_version" : "2.0.28.18"
},
"mode" : "Cluster",
"port" : 3306,
"enterprise_project_id" : 0,
"flavor_ref" : "gaussdb.mysql.xlarge.arm.4",
"vpc_id" : "3cedfc54-b105-4652-a4e0-847b11576b58",
"subnet_id" : "c1cfa53c-65d3-431e-8552-326bf310c7ad",
"security_group_id" : "fc577a1a-f202-424a-977f-24faec3fdd55",
"configuration_id" : "43570e0de32e40c5a15f831aa5ce4176pr07",
"backup_strategy" : {
  "start_time" : "08:00-09:00",
  "keep_days" : 7
},
"availability_zone_mode" : "single"
},
"job_id" : "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```

- 创建周期为一个月的包年/包月实例。

```
{
  "instance" : {
    "id" : "945419c2208e4a5d828b8dddc00223e1in07",
    "name" : "gaussdb-mysql-instance4",
    "status" : "BUILD",
    "region" : "br-iaas-odin1",
    "charge_info" : {
      "charge_mode" : "prePaid",
      "period_type" : "month",
      "period_num" : 1,
      "is_auto_renew" : false,
      "is_auto_pay" : true
    },
    "volume" : {
      "size" : 10
    },
    "datastore" : {
      "type" : "gaussdb-mysql",
      "version" : "8.0",
      "kernel_version" : "2.0.28.18"
    },
    "mode" : "Cluster",
    "port" : 3306,
    "enterprise_project_id" : 0,
    "flavor_ref" : "gaussdb.mysql.xlarge.arm.4",
    "vpc_id" : "3cedfc54-b105-4652-a4e0-847b11576b58",
    "subnet_id" : "c1cfa53c-65d3-431e-8552-326bf310c7ad",
    "security_group_id" : "fc577a1a-f202-424a-977f-24faec3fdd55",
    "configuration_id" : "43570e0de32e40c5a15f831aa5ce4176pr07",
    "backup_strategy" : {
      "start_time" : "08:00-09:00",
      "keep_days" : 7
    },
    "availability_zone_mode" : "single"
  },
  "order_id" : "CS2308241236EEXVF"
}
```

## SDK 代码示例

SDK代码示例如下。

## Java

- 创建计费模式为按需计费，自动备份开始时间是08:00-09:00的实例。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class CreateGaussMySQLInstanceSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        CreateGaussMySQLInstanceRequest request = new CreateGaussMySQLInstanceRequest();
        MySQLInstanceRequest body = new MySQLInstanceRequest();
        MySQLBackupStrategy backupStrategybody = new MySQLBackupStrategy();
        backupStrategybody.withStartTime("08:00-09:00");
        MySQLDatastoreInReq datastorebody = new MySQLDatastoreInReq();
        datastorebody.withType("gaussdb-mysql")
            .withVersion("8.0");
        MySQLChargeInfo chargeInfobody = new MySQLChargeInfo();
        chargeInfobody.withChargeMode(MySQLChargeInfo.ChargeModeEnum.fromValue("postPaid"));
        body.withEnterpriseProjectId("0");
        body.withSlaveCount(1);
        body.withAvailabilityZoneMode("single");
        body.withBackupStrategy(backupStrategybody);
        body.withPassword("****");
        body.withConfigurationId("43570e0de32e40c5a15f831aa5ce4176pr07");
        body.withSecurityGroupId("fc577a1a-f202-424a-977f-24faec3fdd55");
        body.withSubnetId("c1cfa53c-65d3-431e-8552-326bf310c7ad");
        body.withVpcId("3cedfc54-b105-4652-a4e0-847b11576b58");
        body.withFlavorRef("gaussdb.mysql.xlarge.arm.4");
        body.withMode("Cluster");
        body.withDatastore(datastorebody);
        body.withName("gaussdb-mysql-instance1");
        body.withRegion("br-iaas-odin1");
        body.withChargeInfo(chargeInfobody);
        request.withBody(body);
        try {
            CreateGaussMySQLInstanceResponse response = client.createGaussMySQLInstance(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        }
    }
}
```

```
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
```

- 将备份文件恢复到按需计费的新实例。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class CreateGaussMySQLInstanceSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        CreateGaussMySQLInstanceRequest request = new CreateGaussMySQLInstanceRequest();
        MySQLInstanceRequest body = new MySQLInstanceRequest();
        MySQLRestorePoint restorePointbody = new MySQLRestorePoint();
        restorePointbody.withSourceInstanceId("7033e7c3cf93438797d44ad7ae0a7d95in07")
            .withBackupId("7ffbf305376b4cbea0ae491257b6aaf9br07")
            .withType("backup");
        MySQLBackupStrategy backupStrategybody = new MySQLBackupStrategy();
        backupStrategybody.withStartTime("08:00-09:00");
        MySQLDatastoreInReq datastorebody = new MySQLDatastoreInReq();
        datastorebody.withType("gaussdb-mysql")
            .withVersion("8.0");
        MySQLChargeInfo chargeInfobody = new MySQLChargeInfo();
        chargeInfobody.withChargeMode(MySQLChargeInfo.ChargeModeEnum.fromValue("postPaid"));
        body.withRestorePoint(restorePointbody);
        body.withEnterpriseProjectId("0");
        body.withSlaveCount(1);
        body.withAvailabilityZoneMode("single");
        body.withBackupStrategy(backupStrategybody);
        body.withPassword("****");
        body.withConfigurationId("43570e0de32e40c5a15f831aa5ce4176pr07");
        body.withSecurityGroupId("fc577a1a-f202-424a-977f-24faec3fdd55");
        body.withSubnetId("c1cfa53c-65d3-431e-8552-326bf310c7ad");
        body.withVpcId("3cedfc54-b105-4652-a4e0-847b11576b58");
        body.withFlavorRef("gaussdb.mysql.xlarge.arm.4");
        body.withMode("Cluster");
    }
}
```

```
body.withDatastore(datastorebody);
body.withName("gaussdb-mysql-instance2");
body.withRegion("br-iaas-odin1");
body.withChargeInfo(chargeInfobody);
request.withBody(body);
try {
    CreateGaussMySQLInstanceResponse response = client.createGaussMySQLInstance(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

- 按时间点恢复到按需计费的新实例。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class CreateGaussMySQLInstanceSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        CreateGaussMySQLInstanceRequest request = new CreateGaussMySQLInstanceRequest();
        MySQLInstanceRequest body = new MySQLInstanceRequest();
        MySQLRestorePoint restorePointbody = new MySQLRestorePoint();
        restorePointbody.withRestoreTime(1673852043000L)
            .withSourceInstanceId("7033e7c3cf93438797d44ad7ae0a7d95in07")
            .withType("timestamp");
        MySQLBackupStrategy backupStrategybody = new MySQLBackupStrategy();
        backupStrategybody.withStartTime("08:00-09:00");
        MySQLDatastoreInReq datastorebody = new MySQLDatastoreInReq();
        datastorebody.withType("gaussdb-mysql")
            .withVersion("8.0");
        MySQLChargeInfo chargeInfobody = new MySQLChargeInfo();
        chargeInfobody.withChargeMode(MySQLChargeInfo.ChargeModeEnum.fromValue("postPaid"));
    }
}
```

```
body.withRestorePoint(restorePointbody);
body.withEnterpriseProjectId("0");
body.withSlaveCount(1);
body.withAvailabilityZoneMode("single");
body.withBackupStrategy(backupStrategybody);
body.withPassword("****");
body.withConfigurationId("43570e0de32e40c5a15f831aa5ce4176pr07");
body.withSecurityGroupId("fc577a1a-f202-424a-977f-24faec3fdd55");
body.withSubnetId("c1cfa53c-65d3-431e-8552-326bf310c7ad");
body.withVpcId("3cedfc54-b105-4652-a4e0-847b11576b58");
body.withFlavorRef("gaussdb.mysql.xlarge.arm.4");
body.withMode("Cluster");
body.withDatastore(datastorebody);
body.withName("gaussdb-mysql-instance3");
body.withRegion("br-iaas-odin1");
body.withChargeInfo(chargeInfobody);
request.withBody(body);
try {
    CreateGaussMySQLInstanceResponse response = client.createGaussMySQLInstance(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

- 创建周期为一个月的包年/包月实例。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class CreateGaussMySQLInstanceSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        CreateGaussMySQLInstanceRequest request = new CreateGaussMySQLInstanceRequest();
```

```
MysqlInstanceRequest body = new MysqlInstanceRequest();
MysqlRestorePoint restorePointbody = new MysqlRestorePoint();
restorePointbody.withRestoreTime(1673852043000L)
    .withType("timestamp");
MysqlVolume volumebody = new MysqlVolume();
volumebody.withSize("10");
MysqlBackupStrategy backupStrategybody = new MysqlBackupStrategy();
backupStrategybody.withStartTime("08:00-09:00");
MysqlDatastoreInReq datastorebody = new MysqlDatastoreInReq();
datastorebody.withType("gaussdb-mysql")
    .withVersion("8.0");
MysqlChargeInfo chargeInfobody = new MysqlChargeInfo();
chargeInfobody.withChargeMode(MysqlChargeInfo.ChargeModeEnum.fromValue("prePaid"))
    .withPeriodType(MysqlChargeInfo.PeriodTypeEnum.fromValue("month"))
    .withPeriodNum(1)
    .withIsAutoRenew("false")
    .withIsAutoPay("true");
body.withRestorePoint(restorePointbody);
body.withEnterpriseProjectId("0");
body.withVolume(volumebody);
body.withSlaveCount(1);
body.withAvailabilityZoneMode("single");
body.withBackupStrategy(backupStrategybody);
body.withPassword("****");
body.withConfigurationId("43570e0de32e40c5a15f831aa5ce4176pr07");
body.withSecurityGroupId("fc577a1a-f202-424a-977f-24faec3fdd55");
body.withSubnetId("c1cfa53c-65d3-431e-8552-326bf310c7ad");
body.withVpcId("3cedfc54-b105-4652-a4e0-847b11576b58");
body.withFlavorRef("gaussdb.mysql.xlarge.arm.4");
body.withMode("Cluster");
body.withDatastore(datastorebody);
body.withName("gaussdb-mysql-instance4");
body.withRegion("br-iaas-odin1");
body.withChargeInfo(chargeInfobody);
request.withBody(body);
try {
    CreateGaussMySqlInstanceResponse response = client.createGaussMySqlInstance(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

- 创建计费模式为按需计费，自动备份开始时间是08:00-09:00的实例。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
```

running this example, set environment variables CLOUD\_SDK\_AK and CLOUD\_SDK\_SK in the local environment

```
ak = os.environ["CLOUD_SDK_AK"]
sk = os.environ["CLOUD_SDK_SK"]
projectId = "{project_id}"

credentials = BasicCredentials(ak, sk, projectId)

client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = CreateGaussMySqlInstanceRequest()
    backupStrategybody = MysqlBackupStrategy(
        start_time="08:00-09:00"
    )
    dataStorebody = MysqlDataStoreInReq(
        type="gaussdb-mysql",
        version="8.0"
    )
    chargeInfobody = MysqlChargeInfo(
        charge_mode="postPaid"
    )
    request.body = MysqlInstanceRequest(
        enterprise_project_id="0",
        slave_count=1,
        availability_zone_mode="single",
        backup_strategy=backupStrategybody,
        password="****",
        configuration_id="43570e0de32e40c5a15f831aa5ce4176pr07",
        security_group_id="fc577a1a-f202-424a-977f-24faec3fdd55",
        subnet_id="c1cfa53c-65d3-431e-8552-326bf310c7ad",
        vpc_id="3cedfc54-b105-4652-a4e0-847b11576b58",
        flavor_ref="gaussdb.mysql.xlarge.arm.4",
        mode="Cluster",
        dataStore=dataStorebody,
        name="gaussdb-mysql-instance1",
        region="br-iaas-odin1",
        charge_info=chargeInfobody
    )
    response = client.create_gauss_my_sql_instance(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

- 将备份文件恢复到按需计费的新实例。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"
```



```
credentials = BasicCredentials(ak, sk, projectId)

client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = CreateGaussMySqlInstanceRequest()
    restorePointbody = MysqlRestorePoint(
        source_instance_id="7033e7c3cf93438797d44ad7ae0a7d95in07",
        backup_id="7ffb305376b4cbea0ae491257b6aaf9br07",
        type="backup"
    )
    backupStrategybody = MysqlBackupStrategy(
        start_time="08:00-09:00"
    )
    dataStorebody = MysqlDataStoreInReq(
        type="gaussdb-mysql",
        version="8.0"
    )
    chargeInfobody = MysqlChargeInfo(
        charge_mode="postPaid"
    )
    request.body = MysqlInstanceRequest(
        restore_point=restorePointbody,
        enterprise_project_id="0",
        slave_count=1,
        availability_zone_mode="single",
        backup_strategy=backupStrategybody,
        password="****",
        configuration_id="43570e0de32e40c5a15f831aa5ce4176pr07",
        security_group_id="fc577a1a-f202-424a-977f-24faec3fdd55",
        subnet_id="c1cfa53c-65d3-431e-8552-326bf310c7ad",
        vpc_id="3cedfc54-b105-4652-a4e0-847b11576b58",
        flavor_ref="gaussdb.mysql.xlarge.arm.4",
        mode="Cluster",
        dataStore=dataStorebody,
        name="gaussdb-mysql-instance2",
        region="br-iaas-odin1",
        charge_info=chargeInfobody
    )
    response = client.create_gauss_my_sql_instance(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

- 按时间点恢复到按需计费的新实例。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"
```

```
credentials = BasicCredentials(ak, sk, projectId)

client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = CreateGaussMySqlInstanceRequest()
    restorePointbody = MysqlRestorePoint(
        restore_time=1673852043000,
        source_instance_id="7033e7c3cf93438797d44ad7ae0a7d95in07",
        type="timestamp"
    )
    backupStrategybody = MysqlBackupStrategy(
        start_time="08:00-09:00"
    )
    dataStorebody = MysqlDataStoreInReq(
        type="gaussdb-mysql",
        version="8.0"
    )
    chargeInfobody = MysqlChargeInfo(
        charge_mode="postPaid"
    )
    request.body = MysqlInstanceRequest(
        restore_point=restorePointbody,
        enterprise_project_id="0",
        slave_count=1,
        availability_zone_mode="single",
        backup_strategy=backupStrategybody,
        password="****",
        configuration_id="43570e0de32e40c5a15f831aa5ce4176pr07",
        security_group_id="fc577a1a-f202-424a-977f-24faec3fdd55",
        subnet_id="c1cfa53c-65d3-431e-8552-326bf310c7ad",
        vpc_id="3cedfc54-b105-4652-a4e0-847b11576b58",
        flavor_ref="gaussdb.mysql.xlarge.arm.4",
        mode="Cluster",
        dataStore=dataStorebody,
        name="gaussdb-mysql-instance3",
        region="br-iaas-odin1",
        charge_info=chargeInfobody
    )
    response = client.create_gauss_my_sql_instance(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

- 创建周期为一个月的包年/包月实例。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"
```

```
credentials = BasicCredentials(ak, sk, projectId)

client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = CreateGaussMySqlInstanceRequest()
    restorePointbody = MysqlRestorePoint(
        restore_time=1673852043000,
        source_instance_id="7033e7c3cf93438797d44ad7ae0a7d95in07",
        type="timestamp"
    )
    volumebody = MysqlVolume(
        size="10"
    )
    backupStrategybody = MysqlBackupStrategy(
        start_time="08:00-09:00"
    )
    datastorebody = MysqlDatastoreInReq(
        type="gaussdb-mysql",
        version="8.0"
    )
    chargeInfobody = MysqlChargeInfo(
        charge_mode="prePaid",
        period_type="month",
        period_num=1,
        is_auto_renew="false",
        is_auto_pay="true"
    )
    request.body = MysqlInstanceRequest(
        restore_point=restorePointbody,
        enterprise_project_id="0",
        volume=volumebody,
        slave_count=1,
        availability_zone_mode="single",
        backup_strategy=backupStrategybody,
        password="****",
        configuration_id="43570e0de32e40c5a15f831aa5ce4176pr07",
        security_group_id="fc577a1a-f202-424a-977f-24faec3fdd55",
        subnet_id="c1cfa53c-65d3-431e-8552-326bf310c7ad",
        vpc_id="3cedfc54-b105-4652-a4e0-847b11576b58",
        flavor_ref="gaussdb.mysql.xlarge.arm.4",
        mode="Cluster",
        datastore=datastorebody,
        name="gaussdb-mysql-instance4",
        region="br-iaas-odin1",
        charge_info=chargeInfobody
    )
    response = client.create_gauss_my_sql_instance(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

- 创建计费模式为按需计费，自动备份开始时间是08:00-09:00的实例。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
```

```
)  
  
func main() {  
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
    // environment variables and decrypted during use to ensure security.  
    // In this example, AK and SK are stored in environment variables for authentication. Before  
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local  
    // environment  
    ak := os.Getenv("CLOUD_SDK_AK")  
    sk := os.Getenv("CLOUD_SDK_SK")  
    projectId := "{project_id}"  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).  
        WithSk(sk).  
        WithProjectId(projectId).  
        Build()  
  
    client := gaussdb.NewGaussDBClient(  
        gaussdb.GaussDBClientBuilder().  
            WithRegion(region.ValueOf("<YOUR REGION>")).  
            WithCredential(auth).  
            Build())  
  
    request := &model.CreateGaussMySQLInstanceRequest{}  
    backupStrategybody := &model.MySQLBackupStrategy{  
        StartTime: "08:00-09:00",  
    }  
    dataStorebody := &model.MySQLDataStoreInReq{  
        Type: "gaussdb-mysql",  
        Version: "8.0",  
    }  
    chargeInfobody := &model.MySQLChargeInfo{  
        ChargeMode: model.GetMySQLChargeInfoChargeModeEnum().POST_PAID,  
    }  
    enterpriseProjectIdMySQLInstanceRequest := "0"  
    configurationIdMySQLInstanceRequest := "43570e0de32e40c5a15f831aa5ce4176pr07"  
    securityGroupIdMySQLInstanceRequest := "fc577a1a-f202-424a-977f-24faec3fdd55"  
    request.Body = &model.MySQLInstanceRequest{  
        EnterpriseProjectId: &enterpriseProjectIdMySQLInstanceRequest,  
        SlaveCount: int32(1),  
        AvailabilityZoneMode: "single",  
        BackupStrategy: backupStrategybody,  
        Password: "****",  
        ConfigurationId: &configurationIdMySQLInstanceRequest,  
        SecurityGroupId: &securityGroupIdMySQLInstanceRequest,  
        SubnetId: "c1cfa53c-65d3-431e-8552-326bf310c7ad",  
        VpId: "3cedfc54-b105-4652-a4e0-847b11576b58",  
        FlavorRef: "gaussdb.mysql.xlarge.arm.4",  
        Mode: "Cluster",  
        Datastore: dataStorebody,  
        Name: "gaussdb-mysql-instance1",  
        Region: "br-iaas-odin1",  
        ChargeInfo: chargeInfobody,  
    }  
    response, err := client.CreateGaussMySQLInstance(request)  
    if err == nil {  
        fmt.Printf("%+v\n", response)  
    } else {  
        fmt.Println(err)  
    }  
}
```

- 将备份文件恢复到按需计费的新实例。

```
package main  
  
import (  
    "fmt"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
```

```
gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
"github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateGaussMySQLInstanceRequest{
        backupIdRestorePoint:= "7ffb305376b4cbea0ae491257b6aaf9br07"
        typeRestorePoint:= "backup"
        restorePointbody := &model.MySQLRestorePoint{
            SourceInstanceId: "7033e7c3cf93438797d44ad7ae0a7d95in07",
            BackupId: &backupIdRestorePoint,
            Type: &typeRestorePoint,
        }
        backupStrategybody := &model.MySQLBackupStrategy{
            StartTime: "08:00-09:00",
        }
        dataStorebody := &model.MySQLDataStoreInReq{
            Type: "gaussdb-mysql",
            Version: "8.0",
        }
        chargeInfobody := &model.MySQLChargeInfo{
            ChargeMode: model.GetMySQLChargeInfoChargeModeEnum().POST_PAID,
        }
        enterpriseProjectIdMySQLInstanceRequest:= "0"
        configurationIdMySQLInstanceRequest:= "43570e0de32e40c5a15f831aa5ce4176pr07"
        securityGroupIdMySQLInstanceRequest:= "fc577a1a-f202-424a-977f-24faec3fdd55"
        request.Body = &model.MySQLInstanceRequest{
            RestorePoint: restorePointbody,
            EnterpriseProjectId: &enterpriseProjectIdMySQLInstanceRequest,
            SlaveCount: int32(1),
            AvailabilityZoneMode: "single",
            BackupStrategy: backupStrategybody,
            Password: "****",
            ConfigurationId: &configurationIdMySQLInstanceRequest,
            SecurityGroupId: &securityGroupIdMySQLInstanceRequest,
            SubnetId: "c1cfa53c-65d3-431e-8552-326bf310c7ad",
            VpId: "3cedfc54-b105-4652-a4e0-847b11576b58",
            FlavorRef: "gaussdb.mysql.xlarge.arm.4",
            Mode: "Cluster",
            Datastore: dataStorebody,
            Name: "gaussdb-mysql-instance2",
            Region: "br-iaas-odin1",
            ChargeInfo: chargeInfobody,
        }
    }
    response, err := client.CreateGaussMySQLInstance(request)
    if err == nil {
```

```
    fmt.Printf("%+v\n", response)
  } else {
    fmt.Println(err)
  }
}
```

- 按时间点恢复到按需计费的新实例。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateGaussMySQLInstanceRequest{}
    restoreTimeRestorePoint := int64(1673852043000)
    typeRestorePoint := "timestamp"
    restorePointbody := &model.MySQLRestorePoint{
        RestoreTime: &restoreTimeRestorePoint,
        SourceInstanceID: "7033e7c3cf93438797d44ad7ae0a7d95in07",
        Type: &typeRestorePoint,
    }
    backupStrategybody := &model.MySQLBackupStrategy{
        StartTime: "08:00-09:00",
    }
    dataStorebody := &model.MySQLDataStoreInReq{
        Type: "gaussdb-mysql",
        Version: "8.0",
    }
    chargeInfobody := &model.MySQLChargeInfo{
        ChargeMode: model.GetMySQLChargeInfoChargeModeEnum().POST_PAID,
    }
    enterpriseProjectIdMySQLInstanceRequest := "0"
    configurationIdMySQLInstanceRequest := "43570e0de32e40c5a15f831aa5ce4176pr07"
    securityGroupIdMySQLInstanceRequest := "fc577a1a-f202-424a-977f-24faec3fdd55"
    request.Body = &model.MySQLInstanceRequest{
        RestorePoint: restorePointbody,
        EnterpriseProjectId: &enterpriseProjectIdMySQLInstanceRequest,
        SlaveCount: int32(1),
        AvailabilityZoneMode: "single",
        BackupStrategy: backupStrategybody,
        Password: "****",
        ConfigurationId: &configurationIdMySQLInstanceRequest,
        SecurityGroupId: &securityGroupIdMySQLInstanceRequest,
```

```
SubnetId: "c1cfa53c-65d3-431e-8552-326bf310c7ad",
VpcId: "3cedfc54-b105-4652-a4e0-847b11576b58",
FlavorRef: "gaussdb.mysql.xlarge.arm.4",
Mode: "Cluster",
Datastore: datastorebody,
Name: "gaussdb-mysql-instance3",
Region: "br-iaas-odin1",
ChargeInfo: chargeInfobody,
}
response, err := client.CreateGaussMySqlInstance(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

- 创建周期为一个月的包年/包月实例。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateGaussMySqlInstanceRequest{
        restoreTimeRestorePoint:= int64(1673852043000)
        typeRestorePoint:= "timestamp"
        restorePointbody := &model.MysqlRestorePoint{
            RestoreTime: &restoreTimeRestorePoint,
            SourceInstanceId: "7033e7c3cf93438797d44ad7ae0a7d95in07",
            Type: &typeRestorePoint,
        }
        volumebody := &model.MysqlVolume{
            Size: "10",
        }
        backupStrategybody := &model.MysqlBackupStrategy{
            StartTime: "08:00-09:00",
        }
        datastorebody := &model.MysqlDatastoreInReq{
            Type: "gaussdb-mysql",
            Version: "8.0",
        }
        periodTypeChargeInfo:= model.GetMysqlChargeInfoPeriodTypeEnum().MONTH
    }
```

```
periodNumChargeInfo:= int32(1)
isAutoRenewChargeInfo:= "false"
isAutoPayChargeInfo:= "true"
chargeInfobody := &model.MysqlChargeInfo{
    ChargeMode: model.GetMysqlChargeInfoChargeModeEnum().PRE_PAID,
    PeriodType: &periodTypeChargeInfo,
    PeriodNum: &periodNumChargeInfo,
    IsAutoRenew: &isAutoRenewChargeInfo,
    IsAutoPay: &isAutoPayChargeInfo,
}
enterpriseProjectIdMysqlInstanceRequest:= "0"
configurationIdMysqlInstanceRequest:= "43570e0de32e40c5a15f831aa5ce4176pr07"
securityGroupIdMysqlInstanceRequest:= "fc577a1a-f202-424a-977f-24faec3fdd55"
request.Body = &model.MysqlInstanceRequest{
    RestorePoint: restorePointbody,
    EnterpriseProjectId: &enterpriseProjectIdMysqlInstanceRequest,
    Volume: volumebody,
    SlaveCount: int32(1),
    AvailabilityZoneMode: "single",
    BackupStrategy: backupStrategybody,
    Password: "****",
    ConfigurationId: &configurationIdMysqlInstanceRequest,
    SecurityGroupId: &securityGroupIdMysqlInstanceRequest,
    SubnetId: "c1cfa53c-65d3-431e-8552-326bf310c7ad",
    VpId: "3cedfc54-b105-4652-a4e0-847b11576b58",
    FlavorRef: "gaussdb.mysql.xlarge.arm.4",
    Mode: "Cluster",
    Datastore: datastorebody,
    Name: "gaussdb-mysql-instance4",
    Region: "br-iaas-odin1",
    ChargeInfo: chargeInfobody,
}
response, err := client.CreateGaussMySqlInstance(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
201	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。



## 4.3.2 重启数据库实例

### 功能介绍

重启数据库实例。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/instances/{instance\_id}/restart

表 4-32 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

### 请求参数

表 4-33 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-34 请求 Body 参数

参数	是否必选	参数类型	描述
delay	否	Boolean	实例是否延迟重启，默认 false，立即重启。 取值范围： <ul style="list-style-type: none"><li>true: 延迟重启，实例将在运维时间窗内自动重启。</li><li>false: 立即重启。</li></ul>

## 响应参数

状态码： 200

表 4-35 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 4-36 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-37 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

设置TaurusDB实例在运维时间窗内重启。

```
POST https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/  
096c0fc43e804757b59946b80dc27f8bin07/restart
```

```
{  
  "delay": true  
}
```

## 响应示例

**状态码： 200**

Success.

```
{  
  "job_id": "e0fbfc8-1ac4-4721-b9e9-7dd685c5bdd7"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

设置TaurusDB实例在运维时间窗内重启。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class RestartGaussMySQLInstanceSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        RestartGaussMySQLInstanceRequest request = new RestartGaussMySQLInstanceRequest();  
        request.withInstanceId("{instance_id}");  
        TaurusRestartInstanceRequest body = new TaurusRestartInstanceRequest();  
        body.withDelay(true);  
        request.withBody(body);  
        try {  
            RestartGaussMySQLInstanceResponse response = client.restartGaussMySQLInstance(request);  
            System.out.println(response.toString());  
        } catch (ConnectionException e) {  
            e.printStackTrace();  
        }  
    }  
}
```

```
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

设置TaurusDB实例在运维时间窗内重启。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = RestartGaussMySQLInstanceRequest()
        request.instance_id = "{instance_id}"
        request.body = TaurusRestartInstanceRequest(
            delay=True
        )
        response = client.restart_gauss_my_sql_instance(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

设置TaurusDB实例在运维时间窗内重启。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)
```

```
func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.RestartGaussMySQLInstanceRequest{}
    request.InstanceId = "{instance_id}"
    delayTaurusRestartInstanceRequest:= true
    request.Body = &model.TaurusRestartInstanceRequest{
        Delay: &delayTaurusRestartInstanceRequest,
    }
    response, err := client.RestartGaussMySQLInstance(request)
    if err == nil {
        fmt.Printf("%v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.3.3 删除/退订数据库实例

#### 功能介绍

删除/退订数据库实例。

## 调用方法

请参见[如何调用API](#)。

## URI

DELETE /v3/{project\_id}/instances/{instance\_id}

表 4-38 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-39 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-40 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。
order_id	String	订单号，仅包年/包月返回该参数。

### 状态码： 400

表 4-41 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

### 状态码： 500

表 4-42 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

- 退订指定的包年/包月实例。

```
DELETE https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
096c0fc43e804757b59946b80dc27f8bin07
```

- 删除指定按需实例。

```
DELETE https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
7f5bed98332e493a8a2d213c233ff556in07
```

## 响应示例

### 状态码： 200

Success.

- 退订包周期实例。

```
{  
  "job_id" : null,  
  "order_id" : "CS2305230939BMXV8"  
}
```

- 删除按需实例。

```
{  
  "job_id" : "e82673f9-a8cc-45cf-973b-c201b7cda610",  
  "order_id" : null  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;
```

```
import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class DeleteGaussMySQLInstanceSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        DeleteGaussMySQLInstanceRequest request = new DeleteGaussMySQLInstanceRequest();
        request.withInstanceId("{instance_id}");
        try {
            DeleteGaussMySQLInstanceResponse response = client.deleteGaussMySQLInstance(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"
```



```
credentials = BasicCredentials(ak, sk, projectId)

client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = DeleteGaussMySQLInstanceRequest()
    request.instance_id = "{instance_id}"
    response = client.delete_gauss_my_sql_instance(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteGaussMySQLInstanceRequest{}
    request.InstanceId = "{instance_id}"
    response, err := client.DeleteGaussMySQLInstance(request)
    if err == nil {
        fmt.Printf("%v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.3.4 创建只读节点

#### 功能介绍

创建只读节点。

#### 调用方法

请参见[如何调用API](#)。

## URI

POST /v3/{project\_id}/instances/{instance\_id}/nodes/enlarge

表 4-43 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-44 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-45 请求 Body 参数

参数	是否必选	参数类型	描述
priorities	是	Array of integers	指定创建的只读节点故障倒换优先级。 故障倒换优先级的取值范围为1~16，数字越小，优先级越大，即故障倒换时，主节点会优先倒换到优先级高的只读节点上，优先级相同的只读节点选为主节点的概率相同。最多支持9个只读节点设置故障倒换优先级，超过9个的只读节点优先级默认为-1，表示不会参与倒换。可通过修改节点的故障倒换优先级来进行调整。
is_auto_pay	否	String	创建包年/包月实例时可指定，表示是否自动从客户的账户中支付，此字段不影响自动续订的支付方式。 <ul style="list-style-type: none"><li>true: 为自动支付，默认该方式。</li><li>false: 为手动支付。</li></ul>

参数	是否必选	参数类型	描述
availability_zones	否	Array of strings	<p>可用区。可指定可用区创建只读节点，不传该参数时默认为自动选择可用区。</p> <p>该参数目前处于公测阶段，如需使用，请提交工单联系客服人员申请权限。</p> <p>调用<a href="#">查询数据库规格</a>获取，其中az_status中的key为availability_zone。</p> <p>注：指定可用区创建只读节点，可能由于资源不足创建失败。</p>

## 响应参数

状态码： 201

表 4-46 响应 Body 参数

参数	参数类型	描述
instance_id	String	实例ID，严格匹配UUID规则。
node_names	Array of strings	节点名称列表。
job_id	String	<p>创建只读节点的任务ID。</p> <p>仅创建按需只读节点时会返回该参数。</p>
order_id	String	订单号，创建包年包月只读节点时返回该参数。

状态码： 400

表 4-47 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-48 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

为实例创建只读节点。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/8cb89e25e0444f1fa9b2145dff29cabdin07/nodes/enlarge
{
  "priorities": [ 1, 2 ]
}
```

## 响应示例

状态码： 201

Success.

```
{
  "instance_id": "8cb89e25e0444f1fa9b2145dff29cabdin07",
  "node_names": [ "gauss-ccf5_node03", "gauss-ccf5_node04" ],
  "job_id": "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

为实例创建只读节点。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class CreateGaussMySQLReadOnlyNodeSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    }
}
```

```
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");
String projectId = "{project_id}";

ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
CreateGaussMySQLReadOnlyNodeRequest request = new CreateGaussMySQLReadOnlyNodeRequest();
request.withInstanceId("{instance_id}");
MysqlCreateReadOnlyNodeRequest body = new MysqlCreateReadOnlyNodeRequest();
List<Integer> listbodyPriorities = new ArrayList<>();
listbodyPriorities.add(1);
listbodyPriorities.add(2);
body.withPriorities(listbodyPriorities);
request.withBody(body);
try {
    CreateGaussMySQLReadOnlyNodeResponse response =
client.createGaussMySQLReadOnlyNode(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

为实例创建只读节点。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
```

```
request = CreateGaussMySqlReadOnlyNodeRequest()
request.instance_id = "{instance_id}"
listPrioritiesbody = [
    1,
    2
]
request.body = MysqlCreateReadOnlyNodeRequest(
    priorities=listPrioritiesbody
)
response = client.create_gauss_my_sql_readonly_node(request)
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

为实例创建只读节点。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateGaussMySqlReadOnlyNodeRequest{}
    request.InstanceId = "{instance_id}"
    var listPrioritiesbody = []int32{
        int32(1),
        int32(2),
    }
    request.Body = &model.MysqlCreateReadOnlyNodeRequest{
        Priorities: listPrioritiesbody,
    }
    response, err := client.CreateGaussMySqlReadOnlyNode(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
201	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.3.5 删除/退订只读节点

#### 功能介绍

删除/退订实例的只读节点。多可用区模式删除/退订只读节点时，要保证删除/退订后，剩余的只读节点和主节点在不同的可用区中，否则无法删除/退订该只读节点。

#### 调用方法

请参见[如何调用API](#)。

#### URI

DELETE /v3/{project\_id}/instances/{instance\_id}/nodes/{node\_id}

表 4-49 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。
node_id	是	String	节点ID，严格匹配UUID规则。



## 请求参数

表 4-50 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-51 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。
order_id	String	订单号，仅包年/包月返回该参数。

状态码： 400

表 4-52 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-53 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

删除指定包年/包月实例的只读节点。

```
DELETE https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
096c0fc43e804757b59946b80dc27f8bin07/nodes/ss62c18799854a919bab633874c159dfno01
```

## 响应示例

状态码： 200

Success.

```
{  
  "job_id" : "04efe8e2-9255-44ae-a98b-d87cae411890",  
  "order_id" : "CS2305230939BMXV8"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class DeleteGaussMySQLReadOnlyNodeSolution {  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()
```

```
        .withCredential(auth)
        .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
        .build();
DeleteGaussMySQLReadOnlyNodeRequest request = new DeleteGaussMySQLReadOnlyNodeRequest();
request.withInstanceId("{instance_id}");
request.withNodeId("{node_id}");
try {
    DeleteGaussMySQLReadOnlyNodeResponse response =
client.deleteGaussMySQLReadOnlyNode(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteGaussMySQLReadOnlyNodeRequest()
        request.instance_id = "{instance_id}"
        request.node_id = "{node_id}"
        response = client.delete_gauss_my_sql_readonly_node(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
```

```

"github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
"github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteGaussMySQLReadOnlyNodeRequest{}
    request.InstanceId = "{instance_id}"
    request.NodeId = "{node_id}"
    response, err := client.DeleteGaussMySQLReadOnlyNode(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}

```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.3.6 包年/包月实例存储扩容

### 功能介绍

包年/包月实例存储扩容。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/instances/{instance\_id}/volume/extend

表 4-54 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

### 请求参数

表 4-55 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-56 请求 Body 参数

参数	是否必选	参数类型	描述
size	是	Integer	扩容后的容量。包年/包月实例初始最小磁盘规格为10G，实例所选容量大小必须为10的整数倍，且大于实际使用容量，最大为128000GB。 取值范围： 扩容时必须大于等于20G。 缩容时必须大于等于10G。
is_auto_pay	否	String	表示是否自动从客户的账户中支付。 <ul style="list-style-type: none"><li>• true: 为自动支付，默认该方式。</li><li>• false: 为手动支付。</li></ul>

## 响应参数

状态码： 201

表 4-57 响应 Body 参数

参数	参数类型	描述
size	Integer	扩容后容量。
order_id	String	订单号。

状态码： 400

表 4-58 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-59 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

扩容包年/包月实例的磁盘容量至50GB。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
ba62a0b83a1b42bfab275829d86ac0fdin07/volume/extend
{
  "size" : 50
}
```

## 响应示例

状态码： 201

Success.

```
{
  "size" : 50,
  "order_id" : "CS2001221129LVGUU"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

扩容包年/包月实例的磁盘容量至50GB。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ExpandGaussMySQLInstanceVolumeSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";
```

```
ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();

ExpandGaussMySQLInstanceVolumeRequest request = new
ExpandGaussMySQLInstanceVolumeRequest();
request.withInstanceId("{instance_id}");
MysqlExtendInstanceVolumeRequest body = new MysqlExtendInstanceVolumeRequest();
body.withSize(50);
request.withBody(body);
try {
    ExpandGaussMySQLInstanceVolumeResponse response =
client.expandGaussMySQLInstanceVolume(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrMsg());
}
}
```

## Python

扩容包年/包月实例的磁盘容量至50GB。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ExpandGaussMySQLInstanceVolumeRequest()
        request.instance_id = "{instance_id}"
        request.body = MysqlExtendInstanceVolumeRequest(
            size=50
        )
```



```
response = client.expand_gauss_my_sql_instance_volume(request)
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

扩容包年/包月实例的磁盘容量至50GB。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ExpandGaussMySqlInstanceVolumeRequest{}
    request.InstanceId = "{instance_id}"
    request.Body = &model.MysqlExtendInstanceVolumeRequest{
        Size: int32(50),
    }
    response, err := client.ExpandGaussMySqlInstanceVolume(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
201	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.3.7 修改实例名称

#### 功能介绍

修改实例名称。

#### 调用方法

请参见[如何调用API](#)。

#### URI

PUT /v3/{project\_id}/instances/{instance\_id}/name

表 4-60 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

**表 4-61** 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

**表 4-62** 请求 Body 参数

参数	是否必选	参数类型	描述
name	是	String	实例名称。 用于表示实例的名称，同一租户下，同类型的实例名可重名。取值范围：最小为4个字符，最大为64个字符且不超过64个字节（注意：一个中文字符占用3个字节），必须以字母或中文开头，区分大小写，可以包含字母、数字、中划线、下划线或中文，不能包含其他特殊字符。
is_modify_node_name	否	String	是否同步修改节点名称，取值：true或false，默认值为true。

## 响应参数

状态码： 200

**表 4-63** 响应 Body 参数

参数	参数类型	描述
job_id	String	修改实例名称的任务ID。

状态码： 400

表 4-64 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-65 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

修改实例的名称为 “gaussdb-name”。

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
ba62a0b83a1b42bfab275829d86ac0fdin07/name  
{  
  "name": "gaussdb-name"  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "job_id": "0f6b6a9e-bd39-4e95-9374-e4d134e5a3d1"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

修改实例的名称为 “gaussdb-name”。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;
```

```
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateGaussMySQLInstanceNameSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();

        UpdateGaussMySQLInstanceNameRequest request = new UpdateGaussMySQLInstanceNameRequest();
        request.withInstanceId("{instance_id}");
        MySQLUpdateInstanceNameRequest body = new MySQLUpdateInstanceNameRequest();
        body.withName("gaussdb-name");
        request.withBody(body);
        try {
            UpdateGaussMySQLInstanceNameResponse response =
client.updateGaussMySQLInstanceName(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

修改实例的名称为 “gaussdb-name”。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"
```

```
credentials = BasicCredentials(ak, sk, projectId)

client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = UpdateGaussMySQLInstanceNameRequest()
    request.instance_id = "{instance_id}"
    request.body = MysqlUpdateInstanceNameRequest(
        name="gaussdb-name"
    )
    response = client.update_gauss_my_sql_instance_name(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

修改实例的名称为“gaussdb-name”。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateGaussMySQLInstanceNameRequest{}
    request.InstanceId = "{instance_id}"
    request.Body = &model.MysqlUpdateInstanceNameRequest{
        Name: "gaussdb-name",
    }
    response, err := client.UpdateGaussMySQLInstanceName(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.3.8 重置数据库密码

#### 功能介绍

重置数据库密码。

#### 调用方法

请参见[如何调用API](#)。

#### URI

POST /v3/{project\_id}/instances/{instance\_id}/password

表 4-66 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

**表 4-67** 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

**表 4-68** 请求 Body 参数

参数	是否必选	参数类型	描述
password	是	String	数据库密码。 取值范围：至少包含以下字符的三种：大小写字母、数字和特殊符号 . ~!@#%&^*_-=+?,()&，长度8~32个字符。建议您输入高强度密码，以提高安全性，防止出现密码被暴力破解等安全风险。如果您输入弱密码，系统会自动判定密码非法。

## 响应参数

**状态码： 400****表 4-69** 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

**状态码： 500**



表 4-70 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

重置数据库密码。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
ba62a0b83a1b42bfab275829d86ac0fdin07/password

{
  "password" : "****"
}
```

## 响应示例

无

## SDK 代码示例

SDK代码示例如下。

### Java

重置数据库密码。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ResetGaussMySQLPasswordSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
```

```
        .withCredential(auth)
        .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
        .build();
ResetGaussMySQLPasswordRequest request = new ResetGaussMySQLPasswordRequest();
request.withInstanceId("{instance_id}");
MysqlResetPasswordRequest body = new MysqlResetPasswordRequest();
body.withPassword("****");
request.withBody(body);
try {
    ResetGaussMySQLPasswordResponse response = client.resetGaussMySQLPassword(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

重置数据库密码。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ResetGaussMySQLPasswordRequest()
        request.instance_id = "{instance_id}"
        request.body = MysqlResetPasswordRequest(
            password="****"
        )
        response = client.reset_gauss_my_sql_password(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

重置数据库密码。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ResetGaussMySQLPasswordRequest{}
    request.InstanceId = "{instance_id}"
    request.Body = &model.MysqlResetPasswordRequest{
        Password: "****",
    }
    response, err := client.ResetGaussMySQLPassword(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.3.9 变更实例规格

### 功能介绍

变更数据库实例的规格。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/instances/{instance\_id}/action

表 4-71 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

### 请求参数

表 4-72 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-73 请求 Body 参数

参数	是否必选	参数类型	描述
resize_flavor	是	<b>MySqlResizeFlavor</b> object	规格变更信息。
is_auto_pay	否	String	变更包年/包月实例规格时可指定，表示是否自动从客户的账户中支付。 <ul style="list-style-type: none"> <li>• true: 为自动支付，默认该方式。</li> <li>• false: 为手动支付。</li> </ul>

表 4-74 MySqlResizeFlavor

参数	是否必选	参数类型	描述
spec_code	是	String	规格码。

## 响应参数

状态码： 200

表 4-75 响应 Body 参数

参数	参数类型	描述
job_id	String	规格变更的任务ID，仅变更按需实例时会返回该参数。
order_id	String	订单ID，仅变更包年/包月实例时会返回该参数。

状态码： 400

表 4-76 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-77 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

变更实例的内存规格为4U32GB。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
ba62a0b83a1b42bfab275829d86ac0fdin07/action

{
  "resize_flavor" : {
    "spec_code" : "gaussdb.mysql.xlarge.arm.4"
  }
}
```

## 响应示例

状态码： 200

Success.

```
{
  "job_id" : "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

变更实例的内存规格为4U32GB。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ChangeGaussMySQLInstanceSpecificationSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
    }
}
```

```
String projectId = "{project_id}";

ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();

ChangeGaussMySQLInstanceSpecificationRequest request = new
ChangeGaussMySQLInstanceSpecificationRequest();
request.withInstanceId("{instance_id}");
MySQLChangeSpecificationRequest body = new MySQLChangeSpecificationRequest();
MySQLResizeFlavor resizeFlavorbody = new MySQLResizeFlavor();
resizeFlavorbody.withSpecCode("gaussdb.mysql.xlarge.arm.4");
body.withResizeFlavor(resizeFlavorbody);
request.withBody(body);
try {
    ChangeGaussMySQLInstanceSpecificationResponse response =
client.changeGaussMySQLInstanceSpecification(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

变更实例的内存规格为4U32GB。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ChangeGaussMySQLInstanceSpecificationRequest()
        request.instance_id = "{instance_id}"
```

```
resizeFlavorbody = MysqlResizeFlavor(
    spec_code="gaussdb.mysql.xlarge.arm.4"
)
request.body = MysqlChangeSpecificationRequest(
    resize_flavor=resizeFlavorbody
)
response = client.change_gauss_my_sql_instance_specification(request)
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

变更实例的内存规格为4U32GB。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ChangeGaussMySQLInstanceSpecificationRequest{
        request.InstanceId = "{instance_id}"
        resizeFlavorbody := &model.MysqlResizeFlavor{
            SpecCode: "gaussdb.mysql.xlarge.arm.4",
        }
        request.Body = &model.MysqlChangeSpecificationRequest{
            ResizeFlavor: resizeFlavorbody,
        }
        response, err := client.ChangeGaussMySQLInstanceSpecification(request)
        if err == nil {
            fmt.Printf("%+v\n", response)
        } else {
            fmt.Println(err)
        }
    }
}
```



## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.3.10 查询专属资源池列表

#### 功能介绍

获取专属资源池列表，包括用户开通的所有专属资源池信息。

#### 调用方法

请参见[如何调用API](#)。

#### URI

GET /v3/{project\_id}/dedicated-resources

表 4-78 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

表 4-79 Query 参数

参数	是否必选	参数类型	描述
offset	否	Integer	索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。
limit	否	Integer	查询记录数。默认为100，不能为负数，最小值为1，最大值为100。

## 请求参数

表 4-80 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-81 响应 Body 参数

参数	参数类型	描述
resources	Array of <a href="#">DedicatedResource</a> objects	专属资源池信息。
total_count	Integer	专属资源池数量。

表 4-82 DedicatedResource

参数	参数类型	描述
id	String	专属资源池ID。
resource_name	String	专属资源池名称。
engine_name	String	数据库引擎名称。
architecture	String	CPU架构
status	String	专属资源池状态。 取值范围： <ul style="list-style-type: none"><li>• NORMAL：正常。</li><li>• BUILDING：构建中。</li><li>• EXTENDING：扩容中。</li><li>• DELETED：已删除。</li></ul>
capacity	<a href="#">DedicatedResourceCapacity</a> object	专属资源池容量信息。
availability_zone	Array of strings	专属资源池可用区信息。

表 4-83 DedicatedResourceCapacity

参数	参数类型	描述
ram	Integer	内存大小，单位GB。
volume	Long	磁盘容量，单位GB。
vcpus	Integer	CPU核数。

状态码： 400

表 4-84 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-85 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询专属资源池列表。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/dedicated-resources
```

## 响应示例

**状态码： 200**

Success.

```
{
  "resources": [ {
    "id": "1d07f7ba-f140-46a7-b002-58ba22ee6ff3",
    "resource_name": "testdcc",
    "engine_name": "gaussdb-mysql",
    "architecture": "ARM",
    "status": "NORMAL",
    "capacity": {
      "ram": 256,
      "volume": 10000000,
      "vcpus": 64
    },
    "availability_zone": [ "az1xahz" ]
  } ]
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListGaussMySQLDedicatedResourcesSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    }
}
```

```
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");
String projectId = "{project_id}";

ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
ListGaussMySQLDedicatedResourcesRequest request = new
ListGaussMySQLDedicatedResourcesRequest();
try {
    ListGaussMySQLDedicatedResourcesResponse response =
client.listGaussMySQLDedicatedResources(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListGaussMySQLDedicatedResourcesRequest()
        response = client.list_gauss_my_sql_dedicated_resources(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListGaussMySQLDedicatedResourcesRequest{}
    response, err := client.ListGaussMySQLDedicatedResources(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.3.11 查询专属资源信息详情

### 功能介绍

查询专属资源信息详情。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/dedicated-resource/{dedicated\_resource\_id}

表 4-86 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
dedicated_resource_id	是	String	专属资源池ID。 获取方法参见 <a href="#">查询专属资源信息详情</a> 。

### 请求参数

表 4-87 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

### 响应参数

状态码： 200

表 4-88 响应 Body 参数

参数	参数类型	描述
id	String	专属资源池ID。
resource_name	String	专属资源池名称。
engine_name	String	数据库引擎名称。
availability_zone_ids	Array of strings	可用区。
architecture	String	资源规格类型。
status	String	专属资源池状态。
dedicated_compute_info	<b>DedicatedComputeInfo</b> object	计算资源信息。
dedicated_storage_info	<b>DedicatedStorageInfo</b> object	存储资源信息。

表 4-89 DedicatedComputeInfo

参数	参数类型	描述
vcpus_total	Integer	专属资源池中CPU总数。
vcpus_used	Integer	专属资源池已使用的CPU数。
ram_total	Integer	专属资源池计算内存大小, 单位GB。
ram_used	Integer	专属资源池已使用的计算内存大小, 单位GB。
spec_code	String	专属资源池计算资源规格码。
host_num	Integer	专属资源池计算主机数量。

表 4-90 DedicatedStorageInfo

参数	参数类型	描述
spec_code	String	专属资源池存储资源规格码。
host_num	Integer	专属资源池存储主机数量。

状态码: 400



表 4-91 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-92 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询专属资源信息详情。

```
GET https://{endpoint}/v3/058497e1c100d3eb2f3cc01160616934/dedicated-resource/e289fda5-a065-4324-8751-cff68be6f48e
```

## 响应示例

状态码： 200

Success.

```
{
  "id": "e289fda5-a065-4324-8751-cff68be6f48e",
  "resource_name": "test_dcc",
  "engine_name": "gaussdb-mysql",
  "availability_zone_ids": [ "az1xahz", "az2xahz" ],
  "architecture": "ARM",
  "status": "normal",
  "dedicated_compute_info": {
    "vcpus_total": 128,
    "vcpus_used": 64,
    "ram_total": 512,
    "ram_used": 256,
    "spec_code": "gaussdb.mysql.c6.host",
    "host_num": 1
  },
  "dedicated_storage_info": {
    "spec_code": "gaussdb.mysql.dfvpool.30tb.host",
    "host_num": 1
  }
}
```

## SDK 代码示例

SDK代码示例如下。

## Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowDedicatedResourceInfoSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ShowDedicatedResourceInfoRequest request = new ShowDedicatedResourceInfoRequest();
        request.withDedicatedResourceId("{dedicated_resource_id}");
        try {
            ShowDedicatedResourceInfoResponse response = client.showDedicatedResourceInfo(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
```

```
example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
ak = os.environ["CLOUD_SDK_AK"]
sk = os.environ["CLOUD_SDK_SK"]
projectId = "{project_id}"

credentials = BasicCredentials(ak, sk, projectId)

client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = ShowDedicatedResourceInfoRequest()
    request.dedicated_resource_id = "{dedicated_resource_id}"
    response = client.show_dedicated_resource_info(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/ HuaweiCloud/ HuaweiCloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/ HuaweiCloud/ HuaweiCloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/ HuaweiCloud/ HuaweiCloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/ HuaweiCloud/ HuaweiCloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowDedicatedResourceInfoRequest{
        request.DedicatedResourceId = "{dedicated_resource_id}"
    }
    response, err := client.ShowDedicatedResourceInfo(request)
    if err == nil {
        fmt.Printf("%v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.3.12 设置实例秒级监控

#### 功能介绍

设置实例秒级监控，包括1秒监控和5秒监控。

#### 调用方法

请参见[如何调用API](#)。

#### URI

PUT /v3/{project\_id}/instances/{instance\_id}/monitor-policy

表 4-93 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-94 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-95 请求 Body 参数

参数	是否必选	参数类型	描述
monitor_switch	是	Boolean	实例秒级监控开关。 <ul style="list-style-type: none"><li>true: 开启。</li><li>false: 关闭。</li></ul>
period	否	Integer	采集周期，仅在monitor_switch为true时生效。默认为5s。monitor_switch为false时，不传该参数。取值： <ul style="list-style-type: none"><li>1: 采集周期为1s。</li><li>5: 采集周期为5s。</li></ul>

## 响应参数

状态码： 200

表 4-96 响应 Body 参数

参数	参数类型	描述
job_id	String	修改秒级监控的任务流ID。

状态码： 400

表 4-97 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-98 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

- 修改实例秒级监控开关及频率，开启秒级监控，采集周期为1s。

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
61a4ea66210545909d74a05c27a7179ein07/monitor-policy
```

```
{  
  "monitor_switch": true,  
  "period": 1  
}
```

- 修改实例秒级监控开关，关闭秒级监控。

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
61a4ea66210545909d74a05c27a7179ein07/monitor-policy
```

```
{  
  "monitor_switch": false  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "job_id": "6b7dd5d4-4590-4f14-b164-a8737ce071d5"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

- 修改实例秒级监控开关及频率，开启秒级监控，采集周期为1s。

```
package com.huaweicloud.sdk.test;
```

```
import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateInstanceMonitorSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        UpdateInstanceMonitorRequest request = new UpdateInstanceMonitorRequest();
        request.withInstanceId("{instance_id}");
        TaurusModifyInstanceMonitorRequestBody body = new
        TaurusModifyInstanceMonitorRequestBody();
        body.withPeriod(TaurusModifyInstanceMonitorRequestBody.PeriodEnum.NUMBER_1);
        body.withMonitorSwitch(true);
        request.withBody(body);
        try {
            UpdateInstanceMonitorResponse response = client.updateInstanceMonitor(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- 修改实例秒级监控开关，关闭秒级监控。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateInstanceMonitorSolution {
```

```
public static void main(String[] args) {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    String ak = System.getenv("CLOUD_SDK_AK");
    String sk = System.getenv("CLOUD_SDK_SK");
    String projectId = "{project_id}";

    ICredential auth = new BasicCredentials()
        .withProjectId(projectId)
        .withAk(ak)
        .withSk(sk);

    GaussDBClient client = GaussDBClient.newBuilder()
        .withCredential(auth)
        .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
        .build();

    UpdateInstanceMonitorRequest request = new UpdateInstanceMonitorRequest();
    request.withInstanceId("{instance_id}");
    TaurusModifyInstanceMonitorRequestBody body = new
    TaurusModifyInstanceMonitorRequestBody();
    body.withMonitorSwitch(false);
    request.withBody(body);
    try {
        UpdateInstanceMonitorResponse response = client.updateInstanceMonitor(request);
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

- 修改实例秒级监控开关及频率，开启秒级监控，采集周期为1s。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
```



```
.with_credentials(credentials) \  
.with_region(GaussDBRegion.value_of("<YOUR REGION>")) \  
.build()  
  
try:  
    request = UpdateInstanceMonitorRequest()  
    request.instance_id = "{instance_id}"  
    request.body = TaurusModifyInstanceMonitorRequestBody(  
        period=1,  
        monitor_switch=True  
    )  
    response = client.update_instance_monitor(request)  
    print(response)  
except exceptions.ClientRequestException as e:  
    print(e.status_code)  
    print(e.request_id)  
    print(e.error_code)  
    print(e.error_msg)
```

- 修改实例秒级监控开关，关闭秒级监控。

```
# coding: utf-8  
  
import os  
from huaweicloudsdkcore.auth.credentials import BasicCredentials  
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion  
from huaweicloudsdkcore.exceptions import exceptions  
from huaweicloudsdkgaussdb.v3 import *  
  
if __name__ == "__main__":  
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
    # environment variables and decrypted during use to ensure security.  
    # In this example, AK and SK are stored in environment variables for authentication. Before  
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local  
    # environment  
    ak = os.environ["CLOUD_SDK_AK"]  
    sk = os.environ["CLOUD_SDK_SK"]  
    projectId = "{project_id}"  
  
    credentials = BasicCredentials(ak, sk, projectId)  
  
    client = GaussDBClient.new_builder() \  
        .with_credentials(credentials) \  
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \  
        .build()  
  
    try:  
        request = UpdateInstanceMonitorRequest()  
        request.instance_id = "{instance_id}"  
        request.body = TaurusModifyInstanceMonitorRequestBody(  
            monitor_switch=False  
        )  
        response = client.update_instance_monitor(request)  
        print(response)  
    except exceptions.ClientRequestException as e:  
        print(e.status_code)  
        print(e.request_id)  
        print(e.error_code)  
        print(e.error_msg)
```

## Go

- 修改实例秒级监控开关及频率，开启秒级监控，采集周期为1s。

```
package main  
  
import (  
    "fmt"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
```

```
gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
"github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateInstanceMonitorRequest{}
    request.InstanceId = "{instance_id}"
    periodTaurusModifyInstanceMonitorRequestBody:=
    model.GetTaurusModifyInstanceMonitorRequestBodyPeriodEnum().E_1
    request.Body = &model.TaurusModifyInstanceMonitorRequestBody{
        Period: &periodTaurusModifyInstanceMonitorRequestBody,
        MonitorSwitch: true,
    }
    response, err := client.UpdateInstanceMonitor(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- 修改实例秒级监控开关，关闭秒级监控。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
```

```
Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.UpdateInstanceMonitorRequest{}
request.InstanceId = "{instance_id}"
request.Body = &model.TaurusModifyInstanceMonitorRequestBody{
    MonitorSwitch: false,
}
response, err := client.UpdateInstanceMonitor(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.3.13 查询实例秒级监控

#### 功能介绍

查询实例秒级监控信息。

#### 调用方法

请参见[如何调用API](#)。

#### URI

GET /v3/{project\_id}/instances/{instance\_id}/monitor-policy

表 4-99 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-100 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-101 响应 Body 参数

参数	参数类型	描述
monitor_switch	Boolean	实例秒级监控开关。 <ul style="list-style-type: none"><li>true：表示开启。</li><li>false：表示关闭。</li></ul>
period	Integer	采集周期，仅在monitor_switch为true时返回。 <ul style="list-style-type: none"><li>1：采集周期为1s。</li><li>5：采集周期为5s。</li></ul>

状态码： 400

表 4-102 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-103 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询实例秒级监控状态。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
61a4ea66210545909d74a05c27a7179ein07/monitor-policy
```

## 响应示例

状态码： 200

Success.

```
{  
  "monitor_switch" : true,  
  "period" : "1"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ShowInstanceMonitorExtendSolution {  
    public static void main(String[] args) {
```

```
// The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
// In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");
String projectId = "{project_id}";

ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
ShowInstanceMonitorExtendRequest request = new ShowInstanceMonitorExtendRequest();
request.withInstanceId("{instance_id}");
try {
    ShowInstanceMonitorExtendResponse response = client.showInstanceMonitorExtend(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowInstanceMonitorExtendRequest()
        request.instance_id = "{instance_id}"
        response = client.show_instance_monitor_extend(request)
        print(response)
```

```
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowInstanceMonitorExtendRequest{}
    request.InstanceId = "{instance_id}"
    response, err := client.ShowInstanceMonitorExtend(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.3.14 节点重启

### 功能介绍

节点重启。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/instances/{instance\_id}/nodes/{node\_id}/restart

表 4-104 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。
node_id	是	String	节点ID。

### 请求参数

表 4-105 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>



表 4-106 请求 Body 参数

参数	是否必选	参数类型	描述
delay	否	Boolean	实例节点是否延迟重启。默认 false，立即重启。 <ul style="list-style-type: none"><li>• true: 延迟重启，实例节点将在运维时间窗内自动重启。</li><li>• false: 立即重启。</li></ul>

## 响应参数

状态码： 200

表 4-107 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 4-108 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-109 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

重启实例节点。

```
POST https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/af315b8e6aaa41799bd9a31f2de15abcin07/nodes/f0d5f01f04964f36a545ad85e4e9cfe9no07/restart
{
```

```
"delay" : false  
}
```

## 响应示例

**状态码： 200**

Success.

```
{  
  "job_id" : "d5169969-e391-482a-9755-042b2d83ed17"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

重启实例节点。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class RestartGaussMySQLNodeSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        RestartGaussMySQLNodeRequest request = new RestartGaussMySQLNodeRequest();  
        request.withInstanceId("{instance_id}");  
        request.withNodeId("{node_id}");  
        RestartNodeRequest body = new RestartNodeRequest();  
        body.withDelay(false);  
        request.withBody(body);  
        try {  
            RestartGaussMySQLNodeResponse response = client.restartGaussMySQLNode(request);  
            System.out.println(response.toString());  
        } catch (ConnectionException e) {  
            e.printStackTrace();  
        } catch (RequestTimeoutException e) {
```

```
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

重启实例节点。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = RestartGaussMySQLNodeRequest()
        request.instance_id = "{instance_id}"
        request.node_id = "{node_id}"
        request.body = RestartNodeRequest(
            delay=False
        )
        response = client.restart_gauss_my_sql_node(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

重启实例节点。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)
```

```
func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.RestartGaussMySQLNodeRequest{}
    request.InstanceId = "{instance_id}"
    request.NodeId = "{node_id}"
    delayRestartNodeRequest := false
    request.Body = &model.RestartNodeRequest{
        Delay: &delayRestartNodeRequest,
    }
    response, err := client.RestartGaussMySQLNode(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.3.15 内核版本升级

### 功能介绍

内核版本升级。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/instances/{instance\_id}/db-upgrade

表 4-110 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

### 请求参数

表 4-111 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-112 请求 Body 参数

参数	是否必选	参数类型	描述
delay	否	Boolean	实例是否延迟升级，默认 false，立即升级。 取值范围： <ul style="list-style-type: none"><li>true: 延迟升级，实例将在运维时间窗内自动升级。</li><li>false: 立即升级。</li></ul>

## 响应参数

状态码： 200

表 4-113 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 4-114 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-115 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

升级内核小版本，升级方式为立即升级。

```
POST https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/096c0fc43e804757b59946b80dc27f8bin07/db-upgrade
```

```
{  
  "delay": false  
}
```

## 响应示例

**状态码：** 200

Success.

```
{  
  "job_id": "e0fbffc8-1ac4-4721-b9e9-7dd685c5bdd7"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

升级内核小版本，升级方式为立即升级。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class UpgradeGaussMySQLInstanceDatabaseSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
  
        UpgradeGaussMySQLInstanceDatabaseRequest request = new  
        UpgradeGaussMySQLInstanceDatabaseRequest();  
        request.withInstanceId("{instance_id}");  
        UpgradeDatabaseRequest body = new UpgradeDatabaseRequest();  
        body.withDelay(false);  
        request.withBody(body);  
        try {  
            UpgradeGaussMySQLInstanceDatabaseResponse response =  
            client.upgradeGaussMySQLInstanceDatabase(request);  
            System.out.println(response.toString());  
        }  
    }  
}
```

```
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

升级内核小版本，升级方式为立即升级。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpgradeGaussMySQLInstanceDatabaseRequest()
        request.instance_id = "{instance_id}"
        request.body = UpgradeDatabaseRequest(
            delay=False
        )
        response = client.upgrade_gauss_my_sql_instance_database(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

升级内核小版本，升级方式为立即升级。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
)
```



```
region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpgradeGaussMySQLInstanceDatabaseRequest{}
    request.InstanceId = "{instance_id}"
    delayUpgradeDatabaseRequest := false
    request.Body = &model.UpgradeDatabaseRequest{
        Delay: &delayUpgradeDatabaseRequest,
    }
    response, err := client.UpgradeGaussMySQLInstanceDatabase(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.3.16 开关 SSL

### 功能介绍

为实例设置SSL数据加密。

### 调用方法

请参见[如何调用API](#)。

### URI

PUT /v3/{project\_id}/instances/{instance\_id}/ssl-option

表 4-116 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

### 请求参数

表 4-117 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-118 请求 Body 参数

参数	是否必选	参数类型	描述
ssl_option	是	Boolean	SSL数据加密开关设置。 取值范围： <ul style="list-style-type: none"><li>• true: 开启SSL数据加密。</li><li>• false: 关闭SSL数据加密。</li></ul>

## 响应参数

状态码： 200

表 4-119 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 4-120 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-121 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

- 开启实例SSL数据加密。

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/  
096c0fc43e804757b59946b80dc27f8bin07/ssl-option  
{
```

- ```
"ssl_option" : true
}
```
- 关闭实例SSL数据加密。  
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/  
096c0fc43e804757b59946b80dc27f8bin07/ssl-option
- ```
{
  "ssl_option" : false
}
```

## 响应示例

状态码: 200

Success.

```
{
  "job_id" : "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

- 开启实例SSL数据加密。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class SwitchGaussMySQLInstanceSslSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        SwitchGaussMySQLInstanceSslRequest request = new SwitchGaussMySQLInstanceSslRequest();
        request.withInstanceId("{instance_id}");
        SwitchSSLRequest body = new SwitchSSLRequest();
        body.withSslOption(true);
```

```
request.withBody(body);
try {
    SwitchGaussMySQLInstanceSslResponse response =
client.switchGaussMySQLInstanceSsl(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

- 关闭实例SSL数据加密。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class SwitchGaussMySQLInstanceSslSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();

        SwitchGaussMySQLInstanceSslRequest request = new SwitchGaussMySQLInstanceSslRequest();
        request.withInstanceId("{instance_id}");
        SwitchSSLRequest body = new SwitchSSLRequest();
        body.withSslOption(false);
        request.withBody(body);
        try {
            SwitchGaussMySQLInstanceSslResponse response =
client.switchGaussMySQLInstanceSsl(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
        }
    }
}
```

```
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

- 开启实例SSL数据加密。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = SwitchGaussMySQLInstanceSslRequest()
        request.instance_id = "{instance_id}"
        request.body = SwitchSSLRequest(
            ssl_option=True
        )
        response = client.switch_gauss_my_sql_instance_ssl(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- 关闭实例SSL数据加密。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
```

```
projectId = "{project_id}"

credentials = BasicCredentials(ak, sk, projectId)

client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = SwitchGaussMySQLInstanceSslRequest()
    request.instance_id = "{instance_id}"
    request.body = SwitchSSLRequest(
        ssl_option=False
    )
    response = client.switch_gauss_my_sql_instance_ssl(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

- 开启实例SSL数据加密。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.SwitchGaussMySQLInstanceSslRequest{}
    request.InstanceId = "{instance_id}"
    request.Body = &model.SwitchSslRequest{
        SslOption: true,
    }
    response, err := client.SwitchGaussMySQLInstanceSsl(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- 关闭实例SSL数据加密。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.SwitchGaussMySQLInstanceSslRequest{}
    request.InstanceId = "{instance_id}"
    request.Body = &model.SwitchSslRequest{
        SslOption: false,
    }
    response, err := client.SwitchGaussMySQLInstanceSsl(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.



## 错误码

请参见[错误码](#)。

## 4.3.17 绑定弹性公网 IP 地址

### 功能介绍

实例绑定弹性公网IP地址，供外网连接使用。

### 调用方法

请参见[如何调用API](#)。

### URI

PUT /v3/{project\_id}/instances/{instance\_id}/public-ips/bind

表 4-122 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

### 请求参数

表 4-123 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-124 请求 Body 参数

参数	是否必选	参数类型	描述
public_ip	是	String	待绑定的弹性公网IP地址。
public_ip_id	是	String	弹性公网IP地址对应的ID。

## 响应参数

状态码： 200

表 4-125 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 4-126 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-127 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

为实例绑定弹性公网IP地址。

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/  
096c0fc43e804757b59946b80dc27f8bin07/public-ips/bind
```

```
{  
  "public_ip" : "10.145.51.214",  
  "public_ip_id" : "8403e9cd-a7fa-4288-8b15-c7ceac1etest"  
}
```

## 响应示例

状态码： 200

Success.

```
{
  "job_id" : "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

为实例绑定弹性公网IP地址。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateGaussMySQLInstanceEipSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        UpdateGaussMySQLInstanceEipRequest request = new UpdateGaussMySQLInstanceEipRequest();
        request.withInstanceId("{instance_id}");
        ModifyBindEipRequest body = new ModifyBindEipRequest();
        body.withPublicIpId("8403e9cd-a7fa-4288-8b15-c7ceac1etest");
        body.withPublicIp("10.145.51.214");
        request.withBody(body);
        try {
            UpdateGaussMySQLInstanceEipResponse response = client.updateGaussMySQLInstanceEip(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
        }
    }
}
```

```
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

为实例绑定弹性公网IP地址。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateGaussMySQLInstanceEipRequest()
        request.instance_id = "{instance_id}"
        request.body = ModifyBindEipRequest(
            public_ip_id="8403e9cd-a7fa-4288-8b15-c7ceac1etest",
            public_ip="10.145.51.214"
        )
        response = client.update_gauss_my_sql_instance_eip(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

为实例绑定弹性公网IP地址。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
```

```
variables and decrypted during use to ensure security.
// In this example, AK and SK are stored in environment variables for authentication. Before running this
example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")
projectId := "{project_id}"

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    WithProjectId(projectId).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.UpdateGaussMySQLInstanceEipRequest{}
request.InstanceId = "{instance_id}"
request.Body = &model.ModifyBindEipRequest{
    PublicIpId: "8403e9cd-a7fa-4288-8b15-c7ceac1etest",
    PublicIp: "10.145.51.214",
}
response, err := client.UpdateGaussMySQLInstanceEip(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.3.18 解绑弹性公网 IP 地址

#### 功能介绍

实例解绑弹性公网IP地址。

## 调用方法

请参见[如何调用API](#)。

## URI

PUT /v3/{project\_id}/instances/{instance\_id}/public-ips/unbind

表 4-128 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-129 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-130 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 4-131 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-132 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

解绑实例已绑定的弹性公网IP地址。

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/096c0fc43e804757b59946b80dc27f8bin07/public-ips/unbind
```

## 响应示例

状态码： 200

Success.

```
{
  "job_id" : "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class CancelGaussMySQLInstanceEipSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
```

security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.

// In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD\_SDK\_AK and CLOUD\_SDK\_SK in the local environment

```
String ak = System.getenv("CLOUD_SDK_AK");  
String sk = System.getenv("CLOUD_SDK_SK");  
String projectId = "{project_id}";
```

```
ICredential auth = new BasicCredentials()  
    .withProjectId(projectId)  
    .withAk(ak)  
    .withSk(sk);
```

```
GaussDBClient client = GaussDBClient.newBuilder()  
    .withCredential(auth)  
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
    .build();
```

```
CancelGaussMySQLInstanceEipRequest request = new CancelGaussMySQLInstanceEipRequest();  
request.withInstanceId("{instance_id}");
```

```
try {  
    CancelGaussMySQLInstanceEipResponse response = client.cancelGaussMySQLInstanceEip(request);  
    System.out.println(response.toString());  
} catch (ConnectionException e) {  
    e.printStackTrace();  
} catch (RequestTimeoutException e) {  
    e.printStackTrace();  
} catch (ServiceResponseException e) {  
    e.printStackTrace();  
    System.out.println(e.getHttpStatusCode());  
    System.out.println(e.getRequestId());  
    System.out.println(e.getErrorCode());  
    System.out.println(e.getErrorMsg());  
}  
}
```

## Python

```
# coding: utf-8
```

```
import os  
from huaweicloudsdkcore.auth.credentials import BasicCredentials  
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion  
from huaweicloudsdkcore.exceptions import exceptions  
from huaweicloudsdkgaussdb.v3 import *
```

```
if __name__ == "__main__":
```

```
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
```

```
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
```

```
    ak = os.getenv("CLOUD_SDK_AK")  
    sk = os.getenv("CLOUD_SDK_SK")  
    projectId = "{project_id}"
```

```
    credentials = BasicCredentials(ak, sk, projectId)
```

```
    client = GaussDBClient.new_builder() \  
        .with_credentials(credentials) \  
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \  
        .build()
```

```
    try:
```

```
        request = CancelGaussMySQLInstanceEipRequest()  
        request.instance_id = "{instance_id}"  
        response = client.cancel_gauss_my_sql_instance_eip(request)  
        print(response)
```

```
    except exceptions.ClientRequestException as e:
```



```
print(e.status_code)
print(e.request_id)
print(e.error_code)
print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CancelGaussMySQLInstanceEipRequest{}
    request.InstanceId = "{instance_id}"
    response, err := client.CancelGaussMySQLInstanceEip(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.3.19 手动主备倒换

### 功能介绍

用户手动进行主备倒换。

### 调用方法

请参见[如何调用API](#)。

### URI

PUT /v3/{project\_id}/instances/{instance\_id}/switchover

表 4-133 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

### 请求参数

表 4-134 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-135 请求 Body 参数

参数	是否必选	参数类型	描述
node_id	是	String	只读节点ID，倒换后为主节点。

## 响应参数

状态码： 200

表 4-136 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 4-137 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-138 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

手动进行主备倒换。

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/  
096c0fc43e804757b59946b80dc27f8bin07/switchover  
  
{  
  "node_id" : "1801a615b52b4a5697cfe385f6affbf4no07"  
}
```

## 响应示例

状态码： 200

Success.

```
{
  "job_id" : "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

手动进行主备倒换。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class InvokeGaussMySQLInstanceSwitchOverSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();

        InvokeGaussMySQLInstanceSwitchOverRequest request = new
        InvokeGaussMySQLInstanceSwitchOverRequest();
        request.withInstanceId("{instance_id}");
        TaurusSwitchoverRequest body = new TaurusSwitchoverRequest();
        body.withNodeId("1801a615b52b4a5697cfe385f6affbf4no07");
        request.withBody(body);
        try {
            InvokeGaussMySQLInstanceSwitchOverResponse response =
            client.invokeGaussMySQLInstanceSwitchOver(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
        }
    }
}
```

```
        System.out.println(e.getStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

手动进行主备倒换。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = InvokeGaussMySQLInstanceSwitchOverRequest()
        request.instance_id = "{instance_id}"
        request.body = TaurusSwitchoverRequest(
            node_id="1801a615b52b4a5697cfe385f6affbf4no07"
        )
        response = client.invoke_gauss_my_sql_instance_switch_over(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

手动进行主备倒换。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
```

```
variables and decrypted during use to ensure security.
// In this example, AK and SK are stored in environment variables for authentication. Before running this
example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")
projectId := "{project_id}"

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    WithProjectId(projectId).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.InvokeGaussMySQLInstanceSwitchOverRequest{}
request.InstanceId = "{instance_id}"
request.Body = &model.TaurusSwitchoverRequest{
    NodeId: "1801a615b52b4a5697cfe385f6affbf4no07",
}
response, err := client.InvokeGaussMySQLInstanceSwitchOver(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.3.20 设置可维护时间段

### 功能介绍

设置可维护时间段。建议将可维护时间段设置在业务低峰期，避免业务在维护过程中异常中断。

## 调用方法

请参见[如何调用API](#)。

## URI

PUT /v3/{project\_id}/instances/{instance\_id}/ops-window

表 4-139 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-140 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-141 请求 Body 参数

参数	是否必选	参数类型	描述
start_time	是	String	维护起始时间，UTC时间。
end_time	是	String	维护结束时间，UTC时间。 说明：TaurusDB数据库的结束时间和开始时间必须为整点时间，且相隔四个小时。

## 响应参数

状态码： 400

表 4-142 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-143 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

设置可维护时间段的起止时间是22:00~02:00。

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/  
096c0fc43e804757b59946b80dc27f8bin07/ops-window  
{  
  "start_time": "22:00",  
  "end_time": "02:00"  
}
```

## 响应示例

状态码： 200

Success.

```
{}
```

## SDK 代码示例

SDK代码示例如下。

### Java

设置可维护时间段的起止时间是22:00~02:00。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;
```



```
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateGaussMySQLInstanceOpsWindowSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();

        UpdateGaussMySQLInstanceOpsWindowRequest request = new
        UpdateGaussMySQLInstanceOpsWindowRequest();
        request.withInstanceId("{instance_id}");
        ModifyOpsWindow body = new ModifyOpsWindow();
        body.withEndTime("02:00");
        body.withStartTime("22:00");
        request.withBody(body);
        try {
            UpdateGaussMySQLInstanceOpsWindowResponse response =
            client.updateGaussMySQLInstanceOpsWindow(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

设置可维护时间段的起止时间是22:00~02:00。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
```

```
# In this example, AK and SK are stored in environment variables for authentication. Before running this
example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
ak = os.environ["CLOUD_SDK_AK"]
sk = os.environ["CLOUD_SDK_SK"]
projectId = "{project_id}"

credentials = BasicCredentials(ak, sk, projectId)

client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = UpdateGaussMySqlInstanceOpsWindowRequest()
    request.instance_id = "{instance_id}"
    request.body = ModifyOpsWindow(
        end_time="02:00",
        start_time="22:00"
    )
    response = client.update_gauss_my_sql_instance_ops_window(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

设置可维护时间段的起止时间是22:00~02:00。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateGaussMySqlInstanceOpsWindowRequest{}
    request.InstanceId = "{instance_id}"
    request.Body = &model.ModifyOpsWindow{
        EndTime: "02:00",
        StartTime: "22:00",
    }
```

```
}  
response, err := client.UpdateGaussMySQLInstanceOpsWindow(request)  
if err == nil {  
    fmt.Printf("%+v\n", response)  
} else {  
    fmt.Println(err)  
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.3.21 修改安全组

### 功能介绍

修改指定实例安全组。

### 调用方法

请参见[如何调用API](#)。

### URI

PUT /v3/{project\_id}/instances/{instance\_id}/security-group

表 4-144 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-145 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-146 请求 Body 参数

参数	是否必选	参数类型	描述
security_group_id	是	String	安全组ID。

## 响应参数

状态码： 200

表 4-147 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 4-148 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-149 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

修改实例的安全组。

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/096c0fc43e804757b59946b80dc27f8bin07/security-group
{
  "security_group_id" : "054f55b5-946e-4761-a1e3-3be6892827c1"
}
```

## 响应示例

状态码： 200

Success.

```
{
  "job_id" : "e0fbfc8-1ac4-4721-b9e9-7dd685c5bdd7"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

修改实例的安全组。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateGaussMySQLInstanceSecurityGroupSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
```

```
String sk = System.getenv("CLOUD_SDK_SK");
String projectId = "{project_id}";

ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();

UpdateGaussMySQLInstanceSecurityGroupRequest request = new
UpdateGaussMySQLInstanceSecurityGroupRequest();
request.withInstanceId("{instance_id}");
ModifySecurityGroupRequest body = new ModifySecurityGroupRequest();
body.withSecurityGroupId("054f55b5-946e-4761-a1e3-3be6892827c1");
request.withBody(body);
try {
    UpdateGaussMySQLInstanceSecurityGroupResponse response =
client.updateGaussMySQLInstanceSecurityGroup(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

修改实例的安全组。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateGaussMySQLInstanceSecurityGroupRequest()
        request.instance_id = "{instance_id}"
        request.body = ModifySecurityGroupRequest(
```

```
        security_group_id="054f55b5-946e-4761-a1e3-3be6892827c1"
    )
    response = client.update_gauss_my_sql_instance_security_group(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

修改实例的安全组。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateGaussMySqlInstanceSecurityGroupRequest{}
    request.InstanceId = "{instance_id}"
    request.Body = &model.ModifySecurityGroupRequest{
        SecurityGroupId: "054f55b5-946e-4761-a1e3-3be6892827c1",
    }
    response, err := client.UpdateGaussMySqlInstanceSecurityGroup(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.3.22 修改内网地址

#### 功能介绍

修改实例内网地址。

#### 调用方法

请参见[如何调用API](#)。

#### URI

PUT /v3/{project\_id}/instances/{instance\_id}/internal-ip

表 4-150 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。



## 请求参数

表 4-151 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-152 请求 Body 参数

参数	是否必选	参数类型	描述
internal_ip	是	String	内网IP地址。

## 响应参数

状态码： 200

表 4-153 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 4-154 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-155 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

修改实例的内网地址。

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/096c0fc43e804757b59946b80dc27f8bin07/internal-ip
{
  "internal_ip" : "192.168.0.213"
}
```

## 响应示例

状态码： 200

Success.

```
{
  "job_id" : "e0fbffc8-1ac4-4721-b9e9-7dd685c5bdd7"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

修改实例的内网地址。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateGaussMySQLInstanceInternalIpSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";
```

```
ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
UpdateGaussMySqlInstanceInternalIpRequest request = new
UpdateGaussMySqlInstanceInternalIpRequest();
request.withInstanceId("{instance_id}");
ModifyInternalIpRequest body = new ModifyInternalIpRequest();
body.withInternalIp("192.168.0.213");
request.withBody(body);
try {
    UpdateGaussMySqlInstanceInternalIpResponse response =
client.updateGaussMySqlInstanceInternalIp(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

修改实例的内网地址。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateGaussMySqlInstanceInternalIpRequest()
        request.instance_id = "{instance_id}"
        request.body = ModifyInternalIpRequest(
            internal_ip="192.168.0.213"
        )
        response = client.update_gauss_my_sql_instance_internal_ip(request)
```

```
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

修改实例的内网地址。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateGaussMySQLInstanceInternalIpRequest{}
    request.InstanceId = "{instance_id}"
    request.Body = &model.ModifyInternalIpRequest{
        InternalIp: "192.168.0.213",
    }
    response, err := client.UpdateGaussMySQLInstanceInternalIp(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.3.23 修改实例端口

#### 功能介绍

修改实例数据库端口。

#### 调用方法

请参见[如何调用API](#)。

#### URI

PUT /v3/{project\_id}/instances/{instance\_id}/port

表 4-156 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-157 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-158 请求 Body 参数

参数	是否必选	参数类型	描述
port	是	Integer	端口号。 TaurusDB端口号范围：大于等于1024，小于等于65535，不包含端口5342-5345、12017、20000、20201、20202、33062、33071。

## 响应参数

状态码：200

表 4-159 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码：400

表 4-160 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。

参数	参数类型	描述
error_msg	String	错误消息。

状态码： 500

表 4-161 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

修改实例端口为8836。

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/  
096c0fc43e804757b59946b80dc27f8bin07/port
```

```
{  
  "port" : 8836  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "job_id" : "e0fbffc8-1ac4-4721-b9e9-7dd685c5bdd7"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

修改实例端口为8836。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class UpdateGaussMySQLInstancePortSolution {
```

```
public static void main(String[] args) {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running
    // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    String ak = System.getenv("CLOUD_SDK_AK");
    String sk = System.getenv("CLOUD_SDK_SK");
    String projectId = "{project_id}";

    ICredential auth = new BasicCredentials()
        .withProjectId(projectId)
        .withAk(ak)
        .withSk(sk);

    GaussDBClient client = GaussDBClient.newBuilder()
        .withCredential(auth)
        .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
        .build();
    UpdateGaussMySQLInstancePortRequest request = new UpdateGaussMySQLInstancePortRequest();
    request.withInstanceId("{instance_id}");
    ModifyPortRequest body = new ModifyPortRequest();
    body.withPort(8836);
    request.withBody(body);
    try {
        UpdateGaussMySQLInstancePortResponse response = client.updateGaussMySQLInstancePort(request);
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
```

## Python

修改实例端口为8836。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
```



```
.build()

try:
    request = UpdateGaussMySQLInstancePortRequest()
    request.instance_id = "{instance_id}"
    request.body = ModifyPortRequest(
        port=8836
    )
    response = client.update_gauss_my_sql_instance_port(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

修改实例端口为8836。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateGaussMySQLInstancePortRequest{}
    request.InstanceId = "{instance_id}"
    request.Body = &model.ModifyPortRequest{
        Port: int32(8836),
    }
    response, err := client.UpdateGaussMySQLInstancePort(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.3.24 修改实例备注

#### 功能介绍

修改实例备注。

#### 调用方法

请参见[如何调用API](#)。

#### URI

PUT /v3/{project\_id}/instances/{instance\_id}/alias

表 4-162 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-163 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-164 请求 Body 参数

参数	是否必选	参数类型	描述
alias	是	String	实例备注。 长度可在0~64个字符之间，由字母、数字、汉字、英文句号、下划线、中划线组成。

## 响应参数

状态码：400

表 4-165 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码：500

表 4-166 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。

参数	参数类型	描述
error_msg	String	错误消息。

## 请求示例

将实例备注修改为“Test\_alias”。

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/  
096c0fc43e804757b59946b80dc27f8bin07/alias
```

```
{  
  "alias": "Test_alias"  
}
```

## 响应示例

**状态码： 200**

Success.

```
{ }
```

## SDK 代码示例

SDK代码示例如下。

### Java

将实例备注修改为“Test\_alias”。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class UpdateGaussMySQLInstanceAliasSolution {  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()
```

```
        .withCredential(auth)
        .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
        .build();
UpdateGaussMySQLInstanceAliasRequest request = new UpdateGaussMySQLInstanceAliasRequest();
request.withInstanceld("{instance_id}");
ModifyAliasRequest body = new ModifyAliasRequest();
body.withAlias("Test_alias");
request.withBody(body);
try {
    UpdateGaussMySQLInstanceAliasResponse response =
client.updateGaussMySQLInstanceAlias(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

将实例备注修改为“Test\_alias”。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateGaussMySQLInstanceAliasRequest()
        request.instance_id = "{instance_id}"
        request.body = ModifyAliasRequest(
            alias="Test_alias"
        )
        response = client.update_gauss_my_sql_instance_alias(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

将实例备注修改为“Test\_alias”。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateGaussMySQLInstanceAliasRequest{}
    request.InstanceId = "{instance_id}"
    request.Body = &model.ModifyAliasRequest{
        Alias: "Test_alias",
    }
    response, err := client.UpdateGaussMySQLInstanceAlias(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.3.25 申请内网域名

### 功能介绍

申请内网域名。

### 接口约束

该接口目前公测阶段，如需使用，请提交工单联系客服人员申请权限。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/instances/{instance\_id}/dns

表 4-167 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

### 请求参数

表 4-168 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-169 请求 Body 参数

参数	是否必选	参数类型	描述
dns_type	是	String	域名类型，当前只支持 private。

## 响应参数

状态码： 200

表 4-170 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 4-171 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-172 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

申请内网域名。

```
POST https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/  
af315b8e6aaa41799bd9a31f2de15abcin07/dns  
{
```



```
"dns_type" : "private"  
}
```

## 响应示例

**状态码： 200**

Success.

```
{  
  "job_id" : "d5169969-e391-482a-9755-042b2d83ed17"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

申请内网域名。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class CreateGaussMysqlDnsSolution {  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        CreateGaussMysqlDnsRequest request = new CreateGaussMysqlDnsRequest();  
        request.withInstanceId("{instance_id}");  
        CreateDnsNameReq body = new CreateDnsNameReq();  
        body.withDnsType("private");  
        request.withBody(body);  
        try {  
            CreateGaussMysqlDnsResponse response = client.createGaussMysqlDns(request);  
            System.out.println(response.toString());  
        } catch (ConnectionException e) {  
            e.printStackTrace();  
        } catch (RequestTimeoutException e) {  
            e.printStackTrace();  
        }  
    }  
}
```

```
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

申请内网域名。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateGaussMysqlDnsRequest()
        request.instance_id = "{instance_id}"
        request.body = CreateDnsNameReq(
            dns_type="private"
        )
        response = client.create_gauss_mysql_dns(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

申请内网域名。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
```

```
// The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
// In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")
projectId := "{project_id}"

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    WithProjectId(projectId).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.CreateGaussMysqlDnsRequest{}
request.InstanceId = "{instance_id}"
request.Body = &model.CreateDnsNameReq{
    DnsType: "private",
}
response, err := client.CreateGaussMysqlDns(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.3.26 修改内网域名

#### 功能介绍

修改内网域名。

## 调用方法

请参见[如何调用API](#)。

## URI

PUT /v3/{project\_id}/instances/{instance\_id}/dns

表 4-173 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-174 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-175 请求 Body 参数

参数	是否必选	参数类型	描述
dns_name	是	String	新域名的前缀，取值范围如下： 8~63个字符之间，可以包含小写字母、数字，不能包含其他特殊字符。

## 响应参数

状态码： 200

表 4-176 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 4-177 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-178 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

修改内网域名

```
PUT https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/  
af315b8e6aaa41799bd9a31f2de15abcin07/dns  
  
{  
  "dns_name": "testmodifydnsname"  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "job_id": "d5169969-e391-482a-9755-042b2d83ed17"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

#### 修改内网域名

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ModifyGaussMysqlDnsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ModifyGaussMysqlDnsRequest request = new ModifyGaussMysqlDnsRequest();
        request.withInstanceId("{instance_id}");
        ModifyDnsNameReq body = new ModifyDnsNameReq();
        body.withDnsName("testmodifydnsname");
        request.withBody(body);
        try {
            ModifyGaussMysqlDnsResponse response = client.modifyGaussMysqlDns(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

### Python

#### 修改内网域名

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ModifyGaussMysqlDnsRequest()
        request.instance_id = "{instance_id}"
        request.body = ModifyDnsNameReq(
            dns_name="testmodifydnsname"
        )
        response = client.modify_gauss_mysql_dns(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

### 修改内网域名

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()
```

```
client := gaussdb.NewGaussDBClient(  
    gaussdb.GaussDBClientBuilder().  
        WithRegion(region.ValueOf("<YOUR REGION>")).  
        WithCredential(auth).  
        Build())  
  
request := &model.ModifyGaussMysqlDnsRequest{  
    request.InstanceId = "{instance_id}"  
    request.Body = &model.ModifyDnsNameReq{  
        DnsName: "testmodifydnsname",  
    }  
}  
response, err := client.ModifyGaussMysqlDns(request)  
if err == nil {  
    fmt.Printf("%+v\n", response)  
} else {  
    fmt.Println(err)  
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.3.27 查询内核版本信息

#### 功能介绍

查询内核版本信息。

#### 调用方法

请参见[如何调用API](#)。

#### URI

GET /v3/{project\_id}/instances/{instance\_id}/database-version



表 4-179 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-180 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"> <li>en-us</li> <li>zh-cn</li> </ul>

## 响应参数

状态码： 200

表 4-181 响应 Body 参数

参数	参数类型	描述
datastore	<a href="#">InstanceDatabaseVersionInfo</a> object	数据库版本信息。
upgrade_flag	Boolean	是否可升级。 <ul style="list-style-type: none"> <li>true：是。</li> <li>false：否。</li> </ul>

表 4-182 InstanceDatabaseVersionInfo

参数	参数类型	描述
current_version	String	当前数据库版本。
current_kernel_version	String	当前数据库内核版本。
latest_version	String	最新数据库版本。
latest_kernel_version	String	最新数据库内核版本。

状态码： 400

表 4-183 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-184 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询内核版本信息。

```
GET https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/  
61a4ea66210545909d74a05c27a7179ein07/database-version
```

## 响应示例

状态码： 200

Success.

```
{  
  "datastore": {  
    "current_version": "8.0.22",  
    "current_kernel_version": "2.0.28.15",  
    "latest_version": "8.0.22",  
    "latest_kernel_version": "2.0.42.230600"  
  }  
}
```

```
},  
"upgrade_flag" : true  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ShowInstanceDatabaseVersionSolution {  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        ShowInstanceDatabaseVersionRequest request = new ShowInstanceDatabaseVersionRequest();  
        request.withInstanceId("{instance_id}");  
        try {  
            ShowInstanceDatabaseVersionResponse response = client.showInstanceDatabaseVersion(request);  
            System.out.println(response.toString());  
        } catch (ConnectionException e) {  
            e.printStackTrace();  
        } catch (RequestTimeoutException e) {  
            e.printStackTrace();  
        } catch (ServiceResponseException e) {  
            e.printStackTrace();  
            System.out.println(e.getStatusCode());  
            System.out.println(e.getRequestId());  
            System.out.println(e.getErrorCode());  
            System.out.println(e.getErrorMsg());  
        }  
    }  
}
```

### Python

```
# coding: utf-8  
import os
```

```
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowInstanceDatabaseVersionRequest()
        request.instance_id = "{instance_id}"
        response = client.show_instance_database_version(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowInstanceDatabaseVersionRequest{}
    request.InstanceId = "{instance_id}"
```

```
response, err := client.ShowInstanceDatabaseVersion(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.3.28 设置自动变配

### 功能介绍

设置自动变配。

### 接口约束

该接口目前公测阶段，如需使用，请提交工单联系客服人员申请权限。

### 调用方法

请参见[如何调用API](#)。

### URI

PUT /v3/{project\_id}/instances/{instance\_id}/auto-scaling/policy

表 4-185 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

参数	是否必选	参数类型	描述
instance_id	是	String	实例ID, 严格匹配UUID规则。

## 请求参数

表 4-186 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
Content-Type	是	String	内容类型。 取值: application/json。
X-Language	否	String	请求语言类型。默认en-us。 取值范围: <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-187 请求 Body 参数

参数	是否必选	参数类型	描述
status	是	String	自动变配开关状态。 取值: <ul style="list-style-type: none"><li>ON: 开启。</li><li>OFF: 关闭。</li></ul>
scaling_strategy	是	<a href="#">ScalingStrategyReqInfo</a> object	自动变配策略。
monitor_cycle	否	Integer	监测周期 (单位: 秒)。 在整个观测窗口期内, 若CPU平均使用率大于等于设定值, 则在观测窗口结束后, 进行扩容。 取值范围: 300、600、900、1800。 status为ON时必填。

参数	是否必选	参数类型	描述
silence_cycle	否	Integer	静默周期（单位：秒）。 两次自动扩容或自动回缩的最小间隔时间。 取值范围：300、600、1800、3600、7200、10800、86400、604800。 status为ON时必填。
enlarge_thres hold	否	Integer	CPU平均使用率（百分比数值）。 取值范围：50-100。 status为ON时必填。
max_flavor	否	String	扩容规格上限。开启扩缩规格时必填。
reduce_enable d	否	Boolean	是否开启自动回缩。开启自动变配时必填。 <ul style="list-style-type: none"><li>• true: 是。</li><li>• false: 否。</li></ul>
max_read_onl y_count	否	Integer	只读节点数量上限。开启增删只读节点时必填。
read_only_wei ght	否	Integer	只读节点读写分离权重。开启增删只读节点时必填。

表 4-188 ScalingStrategyReqInfo

参数	是否必选	参数类型	描述
flavor_switch	是	String	扩缩规格开关。 <ul style="list-style-type: none"><li>• ON: 开启。</li><li>• OFF: 关闭。</li></ul>
read_only_swi tch	是	String	增删只读节点开关。自动增删只读节点功能需要先 <a href="#">开启数据库代理</a> ，且只能有一个代理。 <ul style="list-style-type: none"><li>• ON: 开启。</li><li>• OFF: 关闭。</li></ul>

## 响应参数

状态码：200

表 4-189 响应 Body 参数

参数	参数类型	描述
instance_id	String	实例ID。
instance_name	String	实例名称。
switch_status	<a href="#">AutoScalingSwitchStatus</a> object	开关状态。

表 4-190 AutoScalingSwitchStatus

参数	参数类型	描述
scaling_switch	String	自动变配开关状态。 取值： <ul style="list-style-type: none"> <li>ON: 开启。</li> <li>OFF: 关闭。</li> </ul>
flavor_switch	String	扩缩规格开关状态。 取值： <ul style="list-style-type: none"> <li>ON: 开启。</li> <li>OFF: 关闭。</li> </ul>
read_only_switch	String	增删只读节点开关状态。 取值： <ul style="list-style-type: none"> <li>ON: 开启。</li> <li>OFF: 关闭。</li> </ul>

状态码： 400

表 4-191 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500



表 4-192 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

设置自动变配。

```
PUT https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/  
61a4ea66210545909d74a05c27a7179ein07/auto-scaling/policy
```

```
{  
  "enlarge_threshold": 50,  
  "max_flavor": "gaussdb.mysql.large.x86.4",  
  "max_read_only_count": 2,  
  "monitor_cycle": 300,  
  "read_only_weight": 10,  
  "reduce_enabled": false,  
  "scaling_strategy": {  
    "flavor_switch": "ON",  
    "read_only_switch": "ON"  
  },  
  "silence_cycle": 300,  
  "status": "ON"  
}
```

## 响应示例

状态码: 200

Success.

```
{  
  "instance_id": "61a4ea66210545909d74a05c27a7179ein07",  
  "instance_name": "gauss-test-1",  
  "switch_status": {  
    "scaling_switch": "ON",  
    "flavor_switch": "ON",  
    "read_only_switch": "ON"  
  }  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

设置自动变配。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
```

```
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateAutoScalingPolicySolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        UpdateAutoScalingPolicyRequest request = new UpdateAutoScalingPolicyRequest();
        request.withInstanceId("{instance_id}");
        UpdateAutoScalingPolicyRequestBody body = new UpdateAutoScalingPolicyRequestBody();
        ScalingStrategyReqInfo scalingStrategybody = new ScalingStrategyReqInfo();
        scalingStrategybody.withFlavorSwitch("ON")
            .withReadOnlySwitch("ON");
        body.withScalingStrategy(scalingStrategybody);
        body.withReadOnlyWeight(10);
        body.withMaxReadOnlyCount(2);
        body.withReduceEnabled(false);
        body.withMaxFlavor("gaussdb.mysql.large.x86.4");
        body.withEnlargeThreshold(50);
        body.withSilenceCycle(300);
        body.withMonitorCycle(300);
        body.withStatus("ON");
        request.withBody(body);
        try {
            UpdateAutoScalingPolicyResponse response = client.updateAutoScalingPolicy(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

设置自动变配。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
```

```
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateAutoScalingPolicyRequest()
        request.instance_id = "{instance_id}"
        scalingStrategybody = ScalingStrategyReqInfo(
            flavor_switch="ON",
            read_only_switch="ON"
        )
        request.body = UpdateAutoScalingPolicyRequestBody(
            scaling_strategy=scalingStrategybody,
            read_only_weight=10,
            max_read_only_count=2,
            reduce_enabled=False,
            max_flavor="gaussdb.mysql.large.x86.4",
            enlarge_threshold=50,
            silence_cycle=300,
            monitor_cycle=300,
            status="ON"
        )
        response = client.update_auto_scaling_policy(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

设置自动变配。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"
```

```
auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    WithProjectId(projectId).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.UpdateAutoScalingPolicyRequest{}
request.InstanceId = "{instance_id}"
scalingStrategybody := &model.ScalingStrategyReqInfo{
    FlavorSwitch: "ON",
    ReadOnlySwitch: "ON",
}
readOnlyWeightUpdateAutoScalingPolicyRequestBody:= int32(10)
maxReadOnlyCountUpdateAutoScalingPolicyRequestBody:= int32(2)
reduceEnabledUpdateAutoScalingPolicyRequestBody:= false
maxFlavorUpdateAutoScalingPolicyRequestBody:= "gaussdb.mysql.large.x86.4"
enlargeThresholdUpdateAutoScalingPolicyRequestBody:= int32(50)
silenceCycleUpdateAutoScalingPolicyRequestBody:= int32(300)
monitorCycleUpdateAutoScalingPolicyRequestBody:= int32(300)
request.Body = &model.UpdateAutoScalingPolicyRequestBody{
    ScalingStrategy: scalingStrategybody,
    ReadOnlyWeight: &readOnlyWeightUpdateAutoScalingPolicyRequestBody,
    MaxReadOnlyCount: &maxReadOnlyCountUpdateAutoScalingPolicyRequestBody,
    ReduceEnabled: &reduceEnabledUpdateAutoScalingPolicyRequestBody,
    MaxFlavor: &maxFlavorUpdateAutoScalingPolicyRequestBody,
    EnlargeThreshold: &enlargeThresholdUpdateAutoScalingPolicyRequestBody,
    SilenceCycle: &silenceCycleUpdateAutoScalingPolicyRequestBody,
    MonitorCycle: &monitorCycleUpdateAutoScalingPolicyRequestBody,
    Status: "ON",
}
response, err := client.UpdateAutoScalingPolicy(request)
if err == nil {
    fmt.Printf("%v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.3.29 查询自动变配

### 功能介绍

查询自动变配。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/instances/{instance\_id}/auto-scaling/policy

表 4-193 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	<b>参数解释：</b> 租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。 <b>约束限制：</b> 不涉及。 <b>取值范围：</b> 只能由英文字母、数字组成，且长度为32个字符。 <b>默认值：</b> 不涉及。
instance_id	是	String	<b>参数解释：</b> 实例ID，此参数是实例的唯一标识。 <b>约束限制：</b> 不涉及。 <b>取值范围：</b> 只能由英文字母、数字组成，后缀为in07，长度为36个字符。 <b>默认取值：</b> 不涉及。

## 请求参数

表 4-194 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	<b>参数解释：</b> 用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 <b>约束限制：</b> 不涉及。 <b>取值范围：</b> 不涉及。 <b>默认值：</b> 不涉及。
Content-Type	是	String	<b>参数解释：</b> 内容类型。 <b>约束限制：</b> 不涉及。 <b>取值范围：</b> application/json。 <b>默认值：</b> 不涉及。
X-Language	否	String	<b>参数解释：</b> 请求语言类型。 <b>约束限制：</b> 不涉及。 <b>取值范围：</b> <ul style="list-style-type: none"><li>• en-us</li><li>• zh-cn</li></ul> <b>默认值：</b> en-us。

## 响应参数

状态码： 200

表 4-195 响应 Body 参数

参数	参数类型	描述
id	String	<b>参数解释:</b> 自动变配策略ID。 <b>取值范围:</b> 不涉及。
instance_id	String	<b>参数解释:</b> 实例ID。 <b>取值范围:</b> 只能由英文字母、数字组成, 后缀为in07, 长度为36个字符。
instance_name	String	<b>参数解释:</b> 实例名称。 <b>取值范围:</b> 最小为4个字符, 最大为64个字符且不超过64个字节(注意: 一个中文字符占用3个字节), 必须以字母或中文开头, 区分大小写, 可以包含字母、数字、中划线、下划线或中文, 不能包含其他特殊字符。
status	String	<b>参数解释:</b> 自动变配开关状态。 <b>取值范围:</b> <ul style="list-style-type: none"><li>• ON: 已开启。</li><li>• OFF: 已关闭。</li></ul>
monitor_cycle	Integer	<b>参数解释:</b> 监测周期(单位: 秒)。 在整个观测窗口期内, 若CPU平均使用率大于等于设定值, 则在观测窗口结束后, 进行扩容。 <b>取值范围:</b> <ul style="list-style-type: none"><li>• 300</li><li>• 600</li><li>• 900</li><li>• 1800</li></ul>

参数	参数类型	描述
silence_cycle	Integer	<b>参数解释:</b> 静默周期 (单位: 秒)。 两次自动扩容或自动回缩的最小间隔时间。 <b>取值范围:</b> <ul style="list-style-type: none"><li>• 300</li><li>• 600</li><li>• 1800</li><li>• 3600</li><li>• 7200</li><li>• 10800</li><li>• 86400</li><li>• 604800</li></ul>
enlarge_threshold	Integer	<b>参数解释:</b> 扩容阈值 (百分比数值), 指CPU平均使用率。 <b>取值范围:</b> 50-100
max_flavor	String	<b>参数解释:</b> 扩容规格上限。 <b>取值范围:</b> 当前局点该实例能规格变更的上限。
reduce_enabled	Boolean	<b>参数解释:</b> 自动回缩开关状态。 <b>取值范围:</b> <ul style="list-style-type: none"><li>• true: 已开启</li><li>• false: 已关闭</li></ul>
min_flavor	String	<b>参数解释:</b> 缩容规格下限。 <b>取值范围:</b> 当前局点该实例能规格变更的下限。



参数	参数类型	描述
silence_start_at	String	<p><b>参数解释:</b> 静默期开始时间（上一次变更结束时间）。</p> <p>格式为"yyyy-mm-ddThh:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如北京时间偏移显示为+0800。</p> <p><b>取值范围:</b> 不涉及。</p>
scaling_strategy	<a href="#">ScalingStrategyInfo</a> object	<p><b>参数解释:</b> 自动变配策略。</p>
max_read_only_count	Integer	<p><b>参数解释:</b> 只读节点数量上限。</p> <p><b>取值范围:</b> 2≤当前备节点数&lt;设定值≤15</p>
min_read_only_count	Integer	<p><b>参数解释:</b> 只读节点数量下限。</p> <p><b>取值范围:</b> 1-14</p>
read_only_weight	Integer	<p><b>参数解释:</b> 只读节点读写分离权重。</p> <p><b>取值范围:</b> 0-1000</p>

表 4-196 ScalingStrategyInfo

参数	参数类型	描述
flavor_switch	String	<p><b>参数解释:</b> 扩缩规格开关。</p> <p><b>取值范围:</b></p> <ul style="list-style-type: none"> <li>ON: 开启。</li> <li>OFF: 关闭。</li> </ul>
read_only_switch	String	<p><b>参数解释:</b> 增删只读节点开关。</p> <p><b>取值范围:</b></p> <ul style="list-style-type: none"> <li>ON: 开启。</li> <li>OFF: 关闭。</li> </ul>

状态码： 400

表 4-197 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-198 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询自动变配。

```
GET https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/  
61a4ea66210545909d74a05c27a7179ein07/auto-scaling/policy
```

## 响应示例

状态码： 200

Success.

- 自动变配开启时查询自动变配。

```
{  
  "id": "26d8e193-1ea0-4adb-89d0-d1343399d0e7",  
  "instance_id": "41ff7519e22d44eea6066615fa5b17c7in07",  
  "instance_name": "gauss-test-1",  
  "status": "ON",  
  "monitor_cycle": 300,  
  "silence_cycle": 300,  
  "enlarge_threshold": 50,  
  "max_flavor": "gaussdb.mysql.large.x86.4",  
  "reduce_enabled": false,  
  "min_flavor": "gaussdb.mysql.medium.x86.4",  
  "silence_start_at": "2023-08-31T08:59:09+0000",  
  "scaling_strategy": {  
    "flavor_switch": "ON",  
    "read_only_switch": "ON"  
  },  
  "max_read_only_count": 2,  
  "min_read_only_count": 1,  
  "read_only_weight": 10  
}
```

- 自动变配关闭时查询自动变配。

```
{  
  "id": null,  
}
```

```
"instance_id" : "41ff7519e22d44eea6066615fa5b17c7in07",
"instance_name" : "gauss-test-1",
"status" : "OFF",
"monitor_cycle" : null,
"silence_cycle" : null,
"enlarge_threshold" : null,
"max_flavor" : null,
"reduce_enabled" : null,
"min_flavor" : null,
"silence_start_at" : "",
"scaling_strategy" : {
  "flavor_switch" : "",
  "read_only_switch" : ""
},
"max_read_only_count" : null,
"min_read_only_count" : null,
"read_only_weight" : null
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowAutoScalingPolicySolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ShowAutoScalingPolicyRequest request = new ShowAutoScalingPolicyRequest();
        request.withInstanceId("{instance_id}");
        try {
            ShowAutoScalingPolicyResponse response = client.showAutoScalingPolicy(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
        }
    }
}
```

```
e.printStackTrace();
System.out.println(e.getStatusCode());
System.out.println(e.getRequestId());
System.out.println(e.getErrorCode());
System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowAutoScalingPolicyRequest()
        request.instance_id = "{instance_id}"
        response = client.show_auto_scaling_policy(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"
```

```
auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    WithProjectId(projectId).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.ShowAutoScalingPolicyRequest{
    request.InstanceId = "{instance_id}"
}
response, err := client.ShowAutoScalingPolicy(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.3.30 资源预校验

#### 功能介绍

资源预校验。

#### 调用方法

请参见[如何调用API](#)。

#### URI

POST /v3/{project\_id}/resource-check

表 4-199 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

## 请求参数

表 4-200 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
Content-Type	是	String	内容类型。 取值: application/json。
X-Language	否	String	请求语言类型。默认en-us。 取值范围: <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-201 请求 Body 参数

参数	是否必选	参数类型	描述
action	是	String	校验类型。 <ul style="list-style-type: none"><li>createInstance: 校验创建实例。</li><li>createReadOnlyNode: 校验创建只读节点。</li><li>resizeFlavor: 校验规格变更。</li></ul>
resource	是	<a href="#">CheckResourceInfo</a> object	资源信息。

表 4-202 CheckResourceInfo

参数	是否必选	参数类型	描述
enterprise_project_id	否	String	企业项目ID。action为createInstance时必填。
instance_num	否	Integer	实例数量。action为createInstance时必填。
mode	否	String	实例类型，目前仅支持Cluster。action为createInstance时必填。
availability_zone_mode	否	String	可用区类型，单可用区single或多可用区multi。action为createInstance时必填。
node_num	否	Integer	节点数量。action为createInstance、createReadOnlyNode时必填。
flavor_ref	否	String	规格码。action为createInstance、resizeFlavor时必填。
availability_zone	否	String	可用区码。
subnet_id	否	String	子网ID。action为createInstance时必填。
instance_id	否	String	实例ID。action为createReadOnlyNode、resizeFlavor时必填。

## 响应参数

状态码： 200

表 4-203 响应 Body 参数

参数	参数类型	描述
result	Boolean	结果。 <ul style="list-style-type: none"><li>• true：表示通过。</li><li>• false：表示不通过。</li></ul>

状态码： 400

表 4-204 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-205 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

- 创建实例资源预校验。

```
POST https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/resource-check
```

```
{
  "action": "createInstance",
  "resource": {
    "enterprise_project_id": 0,
    "instance_num": 1,
    "mode": "Cluster",
    "availability_zone_mode": "single",
    "node_num": 2,
    "flavor_ref": "gaussdb.mysql.xlarge.x86.4",
    "availability_zone": "cn-southwest-244b",
    "subnet_id": "1e9f71dd-9192-4c0d-9739-161d8dcca68c"
  }
}
```

- 添加只读资源预校验。

```
POST https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/resource-check
```

```
{
  "action": "createReadOnlyNode",
  "resource": {
    "instance_id": "376e0847a2224e95afcd3e607eccd544in07",
    "node_num": 1
  }
}
```

- 规格变更资源预校验。

```
POST https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/resource-check
```

```
{
  "action": "resizeFlavor",
  "resource": {
    "instance_id": "376e0847a2224e95afcd3e607eccd544in07",
    "flavor_ref": "gaussdb.mysql.xlarge.x86.4"
  }
}
```



## 响应示例

状态码: 200

Success.

```
{  
  "result" : true  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

- 创建实例资源预校验。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class CheckResourceSolution {  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before  
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local  
        // environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        CheckResourceRequest request = new CheckResourceRequest();  
        CheckResourceRequestBody body = new CheckResourceRequestBody();  
        CheckResourceInfo resourcebody = new CheckResourceInfo();  
        resourcebody.withEnterpriseProjectId("0")  
            .withInstanceNum(1)  
            .withMode("Cluster")  
            .withAvailabilityZoneMode("single")  
            .withNodeNum(2)  
            .withFlavorRef("gaussdb.mysql.xlarge.x86.4")  
            .withAvailabilityZone("cn-southwest-244b")  
            .withSubnetId("1e9f71dd-9192-4c0d-9739-161d8dcca68c");  
        body.withResource(resourcebody);  
        body.withAction("createInstance");  
        request.withBody(body);  
        try {  
            CheckResourceResponse response = client.checkResource(request);
```

```
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

- 添加只读资源预校验。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class CheckResourceSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        CheckResourceRequest request = new CheckResourceRequest();
        CheckResourceRequestBody body = new CheckResourceRequestBody();
        CheckResourceInfo resourcebody = new CheckResourceInfo();
        resourcebody.withNodeNum(1)
            .withInstanceId("376e0847a2224e95afcd3e607eccd544in07");
        body.withResource(resourcebody);
        body.withAction("createReadOnlyNode");
        request.withBody(body);
        try {
            CheckResourceResponse response = client.checkResource(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
        }
    }
}
```

```
        System.out.println(e.getErrorMsg());
    }
}
}
```

- 规格变更资源预校验。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class CheckResourceSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        CheckResourceRequest request = new CheckResourceRequest();
        CheckResourceRequestBody body = new CheckResourceRequestBody();
        CheckResourceInfo resourcebody = new CheckResourceInfo();
        resourcebody.withFlavorRef("gaussdb.mysql.xlarge.x86.4")
            .withInstanceId("376e0847a2224e95afcd3e607eccd544in07");
        body.withResource(resourcebody);
        body.withAction("resizeFlavor");
        request.withBody(body);
        try {
            CheckResourceResponse response = client.checkResource(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

- 创建实例资源预校验。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CheckResourceRequest()
        resourcebody = CheckResourceInfo(
            enterprise_project_id="0",
            instance_num=1,
            mode="Cluster",
            availability_zone_mode="single",
            node_num=2,
            flavor_ref="gaussdb.mysql.xlarge.x86.4",
            availability_zone="cn-southwest-244b",
            subnet_id="1e9f71dd-9192-4c0d-9739-161d8dcca68c"
        )
        request.body = CheckResourceRequestBody(
            resource=resourcebody,
            action="createInstance"
        )
        response = client.check_resource(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- 添加只读资源预校验。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"
```

```
credentials = BasicCredentials(ak, sk, projectId)

client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = CheckResourceRequest()
    resourcebody = CheckResourceInfo(
        node_num=1,
        instance_id="376e0847a2224e95afcd3e607eccd544in07"
    )
    request.body = CheckResourceRequestBody(
        resource=resourcebody,
        action="createReadOnlyNode"
    )
    response = client.check_resource(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

- 规格变更资源预校验。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CheckResourceRequest()
        resourcebody = CheckResourceInfo(
            flavor_ref="gaussdb.mysql.xlarge.x86.4",
            instance_id="376e0847a2224e95afcd3e607eccd544in07"
        )
        request.body = CheckResourceRequestBody(
            resource=resourcebody,
            action="resizeFlavor"
        )
        response = client.check_resource(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

- 创建实例资源预校验。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/ gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/ gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/ gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CheckResourceRequest{
        enterpriseProjectIdResource:= "0"
        instanceNumResource:= int32(1)
        modeResource:= "Cluster"
        availabilityZoneModeResource:= "single"
        nodeNumResource:= int32(2)
        flavorRefResource:= "gaussdb.mysql.xlarge.x86.4"
        availabilityZoneResource:= "cn-southwest-244b"
        subnetIdResource:= "1e9f71dd-9192-4c0d-9739-161d8dcca68c"
        resourcebody := &model.CheckResourceInfo{
            EnterpriseProjectId: &enterpriseProjectIdResource,
            InstanceNum: &instanceNumResource,
            Mode: &modeResource,
            AvailabilityZoneMode: &availabilityZoneModeResource,
            NodeNum: &nodeNumResource,
            FlavorRef: &flavorRefResource,
            AvailabilityZone: &availabilityZoneResource,
            SubnetId: &subnetIdResource,
        }
    }
    request.Body = &model.CheckResourceRequestBody{
        Resource: resourcebody,
        Action: "createInstance",
    }
    response, err := client.CheckResource(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- 添加只读资源预校验。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CheckResourceRequest{
        nodeNumResource:= int32(1)
        instanceldResource:= "376e0847a2224e95afcd3e607eccd544in07"
        resourcebody := &model.CheckResourceInfo{
            NodeNum: &nodeNumResource,
            Instanceld: &instanceldResource,
        }
        request.Body = &model.CheckResourceRequestBody{
            Resource: resourcebody,
            Action: "createReadOnlyNode",
        }
    }
    response, err := client.CheckResource(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- 规格变更资源预校验。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
```

```
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")
projectId := "{project_id}"

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    WithProjectId(projectId).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.CheckResourceRequest{}
flavorRefResource:= "gaussdb.mysql.xlarge.x86.4"
instanceIdResource:= "376e0847a2224e95afcd3e607eccd544in07"
resourcebody := &model.CheckResourceInfo{
    FlavorRef: &flavorRefResource,
    InstanceId: &instanceIdResource,
}
request.Body = &model.CheckResourceRequestBody{
    Resource: resourcebody,
    Action: "resizeFlavor",
}
response, err := client.CheckResource(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.3.31 查询实例列表

#### 功能介绍

根据指定条件查询实例列表。



## 调用方法

请参见[如何调用API](#)。

## URI

GET /v3.1/{project\_id}/instances

表 4-206 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

表 4-207 Query 参数

参数	是否必选	参数类型	描述
id	否	String	实例ID。“*”为系统保留字符，如果id是以“*”起始，表示按照“*”后面的值模糊匹配，否则，按照id精确匹配查询。不能只传入“*”。
name	否	String	实例名称。 “*”为系统保留字符，如果name是以“*”起始，表示按照“*”后面的值模糊匹配，否则，按照name精确匹配查询。不能只传入“*”。
type	否	String	按照实例类型查询。目前仅支持Cluster。
datastore_type	否	String	数据库类型，现在只支持gaussdb-mysql。
vpc_id	否	String	虚拟私有云ID。
subnet_id	否	String	子网的网络ID信息。
private_ip	否	String	读写内网IP地址。
readonly_private_ip	否	String	读内网IP地址。
proxy_ip	否	String	读写分离IP地址。

参数	是否必选	参数类型	描述
offset	否	Integer	索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。
limit	否	Integer	查询记录数。默认为100，不能为负数，最小值为1，最大值为100。
tags	否	String	根据实例标签键值对进行查询。 <ul style="list-style-type: none"> <li>• {key}表示标签键。</li> <li>• {value}表示标签值。</li> </ul> 如果同时使用多个标签键值对进行查询，中间使用逗号分隔开，表示查询同时包含指定标签键值对的实例。key不能重复，key之间是与的关系。

## 请求参数

表 4-208 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"> <li>• en-us</li> <li>• zh-cn</li> </ul>

## 响应参数

状态码： 200

表 4-209 响应 Body 参数

参数	参数类型	描述
instances	Array of <a href="#">MysqlInstanceListInfoUnifyStatus</a> objects	实例列表信息。
total_count	Integer	总记录数。

表 4-210 MysqlInstanceListInfoUnifyStatus

参数	参数类型	描述
id	String	实例ID, 严格匹配UUID规则。
name	String	创建的实例名称。
status	String	实例状态。 取值： <ul style="list-style-type: none"><li>值为“creating”，表示实例正在创建。</li><li>值为“normal”，表示实例正常。</li><li>值为“abnormal”，表示实例异常。</li><li>值为“createfail”，表示实例创建失败。</li></ul>
private_ips	Array of strings	实例写内网IP地址列表。弹性云服务器创建成功后该值存在，其他情况下为空字符串列表。
proxy_ips	Array of strings	实例读写分离IP地址列表。TaurusDB实例开启代理成功后该值存在，其他情况下为空列表。
readonly_private_ips	Array of strings	实例读内网IP地址列表。弹性云服务器创建成功后该值存在，其他情况下为空列表。
public_ips	Array of strings	实例外网IP地址列表。
port	String	数据库端口号。
type	String	实例类型，取值为“Cluster”。
region	String	实例所在区域。
datastore	<a href="#">MysqlDatastoreWithKernelVersion</a> object	数据库信息。

参数	参数类型	描述
created	String	创建时间，格式为"yyyy-mm-ddThh:mm:ssZ"。 其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。
updated	String	更新时间，格式与"created"字段对应格式完全相同。
db_user_name	String	默认用户名。
vpc_id	String	虚拟私有云ID。
subnet_id	String	子网的网络ID信息。
security_group_id	String	安全组ID。
flavor_ref	String	规格码。
flavor_info	<b>MysqlFlavorInfo</b> object	flavor规格信息。
volume	<b>MysqlVolumeInfo</b> object	存储盘信息。
backup_strategy	<b>MysqlBackupStrategy</b> object	自动备份策略。
enterprise_project_id	String	企业项目ID。
time_zone	String	时区。
charge_info	<b>MysqlChargeInfo</b> object	计费类型信息，支持包年包月和按需，默认为按需。
dedicated_resource_id	String	专属资源池ID，只有数据库实例属于专属资源池才会返回该参数。
tags	Array of <b>InstanceTagItem</b> objects	标签列表。

表 4-211 MysqlDatastoreWithKernelVersion

参数	参数类型	描述
type	String	数据库引擎，现在只支持gaussdb-mysql。
version	String	数据库版本。
kernel_version	String	数据库内核版本。

表 4-212 MysqlFlavorInfo

参数	参数类型	描述
vcpus	String	CPU核数。
ram	String	内存大小，单位GB。

表 4-213 MysqlVolumeInfo

参数	参数类型	描述
type	String	磁盘类型。
size	String	已使用磁盘大小，单位GB。

表 4-214 MysqlBackupStrategy

参数	参数类型	描述
start_time	String	自动备份开始时间段。自动备份将在该时间一个小时内触发。 取值范围：非空，格式必须为hh:mm-HH:MM且有效，当前时间指UTC时间。 1. HH取值必须比hh大1。 2. mm和MM取值必须相同，且取值必须为00。
keep_days	String	自动备份保留天数，取值范围：1-732。

表 4-215 MysqlChargeInfo

参数	参数类型	描述
charge_mode	String	计费模式。 取值范围： <ul style="list-style-type: none"><li>prePaid：预付费，即包年/包月。</li><li>postPaid：后付费，即按需付费。</li></ul>
period_type	String	订购周期类型。 取值范围： <ul style="list-style-type: none"><li>month：包月。</li><li>year：包年。</li></ul> 说明：“charge_mode”为“prePaid”时生效，且为必选值。

参数	参数类型	描述
period_num	Integer	“charge_mode”为“prePaid”时生效，且为必选值，指定订购的时间。 取值范围： <ul style="list-style-type: none"><li>“period_type”为“month”时，取值为1~9。</li><li>“period_type”为“year”时，取值为1~3。</li></ul>
is_auto_renew	String	创建包年/包月实例时可指定，表示是否自动续订，续订的周期和原周期相同，且续订时会自动支付。 <ul style="list-style-type: none"><li>true: 为自动续订。</li><li>false: 为不自动续订，默认该方式。</li></ul>
is_auto_pay	String	创建包年/包月实例时可指定，表示是否自动从客户的账户中支付，此字段不影响自动续订的支付方式。 <ul style="list-style-type: none"><li>true: 为自动支付，默认该方式。</li><li>false: 为手动支付。</li></ul>

表 4-216 InstanceTagItem

参数	参数类型	描述
key	String	标签键。
value	String	标签值。

状态码：400

表 4-217 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码：500

表 4-218 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询TaurusDB实例列表，读写内网IP地址是192.168.0.142。

```
GET https://{endpoint}/v3.1/054e292c9880d4992f02c0196d3ea468/instances?
id=61a4ea66210545909d74a05c27a7179ein07&name=gaussdb-mysql-
instance01&type=Cluster&datastore_type=gaussdb-mysql&vpc_id=3cedfc54-b105-4652-
a4e0-847b11576b58&subnet_id=c1cfa53c-65d3-431e-8552-326bf310c7ad&private_ip=192.168.0.142&offset=
0&limit=10&tags=taurusKey1=value1
```

## 响应示例

状态码： 200

Success.

```
{
  "total_count": 1,
  "instances": [ {
    "id": "61a4ea66210545909d74a05c27a7179ein07",
    "name": "gaussdb-mysql-instance01",
    "status": "normal",
    "port": 3306,
    "type": "Cluster",
    "private_ips": [ "192.168.0.142" ],
    "readonly_private_ips": [ "192.168.0.228", "192.168.0.165" ],
    "proxy_ips": [ "192.168.0.15" ],
    "db_user_name": "root",
    "region": "cn-north-4",
    "datastore": {
      "type": "gaussdb-mysql",
      "version": "8.0",
      "kernel_version": "2.0.29.1"
    },
    "created": "2018-08-20T02:33:49_0800",
    "updated": "2018-08-20T02:33:49_0800",
    "volume": {
      "type": "POOL",
      "size": 100
    },
    "vpc_id": "3cedfc54-b105-4652-a4e0-847b11576b58",
    "subnet_id": "c1cfa53c-65d3-431e-8552-326bf310c7ad",
    "security_group_id": "fc577a1a-f202-424a-977f-24faec3fdd55",
    "flavor_ref": "gaussdb.mysql.c3.small.4",
    "flavor_info": {
      "vcpus": 8,
      "ram": 16
    },
    "backup_strategy": {
      "start_time": "19:00-20:00",
      "keep_days": 7
    },
    "charge_info": {
      "charge_mode": "postPaid"
    },
    "enterprise_project_id": 0,
```

```
"time_zone": "UTC",
"tags": [{
  "key": "taurusKey1",
  "value": "value1"
}]
}]
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListGaussMySQLInstancesUnifyStatusSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ListGaussMySQLInstancesUnifyStatusRequest request = new
        ListGaussMySQLInstancesUnifyStatusRequest();
        try {
            ListGaussMySQLInstancesUnifyStatusResponse response =
            client.listGaussMySQLInstancesUnifyStatus(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```



## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListGaussMySQLInstancesUnifyStatusRequest()
        response = client.list_gauss_my_sql_instances_unify_status(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
```

```
Build()  
  
request := &model.ListGaussMySQLInstancesUnifyStatusRequest{}  
response, err := client.ListGaussMySQLInstancesUnifyStatus(request)  
if err == nil {  
    fmt.Printf("%+v\n", response)  
} else {  
    fmt.Println(err)  
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.3.32 查询实例详情信息

### 功能介绍

查询实例详情信息。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3.1/{project\_id}/instances/{instance\_id}

表 4-219 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-220 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-221 响应 Body 参数

参数	参数类型	描述
instance	<a href="#">MysqlInstanceInfoDetailUnifyStatus</a> object	实例信息。

表 4-222 MysqlInstanceInfoDetailUnifyStatus

参数	参数类型	描述
id	String	实例ID，严格匹配UUID规则。
name	String	创建的实例名称。
project_id	String	租户在某一Region下的project ID。

参数	参数类型	描述
status	String	实例状态。 取值： <ul style="list-style-type: none"><li>值为“creating”，表示实例正在创建。</li><li>值为“normal”，表示实例正常。</li><li>值为“abnormal”，表示实例异常。</li><li>值为“createfail”，表示实例创建失败。</li></ul>
port	String	数据库端口号。
alias	String	实例备注
type	String	实例类型，取值为“Cluster”。
charge_info	<a href="#">MysqlInstanceChargeInfo</a> object	计费类型信息，支持包年包月和按需，默认为按需。
node_count	Integer	节点个数。
datastore	<a href="#">MysqlDatastoreWithKernelVersion</a> object	数据库信息。
backup_used_space	Double	备份空间使用大小，单位为GB。
created	String	创建时间，格式为“yyyy-mm-ddThh:mm:ssZ”。 其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。
updated	String	更新时间，格式与“created”字段对应格式完全相同。
private_write_ips	Array of strings	实例的写内网IP地址。
private_dns_names	Array of strings	实例内网域名列表。实例创建成功后，需要手动申请内网域名，否则查询内网域名为空。
public_ips	String	实例的公网IP地址。
db_user_name	String	默认用户名。
vpc_id	String	虚拟私有云ID。
subnet_id	String	子网的网络ID信息。
security_group_id	String	安全组ID。
configuration_id	String	实例创建的模板ID，或者应用到实例的最新参数组模板ID。

参数	参数类型	描述
backup_strategy	<a href="#">MysqlBackupStrategy</a> object	自动备份策略。
nodes	Array of <a href="#">MysqlInstanceNodeInfo</a> objects	节点信息。
enterprise_project_id	String	企业项目ID。
time_zone	String	时区。
az_mode	String	可用区模式。 取值范围： <ul style="list-style-type: none"><li>• single: 单可用区。</li><li>• multi: 多可用区。</li></ul>
master_az_code	String	主可用区。
maintenance_window	String	可维护时间窗，为UTC时间。
tags	Array of <a href="#">MysqlTags</a> objects	实例标签。
dedicated_resource_id	String	专属资源池ID，只有数据库实例属于专属资源池才会返回该参数。
proxies	Array of <a href="#">MysqlProxyInfo</a> objects	代理信息。
tde_info	<a href="#">MysqlTdeInfo</a> object	透明数据加密配置信息，支持AES256、SM4加密算法。 透明加密功能目前处于公测阶段，如需使用，请提交工单联系客服人员申请权限。

表 4-223 MysqlInstanceChargeInfo

参数	参数类型	描述
charge_mode	String	计费模式。
order_id	String	订单号。仅包年包月返回。

表 4-224 MysqlDatastoreWithKernelVersion

参数	参数类型	描述
type	String	数据库引擎，现在只支持gaussdb-mysql。
version	String	数据库版本。
kernel_version	String	数据库内核版本。

表 4-225 MysqlBackupStrategy

参数	参数类型	描述
start_time	String	自动备份开始时间段。自动备份将在该时间一个小时内触发。 取值范围：非空，格式必须为hh:mm-HH:MM且有效，当前时间指UTC时间。 1. HH取值必须比hh大1。 2. mm和MM取值必须相同，且取值必须为00。
keep_days	String	自动备份保留天数，取值范围：1-732。

表 4-226 MysqlInstanceNodeInfo

参数	参数类型	描述
id	String	实例ID，严格匹配UUID规则。
name	String	节点名称。
type	String	节点类型。 取值范围： <ul style="list-style-type: none"><li>• master：主节点。</li><li>• slave：只读节点。</li></ul>
status	String	节点状态。
port	Integer	数据库端口号。
private_read_ips	Array of strings	节点的读内网地址。
volume	<a href="#">MysqlInstanceNodeVolumeInfo</a> object	存储盘信息。
az_code	String	可用区。
region_code	String	实例所在的区域。

参数	参数类型	描述
created	String	创建时间，格式为"yyyy-mm-ddThh:mm:ssZ"。 其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。
updated	String	更新时间，格式与"created"字段对应格式完全相同。
flavor_id	String	规格ID。
flavor_ref	String	规格码。
max_connections	String	允许的最大连接数。
vcpus	String	CPU核数。
ram	String	内存大小，单位为GB。
need_restart	Boolean	是否需要重启使修改的参数生效。
priority	Integer	主备倒换优先级。

表 4-227 MysqlInstanceNodeVolumeInfo

参数	参数类型	描述
type	String	磁盘类型。
used	String	已使用磁盘大小，单位GB。
size	Long	包年/包月实例购买的存储空间大小，单位GB。

表 4-228 MysqlTags

参数	参数类型	描述
key	String	标签键。最大长度36个unicode字符。 key不能为空或者空字符串，不能为空格。 字符集：A-Z, a-z, 0-9, '-', '_', UNICODE字符(\u4E00-\u9FFF)。
value	String	标签值。最大长度43个unicode字符。可以为空字符串。 字符集：A-Z, a-z, 0-9, '.', '-', '_', UNICODE字符(\u4E00-\u9FFF)。

表 4-229 MysqlProxyInfo

参数	参数类型	描述
pool_id	String	数据库代理ID。
name	String	数据库代理名称。
address	String	Proxy读写分离地址。

表 4-230 MysqlTdeInfo

参数	参数类型	描述
enable_tde	Boolean	是否打开透明加密功能。
encryption_type	String	透明加密算法，支持AES256、SM4加密算法。

状态码： 400

表 4-231 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-232 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询指定实例的详细信息。

```
GET https://{endpoint}/v3.1/3cedfc54-b105-4652-a4e0-847b11576628/instances/d738399de028480fab2b8120d4e01a4in07
```

## 响应示例

状态码： 200



Success.

```
{
  "instance": {
    "id": "d738399de028480fabb2b8120d4e01a4in07",
    "name": "gaussdb-mysql-instance01",
    "alias": "",
    "status": "normal",
    "project_id": "3cedfc54-b105-4652-a4e0-847b11576628",
    "enterprise_project_id": 0,
    "type": "Cluster",
    "charge_info": {
      "charge_mode": "postPaid",
      "order_id": ""
    },
  },
  "node_count": 2,
  "datastore": {
    "type": "gaussdb-mysql",
    "version": "8.0",
    "kernel_version": "2.0.29.1"
  },
  "created": "2022-07-14T16:26:58+0800",
  "updated": "2022-07-18T14:20:33+0800",
  "public_ips": "10.154.219.187",
  "private_write_ips": [ "192.168.0.142" ],
  "private_dns_names": [ "d738399de028480fabb2b8120d4e01a4in07.internal.cn-xianhz-1.gaussdbformysql.myhuaweicloud.com" ],
  "db_user_name": "root",
  "port": 3306,
  "vpc_id": "3cedfc54-b105-4652-a4e0-847b11576b58",
  "subnet_id": "c1cfa53c-65d3-431e-8552-326bf310c7ad",
  "security_group_id": "fc577a1a-f202-424a-977f-24faec3fdd55",
  "backup_strategy": {
    "start_time": "19:00-20:00",
    "keep_days": 7
  },
  "nodes": [ {
    "id": "799a0f2fa49a4151bf9f7063c1fbba36no07",
    "name": "gauss-d616-lb07_node01",
    "type": "master",
    "status": "normal",
    "port": 3306,
    "private_read_ips": [ "192.168.0.163" ],
    "volume": {
      "type": "POOL",
      "used": 0.07
    },
  },
  "az_code": "az1xahz",
  "region_code": "cn-xianhz-1",
  "flavor_id": "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
  "flavor_ref": "gaussdb.mysql.xlarge.arm.4",
  "max_connections": 1500,
  "vcpus": 1,
  "ram": 4,
  "need_restart": false,
  "priority": 1,
  "created": "2022-07-14T16:26:58+0800",
  "updated": "2022-07-18T09:24:18+0800"
  }, {
    "id": "799a0f2fa49a4151bf9f7063c1fbba35no07",
    "name": "gauss-d616-lb07_node02",
    "type": "slave",
    "status": "normal",
    "port": 3306,
    "private_read_ips": [ "192.168.0.162" ],
    "volume": {
      "type": "POOL",
      "used": 0.07
    },
  },
  "az_code": "az1xahz",
```

```
"region_code": "cn-xianhz-1",
"flavor_id": "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
"flavor_ref": "gaussdb.mysql.xlarge.arm.4",
"max_connections": 1500,
"vcpus": 1,
"ram": 4,
"need_restart": false,
"priority": 1,
"created": "2022-07-14T16:26:58+0800",
"updated": "2022-07-18T09:36:18+0800"
}],
"time_zone": "UTC+08:00",
"backup_used_space": 0.24,
"az_mode": "single",
"master_az_code": "az1",
"maintenance_window": "18:00-22:00",
"tags": [],
"configuration_id": "53570e0de54e40c5a15f331aa5sd2176pr07",
"dedicated_resource_id": "",
"proxies": [ {
  "pool_id": "dab1cfc5150c4d1ca0e8c6596bfc0d8cpo01",
  "address": "192.168.10.76",
  "name": "proxy-name"
} ]
}
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowGaussMySQLInstanceInfoUnifyStatusSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ShowGaussMySQLInstanceInfoUnifyStatusRequest request = new
        ShowGaussMySQLInstanceInfoUnifyStatusRequest();
```

```
request.withInstanceId("{instance_id}");
try {
    ShowGaussMySQLInstanceInfoUnifyStatusResponse response =
client.showGaussMySQLInstanceInfoUnifyStatus(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowGaussMySQLInstanceInfoUnifyStatusRequest()
        request.instance_id = "{instance_id}"
        response = client.show_gauss_my_sql_instance_info_unify_status(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)
```

```
func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowGaussMySQLInstanceInfoUnifyStatusRequest{}
    request.InstanceId = "{instance_id}"
    response, err := client.ShowGaussMySQLInstanceInfoUnifyStatus(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.3.33 批量查询实例详情

#### 功能介绍

批量查询实例详情。

## 调用方法

请参见[如何调用API](#)。

## URI

GET /v3.1/{project\_id}/instances/details

表 4-233 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

表 4-234 Query 参数

参数	是否必选	参数类型	描述
instance_ids	是	String	实例ID, 严格匹配UUID规则。 最多同时输入20个实例ID, 用英文逗号分隔。

## 请求参数

表 4-235 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-236 响应 Body 参数

参数	参数类型	描述
instances	Array of <a href="#">MysqlInstanceInfoDetailUnifyStatus</a> objects	实例详情。

表 4-237 MysqlInstanceInfoDetailUnifyStatus

参数	参数类型	描述
id	String	实例ID, 严格匹配UUID规则。
name	String	创建的实例名称。
project_id	String	租户在某一Region下的project ID。
status	String	实例状态。 取值: <ul style="list-style-type: none"><li>值为“creating”, 表示实例正在创建。</li><li>值为“normal”, 表示实例正常。</li><li>值为“abnormal”, 表示实例异常。</li><li>值为“createfail”, 表示实例创建失败。</li></ul>
port	String	数据库端口号。
alias	String	实例备注
type	String	实例类型, 取值为“Cluster”。
charge_info	<a href="#">MysqlInstanceChargeInfo</a> object	计费类型信息, 支持包年包月和按需, 默认为按需。
node_count	Integer	节点个数。
datastore	<a href="#">MysqlDatastoreWithKernelVersion</a> object	数据库信息。
backup_used_space	Double	备份空间使用大小, 单位为GB。
created	String	创建时间, 格式为"yyyy-mm-ddThh:mm:ssZ"。 其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。
updated	String	更新时间, 格式与"created"字段对应格式完全相同。

参数	参数类型	描述
private_write_ips	Array of strings	实例的写内网IP地址。
private_dns_names	Array of strings	实例内网域名列表。实例创建成功后，需要手动申请内网域名，否则查询内网域名为空。
public_ips	String	实例的公网IP地址。
db_user_name	String	默认用户名。
vpc_id	String	虚拟私有云ID。
subnet_id	String	子网的网络ID信息。
security_group_id	String	安全组ID。
configuration_id	String	实例创建的模板ID，或者应用到实例的最新参数组模板ID。
backup_strategy	<a href="#">MysqlBackupStrategy</a> object	自动备份策略。
nodes	Array of <a href="#">MysqlInstanceNodeInfo</a> objects	节点信息。
enterprise_project_id	String	企业项目ID。
time_zone	String	时区。
az_mode	String	可用区模式。 取值范围： <ul style="list-style-type: none"><li>• single: 单可用区。</li><li>• multi: 多可用区。</li></ul>
master_az_code	String	主可用区。
maintenance_window	String	可维护时间窗，为UTC时间。
tags	Array of <a href="#">MysqlTags</a> objects	实例标签。
dedicated_resource_id	String	专属资源池ID，只有数据库实例属于专属资源池才会返回该参数。
proxies	Array of <a href="#">MysqlProxyInfo</a> objects	代理信息。

参数	参数类型	描述
tde_info	<a href="#">MysqlTdeInfo</a> object	透明数据加密配置信息，支持AES256、SM4加密算法。 透明加密功能目前处于公测阶段，如需使用，请提交工单联系客服人员申请权限。

表 4-238 MysqlInstanceChargeInfo

参数	参数类型	描述
charge_mode	String	计费模式。
order_id	String	订单号。仅包年包月返回。

表 4-239 MysqlDatastoreWithKernelVersion

参数	参数类型	描述
type	String	数据库引擎，现在只支持gaussdb-mysql。
version	String	数据库版本。
kernel_version	String	数据库内核版本。

表 4-240 MysqlBackupStrategy

参数	参数类型	描述
start_time	String	自动备份开始时间段。自动备份将在该时间一个小时内触发。 取值范围：非空，格式必须为hh:mm-HH:MM且有效，当前时间指UTC时间。 1. HH取值必须比hh大1。 2. mm和MM取值必须相同，且取值必须为00。
keep_days	String	自动备份保留天数，取值范围：1-732。

表 4-241 MysqlInstanceNodeInfo

参数	参数类型	描述
id	String	实例ID，严格匹配UUID规则。



参数	参数类型	描述
name	String	节点名称。
type	String	节点类型。 取值范围： <ul style="list-style-type: none"><li>• master: 主节点。</li><li>• slave: 只读节点。</li></ul>
status	String	节点状态。
port	Integer	数据库端口号。
private_read_ips	Array of strings	节点的读内网地址。
volume	<a href="#">MysqlInstanceNodeVolumeInfo</a> object	存储盘信息。
az_code	String	可用区。
region_code	String	实例所在的区域。
created	String	创建时间, 格式为"yyyy-mm-ddThh:mm:ssZ"。 其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。
updated	String	更新时间, 格式与"created"字段对应格式完全相同。
flavor_id	String	规格ID。
flavor_ref	String	规格码。
max_connections	String	允许的最大连接数。
vcpus	String	CPU核数。
ram	String	内存大小, 单位为GB。
need_restart	Boolean	是否需要重启使修改的参数生效。
priority	Integer	主备倒换优先级。

表 4-242 MysqlInstanceNodeVolumeInfo

参数	参数类型	描述
type	String	磁盘类型。
used	String	已使用磁盘大小, 单位GB。
size	Long	包年/包月实例购买的存储空间大小, 单位GB。

表 4-243 MysqlTags

参数	参数类型	描述
key	String	标签键。最大长度36个unicode字符。key不能为空或者空字符串，不能为空格。 字符集：A-Z, a-z, 0-9, '-', '_', UNICOD字符 (\u4E00-\u9FFF)。
value	String	标签值。最大长度43个unicode字符。可以为空字符串。 字符集：A-Z, a-z, 0-9, '-', '_', UNICOD字符 (\u4E00-\u9FFF)。

表 4-244 MysqlProxyInfo

参数	参数类型	描述
pool_id	String	数据库代理ID。
name	String	数据库代理名称。
address	String	Proxy读写分离地址。

表 4-245 MysqlTdeInfo

参数	参数类型	描述
enable_tde	Boolean	是否打开透明加密功能。
encryption_type	String	透明加密算法，支持AES256、SM4加密算法。

状态码： 400

表 4-246 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-247 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

批量查询实例信息。

```
GET https://{endpoint}/v3.1/97b026aa9cc4417888c14c84a1ad9860/instances/details?  
instance_ids=11684a0e59e94bceba7880d58cfb07b5in07
```

## 响应示例

状态码： 200

Success.

```
{  
  "instances": [ {  
    "id": "11684a0e59e94bceba7880d58cfb07b5in07",  
    "name": "gaussdb-mysql-instance01",  
    "alias": "",  
    "status": "normal",  
    "project_id": "3cedfc54-b105-4652-a4e0-847b11576628",  
    "enterprise_project_id": 0,  
    "type": "Cluster",  
    "charge_info": {  
      "charge_mode": "postPaid",  
      "order_id": ""  
    },  
    "node_count": 2,  
    "datastore": {  
      "type": "gaussdb-mysql",  
      "version": "8.0",  
      "kernel_version": "2.0.29.1"  
    },  
    "created": "2022-07-14T16:26:58+0800",  
    "updated": "2022-07-18T14:20:33+0800",  
    "public_ips": "10.154.219.187",  
    "private_write_ips": [ "192.168.0.142" ],  
    "private_dns_names": [ "11684a0e59e94bceba7880d58cfb07b5in07.internal.cn-  
xianhz-1.gaussdbformysql.myhuaweicloud.com" ],  
    "db_user_name": "root",  
    "port": 3306,  
    "vpc_id": "3cedfc54-b105-4652-a4e0-847b11576b58",  
    "subnet_id": "c1cfa53c-65d3-431e-8552-326bf310c7ad",  
    "security_group_id": "fc577a1a-f202-424a-977f-24faec3fdd55",  
    "backup_strategy": {  
      "start_time": "19:00-20:00",  
      "keep_days": 7  
    },  
    "nodes": [ {  
      "id": "799a0f2fa49a4151bf9f7063c1fbba36no07",  
      "name": "gauss-d616-lb07_node01",  
      "type": "master",  
      "status": "normal",  
      "port": 3306,  
      "private_read_ips": [ "192.168.0.163" ],  
      "volume": {  
        "type": "POOL",
```

```
    "used" : 0.07
  },
  "az_code" : "az1xahz",
  "region_code" : "cn-xianhz-1",
  "flavor_id" : "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
  "flavor_ref" : "gaussdb.mysql.xlarge.arm.4",
  "max_connections" : 1500,
  "vcpus" : 1,
  "ram" : 4,
  "need_restart" : false,
  "priority" : 1,
  "created" : "2022-07-14T16:26:58+0800",
  "updated" : "2022-07-18T09:24:18+0800"
}, {
  "id" : "799a0f2fa49a4151bf9f7063c1fbba35no07",
  "name" : "gauss-d616-lb07_node02",
  "type" : "slave",
  "status" : "normal",
  "port" : 3306,
  "private_read_ips" : [ "192.168.0.162" ],
  "volume" : {
    "type" : "POOL",
    "used" : 0.07
  },
  "az_code" : "az1xahz",
  "region_code" : "cn-xianhz-1",
  "flavor_id" : "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
  "flavor_ref" : "gaussdb.mysql.xlarge.arm.4",
  "max_connections" : 1500,
  "vcpus" : 1,
  "ram" : 4,
  "need_restart" : false,
  "priority" : 1,
  "created" : "2022-07-14T16:26:58+0800",
  "updated" : "2022-07-18T09:36:18+0800"
}],
"time_zone" : "UTC+08:00",
"backup_used_space" : 0.24,
"az_mode" : "single",
"master_az_code" : "az1",
"maintenance_window" : "18:00-22:00",
"tags" : [],
"configuration_id" : "53570e0de54e40c5a15f331aa5sd2176pr07",
"dedicated_resource_id" : "",
"proxies" : [ {
  "pool_id" : "dab1cfc5150c4d1ca0e8c6596bfc0d8cpo01",
  "address" : "192.168.10.76",
  "name" : "proxy-name"
} ]
} ]
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;
```

```
public class ListGaussMySQLInstanceDetailInfoUnifyStatusSolution {
    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ListGaussMySQLInstanceDetailInfoUnifyStatusRequest request = new
        ListGaussMySQLInstanceDetailInfoUnifyStatusRequest();
        try {
            ListGaussMySQLInstanceDetailInfoUnifyStatusResponse response =
            client.listGaussMySQLInstanceDetailInfoUnifyStatus(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()
```

```
try:
    request = ListGaussMySQLInstanceDetailInfoUnifyStatusRequest()
    response = client.list_gauss_my_sql_instance_detail_info_unify_status(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListGaussMySQLInstanceDetailInfoUnifyStatusRequest{}
    response, err := client.ListGaussMySQLInstanceDetailInfoUnifyStatus(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.

状态码	描述
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.3.34 设置回收站策略

#### 功能介绍

设置回收站策略

#### 调用方法

请参见[如何调用API](#)。

#### URI

PUT /v3/{project\_id}/instances/recycle-policy

表 4-248 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

#### 请求参数

表 4-249 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
Content-Type	是	String	内容类型。 取值：application/json。

参数	是否必选	参数类型	描述
X-Language	否	String	语言。

表 4-250 请求 Body 参数

参数	是否必选	参数类型	描述
recycle_policy	否	<a href="#">RecyclePolicy</a> object	回收站策略。

表 4-251 RecyclePolicy

参数	是否必选	参数类型	描述
retention_period_in_days	是	String	保留天数，1-7天。

## 响应参数

状态码：400

表 4-252 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码：500

表 4-253 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

设置回收站策略，保留5天

```
POST https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/recycle-policy
```



```
{
  "recycle_policy" : {
    "retention_period_in_days" : 5
  }
}
```

## 响应示例

无

## SDK 代码示例

SDK代码示例如下。

### Java

设置回收站策略，保留5天

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class SetRecyclePolicySolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        SetRecyclePolicyRequest request = new SetRecyclePolicyRequest();
        SetRecyclePolicyRequestBody body = new SetRecyclePolicyRequestBody();
        RecyclePolicy recyclePolicybody = new RecyclePolicy();
        recyclePolicybody.withRetentionPeriodInDays("5");
        body.withRecyclePolicy(recyclePolicybody);
        request.withBody(body);
        try {
            SetRecyclePolicyResponse response = client.setRecyclePolicy(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
        }
    }
}
```

```
        System.out.println(e.getStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

### 设置回收站策略，保留5天

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = SetRecyclePolicyRequest()
        recyclePolicybody = RecyclePolicy(
            retention_period_in_days="5"
        )
        request.body = SetRecyclePolicyRequestBody(
            recycle_policy=recyclePolicybody
        )
        response = client.set_recycle_policy(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

### 设置回收站策略，保留5天

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
```

```
// The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
// In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")
projectId := "{project_id}"

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    WithProjectId(projectId).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.SetRecyclePolicyRequest{}
recyclePolicybody := &model.RecyclePolicy{
    RetentionPeriodInDays: "5",
}
request.Body = &model.SetRecyclePolicyRequestBody{
    RecyclePolicy: recyclePolicybody,
}
response, err := client.SetRecyclePolicy(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.3.35 查询回收站策略

#### 功能介绍

查询回收站策略

## 调用方法

请参见[如何调用API](#)。

## URI

GET /v3/{project\_id}/instances/recycle-policy

表 4-254 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

## 请求参数

表 4-255 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
Content-Type	是	String	内容类型。 取值：application/json。
X-Language	否	String	语言。

## 响应参数

状态码： 200

表 4-256 响应 Body 参数

参数	参数类型	描述
recycle_policy	<a href="#">RecyclePolicy</a> object	回收站策略。

表 4-257 RecyclePolicy

参数	参数类型	描述
retention_period_in_days	String	保留天数，1-7天。

状态码： 400

表 4-258 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-259 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询回收站策略

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/recycle-policy
```

## 响应示例

状态码： 200

Success.

```
{  
  "recycle_policy": {  
    "retention_period_in_days": 5  
  }  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;
```

```
import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowRecyclePolicySolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ShowRecyclePolicyRequest request = new ShowRecyclePolicyRequest();
        try {
            ShowRecyclePolicyResponse response = client.showRecyclePolicy(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"
```

```
credentials = BasicCredentials(ak, sk, projectId)

client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = ShowRecyclePolicyRequest()
    response = client.show_recycle_policy(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowRecyclePolicyRequest{}
    response, err := client.ShowRecyclePolicy(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.3.36 查询回收站实例信息

#### 功能介绍

查询回收站实例信息

#### 调用方法

请参见[如何调用API](#)。

#### URI

GET /v3/{project\_id}/instances/recycle-info

表 4-260 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

表 4-261 Query 参数

参数	是否必选	参数类型	描述
limit	否	Integer	查询记录数。默认为10，不能为负数，最小值为1，最大值为100。
offset	否	Integer	索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。



## 请求参数

表 4-262 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
Content-Type	是	String	内容类型。 取值：application/json。
X-Language	否	String	语言。

## 响应参数

状态码： 200

表 4-263 响应 Body 参数

参数	参数类型	描述
total_count	String	数据总数
instances	Array of <a href="#">RecycleInstanceV3</a> objects	回收站实例信息

表 4-264 RecycleInstanceV3

参数	参数类型	描述
id	String	实例ID。
name	String	实例名称。
ha_mode	String	实例类型。
engine_name	String	引擎名称。
engine_version	String	引擎版本。
pay_model	String	计费模式。
create_at	Integer	创建时间。
deleted_at	Integer	删除时间。

参数	参数类型	描述
volume_type	String	磁盘类型。
volume_size	String	磁盘大小。
data_vip	String	数据面VIP。
data_vip_ipv6	String	数据面IPV6。
enterprise_project_id	String	企业项目ID。
enterprise_project_name	String	企业项目名称。
backup_level	String	备份级别。
recycle_backup_id	String	备份ID。
recycle_status	String	回收状态。

状态码： 400

表 4-265 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-266 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询回收站实例信息

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/recycle-info
```

## 响应示例

状态码： 200

Success.

```
{
  "total_count": 2,
  "instances": [ {
    "id": "090e539b45e047ee9cc17750b321ef7ein07",
    "name": "gauss-dd-single",
    "ha_mode": "StandSingle",
    "engine_name": "taurus",
    "engine_version": "2.0.51.240300",
    "pay_model": "0",
    "create_at": 1712656933705,
    "deleted_at": 1712659228276,
    "volume_type": "",
    "volume_size": "0",
    "data_vip": "172.16.1.234",
    "data_vip_ipv6": null,
    "enterprise_project_id": "0",
    "enterprise_project_name": "default",
    "backup_level": "2",
    "recycle_backup_id": "c62e218ccd6c49098baa925453c65e29br07",
    "recycle_status": "Active"
  }, {
    "id": "632423cc56c348bd967b3a03e7abdab9in07",
    "name": "gauss-dd-single",
    "ha_mode": "StandSingle",
    "engine_name": "taurus",
    "engine_version": "2.0.51.240300",
    "pay_model": "0",
    "create_at": 1712658210524,
    "deleted_at": 1712659158927,
    "volume_type": "",
    "volume_size": "0",
    "data_vip": "172.16.1.194",
    "data_vip_ipv6": null,
    "enterprise_project_id": "0",
    "enterprise_project_name": "default",
    "backup_level": "2",
    "recycle_backup_id": "70d03dc459304f7298c0f5b49286f37cbr07",
    "recycle_status": "Active"
  }
  ]
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListRecycleInstancesSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
```

```
this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");
String projectId = "{project_id}";

ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
ListRecycleInstancesRequest request = new ListRecycleInstancesRequest();
try {
    ListRecycleInstancesResponse response = client.listRecycleInstances(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListRecycleInstancesRequest()
        response = client.list_recycle_instances(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListRecycleInstancesRequest{}
    response, err := client.ListRecycleInstances(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.3.37 批量修改节点名称

#### 功能介绍

批量修改节点名称。

#### 调用方法

请参见[如何调用API](#)。

#### URI

PUT /v3/{project\_id}/instances/{instance\_id}/nodes/name

表 4-267 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a>
instance_id	是	String	实例ID。

#### 请求参数

表 4-268 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
Content-Type	是	String	内容类型。 取值：application/json。
X-Language	否	String	语言。

表 4-269 请求 Body 参数

参数	是否必选	参数类型	描述
node_list	是	Array of <a href="#">SingleNodeInfo</a> objects	节点信息列表

表 4-270 SingleNodeInfo

参数	是否必选	参数类型	描述
node_id	是	String	节点ID。
name	是	String	节点名称。支持中文、数字、字母、连接符-和_，长度为4-128。

## 响应参数

状态码： 200

表 4-271 响应 Body 参数

参数	参数类型	描述
job_id	String	workflowID。

状态码： 400

表 4-272 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-273 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

批量修改节点名称。

```
POST https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/61a4ea66210545909d74a05c27a7179ein07/nodes/name
{
  "node_list" : [ {
    "node_id" : "799a0f2fa49d4151bf2f7063c1fbba36no07",
    "name" : "gauss-cdf5_node03"
  } ]
}
```

## 响应示例

状态码： 200

Success.

```
{
  "job_id" : "dff1f289-4d23-4942-8d9f-463ea07c010d"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

批量修改节点名称。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class RenameInstanceNodeSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
```



```
        .build();
RenameInstanceNodeRequest request = new RenameInstanceNodeRequest();
request.withInstanceId("{instance_id}");
RenameInstanceNodeRequestBody body = new RenameInstanceNodeRequestBody();
List<SingleNodeInfo> listbodyNodeList = new ArrayList<>();
listbodyNodeList.add(
    new SingleNodeInfo()
        .withNodeId("799a0f2fa49d4151bf2f7063c1fbba36no07")
        .withName("gauss-cdf5_node03")
);
body.withNodeList(listbodyNodeList);
request.withBody(body);
try {
    RenameInstanceNodeResponse response = client.renameInstanceNode(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

批量修改节点名称。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = RenameInstanceNodeRequest()
        request.instance_id = "{instance_id}"
        listNodeListbody = [
            SingleNodeInfo(
                node_id="799a0f2fa49d4151bf2f7063c1fbba36no07",
                name="gauss-cdf5_node03"
            )
        ]
        request.body = RenameInstanceNodeRequestBody(
            node_list=listNodeListbody
```

```
)
response = client.rename_instance_node(request)
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

批量修改节点名称。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.RenameInstanceNodeRequest{}
    request.InstanceId = "{instance_id}"
    var listNodeListbody = []model.SingleNodeInfo{
        {
            NodeId: "799a0f2fa49d4151bf2f7063c1fbba36no07",
            Name: "gauss-cdf5_node03",
        },
    }
    request.Body = &model.RenameInstanceNodeRequestBody{
        NodeList: listNodeListbody,
    }
    response, err := client.RenameInstanceNode(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.3.38 查询自动变配历史记录

#### 功能介绍

查询自动变配历史记录。

#### 调用方法

请参见[如何调用API](#)。

#### URI

GET /v3/{project\_id}/instances/{instance\_id}/auto-scaling/history

表 4-274 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a>
instance_id	是	String	实例ID。

表 4-275 Query 参数

参数	是否必选	参数类型	描述
limit	否	String	查询记录数。默认为20。
offset	否	String	索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。

## 请求参数

表 4-276 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
Content-Type	是	String	内容类型。 取值：application/json。
X-Language	否	String	语言。

## 响应参数

状态码：200

表 4-277 响应 Body 参数

参数	参数类型	描述
total_count	String	记录总数。
records	Array of <a href="#">AutoScalingRecordInfo</a> objects	自动变配历史记录列表。

表 4-278 AutoScalingRecordInfo

参数	参数类型	描述
id	String	记录ID。
instance_id	String	实例ID。
instance_name	String	实例名称。
scaling_type	String	变配类型。
original_value	String	原始值。
target_value	String	目标值。
result	String	变配结果。
create_at	String	变配时间。

状态码： 400

表 4-279 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-280 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询自动变配历史记录

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/  
61a4ea66210545909d74a05c27a7179ein07/auto-scaling/history
```

## 响应示例

状态码： 200

Success.

```
{  
  "total_count": 1,  
  "records": [ {  
    "id": "2f5f3eeb-16c7-4b0c-bd44-4b2968275abe",  
    "instance_id": "94bb6ce031424d02a1c61019d1d2298bin07",  
    "instance_name": "gaussdbformysql-ins01",  
    "scaling_type": "ENLARGE_FLAVOR",  
    "original_value": "gaussdb.mysql.medium.x86.4",  
    "target_value": "gaussdb.mysql.large.x86.4",  
    "result": "SUCCESSFUL",  
    "create_at": "2023-04-30 16:47:40.877"  
  } ]  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;
```

```
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowAutoScalingHistorySolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ShowAutoScalingHistoryRequest request = new ShowAutoScalingHistoryRequest();
        request.withInstanceId("{instance_id}");
        try {
            ShowAutoScalingHistoryResponse response = client.showAutoScalingHistory(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"
```

```
credentials = BasicCredentials(ak, sk, projectId)

client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = ShowAutoScalingHistoryRequest()
    request.instance_id = "{instance_id}"
    response = client.show_auto_scaling_history(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/taurusdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/taurusdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/taurusdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowAutoScalingHistoryRequest{}
    request.InstanceId = "{instance_id}"
    response, err := client.ShowAutoScalingHistory(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.3.39 设置 Serverless 配置策略

#### 功能介绍

设置Serverless配置策略。

#### 调用方法

请参见[如何调用API](#)。

#### URI

PUT /v3/{project\_id}/instances/{instance\_id}/serverless/policy

表 4-281 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID。



## 请求参数

表 4-282 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
Content-Type	是	String	内容类型。 取值：application/json。
X-Language	否	String	语言。

表 4-283 请求 Body 参数

参数	是否必选	参数类型	描述
min_vcpus	是	Integer	单节点VCPU伸缩下限，取值范围可根据 <a href="#">查询数据库规格</a> 接口获取。
max_vcpus	是	Integer	单节点VCPU伸缩上限，取值范围可根据 <a href="#">查询数据库规格</a> 接口获取。

## 响应参数

状态码：400

表 4-284 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码：500

表 4-285 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

设置VCPUs伸缩下限为1，设置VCPUs伸缩上限为4。

```
PUT https://{Endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
096c0fc43e804757b59946b80dc27f8bin07/serverless/policy
```

```
{  
  "min_vcpus" : 1,  
  "max_vcpus" : 4  
}
```

## 响应示例

无

## SDK 代码示例

SDK代码示例如下。

### Java

设置VCPUs伸缩下限为1，设置VCPUs伸缩上限为4。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class UpdateServerlessPolicySolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);
```

```
GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
UpdateServerlessPolicyRequest request = new UpdateServerlessPolicyRequest();
request.withInstanceId("{instance_id}");
UpdateServerlessPolicy body = new UpdateServerlessPolicy();
body.withMaxVcpus(4);
body.withMinVcpus(1);
request.withBody(body);
try {
    UpdateServerlessPolicyResponse response = client.updateServerlessPolicy(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrMsg());
}
}
```

## Python

设置VCPUs伸缩下限为1，设置VCPUs伸缩上限为4。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateServerlessPolicyRequest()
        request.instance_id = "{instance_id}"
        request.body = UpdateServerlessPolicy(
            max_vcpus=4,
            min_vcpus=1
        )
        response = client.update_serverless_policy(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
```

```
print(e.error_code)
print(e.error_msg)
```

## Go

设置VCPUs伸缩下限为1，设置VCPUs伸缩上限为4。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateServerlessPolicyRequest{
        request.InstanceId = "{instance_id}"
        request.Body = &model.UpdateServerlessPolicy{
            MaxVcpus: int32(4),
            MinVcpus: int32(1),
        }
    }
    response, err := client.UpdateServerlessPolicy(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.

状态码	描述
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.3.40 修改节点故障倒换优先级

### 功能介绍

修改节点故障倒换优先级。

### 调用方法

请参见[如何调用API](#)。

### URI

PUT /v3/{project\_id}/instances/{instance\_id}/nodes/{node\_id}/priority

表 4-286 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a>
instance_id	是	String	实例ID。
node_id	是	String	节点ID。

### 请求参数

表 4-287 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。

参数	是否必选	参数类型	描述
Content-Type	是	String	内容类型。 取值: application/json。
X-Language	否	String	语言。

表 4-288 请求 Body 参数

参数	是否必选	参数类型	描述
priority	是	String	故障倒换优先级。 故障倒换优先级的取值范围为 1~16 以及 -1。取正数时数字越小, 优先级越大, 即故障倒换时, 主节点会优先倒换到优先级高的只读节点上, 优先级相同的只读节点选为主节点的概率相同。取 -1 时表示节点不参与故障倒换, 当单可用区实例超过两个只读节点, 或者多可用区实例修改后的可用区多于 1 个时可以设置成 -1。

## 响应参数

状态码: 200

表 4-289 响应 Body 参数

参数	参数类型	描述
job_id	String	工作流ID。

状态码: 400

表 4-290 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码: 500

表 4-291 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

修改节点故障倒换优先级为2。

```
PUT https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/61a4ea66210545909d74a05c27a7179ein07//nodes/ss62c18799854a919bab633874c159dfno01/priority
{
  "priority" : 2
}
```

## 响应示例

状态码： 200

Success.

```
{
  "job_id" : "b054f3e1-64f8-4219-ad48-f9ac494c6983"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

修改节点故障倒换优先级为2。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ModifyNodePrioritySolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";
```

```
ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
ModifyNodePriorityRequest request = new ModifyNodePriorityRequest();
request.withInstanceId("{instance_id}");
request.withNodeId("{node_id}");
ModifyNodePriorityRequestBody body = new ModifyNodePriorityRequestBody();
body.withPriority("2");
request.withBody(body);
try {
    ModifyNodePriorityResponse response = client.modifyNodePriority(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrMsg());
}
}
```

## Python

修改节点故障倒换优先级为2。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ModifyNodePriorityRequest()
        request.instance_id = "{instance_id}"
        request.node_id = "{node_id}"
        request.body = ModifyNodePriorityRequestBody(
            priority="2"
        )
        response = client.modify_node_priority(request)
```



```
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

修改节点故障倒换优先级为2。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ModifyNodePriorityRequest{}
    request.InstanceId = "{instance_id}"
    request.NodeId = "{node_id}"
    request.Body = &model.ModifyNodePriorityRequestBody{
        Priority: "2",
    }
    response, err := client.ModifyNodePriority(request)
    if err == nil {
        fmt.Printf("%v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.3.41 查询弹性公网 IP

#### 功能介绍

查询弹性公网IP。

#### 调用方法

请参见[如何调用API](#)。

## URI

GET /v3/{project\_id}/instances/{instance\_id}/eip

表 4-292 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID。

## 请求参数

表 4-293 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
Content-Type	是	String	内容类型。 取值：application/json。
X-Language	否	String	语言。

## 响应参数

状态码： 200

表 4-294 响应 Body 参数

参数	参数类型	描述
can_enable_public_access	Boolean	是否能访问公网
id	String	弹性公网ID。
type	String	弹性公网IP的网络类型。
port_id	String	端口ID。
public_ip_address	String	弹性公网IP地址。
private_ip_address	String	私网IP地址。
status	String	弹性公网IP状态。
tenant_id	String	租户ID。
create_time	String	创建时间。
bandwidth_id	String	带宽ID。
bandwidth_name	String	带宽名称。
bandwidth_size	String	带宽大小。
bandwidth_share_type	String	带宽类型。枚举值：PER 和WHOLE。

参数	参数类型	描述
profile	Object	额外参数, 包括订单id、产品id等信息。如果profile不为空, 说明是包周期的弹性公网IP。

状态码: 400

表 4-295 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码: 500

表 4-296 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询弹性公网IP。

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/12a49c2dc32648df8dd25e2976f70180in07/eip
```

## 响应示例

状态码: 200

Success.

```
{
  "can_enable_public_access": true,
  "id": "45a0ed37-cfa7-4403-8aeb-d720b4e831cf",
  "type": "5_bgp",
  "port_id": "2c02dc5b-a136-4921-b7ad-27e084548616",
  "public_ip_address": "10.83.35.151",
  "private_ip_address": "172.16.1.137",
  "status": "ACTIVE",
  "tenant_id": "23a50154cf494ec9ad6883979a12db0a",
  "create_time": "2024-04-09 13:42:11",
  "bandwidth_id": "2a4b2bc5-2a0a-42df-8f13-2fbe3d8bbbb2",
  "bandwidth_name": "bandwidth-d3f4",
  "bandwidth_size": 1,
  "bandwidth_share_type": "PER",
```

```
"profile" : { }  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ShowInstanceEipSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        ShowInstanceEipRequest request = new ShowInstanceEipRequest();  
        request.withInstanceld("{instance_id}");  
        try {  
            ShowInstanceEipResponse response = client.showInstanceEip(request);  
            System.out.println(response.toString());  
        } catch (ConnectionException e) {  
            e.printStackTrace();  
        } catch (RequestTimeoutException e) {  
            e.printStackTrace();  
        } catch (ServiceResponseException e) {  
            e.printStackTrace();  
            System.out.println(e.getHttpStatusCode());  
            System.out.println(e.getRequestId());  
            System.out.println(e.getErrorCode());  
            System.out.println(e.getErrorMsg());  
        }  
    }  
}
```

### Python

```
# coding: utf-8  
  
import os  
from huaweicloudsdkcore.auth.credentials import BasicCredentials
```

```
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowInstanceEipRequest()
        request.instance_id = "{instance_id}"
        response = client.show_instance_eip(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowInstanceEipRequest{}
    request.InstanceId = "{instance_id}"
    response, err := client.ShowInstanceEip(request)
```

```
if err == nil {  
    fmt.Printf("%+v\n", response)  
} else {  
    fmt.Println(err)  
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

# 4.4 备份管理

## 4.4.1 设置同区域备份策略

### 功能介绍

设置同区域备份策略。

### 调用方法

请参见[如何调用API](#)。

### URI

PUT /v3/{project\_id}/instances/{instance\_id}/backups/policy/update

表 4-297 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

参数	是否必选	参数类型	描述
instance_id	是	String	实例ID, 严格匹配UUID规则。

## 请求参数

表 4-298 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-299 请求 Body 参数

参数	是否必选	参数类型	描述
backup_policy	是	<a href="#">MysqlBackup Policy</a> object	数据库备份策略信息。

表 4-300 MysqlBackupPolicy

参数	是否必选	参数类型	描述
start_time	是	String	备份时间段。自动备份将在该时间段内触发。 取值范围：非空，格式必须为hh:mm-HH:MM且有效，当前时间指UTC时间。HH取值必须比hh大1。mm和MM取值必须相同，且取值必须为00。 取值示例：21:00-22:00



参数	是否必选	参数类型	描述
keep_days	是	Integer	备份文件的保留天数。取值范围：1~732。您也可以联系客服申请开通最大保留天数为3660。
period	是	String	备份周期配置。自动备份将在每星期指定的天进行。 取值范围：格式为逗号隔开的数字，数字加1表示自动备份的星期。 取值示例：1,2,3,4,5,6,7则表示备份周期配置为星期二、星期三、星期四、星期五、星期六、星期日、星期一。
retention_num_backup_level1	否	Integer	一级备份保留数量，取值：0或1，默认值为0。当一级备份开关开启时，该参数必传。反之，不能传。

## 响应参数

状态码： 200

表 4-301 响应 Body 参数

参数	参数类型	描述
status	String	状态信息。
instance_id	String	实例ID，严格匹配UUID规则。
instance_name	String	实例名称。

状态码： 400

表 4-302 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-303 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

修改实例的自动备份策略，每周的周二至周六的19:00-20:00进行备份，备份文件保留7天。

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/21b6ea5a78244de98c1c2622e1dc593ain07/backups/policy/update
```

```
{
  "backup_policy" : {
    "keep_days" : 7,
    "start_time" : "19:00-20:00",
    "period" : "1,2,3,4,5"
  }
}
```

## 响应示例

**状态码： 200**

Success.

```
{
  "status" : "COMPLETED",
  "instance_id" : "21b6ea5a78244de98c1c2622e1dc593ain07",
  "instance_name" : "gauss-mysql"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

修改实例的自动备份策略，每周的周二至周六的19:00-20:00进行备份，备份文件保留7天。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateGaussMySQLBackupPolicySolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
```

```
security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
// In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");
String projectId = "{project_id}";

ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
UpdateGaussMySqlBackupPolicyRequest request = new UpdateGaussMySqlBackupPolicyRequest();
request.withInstanceId("{instance_id}");
MysqlUpdateBackupPolicyRequest body = new MysqlUpdateBackupPolicyRequest();
MysqlBackupPolicy backupPolicybody = new MysqlBackupPolicy();
backupPolicybody.withStartTime("19:00-20:00")
    .withKeepDays(7)
    .withPeriod("1,2,3,4,5");
body.withBackupPolicy(backupPolicybody);
request.withBody(body);
try {
    UpdateGaussMySqlBackupPolicyResponse response =
client.updateGaussMySqlBackupPolicy(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

修改实例的自动备份策略，每周的周二至周六的19:00-20:00进行备份，备份文件保留7天。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)
```

```
client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = UpdateGaussMySqlBackupPolicyRequest()
    request.instance_id = "{instance_id}"
    backupPolicybody = MysqlBackupPolicy(
        start_time="19:00-20:00",
        keep_days=7,
        period="1,2,3,4,5"
    )
    request.body = MysqlUpdateBackupPolicyRequest(
        backup_policy=backupPolicybody
    )
    response = client.update_gauss_my_sql_backup_policy(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

修改实例的自动备份策略，每周的周二至周六的19:00-20:00进行备份，备份文件保留7天。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/taurusdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/taurusdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/taurusdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateGaussMySqlBackupPolicyRequest{
        request.InstanceId = "{instance_id}"
        backupPolicybody := &model.MysqlBackupPolicy{
            StartTime: "19:00-20:00",
            KeepDays: int32(7),
            Period: "1,2,3,4,5",
        }
    }
    request.Body = &model.MysqlUpdateBackupPolicyRequest{
```

```
BackupPolicy: backupPolicybody,
}
response, err := client.UpdateGaussMySqlBackupPolicy(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.4.2 创建手动备份

### 功能介绍

创建手动备份。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/backups/create

表 4-304 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

## 请求参数

表 4-305 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-306 请求 Body 参数

参数	是否必选	参数类型	描述
instance_id	是	String	实例ID，严格匹配UUID规则。
name	是	String	备份名称。 取值范围：最小为4个字符，最大为64个字符且不超过64个字节（注意：一个中文字符占用3个字节），必须以字母或中文开头，区分大小写，可以包含字母、数字、中划线、下划线或中文，不能包含其他特殊字符。
description	否	String	备份描述，不能包含特殊字符！<"='> &和回车，不大于256个字符。

## 响应参数

状态码： 201

表 4-307 响应 Body 参数

参数	参数类型	描述
backup	<b>backup</b> object	备份信息。
job_id	String	任务ID。

表 4-308 backup

参数	参数类型	描述
id	String	备份ID。
name	String	备份名称。
description	String	备份描述。
begin_time	String	备份开始时间，格式为“yyyy-mm-ddThh:mm:ssZ”，其中T指时间字段的开始；Z指时区偏移量。
status	String	备份状态，取值： <ul style="list-style-type: none"><li>• BUILDING：备份中。</li><li>• COMPLETED：备份完成。</li><li>• FAILED：备份失败。</li><li>• AVAILABLE：备份可用。</li></ul>
type	String	备份类型，手动全量备份，取值为manual。
instance_id	String	实例ID，严格匹配UUID规则。

状态码：400

表 4-309 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码：500

表 4-310 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

创建手动备份。

POST https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/backups/create

```
{
  "instance_id": "e761be53970c48aeb2073b179dccb9in07",
  "name": "backup-1",
  "description": "手动备份"
}
```

## 响应示例

状态码: 201

Success.

```
{
  "backup": {
    "id": "f58f674c11224fd99772b89f892da6f5br07",
    "name": "backup-1",
    "description": "手动备份",
    "begin_time": "2020-07-07T01:17:05+0800",
    "status": "BUILDING",
    "type": "manual",
    "instance_id": "ef25188419f941309882d2986b2210b9in07"
  },
  "job_id": "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

创建手动备份。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class CreateGaussMySQLBackupSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
    }
}
```



```
CreateGaussMySqlBackupRequest request = new CreateGaussMySqlBackupRequest();
MysqlCreateBackupRequest body = new MysqlCreateBackupRequest();
body.withDescription("手动备份");
body.withName("backup-1");
body.withInstanceId("e761be53970c48aeb2073b179dccb9in07");
request.withBody(body);
try {
    CreateGaussMySqlBackupResponse response = client.createGaussMySqlBackup(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

创建手动备份。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateGaussMySqlBackupRequest()
        request.body = MysqlCreateBackupRequest(
            description="手动备份",
            name="backup-1",
            instance_id="e761be53970c48aeb2073b179dccb9in07"
        )
        response = client.create_gauss_my_sql_backup(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

创建手动备份。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateGaussMySQLBackupRequest{
        descriptionMysqlCreateBackupRequest:= "手动备份"
        request.Body = &model.MysqlCreateBackupRequest{
            Description: &descriptionMysqlCreateBackupRequest,
            Name: "backup-1",
            InstanceId: "e761be53970c48aeb2073b179dccfab9in07",
        }
    }
    response, err := client.CreateGaussMySQLBackup(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
201	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.4.3 查询全量备份列表

### 功能介绍

查询全量备份列表。

### 调用方法

请参见[如何调用API](#)。

## URI

GET /v3/{project\_id}/backups

表 4-311 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	<b>参数解释：</b> 租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。 <b>约束限制：</b> 不涉及。 <b>取值范围：</b> 只能由英文字母、数字组成，且长度为32个字符。 <b>默认值：</b> 不涉及。

表 4-312 Query 参数

参数	是否必选	参数类型	描述
instance_id	否	String	<p><b>参数解释:</b> 实例ID, 此参数是实例的唯一标识。</p> <p><b>约束限制:</b> 不涉及。</p> <p><b>取值范围:</b> 只能由英文字母、数字组成, 后缀为in07, 长度为36个字符。</p> <p><b>默认取值:</b> 不涉及。</p>
backup_id	否	String	<p><b>参数解释:</b> 备份ID, 此参数是备份的唯一标识。。</p> <p><b>约束限制:</b> 不涉及。</p> <p><b>取值范围:</b> 只能由英文字母、数字组成, 后缀为br07, 长度为36个字符。</p> <p><b>默认取值:</b> 不涉及。</p>
backup_type	否	String	<p><b>参数解释:</b> 备份类型。</p> <p><b>约束限制:</b> 不涉及。</p> <p><b>取值范围:</b></p> <ul style="list-style-type: none"> <li>• auto: 自动全量备份。</li> <li>• manual: 手动全量备份。</li> </ul> <p><b>默认值:</b> 不涉及。</p>

参数	是否必选	参数类型	描述
offset	否	String	<b>参数解释:</b> 索引位置, 偏移量。从第一条数据偏移offset条数据后开始查询。 <b>约束限制:</b> 必须为整数, 不能为负数。 <b>取值范围:</b> ≥0 <b>默认取值:</b> 0
limit	否	String	<b>参数解释:</b> 查询记录数。 <b>约束限制:</b> 必须为整数, 不能为负数。 <b>取值范围:</b> 1-100 <b>默认取值:</b> 100
begin_time	否	String	<b>参数解释:</b> 查询开始时间, 格式为“yyyy-mm-ddThh:mm:ssZ”。 其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。 <b>约束限制:</b> 不涉及。 <b>取值范围:</b> 比当前时间早。 <b>默认取值:</b> 不涉及。

参数	是否必选	参数类型	描述
end_time	否	String	<b>参数解释：</b> 查询结束时间，格式为“yyyy-mm-ddThh:mm:ssZ”。 其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。 <b>约束限制：</b> 不涉及。 <b>取值范围：</b> 比当前时间早，比开始时间晚。 <b>默认取值：</b> 不涉及。
name	否	String	<b>参数解释：</b> 备份名称。 <b>约束限制：</b> 不涉及。 <b>取值范围：</b> 备份名称长度最小为4个字符，最大为64个字符且不超过64个字节（注意：一个中文字符占用3个字节），必须以字母或中文开头，区分大小写，可以包含字母、数字、中文、中划线或下划线，不能包含其他特殊字符。 <b>默认取值：</b> 不涉及。
instance_name	否	String	<b>参数解释：</b> 实例名称。 <b>约束限制：</b> 不涉及。 <b>取值范围：</b> 最小为4个字符，最大为64个字符且不超过64个字节（注意：一个中文字符占用3个字节），必须以字母或中文开头，区分大小写，可以包含字母、数字、中划线、下划线或中文，不能包含其他特殊字符。 <b>默认取值：</b> 不涉及。

## 请求参数

表 4-313 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	<b>参数解释:</b> 用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 <b>约束限制:</b> 不涉及。 <b>取值范围:</b> 不涉及。 <b>默认值:</b> 不涉及。
X-Language	否	String	<b>参数解释:</b> 请求语言类型。 <b>约束限制:</b> 不涉及。 <b>取值范围:</b> <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul> <b>默认值:</b> en-us。

## 响应参数

状态码： 200

表 4-314 响应 Body 参数

参数	参数类型	描述
backups	Array of <a href="#">backups</a> objects	<b>参数解释:</b> 备份信息。 <b>取值范围:</b> 不涉及。

参数	参数类型	描述
total_count	Long	<b>参数解释:</b> 备份文件的总数。 <b>取值范围:</b> ≥0。

表 4-315 backups

参数	参数类型	描述
id	String	<b>参数解释:</b> 备份ID。 <b>取值范围:</b> 只能由英文字母、数字组成, 后缀为br07, 长度为36个字符。
name	String	<b>参数解释:</b> 备份名称。 <b>取值范围:</b> 备份名称长度最小为4个字符, 最大为64个字符且不超过64个字节(注意: 一个中文字符占用3个字节), 必须以字母或中文开头, 区分大小写, 可以包含字母、数字、中文、中划线或下划线, 不能包含其他特殊字符。
begin_time	String	<b>参数解释:</b> 备份开始时间, 格式为“yyyy-mm-ddThh:mm:ssZ”。 其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。 <b>取值范围:</b> 不涉及。
end_time	String	<b>参数解释:</b> 备份结束时间, 格式为“yyyy-mm-ddThh:mm:ssZ”。 其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。 <b>取值范围:</b> 不涉及。



参数	参数类型	描述
status	String	<p><b>参数解释：</b> 备份状态。</p> <p><b>取值范围：</b></p> <ul style="list-style-type: none"> <li>• BUILDING：备份中。</li> <li>• COMPLETED：备份完成。</li> <li>• FAILED：备份失败。</li> <li>• AVAILABLE：备份可用。</li> </ul>
take_up_time	Integer	<p><b>参数解释：</b> 备份花费时间（单位：minutes）。</p> <p><b>取值范围：</b> ≥0。</p>
type	String	<p><b>参数解释：</b> 备份类型。</p> <p><b>取值范围：</b></p> <ul style="list-style-type: none"> <li>• auto：自动全量备份。</li> <li>• manual：手动全量备份。</li> </ul>
size	Long	<p><b>参数解释：</b> 备份大小（单位：MB）。</p> <p><b>取值范围：</b> &gt;0。</p>
datastore	<a href="#">MysqlDatastoreInBackup</a> object	<p><b>参数解释：</b> 数据库信息。</p>
instance_id	String	<p><b>参数解释：</b> 实例ID，此参数是实例的唯一标识。</p> <p><b>取值范围：</b> 只能由英文字母、数字组成，后缀为in07，长度为36个字符。</p>
instance_name	String	<p><b>参数解释：</b> 实例名称。</p> <p><b>取值范围：</b> 最小为4个字符，最大为64个字符且不超过64个字节（注意：一个中文字符占用3个字节），必须以字母或中文开头，区分大小写，可以包含字母、数字、中划线、下划线或中文，不能包含其他特殊字符。</p>

参数	参数类型	描述
backup_level	String	<p><b>参数解释:</b> 备份级别。当开启一级备份开关时, 返回该参数。</p> <p><b>取值范围:</b></p> <ul style="list-style-type: none"> <li>• 0: 备份正在创建中或者备份失败。</li> <li>• 1: 一级备份。</li> <li>• 2: 二级备份。</li> </ul>
description	String	<p><b>参数解释:</b> 备份文件描述信息。</p> <p><b>取值范围:</b> 不涉及。</p>

表 4-316 MysqlDatastoreInBackup

参数	参数类型	描述
type	String	<p><b>参数解释:</b> 数据库引擎。</p> <p><b>取值范围:</b> gaussdb-mysql。</p>
version	String	<p><b>参数解释:</b> 数据库版本。</p> <p><b>取值范围:</b> 8.0。</p>

状态码: 400

表 4-317 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码: 500

表 4-318 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询指定实例指定备份在时间段内（2020-07-06~2020-07-16）的自动备份列表。

```
GET https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/backups?instance_id=3ef58db3986540d19f95151309368d34in07&backup_id=7420f28010084e838113e78f77093093br07&backup_type=auto&offset=0&limit=10&begin_time=2020-07-06T10:41:14+0800&end_time=2020-07-16T10:41:14+0800
```

## 响应示例

状态码： 200

Success.

```
{
  "backups": [ {
    "id": "7420f28010084e838113e78f77093093br07",
    "name": "GaussDBforMySQL-gauss-e747-20200708185048266",
    "begin_time": "2020-07-08T20:43:14+0800",
    "end_time": "2020-07-08T20:45:14+0800",
    "take_up_time": 2,
    "status": "COMPLETED",
    "type": "auto",
    "size": 2803,
    "datastore": {
      "type": "gaussdb-mysql",
      "version": "8.0"
    },
    "instance_id": "3ef58db3986540d19f95151309368d34in07",
    "instance_name": "GaussDBforMySQL-gauss-e747",
    "backup_level": "2"
  } ],
  "total_count": 1
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;
```

```
public class ShowGaussMySqlBackupListSolution {
    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ShowGaussMySqlBackupListRequest request = new ShowGaussMySqlBackupListRequest();
        try {
            ShowGaussMySqlBackupListResponse response = client.showGaussMySqlBackupList(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowGaussMySqlBackupListRequest()
        response = client.show_gauss_my_sql_backup_list(request)
```

```
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowGaussMySQLBackupListRequest{}
    response, err := client.ShowGaussMySQLBackupList(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.4.4 查询自动备份策略

### 功能介绍

查询自动备份策略。

### 调用方法

请参见[如何调用API](#)。

## URI

GET /v3/{project\_id}/instances/{instance\_id}/backups/policy

表 4-319 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-320 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-321 响应 Body 参数

参数	参数类型	描述
backup_policy	<b>BackupPolicy</b> object	备份策略信息。

表 4-322 BackupPolicy

参数	参数类型	描述
keep_days	Integer	指定已生成的备份文件可以保存的天数。取值范围：1~732。您也可以联系客服申请开通最大保留天数为3660。
start_time	String	备份时间段。自动备份将在该时间段内触发。 取值范围：格式必须为hh:mm-HH:MM且有效，当前时间指UTC时间。
period	String	备份周期配置。自动备份将在每星期指定的天进行。 取值范围：格式为逗号隔开的数字，数字加1表示自动备份的星期。 取值示例：1,2,3,4,5,6,7则表示备份周期配置为星期二、星期三、星期四、星期五、星期六、星期日、星期一。
retention_num_backup_level1	Integer	一级备份保留数量。当一级备份开关开启时，返回此参数。

状态码： 400

表 4-323 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-324 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询实例的自动备份策略。

```
GET https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/  
61a4ea66210545909d74a05c27a7179ein07/backups/policy
```

## 响应示例

状态码： 200

Success.

```
{  
  "backup_policy": {  
    "keep_days": "7",  
    "start_time": "19:00-20:00",  
    "period": "1,2",  
    "retention_num_backup_level1": 1  
  }  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ShowGaussMySQLBackupPolicySolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)
```



```
.withAk(ak)
.withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
ShowGaussMySQLBackupPolicyRequest request = new ShowGaussMySQLBackupPolicyRequest();
request.withInstanceId("{instance_id}");
try {
    ShowGaussMySQLBackupPolicyResponse response = client.showGaussMySQLBackupPolicy(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowGaussMySQLBackupPolicyRequest()
        request.instance_id = "{instance_id}"
        response = client.show_gauss_my_sql_backup_policy(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
```

```

"fmt"
"github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
"github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowGaussMySQLBackupPolicyRequest{}
    request.InstanceId = "{instance_id}"
    response, err := client.ShowGaussMySQLBackupPolicy(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}

```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.4.5 删除手动备份

### 功能介绍

删除手动备份。

### 调用方法

请参见[如何调用API](#)。

### URI

DELETE /v3/{project\_id}/backups/{backup\_id}

表 4-325 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
backup_id	是	String	备份文件ID。 获取方法参见 <a href="#">查询备份列表</a> 。

### 请求参数

表 4-326 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

### 响应参数

状态码： 200

表 4-327 响应 Body 参数

参数	参数类型	描述
backup_id	String	备份ID。
backup_name	String	备份名称。

状态码： 400

表 4-328 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-329 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

删除手动备份。

```
DELETE https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/backups/  
b1182ccdda034f2b9535f3dca5c47e71br07
```

## 响应示例

状态码： 200

Success.

```
{  
  "backup_id": "b1182ccdda034f2b9535f3dca5c47e71br07",  
  "backup_name": "backup-f3c1"  
}
```

## SDK 代码示例

SDK代码示例如下。

## Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class DeleteGaussMySQLBackupSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        DeleteGaussMySQLBackupRequest request = new DeleteGaussMySQLBackupRequest();
        request.withBackupId("{backup_id}");
        try {
            DeleteGaussMySQLBackupResponse response = client.deleteGaussMySQLBackup(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
```

```
example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
ak = os.environ["CLOUD_SDK_AK"]
sk = os.environ["CLOUD_SDK_SK"]
projectId = "{project_id}"

credentials = BasicCredentials(ak, sk, projectId)

client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = DeleteGaussMySQLBackupRequest()
    request.backup_id = "{backup_id}"
    response = client.delete_gauss_my_sql_backup(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/ HuaweiCloud/ HuaweiCloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/ HuaweiCloud/ HuaweiCloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/ HuaweiCloud/ HuaweiCloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/ HuaweiCloud/ HuaweiCloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteGaussMySQLBackupRequest{
        request.BackupId = "{backup_id}"
    }
    response, err := client.DeleteGaussMySQLBackup(request)
    if err == nil {
        fmt.Printf("%v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.4.6 表级时间点恢复

#### 功能介绍

表级时间点恢复，只支持恢复到当前实例。

#### 调用方法

请参见[如何调用API](#)。

#### URI

POST /v3.1/{project\_id}/instances/{instance\_id}/restore/tables

表 4-330 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-331 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-332 请求 Body 参数

参数	是否必选	参数类型	描述
restore_time	是	Long	备份要恢复的目标时间点。
restore_tables	是	Array of <a href="#">RestoreDatabaseInfo</a> objects	备份要恢复的库表信息。

表 4-333 RestoreDatabaseInfo

参数	是否必选	参数类型	描述
database	是	String	数据库名。
tables	是	Array of <a href="#">RestoreTableInfo</a> objects	数据库表信息。

表 4-334 RestoreTableInfo

参数	是否必选	参数类型	描述
old_name	是	String	原表名。
new_name	是	String	恢复后的表名。



## 响应参数

状态码： 200

表 4-335 响应 Body 参数

参数	参数类型	描述
job_id	String	工作流ID。

状态码： 400

表 4-336 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-337 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

```
POST https://{endpoint}/v3.1/619d3e78f61b4be68bc5aa0b59edcf7b/instances/  
7033e7c3cf93438797d44ad7ae0a7d95in07/restore/tables
```

```
{  
  "restore_time": 1673852043000,  
  "restore_tables": [{  
    "database": "huawei-test",  
    "tables": [{  
      "old_name": "user_table",  
      "new_name": "new_user_table"  
    }]  
  }]  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "job_id": "dff1d289-4d03-4942-8b9f-463ea07c000d"  
}
```

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.4.7 备份恢复到当前实例或已有实例

### 功能介绍

备份恢复到当前实例或已有实例。

### 调用方法

请参见[如何调用API](#)。

## URI

POST /v3/{project\_id}/instances/restore

表 4-338 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	<b>参数解释：</b> 租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。 <b>约束限制：</b> 不涉及。 <b>取值范围：</b> 只能由英文字母、数字组成，且长度为32个字符。 <b>默认值：</b> 不涉及。

## 请求参数

表 4-339 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	<b>参数解释：</b> 用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 <b>约束限制：</b> 不涉及。 <b>取值范围：</b> 不涉及。 <b>默认值：</b> 不涉及。
X-Language	否	String	<b>参数解释：</b> 请求语言类型。 <b>约束限制：</b> 不涉及。 <b>取值范围：</b> <ul style="list-style-type: none"><li>• en-us</li><li>• zh-cn</li></ul> <b>默认值：</b> en-us。

表 4-340 请求 Body 参数

参数	是否必选	参数类型	描述
target_instance_id	是	String	<b>参数解释：</b> 目标实例ID。 <b>约束限制：</b> 不涉及。 <b>取值范围：</b> 不涉及。 <b>默认取值：</b> 不涉及。

参数	是否必选	参数类型	描述
source_instance_id	是	String	<b>参数解释:</b> 源实例ID。 <b>约束限制:</b> 不涉及。 <b>取值范围:</b> 不涉及。 <b>默认取值:</b> 不涉及。
type	是	String	<b>参数解释:</b> 表示恢复方式。 <b>约束限制:</b> 不涉及。 <b>取值范围:</b> <ul style="list-style-type: none"><li>• backup: 表示使用备份文件恢复, 按照此方式恢复时, "backup_id"必选。</li><li>• timestamp: 表示按时间点恢复, 按照此方式恢复时, "restore_time"必选。</li></ul> <b>默认取值:</b> 不涉及。
backup_id	否	String	<b>参数解释:</b> 用于恢复的备份ID。当使用备份文件恢复时需要指定该参数。 <b>约束限制:</b> 不涉及。 <b>取值范围:</b> 不涉及。 <b>默认取值:</b> 不涉及。

参数	是否必选	参数类型	描述
restore_time	否	Long	<b>参数解释:</b> 备份时间点。 <b>约束限制:</b> 格式为UNIX时间戳, 单位是毫秒, 时区为UTC标准时区。传参时需要将对应时区的时间转为标准时区对应的时间戳, 比如, 北京时区的时间点需要-8h后再转为时间戳。 <b>取值范围:</b> 通过 <a href="#">查询可恢复时间段</a> 获取。 <b>默认取值:</b> 不涉及。

## 响应参数

状态码: 200

表 4-341 响应 Body 参数

参数	参数类型	描述
job_id	String	workflow ID。

状态码: 400

表 4-342 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码: 500

表 4-343 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

- 按备份文件恢复到当前实例。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/restore

{
  "target_instance_id": "690e08a7c3854c218df0e59de3b0c6cein07",
  "source_instance_id": "690e08a7c3854c218df0e59de3b0c6cein07",
  "backup_id": "7ffbf305376b4cbea0ae491257b6aaf9br07",
  "type": "backup"
}
```

- 按时间点恢复到当前实例。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/restore

{
  "target_instance_id": "690e08a7c3854c218df0e59de3b0c6cein07",
  "source_instance_id": "690e08a7c3854c218df0e59de3b0c6cein07",
  "restore_time": 1673852043000,
  "type": "timestamp"
}
```

- 按备份文件恢复到已有实例。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/restore

{
  "target_instance_id": "7033e7c3cf93438797d44ad7ae0a7d95in07",
  "source_instance_id": "690e08a7c3854c218df0e59de3b0c6cein07",
  "backup_id": "be4ddfd7e2b94640b5e2cb44efb30b22br07",
  "type": "backup"
}
```

- 按时间点恢复到已有实例。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/restore

{
  "target_instance_id": "7033e7c3cf93438797d44ad7ae0a7d95in07",
  "source_instance_id": "690e08a7c3854c218df0e59de3b0c6cein07",
  "restore_time": 1673852043000,
  "type": "timestamp"
}
```

## 响应示例

状态码: 200

Success.

```
{
  "job_id": "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

- 按备份文件恢复到当前实例。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
```

```
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class RestoreOldInstanceSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        RestoreOldInstanceRequest request = new RestoreOldInstanceRequest();
        RestoreRequest body = new RestoreRequest();
        body.withType("backup");
        body.withBackupId("7ffbf305376b4cbea0ae491257b6aaf9br07");
        body.withSourceInstanceld("690e08a7c3854c218df0e59de3b0c6cein07");
        body.withTargetInstanceld("690e08a7c3854c218df0e59de3b0c6cein07");
        request.withBody(body);
        try {
            RestoreOldInstanceResponse response = client.restoreOldInstance(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- 按时间点恢复到当前实例。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class RestoreOldInstanceSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
```

security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.

// In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD\_SDK\_AK and CLOUD\_SDK\_SK in the local environment

```
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");
String projectId = "{project_id}";

ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR_REGION>"))
    .build();
RestoreOldInstanceRequest request = new RestoreOldInstanceRequest();
RestoreRequest body = new RestoreRequest();
body.withType("timestamp");
body.withRestoreTime(1673852043000L);
body.withSourceInstanceld("690e08a7c3854c218df0e59de3b0c6cein07");
body.withTargetInstanceld("690e08a7c3854c218df0e59de3b0c6cein07");
request.withBody(body);
try {
    RestoreOldInstanceResponse response = client.restoreOldInstance(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

- 按备份文件恢复到已有实例。

```
package com.huaweicloud.sdk.test;
```

```
import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;
```

```
public class RestoreOldInstanceSolution {
```

```
    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
```



```
        .withAk(ak)
        .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
RestoreOldInstanceRequest request = new RestoreOldInstanceRequest();
RestoreRequest body = new RestoreRequest();
body.withType("backup");
body.withBackupId("be4ddfd7e2b94640b5e2cb44efb30b22br07");
body.withSourceInstanceld("690e08a7c3854c218df0e59de3b0c6cein07");
body.withTargetInstanceld("7033e7c3cf93438797d44ad7ae0a7d95in07");
request.withBody(body);
try {
    RestoreOldInstanceResponse response = client.restoreOldInstance(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

- 按时间点恢复到已有实例。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class RestoreOldInstanceSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        RestoreOldInstanceRequest request = new RestoreOldInstanceRequest();
        RestoreRequest body = new RestoreRequest();
        body.withType("timestamp");
        body.withRestoreTime(1673852043000L);
    }
}
```

```
body.withSourceInstanceId("690e08a7c3854c218df0e59de3b0c6cein07");
body.withTargetInstanceId("7033e7c3cf93438797d44ad7ae0a7d95in07");
request.withBody(body);
try {
    RestoreOldInstanceResponse response = client.restoreOldInstance(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

- 按备份文件恢复到当前实例。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = RestoreOldInstanceRequest()
        request.body = RestoreRequest(
            type="backup",
            backup_id="7ffbf305376b4cbea0ae491257b6aaf9br07",
            source_instance_id="690e08a7c3854c218df0e59de3b0c6cein07",
            target_instance_id="690e08a7c3854c218df0e59de3b0c6cein07"
        )
        response = client.restore_old_instance(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- 按时间点恢复到当前实例。

```
# coding: utf-8
```

```
import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = RestoreOldInstanceRequest()
        request.body = RestoreRequest(
            type="timestamp",
            restore_time=1673852043000,
            source_instance_id="690e08a7c3854c218df0e59de3b0c6cein07",
            target_instance_id="690e08a7c3854c218df0e59de3b0c6cein07"
        )
        response = client.restore_old_instance(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- 按备份文件恢复到已有实例。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = RestoreOldInstanceRequest()
        request.body = RestoreRequest(
```

```
        type="backup",
        backup_id="be4ddfd7e2b94640b5e2cb44efb30b22br07",
        source_instance_id="690e08a7c3854c218df0e59de3b0c6cein07",
        target_instance_id="7033e7c3cf93438797d44ad7ae0a7d95in07"
    )
    response = client.restore_old_instance(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

- 按时间点恢复到已有实例。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = RestoreOldInstanceRequest()
        request.body = RestoreRequest(
            type="timestamp",
            restore_time=1673852043000,
            source_instance_id="690e08a7c3854c218df0e59de3b0c6cein07",
            target_instance_id="7033e7c3cf93438797d44ad7ae0a7d95in07"
        )
        response = client.restore_old_instance(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

- 按备份文件恢复到当前实例。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)
```

```
func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.RestoreOldInstanceRequest{}
    backupIdRestoreRequest := "7ffbf305376b4cbea0ae491257b6aaf9br07"
    request.Body = &model.RestoreRequest{
        Type: "backup",
        BackupId: &backupIdRestoreRequest,
        SourceInstancId: "690e08a7c3854c218df0e59de3b0c6cein07",
        TargetInstancId: "690e08a7c3854c218df0e59de3b0c6cein07",
    }
    response, err := client.RestoreOldInstance(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- 按时间点恢复到当前实例。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
```

```
WithRegion(region.ValueOf("<YOUR REGION>")).
WithCredential(auth).
Build()

request := &model.RestoreOldInstanceRequest{}
restoreTimeRestoreRequest:= int64(1673852043000)
request.Body = &model.RestoreRequest{
    Type: "timestamp",
    RestoreTime: &restoreTimeRestoreRequest,
    SourceInstanceld: "690e08a7c3854c218df0e59de3b0c6cein07",
    TargetInstanceld: "690e08a7c3854c218df0e59de3b0c6cein07",
}
response, err := client.RestoreOldInstance(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

- 按备份文件恢复到已有实例。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build()

    request := &model.RestoreOldInstanceRequest{}
    backupIdRestoreRequest:= "be4ddfd7e2b94640b5e2cb44efb30b22br07"
    request.Body = &model.RestoreRequest{
        Type: "backup",
        BackupId: &backupIdRestoreRequest,
        SourceInstanceld: "690e08a7c3854c218df0e59de3b0c6cein07",
        TargetInstanceld: "7033e7c3cf93438797d44ad7ae0a7d95in07",
    }
    response, err := client.RestoreOldInstance(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- 按时间点恢复到已有实例。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.RestoreOldInstanceRequest{
        restoreTimeRestoreRequest:= int64(1673852043000)
        request.Body = &model.RestoreRequest{
            Type: "timestamp",
            RestoreTime: &restoreTimeRestoreRequest,
            SourceInstancelId: "690e08a7c3854c218df0e59de3b0c6cein07",
            TargetInstancelId: "7033e7c3cf93438797d44ad7ae0a7d95in07",
        }
    }
    response, err := client.RestoreOldInstance(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.4.8 查询可恢复时间段

### 功能介绍

查询实例的可恢复时间段。

### 调用方法

请参见[如何调用API](#)。

## URI

GET /v3/{project\_id}/instances/{instance\_id}/restore-time

表 4-344 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

表 4-345 Query 参数

参数	是否必选	参数类型	描述
date	否	String	所需查询的日期，为yyyy-mm-dd字符串格式，时区为UTC。

## 请求参数

表 4-346 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。



参数	是否必选	参数类型	描述
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-347 响应 Body 参数

参数	参数类型	描述
restore_times	Array of <a href="#">RestoreTimeInfo</a> objects	可恢复时间段列表。

表 4-348 RestoreTimeInfo

参数	参数类型	描述
start_time	Long	可恢复时间段的起始时间点，UNIX时间戳格式，单位是毫秒，时区是UTC。
end_time	Long	可恢复时间段的结束时间点，UNIX时间戳格式，单位是毫秒，时区是UTC。

状态码： 400

表 4-349 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-350 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询实例在2023-01-31的可恢复时间段。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
096c0fc43e804757b59946b80dc27f8bin07/restore-time?date=2023-01-31
```

## 响应示例

状态码： 200

Success.

```
{  
  "restore_times" : [ {  
    "start_time" : 1675095500000,  
    "end_time" : 1675149246000  
  } ]  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ShowBackupRestoreTimeSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);
```

```
GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
ShowBackupRestoreTimeRequest request = new ShowBackupRestoreTimeRequest();
request.withInstanceld("{instance_id}");
try {
    ShowBackupRestoreTimeResponse response = client.showBackupRestoreTime(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowBackupRestoreTimeRequest()
        request.instance_id = "{instance_id}"
        response = client.show_backup_restore_time(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
```

```
gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
"github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowBackupRestoreTimeRequest{}
    request.InstanceId = "{instance_id}"
    response, err := client.ShowBackupRestoreTime(request)
    if err == nil {
        fmt.Printf("%v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.4.9 打开或关闭备份加密

### 功能介绍

打开或关闭备份加密。

## 接口约束

该接口目前公测阶段，如需使用，请提交工单联系客服人员申请权限。

## 调用方法

请参见[如何调用API](#)。

## URI

POST /v3/{project\_id}/instances/{instance\_id}/backups/encryption

表 4-351 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-352 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-353 请求 Body 参数

参数	是否必选	参数类型	描述
encryption_status	是	String	开启或关闭加密。不区分大小写。 取值范围： <ul style="list-style-type: none"><li>on: 开启。</li><li>off: 关闭。</li></ul>
type	否	String	加密类型。当前只支持kms。 开启加密时必传，关闭加密时不传。 不区分大小写。
kms_key_id	否	String	kms加密ID。加密时必传，关闭加密时候不传。 通过调用数据加密服务的 <a href="#">创建密钥接口</a> 获取（响应参数的key_id即为加密ID）。

## 响应参数

状态码： 200

表 4-354 响应 Body 参数

参数	参数类型	描述
encryption_status	String	备份加密状态。 取值范围： <ul style="list-style-type: none"><li>on: 开启状态。</li><li>off: 关闭状态。</li></ul>

状态码： 400

表 4-355 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-356 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

- 开启备份加密

```
POST https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/  
7033e7c3cf93438797d44ad7ae0a7d95in07/backups/encryption
```

```
{  
  "type" : "kms",  
  "kms_key_id" : "b82fa43f-f6e8-4ec4-9c31-231bc547c526",  
  "encryption_status" : "on"  
}
```

- 关闭备份加密

```
POST https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/  
7033e7c3cf93438797d44ad7ae0a7d95in07/backups/encryption
```

```
{  
  "encryption_status" : "off"  
}
```

## 响应示例

状态码: 200

Success.

```
{  
  "encryption_status" : "on"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

- 开启备份加密

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ModifyBackupEncryptStatusSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
```

security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.

// In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD\_SDK\_AK and CLOUD\_SDK\_SK in the local environment

```
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");
String projectId = "{project_id}";

ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
ModifyBackupEncryptStatusRequest request = new ModifyBackupEncryptStatusRequest();
request.withInstanceId("{instance_id}");
BackupEncryptRequest body = new BackupEncryptRequest();
body.withEncryptionStatus(BackupEncryptRequest.EncryptionStatusEnum.fromValue("on"));
body.withKmsKeyId("b82fa43f-f6e8-4ec4-9c31-231bc547c526");
body.withType(BackupEncryptRequest.TypeEnum.fromValue("kms"));
request.withBody(body);
try {
    ModifyBackupEncryptStatusResponse response = client.modifyBackupEncryptStatus(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

- 关闭备份加密

```
package com.huaweicloud.sdk.test;
```

```
import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;
```

```
public class ModifyBackupEncryptStatusSolution {
```

```
    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
```



```
.withAk(ak)
.withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
ModifyBackupEncryptStatusRequest request = new ModifyBackupEncryptStatusRequest();
request.withInstanceId("{instance_id}");
BackupEncryptRequest body = new BackupEncryptRequest();
body.withEncryptionStatus(BackupEncryptRequest.EncryptionStatusEnum.fromValue("off"));
request.withBody(body);
try {
    ModifyBackupEncryptStatusResponse response = client.modifyBackupEncryptStatus(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

- 开启备份加密

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ModifyBackupEncryptStatusRequest()
        request.instance_id = "{instance_id}"
        request.body = BackupEncryptRequest(
            encryption_status="on",
            kms_key_id="b82fa43f-f6e8-4ec4-9c31-231bc547c526",
            type="kms"
        )
        response = client.modify_backup_encrypt_status(request)
        print(response)
    except exceptions.ClientRequestException as e:
```

```
print(e.status_code)
print(e.request_id)
print(e.error_code)
print(e.error_msg)
```

- 关闭备份加密

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ModifyBackupEncryptStatusRequest()
        request.instance_id = "{instance_id}"
        request.body = BackupEncryptRequest(
            encryption_status="off"
        )
        response = client.modify_backup_encrypt_status(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

- 开启备份加密

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
```

```
projectId := "{project_id}"

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    WithProjectId(projectId).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.ModifyBackupEncryptStatusRequest{}
request.InstanceId = "{instance_id}"
kmsKeyIdBackupEncryptRequest:= "b82fa43f-f6e8-4ec4-9c31-231bc547c526"
typeBackupEncryptRequest:= model.GetBackupEncryptRequestTypeEnum().KMS
request.Body = &model.BackupEncryptRequest{
    EncryptionStatus: model.GetBackupEncryptRequestEncryptionStatusEnum().ON,
    KmsKeyId: &kmsKeyIdBackupEncryptRequest,
    Type: &typeBackupEncryptRequest,
}
response, err := client.ModifyBackupEncryptStatus(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

- 关闭备份加密

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ModifyBackupEncryptStatusRequest{}
    request.InstanceId = "{instance_id}"
    request.Body = &model.BackupEncryptRequest{
        EncryptionStatus: model.GetBackupEncryptRequestEncryptionStatusEnum().OFF,
    }
}
```

```
response, err := client.ModifyBackupEncryptStatus(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.4.10 查询实例是否开启备份加密功能

### 功能介绍

查询实例是否开启备份加密功能。

### 调用方法

请参见[如何调用API](#)。

## URI

GET /v3/{project\_id}/instances/{instance\_id}/backups/encryption

表 4-357 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-358 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-359 响应 Body 参数

参数	参数类型	描述
encryption_status	String	备份加密状态。 取值范围： <ul style="list-style-type: none"><li>on：开启状态。</li><li>off：关闭状态。</li></ul>

状态码： 400

表 4-360 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-361 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询实例是否开启备份加密

```
GET https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/  
7033e7c3cf93438797d44ad7ae0a7d95in07/backups/encryption
```

## 响应示例

状态码： 200

Success.

```
{  
  "encryption_status" : "on"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class DescribeBackupEncryptStatusSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)
```

```
        .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
        .build();
DescribeBackupEncryptStatusRequest request = new DescribeBackupEncryptStatusRequest();
request.withInstanceId("{instance_id}");
try {
    DescribeBackupEncryptStatusResponse response = client.describeBackupEncryptStatus(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.valueOf("<YOUR REGION>")) \
        .build()

    try:
        request = DescribeBackupEncryptStatusRequest()
        request.instance_id = "{instance_id}"
        response = client.describe_backup_encrypt_status(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
```

```
)  
  
func main() {  
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    // variables and decrypted during use to ensure security.  
    // In this example, AK and SK are stored in environment variables for authentication. Before running this  
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak := os.Getenv("CLOUD_SDK_AK")  
    sk := os.Getenv("CLOUD_SDK_SK")  
    projectId := "{project_id}"  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).  
        WithSk(sk).  
        WithProjectId(projectId).  
        Build()  
  
    client := gaussdb.NewGaussDBClient(  
        gaussdb.GaussDBClientBuilder().  
            WithRegion(region.ValueOf("<YOUR REGION>")).  
            WithCredential(auth).  
            Build()  
    )  
  
    request := &model.DescribeBackupEncryptStatusRequest{}  
    request.InstanceId = "{instance_id}"  
    response, err := client.DescribeBackupEncryptStatus(request)  
    if err == nil {  
        fmt.Printf("%+v\n", response)  
    } else {  
        fmt.Println(err)  
    }  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.4.11 查询增量备份列表

#### 功能介绍

查询增量备份列表。



## 调用方法

请参见[如何调用API](#)。

## URI

GET /v3/{project\_id}/instances/{instance\_id}/incremental-backups

表 4-362 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

表 4-363 Query 参数

参数	是否必选	参数类型	描述
offset	否	String	索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。
limit	否	String	查询记录数。默认为10，可取范围：10、20、50。
begin_time	否	String	查询开始时间，格式为“yyyy-mm-ddThh:mm:ssZ”。 其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。 “begin_time” 有值时，“end_time” 必选。
end_time	否	String	查询结束时间，格式为“yyyy-mm-ddThh:mm:ssZ”，且大于查询开始时间。 其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。 “end_time” 有值时，“begin_time” 必选。

## 请求参数

表 4-364 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-365 响应 Body 参数

参数	参数类型	描述
backups	Array of <a href="#">IncrementalBackups</a> objects	备份信息。
total_count	Long	备份文件的总数。

表 4-366 IncrementalBackups

参数	参数类型	描述
id	String	备份ID。
name	String	备份名称。
begin_time	String	备份开始时间，格式为“yyyy-mm-ddThh:mm:ssZ”。 其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。

参数	参数类型	描述
end_time	String	备份结束时间，格式为“yyyy-mm-ddThh:mm:ssZ”。 其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。
size	Number	备份大小，(单位：KB)。
instance_id	String	实例ID。

状态码： 400

表 4-367 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-368 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询时间段内（2022-07-06~2022-07-16）的增量备份列表。

```
GET https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/  
61a4ea66210545909d74a05c27a7179ein07/incremental-backups?  
offset=0&limit=10&begin_time=2022-07-06T10:41:14+0800&end_time=2022-07-16T10:41:14+0800
```

## 响应示例

状态码： 200

Success.

```
{  
  "backups": [ {  
    "id": "f0d2aea28d26t4848b8c84ed3fea1822fbr07",  
    "name": "GaussDBforMySQL--20230728181555006",  
    "begin_time": "2022-07-07T12:41:14+0800",  
    "end_time": "2022-07-08T12:45:14+0800",  
    "size": 0.109375,  
  } ]  
}
```

```
"instance_id" : "61a4ea66210545909d74a05c27a7179ein07"  
}],  
"total_count" : 1  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ShowGaussMySQLIncrementalBackupListSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        ShowGaussMySQLIncrementalBackupListRequest request = new  
        ShowGaussMySQLIncrementalBackupListRequest();  
        request.withInstanceId("{instance_id}");  
        try {  
            ShowGaussMySQLIncrementalBackupListResponse response =  
            client.showGaussMySQLIncrementalBackupList(request);  
            System.out.println(response.toString());  
        } catch (ConnectionException e) {  
            e.printStackTrace();  
        } catch (RequestTimeoutException e) {  
            e.printStackTrace();  
        } catch (ServiceResponseException e) {  
            e.printStackTrace();  
            System.out.println(e.getHttpStatusCode());  
            System.out.println(e.getRequestId());  
            System.out.println(e.getErrorCode());  
            System.out.println(e.getErrorMsg());  
        }  
    }  
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowGaussMySQLIncrementalBackupListRequest()
        request.instance_id = "{instance_id}"
        response = client.show_gauss_my_sql_incremental_backup_list(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
```

```
WithCredential(auth).
Build()

request := &model.ShowGaussMySQLIncrementalBackupListRequest{}
request.InstanceId = "{instance_id}"
response, err := client.ShowGaussMySQLIncrementalBackupList(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.4.12 设置跨区域备份策略

### 功能介绍

设置跨区域备份策略。

### 调用方法

请参见[如何调用API](#)。

### URI

PUT /v3/{project\_id}/instances/{instance\_id}/backups/offsite-policy

表 4-369 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

参数	是否必选	参数类型	描述
instance_id	是	String	实例ID, 严格匹配UUID规则。

## 请求参数

表 4-370 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-371 请求 Body 参数

参数	是否必选	参数类型	描述
backup_policy	是	<a href="#">UpdateBackupOffsitePolicyInfo</a> object	备份策略信息。

表 4-372 UpdateBackupOffsitePolicyInfo

参数	是否必选	参数类型	描述
open_auto_backup	是	Boolean	是否开启跨区域全量备份。 <ul style="list-style-type: none"><li>true: 开启跨区域全量备份。</li><li>false: 关闭跨区域全量备份。</li></ul>

参数	是否必选	参数类型	描述
open_incremental_backup	是	Boolean	是否开启跨区域增量备份。 <ul style="list-style-type: none"> <li>• true: 开启跨区域增量备份, 当open_auto_backup开启时才可以开启。</li> <li>• false: 关闭跨区域增量备份。</li> </ul>
destination_project_id	是	String	设置跨区域备份策略的目标 project ID。 租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
destination_region	是	String	设置跨区域备份策略的目标区域。
keep_days	是	Integer	指定已生成的备份文件可以保存的天数。 取值范围: 1 ~ 1825。

## 响应参数

状态码: 200

表 4-373 响应 Body 参数

参数	参数类型	描述
result	String	结果。

状态码: 400

表 4-374 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码: 500



表 4-375 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

设置跨区域备份策略。

```
PUT https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/  
61a4ea66210545909d74a05c27a7179ein07/backups/offsite-policy
```

```
{  
  "backup_policy" : {  
    "open_auto_backup" : true,  
    "open_incremental_backup" : false,  
    "destination_project_id" : "fd710c89089a448aa2e666ab15817090",  
    "destination_region" : "cn-north-7",  
    "keep_days" : 1  
  }  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "result" : "SUCCESS"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

设置跨区域备份策略。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class UpdateBackupOffsitePolicySolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
    }  
}
```

```
// In this example, AK and SK are stored in environment variables for authentication. Before running
this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");
String projectId = "{project_id}";

ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
UpdateBackupOffsitePolicyRequest request = new UpdateBackupOffsitePolicyRequest();
request.withInstanceId("{instance_id}");
UpdateBackupOffsitePolicyRequestBody body = new UpdateBackupOffsitePolicyRequestBody();
UpdateBackupOffsitePolicyInfo backupPolicybody = new UpdateBackupOffsitePolicyInfo();
backupPolicybody.withOpenAutoBackup(true)
    .withOpenIncrementalBackup(false)
    .withDestinationProjectId("fd710c89089a448aa2e666ab15817090")
    .withDestinationRegion("cn-north-7")
    .withKeepDays(1);
body.withBackupPolicy(backupPolicybody);
request.withBody(body);
try {
    UpdateBackupOffsitePolicyResponse response = client.updateBackupOffsitePolicy(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

设置跨区域备份策略。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
```

```
.with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
.build()

try:
    request = UpdateBackupOffsitePolicyRequest()
    request.instance_id = "{instance_id}"
    backupPolicybody = UpdateBackupOffsitePolicyInfo(
        open_auto_backup=True,
        open_incremental_backup=False,
        destination_project_id="fd710c89089a448aa2e666ab15817090",
        destination_region="cn-north-7",
        keep_days=1
    )
    request.body = UpdateBackupOffsitePolicyRequestBody(
        backup_policy=backupPolicybody
    )
    response = client.update_backup_offsite_policy(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

设置跨区域备份策略。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/taurusdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/taurusdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/taurusdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateBackupOffsitePolicyRequest{}
    request.InstanceId = "{instance_id}"
    backupPolicybody := &model.UpdateBackupOffsitePolicyInfo{
        OpenAutoBackup: true,
        OpenIncrementalBackup: false,
        DestinationProjectId: "fd710c89089a448aa2e666ab15817090",
        DestinationRegion: "cn-north-7",
        KeepDays: int32(1),
    }
}
```

```
request.Body = &model.UpdateBackupOffsitePolicyRequestBody{
    BackupPolicy: backupPolicybody,
}
response, err := client.UpdateBackupOffsitePolicy(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.4.13 表级时间点恢复

#### 功能介绍

表级时间点恢复。

#### 调用方法

请参见[如何调用API](#)。

#### URI

POST /v3/{project\_id}/instances/{instance\_id}/backups/restore/tables

表 4-376 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	<b>参数解释:</b> 租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。 <b>约束限制:</b> 不涉及。 <b>取值范围:</b> 只能由英文字母、数字组成，且长度为32个字符。 <b>默认值:</b> 不涉及。
instance_id	是	String	<b>参数解释:</b> 实例ID，此参数是实例的唯一标识。 <b>约束限制:</b> 不涉及。 <b>取值范围:</b> 只能由英文字母、数字组成，后缀为in07，长度为36个字符。 <b>默认取值:</b> 不涉及。

## 请求参数

表 4-377 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	<b>参数解释：</b> 用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 <b>约束限制：</b> 不涉及。 <b>取值范围：</b> 不涉及。 <b>默认值：</b> 不涉及。
X-Language	否	String	<b>参数解释：</b> 请求语言类型。 <b>约束限制：</b> 不涉及。 <b>取值范围：</b> <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul> <b>默认值：</b> en-us。

表 4-378 请求 Body 参数

参数	是否必选	参数类型	描述
restore_time	是	String	<p><b>参数解释：</b> 备份时间点。</p> <p><b>约束限制：</b> 格式为UNIX时间戳，单位是毫秒，时区为UTC标准时区。传参时需要将对应时区的时间转为标准时区对应的时间戳，比如，北京时区的时间点需要-8h后再转为时间戳。</p> <p><b>取值范围：</b> 通过<a href="#">查询可恢复时间段</a>获取。</p> <p><b>默认取值：</b> 不涉及。</p>
restore_tables	是	Array of <a href="#">CreateRestoreDatabaseTableInfo</a> objects	数据库信息。
last_table_info	否	String	<p><b>参数解释：</b> 是否是最新库表。</p> <p><b>约束限制：</b> 不涉及。</p> <p><b>取值范围：</b></p> <ul style="list-style-type: none"> <li>• true: 是最新库表。</li> <li>• false: 是恢复时间点库表。</li> </ul> <p><b>默认取值：</b> false。</p>

表 4-379 CreateRestoreDatabaseTableInfo

参数	是否必选	参数类型	描述
database	是	String	<b>参数解释:</b> 数据库名称。 <b>约束限制:</b> 不涉及。 <b>取值范围:</b> 不涉及。 <b>默认取值:</b> false。
tables	是	Array of <a href="#">CreateRestoreTableInfo</a> objects	表信息。

表 4-380 CreateRestoreTableInfo

参数	是否必选	参数类型	描述
old_name	是	String	<b>参数解释:</b> 恢复前表名。 <b>约束限制:</b> 不涉及。 <b>取值范围:</b> 不涉及。 <b>默认取值:</b> false。
new_name	是	String	<b>参数解释:</b> 恢复后表名。 <b>约束限制:</b> 不涉及。 <b>取值范围:</b> 不涉及。 <b>默认取值:</b> false

## 响应参数

状态码: 200



表 4-381 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 4-382 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-383 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

表级时间点恢复。

```
POST https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/  
61a4ea66210545909d74a05c27a7179ein07/backups/restore/tables
```

```
{  
  "restore_time": 1690890940000,  
  "last_table_info": true,  
  "restore_tables": [ {  
    "database": "test_db_1",  
    "tables": [ {  
      "new_name": "t3_1690899914000",  
      "old_name": "t3"  
    } ]  
  } ]  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "job_id": "9c77973c-9332-4fbe-bb4d-b76760dbc9b2"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

表级时间点恢复。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class CreateRestoreTablesSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        CreateRestoreTablesRequest request = new CreateRestoreTablesRequest();
        request.withInstanceId("{instance_id}");
        CreateRestoreTablesRequestBody body = new CreateRestoreTablesRequestBody();
        List<CreateRestoreTableInfo> listRestoreTablesTables = new ArrayList<>();
        listRestoreTablesTables.add(
            new CreateRestoreTableInfo()
                .withOldName("t3")
                .withNewName("t3_1690899914000")
        );
        List<CreateRestoreDatabaseTableInfo> listbodyRestoreTables = new ArrayList<>();
        listbodyRestoreTables.add(
            new CreateRestoreDatabaseTableInfo()
                .withDatabase("test_db_1")
                .withTables(listRestoreTablesTables)
        );
        body.withRestoreTables(listbodyRestoreTables);
        body.withLastTableInfo("true");
        body.withRestoreTime("1690890940000");
        request.withBody(body);
        try {
            CreateRestoreTablesResponse response = client.createRestoreTables(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
```

```
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

表级时间点恢复。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateRestoreTablesRequest()
        request.instance_id = "{instance_id}"
        listTablesRestoreTables = [
            CreateRestoreTableInfo(
                old_name="t3",
                new_name="t3_1690899914000"
            )
        ]
        listRestoreTablesbody = [
            CreateRestoreDatabaseTableInfo(
                database="test_db_1",
                tables=listTablesRestoreTables
            )
        ]
        request.body = CreateRestoreTablesRequestBody(
            restore_tables=listRestoreTablesbody,
            last_table_info="true",
            restore_time="1690890940000"
        )
        response = client.create_restore_tables(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

表级时间点恢复。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateRestoreTablesRequest{}
    request.InstanceId = "{instance_id}"
    var listTablesRestoreTables = []model.CreateRestoreTableInfo{
        {
            OldName: "t3",
            NewName: "t3_1690899914000",
        },
    }
    var listRestoreTablesbody = []model.CreateRestoreDatabaseTableInfo{
        {
            Database: "test_db_1",
            Tables: listTablesRestoreTables,
        },
    }
    lastTableInfoCreateRestoreTablesRequestBody := "true"
    request.Body = &model.CreateRestoreTablesRequestBody{
        RestoreTables: listRestoreTablesbody,
        LastTableInfo: &lastTableInfoCreateRestoreTablesRequestBody,
        RestoreTime: "1690890940000",
    }
    response, err := client.CreateRestoreTables(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.4.14 查询表级时间点恢复可选表

#### 功能介绍

查询表级时间点恢复可选表。

#### 调用方法

请参见[如何调用API](#)。

## URI

GET /v3/{project\_id}/instances/{instance\_id}/backups/restore/tables

表 4-384 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	<b>参数解释:</b> 租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。 <b>约束限制:</b> 不涉及。 <b>取值范围:</b> 只能由英文字母、数字组成，且长度为32个字符。 <b>默认值:</b> 不涉及。

参数	是否必选	参数类型	描述
instance_id	是	String	<p><b>参数解释:</b> 实例ID, 此参数是实例的唯一标识。</p> <p><b>约束限制:</b> 不涉及。</p> <p><b>取值范围:</b> 只能由英文字母、数字组成, 后缀为in07, 长度为36个字符。</p> <p><b>默认取值:</b> 不涉及。</p>

表 4-385 Query 参数

参数	是否必选	参数类型	描述
restore_time	是	String	<p><b>参数解释:</b> 备份时间点。</p> <p><b>约束限制:</b> 格式为UNIX时间戳, 单位是毫秒, 时区为UTC标准时区。传参时需要将对应时区的时间转为标准时区对应的时间戳, 比如, 北京时区的时间点需要-8h后再转为时间戳。</p> <p><b>取值范围:</b> 通过<a href="#">查询可恢复时间段</a>获取。</p> <p><b>默认取值:</b> 不涉及。</p>
last_table_info	是	String	<p><b>参数解释:</b> 是否是最新库表。</p> <p><b>约束限制:</b> 不涉及。</p> <p><b>取值范围:</b></p> <ul style="list-style-type: none"> <li>• true: 是最新库表。</li> <li>• false: 是恢复时间点库表。</li> </ul> <p><b>默认取值:</b> 不涉及。</p>

参数	是否必选	参数类型	描述
database_name	否	String	<p><b>参数解释:</b> 数据库名称, 模糊匹配。</p> <p><b>约束限制:</b> 不涉及。</p> <p><b>取值范围:</b> 不涉及。</p> <p><b>默认取值:</b> 不涉及。</p>
table_name	否	String	<p><b>参数解释:</b> 表名称, 模糊匹配。</p> <p><b>约束限制:</b> 不涉及。</p> <p><b>取值范围:</b> 不涉及。</p> <p><b>默认取值:</b> 不涉及。</p>

## 请求参数

表 4-386 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	<p><b>参数解释:</b> 用户Token。 通过调用IAM服务<a href="#">获取用户Token</a>接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。</p> <p><b>约束限制:</b> 不涉及。</p> <p><b>取值范围:</b> 不涉及。</p> <p><b>默认值:</b> 不涉及。</p>

参数	是否必选	参数类型	描述
X-Language	否	String	<b>参数解释：</b> 请求语言类型。 <b>约束限制：</b> 不涉及。 <b>取值范围：</b> <ul style="list-style-type: none"> <li>• en-us</li> <li>• zh-cn</li> </ul> <b>默认值：</b> en-us。

## 响应参数

状态码： 200

表 4-387 响应 Body 参数

参数	参数类型	描述
total_databases	Integer	数据库总数。
databases	Array of <a href="#">RestoreDatabaseInfos</a> objects	数据库信息。

表 4-388 RestoreDatabaseInfos

参数	参数类型	描述
name	String	数据库名称。
total_tables	Integer	总表数。
tables	Array of <a href="#">RestoreDatabaseTableInfo</a> objects	表信息。

表 4-389 RestoreDatabaseTableInfo

参数	参数类型	描述
name	String	表名。

状态码： 400



表 4-390 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-391 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询表级时间点恢复可选表。

```
GET https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/  
61a4ea66210545909d74a05c27a7179ein07/backups/restore/tables?  
database_name=test&last_table_info=true&restore_time=1690890940000&table_name=t
```

## 响应示例

状态码： 200

Success.

```
{  
  "total_databases" : 1,  
  "databases" : [ {  
    "name" : "test_db_1",  
    "total_tables" : 1,  
    "tables" : [ {  
      "name" : "t3"  
    } ]  
  } ]  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
```

```
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowRestoreTablesSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ShowRestoreTablesRequest request = new ShowRestoreTablesRequest();
        request.withInstanceId("{instance_id}");
        try {
            ShowRestoreTablesResponse response = client.showRestoreTables(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
```

```
.build()

try:
    request = ShowRestoreTablesRequest()
    request.instance_id = "{instance_id}"
    response = client.show_restore_tables(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowRestoreTablesRequest{}
    request.InstanceId = "{instance_id}"
    response, err := client.ShowRestoreTables(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

# 4.5 参数模板管理

## 4.5.1 查询参数模板

### 功能介绍

获取参数模板列表，包括所有数据库的默认参数模板和用户创建的参数模板。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/configurations

表 4-392 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	<b>参数解释：</b> 租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。 <b>约束限制：</b> 不涉及。 <b>取值范围：</b> 只能由英文字母、数字组成，且长度为32个字符。 <b>默认值：</b> 不涉及。

表 4-393 Query 参数

参数	是否必选	参数类型	描述
offset	否	Integer	<b>参数解释:</b> 索引位置, 偏移量。从第一条数据偏移offset条数据后开始查询。 <b>约束限制:</b> 必须为整数, 不能为负数。 <b>取值范围:</b> ≥0 <b>默认取值:</b> 0
limit	否	Integer	<b>参数解释:</b> 查询记录数。 <b>约束限制:</b> 必须为整数, 不能为负数。 <b>取值范围:</b> 1-100 <b>默认取值:</b> 100

## 请求参数

表 4-394 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	<b>参数解释:</b> 用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 <b>约束限制:</b> 不涉及。 <b>取值范围:</b> 不涉及。 <b>默认值:</b> 不涉及。

参数	是否必选	参数类型	描述
X-Language	否	String	<b>参数解释:</b> 请求语言类型。 <b>约束限制:</b> 不涉及。 <b>取值范围:</b> <ul style="list-style-type: none"> <li>en-us</li> <li>zh-cn</li> </ul> <b>默认值:</b> en-us。

## 响应参数

状态码： 200

表 4-395 响应 Body 参数

参数	参数类型	描述
configurations	Array of <a href="#">ConfigurationSummary</a> objects	<b>参数解释:</b> 参数模板信息。
total_count	Integer	<b>参数解释:</b> 参数模板的总数。 <b>取值范围:</b> ≥0

表 4-396 ConfigurationSummary

参数	参数类型	描述
id	String	<b>参数解释:</b> 参数组ID。 <b>取值范围:</b> 只能由英文字母、数字组成，前面为UUID，后缀为pr07，长度为36个字符。
name	String	<b>参数解释:</b> 参数组名称。 <b>取值范围:</b> 不涉及。

参数	参数类型	描述
datastore_version_name	String	<b>参数解释:</b> 数据库版本。 <b>取值范围:</b> 8.0
datastore_name	String	<b>参数解释:</b> 数据库名称。 <b>取值范围:</b> GaussDB(for MySQL)
created	String	<b>参数解释:</b> 参数组创建时间, 格式为"yyyy-MM-ddTHH:mm:ssZ"。 其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。 <b>取值范围:</b> 不涉及。
updated	String	<b>参数解释:</b> 参数组更新时间, 格式为"yyyy-MM-ddTHH:mm:ssZ"。 其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。 <b>取值范围:</b> 不涉及。
user_defined	Boolean	<b>参数解释:</b> 是否是用户自定义参数模板 <b>取值范围:</b> <ul style="list-style-type: none"><li>• false: 表示为系统默认参数模板。</li><li>• true: 表示为用户自定义参数模板。</li></ul>
description	String	<b>参数解释:</b> 参数组描述。 <b>取值范围:</b> 不涉及。

状态码: 400

表 4-397 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-398 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询参数模板。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/configurations?offset=0&limit=2
```

## 响应示例

状态码： 200

Success.

```
{
  "total_count": 101,
  "configurations": [ {
    "id": "887ea0d1bb0843c49e8d8e5a09a95652pr07",
    "name": "configuration_test",
    "description": "configuration_test",
    "datastore_version_name": "8.0",
    "datastore_name": "GaussDB(for MySQL)",
    "created": "2019-05-15T11:53:34+0000",
    "updated": "2019-05-15T11:53:34+0000",
    "user_defined": true
  }, {
    "id": "3bc1e9cc0d34404b9225ed7a58fb284epr07",
    "name": "Default-GaussDBforMySQL",
    "description": "Default parameter template for GaussDBforMySQL",
    "datastore_version_name": "8.0",
    "datastore_name": "GaussDB(for MySQL)",
    "created": "2019-05-27T03:38:51+0000",
    "updated": "2019-05-27T03:38:51+0000",
    "user_defined": false
  }
  ]
}
```

## SDK 代码示例

SDK代码示例如下。



## Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListGaussMySQLConfigurationsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ListGaussMySQLConfigurationsRequest request = new ListGaussMySQLConfigurationsRequest();
        try {
            ListGaussMySQLConfigurationsResponse response = client.listGaussMySQLConfigurations(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
```

```
ak = os.environ["CLOUD_SDK_AK"]
sk = os.environ["CLOUD_SDK_SK"]
projectId = "{project_id}"

credentials = BasicCredentials(ak, sk, projectId)

client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = ListGaussMySQLConfigurationsRequest()
    response = client.list_gauss_my_sql_configurations(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListGaussMySQLConfigurationsRequest{}
    response, err := client.ListGaussMySQLConfigurations(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.5.2 创建参数模板

### 功能介绍

创建参数模板信息，包含参数模板名称、描述、数据库版本信息、参数值。

### 接口约束

- 该接口支持TaurusDB主备-独享版。
- 创建参数模板的名称“name”不能与默认参数模板或已有参数模板的名称重复，并且区分大小写。
- 创建参数模板的“parameter\_values”参数必须在指定数据库版本的默认参数范围内。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/configurations

表 4-399 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

## 请求参数

表 4-400 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-401 请求 Body 参数

参数	是否必选	参数类型	描述
name	是	String	参数模板名称。 取值范围：长度1到64个字符之间，区分大小写字母，可包含字母、数字、中划线、下划线或句点，不能包含其他特殊字符。
description	否	String	参数模板描述。默认为空。 取值范围：长度不超过256个字符，且不能包含回车和特殊字符！<"='>&。
parameter_values	否	Map<String,String>	参数名和参数值映射关系。用户可以基于默认参数模板的参数，自定义的参数值。
datastore	否	<a href="#">DatastoreResult</a> object	数据库对象。

表 4-402 DatastoreResult

参数	是否必选	参数类型	描述
type	是	String	数据库引擎，现在只支持gaussdb-mysql。

参数	是否必选	参数类型	描述
version	是	String	数据库版本。数据库支持的详细版本信息，可调用查询数据库引擎的版本接口获取。

## 响应参数

状态码： 200

表 4-403 响应 Body 参数

参数	参数类型	描述
configurations	<a href="#">ConfigurationSummary2</a> object	参数模板信息。

表 4-404 ConfigurationSummary2

参数	参数类型	描述
id	String	参数组ID。
name	String	参数组名称。
description	String	参数组描述。
datastore	<a href="#">DatastoreResult</a> object	数据库对象。
created	String	创建时间，格式为"yyyy-MM-ddTHH:mm:ssZ"。 其中，T指某个时间的开始；Z指时区偏移量。
updated	String	更新时间，格式为"yyyy-MM-ddTHH:mm:ssZ"。 其中，T指某个时间的开始；Z指时区偏移量。

表 4-405 DatastoreResult

参数	参数类型	描述
type	String	数据库引擎，现在只支持gaussdb-mysql。

参数	参数类型	描述
version	String	数据库版本。数据库支持的详细版本信息，可调用查询数据库引擎的版本接口获取。

状态码： 400

表 4-406 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-407 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

创建参数模板，账户允许最大同时连接数为10。

```
POST https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/configurations
{
  "name": "myparameter",
  "description": "parameter1",
  "datastore": {
    "type": "gaussdb-mysql",
    "version": "8.0"
  },
  "parameter_values": {
    "max_user_connections": "10"
  }
}
```

## 响应示例

状态码： 200

Success.

```
{
  "configurations": {
    "id": "887ea0d1bb0843c49e8d8e5a09a95652pr07",
  }
}
```

```
"name" : "myparameter",
"description" : "parameter1",
"datastore" : {
  "type" : "gaussdb-mysql",
  "version" : "8.0"
},
"created" : "2022-05-15T11:53:34+0000",
"updated" : "2022-05-15T11:53:34+0000"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

创建参数模板，账户允许最大同时连接数为10。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.Map;
import java.util.HashMap;

public class CreateGaussMySQLConfigurationSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        CreateGaussMySQLConfigurationRequest request = new CreateGaussMySQLConfigurationRequest();
        CreateConfigurationRequestBody body = new CreateConfigurationRequestBody();
        DatastoreResult datastorebody = new DatastoreResult();
        datastorebody.withType("gaussdb-mysql")
            .withVersion("8.0");
        Map<String, String> listbodyParameterValues = new HashMap<>();
        listbodyParameterValues.put("max_user_connections", "10");
        body.withDatastore(datastorebody);
        body.withParameterValues(listbodyParameterValues);
        body.withDescription("parameter1");
        body.withName("myparameter");
        request.withBody(body);
        try {
```

```
        CreateGaussMySqlConfigurationResponse response =
client.createGaussMySqlConfiguration(request);
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

创建参数模板，账户允许最大同时连接数为10。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateGaussMySqlConfigurationRequest()
        datastorebody = DatastoreResult(
            type="gaussdb-mysql",
            version="8.0"
        )
        listParameterValuesbody = {
            "max_user_connections": "10"
        }
        request.body = CreateConfigurationRequestBody(
            datastore=datastorebody,
            parameter_values=listParameterValuesbody,
            description="parameter1",
            name="myparameter"
        )
        response = client.create_gauss_my_sql_configuration(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```



## Go

创建参数模板，账户允许最大同时连接数为10。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateGaussMySQLConfigurationRequest{}
    dataStorebody := &model.DataStoreResult{
        Type: "gaussdb-mysql",
        Version: "8.0",
    }
    var listParameterValuesbody = map[string]string{
        "max_user_connections": "10",
    }
    descriptionCreateConfigurationRequestBody := "parameter1"
    request.Body = &model.CreateConfigurationRequestBody{
        DataStore: dataStorebody,
        ParameterValues: listParameterValuesbody,
        Description: &descriptionCreateConfigurationRequestBody,
        Name: "myparameter",
    }
    response, err := client.CreateGaussMySQLConfiguration(request)
    if err == nil {
        fmt.Printf("%v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.5.3 删除参数模板

### 功能介绍

删除指定参数模板。

### 接口约束

- 该接口仅支持TaurusDB。
- 默认参数模板不允许删除。

### 调用方法

请参见[如何调用API](#)。

## URI

DELETE /v3/{project\_id}/configurations/{configuration\_id}

表 4-408 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
configuration_id	是	String	参数模板ID。 获取方法参见 <a href="#">查询参数模板</a> 。

## 请求参数

表 4-409 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-410 响应 Body 参数

参数	参数类型	描述
configuration_id	String	参数模板ID。
configuration_name	String	参数模板名称。

状态码： 400

表 4-411 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-412 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

删除参数模板。

```
DELETE https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/configurations/  
7a03529134944a8498512a356ece8451pr07
```

## 响应示例

状态码： 200

Success.

```
{  
  "configuration_id" : "7a03529134944a8498512a356ece8451pr07",  
  "configuration_name" : "myparameter"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class DeleteGaussMySQLConfigurationSolution {  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()
```

```
        .withCredential(auth)
        .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
        .build();
DeleteGaussMySQLConfigurationRequest request = new DeleteGaussMySQLConfigurationRequest();
request.withConfigurationId("{configuration_id}");
try {
    DeleteGaussMySQLConfigurationResponse response =
client.deleteGaussMySQLConfiguration(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteGaussMySQLConfigurationRequest()
        request.configuration_id = "{configuration_id}"
        response = client.delete_gauss_my_sql_configuration(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
```

```
"github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteGaussMySQLConfigurationRequest{}
    request.ConfigurationId = "{configuration_id}"
    response, err := client.DeleteGaussMySQLConfiguration(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.5.4 获取参数模板详情

#### 功能介绍

获取指定参数模板的参数信息。

## 接口约束

该接口支持TaurusDB主备-独享版。

## 调用方法

请参见[如何调用API](#)。

## URI

GET /v3/{project\_id}/configurations/{configuration\_id}

表 4-413 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
configuration_id	是	String	参数模板ID。 获取方法参见 <a href="#">查询参数模板</a> 。

## 请求参数

表 4-414 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-415 响应 Body 参数

参数	参数类型	描述
configurations	<a href="#">ConfigurationSummary2</a> object	参数模板信息。
parameter_values	Map<String,String>	参数名和参数值映射关系。用户可以基于默认参数模板的参数，自定义的参数值。

表 4-416 ConfigurationSummary2

参数	参数类型	描述
id	String	参数组ID。
name	String	参数组名称。
description	String	参数组描述。
datastore	<a href="#">DatastoreResult</a> object	数据库对象。
created	String	创建时间，格式为"yyyy-MM-ddTHH:mm:ssZ"。 其中，T指某个时间的开始；Z指时区偏移量。
updated	String	更新时间，格式为"yyyy-MM-ddTHH:mm:ssZ"。 其中，T指某个时间的开始；Z指时区偏移量。

表 4-417 DatastoreResult

参数	参数类型	描述
type	String	数据库引擎，现在只支持gaussdb-mysql。
version	String	数据库版本。数据库支持的详细版本信息，可调用查询数据库引擎的版本接口获取。

状态码： 400



表 4-418 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-419 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

获取参数模板详情。

```
GET https://{endpoint}/v3/0549b4a43100d4f32f51c01c2fe4acdb/configurations/43570e0de32e40c5a15f831aa5ce4176pr07
```

## 响应示例

状态码： 200

Success.

```
{
  "configurations" : {
    "id" : "43570e0de32e40c5a15f831aa5ce4176pr07",
    "name" : "myparameter",
    "description" : "parameter1",
    "datastore" : {
      "type" : "gaussdb-mysql",
      "version" : "8.0"
    },
    "created" : "2022-05-15T11:53:34+0000",
    "updated" : "2022-05-15T11:53:34+0000"
  },
  "parameter_values" : {
    "auto_increment_increment" : "1",
    "auto_increment_offset" : 1,
    "binlog_checksum" : "CRC32",
    "character_set_server" : "utf8",
    "connect_timeout" : 10,
    "default_authentication_plugin" : "mysql_native_password",
    "default_week_format" : 0,
    "div_precision_increment" : 4,
    "end_markers_in_json" : "OFF",
    "innodb_autoextend_increment" : 64,
    "innodb_autoinc_lock_mode" : 2,
    "innodb_concurrency_tickets" : 5000,
    "innodb_default_row_format" : "DYNAMIC",
    "innodb_flush_log_at_timeout" : 1,
    "innodb_flush_log_at_trx_commit" : 1,
```

```
"innodb_flush_neighbors" : 0,
"innodb_max_undo_log_size" : 1073741824,
"innodb_optimize_fulltext_only" : "OFF",
"innodb_purge_batch_size" : 300,
"innodb_purge_threads" : 4,
"innodb_sort_buffer_size" : 1048576,
"innodb_spin_wait_delay" : 6,
"innodb_status_output" : "OFF",
"innodb_status_output_locks" : "OFF",
"innodb_strict_mode" : "OFF",
"innodb_sync_array_size" : 1,
"innodb_sync_spin_loops" : 30,
"innodb_thread_concurrency" : 0,
"innodb_thread_sleep_delay" : 10000,
"interactive_timeout" : 28800,
"local_infile" : "OFF",
"lock_wait_timeout" : 31536000,
"log_queries_not_using_indexes" : "OFF",
"log_throttle_queries_not_using_indexes" : 0,
"long_query_time" : 10,
"low_priority_updates" : "OFF",
"max_connect_errors" : 100,
"max_error_count" : 1024,
"max_prepared_stmt_count" : 16382,
"max_sp_recursion_depth" : 0,
"max_user_connections" : 0,
"max_write_lock_count" : 102400,
"net_buffer_length" : 16384,
"net_read_timeout" : 30,
"net_retry_count" : 10,
"net_write_timeout" : 60,
"password_history" : 0,
"password_require_current" : "OFF",
"password_reuse_interval" : 0,
"performance_schema" : "OFF",
"profiling_history_size" : 15,
"query_prealloc_size" : 8192,
"read_buffer_size" : 131072,
"read_rnd_buffer_size" : 262144,
"show_old_temporals" : "OFF",
"skip_name_resolve" : "ON",
"slow_launch_time" : 2,
"sql_mode" : null,
"table_open_cache" : 8192,
"table_open_cache_instances" : 16,
"thread_cache_size" : 1024,
"thread_stack" : 286720,
"transaction_isolation" : "REPEATABLE-READ",
"updatable_views_with_limit" : "YES",
"wait_timeout" : 28800,
"temptable_max_mmap" : 1073741824,
"default_password_lifetime" : 0,
"max_allowed_packet" : 1073741824,
"binlog_expire_logs_seconds" : 3600,
"max_binlog_cache_size" : 18446744073709547520,
"binlog_cache_size" : 32768,
"group_concat_max_len" : 1024,
"max_binlog_size" : 67108864,
"log_bin_trust_function_creators" : "ON",
"explicit_defaults_for_timestamp" : "ON",
"threadpool_stall_limit" : 50,
"time_zone" : "SYSTEM",
"rds_warn_max_binlog_cache_size" : 18446744073709547520,
"default_collation_for_utf8mb4" : "utf8mb4_0900_ai_ci",
"idle_transaction_timeout" : 0,
"idle_readonly_transaction_timeout" : 0,
"idle_write_transaction_timeout" : 0,
"block_encryption_mode" : "aes-256-cbc",
"innodb_lock_wait_timeout" : 50,
```

```
"collation_server" : "utf8_general_ci",
"innodb_read_ahead_threshold" : 56,
"innodb_random_read_ahead" : "OFF",
"eq_range_index_dive_limit" : 10,
"sort_buffer_size" : 1048576,
"join_buffer_size" : 524288,
"range_optimizer_max_mem_size" : 16777216,
"strict_status_check_RTO_time" : 30,
"long_trx_decision_time" : 300,
"mount_vip_when_failover" : "ON",
"force_parallel_execute" : "OFF",
"parallel_cost_threshold" : 1000,
"parallel_default_dop" : 4,
"parallel_max_threads" : 64,
"parallel_memory_limit" : 104857600,
"parallel_queue_timeout" : 0,
"threadpool_oversubscribe" : 3,
"binlog_gtid_simple_recovery" : "ON",
"log_slave_updates" : "ON",
"binlog_rows_query_log_events" : "OFF",
"log-bin" : "ON",
"gtid_mode" : "ON",
"enforce_gtid_consistency" : "ON",
"innodb_online_alter_log_max_size" : 134217728,
"rds_sql_tracer_max_record_size" : 4096,
"innodb_parallel_select_count" : "ON",
"max_execution_time" : 0,
"rds_sqlfilter_case_sensitive" : "OFF",
"strict_status_check" : "ON",
"rds_ddl_lock_wait_timeout" : 31536000
}
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowGaussMySQLConfigurationSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);
```

```
GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
ShowGaussMySqlConfigurationRequest request = new ShowGaussMySqlConfigurationRequest();
request.withConfigurationId("{configuration_id}");
try {
    ShowGaussMySqlConfigurationResponse response = client.showGaussMySqlConfiguration(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowGaussMySqlConfigurationRequest()
        request.configuration_id = "{configuration_id}"
        response = client.show_gauss_my_sql_configuration(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
```

```
"github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowGaussMySQLConfigurationRequest{}
    request.ConfigurationId = "{configuration_id}"
    response, err := client.ShowGaussMySQLConfiguration(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.5.5 修改参数模板

### 功能介绍

修改指定参数模板的参数信息，包括名称、描述、指定参数的值。

## 接口约束

- 该接口仅支持TaurusDB主备-独享版。
- 默认参数模板不允许修改。
- 修改参数模板名称“name”不能与默认参数模板名称重复。
- 修改的参数必须在指定数据库版本的默认参数范围内。

## 调用方法

请参见[如何调用API](#)。

## URI

PUT /v3/{project\_id}/configurations/{configuration\_id}

表 4-420 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
configuration_id	是	String	参数模板ID。 获取方法参见 <a href="#">查询参数模板</a> 。

## 请求参数

表 4-421 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>• en-us</li><li>• zh-cn</li></ul>

表 4-422 请求 Body 参数

参数	是否必选	参数类型	描述
name	否	String	参数模板名称。 取值范围：长度1到64个字符之间，区分大小写字母，可包含字母、数字、中划线、下划线或句点，不能包含其他特殊字符。参数模板描述，参数名和参数值映射关系三项不能同时为空。
description	否	String	参数模板描述。默认为空。取值范围：长度不超过256个字符，且不能包含回车和特殊字符！<" = ' > &。
parameter_values	否	Map<String,String>	参数名和参数值映射关系。用户可以基于默认参数模板的参数，自定义的参数值。不传入该参数，则保持原参数信息。

## 响应参数

状态码： 200

表 4-423 响应 Body 参数

参数	参数类型	描述
job_id	String	修改参数模板的任务ID。

状态码： 400

表 4-424 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-425 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

修改参数模板。

```
PUT https://{endpoint}/v3/0549b4a43100d4f32f51c01c2fe4acdb/configurations/  
7a8d539ba30f43adaf1b16d08b1df4bdpr07
```

```
{  
  "parameter_values": {  
    "max_user_connections": "4"  
  }  
}
```

## 响应示例

状态码: 200

Success.

```
{  
  "job_id": "f6cb21fe-186a-4931-b20d-764ced1f1f6b"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

修改参数模板。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
import java.util.Map;  
import java.util.HashMap;  
  
public class UpdateGaussMySQLConfigurationSolution {  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
```



```
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");
String projectId = "{project_id}";

ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
UpdateGaussMySQLConfigurationRequest request = new UpdateGaussMySQLConfigurationRequest();
request.withConfigurationId("{configuration_id}");
UpdateConfigurationParameterRequestBody body = new
UpdateConfigurationParameterRequestBody();
Map<String, String> listbodyParameterValues = new HashMap<>();
listbodyParameterValues.put("max_user_connections", "4");
body.withParameterValues(listbodyParameterValues);
request.withBody(body);
try {
    UpdateGaussMySQLConfigurationResponse response =
client.updateGaussMySQLConfiguration(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

修改参数模板。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
```

```
request = UpdateGaussMySqlConfigurationRequest()
request.configuration_id = "{configuration_id}"
listParameterValuesbody = {
    "max_user_connections": "4"
}
request.body = UpdateConfigurationParameterRequestBody(
    parameter_values=listParameterValuesbody
)
response = client.update_gauss_my_sql_configuration(request)
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

修改参数模板。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateGaussMySqlConfigurationRequest{}
    request.ConfigurationId = "{configuration_id}"
    var listParameterValuesbody = map[string]string{
        "max_user_connections": "4",
    }
    request.Body = &model.UpdateConfigurationParameterRequestBody{
        ParameterValues: listParameterValuesbody,
    }
    response, err := client.UpdateGaussMySqlConfiguration(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.5.6 应用参数模板

### 功能介绍

指定实例变更参数模板。

### 调用方法

请参见[如何调用API](#)。

## URI

PUT /v3/{project\_id}/configurations/{configuration\_id}/apply

表 4-426 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
configuration_id	是	String	参数模板ID。 获取方法参见 <a href="#">查询参数模板</a> 。

## 请求参数

表 4-427 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-428 请求 Body 参数

参数	是否必选	参数类型	描述
instance_ids	是	Array of strings	实例ID列表。列表长度限制在10以内。

## 响应参数

状态码： 200

表 4-429 响应 Body 参数

参数	参数类型	描述
job_id	String	应用参数模板的任务ID。

状态码： 400

表 4-430 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-431 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

应用参数模板。

```
PUT https://{endpoint}/v3/0549b4a43100d4f32f51c01c2fe4acdb/configurations/  
7a8d539ba30f43adaf1b16d08b1df4bdpr07/apply  
  
{  
  "instance_ids" : [ "1c3f12d626824d4ca357104def25a455in07" ]  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "job_id" : "bf26cf3c-d046-4080-bb45-f114be7afa5f"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

应用参数模板。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
import java.util.List;  
import java.util.ArrayList;  
  
public class SwitchGaussMySQLConfigurationSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running
```

```
this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");
String projectId = "{project_id}";

ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();

SwitchGaussMySQLConfigurationRequest request = new SwitchGaussMySQLConfigurationRequest();
request.withConfigurationId("{configuration_id}");
ApplyConfigurationRequestBody body = new ApplyConfigurationRequestBody();
List<String> listbodyInstanceIds = new ArrayList<>();
listbodyInstanceIds.add("1c3f12d626824d4ca357104def25a455in07");
body.withInstanceIds(listbodyInstanceIds);
request.withBody(body);
try {
    SwitchGaussMySQLConfigurationResponse response =
client.switchGaussMySQLConfiguration(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

应用参数模板。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
```

```
request = SwitchGaussMySqlConfigurationRequest()
request.configuration_id = "{configuration_id}"
listInstanceIdsbody = [
    "1c3f12d626824d4ca357104def25a455in07"
]
request.body = ApplyConfigurationRequestBody(
    instance_ids=listInstanceIdsbody
)
response = client.switch_gauss_my_sql_configuration(request)
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

应用参数模板。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.SwitchGaussMySqlConfigurationRequest{}
    request.ConfigurationId = "{configuration_id}"
    var listInstanceIdsbody = []string{
        "1c3f12d626824d4ca357104def25a455in07",
    }
    request.Body = &model.ApplyConfigurationRequestBody{
        InstanceIds: listInstanceIdsbody,
    }
    response, err := client.SwitchGaussMySqlConfiguration(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.5.7 复制参数组

### 功能介绍

复制参数组。

### 调用方法

请参见[如何调用API](#)。

## URI

POST /v3/{project\_id}/configurations/{configuration\_id}/copy

表 4-432 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
configuration_id	是	String	自定义的参数组ID。 通过调用 <a href="#">查询参数模板</a> 接口获取。 请求响应成功后在响应消息体中包含的“id”的值即为configuration_id值，需要传入user_defined为ture的configuration_id值。



## 请求参数

表 4-433 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-434 请求 Body 参数

参数	是否必选	参数类型	描述
name	是	String	复制后的参数模板名称。 取值范围：长度1到64个字符之间，区分大小写字母，可包含字母、数字、中划线、下划线或句点，不能包含其他特殊字符。
description	否	String	复制后的参数模板描述。默认为空。 取值范围：长度不超过256位，且不能包含回车和>!<"&'=特殊字符。

## 响应参数

状态码： 200

表 4-435 响应 Body 参数

参数	参数类型	描述
configuration_id	String	参数模板ID。

状态码： 400

表 4-436 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-437 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

复制参数组。

```
post https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/configurations/a2069d40256f40078c52d90d6a91ee63pr07/copy
{
  "name" : "paramTemplate-new",
  "description" : "new-parameter-group"
}
```

## 响应示例

状态码： 200

Success.

```
{
  "configuration_id" : "7b4e07852bd54016906e89461b3182cdpr02"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

复制参数组。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
```

```
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class CopyConfigurationsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        CopyConfigurationsRequest request = new CopyConfigurationsRequest();
        request.withConfigurationId("{configuration_id}");
        CopyConfigurationsRequestBody body = new CopyConfigurationsRequestBody();
        body.withDescription("new-parameter-group");
        body.withName("paramTemplate-new");
        request.withBody(body);
        try {
            CopyConfigurationsResponse response = client.copyConfigurations(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

复制参数组。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"
```

```
credentials = BasicCredentials(ak, sk, projectId)

client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = CopyConfigurationsRequest()
    request.configuration_id = "{configuration_id}"
    request.body = CopyConfigurationsRequestBody(
        description="new-parameter-group",
        name="paramTemplate-new"
    )
    response = client.copy_configurations(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

复制参数组。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CopyConfigurationsRequest{
        ConfigurationId: "{configuration_id}"
        descriptionCopyConfigurationsRequestBody:= "new-parameter-group"
    }
    request.Body = &model.CopyConfigurationsRequestBody{
        Description: &descriptionCopyConfigurationsRequestBody,
        Name: "paramTemplate-new",
    }
    response, err := client.CopyConfigurations(request)
    if err == nil {
        fmt.Printf("%v\n", response)
    }
}
```

```
} else {  
    fmt.Println(err)  
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.5.8 对比参数模板

### 功能介绍

比较两个参数模板之间的差异。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/configurations/comparison

表 4-438 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

## 请求参数

表 4-439 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-440 请求 Body 参数

参数	是否必选	参数类型	描述
source_configuration_id	是	String	需要进行比较的源参数模板ID。 通过调用 <a href="#">查询参数模板</a> 接口获取。 请求响应成功后在响应消息体中包含的“id”的值即为source_configuration_id值。
target_configuration_id	是	String	需要进行比较的目标参数模板ID。 通过调用 <a href="#">查询参数模板</a> 接口获取。 请求响应成功后在响应消息体中包含的“id”的值即为target_configuration_id值。

## 响应参数

状态码： 200

表 4-441 响应 Body 参数

参数	参数类型	描述
differences	Array of <a href="#">ParamGroupParameterDifferences</a> objects	参数之间的区别集合。

表 4-442 ParamGroupParameterDifferences

参数	参数类型	描述
parameter_name	String	参数名称。
source_value	String	源参数模板中的参数值。
target_value	String	目标参数模板中的参数值。

状态码： 400

表 4-443 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-444 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

对比参数组。

```
POST https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/configurations/comparison
{
  "source_configuration_id": "a2069d40256f40078c52d90d6a91ee63pr07",
  "target_configuration_id": "0cd8ef851dc4422f98e7717205ed13e6pr07"
}
```

## 响应示例

状态码: 200

Success.

```
{
  "differences": [ {
    "parameter_name": "innodb_purge_threads",
    "source_value": 1,
    "target_value": 4
  }, {
    "parameter_name": "connect_timeout",
    "source_value": 10,
    "target_value": 20
  } ]
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

对比参数组。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListConfigurationsDifferencesSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ListConfigurationsDifferencesRequest request = new ListConfigurationsDifferencesRequest();
        ListConfigurationsDifferencesRequestBody body = new ListConfigurationsDifferencesRequestBody();
        body.withTargetConfigurationId("0cd8ef851dc4422f98e7717205ed13e6pr07");
        body.withSourceConfigurationId("a2069d40256f40078c52d90d6a91ee63pr07");
        request.withBody(body);
        try {
            ListConfigurationsDifferencesResponse response = client.listConfigurationsDifferences(request);
            System.out.println(response.toString());
        }
    }
}
```



```
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

对比参数组。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListConfigurationsDifferencesRequest()
        request.body = ListConfigurationsDifferencesRequestBody(
            target_configuration_id="0cd8ef851dc4422f98e7717205ed13e6pr07",
            source_configuration_id="a2069d40256f40078c52d90d6a91ee63pr07"
        )
        response = client.list_configurations_differences(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

对比参数组。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
```

```
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListConfigurationsDifferencesRequest{}
    request.Body = &model.ListConfigurationsDifferencesRequestBody{
        TargetConfigurationId: "0cd8ef851dc4422f98e7717205ed13e6pr07",
        SourceConfigurationId: "a2069d40256f40078c52d90d6a91ee63pr07",
    }
    response, err := client.ListConfigurationsDifferences(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.5.9 查询可应用的实例列表

### 功能介绍

查询指定参数模板可被应用的实例。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/configurations/{configuration\_id}/applicable-instances

表 4-445 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
configuration_id	是	String	参数模板ID。 通过调用 <a href="#">查询参数模板</a> 接口获取。 请求响应成功后在响应消息体中包含的“id”的值即为configuration_id值。

表 4-446 Query 参数

参数	是否必选	参数类型	描述
offset	否	Integer	索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。
limit	否	Integer	查询记录数。默认为100，不能为负数，最小值为1，最大值为100。

## 请求参数

表 4-447 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-448 响应 Body 参数

参数	参数类型	描述
instances	Array of <a href="#">ApplicableInstances</a> objects	可以应用的实例列表。
total_count	Integer	可应用的实例列表数量。

表 4-449 ApplicableInstances

参数	参数类型	描述
instance_id	String	实例ID。
instance_name	String	实例名称。

状态码： 400

表 4-450 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。

参数	参数类型	描述
error_msg	String	错误消息。

状态码： 500

表 4-451 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询可应用该模板参数组的实例列表。

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/configurations/  
0c82974e2354466098d7b4b72e55129dpr07/applicable-instances
```

## 响应示例

状态码： 200

Success.

```
{  
  "total_count": 10,  
  "instances": [ {  
    "instance_id": "75e1935142974ca685357dc784626f22in07",  
    "instance_name": "gauss-ff14-hll"  
  }, {  
    "instance_id": "cf72c31a689c40b7883c355a0bb5cc1din07",  
    "instance_name": "tst-bbbnew"  
  }, {  
    "instance_id": "4a99fbae95df43648281cdd9e269c1c7in07",  
    "instance_name": "gauss-62d8"  
  }, {  
    "instance_id": "fb6244dc9b1443b7ad0aae81283d5d28in07",  
    "instance_name": "gauss-test-1"  
  }, {  
    "instance_id": "2260da7e105e485ebc9c060c1663d89ain07",  
    "instance_name": "gauss-f4c6-cx"  
  }, {  
    "instance_id": "1cf7357f931448f89229de664c114d05in07",  
    "instance_name": "gauss-wry-0710-3"  
  }, {  
    "instance_id": "5280b1a667d142378fe28816afb2e4b8in07",  
    "instance_name": "taurus_WAKJSzVy"  
  }, {  
    "instance_id": "56c6924923804259a1b15b846c6b4bf1in07",  
    "instance_name": "tck-update3"  
  }, {  
    "instance_id": "72a8f4287e04427985087795825fcddain07",  
    "instance_name": "critBack"  
  }, {  
    "instance_id": "c5df1dec75ed48ab85fe52c72ba784bbin07",  
    "instance_name": "gauss-f873-cx"  
  }  
]
```

```
    }]  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ListConfigurationsInstancesSolution {  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        ListConfigurationsInstancesRequest request = new ListConfigurationsInstancesRequest();  
        request.withConfigurationId("{configuration_id}");  
        try {  
            ListConfigurationsInstancesResponse response = client.listConfigurationsInstances(request);  
            System.out.println(response.toString());  
        } catch (ConnectionException e) {  
            e.printStackTrace();  
        } catch (RequestTimeoutException e) {  
            e.printStackTrace();  
        } catch (ServiceResponseException e) {  
            e.printStackTrace();  
            System.out.println(e.getHttpStatusCode());  
            System.out.println(e.getRequestId());  
            System.out.println(e.getErrorCode());  
            System.out.println(e.getErrorMsg());  
        }  
    }  
}
```

### Python

```
# coding: utf-8  
  
import os  
from huaweicloudsdkcore.auth.credentials import BasicCredentials
```

```
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListConfigurationsInstancesRequest()
        request.configuration_id = "{configuration_id}"
        response = client.list_configurations_instances(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListConfigurationsInstancesRequest{
        request.ConfigurationId = "{configuration_id}"
    }
    response, err := client.ListConfigurationsInstances(request)
```

```
if err == nil {  
    fmt.Printf("%+v\n", response)  
} else {  
    fmt.Println(err)  
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.5.10 查询参数修改历史

### 功能介绍

查询参数修改历史。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/configurations/{configuration\_id}/modify-history

表 4-452 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。



参数	是否必选	参数类型	描述
configuration_id	是	String	参数组ID。 通过调用 <a href="#">查询实例详情信息</a> 接口获取。 请求响应成功后在响应消息体中包含的“configuration_id”的值即为configuration_id值。

表 4-453 Query 参数

参数	是否必选	参数类型	描述
offset	否	Integer	索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。
limit	否	Integer	查询记录数。默认为100，不能为负数，最小值为1，最大值为100。

## 请求参数

表 4-454 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-455 响应 Body 参数

参数	参数类型	描述
total_count	Integer	总数。
histories	Array of ParamGroupHistoryResponse objects	参数模板的修改历史列表。

表 4-456 ParamGroupHistoryResponse

参数	参数类型	描述
parameter_name	String	参数名称。
old_value	String	修改前参数值。
new_value	String	修改后参数值。
update_result	String	更新结果。
is_applied	Boolean	是否应用。 <ul style="list-style-type: none"><li>• true: 是。</li><li>• false: 否。</li></ul>
updated	String	修改时间。格式为“yyyy-mm-ddThh:mm:ssZ”。其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。
applied	String	应用时间。格式为“yyyy-mm-ddThh:mm:ssZ”。其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。

状态码： 400

表 4-457 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-458 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询参数组的修改历史。

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/configurations/7625c6a12d884be1891c61d921e0e114pr07/modify-history
```

## 响应示例

状态码： 200

Success.

```
{
  "total_count" : 2,
  "histories" : [ {
    "parameter_name" : "binlog_rows_query_log_events",
    "old_value" : "OFF",
    "new_value" : "ON",
    "update_result" : "SUCCESS",
    "is_applied" : true,
    "updated" : "2023-07-10T02:14:28+0000",
    "applied" : "2023-07-10T02:14:28+0000"
  }, {
    "parameter_name" : "block_encryption_mode",
    "old_value" : "aes-256-cbc",
    "new_value" : "aes-128-cfb1",
    "update_result" : "SUCCESS",
    "is_applied" : true,
    "updated" : "2023-07-10T02:14:28+0000",
    "applied" : "2023-07-10T02:14:28+0000"
  } ]
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListModifyHistorySolution {
```

```
public static void main(String[] args) {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running
    // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    String ak = System.getenv("CLOUD_SDK_AK");
    String sk = System.getenv("CLOUD_SDK_SK");
    String projectId = "{project_id}";

    ICredential auth = new BasicCredentials()
        .withProjectId(projectId)
        .withAk(ak)
        .withSk(sk);

    GaussDBClient client = GaussDBClient.newBuilder()
        .withCredential(auth)
        .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
        .build();
    ListModifyHistoryRequest request = new ListModifyHistoryRequest();
    request.withConfigurationId("{configuration_id}");
    try {
        ListModifyHistoryResponse response = client.listModifyHistory(request);
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListModifyHistoryRequest()
        request.configuration_id = "{configuration_id}"
        response = client.list_modify_history(request)
```

```
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/ gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/ gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/ gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListModifyHistoryRequest{}
    request.ConfigurationId = "{configuration_id}"
    response, err := client.ListModifyHistory(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.5.11 获取指定实例的参数信息

### 功能介绍

获取指定实例的参数信息。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/instances/{instance\_id}/configurations

表 4-459 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	<b>参数解释：</b> 租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。 <b>约束限制：</b> 不涉及。 <b>取值范围：</b> 只能由英文字母、数字组成，且长度为32个字符。 <b>默认值：</b> 不涉及。
instance_id	是	String	<b>参数解释：</b> 实例ID，此参数是实例的唯一标识。 <b>约束限制：</b> 不涉及。 <b>取值范围：</b> 只能由英文字母、数字组成，后缀为in07，长度为36个字符。 <b>默认取值：</b> 不涉及。

表 4-460 Query 参数

参数	是否必选	参数类型	描述
offset	否	Integer	<b>参数解释:</b> 索引位置, 偏移量。从第一条数据偏移offset条数据后开始查询。 <b>约束限制:</b> 必须为整数, 不能为负数。 <b>取值范围:</b> ≥0 <b>默认取值:</b> 0
limit	否	Integer	<b>参数解释:</b> 查询记录数。 <b>约束限制:</b> 必须为整数, 不能为负数。 <b>取值范围:</b> 1-100 <b>默认取值:</b> 100

## 请求参数

表 4-461 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	<b>参数解释:</b> 用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 <b>约束限制:</b> 不涉及。 <b>取值范围:</b> 不涉及。 <b>默认值:</b> 不涉及。

参数	是否必选	参数类型	描述
X-Language	否	String	<b>参数解释:</b> 请求语言类型。 <b>约束限制:</b> 不涉及。 <b>取值范围:</b> <ul style="list-style-type: none"> <li>en-us</li> <li>zh-cn</li> </ul> <b>默认值:</b> en-us。

## 响应参数

状态码: 200

表 4-462 响应 Body 参数

参数	参数类型	描述
configurations	<b>ParameterConfigurationInfo</b> object	<b>参数解释:</b> 实例参数组信息。
total_count	Long	<b>参数解释:</b> 实例参数总数。 <b>取值范围:</b> ≥0
parameter_values	Array of <b>ParameterValuesInfo</b> objects	<b>参数解释:</b> 实例参数信息。

表 4-463 ParameterConfigurationInfo

参数	参数类型	描述
datastore_version_name	String	<b>参数解释:</b> 数据库版本名称。 <b>取值范围:</b> 2.0



参数	参数类型	描述
datastore_name	String	<b>参数解释:</b> 参数组引擎名称。 <b>取值范围:</b> taurus
created	String	<b>参数解释:</b> 参数组创建时间, 格式为"yyyy-mm-ddThh:mm:ssZ"。 其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。 <b>取值范围:</b> 不涉及。
updated	String	<b>参数解释:</b> 参数组更新时间, 格式为"yyyy-mm-ddThh:mm:ssZ"。 其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。 <b>取值范围:</b> 不涉及。

表 4-464 ParameterValuesInfo

参数	参数类型	描述
name	String	<b>参数解释:</b> 参数名称。 <b>取值范围:</b> 不涉及。
value	String	<b>参数解释:</b> 参数值。 <b>取值范围:</b> 不涉及。
restart_required	Boolean	<b>参数解释:</b> 是否需要重启。 <b>取值范围:</b> <ul style="list-style-type: none"><li>• false: 否。</li><li>• true: 是。</li></ul>

参数	参数类型	描述
readonly	Boolean	<b>参数解释:</b> 是否只读。 <b>取值范围:</b> <ul style="list-style-type: none"><li>• false: 否。</li><li>• true: 是。</li></ul>
value_range	String	<b>参数解释:</b> 参数值范围。 <b>取值范围:</b> 不涉及。
type	String	<b>参数解释:</b> 参数类型。 <b>取值范围:</b> <ul style="list-style-type: none"><li>• string</li><li>• integer</li><li>• boolean</li><li>• list</li><li>• float</li></ul>
description	String	<b>参数解释:</b> 参数描述。 <b>取值范围:</b> 不涉及。

**状态码: 400**

**表 4-465 响应 Body 参数**

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

**状态码: 500**

**表 4-466 响应 Body 参数**

参数	参数类型	描述
error_code	String	错误码。

参数	参数类型	描述
error_msg	String	错误消息。

## 请求示例

获取指定实例的参数信息。

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/  
61a4ea66210545909d74a05c27a7179ein07/configurations
```

## 响应示例

状态码： 200

Success.

```
{  
  "configurations" : {  
    "datastore_version_name" : 2.0,  
    "datastore_name" : "taurus",  
    "created" : "2022-10-29T09:38:36+0000",  
    "updated" : "2022-10-29T09:38:36+0000"  
  },  
  "total_count" : 125,  
  "parameter_values" : [ {  
    "name" : "auto_increment_increment",  
    "value" : 1,  
    "restart_required" : false,  
    "readonly" : false,  
    "value_range" : "1-65535",  
    "type" : "integer",  
    "description" : "auto_increment_increment和auto_increment_offset 用于master-to-master的复制，并可以用  
用来控制AUTO_INCREMENT列的操作。"  
  }, {  
    "name" : "auto_increment_offset",  
    "value" : 1,  
    "restart_required" : false,  
    "readonly" : false,  
    "value_range" : "1-65535",  
    "type" : "integer",  
    "description" : "auto_increment_increment和auto_increment_offset用于master-to-master的复制，并可以用  
用来控制AUTO_INCREMENT列的操作。"  
  } ]  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;
```

```
public class ListInstanceConfigurationsSolution {  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        ListInstanceConfigurationsRequest request = new ListInstanceConfigurationsRequest();  
        request.withInstanceId("{instance_id}");  
        try {  
            ListInstanceConfigurationsResponse response = client.listInstanceConfigurations(request);  
            System.out.println(response.toString());  
        } catch (ConnectionException e) {  
            e.printStackTrace();  
        } catch (RequestTimeoutException e) {  
            e.printStackTrace();  
        } catch (ServiceResponseException e) {  
            e.printStackTrace();  
            System.out.println(e.getHttpStatusCode());  
            System.out.println(e.getRequestId());  
            System.out.println(e.getErrorCode());  
            System.out.println(e.getErrorMsg());  
        }  
    }  
}
```

## Python

```
# coding: utf-8  
  
import os  
from huaweicloudsdkcore.auth.credentials import BasicCredentials  
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion  
from huaweicloudsdkcore.exceptions import exceptions  
from huaweicloudsdkgaussdb.v3 import *  
  
if __name__ == "__main__":  
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    variables and decrypted during use to ensure security.  
    # In this example, AK and SK are stored in environment variables for authentication. Before running this  
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak = os.getenv("CLOUD_SDK_AK")  
    sk = os.getenv("CLOUD_SDK_SK")  
    projectId = "{project_id}"  
  
    credentials = BasicCredentials(ak, sk, projectId)  
  
    client = GaussDBClient.new_builder() \  
        .with_credentials(credentials) \  
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \  
        .build()
```

```
try:
    request = ListInstanceConfigurationsRequest()
    request.instance_id = "{instance_id}"
    response = client.list_instance_configurations(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListInstanceConfigurationsRequest{}
    request.InstanceId = "{instance_id}"
    response, err := client.ListInstanceConfigurations(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.

状态码	描述
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.5.12 修改指定实例的参数

### 功能介绍

修改指定实例的参数。

### 调用方法

请参见[如何调用API](#)。

### URI

PUT /v3/{project\_id}/instances/{instance\_id}/configurations

表 4-467 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

### 请求参数

表 4-468 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。

参数	是否必选	参数类型	描述
Content-Type	是	String	内容类型。 取值: application/json。
X-Language	否	String	请求语言类型。默认en-us。 取值范围: <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-469 请求 Body 参数

参数	是否必选	参数类型	描述
parameter_values	是	Map<String,String>	参数名和参数值映射关系。用户可以基于默认参数模板的参数,自定义的参数值。不传入该参数,则保持原参数信息。

## 响应参数

状态码: 200

表 4-470 响应 Body 参数

参数	参数类型	描述
job_id	String	修改指定实例参数的任务ID。
restart_required	Boolean	是否需要重启。 <ul style="list-style-type: none"><li>true: 是。</li><li>false: 否。</li></ul>

状态码: 400

表 4-471 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码: 500

表 4-472 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

修改指定实例的参数。

```
PUT https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/  
3ef58db3986540d19f95151309368d34in07/configurations
```

```
{  
  "parameter_values": {  
    "max_user_connections": "100"  
  }  
}
```

## 响应示例

状态码: 200

Success.

```
{  
  "job_id": "e5d698a9-d8db-47d2-bf75-3c9018f72b6f",  
  "restart_required": false  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

修改指定实例的参数。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
import java.util.Map;  
import java.util.HashMap;  
  
public class UpdateInstanceConfigurationsSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running
```



this example, set environment variables CLOUD\_SDK\_AK and CLOUD\_SDK\_SK in the local environment

```
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");
String projectId = "{project_id}";

ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();

UpdateInstanceConfigurationsRequest request = new UpdateInstanceConfigurationsRequest();
request.withInstanceId("{instance_id}");
UpdateInstanceConfigurationsRequestBody body = new UpdateInstanceConfigurationsRequestBody();
Map<String, String> listbodyParameterValues = new HashMap<>();
listbodyParameterValues.put("max_user_connections", "100");
body.withParameterValues(listbodyParameterValues);
request.withBody(body);
try {
    UpdateInstanceConfigurationsResponse response = client.updateInstanceConfigurations(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

修改指定实例的参数。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateInstanceConfigurationsRequest()
```

```
request.instance_id = "{instance_id}"
listParameterValuesbody = {
    "max_user_connections": "100"
}
request.body = UpdateInstanceConfigurationsRequestBody(
    parameter_values=listParameterValuesbody
)
response = client.update_instance_configurations(request)
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

修改指定实例的参数。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateInstanceConfigurationsRequest{}
    request.InstanceId = "{instance_id}"
    var listParameterValuesbody = map[string]string{
        "max_user_connections": "100",
    }
    request.Body = &model.UpdateInstanceConfigurationsRequestBody{
        ParameterValues: listParameterValuesbody,
    }
    response, err := client.UpdateInstanceConfigurations(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.5.13 复制实例参数组

#### 功能介绍

复制实例参数组。

#### 调用方法

请参见[如何调用API](#)。

## URI

POST /v3/{project\_id}/instances/{instance\_id}/configurations/{configuration\_id}/copy

表 4-473 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。
configuration_id	是	String	参数组ID。 通过调用 <a href="#">查询实例详情信息</a> 接口获取。 请求响应成功后在响应消息体中包含的“configuration_id”的值即为configuration_id值。

## 请求参数

表 4-474 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
Content-Type	是	String	内容类型。 取值：application/json。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-475 请求 Body 参数

参数	是否必选	参数类型	描述
name	是	String	复制后的参数模板名称。 取值范围：长度1到64个字符之间，区分大小写字母，可包含字母、数字、中划线、下划线或句点，不能包含其他特殊字符。
description	否	String	复制后的参数模板描述。默认为空。 取值范围：描述不能超过256个字符，且不能包含回车和特殊字符! < " = ' > &。

## 响应参数

状态码： 200

表 4-476 响应 Body 参数

参数	参数类型	描述
configuration_id	String	参数模板ID。

状态码： 400

表 4-477 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-478 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

复制实例参数组。

```
POST https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/61a4ea66210545909d74a05c27a7179ein07/configurations/b26ab68e7a77495c8d84b92e4eaa33d3pr07/copy
{
  "name" : "paramTemplate-test-1",
  "description" : "test"
}
```

## 响应示例

状态码： 200

Success.

```
{
  "configuration_id" : "c82d8c54c4c7416a946f58d9ee89ed8epr07"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

复制实例参数组。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
```

```
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class CopyInstanceConfigurationsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        CopyInstanceConfigurationsRequest request = new CopyInstanceConfigurationsRequest();
        request.withInstanceld("{instance_id}");
        request.withConfigurationId("{configuration_id}");
        CopyInstanceConfigurationsRequestBody body = new CopyInstanceConfigurationsRequestBody();
        body.withDescription("test");
        body.withName("paramTemplate-test-1");
        request.withBody(body);
        try {
            CopyInstanceConfigurationsResponse response = client.copyInstanceConfigurations(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

复制实例参数组。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
```

```
example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
ak = os.environ["CLOUD_SDK_AK"]
sk = os.environ["CLOUD_SDK_SK"]
projectId = "{project_id}"

credentials = BasicCredentials(ak, sk, projectId)

client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = CopyInstanceConfigurationsRequest()
    request.instance_id = "{instance_id}"
    request.configuration_id = "{configuration_id}"
    request.body = CopyInstanceConfigurationsRequestBody(
        description="test",
        name="paramTemplate-test-1"
    )
    response = client.copy_instance_configurations(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

复制实例参数组。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/taurusdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/taurusdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/taurusdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CopyInstanceConfigurationsRequest{
        request.InstanceId = "{instance_id}"
        request.ConfigurationId = "{configuration_id}"
        descriptionCopyInstanceConfigurationsRequestBody:= "test"
        request.Body = &model.CopyInstanceConfigurationsRequestBody{
```

```
Description: &descriptionCopyInstanceConfigurationsRequestBody,  
Name: "paramTemplate-test-1",  
}  
response, err := client.CopyInstanceConfigurations(request)  
if err == nil {  
    fmt.Printf("%+v\n", response)  
} else {  
    fmt.Println(err)  
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.5.14 查询参数模板应用记录

### 功能介绍

查询参数模板应用记录。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/configurations/{config\_id}/apply-history

表 4-479 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
config_id	是	String	参数组ID。



表 4-480 Query 参数

参数	是否必选	参数类型	描述
limit	否	Integer	查询记录数。默认为10，不能为负数，最小值为1，最大值为100。
offset	否	Integer	索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。

## 请求参数

表 4-481 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
Content-Type	是	String	内容类型。 取值：application/json。

## 响应参数

状态码： 200

表 4-482 响应 Body 参数

参数	参数类型	描述
total_count	String	应用记录数量。
histories	Array of <a href="#">TemplateApplyHistory</a> objects	应用记录信息

表 4-483 TemplateApplyHistory

参数	参数类型	描述
target_id	String	应用实例ID。
target_name	String	应用实例名称。
apply_result	String	应用结果。
applied_at	Number	应用时间。
error_code	String	错误码。

状态码： 400

表 4-484 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-485 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询参数模板应用记录。

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/configurations/  
b366363c95b04b0eac39e73ea2672ffep7/apply-history
```

## 响应示例

状态码： 200

Success.

```
{  
  "total_count": 1,  
  "histories": [{  
    "target_id": "06789bdfbe414d78b9cef1b79d7d9680in07",  
    "target_name": "gauss-11",  
    "apply_result": "SUCCESS",
```

```
"applied_at" : 1712246191000,  
"error_code" : ""  
}]  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ListParamsTemplateApplyHistorySolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        ListParamsTemplateApplyHistoryRequest request = new ListParamsTemplateApplyHistoryRequest();  
        request.withConfigId("{config_id}");  
        try {  
            ListParamsTemplateApplyHistoryResponse response =  
client.listParamsTemplateApplyHistory(request);  
            System.out.println(response.toString());  
        } catch (ConnectionException e) {  
            e.printStackTrace();  
        } catch (RequestTimeoutException e) {  
            e.printStackTrace();  
        } catch (ServiceResponseException e) {  
            e.printStackTrace();  
            System.out.println(e.getStatusCode());  
            System.out.println(e.getRequestId());  
            System.out.println(e.getErrorCode());  
            System.out.println(e.getErrorMsg());  
        }  
    }  
}
```

### Python

```
# coding: utf-8
```

```
import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListParamsTemplateApplyHistoryRequest()
        request.config_id = "{config_id}"
        response = client.list_params_template_apply_history(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListParamsTemplateApplyHistoryRequest{}
```

```
request.ConfigId = "{config_id}"
response, err := client.ListParamsTemplateApplyHistory(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.6 配额管理

### 4.6.1 查询租户的实例配额

#### 功能介绍

获取指定租户的资源配额。

#### 调用方法

请参见[如何调用API](#)。

#### URI

GET /v3/{project\_id}/project-quotas

表 4-486 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	<b>参数解释:</b> 租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。 <b>约束限制:</b> 不涉及。 <b>取值范围:</b> 只能由英文字母、数字组成，且长度为32个字符。 <b>默认值:</b> 不涉及。

表 4-487 Query 参数

参数	是否必选	参数类型	描述
type	否	String	<b>参数解释:</b> 根据type过滤查询指定类型的配额。 <b>约束限制:</b> 不涉及。 <b>取值范围:</b> instance。 <b>默认值:</b> instance。

## 请求参数

表 4-488 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	否	String	<p><b>参数解释:</b> 用户Token。 通过调用IAM服务<a href="#">获取用户Token</a>接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。</p> <p><b>约束限制:</b> 不涉及。</p> <p><b>取值范围:</b> 不涉及。</p> <p><b>默认值:</b> 不涉及。</p>
X-Language	否	String	<p><b>参数解释:</b> 请求语言类型。</p> <p><b>约束限制:</b> 不涉及。</p> <p><b>取值范围:</b></p> <ul style="list-style-type: none"> <li>en-us</li> <li>zh-cn</li> </ul> <p><b>默认值:</b> en-us。</p>

## 响应参数

状态码： 200

表 4-489 响应 Body 参数

参数	参数类型	描述
quotas	<a href="#">project-quotas</a> object	<p><b>参数解释:</b> 租户实例配额信息。</p>

表 4-490 project-quotas

参数	参数类型	描述
resources	Array of <b>resource</b> objects	<b>参数解释:</b> 资源列表对象。

表 4-491 resource

参数	参数类型	描述
type	String	<b>参数解释:</b> 指定类型的配额。 <b>取值范围:</b> <ul style="list-style-type: none"><li>instance。</li></ul>
used	Integer	<b>参数解释:</b> 已创建的资源个数。 <b>取值范围:</b> ≥0。
quota	Integer	<b>参数解释:</b> 资源最大的配额数。 <b>取值范围:</b> 实例个数配额, 取值范围0~100000, -1表示无限制。

状态码: 400

表 4-492 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码: 500

表 4-493 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。



## 请求示例

查询租户的实例配额。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/project-quotas?type=instance
```

## 响应示例

状态码： 200

Success.

```
{
  "quotas": {
    "resources": [ {
      "type": "instance",
      "used": 4,
      "quota": 50
    } ]
  }
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowGaussMySQLProjectQuotasSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ShowGaussMySQLProjectQuotasRequest request = new ShowGaussMySQLProjectQuotasRequest();
        try {
```

```
ShowGaussMySqlProjectQuotasResponse response = client.showGaussMySqlProjectQuotas(request);
System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowGaussMySqlProjectQuotasRequest()
        response = client.show_gauss_my_sql_project_quotas(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
```

```
// In this example, AK and SK are stored in environment variables for authentication. Before running this
example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")
projectId := "{project_id}"

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    WithProjectId(projectId).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.ShowGaussMySQLProjectQuotasRequest{}
response, err := client.ShowGaussMySQLProjectQuotas(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.6.2 查询租户基于企业项目的资源配额

### 功能介绍

获取指定企业项目的资源配额。

### 接口约束

该接口目前公测阶段，如需使用，请提交工单联系客服人员申请权限。

## 调用方法

请参见[如何调用API](#)。

## URI

GET /v3/{project\_id}/quotas

表 4-494 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

表 4-495 Query 参数

参数	是否必选	参数类型	描述
offset	否	String	索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。 取值范围：0 - 10000
limit	否	String	查询记录数。默认为10，不能为负数，最小值为1，最大值为100。
enterprise_project_name	否	String	企业项目名称。

## 请求参数

表 4-496 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。

参数	是否必选	参数类型	描述
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-497 响应 Body 参数

参数	参数类型	描述
quota_list	Array of <b>quota</b> objects	资源列表对象。
total_count	Integer	配额记录的条数。

表 4-498 quota

参数	参数类型	描述
enterprise_project_id	String	企业项目ID。
enterprise_project_name	String	企业项目名称。
instance_quota	Integer	实例个数配额，-1表示无限制。
vcpus_quota	Integer	CPU核数配额，-1表示无限制。
ram_quota	Integer	内存使用配额，单位为GB，-1表示无限制。
availability_instance_quota	Integer	实例剩余配额，-1表示无限制。
availability_vcpus_quota	Integer	CPU核数剩余配额，-1表示无限制。
availability_ram_quota	Integer	内存剩余配额，-1表示无限制。

状态码： 400

表 4-499 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-500 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

获取资源配额。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/quotas
```

## 响应示例

状态码： 200

Success.

```
{
  "quota_list": [ {
    "enterprise_project_id": "0",
    "enterprise_project_name": "default",
    "instance_quota": 20,
    "vcpus_quota": 20,
    "ram_quota": 40,
    "availability_instance_quota": 1,
    "availability_vcpus_quota": 4,
    "availability_ram_quota": 8
  } ],
  "total_count": 1
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
```

```
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowGaussMySQLQuotasSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ShowGaussMySQLQuotasRequest request = new ShowGaussMySQLQuotasRequest();
        try {
            ShowGaussMySQLQuotasResponse response = client.showGaussMySQLQuotas(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
```

```
.build()

try:
    request = ShowGaussMySQLQuotasRequest()
    response = client.show_gauss_my_sql_quotas(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/ HuaweiCloud/ HuaweiCloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/ HuaweiCloud/ HuaweiCloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/ HuaweiCloud/ HuaweiCloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/ HuaweiCloud/ HuaweiCloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowGaussMySQLQuotasRequest{}
    response, err := client.ShowGaussMySQLQuotas(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.



状态码	描述
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.6.3 设置租户基于企业项目的资源配额

### 功能介绍

设置指定企业项目的资源配额。

### 接口约束

该接口目前公测阶段，如需使用，请提交工单联系客服人员申请权限。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/quotas

表 4-501 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

## 请求参数

表 4-502 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-503 请求 Body 参数

参数	是否必选	参数类型	描述
quota_list	是	Array of <a href="#">setQuota</a> objects	资源列表对象。

表 4-504 setQuota

参数	是否必选	参数类型	描述
enterprise_project_id	是	String	企业项目ID。
instance_quota	否	Integer	实例个数配额。取值范围0~100000。(如果已经存在实例，应该大于已经存在的实例个数)
vcpus_quota	否	Integer	CPU核数配额。取值范围0~2147483646。(如果已经存在实例，应该大于已经占用的cpu个数)
ram_quota	否	Integer	内存使用配额，单位为GB。取值范围0~2147483646。(如果已经存在实例，应该大于已经占用的内存数)

## 响应参数

状态码： 200

表 4-505 响应 Body 参数

参数	参数类型	描述
quota_list	Array of <a href="#">setQuota</a> objects	资源列表对象。

表 4-506 setQuota

参数	参数类型	描述
enterprise_project_id	String	企业项目ID。
instance_quota	Integer	实例个数配额。取值范围0~100000。 (如果已经存在实例, 应该大于已经存在的实例个数)
vcpus_quota	Integer	CPU核数配额。取值范围 0~2147483646。(如果已经存在实例, 应该大于已经占用的cpu个数)
ram_quota	Integer	内存使用配额, 单位为GB。取值范围 0~2147483646。(如果已经存在实例, 应该大于已经占用的内存数)

状态码： 400

表 4-507 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-508 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

设置资源配额。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/quotas
{
  "quota_list": [ {
    "enterprise_project_id": "0",
    "instance_quota": 20,
    "vcpus_quota": 20,
    "ram_quota": 40
  } ]
}
```

## 响应示例

状态码: 200

Success.

```
{
  "quota_list": [ {
    "enterprise_project_id": "0",
    "instance_quota": 20,
    "vcpus_quota": 20,
    "ram_quota": 40
  } ]
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

设置资源配额。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class SetGaussMySQLQuotasSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
```

```
.withAk(ak)
.withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
SetGaussMySqlQuotasRequest request = new SetGaussMySqlQuotasRequest();
SetQuotasRequestBody body = new SetQuotasRequestBody();
List<SetQuota> listbodyQuotaList = new ArrayList<>();
listbodyQuotaList.add(
    new SetQuota()
        .withEnterpriseProjectId("0")
        .withInstanceQuota(20)
        .withVcpusQuota(20)
        .withRamQuota(40)
);
body.withQuotaList(listbodyQuotaList);
request.withBody(body);
try {
    SetGaussMySqlQuotasResponse response = client.setGaussMySqlQuotas(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

设置资源配额。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = SetGaussMySqlQuotasRequest()
        listQuotaListbody = [
            SetQuota(
```

```
        enterprise_project_id="0",
        instance_quota=20,
        vcpus_quota=20,
        ram_quota=40
    )
]
request.body = SetQuotasRequestBody(
    quota_list=listQuotaListbody
)
response = client.set_gauss_my_sql_quotas(request)
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

### 设置资源配额。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.SetGaussMySQLQuotasRequest{}
    instanceQuotaQuotaList:= int32(20)
    vcpusQuotaQuotaList:= int32(20)
    ramQuotaQuotaList:= int32(40)
    var listQuotaListbody = []model.SetQuota{
        {
            EnterpriseProjectId: "0",
            InstanceQuota: &instanceQuotaQuotaList,
            VcpusQuota: &vcpusQuotaQuotaList,
            RamQuota: &ramQuotaQuotaList,
        },
    },
    }
    request.Body = &model.SetQuotasRequestBody{
        QuotaList: listQuotaListbody,
    }
    response, err := client.SetGaussMySQLQuotas(request)
```

```
if err == nil {  
    fmt.Printf("%v\n", response)  
} else {  
    fmt.Println(err)  
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.6.4 修改租户基于企业项目的资源配额

### 功能介绍

修改指定企业项目的资源配额。

### 接口约束

该接口目前公测阶段，如需使用，请提交工单联系客服人员申请权限。

### 调用方法

请参见[如何调用API](#)。

## URI

PUT /v3/{project\_id}/quotas

表 4-509 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

## 请求参数

表 4-510 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-511 请求 Body 参数

参数	是否必选	参数类型	描述
quota_list	是	Array of <a href="#">setQuota</a> objects	资源列表对象。

表 4-512 setQuota

参数	是否必选	参数类型	描述
enterprise_project_id	是	String	企业项目ID。
instance_quota	否	Integer	实例个数配额。取值范围0~100000。(如果已经存在实例，应该大于已经存在的实例个数)
vcpus_quota	否	Integer	CPU核数配额。取值范围0~2147483646。(如果已经存在实例，应该大于已经占用的cpu个数)
ram_quota	否	Integer	内存使用配额，单位为GB。取值范围0~2147483646。(如果已经存在实例，应该大于已经占用的内存数)



## 响应参数

状态码： 200

表 4-513 响应 Body 参数

参数	参数类型	描述
quota_list	Array of <a href="#">setQuota</a> objects	资源列表对象。

表 4-514 setQuota

参数	参数类型	描述
enterprise_project_id	String	企业项目ID。
instance_quota	Integer	实例个数配额。取值范围0~100000。 (如果已经存在实例, 应该大于已经存在的实例个数)
vcpus_quota	Integer	CPU核数配额。取值范围 0~2147483646。(如果已经存在实例, 应该大于已经占用的cpu个数)
ram_quota	Integer	内存使用配额, 单位为GB。取值范围 0~2147483646。(如果已经存在实例, 应该大于已经占用的内存数)

状态码： 400

表 4-515 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-516 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

修改指定企业项目的资源配额。

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/quotas
{
  "quota_list": [ {
    "enterprise_project_id": "0",
    "instance_quota": 20,
    "vcpus_quota": 20,
    "ram_quota": 40
  } ]
}
```

## 响应示例

状态码: 200

Success.

```
{
  "quota_list": [ {
    "enterprise_project_id": "0",
    "instance_quota": 20,
    "vcpus_quota": 20,
    "ram_quota": 40
  } ]
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

修改指定企业项目的资源配额。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class UpdateGaussMySQLQuotasSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
```

```
.withAk(ak)
.withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
UpdateGaussMySQLQuotasRequest request = new UpdateGaussMySQLQuotasRequest();
SetQuotasRequestBody body = new SetQuotasRequestBody();
List<SetQuota> listbodyQuotaList = new ArrayList<>();
listbodyQuotaList.add(
    new SetQuota()
        .withEnterpriseProjectId("0")
        .withInstanceQuota(20)
        .withVcpusQuota(20)
        .withRamQuota(40)
);
body.withQuotaList(listbodyQuotaList);
request.withBody(body);
try {
    UpdateGaussMySQLQuotasResponse response = client.updateGaussMySQLQuotas(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

修改指定企业项目的资源配额。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateGaussMySQLQuotasRequest()
        listQuotaListbody = [
            SetQuota(
```

```
        enterprise_project_id="0",
        instance_quota=20,
        vcpus_quota=20,
        ram_quota=40
    )
]
request.body = SetQuotasRequestBody(
    quota_list=listQuotaListbody
)
response = client.update_gauss_my_sql_quotas(request)
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

修改指定企业项目的资源配额。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateGaussMySqlQuotasRequest{}
    instanceQuotaQuotaList:= int32(20)
    vcpusQuotaQuotaList:= int32(20)
    ramQuotaQuotaList:= int32(40)
    var listQuotaListbody = []model.SetQuota{
        {
            EnterpriseProjectId: "0",
            InstanceQuota: &instanceQuotaQuotaList,
            VcpusQuota: &vcpusQuotaQuotaList,
            RamQuota: &ramQuotaQuotaList,
        },
    }
    request.Body = &model.SetQuotasRequestBody{
        QuotaList: listQuotaListbody,
    }
    response, err := client.UpdateGaussMySqlQuotas(request)
```

```
if err == nil {  
    fmt.Printf("%+v\n", response)  
} else {  
    fmt.Println(err)  
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.6.5 查询企业项目

### 功能介绍

查询企业项目。

### 调用方法

请参见[如何调用API](#)。

## URI

GET /v3/{project\_id}/enterprise-projects

表 4-517 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

表 4-518 Query 参数

参数	是否必选	参数类型	描述
offset	否	Integer	索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。
limit	否	Integer	查询记录数。默认为100，不能为负数，最小值为1，最大值为100。

## 请求参数

表 4-519 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-520 响应 Body 参数

参数	参数类型	描述
enterprise_projects	Array of <a href="#">EnterpriseProjectItem</a> objects	企业项目信息列表。
total_count	Integer	总数。

表 4-521 EnterpriseProjectItem

参数	参数类型	描述
id	String	企业项目ID。
name	String	企业项目名称。
description	String	描述。
status	String	状态。 - 1: 正常。 - 0: 异常。
created	String	创建时间, 格式为“yyyy-mm-ddThh:mm:ssZ”。其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。
updated	String	更新时间, 格式为“yyyy-mm-ddThh:mm:ssZ”。其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。

状态码: 400

表 4-522 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码: 500

表 4-523 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询企业项目。

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/enterprise-projects
```

## 响应示例

状态码: 200

Success.

```
{
  "total_count" : 4,
  "enterprise_projects" : [ {
    "id" : 0,
    "name" : "default",
    "description" : null,
    "status" : 1,
    "created" : null,
    "updated" : null
  }, {
    "id" : "5c7d11e0-3201-4558-bcce-1172137cf7e2",
    "name" : "sjw-eps",
    "description" : null,
    "status" : 1,
    "created" : "2023-06-12T02:14:28+0000",
    "updated" : "2023-06-12T02:14:28+0000"
  }, {
    "id" : "12093327-28dc-46c5-8ba6-d42c9236f9d6",
    "name" : "adf",
    "description" : null,
    "status" : 1,
    "created" : "2023-05-06T08:33:03+0000",
    "updated" : "2023-05-06T08:33:03+0000"
  }, {
    "id" : "07d90b3f-422b-40c9-b9b3-6d00d1d7a60b",
    "name" : "eps-test",
    "description" : null,
    "status" : 1,
    "created" : "2023-03-16T01:38:13+0000",
    "updated" : "2023-03-16T01:38:13+0000"
  } ]
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListEnterpriseProjectsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
```



```
        .withSk(sk);

    GaussDBClient client = GaussDBClient.newBuilder()
        .withCredential(auth)
        .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
        .build();
    ListEnterpriseProjectsRequest request = new ListEnterpriseProjectsRequest();
    try {
        ListEnterpriseProjectsResponse response = client.listEnterpriseProjects(request);
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListEnterpriseProjectsRequest()
        response = client.list_enterprise_projects(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
```

```
"github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListEnterpriseProjectsRequest{}
    response, err := client.ListEnterpriseProjects(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.7 数据库代理

## 4.7.1 开启数据库代理

### 功能介绍

开启数据库代理，只支持ELB模式。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/instances/{instance\_id}/proxy

表 4-524 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

### 请求参数

表 4-525 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-526 请求 Body 参数

参数	是否必选	参数类型	描述
flavor_ref	是	String	数据库代理规格码，获取方法请参见 <a href="#">查询数据库代理规格信息</a> 返回的spec_code字段。
node_num	是	Integer	数据库代理节点数，取值整数2-16。
proxy_name	否	String	数据库代理名称。用于表示实例的名称，同一租户下，同类型的实例名可重名。 取值范围：最小为4个字符，最大为64个字符且不超过64个字节（注意：一个中文字符占用3个字节），必须以字母或中文开头，区分大小写，可以包含字母、数字、中划线、下划线或中文，不能包含其他特殊字符。
proxy_mode	否	String	数据库代理类型。默认类型为readwrite。
route_mode	否	Integer	数据库代理路由模式，默认为0，权重负载模式。 取值范围： <ul style="list-style-type: none"><li>0：表示权重负载模式。</li><li>1：表示负载均衡模式（数据库主节点不接受读请求）。</li><li>2：表示负载均衡模式（数据库主节点接受读请求）。</li></ul>
nodes_read_weight	否	Array of <a href="#">NodesWeight</a> objects	数据库节点的读权重设置。 在proxy_mode为readonly时，只能为只读节点选择权重。
subnet_id	否	String	数据库VPC下的子网ID。
new_node_auto_add_status	否	String	是否开启新增节点自动加入该Proxy。如果需要设置是否开启新增节点自动加入该Proxy，请联系客服人员添加白名单，加入白名单后，方可输入该字段。加入白名单后，默认值为OFF。 取值范围： <ul style="list-style-type: none"><li>ON：开启。</li><li>OFF：关闭。</li></ul>

参数	是否必选	参数类型	描述
new_node_weight	否	Integer	新增节点的读权重，在 new_node_auto_add_status 参数为 ON 时为必选字段： <ul style="list-style-type: none"><li>如果路由模式为 0，新增节点自动加入为 ON，取值为 0~1000。</li><li>如果路由模式不为 0 或新增节点自动加入为 OFF，则可不输入读权重。</li></ul>

表 4-527 NodesWeight

参数	是否必选	参数类型	描述
id	否	String	数据库节点 ID。
weight	否	Integer	权重： <ul style="list-style-type: none"><li>如果路由模式为 0，取值为 0~1000。</li><li>如果路由模式为 1，数据库主节点取值为 0，只读节点取值为 0 或 1。</li><li>如果路由模式为 2，数据库主节点取值为 1，只读节点取值为 0 或 1。</li></ul>

## 响应参数

状态码：201

表 4-528 响应 Body 参数

参数	参数类型	描述
job_id	String	任务 ID。

状态码：400

表 4-529 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。

参数	参数类型	描述
error_msg	String	错误消息。

状态码： 500

表 4-530 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

开启数据库代理，规格2U8GB，代理模式只读模式。

```
POST https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/43e4feaab48f11e89039fa163ebaa7e4br01/proxy
```

```
{
  "flavor_ref" : "gaussdb.proxy.large.x86.2",
  "node_num" : 2,
  "proxy_name" : "gaussdb-proxy",
  "proxy_mode" : "readonly",
  "route_mode" : 0,
  "nodes_read_weight" : [ {
    "id" : "45021bf73a244312a3f2af95092feecno07",
    "weight" : 50
  }, {
    "id" : "d78a65690cea4af5ad14585e110ff89bno07",
    "weight" : 400
  } ],
  "subnet_id" : "6991d82d-9166-4aff-a1fa-d2a8748b7084"
}
```

## 响应示例

状态码： 201

Success.

```
{
  "job_id" : "04efe8e2-9255-44ae-a98b-d87cae411890"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

开启数据库代理，规格2U8GB，代理模式只读模式。

```
package com.huaweicloud.sdk.test;
```

```
import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class CreateGaussMySQLProxySolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        CreateGaussMySQLProxyRequest request = new CreateGaussMySQLProxyRequest();
        request.withInstanceId("{instance_id}");
        OpenMySQLProxyRequestBody body = new OpenMySQLProxyRequestBody();
        List<NodesWeight> listbodyNodesReadWeight = new ArrayList<>();
        listbodyNodesReadWeight.add(
            new NodesWeight()
                .withId("45021bf73a244312a3f2af95092feecno07")
                .withWeight(50)
        );
        listbodyNodesReadWeight.add(
            new NodesWeight()
                .withId("d78a65690cea4af5ad14585e110ff89bno07")
                .withWeight(400)
        );
        body.withSubnetId("6991d82d-9166-4aff-a1fa-d2a8748b7084");
        body.withNodesReadWeight(listbodyNodesReadWeight);
        body.withRouteMode(0);
        body.withProxyMode(OpenMySQLProxyRequestBody.ProxyModeEnum.fromValue("readonly"));
        body.withProxyName("gaussdb-proxy");
        body.withNodeNum(2);
        body.withFlavorRef("gaussdb.proxy.large.x86.2");
        request.withBody(body);
        try {
            CreateGaussMySQLProxyResponse response = client.createGaussMySQLProxy(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

```
}  
}
```

## Python

开启数据库代理，规格2U8GB，代理模式只读模式。

```
# coding: utf-8  
  
import os  
from huaweicloudsdkcore.auth.credentials import BasicCredentials  
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion  
from huaweicloudsdkcore.exceptions import exceptions  
from huaweicloudsdkgaussdb.v3 import *  
  
if __name__ == "__main__":  
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    # variables and decrypted during use to ensure security.  
    # In this example, AK and SK are stored in environment variables for authentication. Before running this  
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak = os.environ["CLOUD_SDK_AK"]  
    sk = os.environ["CLOUD_SDK_SK"]  
    projectId = "{project_id}"  
  
    credentials = BasicCredentials(ak, sk, projectId)  
  
    client = GaussDBClient.new_builder() \  
        .with_credentials(credentials) \  
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \  
        .build()  
  
    try:  
        request = CreateGaussMySQLProxyRequest()  
        request.instance_id = "{instance_id}"  
        listNodesReadWeightbody = [  
            NodesWeight(  
                id="45021bf73a244312a3f2af95092feecno07",  
                weight=50  
            ),  
            NodesWeight(  
                id="d78a65690cea4af5ad14585e110ff89bno07",  
                weight=400  
            )  
        ]  
        request.body = OpenMySQLProxyRequestBody(  
            subnet_id="6991d82d-9166-4aff-a1fa-d2a8748b7084",  
            nodes_read_weight=listNodesReadWeightbody,  
            route_mode=0,  
            proxy_mode="readonly",  
            proxy_name="gaussdb-proxy",  
            node_num=2,  
            flavor_ref="gaussdb.proxy.large.x86.2"  
        )  
        response = client.create_gauss_my_sql_proxy(request)  
        print(response)  
    except exceptions.ClientRequestException as e:  
        print(e.status_code)  
        print(e.request_id)  
        print(e.error_code)  
        print(e.error_msg)
```

## Go

开启数据库代理，规格2U8GB，代理模式只读模式。

```
package main
```



```
import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateGaussMySQLProxyRequest{}
    request.InstanceId = "{instance_id}"
    idNodesReadWeight := "45021bf73a244312a3f2af95092feecno07"
    weightNodesReadWeight := int32(50)
    idNodesReadWeight1 := "d78a65690cea4af5ad14585e110ff89bno07"
    weightNodesReadWeight1 := int32(400)
    var listNodesReadWeightbody = []model.NodesWeight{
        {
            Id: &idNodesReadWeight,
            Weight: &weightNodesReadWeight,
        },
        {
            Id: &idNodesReadWeight1,
            Weight: &weightNodesReadWeight1,
        },
    }
    subnetIdOpenMySQLProxyRequestBody := "6991d82d-9166-4aff-a1fa-d2a8748b7084"
    routeModeOpenMySQLProxyRequestBody := int32(0)
    proxyModeOpenMySQLProxyRequestBody :=
model.GetOpenMySQLProxyRequestBodyProxyModeEnum().READONLY
    proxyNameOpenMySQLProxyRequestBody := "gaussdb-proxy"
    request.Body = &model.OpenMySQLProxyRequestBody{
        SubnetId: &subnetIdOpenMySQLProxyRequestBody,
        NodesReadWeight: &listNodesReadWeightbody,
        RouteMode: &routeModeOpenMySQLProxyRequestBody,
        ProxyMode: &proxyModeOpenMySQLProxyRequestBody,
        ProxyName: &proxyNameOpenMySQLProxyRequestBody,
        NodeNum: int32(2),
        FlavorRef: "gaussdb.proxy.large.x86.2",
    }
    response, err := client.CreateGaussMySQLProxy(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
201	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.7.2 关闭数据库代理

### 功能介绍

关闭数据库代理。

### 调用方法

请参见[如何调用API](#)。

## URI

DELETE /v3/{project\_id}/instances/{instance\_id}/proxy

表 4-531 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-532 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-533 请求 Body 参数

参数	是否必选	参数类型	描述
proxy_ids	否	Array of strings	数据库代理ID列表。 如果实例只开启了一个代理，可不传该字段；如果实例开启了多个代理，则必须指定要关闭的代理。

## 响应参数

状态码： 200

表 4-534 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 4-535 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。

参数	参数类型	描述
error_msg	String	错误消息。

状态码： 500

表 4-536 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

关闭数据库代理。

```
DELETE https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
096c0fc43e804757b59946b80dc27f8bin07/proxy  
  
{  
  "proxy_ids" : [ "151c14381ac14ecfb9703a745b992677po01" ]  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "job_id" : "04efe8e2-9255-44ae-a98b-d87cae411890"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

关闭数据库代理。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
import java.util.List;  
import java.util.ArrayList;
```

```
public class DeleteGaussMySQLProxySolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        DeleteGaussMySQLProxyRequest request = new DeleteGaussMySQLProxyRequest();
        request.withInstanceId("{instance_id}");
        CloseMysqlProxyRequestBody body = new CloseMysqlProxyRequestBody();
        List<String> listbodyProxyIds = new ArrayList<>();
        listbodyProxyIds.add("151c14381ac14ecfb9703a745b992677po01");
        body.withProxyIds(listbodyProxyIds);
        request.withBody(body);
        try {
            DeleteGaussMySQLProxyResponse response = client.deleteGaussMySQLProxy(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

关闭数据库代理。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)
```

```
client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = DeleteGaussMySQLProxyRequest()
    request.instance_id = "{instance_id}"
    listProxyIdsbody = [
        "151c14381ac14ecfb9703a745b992677po01"
    ]
    request.body = CloseMysqlProxyRequestBody(
        proxy_ids=listProxyIdsbody
    )
    response = client.delete_gauss_my_sql_proxy(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

关闭数据库代理。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/taurusdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/taurusdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/taurusdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteGaussMySQLProxyRequest{}
    request.InstanceId = "{instance_id}"
    var listProxyIdsbody = []string{
        "151c14381ac14ecfb9703a745b992677po01",
    }
    request.Body = &model.CloseMysqlProxyRequestBody{
        ProxyIds: &listProxyIdsbody,
    }
    response, err := client.DeleteGaussMySQLProxy(request)
    if err == nil {
```

```
fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.7.3 查询数据库代理信息列表

#### 功能介绍

查询数据库代理信息列表。

#### 调用方法

请参见[如何调用API](#)。

#### URI

GET /v3/{project\_id}/instances/{instance\_id}/proxies

表 4-537 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	<b>参数解释:</b> 租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。 <b>约束限制:</b> 不涉及。 <b>取值范围:</b> 只能由英文字母、数字组成，且长度为32个字符。 <b>默认值:</b> 不涉及。
instance_id	是	String	<b>参数解释:</b> 实例ID，此参数是实例的唯一标识。 <b>约束限制:</b> 不涉及。 <b>取值范围:</b> 只能由英文字母、数字组成，后缀为in07，长度为36个字符。 <b>默认取值:</b> 不涉及。

表 4-538 Query 参数

参数	是否必选	参数类型	描述
offset	否	Integer	<b>参数解释:</b> 索引位置，偏移量。从第一条数据偏移offset条数据后开始查询。 <b>约束限制:</b> 必须为整数，不能为负数。 <b>取值范围:</b> ≥0 <b>默认取值:</b> 0



参数	是否必选	参数类型	描述
limit	否	Integer	<b>参数解释:</b> 查询记录数。 <b>约束限制:</b> 必须为整数, 不能为负数。 <b>取值范围:</b> 1-100 <b>默认取值:</b> 100

## 请求参数

表 4-539 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	<b>参数解释:</b> 用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 <b>约束限制:</b> 不涉及。 <b>取值范围:</b> 不涉及。 <b>默认值:</b> 不涉及。
X-Language	否	String	<b>参数解释:</b> 请求语言类型。 <b>约束限制:</b> 不涉及。 <b>取值范围:</b> <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul> <b>默认值:</b> en-us。

## 响应参数

状态码： 200

表 4-540 响应 Body 参数

参数	参数类型	描述
proxy_list	Array of <b>MysqlShowProxyResponseV3</b> objects	<b>参数解释：</b> 数据库代理信息列表。

表 4-541 MysqlShowProxyResponseV3

参数	参数类型	描述
proxy	<b>MysqlProxyV3</b> object	<b>参数解释：</b> 数据库代理信息。
master_node	<b>MysqlProxyNodeV3</b> object	<b>参数解释：</b> 主节点信息。
readonly_nodes	Array of <b>MysqlProxyNodeV3</b> objects	<b>参数解释：</b> 只读节点信息。

表 4-542 MysqlProxyV3

参数	参数类型	描述
pool_id	String	<b>参数解释：</b> 数据库代理ID。 <b>取值范围：</b> 只能由英文字母、数字组成，后缀为 po01，长度为36个字符。

参数	参数类型	描述
status	String	<b>参数解释:</b> 数据库代理开启状态。 <b>取值范围:</b> <ul style="list-style-type: none"><li>• ACTIVE: 表示数据库代理正常。</li><li>• FAILED: 表示数据库代理创建失败。</li><li>• DELETED: 表示数据库代理已删除。</li><li>• ABNORMAL: 表示数据库代理异常。</li><li>• ENABLING PROXY: 表示数据库代理正在开启。</li><li>• DISABLING PROXY: 表示数据库代理正在关闭。</li><li>• ADDING PROXY NODE: 表示数据库代理正在扩容。</li><li>• DELETING READ REPLICAS FROM PROXY: 表示数据库代理正在移除只读节点。</li><li>• ADDING READ REPLICAS TO PROXY: 表示数据库代理正在添加只读节点。</li><li>• CHANGING WEIGHTS: 表示数据库代理正在修改只读节点权重。</li></ul>
address	String	<b>参数解释:</b> 数据库代理读写分离地址。 <b>取值范围:</b> 不涉及。
port	Integer	<b>参数解释:</b> 数据库代理端口信息。 <b>取值范围:</b> 不涉及。
pool_status	String	<b>参数解释:</b> 数据库代理状态。 <b>取值范围:</b> <ul style="list-style-type: none"><li>• ACTIVE: 表示数据库代理正常。</li><li>• ABNORMAL: 表示数据库代理异常。</li><li>• FAILED: 表示数据库代理创建失败。</li><li>• DELETED: 表示数据库代理已删除。</li></ul>

参数	参数类型	描述
delay_threshold_in_seconds	Integer	<b>参数解释:</b> 延时阈值, 单位: 秒。 <b>取值范围:</b> 不涉及。
elb_vip	String	<b>参数解释:</b> Elb模式的虚拟IP信息。 <b>取值范围:</b> 不涉及。
eip	String	<b>参数解释:</b> 弹性公网IP地址信息。 <b>取值范围:</b> 不涉及。
vcpus	String	<b>参数解释:</b> 数据库代理规格的CPU数量。 <b>取值范围:</b> 不涉及。
ram	String	<b>参数解释:</b> 数据库代理规格的内存数量。 <b>取值范围:</b> 不涉及。
node_num	Integer	<b>参数解释:</b> 数据库代理节点个数。 <b>取值范围:</b> 不涉及。
mode	String	<b>参数解释:</b> 数据库代理主备模式。 <b>取值范围:</b> Cluster。
nodes	Array of <a href="#">MysqlProxyNodes</a> objects	<b>参数解释:</b> 数据库代理节点信息。
flavor_ref	String	<b>参数解释:</b> 数据库代理规格信息。 <b>取值范围:</b> 不涉及。

参数	参数类型	描述
name	String	<b>参数解释:</b> 数据库代理名称。 <b>取值范围:</b> 不涉及。
transaction_split	String	<b>参数解释:</b> 数据库代理事务拆分开关状态。 <b>取值范围:</b> <ul style="list-style-type: none"><li>• true: 开启。</li><li>• false: 关闭。</li></ul>
connection_pool_type	String	<b>参数解释:</b> 连接池类型。 <b>取值范围:</b> <ul style="list-style-type: none"><li>• CLOSED: 关闭连接池。</li><li>• SESSION: 开启会话级连接池。</li></ul>
switch_connection_pool_type_enabled	Boolean	<b>参数解释:</b> 数据库代理版本是否支持会话级连接池。 <b>取值范围:</b> <ul style="list-style-type: none"><li>• true: 支持。</li><li>• false: 不支持。</li></ul>
route_mode	Integer	<b>参数解释:</b> 数据库代理路由模式。 <b>取值范围:</b> <ul style="list-style-type: none"><li>• 0: 表示权重负载模式。</li><li>• 1: 表示负载均衡模式 (数据库主节点不接受读请求)。</li><li>• 2: 表示负载均衡模式 (数据库主节点接受读请求)。</li></ul>
balance_route_mode_enabled	Boolean	<b>参数解释:</b> 数据库代理版本是否支持负载均衡模式。 <b>取值范围:</b> <ul style="list-style-type: none"><li>• true 支持。</li><li>• false 不支持。</li></ul>

参数	参数类型	描述
consistence_mode	String	<b>参数解释:</b> 一致性模式。默认值为空, 此时以会话一致性参数session_consistence的值为准。 <b>取值范围:</b> <ul style="list-style-type: none"><li>• session: 会话一致性 (当 session_consistence为true时, 只能取该值)。</li><li>• global: 全局一致性 (当 session_consistence为false时, 可取该值)。</li><li>• eventual: 最终一致性 (当 session_consistence为false时, 可取该值)。</li></ul>
subnet_id	String	<b>参数解释:</b> 数据库代理所属的子网ID。 <b>取值范围:</b> 不涉及。
ssl_option	String	<b>参数解释:</b> SSL数据加密开关设置。 <b>取值范围:</b> <ul style="list-style-type: none"><li>• true: 开启SSL数据加密。</li><li>• false: 关闭SSL数据加密。</li></ul>
new_node_auto_add_status	String	<b>参数解释:</b> 新增节点是否自动加入该数据库代理。 <b>取值范围:</b> <ul style="list-style-type: none"><li>• ON: 自动加入。</li><li>• OFF: 不自动加入。</li></ul>
new_node_weight	Integer	<b>参数解释:</b> 新增节点的读权重。 <b>取值范围:</b> 1-1000。

表 4-543 MysqlProxyNodes

参数	参数类型	描述
id	String	数据库代理节点ID。

参数	参数类型	描述
status	String	<b>参数解释:</b> 数据库代理节点状态。 <b>取值范围:</b> <ul style="list-style-type: none"><li>ACTIVE: 表示节点正常。</li><li>ABNORMAL: 表示节点异常。</li><li>FAILED: 表示节点失败。</li><li>DELETED: 表示节点已删除。</li></ul>
name	String	<b>参数解释:</b> 数据库代理节点名称。 <b>取值范围:</b> 不涉及。
role	String	<b>参数解释:</b> 数据库代理节点角色。 <b>取值范围:</b> <ul style="list-style-type: none"><li>master: 主节点。</li><li>slave: 只读节点。</li></ul>
az_code	String	<b>参数解释:</b> 可用区。 <b>取值范围:</b> 不涉及。
frozen_flag	Integer	<b>参数解释:</b> 数据库代理节点是否被冻结。 <b>取值范围:</b> <ul style="list-style-type: none"><li>0: 未冻结。</li><li>1: 冻结。</li><li>2: 冻结删除。</li></ul>

表 4-544 MysqlProxyNodeV3

参数	参数类型	描述
id	String	<b>参数解释:</b> 数据库代理节点ID。 <b>取值范围:</b> 只能由英文字母、数字组成, 后缀为no07, 长度为36个字符。

参数	参数类型	描述
instance_id	String	<b>参数解释:</b> 实例ID, 此参数是实例的唯一标识。 <b>取值范围:</b> 只能由英文字母、数字组成, 后缀为in07, 长度为36个字符。
status	String	<b>参数解释:</b> 节点状态。 <b>取值范围:</b> <ul style="list-style-type: none"> <li>ACTIVE: 表示节点正常。</li> <li>ABNORMAL: 表示节点异常。</li> <li>FAILED: 表示节点失败。</li> <li>DELETED: 表示节点已删除。</li> </ul>
name	String	<b>参数解释:</b> 节点名称。 <b>取值范围:</b> 不涉及。
weight	Integer	<b>参数解释:</b> 节点读写分离读权重。 <b>取值范围:</b> 1-1000。
availability_zone	Array of <a href="#">MysqlProxyAvailable</a> objects	<b>参数解释:</b> 可用区信息。

表 4-545 MysqlProxyAvailable

参数	参数类型	描述
code	String	<b>参数解释:</b> 可用区编码。 <b>取值范围:</b> 不涉及。
description	String	<b>参数解释:</b> 可用区描述。 <b>取值范围:</b> 不涉及。

状态码: 400



表 4-546 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-547 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询实例的数据库代理信息列表。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
517ea793ab91438cbfcd9c4b1c958b1ein07/proxies?offset=0&limit=10
```

## 响应示例

状态码： 200

Success.

```
{  
  "proxy_list" : [ {  
    "proxy" : {  
      "pool_id" : "2e7cf21d14794bafab623a334efd9ad8po01",  
      "status" : "ACTIVE",  
      "address" : "192.168.125.69",  
      "port" : 3306,  
      "pool_status" : "ACTIVE",  
      "delay_threshold_in_seconds" : 30,  
      "elb_vip" : "192.168.125.60",  
      "eip" : "192.168.125.50",  
      "vcpus" : 4,  
      "ram" : 8,  
      "node_num" : 2,  
      "mode" : "Cluster",  
      "nodes" : [ {  
        "id" : "db53a238a02240c49365e72e284a4890pn01",  
        "name" : "PROXY-2e7cf21d14794bafab623a334efd9ad8po01_0",  
        "role" : "master",  
        "az_code" : "az1xahz",  
        "status" : "ACTIVE",  
        "frozen_flag" : 0  
      } ],  
      "name" : "proxy-name",  
      "connection_pool_type" : "SESSION",  
      "switch_connection_pool_type_enabled" : true,  
      "route_mode" : 1,  
      "balance_route_mode_enabled" : true,  
    }  
  ]  
}
```

```
"transaction_split" : "OFF",
"consistence_mode" : "session",
"subnet_id" : "6991d82d-9166-4aff-a1fa-d2a8748b7084",
"new_node_auto_add_status" : "ON",
"new_node_weight" : 100
},
"master_node" : {
  "id" : "c01a5645eb2c4fb6a9373542f5366e50no07",
  "instance_id" : "517ea793ab91438cbfcd9c4b1c958b1ein07",
  "status" : "ACTIVE",
  "name" : "taurus_mysql80_x86-ondemand-2-1U4G_1_202103070251274842281_node01",
  "weight" : 0,
  "availability_zone" : [ {
    "code" : "az1",
    "description" : "可用区1"
  } ]
},
"readonly_nodes" : {
  "id" : "d23535333138462880bfa1838dfcd2no07",
  "instance_id" : "517ea793ab91438cbfcd9c4b1c958b1ein07",
  "status" : "ACTIVE",
  "name" : "taurus_mysql80_x86-ondemand-2-1U4G_1_202103070251274842281_node02",
  "weight" : 100,
  "availability_zone" : [ {
    "code" : "az1",
    "description" : "可用区1"
  } ]
}
}
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowGaussMySQLProxyListSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
```

```
        .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
        .build();
ShowGaussMySQLProxyListRequest request = new ShowGaussMySQLProxyListRequest();
request.withInstanceId("{instance_id}");
try {
    ShowGaussMySQLProxyListResponse response = client.showGaussMySQLProxyList(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.valueOf("<YOUR REGION>")) \
        .build()

    try:
        request = ShowGaussMySQLProxyListRequest()
        request.instance_id = "{instance_id}"
        response = client.show_gauss_my_sql_proxy_list(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
```

```
)  
  
func main() {  
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    // variables and decrypted during use to ensure security.  
    // In this example, AK and SK are stored in environment variables for authentication. Before running this  
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak := os.Getenv("CLOUD_SDK_AK")  
    sk := os.Getenv("CLOUD_SDK_SK")  
    projectId := "{project_id}"  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).  
        WithSk(sk).  
        WithProjectId(projectId).  
        Build()  
  
    client := gaussdb.NewGaussDBClient(  
        gaussdb.GaussDBClientBuilder().  
            WithRegion(region.ValueOf("<YOUR REGION>")).  
            WithCredential(auth).  
            Build()  
    )  
  
    request := &model.ShowGaussMySQLProxyListRequest{  
        InstanceId: "{instance_id}"  
    }  
    response, err := client.ShowGaussMySQLProxyList(request)  
    if err == nil {  
        fmt.Printf("%+v\n", response)  
    } else {  
        fmt.Println(err)  
    }  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.7.4 查询数据库代理规格信息

### 功能介绍

查询数据库代理规格信息。

## 调用方法

请参见[如何调用API](#)。

## URI

GET /v3/{project\_id}/instances/{instance\_id}/proxy/flavors

表 4-548 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-549 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-550 响应 Body 参数

参数	参数类型	描述
proxy_flavor_groups	Array of <a href="#">MysqlProxyFlavorGroups</a> objects	规格组信息。

表 4-551 MysqlProxyFlavorGroups

参数	参数类型	描述
group_type	String	规格组类型，如x86、arm。
proxy_flavors	Array of <a href="#">MysqlProxyComputeFlavor</a> objects	规格信息。

表 4-552 MysqlProxyComputeFlavor

参数	参数类型	描述
vcpus	String	CPU大小。例如：1表示1U。
ram	String	内存大小，单位为GB。
db_type	String	数据库类型。
id	String	数据库代理规格ID。
spec_code	String	数据库代理规格码。
az_status	Object	其中key是可用区编号，value是规格所在AZ的状态。

状态码： 400

表 4-553 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-554 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询实例的数据库代理规格信息。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
096c0fc43e804757b59946b80dc27f8bin07/proxy/flavors
```

## 响应示例

状态码： 200

Success.

```
{  
  "proxy_flavor_groups": [ {  
    "group_type": "X86",  
    "proxy_flavors": [ {  
      "id": "19be4c5d-d363-3342-bdbc-0dd9dbf7fafa",  
      "spec_code": "gaussdb.proxy.large.x86.2",  
      "vcpus": 2,  
      "ram": 4,  
      "db_type": "Proxy",  
      "az_status": {  
        "az1": "normal"  
      }  
    }  
  ]  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ShowGaussMySQLProxyFlavorsSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)
```

```
        .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
        .build();
ShowGaussMySQLProxyFlavorsRequest request = new ShowGaussMySQLProxyFlavorsRequest();
request.withInstanceId("{instance_id}");
try {
    ShowGaussMySQLProxyFlavorsResponse response = client.showGaussMySQLProxyFlavors(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.valueOf("<YOUR REGION>")) \
        .build()

    try:
        request = ShowGaussMySQLProxyFlavorsRequest()
        request.instance_id = "{instance_id}"
        response = client.show_gauss_my_sql_proxy_flavors(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
```



```
)  
  
func main() {  
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    // variables and decrypted during use to ensure security.  
    // In this example, AK and SK are stored in environment variables for authentication. Before running this  
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak := os.Getenv("CLOUD_SDK_AK")  
    sk := os.Getenv("CLOUD_SDK_SK")  
    projectId := "{project_id}"  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).  
        WithSk(sk).  
        WithProjectId(projectId).  
        Build()  
  
    client := gaussdb.NewGaussDBClient(  
        gaussdb.GaussDBClientBuilder().  
            WithRegion(region.ValueOf("<YOUR REGION>")).  
            WithCredential(auth).  
            Build())  
  
    request := &model.ShowGaussMySQLProxyFlavorsRequest{}  
    request.InstanceId = "{instance_id}"  
    response, err := client.ShowGaussMySQLProxyFlavors(request)  
    if err == nil {  
        fmt.Printf("%+v\n", response)  
    } else {  
        fmt.Println(err)  
    }  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.7.5 扩容数据库代理节点的数量

### 功能介绍

扩容数据库代理节点的数量。

DeC专属云账号暂不支持数据库代理。

## 调用方法

请参见[如何调用API](#)。

## URI

POST /v3/{project\_id}/instances/{instance\_id}/proxy/enlarge

表 4-555 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-556 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-557 请求 Body 参数

参数	是否必选	参数类型	描述
node_num	是	Integer	数据库代理节点扩容操作需要扩容的节点数。 扩容的节点数的取值范围：1~14之间的整数。 限制条件：该实例的数据库代理节点的总数量小于等于16。

参数	是否必选	参数类型	描述
proxy_id	否	String	数据库代理ID。 如果实例只开启了一个代理，可不传该参数；如果实例开启了多个代理，则必须指定一个数据库代理，扩容新的代理节点。

## 响应参数

状态码： 201

表 4-558 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 4-559 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-560 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

扩容数据库代理节点。

```
POST https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/61a4ea66210545909d74a05c27a7179ein07/proxy/enlarge
{
  "node_num" : 2,
```

```
"proxy_id": "151c14381ac14ecfb9703a745b992677po01"  
}
```

## 响应示例

**状态码： 201**

Success.

```
{  
  "job_id": "04efe8e2-9255-44ae-a98b-d87cae411890"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

扩容数据库代理节点。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ExpandGaussMySQLProxySolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        ExpandGaussMySQLProxyRequest request = new ExpandGaussMySQLProxyRequest();  
        request.withInstanceId("{instance_id}");  
        EnlargeProxyRequest body = new EnlargeProxyRequest();  
        body.withProxyId("151c14381ac14ecfb9703a745b992677po01");  
        body.withNodeNum(2);  
        request.withBody(body);  
        try {  
            ExpandGaussMySQLProxyResponse response = client.expandGaussMySQLProxy(request);  
            System.out.println(response.toString());  
        } catch (ConnectionException e) {  
            e.printStackTrace();  
        } catch (RequestTimeoutException e) {
```

```
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

扩容数据库代理节点。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ExpandGaussMySQLProxyRequest()
        request.instance_id = "{instance_id}"
        request.body = EnlargeProxyRequest(
            proxy_id="151c14381ac14ecfb9703a745b992677po01",
            node_num=2
        )
        response = client.expand_gauss_my_sql_proxy(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

扩容数据库代理节点。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)
```

```
func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ExpandGaussMySQLProxyRequest{
        request.InstanceId = "{instance_id}"
        proxyIdEnlargeProxyRequest := "151c14381ac14ecfb9703a745b992677po01"
        request.Body = &model.EnlargeProxyRequest{
            ProxyId: &proxyIdEnlargeProxyRequest,
            NodeNum: int32(2),
        }
    }
    response, err := client.ExpandGaussMySQLProxy(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
201	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.7.6 减少数据库代理节点的数量

### 功能介绍

扩容数据库代理节点的数量。

DeC专属云账号暂不支持数据库代理。

### 调用方法

请参见[如何调用API](#)。

### URI

PUT /v3/{project\_id}/instances/{instance\_id}/proxy/{proxy\_id}/reduce

表 4-561 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。
proxy_id	是	String	数据库代理ID，严格匹配UUID规则。

### 请求参数

表 4-562 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-563 请求 Body 参数

参数	是否必选	参数类型	描述
node_num	是	Integer	数据库代理节点缩容操作需要减少的节点数。 缩容的节点数的取值范围： 1~14之间的整数。 限制条件：该实例的数据库代理节点的总数量小于等于16，大于等于2。

## 响应参数

状态码： 201

表 4-564 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 4-565 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-566 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

缩容数据库代理节点。

```
PUT https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/61a4ea66210545909d74a05c27a7179ein07/proxy/151c14381ac14ecfb9703a745b992677po01/reduce
```



```
{  
  "node_num" : 1  
}
```

## 响应示例

**状态码：** 201

Success.

```
{  
  "job_id" : "04efe8e2-9255-44ae-a98b-d87cae411890"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

缩容数据库代理节点。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ShrinkGaussMySQLProxySolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        ShrinkGaussMySQLProxyRequest request = new ShrinkGaussMySQLProxyRequest();  
        request.withInstanceId("{instance_id}");  
        request.withProxyId("{proxy_id}");  
        ShrinkGaussMySQLProxyRequestBody body = new ShrinkGaussMySQLProxyRequestBody();  
        body.withNodeNum(1);  
        request.withBody(body);  
        try {  
            ShrinkGaussMySQLProxyResponse response = client.shrinkGaussMySQLProxy(request);  
            System.out.println(response.toString());  
        } catch (ConnectionException e) {
```

```
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

缩容数据库代理节点。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShrinkGaussMySQLProxyRequest()
        request.instance_id = "{instance_id}"
        request.proxy_id = "{proxy_id}"
        request.body = ShrinkGaussMySQLProxyRequestBody(
            node_num=1
        )
        response = client.shrink_gauss_my_sql_proxy(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

缩容数据库代理节点。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
)
```

```
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShrinkGaussMySQLProxyRequest{}
    request.InstanceId = "{instance_id}"
    request.ProxyId = "{proxy_id}"
    request.Body = &model.ShrinkGaussMySQLProxyRequestBody{
        NodeNum: int32(1),
    }
    response, err := client.ShrinkGaussMySQLProxy(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
201	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.7.7 数据库代理规格变更

### 功能介绍

数据库代理规格变更。

### 调用方法

请参见[如何调用API](#)。

### URI

PUT /v3/{project\_id}/instances/{instance\_id}/proxy/{proxy\_id}/flavor

表 4-567 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。
proxy_id	是	String	数据库代理ID，严格匹配UUID规则。

### 请求参数

表 4-568 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-569 请求 Body 参数

参数	是否必选	参数类型	描述
flavor_ref	是	String	需要变更的新规格ID。

## 响应参数

状态码： 200

表 4-570 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 4-571 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-572 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

变更数据库代理的规格为4U8GB。

```
PUT https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/  
61a4ea66210545909d74a05c27a7179ein07/proxy/e87088f0b6a345e79db19d57c41fde15po01/flavor  
{  
  "flavor_ref" : "gaussdb.proxy.xlarge.arm.2"  
}
```

## 响应示例

状态码： 200

Success.

```
{
  "job_id" : "04efe8e2-9255-44ae-a98b-d87cae411890"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

变更数据库代理的规格为4U8GB。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ChangeGaussMySQLProxySpecificationSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();

        ChangeGaussMySQLProxySpecificationRequest request = new
        ChangeGaussMySQLProxySpecificationRequest();
        request.withInstanceId("{instance_id}");
        request.withProxyId("{proxy_id}");
        TaurusProxyScaleRequest body = new TaurusProxyScaleRequest();
        body.withFlavorRef("gaussdb.proxy.xlarge.arm.2");
        request.withBody(body);
        try {
            ChangeGaussMySQLProxySpecificationResponse response =
            client.changeGaussMySQLProxySpecification(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
        }
    }
}
```

```
e.printStackTrace();
System.out.println(e.getStatusCode());
System.out.println(e.getRequestId());
System.out.println(e.getErrorCode());
System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

变更数据库代理的规格为4U8GB。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ChangeGaussMySQLProxySpecificationRequest()
        request.instance_id = "{instance_id}"
        request.proxy_id = "{proxy_id}"
        request.body = TaurusProxyScaleRequest(
            flavor_ref="gaussdb.proxy.xlarge.arm.2"
        )
        response = client.change_gauss_my_sql_proxy_specification(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

变更数据库代理的规格为4U8GB。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
```

```
// The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
// In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")
projectId := "{project_id}"

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    WithProjectId(projectId).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.ChangeGaussMySQLProxySpecificationRequest{}
request.InstanceId = "{instance_id}"
request.ProxyId = "{proxy_id}"
request.Body = &model.TaurusProxyScaleRequest{
    FlavorRef: "gaussdb.proxy.xlarge.arm.2",
}
response, err := client.ChangeGaussMySQLProxySpecification(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.7.8 设置读写分离权重

### 功能介绍

设置读写分离权重。



## 调用方法

请参见[如何调用API](#)。

## URI

PUT /v3/{project\_id}/instances/{instance\_id}/proxy/{proxy\_id}/weight

表 4-573 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。
proxy_id	是	String	数据库代理ID，严格匹配UUID规则。

## 请求参数

表 4-574 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-575 请求 Body 参数

参数	是否必选	参数类型	描述
master_weight	否	Integer	主节点权重（两个参数必选其一）。

参数	是否必选	参数类型	描述
readonly_nodes	否	Array of <a href="#">ModifyProxyWeightReadOnlyNode</a> objects	只读节点权重配置信息（两个参数必选其一）。

表 4-576 ModifyProxyWeightReadOnlyNode

参数	是否必选	参数类型	描述
id	否	String	只读节点ID。
weight	否	Integer	只读节点权重。

## 响应参数

状态码： 200

表 4-577 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 4-578 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-579 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

设置实例的主节点权重是100。

```
PUT https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/  
e73893ef73754465a8bd2e0857bbf13ein07/proxy/e87088f0b6a345e79db19d57c41fde15po01/weight  
{  
  "master_weight" : 100  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "job_id" : "04efe8e2-9255-44ae-a98b-d87c11411890"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

设置实例的主节点权重是100。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class SetGaussMySQLProxyWeightSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        SetGaussMySQLProxyWeightRequest request = new SetGaussMySQLProxyWeightRequest();  
        request.withInstanceId("{instance_id}");  
        request.withProxyId("{proxy_id}");  
        TaurusModifyProxyWeightRequest body = new TaurusModifyProxyWeightRequest();
```

```
body.withMasterWeight(100);
request.withBody(body);
try {
    SetGaussMySQLProxyWeightResponse response = client.setGaussMySQLProxyWeight(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

设置实例的主节点权重是100。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = SetGaussMySQLProxyWeightRequest()
        request.instance_id = "{instance_id}"
        request.proxy_id = "{proxy_id}"
        request.body = TaurusModifyProxyWeightRequest(
            master_weight=100
        )
        response = client.set_gauss_my_sql_proxy_weight(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

设置实例的主节点权重是100。

```
package main
```

```
import (  
    "fmt"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"  
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"  
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"  
)  
  
func main() {  
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    // variables and decrypted during use to ensure security.  
    // In this example, AK and SK are stored in environment variables for authentication. Before running this  
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak := os.Getenv("CLOUD_SDK_AK")  
    sk := os.Getenv("CLOUD_SDK_SK")  
    projectId := "{project_id}"  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).  
        WithSk(sk).  
        WithProjectId(projectId).  
        Build()  
  
    client := gaussdb.NewGaussDBClient(  
        gaussdb.GaussDBClientBuilder().  
            WithRegion(region.ValueOf("<YOUR REGION>")).  
            WithCredential(auth).  
            Build())  
  
    request := &model.SetGaussMySQLProxyWeightRequest{}  
    request.InstanceId = "{instance_id}"  
    request.ProxyId = "{proxy_id}"  
    masterWeightTaurusModifyProxyWeightRequest := int32(100)  
    request.Body = &model.TaurusModifyProxyWeightRequest{  
        MasterWeight: &masterWeightTaurusModifyProxyWeightRequest,  
    }  
    response, err := client.SetGaussMySQLProxyWeight(request)  
    if err == nil {  
        fmt.Printf("%+v\n", response)  
    } else {  
        fmt.Println(err)  
    }  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.7.9 设置读写分离路由模式

### 功能介绍

设置读写分离路由模式。

### 接口约束

该接口目前公测阶段，如需使用，请提交工单联系客服人员申请权限。

### 调用方法

请参见[如何调用API](#)。

### URI

PUT /v3/{project\_id}/instances/{instance\_id}/proxy/{proxy\_id}/route-mode

表 4-580 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。
proxy_id	是	String	数据库代理ID，严格匹配UUID规则。

### 请求参数

表 4-581 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-582 请求 Body 参数

参数	是否必选	参数类型	描述
route_mode	是	Integer	数据库代理路由模式。 取值范围： <ul style="list-style-type: none"><li>0: 表示权重负载模式。</li><li>1: 表示负载均衡模式（数据库主节点不接受读请求）。</li><li>2: 表示负载均衡模式（数据库主节点接受读请求）。</li></ul>
master_weight	否	Integer	主节点权重： <ul style="list-style-type: none"><li>如果路由模式为0，取值为0~1000。</li><li>如果路由模式为1，取值为0。</li><li>如果路由模式为2，取值为1。</li></ul>
readonly_nodes	否	Array of <a href="#">ModifyProxyRouteWeightReadOnlyNode</a> objects	只读节点权重配置信息。
new_node_auto_add_status	否	String	是否开启新增节点自动加入该Proxy。如果需要设置是否开启新增节点自动加入该Proxy，请联系客服人员添加白名单，加入白名单后，方可输入该字段。 取值范围： <ul style="list-style-type: none"><li>ON: 开启。</li><li>OFF: 关闭。</li></ul>
new_node_weight	否	Integer	新增节点的读权重： <ul style="list-style-type: none"><li>如果路由模式为0，新增节点自动加入为ON，取值为0~1000。</li><li>如果路由模式不为0或新增节点自动加入为OFF，则可不输入读权重。</li></ul>

表 4-583 ModifyProxyRouteWeightReadOnlyNode

参数	是否必选	参数类型	描述
id	是	String	只读节点ID。

参数	是否必选	参数类型	描述
weight	是	Integer	只读节点权重： <ul style="list-style-type: none"><li>如果路由模式为0，取值为0~1000；</li><li>如果路由模式为1或2，取值为0或1。</li></ul>

## 响应参数

状态码： 200

表 4-584 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 4-585 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-586 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

- 修改路由模式为权重负载模式。

```
PUT https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/
e73893ef73754465a8bd2e0857bbf13ein07/proxy/e87088f0b6a345e79db19d57c41fde15po01/route-
mode
{
  "route_mode": 0,
```



```
"master_weight" : 100,
"readonly_nodes" : {
  "id" : "d23535333138462880bfa1838fdced2no07",
  "weight" : 200
}
}
```

- 修改路由模式为负载均衡模式（数据库主节点不接受读请求）。

PUT https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/e73893ef73754465a8bd2e0857bbf13ein07/proxy/e87088f0b6a345e79db19d57c41fde15po01/route-mode

```
{
  "route_mode" : 1,
  "master_weight" : 0,
  "readonly_nodes" : {
    "id" : "d23535333138462880bfa1838fdced2no07",
    "weight" : 1
  }
}
```

- 修改路由模式为负载均衡模式（数据库主节点接受读请求）。

PUT https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/e73893ef73754465a8bd2e0857bbf13ein07/proxy/e87088f0b6a345e79db19d57c41fde15po01/route-mode

```
{
  "route_mode" : 2,
  "master_weight" : 1,
  "readonly_nodes" : {
    "id" : "d23535333138462880bfa1838fdced2no07",
    "weight" : 0
  }
}
```

## 响应示例

状态码： 200

Success.

```
{
  "job_id" : "04efe8e2-9255-44ae-a98b-d87c11411890"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

- 修改路由模式为权重负载模式。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;
```

```
public class ModifyGaussMySQLProxyRouteModeSolution {  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before  
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local  
        // environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        ModifyGaussMySQLProxyRouteModeRequest request = new  
ModifyGaussMySQLProxyRouteModeRequest();  
        request.withInstanceId("{instance_id}");  
        request.withProxyId("{proxy_id}");  
        ModifyGaussMySQLProxyRouteModeRequestBody body = new  
ModifyGaussMySQLProxyRouteModeRequestBody();  
        body.withMasterWeight(100);  
        body.withRouteMode(0);  
        request.withBody(body);  
        try {  
            ModifyGaussMySQLProxyRouteModeResponse response =  
client.modifyGaussMySQLProxyRouteMode(request);  
            System.out.println(response.toString());  
        } catch (ConnectionException e) {  
            e.printStackTrace();  
        } catch (RequestTimeoutException e) {  
            e.printStackTrace();  
        } catch (ServiceResponseException e) {  
            e.printStackTrace();  
            System.out.println(e.getHttpStatusCode());  
            System.out.println(e.getRequestId());  
            System.out.println(e.getErrorCode());  
            System.out.println(e.getErrorMsg());  
        }  
    }  
}
```

- 修改路由模式为负载均衡模式（数据库主节点不接受读请求）。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
import java.util.List;  
import java.util.ArrayList;  
  
public class ModifyGaussMySQLProxyRouteModeSolution {  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.
```

```
// In this example, AK and SK are stored in environment variables for authentication. Before
running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
environment
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");
String projectId = "{project_id}";

ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();

ModifyGaussMySQLProxyRouteModeRequest request = new
ModifyGaussMySQLProxyRouteModeRequest();
request.withInstanceId("{instance_id}");
request.withProxyId("{proxy_id}");
ModifyGaussMySQLProxyRouteModeRequestBody body = new
ModifyGaussMySQLProxyRouteModeRequestBody();
body.withMasterWeight(0);
body.withRouteMode(1);
request.withBody(body);
try {
    ModifyGaussMySQLProxyRouteModeResponse response =
client.modifyGaussMySQLProxyRouteMode(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

- 修改路由模式为负载均衡模式（数据库主节点接受读请求）。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class ModifyGaussMySQLProxyRouteModeSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";
```

```
ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
ModifyGaussMySQLProxyRouteModeRequest request = new
ModifyGaussMySQLProxyRouteModeRequest();
request.withInstanceId("{instance_id}");
request.withProxyId("{proxy_id}");
ModifyGaussMySQLProxyRouteModeRequestBody body = new
ModifyGaussMySQLProxyRouteModeRequestBody();
body.withMasterWeight(1);
body.withRouteMode(2);
request.withBody(body);
try {
    ModifyGaussMySQLProxyRouteModeResponse response =
client.modifyGaussMySQLProxyRouteMode(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

- 修改路由模式为权重负载模式。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ModifyGaussMySQLProxyRouteModeRequest()
        request.instance_id = "{instance_id}"
```

```
request.proxy_id = "{proxy_id}"
request.body = ModifyGaussMySQLProxyRouteModeRequestBody(
    master_weight=100,
    route_mode=0
)
response = client.modify_gauss_my_sql_proxy_route_mode(request)
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

- 修改路由模式为负载均衡模式（数据库主节点不接受读请求）。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ModifyGaussMySQLProxyRouteModeRequest()
        request.instance_id = "{instance_id}"
        request.proxy_id = "{proxy_id}"
        request.body = ModifyGaussMySQLProxyRouteModeRequestBody(
            master_weight=0,
            route_mode=1
        )
        response = client.modify_gauss_my_sql_proxy_route_mode(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- 修改路由模式为负载均衡模式（数据库主节点接受读请求）。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
```

running this example, set environment variables CLOUD\_SDK\_AK and CLOUD\_SDK\_SK in the local environment

```
ak = os.environ["CLOUD_SDK_AK"]
sk = os.environ["CLOUD_SDK_SK"]
projectId = "{project_id}"

credentials = BasicCredentials(ak, sk, projectId)

client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = ModifyGaussMySQLProxyRouteModeRequest()
    request.instance_id = "{instance_id}"
    request.proxy_id = "{proxy_id}"
    request.body = ModifyGaussMySQLProxyRouteModeRequestBody(
        master_weight=1,
        route_mode=2
    )
    response = client.modify_gauss_my_sql_proxy_route_mode(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

- 修改路由模式为权重负载模式。

```
package main

import (
    "fmt"
    "github.com/ HuaweiCloud/ HuaweiCloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/ HuaweiCloud/ HuaweiCloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/ HuaweiCloud/ HuaweiCloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/ HuaweiCloud/ HuaweiCloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ModifyGaussMySQLProxyRouteModeRequest{}
    request.InstanceId = "{instance_id}"
    request.ProxyId = "{proxy_id}"
    masterWeightModifyGaussMySQLProxyRouteModeRequestBody := int32(100)
```

```
request.Body = &model.ModifyGaussMySQLProxyRouteModeRequestBody{
    MasterWeight: &masterWeightModifyGaussMySQLProxyRouteModeRequestBody,
    RouteMode: int32(0),
}
response, err := client.ModifyGaussMySQLProxyRouteMode(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

- 修改路由模式为负载均衡模式（数据库主节点不接受读请求）。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ModifyGaussMySQLProxyRouteModeRequest{}
    request.InstanceId = "{instance_id}"
    request.ProxyId = "{proxy_id}"
    masterWeightModifyGaussMySQLProxyRouteModeRequestBody := int32(0)
    request.Body = &model.ModifyGaussMySQLProxyRouteModeRequestBody{
        MasterWeight: &masterWeightModifyGaussMySQLProxyRouteModeRequestBody,
        RouteMode: int32(1),
    }
    response, err := client.ModifyGaussMySQLProxyRouteMode(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- 修改路由模式为负载均衡模式（数据库主节点接受读请求）。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
)
```

```
region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ModifyGaussMySQLProxyRouteModeRequest{}
    request.InstanceId = "{instance_id}"
    request.ProxyId = "{proxy_id}"
    masterWeightModifyGaussMySQLProxyRouteModeRequestBody := int32(1)
    request.Body = &model.ModifyGaussMySQLProxyRouteModeRequestBody{
        MasterWeight: &masterWeightModifyGaussMySQLProxyRouteModeRequestBody,
        RouteMode: int32(2),
    }
    response, err := client.ModifyGaussMySQLProxyRouteMode(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。



## 4.7.10 设置数据库代理事务拆分

### 功能介绍

设置数据库代理事务拆分。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/instances/{instance\_id}/proxy/transaction-split

表 4-587 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

### 请求参数

表 4-588 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-589 请求 Body 参数

参数	是否必选	参数类型	描述
transaction_split	是	String	开启/关闭事务拆分。 取值范围： <ul style="list-style-type: none"><li>• ON: 开启。</li><li>• OFF: 关闭。</li></ul>
proxy_id_list	是	Array of strings	实例的数据库代理列表。

## 响应参数

状态码： 200

表 4-590 响应 Body 参数

参数	参数类型	描述
job_id	String	工作流ID。

状态码： 400

表 4-591 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-592 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

关闭数据库代理的事务拆分。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/6b030d160ac24eda9a5320fb38dc2d0ain07/proxy/transaction-split
```

```
{
  "transaction_split": "OFF",
  "proxy_id_list": [ "2a2060f2486e4a47934182d91a3b53d2po01" ]
}
```

## 响应示例

状态码: 200

success

```
{
  "job_id": "11921bf5-f286-45ee-ab35-12a3d4084c57"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

关闭数据库代理的事务拆分。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class UpdateTransactionSplitStatusSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        UpdateTransactionSplitStatusRequest request = new UpdateTransactionSplitStatusRequest();
        request.withInstanceId("{instance_id}");
        ProxyTransactionSplitRequest body = new ProxyTransactionSplitRequest();
        List<String> listbodyProxyIdList = new ArrayList<>();
        listbodyProxyIdList.add("2a2060f2486e4a47934182d91a3b53d2po01");
        body.withProxyIdList(listbodyProxyIdList);
        body.withTransactionSplit("OFF");
    }
}
```

```
request.withBody(body);
try {
    UpdateTransactionSplitStatusResponse response = client.updateTransactionSplitStatus(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

关闭数据库代理的事务拆分。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateTransactionSplitStatusRequest()
        request.instance_id = "{instance_id}"
        listProxyIdListbody = [
            "2a2060f2486e4a47934182d91a3b53d2po01"
        ]
        request.body = ProxyTransactionSplitRequest(
            proxy_id_list=listProxyIdListbody,
            transaction_split="OFF"
        )
        response = client.update_transaction_split_status(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

关闭数据库代理的事务拆分。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/ gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/ gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/ gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateTransactionSplitStatusRequest{}
    request.InstanceId = "{instance_id}"
    var listProxyIdListbody = []string{
        "2a2060f2486e4a47934182d91a3b53d2po01",
    }
    request.Body = &model.ProxyTransactionSplitRequest{
        ProxyIdList: listProxyIdListbody,
        TransactionSplit: "OFF",
    }
    response, err := client.UpdateTransactionSplitStatus(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	success
400	Client error
500	Server error

## 错误码

请参见[错误码](#)。

## 4.7.11 开启或关闭新增节点自动加入该 Proxy

### 功能介绍

开启或关闭新增节点自动加入该Proxy。

### 接口约束

该接口目前公测阶段，如需使用，请提交工单联系客服人员申请权限。

### 调用方法

请参见[如何调用API](#)。

## URI

POST /v3/{project\_id}/instances/{instance\_id}/proxy/{proxy\_id}/new-node-auto-add

表 4-593 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。
proxy_id	是	String	数据库代理ID，严格匹配UUID规则。

## 请求参数

表 4-594 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。

参数	是否必选	参数类型	描述
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-595 请求 Body 参数

参数	是否必选	参数类型	描述
switch_status	是	String	是否开启新增节点自动加入该Proxy。 取值范围： <ul style="list-style-type: none"><li>ON: 开启。</li><li>OFF: 关闭。</li></ul>
weight	否	Integer	新增节点的读权重： <ul style="list-style-type: none"><li>新增节点自动加入为ON, 取值为0~1000。</li><li>新增节点自动加入为OFF, 则可不输入读权重。</li></ul>

## 响应参数

状态码： 200

表 4-596 响应 Body 参数

参数	参数类型	描述
result	String	开启或关闭新增节点自动加入该Proxy的操作结果。

状态码： 400

表 4-597 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-598 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

开启新增节点自动加入该Proxy。

```
POST https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/
e73893ef73754465a8bd2e0857bbf13ein07/proxy/e87088f0b6a345e79db19d57c41fde15po01/new-node-
auto-add
{
  "switch_status": "ON",
  "weight": 100
}
```

## 响应示例

状态码： 200

Success.

```
{
  "result": "success"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

开启新增节点自动加入该Proxy。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateNewNodeAutoAddSwitchSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
```



```
this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");
String projectId = "{project_id}";

ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
UpdateNewNodeAutoAddSwitchRequest request = new UpdateNewNodeAutoAddSwitchRequest();
request.withInstanceId("{instance_id}");
request.withProxyId("{proxy_id}");
UpdateNewNodeAutoAddSwitchRequestBody body = new
UpdateNewNodeAutoAddSwitchRequestBody();
body.withWeight(100);
body.withSwitchStatus("ON");
request.withBody(body);
try {
    UpdateNewNodeAutoAddSwitchResponse response =
client.updateNewNodeAutoAddSwitch(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

开启新增节点自动加入该Proxy。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()
```

```
try:
    request = UpdateNewNodeAutoAddSwitchRequest()
    request.instance_id = "{instance_id}"
    request.proxy_id = "{proxy_id}"
    request.body = UpdateNewNodeAutoAddSwitchRequestBody(
        weight=100,
        switch_status="ON"
    )
    response = client.update_new_node_auto_add_switch(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

开启新增节点自动加入该Proxy。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateNewNodeAutoAddSwitchRequest{}
    request.InstanceId = "{instance_id}"
    request.ProxyId = "{proxy_id}"
    weightUpdateNewNodeAutoAddSwitchRequestBody := int32(100)
    request.Body = &model.UpdateNewNodeAutoAddSwitchRequestBody{
        Weight: &weightUpdateNewNodeAutoAddSwitchRequestBody,
        SwitchStatus: "ON",
    }
    response, err := client.UpdateNewNodeAutoAddSwitch(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.7.12 修改代理会话一致性

#### 功能介绍

修改代理会话一致性。

#### 调用方法

请参见[如何调用API](#)。

#### URI

PUT /v3/{project\_id}/instances/{instance\_id}/proxy/{proxy\_id}/session-consistence

表 4-599 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。
proxy_id	是	String	数据库代理ID，严格匹配UUID规则。

## 请求参数

**表 4-600** 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

**表 4-601** 请求 Body 参数

参数	是否必选	参数类型	描述
session_consistence	是	String	会话一致性。 取值范围： <ul style="list-style-type: none"><li>true: 时表示会话一致性开启。</li><li>false: 时表示会话一致性关闭。</li></ul>
consistence_mode	否	String	一致性模式。默认值为空，此时以会话一致性参数session_consistence的值为准。 取值范围： <ul style="list-style-type: none"><li>session: 会话一致性（当session_consistence为true时，只能取该值）。</li><li>global: 全局一致性（当session_consistence为false时，可取该值）。</li><li>eventual: 最终一致性（当session_consistence为false时，可取该值）。</li></ul>

## 响应参数

**状态码：** 200

表 4-602 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 4-603 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-604 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

开启数据库代理的会话一致性。

```
PUT https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/  
d512257ecca04d96a0f3a9021018a385in07/proxy/7bf4a8bbb4f4fb58233a242ee13603bpo01/session-  
consistence  
  
{  
  "session_consistence": "true",  
  "consistence_mode": "session"  
}
```

## 响应示例

状态码： 200

Success

```
{  
  "job_id": "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"  
}
```

## SDK 代码示例

SDK代码示例如下。

## Java

开启数据库代理的会话一致性。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateProxySessionConsistenceSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        UpdateProxySessionConsistenceRequest request = new UpdateProxySessionConsistenceRequest();
        request.withInstanceId("{instance_id}");
        request.withProxyId("{proxy_id}");
        ModifyProxyConsistRequest body = new ModifyProxyConsistRequest();
        body.withConsistenceMode("session");
        body.withSessionConsistence("true");
        request.withBody(body);
        try {
            UpdateProxySessionConsistenceResponse response = client.updateProxySessionConsistence(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

开启数据库代理的会话一致性。

```
# coding: utf-8

import os
```

```
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateProxySessionConsistenceRequest()
        request.instance_id = "{instance_id}"
        request.proxy_id = "{proxy_id}"
        request.body = ModifyProxyConsistRequest(
            consistence_mode="session",
            session_consistence="true"
        )
        response = client.update_proxy_session_consistence(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

开启数据库代理的会话一致性。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
```

```
gaussdb.GaussDBClientBuilder().
    WithRegion(region.ValueOf("<YOUR REGION>")).
    WithCredential(auth).
    Build()

request := &model.UpdateProxySessionConsistenceRequest{}
request.InstanceId = "{instance_id}"
request.ProxyId = "{proxy_id}"
consistenceModeModifyProxyConsistRequest:= "session"
request.Body = &model.ModifyProxyConsistRequest{
    ConsistenceMode: &consistenceModeModifyProxyConsistRequest,
    SessionConsistence: "true",
}
response, err := client.UpdateProxySessionConsistence(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.7.13 更改数据库代理连接池类型

### 功能介绍

更改数据库代理连接池类型。

### 接口约束

该接口目前公测阶段，如需使用，请提交工单联系客服人员申请权限。

### 调用方法

请参见[如何调用API](#)。



## URI

PUT /v3/{project\_id}/instances/{instance\_id}/proxy/{proxy\_id}/connection-pool-type

表 4-605 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。
proxy_id	是	String	数据库代理ID，严格匹配UUID规则。

## 请求参数

表 4-606 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-607 请求 Body 参数

参数	是否必选	参数类型	描述
connection_pool_type	是	String	连接池类型。 取值范围： <ul style="list-style-type: none"><li>CLOSED：关闭连接池。</li><li>SESSION：开启会话级连接池。</li></ul>

## 响应参数

状态码： 200

表 4-608 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 4-609 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-610 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

- 开启数据库代理的会话连接池。

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instance/af315b8e6aaa41799bd9a31f2de15abcin07/proxy/5881e1ca66af4aefbc64dc2874e55b3fpo01/connection-pool-type
```

```
{  
  "connection_pool_type": "SESSION"  
}
```

- 关闭数据库代理的连接池。

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instance/af315b8e6aaa41799bd9a31f2de15abcin07/proxy/5881e1ca66af4aefbc64dc2874e55b3fpo01/connection-pool-type
```

```
{  
  "connection_pool_type": "CLOSED"  
}
```

## 响应示例

状态码： 200

Success.

```
{
  "job_id" : "a4217ac4-12cd-4fb3-acfc-db4a4a1896ea"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

- 开启数据库代理的会话连接池。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateProxyConnectionPoolTypeSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();

        UpdateProxyConnectionPoolTypeRequest request = new
        UpdateProxyConnectionPoolTypeRequest();
        request.withInstanceId("{instance_id}");
        request.withProxyId("{proxy_id}");
        ProxyUpdateProxyConnectionPoolTypeRequest body = new
        ProxyUpdateProxyConnectionPoolTypeRequest();
        body.withConnectionPoolType("SESSION");
        request.withBody(body);
        try {
            UpdateProxyConnectionPoolTypeResponse response =
            client.updateProxyConnectionPoolType(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
        }
    }
}
```

```
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

- 关闭数据库代理的连接池。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateProxyConnectionPoolTypeSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        UpdateProxyConnectionPoolTypeRequest request = new
        UpdateProxyConnectionPoolTypeRequest();
        request.withInstanceId("{instance_id}");
        request.withProxyId("{proxy_id}");
        ProxyUpdateProxyConnectionPoolTypeRequest body = new
        ProxyUpdateProxyConnectionPoolTypeRequest();
        body.withConnectionPoolType("CLOSED");
        request.withBody(body);
        try {
            UpdateProxyConnectionPoolTypeResponse response =
            client.updateProxyConnectionPoolType(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

- 开启数据库代理的会话连接池。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateProxyConnectionPoolTypeRequest()
        request.instance_id = "{instance_id}"
        request.proxy_id = "{proxy_id}"
        request.body = ProxyUpdateProxyConnectionPoolTypeRequest(
            connection_pool_type="SESSION"
        )
        response = client.update_proxy_connection_pool_type(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- 关闭数据库代理的连接池。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
```

```
.build()

try:
    request = UpdateProxyConnectionPoolTypeRequest()
    request.instance_id = "{instance_id}"
    request.proxy_id = "{proxy_id}"
    request.body = ProxyUpdateProxyConnectionPoolTypeRequest(
        connection_pool_type="CLOSED"
    )
    response = client.update_proxy_connection_pool_type(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

- 开启数据库代理的会话连接池。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateProxyConnectionPoolTypeRequest{}
    request.InstanceId = "{instance_id}"
    request.ProxyId = "{proxy_id}"
    request.Body = &model.ProxyUpdateProxyConnectionPoolTypeRequest{
        ConnectionPoolType: "SESSION",
    }
    response, err := client.UpdateProxyConnectionPoolType(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- 关闭数据库代理的连接池。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateProxyConnectionPoolTypeRequest{}
    request.InstanceId = "{instance_id}"
    request.ProxyId = "{proxy_id}"
    request.Body = &model.ProxyUpdateProxyConnectionPoolTypeRequest{
        ConnectionPoolType: "CLOSED",
    }
    response, err := client.UpdateProxyConnectionPoolType(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.7.14 修改读写分离端口号

### 功能介绍

修改读写分离端口号。

### 调用方法

请参见[如何调用API](#)。

### URI

PUT /v3/{project\_id}/instances/{instance\_id}/proxy/{proxy\_id}/port

表 4-611 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。
proxy_id	是	String	数据库代理ID，严格匹配UUID规则。

### 请求参数

表 4-612 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>



表 4-613 请求 Body 参数

参数	是否必选	参数类型	描述
port	是	Integer	修改后的读写分离端口。 TaurusDB Proxy端口号范围： 大于等于1025，小于等于 65534，不包含端口1033、 5342-5345、12017、20000、 20201、20202、33062、 33071。

## 响应参数

状态码： 200

表 4-614 响应 Body 参数

参数	参数类型	描述
job_id	String	修改proxy端口号的任务ID。

状态码： 400

表 4-615 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-616 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

修改读写分离端口号。

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/  
096c0fc43e804757b59946b80dc27f8bin07/proxy/fbece38953e24a2b891488ed2dfd81abpo01/port
```

```
{  
  "port" : 3308  
}
```

## 响应示例

**状态码： 200**

Success.

```
{  
  "job_id" : "ef5dbd00-ad3c-41f7-902b-51b4466ae9b9"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

修改读写分离端口号。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class UpdateProxyPortSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        UpdateProxyPortRequest request = new UpdateProxyPortRequest();  
        request.withInstanceId("{instance_id}");  
        request.withProxyId("{proxy_id}");  
        UpdateProxyPortRequestBody body = new UpdateProxyPortRequestBody();  
        body.withPort(3308);  
        request.withBody(body);  
        try {  
            UpdateProxyPortResponse response = client.updateProxyPort(request);  
            System.out.println(response.toString());  
        } catch (ConnectionException e) {
```

```
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

修改读写分离端口号。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateProxyPortRequest()
        request.instance_id = "{instance_id}"
        request.proxy_id = "{proxy_id}"
        request.body = UpdateProxyPortRequestBody(
            port=3308
        )
        response = client.update_proxy_port(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

修改读写分离端口号。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
)
```

```
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateProxyPortRequest{}
    request.InstanceId = "{instance_id}"
    request.ProxyId = "{proxy_id}"
    request.Body = &model.UpdateProxyPortRequestBody{
        Port: int32(3308),
    }
    response, err := client.UpdateProxyPort(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.7.15 升级数据库代理实例内核版本

### 功能介绍

升级数据库代理实例内核版本。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/instances/{instance\_id}/proxy/{proxy\_id}/upgrade-version

表 4-617 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。
proxy_id	是	String	数据库代理ID，严格匹配UUID规则。

### 请求参数

表 4-618 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-619 请求 Body 参数

参数	是否必选	参数类型	描述
source_version	是	String	升级前源内核版本号
target_version	是	String	目标升级内核版本号

## 响应参数

状态码： 200

表 4-620 响应 Body 参数

参数	参数类型	描述
update_result	Array of <a href="#">ProxyUpgradeVersionDetail</a> objects	数据库代理升级信息列表。

表 4-621 ProxyUpgradeVersionDetail

参数	参数类型	描述
instance_id	String	实例id.
workflow_id	String	工作流Id。
state	String	返回状态。
error_message	String	错误消息。

状态码： 400

表 4-622 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-623 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

升级数据库代理实例内核版本。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/517ea793ab91438cbfcd9c4b1c958b1ein07/proxy/0f46fc46396e4fb19a0cb52f578e9511po01/upgrade-version
{
  "source_version": "2.23.12.000",
  "target_version": "2.24.03.000"
}
```

## 响应示例

状态码： 200

Success.

```
{
  "update_result": [ {
    "workflow_id": "375ac6a4-2788-4e45-83bf-8a9d2324317f",
    "state": "ACCEPT",
    "error_message": null
  }, {
    "workflow_id": "375ac6a4-2788-4e45-83be-8a9d2324327f",
    "state": "REJECT",
    "error_message": "Upgrade failed due to insufficient subnet ip"
  } ]
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

升级数据库代理实例内核版本。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpgradeProxyVersionSolution {
    public static void main(String[] args) {
```

```
// The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
// In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");
String projectId = "{project_id}";

ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
UpgradeProxyVersionRequest request = new UpgradeProxyVersionRequest();
request.withInstanceId("{instance_id}");
request.withProxyId("{proxy_id}");
ProxyUpgradeProxyVersionRequest body = new ProxyUpgradeProxyVersionRequest();
body.withTargetVersion("2.24.03.000");
body.withSourceVersion("2.23.12.000");
request.withBody(body);
try {
    UpgradeProxyVersionResponse response = client.upgradeProxyVersion(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

升级数据库代理实例内核版本。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
```



```
.build()

try:
    request = UpgradeProxyVersionRequest()
    request.instance_id = "{instance_id}"
    request.proxy_id = "{proxy_id}"
    request.body = ProxyUpgradeProxyVersionRequest(
        target_version="2.24.03.000",
        source_version="2.23.12.000"
    )
    response = client.upgrade_proxy_version(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

升级数据库代理实例内核版本。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpgradeProxyVersionRequest{
        request.InstanceId = "{instance_id}"
        request.ProxyId = "{proxy_id}"
        request.Body = &model.ProxyUpgradeProxyVersionRequest{
            TargetVersion: "2.24.03.000",
            SourceVersion: "2.23.12.000",
        }
    }
    response, err := client.UpgradeProxyVersion(request)
    if err == nil {
        fmt.Printf("%v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.7.16 修改代理实例名称

### 功能介绍

修改代理实例名称

### 调用方法

请参见[如何调用API](#)。

## URI

PUT /v3/{project\_id}/instances/{instance\_id}/proxy/{proxy\_id}/rename

表 4-624 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一region下的project ID。
instance_id	是	String	实例ID，严格匹配UUID规则。
proxy_id	是	String	数据库代理ID，严格匹配UUID规则。

## 请求参数

表 4-625 请求 Header 参数

参数	是否必选	参数类型	描述
X-Language	否	String	语言。
Content-Type	是	String	内容类型。 取值: application/json。
X-Auth-Token	是	String	用户token。

表 4-626 请求 Body 参数

参数	是否必选	参数类型	描述
alias	是	String	修改代理实例的新名称

## 响应参数

状态码: 200

表 4-627 响应 Body 参数

参数	参数类型	描述
result	String	修改成功或者失败。

状态码: 400

表 4-628 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码: 500

表 4-629 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。

参数	参数类型	描述
error_msg	String	错误消息。

## 请求示例

修改代理实例名称

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/4785fc80386846f3ad2bf4e0cd53a4cein07/proxy/286a4a1a45e3400c907b51b0721377f9po01/rename
{
  "alias": "newName"
}
```

## 响应示例

状态码: 200

Success.

```
{
  "result": "success"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

修改代理实例名称

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateProxyNameSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);
```

```
GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
UpdateProxyNameRequest request = new UpdateProxyNameRequest();
request.withInstanceId("{instance_id}");
request.withProxyId("{proxy_id}");
ProxyUpdateProxyNameRequest body = new ProxyUpdateProxyNameRequest();
body.withAlias("newName");
request.withBody(body);
try {
    UpdateProxyNameResponse response = client.updateProxyName(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

### 修改代理实例名称

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateProxyNameRequest()
        request.instance_id = "{instance_id}"
        request.proxy_id = "{proxy_id}"
        request.body = ProxyUpdateProxyNameRequest(
            alias="newName"
        )
        response = client.update_proxy_name(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
```

```
print(e.error_code)
print(e.error_msg)
```

## Go

### 修改代理实例名称

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateProxyNameRequest{}
    request.InstanceId = "{instance_id}"
    request.ProxyId = "{proxy_id}"
    request.Body = &model.ProxyUpdateProxyNameRequest{
        Alias: "newName",
    }
    response, err := client.UpdateProxyName(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.

状态码	描述
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.7.17 查询代理实例访问控制

### 功能介绍

查询代理实例访问控制

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/instances/{instance\_id}/proxy/{proxy\_id}/ipgroup

表 4-630 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一region下的project ID。
instance_id	是	String	实例ID, 严格匹配UUID规则。
proxy_id	是	String	数据库代理ID, 严格匹配UUID规则。

### 请求参数

表 4-631 请求 Header 参数

参数	是否必选	参数类型	描述
X-Language	否	String	语言。
X-Auth-Token	是	String	用户token。

## 响应参数

状态码： 200

表 4-632 响应 Body 参数

参数	参数类型	描述
enable_ip_group	Boolean	允许访问控制或者不允许 true   false。
type	String	白名单或者黑名单 'white'   'black'
ip_group	<a href="#">ProxyIpGroupDetail</a> object	白名单或黑名单详细信息

表 4-633 ProxyIpGroupDetail

参数	参数类型	描述
id	String	ipGroup的id
name	String	ipGroup的名称
ip_list	Array of <a href="#">IpGroupItem</a> objects	ipGroup内部的ip列表

表 4-634 IpGroupItem

参数	参数类型	描述
ip	String	ip或者网段
description	String	ip的描述

状态码： 400

表 4-635 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500



表 4-636 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

### 查询代理实例访问控制

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/4785fc80386846f3ad2bf4e0cd53a4cein07/proxy/286a4a1a45e3400c907b51b0721377f9po01/ipgroup
```

## 响应示例

状态码： 200

Success.

```
{
  "enable_ip_group" : false,
  "type" : "black",
  "ip_group" : [ {
    "id" : "a4217ac4-12cd-4fb3-acfc-db4a4a1896ea",
    "name" : "PROXY-8c72c1b6985f414da0cfbc76ad7effc1po01_elblpGroup",
    "ip_list" : [ {
      "ip" : "192.127.0.1",
      "description" : "proxy ipgroup"
    }, {
      "ip" : "192.127.0.2",
      "description" : "proxy ipgroup"
    }
  ]
}
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowProxyIpGroupSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
```

```
this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");
String projectId = "{project_id}";

ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
ShowProxyIpGroupRequest request = new ShowProxyIpGroupRequest();
request.withInstanceId("{instance_id}");
request.withProxyId("{proxy_id}");
try {
    ShowProxyIpGroupResponse response = client.showProxyIpGroup(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowProxyIpGroupRequest()
        request.instance_id = "{instance_id}"
        request.proxy_id = "{proxy_id}"
        response = client.show_proxy_ipgroup(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
```

```
print(e.request_id)
print(e.error_code)
print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowProxyIpgroupRequest{}
    request.InstanceId = "{instance_id}"
    request.ProxyId = "{proxy_id}"
    response, err := client.ShowProxyIpgroup(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.7.18 查询代理实例小版本

### 功能介绍

查询代理实例小版本

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/instances/{instance\_id}/proxy/{proxy\_id}/{engine\_name}/  
proxy-version

表 4-637 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一region下的project ID。
instance_id	是	String	实例ID，严格匹配UUID规则。
engine_name	是	String	表示TaurusDB服务的读写分离代理，固定填写taurusproxy。
proxy_id	是	String	数据库代理ID，严格匹配UUID规则。

### 请求参数

表 4-638 请求 Header 参数

参数	是否必选	参数类型	描述
X-Language	否	String	语言。
X-Auth-Token	是	String	用户token。

### 响应参数

状态码： 200

表 4-639 响应 Body 参数

参数	参数类型	描述
current_version	String	当前代理版本
latest_version	String	最新代理版本
can_upgrade	Boolean	是否能升级

状态码： 400

表 4-640 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-641 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询代理实例小版本

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
4785fc80386846f3ad2bf4e0cd53a4cein07/proxy/286a4a1a45e3400c907b51b0721377f9po01/taurusproxy/  
proxy-version
```

## 响应示例

状态码： 200

Success.

```
{  
  "current_version": "2.23.12.000",  
  "latest_version": "2.24.03.000",  
  "can_upgrade": true  
}
```

## SDK 代码示例

SDK代码示例如下。

## Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowProxyVersionSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ShowProxyVersionRequest request = new ShowProxyVersionRequest();
        request.withInstanceId("{instance_id}");
        request.withEngineName("{engine_name}");
        request.withProxyId("{proxy_id}");
        try {
            ShowProxyVersionResponse response = client.showProxyVersion(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
```

```
variables and decrypted during use to ensure security.
# In this example, AK and SK are stored in environment variables for authentication. Before running this
example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
ak = os.environ["CLOUD_SDK_AK"]
sk = os.environ["CLOUD_SDK_SK"]
projectId = "{project_id}"

credentials = BasicCredentials(ak, sk, projectId)

client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = ShowProxyVersionRequest()
    request.instance_id = "{instance_id}"
    request.engine_name = "{engine_name}"
    request.proxy_id = "{proxy_id}"
    response = client.show_proxy_version(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowProxyVersionRequest{
        request.InstanceId = "{instance_id}"
        request.EngineName = "{engine_name}"
        request.ProxyId = "{proxy_id}"
    }
    response, err := client.ShowProxyVersion(request)
    if err == nil {
        fmt.Printf("%v\n", response)
    } else {
```

```
    fmt.Println(err)
  }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.7.19 修改代理实例参数

### 功能介绍

修改数据库代理参数。

### 调用方法

请参见[如何调用API](#)。

### URI

PUT /v3/{project\_id}/instances/{instance\_id}/proxy/{proxy\_id}/configurations

表 4-642 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。
proxy_id	是	String	数据库代理ID，严格匹配UUID规则。



## 请求参数

表 4-643 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-644 请求 Body 参数

参数	是否必选	参数类型	描述
configurations	是	Array of <a href="#">UpdateProxyConfigurationItem</a> objects	修改的配置信息。

表 4-645 UpdateProxyConfigurationItem

参数	是否必选	参数类型	描述
name	是	String	参数名。
value	是	String	参数值。
elem_type	是	String	父标签类型。

## 响应参数

状态码：200

表 4-646 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 4-647 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-648 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

修改数据库代理参数。

```
PUT https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/61a4ea66210545909d74a05c27a7179ein07/proxy/e87088f0b6a345e79db19d57c41fde15po01/configurations
{
  "configurations" : [ {
    "name" : "multiStatementType",
    "value" : "Loose",
    "elem_type" : "system"
  } ]
}
```

## 响应示例

状态码： 200

Success.

```
{
  "job_id" : "994cb0aa-9547-4271-bfc2-08f968276744"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

修改数据库代理参数。

```
package com.huaweicloud.sdk.test;
```

```
import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class UpdateProxyNewConfigurationsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        UpdateProxyNewConfigurationsRequest request = new UpdateProxyNewConfigurationsRequest();
        request.withInstanceId("{instance_id}");
        request.withProxyId("{proxy_id}");
        UpdateProxyNewConfigRequestBody body = new UpdateProxyNewConfigRequestBody();
        List<UpdateProxyConfigurationItem> listbodyConfigurations = new ArrayList<>();
        listbodyConfigurations.add(
            new UpdateProxyConfigurationItem()
                .withName("multiStatementType")
                .withValue("Loose")
                .withElemType("system")
        );
        body.withConfigurations(listbodyConfigurations);
        request.withBody(body);
        try {
            UpdateProxyNewConfigurationsResponse response = client.updateProxyNewConfigurations(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

修改数据库代理参数。

```
# coding: utf-8
```

```
import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateProxyNewConfigurationsRequest()
        request.instance_id = "{instance_id}"
        request.proxy_id = "{proxy_id}"
        listConfigurationsbody = [
            UpdateProxyConfigurationItem(
                name="multiStatementType",
                value="Loose",
                elem_type="system"
            )
        ]
        request.body = UpdateProxyNewConfigRequestBody(
            configurations=listConfigurationsbody
        )
        response = client.update_proxy_new_configurations(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

修改数据库代理参数。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"
```

```
auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    WithProjectId(projectId).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.UpdateProxyNewConfigurationsRequest{}
request.InstanceId = "{instance_id}"
request.ProxyId = "{proxy_id}"
var listConfigurationsbody = []model.UpdateProxyConfigurationItem{
    {
        Name: "multiStatementType",
        Value: "Loose",
        ElemType: "system",
    },
}
request.Body = &model.UpdateProxyNewConfigRequestBody{
    Configurations: listConfigurationsbody,
}
response, err := client.UpdateProxyNewConfigurations(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.7.20 查询数据库代理内核参数

### 功能介绍

查询数据库代理内核参数。

## 调用方法

请参见[如何调用API](#)。

## URI

GET /v3/{project\_id}/instances/{instance\_id}/proxy/{proxy\_id}/configurations

表 4-649 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a>
instance_id	是	String	实例ID。
proxy_id	是	String	数据库代理ID。

表 4-650 Query 参数

参数	是否必选	参数类型	描述
limit	否	Integer	查询记录数。默认为10，不能为负数，最小值为1，最大值为100。
offset	否	Integer	索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。
name	否	String	参数名称，为空则全量查询。

## 请求参数

表 4-651 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。

参数	是否必选	参数类型	描述
Content-Type	是	String	内容类型。 取值: application/json。
X-Language	否	String	语言。

## 响应参数

状态码: 200

表 4-652 响应 Body 参数

参数	参数类型	描述
total_count	String	数据总数
configurations	Array of <a href="#">ProxyConfiguration</a> objects	内核可配置参数列表

表 4-653 ProxyConfiguration

参数	参数类型	描述
name	String	参数名称
data_type	String	参数数据类型
elem_type	String	参数父标签类型
value_range	String	取值范围
value	String	参数默认值
description	String	参数描述

状态码: 400

表 4-654 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码: 500

表 4-655 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询数据库代理内核参数。

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/61a4ea66210545909d74a05c27a7179ein07/proxy/151c14381ac14ecfb9703a745b992677po01/configurations
```

## 响应示例

状态码： 200

Success.

```
{
  "total_count": 1,
  "configurations": [ {
    "name": "slowLogQueryTime",
    "data_type": "integer",
    "elem_type": "system",
    "value_range": "200-50000",
    "value": 500,
    "description": "proxy慢日志阈值，默认值为500，单位ms。"
  } ]
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowProxyConfigurationsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";
```



```
ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
ShowProxyConfigurationsRequest request = new ShowProxyConfigurationsRequest();
request.withInstanceId("{instance_id}");
request.withProxyId("{proxy_id}");
try {
    ShowProxyConfigurationsResponse response = client.showProxyConfigurations(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowProxyConfigurationsRequest()
        request.instance_id = "{instance_id}"
        request.proxy_id = "{proxy_id}"
        response = client.show_proxy_configurations(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowProxyConfigurationsRequest{}
    request.InstanceId = "{instance_id}"
    request.ProxyId = "{proxy_id}"
    response, err := client.ShowProxyConfigurations(request)
    if err == nil {
        fmt.Printf("%v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.7.21 开启或关闭访问控制

### 功能介绍

开启或关闭访问控制。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/instances/{instance\_id}/proxy/{proxy\_id}/access-control-switch

表 4-656 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID, 严格匹配UUID规则。
proxy_id	是	String	数据库代理ID, 严格匹配UUID规则。

### 请求参数

表 4-657 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-658 请求 Body 参数

参数	是否必选	参数类型	描述
open_access_control	是	Boolean	是否开启访问控制。取值： - true：开启。 - false：关闭。

## 响应参数

状态码： 200

表 4-659 响应 Body 参数

参数	参数类型	描述
open_access_control	Boolean	是否已开启访问控制。取值： - true：开启。 - false：关闭。

状态码： 400

表 4-660 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-661 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

- 开启访问控制。

```
POST https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/61a4ea66210545909d74a05c27a7179ein07/proxy/e87088f0b6a345e79db19d57c41fde15po01/access-control-switch
```

```
{
  "open_access_control": true
}
```

- 关闭访问控制。

```
POST https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/  
61a4ea66210545909d74a05c27a7179ein07/proxy/e87088f0b6a345e79db19d57c41fde15po01/access-  
control-switch
```

```
{  
  "open_access_control" : false  
}
```

## 响应示例

状态码： 200

Success.

- 开启访问控制。

```
{  
  "open_access_control" : true  
}
```

- 关闭访问控制。

```
{  
  "open_access_control" : false  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

- 开启访问控制。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class SwitchAccessControlSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before  
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local  
        // environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)
```

```
        .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
        .build();
SwitchAccessControlRequest request = new SwitchAccessControlRequest();
request.withInstanceId("{instance_id}");
request.withProxyId("{proxy_id}");
SwitchAccessControlRequestBody body = new SwitchAccessControlRequestBody();
body.withOpenAccessControl(true);
request.withBody(body);
try {
    SwitchAccessControlResponse response = client.switchAccessControl(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

- 关闭访问控制。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class SwitchAccessControlSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        SwitchAccessControlRequest request = new SwitchAccessControlRequest();
        request.withInstanceId("{instance_id}");
        request.withProxyId("{proxy_id}");
        SwitchAccessControlRequestBody body = new SwitchAccessControlRequestBody();
        body.withOpenAccessControl(false);
        request.withBody(body);
        try {
            SwitchAccessControlResponse response = client.switchAccessControl(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
```

```
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

- 开启访问控制。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = SwitchAccessControlRequest()
        request.instance_id = "{instance_id}"
        request.proxy_id = "{proxy_id}"
        request.body = SwitchAccessControlRequestBody(
            open_access_control=True
        )
        response = client.switch_access_control(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- 关闭访问控制。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
```

security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.

# In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD\_SDK\_AK and CLOUD\_SDK\_SK in the local environment

```
ak = os.environ["CLOUD_SDK_AK"]
sk = os.environ["CLOUD_SDK_SK"]
projectId = "{project_id}"

credentials = BasicCredentials(ak, sk, projectId)

client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = SwitchAccessControlRequest()
    request.instance_id = "{instance_id}"
    request.proxy_id = "{proxy_id}"
    request.body = SwitchAccessControlRequestBody(
        open_access_control=False
    )
    response = client.switch_access_control(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

- 开启访问控制。

```
package main

import (
    "fmt"
    "github.com/ HuaweiCloud/ huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/ HuaweiCloud/ huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/ HuaweiCloud/ huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/ HuaweiCloud/ huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.SwitchAccessControlRequest{
        request.InstanceId = "{instance_id}"
```



```
request.ProxyId = "{proxy_id}"
request.Body = &model.SwitchAccessControlRequestBody{
    OpenAccessControl: true,
}
response, err := client.SwitchAccessControl(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

- 关闭访问控制。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.SwitchAccessControlRequest{}
    request.InstanceId = "{instance_id}"
    request.ProxyId = "{proxy_id}"
    request.Body = &model.SwitchAccessControlRequestBody{
        OpenAccessControl: false,
    }
    response, err := client.SwitchAccessControl(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.7.22 设置访问控制规则

### 功能介绍

设置访问控制规则。

### 调用方法

请参见[如何调用API](#)。

## URI

POST /v3/{project\_id}/instances/{instance\_id}/proxy/{proxy\_id}/access-control

表 4-662 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID, 严格匹配UUID规则。
proxy_id	是	String	数据库代理ID, 严格匹配UUID规则。

## 请求参数

表 4-663 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-664 请求 Body 参数

参数	是否必选	参数类型	描述
type	是	String	访问控制方式。取值： - white：表示白名单。 - black：表示黑名单。
ip_list	是	Array of <a href="#">AccessControlRule</a> objects	控制访问的IP地址数组，最多可添加300个IP地址或网段。

表 4-665 AccessControlRule

参数	是否必选	参数类型	描述
ip	是	String	IP地址或网段。
description	否	String	备注。备注长度范围是0到50个字符，不能包含<>。

## 响应参数

状态码： 200

表 4-666 响应 Body 参数

参数	参数类型	描述
open_access_control	Boolean	是否已开启访问控制。取值： - true：开启。 - false：关闭。

状态码： 400

表 4-667 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-668 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

设置访问控制规则。

```
POST https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/61a4ea66210545909d74a05c27a7179ein07/proxy/e87088f0b6a345e79db19d57c41fde15po01/access-control
{
  "type": "black",
  "ip_list": [ {
    "ip": "192.107.0.1",
    "description": "black01"
  } ]
}
```

## 响应示例

状态码： 200

Success.

```
{
  "open_access_control": false
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

设置访问控制规则。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class CreateAccessControlSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        CreateAccessControlRequest request = new CreateAccessControlRequest();
        request.withInstanceId("{instance_id}");
        request.withProxyId("{proxy_id}");
        CreateAccessControlRequestBody body = new CreateAccessControlRequestBody();
        List<AccessControlRule> listbodyIpList = new ArrayList<>();
        listbodyIpList.add(
            new AccessControlRule()
                .withIp("192.107.0.1")
                .withDescription("black01")
        );
        body.withIpList(listbodyIpList);
        body.withType("black");
        request.withBody(body);
        try {
            CreateAccessControlResponse response = client.createAccessControl(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
        }
    }
}
```

```
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

设置访问控制规则。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateAccessControlRequest()
        request.instance_id = "{instance_id}"
        request.proxy_id = "{proxy_id}"
        listIpListbody = [
            AccessControlRule(
                ip="192.107.0.1",
                description="black01"
            )
        ]
        request.body = CreateAccessControlRequestBody(
            ip_list=listIpListbody,
            type="black"
        )
        response = client.create_access_control(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

设置访问控制规则。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
```

```
)  
  
func main() {  
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    // variables and decrypted during use to ensure security.  
    // In this example, AK and SK are stored in environment variables for authentication. Before running this  
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak := os.Getenv("CLOUD_SDK_AK")  
    sk := os.Getenv("CLOUD_SDK_SK")  
    projectId := "{project_id}"  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).  
        WithSk(sk).  
        WithProjectId(projectId).  
        Build()  
  
    client := gaussdb.NewGaussDBClient(  
        gaussdb.GaussDBClientBuilder().  
            WithRegion(region.ValueOf("<YOUR REGION>")).  
            WithCredential(auth).  
            Build()  
    )  
  
    request := &model.CreateAccessControlRequest{}  
    request.InstanceId = "{instance_id}"  
    request.ProxyId = "{proxy_id}"  
    descriptionIpList := "black01"  
    var listIpListbody = []model.AccessControlRule{  
        {  
            Ip: "192.107.0.1",  
            Description: &descriptionIpList,  
        },  
    }  
    request.Body = &model.CreateAccessControlRequestBody{  
        IpList: listIpListbody,  
        Type: "black",  
    }  
    response, err := client.CreateAccessControl(request)  
    if err == nil {  
        fmt.Printf("%+v\n", response)  
    } else {  
        fmt.Println(err)  
    }  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.7.23 开关数据库代理 SSL

### 功能介绍

为数据库代理设置SSL数据加密。

### 调用方法

请参见[如何调用API](#)。

### URI

PUT /v3/{project\_id}/instances/{instance\_id}/proxy/{proxy\_id}/ssl

表 4-669 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	租户在某一project下的实例 ID。
proxy_id	是	String	数据库代理ID。

### 请求参数

表 4-670 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>



表 4-671 请求 Body 参数

参数	是否必选	参数类型	描述
ssl_option	是	Boolean	SSL数据加密开关设置。 取值范围： <ul style="list-style-type: none"><li>• true: 开启SSL数据加密。</li><li>• false: 关闭SSL数据加密。</li></ul>

## 响应参数

状态码： 200

表 4-672 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 4-673 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-674 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

开关SSL数据加密示例。

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/  
096c0fc43e804757b59946b80dc27f8bin07/proxyId/2ec617ba62da4eafb921b69438beed3cpo01/ssl  
{
```

```
"ssl_option" : true  
}
```

## 响应示例

**状态码： 200**

Success.

```
{  
  "job_id" : "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

开关SSL数据加密示例。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class SwitchGaussMySQLProxySslSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        SwitchGaussMySQLProxySslRequest request = new SwitchGaussMySQLProxySslRequest();  
        request.withInstanceId("{instance_id}");  
        request.withProxyId("{proxy_id}");  
        SwitchProxySSLRequest body = new SwitchProxySSLRequest();  
        body.withSslOption(true);  
        request.withBody(body);  
        try {  
            SwitchGaussMySQLProxySslResponse response = client.switchGaussMySQLProxySsl(request);  
            System.out.println(response.toString());  
        } catch (ConnectionException e) {  
            e.printStackTrace();  
        } catch (RequestTimeoutException e) {
```

```
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

开关SSL数据加密示例。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = SwitchGaussMySQLProxySslRequest()
        request.instance_id = "{instance_id}"
        request.proxy_id = "{proxy_id}"
        request.body = SwitchProxySSLRequest(
            ssl_option=True
        )
        response = client.switch_gauss_my_sql_proxy_ssl(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

开关SSL数据加密示例。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)
```

```
func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.SwitchGaussMySQLProxySslRequest{}
    request.InstanceId = "{instance_id}"
    request.ProxyId = "{proxy_id}"
    request.Body = &model.SwitchProxySslRequest{
        SslOption: true,
    }
    response, err := client.SwitchGaussMySQLProxySsl(request)
    if err == nil {
        fmt.Printf("%v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.7.24 重启数据库代理

#### 功能介绍

重启数据库代理。

## 调用方法

请参见[如何调用API](#)。

## URI

POST /v3/{project\_id}/instances/{instance\_id}/proxy/{proxy\_id}/restart

表 4-675 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a>
instance_id	是	String	实例ID。
proxy_id	是	String	数据库代理ID。

## 请求参数

表 4-676 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
Content-Type	是	String	内容类型。 取值: application/json。
X-Language	否	String	语言。

## 响应参数

状态码: 200

表 4-677 响应 Body 参数

参数	参数类型	描述
job_id	String	工作流ID。

状态码： 400

表 4-678 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-679 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

重启数据库代理。

```
POST https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/61a4ea66210545909d74a05c27a7179ein07/proxy/151c14381ac14ecfb9703a745b992677po01/restart
```

## 响应示例

状态码： 200

Success.

```
{
  "job_id" : "dff1d289-4d03-4942-854f-463ea07c000d"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class RestartProxyInstanceSolution {
```

```
public static void main(String[] args) {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running
    // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    String ak = System.getenv("CLOUD_SDK_AK");
    String sk = System.getenv("CLOUD_SDK_SK");
    String projectId = "{project_id}";

    ICredential auth = new BasicCredentials()
        .withProjectId(projectId)
        .withAk(ak)
        .withSk(sk);

    GaussDBClient client = GaussDBClient.newBuilder()
        .withCredential(auth)
        .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
        .build();
    RestartProxyInstanceRequest request = new RestartProxyInstanceRequest();
    request.withInstanceId("{instance_id}");
    request.withProxyId("{proxy_id}");
    try {
        RestartProxyInstanceResponse response = client.restartProxyInstance(request);
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = RestartProxyInstanceRequest()
```

```
request.instance_id = "{instance_id}"
request.proxy_id = "{proxy_id}"
response = client.restart_proxy_instance(request)
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.RestartProxyInstanceRequest{}
    request.InstanceId = "{instance_id}"
    request.ProxyId = "{proxy_id}"
    response, err := client.RestartProxyInstance(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.



状态码	描述
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.8 日志管理

### 4.8.1 开启或者关闭全量 SQL

#### 功能介绍

开启或者关闭全量SQL。关闭全量SQL后，可能导致DAS和DBSS服务全量SQL功能不可用，请谨慎关闭。

#### 调用方法

请参见[如何调用API](#)。

#### URI

POST /v3/{project\_id}/instance/{instance\_id}/audit-log/switch

表 4-680 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-681 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-682 请求 Body 参数

参数	是否必选	参数类型	描述
switch_status	是	String	全量SQL开关状态。 取值： <ul style="list-style-type: none"><li>ON：表示开启。</li><li>OFF：表示关闭。</li></ul>

## 响应参数

状态码： 200

表 4-683 响应 Body 参数

参数	参数类型	描述
result	String	开启/关闭全量SQL操作结果。

状态码： 400

表 4-684 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。

参数	参数类型	描述
error_msg	String	错误消息。

状态码： 500

表 4-685 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

- 开启全量SQL。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instance/  
61a4ea66210545909d74a05c27a7179ein07/audit-log/switch
```

```
{  
  "switch_status": "ON"  
}
```

- 关闭全量SQL。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instance/  
61a4ea66210545909d74a05c27a7179ein07/audit-log/switch
```

```
{  
  "switch_status": "OFF"  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "result": "success"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

- 开启全量SQL。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
```

```
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateAuditLogSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        UpdateAuditLogRequest request = new UpdateAuditLogRequest();
        request.withInstanceId("{instance_id}");
        OperateAuditLogRequestV3Body body = new OperateAuditLogRequestV3Body();
        body.withSwitchStatus("ON");
        request.withBody(body);
        try {
            UpdateAuditLogResponse response = client.updateAuditLog(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- 关闭全量SQL。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateAuditLogSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
```

```
environment
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");
String projectId = "{project_id}";

ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
UpdateAuditLogRequest request = new UpdateAuditLogRequest();
request.withInstanceId("{instance_id}");
OperateAuditLogRequestV3Body body = new OperateAuditLogRequestV3Body();
body.withSwitchStatus("OFF");
request.withBody(body);
try {
    UpdateAuditLogResponse response = client.updateAuditLog(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

- 开启全量SQL。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateAuditLogRequest()
        request.instance_id = "{instance_id}"
        request.body = OperateAuditLogRequestV3Body(
```

```
        switch_status="ON"
    )
    response = client.update_audit_log(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

- 关闭全量SQL。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateAuditLogRequest()
        request.instance_id = "{instance_id}"
        request.body = OperateAuditLogRequestV3Body(
            switch_status="OFF"
        )
        response = client.update_audit_log(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

- 开启全量SQL。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
```

```
// In this example, AK and SK are stored in environment variables for authentication. Before
running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
environment
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")
projectId := "{project_id}"

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    WithProjectId(projectId).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.UpdateAuditLogRequest{}
request.InstanceId = "{instance_id}"
request.Body = &model.OperateAuditLogRequestV3Body{
    SwitchStatus: "ON",
}
response, err := client.UpdateAuditLog(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

- 关闭全量SQL。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateAuditLogRequest{}
    request.InstanceId = "{instance_id}"
    request.Body = &model.OperateAuditLogRequestV3Body{
        SwitchStatus: "OFF",
    }
}
```

```
}  
response, err := client.UpdateAuditLog(request)  
if err == nil {  
    fmt.Printf("%+v\n", response)  
} else {  
    fmt.Println(err)  
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.8.2 查询全量 SQL 开关状态

### 功能介绍

查询全量SQL开关状态。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/instance/{instance\_id}/audit-log/switch-status

表 4-686 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。



## 请求参数

表 4-687 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-688 响应 Body 参数

参数	参数类型	描述
switch_status	String	全量SQL开关状态。 取值： <ul style="list-style-type: none"><li>ON：表示开启。</li><li>OFF：表示关闭。</li></ul>

状态码： 400

表 4-689 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-690 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询全量SQL开关状态。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instance/  
61a4ea66210545909d74a05c27a7179ein07/audit-log/switch-status
```

## 响应示例

状态码： 200

Success.

```
{  
  "switch_status": "ON"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ShowAuditLogSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)
```

```
        .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
        .build();
ShowAuditLogRequest request = new ShowAuditLogRequest();
request.withInstanceId("{instance_id}");
try {
    ShowAuditLogResponse response = client.showAuditLog(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.valueOf("<YOUR REGION>")) \
        .build()

    try:
        request = ShowAuditLogRequest()
        request.instance_id = "{instance_id}"
        response = client.show_audit_log(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
```

```
)  
  
func main() {  
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    // variables and decrypted during use to ensure security.  
    // In this example, AK and SK are stored in environment variables for authentication. Before running this  
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak := os.Getenv("CLOUD_SDK_AK")  
    sk := os.Getenv("CLOUD_SDK_SK")  
    projectId := "{project_id}"  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).  
        WithSk(sk).  
        WithProjectId(projectId).  
        Build()  
  
    client := gaussdb.NewGaussDBClient(  
        gaussdb.GaussDBClientBuilder().  
            WithRegion(region.ValueOf("<YOUR REGION>")).  
            WithCredential(auth).  
            Build())  
  
    request := &model.ShowAuditLogRequest{}  
    request.InstanceId = "{instance_id}"  
    response, err := client.ShowAuditLog(request)  
    if err == nil {  
        fmt.Printf("%+v\n", response)  
    } else {  
        fmt.Println(err)  
    }  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.8.3 获取慢日志详情列表

### 功能介绍

获取指定实例的慢日志详情列表。

## 调用方法

请参见[如何调用API](#)。

## URI

POST /v3.1/{project\_id}/instances/{instance\_id}/slow-logs

表 4-691 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	<b>参数解释:</b> 租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。 <b>约束限制:</b> 不涉及。 <b>取值范围:</b> 只能由英文字母、数字组成，且长度为32个字符。 <b>默认值:</b> 不涉及。
instance_id	是	String	<b>参数解释:</b> 实例ID，此参数是实例的唯一标识。 <b>约束限制:</b> 不涉及。 <b>取值范围:</b> 只能由英文字母、数字组成，后缀为in07，长度为36个字符。 <b>默认取值:</b> 不涉及。

## 请求参数

表 4-692 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	<b>参数解释：</b> 用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 <b>约束限制：</b> 不涉及。 <b>取值范围：</b> 不涉及。 <b>默认值：</b> 不涉及。
X-Language	否	String	<b>参数解释：</b> 请求语言类型。 <b>约束限制：</b> 不涉及。 <b>取值范围：</b> <ul style="list-style-type: none"><li>• en-us</li><li>• zh-cn</li></ul> <b>默认值：</b> en-us。

表 4-693 请求 Body 参数

参数	是否必选	参数类型	描述
node_id	是	String	<b>参数解释：</b> 节点ID。 <b>约束限制：</b> 不涉及。 <b>取值范围：</b> 只能由英文字母、数字组成，前面为UUID，后缀为no07，长度为36个字符。 <b>默认取值：</b> 不涉及。

参数	是否必选	参数类型	描述
start_time	是	String	<b>参数解释:</b> 开始时间, 格式为“yyyy-mm-ddThh:mm:ssZ”。 其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。 <b>约束限制:</b> 不涉及。 <b>取值范围:</b> 早于当前时间。 <b>默认取值:</b> 不涉及。
end_time	是	String	<b>参数解释:</b> 结束时间, 格式为“yyyy-mm-ddThh:mm:ssZ”。 其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。 <b>约束限制:</b> 不涉及。 <b>取值范围:</b> 晚于开始时间, 早于当前时间。 <b>默认取值:</b> 不涉及。
limit	是	Integer	<b>参数解释:</b> 查询记录数。 <b>约束限制:</b> 不涉及。 <b>取值范围:</b> 1-5000。 <b>默认取值:</b> 不涉及。

参数	是否必选	参数类型	描述
line_num	否	String	<p><b>参数解释:</b> 日志单行序列号, 第一次查询时不需要此参数, 后续分页查询时需要使用, 可从上次查询的返回信息中获取。</p> <p><b>约束限制:</b> 不涉及</p> <p><b>取值范围:</b> 只能取数字, 长度为13个字符。</p> <p><b>默认取值:</b> 不涉及。</p>
operate_type	否	String	<p><b>参数解释:</b> SQL语句类型。</p> <p><b>约束限制:</b> 不涉及。</p> <p><b>取值范围:</b> 取空值或ALL, 表示查询所有语句类型。 也可指定如下日志类型:</p> <ul style="list-style-type: none"> <li>● INSERT</li> <li>● UPDATE</li> <li>● SELECT</li> <li>● DELETE</li> <li>● ALTER</li> <li>● DROP</li> <li>● CREATE</li> </ul> <p><b>默认值:</b> 不涉及。</p>
database	否	String	<p><b>参数解释:</b> 所属数据库。</p> <p><b>约束限制:</b> 不涉及。</p> <p><b>取值范围:</b> 不涉及。</p> <p><b>默认值:</b> 不涉及。</p>



## 响应参数

状态码： 200

表 4-694 响应 Body 参数

参数	参数类型	描述
slow_log_list	Array of <a href="#">LtsLogSlowDetail</a> objects	参数解释： 慢日志列表。

表 4-695 LtsLogSlowDetail

参数	参数类型	描述
node_id	String	参数解释： 节点ID。 取值范围： 只能由英文字母、数字组成，前面为UUID，后缀为no07，长度为36个字符。
count	String	参数解释： 执行次数。 取值范围： 不涉及。
time	String	参数解释： 执行时间。 取值范围： 不涉及。
lock_time	String	参数解释： 等待锁时间。 取值范围： 不涉及。
rows_sent	String	参数解释： 结果行数量。 取值范围： 不涉及。
rows_examined	String	参数解释： 扫描的行数量。 取值范围： 不涉及。

参数	参数类型	描述
database	String	<b>参数解释:</b> 所属数据库。 <b>取值范围:</b> gaussdb-mysql。
users	String	<b>参数解释:</b> 账号名称。 <b>取值范围:</b> 不涉及。
query_sample	String	<b>参数解释:</b> 执行语法。 <b>取值范围:</b> 不涉及。
type	String	<b>参数解释:</b> 语句类型。 <b>取值范围:</b> <ul style="list-style-type: none"><li>• INSERT</li><li>• UPDATE</li><li>• SELECT</li><li>• DELETE</li><li>• ALTER</li><li>• DROP</li><li>• CREATE。</li></ul>
start_time	String	<b>参数解释:</b> 发生时间, UTC时间。 <b>取值范围:</b> 不涉及。
client_ip	String	<b>参数解释:</b> IP地址。 <b>取值范围:</b> 不涉及。
line_num	String	<b>参数解释:</b> 日志单行序列号。 <b>取值范围:</b> 不涉及。

**状态码: 400**

表 4-696 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-697 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询慢日志详细信息。

```
POST https://{endpoint}/v3.1/056538411200d4cd2f79c003c7606412/instances/  
096c0fc43e804757b59946b80dc27f8bin07/slow-logs
```

```
{  
  "start_time": "2022-11-20T00:00:00+0800",  
  "end_time": "2022-11-29T00:00:00+0800",  
  "node_id": "cc07c60e94ec4575989840e648fb4f66no07",  
  "limit": 10,  
  "line_num": 1669344916000  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "slow_log_list": [ {  
    "node_id": "cc07c60e94ec4575989840e648fb4f66no07",  
    "count": 1,  
    "time": "1.04899 s",  
    "lock_time": "0.00003 s",  
    "rows_sent": 0,  
    "rows_examined": 0,  
    "database": "gaussdb-mysql",  
    "users": "root",  
    "query_sample": "INSERT INTO time_zone_name (Name, Time_zone_id) VALUES (N @time_zone_id);",  
    "type": "INSERT",  
    "start_time": "2022-11-25T10:55:16.000",  
    "client_ip": "192.*.*.1",  
    "line_num": 1669344916000  
  } ]  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

查询慢日志详细信息。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListLtsSlowlogDetailsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ListLtsSlowlogDetailsRequest request = new ListLtsSlowlogDetailsRequest();
        request.withInstanceId("{instance_id}");
        LtsLogSlowQueryRequest body = new LtsLogSlowQueryRequest();
        body.withLineNum("1669344916000");
        body.withLimit(10);
        body.withEndTime("2022-11-29T00:00:00+0800");
        body.withStartTime("2022-11-20T00:00:00+0800");
        body.withNodeId("cc07c60e94ec4575989840e648fb4f66no07");
        request.withBody(body);
        try {
            ListLtsSlowlogDetailsResponse response = client.listLtsSlowlogDetails(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

查询慢日志详细信息。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListLtsSlowlogDetailsRequest()
        request.instance_id = "{instance_id}"
        request.body = LtsLogSlowQueryRequest(
            line_num="1669344916000",
            limit=10,
            end_time="2022-11-29T00:00:00+0800",
            start_time="2022-11-20T00:00:00+0800",
            node_id="cc07c60e94ec4575989840e648fb4f66no07"
        )
        response = client.list_lts_slowlog_details(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

查询慢日志详细信息。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
```

```
sk := os.Getenv("CLOUD_SDK_SK")
projectId := "{project_id}"

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    WithProjectId(projectId).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.ListLtsSlowlogDetailsRequest{}
request.InstanceId = "{instance_id}"
lineNumLtsLogSlowQueryRequest := "1669344916000"
request.Body = &model.LtsLogSlowQueryRequest{
    LineNum: &lineNumLtsLogSlowQueryRequest,
    Limit: int32(10),
    EndTime: "2022-11-29T00:00:00+0800",
    StartTime: "2022-11-20T00:00:00+0800",
    NodeId: "cc07c60e94ec4575989840e648fb4f66no07",
}
response, err := client.ListLtsSlowlogDetails(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.8.4 获取错误日志详情列表

#### 功能介绍

获取指定实例的错误日志详情列表。

## 调用方法

请参见[如何调用API](#)。

## URI

POST /v3.1/{project\_id}/instances/{instance\_id}/error-logs

表 4-698 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-699 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-700 请求 Body 参数

参数	是否必选	参数类型	描述
node_id	是	String	节点ID。
start_time	是	String	开始时间，格式为“yyyy-mm-ddThh:mm:ssZ”。 其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。

参数	是否必选	参数类型	描述
end_time	是	String	结束时间，格式为“yyyy-mm-ddThh:mm:ssZ”。 其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。
limit	是	Integer	查询记录数。
line_num	否	String	日志单行序列号，第一次查询时不需要此参数，后续分页查询时需要使用，可从上次查询的返回信息中获取。
level	否	String	日志级别，默认为ALL。 取值范围： <ul style="list-style-type: none"> <li>• ALL</li> <li>• INFO</li> <li>• LOG</li> <li>• WARNING</li> <li>• ERROR</li> <li>• FATAL</li> <li>• PANIC</li> <li>• NOTE</li> </ul>

## 响应参数

状态码： 200

表 4-701 响应 Body 参数

参数	参数类型	描述
error_log_list	Array of <a href="#">LtsLogErrorDetail</a> objects	错误日志列表。

表 4-702 LtsLogErrorDetail

参数	参数类型	描述
node_id	String	节点ID。
time	String	执行时间。
level	String	日志级别。



参数	参数类型	描述
content	String	错误日志内容。
line_num	String	日志单行序列号。

状态码： 400

表 4-703 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-704 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询错误日志详细信息。

```
POST https://{endpoint}/v3.1/056538411200d4cd2f79c003c7606412/instances/  
096c0fc43e804757b59946b80dc27f8bin07/error-logs
```

```
{  
  "start_time": "2022-11-20T00:00:00+0800",  
  "end_time": "2022-11-29T00:00:00+0800",  
  "node_id": "cc07c60e94ec4575989840e648fb4f66no07",  
  "limit": 10,  
  "line_num": 1669344916000  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "error_log_list": [ {  
    "node_id": "cc07c60e94ec4575989840e648fb4f66no07",  
    "time": "2022-11-25T10:55:16.000",  
    "level": "ERROR",  
    "content": "[MY013508] [Repl] do failed: 1",  
  }  
]
```

```
"line_num" : 1669344916000  
}]  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

查询错误日志详细信息。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ListLtsErrorLogDetailsSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        ListLtsErrorLogDetailsRequest request = new ListLtsErrorLogDetailsRequest();  
        request.withInstanceId("{instance_id}");  
        LtsLogErrorQueryRequest body = new LtsLogErrorQueryRequest();  
        body.withLineNum("1669344916000");  
        body.withLimit(10);  
        body.withEndTime("2022-11-29T00:00:00+0800");  
        body.withStartTime("2022-11-20T00:00:00+0800");  
        body.withNodeId("cc07c60e94ec4575989840e648fb4f66no07");  
        request.withBody(body);  
        try {  
            ListLtsErrorLogDetailsResponse response = client.listLtsErrorLogDetails(request);  
            System.out.println(response.toString());  
        } catch (ConnectionException e) {  
            e.printStackTrace();  
        } catch (RequestTimeoutException e) {  
            e.printStackTrace();  
        } catch (ServiceResponseException e) {  
            e.printStackTrace();  
            System.out.println(e.getHttpStatusCode());  
            System.out.println(e.getRequestId());  
            System.out.println(e.getErrorCode());  
            System.out.println(e.getErrorMsg());  
        }  
    }  
}
```

```
}  
}  
}
```

## Python

查询错误日志详细信息。

```
# coding: utf-8  
  
import os  
from huaweicloudsdkcore.auth.credentials import BasicCredentials  
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion  
from huaweicloudsdkcore.exceptions import exceptions  
from huaweicloudsdkgaussdb.v3 import *  
  
if __name__ == "__main__":  
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    # variables and decrypted during use to ensure security.  
    # In this example, AK and SK are stored in environment variables for authentication. Before running this  
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak = os.environ["CLOUD_SDK_AK"]  
    sk = os.environ["CLOUD_SDK_SK"]  
    projectId = "{project_id}"  
  
    credentials = BasicCredentials(ak, sk, projectId)  
  
    client = GaussDBClient.new_builder() \  
        .with_credentials(credentials) \  
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \  
        .build()  
  
    try:  
        request = ListLtsErrorLogDetailsRequest()  
        request.instance_id = "{instance_id}"  
        request.body = LtsLogErrorQueryRequest(  
            line_num="1669344916000",  
            limit=10,  
            end_time="2022-11-29T00:00:00+0800",  
            start_time="2022-11-20T00:00:00+0800",  
            node_id="cc07c60e94ec4575989840e648fb4f66no07"  
        )  
        response = client.list_lts_error_log_details(request)  
        print(response)  
    except exceptions.ClientRequestException as e:  
        print(e.status_code)  
        print(e.request_id)  
        print(e.error_code)  
        print(e.error_msg)
```

## Go

查询错误日志详细信息。

```
package main  
  
import (  
    "fmt"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"  
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"  
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"  
)  
  
func main() {  
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
```

```
variables and decrypted during use to ensure security.
// In this example, AK and SK are stored in environment variables for authentication. Before running this
example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")
projectId := "{project_id}"

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    WithProjectId(projectId).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.ListLtsErrorLogDetailsRequest{
    request.InstanceId = "{instance_id}"
    lineNumLtsLogErrorQueryRequest:= "1669344916000"
    request.Body = &model.LtsLogErrorQueryRequest{
        LineNum: &lineNumLtsLogErrorQueryRequest,
        Limit: int32(10),
        EndTime: "2022-11-29T00:00:00+0800",
        StartTime: "2022-11-20T00:00:00+0800",
        NodeId: "cc07c60e94ec4575989840e648fb4f66no07",
    }
}
response, err := client.ListLtsErrorLogDetails(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.8.5 获取全量 SQL 的临时下载链接

### 功能介绍

获取全量SQL的临时下载链接。

## 调用方法

请参见[如何调用API](#)。

## URI

GET /v3/{project\_id}/instance/{instance\_id}/auditlog/download-link

表 4-705 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

表 4-706 Query 参数

参数	是否必选	参数类型	描述
start_time	是	String	开始时间，不得早于实例创建时间。格式为“yyyy-mm-ddThh:mm:ssZ”。 其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。
end_time	是	String	结束时间，不得晚于当前时间。格式为“yyyy-mm-ddThh:mm:ssZ”。 其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。
node_id	否	String	节点ID。 <ul style="list-style-type: none"><li>若输入，则只获取该节点的全量SQL下载链接。</li><li>若不输入，则获取该实例所有节点的全量SQL下载链接。</li></ul>
last_file_name	否	String	上次查询的最后一个文件的文件名。 <ul style="list-style-type: none"><li>若输入，则从该文件名以后按字典顺序开始查询。</li><li>若不输入，则从第一个文件开始查询。</li></ul>

参数	是否必选	参数类型	描述
limit	否	Integer	一次查询返回的文件数量。 默认值为10，取值范围：1~50之间的整数值。

## 请求参数

表 4-707 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-708 响应 Body 参数

参数	参数类型	描述
files	Array of <a href="#">FileInfo</a> objects	获取到的全量SQL文件信息。

表 4-709 FileInfo

参数	参数类型	描述
name	String	文件名。
size	Long	文件大小，单位：KB。

参数	参数类型	描述
updated_time	String	SQL文件最后一次修改时间，格式为“yyyy-mm-ddThh:mm:ssZ”。 其中，T指某个时间的开始，Z指时区偏移量，例如偏移1个小时显示为+0100。
download_link	String	文件下载链接。
link_expired_time	String	下载链接过期时间，格式为“yyyy-mm-ddThh:mm:ssZ”。 其中，T指某个时间的开始，Z指时区偏移量，例如偏移1个小时显示为+0100。

状态码： 400

表 4-710 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-711 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

获取全量SQL的临时下载链接。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instance/669a94abef9f4979b2dfba92f48f4042in07/auditlog/download-link?node_id=2e723b45786148fc94c8737f5980786cno07&last_file_name=20230724160316_99b1d48896bb44178b715d64b68603f9in07_6a21d5df9bb24f5db83121c5fec0b1d2no07_SQLAudit_8b4b53d2-29f8-11ee-92aa-fa163ef00f0d&limit=10&start_time=2023-07-24T09:27:00+0800&end_time=2023-07-25T15:00:14+0800
```

## 响应示例

状态码： 200

Success.

```
{  
  "files" : [ {
```

```
"name" :
"20230706023359_669a94abef9f4979b2dfba92f48f4042in07_b051c8f7b98f4deef88ba97c8daba9dno07_SQ
LAudit_903bdbb6-1ba5-11ee-8b97-fa163ef0f8c2",
"size" : 928,
"updated_time" : "2023-07-06T02:43:57+0800",
"download_link" : "https://obs.obs.domainname.com/bucketname/userid_instanceid/20230706/SQLAudit/
xxxxxx",
"link_expired_time" : "2023-07-13T012:30:36+0800"
}]
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListAuditLogDownloadLinkSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ListAuditLogDownloadLinkRequest request = new ListAuditLogDownloadLinkRequest();
        request.withInstanceId("{instance_id}");
        try {
            ListAuditLogDownloadLinkResponse response = client.listAuditLogDownloadLink(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```



## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListAuditLogDownloadLinkRequest()
        request.instance_id = "{instance_id}"
        response = client.list_audit_log_download_link(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
```

```
WithCredential(auth).  
Build()  
  
request := &model.ListAuditLogDownloadLinkRequest{}  
request.InstanceId = "{instance_id}"  
response, err := client.ListAuditLogDownloadLink(request)  
if err == nil {  
    fmt.Printf("%+v\n", response)  
} else {  
    fmt.Println(err)  
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.8.6 查询实例 LTS 日志配置列表

### 功能介绍

查询实例LTS日志配置列表

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/logs/lts-configs

表 4-712 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

表 4-713 Query 参数

参数	是否必选	参数类型	描述
enterprise_project_id	否	String	企业项目ID。
instance_id	否	String	实例ID。
instance_name	否	String	实例名称
limit	否	String	查询记录数，默认值为10，最小为1，最大为100。
offset	否	String	索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询）。

## 请求参数

表 4-714 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
Content-Type	是	String	内容类型。 取值：application/json。
X-Language	否	String	语言。

## 响应参数

状态码： 200

表 4-715 响应 Body 参数

参数	参数类型	描述
instance_lts_configs	Array of <a href="#">LtsConfigsV3</a> objects	实例LTS日志配置列表。

参数	参数类型	描述
total_count	Integer	总数。

表 4-716 LtsConfigsV3

参数	参数类型	描述
lts_configs	Array of <a href="#">LtsConfig</a> objects	LTS配置列表。
instance	<a href="#">InstanceLtsBasicInfo</a> object	实例信息。

表 4-717 LtsConfig

参数	参数类型	描述
log_type	String	日志类型。
lts_group_id	String	日志组ID。
lts_stream_id	String	日志流ID。
enabled	Boolean	是否开启。

表 4-718 InstanceLtsBasicInfo

参数	参数类型	描述
id	String	实例ID。
name	String	实例名称。
mode	String	实例类型。
engine_name	String	引擎名称。
engine_version	String	引擎版本。
status	String	状态。
enterprise_project_id	String	企业项目ID。
enterprise_project_name	String	企业项目名称。

状态码： 400

表 4-719 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-720 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

null

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/logs/lts-configs
```

## 响应示例

状态码： 200

Success.

```
{
  "total_count": 1,
  "instance_lts_configs": [ {
    "lts_configs": [ {
      "log_type": "error_log",
      "lts_group_id": "c3dd5233-24a1-443c-6b40-310b3ad85382",
      "lts_stream_id": "9b476e31-b745-4e76-8d78-2081168651f7",
      "enabled": true
    } ],
    "instance": {
      "id": "61a4ea66210545909d74a05c27a7179ein07",
      "name": "gaussdb-mysql-instance01",
      "mode": "ha",
      "engine_name": "gaussdb-mysql",
      "engine_version": 2.0,
      "status": "normal",
      "enterprise_project_id": 0,
      "enterprise_project_name": "eps"
    }
  } ]
}
```

## SDK 代码示例

SDK代码示例如下。

## Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowLtsConfigsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ShowLtsConfigsRequest request = new ShowLtsConfigsRequest();
        try {
            ShowLtsConfigsResponse response = client.showLtsConfigs(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
```

```
ak = os.environ["CLOUD_SDK_AK"]
sk = os.environ["CLOUD_SDK_SK"]
projectId = "{project_id}"

credentials = BasicCredentials(ak, sk, projectId)

client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = ShowLtsConfigsRequest()
    response = client.show_lts_configs(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowLtsConfigsRequest{}
    response, err := client.ShowLtsConfigs(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.8.7 批量删除 LTS 日志配置

### 功能介绍

批量删除LTS日志配置

### 调用方法

请参见[如何调用API](#)。

## URI

DELETE /v3/{project\_id}/logs/lts-configs

表 4-721 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

## 请求参数

表 4-722 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。



参数	是否必选	参数类型	描述
Content-Type	是	String	内容类型。 取值: application/json。
X-Language	否	String	语言。

表 4-723 请求 Body 参数

参数	是否必选	参数类型	描述
log_configs	是	Array of InstanceDeleteLtsConfig objects	日志配置列表。

表 4-724 InstanceDeleteLtsConfig

参数	是否必选	参数类型	描述
instance_id	是	String	实例ID。
log_type	是	String	日志类型。

## 响应参数

状态码: 400

表 4-725 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码: 500

表 4-726 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

### 批量删除LTS日志配置

```
DELETE https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/logs/lts-configs
{
  "log_configs": [ {
    "instance_id": "61a4ea66210545909d74a05c27a7179ein07",
    "log_type": "error_log"
  } ]
}
```

## 响应示例

无

## SDK 代码示例

SDK代码示例如下。

### Java

#### 批量删除LTS日志配置

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class DeleteLtsConfigsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();

        DeleteLtsConfigsRequest request = new DeleteLtsConfigsRequest();
        DeleteLtsConfigsRequestBody body = new DeleteLtsConfigsRequestBody();
        List<InstanceDeleteLtsConfig> listbodyLogConfigs = new ArrayList<>();
        listbodyLogConfigs.add(
            new InstanceDeleteLtsConfig()
                .withInstanceId("61a4ea66210545909d74a05c27a7179ein07")
        );
    }
}
```

```
        .withLogType("error_log")
    );
    body.withLogConfigs(listbodyLogConfigs);
    request.withBody(body);
    try {
        DeleteLtsConfigsResponse response = client.deleteLtsConfigs(request);
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

### 批量删除LTS日志配置

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteLtsConfigsRequest()
        listLogConfigsbody = [
            InstanceDeleteLtsConfig(
                instance_id="61a4ea66210545909d74a05c27a7179ein07",
                log_type="error_log"
            )
        ]
        request.body = DeleteLtsConfigsRequestBody(
            log_configs=listLogConfigsbody
        )
        response = client.delete_lts_configs(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

### 批量删除LTS日志配置

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteLtsConfigsRequest{}
    var listLogConfigbody = []model.InstanceDeleteLtsConfig{
        {
            InstanceId: "61a4ea66210545909d74a05c27a7179ein07",
            LogType: "error_log",
        },
    }
    request.Body = &model.DeleteLtsConfigsRequestBody{
        LogConfigs: listLogConfigbody,
    }
    response, err := client.DeleteLtsConfigs(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.

状态码	描述
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.8.8 批量创建 LTS 日志配置

### 功能介绍

批量创建LTS日志配置

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/logs/lts-configs

表 4-727 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

### 请求参数

表 4-728 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
Content-Type	是	String	内容类型。 取值：application/json。

参数	是否必选	参数类型	描述
X-Language	否	String	语言。

表 4-729 请求 Body 参数

参数	是否必选	参数类型	描述
log_configs	是	Array of InstanceSaveLtsConfig objects	日志配置列表。

表 4-730 InstanceSaveLtsConfig

参数	是否必选	参数类型	描述
instance_id	是	String	实例ID。
log_type	是	String	日志类型。
lts_group_id	是	String	日志组ID。
lts_stream_id	是	String	日志流ID。

## 响应参数

状态码： 400

表 4-731 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-732 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

### 批量创建LTS日志配置

```
POST https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/logs/lts-configs
{
  "log_configs": [ {
    "instance_id": "61a4ea66210545909d74a05c27a7179ein07",
    "log_type": "error_log",
    "lts_group_id": "c3dd5233-24a1-443c-6b40-310b3ad85382",
    "lts_stream_id": "9b476e31-b745-4e76-8d78-2081168651f7"
  } ]
}
```

## 响应示例

无

## SDK 代码示例

SDK代码示例如下。

### Java

#### 批量创建LTS日志配置

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class CreateLtsConfigsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        CreateLtsConfigsRequest request = new CreateLtsConfigsRequest();
        CreateLtsConfigs body = new CreateLtsConfigs();
        List<InstanceSaveLtsConfig> listbodyLogConfigs = new ArrayList<>();
        listbodyLogConfigs.add(
```

```
        new InstanceSaveLtsConfig()
            .withInstanceId("61a4ea66210545909d74a05c27a7179ein07")
            .withLogType("error_log")
            .withLtsGroupId("c3dd5233-24a1-443c-6b40-310b3ad85382")
            .withLtsStreamId("9b476e31-b745-4e76-8d78-2081168651f7")
        );
        body.withLogConfigs(listbodyLogConfigs);
        request.withBody(body);
        try {
            CreateLtsConfigsResponse response = client.createLtsConfigs(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

### 批量创建LTS日志配置

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateLtsConfigsRequest()
        listLogConfigsbody = [
            InstanceSaveLtsConfig(
                instance_id="61a4ea66210545909d74a05c27a7179ein07",
                log_type="error_log",
                lts_group_id="c3dd5233-24a1-443c-6b40-310b3ad85382",
                lts_stream_id="9b476e31-b745-4e76-8d78-2081168651f7"
            )
        ]
        request.body = CreateLtsConfigs(
            log_configs=listLogConfigsbody
        )
        response = client.create_lts_configs(request)
        print(response)
```



```
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

### 批量创建LTS日志配置

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateLtsConfigsRequest{}
    var listLogConfigsboby = []model.InstanceSaveLtsConfig{
        {
            InstanceId: "61a4ea66210545909d74a05c27a7179ein07",
            LogType: "error_log",
            LtsGroupId: "c3dd5233-24a1-443c-6b40-310b3ad85382",
            LtsStreamId: "9b476e31-b745-4e76-8d78-2081168651f7",
        },
    }
    request.Body = &model.CreateLtsConfigs{
        LogConfigs: listLogConfigsboby,
    }
    response, err := client.CreateLtsConfigs(request)
    if err == nil {
        fmt.Printf("%v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.8.9 查询慢日志脱敏状态

#### 功能介绍

查询慢日志脱敏状态

#### 调用方法

请参见[如何调用API](#)。

#### URI

GET /v3/{project\_id}/instances/{instance\_id}/slowlog/query

表 4-733 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID。

## 请求参数

表 4-734 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
Content-Type	是	String	内容类型。 取值：application/json。
X-Language	否	String	语言。

## 响应参数

状态码： 200

表 4-735 响应 Body 参数

参数	参数类型	描述
open_slow_log_switch	Boolean	慢日志开关状态。

状态码： 400

表 4-736 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-737 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。

参数	参数类型	描述
error_msg	String	错误消息。

## 请求示例

查询慢日志脱敏状态

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/  
61a4ea66210545909d74a05c27a7179ein07/slowlog/query
```

## 响应示例

状态码： 200

Success.

```
{  
  "open_slow_log_switch" : true  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ShowSlowlogSensitiveStatusSolution {  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        ShowSlowlogSensitiveStatusRequest request = new ShowSlowlogSensitiveStatusRequest();  
        request.withInstanceId("{instance_id}");  
    }  
}
```

```
try {
    ShowSlowlogSensitiveStatusResponse response = client.showSlowlogSensitiveStatus(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowSlowlogSensitiveStatusRequest()
        request.instance_id = "{instance_id}"
        response = client.show_slowlog_sensitive_status(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
```

```
risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
// In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")
projectId := "{project_id}"

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    WithProjectId(projectId).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.ShowSlowlogSensitiveStatusRequest{
    request.InstanceId = "{instance_id}"
}
response, err := client.ShowSlowlogSensitiveStatus(request)
if err == nil {
    fmt.Printf("%v\n", response)
} else {
    fmt.Println(err)
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.8.10 开启或关闭慢日志脱敏状态

### 功能介绍

开启或关闭慢日志脱敏状态

### 调用方法

请参见[如何调用API](#)。

## URI

POST /v3/{project\_id}/instances/{instance\_id}/slowlog/modify

表 4-738 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a>
instance_id	是	String	实例ID。

## 请求参数

表 4-739 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
Content-Type	是	String	内容类型。 取值：application/json。
X-Language	否	String	语言。

表 4-740 请求 Body 参数

参数	是否必选	参数类型	描述
open_slow_log_switch	是	Boolean	慢日志开关状态。

## 响应参数

状态码： 400

表 4-741 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-742 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

开启或关闭慢日志脱敏状态

```
POST https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/61a4ea66210545909d74a05c27a7179ein07/slowlog/modify
{
  "open_slow_log_switch" : true
}
```

## 响应示例

无

## SDK 代码示例

SDK代码示例如下。

### Java

开启或关闭慢日志脱敏状态

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateSlowlogSensitiveSwitchSolution {
    public static void main(String[] args) {
```



```
// The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
// In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");
String projectId = "{project_id}";

ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
UpdateSlowlogSensitiveSwitchRequest request = new UpdateSlowlogSensitiveSwitchRequest();
request.withInstanceId("{instance_id}");
UpdateSlowlogSensitiveSwitchRequestBody body = new UpdateSlowlogSensitiveSwitchRequestBody();
body.withOpenSlowLogSwitch(true);
request.withBody(body);
try {
    UpdateSlowlogSensitiveSwitchResponse response = client.updateSlowlogSensitiveSwitch(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

### 开启或关闭慢日志脱敏状态

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()
```

```
try:
    request = UpdateSlowlogSensitiveSwitchRequest()
    request.instance_id = "{instance_id}"
    request.body = UpdateSlowlogSensitiveSwitchRequestBody(
        open_slow_log_switch=True
    )
    response = client.update_slowlog_sensitive_switch(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

### 开启或关闭慢日志脱敏状态

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateSlowlogSensitiveSwitchRequest{}
    request.InstanceId = "{instance_id}"
    request.Body = &model.UpdateSlowlogSensitiveSwitchRequestBody{
        OpenSlowLogSwitch: true,
    }
    response, err := client.UpdateSlowlogSensitiveSwitch(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.8.11 查询慢日志统计信息

#### 功能介绍

查询慢日志统计信息

#### 调用方法

请参见[如何调用API](#)。

#### URI

POST /v3/{project\_id}/instances/{instance\_id}/slow-logs/statistics

表 4-743 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-744 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-745 请求 Body 参数

参数	是否必选	参数类型	描述
limit	否	Integer	每页多少条记录（查询结果），取值范围是1~100，不填时默认为10。
offset	否	Integer	索引位置，偏移量。默认为0，表示从第一条数据开始查询。
node_id	是	String	节点ID。
type	否	String	语句类型，取空值，表示查询所有语句类型。 枚举值： <ul style="list-style-type: none"><li>INSERT</li><li>UPDATE</li><li>SELECT</li><li>DELETE</li><li>CREATE</li><li>ALL</li></ul>
database	否	String	数据库名称。数据库名称不支持包含特殊字符 < > & 等的搜索。

参数	是否必选	参数类型	描述
start_time	是	String	开始日期，格式为“yyyy-mm-ddThh:mm:ssZ”。 其中，T指某个时间的开始；Z指时区偏移量，例如北京时间偏移显示为+0800。
end_time	是	String	结束时间，格式为“yyyy-mm-ddThh:mm:ssZ”。 其中，T指某个时间的开始；Z指时区偏移量，例如北京时间偏移显示为+0800。只能查询当前时间前一个月内的慢日志。
sort	否	String	指定排序字段。 <ul style="list-style-type: none"><li>• executeTime: 表示按照平均执行时间降序排序。</li><li>• 字段为空或传入其他值，表示按照执行次数降序排序。</li></ul>
order	否	String	排序顺序。默认desc。 枚举值： <ul style="list-style-type: none"><li>• desc</li><li>• asc</li></ul>

## 响应参数

状态码： 200

表 4-746 响应 Body 参数

参数	参数类型	描述
slow_log_list	Array of <a href="#">ShowSlowLogStatisticsItem</a> objects	慢日志统计信息列表。
total_count	Integer	总条数。

表 4-747 ShowSlowLogStatisticsItem

参数	参数类型	描述
client_ip	String	IP地址。
count	String	执行次数。

参数	参数类型	描述
database	String	所属数据库。
lock_time	String	平均等待锁时间。
node_id	String	节点ID。
query_sample	String	执行语法。
rows_examined	Integer	平均扫描的行数量。
rows_sent	Integer	平均结果行统计数量。
time	String	平均执行时间。
type	String	语句类型。
users	String	账号。

状态码： 400

表 4-748 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-749 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询慢日志统计信息。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
6754902da1f447269c6979b0590102a5in07/slow-logs/statistics
```

```
{  
  "limit" : 10,  
  "offset" : 0,  
  "node_id" : "4006312b96c541749d735c20e86dd169no07",  
  "type" : null,  
  "database" : null,  
}
```

```
"start_time": "2024-08-16T14:37:00+0800",  
"end_time": "2024-08-16T16:51:22+0800",  
"sort": null,  
"order": "desc"  
}
```

## 响应示例

状态码: 200

Success.

```
{  
  "slow_log_list": [ {  
    "node_id": "4006312b96c541749d735c20e86dd169no07",  
    "count": "1 (100.00%)",  
    "time": "11.00014 s",  
    "lock_time": "0.00000 s",  
    "rows_sent": 1,  
    "rows_examined": 1,  
    "database": "",  
    "users": "root",  
    "query_sample": "select sleep(N);",  
    "client_ip": "localhost",  
    "type": "SELECT"  
  } ],  
  "total_count": 1  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

查询慢日志统计信息。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ShowSlowLogStatisticsSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);
```

```
GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
ShowSlowLogStatisticsRequest request = new ShowSlowLogStatisticsRequest();
request.withInstanceId("{instance_id}");
ShowSlowLogStatisticsRequestBody body = new ShowSlowLogStatisticsRequestBody();
body.withOrder("desc");
body.withEndTime("2024-08-16T16:51:22+0800");
body.withStartTime("2024-08-16T14:37:00+0800");
body.withNodeId("4006312b96c541749d735c20e86dd169no07");
body.withOffset(0);
body.withLimit(10);
request.withBody(body);
try {
    ShowSlowLogStatisticsResponse response = client.showSlowLogStatistics(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

查询慢日志统计信息。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowSlowLogStatisticsRequest()
        request.instance_id = "{instance_id}"
        request.body = ShowSlowLogStatisticsRequestBody(
            order="desc",
            end_time="2024-08-16T16:51:22+0800",
            start_time="2024-08-16T14:37:00+0800",
            node_id="4006312b96c541749d735c20e86dd169no07",
            offset=0,
        )
    
```



```
        limit=10
    )
    response = client.show_slow_log_statistics(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

查询慢日志统计信息。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowSlowLogStatisticsRequest{
        request.InstanceId = "{instance_id}"
        orderShowSlowLogStatisticsRequestBody:= "desc"
        offsetShowSlowLogStatisticsRequestBody:= int32(0)
        limitShowSlowLogStatisticsRequestBody:= int32(10)
        request.Body = &model.ShowSlowLogStatisticsRequestBody{
            Order: &orderShowSlowLogStatisticsRequestBody,
            EndTime: "2024-08-16T16:51:22+0800",
            StartTime: "2024-08-16T14:37:00+0800",
            NodeId: "4006312b96c541749d735c20e86dd169no07",
            Offset: &offsetShowSlowLogStatisticsRequestBody,
            Limit: &limitShowSlowLogStatisticsRequestBody,
        }
    }
    response, err := client.ShowSlowLogStatistics(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.8.12 获取慢日志下载链接

### 功能介绍

获取慢日志下载链接

### 调用方法

请参见[如何调用API](#)。

## URI

POST /v3/{project\_id}/instances/{instance\_id}/{node\_id}/slowlog-download

表 4-750 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。
node_id	是	String	节点ID。

## 请求参数

表 4-751 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-752 响应 Body 参数

参数	参数类型	描述
list	Array of <a href="#">DownloadSlowLogFileItem</a> objects	慢日志下载链接列表。
count	Integer	条数。

表 4-753 DownloadSlowLogFileItem

参数	参数类型	描述
job_id	String	任务ID。
file_name	String	文件名。
status	String	状态。 取值范围： <ul style="list-style-type: none"><li>SUCCESS：表示下载链接已经生成完成。</li><li>EXPORTING：表示下载链接正在生成中。</li><li>FAILED：表示下载链接生成失败。</li></ul>

参数	参数类型	描述
file_size	String	文件大小, 单位: KB。
file_link	String	下载链接。链接有效时间为5分钟。
create_at	Long	创建时间。
updated_at	Long	更新时间。

状态码: 400

表 4-754 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码: 500

表 4-755 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

获取慢日志下载链接。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
6754902da1f447269c6979b0590102a5in07/941d21130b3c4899ad1a752a0945befdno07/slowlog-download
```

## 响应示例

状态码: 200

Success.

```
{  
  "list": [ {  
    "job_id": "73a5f4df-a111-4e09-b543-5ff3863eda71",  
    "file_name":  
    "62b83dfd385f4d96afa6c7afd36dad7b_gaussdbformysql_slowlog_download_20240816081247776",  
    "status": "SUCCESS",  
    "file_size": 0,  
    "file_link": "https://obs.cn-southwest-244.ulanhqab.huawei.com:443/dbsbucket-0-cn-southwest-244-  
ea3ffcdb5cc4b5789a77884f9*****/  
62b83dfd385f4d96afa6c7afd36dad7b_gaussdbformysql_slowlog_download_20240816081247776?"
```

```
AWSAccessKeyId=*****&Expires=1723796280&response-cache-control=no-cache%2Cno-store&Signature=51RXPvQJg2RSolfqCHOqF5*****",
  "create_at" : 1723795967769,
  "updated_at" : 1723795980907
}],
"count" : 1
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class DownloadSlowLogFileSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        DownloadSlowLogFileRequest request = new DownloadSlowLogFileRequest();
        request.withInstanceId("{instance_id}");
        request.withNodeId("{node_id}");
        try {
            DownloadSlowLogFileResponse response = client.downloadSlowLogFile(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DownloadSlowLogFileRequest()
        request.instance_id = "{instance_id}"
        request.node_id = "{node_id}"
        response = client.download_slow_log_file(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
```

```
WithRegion(region.ValueOf("<YOUR REGION>")).  
WithCredential(auth).  
Build()  
  
request := &model.DownloadSlowLogFileRequest{}  
request.InstanceId = "{instance_id}"  
request.NodeId = "{node_id}"  
response, err := client.DownloadSlowLogFile(request)  
if err == nil {  
    fmt.Printf("%+v\n", response)  
} else {  
    fmt.Println(err)  
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.9 标签管理

### 4.9.1 查询资源标签

#### 功能介绍

查询指定实例的标签信息。

#### 调用方法

请参见[如何调用API](#)。

#### URI

GET /v3/{project\_id}/instances/{instance\_id}/tags

表 4-756 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

表 4-757 Query 参数

参数	是否必选	参数类型	描述
offset	否	Integer	索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。
limit	否	Integer	查询记录数。默认为100，不能为负数，最小值为1，最大值为100。

## 请求参数

表 4-758 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200



表 4-759 响应 Body 参数

参数	参数类型	描述
total_count	Integer	总记录数。
tags	Array of <a href="#">ResourceTagItem</a> objects	标签列表。

表 4-760 ResourceTagItem

参数	参数类型	描述
key	String	标签键。
value	String	标签值。

状态码： 400

表 4-761 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-762 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询资源标签。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
61a4ea66210545909d74a05c27a7179ein07/tags?offset=0&limit=2
```

## 响应示例

状态码： 200

Success.

```
{
  "total_count": 2,
  "tags": [{
    "key": "key1",
    "value": "value1"
  }, {
    "key": "key2",
    "value": "value2"
  }]
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListInstanceTagsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ListInstanceTagsRequest request = new ListInstanceTagsRequest();
        request.withInstanceId("{instance_id}");
        try {
            ListInstanceTagsResponse response = client.listInstanceTags(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

```
}  
}
```

## Python

```
# coding: utf-8  
  
import os  
from huaweicloudsdkcore.auth.credentials import BasicCredentials  
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion  
from huaweicloudsdkcore.exceptions import exceptions  
from huaweicloudsdkgaussdb.v3 import *  
  
if __name__ == "__main__":  
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    # variables and decrypted during use to ensure security.  
    # In this example, AK and SK are stored in environment variables for authentication. Before running this  
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak = os.environ["CLOUD_SDK_AK"]  
    sk = os.environ["CLOUD_SDK_SK"]  
    projectId = "{project_id}"  
  
    credentials = BasicCredentials(ak, sk, projectId)  
  
    client = GaussDBClient.new_builder() \  
        .with_credentials(credentials) \  
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \  
        .build()  
  
    try:  
        request = ListInstanceTagsRequest()  
        request.instance_id = "{instance_id}"  
        response = client.list_instance_tags(request)  
        print(response)  
    except exceptions.ClientRequestException as e:  
        print(e.status_code)  
        print(e.request_id)  
        print(e.error_code)  
        print(e.error_msg)
```

## Go

```
package main  
  
import (  
    "fmt"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"  
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"  
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"  
)  
  
func main() {  
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    // variables and decrypted during use to ensure security.  
    // In this example, AK and SK are stored in environment variables for authentication. Before running this  
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak := os.Getenv("CLOUD_SDK_AK")  
    sk := os.Getenv("CLOUD_SDK_SK")  
    projectId := "{project_id}"  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).  
        WithSk(sk).  
        WithProjectId(projectId).  
        Build()
```

```
client := gaussdb.NewGaussDBClient(  
    gaussdb.GaussDBClientBuilder().  
        WithRegion(region.ValueOf("<YOUR REGION>")).  
        WithCredential(auth).  
        Build())  
  
request := &model.ListInstanceTagsRequest{}  
request.InstanceId = "{instance_id}"  
response, err := client.ListInstanceTags(request)  
if err == nil {  
    fmt.Printf("%+v\n", response)  
} else {  
    fmt.Println(err)  
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.9.2 查询项目标签

### 功能介绍

查询指定project ID下实例的所有标签集合。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/tags

表 4-763 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

表 4-764 Query 参数

参数	是否必选	参数类型	描述
offset	否	Integer	索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。
limit	否	Integer	查询记录数。默认为100，不能为负数，最小值为1，最大值为100。

## 请求参数

表 4-765 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-766 响应 Body 参数

参数	参数类型	描述
total_count	Integer	总记录数。
tags	Array of <a href="#">ProjectTagItem</a> objects	标签列表。

表 4-767 ProjectTagItem

参数	参数类型	描述
key	String	标签键。
values	Array of strings	标签值。

状态码： 400

表 4-768 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-769 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询项目标签。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/tags?offset=0&limit=2
```

## 响应示例

状态码： 200

Success.

```
{
  "total_count": 2,
  "tags": [ {
    "key": "key1",
    "values": [ "value1", "value2" ]
  }, {
    "key": "key2",
    "values": [ "value3", "value4" ]
  } ]
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListProjectTagsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ListProjectTagsRequest request = new ListProjectTagsRequest();
        try {
            ListProjectTagsResponse response = client.listProjectTags(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListProjectTagsRequest()
        response = client.list_project_tags(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
```



```
Build()  
  
request := &model.ListProjectTagsRequest{}  
response, err := client.ListProjectTags(request)  
if err == nil {  
    fmt.Printf("%+v\n", response)  
} else {  
    fmt.Println(err)  
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.9.3 批量添加或删除标签

### 功能介绍

批量添加或删除指定实例的标签。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/instances/{instance\_id}/tags/action

表 4-770 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-771 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-772 请求 Body 参数

参数	是否必选	参数类型	描述
action	是	String	操作标识，取值： <ul style="list-style-type: none"><li>create：表示添加标签。</li><li>delete：表示删除标签。</li></ul>
tags	是	Array of <a href="#">TagItem</a> objects	标签列表。

表 4-773 TagItem

参数	是否必选	参数类型	描述
key	是	String	标签键。最大长度36个unicode字符，不能为null或者空字符串，不能为空格。 字符集：0-9，A-Z，a-z，“_”，“-”，中文。

参数	是否必选	参数类型	描述
value	否	String	标签值。最大长度43个unicode字符，可以为空字符串，不能为空格。 字符集：0-9，A-Z，a-z， “_”，“.”，“-”，中文。 <ul style="list-style-type: none"><li>“action”值为“create”时，该参数必选。</li><li>“action”值为“delete”时，如果value有值，按照key-value删除，如果value没值，则按照key删除。</li></ul>

## 响应参数

状态码： 400

表 4-774 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-775 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

- 批量添加标签。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
61a4ea66210545909d74a05c27a7179ein07/tags/action
```

```
{  
  "action": "create",  
  "tags": [{  
    "key": "key1",  
    "value": "value1"  
  }, {  
    "key": "key2",  
    "value": "value2"  
  }  
}
```

- ```
    }]  
  }  
}
```
- **批量删除标签。**  
POST <https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/61a4ea66210545909d74a05c27a7179ein07/tags/action>  

```
{  
  "action": "delete",  
  "tags": [{  
    "key": "key1"  
  }, {  
    "key": "key2",  
    "value": "value2"  
  }]  
}
```

## 响应示例

无

## SDK 代码示例

SDK代码示例如下。

### Java

- **批量添加标签。**

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
import java.util.List;  
import java.util.ArrayList;  
  
public class BatchTagActionSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before  
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local  
        // environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        BatchTagActionRequest request = new BatchTagActionRequest();  
        request.withInstanceId("{instance_id}");
```

```
BatchOperateInstanceTagRequestBody body = new BatchOperateInstanceTagRequestBody();
List<TagItem> listbodyTags = new ArrayList<>();
listbodyTags.add(
    new TagItem()
        .withKey("key1")
        .withValue("value1")
);
listbodyTags.add(
    new TagItem()
        .withKey("key2")
        .withValue("value2")
);
body.withTags(listbodyTags);
body.withAction("create");
request.withBody(body);
try {
    BatchTagActionResponse response = client.batchTagAction(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

- **批量删除标签。**

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class BatchTagActionSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        BatchTagActionRequest request = new BatchTagActionRequest();
```

```
request.withInstanceId("{instance_id}");
BatchOperateInstanceTagRequestBody body = new BatchOperateInstanceTagRequestBody();
List<TagItem> listbodyTags = new ArrayList<>();
listbodyTags.add(
    new TagItem()
        .withKey("key1")
);
listbodyTags.add(
    new TagItem()
        .withKey("key2")
        .withValue("value2")
);
body.withTags(listbodyTags);
body.withAction("delete");
request.withBody(body);
try {
    BatchTagActionResponse response = client.batchTagAction(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

- 批量添加标签。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = BatchTagActionRequest()
        request.instance_id = "{instance_id}"
        listTagsbody = [
            TagItem(
                key="key1",
                value="value1"
            ),
        ],
```

```
        TagItem(  
            key="key2",  
            value="value2"  
        )  
    ]  
    request.body = BatchOperateInstanceTagRequestBody(  
        tags=listTagsbody,  
        action="create"  
    )  
    response = client.batch_tag_action(request)  
    print(response)  
except exceptions.ClientRequestException as e:  
    print(e.status_code)  
    print(e.request_id)  
    print(e.error_code)  
    print(e.error_msg)
```

- 批量删除标签。

```
# coding: utf-8  
  
import os  
from huaweicloudsdkcore.auth.credentials import BasicCredentials  
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion  
from huaweicloudsdkcore.exceptions import exceptions  
from huaweicloudsdkgaussdb.v3 import *  
  
if __name__ == "__main__":  
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
    # environment variables and decrypted during use to ensure security.  
    # In this example, AK and SK are stored in environment variables for authentication. Before  
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local  
    # environment  
    ak = os.environ["CLOUD_SDK_AK"]  
    sk = os.environ["CLOUD_SDK_SK"]  
    projectId = "{project_id}"  
  
    credentials = BasicCredentials(ak, sk, projectId)  
  
    client = GaussDBClient.new_builder() \  
        .with_credentials(credentials) \  
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \  
        .build()  
  
    try:  
        request = BatchTagActionRequest()  
        request.instance_id = "{instance_id}"  
        listTagsbody = [  
            TagItem(  
                key="key1"  
            ),  
            TagItem(  
                key="key2",  
                value="value2"  
            )  
        ]  
        request.body = BatchOperateInstanceTagRequestBody(  
            tags=listTagsbody,  
            action="delete"  
        )  
        response = client.batch_tag_action(request)  
        print(response)  
    except exceptions.ClientRequestException as e:  
        print(e.status_code)  
        print(e.request_id)  
        print(e.error_code)  
        print(e.error_msg)
```

## Go

- 批量添加标签。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.BatchTagActionRequest{
        request.InstanceId = "{instance_id}"
        valueTags:= "value1"
        valueTags1:= "value2"
        var listTagsbody = []model.TagItem{
            {
                Key: "key1",
                Value: &valueTags,
            },
            {
                Key: "key2",
                Value: &valueTags1,
            },
        }
    }
    request.Body = &model.BatchOperateInstanceTagRequestBody{
        Tags: listTagsbody,
        Action: "create",
    }
    response, err := client.BatchTagAction(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- 批量删除标签。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
```



```
"github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.BatchTagActionRequest{}
    request.InstanceId = "{instance_id}"
    valueTags := "value2"
    var listTagsbody = []model.TagItem{
        {
            Key: "key1",
        },
        {
            Key: "key2",
            Value: &valueTags,
        },
    }
    request.Body = &model.BatchOperateInstanceTagRequestBody{
        Tags: listTagsbody,
        Action: "delete",
    }
    response, err := client.BatchTagAction(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.10 数据库用户管理

### 4.10.1 创建数据库用户

#### 功能介绍

创建云数据库TaurusDB实例数据库用户。

#### 调用方法

请参见[如何调用API](#)。

#### URI

POST /v3/{project\_id}/instances/{instance\_id}/db-users

表 4-776 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                                                                                                                                     |
|-------------|------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id  | 是    | String | <b>参数解释:</b><br>租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。<br><b>约束限制:</b><br>不涉及。<br><b>取值范围:</b><br>只能由英文字母、数字组成，且长度为32个字符。<br><b>默认值:</b><br>不涉及。 |
| instance_id | 是    | String | <b>参数解释:</b><br>实例ID，此参数是实例的唯一标识。<br><b>约束限制:</b><br>不涉及。<br><b>取值范围:</b><br>只能由英文字母、数字组成，后缀为in07，长度为36个字符。<br><b>默认取值:</b><br>不涉及。                                    |

## 请求参数

表 4-777 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                                                                                                            |
|--------------|------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | <b>参数解释:</b><br>用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。<br><b>约束限制:</b><br>不涉及。<br><b>取值范围:</b><br>不涉及。<br><b>默认值:</b><br>不涉及。 |
| X-Language   | 否    | String | <b>参数解释:</b><br>请求语言类型。<br><b>约束限制:</b><br>不涉及。<br><b>取值范围:</b> <ul style="list-style-type: none"><li>• en-us</li><li>• zh-cn</li></ul> <b>默认值:</b><br>en-us。                                 |

表 4-778 请求 Body 参数

| 参数    | 是否必选 | 参数类型                                                    | 描述                                 |
|-------|------|---------------------------------------------------------|------------------------------------|
| users | 是    | Array of <a href="#">CreateDatabaseUserList</a> objects | <b>参数解释:</b><br>数据库用户列表，列表最大长度为50。 |

表 4-779 CreateDatabaseUserList

| 参数       | 是否必选 | 参数类型   | 描述                                                                                                                                                                                                           |
|----------|------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| name     | 是    | String | <b>参数解释:</b><br>数据库用户名称。<br><b>约束限制:</b><br>不涉及。<br><b>取值范围:</b><br>数据库用户名称在1到32个字符之间, 由字母、数字、下划线组成, 不能包含其他特殊字符。<br><b>默认取值:</b><br>不涉及。                                                                     |
| password | 是    | String | <b>参数解释:</b><br>数据库用户密码。<br><b>约束限制:</b><br>不能同用户名称相同, 非空。建议您输入高强度密码, 以提高安全性, 防止出现密码被暴力破解等安全风险。<br><b>取值范围:</b><br>至少包含以下字符中的三种: 大写字母、小写字母、数字和特殊符号 . ~!@#%&^*_=-+?,()&组成, 长度8~32个字符。<br><b>默认取值:</b><br>不涉及。 |
| comment  | 否    | String | <b>参数解释:</b><br>数据库备注。<br><b>约束限制:</b><br>该字段只针对新版本的实例生效, 必须大于等于指定的内核版本-2.0.13.0, 如果不符合内核版本要求, 参考 <a href="#">内核版本升级</a> 至最新。<br><b>取值范围:</b><br>长度不能超过512个字符, 不能包含回车和特殊字符!<"='>&。<br><b>默认取值:</b><br>不涉及。   |

| 参数        | 是否必选 | 参数类型                                                | 描述                                                                                                                                                                                                                                                                                                                                                |
|-----------|------|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| hosts     | 否    | Array of strings                                    | <p><b>参数解释:</b><br/>主机IP地址, 即允许数据库用户<br/>在当前主机连接数据库。</p> <p><b>约束限制:</b><br/>一次最多创建50个。</p> <p><b>取值范围:</b><br/>%和IP地址, 若IP地址为<br/>“10.10.10.%”, 则表示<br/>10.10.10.X的IP地址都可以访问<br/>该TaurusDB实例。若您需要添<br/>加多个IP地址, 请用英文逗号隔<br/>开(逗号前后都不能加空格),<br/>例如<br/>192.168.0.1,172.16.213.9。</p> <p><b>默认取值:</b><br/>默认IP地址为%, 表示允许所有<br/>地址访问TaurusDB实例。</p> |
| databases | 否    | Array of <a href="#">CreateDatabaseList</a> objects | <p><b>参数解释:</b><br/>数据库名称列表, 即创建数据库<br/>用户时同步将列表中的数据库授<br/>权给用户, 列表最大长度为<br/>50。列表可以为空, 在需要给<br/>该用户授权某数据库时, 调用<a href="#">数据库用户授权</a>接口即可。</p>                                                                                                                                                                                                   |

表 4-780 CreateDatabaseList

| 参数   | 是否必选 | 参数类型   | 描述                                                                                                                                                                                                               |
|------|------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| name | 是    | String | <p><b>参数解释:</b><br/>数据库名称。</p> <p><b>约束限制:</b><br/>当前已存在的数据库。</p> <p><b>取值范围:</b><br/>数据库名称长度可在1~64个字<br/>符之间, 由字母、数字、下划<br/>线、中划线组成, 中划线的累计<br/>总长度小于等于10个字符, 且<br/>不能包含其他特殊字符。</p> <p><b>默认值:</b><br/>不涉及。</p> |

| 参数       | 是否必选 | 参数类型    | 描述                                                                                                                                                                         |
|----------|------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| readonly | 是    | Boolean | <b>参数解释:</b><br>是否为只读权限。<br><b>约束限制:</b><br>不涉及。<br><b>取值范围:</b> <ul style="list-style-type: none"><li>• true: 表示只读。</li><li>• false: 表示可读写。</li></ul> <b>默认值:</b><br>不涉及。 |

## 响应参数

状态码: 201

表 4-781 响应 Body 参数

| 参数     | 参数类型   | 描述                                                         |
|--------|--------|------------------------------------------------------------|
| job_id | String | <b>参数解释:</b><br>创建数据库用户的任务ID。<br><b>取值范围:</b><br>符合UUID规则。 |

状态码: 400

表 4-782 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码: 500

表 4-783 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

创建数据库用户，读写权限，主机IP地址是127.0.0.1。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
a23fb62bd61e4e9e9636fd2225f395bein07/db-users
```

```
{  
  "users" : [ {  
    "name" : "gaussdb_mysql_user1",  
    "password" : "***",  
    "hosts" : [ "127.0.0.1" ],  
    "comment" : "database_user_comment",  
    "databases" : [ {  
      "name" : "test",  
      "readonly" : false  
    } ]  
  } ]  
}
```

## 响应示例

状态码： 201

Success.

```
{  
  "job_id" : "dff1d289-4d03-4942-8b9f-463ea07c000d"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

创建数据库用户，读写权限，主机IP地址是127.0.0.1。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
import java.util.List;  
import java.util.ArrayList;  
  
public class CreateGaussMySQLDatabaseUserSolution {  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)
```

```
.withAk(ak)
.withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
CreateGaussMySQLDatabaseUserRequest request = new CreateGaussMySQLDatabaseUserRequest();
request.withInstanceId("{instance_id}");
CreateDatabaseUserRequest body = new CreateDatabaseUserRequest();
List<CreateDatabaseList> listUsersDatabases = new ArrayList<>();
listUsersDatabases.add(
    new CreateDatabaseList()
        .withName("test")
        .withReadOnly(false)
);
List<String> listUsersHosts = new ArrayList<>();
listUsersHosts.add("127.0.0.1");
List<CreateDatabaseUserList> listbodyUsers = new ArrayList<>();
listbodyUsers.add(
    new CreateDatabaseUserList()
        .withName("gaussdb_mysql_user1")
        .withComment("database_user_comment")
        .withPassword("****")
        .withHosts(listUsersHosts)
        .withDatabases(listUsersDatabases)
);
body.withUsers(listbodyUsers);
request.withBody(body);
try {
    CreateGaussMySQLDatabaseUserResponse response =
client.createGaussMySQLDatabaseUser(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

创建数据库用户，读写权限，主机IP地址是127.0.0.1。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"
```



```
credentials = BasicCredentials(ak, sk, projectId)

client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = CreateGaussMySQLDatabaseUserRequest()
    request.instance_id = "{instance_id}"
    listDatabasesUsers = [
        CreateDatabaseList(
            name="test",
            readonly=False
        )
    ]
    listHostsUsers = [
        "127.0.0.1"
    ]
    listUsersbody = [
        CreateDatabaseUserList(
            name="gaussdb_mysql_user1",
            comment="database_user_comment",
            password="****",
            hosts=listHostsUsers,
            databases=listDatabasesUsers
        )
    ]
    request.body = CreateDatabaseUserRequest(
        users=listUsersbody
    )
    response = client.create_gauss_my_sql_database_user(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

创建数据库用户，读写权限，主机IP地址是127.0.0.1。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()
```

```
client := gaussdb.NewGaussDBClient(  
    gaussdb.GaussDBClientBuilder().  
        WithRegion(region.ValueOf("<YOUR REGION>")).  
        WithCredential(auth).  
        Build())  
  
request := &model.CreateGaussMySQLDatabaseUserRequest{}  
request.InstanceId = "{instance_id}"  
var listDatabasesUsers = []model.CreateDatabaseList{  
    {  
        Name: "test",  
        Readonly: false,  
    },  
}  
var listHostsUsers = []string{  
    "127.0.0.1",  
}  
commentUsers := "database_user_comment"  
var listUsersbody = []model.CreateDatabaseUserList{  
    {  
        Name: "gaussdb_mysql_user1",  
        Comment: &commentUsers,  
        Password: "****",  
        Hosts: &listHostsUsers,  
        Databases: &listDatabasesUsers,  
    },  
}  
request.Body = &model.CreateDatabaseUserRequest{  
    Users: listUsersbody,  
}  
response, err := client.CreateGaussMySQLDatabaseUser(request)  
if err == nil {  
    fmt.Printf("%+v\n", response)  
} else {  
    fmt.Println(err)  
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 201 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.10.2 查询数据库用户

### 功能介绍

查询云数据库 TaurusDB实例数据库用户。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/instances/{instance\_id}/db-users

表 4-784 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

表 4-785 Query 参数

| 参数     | 是否必选 | 参数类型    | 描述                                                                     |
|--------|------|---------|------------------------------------------------------------------------|
| offset | 否    | Integer | 索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。 |
| limit  | 否    | Integer | 查询记录数。默认为100，不能为负数，最小值为1，最大值为100。                                      |

## 请求参数

表 4-786 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

## 响应参数

状态码： 200

表 4-787 响应 Body 参数

| 参数          | 参数类型                                                        | 描述         |
|-------------|-------------------------------------------------------------|------------|
| users       | Array of <a href="#">ListGaussMySqlDatabaseUser</a> objects | 数据库用户列表。   |
| total_count | Integer                                                     | 实例的数据库用户总数 |

表 4-788 ListGaussMySqlDatabaseUser

| 参数        | 参数类型                                                    | 描述       |
|-----------|---------------------------------------------------------|----------|
| name      | String                                                  | 数据库用户名。  |
| host      | String                                                  | 主机地址。    |
| comment   | String                                                  | 数据库用户备注。 |
| databases | Array of <a href="#">ListGaussMySqlDatabase</a> objects | 数据库列表。   |

表 4-789 ListGaussMySqlDatabase

| 参数       | 参数类型    | 描述                                                                                             |
|----------|---------|------------------------------------------------------------------------------------------------|
| name     | String  | 数据库名称。                                                                                         |
| readonly | Boolean | 是否为只读权限： <ul style="list-style-type: none"><li>• true: 表示只读。</li><li>• false: 表示可读写。</li></ul> |

状态码: 400

表 4-790 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码: 500

表 4-791 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

查询数据库用户列表。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
a23fb62bd61e4e9e9636fd2225f395bein07/db-users?offset=0&limit=100
```

## 响应示例

状态码: 200

Success.

```
{  
  "users": [  
    {  
      "name": "gaussdb_mysql_user1",  
      "host": "127.0.0.1",  
      "comment": "database_user_comment",  
      "databases": [  
        {  
          "name": "test",  
          "readonly": false  
        }  
      ]  
    }  
  ]  
}
```

```
    }],  
    "total_count" : 1  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ListGaussMySQLDatabaseUserSolution {  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        ListGaussMySQLDatabaseUserRequest request = new ListGaussMySQLDatabaseUserRequest();  
        request.withInstanceId("{instance_id}");  
        try {  
            ListGaussMySQLDatabaseUserResponse response = client.listGaussMySQLDatabaseUser(request);  
            System.out.println(response.toString());  
        } catch (ConnectionException e) {  
            e.printStackTrace();  
        } catch (RequestTimeoutException e) {  
            e.printStackTrace();  
        } catch (ServiceResponseException e) {  
            e.printStackTrace();  
            System.out.println(e.getStatusCode());  
            System.out.println(e.getRequestId());  
            System.out.println(e.getErrorCode());  
            System.out.println(e.getErrorMsg());  
        }  
    }  
}
```

### Python

```
# coding: utf-8  
import os
```

```
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListGaussMySQLDatabaseUserRequest()
        request.instance_id = "{instance_id}"
        response = client.list_gauss_my_sql_database_user(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListGaussMySQLDatabaseUserRequest{}
    request.InstanceId = "{instance_id}"
```

```
response, err := client.ListGaussMySqlDatabaseUser(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.10.3 删除数据库用户

### 功能介绍

删除云数据库 TaurusDB实例数据库用户。

### 调用方法

请参见[如何调用API](#)。

### URI

DELETE /v3/{project\_id}/instances/{instance\_id}/db-users

表 4-792 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |



## 请求参数

表 4-793 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

表 4-794 请求 Body 参数

| 参数    | 是否必选 | 参数类型                                                           | 描述                      |
|-------|------|----------------------------------------------------------------|-------------------------|
| users | 是    | Array of <a href="#">ListDeleteDatabaseUserRequest</a> objects | 准备删除的数据库用户列表，列表最大长度为50。 |

表 4-795 ListDeleteDatabaseUserRequest

| 参数   | 是否必选 | 参数类型   | 描述      |
|------|------|--------|---------|
| name | 是    | String | 数据库用户名。 |
| host | 是    | String | 主机地址。   |

## 响应参数

状态码： 202

表 4-796 响应 Body 参数

| 参数     | 参数类型   | 描述            |
|--------|--------|---------------|
| job_id | String | 删除数据库用户的任务ID。 |

状态码： 400

表 4-797 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-798 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

删除主机地址是"127.0.0.1"的数据库用户。

```
DELETE https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
a23fb62bd61e4e9e9636fd2225f395bein07/db-users
```

```
{  
  "users" : [{  
    "name" : "gaussdb_mysql_user1",  
    "host" : "127.0.0.1"  
  }]  
}
```

## 响应示例

状态码： 202

Success.

```
{  
  "job_id" : "dff1d289-4d03-4942-8b9f-463ea07c000d"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

删除主机地址是"127.0.0.1"的数据库用户。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;
```

```
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class DeleteGaussMySQLDatabaseUserSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        DeleteGaussMySQLDatabaseUserRequest request = new DeleteGaussMySQLDatabaseUserRequest();
        request.withInstanceId("{instance_id}");
        DeleteDatabaseUserRequest body = new DeleteDatabaseUserRequest();
        List<ListDeleteDatabaseUserRequest> listbodyUsers = new ArrayList<>();
        listbodyUsers.add(
            new ListDeleteDatabaseUserRequest()
                .withName("gaussdb_mysql_user1")
                .withHost("127.0.0.1")
        );
        body.withUsers(listbodyUsers);
        request.withBody(body);
        try {
            DeleteGaussMySQLDatabaseUserResponse response =
            client.deleteGaussMySQLDatabaseUser(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

删除主机地址是"127.0.0.1"的数据库用户。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
```

```
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteGaussMySQLDatabaseUserRequest()
        request.instance_id = "{instance_id}"
        listUsersbody = [
            ListDeleteDatabaseUserRequest(
                name="gaussdb_mysql_user1",
                host="127.0.0.1"
            )
        ]
        request.body = DeleteDatabaseUserRequest(
            users=listUsersbody
        )
        response = client.delete_gauss_my_sql_database_user(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

删除主机地址是"127.0.0.1"的数据库用户。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
```

```
Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.DeleteGaussMySQLDatabaseUserRequest{}
request.InstanceId = "{instance_id}"
var listUsersbody = []model.ListDeleteDatabaseUserRequest{
    {
        Name: "gaussdb_mysql_user1",
        Host: "127.0.0.1",
    },
}
request.Body = &model.DeleteDatabaseUserRequest{
    Users: listUsersbody,
}
response, err := client.DeleteGaussMySQLDatabaseUser(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 202 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.10.4 修改数据库用户备注

### 功能介绍

修改云数据库 TaurusDB实例数据库用户备注。

### 调用方法

请参见[如何调用API](#)。

## URI

PUT /v3/{project\_id}/instances/{instance\_id}/db-users/comment

表 4-799 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 4-800 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

表 4-801 请求 Body 参数

| 参数    | 是否必选 | 参数类型                                                       | 描述                        |
|-------|------|------------------------------------------------------------|---------------------------|
| users | 是    | Array of <a href="#">UpdateDatabaseUserComment</a> objects | 准备修改备注的数据库用户列表，列表最大长度为50。 |

表 4-802 UpdateDatabaseUserComment

| 参数   | 是否必选 | 参数类型   | 描述      |
|------|------|--------|---------|
| name | 是    | String | 数据库用户名。 |

| 参数      | 是否必选 | 参数类型   | 描述                                                                                                                           |
|---------|------|--------|------------------------------------------------------------------------------------------------------------------------------|
| host    | 是    | String | 主机地址。                                                                                                                        |
| comment | 是    | String | 数据库用户备注,长度不能超过512个字符,不能包含回车和特殊字符!<"='>&。<br>该字段只针对新版本的实例生效,必须大于等于指定的内核版本-2.0.13.0,不符合内核版本要求,参考 <a href="#">升级内核版本</a> 升级至最新。 |

## 响应参数

状态码： 202

表 4-803 响应 Body 参数

| 参数     | 参数类型   | 描述              |
|--------|--------|-----------------|
| job_id | String | 修改数据库用户备注的任务ID。 |

状态码： 400

表 4-804 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-805 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

修改数据库用户的备注。

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
a23fb62bd61e4e9e9636fd2225f395bein07/db-users/comment  
  
{  
  "users": [{  
    "name": "gaussdb_mysql_user1",  
    "host": "127.0.0.1",  
    "comment": "first_database_user"  
  }]  
}
```

## 响应示例

状态码: 202

Success.

```
{  
  "job_id": "dff1d289-4d03-4942-8b9f-463ea07c000d"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

修改数据库用户的备注。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
import java.util.List;  
import java.util.ArrayList;  
  
public class UpdateGaussMySQLDatabaseUserCommentSolution {  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        UpdateGaussMySQLDatabaseUserCommentRequest request = new  
        UpdateGaussMySQLDatabaseUserCommentRequest();
```



```
request.withInstanceId("{instance_id}");
UpdateDatabaseUserCommentRequest body = new UpdateDatabaseUserCommentRequest();
List<UpdateDatabaseUserComment> listbodyUsers = new ArrayList<>();
listbodyUsers.add(
    new UpdateDatabaseUserComment()
        .withName("gaussdb_mysql_user1")
        .withHost("127.0.0.1")
        .withComment("first_database_user")
);
body.withUsers(listbodyUsers);
request.withBody(body);
try {
    UpdateGaussMySQLDatabaseUserCommentResponse response =
client.updateGaussMySQLDatabaseUserComment(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

修改数据库用户的备注。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateGaussMySQLDatabaseUserCommentRequest()
        request.instance_id = "{instance_id}"
        listUsersbody = [
            UpdateDatabaseUserComment(
                name="gaussdb_mysql_user1",
                host="127.0.0.1",
                comment="first_database_user"
            )
        ]
        request.body = UpdateDatabaseUserCommentRequest(
```

```
        users=listUsersbody
    )
    response = client.update_gauss_my_sql_database_user_comment(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

修改数据库用户的备注。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateGaussMySQLDatabaseUserCommentRequest{}
    request.InstanceId = "{instance_id}"
    var listUsersbody = []model.UpdateDatabaseUserComment{
        {
            Name: "gaussdb_mysql_user1",
            Host: "127.0.0.1",
            Comment: "first_database_user",
        },
    }
    request.Body = &model.UpdateDatabaseUserCommentRequest{
        Users: listUsersbody,
    }
    response, err := client.UpdateGaussMySQLDatabaseUserComment(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 202 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.10.5 修改数据库用户密码

### 功能介绍

修改云数据库 TaurusDB实例数据库用户密码。

### 调用方法

请参见[如何调用API](#)。

## URI

PUT /v3/{project\_id}/instances/{instance\_id}/db-users/password

表 4-806 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 4-807 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

表 4-808 请求 Body 参数

| 参数    | 是否必选 | 参数类型                                                   | 描述                        |
|-------|------|--------------------------------------------------------|---------------------------|
| users | 是    | Array of <a href="#">ResetDatabasePassword</a> objects | 准备修改密码的数据库用户列表，列表最大长度为50。 |

表 4-809 ResetDatabasePassword

| 参数       | 是否必选 | 参数类型   | 描述                                                                                                            |
|----------|------|--------|---------------------------------------------------------------------------------------------------------------|
| name     | 是    | String | 数据库用户名。                                                                                                       |
| host     | 是    | String | 主机地址。                                                                                                         |
| password | 是    | String | 数据库用户密码，非空，至少包含以下字符中的三种：大写字母、小写字母、数字和特殊符号 . ~!@#\$%^*_-=+?,()&组成，长度8~32个字符。建议您输入高强度密码，以提高安全性，防止出现密码被暴力破解等安全风险 |

## 响应参数

状态码： 202

表 4-810 响应 Body 参数

| 参数     | 参数类型   | 描述              |
|--------|--------|-----------------|
| job_id | String | 修改数据库用户密码的任务ID。 |

状态码： 400

表 4-811 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-812 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

修改数据库用户 “gaussdb\_mysql\_user1” 的密码。

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
a23fb62bd61e4e9e9636fd2225f395bein07/db-users/password
```

```
{  
  "users": [{  
    "name": "gaussdb_mysql_user1",  
    "host": "127.0.0.1",  
    "password": "****"  
  }]  
}
```

## 响应示例

状态码： 202

Success.

```
{  
  "job_id": "dff1d289-4d03-4942-8b9f-463ea07c000d"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

修改数据库用户 “gaussdb\_mysql\_user1” 的密码。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class ResetGaussMySqlDatabasePasswordSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();

        ResetGaussMySqlDatabasePasswordRequest request = new
        ResetGaussMySqlDatabasePasswordRequest();
        request.withInstanceId("{instance_id}");
        ResetDatabasePasswordRequest body = new ResetDatabasePasswordRequest();
        List<ResetDatabasePassword> listbodyUsers = new ArrayList<>();
        listbodyUsers.add(
            new ResetDatabasePassword()
                .withName("gaussdb_mysql_user1")
                .withHost("127.0.0.1")
                .withPassword("****")
        );
        body.withUsers(listbodyUsers);
        request.withBody(body);
        try {
            ResetGaussMySqlDatabasePasswordResponse response =
            client.resetGaussMySqlDatabasePassword(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
        }
    }
}
```

```
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

修改数据库用户 “gaussdb\_mysql\_user1” 的密码。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ResetGaussMySQLDatabasePasswordRequest()
        request.instance_id = "{instance_id}"
        listUsersbody = [
            ResetDatabasePassword(
                name="gaussdb_mysql_user1",
                host="127.0.0.1",
                password="****"
            )
        ]
        request.body = ResetDatabasePasswordRequest(
            users=listUsersbody
        )
        response = client.reset_gauss_my_sql_database_password(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

修改数据库用户 “gaussdb\_mysql\_user1” 的密码。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
```

```
)  
  
func main() {  
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    // variables and decrypted during use to ensure security.  
    // In this example, AK and SK are stored in environment variables for authentication. Before running this  
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak := os.Getenv("CLOUD_SDK_AK")  
    sk := os.Getenv("CLOUD_SDK_SK")  
    projectId := "{project_id}"  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).  
        WithSk(sk).  
        WithProjectId(projectId).  
        Build()  
  
    client := gaussdb.NewGaussDBClient(  
        gaussdb.GaussDBClientBuilder().  
            WithRegion(region.ValueOf("<YOUR REGION>")).  
            WithCredential(auth).  
            Build())  
  
    request := &model.ResetGaussMySqlDatabasePasswordRequest{}  
    request.InstanceId = "{instance_id}"  
    var listUsersbody = []model.ResetDatabasePassword{  
        {  
            Name: "gaussdb_mysql_user1",  
            Host: "127.0.0.1",  
            Password: "****",  
        },  
    }  
    request.Body = &model.ResetDatabasePasswordRequest{  
        Users: listUsersbody,  
    }  
    response, err := client.ResetGaussMySqlDatabasePassword(request)  
    if err == nil {  
        fmt.Printf("%+v\n", response)  
    } else {  
        fmt.Println(err)  
    }  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 202 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。



## 4.10.6 授予数据库用户数据库权限

### 功能介绍

授予云数据库 TaurusDB实例数据库用户数据库权限。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/instances/{instance\_id}/db-users/privilege

表 4-813 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

### 请求参数

表 4-814 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

表 4-815 请求 Body 参数

| 参数    | 是否必选 | 参数类型                                                     | 描述                 |
|-------|------|----------------------------------------------------------|--------------------|
| users | 是    | Array of <a href="#">GrantDatabasePermission</a> objects | 数据库用户列表，列表最大长度为50。 |

表 4-816 GrantDatabasePermission

| 参数        | 是否必选 | 参数类型                                                | 描述                 |
|-----------|------|-----------------------------------------------------|--------------------|
| name      | 是    | String                                              | 数据库用户名。            |
| host      | 是    | String                                              | 主机地址。              |
| databases | 是    | Array of <a href="#">DatabasePermission</a> objects | 数据库权限列表，列表最大长度为50。 |

表 4-817 DatabasePermission

| 参数       | 是否必选 | 参数类型    | 描述                                                                                             |
|----------|------|---------|------------------------------------------------------------------------------------------------|
| name     | 是    | String  | 数据库名称。                                                                                         |
| readonly | 是    | Boolean | 是否为只读权限： <ul style="list-style-type: none"><li>• true: 表示只读。</li><li>• false: 表示可读写。</li></ul> |

## 响应参数

状态码： 201

表 4-818 响应 Body 参数

| 参数     | 参数类型   | 描述           |
|--------|--------|--------------|
| job_id | String | 授予用户权限的任务ID。 |

状态码： 400

表 4-819 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-820 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

- 授予数据库用户数据库读写权限。

POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/a23fb62bd61e4e9e9636fd2225f395bein07/db-users/privilege

```
{
  "users": [ {
    "name": "gaussdb_mysql_user1",
    "host": "127.0.0.1",
    "databases": [ {
      "name": "test",
      "readonly": false
    } ]
  } ]
}
```

- 授予数据库用户数据库只读权限。

POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/a23fb62bd61e4e9e9636fd2225f395bein07/db-users/privilege

```
{
  "users": [ {
    "name": "gaussdb_mysql_user1",
    "host": "127.0.0.1",
    "databases": [ {
      "name": "test",
      "readonly": true
    } ]
  } ]
}
```

## 响应示例

状态码： 201

Success.

```
{
  "job_id": "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

- 授予数据库用户数据库读写权限。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class AddDatabasePermissionSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        AddDatabasePermissionRequest request = new AddDatabasePermissionRequest();
        request.withInstanceId("{instance_id}");
        GrantDatabasePermissionRequestBody body = new GrantDatabasePermissionRequestBody();
        List<DatabasePermission> listUsersDatabases = new ArrayList<>();
        listUsersDatabases.add(
            new DatabasePermission()
                .withName("test")
                .withReadOnly(false)
        );
        List<GrantDatabasePermission> listbodyUsers = new ArrayList<>();
        listbodyUsers.add(
            new GrantDatabasePermission()
                .withName("gaussdb_mysql_user1")
                .withHost("127.0.0.1")
                .withDatabases(listUsersDatabases)
        );
        body.withUsers(listbodyUsers);
        request.withBody(body);
        try {
            AddDatabasePermissionResponse response = client.addDatabasePermission(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        }
    }
}
```

```
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
```

- 授予数据库用户数据库只读权限。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class AddDatabasePermissionSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        AddDatabasePermissionRequest request = new AddDatabasePermissionRequest();
        request.withInstanceId("{instance_id}");
        GrantDatabasePermissionRequestBody body = new GrantDatabasePermissionRequestBody();
        List<DatabasePermission> listUsersDatabases = new ArrayList<>();
        listUsersDatabases.add(
            new DatabasePermission()
                .withName("test")
                .withReadOnly(true)
        );
        List<GrantDatabasePermission> listbodyUsers = new ArrayList<>();
        listbodyUsers.add(
            new GrantDatabasePermission()
                .withName("gaussdb_mysql_user1")
                .withHost("127.0.0.1")
                .withDatabases(listUsersDatabases)
        );
        body.withUsers(listbodyUsers);
        request.withBody(body);
        try {
            AddDatabasePermissionResponse response = client.addDatabasePermission(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        }
    }
}
```

```
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

- 授予数据库用户数据库读写权限。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = AddDatabasePermissionRequest()
        request.instance_id = "{instance_id}"
        listDatabasesUsers = [
            DatabasePermission(
                name="test",
                readonly=False
            )
        ]
        listUsersbody = [
            GrantDatabasePermission(
                name="gaussdb_mysql_user1",
                host="127.0.0.1",
                databases=listDatabasesUsers
            )
        ]
        request.body = GrantDatabasePermissionRequestBody(
            users=listUsersbody
        )
        response = client.add_database_permission(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- 授予数据库用户数据库只读权限。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = AddDatabasePermissionRequest()
        request.instance_id = "{instance_id}"
        listDatabasesUsers = [
            DatabasePermission(
                name="test",
                readonly=True
            )
        ]
        listUsersbody = [
            GrantDatabasePermission(
                name="gaussdb_mysql_user1",
                host="127.0.0.1",
                databases=listDatabasesUsers
            )
        ]
        request.body = GrantDatabasePermissionRequestBody(
            users=listUsersbody
        )
        response = client.add_database_permission(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

- 授予数据库用户数据库读写权限。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
```

```
// The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
environment variables and decrypted during use to ensure security.
// In this example, AK and SK are stored in environment variables for authentication. Before
running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
environment
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")
projectId := "{project_id}"

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    WithProjectId(projectId).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.AddDatabasePermissionRequest{}
request.InstanceId = "{instance_id}"
var listDatabasesUsers = []model.DatabasePermission{
    {
        Name: "test",
        Readonly: false,
    },
}
var listUsersbody = []model.GrantDatabasePermission{
    {
        Name: "gaussdb_mysql_user1",
        Host: "127.0.0.1",
        Databases: listDatabasesUsers,
    },
}
request.Body = &model.GrantDatabasePermissionRequestBody{
    Users: listUsersbody,
}
response, err := client.AddDatabasePermission(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

- 授予数据库用户数据库只读权限。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/ gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/ gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/ gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"
```



```
auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    WithProjectId(projectId).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.AddDatabasePermissionRequest{
    request.InstanceId = "{instance_id}"
}
var listDatabasesUsers = []model.DatabasePermission{
    {
        Name: "test",
        Readonly: true,
    },
}
var listUsersbody = []model.GrantDatabasePermission{
    {
        Name: "gaussdb_mysql_user1",
        Host: "127.0.0.1",
        Databases: listDatabasesUsers,
    },
}
request.Body = &model.GrantDatabasePermissionRequestBody{
    Users: listUsersbody,
}
response, err := client.AddDatabasePermission(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 201 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.10.7 删除数据库用户的数据库权限

### 功能介绍

删除云数据库 TaurusDB实例数据库用户的数据库权限。

### 调用方法

请参见[如何调用API](#)。

### URI

DELETE /v3/{project\_id}/instances/{instance\_id}/db-users/privilege

表 4-821 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

### 请求参数

表 4-822 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

表 4-823 请求 Body 参数

| 参数    | 是否必选 | 参数类型                                                      | 描述                 |
|-------|------|-----------------------------------------------------------|--------------------|
| users | 是    | Array of <a href="#">DeleteDatabasePermission</a> objects | 数据库用户列表，列表最大长度为50。 |

表 4-824 DeleteDatabasePermission

| 参数        | 是否必选 | 参数类型             | 描述      |
|-----------|------|------------------|---------|
| name      | 是    | String           | 数据库用户名。 |
| host      | 是    | String           | 主机地址。   |
| databases | 是    | Array of strings | 数据库列表。  |

## 响应参数

状态码： 202

表 4-825 响应 Body 参数

| 参数     | 参数类型   | 描述                 |
|--------|--------|--------------------|
| job_id | String | 删除数据库用户的数据库权限任务ID。 |

状态码： 400

表 4-826 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-827 响应 Body 参数

| 参数         | 参数类型   | 描述   |
|------------|--------|------|
| error_code | String | 错误码。 |

| 参数        | 参数类型   | 描述    |
|-----------|--------|-------|
| error_msg | String | 错误消息。 |

## 请求示例

删除数据库用户"gaussdb\_mysql\_user1"的数据库权限。

```
DELETE https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/a23fb62bd61e4e9e9636fd2225f395bein07/db-users/privilege
```

```
{
  "users": [ {
    "name": "gaussdb_mysql_user1",
    "host": "127.0.0.1",
    "databases": [ "test" ]
  } ]
}
```

## 响应示例

状态码: 202

Success.

```
{
  "job_id": "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

删除数据库用户"gaussdb\_mysql\_user1"的数据库权限。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class DeleteDatabasePermissionSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
    }
}
```

```
String projectId = "{project_id}";

ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();

DeleteDatabasePermissionRequest request = new DeleteDatabasePermissionRequest();
request.withInstanceId("{instance_id}");
DeleteDatabasePermissionRequestBody body = new DeleteDatabasePermissionRequestBody();
List<String> listUsersDatabases = new ArrayList<>();
listUsersDatabases.add("test");
List<DeleteDatabasePermission> listbodyUsers = new ArrayList<>();
listbodyUsers.add(
    new DeleteDatabasePermission()
        .withName("gaussdb_mysql_user1")
        .withHost("127.0.0.1")
        .withDatabases(listUsersDatabases)
);
body.withUsers(listbodyUsers);
request.withBody(body);
try {
    DeleteDatabasePermissionResponse response = client.deleteDatabasePermission(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

删除数据库用户"gaussdb\_mysql\_user1"的数据库权限。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
```

```
.build()

try:
    request = DeleteDatabasePermissionRequest()
    request.instance_id = "{instance_id}"
    listDatabasesUsers = [
        "test"
    ]
    listUsersbody = [
        DeleteDatabasePermission(
            name="gaussdb_mysql_user1",
            host="127.0.0.1",
            databases=listDatabasesUsers
        )
    ]
    request.body = DeleteDatabasePermissionRequestBody(
        users=listUsersbody
    )
    response = client.delete_database_permission(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

删除数据库用户"gaussdb\_mysql\_user1"的数据库权限。

```
package main

import (
    "fmt"
    "github.com/ HuaweiCloud/ huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/ HuaweiCloud/ huaweicloud-sdk-go-v3/services/ gaussdb/v3"
    "github.com/ HuaweiCloud/ huaweicloud-sdk-go-v3/services/ gaussdb/v3/model"
    region "github.com/ huaweicloud/ huaweicloud-sdk-go-v3/services/ gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteDatabasePermissionRequest{}
    request.InstanceId = "{instance_id}"
    var listDatabasesUsers = []string{
        "test",
    }
    var listUsersbody = []model.DeleteDatabasePermission{
        {
```

```
Name: "gaussdb_mysql_user1",
Host: "127.0.0.1",
Databases: listDatabasesUsers,
},
}
request.Body = &model.DeleteDatabasePermissionRequestBody{
Users: listUsersbody,
}
response, err := client.DeleteDatabasePermission(request)
if err == nil {
fmt.Printf("%+v\n", response)
} else {
fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 202 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.11 数据库管理

### 4.11.1 查询数据库可用字符集

#### 功能介绍

查询云数据库 TaurusDB实例数据库可用字符集。

#### 调用方法

请参见[如何调用API](#)。

#### URI

GET /v3/{project\_id}/instances/{instance\_id}/databases/charsets

表 4-828 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 4-829 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

## 响应参数

状态码： 200

表 4-830 响应 Body 参数

| 参数       | 参数类型             | 描述       |
|----------|------------------|----------|
| charsets | Array of strings | 数据库字符集列表 |

状态码： 400

表 4-831 响应 Body 参数

| 参数         | 参数类型   | 描述   |
|------------|--------|------|
| error_code | String | 错误码。 |



| 参数        | 参数类型   | 描述    |
|-----------|--------|-------|
| error_msg | String | 错误消息。 |

状态码： 500

表 4-832 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

查询数据库可用字符集。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/a23fb62bd61e4e9e9636fd2225f395bein07/databases/charsets
```

## 响应示例

状态码： 200

Success.

```
{  
  "charsets": [ "utf8mb4", "gbk" ]  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ListGaussMySQLDatabaseCharsetsSolution {  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
```

```
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");
String projectId = "{project_id}";

ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
ListGaussMySqlDatabaseCharsetsRequest request = new ListGaussMySqlDatabaseCharsetsRequest();
request.withInstanceId("{instance_id}");
try {
    ListGaussMySqlDatabaseCharsetsResponse response =
client.listGaussMySqlDatabaseCharsets(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListGaussMySqlDatabaseCharsetsRequest()
        request.instance_id = "{instance_id}"
        response = client.list_gauss_my_sql_database_charsets(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
```

```
print(e.error_code)
print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListGaussMySQLDatabaseCharsetsRequest{}
    request.InstanceId = "{instance_id}"
    response, err := client.ListGaussMySQLDatabaseCharsets(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.11.2 创建数据库

### 功能介绍

创建云数据库TaurusDB实例数据库。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/instances/{instance\_id}/databases

表 4-833 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

### 请求参数

表 4-834 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

表 4-835 请求 Body 参数

| 参数        | 是否必选 | 参数类型                                                      | 描述                 |
|-----------|------|-----------------------------------------------------------|--------------------|
| databases | 是    | Array of <a href="#">CreateGaussMySQLDatabase</a> objects | 数据库信息列表,列表最大长度为50。 |

表 4-836 CreateGaussMySQLDatabase

| 参数            | 是否必选 | 参数类型                                                    | 描述                                                                                                                 |
|---------------|------|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| name          | 是    | String                                                  | 数据库名称,数据库名称长度可在1~64个字符之间,由字母、数字、下划线、中划线组成,中划线的累计总长度小于等于10个字符,且不能包含其他特殊字符。                                          |
| character_set | 是    | String                                                  | 数据库使用的字符集名称,如 utf8mb4、gbk。                                                                                         |
| comment       | 否    | String                                                  | 数据库备注,长度不能超过512个字符,不能包含回车和特殊字符!<"='>&。                                                                             |
| users         | 否    | Array of <a href="#">GaussMySQLDatabaseUser</a> objects | 数据库用户列表,即创建数据库时同步授权给列表中的用户,列表最大长度为50。列表可以为空,即创建数据库时不授予其权限到数据库用户,在需要给该数据库授权某数据库用户时,调用 <a href="#">数据库用户授权</a> 接口即可。 |

表 4-837 GaussMySQLDatabaseUser

| 参数       | 是否必选 | 参数类型    | 描述                                                                                             |
|----------|------|---------|------------------------------------------------------------------------------------------------|
| name     | 是    | String  | 数据库用户名。                                                                                        |
| host     | 是    | String  | 主机地址。                                                                                          |
| readonly | 是    | Boolean | 是否为只读权限: <ul style="list-style-type: none"><li>• true: 表示只读。</li><li>• false: 表示可读写。</li></ul> |

## 响应参数

状态码: 201

表 4-838 响应 Body 参数

| 参数     | 参数类型   | 描述          |
|--------|--------|-------------|
| job_id | String | 创建数据库的任务ID。 |

状态码： 400

表 4-839 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-840 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

创建数据库，字符集为utf8mb4，读写权限。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
a23fb62bd61e4e9e9636fd2225f395bein07/databases
```

```
{  
  "databases": [ {  
    "name": "test",  
    "character_set": "utf8mb4",  
    "comment": "database_comment",  
    "users": [ {  
      "name": "gaussdb_mysql_user1",  
      "host": "127.0.0.1",  
      "readonly": false  
    } ]  
  } ]  
}
```

## 响应示例

状态码： 201

Success.

```
{
  "job_id" : "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

创建数据库，字符集为utf8mb4，读写权限。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class CreateGaussMySQLDatabaseSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        CreateGaussMySQLDatabaseRequest request = new CreateGaussMySQLDatabaseRequest();
        request.withInstanceId("{instance_id}");
        CreateGaussMySQLDatabaseRequestBody body = new CreateGaussMySQLDatabaseRequestBody();
        List<GaussMySQLDatabaseUser> listDatabasesUsers = new ArrayList<>();
        listDatabasesUsers.add(
            new GaussMySQLDatabaseUser()
                .withName("gaussdb_mysql_user1")
                .withHost("127.0.0.1")
                .withReadOnly(false)
        );
        List<CreateGaussMySQLDatabase> listbodyDatabases = new ArrayList<>();
        listbodyDatabases.add(
            new CreateGaussMySQLDatabase()
                .withName("test")
                .withComment("database_comment")
                .withCharacterSet("utf8mb4")
                .withUsers(listDatabasesUsers)
        );
        body.withDatabases(listbodyDatabases);
        request.withBody(body);
```

```
try {
    CreateGaussMySqlDatabaseResponse response = client.createGaussMySqlDatabase(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

创建数据库，字符集为utf8mb4，读写权限。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateGaussMySqlDatabaseRequest()
        request.instance_id = "{instance_id}"
        listUsersDatabases = [
            GaussMySqlDatabaseUser(
                name="gaussdb_mysql_user1",
                host="127.0.0.1",
                readonly=False
            )
        ]
        listDatabasesbody = [
            CreateGaussMySqlDatabase(
                name="test",
                comment="database_comment",
                character_set="utf8mb4",
                users=listUsersDatabases
            )
        ]
        request.body = CreateGaussMySqlDatabaseRequestBody(
            databases=listDatabasesbody
        )
        response = client.create_gauss_my_sql_database(request)
        print(response)
```



```
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

创建数据库，字符集为utf8mb4，读写权限。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateGaussMySQLDatabaseRequest{}
    request.InstanceId = "{instance_id}"
    var listUsersDatabases = []model.GaussMySQLDatabaseUser{
        {
            Name: "gaussdb_mysql_user1",
            Host: "127.0.0.1",
            ReadOnly: false,
        },
    },
    commentDatabases := "database_comment"
    var listDatabasesbody = []model.CreateGaussMySQLDatabase{
        {
            Name: "test",
            Comment: &commentDatabases,
            CharacterSet: "utf8mb4",
            Users: &listUsersDatabases,
        },
    },
    request.Body = &model.CreateGaussMySQLDatabaseRequestBody{
        Databases: listDatabasesbody,
    }
    response, err := client.CreateGaussMySQLDatabase(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

```
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 201 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

### 4.11.3 查询数据库列表

#### 功能介绍

查询 TaurusDB实例数据库。

#### 调用方法

请参见[如何调用API](#)。

#### URI

GET /v3/{project\_id}/instances/{instance\_id}/databases

表 4-841 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                                                                                                                                     |
|-------------|------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id  | 是    | String | <b>参数解释:</b><br>租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。<br><b>约束限制:</b><br>不涉及。<br><b>取值范围:</b><br>只能由英文字母、数字组成,且长度为32个字符。<br><b>默认值:</b><br>不涉及。 |
| instance_id | 是    | String | <b>参数解释:</b><br>实例ID,此参数是实例的唯一标识。<br><b>约束限制:</b><br>不涉及。<br><b>取值范围:</b><br>只能由英文字母、数字组成,后缀为in07,长度为36个字符。<br><b>默认取值:</b><br>不涉及。                                    |

表 4-842 Query 参数

| 参数     | 是否必选 | 参数类型    | 描述                                                                                                                          |
|--------|------|---------|-----------------------------------------------------------------------------------------------------------------------------|
| offset | 否    | Integer | <b>参数解释:</b><br>索引位置,偏移量。从第一条数据偏移offset条数据后开始查询。<br><b>约束限制:</b><br>必须为整数,不能为负数。<br><b>取值范围:</b><br>≥0<br><b>默认取值:</b><br>0 |

| 参数      | 是否必选 | 参数类型    | 描述                                                                                                                                        |
|---------|------|---------|-------------------------------------------------------------------------------------------------------------------------------------------|
| limit   | 否    | Integer | <b>参数解释:</b><br>查询记录数。<br><b>约束限制:</b><br>必须为整数, 不能为负数。<br><b>取值范围:</b><br>1-100<br><b>默认取值:</b><br>100                                   |
| name    | 否    | String  | <b>参数解释:</b><br>数据库名称。<br><b>约束限制:</b><br>不涉及。<br><b>取值范围:</b><br>不涉及。<br><b>默认取值:</b><br>不涉及。                                            |
| charset | 否    | String  | <b>参数解释:</b><br>数据库使用的字符集。<br>获取方法参见 <a href="#">查询数据库可用字符集</a> 。<br><b>约束限制:</b><br>不涉及。<br><b>取值范围:</b><br>不涉及。<br><b>默认取值:</b><br>不涉及。 |

## 请求参数

表 4-843 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                                                                                                                                   |
|--------------|------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | <p><b>参数解释：</b><br/>用户Token。<br/>通过调用IAM服务<a href="#">获取用户Token</a>接口获取。<br/>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。</p> <p><b>约束限制：</b><br/>不涉及。</p> <p><b>取值范围：</b><br/>不涉及。</p> <p><b>默认值：</b><br/>不涉及。</p> |
| X-Language   | 否    | String | <p><b>参数解释：</b><br/>请求语言类型。</p> <p><b>约束限制：</b><br/>不涉及。</p> <p><b>取值范围：</b></p> <ul style="list-style-type: none"> <li>en-us</li> <li>zh-cn</li> </ul> <p><b>默认值：</b><br/>en-us。</p>                                |

## 响应参数

状态码： 200

表 4-844 响应 Body 参数

| 参数        | 参数类型                                                        | 描述                               |
|-----------|-------------------------------------------------------------|----------------------------------|
| databases | Array of <a href="#">ListGaussMySQLDatabaseInfo</a> objects | <p><b>参数解释：</b><br/>数据库信息列表。</p> |

| 参数          | 参数类型    | 描述                                           |
|-------------|---------|----------------------------------------------|
| total_count | Integer | <b>参数解释:</b><br>数据库总数。<br><b>取值范围:</b><br>≥0 |

表 4-845 ListGaussMysqlDatabaseInfo

| 参数      | 参数类型                                                    | 描述                                                |
|---------|---------------------------------------------------------|---------------------------------------------------|
| name    | String                                                  | <b>参数解释:</b><br>数据库名称。<br><b>取值范围:</b><br>不涉及     |
| charset | String                                                  | <b>参数解释:</b><br>数据库使用的字符集。<br><b>取值范围:</b><br>不涉及 |
| comment | String                                                  | <b>参数解释:</b><br>数据库备注。<br><b>取值范围:</b><br>不涉及。    |
| users   | Array of <a href="#">GaussMySqlDatabaseInfo</a> objects | <b>参数解释:</b> 已授权数据库用户列表。                          |

表 4-846 GaussMySqlDatabaseInfo

| 参数   | 参数类型   | 描述                                              |
|------|--------|-------------------------------------------------|
| name | String | <b>参数解释:</b><br>数据库用户名。<br><b>取值范围:</b><br>不涉及。 |
| host | String | <b>参数解释:</b><br>主机地址。<br><b>取值范围:</b><br>不涉及。   |

| 参数       | 参数类型    | 描述                                                                                                                             |
|----------|---------|--------------------------------------------------------------------------------------------------------------------------------|
| readonly | Boolean | <b>参数解释:</b><br>是否为只读权限。<br><b>取值范围:</b> <ul style="list-style-type: none"><li>• true: 表示只读。</li><li>• false: 表示可读写。</li></ul> |

状态码: 400

表 4-847 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码: 500

表 4-848 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

查询数据库列表。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
a23fb62bd61e4e9e9636fd2225f395bein07/databases?offset=0&limit=100&charset=utf8mb4&name=test
```

## 响应示例

状态码: 200

Success.

```
{  
  "databases": [{  
    "name": "test",  
    "charset": "utf8mb4",  
    "comment": "database_comment",  
    "users": [{  
      "name": "gaussdb_mysql_user1",  
      "host": "127.0.0.1",  
      "readonly": false  
    }]  
  }]  
}
```

```
    } ],  
    "total_count" : 1  
  }  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ListGaussMySQLDatabaseSolution {  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        ListGaussMySQLDatabaseRequest request = new ListGaussMySQLDatabaseRequest();  
        request.withInstanceId("{instance_id}");  
        try {  
            ListGaussMySQLDatabaseResponse response = client.listGaussMySQLDatabase(request);  
            System.out.println(response.toString());  
        } catch (ConnectionException e) {  
            e.printStackTrace();  
        } catch (RequestTimeoutException e) {  
            e.printStackTrace();  
        } catch (ServiceResponseException e) {  
            e.printStackTrace();  
            System.out.println(e.getStatusCode());  
            System.out.println(e.getRequestId());  
            System.out.println(e.getErrorCode());  
            System.out.println(e.getErrorMsg());  
        }  
    }  
}
```

### Python

```
# coding: utf-8  
  
import os
```



```
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListGaussMySQLDatabaseRequest()
        request.instance_id = "{instance_id}"
        response = client.list_gauss_my_sql_database(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListGaussMySQLDatabaseRequest{}
    request.InstanceId = "{instance_id}"
```

```
response, err := client.ListGaussMySqlDatabase(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.11.4 删除数据库

### 功能介绍

删除云数据库 TaurusDB实例数据库。

### 调用方法

请参见[如何调用API](#)。

## URI

DELETE /v3/{project\_id}/instances/{instance\_id}/databases

表 4-849 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 4-850 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

表 4-851 请求 Body 参数

| 参数        | 是否必选 | 参数类型             | 描述                    |
|-----------|------|------------------|-----------------------|
| databases | 是    | Array of strings | 准备删除的数据库列表，列表最大长度为50。 |

## 响应参数

状态码： 202

表 4-852 响应 Body 参数

| 参数     | 参数类型   | 描述          |
|--------|--------|-------------|
| job_id | String | 删除数据库的任务ID。 |

状态码： 400

表 4-853 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-854 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

删除数据库。

```
DELETE https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
a23fb62bd61e4e9e9636fd2225f395bein07/databases  
  
{  
  "databases": [ "test" ]  
}
```

## 响应示例

状态码： 202

Success.

```
{  
  "job_id": "dff1d289-4d03-4942-8b9f-463ea07c000d"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

删除数据库。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
import java.util.List;  
import java.util.ArrayList;  
  
public class DeleteGaussMySQLDatabaseSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running
```

```
this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");
String projectId = "{project_id}";

ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
DeleteGaussMySQLDatabaseRequest request = new DeleteGaussMySQLDatabaseRequest();
request.withInstanceId("{instance_id}");
DeleteGaussMySQLDatabaseRequestBody body = new DeleteGaussMySQLDatabaseRequestBody();
List<String> listbodyDatabases = new ArrayList<>();
listbodyDatabases.add("test");
body.withDatabases(listbodyDatabases);
request.withBody(body);
try {
    DeleteGaussMySQLDatabaseResponse response = client.deleteGaussMySQLDatabase(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

删除数据库。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteGaussMySQLDatabaseRequest()
```

```
request.instance_id = "{instance_id}"
listDatabasesbody = [
    "test"
]
request.body = DeleteGaussMySqlDatabaseRequestBody(
    databases=listDatabasesbody
)
response = client.delete_gauss_my_sql_database(request)
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

删除数据库。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteGaussMySqlDatabaseRequest{
        request.InstanceId = "{instance_id}"
        var listDatabasesbody = []string{
            "test",
        }
        request.Body = &model.DeleteGaussMySqlDatabaseRequestBody{
            Databases: listDatabasesbody,
        }
    }
    response, err := client.DeleteGaussMySqlDatabase(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 202 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

### 4.11.5 修改数据库备注

#### 功能介绍

修改云数据库TaurusDB实例数据库备注。

#### 调用方法

请参见[如何调用API](#)。

#### URI

PUT /v3/{project\_id}/instances/{instance\_id}/databases/comment

表 4-855 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 4-856 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

表 4-857 请求 Body 参数

| 参数        | 是否必选 | 参数类型                                                   | 描述                      |
|-----------|------|--------------------------------------------------------|-------------------------|
| databases | 是    | Array of <a href="#">UpdateDatabaseComment</a> objects | 准备修改备注的数据库列表，列表最大长度为50。 |

表 4-858 UpdateDatabaseComment

| 参数      | 是否必选 | 参数类型   | 描述                                     |
|---------|------|--------|----------------------------------------|
| name    | 是    | String | 数据库名称。                                 |
| comment | 是    | String | 数据库备注,长度不能超过512个字符，不能包含回车和特殊字符!<"='>&。 |

## 响应参数

状态码： 202

表 4-859 响应 Body 参数

| 参数     | 参数类型   | 描述            |
|--------|--------|---------------|
| job_id | String | 修改数据库备注的任务ID。 |



状态码： 400

表 4-860 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-861 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

修改数据库备注。

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
a23fb62bd61e4e9e9636fd2225f395bein07/databases/comment  
  
{  
  "databases": [{  
    "name": "gaussdb_mysql_user1",  
    "comment": "first_database"  
  }]  
}
```

## 响应示例

状态码： 202

Success.

```
{  
  "job_id": "dff1d289-4d03-4942-8b9f-463ea07c000d"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

修改数据库备注。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;
```

```
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class UpdateGaussMySQLDatabaseCommentSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();

        UpdateGaussMySQLDatabaseCommentRequest request = new
        UpdateGaussMySQLDatabaseCommentRequest();
        request.withInstanceId("{instance_id}");
        UpdateDatabaseCommentRequest body = new UpdateDatabaseCommentRequest();
        List<UpdateDatabaseComment> listbodyDatabases = new ArrayList<>();
        listbodyDatabases.add(
            new UpdateDatabaseComment()
                .withName("gaussdb_mysql_user1")
                .withComment("first_database")
        );
        body.withDatabases(listbodyDatabases);
        request.withBody(body);
        try {
            UpdateGaussMySQLDatabaseCommentResponse response =
            client.updateGaussMySQLDatabaseComment(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

修改数据库备注。

```
# coding: utf-8

import os
```

```
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateGaussMySQLDatabaseCommentRequest()
        request.instance_id = "{instance_id}"
        listDatabasesbody = [
            UpdateDatabaseComment(
                name="gaussdb_mysql_user1",
                comment="first_database"
            )
        ]
        request.body = UpdateDatabaseCommentRequest(
            databases=listDatabasesbody
        )
        response = client.update_gauss_my_sql_database_comment(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

修改数据库备注。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
```

```
WithProjectId(projectId).
Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.UpdateGaussMySQLDatabaseCommentRequest{}
request.InstanceId = "{instance_id}"
var listDatabasesbody = []model.UpdateDatabaseComment{
    {
        Name: "gaussdb_mysql_user1",
        Comment: "first_database",
    },
}
request.Body = &model.UpdateDatabaseCommentRequest{
    Databases: listDatabasesbody,
}
response, err := client.UpdateGaussMySQLDatabaseComment(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 202 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.12 SQL 限流

### 4.12.1 查询 SQL 限流开关状态

#### 功能介绍

查询SQL限流开关状态。

## 调用方法

请参见[如何调用API](#)。

## URI

GET /v3/{project\_id}/instances/{instance\_id}/sql-filter/switch

表 4-862 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 4-863 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

## 响应参数

状态码： 200

表 4-864 响应 Body 参数

| 参数            | 参数类型   | 描述                                                                                           |
|---------------|--------|----------------------------------------------------------------------------------------------|
| switch_status | String | SQL限流开关状态。<br>取值： <ul style="list-style-type: none"><li>ON: 已开启。</li><li>OFF: 已关闭。</li></ul> |

状态码: 400

表 4-865 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码: 500

表 4-866 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

查询SQL限流开关状态。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
af315b8e6aaa41799bd9a31f2de15abcin07/sql-filter/switch
```

## 响应示例

状态码: 200

Success.

```
{  
  "switch_status": "ON"  
}
```

## SDK 代码示例

SDK代码示例如下。

## Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowSqlFilterControlSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ShowSqlFilterControlRequest request = new ShowSqlFilterControlRequest();
        request.withInstanceId("{instance_id}");
        try {
            ShowSqlFilterControlResponse response = client.showSqlFilterControl(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
```

```
example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
ak = os.environ["CLOUD_SDK_AK"]
sk = os.environ["CLOUD_SDK_SK"]
projectId = "{project_id}"

credentials = BasicCredentials(ak, sk, projectId)

client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = ShowSqlFilterControlRequest()
    request.instance_id = "{instance_id}"
    response = client.show_sql_filter_control(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowSqlFilterControlRequest{}
    request.InstanceId = "{instance_id}"
    response, err := client.ShowSqlFilterControl(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```



## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.12.2 开启或者关闭 SQL 限流

### 功能介绍

开启或者关闭SQL限流。

### 调用方法

请参见[如何调用API](#)。

## URI

POST /v3/{project\_id}/instances/{instance\_id}/sql-filter/switch

表 4-867 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

**表 4-868** 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

**表 4-869** 请求 Body 参数

| 参数            | 是否必选 | 参数类型   | 描述                                                                                           |
|---------------|------|--------|----------------------------------------------------------------------------------------------|
| switch_status | 是    | String | SQL限流开关状态。<br>取值： <ul style="list-style-type: none"><li>ON：表示开启。</li><li>OFF：表示关闭。</li></ul> |

## 响应参数

状态码： 200

**表 4-870** 响应 Body 参数

| 参数     | 参数类型   | 描述              |
|--------|--------|-----------------|
| job_id | String | 开启/关闭SQL限流任务ID。 |

状态码： 400

**表 4-871** 响应 Body 参数

| 参数         | 参数类型   | 描述   |
|------------|--------|------|
| error_code | String | 错误码。 |

| 参数        | 参数类型   | 描述    |
|-----------|--------|-------|
| error_msg | String | 错误消息。 |

状态码： 500

表 4-872 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

- 开启SQL限流。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/af315b8e6aaa41799bd9a31f2de15abcin07/sql-filter/switch
```

```
{  
  "switch_status": "ON"  
}
```

- 关闭SQL限流。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/af315b8e6aaa41799bd9a31f2de15abcin07/sql-filter/switch
```

```
{  
  "switch_status": "OFF"  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "job_id": "aef6a470-fb63-4d5b-b644-12ead7e019b3"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

- 开启SQL限流。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
```

```
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateSqlFilterControlSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        UpdateSqlFilterControlRequest request = new UpdateSqlFilterControlRequest();
        request.withInstanceId("{instance_id}");
        OperateSqlFilterControlReq body = new OperateSqlFilterControlReq();
        body.withSwitchStatus("ON");
        request.withBody(body);
        try {
            UpdateSqlFilterControlResponse response = client.updateSqlFilterControl(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- 关闭SQL限流。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateSqlFilterControlSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
```

```
environment
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");
String projectId = "{project_id}";

ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
UpdateSqlFilterControlRequest request = new UpdateSqlFilterControlRequest();
request.withInstanceId("{instance_id}");
OperateSqlFilterControlReq body = new OperateSqlFilterControlReq();
body.withSwitchStatus("OFF");
request.withBody(body);
try {
    UpdateSqlFilterControlResponse response = client.updateSqlFilterControl(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

- 开启SQL限流。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateSqlFilterControlRequest()
        request.instance_id = "{instance_id}"
        request.body = OperateSqlFilterControlReq(
```

```
        switch_status="ON"
    )
    response = client.update_sql_filter_control(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

- 关闭SQL限流。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateSqlFilterControlRequest()
        request.instance_id = "{instance_id}"
        request.body = OperateSqlFilterControlReq(
            switch_status="OFF"
        )
        response = client.update_sql_filter_control(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

- 开启SQL限流。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
```

```
// In this example, AK and SK are stored in environment variables for authentication. Before
running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
environment
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")
projectId := "{project_id}"

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    WithProjectId(projectId).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.UpdateSqlFilterControlRequest{
    request.InstanceId = "{instance_id}"
    request.Body = &model.OperateSqlFilterControlReq{
        SwitchStatus: "ON",
    }
}
response, err := client.UpdateSqlFilterControl(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

- 关闭SQL限流。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateSqlFilterControlRequest{
        request.InstanceId = "{instance_id}"
        request.Body = &model.OperateSqlFilterControlReq{
            SwitchStatus: "OFF",
        }
    }
```

```
}  
response, err := client.UpdateSqlFilterControl(request)  
if err == nil {  
    fmt.Printf("%+v\n", response)  
} else {  
    fmt.Println(err)  
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.12.3 设置 SQL 限流规则

### 功能介绍

设置SQL限流规则。

### 调用方法

请参见[如何调用API](#)。

### URI

PUT /v3/{project\_id}/instances/{instance\_id}/sql-filter/rules

表 4-873 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |



## 请求参数

表 4-874 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"> <li>en-us</li> <li>zh-cn</li> </ul>        |

表 4-875 请求 Body 参数

| 参数               | 是否必选 | 参数类型                                                   | 描述            |
|------------------|------|--------------------------------------------------------|---------------|
| sql_filter_rules | 是    | Array of <a href="#">NodeSqlFilterRuleInfo</a> objects | 节点级别的SQL限流规则。 |

表 4-876 NodeSqlFilterRuleInfo

| 参数      | 是否必选 | 参数类型                                               | 描述                        |
|---------|------|----------------------------------------------------|---------------------------|
| node_id | 是    | String                                             | 节点ID。                     |
| rules   | 是    | Array of <a href="#">NodeSqlFilterRule</a> objects | SQL限流规则。集合的sql_type值不能重复。 |

表 4-877 NodeSqlFilterRule

| 参数       | 是否必选 | 参数类型                                                      | 描述                                                                                                           |
|----------|------|-----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| sql_type | 是    | String                                                    | Sql限流类型。<br>取值范围： <ul style="list-style-type: none"><li>• SELECT</li><li>• UPDATE</li><li>• DELETE</li></ul> |
| patterns | 是    | Array of <a href="#">NodeSqlFilterRulePattern</a> objects | SQL限流具体规则。                                                                                                   |

表 4-878 NodeSqlFilterRulePattern

| 参数              | 是否必选 | 参数类型    | 描述                                                                                              |
|-----------------|------|---------|-------------------------------------------------------------------------------------------------|
| pattern         | 是    | String  | SQL限流规则，由一个或多个关键字（最多为128个关键字）组成，关键字之间通过"~"分隔符分开，如select~from~t1。规则中不能包含‘\’、中英文逗号、‘~~’，不能以‘~’结尾。 |
| max_concurrency | 是    | Integer | 最大并发数。取值范围：非负整数。                                                                                |

## 响应参数

状态码： 200

表 4-879 响应 Body 参数

| 参数     | 参数类型   | 描述             |
|--------|--------|----------------|
| job_id | String | 设置SQL限流规则任务ID。 |

状态码： 400

表 4-880 响应 Body 参数

| 参数         | 参数类型   | 描述   |
|------------|--------|------|
| error_code | String | 错误码。 |

| 参数        | 参数类型   | 描述    |
|-----------|--------|-------|
| error_msg | String | 错误消息。 |

状态码： 500

表 4-881 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

设置SQL限流规则，限流类型为SELECT、UPDATE、DELETE。

PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/af315b8e6aaa41799bd9a31f2de15abcin07/sql-filter/rules

```
{
  "sql_filter_rules": [ {
    "node_id": "c01a5645eb2c4fb6a9373542f5366e50no07",
    "rules": [ {
      "sql_type": "SELECT",
      "patterns": [ {
        "pattern": "select~from~t1",
        "max_concurrency": 0
      }, {
        "pattern": "select~from~t3~where~id",
        "max_concurrency": 10
      }
    ]
  }, {
    "sql_type": "UPDATE",
    "patterns": [ {
      "pattern": "update~t3~where~id",
      "max_concurrency": 10
    }
  ]
}, {
  "node_id": "b234a5645eb2c4ji3b9372342f5362397no07",
  "rules": [ {
    "sql_type": "SELECT",
    "patterns": [ {
      "pattern": "select~from~t3~where~id",
      "max_concurrency": 10
    }
  ]
}, {
  "sql_type": "DELETE",
  "patterns": [ {
    "pattern": "delete~t3~where~id",
    "max_concurrency": 10
  }
]
}
]
```

## 响应示例

状态码： 200

Success.

```
{
  "job_id" : "aef6a470-fb63-4d5b-b644-12ead7e019b3"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

设置SQL限流规则，限流类型为SELECT、UPDATE、DELETE。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class SetSqlFilterRuleSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        SetSqlFilterRuleRequest request = new SetSqlFilterRuleRequest();
        request.withInstanceId("{instance_id}");
        OperateSqlFilterRuleReq body = new OperateSqlFilterRuleReq();
        List<NodeSqlFilterRulePattern> listRulesPatterns = new ArrayList<>();
        listRulesPatterns.add(
            new NodeSqlFilterRulePattern()
                .withPattern("delete~t3~where~id")
                .withMaxConcurrency(10)
        );
        List<NodeSqlFilterRulePattern> listRulesPatterns1 = new ArrayList<>();
        listRulesPatterns1.add(
            new NodeSqlFilterRulePattern()
                .withPattern("select~from~t3~where~id")
                .withMaxConcurrency(10)
        );
    }
}
```

```
);
List<NodeSqlFilterRule> listSqlFilterRulesRules = new ArrayList<>();
listSqlFilterRulesRules.add(
    new NodeSqlFilterRule()
        .withSqlType("SELECT")
        .withPatterns(listRulesPatterns1)
);
listSqlFilterRulesRules.add(
    new NodeSqlFilterRule()
        .withSqlType("DELETE")
        .withPatterns(listRulesPatterns)
);
List<NodeSqlFilterRulePattern> listRulesPatterns2 = new ArrayList<>();
listRulesPatterns2.add(
    new NodeSqlFilterRulePattern()
        .withPattern("update~t3~where~id")
        .withMaxConcurrency(10)
);
List<NodeSqlFilterRulePattern> listRulesPatterns3 = new ArrayList<>();
listRulesPatterns3.add(
    new NodeSqlFilterRulePattern()
        .withPattern("select~from~t1")
        .withMaxConcurrency(0)
);
listRulesPatterns3.add(
    new NodeSqlFilterRulePattern()
        .withPattern("select~from~t3~where~id")
        .withMaxConcurrency(10)
);
List<NodeSqlFilterRule> listSqlFilterRulesRules1 = new ArrayList<>();
listSqlFilterRulesRules1.add(
    new NodeSqlFilterRule()
        .withSqlType("SELECT")
        .withPatterns(listRulesPatterns3)
);
listSqlFilterRulesRules1.add(
    new NodeSqlFilterRule()
        .withSqlType("UPDATE")
        .withPatterns(listRulesPatterns2)
);
List<NodeSqlFilterRuleInfo> listbodySqlFilterRules = new ArrayList<>();
listbodySqlFilterRules.add(
    new NodeSqlFilterRuleInfo()
        .withNodeId("c01a5645eb2c4fb6a9373542f5366e50no07")
        .withRules(listSqlFilterRulesRules1)
);
listbodySqlFilterRules.add(
    new NodeSqlFilterRuleInfo()
        .withNodeId("b234a5645eb2c4jj3b9372342f5362397no07")
        .withRules(listSqlFilterRulesRules)
);
body.withSqlFilterRules(listbodySqlFilterRules);
request.withBody(body);
try {
    SetSqlFilterRuleResponse response = client.setSqlFilterRule(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

设置SQL限流规则，限流类型为SELECT、UPDATE、DELETE。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = SetSqlFilterRuleRequest()
        request.instance_id = "{instance_id}"
        listPatternsRules = [
            NodeSqlFilterRulePattern(
                pattern="delete~t3~where~id",
                max_concurrency=10
            )
        ]
        listPatternsRules1 = [
            NodeSqlFilterRulePattern(
                pattern="select~from~t3~where~id",
                max_concurrency=10
            )
        ]
        listRulesSqlFilterRules = [
            NodeSqlFilterRule(
                sql_type="SELECT",
                patterns=listPatternsRules1
            ),
            NodeSqlFilterRule(
                sql_type="DELETE",
                patterns=listPatternsRules
            )
        ]
        listPatternsRules2 = [
            NodeSqlFilterRulePattern(
                pattern="update~t3~where~id",
                max_concurrency=10
            )
        ]
        listPatternsRules3 = [
            NodeSqlFilterRulePattern(
                pattern="select~from~t1",
                max_concurrency=0
            ),
            NodeSqlFilterRulePattern(
                pattern="select~from~t3~where~id",
                max_concurrency=10
            )
        ]
```

```
]
listRulesSqlFilterRules1 = [
    NodeSqlFilterRule(
        sql_type="SELECT",
        patterns=listPatternsRules3
    ),
    NodeSqlFilterRule(
        sql_type="UPDATE",
        patterns=listPatternsRules2
    )
]
listSqlFilterRulesbody = [
    NodeSqlFilterRuleInfo(
        node_id="c01a5645eb2c4fb6a9373542f5366e50no07",
        rules=listRulesSqlFilterRules1
    ),
    NodeSqlFilterRuleInfo(
        node_id="b234a5645eb2c4ji3b9372342f5362397no07",
        rules=listRulesSqlFilterRules
    )
]
request.body = OperateSqlFilterRuleReq(
    sql_filter_rules=listSqlFilterRulesbody
)
response = client.set_sql_filter_rule(request)
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

设置SQL限流规则，限流类型为SELECT、UPDATE、DELETE。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.SetSqlFilterRuleRequest{
```

```
request.InstanceId = "{instance_id}"
var listPatternsRules = []model.NodeSqlFilterRulePattern{
    {
        Pattern: "delete~t3~where~id",
        MaxConcurrency: int32(10),
    },
}
var listPatternsRules1 = []model.NodeSqlFilterRulePattern{
    {
        Pattern: "select~from~t3~where~id",
        MaxConcurrency: int32(10),
    },
}
var listRulesSqlFilterRules = []model.NodeSqlFilterRule{
    {
        SqlType: "SELECT",
        Patterns: listPatternsRules1,
    },
    {
        SqlType: "DELETE",
        Patterns: listPatternsRules,
    },
}
var listPatternsRules2 = []model.NodeSqlFilterRulePattern{
    {
        Pattern: "update~t3~where~id",
        MaxConcurrency: int32(10),
    },
}
var listPatternsRules3 = []model.NodeSqlFilterRulePattern{
    {
        Pattern: "select~from~t1",
        MaxConcurrency: int32(0),
    },
    {
        Pattern: "select~from~t3~where~id",
        MaxConcurrency: int32(10),
    },
}
var listRulesSqlFilterRules1 = []model.NodeSqlFilterRule{
    {
        SqlType: "SELECT",
        Patterns: listPatternsRules3,
    },
    {
        SqlType: "UPDATE",
        Patterns: listPatternsRules2,
    },
}
var listSqlFilterRulesbody = []model.NodeSqlFilterRuleInfo{
    {
        NodeId: "c01a5645eb2c4fb6a9373542f5366e50no07",
        Rules: listRulesSqlFilterRules1,
    },
    {
        NodeId: "b234a5645eb2c4ji3b9372342f5362397no07",
        Rules: listRulesSqlFilterRules,
    },
}
request.Body = &model.OperateSqlFilterRuleReq{
    SqlFilterRules: listSqlFilterRulesbody,
}
response, err := client.SetSqlFilterRule(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```



## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.12.4 查询 SQL 限流规则

### 功能介绍

查询SQL限流规则。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/instances/{instance\_id}/sql-filter/rules

表 4-882 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

表 4-883 Query 参数

| 参数      | 是否必选 | 参数类型   | 描述    |
|---------|------|--------|-------|
| node_id | 是    | String | 节点ID。 |

| 参数       | 是否必选 | 参数类型   | 描述                                                        |
|----------|------|--------|-----------------------------------------------------------|
| sql_type | 否    | String | SQL限流类型，取值为SELECT、UPDATE、DELETE，不区分大小写；若不传则默认查询所有类型的限流规则。 |

## 请求参数

表 4-884 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

## 响应参数

状态码： 200

表 4-885 响应 Body 参数

| 参数               | 参数类型                                           | 描述       |
|------------------|------------------------------------------------|----------|
| node_id          | String                                         | 节点ID。    |
| sql_filter_rules | Array of <a href="#">SqlFilterRule</a> objects | SQL限流规则。 |

表 4-886 SqlFilterRule

| 参数       | 参数类型                                                  | 描述                                                                                                           |
|----------|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| sql_type | String                                                | SQL限流类型。<br>取值范围： <ul style="list-style-type: none"><li>• SELECT</li><li>• UPDATE</li><li>• DELETE</li></ul> |
| patterns | Array of <a href="#">SqlFilterRulePattern</a> objects | SQL限流具体规则。                                                                                                   |

表 4-887 SqlFilterRulePattern

| 参数              | 参数类型    | 描述       |
|-----------------|---------|----------|
| pattern         | String  | SQL限流规则。 |
| max_concurrency | Integer | 最大并发数。   |

状态码：400

表 4-888 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码：500

表 4-889 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

查询SQL限流规则。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
af315b8e6aaa41799bd9a31f2de15abcin07/sql-filter/rules?  
node_id=c01a5645eb2c4fb6a9373542f5366e50no07
```

## 响应示例

状态码： 200

Success.

```
{  
  "node_id": "c01a5645eb2c4fb6a9373542f5366e50no07",  
  "sql_filter_rules": [ {  
    "sql_type": "SELECT",  
    "patterns": [ {  
      "pattern": "select~from~t1",  
      "max_concurrency": 0  
    }, {  
      "pattern": "select~from~t2~where~id",  
      "max_concurrency": 10  
    } ]  
  }, {  
    "sql_type": "UDPATE",  
    "patterns": [ {  
      "pattern": "update~t1",  
      "max_concurrency": 0  
    }, {  
      "pattern": "update~t2~where~id",  
      "max_concurrency": 10  
    } ]  
  }, {  
    "sql_type": "DELETE",  
    "patterns": [ {  
      "pattern": "delete~from",  
      "max_concurrency": 0  
    } ]  
  } ]  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ShowSqlFilterRuleSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
    }  
}
```

```
String projectId = "{project_id}";

ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
ShowSqlFilterRuleRequest request = new ShowSqlFilterRuleRequest();
request.withInstanceId("{instance_id}");
try {
    ShowSqlFilterRuleResponse response = client.showSqlFilterRule(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowSqlFilterRuleRequest()
        request.instance_id = "{instance_id}"
        response = client.show_sql_filter_rule(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowSqlFilterRuleRequest{}
    request.InstanceId = "{instance_id}"
    response, err := client.ShowSqlFilterRule(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.12.5 删除 SQL 限流规则

### 功能介绍

删除SQL限流规则。

### 调用方法

请参见[如何调用API](#)。

### URI

DELETE /v3/{project\_id}/instances/{instance\_id}/sql-filter/rules

表 4-890 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

### 请求参数

表 4-891 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

表 4-892 请求 Body 参数

| 参数               | 是否必选 | 参数类型                                                         | 描述            |
|------------------|------|--------------------------------------------------------------|---------------|
| sql_filter_rules | 是    | Array of <a href="#">DeleteNodeSqlFilterRuleInfo</a> objects | 节点级别的SQL限流规则。 |

表 4-893 DeleteNodeSqlFilterRuleInfo

| 参数      | 是否必选 | 参数类型                                                     | 描述       |
|---------|------|----------------------------------------------------------|----------|
| node_id | 是    | String                                                   | 节点ID     |
| rules   | 是    | Array of <a href="#">DeleteNodeSqlFilterRule</a> objects | SQL限流规则。 |

表 4-894 DeleteNodeSqlFilterRule

| 参数       | 是否必选 | 参数类型             | 描述                                                                                                               |
|----------|------|------------------|------------------------------------------------------------------------------------------------------------------|
| sql_type | 是    | String           | Sql限流类型。<br>取值范围： <ul style="list-style-type: none"> <li>• SELECT</li> <li>• UPDATE</li> <li>• DELETE</li> </ul> |
| patterns | 是    | Array of strings | SQL限流具体规则。                                                                                                       |

## 响应参数

状态码： 200

表 4-895 响应 Body 参数

| 参数     | 参数类型   | 描述             |
|--------|--------|----------------|
| job_id | String | 删除SQL限流规则任务ID。 |

状态码： 400



表 4-896 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-897 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

删除SQL限流规则，限流类型为SELECT、UPDATE、DELETE。

```
DELETE https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
af315b8e6aaa41799bd9a31f2de15abcin07/sql-filter/rules
```

```
{  
  "sql_filter_rules": [ {  
    "node_id": "c01a5645eb2c4fb6a9373542f5366e50no07",  
    "rules": [ {  
      "sql_type": "SELECT",  
      "patterns": [ "select-from~t1", "select-from~t2" ]  
    }, {  
      "sql_type": "UPDATE",  
      "patterns": [ "udpate~t3~where~id" ]  
    } ]  
  }, {  
    "node_id": "b234a5645eb2c4ji3b9372342f5362397no07",  
    "rules": [ {  
      "sql_type": "SELECT",  
      "patterns": [ "select-from~t1", "select-from~t2" ]  
    }, {  
      "sql_type": "DELETE",  
      "patterns": [ "delete~t3~where~id" ]  
    } ]  
  } ]  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "job_id": "aef6a470-fb63-4d5b-b644-12ead7e019b3"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

删除SQL限流规则，限流类型为SELECT、UPDATE、DELETE。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class DeleteSqlFilterRuleSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        DeleteSqlFilterRuleRequest request = new DeleteSqlFilterRuleRequest();
        request.withInstanceId("{instance_id}");
        DeleteSqlFilterRuleReq body = new DeleteSqlFilterRuleReq();
        List<String> listRulesPatterns = new ArrayList<>();
        listRulesPatterns.add("delete~t3~where~id");
        List<String> listRulesPatterns1 = new ArrayList<>();
        listRulesPatterns1.add("select~from~t1");
        listRulesPatterns1.add("select~from~t2");
        List<DeleteNodeSqlFilterRule> listSqlFilterRules = new ArrayList<>();
        listSqlFilterRules.add(
            new DeleteNodeSqlFilterRule()
                .withSqlType("SELECT")
                .withPatterns(listRulesPatterns1)
        );
        listSqlFilterRules.add(
            new DeleteNodeSqlFilterRule()
                .withSqlType("DELETE")
                .withPatterns(listRulesPatterns)
        );
        List<String> listRulesPatterns2 = new ArrayList<>();
        listRulesPatterns2.add("update~t3~where~id");
        List<String> listRulesPatterns3 = new ArrayList<>();
        listRulesPatterns3.add("select~from~t1");
        listRulesPatterns3.add("select~from~t2");
        List<DeleteNodeSqlFilterRule> listSqlFilterRules1 = new ArrayList<>();
```

```
listSqlFilterRulesRules1.add(
    new DeleteNodeSqlFilterRule()
        .withSqlType("SELECT")
        .withPatterns(listRulesPatterns3)
);
listSqlFilterRulesRules1.add(
    new DeleteNodeSqlFilterRule()
        .withSqlType("UPDATE")
        .withPatterns(listRulesPatterns2)
);
List<DeleteNodeSqlFilterRuleInfo> listbodySqlFilterRules = new ArrayList<>();
listbodySqlFilterRules.add(
    new DeleteNodeSqlFilterRuleInfo()
        .withNodeId("c01a5645eb2c4fb6a9373542f5366e50no07")
        .withRules(listSqlFilterRulesRules1)
);
listbodySqlFilterRules.add(
    new DeleteNodeSqlFilterRuleInfo()
        .withNodeId("b234a5645eb2c4ji3b9372342f5362397no07")
        .withRules(listSqlFilterRulesRules)
);
body.withSqlFilterRules(listbodySqlFilterRules);
request.withBody(body);
try {
    DeleteSqlFilterRuleResponse response = client.deleteSqlFilterRule(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

删除SQL限流规则，限流类型为SELECT、UPDATE、DELETE。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()
```

```
try:
    request = DeleteSqlFilterRuleRequest()
    request.instance_id = "{instance_id}"
    listPatternsRules = [
        "delete~t3~where~id"
    ]
    listPatternsRules1 = [
        "select~from~t1",
        "select~from~t2"
    ]
    listRulesSqlFilterRules = [
        DeleteNodeSqlFilterRule(
            sql_type="SELECT",
            patterns=listPatternsRules1
        ),
        DeleteNodeSqlFilterRule(
            sql_type="DELETE",
            patterns=listPatternsRules
        )
    ]
    listPatternsRules2 = [
        "update~t3~where~id"
    ]
    listPatternsRules3 = [
        "select~from~t1",
        "select~from~t2"
    ]
    listRulesSqlFilterRules1 = [
        DeleteNodeSqlFilterRule(
            sql_type="SELECT",
            patterns=listPatternsRules3
        ),
        DeleteNodeSqlFilterRule(
            sql_type="UPDATE",
            patterns=listPatternsRules2
        )
    ]
    listSqlFilterRulesbody = [
        DeleteNodeSqlFilterRuleInfo(
            node_id="c01a5645eb2c4fb6a9373542f5366e50no07",
            rules=listRulesSqlFilterRules1
        ),
        DeleteNodeSqlFilterRuleInfo(
            node_id="b234a5645eb2c4jj3b9372342f5362397no07",
            rules=listRulesSqlFilterRules
        )
    ]
    request.body = DeleteSqlFilterRuleReq(
        sql_filter_rules=listSqlFilterRulesbody
    )
    response = client.delete_sql_filter_rule(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

删除SQL限流规则，限流类型为SELECT、UPDATE、DELETE。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
)
```

```
region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteSqlFilterRuleRequest{}
    request.InstanceId = "{instance_id}"
    var listPatternsRules = []string{
        "delete~t3~where~id",
    }
    var listPatternsRules1 = []string{
        "select~from~t1",
        "select~from~t2",
    }
    var listRulesSqlFilterRules = []model.DeleteNodeSqlFilterRule{
        {
            SqlType: "SELECT",
            Patterns: listPatternsRules1,
        },
        {
            SqlType: "DELETE",
            Patterns: listPatternsRules,
        },
    }
    var listPatternsRules2 = []string{
        "update~t3~where~id",
    }
    var listPatternsRules3 = []string{
        "select~from~t1",
        "select~from~t2",
    }
    var listRulesSqlFilterRules1 = []model.DeleteNodeSqlFilterRule{
        {
            SqlType: "SELECT",
            Patterns: listPatternsRules3,
        },
        {
            SqlType: "UPDATE",
            Patterns: listPatternsRules2,
        },
    }
    var listSqlFilterRulesbody = []model.DeleteNodeSqlFilterRuleInfo{
        {
            NodeId: "c01a5645eb2c4fb6a9373542f5366e50no07",
            Rules: listRulesSqlFilterRules1,
        },
        {
            NodeId: "b234a5645eb2c4ji3b9372342f5362397no07",
            Rules: listRulesSqlFilterRules,
        },
    }
}
```

```
    },  
  }  
  request.Body = &model.DeleteSqlFilterRuleReq{  
    SqlFilterRules: listSqlFilterRulesbody,  
  }  
  response, err := client.DeleteSqlFilterRule(request)  
  if err == nil {  
    fmt.Printf("%+v\n", response)  
  } else {  
    fmt.Println(err)  
  }  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

# 4.13 任务中心

## 4.13.1 获取指定 ID 的任务信息

### 功能介绍

获取TaurusDB任务中心指定ID的任务信息。

### 接口约束

- 该接口只可查询任务中心一个月内的异步任务。
- job生成后，通常需要数秒之后才能查询到job ID。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/jobs

表 4-898 路径参数

| 参数         | 是否必选 | 参数类型   | 描述                                                                                                                                                                     |
|------------|------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | 是    | String | <b>参数解释:</b><br>租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。<br><b>约束限制:</b><br>不涉及。<br><b>取值范围:</b><br>只能由英文字母、数字组成，且长度为32个字符。<br><b>默认值:</b><br>不涉及。 |

表 4-899 Query 参数

| 参数 | 是否必选 | 参数类型   | 描述                                                                                                                                                           |
|----|------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| id | 是    | String | <b>参数解释:</b><br>任务ID。<br>获取方法参见 <a href="#">获取即时任务列表</a> 和 <a href="#">获取定时任务列表</a> 。<br><b>约束限制:</b><br>不涉及。<br><b>取值范围:</b><br>不涉及。<br><b>默认值:</b><br>不涉及。 |

## 请求参数

表 4-900 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                                                                                                            |
|--------------|------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | <b>参数解释：</b><br>用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。<br><b>约束限制：</b><br>不涉及。<br><b>取值范围：</b><br>不涉及。<br><b>默认值：</b><br>不涉及。 |
| X-Language   | 否    | String | <b>参数解释：</b><br>请求语言类型。<br><b>约束限制：</b><br>不涉及。<br><b>取值范围：</b> <ul style="list-style-type: none"><li>• en-us</li><li>• zh-cn</li></ul> <b>默认值：</b><br>en-us。                                 |

## 响应参数

状态码： 200

表 4-901 响应 Body 参数

| 参数  | 参数类型                                       | 描述    |
|-----|--------------------------------------------|-------|
| job | <a href="#">GetJobInfoDetail</a><br>object | 任务信息。 |



表 4-902 GetJobInfoDetail

| 参数       | 参数类型                                            | 描述                                                                                                                                                                                                      |
|----------|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| id       | String                                          | <b>参数解释:</b><br>任务ID。<br><b>取值范围:</b><br>与入参保持一致。                                                                                                                                                       |
| name     | String                                          | <b>参数解释:</b><br>任务名称。<br><b>取值范围:</b><br>不涉及。                                                                                                                                                           |
| status   | String                                          | <b>参数解释:</b><br>任务执行状态。<br><b>取值范围:</b> <ul style="list-style-type: none"><li>• Pending: 表示延时任务, 未执行。</li><li>• Running: 表示任务正在执行。</li><li>• Completed: 表示任务执行成功。</li><li>• Failed: 表示任务执行失败。</li></ul> |
| created  | String                                          | <b>参数解释:</b><br>创建时间, 格式为"yyyy-mm-ddThh:mm:ssZ"。<br>其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。<br><b>取值范围:</b><br>不涉及。                                                                                   |
| ended    | String                                          | <b>参数解释:</b><br>结束时间, 格式为"yyyy-mm-ddThh:mm:ssZ"。<br>其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。<br><b>取值范围:</b><br>不涉及。                                                                                   |
| process  | String                                          | <b>参数解释:</b><br>任务执行进度。<br><b>取值范围:</b><br>执行中状态才返回执行进度, 例如60%, 否则返回""。                                                                                                                                 |
| instance | <a href="#">GetJobInstanceInfoDetail</a> object | <b>参数解释:</b><br>指定ID任务的实例信息。                                                                                                                                                                            |

| 参数          | 参数类型   | 描述                                                    |
|-------------|--------|-------------------------------------------------------|
| entities    | Object | <b>参数解释:</b><br>根据不同的任务, 显示不同的内容。                     |
| fail_reason | String | <b>参数解释:</b><br>任务执行失败时的错误信息。<br><b>取值范围:</b><br>不涉及。 |

表 4-903 GetJobInstanceInfoDetail

| 参数   | 参数类型   | 描述                                                                                                                                          |
|------|--------|---------------------------------------------------------------------------------------------------------------------------------------------|
| id   | String | <b>参数解释:</b><br>实例ID, 此参数是实例的唯一标识。<br><b>取值范围:</b><br>只能由英文字母、数字组成, 后缀为in07, 长度为36个字符。                                                      |
| name | String | <b>参数解释:</b><br>实例名称。<br><b>取值范围:</b><br>最小为4个字符, 最大为64个字符且不超过64个字节(注意: 一个中文字符占用3个字节), 必须以字母或中文开头, 区分大小写, 可以包含字母、数字、中划线、下划线或中文, 不能包含其他特殊字符。 |

状态码: 400

表 4-904 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码: 500

表 4-905 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

获取指定ID的任务信息。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/jobs?id=f9959f52-aa4d-43f7-be74-44b6fc20b239
```

## 响应示例

状态码: 200

Success.

```
{
  "job" : {
    "id" : "f9959f52-aa4d-43f7-be74-44b6fc20b239",
    "name" : "CreateGaussDBforMySQLInstance",
    "status" : "Completed",
    "created" : "2018-08-06T10:41:14+0800",
    "ended" : "2018-08-06T16:41:14+0000",
    "process" : "",
    "instance" : {
      "id" : "a48e43ff268f4c0e879652d65e63d0fbin07",
      "name" : "DO-NOT-TOUCH-mgr2-mysql-single"
    },
    "entities" : {
      "instance" : {
        "endpoint" : "192.168.1.203:3306",
        "type" : "Cluster",
        "datastore" : {
          "type" : "gaussdb-mysql",
          "version" : "8.0"
        }
      },
      "resource_ids" : [ "a48e43ff268f4c0e879652d65e63d0fbin07.vm",
"a48e43ff268f4c0e879652d65e63d0fbin07.volume" ]
    }
  }
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
```

```
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowGaussMySqlJobInfoSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ShowGaussMySqlJobInfoRequest request = new ShowGaussMySqlJobInfoRequest();
        try {
            ShowGaussMySqlJobInfoResponse response = client.showGaussMySqlJobInfo(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()
```

```
try:
    request = ShowGaussMySqlJobInfoRequest()
    response = client.show_gauss_my_sql_job_info(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowGaussMySqlJobInfoRequest{}
    response, err := client.ShowGaussMySqlJobInfo(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述       |
|-----|----------|
| 200 | Success. |

| 状态码 | 描述            |
|-----|---------------|
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.13.2 获取即时任务列表

### 功能介绍

获取即时任务列表。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/immediate-jobs

表 4-906 路径参数

| 参数         | 是否必选 | 参数类型   | 描述                                                           |
|------------|------|--------|--------------------------------------------------------------|
| project_id | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |

表 4-907 Query 参数

| 参数     | 是否必选 | 参数类型   | 描述                                                                                                                                                             |
|--------|------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| status | 否    | String | 任务执行状态。<br>取值： <ul style="list-style-type: none"><li>Running：表示任务正在执行。</li><li>Completed：表示任务执行成功。</li><li>Failed：表示任务执行失败。</li><li>Pending：表示任务未执行。</li></ul> |

| 参数       | 是否必选 | 参数类型   | 描述                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------|------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| job_name | 否    | String | 任务名称。取值有： <ul style="list-style-type: none"><li>"CreateGaussDBforMySQLInstance"表示创建实例。</li><li>"RestoreGaussDBforMySQLNewInstance"表示恢复新实例。</li><li>"AddGaussDBforMySQLNodes"表示添加节点。</li><li>"DeleteGaussDBforMySQLNode"表示删除节点。</li><li>"RebootGaussDBforMySQLInstance"表示重启实例。</li><li>"ModifyGaussDBforMySQLPort"表示修改实例端口。</li><li>"ModifyGaussDBforMySQLSecurityGroup"表示修改实例安全组。</li><li>"ResizeGaussDBforMySQLFlavor"表示实例规格变更。</li><li>"SwitchoverGaussDBforMySQLMasterNode"表示只读升主。</li><li>"GaussDBforMySQLBindEIP"表示绑定弹性公网IP地址。</li><li>"GaussDBforMySQLUnbindEIP"表示解绑弹性公网IP地址。</li><li>"RenameGaussDBforMySQLInstance"表示修改实例名称。</li><li>"DeleteGaussDBforMySQLInstance"表示删除实例集群。</li><li>"UpgradeGaussDBforMySQLDatabaseVersion"表示版本升级。</li><li>"EnlargeGaussDBforMySQLProxy"表示实例的数据库代理节点扩容。</li><li>"OpenGaussDBforMySQLProxy"表示开启实例的数据库代理。</li></ul> |

| 参数         | 是否必选 | 参数类型   | 描述                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|------------|------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|            |      |        | <ul style="list-style-type: none"> <li>"CloseGaussDBforMySQLProxy"表示关闭实例的数据库代理。</li> <li>"GaussdbforMySQLModifyProxyIp"表示修改数据库代理ip。</li> <li>"ScaleGaussDBforMySQLProxy"表示实例的数据库代理节点规格变更。</li> <li>"GaussDBforMySQLModifyInstanceMetricExtend"表示实例秒级监控。</li> <li>"GaussDBforMySQLModifyInstanceDataVip"表示修改实例数据Vip。</li> <li>"GaussDBforMySQLSwitchSSL"表示切换实例SSL开关。</li> <li>"GaussDBforMySQLModifyProxyConsist"表示修改代理一致性。</li> <li>"GaussDBforMySQLModifyProxyWeight"表示修改代理权重。</li> </ul> |
| job_id     | 否    | String | 任务ID。                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| offset     | 否    | String | 索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为1，必须为数字，不能为负数。                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| limit      | 否    | String | 查询记录数。默认为10，取值为10、20、50。                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| start_time | 否    | String | 起始时间，格式为"yyyy-mm-ddThh:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。                                                                                                                                                                                                                                                                                                                                                                                                                      |
| end_time   | 否    | String | 结束时间，格式为"yyyy-mm-ddThh:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。                                                                                                                                                                                                                                                                                                                                                                                                                      |



## 请求参数

表 4-908 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

## 响应参数

状态码： 200

表 4-909 响应 Body 参数

| 参数          | 参数类型                                            | 描述    |
|-------------|-------------------------------------------------|-------|
| jobs        | Array of <a href="#">TaskDetailInfo</a> objects | 任务详情。 |
| total_count | Integer                                         | 任务总数。 |

表 4-910 TaskDetailInfo

| 参数              | 参数类型   | 描述                                                                                                                                                                                     |
|-----------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| instance_id     | String | 实例ID，严格匹配UUID规则。                                                                                                                                                                       |
| instance_name   | String | 实例名称。                                                                                                                                                                                  |
| instance_status | String | 实例状态。<br>取值范围： <ul style="list-style-type: none"><li>createfail：表示实例创建失败。</li><li>creating：表示实例创建中。</li><li>normal：表示实例正常。</li><li>abnormal：表示实例异常。</li><li>deleted：表示实例已删除。</li></ul> |

| 参数       | 参数类型   | 描述    |
|----------|--------|-------|
| job_id   | String | 任务ID。 |
| order_id | String | 订单ID。 |

| 参数       | 参数类型   | 描述                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| job_name | String | <p>任务名称。</p> <p>取值范围有：</p> <ul style="list-style-type: none"><li>• CreateGaussDBforMySQLInstance：表示创建实例。</li><li>• RestoreGaussDBforMySQLNewInstance：表示恢复新实例。</li><li>• AddGaussDBforMySQLNodes：表示添加节点。</li><li>• DeleteGaussDBforMySQLNode：表示删除节点。</li><li>• RebootGaussDBforMySQLInstance：表示重启实例。</li><li>• ModifyGaussDBforMySQLPort：表示修改实例端口。</li><li>• ModifyGaussDBforMySQLSecurityGroup：表示修改实例安全组。</li><li>• ResizeGaussDBforMySQLFlavor：表示实例规格变更。</li><li>• SwitchoverGaussDBforMySQLMasterNode：表示只读升主。</li><li>• GaussDBforMySQLBindEIP：表示绑定弹性公网IP地址。</li><li>• GaussDBforMySQLUnbindEIP：表示解绑弹性公网IP地址。</li><li>• RenameGaussDBforMySQLInstance：表示修改实例名称。</li><li>• DeleteGaussDBforMySQLInstance：表示删除实例集群。</li><li>• UpgradeGaussDBforMySQLDatabaseVersion：表示版本升级。</li><li>• EnlargeGaussDBforMySQLProxy：表示实例的数据库代理节点扩容。</li><li>• OpenGaussDBforMySQLProxy：表示开启实例的数据库代理。</li><li>• CloseGaussDBforMySQLProxy：表示关闭实例的数据库代理。</li><li>• GaussdbforMySQLModifyProxyIp：表示修改数据库读写分离地址。</li><li>• ScaleGaussDBforMySQLProxy：表示实例的数据库代理节点规格变更。</li><li>• GaussDBforMySQLModifyInstanceMetricExtend：表示实例秒级监控。</li></ul> |

| 参数           | 参数类型   | 描述                                                                                                                                                                                                                                                           |
|--------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              |        | <ul style="list-style-type: none"><li>GaussDBforMySQLModifyInstanceDataVip: 表示修改实例数据浮动IP。</li><li>GaussDBforMySQLSwitchSSL: 表示切换实例SSL开关。</li><li>GaussDBforMySQLModifyProxyConsist: 表示修改代理一致性。</li><li>GaussDBforMySQLModifyProxyWeight: 表示修改代理权重。</li></ul> |
| status       | String | 任务执行状态。<br>取值范围: <ul style="list-style-type: none"><li>Pending: 表示延时任务, 未执行。</li><li>Running: 表示任务正在执行。</li><li>Completed: 表示任务执行成功。</li><li>Failed: 表示任务执行失败。</li></ul>                                                                                     |
| process      | String | 任务进度。                                                                                                                                                                                                                                                        |
| created_time | String | 任务创建时间。格式为"yyyy-mm-ddThh:mm:ssZ"。其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。                                                                                                                                                                                   |
| ended_time   | String | 任务结束时间。格式为"yyyy-mm-ddThh:mm:ssZ"。其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。                                                                                                                                                                                   |
| fail_reason  | String | 任务失败原因。                                                                                                                                                                                                                                                      |

状态码: 400

表 4-911 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码: 500

表 4-912 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

获取即时任务列表。

```
GET https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/immediate-jobs
```

## 响应示例

状态码： 200

Success.

```
{
  "jobs": [ {
    "instance_id": "ede953923f06448d9be8686ef0c1378ein07",
    "instance_name": "gauss-1234",
    "instance_status": "deleted",
    "job_id": "7155730b-a60b-4dc0-9f89-3f55897f29d6",
    "order_id": "",
    "job_name": "CloseGaussDBforMySQLProxy",
    "status": "Completed",
    "process": "",
    "created_time": "2018-08-06T10:41:14+0000",
    "ended_time": "2018-08-06T12:41:14+0000",
    "fail_reason": null
  }, {
    "instance_id": "ede953923f06448d9be8686ef0c1378ein07",
    "instance_name": "gauss-1234",
    "instance_status": "deleted",
    "job_id": "335ab2a4-a038-4fa9-a62c-49dd84015011",
    "order_id": "",
    "job_name": "ResizeGaussDBforMySQLFlavor",
    "status": "Failed",
    "process": "",
    "created_time": "2018-08-06T11:25:23+0000",
    "ended_time": "2018-08-06T11:31:12+0000",
    "fail_reason": "Single task exception."
  } ],
  "total_count": 2
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
```

```
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListImmediateJobsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ListImmediateJobsRequest request = new ListImmediateJobsRequest();
        try {
            ListImmediateJobsResponse response = client.listImmediateJobs(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
```

```
.build()

try:
    request = ListImmediateJobsRequest()
    response = client.list_immediate_jobs(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListImmediateJobsRequest{}
    response, err := client.ListImmediateJobs(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述       |
|-----|----------|
| 200 | Success. |

| 状态码 | 描述            |
|-----|---------------|
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

### 4.13.3 获取定时任务列表

#### 功能介绍

获取定时任务列表。

#### 调用方法

请参见[如何调用API](#)。

#### URI

GET /v3/{project\_id}/scheduled-jobs

表 4-913 路径参数

| 参数         | 是否必选 | 参数类型   | 描述                                                           |
|------------|------|--------|--------------------------------------------------------------|
| project_id | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |

表 4-914 Query 参数

| 参数     | 是否必选 | 参数类型   | 描述                                                |
|--------|------|--------|---------------------------------------------------|
| offset | 否    | String | 索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为1，必须为数字，不能为负数。 |
| limit  | 否    | String | 查询记录数。默认为10                                       |



| 参数         | 是否必选 | 参数类型   | 描述                                                                                                                                                             |
|------------|------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| status     | 否    | String | 任务执行状态。<br>取值： <ul style="list-style-type: none"><li>Running：表示任务正在执行。</li><li>Completed：表示任务执行成功。</li><li>Failed：表示任务执行失败。</li><li>Pending：表示任务未执行。</li></ul> |
| start_time | 否    | String | 起始时间，格式为"yyyy-mm-ddThh:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。                                                                                          |
| end_time   | 否    | String | 结束时间，格式为"yyyy-mm-ddThh:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。                                                                                          |
| job_id     | 否    | String | 任务ID。                                                                                                                                                          |
| job_name   | 否    | String | 任务调度类型。                                                                                                                                                        |

## 请求参数

表 4-915 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

## 响应参数

状态码： 200

表 4-916 响应 Body 参数

| 参数          | 参数类型                                          | 描述    |
|-------------|-----------------------------------------------|-------|
| schedules   | Array of <a href="#">ScheduleTask</a> objects | 任务详情  |
| total_count | Integer                                       | 记录总数。 |

表 4-917 ScheduleTask

| 参数              | 参数类型   | 描述                                                                                                                                                                                                    |
|-----------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| job_id          | String | 任务ID。                                                                                                                                                                                                 |
| instance_id     | String | 实例ID, 严格匹配UUID规则。                                                                                                                                                                                     |
| instance_name   | String | 实例名称。                                                                                                                                                                                                 |
| instance_status | String | 实例状态。<br>取值范围: <ul style="list-style-type: none"><li>• createfail: 表示实例创建失败。</li><li>• creating: 表示实例创建中。</li><li>• normal: 表示实例正常。</li><li>• abnormal: 表示实例异常。</li><li>• deleted: 表示实例已删除。</li></ul> |
| project_id      | String | 租户在某一Region下的project ID。                                                                                                                                                                              |

| 参数       | 参数类型   | 描述                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| job_name | String | <p>任务名称。</p> <p>取值范围有：</p> <ul style="list-style-type: none"><li>• CreateGaussDBforMySQLInstance：表示创建实例。</li><li>• RestoreGaussDBforMySQLNewInstance：表示恢复新实例。</li><li>• AddGaussDBforMySQLNodes：表示添加节点。</li><li>• DeleteGaussDBforMySQLNode：表示删除节点。</li><li>• RebootGaussDBforMySQLInstance：表示重启实例。</li><li>• ModifyGaussDBforMySQLPort：表示修改实例端口。</li><li>• ModifyGaussDBforMySQLSecurityGroup：表示修改实例安全组。</li><li>• ResizeGaussDBforMySQLFlavor：表示实例规格变更。</li><li>• SwitchoverGaussDBforMySQLMasterNode：表示只读升主。</li><li>• GaussDBforMySQLBindEIP：表示绑定弹性公网IP地址。</li><li>• GaussDBforMySQLUnbindEIP：表示解绑弹性公网IP地址。</li><li>• RenameGaussDBforMySQLInstance：表示修改实例名称。</li><li>• DeleteGaussDBforMySQLInstance：表示删除实例集群。</li><li>• UpgradeGaussDBforMySQLDatabaseVersion：表示版本升级。</li><li>• EnlargeGaussDBforMySQLProxy：表示实例的数据库代理节点扩容。</li><li>• OpenGaussDBforMySQLProxy：表示开启实例的数据库代理。</li><li>• CloseGaussDBforMySQLProxy：表示关闭实例的数据库代理。</li><li>• GaussdbforMySQLModifyProxyIp：表示修改数据库读写分离地址。</li><li>• ScaleGaussDBforMySQLProxy：表示实例的数据库代理节点规格变更。</li><li>• GaussDBforMySQLModifyInstanceMetricExtend：表示实例秒级监控。</li></ul> |

| 参数             | 参数类型   | 描述                                                                                                                                                                                                                                                           |
|----------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                |        | <ul style="list-style-type: none"><li>GaussDBforMySQLModifyInstanceDataVip: 表示修改实例数据浮动IP。</li><li>GaussDBforMySQLSwitchSSL: 表示切换实例SSL开关。</li><li>GaussDBforMySQLModifyProxyConsist: 表示修改代理一致性。</li><li>GaussDBforMySQLModifyProxyWeight: 表示修改代理权重。</li></ul> |
| create_time    | String | 任务创建时间, 格式为"yyyy-mm-ddThh:mm:ssZ"。其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。                                                                                                                                                                                  |
| start_time     | String | 任务开始时间, 格式为"yyyy-mm-ddThh:mm:ssZ"。其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。                                                                                                                                                                                  |
| end_time       | String | 任务结束时间, 格式为"yyyy-mm-ddThh:mm:ssZ"。其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。                                                                                                                                                                                  |
| job_status     | String | 任务执行状态。<br>取值范围: <ul style="list-style-type: none"><li>Pending: 表示延时任务, 未执行。</li><li>Running: 表示任务正在执行。</li><li>Completed: 表示任务执行成功。</li><li>Failed: 表示任务执行失败。</li></ul>                                                                                     |
| datastore_type | String | 数据库类型。                                                                                                                                                                                                                                                       |
| target_config  | Object | 实例配置相关信息, 比如规格等。                                                                                                                                                                                                                                             |

状态码: 400

表 4-918 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码: 500

表 4-919 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

获取定时任务列表。

```
GET https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/scheduled-jobs?offset=1&limit=10
```

## 响应示例

状态码： 200

Success.

```
{
  "schedules": [ {
    "job_id": "56d3c1138dcf4f1da73b0170700c78d0",
    "instance_id": "79bc540dd4d6432784894a981dfacfcin07",
    "instance_name": "gauss-f821",
    "instance_status": "BUILD",
    "project_id": "053f533ead80d5102f0cc012e8d468a4",
    "job_name": "VERSION_UPGRADE",
    "create_time": "2018-08-06T10:41:14+0000",
    "start_time": "2018-08-06T10:41:14+0000",
    "end_time": "2018-08-06T10:41:14+0000",
    "job_status": "Completed",
    "datastore_type": "gaussdb-mysql",
    "target_config": {
      "flavor": "gaussdb.mysql.xlarge.arm.4",
      "mem": "16",
      "cpu": "4"
    }
  }
],
  "total_count": 1
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListScheduleJobsSolution {
```

```
public static void main(String[] args) {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running
    // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    String ak = System.getenv("CLOUD_SDK_AK");
    String sk = System.getenv("CLOUD_SDK_SK");
    String projectId = "{project_id}";

    ICredential auth = new BasicCredentials()
        .withProjectId(projectId)
        .withAk(ak)
        .withSk(sk);

    GaussDBClient client = GaussDBClient.newBuilder()
        .withCredential(auth)
        .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
        .build();
    ListScheduleJobsRequest request = new ListScheduleJobsRequest();
    try {
        ListScheduleJobsResponse response = client.listScheduleJobs(request);
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListScheduleJobsRequest()
        response = client.list_schedule_jobs(request)
        print(response)
    except exceptions.ClientRequestException as e:
```

```
print(e.status_code)
print(e.request_id)
print(e.error_code)
print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListScheduleJobsRequest{}
    response, err := client.ListScheduleJobs(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.13.4 取消定时任务

### 功能介绍

取消定时任务。

### 调用方法

请参见[如何调用API](#)。

### URI

DELETE /v3/{project\_id}/scheduled-jobs

表 4-920 路径参数

| 参数         | 是否必选 | 参数类型   | 描述                                                           |
|------------|------|--------|--------------------------------------------------------------|
| project_id | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |

### 请求参数

表 4-921 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |



表 4-922 请求 Body 参数

| 参数      | 是否必选 | 参数类型             | 描述    |
|---------|------|------------------|-------|
| job_ids | 是    | Array of strings | 任务ID。 |

## 响应参数

状态码： 200

表 4-923 响应 Body 参数

| 参数      | 参数类型             | 描述                    |
|---------|------------------|-----------------------|
| job_ids | Array of strings | 任务ID，表示成功取消定时调度任务的ID。 |

状态码： 400

表 4-924 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-925 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

取消定时任务。

```
DELETE https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/scheduled-jobs
{
  "job_ids": [ "56d3c1138dcf4f1da73b0170700c78d0" ]
}
```

## 响应示例

状态码： 200

Success.

```
{
  "job_ids" : [ "56d3c1138dcf4f1da73b0170700c78d0" ]
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

取消定时任务。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class CancelScheduleTaskSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        CancelScheduleTaskRequest request = new CancelScheduleTaskRequest();
        CancelScheduleTask body = new CancelScheduleTask();
        List<String> listbodyJobIds = new ArrayList<>();
        listbodyJobIds.add("56d3c1138dcf4f1da73b0170700c78d0");
        body.withJobIds(listbodyJobIds);
        request.withBody(body);
        try {
            CancelScheduleTaskResponse response = client.cancelScheduleTask(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
        }
    }
}
```

```
e.printStackTrace();
System.out.println(e.getStatusCode());
System.out.println(e.getRequestId());
System.out.println(e.getErrorCode());
System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

取消定时任务。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CancelScheduleTaskRequest()
        listJobIdsbody = [
            "56d3c1138dcf4f1da73b0170700c78d0"
        ]
        request.body = CancelScheduleTask(
            job_ids=listJobIdsbody
        )
        response = client.cancel_schedule_task(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

取消定时任务。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)
```

```
func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CancelScheduleTaskRequest{}
    var listJobIdsbody = []string{
        "56d3c1138dcf4f1da73b0170700c78d0",
    }
    request.Body = &model.CancelScheduleTask{
        JobIds: listJobIdsbody,
    }
    response, err := client.CancelScheduleTask(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

### 4.13.5 删除指定任务记录

#### 功能介绍

删除指定任务记录。

## 调用方法

请参见[如何调用API](#)。

## URI

DELETE /v3/{project\_id}/jobs/{job\_id}

表 4-926 路径参数

| 参数         | 是否必选 | 参数类型   | 描述                                                           |
|------------|------|--------|--------------------------------------------------------------|
| project_id | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| job_id     | 是    | String | 任务ID，通过 <a href="#">获取即时任务列表</a> 获取job_id。                   |

## 请求参数

表 4-927 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

## 响应参数

状态码： 400

表 4-928 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-929 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

删除指定任务记录。

```
DELETE https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/jobs/6b00c41d-  
d54f-4bcb-80da-566ccedc2b5d
```

## 响应示例

状态码： 200

Success.

```
{ }
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class DeleteTaskRecordSolution {  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()
```

```
        .withCredential(auth)
        .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
        .build();
DeleteTaskRecordRequest request = new DeleteTaskRecordRequest();
request.withJobId("{job_id}");
try {
    DeleteTaskRecordResponse response = client.deleteTaskRecord(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteTaskRecordRequest()
        request.job_id = "{job_id}"
        response = client.delete_task_record(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
)
```

```
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteTaskRecordRequest{}
    request.JobId = "{job_id}"
    response, err := client.DeleteTaskRecord(request)
    if err == nil {
        fmt.Printf("%v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.13.6 删除定时任务

### 功能介绍

删除定时任务。



## 调用方法

请参见[如何调用API](#)。

## URI

DELETE /v3/{project\_id}/instance/{instance\_id}/scheduled-jobs

表 4-930 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 4-931 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

表 4-932 请求 Body 参数

| 参数     | 是否必选 | 参数类型   | 描述    |
|--------|------|--------|-------|
| job_id | 是    | String | 任务ID。 |

## 响应参数

状态码： 200

表 4-933 响应 Body 参数

| 参数     | 参数类型    | 描述  |
|--------|---------|-----|
| result | Boolean | 结果。 |

状态码： 400

表 4-934 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-935 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

删除调度任务。

```
DELETE https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instance/  
34cbc6c13e074761a0f893e9f30e6edfin07/scheduled-jobs  
  
{  
  "job_id": "54c219a29a5f477ba69e36d0116d05d7"  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "result": true  
}
```

## SDK 代码示例

SDK代码示例如下。

## Java

删除调度任务。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class DeleteScheduleTaskSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        DeleteScheduleTaskRequest request = new DeleteScheduleTaskRequest();
        request.withInstanceId("{instance_id}");
        DeleteScheduleTaskRequestBody body = new DeleteScheduleTaskRequestBody();
        body.withJobId("54c219a29a5f477ba69e36d0116d05d7");
        request.withBody(body);
        try {
            DeleteScheduleTaskResponse response = client.deleteScheduleTask(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

删除调度任务。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
```

```
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteScheduleTaskRequest()
        request.instance_id = "{instance_id}"
        request.body = DeleteScheduleTaskRequestBody(
            job_id="54c219a29a5f477ba69e36d0116d05d7"
        )
        response = client.delete_schedule_tas_k(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

删除调度任务。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())
```

```
request := &model.DeleteScheduleTaskRequest{}
request.InstanceId = "{instance_id}"
request.Body = &model.DeleteScheduleTaskRequestBody{
    JobId: "54c219a29a5f477ba69e36d0116d05d7",
}
response, err := client.DeleteScheduleTask(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.14 智能诊断

### 4.14.1 获取各指标的异常实例数

#### 功能介绍

获取各指标的异常实例数。

#### 调用方法

请参见[如何调用API](#)。

#### URI

GET /v3/{project\_id}/instances/diagnosis-instance-count

表 4-936 路径参数

| 参数         | 是否必选 | 参数类型   | 描述                                                           |
|------------|------|--------|--------------------------------------------------------------|
| project_id | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |

## 请求参数

表 4-937 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

## 响应参数

状态码： 200

表 4-938 响应 Body 参数

| 参数             | 参数类型                                           | 描述      |
|----------------|------------------------------------------------|---------|
| diagnosis_info | Array of <a href="#">DiagnosisInfo</a> objects | 诊断信息列表。 |

表 4-939 DiagnosisInfo

| 参数          | 参数类型    | 描述    |
|-------------|---------|-------|
| metric_name | String  | 指标名称。 |
| count       | Integer | 实例数量。 |

状态码： 400

表 4-940 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-941 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

通过project\_id获取各指标的异常实例数。

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/diagnosis-instance-count
```

## 响应示例

状态码： 200

Success.

```
{
  "diagnosis_info": [ {
    "metric_name": "high_pressure",
    "count": 8
  }, {
    "metric_name": "insufficient_capacity",
    "count": 0
  }, {
    "metric_name": "slow_sql_frequency",
    "count": 0
  }, {
    "metric_name": "mem_overrun",
    "count": 0
  }, {
    "metric_name": "connections_exceed",
    "count": 0
  }
]
```

## SDK 代码示例

SDK代码示例如下。

## Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowIntelligentDiagnosisAbnormalCountOfInstancesSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();

        ShowIntelligentDiagnosisAbnormalCountOfInstancesRequest request = new
        ShowIntelligentDiagnosisAbnormalCountOfInstancesRequest();
        try {
            ShowIntelligentDiagnosisAbnormalCountOfInstancesResponse response =
            client.showIntelligentDiagnosisAbnormalCountOfInstances(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
```



```
# In this example, AK and SK are stored in environment variables for authentication. Before running this
example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
ak = os.environ["CLOUD_SDK_AK"]
sk = os.environ["CLOUD_SDK_SK"]
projectId = "{project_id}"

credentials = BasicCredentials(ak, sk, projectId)

client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = ShowIntelligentDiagnosisAbnormalCountOfInstancesRequest()
    response = client.show_intelligent_diagnosis_abnormal_count_of_instances(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowIntelligentDiagnosisAbnormalCountOfInstancesRequest{}
    response, err := client.ShowIntelligentDiagnosisAbnormalCountOfInstances(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.14.2 获取某个指标的异常实例信息

### 功能介绍

获取某个指标的异常实例信息。

### 调用方法

请参见[如何调用API](#)。

## URI

GET /v3/{project\_id}/instances/diagnosis-instance-infos

表 4-942 路径参数

| 参数         | 是否必选 | 参数类型   | 描述                                                           |
|------------|------|--------|--------------------------------------------------------------|
| project_id | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |

表 4-943 Query 参数

| 参数          | 是否必选 | 参数类型   | 描述   |
|-------------|------|--------|------|
| metric_name | 是    | String | 指标名。 |

| 参数     | 是否必选 | 参数类型    | 描述                                                                     |
|--------|------|---------|------------------------------------------------------------------------|
| offset | 是    | Integer | 索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。 |
| limit  | 是    | Integer | 查询记录数。默认为100，不能为负数，最小值为1，最大值为100。                                      |

## 请求参数

表 4-944 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

## 响应参数

状态码： 200

表 4-945 响应 Body 参数

| 参数             | 参数类型                                                      | 描述           |
|----------------|-----------------------------------------------------------|--------------|
| total_count    | Integer                                                   | 当前指标的异常实例总数。 |
| instance_infos | Array of <a href="#">InstanceInfoForDiagnosis</a> objects | 异常实例信息。      |

表 4-946 InstanceInfoForDiagnosis

| 参数             | 参数类型   | 描述     |
|----------------|--------|--------|
| instance_id    | String | 实例ID。  |
| master_node_id | String | 主节点ID。 |

状态码： 400

表 4-947 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-948 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

通过project\_id以及指标名分页获取各指标的异常实例信息。

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/diagnosis-instance-infos?metric_name=high_pressure&offset=0&limit=10
```

## 响应示例

状态码： 200

Success.

```
{
  "total_count": 6,
  "instance_infos": [ {
    "instance_id": "6206d5be05914703938ff9dfe5c07d34in07",
    "master_node_id": "7fe925aa8bab4cc9bac3990a94386c29no07"
  }, {
    "instance_id": "cbdb32e08f0440158c4f2998dbf69b14in07",
    "master_node_id": "3e90e7b99b964dca9704b3af903fcb41no07"
  }, {
    "instance_id": "325af119c2ca4e77b1deb4810a9b921bin07",
    "master_node_id": "f4dfb362039a45818e59416abc9a5ca6no07"
  }, {
    "instance_id": "9e8b52a5b6e84f4a9e4db01235b1c770in07",
```

```
"master_node_id" : "408666cd6f104133ad0685b722f88cffno07"
}, {
  "instance_id" : "5814254f12f74d16bd0a93885b00867fin07",
  "master_node_id" : "637d96ffb6745ff835445fe87d08fc5no07"
}, {
  "instance_id" : "d0da4882ebdf44bd9d3f1edf9b0bd4a2in07",
  "master_node_id" : "7a670f4ecdf14db5a4b5df737b0911a5no07"
}]
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowIntelligentDiagnosisInstanceInfosPerMetricSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();

        ShowIntelligentDiagnosisInstanceInfosPerMetricRequest request = new
        ShowIntelligentDiagnosisInstanceInfosPerMetricRequest();
        try {
            ShowIntelligentDiagnosisInstanceInfosPerMetricResponse response =
            client.showIntelligentDiagnosisInstanceInfosPerMetric(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowIntelligentDiagnosisInstanceInfosPerMetricRequest()
        response = client.show_intelligent_diagnosis_instance_infos_per_metric(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
```

```
Build()  
  
request := &model.ShowIntelligentDiagnosisInstanceInfosPerMetricRequest{}  
response, err := client.ShowIntelligentDiagnosisInstanceInfosPerMetric(request)  
if err == nil {  
    fmt.Printf("%+v\n", response)  
} else {  
    fmt.Println(err)  
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.15 HTAP-标准版

### 4.15.1 恢复 StarRocks 数据同步

#### 功能介绍

恢复StarRocks数据同步。

#### 调用方法

请参见[如何调用API](#)。

#### URI

POST /v3/{project\_id}/instances/{instance\_id}/starrocks/databases/replication/  
resume

表 4-949 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                       |
|-------------|------|--------|----------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | StarRocks实例ID，严格匹配UUID规则。                                |

## 请求参数

表 4-950 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                             |
|--------------|------|--------|------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 是    | String | 请求语言类型。默认en-us。取值范围： - en-us - zh-cn                                                           |

表 4-951 请求 Body 参数

| 参数        | 是否必选 | 参数类型   | 描述                                     |
|-----------|------|--------|----------------------------------------|
| task_name | 是    | String | 同步任务名。字符长度限制3~128位，仅支持英文大小写字母、数字以及下划线。 |

## 响应参数

状态码： 200

表 4-952 响应 Body 参数

| 参数     | 参数类型   | 描述           |
|--------|--------|--------------|
| job_id | String | 恢复数据同步的任务ID。 |

状态码： 400



表 4-953 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-954 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

```
POST https://{localhost}/v3/{project_id}/instances/{instance_id}/starrocks/databases/replication/resume
{
  "task_name": "task_name"
}
```

## 响应示例

状态码： 200

Success

```
{
  "job_id": "123"
}
```

状态码： 400

Client error.

```
{
  "error_code": "DBS.200022",
  "error_msg": "实例不存在"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
```

```
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ResumeStarRocksDataReplicationSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ResumeStarRocksDataReplicationRequest request = new ResumeStarRocksDataReplicationRequest();
        request.withInstanceId("{instance_id}");
        ResumeStarRocksDataReplication body = new ResumeStarRocksDataReplication();
        body.withTaskName("task_name");
        request.withBody(body);
        try {
            ResumeStarRocksDataReplicationResponse response =
client.resumeStarRocksDataReplication(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"
```

```
credentials = BasicCredentials(ak, sk, projectId)

client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = ResumeStarRocksDataReplicationRequest()
    request.instance_id = "{instance_id}"
    request.body = ResumeStarRocksDataReplication(
        task_name="task_name"
    )
    response = client.resume_star_rocks_data_replication(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ResumeStarRocksDataReplicationRequest{}
    request.InstanceId = "{instance_id}"
    request.Body = &model.ResumeStarRocksDataReplication{
        TaskName: "task_name",
    }
    response, err := client.ResumeStarRocksDataReplication(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success       |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.15.2 暂停 StarRocks 数据同步

### 功能介绍

暂停StarRocks数据同步。

### 调用方法

请参见[如何调用API](#)。

## URI

POST /v3/{project\_id}/instances/{instance\_id}/starrocks/databases/replication/pause

表 4-955 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                       |
|-------------|------|--------|----------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | StarRocks实例ID，严格匹配UUID规则。                                |

## 请求参数

**表 4-956** 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                             |
|--------------|------|--------|------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 是    | String | 请求语言类型。默认en-us。取值范围： - en-us - zh-cn                                                           |

**表 4-957** 请求 Body 参数

| 参数        | 是否必选 | 参数类型   | 描述                                     |
|-----------|------|--------|----------------------------------------|
| task_name | 是    | String | 同步任务名。字符长度限制3~128位，仅支持英文大小写字母、数字以及下划线。 |

## 响应参数

状态码： 200

**表 4-958** 响应 Body 参数

| 参数     | 参数类型   | 描述           |
|--------|--------|--------------|
| job_id | String | 恢复数据同步的任务ID。 |

状态码： 400

**表 4-959** 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-960 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

```
POST https://{localhost}/v3/{project_id}/instances/{instance_id}/starrocks/databases/replication/pause
{
  "task_name" : "task_name"
}
```

## 响应示例

**状态码： 200**

Success

```
{
  "job_id" : "123"
}
```

**状态码： 400**

Client error.

```
{
  "error_code" : "DBS.200022",
  "error_msg" : "实例不存在"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class PauseStarRocksDataReplicationSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
```

```
String sk = System.getenv("CLOUD_SDK_SK");
String projectId = "{project_id}";

ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
PauseStarRocksDataReplicationRequest request = new PauseStarRocksDataReplicationRequest();
request.withInstanceId("{instance_id}");
PauseStarRocksDataReplication body = new PauseStarRocksDataReplication();
body.withTaskName("task_name");
request.withBody(body);
try {
    PauseStarRocksDataReplicationResponse response = client.pauseStarRocksDataReplication(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = PauseStarRocksDataReplicationRequest()
        request.instance_id = "{instance_id}"
        request.body = PauseStarRocksDataReplication(
            task_name="task_name"
        )
        response = client.pause_star_rocks_data_replication(request)
        print(response)
```

```
except exceptions.ClientRequestException as e:  
    print(e.status_code)  
    print(e.request_id)  
    print(e.error_code)  
    print(e.error_msg)
```

## Go

```
package main  
  
import (  
    "fmt"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"  
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"  
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"  
)  
  
func main() {  
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    // variables and decrypted during use to ensure security.  
    // In this example, AK and SK are stored in environment variables for authentication. Before running this  
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak := os.Getenv("CLOUD_SDK_AK")  
    sk := os.Getenv("CLOUD_SDK_SK")  
    projectId := "{project_id}"  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).  
        WithSk(sk).  
        WithProjectId(projectId).  
        Build()  
  
    client := gaussdb.NewGaussDBClient(  
        gaussdb.GaussDBClientBuilder().  
            WithRegion(region.ValueOf("<YOUR REGION>")).  
            WithCredential(auth).  
            Build())  
  
    request := &model.PauseStarRocksDataReplicationRequest{  
        request.InstanceId = "{instance_id}"  
        request.Body = &model.PauseStarRocksDataReplication{  
            TaskName: "task_name",  
        }  
    }  
    response, err := client.PauseStarRocksDataReplication(request)  
    if err == nil {  
        fmt.Printf("%+v\n", response)  
    } else {  
        fmt.Println(err)  
    }  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success       |
| 400 | Client error. |



| 状态码 | 描述            |
|-----|---------------|
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.15.3 HTAP 数据同步表配置校验

### 功能介绍

HTAP数据同步表配置校验。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/instances/{instance\_id}/starrocks/databases/replication/  
table-config-check

表 4-961 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | StarRocks实例ID，严格匹配UUID规则。                                    |

### 请求参数

表 4-962 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |

| 参数         | 是否必选 | 参数类型   | 描述                                                                                           |
|------------|------|--------|----------------------------------------------------------------------------------------------|
| X-Language | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul> |

表 4-963 请求 Body 参数

| 参数                   | 是否必选 | 参数类型                                          | 描述                                             |
|----------------------|------|-----------------------------------------------|------------------------------------------------|
| source_instance_id   | 否    | String                                        | TaurusDB实例ID。                                  |
| source_node_id       | 否    | String                                        | TaurusDB只读节点ID。                                |
| source_database_name | 否    | String                                        | TaurusDB数据库名。字符长度限制3~1024位，仅支持英文大小写字母、数字以及下划线。 |
| task_name            | 否    | String                                        | 同步任务名称。字符长度限制3~128位，仅支持英文大小写字母、数字以及下划线。        |
| db_configs           | 否    | Array of <a href="#">DbConfig</a> objects     | 库配置列表。                                         |
| tables_configs       | 否    | Array of <a href="#">TablesConfig</a> objects | 表配置信息。                                         |
| table_repl_config    | 否    | <a href="#">TableReplConfig</a> object        | 表同步配置信息。                                       |
| target_database_name | 否    | String                                        | 目标数据库名。字符长度限制3~128位，仅支持英文大小写字母、数字以及下划线。        |
| is_create_task       | 否    | String                                        | 是否创建同步任务                                       |

表 4-964 DbConfig

| 参数         | 是否必选 | 参数类型   | 描述   |
|------------|------|--------|------|
| param_name | 否    | String | 参数名。 |
| value      | 否    | String | 参数值。 |

表 4-965 TablesConfig

| 参数           | 是否必选 | 参数类型   | 描述    |
|--------------|------|--------|-------|
| table_name   | 否    | String | 表名。   |
| table_config | 否    | String | 表配置值。 |

表 4-966 TableReplConfig

| 参数         | 是否必选 | 参数类型             | 描述                                              |
|------------|------|------------------|-------------------------------------------------|
| repl_type  | 否    | String           | 表同步类型。include_tables: 白名单, exclude_tables: 黑名单。 |
| repl_scope | 否    | String           | 表同步范围。all: 全量同步, part: 部分同步。                    |
| tables     | 否    | Array of strings | 白名单或黑名单的表范围。                                    |

## 响应参数

状态码: 200

表 4-967 响应 Body 参数

| 参数                       | 参数类型                                                    | 描述                                              |
|--------------------------|---------------------------------------------------------|-------------------------------------------------|
| source_database_name     | String                                                  | TaurusDB数据库名。字符长度限制3~1024位, 仅支持英文大小写字母、数字以及下划线。 |
| target_database_name     | String                                                  | 目标数据库名。字符长度限制3~128位, 仅支持英文大小写字母、数字以及下划线。        |
| tbl_config_check_results | Array of <a href="#">TableConfigCheckResult</a> objects | 表配置检查结果。                                        |
| task_name                | String                                                  | 同步任务名称。字符长度限制3~128位, 仅支持英文大小写字母、数字以及下划线。        |

表 4-968 TableConfigCheckResult

| 参数           | 参数类型   | 描述                   |
|--------------|--------|----------------------|
| table_name   | String | 表名                   |
| table_config | String | 表配置项                 |
| check_result | String | 校验结果, success/failed |

状态码: 400

表 4-969 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码: 500

表 4-970 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

POST https://{localhost}/v3/{project\_id}/instances/{instance\_id}/starrocks/databases/replication/table-config-check

```
{
  "source_database_name": "source_database_name",
  "target_database_name": "target_database_name",
  "db_configs": [ {
    "param_name": "enable_chunk_level_dump",
    "value": "false"
  }, {
    "param_name": "snapshot_with_lock",
    "value": "true"
  }, {
    "param_name": "sync_commit_interval_ms",
    "value": "5000"
  }, {
    "param_name": "max_sync_commit_rows",
    "value": "500000"
  }, {
    "param_name": "max_sync_commit_bytes",
    "value": "268435456"
  }, {
    "param_name": "max_full_sync_task_threads_num",
```

```
"value": "1"
}, {
  "param_name": "max_rows_per_chunk",
  "value": "0"
}, {
  "param_name": "max_bytes_per_chunk",
  "value": "268435456"
}, {
  "param_name": "binlog_expire_logs_seconds",
  "value": "0"
}
],
"table_repl_config": {
  "repl_type": "include_tables",
  "repl_scope": "all",
  "tables": []
},
"tables_configs": {
  "table_name": "tableName",
  "table_config": "tableConfig"
},
"source_instance_id": "source_instance_id",
"is_create_task": "true",
"source_node_id": "source_node_id"
}
```

## 响应示例

**状态码: 200**

Success.

```
{
  "source_database_name": "source_database_name",
  "target_database_name": "",
  "task_name": "task",
  "tbl_config_check_results": [ {
    "table_name": "table",
    "table_config": "order by id",
    "check_result": "success"
  } ]
}
```

**状态码: 400**

Client error.

```
{
  "error_code": "DBS.200022",
  "error_msg": "实例不存在"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;
```

```
import java.util.List;
import java.util.ArrayList;

public class CheckTableConfigSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        CheckTableConfigRequest request = new CheckTableConfigRequest();
        request.withInstanceId("{instance_id}");
        TableConfigCheckRequestV3 body = new TableConfigCheckRequestV3();
        TableReplConfig tableReplConfigbody = new TableReplConfig();
        tableReplConfigbody.withReplType(TableReplConfig.ReplTypeEnum.fromValue("include_tables"))
            .withReplScope(TableReplConfig.ReplScopeEnum.fromValue("all"));
        List<DbConfig> listbodyDbConfigs = new ArrayList<>();
        listbodyDbConfigs.add(
            new DbConfig()
                .withParamName("enable_chunk_level_dump")
                .withValue("false")
        );
        listbodyDbConfigs.add(
            new DbConfig()
                .withParamName("snapshot_with_lock")
                .withValue("true")
        );
        listbodyDbConfigs.add(
            new DbConfig()
                .withParamName("sync_commit_interval_ms")
                .withValue("5000")
        );
        listbodyDbConfigs.add(
            new DbConfig()
                .withParamName("max_sync_commit_rows")
                .withValue("500000")
        );
        listbodyDbConfigs.add(
            new DbConfig()
                .withParamName("max_sync_commit_bytes")
                .withValue("268435456")
        );
        listbodyDbConfigs.add(
            new DbConfig()
                .withParamName("max_full_sync_task_threads_num")
                .withValue("1")
        );
        listbodyDbConfigs.add(
            new DbConfig()
                .withParamName("max_rows_per_chunk")
                .withValue("0")
        );
        listbodyDbConfigs.add(
            new DbConfig()
        );
    }
}
```

```
        .withParamName("max_bytes_per_chunk")
        .withValue("268435456")
    );
    listbodyDbConfigs.add(
        new DbConfig()
            .withParamName("binlog_expire_logs_seconds")
            .withValue("0")
    );
    body.withIsCreateTask("true");
    body.withTargetDatabaseName("target_database_name");
    body.withTableReplConfig(tableReplConfigbody);
    body.withDbConfigs(listbodyDbConfigs);
    body.withSourceDatabaseName("source_database_name");
    body.withSourceNodeId("source_node_id");
    body.withSourceInstanceId("source_instance_id");
    request.withBody(body);
    try {
        CheckTableConfigResponse response = client.checkTableConfig(request);
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CheckTableConfigRequest()
        request.instance_id = "{instance_id}"
        tableReplConfigbody = TableReplConfig(
            repl_type="include_tables",
            repl_scope="all"
        )
        listDbConfigsbody = [
            DbConfig(
```

```
        param_name="enable_chunk_level_dump",
        value="false"
    ),
    DbConfig(
        param_name="snapshot_with_lock",
        value="true"
    ),
    DbConfig(
        param_name="sync_commit_interval_ms",
        value="5000"
    ),
    DbConfig(
        param_name="max_sync_commit_rows",
        value="500000"
    ),
    DbConfig(
        param_name="max_sync_commit_bytes",
        value="268435456"
    ),
    DbConfig(
        param_name="max_full_sync_task_threads_num",
        value="1"
    ),
    DbConfig(
        param_name="max_rows_per_chunk",
        value="0"
    ),
    DbConfig(
        param_name="max_bytes_per_chunk",
        value="268435456"
    ),
    DbConfig(
        param_name="binlog_expire_logs_seconds",
        value="0"
    )
]
request.body = TableConfigCheckRequestV3(
    is_create_task="true",
    target_database_name="target_database_name",
    table_repl_config=tableReplConfigbody,
    db_configs=listDbConfigsbody,
    source_database_name="source_database_name",
    source_node_id="source_node_id",
    source_instance_id="source_instance_id"
)
response = client.check_table_config(request)
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/taurusdb-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/taurusdb-sdk-go-v3/services/taurusdb/v3"
    "github.com/taurusdb/taurusdb-sdk-go-v3/services/taurusdb/v3/model"
    region "github.com/taurusdb/taurusdb-sdk-go-v3/services/taurusdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
```



```
// In this example, AK and SK are stored in environment variables for authentication. Before running this
example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")
projectId := "{project_id}"

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    WithProjectId(projectId).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.CheckTableConfigRequest{}
request.InstanceId = "{instance_id}"
replTypeTableReplConfig:= model.GetTableReplConfigReplTypeEnum().INCLUDE_TABLES
replScopeTableReplConfig:= model.GetTableReplConfigReplScopeEnum().ALL
tableReplConfigbody := &model.TableReplConfig{
    ReplType: &replTypeTableReplConfig,
    ReplScope: &replScopeTableReplConfig,
}
paramNameDbConfigs:= "enable_chunk_level_dump"
valueDbConfigs:= "false"
paramNameDbConfigs1:= "snapshot_with_lock"
valueDbConfigs1:= "true"
paramNameDbConfigs2:= "sync_commit_interval_ms"
valueDbConfigs2:= "5000"
paramNameDbConfigs3:= "max_sync_commit_rows"
valueDbConfigs3:= "500000"
paramNameDbConfigs4:= "max_sync_commit_bytes"
valueDbConfigs4:= "268435456"
paramNameDbConfigs5:= "max_full_sync_task_threads_num"
valueDbConfigs5:= "1"
paramNameDbConfigs6:= "max_rows_per_chunk"
valueDbConfigs6:= "0"
paramNameDbConfigs7:= "max_bytes_per_chunk"
valueDbConfigs7:= "268435456"
paramNameDbConfigs8:= "binlog_expire_logs_seconds"
valueDbConfigs8:= "0"
var listDbConfigsbody = []model.DbConfig{
    {
        ParamName: &paramNameDbConfigs,
        Value: &valueDbConfigs,
    },
    {
        ParamName: &paramNameDbConfigs1,
        Value: &valueDbConfigs1,
    },
    {
        ParamName: &paramNameDbConfigs2,
        Value: &valueDbConfigs2,
    },
    {
        ParamName: &paramNameDbConfigs3,
        Value: &valueDbConfigs3,
    },
    {
        ParamName: &paramNameDbConfigs4,
        Value: &valueDbConfigs4,
    },
    {
        ParamName: &paramNameDbConfigs5,
        Value: &valueDbConfigs5,
    },
}
```

```
{
  ParamName: &paramNameDbConfigs6,
  Value: &valueDbConfigs6,
},
{
  ParamName: &paramNameDbConfigs7,
  Value: &valueDbConfigs7,
},
{
  ParamName: &paramNameDbConfigs8,
  Value: &valueDbConfigs8,
},
}
isCreateTaskTableConfigCheckRequestV3:= "true"
targetDatabaseNameTableConfigCheckRequestV3:= "target_database_name"
sourceDatabaseNameTableConfigCheckRequestV3:= "source_database_name"
sourceNodeIdTableConfigCheckRequestV3:= "source_node_id"
sourceInstanceIdTableConfigCheckRequestV3:= "source_instance_id"
request.Body = &model.TableConfigCheckRequestV3{
  IsCreateTask: &isCreateTaskTableConfigCheckRequestV3,
  TargetDatabaseName: &targetDatabaseNameTableConfigCheckRequestV3,
  TableReplConfig: tableReplConfigbody,
  DbConfigs: &listDbConfigsbody,
  SourceDatabaseName: &sourceDatabaseNameTableConfigCheckRequestV3,
  SourceNodeId: &sourceNodeIdTableConfigCheckRequestV3,
  SourceInstanceId: &sourceInstanceIdTableConfigCheckRequestV3,
}
response, err := client.CheckTableConfig(request)
if err == nil {
  fmt.Printf("%v\n", response)
} else {
  fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.15.4 创建 StarRocks 实例

### 功能介绍

创建StarRocks实例。

## 调用方法

请参见[如何调用API](#)。

## URI

POST /v3/{project\_id}/instances/{instance\_id}/starrocks

表 4-971 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | TaurusDB数据库实例ID，严格匹配UUID规则。                                  |

## 请求参数

表 4-972 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| Content-Type | 是    | String | 内容类型。取值：application/json。                                                                              |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

表 4-973 请求 Body 参数

| 参数           | 是否必选 | 参数类型                    | 描述                                                                                                                              |
|--------------|------|-------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| name         | 是    | String                  | 实例名称。同一租户下，同类型的实例名可重名。<br>取值范围：最小为4个字符，最大为64个字符且不超过64个字节，必须以字母开头，区分大小写，可以包含字母、数字、中划线、下划线，不能包含其他特殊字符。不支持中文名。                     |
| engine       | 是    | <b>engine</b> object    | 引擎信息。                                                                                                                           |
| ha           | 是    | <b>ha</b> object        | 部署信息。                                                                                                                           |
| fe_flavor_id | 是    | String                  | FE节点规格ID。使用可通过查询HTAP规格响应消息中的“id”。                                                                                               |
| be_flavor_id | 是    | String                  | BE节点规格ID。使用可通过查询HTAP规格响应消息中的“id”。                                                                                               |
| db_root_pwd  | 是    | String                  | 数据库密码。<br>取值范围：至少包含以下字符的三种：大小写字母、数字和特殊符号~!@#\$%^*_-=+?,()& .，长度8~32个字符。建议您输入高强度密码，以提高安全性，防止出现密码被暴力破解等安全风险。如果您输入弱密码，系统会自动判定密码非法。 |
| fe_count     | 是    | Integer                 | FE节点数。 <ul style="list-style-type: none"><li>• 单机时固定为1</li><li>• 集群时取值[3, 10]</li></ul>                                         |
| be_count     | 是    | Integer                 | BE节点数。 <ul style="list-style-type: none"><li>• 单机时固定为1</li><li>• 集群时取值[3, 10]</li></ul>                                         |
| az_mode      | 是    | String                  | 可用区类型。<br>当前仅支持single。                                                                                                          |
| fe_volume    | 是    | <b>fe_volume</b> object | FE节点存储规格。                                                                                                                       |
| be_volume    | 是    | <b>be_volume</b> object | BE节点存储规格。                                                                                                                       |
| az_code      | 是    | String                  | 可用区代码。                                                                                                                          |

| 参数                | 是否必选 | 参数类型                       | 描述                        |
|-------------------|------|----------------------------|---------------------------|
| time_zone         | 否    | String                     | 时区。默认时区为UTC+08:00。        |
| tags_info         | 是    | <b>tags_info</b><br>object | 标签信息。                     |
| security_group_id | 否    | String                     | 实例安全组ID。默认与Taurus安全组ID一致。 |
| pay_info          | 否    | <b>pay_info</b><br>object  | 支付信息。包周期场景必填。             |
| region_code       | 否    | String                     | 可用区。包周期场景必填。              |

表 4-974 engine

| 参数      | 是否必选 | 参数类型   | 描述                  |
|---------|------|--------|---------------------|
| type    | 是    | String | 引擎类型。仅支持star-rocks。 |
| version | 是    | String | 引擎大版本号。             |

表 4-975 ha

| 参数   | 是否必选 | 参数类型   | 描述    |
|------|------|--------|-------|
| mode | 是    | String | 部署模式。 |

表 4-976 fe\_volume

| 参数             | 是否必选 | 参数类型    | 描述                       |
|----------------|------|---------|--------------------------|
| io_type        | 是    | String  | 磁盘类型。通过查询HTAP引擎资源返回消息获取。 |
| capacity_in_gb | 是    | Integer | 磁盘容量，单位GB<br>增长的步长：10GB。 |

表 4-977 be\_volume

| 参数      | 是否必选 | 参数类型   | 描述                       |
|---------|------|--------|--------------------------|
| io_type | 是    | String | 磁盘类型。通过查询HTAP引擎资源返回消息获取。 |

| 参数             | 是否必选 | 参数类型    | 描述                       |
|----------------|------|---------|--------------------------|
| capacity_in_gb | 是    | Integer | 磁盘容量，单位GB<br>增长的步长：10GB。 |

表 4-978 tags\_info

| 参数       | 是否必选 | 参数类型                                      | 描述    |
|----------|------|-------------------------------------------|-------|
| sys_tags | 是    | Array of <a href="#">sys_tags</a> objects | 系统标签。 |

表 4-979 sys\_tags

| 参数    | 是否必选 | 参数类型   | 描述   |
|-------|------|--------|------|
| key   | 是    | String | 标签键。 |
| value | 是    | String | 标签值。 |

表 4-980 pay\_info

| 参数            | 是否必选 | 参数类型   | 描述                                                                                                       |
|---------------|------|--------|----------------------------------------------------------------------------------------------------------|
| pay_model     | 否    | String | 计费模式，默认0。包周期场景必填。<br>取值范围：<br><ul style="list-style-type: none"> <li>0：按需计费</li> <li>1：包周期</li> </ul>    |
| period        | 否    | String | 包周期周期。包周期场景必填。                                                                                           |
| period_type   | 否    | String | 包周期周期类型。包周期场景必填。<br>取值范围：<br><ul style="list-style-type: none"> <li>2：包月</li> <li>3：包年</li> </ul>        |
| is_auto_renew | 否    | String | 包周期是否自动续费。包周期场景必填。<br>取值范围：<br><ul style="list-style-type: none"> <li>1：自动续费</li> <li>0：不自动续费</li> </ul> |

## 响应参数

状态码： 201

表 4-981 响应 Body 参数

| 参数       | 参数类型                   | 描述     |
|----------|------------------------|--------|
| instance | <b>instance</b> object | 实例信息。  |
| job_id   | String                 | 工作流ID。 |

表 4-982 instance

| 参数                | 参数类型                    | 描述                                               |
|-------------------|-------------------------|--------------------------------------------------|
| id                | String                  | StarRocks实例ID, 严格匹配UUID规则。                       |
| az_code           | String                  | 可用区码。                                            |
| az_mode           | String                  | 可用区模式。<br>取值范围：<br>single: 单可用区。<br>multi: 多可用区。 |
| name              | String                  | 实例名称。                                            |
| engine            | <b>engine</b> object    | 引擎信息。                                            |
| vpc_id            | String                  | 虚拟私有云ID。                                         |
| security_group_id | String                  | 安全组ID。                                           |
| sub_net_id        | String                  | 子网ID。                                            |
| db_user           | String                  | 数据库用户。默认root。                                    |
| port              | Integer                 | 数据库端口号。默认3306。                                   |
| ha_mode           | String                  | 部署模式。                                            |
| pay_info          | <b>pay_info</b> object  | 计费信息。                                            |
| enable_ssl        | Boolean                 | SSL开关。                                           |
| status            | String                  | 实例状态。                                            |
| region            | String                  | 实例所在区域。                                          |
| tags_info         | <b>tags_info</b> object | 实例标签。                                            |

表 4-983 engine

| 参数      | 参数类型   | 描述      |
|---------|--------|---------|
| type    | String | 引擎类型。   |
| version | String | 引擎大版本号。 |

表 4-984 pay\_info

| 参数            | 参数类型   | 描述                                                                                                      |
|---------------|--------|---------------------------------------------------------------------------------------------------------|
| pay_model     | String | 计费模式。 <ul style="list-style-type: none"><li>0: 按需计费</li><li>1: 包周期</li></ul> StarRocks实例当前只支持按需计费，默认值为0 |
| order_id      | String | 包周期计费ID。                                                                                                |
| period        | String | 包周期周期。                                                                                                  |
| period_type   | String | 包周期周期类型。                                                                                                |
| is_auto_renew | String | 包周期是否自动续费。                                                                                              |

表 4-985 tags\_info

| 参数       | 参数类型                                      | 描述         |
|----------|-------------------------------------------|------------|
| tags     | Array of <a href="#">tags</a> objects     | 用户标签。默认为空。 |
| sys_tags | Array of <a href="#">sys_tags</a> objects | 系统标签。      |

表 4-986 tags

| 参数    | 参数类型   | 描述   |
|-------|--------|------|
| key   | String | 标签键。 |
| value | String | 标签值。 |



表 4-987 sys\_tags

| 参数    | 参数类型   | 描述   |
|-------|--------|------|
| key   | String | 标签键。 |
| value | String | 标签值。 |

状态码: 400

表 4-988 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码: 500

表 4-989 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

### 创建数据库实例

POST https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/  
40dc4c5729f14aad893e2dcd5baf6a15in07/starrocks

```
{
  "name": "htap-ff64",
  "engine": {
    "type": "star-rocks",
    "version": "3.1"
  },
  "ha": {
    "mode": "Single"
  },
  "fe_flavor_id": "afef3bfd-ac7c-32e1-ba44-c388acbb196a",
  "be_flavor_id": "de565db8-0a96-37ea-9388-61167624712c",
  "db_root_pwd": "Test@123!",
  "fe_count": 1,
  "be_count": 1,
  "az_mode": "single",
  "fe_volume": {
    "io_type": "SSD",
    "capacity_in_gb": 50
  },
  "be_volume": {
```

```
"io_type": "SSD",
"capacity_in_gb": 50
},
"az_code": "cn-southwest-244b",
"time_zone": "UTC+08:00",
"tags_info": {
  "sys_tags": [ {
    "key": "_sys_enterprise_project_id",
    "value": "0"
  } ]
}
```

## 响应示例

**状态码: 201**

Success.

```
{
  "instance": {
    "id": "590031445ef845bb912d7fc8243db80cin17",
    "az_code": "cn-southwest-244b",
    "az_mode": "single",
    "name": "htap-ff64",
    "engine": {
      "type": "star-rocks",
      "version": "3.1"
    },
    "vpc_id": "d5a1a29b-1476-490f-9682-c1a59593e7b0",
    "security_group_id": "967a0ac2-3cae-4e57-a49a-d0f6ff07dcc1",
    "sub_net_id": "2ce0bc80-bfc5-4d5e-9b78-a7f91572e03b",
    "db_user": "root",
    "port": 3306,
    "ha_mode": "Single",
    "pay_info": {
      "pay_model": "0",
      "order_id": null,
      "period": null,
      "period_type": null,
      "is_auto_renew": null
    },
    "enable_ssl": false,
    "status": "creating",
    "region": "cn-southwest-244",
    "tags_info": {
      "tags": [ ],
      "sys_tags": [ {
        "key": "_sys_enterprise_project_id",
        "value": "0"
      } ]
    }
  },
  "job_id": "cf0b7506-1505-450f-9d95-ce9d93b6b5c3"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

创建数据库实例

```
package com.huaweicloud.sdk.test;
```

```
import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class CreateStarrocksInstanceSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        CreateStarrocksInstanceRequest request = new CreateStarrocksInstanceRequest();
        request.withInstanceId("{instance_id}");
        StarRocksCreateRequest body = new StarRocksCreateRequest();
        List<StarRocksCreateRequestTagsInfoSysTags> listTagsInfoSysTags = new ArrayList<>();
        listTagsInfoSysTags.add(
            new StarRocksCreateRequestTagsInfoSysTags()
                .withKey(StarRocksCreateRequestTagsInfoSysTags.KeyEnum.fromValue("_sys_enterprise_project_id")
                ))
            .withValue(StarRocksCreateRequestTagsInfoSysTags.ValueEnum.fromValue("0"))
        );
        StarRocksCreateRequestTagsInfo tagsInfoBody = new StarRocksCreateRequestTagsInfo();
        tagsInfoBody.withSysTags(listTagsInfoSysTags);
        StarRocksCreateRequestBeVolume beVolumebody = new StarRocksCreateRequestBeVolume();
        beVolumebody.withIoType("SSD")
            .withCapacityInGb(50);
        StarRocksCreateRequestFeVolume feVolumebody = new StarRocksCreateRequestFeVolume();
        feVolumebody.withIoType("SSD")
            .withCapacityInGb(50);
        StarRocksCreateRequestHa habody = new StarRocksCreateRequestHa();
        habody.withMode(StarRocksCreateRequestHa.ModeEnum.fromValue("Single"));
        StarRocksCreateRequestEngine enginebody = new StarRocksCreateRequestEngine();
        enginebody.withType("star-rocks")
            .withVersion("3.1");
        body.withTagsInfo(tagsInfoBody);
        body.withTimeZone("UTC+08:00");
        body.withAzCode("cn-southwest-244b");
        body.withBeVolume(beVolumebody);
        body.withFeVolume(feVolumebody);
        body.withAzMode(StarRocksCreateRequest.AzModeEnum.fromValue("single"));
        body.withBeCount(1);
        body.withFeCount(1);
        body.withDbRootPwd("Test@123!");
        body.withBeFlavorId("de565db8-0a96-37ea-9388-61167624712c");
        body.withFeFlavorId("afef3bfd-ac7c-32e1-ba44-c388acbb196a");
        body.withHa(habody);
        body.withEngine(enginebody);
    }
}
```

```
body.withName("htap-ff64");
request.withBody(body);
try {
    CreateStarrocksInstanceResponse response = client.createStarrocksInstance(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

### 创建数据库实例

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateStarrocksInstanceRequest()
        request.instance_id = "{instance_id}"
        listSysTagsTagsInfo = [
            StarRocksCreateRequestTagsInfoSysTags(
                key="_sys_enterprise_project_id",
                value="0"
            )
        ]
        tagsInfoBody = StarRocksCreateRequestTagsInfo(
            sys_tags=listSysTagsTagsInfo
        )
        beVolumebody = StarRocksCreateRequestBeVolume(
            io_type="SSD",
            capacity_in_gb=50
        )
        feVolumebody = StarRocksCreateRequestFeVolume(
            io_type="SSD",
            capacity_in_gb=50
        )
        habody = StarRocksCreateRequestHa(
```

```
        mode="Single"
    )
    enginebody = StarRocksCreateRequestEngine(
        type="star-rocks",
        version="3.1"
    )
    request.body = StarRocksCreateRequest(
        tags_info=tagsInfobody,
        time_zone="UTC+08:00",
        az_code="cn-southwest-244b",
        be_volume=beVolumebody,
        fe_volume=feVolumebody,
        az_mode="single",
        be_count=1,
        fe_count=1,
        db_root_pwd="Test@123!",
        be_flavor_id="de565db8-0a96-37ea-9388-61167624712c",
        fe_flavor_id="afef3bfd-ac7c-32e1-ba44-c388acbb196a",
        ha=habody,
        engine=enginebody,
        name="htap-ff64"
    )
    response = client.create_starrocks_instance(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

### 创建数据库实例

```
package main

import (
    "fmt"
    "github.com/ HuaweiCloud/ HuaweiCloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/ HuaweiCloud/ HuaweiCloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/ HuaweiCloud/ HuaweiCloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/ HuaweiCloud/ HuaweiCloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateStarrocksInstanceRequest{}
    request.InstanceId = "{instance_id}"
    var listSysTagsTagsInfo = []model.StarRocksCreateRequestTagsInfoSysTags{
```

```
{
  Key: model.GetStarRocksCreateRequestTagsInfoSysTagsKeyEnum().SYSENERPRISEPROJECTID,
  Value: model.GetStarRocksCreateRequestTagsInfoSysTagsValueEnum().E_0,
},
},
tagsInfobody := &model.StarRocksCreateRequestTagsInfo{
  SysTags: listSysTagsTagsInfo,
}
beVolumebody := &model.StarRocksCreateRequestBeVolume{
  IoType: "SSD",
  CapacityInGb: int32(50),
}
feVolumebody := &model.StarRocksCreateRequestFeVolume{
  IoType: "SSD",
  CapacityInGb: int32(50),
}
habody := &model.StarRocksCreateRequestHa{
  Mode: model.GetStarRocksCreateRequestHaModeEnum().SINGLE,
}
enginebody := &model.StarRocksCreateRequestEngine{
  Type: "star-rocks",
  Version: "3.1",
}
timeZoneStarRocksCreateRequest:= "UTC+08:00"
request.Body = &model.StarRocksCreateRequest{
  TagsInfo: tagsInfobody,
  TimeZone: &timeZoneStarRocksCreateRequest,
  AzCode: "cn-southwest-244b",
  BeVolume: beVolumebody,
  FeVolume: feVolumebody,
  AzMode: model.GetStarRocksCreateRequestAzModeEnum().SINGLE,
  BeCount: int32(1),
  FeCount: int32(1),
  DbRootPwd: "Test@123!",
  BeFlavorId: "de565db8-0a96-37ea-9388-61167624712c",
  FeFlavorId: "afef3bfd-ac7c-32e1-ba44-c388acbb196a",
  Ha: habody,
  Engine: enginebody,
  Name: "htap-ff64",
}
response, err := client.CreateStarrocksInstance(request)
if err == nil {
  fmt.Printf("%+v\n", response)
} else {
  fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 201 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.15.5 查询 StarRocks 实例

### 功能介绍

查询StarRocks实例。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/instances/{instance\_id}/starrocks/{starrocks\_instance\_id}

表 4-990 路径参数

| 参数                    | 是否必选 | 参数类型   | 描述                                                           |
|-----------------------|------|--------|--------------------------------------------------------------|
| project_id            | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id           | 是    | String | TaurusDB实例ID，严格匹配UUID规则。                                     |
| starrocks_instance_id | 是    | String | StarRocks实例ID，严格匹配UUID规则。                                    |

### 请求参数

表 4-991 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| Content-Type | 是    | String | 内容类型。取值：application/json。                                                                              |

| 参数         | 是否必选 | 参数类型   | 描述                                                                                           |
|------------|------|--------|----------------------------------------------------------------------------------------------|
| X-Language | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul> |

## 响应参数

状态码： 200

表 4-992 响应 Body 参数

| 参数        | 参数类型                                       | 描述    |
|-----------|--------------------------------------------|-------|
| instances | Array of <a href="#">instances</a> objects | 实例信息。 |

表 4-993 instances

| 参数                       | 参数类型    | 描述                               |
|--------------------------|---------|----------------------------------|
| id                       | String  | 实例ID，严格匹配UUID规则。                 |
| name                     | String  | 创建的实例名称。                         |
| project_id               | String  | 租户在某一Region下的project ID。         |
| public_ip                | String  | 公网访问IP。                          |
| data_vip                 | String  | StarRocks FE节点类型数据IP（多个IP使用逗号分隔） |
| can_enable_public_access | Boolean | 是否可公网访问。                         |
| current_backup_node_id   | String  | 备份节点ID。                          |
| cluster_mode             | String  | 部署模式。                            |
| status                   | String  | 实例状态。                            |
| is_frozen                | Integer | 是否冻结。                            |
| frozen_time              | Long    | 冻结时间。                            |
| db_user                  | String  | 默认用户名。                           |
| bak_period               | String  | 备份周期。                            |
| bak_keep_day             | Integer | 备份保存天数。                          |



| 参数                      | 参数类型                                         | 描述                                                                                                   |
|-------------------------|----------------------------------------------|------------------------------------------------------------------------------------------------------|
| bak_expected_start_time | Long                                         | 备份预计开始时间。                                                                                            |
| data_store_version_id   | String                                       | 数据库版本ID。                                                                                             |
| data_store_version      | String                                       | 数据库版本。                                                                                               |
| data_store_type         | String                                       | 数据库引擎。                                                                                               |
| create_at               | Long                                         | 实例创建时间。                                                                                              |
| update_at               | Long                                         | 实例更新时间。                                                                                              |
| delete_at               | Long                                         | 实例删除时间。                                                                                              |
| db_port                 | String                                       | 数据库端口号。                                                                                              |
| param_group             | String                                       | 参数组。                                                                                                 |
| actions                 | Array of <a href="#">QueryAction</a> objects | 实例动作。                                                                                                |
| create_fail_error_code  | String                                       | 实例创建失败错误码。                                                                                           |
| groups                  | Array of <a href="#">groups</a> objects      | 实例分组。                                                                                                |
| ops_window              | <a href="#">ops_window</a> object            | 实例操作时间窗。                                                                                             |
| tags_info               | <a href="#">tags_info</a> object             | 实例标签。                                                                                                |
| time_zone               | String                                       | 时区。                                                                                                  |
| backup_used_space       | String                                       | 备份使用空间。                                                                                              |
| az_mode                 | String                                       | 可用区模式。<br>取值范围： <ul style="list-style-type: none"><li>• single: 单可用区</li><li>• multi: 多可用区</li></ul> |
| enterprise_project_id   | String                                       | 企业项目ID。                                                                                              |
| port_info               | <a href="#">port_info</a> object             | 端口信息。                                                                                                |
| fe_node_volume_code     | String                                       | FE节点磁盘类型。                                                                                            |

| 参数                       | 参数类型    | 描述                             |
|--------------------------|---------|--------------------------------|
| be_node_volume_code      | String  | BE节点磁盘类型。                      |
| fe_node_volume_size      | String  | FE节点磁盘大小。                      |
| be_node_volume_size      | String  | BE节点磁盘大小。                      |
| support_data_replication | Boolean | 是否支持数据同步。                      |
| new_version_available    | Boolean | 是否有数据库新版本。                     |
| ssl_option               | Boolean | SSL开关。                         |
| dedicated_resource_id    | String  | 专属资源池ID，只有数据库实例属于专属资源池才会返回该参数。 |
| pay_model                | String  | 支付模式。                          |

表 4-994 groups

| 参数              | 参数类型                                   | 描述        |
|-----------------|----------------------------------------|-----------|
| id              | String                                 | 分组ID。     |
| name            | String                                 | 分组名。      |
| nodes           | Array of <a href="#">nodes</a> objects | 实例节点。     |
| group_type_name | String                                 | 实例分组类型名。  |
| group_node_type | String                                 | 实例分组节点类型。 |

表 4-995 nodes

| 参数   | 参数类型   | 描述      |
|------|--------|---------|
| id   | String | 实例节点ID。 |
| name | String | 实例节点名。  |
| type | String | 实例节点类型。 |

| 参数              | 参数类型                                | 描述                                                                                                               |
|-----------------|-------------------------------------|------------------------------------------------------------------------------------------------------------------|
| status          | String                              | 节点状态。<br>取值：<br>值为“creating”，表示节点正在创建。<br>值为“normal”，表示节点正常。<br>值为“abnormal”，表示节点异常。<br>值为“createfail”，表示节点创建失败。 |
| period          | String                              | 实例节点包周期。1代表包周期。                                                                                                  |
| volume          | <b>volume</b> object                | 实例节点存储信息。                                                                                                        |
| cpu             | String                              | 实例节点cpu数量。                                                                                                       |
| mem             | String                              | 实例节点内存大小（GB）。                                                                                                    |
| datastore       | <b>datastore</b> object             | 数据库信息。                                                                                                           |
| actions         | Array of <b>QueryAction</b> objects | 节点动作。                                                                                                            |
| priority        | Integer                             | 节点优先级。                                                                                                           |
| frozen_flag     | Integer                             | 冻结标志。                                                                                                            |
| db_port         | Integer                             | 数据库端口号。默认3306。                                                                                                   |
| pay_model       | String                              | 支付模式。                                                                                                            |
| order_id        | String                              | 订单号。                                                                                                             |
| traffic_ip      | String                              | 数据IP。                                                                                                            |
| traffic_ipv6    | String                              | 数据IPV6。                                                                                                          |
| az_code         | String                              | 可用区代码。                                                                                                           |
| az_description  | String                              | 可用区描述。                                                                                                           |
| az_type         | String                              | 可用区类型。                                                                                                           |
| region_code     | String                              | 实例所在区域。                                                                                                          |
| create_at       | Long                                | 节点创建时间。                                                                                                          |
| update_at       | Long                                | 节点更新时间。                                                                                                          |
| flavor_id       | String                              | 节点规格ID。                                                                                                          |
| flavor_ref      | String                              | 节点规格码。                                                                                                           |
| iass_flavor_ref | String                              | IASS规格码。                                                                                                         |
| max_connections | String                              | 公网最大连接数。                                                                                                         |

| 参数           | 参数类型                   | 描述          |
|--------------|------------------------|-------------|
| vpc_id       | String                 | 虚拟私有云ID。    |
| subnet_id    | String                 | 子网ID。       |
| need_restart | Boolean                | 参数更新是否需要重启。 |
| sg_id        | String                 | 安全组。        |
| param_group  | Map<String,ParamGroup> | 参数组信息。      |

表 4-996 volume

| 参数   | 参数类型   | 描述        |
|------|--------|-----------|
| type | String | 实例节点存储类型。 |
| size | String | 实例节点存储大小。 |

表 4-997 datastore

| 参数      | 参数类型   | 描述     |
|---------|--------|--------|
| id      | String | 数据库ID。 |
| type    | String | 数据库类型。 |
| version | String | 数据库版本。 |

表 4-998 QueryAction

| 参数         | 参数类型   | 描述           |
|------------|--------|--------------|
| id         | String | 实例或节点动作ID。   |
| action     | String | 实例或节点动作名称。   |
| object_id  | String | 实例或节点动作对象ID。 |
| type       | String | 实例或节点动作类型。   |
| job_id     | String | 实例或节点动作任务ID。 |
| status     | String | 实例或节点动作状态。   |
| created_at | Long   | 实例或节点动作创建时间。 |
| updated_at | Long   | 实例或节点动作更新时间。 |

表 4-999 ParamGroup

| 参数   | 参数类型   | 描述     |
|------|--------|--------|
| id   | String | 参数组ID。 |
| name | String | 参数组名。  |

表 4-1000 ops\_window

| 参数         | 参数类型   | 描述       |
|------------|--------|----------|
| period     | String | 时间窗周期。   |
| start_time | String | 时间窗开始时间。 |
| end_time   | String | 时间窗结束时间。 |

表 4-1001 tags\_info

| 参数       | 参数类型                             | 描述    |
|----------|----------------------------------|-------|
| tags     | Array of <b>tags</b> objects     | 用户标签。 |
| sys_tags | Array of <b>sys_tags</b> objects | 系统标签。 |

表 4-1002 tags

| 参数    | 参数类型   | 描述                                                                                                   |
|-------|--------|------------------------------------------------------------------------------------------------------|
| key   | String | 标签键。最大长度36个unicode字符。key不能为空或者空字符串，不能为空格。<br>字符集：A-Z, a-z, 0-9, '-', '_', UNICODE字符 (\u4E00-\u9FFF)。 |
| value | String | 标签值。最大长度43个unicode字符。可以为空字符串。<br>字符集：A-Z, a-z, 0-9, '.', '-', '_', UNICODE字符 (\u4E00-\u9FFF)。        |

表 4-1003 sys\_tags

| 参数    | 参数类型   | 描述                                                                                                   |
|-------|--------|------------------------------------------------------------------------------------------------------|
| key   | String | 标签键。最大长度36个unicode字符。key不能为空或者空字符串，不能为空格。<br>字符集：A-Z, a-z, 0-9, '-', '_', UNICODE字符 (\u4E00-\u9FFF)。 |
| value | String | 标签值。最大长度43个unicode字符。可以为空字符串。<br>字符集：A-Z, a-z, 0-9, '.', '-', '_', UNICODE字符 (\u4E00-\u9FFF)。        |

表 4-1004 port\_info

| 参数         | 参数类型    | 描述               |
|------------|---------|------------------|
| mysql_port | Integer | MySQL端口号。默认3306。 |

状态码： 400

表 4-1005 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-1006 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

查询某个StarRocks实例ID。

```
GET https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/  
fb632d1d531a4107804f0f082581810fin07/starrocks/b6280c323ce449f2ad02af74e21f3dc5in17
```

## 响应示例

状态码: 200

Success.

```
{  
  "instances": [ {  
    "id": "914481def3574d5189baee926a26512din17",  
    "name": "htap-5d98",  
    "project_id": "23a50154cf494ec9ad6883979a12db0a",  
    "public_ip": "",  
    "data_vip": "192.168.8.4",  
    "can_enable_public_access": false,  
    "current_backup_node_id": null,  
    "cluster_mode": "Single",  
    "status": "normal",  
    "is_frozen": 0,  
    "frozen_time": null,  
    "db_user": "root",  
    "bak_period": null,  
    "bak_keep_day": null,  
    "bak_expected_start_time": null,  
    "data_store_version_id": "717b683b-9d89-3e3b-9100-7893bee47d95",  
    "data_store_version": "3.1.11.0",  
    "data_store_type": "star-rocks",  
    "create_at": 1716344516418,  
    "update_at": 1716347522157,  
    "delete_at": null,  
    "db_port": "3306",  
    "param_group": null,  
    "actions": [ ],  
    "create_fail_error_code": "500000",  
    "groups": [ {  
      "id": "8d9d63263ece41619ba819f8d85c5cafgr17",  
      "name": "htap-5d98_fe_shard01",  
      "nodes": [ {  
        "id": "7739bfbc4e244a8bac0662d63683c808no17",  
        "name": "htap-5d98_fe_shard01_node01",  
        "type": "fe-leader",  
        "status": "normal",  
        "period": "null",  
        "volume": {  
          "type": "SSD",  
          "size": "50000000000"  
        },  
        "cpu": "4",  
        "mem": "16",  
        "datastore": {  
          "id": "717b683b-9d89-3e3b-9100-7893bee47d95",  
          "type": "star-rocks",  
          "version": "3.1.11.0"  
        },  
        "actions": [ ],  
        "priority": 1,  
        "frozen_flag": 0,  
        "db_port": 3306,  
        "pay_model": "0",  
        "order_id": null,  
        "traffic_ip": "192.168.8.4",  
        "traffic_ipv6": "",  
        "az_code": "cn-southwest-244d",  
        "az_description": "az4",  
        "az_type": "Center",  
        "region_code": "cn-southwest-244",  
        "create_at": 1716344516418,  
      }  
    ],  
    "cpu": "4",  
    "mem": "16",  
    "datastore": {  
      "id": "717b683b-9d89-3e3b-9100-7893bee47d95",  
      "type": "star-rocks",  
      "version": "3.1.11.0"  
    },  
    "actions": [ ],  
    "priority": 1,  
    "frozen_flag": 0,  
    "db_port": 3306,  
    "pay_model": "0",  
    "order_id": null,  
    "traffic_ip": "192.168.8.4",  
    "traffic_ipv6": "",  
    "az_code": "cn-southwest-244d",  
    "az_description": "az4",  
    "az_type": "Center",  
    "region_code": "cn-southwest-244",  
    "create_at": 1716344516418,  
  }  
]
```

```
"update_at" : 1716361751849,
"flavor_id" : "afef3bfd-ac7c-32e1-ba44-c388acbb196a",
"flavor_ref" : "gaussdb.sr-fe.xlarge.x86.4",
"iass_flavor_ref" : "c6.xlarge.4",
"max_connections" : "0",
"vpc_id" : "f7876b94-3696-419b-a609-161de4b42d59",
"subnet_id" : "09249318-4a97-4e48-b314-ffaab86d4295",
"need_restart" : false,
"sg_id" : "",
"param_group" : null
}],
"group_type_name" : "starrocks",
"group_node_type" : "fe"
}, {
"id" : "fc416acdc4c1439e85100e9a7c161932gr17",
"name" : "htap-5d98_be_shard01",
"nodes" : [ {
"id" : "ccab0ba176e642c69d598f2f3c0f06efno17",
"name" : "htap-5d98_be_shard01_node01",
"type" : "be",
"status" : "normal",
"period" : "null",
"volume" : {
"type" : "SSD",
"size" : "50000000000"
},
"cpu" : "4",
"mem" : "16",
"datastore" : {
"id" : "717b683b-9d89-3e3b-9100-7893bee47d95",
"type" : "star-rocks",
"version" : "3.1.11.0"
},
"actions" : [ ],
"priority" : 1,
"frozen_flag" : 0,
"db_port" : 3306,
"pay_model" : "0",
"order_id" : null,
"traffic_ip" : "192.168.8.194",
"traffic_ipv6" : "",
"az_code" : "cn-southwest-244d",
"az_description" : "az4",
"az_type" : "Center",
"region_code" : "cn-southwest-244",
"create_at" : 1716344516418,
"update_at" : 1716358866767,
"flavor_id" : "de565db8-0a96-37ea-9388-61167624712c",
"flavor_ref" : "gaussdb.sr-be.xlarge.x86.4",
"iass_flavor_ref" : "c6.xlarge.4",
"max_connections" : "0",
"vpc_id" : "f7876b94-3696-419b-a609-161de4b42d59",
"subnet_id" : "09249318-4a97-4e48-b314-ffaab86d4295",
"need_restart" : false,
"sg_id" : "",
"param_group" : null
}],
"group_type_name" : "starrocks",
"group_node_type" : "be"
}],
"ops_window" : {
"period" : null,
"start_time" : "18:00",
"end_time" : "22:00"
},
"tags_info" : {
"tags" : [ ],
"sys_tags" : [ {
"key" : "_sys_enterprise_project_id",
```



```
    "value": "0"
  }]
},
"time_zone": "UTC+08:00",
"backup_used_space": null,
"az_mode": "single",
"enterprise_project_id": "0",
"port_info": {
  "mysql_port": 3306
},
"fe_node_volume_code": "gaussdb.sr.evs.ultrahighio",
"be_node_volume_code": "gaussdb.sr.evs.ultrahighio",
"fe_node_volume_size": "50000000000",
"be_node_volume_size": "50000000000",
"support_data_replication": true,
"new_version_available": false,
"ssl_option": false,
"dedicated_resource_id": null,
"pay_model": "0"
}]
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListStarrocksInstanceInfoSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ListStarrocksInstanceInfoRequest request = new ListStarrocksInstanceInfoRequest();
        request.withInstanceId("{instance_id}");
        request.withStarrocksInstanceId("{starrocks_instance_id}");
        try {
            ListStarrocksInstanceInfoResponse response = client.listStarrocksInstanceInfo(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
```

```
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListStarrocksInstanceInfoRequest()
        request.instance_id = "{instance_id}"
        request.starrocks_instance_id = "{starrocks_instance_id}"
        response = client.list_starrocks_instance_info(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
```

```
example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")
projectId := "{project_id}"

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    WithProjectId(projectId).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.ListStarrocksInstanceInfoRequest{}
request.InstanceId = "{instance_id}"
request.StarrocksInstanceId = "{starrocks_instance_id}"
response, err := client.ListStarrocksInstanceInfo(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.15.6 删除 StarRocks 实例

### 功能介绍

删除StarRocks实例。

### 调用方法

请参见[如何调用API](#)。

## URI

DELETE /v3/{project\_id}/instances/{instance\_id}/starrocks/{starrocks\_instance\_id}

表 4-1007 路径参数

| 参数                    | 是否必选 | 参数类型   | 描述                                                           |
|-----------------------|------|--------|--------------------------------------------------------------|
| project_id            | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id           | 是    | String | TaurusDB实例ID，严格匹配UUID规则。                                     |
| starrocks_instance_id | 是    | String | StarRocks实例ID，严格匹配UUID规则。                                    |

## 请求参数

表 4-1008 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| Content-Type | 是    | String | 内容类型。取值：application/json。                                                                              |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

## 响应参数

状态码：200

表 4-1009 响应 Body 参数

| 参数          | 参数类型   | 描述     |
|-------------|--------|--------|
| workflow_id | String | 工作流ID。 |

状态码： 400

表 4-1010 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-1011 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

删除某个StarRocks实例

```
DELETE https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/  
fb632d1d531a4107804f0f082581810fin07/starrocks/9ac58f9b88744f8a87893d22f6ef9a28in17
```

## 响应示例

状态码： 200

Success.

```
{  
  "workflow_id" : "e1bfd0d1-b8d8-417c-9947-7e2ae0de9745"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class DeleteStarrocksInstanceSolution {
```

```
public static void main(String[] args) {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running
    // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    String ak = System.getenv("CLOUD_SDK_AK");
    String sk = System.getenv("CLOUD_SDK_SK");
    String projectId = "{project_id}";

    ICredential auth = new BasicCredentials()
        .withProjectId(projectId)
        .withAk(ak)
        .withSk(sk);

    GaussDBClient client = GaussDBClient.newBuilder()
        .withCredential(auth)
        .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
        .build();
    DeleteStarrocksInstanceRequest request = new DeleteStarrocksInstanceRequest();
    request.withInstanceId("{instance_id}");
    request.withStarrocksInstanceId("{starrocks_instance_id}");
    try {
        DeleteStarrocksInstanceResponse response = client.deleteStarrocksInstance(request);
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteStarrocksInstanceRequest()
```

```
request.instance_id = "{instance_id}"
request.starrocks_instance_id = "{starrocks_instance_id}"
response = client.delete_starrocks_instance(request)
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteStarrocksInstanceRequest{}
    request.InstanceId = "{instance_id}"
    request.StarrocksInstanceId = "{starrocks_instance_id}"
    response, err := client.DeleteStarrocksInstance(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述       |
|-----|----------|
| 200 | Success. |

| 状态码 | 描述            |
|-----|---------------|
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.15.7 重启 StarRocks 实例

### 功能介绍

重启StarRocks实例。

### 调用方法

请参见[如何调用API](#)。

## URI

PUT /v3/{project\_id}/instances/{starrocks\_instance\_id}/starrocks/restart

表 4-1012 路径参数

| 参数                    | 是否必选 | 参数类型   | 描述                                                           |
|-----------------------|------|--------|--------------------------------------------------------------|
| project_id            | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| starrocks_instance_id | 是    | String | StarRocks实例ID，严格匹配UUID规则。                                    |

## 请求参数

表 4-1013 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |



| 参数           | 是否必选 | 参数类型   | 描述                                                                                           |
|--------------|------|--------|----------------------------------------------------------------------------------------------|
| Content-Type | 是    | String | 内容类型。取值：application/json。                                                                    |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul> |

## 响应参数

状态码： 200

表 4-1014 响应 Body 参数

| 参数          | 参数类型   | 描述     |
|-------------|--------|--------|
| workflow_id | String | 工作流ID。 |

状态码： 400

表 4-1015 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-1016 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

重启某个StarRocks实例

```
PUT https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/  
9ac58f9b88744f8a87893d22f6ef9a28in17/starrocks/restart
```

## 响应示例

状态码： 200

Success.

```
{
  "workflow_id" : "e1bfd0d1-b8d8-417c-9947-7e2ae0de9745"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class RestartStarrocksInstanceSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        RestartStarrocksInstanceRequest request = new RestartStarrocksInstanceRequest();
        request.withStarrocksInstanceId("{starrocks_instance_id}");
        try {
            RestartStarrocksInstanceResponse response = client.restartStarrocksInstance(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = RestartStarrocksInstanceRequest()
        request.starrocks_instance_id = "{starrocks_instance_id}"
        response = client.restart_starrocks_instance(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
```

```
WithCredential(auth).  
Build()  
  
request := &model.RestartStarrocksInstanceRequest{}  
request.StarrocksInstanceId = "{starrocks_instance_id}"  
response, err := client.RestartStarrocksInstance(request)  
if err == nil {  
    fmt.Printf("%+v\n", response)  
} else {  
    fmt.Println(err)  
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.15.8 重启 StarRocks 节点

### 功能介绍

重启StarRocks节点。

### 调用方法

请参见[如何调用API](#)。

### URI

PUT /v3/{project\_id}/instances/{starrocks\_instance\_id}/starrocks/  
{starrocks\_node\_id}/restart

表 4-1017 路径参数

| 参数         | 是否必选 | 参数类型   | 描述                                                           |
|------------|------|--------|--------------------------------------------------------------|
| project_id | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |

| 参数                    | 是否必选 | 参数类型   | 描述                         |
|-----------------------|------|--------|----------------------------|
| starrocks_node_id     | 是    | String | StarRocks节点ID              |
| starrocks_instance_id | 是    | String | StarRocks实例ID, 严格匹配UUID规则。 |

## 请求参数

表 4-1018 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| Content-Type | 是    | String | 内容类型。取值: application/json。                                                                             |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围: <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

## 响应参数

状态码: 200

表 4-1019 响应 Body 参数

| 参数          | 参数类型   | 描述     |
|-------------|--------|--------|
| workflow_id | String | 工作流ID。 |

状态码: 400

表 4-1020 响应 Body 参数

| 参数         | 参数类型   | 描述   |
|------------|--------|------|
| error_code | String | 错误码。 |

| 参数        | 参数类型   | 描述    |
|-----------|--------|-------|
| error_msg | String | 错误消息。 |

状态码： 500

表 4-1021 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

重启某个StarRocks实例下节点

```
PUT https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/  
9ac58f9b88744f8a87893d22f6ef9a28in17/starrocks/2c464fbdc8ea4c59814dab2243d8e270no17/restart
```

## 响应示例

状态码： 200

Success.

```
{  
  "workflow_id" : "e1bfd0d1-b8d8-417c-9947-7e2ae0de9745"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class RestartStarrocksNodeSolution {  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
```

```
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");
String projectId = "{project_id}";

ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
RestartStarrocksNodeRequest request = new RestartStarrocksNodeRequest();
request.withStarrocksNodeId("{starrocks_node_id}");
request.withStarrocksInstanceId("{starrocks_instance_id}");
try {
    RestartStarrocksNodeResponse response = client.restartStarrocksNode(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = RestartStarrocksNodeRequest()
        request.starrocks_node_id = "{starrocks_node_id}"
        request.starrocks_instance_id = "{starrocks_instance_id}"
        response = client.restart_starrocks_node(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
```

```
print(e.error_code)
print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.RestartStarrocksNodeRequest{
        request.StarrocksNodeId = "{starrocks_node_id}"
        request.StarrocksInstanceId = "{starrocks_instance_id}"
    }
    response, err := client.RestartStarrocksNode(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |



## 错误码

请参见[错误码](#)。

## 4.15.9 StarRocks 资源检查

### 功能介绍

StarRocks资源检查。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/starrocks/resource-check

表 4-1022 路径参数

| 参数         | 是否必选 | 参数类型   | 描述                                                           |
|------------|------|--------|--------------------------------------------------------------|
| project_id | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |

### 请求参数

表 4-1023 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| Content-Type | 是    | String | 内容类型。<br>取值：application/json。                                                                          |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

表 4-1024 请求 Body 参数

| 参数       | 是否必选 | 参数类型                            | 描述              |
|----------|------|---------------------------------|-----------------|
| action   | 是    | String                          | 校验类型，仅支持校验创建实例。 |
| resource | 是    | <a href="#">resource object</a> | 资源信息。           |

表 4-1025 resource

| 参数                     | 是否必选 | 参数类型    | 描述                                                         |
|------------------------|------|---------|------------------------------------------------------------|
| enterprise_project_id  | 是    | String  | 企业项目ID。                                                    |
| instance_num           | 是    | Integer | 实例数量。                                                      |
| mode                   | 是    | String  | 实例部署模式。                                                    |
| availability_zone_mode | 是    | String  | 可用区类型，目前仅支持single。                                         |
| fe_node_num            | 是    | Integer | FE节点数量。                                                    |
| be_node_num            | 是    | Integer | BE节点数量。                                                    |
| fe_flavor_ref          | 是    | String  | FE规格码。                                                     |
| be_flavor_ref          | 是    | String  | BE规格码。                                                     |
| availability_zone      | 否    | String  | 可用区码。选填，校验可用区码是否正确。                                        |
| subnet_id              | 是    | String  | HTAP实例子网即TaurusDB实例子网。<br>获取方法请参见 <a href="#">获取子网ID</a> 。 |

## 响应参数

状态码： 200

表 4-1026 响应 Body 参数

| 参数     | 参数类型    | 描述    |
|--------|---------|-------|
| result | Boolean | 检查结果。 |

状态码： 400

表 4-1027 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-1028 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

### StarRocks实例资源检查

POST https://{endpoint}/v3/8f26bcd59e84e1d9e0569c32545cee9/starrocks/resource-check

```
{
  "action": "createInstance",
  "resource": {
    "instance_num": 1,
    "mode": "Cluster",
    "availability_zone_mode": "single",
    "fe_node_num": 3,
    "be_node_num": 3,
    "fe_flavor_ref": "gaussdb.sr-fe.8xlarge.x86.4",
    "be_flavor_ref": "gaussdb.sr-be.8xlarge.x86.4",
    "availability_zone": "cn-southwest-244a",
    "subnet_id": "b00dc497-91e1-4082-aeb0-a1dc95e10371",
    "enterprise_project_id": "0"
  }
}
```

## 响应示例

状态码： 200

Success.

```
{
  "result": true
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

StarRocks实例资源检查

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class CheckStarRocksResourceSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        CheckStarRocksResourceRequest request = new CheckStarRocksResourceRequest();
        ResourceCheck body = new ResourceCheck();
        ResourceCheckResource resourcebody = new ResourceCheckResource();
        resourcebody.withEnterpriseProjectId("0")
            .withInstanceNum(1)
            .withMode(ResourceCheckResource.ModeEnum.fromValue("Cluster"))
            .withAvailabilityZoneMode("single")
            .withFeNodeNum(3)
            .withBeNodeNum(3)
            .withFeFlavorRef("gaussdb.sr-fe.8xlarge.x86.4")
            .withBeFlavorRef("gaussdb.sr-be.8xlarge.x86.4")
            .withAvailabilityZone("cn-southwest-244a")
            .withSubnetId("b00dc497-91e1-4082-aeb0-a1dc95e10371");
        body.withResource(resourcebody);
        body.withAction(ResourceCheck.ActionEnum.fromValue("createInstance"));
        request.withBody(body);
        try {
            CheckStarRocksResourceResponse response = client.checkStarRocksResource(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

### StarRocks实例资源检查

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CheckStarRocksResourceRequest()
        resourcebody = ResourceCheckResource(
            enterprise_project_id="0",
            instance_num=1,
            mode="Cluster",
            availability_zone_mode="single",
            fe_node_num=3,
            be_node_num=3,
            fe_flavor_ref="gaussdb.sr-fe.8xlarge.x86.4",
            be_flavor_ref="gaussdb.sr-be.8xlarge.x86.4",
            availability_zone="cn-southwest-244a",
            subnet_id="b00dc497-91e1-4082-aeb0-a1dc95e10371"
        )
        request.body = ResourceCheck(
            resource=resourcebody,
            action="createInstance"
        )
        response = client.check_star_rocks_resource(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

### StarRocks实例资源检查

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
```

```
// In this example, AK and SK are stored in environment variables for authentication. Before running this
example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")
projectId := "{project_id}"

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    WithProjectId(projectId).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.CheckStarRocksResourceRequest{
    availabilityZoneResource:= "cn-southwest-244a"
    resourcebody := &model.ResourceCheckResource{
        EnterpriseProjectId: "0",
        InstanceNum: int32(1),
        Mode: model.GetResourceCheckResourceModeEnum().CLUSTER,
        AvailabilityZoneMode: "single",
        FeNodeNum: int32(3),
        BeNodeNum: int32(3),
        FeFlavorRef: "gaussdb.sr-fe.8xlarge.x86.4",
        BeFlavorRef: "gaussdb.sr-be.8xlarge.x86.4",
        AvailabilityZone: &availabilityZoneResource,
        SubnetId: "b00dc497-91e1-4082-aeb0-a1dc95e10371",
    }
}
request.Body = &model.ResourceCheck{
    Resource: resourcebody,
    Action: model.GetResourceCheckActionEnum().CREATE_INSTANCE,
}
response, err := client.CheckStarRocksResource(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.15.10 HTAP 引擎资源查询

### 功能介绍

HTAP引擎资源查询。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/htap/datastores/{engine\_name}

表 4-1029 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                                                               |
|-------------|------|--------|--------------------------------------------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。                                     |
| engine_name | 是    | String | HTAP引擎名。<br>取值范围： <ul style="list-style-type: none"><li>star-rocks</li><li>click-house</li></ul> |

### 请求参数

表 4-1030 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| Content-Type | 是    | String | 内容类型。取值：application/json。                                                                              |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

## 响应参数

状态码： 200

表 4-1031 响应 Body 参数

| 参数         | 参数类型                               | 描述       |
|------------|------------------------------------|----------|
| datastores | Array of <b>datastores</b> objects | 数据库信息列表。 |

表 4-1032 datastores

| 参数             | 参数类型   | 描述                    |
|----------------|--------|-----------------------|
| id             | String | 数据库版本ID, 该字段不会有重复。    |
| name           | String | 数据库版本号, 只返回两位数的大版本号。  |
| kernel_version | String | 数据库内核版本号, 返回完整的四位版本号。 |

状态码： 400

表 4-1033 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-1034 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

查询StarRocks数据库版本信息



GET https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/htap/datastores/star-rock

## 响应示例

**状态码: 200**

Success.

```
{
  "datastores": [ {
    "id": "38197973-8895-36ed-b853-52daee6d3a",
    "name": "3.1",
    "kernel_version": "3.1.6.0"
  } ]
}
```

**状态码: 400**

Client error.

```
{
  "error_msg": "Invalid database type.",
  "error_code": "DBS.280235"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListHtapDataStoreSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ListHtapDataStoreRequest request = new ListHtapDataStoreRequest();
        request.withEngineName("{engine_name}");
        try {
```

```
ListHtapDataStoreResponse response = client.listHtapDataStore(request);
System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListHtapDataStoreRequest()
        request.engine_name = "{engine_name}"
        response = client.list_htap_data_store(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
```

```
variables and decrypted during use to ensure security.
// In this example, AK and SK are stored in environment variables for authentication. Before running this
example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")
projectId := "{project_id}"

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    WithProjectId(projectId).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.ListHtapDataStoreRequest{
    request.EngineName = "{engine_name}"
}
response, err := client.ListHtapDataStore(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.15.11 获取 HTAP 实例存储类型

### 功能介绍

获取HTAP实例存储类型。

### 调用方法

请参见[如何调用API](#)。

## URI

GET /v3/{project\_id}/htap/storage-type/{database}

表 4-1035 路径参数

| 参数         | 是否必选 | 参数类型   | 描述                                                                                                |
|------------|------|--------|---------------------------------------------------------------------------------------------------|
| project_id | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。                                      |
| database   | 是    | String | HTAP数据库名。<br>取值范围： <ul style="list-style-type: none"><li>star-rocks</li><li>click-house</li></ul> |

表 4-1036 Query 参数

| 参数           | 是否必选 | 参数类型   | 描述      |
|--------------|------|--------|---------|
| version_name | 是    | String | 数据库大版本号 |

## 请求参数

表 4-1037 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| Content-Type | 是    | String | 内容类型。取值：application/json。                                                                              |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

## 响应参数

状态码： 200

表 4-1038 响应 Body 参数

| 参数           | 参数类型                                          | 描述    |
|--------------|-----------------------------------------------|-------|
| storage_type | Array of <a href="#">storage_type</a> objects | 存储类型。 |

表 4-1039 storage\_type

| 参数              | 参数类型               | 描述         |
|-----------------|--------------------|------------|
| name            | String             | 存储介质名。     |
| az_status       | Map<String,String> | 可支持可用区信息。  |
| min_volume_size | Integer            | 最小可提供磁盘大小。 |

状态码： 400

表 4-1040 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-1041 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

查询可提供给StarRocks实例的磁盘存储类型

```
GET https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/htap/storage-type/star-rocks?version_name=3.1.6.0
```

## 响应示例

### 状态码： 200

Success.

```
{
  "storage_type": [ {
    "name": "ULTRAHIGH",
    "az_status": {
      "cn-southwest-244d": "normal",
      "cn-southwest-244c": "normal",
      "cn-southwest-244b": "normal",
      "cn-southwest-244a": "normal"
    },
    "min_volume_size": 50
  }, {
    "name": "ESSD",
    "az_status": {
      "cn-southwest-244d": "unsupported",
      "cn-southwest-244c": "unsupported",
      "cn-southwest-244b": "normal",
      "cn-southwest-244a": "normal"
    },
    "min_volume_size": 40
  } ]
}
```

### 状态码： 400

Client error.

```
{
  "error_msg": "The DB engine or version is not supported.",
  "error_code": "DBS.280238"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListHtapStorageTypeSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";
    }
}
```

```
ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
ListHtapStorageTypeRequest request = new ListHtapStorageTypeRequest();
request.withDatabase("{database}");
try {
    ListHtapStorageTypeResponse response = client.listHtapStorageType(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListHtapStorageTypeRequest()
        request.database = "{database}"
        response = client.list_htap_storage_type(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListHtapStorageTypeRequest{}
    request.Database = "{database}"
    response, err := client.ListHtapStorageType(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。



## 4.15.12 HTAP 查询规格信息

### 功能介绍

HTAP查询规格信息。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/htap/flavors/{engine\_name}

表 4-1042 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                                                               |
|-------------|------|--------|--------------------------------------------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。                                     |
| engine_name | 是    | String | HTAP引擎名。<br>取值范围： <ul style="list-style-type: none"><li>star-rocks</li><li>click-house</li></ul> |

表 4-1043 Query 参数

| 参数                     | 是否必选 | 参数类型   | 描述                   |
|------------------------|------|--------|----------------------|
| availability_zone_mode | 否    | String | 可用区模式，当前仅支持single。   |
| spec_code              | 否    | String | 规格码，提供后仅查询指定规格码规格信息。 |
| version_name           | 否    | String | 数据库版本号，不填默认3.1.6.0。  |

## 请求参数

表 4-1044 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| Content-Type | 是    | String | 内容类型。取值：application/json。                                                                              |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

## 响应参数

状态码： 200

表 4-1045 响应 Body 参数

| 参数      | 参数类型                                     | 描述    |
|---------|------------------------------------------|-------|
| flavors | Array of <a href="#">flavors</a> objects | 规格信息。 |

表 4-1046 flavors

| 参数    | 参数类型   | 描述                                                                                    |
|-------|--------|---------------------------------------------------------------------------------------|
| type  | String | 规格类型，取值为arm、x86和generalX86。<br>arm：独享型arm规格。<br>x86：独享型x86规格。<br>generalX86：通用型X86规格。 |
| vcpus | String | CPU大小。例如：1表示1U。                                                                       |
| ram   | String | 内存大小，单位为GB。                                                                           |
| id    | String | 规格ID，该字段唯一。                                                                           |

| 参数            | 参数类型               | 描述                                                                                                                                           |
|---------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| spec_code     | String             | 资源规格编码，同创建指定的 flavor_ref。例如：gaussdb.sr-be.xlarge.x86.4。<br>“gaussdb.sr”代表产品。<br>“xlarge”代表计算规格为4U。<br>“x86”代表CPU架构为x86。<br>“4”表示vCPU和内存为1:4。 |
| version_name  | String             | 数据库版本号。                                                                                                                                      |
| instance_mode | String             | 实例类型。目前仅支持Cluster、Single。                                                                                                                    |
| az_status     | Map<String,String> | 规格所在AZ的状态，包含以下状态：<br>normal：在售。<br>unsupported：暂不支持该规格。<br>sellout：售罄。                                                                       |

状态码： 400

表 4-1047 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-1048 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

查询StarRocks规格信息

```
GET https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/htap/flavors/star-rocks?availability_zone_mode=single
```

## 响应示例

状态码： 200

Success.

```
{
  "flavors": [ {
    "type": "x86",
    "vcpus": "4",
    "ram": "16",
    "id": "de565db8-0a96-37ea-9388-61167624712c",
    "spec_code": "gaussdb.sr-be.xlarge.x86.4",
    "version_name": "8.0",
    "instance_mode": "Cluster",
    "az_status": {
      "cn-southwest-244d": "normal",
      "cn-southwest-244c": "normal",
      "cn-southwest-244b": "normal",
      "cn-southwest-244a": "unsupported"
    }
  }, {
    "type": "x86",
    "vcpus": "4",
    "ram": "16",
    "id": "afef3bfd-ac7c-32e1-ba44-c388acbb196a",
    "spec_code": "gaussdb.sr-fe.xlarge.x86.4",
    "version_name": "8.0",
    "instance_mode": "Cluster",
    "az_status": {
      "cn-southwest-244d": "normal",
      "cn-southwest-244c": "normal",
      "cn-southwest-244b": "normal",
      "cn-southwest-244a": "unsupported"
    }
  }, {
    "type": "x86",
    "vcpus": "8",
    "ram": "32",
    "id": "c50e8e15-f2fc-3b40-aca6-c98f07ce2ce0",
    "spec_code": "gaussdb.sr-be.2xlarge.x86.4",
    "version_name": "8.0",
    "instance_mode": "Cluster",
    "az_status": {
      "cn-southwest-244d": "normal",
      "cn-southwest-244c": "normal",
      "cn-southwest-244b": "normal",
      "cn-southwest-244a": "unsupported"
    }
  }, {
    "type": "x86",
    "vcpus": "8",
    "ram": "32",
    "id": "24059750-4280-3ee5-a44b-488b924633b4",
    "spec_code": "gaussdb.sr-fe.2xlarge.x86.4",
    "version_name": "8.0",
    "instance_mode": "Cluster",
    "az_status": {
      "cn-southwest-244d": "normal",
      "cn-southwest-244c": "normal",
      "cn-southwest-244b": "normal",
      "cn-southwest-244a": "unsupported"
    }
  }, {
    "type": "x86",
    "vcpus": "16",
    "ram": "64",
    "id": "a48c63dc-5563-3813-9e13-39d3301e56f4",
    "spec_code": "gaussdb.sr-be.4xlarge.x86.4",
  }
}
```

```
"version_name": "8.0",
"instance_mode": "Cluster",
"az_status": {
  "cn-southwest-244d": "normal",
  "cn-southwest-244c": "normal",
  "cn-southwest-244b": "normal",
  "cn-southwest-244a": "unsupported"
}
}, {
  "type": "x86",
  "vcpus": "16",
  "ram": "64",
  "id": "0ef44c01-f7a1-30f5-9f05-9e47094e8c1f",
  "spec_code": "gaussdb.sr-fe.4xlarge.x86.4",
  "version_name": "8.0",
  "instance_mode": "Cluster",
  "az_status": {
    "cn-southwest-244d": "normal",
    "cn-southwest-244c": "normal",
    "cn-southwest-244b": "normal",
    "cn-southwest-244a": "unsupported"
  }
}, {
  "type": "x86",
  "vcpus": "32",
  "ram": "128",
  "id": "2bf6aa50-50da-3f27-91af-a8c873070537",
  "spec_code": "gaussdb.sr-fe.8xlarge.x86.4",
  "version_name": "8.0",
  "instance_mode": "Cluster",
  "az_status": {
    "cn-southwest-244d": "normal",
    "cn-southwest-244c": "normal",
    "cn-southwest-244b": "normal",
    "cn-southwest-244a": "normal"
  }
}, {
  "type": "x86",
  "vcpus": "32",
  "ram": "128",
  "id": "9f52a065-aa93-371a-9975-959fedf6e24f",
  "spec_code": "gaussdb.sr-be.8xlarge.x86.4",
  "version_name": "8.0",
  "instance_mode": "Cluster",
  "az_status": {
    "cn-southwest-244d": "normal",
    "cn-southwest-244c": "normal",
    "cn-southwest-244b": "normal",
    "cn-southwest-244a": "normal"
  }
}, {
  "type": "x86",
  "vcpus": "64",
  "ram": "256",
  "id": "709822e4-567f-3e85-b4af-cb099206c8e2",
  "spec_code": "gaussdb.sr-fe.16xlarge.x86.4",
  "version_name": "8.0",
  "instance_mode": "Cluster",
  "az_status": {
    "cn-southwest-244d": "normal",
    "cn-southwest-244c": "normal",
    "cn-southwest-244b": "normal",
    "cn-southwest-244a": "unsupported"
  }
}, {
  "type": "x86",
  "vcpus": "64",
  "ram": "256",
  "id": "4e56e208-0226-34bb-b84d-035ab0497824",
```

```
"spec_code": "gaussdb.sr-be.16xlarge.x86.4",
"version_name": "8.0",
"instance_mode": "Cluster",
"az_status": {
  "cn-southwest-244d": "normal",
  "cn-southwest-244c": "normal",
  "cn-southwest-244b": "normal",
  "cn-southwest-244a": "unsupported"
}
}]
}
```

**状态码: 400**

Client error.

```
{
  "error_msg": "Invalid specification code.",
  "error_code": "DBS.280434"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListHtapFlavorSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ListHtapFlavorRequest request = new ListHtapFlavorRequest();
        request.withEngineName("{engine_name}");
        try {
            ListHtapFlavorResponse response = client.listHtapFlavor(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        }
    }
}
```

```
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListHtapFlavorRequest()
        request.engine_name = "{engine_name}"
        response = client.list_htap_flavor(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
```

```
projectId := "{project_id}"

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    WithProjectId(projectId).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.ListHtapFlavorRequest{}
request.EngineName = "{engine_name}"
response, err := client.ListHtapFlavor(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.15.13 查询 HTAP 实例列表

### 功能介绍

查询HTAP实例列表。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/instances/{instance\_id}/htap



表 4-1049 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | TaurusDB实例ID，严格匹配UUID规则。                                     |

## 请求参数

表 4-1050 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| Content-Type | 是    | String | 内容类型。取值：application/json。                                                                              |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

## 响应参数

状态码：200

表 4-1051 响应 Body 参数

| 参数                              | 参数类型                                       | 描述          |
|---------------------------------|--------------------------------------------|-------------|
| total                           | Integer                                    | HTAP实例个数。   |
| instances                       | Array of <a href="#">instances</a> objects | HTAP实例信息。   |
| max_htap_instance_num_of_taurus | Integer                                    | 最大HTAP实例个数。 |

表 4-1052 instances

| 参数                    | 参数类型                                               | 描述                                    |
|-----------------------|----------------------------------------------------|---------------------------------------|
| id                    | String                                             | HTAP实例ID, 严格匹配UUID规则。                 |
| name                  | String                                             | HTAP实例名。                              |
| engine_name           | String                                             | HTAP数据库引擎名。                           |
| engine_version        | String                                             | HTAP数据库引擎版本。                          |
| project_id            | String                                             | 租户在某一region下的project ID               |
| instance_state        | <a href="#">instance_state</a> object              | HTAP实例状态信息。                           |
| create_at             | Long                                               | HTAP实例创建时间。                           |
| is_frozen             | Boolean                                            | HTAP实例是否冻结。                           |
| ha_mode               | String                                             | HTAP实例部署模式。                           |
| pay_model             | String                                             | 计费模式。当前仅支持按需计费。<br>0: 按需计费<br>1: 包周期  |
| order_id              | String                                             | 包周期计费订单ID。                            |
| alter_order_id        | String                                             | 包周期计费备用订单ID。                          |
| data_vip              | String                                             | 读写内网地址。                               |
| readable_node_info    | Array of <a href="#">ReadableNodeInfos</a> objects | 可读节点信息                                |
| proxy_ips             | Array of strings                                   | 代理IP。                                 |
| data_vip_v6           | String                                             | 读写内网地址IPV6。                           |
| port                  | Integer                                            | 数据库访问端口。                              |
| available_zones       | Array of <a href="#">available_zones</a> objects   | 可用区信息。                                |
| current_actions       | Array of <a href="#">QueryAction</a> objects       | 实例动作。                                 |
| volume_type           | String                                             | 存储类型。                                 |
| server_type           | String                                             | 服务器类型。                                |
| enterprise_project_id | String                                             | 企业项目ID。如果账户开通企业项目服务则该参数必选, 未开启该参数不可选。 |

| 参数                    | 参数类型                  | 描述                        |
|-----------------------|-----------------------|---------------------------|
| dedicated_resource_id | String                | 专属资源池ID，只有开通专属资源池后才支持此参数。 |
| network               | <b>network</b> object | 网络信息。                     |
| ch_master_node_id     | String                | ClickHouse主节点ID。          |
| node_num              | Integer               | 节点个数。                     |

表 4-1053 instance\_state

| 参数                      | 参数类型    | 描述              |
|-------------------------|---------|-----------------|
| instance_status         | String  | HTAP实例状态。       |
| create_fail_error_code  | String  | HTAP实例创建失败错误码。  |
| fail_message            | String  | HTAP实例创建失败错误信息。 |
| wait_restart_for_params | Boolean | 是否需要重启更新参数。     |

表 4-1054 ReadableNodeInfos

| 参数        | 参数类型   | 描述      |
|-----------|--------|---------|
| data_ip   | String | 可读节点IP。 |
| node_id   | String | 可读节点ID。 |
| node_name | String | 可读节点名称。 |

表 4-1055 available\_zones

| 参数          | 参数类型   | 描述     |
|-------------|--------|--------|
| code        | String | 可用区码。  |
| description | String | 可用区描述。 |
| az_type     | String | 可用区类型。 |

表 4-1056 QueryAction

| 参数         | 参数类型   | 描述           |
|------------|--------|--------------|
| id         | String | 实例或节点动作ID。   |
| action     | String | 实例或节点动作名称。   |
| object_id  | String | 实例或节点动作对象ID。 |
| type       | String | 实例或节点动作类型。   |
| job_id     | String | 实例或节点动作任务ID。 |
| status     | String | 实例或节点动作状态。   |
| created_at | Long   | 实例或节点动作创建时间。 |
| updated_at | Long   | 实例或节点动作更新时间。 |

表 4-1057 network

| 参数                | 参数类型   | 描述       |
|-------------------|--------|----------|
| vpc_id            | String | 虚拟私有云ID。 |
| sub_net_id        | String | 子网ID。    |
| security_group_id | String | 安全组ID。   |

状态码： 400

表 4-1058 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-1059 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

### 查询TaurusDB下HTAP实例列表

```
GET https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/  
18c3eeb7b788479eb8b93b209946a83bin07/htap
```

## 响应示例

状态码： 200

Success.

```
{  
  "total": 2,  
  "instances": [ {  
    "id": "5fbd54b94f0f4adbb17f728f581d247ein17",  
    "name": "htap-1f05",  
    "engine_name": "star-rocks",  
    "engine_version": "3.1.11",  
    "project_id": "23a50154cf494ec9ad6883979a12db0a",  
    "instance_state": {  
      "instance_status": "normal",  
      "create_fail_error_code": null,  
      "fail_message": null,  
      "wait_restart_for_params": false  
    },  
    "create_at": 1716364704475,  
    "is_frozen": false,  
    "ha_mode": "Cluster",  
    "pay_model": "0",  
    "order_id": null,  
    "alter_order_id": "",  
    "data_vip": "192.168.8.69,192.168.8.28,192.168.8.91",  
    "readable_node_infos": [ {  
      "data_ip": "192.168.8.69",  
      "node_id": "48e89b523de54a168bdd5ce0d6c134f0no17",  
      "node_name": "htap-1f05_fe_shard01_node01"  
    }, {  
      "data_ip": "192.168.8.28",  
      "node_id": "70bcbaef85164a299188cc6798de67f6no17",  
      "node_name": "htap-1f05_fe_shard01_node02"  
    }, {  
      "data_ip": "192.168.8.91",  
      "node_id": "f50fdf0c1e7447b3bca7d9eefe9d4a30no17",  
      "node_name": "htap-1f05_fe_shard01_node03"  
    } ],  
    "proxy_ips": [ ],  
    "data_vip_v6": null,  
    "port": 3306,  
    "available_zones": [ {  
      "code": "cn-southwest-244d",  
      "description": "az4",  
      "az_type": "Center"  
    } ],  
    "current_actions": [ ],  
    "volume_type": "SSD",  
    "server_type": "KVM",  
    "enterprise_project_id": "0",  
    "dedicated_resource_id": "",  
    "network": {  
      "vpc_id": "f7876b94-3696-419b-a609-161de4b42d59",  
      "sub_net_id": "09249318-4a97-4e48-b314-ffaab86d4295",  
      "security_group_id": ""  
    },  
    "ch_master_node_id": null,  
    "node_num": 6  
  }, {  
    "id": "5fbd54b94f0f4adbb17f728f581d247ein17",  
    "name": "htap-1f05",  
    "engine_name": "star-rocks",  
    "engine_version": "3.1.11",  
    "project_id": "23a50154cf494ec9ad6883979a12db0a",  
    "instance_state": {  
      "instance_status": "normal",  
      "create_fail_error_code": null,  
      "fail_message": null,  
      "wait_restart_for_params": false  
    },  
    "create_at": 1716364704475,  
    "is_frozen": false,  
    "ha_mode": "Cluster",  
    "pay_model": "0",  
    "order_id": null,  
    "alter_order_id": "",  
    "data_vip": "192.168.8.69,192.168.8.28,192.168.8.91",  
    "readable_node_infos": [ {  
      "data_ip": "192.168.8.69",  
      "node_id": "48e89b523de54a168bdd5ce0d6c134f0no17",  
      "node_name": "htap-1f05_fe_shard01_node01"  
    }, {  
      "data_ip": "192.168.8.28",  
      "node_id": "70bcbaef85164a299188cc6798de67f6no17",  
      "node_name": "htap-1f05_fe_shard01_node02"  
    }, {  
      "data_ip": "192.168.8.91",  
      "node_id": "f50fdf0c1e7447b3bca7d9eefe9d4a30no17",  
      "node_name": "htap-1f05_fe_shard01_node03"  
    } ],  
    "proxy_ips": [ ],  
    "data_vip_v6": null,  
    "port": 3306,  
    "available_zones": [ {  
      "code": "cn-southwest-244d",  
      "description": "az4",  
      "az_type": "Center"  
    } ],  
    "current_actions": [ ],  
    "volume_type": "SSD",  
    "server_type": "KVM",  
    "enterprise_project_id": "0",  
    "dedicated_resource_id": "",  
    "network": {  
      "vpc_id": "f7876b94-3696-419b-a609-161de4b42d59",  
      "sub_net_id": "09249318-4a97-4e48-b314-ffaab86d4295",  
      "security_group_id": ""  
    },  
    "ch_master_node_id": null,  
    "node_num": 6  
  } ]  
}
```

```
{
  "id": "914481def3574d5189baee926a26512din17",
  "name": "htap-5d98",
  "engine_name": "star-rocks",
  "engine_version": "3.1.11",
  "project_id": "23a50154cf494ec9ad6883979a12db0a",
  "instance_state": {
    "instance_status": "normal",
    "create_fail_error_code": "500000",
    "fail_message": null,
    "wait_restart_for_params": false
  },
  "create_at": 1716344516418,
  "is_frozen": false,
  "ha_mode": "Single",
  "pay_model": "0",
  "order_id": null,
  "alter_order_id": "",
  "data_vip": "192.168.8.4",
  "readable_node_infos": [ {
    "data_ip": "192.168.8.4",
    "node_id": "7739bfb4e244a8bac0662d63683c808no17",
    "node_name": "htap-5d98_fe_shard01_node01"
  } ],
  "proxy_ips": [ ],
  "data_vip_v6": null,
  "port": 3306,
  "available_zones": [ {
    "code": "cn-southwest-244d",
    "description": "az4",
    "az_type": "Center"
  } ],
  "current_actions": [ ],
  "volume_type": "SSD",
  "server_type": "KVM",
  "enterprise_project_id": "0",
  "dedicated_resource_id": "",
  "network": {
    "vpc_id": "f7876b94-3696-419b-a609-161de4b42d59",
    "sub_net_id": "09249318-4a97-4e48-b314-ffaab86d4295",
    "security_group_id": ""
  },
  "ch_master_node_id": null,
  "node_num": 2
} ],
"max_htap_instance_num_of_taurus": 10
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListHtapInstanceInfoSolution {

    public static void main(String[] args) {
```

```
// The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
environment variables and decrypted during use to ensure security.
// In this example, AK and SK are stored in environment variables for authentication. Before running
this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");
String projectId = "{project_id}";

ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
ListHtapInstanceInfoRequest request = new ListHtapInstanceInfoRequest();
request.withInstanceId("{instance_id}");
try {
    ListHtapInstanceInfoResponse response = client.listHtapInstanceInfo(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListHtapInstanceInfoRequest()
        request.instance_id = "{instance_id}"
        response = client.list_htap_instance_info(request)
        print(response)
```

```
except exceptions.ClientRequestException as e:  
    print(e.status_code)  
    print(e.request_id)  
    print(e.error_code)  
    print(e.error_msg)
```

## Go

```
package main  
  
import (  
    "fmt"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"  
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"  
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"  
)  
  
func main() {  
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    // variables and decrypted during use to ensure security.  
    // In this example, AK and SK are stored in environment variables for authentication. Before running this  
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak := os.Getenv("CLOUD_SDK_AK")  
    sk := os.Getenv("CLOUD_SDK_SK")  
    projectId := "{project_id}"  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).  
        WithSk(sk).  
        WithProjectId(projectId).  
        Build()  
  
    client := gaussdb.NewGaussDBClient(  
        gaussdb.GaussDBClientBuilder().  
            WithRegion(region.ValueOf("<YOUR REGION>")).  
            WithCredential(auth).  
            Build())  
  
    request := &model.ListHtapInstanceInfoRequest{}  
    request.InstanceId = "{instance_id}"  
    response, err := client.ListHtapInstanceInfo(request)  
    if err == nil {  
        fmt.Printf("%+v\n", response)  
    } else {  
        fmt.Println(err)  
    }  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |



## 错误码

请参见[错误码](#)。

## 4.15.14 创建 StarRocks 数据同步

### 功能介绍

创建StarRocks数据同步。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/instances/{instance\_id}/starrocks/databases/replication

表 4-1060 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | StarRocks实例ID，严格匹配UUID规则。                                    |

### 请求参数

表 4-1061 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 是    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

表 4-1062 请求 Body 参数

| 参数                 | 是否必选 | 参数类型   | 描述                                     |
|--------------------|------|--------|----------------------------------------|
| source_instance_id | 是    | String | TaurusDB实例ID。                          |
| source_node_id     | 否    | String | TaurusDB只读节点ID。                        |
| source_database    | 是    | String | 源数据库。字符长度限制3~1024位，仅支持英文大小写字母、数字以及下划线。 |
| target_database    | 是    | String | 目标数据库。字符长度限制3~128位，仅支持英文大小写字母、数字以及下划线。 |
| task_name          | 是    | String | 同步任务名。字符长度限制3~128位，仅支持英文大小写字母、数字以及下划线。 |

## 响应参数

状态码： 200

表 4-1063 响应 Body 参数

| 参数     | 参数类型   | 描述           |
|--------|--------|--------------|
| job_id | String | 创建数据同步的任务ID。 |

状态码： 400

表 4-1064 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-1065 响应 Body 参数

| 参数         | 参数类型   | 描述   |
|------------|--------|------|
| error_code | String | 错误码。 |

| 参数        | 参数类型   | 描述    |
|-----------|--------|-------|
| error_msg | String | 错误描述。 |

## 请求示例

```
POST https://{localhost}/v3/{project_id}/instances/{instance_id}/starrocks/databases/replication
{
  "source_instance_id": "source_instance_id",
  "source_node_id": "source_node_id",
  "source_database": "source_database",
  "target_database": "target_database",
  "task_name": "task_name"
}
```

## 响应示例

**状态码: 200**

Success.

```
{
  "job_id": "123"
}
```

**状态码: 400**

Client error.

```
{
  "error_code": "DBS.200022",
  "error_msg": "实例不存在"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class CreateStarRocksDataReplicationSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
```

```
String sk = System.getenv("CLOUD_SDK_SK");
String projectId = "{project_id}";

ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();

CreateStarRocksDataReplicationRequest request = new CreateStarRocksDataReplicationRequest();
request.withInstanceId("{instance_id}");
CreateStarRocksDataReplication body = new CreateStarRocksDataReplication();
body.withTaskName("task_name");
body.withTargetDatabase("target_database");
body.withSourceDatabase("source_database");
body.withSourceNodeId("source_node_id");
body.withSourceInstanceId("source_instance_id");
request.withBody(body);
try {
    CreateStarRocksDataReplicationResponse response =
client.createStarRocksDataReplication(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateStarRocksDataReplicationRequest()
        request.instance_id = "{instance_id}"
```

```
request.body = CreateStarRocksDataReplication(  
    task_name="task_name",  
    target_database="target_database",  
    source_database="source_database",  
    source_node_id="source_node_id",  
    source_instance_id="source_instance_id"  
)  
response = client.create_star_rocks_data_replication(request)  
print(response)  
except exceptions.ClientRequestException as e:  
    print(e.status_code)  
    print(e.request_id)  
    print(e.error_code)  
    print(e.error_msg)
```

## Go

```
package main  
  
import (  
    "fmt"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"  
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"  
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"  
)  
  
func main() {  
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    // variables and decrypted during use to ensure security.  
    // In this example, AK and SK are stored in environment variables for authentication. Before running this  
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak := os.Getenv("CLOUD_SDK_AK")  
    sk := os.Getenv("CLOUD_SDK_SK")  
    projectId := "{project_id}"  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).  
        WithSk(sk).  
        WithProjectId(projectId).  
        Build()  
  
    client := gaussdb.NewGaussDBClient(  
        gaussdb.GaussDBClientBuilder().  
            WithRegion(region.ValueOf("<YOUR REGION>")).  
            WithCredential(auth).  
            Build())  
  
    request := &model.CreateStarRocksDataReplicationRequest{}  
    request.InstanceId = "{instance_id}"  
    sourceNodeIdCreateStarRocksDataReplication:= "source_node_id"  
    request.Body = &model.CreateStarRocksDataReplication{  
        TaskName: "task_name",  
        TargetDatabase: "target_database",  
        SourceDatabase: "source_database",  
        SourceNodeId: &sourceNodeIdCreateStarRocksDataReplication,  
        SourceInstanceId: "source_instance_id",  
    }  
    response, err := client.CreateStarRocksDataReplication(request)  
    if err == nil {  
        fmt.Printf("%+v\n", response)  
    } else {  
        fmt.Println(err)  
    }  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.15.15 删除 StarRocks 数据同步

### 功能介绍

删除StarRocks数据同步。

### 调用方法

请参见[如何调用API](#)。

## URI

DELETE /v3/{project\_id}/instances/{instance\_id}/starrocks/databases/replication

表 4-1066 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | StarRocks实例ID，严格匹配UUID规则。                                    |

## 请求参数

表 4-1067 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 是    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

表 4-1068 请求 Body 参数

| 参数        | 是否必选 | 参数类型   | 描述                                       |
|-----------|------|--------|------------------------------------------|
| task_name | 否    | String | 数据同步任务名。字符长度限制3~128位，仅支持英文大小写字母、数字以及下划线。 |

## 响应参数

状态码： 200

表 4-1069 响应 Body 参数

| 参数     | 参数类型   | 描述          |
|--------|--------|-------------|
| job_id | String | 删除同步任务工作ID。 |

状态码： 400

表 4-1070 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

**状态码： 500**

**表 4-1071 响应 Body 参数**

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

```
DELETE https://{localhost}/v3/{project_id}/instances/{instance_id}/starrocks/databases/replication
{
  "task_name" : "task_name"
}
```

## 响应示例

**状态码： 200**

Success.

```
{
  "job_id" : "123"
}
```

**状态码： 400**

Client error.

```
{
  "error_code" : "DBS.200022",
  "error_msg" : "实例不存在"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class DeleteStarRocksDataReplicationSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
    }
}
```



```
// In this example, AK and SK are stored in environment variables for authentication. Before running
this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");
String projectId = "{project_id}";

ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
DeleteStarRocksDataReplicationRequest request = new DeleteStarRocksDataReplicationRequest();
request.withInstanceId("{instance_id}");
DeleteStarRocksDataReplication body = new DeleteStarRocksDataReplication();
body.withTaskName("task_name");
request.withBody(body);
try {
    DeleteStarRocksDataReplicationResponse response =
client.deleteStarRocksDataReplication(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteStarRocksDataReplicationRequest()
        request.instance_id = "{instance_id}"
        request.body = DeleteStarRocksDataReplication()
```

```
        task_name="task_name"
    )
    response = client.delete_star_rocks_data_replication(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteStarRocksDataReplicationRequest{}
    request.InstanceId = "{instance_id}"
    taskNameDeleteStarRocksDataReplication:= "task_name"
    request.Body = &model.DeleteStarRocksDataReplication{
        TaskName: &taskNameDeleteStarRocksDataReplication,
    }
    response, err := client.DeleteStarRocksDataReplication(request)
    if err == nil {
        fmt.Printf("%v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.15.16 查询 StarRocks 数据同步状态信息

### 功能介绍

查询StarRocks数据同步状态信息。

### 调用方法

请参见[如何调用API](#)。

## URI

GET /v3/{project\_id}/instances/{instance\_id}/starrocks/databases/replication

表 4-1072 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | StarRocks实例ID，严格匹配UUID规则。                                    |

表 4-1073 Query 参数

| 参数    | 是否必选 | 参数类型   | 描述                   |
|-------|------|--------|----------------------|
| limit | 否    | String | 查询记录数。每页查询数据同步任务的数量。 |

| 参数     | 是否必选 | 参数类型   | 描述                                                                     |
|--------|------|--------|------------------------------------------------------------------------|
| offset | 否    | String | 索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。 |

## 请求参数

表 4-1074 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 是    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

## 响应参数

状态码： 200

表 4-1075 响应 Body 参数

| 参数           | 参数类型                                                      | 描述         |
|--------------|-----------------------------------------------------------|------------|
| total_count  | String                                                    | 查询数据同步任务数。 |
| replications | Array of <a href="#">StarRocksReplicationInfo</a> objects | 数据同步任务信息。  |
| ext_text     | String                                                    | 扩展字段。      |

表 4-1076 StarRocksReplicationInfo

| 参数                 | 参数类型   | 描述                                                                           |
|--------------------|--------|------------------------------------------------------------------------------|
| source_database    | String | TaurusDB数据库。字符串长度限制3-1024位。                                                  |
| target_database    | String | 目标数据库。字符长度限制3~128位，仅支持英文大小写字母、数字以及下划线。                                       |
| task_name          | String | 同步任务名。字符长度限制3~128位，仅支持英文大小写字母、数字以及下划线。                                       |
| status             | String | 当前状态。Yes: 正常, No: 异常。                                                        |
| stage              | String | 同步阶段。wait: 等待同步, incremental: 增量同步, full: 全量同步, cancelled: 删除, paused: 暂停同步。 |
| percentage         | String | 进度百分比。                                                                       |
| catchup_stage      | String | 追赶阶段。wait: 等待同步, incremental: 增量同步, full: 全量同步, cancelled: 删除, paused: 暂停同步。 |
| catchup_percentage | String | 追赶进度百分比。                                                                     |

状态码: 400

表 4-1077 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码: 500

表 4-1078 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

查询第一页的前10个同步任务。

```
GET https://{localhost}/v3/{project_id}/instances/{instance_id}/starrocks/databases/replication?offset=1&limit=10
```

## 响应示例

**状态码： 200**

Success.

```
{
  "total_count": 1,
  "replications": [ {
    "source_database": "source_database",
    "target_database": "target_database",
    "task_name": "task_name",
    "status": "Yes",
    "stage": "Incremental",
    "percentage": 100,
    "catchup_stage": null,
    "catchup_percentage": 0
  } ],
  "ext_text": null
}
```

**状态码： 400**

Client error.

```
{
  "error_code": "DBS.200022",
  "error_msg": "实例不存在"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListStarRocksDataReplicationsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";
```

```
ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
ListStarRocksDataReplicationsRequest request = new ListStarRocksDataReplicationsRequest();
request.withInstanceId("{instance_id}");
try {
    ListStarRocksDataReplicationsResponse response = client.listStarRocksDataReplications(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListStarRocksDataReplicationsRequest()
        request.instance_id = "{instance_id}"
        response = client.list_star_rocks_data_replications(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListStarRocksDataReplicationsRequest{}
    request.InstanceId = "{instance_id}"
    response, err := client.ListStarRocksDataReplications(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。



## 4.15.17 HTAP 数据同步库配置校验

### 功能介绍

HTAP数据同步库配置校验。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/instances/{instance\_id}/starrocks/databases/replication/  
database-config-check

表 4-1079 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | StarRocks实例ID，严格匹配UUID规则。                                    |

### 请求参数

表 4-1080 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 是    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

表 4-1081 请求 Body 参数

| 参数                   | 是否必选 | 参数类型                                      | 描述                                             |
|----------------------|------|-------------------------------------------|------------------------------------------------|
| source_instance_id   | 否    | String                                    | TaurusDB实例ID。                                  |
| source_node_id       | 否    | String                                    | TaurusDB只读节点ID。                                |
| source_database_name | 否    | String                                    | TaurusDB数据库名。字符长度限制3~1024位，仅支持英文大小写字母、数字以及下划线。 |
| target_database_name | 否    | String                                    | 目标数据库名。字符长度限制3~128位，仅支持英文大小写字母、数字以及下划线。        |
| task_name            | 否    | String                                    | 同步任务名称。字符长度限制3~128位，仅支持英文大小写字母、数字以及下划线。        |
| db_configs           | 否    | Array of <a href="#">DbConfig</a> objects | 库配置列表。                                         |
| table_repl_config    | 否    | <a href="#">TableReplConfig</a> object    | 表配置信息。                                         |

表 4-1082 DbConfig

| 参数         | 是否必选 | 参数类型   | 描述   |
|------------|------|--------|------|
| param_name | 否    | String | 参数名。 |
| value      | 否    | String | 参数值。 |

表 4-1083 TableReplConfig

| 参数         | 是否必选 | 参数类型             | 描述                                              |
|------------|------|------------------|-------------------------------------------------|
| repl_type  | 否    | String           | 表同步类型。include_tables: 白名单, exclude_tables: 黑名单。 |
| repl_scope | 否    | String           | 表同步范围。all: 全量同步, part: 部分同步。                    |
| tables     | 否    | Array of strings | 白名单或黑名单的表范围。                                    |

## 响应参数

状态码： 200

表 4-1084 响应 Body 参数

| 参数                             | 参数类型                                                 | 描述                                      |
|--------------------------------|------------------------------------------------------|-----------------------------------------|
| source_database_name           | String                                               | 目标数据库名。字符长度限制3~128位，仅支持英文大小写字母、数字以及下划线。 |
| source_db_config_check_results | Array of <a href="#">DbConfigCheckResult</a> objects | TaurusDB数据库配置检查结果。                      |
| target_database_name           | String                                               | 目标数据库名。字符长度限制3~128位，仅支持英文大小写字母、数字以及下划线。 |
| target_db_config_check_results | Array of <a href="#">DbConfigCheckResult</a> objects | 目标数据库配置检查结果。                            |
| task_name                      | String                                               | 同步任务名称。字符长度限制3~128位，仅支持英文大小写字母、数字以及下划线。 |

表 4-1085 DbConfigCheckResult

| 参数           | 参数类型   | 描述                                                                                     |
|--------------|--------|----------------------------------------------------------------------------------------|
| param_name   | String | 参数名，字符长度限制3~128位。                                                                      |
| value        | String | 参数值，字符长度限制1~64位。                                                                       |
| check_result | String | 校验结果。<br>可选范围 <ul style="list-style-type: none"><li>• success</li><li>• fail</li></ul> |

状态码： 400

表 4-1086 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-1087 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

POST https://{localhost}/v3/{project\_id}/instances/{instance\_id}/starrocks/databases/replication/database-config-check

```
{
  "source_database_name": "source_database_name",
  "target_database_name": "target_database_name",
  "db_configs": [ {
    "param_name": "enable_chunk_level_dump",
    "value": "false"
  }, {
    "param_name": "snapshot_with_lock",
    "value": "true"
  }, {
    "param_name": "sync_commit_interval_ms",
    "value": "5000"
  }, {
    "param_name": "max_sync_commit_rows",
    "value": "500000"
  }, {
    "param_name": "max_sync_commit_bytes",
    "value": "268435456"
  }, {
    "param_name": "max_full_sync_task_threads_num",
    "value": "1"
  }, {
    "param_name": "max_rows_per_chunk",
    "value": "0"
  }, {
    "param_name": "max_bytes_per_chunk",
    "value": "268435456"
  }, {
    "param_name": "binlog_expire_logs_seconds",
    "value": "0"
  } ],
  "table_repl_config": {
    "repl_type": "include_tables",
    "repl_scope": "all",
    "tables": [ ]
  },
  "source_instance_id": "source_instance_id",
  "source_node_id": "source_node_id"
}
```

## 响应示例

状态码： 200

Success.

```
{
  "source_database_name": "source_database_name",
  "target_database_name": "",
}
```

```
"source_db_config_check_results": [ {  
  "param_name": "enable_chunk_level_dump",  
  "value": "false",  
  "check_result": "success"  
}, {  
  "param_name": "snapshot_with_lock",  
  "value": "true",  
  "check_result": "success"  
} ],  
"target_db_config_check_results": [ ]  
}
```

**状态码： 400**

Client error.

```
{  
  "error_code": "DBS.200022",  
  "error_msg": "实例不存在"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
import java.util.List;  
import java.util.ArrayList;  
  
public class CheckDataBaseConfigSolution {  
  
  public static void main(String[] args) {  
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
    // environment variables and decrypted during use to ensure security.  
    // In this example, AK and SK are stored in environment variables for authentication. Before running  
    // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    String ak = System.getenv("CLOUD_SDK_AK");  
    String sk = System.getenv("CLOUD_SDK_SK");  
    String projectId = "{project_id}";  
  
    ICredential auth = new BasicCredentials()  
      .withProjectId(projectId)  
      .withAk(ak)  
      .withSk(sk);  
  
    GaussDBClient client = GaussDBClient.newBuilder()  
      .withCredential(auth)  
      .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
      .build();  
    CheckDataBaseConfigRequest request = new CheckDataBaseConfigRequest();  
    request.withInstanceId("{instance_id}");  
    DbConfigCheckRequestV3 body = new DbConfigCheckRequestV3();  
    TableReplConfig tableReplConfigbody = new TableReplConfig();  
    tableReplConfigbody.withReplType(TableReplConfig.ReplTypeEnum.fromValue("include_tables"))  
      .withReplScope(TableReplConfig.ReplScopeEnum.fromValue("all"));
```

```
List<DbConfig> listbodyDbConfigs = new ArrayList<>();
listbodyDbConfigs.add(
    new DbConfig()
        .withParamName("enable_chunk_level_dump")
        .withValue("false")
);
listbodyDbConfigs.add(
    new DbConfig()
        .withParamName("snapshot_with_lock")
        .withValue("true")
);
listbodyDbConfigs.add(
    new DbConfig()
        .withParamName("sync_commit_interval_ms")
        .withValue("5000")
);
listbodyDbConfigs.add(
    new DbConfig()
        .withParamName("max_sync_commit_rows")
        .withValue("500000")
);
listbodyDbConfigs.add(
    new DbConfig()
        .withParamName("max_sync_commit_bytes")
        .withValue("268435456")
);
listbodyDbConfigs.add(
    new DbConfig()
        .withParamName("max_full_sync_task_threads_num")
        .withValue("1")
);
listbodyDbConfigs.add(
    new DbConfig()
        .withParamName("max_rows_per_chunk")
        .withValue("0")
);
listbodyDbConfigs.add(
    new DbConfig()
        .withParamName("max_bytes_per_chunk")
        .withValue("268435456")
);
listbodyDbConfigs.add(
    new DbConfig()
        .withParamName("binlog_expire_logs_seconds")
        .withValue("0")
);
body.withTableReplConfig(tableReplConfigbody);
body.withDbConfigs(listbodyDbConfigs);
body.withTargetDatabaseName("target_database_name");
body.withSourceDatabaseName("source_database_name");
body.withSourceNodeId("source_node_id");
body.withSourceInstanceId("source_instance_id");
request.withBody(body);
try {
    CheckDataBaseConfigResponse response = client.checkDataBaseConfig(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CheckDataBaseConfigRequest()
        request.instance_id = "{instance_id}"
        tableReplConfigbody = TableReplConfig(
            repl_type="include_tables",
            repl_scope="all"
        )
        listDbConfigsbody = [
            DbConfig(
                param_name="enable_chunk_level_dump",
                value="false"
            ),
            DbConfig(
                param_name="snapshot_with_lock",
                value="true"
            ),
            DbConfig(
                param_name="sync_commit_interval_ms",
                value="5000"
            ),
            DbConfig(
                param_name="max_sync_commit_rows",
                value="500000"
            ),
            DbConfig(
                param_name="max_sync_commit_bytes",
                value="268435456"
            ),
            DbConfig(
                param_name="max_full_sync_task_threads_num",
                value="1"
            ),
            DbConfig(
                param_name="max_rows_per_chunk",
                value="0"
            ),
            DbConfig(
                param_name="max_bytes_per_chunk",
                value="268435456"
            ),
            DbConfig(
                param_name="binlog_expire_logs_seconds",
                value="0"
            )
        ]
```

```
)
]
request.body = DbConfigCheckRequestV3(
    table_repl_config=tableReplConfigbody,
    db_configs=listDbConfigsbody,
    target_database_name="target_database_name",
    source_database_name="source_database_name",
    source_node_id="source_node_id",
    source_instance_id="source_instance_id"
)
response = client.check_data_base_config(request)
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CheckDataBaseConfigRequest{}
    request.InstanceId = "{instance_id}"
    replTypeTableReplConfig:= model.GetTableReplConfigReplTypeEnum().INCLUDE_TABLES
    replScopeTableReplConfig:= model.GetTableReplConfigReplScopeEnum().ALL
    tableReplConfigbody := &model.TableReplConfig{
        ReplType: &replTypeTableReplConfig,
        ReplScope: &replScopeTableReplConfig,
    }
    paramNameDbConfigs:= "enable_chunk_level_dump"
    valueDbConfigs:= "false"
    paramNameDbConfigs1:= "snapshot_with_lock"
    valueDbConfigs1:= "true"
    paramNameDbConfigs2:= "sync_commit_interval_ms"
    valueDbConfigs2:= "5000"
    paramNameDbConfigs3:= "max_sync_commit_rows"
    valueDbConfigs3:= "500000"
    paramNameDbConfigs4:= "max_sync_commit_bytes"
```



```
valueDbConfigs4:= "268435456"
paramNameDbConfigs5:= "max_full_sync_task_threads_num"
valueDbConfigs5:= "1"
paramNameDbConfigs6:= "max_rows_per_chunk"
valueDbConfigs6:= "0"
paramNameDbConfigs7:= "max_bytes_per_chunk"
valueDbConfigs7:= "268435456"
paramNameDbConfigs8:= "binlog_expire_logs_seconds"
valueDbConfigs8:= "0"
var listDbConfigsbody = []model.DbConfig{
    {
        ParamName: &paramNameDbConfigs,
        Value: &valueDbConfigs,
    },
    {
        ParamName: &paramNameDbConfigs1,
        Value: &valueDbConfigs1,
    },
    {
        ParamName: &paramNameDbConfigs2,
        Value: &valueDbConfigs2,
    },
    {
        ParamName: &paramNameDbConfigs3,
        Value: &valueDbConfigs3,
    },
    {
        ParamName: &paramNameDbConfigs4,
        Value: &valueDbConfigs4,
    },
    {
        ParamName: &paramNameDbConfigs5,
        Value: &valueDbConfigs5,
    },
    {
        ParamName: &paramNameDbConfigs6,
        Value: &valueDbConfigs6,
    },
    {
        ParamName: &paramNameDbConfigs7,
        Value: &valueDbConfigs7,
    },
    {
        ParamName: &paramNameDbConfigs8,
        Value: &valueDbConfigs8,
    },
}
targetDatabaseNameDbConfigCheckRequestV3:= "target_database_name"
sourceDatabaseNameDbConfigCheckRequestV3:= "source_database_name"
sourceNodeIdDbConfigCheckRequestV3:= "source_node_id"
sourceInstanceIdDbConfigCheckRequestV3:= "source_instance_id"
request.Body = &model.DbConfigCheckRequestV3{
    TableReplConfig: tableReplConfigbody,
    DbConfigs: &listDbConfigsbody,
    TargetDatabaseName: &targetDatabaseNameDbConfigCheckRequestV3,
    SourceDatabaseName: &sourceDatabaseNameDbConfigCheckRequestV3,
    SourceNodeId: &sourceNodeIdDbConfigCheckRequestV3,
    SourceInstanceId: &sourceInstanceIdDbConfigCheckRequestV3,
}
response, err := client.CheckDataBaseConfig(request)
if err == nil {
    fmt.Printf("%v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.15.18 查询 StarRocks 数据同步配置信息

### 功能介绍

查询StarRocks数据同步配置信息。

### 调用方法

请参见[如何调用API](#)。

## URI

GET /v3/{project\_id}/instances/{instance\_id}/starrocks/databases/replication/  
configuration

表 4-1088 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | StarRocks实例ID，严格匹配UUID规则。                                    |

表 4-1089 Query 参数

| 参数        | 是否必选 | 参数类型   | 描述                                           |
|-----------|------|--------|----------------------------------------------|
| task_name | 是    | String | 数据同步任务名。<br>字符长度限制3~128位，仅支持英文大小写字母、数字以及下划线。 |

## 请求参数

表 4-1090 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 是    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

## 响应参数

状态码： 200

表 4-1091 响应 Body 参数

| 参数                 | 参数类型                                                    | 描述               |
|--------------------|---------------------------------------------------------|------------------|
| source_instance_id | String                                                  | TaurusDB实例ID。    |
| source_node_id     | String                                                  | TaurusDB节点ID。    |
| database_info      | <a href="#">DataBaseInfo</a> object                     | TaurusDB数据库配置信息。 |
| table_infos        | Array of <a href="#">TableConfigCheckResult</a> objects | 表配置信息。           |
| table_repl_config  | <a href="#">TableReplConfig</a> object                  | 表同步配置信息。         |

| 参数                        | 参数类型                          | 描述                                       |
|---------------------------|-------------------------------|------------------------------------------|
| new_table_repl_config     | <b>TableReplConfig</b> object | 更新的表同步配置信息。                              |
| target_database_name      | String                        | 目标数据库名。字符长度限制3~128位, 仅支持英文大小写字母、数字以及下划线。 |
| is_tables_change          | Boolean                       | 同步任务表是否变化。                               |
| last_error_of_alter_table | String                        | 最近一次alter table的异常信息。                    |

表 4-1092 DataBaseInfo

| 参数                      | 参数类型                                        | 描述         |
|-------------------------|---------------------------------------------|------------|
| database_name           | String                                      | 数据库名称。     |
| db_config_check_results | Array of <b>DbConfigCheckResult</b> objects | 数据库配置检查结果。 |

表 4-1093 DbConfigCheckResult

| 参数           | 参数类型   | 描述                                                                                     |
|--------------|--------|----------------------------------------------------------------------------------------|
| param_name   | String | 参数名, 字符长度限制3~128位。                                                                     |
| value        | String | 参数值, 字符长度限制1~64位。                                                                      |
| check_result | String | 校验结果。<br>可选范围 <ul style="list-style-type: none"><li>• success</li><li>• fail</li></ul> |

表 4-1094 TableConfigCheckResult

| 参数           | 参数类型   | 描述                   |
|--------------|--------|----------------------|
| table_name   | String | 表名                   |
| table_config | String | 表配置项                 |
| check_result | String | 校验结果, success/failed |

表 4-1095 TableReplConfig

| 参数         | 参数类型             | 描述                                              |
|------------|------------------|-------------------------------------------------|
| repl_type  | String           | 表同步类型。include_tables: 白名单, exclude_tables: 黑名单。 |
| repl_scope | String           | 表同步范围。all: 全量同步, part: 部分同步。                    |
| tables     | Array of strings | 白名单或黑名单的表范围。                                    |

状态码: 400

表 4-1096 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码: 500

表 4-1097 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

查询任务名为taskName的数据同步配置信息。

```
GET https://{localhost}/v3/{project_id}/instances/{instance_id}/starrocks/databases/replication/configuration?task_name=taskName
```

## 响应示例

状态码: 200

Success.

```
{
  "source_instance_id": "source_instance_id",
  "target_database_name": "target_database_name",
  "source_node_id": "source_node_id",
  "database_info": {
    "database_name": "database_name",
    "db_config_check_results": [{
      "param_name": "default_isolation_level",
```

```
"value": "QUERY_SNAPSHOT",
"check_result": "success"
}, {
  "param_name": "enable_snapshots",
  "value": "true",
  "check_result": "failed"
}]
},
"table_infos": [],
"table_repl_config": {
  "repl_type": "exclude_tables",
  "repl_scope": "all",
  "tables": []
},
"new_table_repl_config": {},
"is_tables_change": false,
"last_error_of_alter_table": ""
}
```

**状态码： 400**

Client error.

```
{
  "error_code": "DBS.200022",
  "error_msg": "实例不存在"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListStarRocksDataReplicationConfigSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ListStarRocksDataReplicationConfigRequest request = new
```

```
ListStarRocksDataReplicationConfigRequest();
    request.withInstanceId("{instance_id}");
    try {
        ListStarRocksDataReplicationConfigResponse response =
client.listStarRocksDataReplicationConfig(request);
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListStarRocksDataReplicationConfigRequest()
        request.instance_id = "{instance_id}"
        response = client.list_star_rocks_data_replication_config(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)
```

```
func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListStarRocksDataReplicationConfigRequest{}
    request.InstanceId = "{instance_id}"
    response, err := client.ListStarRocksDataReplicationConfig(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.15.19 查询 StarRocks 数据同步的库参数配置

### 功能介绍

查询StarRocks数据同步的库参数配置。



## 调用方法

请参见[如何调用API](#)。

## URI

GET /v3/{project\_id}/instances/{instance\_id}/starrocks/databases/replication/  
database-parameters

表 4-1098 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | StarRocks实例ID，严格匹配UUID规则。                                    |

表 4-1099 Query 参数

| 参数     | 是否必选 | 参数类型   | 描述                                                                |
|--------|------|--------|-------------------------------------------------------------------|
| offset | 否    | String | 索引位置，偏移量。从第一条数据偏移offset条数据后开始查询（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。 |
| limit  | 否    | String | 查询记录数。                                                            |

## 请求参数

表 4-1100 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |

| 参数         | 是否必选 | 参数类型   | 描述                                                                                           |
|------------|------|--------|----------------------------------------------------------------------------------------------|
| X-Language | 是    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul> |

## 响应参数

状态码： 200

表 4-1101 响应 Body 参数

| 参数            | 参数类型                                         | 描述     |
|---------------|----------------------------------------------|--------|
| db_parameters | Array of <a href="#">DbParameter</a> objects | 库参数信息。 |

表 4-1102 DbParameter

| 参数            | 参数类型   | 描述      |
|---------------|--------|---------|
| param_name    | String | 参数名称。   |
| data_type     | String | 参数类型。   |
| default_value | String | 参数默认值。  |
| value_range   | String | 参数取值范围。 |
| description   | String | 参数描述。   |

状态码： 400

表 4-1103 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-1104 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

查询StarRocks实例instance\_id数据同步的库参数配置。

```
GET https://{localhost}/v3/{project_id}/instances/{instance_id}/starrocks/databases/replication/database-parameters
```

## 响应示例

状态码： 200

Success.

```
{
  "db_parameters": [ {
    "param_name": "enable_chunk_level_dump",
    "data_type": "String",
    "default_value": "false",
    "value_range": "true|false",
    "description": "是否启用分片复制"
  }, {
    "param_name": "snapshot_with_lock",
    "data_type": "String",
    "default_value": "true",
    "value_range": "true|false",
    "description": "获取全量快照时是否加锁，默认加锁"
  }, {
    "param_name": "sync_commit_interval_ms",
    "data_type": "Integer",
    "default_value": "5000",
    "value_range": "1000-60000",
    "description": "批量提交超时时间，超时或buffer满就会提交数据"
  }, {
    "param_name": "max_sync_commit_rows",
    "data_type": "Integer",
    "default_value": "500000",
    "value_range": "500000-2000000",
    "description": "每次提交最大行数"
  }, {
    "param_name": "max_sync_commit_bytes",
    "data_type": "Integer",
    "default_value": "268435456",
    "value_range": "10485760-1610612736",
    "description": "每次提交最大字节数"
  }, {
    "param_name": "max_full_sync_task_threads_num",
    "data_type": "Integer",
    "default_value": "1",
    "value_range": "1-2",
    "description": "全量同步线程数"
  }, {
    "param_name": "max_rows_per_chunk",
    "data_type": "Integer",
    "default_value": "0",
    "value_range": "0-1000000",
    "description": "每个分片的最大行数"
  }
]
```

```
}, {
  "param_name": "max_bytes_per_chunk",
  "data_type": "Integer",
  "default_value": "268435456",
  "value_range": "33554432-1073741824",
  "description": "每个分片最大字节数"
}, {
  "param_name": "binlog_expire_logs_seconds",
  "data_type": "Integer",
  "default_value": "86400",
  "value_range": "0-604800",
  "description": "binlog保留时间, 0表示不做限制, 且该值要小于等于MySQL保留时间。"
}]
}
```

**状态码: 400**

Client error.

```
{
  "error_code": "DBS.200022",
  "error_msg": "实例不存在"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListStarRocksDbParametersSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ListStarRocksDbParametersRequest request = new ListStarRocksDbParametersRequest();
        request.withInstanceId("{instance_id}");
        try {
            ListStarRocksDbParametersResponse response = client.listStarRocksDbParameters(request);
            System.out.println(response.toString());
        }
    }
}
```

```
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListStarRocksDbParametersRequest()
        request.instance_id = "{instance_id}"
        response = client.list_star_rocks_db_parameters(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
```

```
example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")
projectId := "{project_id}"

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    WithProjectId(projectId).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.ListStarRocksDbParametersRequest{}
request.InstanceId = "{instance_id}"
response, err := client.ListStarRocksDbParameters(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.15.20 查询 StarRocks 数据库

### 功能介绍

查询StarRocks数据库。

### 调用方法

请参见[如何调用API](#)。

## URI

GET /v3/{project\_id}/instances/{instance\_id}/starrocks/databases

表 4-1105 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | StarRocks实例ID，严格匹配UUID规则。                                    |

表 4-1106 Query 参数

| 参数            | 是否必选 | 参数类型   | 描述                                                                |
|---------------|------|--------|-------------------------------------------------------------------|
| limit         | 否    | String | 查询记录数。                                                            |
| offset        | 否    | String | 索引位置，偏移量。从第一条数据偏移offset条数据后开始查询（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。 |
| database_name | 否    | String | 查询的数据库名称，支持模糊搜索。字符长度限制3~128位，仅支持英文大小写字母、数字以及下划线。                  |

## 请求参数

表 4-1107 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |

| 参数         | 是否必选 | 参数类型   | 描述                                                                                           |
|------------|------|--------|----------------------------------------------------------------------------------------------|
| X-Language | 是    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul> |

## 响应参数

状态码： 200

表 4-1108 响应 Body 参数

| 参数          | 参数类型             | 描述     |
|-------------|------------------|--------|
| databases   | Array of strings | 数据库名称。 |
| total_count | Integer          | 数据库数量。 |
| timestamp   | Integer          | 查询时间戳。 |

状态码： 400

表 4-1109 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-1110 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

查询StarRocks实例instance\_id的前10个数据库。

```
GET https://{localhost}/v3/{project_id}/instances/{instance_id}/starrocks/databases?  
limit=10&offset=1&database_name=
```



## 响应示例

### 状态码： 200

Success.

```
{
  "databases": [ "INFORMATION_SCHEMA", "connections_db1_08759", "connections_db1_31465",
  "default", "information_schema", "system" ],
  "total_count": 6,
  "timestamp": 1706257484
}
```

### 状态码： 400

Client error.

```
{
  "error_code": "DBS.200022",
  "error_msg": "实例不存在"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListStarRocksDataBasesSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ListStarRocksDataBasesRequest request = new ListStarRocksDataBasesRequest();
        request.withInstanceId("{instance_id}");
        try {
            ListStarRocksDataBasesResponse response = client.listStarRocksDataBases(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
```

```
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListStarRocksDataBasesRequest()
        request.instance_id = "{instance_id}"
        response = client.list_star_rocks_data_bases(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
```

```
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")
projectId := "{project_id}"

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    WithProjectId(projectId).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.ListStarRocksDataBasesRequest{}
request.InstanceId = "{instance_id}"
response, err := client.ListStarRocksDataBases(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.15.21 查询数据库账户

### 功能介绍

查询StarRocks数据库账户。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/instances/{instance\_id}/starrocks/users

表 4-1111 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | StarRocks实例ID，严格匹配UUID规则。                                    |

表 4-1112 Query 参数

| 参数        | 是否必选 | 参数类型    | 描述                                                                |
|-----------|------|---------|-------------------------------------------------------------------|
| user_name | 否    | String  | 数据库账户。                                                            |
| limit     | 是    | Integer | 查询记录数，不能为负数，最小值为1，最大值为100。                                        |
| offset    | 是    | Integer | 索引位置，偏移量。从第一条数据偏移offset条数据后开始查询（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。 |

## 请求参数

表 4-1113 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

## 响应参数

状态码： 200

表 4-1114 响应 Body 参数

| 参数           | 参数类型                                          | 描述       |
|--------------|-----------------------------------------------|----------|
| user_details | Array of <a href="#">user_details</a> objects | 数据库账户信息。 |
| total_count  | Integer                                       | 数据库账户数量。 |

表 4-1115 user\_details

| 参数         | 参数类型             | 描述                                                                                                                           |
|------------|------------------|------------------------------------------------------------------------------------------------------------------------------|
| user_name  | String           | 数据库账户名。                                                                                                                      |
| data_bases | Array of strings | 已授权数据库。                                                                                                                      |
| dml        | Integer          | DML授权。 <ul style="list-style-type: none"><li>• 0: 读写权限</li><li>• 1: 只读权限</li><li>• 2: 只读和设置权限</li><li>• 3: 读写和设置权限</li></ul> |
| ddl        | Integer          | DDL授权。 <ul style="list-style-type: none"><li>• 0: 无DDL权限</li><li>• 1: 有DDL权限</li></ul>                                       |

状态码: 400

表 4-1116 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码: 500

表 4-1117 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

查询数据库10个账号信息。

```
GET https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/  
54e42160670e48e789af7075e1efea1fin16/starrocks/users?limit=10
```

## 响应示例

状态码： 200

Success.

```
{  
  "user_details": [{  
    "user_name": "root",  
    "data_bases": [ "*" ],  
    "dml": 2,  
    "ddl": 0  
  }, {  
    "user_name": "user_test",  
    "data_bases": [ "*" ],  
    "dml": 2,  
    "ddl": 0  
  } ],  
  "total_count": 2  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ShowStarRocksDatabaseUserSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
```

```
        .build();
        ShowStarRocksDatabaseUserRequest request = new ShowStarRocksDatabaseUserRequest();
        request.withInstanceId("{instance_id}");
        try {
            ShowStarRocksDatabaseUserResponse response = client.showStarRocksDatabaseUser(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowStarRocksDatabaseUserRequest()
        request.instance_id = "{instance_id}"
        response = client.show_star_rocks_database_user(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)
```

```
func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowStarRocksDatabaseUserRequest{}
    request.InstanceId = "{instance_id}"
    response, err := client.ShowStarRocksDatabaseUser(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.15.22 创建数据库账号

### 功能介绍

创建StarRocks数据库账号。



## 调用方法

请参见[如何调用API](#)。

## URI

POST /v3/{project\_id}/instances/{instance\_id}/starrocks/users

表 4-1118 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | StarRocks实例ID，严格匹配UUID规则。                                    |

## 请求参数

表 4-1119 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

表 4-1120 请求 Body 参数

| 参数        | 是否必选 | 参数类型   | 描述                                                                     |
|-----------|------|--------|------------------------------------------------------------------------|
| user_name | 是    | String | 数据库账户名。<br>长度为2-32个字符，必须以小写字母开头，小写字母或数字结尾，可以包含小写字母、数字以及下划线，不能包含其它特殊字符。 |

| 参数        | 是否必选 | 参数类型             | 描述                                                                                                                                               |
|-----------|------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| password  | 是    | String           | 账户密码。<br><ul style="list-style-type: none"> <li>8-32个字符</li> <li>不能与用户名或倒序的用户名相同</li> <li>至少包含以下字符中的三种：大写字母、小写字母、数字和特殊字符~!@#%^*_-=+?,</li> </ul> |
| databases | 是    | Array of strings | 数据库列表。                                                                                                                                           |
| dml       | 否    | Integer          | DML权限，默认2。<br>取值范围： <ul style="list-style-type: none"> <li>0: 读写权限</li> <li>1: 只读权限</li> <li>2: 只读和设置权限</li> <li>3: 读写和设置权限</li> </ul>           |
| ddl       | 否    | Integer          | DDL权限，默认0。<br>取值范围： <ul style="list-style-type: none"> <li>0: 无DDL权限</li> <li>1: 有DDL权限</li> </ul>                                               |

## 响应参数

状态码： 200

表 4-1121 响应 Body 参数

| 参数     | 参数类型   | 描述    |
|--------|--------|-------|
| result | String | 请求结果。 |

状态码： 400

表 4-1122 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-1123 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

创建数据库账号。

```
POST https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/54e42160670e48e789af7075e1efea1fin16/starrocks/users
{
  "user_name" : "user_test",
  "dml" : 2,
  "ddl" : 0,
  "password" : "Rds_1234",
  "databases" : [ "INFORMATION_SCHEMA", "default" ]
}
```

## 响应示例

状态码： 200

Success.

```
{
  "result" : "SUCCESS"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

创建数据库账号。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class CreateStarRocksDatabaseUserSolution {
    public static void main(String[] args) {
```

```
// The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
// In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");
String projectId = "{project_id}";

ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
CreateStarRocksDatabaseUserRequest request = new CreateStarRocksDatabaseUserRequest();
request.withInstanceId("{instance_id}");
StarRocksDatabaseUserInfo body = new StarRocksDatabaseUserInfo();
List<String> listbodyDatabases = new ArrayList<>();
listbodyDatabases.add("INFORMATION_SCHEMA");
listbodyDatabases.add("default");
body.withDdl(0);
body.withDml(2);
body.withDatabases(listbodyDatabases);
body.withPassword("Rds_1234");
body.withUserName("user_test");
request.withBody(body);
try {
    CreateStarRocksDatabaseUserResponse response = client.createStarRocksDatabaseUser(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

创建数据库账号。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"
```

```
credentials = BasicCredentials(ak, sk, projectId)

client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = CreateStarRocksDatabaseUserRequest()
    request.instance_id = "{instance_id}"
    listDatabasesbody = [
        "INFORMATION_SCHEMA",
        "default"
    ]
    request.body = StarRocksDatabaseUserInfo(
        ddl=0,
        dml=2,
        databases=listDatabasesbody,
        password="Rds_1234",
        user_name="user_test"
    )
    response = client.create_star_rocks_database_user(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

创建数据库账号。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateStarRocksDatabaseUserRequest{}
    request.InstanceId = "{instance_id}"
    var listDatabasesbody = []string{
        "INFORMATION_SCHEMA",
```

```
"default",
}
ddlStarRocksDatabaseUserInfo:= int32(0)
dmlStarRocksDatabaseUserInfo:= int32(2)
request.Body = &model.StarRocksDatabaseUserInfo{
    Ddl: &ddlStarRocksDatabaseUserInfo,
    Dml: &dmlStarRocksDatabaseUserInfo,
    Databases: listDatabasesbody,
    Password: "Rds_1234",
    UserName: "user_test",
}
response, err := client.CreateStarRocksDatabaseUser(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.15.23 删除数据库账户

### 功能介绍

删除StarRocks数据库账户。

### 调用方法

请参见[如何调用API](#)。

### URI

DELETE /v3/{project\_id}/instances/{instance\_id}/starrocks/users

表 4-1124 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | StarRocks实例ID，严格匹配UUID规则。                                    |

表 4-1125 Query 参数

| 参数        | 是否必选 | 参数类型   | 描述      |
|-----------|------|--------|---------|
| user_name | 是    | String | 数据库账户名。 |

## 请求参数

表 4-1126 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

## 响应参数

状态码： 200

表 4-1127 响应 Body 参数

| 参数     | 参数类型   | 描述    |
|--------|--------|-------|
| result | String | 请求结果。 |

状态码： 400

表 4-1128 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-1129 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

删除数据库账户。

```
DELETE https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/54e42160670e48e789af7075e1efea1fin16/starrocks/user?user_name=user_test
```

## 响应示例

状态码： 200

Success.

```
{  
  "result" : "SUCCESS"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class DeleteStarRocksDatabaseUserSolution {
```



```
public static void main(String[] args) {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running
    // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    String ak = System.getenv("CLOUD_SDK_AK");
    String sk = System.getenv("CLOUD_SDK_SK");
    String projectId = "{project_id}";

    ICredential auth = new BasicCredentials()
        .withProjectId(projectId)
        .withAk(ak)
        .withSk(sk);

    GaussDBClient client = GaussDBClient.newBuilder()
        .withCredential(auth)
        .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
        .build();
    DeleteStarRocksDatabaseUserRequest request = new DeleteStarRocksDatabaseUserRequest();
    request.withInstanceId("{instance_id}");
    try {
        DeleteStarRocksDatabaseUserResponse response = client.deleteStarRocksDatabaseUser(request);
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteStarRocksDatabaseUserRequest()
        request.instance_id = "{instance_id}"
```

```
response = client.delete_star_rocks_database_user(request)
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteStarRocksDatabaseUserRequest{}
    request.InstanceId = "{instance_id}"
    response, err := client.DeleteStarRocksDatabaseUser(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |

| 状态码 | 描述            |
|-----|---------------|
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.15.24 修改数据库账号密码

### 功能介绍

修改StarRocks数据库账号密码。

### 调用方法

请参见[如何调用API](#)。

### URI

PUT /v3/{project\_id}/instances/{instance\_id}/starrocks/users/password

表 4-1130 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | StarRocks实例ID，严格匹配UUID规则。                                    |

### 请求参数

表 4-1131 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |

| 参数         | 是否必选 | 参数类型   | 描述                                                                                           |
|------------|------|--------|----------------------------------------------------------------------------------------------|
| X-Language | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul> |

表 4-1132 请求 Body 参数

| 参数        | 是否必选 | 参数类型   | 描述                                                                                                                                        |
|-----------|------|--------|-------------------------------------------------------------------------------------------------------------------------------------------|
| user_name | 是    | String | 数据库账号名。                                                                                                                                   |
| password  | 是    | String | 账户密码。 <ul style="list-style-type: none"><li>8-32个字符</li><li>不能与用户名或倒序的用户名相同</li><li>至少包含以下字符中的三种：大写字母、小写字母、数字和特殊字符~!@#%^*-_+=?,</li></ul> |

## 响应参数

状态码： 200

表 4-1133 响应 Body 参数

| 参数     | 参数类型   | 描述    |
|--------|--------|-------|
| result | String | 请求结果。 |

状态码： 400

表 4-1134 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-1135 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

修改数据库账户密码。

```
PUT https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/  
54e42160670e48e789af7075e1efea1fin16/starrocks/users/password  
  
{  
  "user_name" : "user_test",  
  "password" : "Tang_1234"  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "result" : "SUCCESS"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

修改数据库账户密码。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class UpdateStarRocksDatabaseUserPasswordSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";
```

```
ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();

UpdateStarRocksDatabaseUserPasswordRequest request = new
UpdateStarRocksDatabaseUserPasswordRequest();
request.withInstanceId("{instance_id}");
StarRocksDatabaseUserPWInfo body = new StarRocksDatabaseUserPWInfo();
body.withPassword("Tang_1234");
body.withUserName("user_test");
request.withBody(body);
try {
    UpdateStarRocksDatabaseUserPasswordResponse response =
client.updateStarRocksDatabaseUserPassword(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

修改数据库账户密码。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateStarRocksDatabaseUserPasswordRequest()
        request.instance_id = "{instance_id}"
        request.body = StarRocksDatabaseUserPWInfo(
            password="Tang_1234",
```

```
        user_name="user_test"
    )
    response = client.update_star_rocks_database_user_password(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

修改数据库账户密码。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateStarRocksDatabaseUserPasswordRequest{}
    request.InstanceId = "{instance_id}"
    request.Body = &model.StarRocksDatabaseUserPWInfo{
        Password: "Tang_1234",
        UserName: "user_test",
    }
    response, err := client.UpdateStarRocksDatabaseUserPassword(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

### 4.15.25 修改数据库账号权限

#### 功能介绍

修改StarRocks数据库账号权限。

#### 调用方法

请参见[如何调用API](#)。

#### URI

PUT /v3/{project\_id}/instances/{instance\_id}/starrocks/users/permission

表 4-1136 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | StarRocks实例ID，严格匹配UUID规则。                                    |



## 请求参数

**表 4-1137** 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

**表 4-1138** 请求 Body 参数

| 参数        | 是否必选 | 参数类型             | 描述                                                                                                                            |
|-----------|------|------------------|-------------------------------------------------------------------------------------------------------------------------------|
| user_name | 是    | String           | 数据库账号名。                                                                                                                       |
| databases | 否    | Array of strings | 数据库列表。                                                                                                                        |
| dml       | 否    | Integer          | DML权限。<br>取值范围： <ul style="list-style-type: none"><li>0: 读写权限</li><li>1: 只读权限</li><li>2: 只读和设置权限</li><li>3: 读写和设置权限</li></ul> |
| ddl       | 否    | Integer          | DDL权限。<br>取值范围： <ul style="list-style-type: none"><li>0: 无DDL权限</li><li>1: 有DDL权限</li></ul>                                   |

## 响应参数

状态码： 200

表 4-1139 响应 Body 参数

| 参数     | 参数类型   | 描述    |
|--------|--------|-------|
| result | String | 请求结果。 |

状态码： 400

表 4-1140 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-1141 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

修改数据库账户权限。

```
PUT https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/  
86fd60a5256a4592b957e8e6bb2d1b59in07/starrocks/users/permission
```

```
{  
  "user_name": "user_test",  
  "dml": 2,  
  "databases": [ "*" ]  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "result": "SUCCESS"  
}
```

## SDK 代码示例

SDK代码示例如下。

## Java

修改数据库账户权限。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class UpdateStarRocksDatabaseUserPermissionSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();

        UpdateStarRocksDatabaseUserPermissionRequest request = new
        UpdateStarRocksDatabaseUserPermissionRequest();
        request.withInstanceId("{instance_id}");
        StarRocksDatabaseUserPSinfo body = new StarRocksDatabaseUserPSinfo();
        List<String> listbodyDatabases = new ArrayList<>();
        listbodyDatabases.add("");
        body.withDml(2);
        body.withDatabases(listbodyDatabases);
        body.withUserName("user_test");
        request.withBody(body);
        try {
            UpdateStarRocksDatabaseUserPermissionResponse response =
            client.updateStarRocksDatabaseUserPermission(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

修改数据库账户权限。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateStarRocksDatabaseUserPermissionRequest()
        request.instance_id = "{instance_id}"
        listDatabasesbody = [
            "*"
        ]
        request.body = StarRocksDatabaseUserPSInfo(
            dml=2,
            databases=listDatabasesbody,
            user_name="user_test"
        )
        response = client.update_star_rocks_database_user_permission(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

修改数据库账户权限。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
```

```
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")
projectId := "{project_id}"

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    WithProjectId(projectId).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.UpdateStarRocksDatabaseUserPermissionRequest{}
request.InstanceId = "{instance_id}"
var listDatabasesbody = []string{
    "*",
}
dmlStarRocksDatabaseUserPSinfo := int32(2)
request.Body = &model.StarRocksDatabaseUserPSinfo{
    Dml: &dmlStarRocksDatabaseUserPSinfo,
    Databases: &listDatabasesbody,
    UserName: "user_test",
}
response, err := client.UpdateStarRocksDatabaseUserPermission(request)
if err == nil {
    fmt.Printf("%v\n", response)
} else {
    fmt.Println(err)
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.15.26 StarRocks 实例规格变更

### 功能介绍

StarRocks实例规格变更。

## 调用方法

请参见[如何调用API](#)。

## URI

POST /v3/{project\_id}/instances/{instance\_id}/starrocks/resize-flavor

表 4-1142 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | TaurusDB实例ID，严格匹配UUID规则。                                     |

## 请求参数

表 4-1143 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| Content-Type | 是    | String | 内容类型。取值：application/json。                                                                              |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

表 4-1144 请求 Body 参数

| 参数           | 是否必选 | 参数类型   | 描述                                     |
|--------------|------|--------|----------------------------------------|
| fe_flavor_id | 否    | String | FE节点CPU、内存规格ID。填空或者不填视为规格ID与原规格ID保持一致。 |

| 参数           | 是否必选 | 参数类型   | 描述                                     |
|--------------|------|--------|----------------------------------------|
| be_flavor_id | 否    | String | BE节点CPU、内存规格ID。填空或者不填视为规格ID与原规格ID保持一致。 |

## 响应参数

状态码： 200

表 4-1145 响应 Body 参数

| 参数     | 参数类型   | 描述          |
|--------|--------|-------------|
| job_id | String | workflowID。 |

状态码： 400

表 4-1146 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-1147 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

```
POST https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/40dc4c5729f14aad893e2dcd5baf6a15in07/starrocks/resize-flavor
{
  "fe_flavor_id": "c44cfde6-d250-313c-8d7a-cd216f071658",
  "be_flavor_id": "c44cfde6-d250-313c-8d7a-cd216f071670"
}
```

## 响应示例

状态码： 200

Success.

```
{
  "job_id" : "32df2c1d-91c9-4777-8b4a-608030aed64d"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ResizeStarRocksFlavorSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ResizeStarRocksFlavorRequest request = new ResizeStarRocksFlavorRequest();
        request.withInstanceId("{instance_id}");
        SrFlavorResizeReq body = new SrFlavorResizeReq();
        body.withBeFlavorId("c44cfde6-d250-313c-8d7a-cd216f071670");
        body.withFeFlavorId("c44cfde6-d250-313c-8d7a-cd216f071658");
        request.withBody(body);
        try {
            ResizeStarRocksFlavorResponse response = client.resizeStarRocksFlavor(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```



## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ResizeStarRocksFlavorRequest()
        request.instance_id = "{instance_id}"
        request.body = SrFlavorResizeReq(
            be_flavor_id="c44cfde6-d250-313c-8d7a-cd216f071670",
            fe_flavor_id="c44cfde6-d250-313c-8d7a-cd216f071658"
        )
        response = client.resize_star_rocks_flavor(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()
```

```
client := gaussdb.NewGaussDBClient(  
    gaussdb.GaussDBClientBuilder().  
        WithRegion(region.ValueOf("<YOUR REGION>")).  
        WithCredential(auth).  
        Build())  
  
request := &model.ResizeStarRocksFlavorRequest{  
    request.InstanceId = "{instance_id}"  
    beFlavorIdSrFlavorResizeReq:= "c44cfde6-d250-313c-8d7a-cd216f071670"  
    feFlavorIdSrFlavorResizeReq:= "c44cfde6-d250-313c-8d7a-cd216f071658"  
    request.Body = &model.SrFlavorResizeReq{  
        BeFlavorId: &beFlavorIdSrFlavorResizeReq,  
        FeFlavorId: &feFlavorIdSrFlavorResizeReq,  
    }  
}  
response, err := client.ResizeStarRocksFlavor(request)  
if err == nil {  
    fmt.Printf("%+v\n", response)  
} else {  
    fmt.Println(err)  
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.15.27 查询参数

### 功能介绍

按节点类型查询参数

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/instances/{instance\_id}/starrocks/configurations

表 4-1148 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                       |
|-------------|------|--------|--------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。         |

表 4-1149 Query 参数

| 参数        | 是否必选 | 参数类型    | 描述                                                                                                                                           |
|-----------|------|---------|----------------------------------------------------------------------------------------------------------------------------------------------|
| node_type | 是    | String  | 节点类型。取值范围： <ul style="list-style-type: none"><li>• be</li><li>• fe</li></ul>                                                                 |
| offset    | 否    | Integer | 索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。 |
| limit     | 否    | Integer | 查询记录数。默认为100，不能为负数，最小值为1，最大值为100。                                                                                                            |

## 请求参数

表 4-1150 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                               |
|--------------|------|--------|--------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。                                                                                         |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>• en-us</li><li>• zh-cn</li></ul> |

## 响应参数

状态码： 200

表 4-1151 响应 Body 参数

| 参数               | 参数类型                                                 | 描述       |
|------------------|------------------------------------------------------|----------|
| configurations   | <a href="#">ParameterConfigurationInfo</a> object    | 参数信息。    |
| total_count      | Long                                                 | 参数信息的总数。 |
| parameter_values | Array of <a href="#">ParameterValuesInfo</a> objects | 参数对象。    |

表 4-1152 ParameterConfigurationInfo

| 参数                     | 参数类型   | 描述                                                                                                                       |
|------------------------|--------|--------------------------------------------------------------------------------------------------------------------------|
| datastore_version_name | String | <b>参数解释:</b><br>数据库版本名称。<br><b>取值范围:</b><br>2.0                                                                          |
| datastore_name         | String | <b>参数解释:</b><br>参数组引擎名称。<br><b>取值范围:</b><br>taurus                                                                       |
| created                | String | <b>参数解释:</b><br>参数组创建时间, 格式为"yyyy-mm-ddThh:mm:ssZ"。<br>其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。<br><b>取值范围:</b><br>不涉及。 |
| updated                | String | <b>参数解释:</b><br>参数组更新时间, 格式为"yyyy-mm-ddThh:mm:ssZ"。<br>其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。<br><b>取值范围:</b><br>不涉及。 |

表 4-1153 ParameterValuesInfo

| 参数               | 参数类型    | 描述                                                                                                                                                                |
|------------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| name             | String  | <b>参数解释:</b><br>参数名称。<br><b>取值范围:</b><br>不涉及。                                                                                                                     |
| value            | String  | <b>参数解释:</b><br>参数值。<br><b>取值范围:</b><br>不涉及。                                                                                                                      |
| restart_required | Boolean | <b>参数解释:</b><br>是否需要重启。<br><b>取值范围:</b> <ul style="list-style-type: none"><li>• false: 否。</li><li>• true: 是。</li></ul>                                            |
| readonly         | Boolean | <b>参数解释:</b><br>是否只读。<br><b>取值范围:</b> <ul style="list-style-type: none"><li>• false: 否。</li><li>• true: 是。</li></ul>                                              |
| value_range      | String  | <b>参数解释:</b><br>参数值范围。<br><b>取值范围:</b><br>不涉及。                                                                                                                    |
| type             | String  | <b>参数解释:</b><br>参数类型。<br><b>取值范围:</b> <ul style="list-style-type: none"><li>• string</li><li>• integer</li><li>• boolean</li><li>• list</li><li>• float</li></ul> |
| description      | String  | <b>参数解释:</b><br>参数描述。<br><b>取值范围:</b><br>不涉及。                                                                                                                     |

### 状态码： 400

表 4-1154 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

### 状态码： 500

表 4-1155 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

### 查询实例be节点参数

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/  
3edf6218dfb442329730765ee02fdd31in17/starrocks/configurations?node_type=be
```

## 响应示例

### 状态码： 200

参数查询接口返回。

```
{  
  "configurations": {  
    "datastore_name": "taurus",  
    "datastore_version_name": "2.0",  
    "created": "2024-05-17T02:58:32+0000",  
    "updated": "2024-05-17T08:51:45+0000"  
  },  
  "parameter_values": [  
    {  
      "name": "auto_increment_increment",  
      "value": "1",  
      "restart_required": false,  
      "readonly": false,  
      "value_range": "1-65535",  
      "type": "integer",  
      "description": "auto_increment_increment和auto_increment_offset 用于master-to-master的复制，并  
可以用来控制AUTO_INCREMENT列的操作。"  
    },  
  ],  
  "total_count": 140  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowStarrocksParamsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ShowStarrocksParamsRequest request = new ShowStarrocksParamsRequest();
        request.withInstanceId("{instance_id}");
        try {
            ShowStarrocksParamsResponse response = client.showStarrocksParams(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

### Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *
```

```
if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowStarrocksParamsRequest()
        request.instance_id = "{instance_id}"
        response = client.show_starrocks_params(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowStarrocksParamsRequest{}
    request.InstanceId = "{instance_id}"
    response, err := client.ShowStarrocksParams(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```



```
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述         |
|-----|------------|
| 200 | 参数查询接口返回。  |
| 400 | 接口报错返回400。 |
| 500 | 接口报错返回500。 |

## 错误码

请参见[错误码](#)。

## 4.15.28 修改参数

### 功能介绍

按节点类型修改节点参数

### 调用方法

请参见[如何调用API](#)。

## URI

PUT /v3/{project\_id}/instances/{instance\_id}/starrocks/configurations

表 4-1156 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                       |
|-------------|------|--------|--------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。         |

## 请求参数

表 4-1157 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                       |
|--------------|------|--------|------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。                                                                                 |
| Content-Type | 是    | String | 内容类型。<br>取值: application/json。                                                           |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围: <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul> |

表 4-1158 请求 Body 参数

| 参数               | 是否必选 | 参数类型               | 描述                                                                       |
|------------------|------|--------------------|--------------------------------------------------------------------------|
| node_type        | 是    | String             | 节点类型。取值范围: <ul style="list-style-type: none"><li>be</li><li>fe</li></ul> |
| parameter_values | 是    | Map<String,String> | 参数名和参数值映射关系。用户可以基于默认参数模板的参数,自定义的参数值。不传入该参数,则保持原参数信息。                     |

## 响应参数

状态码: 200

表 4-1159 响应 Body 参数

| 参数               | 参数类型    | 描述                               |
|------------------|---------|----------------------------------|
| job_id           | String  | 修改指定实例参数的任务ID。                   |
| restart_required | Boolean | 是否需要重启。<br>true: 是。<br>false: 否。 |

状态码: 400

表 4-1160 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-1161 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

```
PUT https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/  
3ef58db3986540d19f95151309368d34in17/starrocks/configurations  
  
{  
  "parameter_values": {  
    "sync_tablet_meta": "true"  
  },  
  "node_type": "be"  
}
```

## 响应示例

状态码： 200

参数修改返回。

```
{  
  "job_id": "aacd2f81-3fcb-427b-a52e-142639c6d1b9",  
  "restart_required": false  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;
```

```
import java.util.Map;
import java.util.HashMap;

public class UpdateStarrocksParamsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();

        UpdateStarrocksParamsRequest request = new UpdateStarrocksParamsRequest();
        request.withInstanceId("{instance_id}");
        UpdateParamInfo body = new UpdateParamInfo();
        Map<String, String> listbodyParameterValues = new HashMap<>();
        listbodyParameterValues.put("sync_tablet_meta", "true");
        body.withParameterValues(listbodyParameterValues);
        body.withNodeType("be");
        request.withBody(body);
        try {
            UpdateStarrocksParamsResponse response = client.updateStarrocksParams(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"
```

```
credentials = BasicCredentials(ak, sk, projectId)

client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = UpdateStarrocksParamsRequest()
    request.instance_id = "{instance_id}"
    listParameterValuesbody = {
        "sync_tablet_meta": "true"
    }
    request.body = UpdateParamInfo(
        parameter_values=listParameterValuesbody,
        node_type="be"
    )
    response = client.update_starrocks_params(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateStarrocksParamsRequest{}
    request.InstanceId = "{instance_id}"
    var listParameterValuesbody = map[string]string{
        "sync_tablet_meta": "true",
    }
    request.Body = &model.UpdateParamInfo{
        ParameterValues: listParameterValuesbody,
        NodeType: "be",
    }
    response, err := client.UpdateStarrocksParams(request)
```

```
if err == nil {  
    fmt.Printf("%+v\n", response)  
} else {  
    fmt.Println(err)  
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述           |
|-----|--------------|
| 200 | 参数修改返回。      |
| 400 | 接口调用失败返回400。 |
| 500 | 接口调用失败返回500。 |

## 错误码

请参见[错误码](#)。

## 4.15.29 StarRocks 实例开启行列分流

### 功能介绍

StarRocks实例开启行列分流。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/instances/{instance\_id}/starrocks/users/sync

表 4-1162 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | StarRocks实例ID。                                               |

## 请求参数

**表 4-1163** 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| Content-Type | 是    | String | 内容类型。取值：application/json。                                                                              |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

**表 4-1164** 请求 Body 参数

| 参数     | 是否必选 | 参数类型   | 描述               |
|--------|------|--------|------------------|
| action | 是    | String | StarRocks账号同步动作。 |

## 响应参数

状态码： 200

**表 4-1165** 响应 Body 参数

| 参数      | 参数类型   | 描述          |
|---------|--------|-------------|
| success | String | 开启行列分流是否成功。 |

状态码： 400

**表 4-1166** 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-1167 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

```
POST https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/58fab56787854702b20f0e17cdcb49b9in17/starrocks/users/sync
{
  "action": "startSyncTaurusAccount"
}
```

## 响应示例

状态码： 200

Success.

```
{
  "success": true
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class SyncStarRocksUsersSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
```



```
        .withSk(sk);

    GaussDBClient client = GaussDBClient.newBuilder()
        .withCredential(auth)
        .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
        .build();
    SyncStarRocksUsersRequest request = new SyncStarRocksUsersRequest();
    request.withInstanceId("{instance_id}");
    UserSyncReq body = new UserSyncReq();
    body.withAction(UserSyncReq.ActionEnum.fromValue("startSyncTaurusAccount"));
    request.withBody(body);
    try {
        SyncStarRocksUsersResponse response = client.syncStarRocksUsers(request);
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = SyncStarRocksUsersRequest()
        request.instance_id = "{instance_id}"
        request.body = UserSyncReq(
            action="startSyncTaurusAccount"
        )
        response = client.sync_star_rocks_users(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.SyncStarRocksUsersRequest{}
    request.InstanceId = "{instance_id}"
    request.Body = &model.UserSyncReq{
        Action: model.GetUserSyncReqActionEnum().START_SYNC_TAUROS_ACCOUNT,
    }
    response, err := client.SyncStarRocksUsers(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.15.30 参数对比

### 功能介绍

对比实例参数和默认模板的差异

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/configurations/starrocks/comparison

表 4-1168 路径参数

| 参数         | 是否必选 | 参数类型   | 描述                       |
|------------|------|--------|--------------------------|
| project_id | 是    | String | 租户在某一Region下的project ID。 |

### 请求参数

表 4-1169 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                           |
|--------------|------|--------|----------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。                                                                                     |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul> |
| Content-Type | 是    | String | 内容类型。取值：application/json。                                                                    |

表 4-1170 请求 Body 参数

| 参数                      | 是否必选 | 参数类型   | 描述                                                  |
|-------------------------|------|--------|-----------------------------------------------------|
| source_configuration_id | 是    | String | 需要进行比较的源参数模板ID。<br>通过ListStarrocksInstanceInfo接口获得。 |

## 响应参数

状态码： 200

表 4-1171 响应 Body 参数

| 参数          | 参数类型                                                            | 描述            |
|-------------|-----------------------------------------------------------------|---------------|
| differences | Array of <a href="#">ParamGroupParameterDifferences</a> objects | 老本版参数之间区别的集合。 |

表 4-1172 ParamGroupParameterDifferences

| 参数             | 参数类型   | 描述           |
|----------------|--------|--------------|
| parameter_name | String | 参数名称。        |
| source_value   | String | 源参数模板中的参数值。  |
| target_value   | String | 目标参数模板中的参数值。 |

状态码： 400

表 4-1173 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-1174 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

```
POST https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/configurations/comparison
{
```

```
"source_configuration_id" : "a2069d40256f40078c52d90d6a91ee63pr17",  
}
```

## 响应示例

状态码： 200

参数之间区别的集合。

```
{  
  "differences" : [ {  
    "parameter_name" : "alter_tablet_worker_count",  
    "source_value" : "4",  
    "target_value" : "3"  
  } ]  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class CheckStarrocksParamsSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        CheckStarrocksParamsRequest request = new CheckStarrocksParamsRequest();  
        CheckStarrocksParamsRequestBody body = new CheckStarrocksParamsRequestBody();  
        body.withSourceConfigurationId("a2069d40256f40078c52d90d6a91ee63pr17");  
        request.withBody(body);  
        try {  
            CheckStarrocksParamsResponse response = client.checkStarrocksParams(request);  
            System.out.println(response.toString());  
        } catch (ConnectionException e) {  
            e.printStackTrace();  
        } catch (RequestTimeoutException e) {  
            e.printStackTrace();  
        }
```

```
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CheckStarrocksParamsRequest()
        request.body = CheckStarrocksParamsRequestBody(
            source_configuration_id="a2069d40256f40078c52d90d6a91ee63pr17"
        )
        response = client.check_starrocks_params(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
```

```
sk := os.Getenv("CLOUD_SDK_SK")
projectId := "{project_id}"

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    WithProjectId(projectId).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.CheckStarrocksParamsRequest{}
request.Body = &model.CheckStarrocksParamsRequestBody{
    SourceConfigurationId: "a2069d40256f40078c52d90d6a91ee63pr17",
}
response, err := client.CheckStarrocksParams(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述           |
|-----|--------------|
| 200 | 参数之间区别的集合。   |
| 400 | 接口调用错误返回400。 |
| 500 | 接口调用错误返回500。 |

## 错误码

请参见[错误码](#)。

## 4.16 HTAP-轻量版

### 4.16.1 删除数据库账户

#### 功能介绍

删除数据库账户。

## 调用方法

请参见[如何调用API](#)。

## URI

DELETE /v3/{project\_id}/instances/{instance\_id}/clickhouse/users/{user\_name}

表 4-1175 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | ClickHouse实例ID，严格匹配UUID规则。                                   |
| user_name   | 是    | String | 数据库名称。                                                       |

## 请求参数

表 4-1176 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

## 响应参数

状态码： 200

表 4-1177 响应 Body 参数

| 参数     | 参数类型   | 描述    |
|--------|--------|-------|
| result | String | 请求结果。 |



状态码： 400

表 4-1178 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-1179 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

删除数据库账户。

```
DELETE https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/  
54e42160670e48e789af7075e1efea1fin16/clickhouse/user/user_test
```

## 响应示例

状态码： 200

Success.

```
{  
  "result" : "SUCCESS"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class DeleteClickHouseDatabaseUserSolution {
```

```
public static void main(String[] args) {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running
    // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    String ak = System.getenv("CLOUD_SDK_AK");
    String sk = System.getenv("CLOUD_SDK_SK");
    String projectId = "{project_id}";

    ICredential auth = new BasicCredentials()
        .withProjectId(projectId)
        .withAk(ak)
        .withSk(sk);

    GaussDBClient client = GaussDBClient.newBuilder()
        .withCredential(auth)
        .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
        .build();
    DeleteClickHouseDatabaseUserRequest request = new DeleteClickHouseDatabaseUserRequest();
    request.withInstanceId("{instance_id}");
    request.withUserName("{user_name}");
    try {
        DeleteClickHouseDatabaseUserResponse response = client.deleteClickHouseDatabaseUser(request);
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteClickHouseDatabaseUserRequest()
```

```
request.instance_id = "{instance_id}"
request.user_name = "{user_name}"
response = client.delete_click_house_database_user(request)
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/ HuaweiCloud/ HuaweiCloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/ HuaweiCloud/ HuaweiCloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/ HuaweiCloud/ HuaweiCloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/ HuaweiCloud/ HuaweiCloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteClickHouseDatabaseUserRequest{}
    request.InstanceId = "{instance_id}"
    request.UserName = "{user_name}"
    response, err := client.DeleteClickHouseDatabaseUser(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述       |
|-----|----------|
| 200 | Success. |

| 状态码 | 描述            |
|-----|---------------|
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.16.2 查询错误日志、慢日志节点信息

### 功能介绍

查询错误日志、慢日志节点信息。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/instances/{instance\_id}/clickhouse/nodes

表 4-1180 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | ClickHouse实例ID，严格匹配UUID规则。                                   |

### 请求参数

表 4-1181 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |

| 参数         | 是否必选 | 参数类型   | 描述                                                                                           |
|------------|------|--------|----------------------------------------------------------------------------------------------|
| X-Language | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul> |

## 响应参数

状态码： 200

表 4-1182 响应 Body 参数

| 参数        | 参数类型                                       | 描述                |
|-----------|--------------------------------------------|-------------------|
| node_list | Array of <a href="#">node_list</a> objects | ClickHouse实例节点列表。 |

表 4-1183 node\_list

| 参数        | 参数类型   | 描述                |
|-----------|--------|-------------------|
| node_id   | String | ClickHouse实例节点id。 |
| node_name | String | ClickHouse实例节点名称。 |
| role      | String | 节点主备角色。           |

状态码： 400

表 4-1184 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-1185 响应 Body 参数

| 参数         | 参数类型   | 描述   |
|------------|--------|------|
| error_code | String | 错误码。 |

| 参数        | 参数类型   | 描述    |
|-----------|--------|-------|
| error_msg | String | 错误描述。 |

## 请求示例

查询错误日志、慢日志节点信息。

```
GET https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/  
28f61af50fc9452aa0ed5ea25c3cc3d3/clickhouse/nodes
```

## 响应示例

**状态码： 200**

Success.

```
{  
  "node_list" : [ {  
    "node_id" : "f1a5641d62f44803ac38ffefed0e4736no07",  
    "node_name" : "gauss-htap-node01",  
    "role" : "slave"  
  } ]  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ListClickHouseInstanceNodeSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)
```

```
        .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
        .build();
ListClickHouseInstanceNodeRequest request = new ListClickHouseInstanceNodeRequest();
request.withInstanceId("{instance_id}");
try {
    ListClickHouseInstanceNodeResponse response = client.listClickHouseInstanceNode(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.valueOf("<YOUR REGION>")) \
        .build()

    try:
        request = ListClickHouseInstanceNodeRequest()
        request.instance_id = "{instance_id}"
        response = client.list_click_house_instance_node(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
```

```
)  
  
func main() {  
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    // variables and decrypted during use to ensure security.  
    // In this example, AK and SK are stored in environment variables for authentication. Before running this  
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak := os.Getenv("CLOUD_SDK_AK")  
    sk := os.Getenv("CLOUD_SDK_SK")  
    projectId := "{project_id}"  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).  
        WithSk(sk).  
        WithProjectId(projectId).  
        Build()  
  
    client := gaussdb.NewGaussDBClient(  
        gaussdb.GaussDBClientBuilder().  
            WithRegion(region.ValueOf("<YOUR REGION>")).  
            WithCredential(auth).  
            Build()  
    )  
  
    request := &model.ListClickHouseInstanceNodeRequest{  
        InstanceId: "{instance_id}"  
    }  
    response, err := client.ListClickHouseInstanceNode(request)  
    if err == nil {  
        fmt.Printf("%+v\n", response)  
    } else {  
        fmt.Println(err)  
    }  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.16.3 查询慢日志

### 功能介绍

获取内核慢日志信息。



## 调用方法

请参见[如何调用API](#)。

## URI

POST /v3/{project\_id}/instances/{instance\_id}/clickhouse/slow-logs

表 4-1186 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | ClickHouse实例ID, 严格匹配UUID规则。                                  |

## 请求参数

表 4-1187 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

表 4-1188 请求 Body 参数

| 参数         | 是否必选 | 参数类型   | 描述                                                                            |
|------------|------|--------|-------------------------------------------------------------------------------|
| node_id    | 是    | String | 实例节点ID。                                                                       |
| start_time | 是    | String | 开始时间, 格式为“yyyy-mm-ddThh:mm:ssZ”。<br>其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。 |

| 参数           | 是否必选 | 参数类型    | 描述                                                                        |
|--------------|------|---------|---------------------------------------------------------------------------|
| end_time     | 是    | String  | 开始时间，格式为“yyyy-mm-ddThh:mm:ssZ”。<br>其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。 |
| limit        | 是    | Integer | 查询记录数。                                                                    |
| line_num     | 否    | String  | 日志单行序列号，第一次查询时不需要此参数，后续分页查询时需要使用，可从上次查询的返回信息中获取。                          |
| operate_type | 否    | String  | 慢日志操作类型。                                                                  |
| database     | 否    | String  | 数据库名。                                                                     |

## 响应参数

状态码： 200

表 4-1189 响应 Body 参数

| 参数            | 参数类型                                           | 描述     |
|---------------|------------------------------------------------|--------|
| slow_log_list | Array of <a href="#">slow_log_list</a> objects | 慢日志列表。 |

表 4-1190 slow\_log\_list

| 参数            | 参数类型    | 描述                |
|---------------|---------|-------------------|
| node_id       | String  | ClickHouse实例节点ID。 |
| time          | String  | 数据库语句执行时间。        |
| lock_time     | String  | 数据库语句等待锁时间。       |
| rows_sent     | Integer | 数据库语句执行结果行数。      |
| rows_examined | Integer | 数据库语句扫描行数。        |
| database      | String  | 所属数据库名。           |
| users         | String  | 执行语句账号。           |
| query_sample  | String  | 数据库执行语句。          |
| type          | String  | 数据库语句类型。          |

| 参数         | 参数类型   | 描述                                               |
|------------|--------|--------------------------------------------------|
| client_ip  | String | IP地址。                                            |
| start_time | String | 数据库语句发生时间。                                       |
| line_num   | String | 日志单行序列号，第一次查询时不需要此参数，后续分页查询时需要使用，可从上次查询的返回信息中获取。 |
| count      | String | 慢日志数量。                                           |

状态码： 400

表 4-1191 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-1192 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

获取内核慢日志信息。

```
POST https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/86fd60a5256a4592b957e8e6bb2d1b59in07/clickhouse/slow-logs
{
  "node_id": "aeb9e81135b34197bab8636fc8a1c569no16",
  "start_time": "2023-12-12T00:14:27+0100",
  "end_time": "2023-12-12T02:14:27+0100",
  "limit": "10",
  "line_num": "1669344916000",
  "operate_type": "All",
  "database": "DBS_NODE"
}
```

## 响应示例

状态码： 200

Success.

```
{
  "slow_log_list" : [ {
    "node_id" : "941d21130b3c4899ad1a752a0945befdno07",
    "time" : "0.000143s",
    "rows_sent" : "10",
    "rows_examined" : "50",
    "database" : "user_center",
    "users" : "admin",
    "query_sample" : "sleep (N);",
    "type" : "1700755200000",
    "client_ip" : "10.1.1.60",
    "start_time" : "2023-08-28T08:22:13.591394+08:00",
    "line_num" : "1669344916000"
  } ]
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

获取内核慢日志信息。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowClickHouseSlowLogDetailSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ShowClickHouseSlowLogDetailRequest request = new ShowClickHouseSlowLogDetailRequest();
        request.withInstanceId("{instance_id}");
        ChSlowLogQueryRequestBody body = new ChSlowLogQueryRequestBody();
        body.withDatabase("DBS_NODE");
        body.withOperateType("All");
        body.withLineNum("1669344916000");
        body.withLimit(10);
        body.withEndTime("2023-12-12T02:14:27+0100");
```

```
body.withStartTime("2023-12-12T00:14:27+0100");
body.withNodeId("aeb9e81135b34197bab8636fc8a1c569no16");
request.withBody(body);
try {
    ShowClickHouseSlowLogDetailResponse response = client.showClickHouseSlowLogDetail(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

获取内核慢日志信息。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowClickHouseSlowLogDetailRequest()
        request.instance_id = "{instance_id}"
        request.body = ChSlowLogQueryRequestBody(
            database="DBS_NODE",
            operate_type="All",
            line_num="1669344916000",
            limit=10,
            end_time="2023-12-12T02:14:27+0100",
            start_time="2023-12-12T00:14:27+0100",
            node_id="aeb9e81135b34197bab8636fc8a1c569no16"
        )
        response = client.show_click_house_slow_log_detail(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

获取内核慢日志信息。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowClickHouseSlowLogDetailRequest{}
    request.InstanceId = "{instance_id}"
    databaseChSlowLogQueryRequestBody := "DBS_NODE"
    operateTypeChSlowLogQueryRequestBody := "All"
    lineNumChSlowLogQueryRequestBody := "1669344916000"
    request.Body = &model.ChSlowLogQueryRequestBody{
        Database: &databaseChSlowLogQueryRequestBody,
        OperateType: &operateTypeChSlowLogQueryRequestBody,
        LineNum: &lineNumChSlowLogQueryRequestBody,
        Limit: int32(10),
        EndTime: "2023-12-12T02:14:27+0100",
        StartTime: "2023-12-12T00:14:27+0100",
        NodeId: "aeb9e81135b34197bab8636fc8a1c569no16",
    }
    response, err := client.ShowClickHouseSlowLogDetail(request)
    if err == nil {
        fmt.Printf("%v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

### 4.16.4 修改慢日志脱敏状态

#### 功能介绍

修改慢日志脱敏状态。

#### 调用方法

请参见[如何调用API](#)。

## URI

PUT /v3/{project\_id}/instances/{instance\_id}/clickhouse/slowlog-sensitive

表 4-1193 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | ClickHouse实例ID，严格匹配UUID规则。                                   |

## 请求参数

表 4-1194 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

表 4-1195 请求 Body 参数

| 参数                   | 是否必选 | 参数类型   | 描述       |
|----------------------|------|--------|----------|
| open_slow_log_switch | 是    | String | 慢日志脱敏开关。 |

## 响应参数

状态码： 200

表 4-1196 响应 Body 参数

| 参数                   | 参数类型   | 描述       |
|----------------------|--------|----------|
| open_slow_log_switch | String | 慢日志脱敏开关。 |

状态码： 400

表 4-1197 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |



状态码： 500

表 4-1198 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

关闭慢日志脱敏。

```
POST https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/86fd60a5256a4592b957e8e6bb2d1b59in07/clickhouse/slowlog-sensitive
{
  "open_slow_log_switch" : "false"
}
```

## 响应示例

状态码： 200

Success.

```
{
  "open_slow_log_switch" : "false"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

关闭慢日志脱敏。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateClickHouseSlowLogSensitiveStatusSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
```

```
String sk = System.getenv("CLOUD_SDK_SK");
String projectId = "{project_id}";

ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();

UpdateClickHouseSlowLogSensitiveStatusRequest request = new
UpdateClickHouseSlowLogSensitiveStatusRequest();
request.withInstanceId("{instance_id}");
ChSlowlogSensitiveResponse body = new ChSlowlogSensitiveResponse();
body.withOpenSlowLogSwitch("false");
request.withBody(body);
try {
    UpdateClickHouseSlowLogSensitiveStatusResponse response =
client.updateClickHouseSlowLogSensitiveStatus(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

关闭慢日志脱敏。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateClickHouseSlowLogSensitiveStatusRequest()
        request.instance_id = "{instance_id}"
        request.body = ChSlowlogSensitiveResponse(
```

```
        open_slow_log_switch="false"
    )
    response = client.update_click_house_slow_log_sensitive_status(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

关闭慢日志脱敏。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateClickHouseSlowLogSensitiveStatusRequest{}
    request.InstanceId = "{instance_id}"
    request.Body = &model.ChSlowlogSensitiveResponse{
        OpenSlowLogSwitch: "false",
    }
    response, err := client.UpdateClickHouseSlowLogSensitiveStatus(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

### 4.16.5 查询慢日志脱敏状态

#### 功能介绍

查询慢日志脱敏状态。

#### 调用方法

请参见[如何调用API](#)。

## URI

GET /v3/{project\_id}/instances/{instance\_id}/clickhouse/slowlog-sensitive

表 4-1199 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | ClickHouse实例ID，严格匹配UUID规则。                                   |

## 请求参数

表 4-1200 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

## 响应参数

状态码： 200

表 4-1201 响应 Body 参数

| 参数                   | 参数类型   | 描述       |
|----------------------|--------|----------|
| open_slow_log_switch | String | 慢日志脱敏开关。 |

状态码： 400

表 4-1202 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-1203 响应 Body 参数

| 参数         | 参数类型   | 描述   |
|------------|--------|------|
| error_code | String | 错误码。 |

| 参数        | 参数类型   | 描述    |
|-----------|--------|-------|
| error_msg | String | 错误描述。 |

## 请求示例

查询慢日志脱敏状态。

```
GET https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/86fd60a5256a4592b957e8e6bb2d1b59in07/clickhouse/slowlog-sensitive
```

## 响应示例

状态码： 200

Success.

```
{
  "open_slow_log_switch" : "false"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowClickHouseSlowLogSensitiveStatusSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ShowClickHouseSlowLogSensitiveStatusRequest request = new
        ShowClickHouseSlowLogSensitiveStatusRequest();
```

```
request.withInstanceId("{instance_id}");
try {
    ShowClickHouseSlowLogSensitiveStatusResponse response =
client.showClickHouseSlowLogSensitiveStatus(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowClickHouseSlowLogSensitiveStatusRequest()
        request.instance_id = "{instance_id}"
        response = client.show_click_house_slow_log_sensitive_status(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)
```

```
func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowClickHouseSlowLogSensitiveStatusRequest{}
    request.InstanceId = "{instance_id}"
    response, err := client.ShowClickHouseSlowLogSensitiveStatus(request)
    if err == nil {
        fmt.Printf("%v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.16.6 查询实例 LTS 日志配置列表

### 功能介绍

查询实例LTS日志配置列表。



## 调用方法

请参见[如何调用API](#)。

## URI

GET /v3/{project\_id}/clickhouse/instances/logs/lts-configs

表 4-1204 路径参数

| 参数         | 是否必选 | 参数类型   | 描述                                                           |
|------------|------|--------|--------------------------------------------------------------|
| project_id | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |

表 4-1205 Query 参数

| 参数                    | 是否必选 | 参数类型    | 描述                                                                          |
|-----------------------|------|---------|-----------------------------------------------------------------------------|
| instance_id           | 否    | String  | ClickHouse实例ID, 严格匹配UUID规则。                                                 |
| enterprise_project_id | 否    | String  | 企业项目id。                                                                     |
| instance_name         | 否    | String  | 实例名称。                                                                       |
| limit                 | 否    | Integer | 查询记录数, 默认10。不能为负数, 最小值为1, 最大值为100。                                          |
| offset                | 否    | Integer | 索引位置, 偏移量, 默认0。从第一条数据偏移offset条数据后开始查询 (偏移0条数据, 表示从第一条数据开始查询), 必须为数字, 不能为负数。 |

## 请求参数

表 4-1206 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

## 响应参数

状态码： 200

表 4-1207 响应 Body 参数

| 参数                   | 参数类型                                                  | 描述         |
|----------------------|-------------------------------------------------------|------------|
| instance_lts_configs | Array of <a href="#">ChInstanceLtsConfigs</a> objects | 实例LTS配置信息。 |
| total_count          | Integer                                               | 实例总数。      |

表 4-1208 ChInstanceLtsConfigs

| 参数          | 参数类型                                          | 描述         |
|-------------|-----------------------------------------------|------------|
| lts_configs | Array of <a href="#">ChLtsConfigs</a> objects | 实例LTS配置信息。 |
| instance    | <a href="#">instance</a> object               | htap实例信息。  |

表 4-1209 ChLtsConfigs

| 参数       | 参数类型   | 描述    |
|----------|--------|-------|
| log_type | String | 日志类型。 |

| 参数            | 参数类型    | 描述         |
|---------------|---------|------------|
| lts_group_id  | String  | LTS日志组id。  |
| lts_stream_id | String  | LTS日志流id。  |
| enabled       | Boolean | LTS配置开关状态。 |

表 4-1210 instance

| 参数                      | 参数类型   | 描述              |
|-------------------------|--------|-----------------|
| id                      | String | ClickHouse实例ID。 |
| name                    | String | 实例名。            |
| mode                    | String | 实例主备状态。         |
| engine_name             | String | 引擎类型。           |
| engine_version          | String | 引擎版本。           |
| status                  | String | 实例状态。           |
| enterprise_project_id   | String | 企业project id。   |
| enterprise_project_name | String | 企业project名。     |

状态码： 400

表 4-1211 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-1212 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

查询实例LTS日志配置列表。

```
GET https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/logs/clickhouse/lts-configs?  
instance_id=faf2cbf7f6cb422d83e61dbcc3e87023in07
```

## 响应示例

状态码： 200

Success.

```
{  
  "instance_lts_configs": [ {  
    "lts_configs": [ {  
      "log_type": "slow_log",  
      "lts_group_id": "460d8437-9dcb-47d0-8c56-5758f2042272",  
      "lts_stream_id": "bad1ca5d-e347-437f-be89-f2e08ce117b8",  
      "enabled": false  
    } ],  
    "instance": {  
      "id": "4c2614fe03ae4ec28184a277b8c00c03in07",  
      "name": "gauss-8c01",  
      "mode": "Cluster",  
      "engine_name": "clickhouse",  
      "engine_version": "2.0.48",  
      "status": "normal",  
      "enterprise_project_id": "0",  
      "enterprise_project_name": "string"  
    }  
  } ],  
  "total_count": 1  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ShowClickHouseLtsConfigSolution {  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()
```

```
.withProjectId(projectId)
.withAk(ak)
.withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
ShowClickHouseLtsConfigRequest request = new ShowClickHouseLtsConfigRequest();
try {
    ShowClickHouseLtsConfigResponse response = client.showClickHouseLtsConfig(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowClickHouseLtsConfigRequest()
        response = client.show_click_house_lts_config(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
```

```
"github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
"github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowClickHouseLtsConfigRequest{}
    response, err := client.ShowClickHouseLtsConfig(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

### 4.16.7 批量创建 LTS 日志配置

#### 功能介绍

批量创建LTS日志配置。

## 调用方法

请参见[如何调用API](#)。

## URI

POST /v3/{project\_id}/clickhouse/instances/logs/lts-configs

表 4-1213 路径参数

| 参数         | 是否必选 | 参数类型   | 描述                                                           |
|------------|------|--------|--------------------------------------------------------------|
| project_id | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |

## 请求参数

表 4-1214 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

表 4-1215 请求 Body 参数

| 参数          | 是否必选 | 参数类型                                         | 描述      |
|-------------|------|----------------------------------------------|---------|
| log_configs | 是    | Array of <a href="#">log_configs</a> objects | 日志配置信息。 |

表 4-1216 log\_configs

| 参数            | 是否必选 | 参数类型   | 描述                          |
|---------------|------|--------|-----------------------------|
| instance_id   | 是    | String | ClickHouse实例ID, 严格匹配UUID规则。 |
| log_type      | 是    | String | 查询日志类型。当前仅支持slow_log。       |
| lts_group_id  | 是    | String | LTS日志组id。                   |
| lts_stream_id | 是    | String | LTS日志流id。                   |

## 响应参数

状态码: 400

表 4-1217 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码: 500

表 4-1218 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

批量创建LTS日志配置。

```
POST https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/logs/clickhouse/lts-configs
{
  "log_configs": [ {
    "instance_id": "86fd60a5256a4592b957e8e6bb2d1b59in07",
    "log_type": "slow_log",
    "lts_group_id": "460d8437-9dcb-47d0-8c56-5758f2042272",
    "lts_stream_id": "bad1ca5d-e347-437f-be89-f2e08ce117b8"
  } ]
}
```



## 响应示例

无

## SDK 代码示例

SDK代码示例如下。

### Java

批量创建LTS日志配置。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class UpdateClickHouseLtsConfigSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        UpdateClickHouseLtsConfigRequest request = new UpdateClickHouseLtsConfigRequest();
        CreateChLtsConfigRequestBody body = new CreateChLtsConfigRequestBody();
        List<CreateChLtsConfigRequestBodyLogConfigs> listbodyLogConfigs = new ArrayList<>();
        listbodyLogConfigs.add(
            new CreateChLtsConfigRequestBodyLogConfigs()
                .withInstanceId("86fd60a5256a4592b957e8e6bb2d1b59in07")
                .withLogType("slow_log")
                .withLtsGroupId("460d8437-9dcb-47d0-8c56-5758f2042272")
                .withLtsStreamId("bad1ca5d-e347-437f-be89-f2e08ce117b8")
        );
        body.withLogConfigs(listbodyLogConfigs);
        request.withBody(body);
        try {
            UpdateClickHouseLtsConfigResponse response = client.updateClickHouseLtsConfig(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
        }
    }
}
```

```
e.printStackTrace();
System.out.println(e.getStatusCode());
System.out.println(e.getRequestId());
System.out.println(e.getErrorCode());
System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

批量创建LTS日志配置。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateClickHouseLtsConfigRequest()
        listLogConfigsbody = [
            CreateChLtsConfigRequestBodyLogConfigs(
                instance_id="86fd60a5256a4592b957e8e6bb2d1b59in07",
                log_type="slow_log",
                lts_group_id="460d8437-9dcb-47d0-8c56-5758f2042272",
                lts_stream_id="bad1ca5d-e347-437f-be89-f2e08ce117b8"
            )
        ]
        request.body = CreateChLtsConfigRequestBody(
            log_configs=listLogConfigsbody
        )
        response = client.update_click_house_lts_config(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

批量创建LTS日志配置。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
```

```
gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
"github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateClickHouseLtsConfigRequest{}
    var listLogConfigsbody = []model.CreateChLtsConfigRequestBodyLogConfigs{
        {
            InstanceId: "86fd60a5256a4592b957e8e6bb2d1b59in07",
            LogType: "slow_log",
            LtsGroupId: "460d8437-9dcb-47d0-8c56-5758f2042272",
            LtsStreamId: "bad1ca5d-e347-437f-be89-f2e08ce117b8",
        },
    }
    request.Body = &model.CreateChLtsConfigRequestBody{
        LogConfigs: listLogConfigsbody,
    }
    response, err := client.UpdateClickHouseLtsConfig(request)
    if err == nil {
        fmt.Printf("%v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.16.8 批量解除 LTS 日志配置

### 功能介绍

批量解除LTS日志配置。

### 调用方法

请参见[如何调用API](#)。

### URI

DELETE /v3/{project\_id}/clickhouse/instances/logs/lts-configs

表 4-1219 路径参数

| 参数         | 是否必选 | 参数类型   | 描述                                                           |
|------------|------|--------|--------------------------------------------------------------|
| project_id | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |

### 请求参数

表 4-1220 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

表 4-1221 请求 Body 参数

| 参数          | 是否必选 | 参数类型                                         | 描述     |
|-------------|------|----------------------------------------------|--------|
| log_configs | 是    | Array of <a href="#">log_configs</a> objects | LTS配置。 |

表 4-1222 log\_configs

| 参数          | 是否必选 | 参数类型   | 描述                          |
|-------------|------|--------|-----------------------------|
| instance_id | 是    | String | ClickHouse实例ID, 严格匹配UUID规则。 |
| log_type    | 是    | String | 日志类型。当前仅支持slow_log。         |

## 响应参数

状态码： 400

表 4-1223 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-1224 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

批量删除LTS日志配置。

```
DELETE https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/logs/lts-configs/clickhouse?instance_id=86fd60a5256a4592b957e8e6bb2d1b59in07
```

```
{  
  "log_configs": [ {
```

```
"instance_id" : "614ff06f72ee46b7949423572dd51e8bin16",  
"log_type" : "slow_log"  
}]  
}
```

## 响应示例

无

## SDK 代码示例

SDK代码示例如下。

## Java

批量删除LTS日志配置。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
import java.util.List;  
import java.util.ArrayList;  
  
public class DeleteClickHouseLtsConfigSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        DeleteClickHouseLtsConfigRequest request = new DeleteClickHouseLtsConfigRequest();  
        DeleteChLtsConfigRequestBody body = new DeleteChLtsConfigRequestBody();  
        List<DeleteChLtsConfigRequestBodyLogConfigs> listbodyLogConfigs = new ArrayList<>();  
        listbodyLogConfigs.add(  
            new DeleteChLtsConfigRequestBodyLogConfigs()  
                .withInstanceId("614ff06f72ee46b7949423572dd51e8bin16")  
                .withLogType("slow_log")  
        );  
        body.withLogConfigs(listbodyLogConfigs);  
        request.withBody(body);  
        try {  
            DeleteClickHouseLtsConfigResponse response = client.deleteClickHouseLtsConfig(request);  
            System.out.println(response.toString());  
        } catch (ConnectionException e) {
```

```
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

批量删除LTS日志配置。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteClickHouseLtsConfigRequest()
        listLogConfigsbody = [
            DeleteChLtsConfigRequestBodyLogConfigs(
                instance_id="614ff06f72ee46b7949423572dd51e8bin16",
                log_type="slow_log"
            )
        ]
        request.body = DeleteChLtsConfigRequestBody(
            log_configs=listLogConfigsbody
        )
        response = client.delete_click_house_lts_config(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

批量删除LTS日志配置。

```
package main

import (
```

```
"fmt"
"github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
"github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteClickHouseLtsConfigRequest{}
    var listLogConfigsbody = []model.DeleteChLtsConfigRequestBodyLogConfigs{
        {
            InstanceId: "614ff06f72ee46b7949423572dd51e8bin16",
            LogType: "slow_log",
        },
    }
    request.Body = &model.DeleteChLtsConfigRequestBody{
        LogConfigs: listLogConfigsbody,
    }
    response, err := client.DeleteClickHouseLtsConfig(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |



## 错误码

请参见[错误码](#)。

## 4.16.9 数据同步库配置校验

### 功能介绍

数据同步库配置校验。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/instances/{instance\_id}/clickhouse/replication/database-check

表 4-1225 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | ClickHouse实例ID，严格匹配UUID规则。                                   |

### 请求参数

表 4-1226 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

表 4-1227 请求 Body 参数

| 参数                   | 是否必选 | 参数类型                                                   | 描述                                         |
|----------------------|------|--------------------------------------------------------|--------------------------------------------|
| source_instance_id   | 是    | String                                                 | 源实例ID, 严格匹配UUID规则。                         |
| source_node_id       | 否    | String                                                 | 源节点ID。TaurusDB只读节点ID。如为空, 则取TaurusDB主节点ID。 |
| source_database_name | 是    | String                                                 | 源数据库名。                                     |
| db_configs           | 是    | Array of <a href="#">ChDatabaseConfigsInfo</a> objects | 库配置列表。                                     |
| table_repl_config    | 是    | <a href="#">ChDatabaseTableReplConfigInfo</a> object   | 表配置信息。                                     |

表 4-1228 ChDatabaseConfigsInfo

| 参数         | 是否必选 | 参数类型   | 描述                              |
|------------|------|--------|---------------------------------|
| param_name | 是    | String | 库同步配置参数名。可通过“查询数据同步的库参数配置”接口查询。 |
| value      | 是    | String | 库同步配置参数值。                       |

表 4-1229 ChDatabaseTableReplConfigInfo

| 参数        | 是否必选 | 参数类型             | 描述                                                                                                                                  |
|-----------|------|------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| repl_type | 是    | String           | 表同步类型。<br>取值范围: <ul style="list-style-type: none"><li>white_list: 白名单, 此时表范围不能为空。</li><li>black_list: 黑名单, 此时表范围为空则选择所有表。</li></ul> |
| tables    | 是    | Array of strings | 白名单或黑名单的表范围。                                                                                                                        |

## 响应参数

状态码: 200

表 4-1230 响应 Body 参数

| 参数                      | 参数类型                                                         | 描述          |
|-------------------------|--------------------------------------------------------------|-------------|
| database_name           | String                                                       | 源数据库名称。     |
| db_config_check_results | Array of <a href="#">ChDatabaseConfigCheckResult</a> objects | 源数据库配置检查结果。 |

表 4-1231 ChDatabaseConfigCheckResult

| 参数           | 参数类型   | 描述                                                                                              |
|--------------|--------|-------------------------------------------------------------------------------------------------|
| param_name   | String | 库同步配置参数名。                                                                                       |
| value        | String | 库同步配置参数值。                                                                                       |
| check_result | String | 校验结果。<br>取值范围： <ul style="list-style-type: none"><li>• success: 成功</li><li>• fail: 失败</li></ul> |

状态码： 400

表 4-1232 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-1233 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

数据同步库配置校验。

```
POST https://{localhost}/v3/23a50154cf494ec9ad6883979a12db0a/instances/  
54e42160670e48e789af7075e1efea1fin16/clickhouse/replication/database-check  
  
{  
  "source_database_name": "blackwhite_0018_61474479",  
  "db_configs": [ {  
    "param_name": "default_isolation_level",  
    "value": "QUERY_SNAPSHOT"  
  } ],  
  "table_repl_config": {  
    "repl_type": "black_list",  
    "tables": [ ]  
  },  
  "source_instance_id": "77aa4096cb824a61b93dab5ca00ecc8fin07",  
  "source_node_id": "57bfeacf6e8d4eb685ea907372374b35no07"  
}
```

## 响应示例

**状态码: 200**

Success.

```
{  
  "database_name": "blackwhite_0017_22525694",  
  "db_config_check_results": [ {  
    "param_name": "default_isolation_level",  
    "value": "QUERY_SNAPSHOT",  
    "check_result": "success"  
  }, {  
    "param_name": "enable_snapshots",  
    "value": "true",  
    "check_result": "success"  
  }, {  
    "param_name": "enable_chunk_level",  
    "value": "true",  
    "check_result": "success"  
  }, {  
    "param_name": "max_sync_threads",  
    "value": "1",  
    "check_result": "success"  
  }, {  
    "param_name": "treat_numeric_string_as_integer",  
    "value": "false",  
    "check_result": "success"  
  }, {  
    "param_name": "min_binlog_expire_logs_seconds",  
    "value": "86400",  
    "check_result": "success"  
  }, {  
    "param_name": "max_rows_in_buffer",  
    "value": "2000000",  
    "check_result": "success"  
  }, {  
    "param_name": "max_rows_in_buffers",  
    "value": "6000000",  
    "check_result": "success"  
  }, {  
    "param_name": "max_bytes_in_buffer",  
    "value": "200000000",  
    "check_result": "success"  
  }, {  
    "param_name": "max_bytes_in_buffers",  
    "value": "600000000",  
    "check_result": "success"  
  }, {  
    "param_name": "max_flush_data_time",  
    "value": "5000",  
    "check_result": "success"  
  } ]  
}
```

```
    }  
  }  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

数据同步库配置校验。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
import java.util.List;  
import java.util.ArrayList;  
  
public class CheckClickHouseDataBaseConfigSolution {  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        CheckClickHouseDataBaseConfigRequest request = new CheckClickHouseDataBaseConfigRequest();  
        request.withInstanceId("{instance_id}");  
        CheckChDatabaseConfigRequestBody body = new CheckChDatabaseConfigRequestBody();  
        ChDatabaseTableReplConfigInfo tableReplConfigbody = new ChDatabaseTableReplConfigInfo();  
        tableReplConfigbody.withReplType("black_list");  
        List<ChDatabaseConfigsInfo> listbodyDbConfigs = new ArrayList<>();  
        listbodyDbConfigs.add(  
            new ChDatabaseConfigsInfo()  
                .withParamName("default_isolation_level")  
                .withValue("QUERY_SNAPSHOT")  
        );  
        body.withTableReplConfig(tableReplConfigbody);  
        body.withDbConfigs(listbodyDbConfigs);  
        body.withSourceDatabaseName("blackwhite_0018_61474479");  
        body.withSourceNodeId("57bfeacf6e8d4eb685ea907372374b35no07");  
        body.withSourceInstanceId("77aa4096cb824a61b93dab5ca00ecc8fin07");  
        request.withBody(body);  
        try {  
            CheckClickHouseDataBaseConfigResponse response =  
                client.checkClickHouseDataBaseConfig(request);  
            System.out.println(response.toString());  
        }  
    }  
}
```

```
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

数据同步库配置校验。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CheckClickHouseDataBaseConfigRequest()
        request.instance_id = "{instance_id}"
        tableReplConfigbody = ChDatabaseTableReplConfigInfo(
            repl_type="black_list"
        )
        listDbConfigsbody = [
            ChDatabaseConfigsInfo(
                param_name="default_isolation_level",
                value="QUERY_SNAPSHOT"
            )
        ]
        request.body = CheckChDatabaseConfigRequestBody(
            table_repl_config=tableReplConfigbody,
            db_configs=listDbConfigsbody,
            source_database_name="blackwhite_0018_61474479",
            source_node_id="57bfeacf6e8d4eb685ea907372374b35no07",
            source_instance_id="77aa4096cb824a61b93dab5ca00ecc8fin07"
        )
        response = client.check_click_house_data_base_config(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

数据同步库配置校验。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CheckClickHouseDataBaseConfigRequest{}
    request.InstanceId = "{instance_id}"
    tableReplConfigbody := &model.ChDatabaseTableReplConfigInfo{
        ReplType: "black_list",
    }
    var listDbConfigsbody = []model.ChDatabaseConfigsInfo{
        {
            ParamName: "default_isolation_level",
            Value: "QUERY_SNAPSHOT",
        },
    }
    sourceNodeIdCheckChDatabaseConfigRequestBody := "57bfeacf6e8d4eb685ea907372374b35no07"
    request.Body = &model.CheckChDatabaseConfigRequestBody{
        TableReplConfig: tableReplConfigbody,
        DbConfigs: listDbConfigsbody,
        SourceDatabaseName: "blackwhite_0018_61474479",
        SourceNodeId: &sourceNodeIdCheckChDatabaseConfigRequestBody,
        SourceInstanceId: "77aa4096cb824a61b93dab5ca00ecc8fin07",
    }
    response, err := client.CheckClickHouseDataBaseConfig(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

### 4.16.10 数据同步表配置校验

#### 功能介绍

数据同步表配置校验。

#### 调用方法

请参见[如何调用API](#)。

#### URI

POST /v3/{project\_id}/instances/{instance\_id}/clickhouse/replication/table-check

表 4-1234 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | ClickHouse实例ID，严格匹配UUID规则。                                   |



## 请求参数

表 4-1235 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"> <li>en-us</li> <li>zh-cn</li> </ul>        |

表 4-1236 请求 Body 参数

| 参数                   | 是否必选 | 参数类型                                                        | 描述                                        |
|----------------------|------|-------------------------------------------------------------|-------------------------------------------|
| source_instance_id   | 是    | String                                                      | 源实例ID。                                    |
| source_node_id       | 否    | String                                                      | 源节点ID。TaurusDB只读节点ID。如为空，则取TaurusDB主节点ID。 |
| source_database_name | 是    | String                                                      | 源数据库名。                                    |
| db_configs           | 是    | Array of <a href="#">ChDatabaseConfigsInfo</a> objects      | 库配置列表。                                    |
| tables_configs       | 是    | Array of <a href="#">ChDatabaseTablesConfigInfo</a> objects | 表配置信息。                                    |
| table_repl_config    | 是    | <a href="#">ChDatabaseTableReplConfigInfo</a> object        | 表同步配置信息。                                  |

表 4-1237 ChDatabaseConfigsInfo

| 参数         | 是否必选 | 参数类型   | 描述                              |
|------------|------|--------|---------------------------------|
| param_name | 是    | String | 库同步配置参数名。可通过“查询数据同步的库参数配置”接口查询。 |
| value      | 是    | String | 库同步配置参数值。                       |

表 4-1238 ChDatabaseTablesConfigsInfo

| 参数           | 是否必选 | 参数类型   | 描述                                                                                        |
|--------------|------|--------|-------------------------------------------------------------------------------------------|
| table_name   | 是    | String | 数据库表名。                                                                                    |
| table_config | 是    | String | 表配置值。<br>允许输入的列操作有：<br>PARTITION BY, COLUMNS,<br>ORDER BY, SAMPLE BY,<br>PRIMARY KEY, TTL |

表 4-1239 ChDatabaseTableReplConfigInfo

| 参数        | 是否必选 | 参数类型             | 描述                                                                                                                                |
|-----------|------|------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| repl_type | 是    | String           | 表同步类型。<br>取值范围： <ul style="list-style-type: none"><li>white_list: 白名单，此时表范围不能为空。</li><li>black_list: 黑名单，此时表范围为空则选择所有表。</li></ul> |
| tables    | 是    | Array of strings | 白名单或黑名单的表范围。                                                                                                                      |

## 响应参数

状态码：200

表 4-1240 响应 Body 参数

| 参数                   | 参数类型   | 描述     |
|----------------------|--------|--------|
| source_database_name | String | 源数据库名。 |

| 参数                         | 参数类型                                                              | 描述       |
|----------------------------|-------------------------------------------------------------------|----------|
| table_config_check_results | Array of <a href="#">ChDatabaseTableConfigCheckResult</a> objects | 表配置检查结果。 |

表 4-1241 ChDatabaseTableConfigCheckResult

| 参数           | 参数类型   | 描述                                                                              |
|--------------|--------|---------------------------------------------------------------------------------|
| table_name   | String | 数据库表名。                                                                          |
| table_config | String | 表配置项。<br>允许输入的列操作有：PARTITION BY, COLUMNS, ORDER BY, SAMPLE BY, PRIMARY KEY, TTL |
| check_result | String | 校验结果。                                                                           |

状态码： 400

表 4-1242 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-1243 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

数据同步表配置校验。

```
POST https://{localhost}/v3/23a50154cf494ec9ad6883979a12db0a/instances/54e42160670e48e789af7075e1efea1fin16/clickhouse/replication/table-check
{
```

```
"source_database_name": "blackwhite_0017_22525694",
"db_configs": [ {
  "param_name": "default_isolation_level",
  "value": "QUERY_SNAPSHOT"
}, {
  "param_name": "enable_snapshots",
  "value": "true"
}, {
  "param_name": "enable_chunk_level",
  "value": "true"
}, {
  "param_name": "max_sync_threads",
  "value": "1"
}, {
  "param_name": "treat_numeric_string_as_integer",
  "value": "false"
}, {
  "param_name": "min_binlog_expire_logs_seconds",
  "value": "86400"
}, {
  "param_name": "max_rows_in_buffer",
  "value": "2000000"
}, {
  "param_name": "max_rows_in_buffers",
  "value": "6000000"
}, {
  "param_name": "max_bytes_in_buffer",
  "value": "200000000"
}, {
  "param_name": "max_bytes_in_buffers",
  "value": "600000000"
}, {
  "param_name": "max_flush_data_time",
  "value": "5000"
} ],
"tables_configs": [ {
  "table_name": "sbttest100",
  "table_config": "ORDER BY id"
} ],
"table_repl_config": {
  "repl_type": "white_list",
  "tables": [ ]
},
"source_instance_id": "77aa4096cb824a61b93dab5ca00ecc8fin07",
"source_node_id": "57bfeacf6e8d4eb685ea907372374b35no07"
}
```

## 响应示例

**状态码： 200**

Success.

```
{
  "source_database_name": "blackwhite_0017_22525694",
  "table_config_check_results": [ {
    "table_name": "sbttest100",
    "table_config": "ORDER BY id",
    "check_result": "Check Override Table Failed"
  } ]
}
```

## SDK 代码示例

SDK代码示例如下。

## Java

数据同步表配置校验。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class CheckClickHouseTableConfigSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        CheckClickHouseTableConfigRequest request = new CheckClickHouseTableConfigRequest();
        request.withInstanceId("{instance_id}");
        CheckChDatabaseTableConfigRequestBody body = new CheckChDatabaseTableConfigRequestBody();
        ChDatabaseTableReplConfigInfo tableReplConfigbody = new ChDatabaseTableReplConfigInfo();
        tableReplConfigbody.withReplType("white_list");
        List<ChDatabaseTablesConfigsInfo> listbodyTablesConfigs = new ArrayList<>();
        listbodyTablesConfigs.add(
            new ChDatabaseTablesConfigsInfo()
                .withTableName("sbtest100")
                .withTableConfig("ORDER BY id")
        );
        List<ChDatabaseConfigsInfo> listbodyDbConfigs = new ArrayList<>();
        listbodyDbConfigs.add(
            new ChDatabaseConfigsInfo()
                .withParamName("default_isolation_level")
                .withValue("QUERY_SNAPSHOT")
        );
        listbodyDbConfigs.add(
            new ChDatabaseConfigsInfo()
                .withParamName("enable_snapshots")
                .withValue("true")
        );
        listbodyDbConfigs.add(
            new ChDatabaseConfigsInfo()
                .withParamName("enable_chunk_level")
                .withValue("true")
        );
        listbodyDbConfigs.add(
            new ChDatabaseConfigsInfo()
                .withParamName("max_sync_threads")
```

```
        .withValue("1")
    );
    listbodyDbConfigs.add(
        new ChDatabaseConfigsInfo()
            .withParamName("treat_numeric_string_as_integer")
            .withValue("false")
    );
    listbodyDbConfigs.add(
        new ChDatabaseConfigsInfo()
            .withParamName("min_binlog_expire_logs_seconds")
            .withValue("86400")
    );
    listbodyDbConfigs.add(
        new ChDatabaseConfigsInfo()
            .withParamName("max_rows_in_buffer")
            .withValue("2000000")
    );
    listbodyDbConfigs.add(
        new ChDatabaseConfigsInfo()
            .withParamName("max_rows_in_buffers")
            .withValue("6000000")
    );
    listbodyDbConfigs.add(
        new ChDatabaseConfigsInfo()
            .withParamName("max_bytes_in_buffer")
            .withValue("200000000")
    );
    listbodyDbConfigs.add(
        new ChDatabaseConfigsInfo()
            .withParamName("max_bytes_in_buffers")
            .withValue("600000000")
    );
    listbodyDbConfigs.add(
        new ChDatabaseConfigsInfo()
            .withParamName("max_flush_data_time")
            .withValue("5000")
    );
    body.withTableReplConfig(tableReplConfigbody);
    body.withTablesConfigs(listbodyTablesConfigs);
    body.withDbConfigs(listbodyDbConfigs);
    body.withSourceDatabaseName("blackwhite_0017_22525694");
    body.withSourceNodeId("57bfeacf6e8d4eb685ea907372374b35no07");
    body.withSourceInstanceId("77aa4096cb824a61b93dab5ca00ecc8fin07");
    request.withBody(body);
    try {
        CheckClickHouseTableConfigResponse response = client.checkClickHouseTableConfig(request);
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

数据同步表配置校验。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
```

```
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CheckClickHouseTableConfigRequest()
        request.instance_id = "{instance_id}"
        tableReplConfigbody = ChDatabaseTableReplConfigInfo(
            repl_type="white_list"
        )
        listTablesConfigbody = [
            ChDatabaseTablesConfigInfo(
                table_name="sbtest100",
                table_config="ORDER BY id"
            )
        ]
        listDbConfigbody = [
            ChDatabaseConfigInfo(
                param_name="default_isolation_level",
                value="QUERY_SNAPSHOT"
            ),
            ChDatabaseConfigInfo(
                param_name="enable_snapshots",
                value="true"
            ),
            ChDatabaseConfigInfo(
                param_name="enable_chunk_level",
                value="true"
            ),
            ChDatabaseConfigInfo(
                param_name="max_sync_threads",
                value="1"
            ),
            ChDatabaseConfigInfo(
                param_name="treat_numeric_string_as_integer",
                value="false"
            ),
            ChDatabaseConfigInfo(
                param_name="min_binlog_expire_logs_seconds",
                value="86400"
            ),
            ChDatabaseConfigInfo(
                param_name="max_rows_in_buffer",
                value="2000000"
            ),
            ChDatabaseConfigInfo(
                param_name="max_rows_in_buffers",
                value="6000000"
            ),
            ChDatabaseConfigInfo(
                param_name="max_bytes_in_buffer",
                value="200000000"
            )
        ]
```

```
    ),
    ChDatabaseConfigsInfo(
        param_name="max_bytes_in_buffers",
        value="600000000"
    ),
    ChDatabaseConfigsInfo(
        param_name="max_flush_data_time",
        value="5000"
    )
]
request.body = CheckChDatabaseTableConfigRequestBody(
    table_repl_config=tableReplConfigbody,
    tables_configs=listTablesConfigsbody,
    db_configs=listDbConfigsbody,
    source_database_name="blackwhite_0017_22525694",
    source_node_id="57bfeacf6e8d4eb685ea907372374b35no07",
    source_instance_id="77aa4096cb824a61b93dab5ca00ecc8fin07"
)
response = client.check_click_house_table_config(request)
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

数据同步表配置校验。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/taurusdb-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/taurusdb-go-v3/services/taurusdb/v3"
    "github.com/taurusdb-go-v3/services/taurusdb/v3/model"
    region "github.com/taurusdb-go-v3/services/taurusdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CheckClickHouseTableConfigRequest{
        request.InstanceId = "{instance_id}"
        tableReplConfigbody := &model.ChDatabaseTableReplConfigInfo{
            ReplType: "white_list",
        }
    }
    var listTablesConfigsbody = []model.ChDatabaseTablesConfigsInfo{
        {
```



```
        TableName: "sbtest100",
        TableConfig: "ORDER BY id",
    },
}
var listDbConfigsbody = []model.ChDatabaseConfigsInfo{
    {
        ParamName: "default_isolation_level",
        Value: "QUERY_SNAPSHOT",
    },
    {
        ParamName: "enable_snapshots",
        Value: "true",
    },
    {
        ParamName: "enable_chunk_level",
        Value: "true",
    },
    {
        ParamName: "max_sync_threads",
        Value: "1",
    },
    {
        ParamName: "treat_numeric_string_as_integer",
        Value: "false",
    },
    {
        ParamName: "min_binlog_expire_logs_seconds",
        Value: "86400",
    },
    {
        ParamName: "max_rows_in_buffer",
        Value: "2000000",
    },
    {
        ParamName: "max_rows_in_buffers",
        Value: "6000000",
    },
    {
        ParamName: "max_bytes_in_buffer",
        Value: "200000000",
    },
    {
        ParamName: "max_bytes_in_buffers",
        Value: "600000000",
    },
    {
        ParamName: "max_flush_data_time",
        Value: "5000",
    },
}
sourceNodeIdCheckChDatabaseTableConfigRequestBody:= "57bfeacf6e8d4eb685ea907372374b35no07"
request.Body = &model.CheckChDatabaseTableConfigRequestBody{
    TableReplConfig: tableReplConfigbody,
    TablesConfigs: listTablesConfigsbody,
    DbConfigs: listDbConfigsbody,
    SourceDatabaseName: "blackwhite_0017_22525694",
    SourceNodeId: &sourceNodeIdCheckChDatabaseTableConfigRequestBody,
    SourceInstanceId: "77aa4096cb824a61b93dab5ca00ecc8fin07",
}
response, err := client.CheckClickHouseTableConfig(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

### 4.16.11 查询数据库列表

#### 功能介绍

查询数据库列表。

#### 调用方法

请参见[如何调用API](#)。

## URI

GET /v3/{project\_id}/instances/{instance\_id}/clickhouse/databases

表 4-1244 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | ClickHouse实例ID，严格匹配UUID规则。                                   |

表 4-1245 Query 参数

| 参数            | 是否必选 | 参数类型    | 描述                                                                    |
|---------------|------|---------|-----------------------------------------------------------------------|
| limit         | 否    | Integer | 查询记录数，默认10。不能为负数，最小值为1，最大值为100。                                       |
| offset        | 否    | Integer | 索引位置，偏移量，默认0。从第一条数据偏移offset条数据后开始查询（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。 |
| database_name | 否    | String  | 数据库名。                                                                 |

## 请求参数

表 4-1246 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

## 响应参数

状态码： 200

表 4-1247 响应 Body 参数

| 参数          | 参数类型             | 描述     |
|-------------|------------------|--------|
| databases   | Array of strings | 数据库列表。 |
| total_count | Integer          | 数据库总数。 |

状态码： 400

表 4-1248 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-1249 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

查询实例前10个数据库。

```
GET https://{localhost}/v3/23a50154cf494ec9ad6883979a12db0a/instances/  
54e42160670e48e789af7075e1efea1fin16/clickhouse/databases?limit=10&offset=1&database_name=
```

## 响应示例

状态码： 200

Success.

```
{  
  "databases": [  
    "black_0003_47852503",  
    "blackwhite_0017_22525694",  
    "blackwhite_0022_05703881",  
    "blackwhite_0022_74636728",  
    "db_par_00473111",  
    "db_par_06456394",  
    "db_par_09021212",  
    "db_par_12417082",  
    "db_par_14323386",  
    "db_par_19408230"  
  ],  
  "total_count": 42,  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;
```

```
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListClickHouseDataBaseSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ListClickHouseDataBaseRequest request = new ListClickHouseDataBaseRequest();
        request.withInstanceId("{instance_id}");
        try {
            ListClickHouseDataBaseResponse response = client.listClickHouseDataBase(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)
```

```
client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = ListClickHouseDataBaseRequest()
    request.instance_id = "{instance_id}"
    response = client.list_click_house_data_base(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListClickHouseDataBaseRequest{}
    request.InstanceId = "{instance_id}"
    response, err := client.ListClickHouseDataBase(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.16.12 查看数据同步配置

### 功能介绍

查看数据同步配置。

### 调用方法

请参见[如何调用API](#)。

## URI

GET /v3/{project\_id}/instances/{instance\_id}/clickhouse/replication/config

表 4-1250 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | ClickHouse实例ID，严格匹配UUID规则。                                   |

表 4-1251 Query 参数

| 参数            | 是否必选 | 参数类型   | 描述    |
|---------------|------|--------|-------|
| database_name | 是    | String | 数据库名。 |

## 请求参数

表 4-1252 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

## 响应参数

状态码： 200

表 4-1253 响应 Body 参数

| 参数                        | 参数类型                                                              | 描述                    |
|---------------------------|-------------------------------------------------------------------|-----------------------|
| source_instance_id        | String                                                            | 源实例ID。                |
| source_node_id            | String                                                            | 源实例节点ID。              |
| database_info             | <a href="#">ChDatabaseConfigResponse</a> object                   | 数据库配置信息。              |
| table_infos               | Array of <a href="#">ChDatabaseTableConfigCheckResult</a> objects | 表配置信息。                |
| table_repl_config         | <a href="#">ChDatabaseTableReplConfigInfo</a> object              | 表同步配置信息。              |
| is_tables_change          | Boolean                                                           | 同步任务表是否变化。            |
| new_table_repl_config     | <a href="#">ChDatabaseTableReplConfigInfo</a> object              | 更新的表同步配置信息。           |
| last_error_of_alter_table | String                                                            | 最近一次alter table的异常信息。 |



表 4-1254 ChDatabaseConfigResponse

| 参数                      | 参数类型                                                         | 描述          |
|-------------------------|--------------------------------------------------------------|-------------|
| database_name           | String                                                       | 源数据库名称。     |
| db_config_check_results | Array of <a href="#">ChDatabaseConfigCheckResult</a> objects | 源数据库配置检查结果。 |

表 4-1255 ChDatabaseConfigCheckResult

| 参数           | 参数类型   | 描述                                                                                              |
|--------------|--------|-------------------------------------------------------------------------------------------------|
| param_name   | String | 库同步配置参数名。                                                                                       |
| value        | String | 库同步配置参数值。                                                                                       |
| check_result | String | 校验结果。<br>取值范围： <ul style="list-style-type: none"><li>• success: 成功</li><li>• fail: 失败</li></ul> |

表 4-1256 ChDatabaseTableConfigCheckResult

| 参数           | 参数类型   | 描述                                                                              |
|--------------|--------|---------------------------------------------------------------------------------|
| table_name   | String | 数据库表名。                                                                          |
| table_config | String | 表配置项。<br>允许输入的列操作有：PARTITION BY, COLUMNS, ORDER BY, SAMPLE BY, PRIMARY KEY, TTL |
| check_result | String | 校验结果。                                                                           |

表 4-1257 ChDatabaseTableReplConfigInfo

| 参数        | 参数类型   | 描述                                                                                                                                      |
|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------|
| repl_type | String | 表同步类型。<br>取值范围： <ul style="list-style-type: none"><li>• white_list: 白名单, 此时表范围不能为空。</li><li>• black_list: 黑名单, 此时表范围为空则选择所有表。</li></ul> |

| 参数     | 参数类型             | 描述           |
|--------|------------------|--------------|
| tables | Array of strings | 白名单或黑名单的表范围。 |

状态码： 400

表 4-1258 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-1259 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

查询数据库名为db\_test的数据同步配置信息。

```
GET https://{localhost}/v3/23a50154cf494ec9ad6883979a12db0a/instances/  
54e42160670e48e789af7075e1efea1fin16/clickhouse/replication/config?database_name=db_test
```

## 响应示例

状态码： 200

Success.

```
{  
  "source_instance_id": "77aa4096cb824a61b93dab5ca00ecc8fin07",  
  "source_node_id": "57bfeacf6e8d4eb685ea907372374b35no07",  
  "database_info": {  
    "database_name": "blackwhite_0018_61474479",  
    "db_config_check_results": [{  
      "param_name": "default_isolation_level",  
      "value": "QUERY_SNAPSHOT",  
      "check_result": "success"  
    }, {  
      "param_name": "enable_snapshots",  
      "value": "true",  
      "check_result": "success"  
    }, {  
      "param_name": "enable_chunk_level",  
      "value": "true",  
      "check_result": "success"  
    }  
  ]  
}
```

```
    }, {
      "param_name": "max_sync_threads",
      "value": "1",
      "check_result": "success"
    }, {
      "param_name": "treat_numeric_string_as_integer",
      "value": "false",
      "check_result": "success"
    }, {
      "param_name": "min_binlog_expire_logs_seconds",
      "value": "86400",
      "check_result": "success"
    }, {
      "param_name": "max_rows_in_buffer",
      "value": "2000000",
      "check_result": "success"
    }, {
      "param_name": "max_rows_in_buffers",
      "value": "6000000",
      "check_result": "success"
    }, {
      "param_name": "max_bytes_in_buffer",
      "value": "200000000",
      "check_result": "success"
    }, {
      "param_name": "max_bytes_in_buffers",
      "value": "600000000",
      "check_result": "success"
    }, {
      "param_name": "max_flush_data_time",
      "value": "5000",
      "check_result": "success"
    }
  ]
},
"table_infos": [ ],
"table_repl_config": {
  "repl_type": "black_list",
  "tables": [ ]
},
"is_tables_change": false,
"new_table_repl_config": {
  "repl_type": null,
  "tables": null
},
"last_error_of_alter_table": null
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListClickHouseDataBaseReplicationConfigSolution {

    public static void main(String[] args) {
```

```
// The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
// In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");
String projectId = "{project_id}";

ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
ListClickHouseDataBaseReplicationConfigRequest request = new
ListClickHouseDataBaseReplicationConfigRequest();
request.withInstanceId("{instance_id}");
try {
    ListClickHouseDataBaseReplicationConfigResponse response =
client.listClickHouseDataBaseReplicationConfig(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListClickHouseDataBaseReplicationConfigRequest()
        request.instance_id = "{instance_id}"
```

```
response = client.list_click_house_data_base_replication_config(request)
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListClickHouseDataBaseReplicationConfigRequest{}
    request.InstanceId = "{instance_id}"
    response, err := client.ListClickHouseDataBaseReplicationConfig(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |

| 状态码 | 描述            |
|-----|---------------|
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.16.13 查询数据同步的库参数配置

### 功能介绍

查询数据同步的库参数配置。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/instances/{instance\_id}/clickhouse/replication/database-parameter

表 4-1260 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | ClickHouse实例ID，严格匹配UUID规则。                                   |

### 请求参数

表 4-1261 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |

| 参数         | 是否必选 | 参数类型   | 描述                                                                                           |
|------------|------|--------|----------------------------------------------------------------------------------------------|
| X-Language | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul> |

## 响应参数

状态码： 200

表 4-1262 响应 Body 参数

| 参数            | 参数类型                                                     | 描述     |
|---------------|----------------------------------------------------------|--------|
| db_parameters | Array of <a href="#">ChDatabaseParameterInfo</a> objects | 库参数信息。 |

表 4-1263 ChDatabaseParameterInfo

| 参数            | 参数类型   | 描述      |
|---------------|--------|---------|
| param_name    | String | 参数名称。   |
| data_type     | String | 参数类型。   |
| default_value | String | 参数默认值。  |
| value_range   | String | 参数取值范围。 |
| description   | String | 参数描述。   |

状态码： 400

表 4-1264 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-1265 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

查询实例数据同步的库参数配置。

```
GET https://{localhost}/v3/23a50154cf494ec9ad6883979a12db0a/instances/  
54e42160670e48e789af7075e1efea1fin16/clickhouse/replication/database-parameter
```

## 响应示例

状态码： 200

Success.

```
{  
  "db_parameters": [ {  
    "param_name": "default_isolation_level",  
    "data_type": "String",  
    "default_value": "QUERY_SNAPSHOT",  
    "value_range": "READ_COMMITTED|READ_UNCOMMITTED|QUERY_RAW|QUERY_SNAPSHOT",  
    "description": "默认隔离级别，仅对MaterializeMySQL 引擎有效,可以是“read_uncommitted”，这意味着  
没有 MVCC 支持，“read_committed”，它保留查询（包括子查询）中的事务完整性，或  
“query_snapshot”，它保留事务完整性并以牺牲数据新鲜度为代价删除重复和删除的行。"  
  }, {  
    "param_name": "enable_snapshots",  
    "data_type": "String",  
    "default_value": "true",  
    "value_range": "true|false",  
    "description": "创建快照以支持mvcc_isolation_level=query_snapshot"  
  }, {  
    "param_name": "enable_chunk_level",  
    "data_type": "String",  
    "default_value": "true",  
    "value_range": "true|false",  
    "description": "支持chunk级别的并行复制，复制会更快"  
  }, {  
    "param_name": "max_sync_threads",  
    "data_type": "Integer",  
    "default_value": "1",  
    "value_range": "1-2",  
    "description": "全量复制最大线程数"  
  }, {  
    "param_name": "treat_numeric_string_as_integer",  
    "data_type": "String",  
    "default_value": "false",  
    "value_range": "true|false",  
    "description": "允许在全量同步期间块级任务生成中将数字字符串视为整数"  
  }, {  
    "param_name": "min_binlog_expire_logs_seconds",  
    "data_type": "Integer",  
    "default_value": "86400",  
    "value_range": "0-2592000",  
    "description": "允许binlog保存的最小时长，如果binlog保存的时间小于该阈值，同步会报失败。0表示不做  
限制。"  
  }, {  
    "param_name": "max_rows_in_buffer",  
    "data_type": "Integer",  
  }  
]
```



```
"default_value": "2000000",
"value_range": "1-10000000",
"description": "内存中允许缓存数据的最大行数（对于单表和无法查询的缓存数据而言）。当行数超过时，数据将被物化"
}, {
  "param_name": "max_rows_in_buffers",
  "data_type": "Integer",
  "default_value": "6000000",
  "value_range": "1-10000000",
  "description": "内存中允许缓存的最大行数（用于数据库和无法查询的缓存数据而言）。当行数超过时，数据将被物化"
}, {
  "param_name": "max_bytes_in_buffer",
  "data_type": "Integer",
  "default_value": "200000000",
  "value_range": "1-1000000000",
  "description": "数据在内存中允许缓存的最大字节数（对于单表和无法查询的缓存数据）。当字节数超过时，数据将被物化"
}, {
  "param_name": "max_bytes_in_buffers",
  "data_type": "Integer",
  "default_value": "600000000",
  "value_range": "1-1000000000",
  "description": "数据在内存中允许缓存的最大字节数（对于数据库和无法查询的缓存数据）。当字节数超过时，数据将被物化"
}, {
  "param_name": "max_flush_data_time",
  "data_type": "Integer",
  "default_value": "5000",
  "value_range": "1-10000",
  "description": "允许数据缓存在内存中的最大时长(毫秒)"
}
}]
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListClickHouseDataBaseParameterSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);
```

```
GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
ListClickHouseDataBaseParameterRequest request = new ListClickHouseDataBaseParameterRequest();
request.withInstanceId("{instance_id}");
try {
    ListClickHouseDataBaseParameterResponse response =
client.listClickHouseDataBaseParameter(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListClickHouseDataBaseParameterRequest()
        request.instance_id = "{instance_id}"
        response = client.list_click_house_data_base_parameter(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
```

```
"github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
"github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListClickHouseDataBaseParameterRequest{}
    request.InstanceId = "{instance_id}"
    response, err := client.ListClickHouseDataBaseParameter(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.16.14 创建实例

### 功能介绍

创建实例。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/instances/{instance\_id}/clickhouse

表 4-1266 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | TaurusDB实例ID，严格匹配UUID规则。                                     |

### 请求参数

表 4-1267 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

表 4-1268 请求 Body 参数

| 参数          | 是否必选 | 参数类型                               | 描述                                                                                                                             |
|-------------|------|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| name        | 是    | String                             | ClickHouse实例名称。 <ul style="list-style-type: none"><li>4位到64位之间</li><li>必须以字母开头, 可以包含字母、数字、中划线或下划线</li><li>不能包含其他特殊字符</li></ul> |
| engine      | 是    | <b>ClickHouseEngineInfo</b> object | 引擎信息。                                                                                                                          |
| ha          | 是    | <b>ha</b> object                   | 部署信息。                                                                                                                          |
| flavor_id   | 是    | String                             | 节点规格ID, 可通过“HTAP查询规格信息”获取。                                                                                                     |
| db_root_pwd | 是    | String                             | root账户密码。 <ul style="list-style-type: none"><li>8~32个字符</li><li>包含大写字母、小写字母、数字或特殊字符(~!@#/%^*_-=+?,)中的三种</li></ul>              |
| az_mode     | 是    | String                             | 可用区类型。<br>取值范围: <ul style="list-style-type: none"><li>single: 单可用区</li><li>double: 多可用区</li></ul>                              |
| volume      | 是    | <b>volume</b> object               | 存储规格。                                                                                                                          |
| az_code     | 是    | String                             | 可用区码。<br>当ha中mode为Ha时, 需要填写多个可用区, 用","分隔。例如: cn-southwest-244b,cn-southwest-244a                                               |
| time_zone   | 否    | String                             | 时区。默认为所属TaurusDB实例时区。                                                                                                          |
| tags_info   | 是    | <b>tags_info</b> object            | 标签值。                                                                                                                           |
| pay_info    | 否    | <b>pay_info</b> object             | 支付信息。                                                                                                                          |

表 4-1269 ClickHouseEngineInfo

| 参数      | 是否必选 | 参数类型   | 描述                                    |
|---------|------|--------|---------------------------------------|
| type    | 是    | String | 数据库引擎类型，现在只支持 click-house。            |
| version | 是    | String | 数据库版本，可通过“HTAP引擎资源查询”获取。<br>一位数的大版本号。 |

表 4-1270 ha

| 参数   | 是否必选 | 参数类型   | 描述                                                                                           |
|------|------|--------|----------------------------------------------------------------------------------------------|
| mode | 是    | String | 部署模式。<br>取值范围： <ul style="list-style-type: none"><li>• Single: 单机</li><li>• Ha: 主备</li></ul> |

表 4-1271 volume

| 参数             | 是否必选 | 参数类型    | 描述                                                                                                  |
|----------------|------|---------|-----------------------------------------------------------------------------------------------------|
| io_type        | 是    | String  | 磁盘IO类型。<br>取值范围： <ul style="list-style-type: none"><li>• SSD: 超高IO</li><li>• ESSD: 极速型SSD</li></ul> |
| capacity_in_gb | 是    | Integer | 磁盘容量。取值范围：<br>50GB~32000GB。                                                                         |

表 4-1272 tags\_info

| 参数       | 是否必选 | 参数类型                                      | 描述    |
|----------|------|-------------------------------------------|-------|
| sys_tags | 是    | Array of <a href="#">sys_tags</a> objects | 系统标签。 |

表 4-1273 sys\_tags

| 参数  | 是否必选 | 参数类型   | 描述   |
|-----|------|--------|------|
| key | 是    | String | 标签键。 |

| 参数    | 是否必选 | 参数类型   | 描述   |
|-------|------|--------|------|
| value | 是    | String | 标签值。 |

表 4-1274 pay\_info

| 参数            | 是否必选 | 参数类型    | 描述                                                                                           |
|---------------|------|---------|----------------------------------------------------------------------------------------------|
| pay_model     | 否    | String  | 计费模式，默认0。<br>取值范围： <ul style="list-style-type: none"><li>0: 按需计费</li><li>1: 包周期</li></ul>    |
| order_id      | 否    | String  | 包周期计费ID。                                                                                     |
| period        | 否    | Integer | 包周期周期。                                                                                       |
| period_type   | 否    | Integer | 包周期周期类型。<br>取值范围： <ul style="list-style-type: none"><li>2: 包月</li><li>3: 包年</li></ul>        |
| is_auto_renew | 否    | Integer | 包周期是否自动续费。<br>取值范围： <ul style="list-style-type: none"><li>1: 自动续费</li><li>0: 不自动续费</li></ul> |

## 响应参数

状态码： 202

表 4-1275 响应 Body 参数

| 参数       | 参数类型                                        | 描述    |
|----------|---------------------------------------------|-------|
| instance | <a href="#">CreateChInstanceInfo</a> object | 实例信息。 |
| job_id   | String                                      | 工作ID。 |

表 4-1276 CreateChInstanceInfo

| 参数 | 参数类型   | 描述    |
|----|--------|-------|
| id | String | 实例ID。 |

| 参数                | 参数类型                                        | 描述                                                                                                                                                                            |
|-------------------|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| az_code           | String                                      | 可用区。                                                                                                                                                                          |
| az_mode           | String                                      | 可用区模式。<br>取值范围： <ul style="list-style-type: none"><li>• single: 单可用区</li><li>• double: 多可用区</li></ul>                                                                         |
| name              | String                                      | 实例名。                                                                                                                                                                          |
| engine            | <a href="#">ClickHouseEngineInfo</a> object | 引擎信息。                                                                                                                                                                         |
| vpc_id            | String                                      | 虚拟私有云ID。                                                                                                                                                                      |
| security_group_id | String                                      | 安全组ID。                                                                                                                                                                        |
| subnet_id         | String                                      | 子网ID。                                                                                                                                                                         |
| db_user           | String                                      | 数据库用户。                                                                                                                                                                        |
| port              | Integer                                     | 数据库端口。取值范围：0~65535。                                                                                                                                                           |
| ha_mode           | String                                      | 部署模式。<br>取值范围： <ul style="list-style-type: none"><li>• Single: 单机</li><li>• Ha: 主备</li></ul>                                                                                  |
| pay_info          | <a href="#">pay_info</a> object             | 计费信息。                                                                                                                                                                         |
| ssl_option        | Boolean                                     | SSL开关。                                                                                                                                                                        |
| status            | String                                      | 实例状态。<br>取值范围： <ul style="list-style-type: none"><li>• creating: 创建</li><li>• normal: 正常</li><li>• abnormal: 异常</li><li>• createfailed: 创建失败</li><li>• deleted: 已删除</li></ul> |
| region            | String                                      | 实例所在区。                                                                                                                                                                        |
| tags_info         | <a href="#">tags_info</a> object            | 实例标签。                                                                                                                                                                         |

表 4-1277 ClickHouseEngineInfo

| 参数   | 参数类型   | 描述                        |
|------|--------|---------------------------|
| type | String | 数据库引擎类型，现在只支持click-house。 |



| 参数      | 参数类型   | 描述                                    |
|---------|--------|---------------------------------------|
| version | String | 数据库版本，可通过“HTAP引擎资源查询”获取。<br>一位数的大版本号。 |

表 4-1278 pay\_info

| 参数            | 参数类型   | 描述                                                                                           |
|---------------|--------|----------------------------------------------------------------------------------------------|
| pay_model     | String | 计费模式。默认0。<br>取值范围： <ul style="list-style-type: none"><li>0: 按需计费</li><li>1: 包周期</li></ul>    |
| order_id      | String | 包周期计费ID。                                                                                     |
| period        | String | 包周期周期。                                                                                       |
| period_type   | String | 包周期周期类型。<br>取值范围： <ul style="list-style-type: none"><li>2: 包月</li><li>3: 包年</li></ul>        |
| is_auto_renew | String | 包周期是否自动续费。<br>取值范围： <ul style="list-style-type: none"><li>1: 自动续费</li><li>0: 不自动续费</li></ul> |

表 4-1279 tags\_info

| 参数       | 参数类型                             | 描述    |
|----------|----------------------------------|-------|
| tags     | Array of <b>tags</b> objects     | 用户标签。 |
| sys_tags | Array of <b>sys_tags</b> objects | 系统标签。 |

表 4-1280 tags

| 参数    | 参数类型   | 描述   |
|-------|--------|------|
| key   | String | 标签键。 |
| value | String | 标签值。 |

表 4-1281 sys\_tags

| 参数    | 参数类型   | 描述   |
|-------|--------|------|
| key   | String | 标签键。 |
| value | String | 标签值。 |

状态码： 400

表 4-1282 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-1283 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

### 创建ClickHouse实例

POST https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/  
40dc4c5729f14aad893e2dcd5baf6a15in07/clickhouse

```
{
  "name": "htap-cfd5",
  "engine": {
    "type": "click-house",
    "version": "1"
  },
  "ha": {
    "mode": "Single"
  },
  "flavor_id": "b44cfde6-d250-313c-8d7a-cd216f071658",
  "db_root_pwd": "Rds_1234",
  "az_mode": "single",
  "volume": {
    "io_type": "ESSD",
    "capacity_in_gb": 40
  },
  "az_code": "cn-southwest-244a",
  "time_zone": "UTC+08:00",
  "tags_info": {
    "sys_tags": [ {
```

```
"key": "_sys_enterprise_project_id",  
"value": "0"  
}]  
}  
}
```

## 响应示例

状态码: 202

Success.

```
{  
  "instance": {  
    "id": "2cdec02d8c4a4c88aeca08684dd8076in16",  
    "az_code": "cn-southwest-244a",  
    "az_mode": "double",  
    "name": "htap-cfd5",  
    "engine": {  
      "type": "click-house",  
      "version": "1"  
    },  
    "vpc_id": "467f1291-994f-4d3a-9db6-d4c563218df5",  
    "security_group_id": "3dc780b1-9d92-4850-9b98-be248e1b5962",  
    "subnet_id": "d99cd68c-0067-436d-869e-d32e902d0074",  
    "db_user": "root",  
    "port": null,  
    "ha_mode": "Single",  
    "pay_info": {  
      "pay_model": "0",  
      "order_id": null,  
      "period": null,  
      "period_type": null,  
      "is_auto_renew": null  
    },  
    "ssl_option": false,  
    "status": "creating",  
    "region": "cn-southwest-244",  
    "tags_info": {  
      "tags": [],  
      "sys_tags": [ {  
        "key": "_sys_enterprise_project_id",  
        "value": "0"  
      } ]  
    },  
    "job_id": "76078f0b-5162-45c8-b95f-4c1afd37536c"  
  }  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

#### 创建ClickHouse实例

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;
```

```
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class CreateClickHouseInstanceSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();

        CreateClickHouseInstanceRequest request = new CreateClickHouseInstanceRequest();
        request.withInstanceId("{instance_id}");
        CreateChInstanceRequestBody body = new CreateChInstanceRequestBody();
        List<CreateChInstanceRequestBodyTagsInfoSysTags> listTagsInfoSysTags = new ArrayList<>();
        listTagsInfoSysTags.add(
            new CreateChInstanceRequestBodyTagsInfoSysTags()
                .withKey("_sys_enterprise_project_id")
                .withValue("0")
        );
        CreateChInstanceRequestBodyTagsInfo tagsInfobody = new CreateChInstanceRequestBodyTagsInfo();
        tagsInfobody.withSysTags(listTagsInfoSysTags);
        CreateChInstanceRequestBodyVolume volumebody = new CreateChInstanceRequestBodyVolume();
        volumebody.withIoType("ESSD")
            .withCapacityInGb(40);
        CreateChInstanceRequestBodyHa habody = new CreateChInstanceRequestBodyHa();
        habody.withMode("Single");
        ClickHouseEngineInfo enginebody = new ClickHouseEngineInfo();
        enginebody.withType("click-house")
            .withVersion("1");
        body.withTagsInfo(tagsInfobody);
        body.withTimeZone("UTC+08:00");
        body.withAzCode("cn-southwest-244a");
        body.withVolume(volumebody);
        body.withAzMode("single");
        body.withDbRootPwd("Rds_1234");
        body.withFlavorId("b44cfde6-d250-313c-8d7a-cd216f071658");
        body.withHa(habody);
        body.withEngine(enginebody);
        body.withName("htap-cfd5");
        request.withBody(body);
        try {
            CreateClickHouseInstanceResponse response = client.createClickHouseInstance(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

```
}  
}  
}
```

## Python

### 创建ClickHouse实例

```
# coding: utf-8  
  
import os  
from huaweicloudsdkcore.auth.credentials import BasicCredentials  
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion  
from huaweicloudsdkcore.exceptions import exceptions  
from huaweicloudsdkgaussdb.v3 import *  
  
if __name__ == "__main__":  
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    # variables and decrypted during use to ensure security.  
    # In this example, AK and SK are stored in environment variables for authentication. Before running this  
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak = os.environ["CLOUD_SDK_AK"]  
    sk = os.environ["CLOUD_SDK_SK"]  
    projectId = "{project_id}"  
  
    credentials = BasicCredentials(ak, sk, projectId)  
  
    client = GaussDBClient.new_builder() \  
        .with_credentials(credentials) \  
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \  
        .build()  
  
    try:  
        request = CreateClickHouseInstanceRequest()  
        request.instance_id = "{instance_id}"  
        listSysTagsTagsInfo = [  
            CreateChInstanceRequestBodyTagsInfoSysTags(  
                key="_sys_enterprise_project_id",  
                value="0"  
            )  
        ]  
        tagsInfoBody = CreateChInstanceRequestBodyTagsInfo(  
            sys_tags=listSysTagsTagsInfo  
        )  
        volumeBody = CreateChInstanceRequestBodyVolume(  
            io_type="ESSD",  
            capacity_in_gb=40  
        )  
        haBody = CreateChInstanceRequestBodyHa(  
            mode="Single"  
        )  
        engineBody = ClickHouseEngineInfo(  
            type="click-house",  
            version="1"  
        )  
        request.body = CreateChInstanceRequestBody(  
            tags_info=tagsInfoBody,  
            time_zone="UTC+08:00",  
            az_code="cn-southwest-244a",  
            volume=volumeBody,  
            az_mode="single",  
            db_root_pwd="Rds_1234",  
            flavor_id="b44cfde6-d250-313c-8d7a-cd216f071658",  
            ha=haBody,  
            engine=engineBody,  
            name="htap-cfd5"  
        )  
        response = client.create_click_house_instance(request)
```

```
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

### 创建ClickHouse实例

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateClickHouseInstanceRequest{}
    request.InstanceId = "{instance_id}"
    var listSysTagsTagsInfo = []model.CreateChInstanceRequestBodyTagsInfoSysTags{
        {
            Key: "_sys_enterprise_project_id",
            Value: "0",
        },
    },
    }
    tagsInfoBody := &model.CreateChInstanceRequestBodyTagsInfo{
        SysTags: listSysTagsTagsInfo,
    }
    volumebody := &model.CreateChInstanceRequestBodyVolume{
        IoType: "ESSD",
        CapacityInGb: int32(40),
    }
    habody := &model.CreateChInstanceRequestBodyHa{
        Mode: "Single",
    }
    enginebody := &model.ClickHouseEngineInfo{
        Type: "click-house",
        Version: "1",
    }
    timeZoneCreateChInstanceRequestBody := "UTC+08:00"
    request.Body = &model.CreateChInstanceRequestBody{
        TagsInfo: tagsInfoBody,
        TimeZone: &timeZoneCreateChInstanceRequestBody,
    }
```

```
AzCode: "cn-southwest-244a",  
Volume: volumebody,  
AzMode: "single",  
DbRootPwd: "Rds_1234",  
FlavorId: "b44cfde6-d250-313c-8d7a-cd216f071658",  
Ha: habody,  
Engine: enginebody,  
Name: "htap-cfd5",  
}  
response, err := client.CreateClickHouseInstance(request)  
if err == nil {  
    fmt.Printf("%+v\n", response)  
} else {  
    fmt.Println(err)  
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 202 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.16.15 删除实例

### 功能介绍

删除实例。

### 调用方法

请参见[如何调用API](#)。

### URI

DELETE /v3/{project\_id}/instances/{instance\_id}/clickhouse/  
{clickhouse\_instance\_id}

表 4-1284 路径参数

| 参数                     | 是否必选 | 参数类型   | 描述                                                           |
|------------------------|------|--------|--------------------------------------------------------------|
| project_id             | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id            | 是    | String | TaurusDB实例ID，严格匹配UUID规则。                                     |
| clickhouse_instance_id | 是    | String | ClickHouse实例ID，严格匹配UUID规则。                                   |

## 请求参数

表 4-1285 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

## 响应参数

状态码： 200

表 4-1286 响应 Body 参数

| 参数     | 参数类型   | 描述       |
|--------|--------|----------|
| job_id | String | 创建的任务ID。 |

状态码： 400



表 4-1287 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-1288 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

删除ClickHouse实例。

```
DELETE https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/  
fb632d1d531a4107804f0f082581810fin07/clickhouse/df3ae779e2ad4993a03ccd7a81240125in16
```

## 响应示例

无

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class DeleteClickHouseInstanceSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
    }  
}
```

```
String projectId = "{project_id}";

ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();

DeleteClickHouseInstanceRequest request = new DeleteClickHouseInstanceRequest();
request.withInstanceId("{instance_id}");
request.withClickhouseInstanceId("{clickhouse_instance_id}");
try {
    DeleteClickHouseInstanceResponse response = client.deleteClickHouseInstance(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteClickHouseInstanceRequest()
        request.instance_id = "{instance_id}"
        request.clickhouse_instance_id = "{clickhouse_instance_id}"
        response = client.delete_click_house_instance(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteClickHouseInstanceRequest{}
    request.InstanceId = "{instance_id}"
    request.ClickhouseInstanceId = "{clickhouse_instance_id}"
    response, err := client.DeleteClickHouseInstance(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.16.16 查询实例详情

### 功能介绍

查询实例详情。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/instances/{instance\_id}/clickhouse/{clickhouse\_instance\_id}

表 4-1289 路径参数

| 参数                     | 是否必选 | 参数类型   | 描述                                                           |
|------------------------|------|--------|--------------------------------------------------------------|
| project_id             | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id            | 是    | String | TaurusDB实例ID, 严格匹配UUID规则。                                    |
| clickhouse_instance_id | 是    | String | ClickHouse实例ID, 严格匹配UUID规则。                                  |

### 请求参数

表 4-1290 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

## 响应参数

状态码： 200

表 4-1291 响应 Body 参数

| 参数       | 参数类型                   | 描述    |
|----------|------------------------|-------|
| instance | <b>instance</b> object | 实例信息。 |

表 4-1292 instance

| 参数                       | 参数类型    | 描述                                                                                           |
|--------------------------|---------|----------------------------------------------------------------------------------------------|
| id                       | String  | 实例ID。                                                                                        |
| name                     | String  | 实例名称。                                                                                        |
| project_id               | String  | 租户在某一Region下的project ID。                                                                     |
| public_ip                | String  | 公网访问IP。                                                                                      |
| can_enable_public_access | Boolean | 是否可公网访问。                                                                                     |
| current_backup_node_id   | String  | 备份节点ID。                                                                                      |
| cluster_mode             | String  | 部署模式。<br>取值范围： <ul style="list-style-type: none"><li>• Single: 单机</li><li>• Ha: 主备</li></ul> |
| status                   | String  | 实例状态。                                                                                        |
| is_frozen                | Integer | 是否冻结。<br>取值范围： <ul style="list-style-type: none"><li>• 0: 不冻结</li><li>• 1: 冻结</li></ul>      |
| frozen_time              | String  | 冻结时间。                                                                                        |
| db_user                  | String  | 默认用户。                                                                                        |
| bak_period               | String  | 备份周期。                                                                                        |
| bak_keep_day             | Integer | 备份保存天数。                                                                                      |
| bak_expected_start_time  | String  | 备份预计开始时间。                                                                                    |
| datastore_version_id     | String  | 数据库版本ID。                                                                                     |

| 参数                       | 参数类型                                               | 描述                                                                                                           |
|--------------------------|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| datastore_version        | String                                             | 数据库版本。                                                                                                       |
| datastore_type           | String                                             | 数据库引擎。                                                                                                       |
| create_at                | Integer                                            | 实例创建时间。                                                                                                      |
| update_at                | Integer                                            | 实例更新时间。                                                                                                      |
| delete_at                | Integer                                            | 实例删除时间。                                                                                                      |
| db_port                  | String                                             | 数据库端口号。取值范围0~65535。                                                                                          |
| param_group              | <a href="#">param_group</a> object                 | 参数组。                                                                                                         |
| actions                  | Array of <a href="#">ChQueryActionInfo</a> objects | 实例动作。                                                                                                        |
| create_fail_error_code   | String                                             | 实例创建失败错误码。                                                                                                   |
| groups                   | Array of <a href="#">groups</a> objects            | 实例分组。                                                                                                        |
| ops_window               | <a href="#">ops_window</a> object                  | 实例操作时间窗。                                                                                                     |
| tags_info                | <a href="#">tags_info</a> object                   | 实例标签。                                                                                                        |
| time_zone                | String                                             | 时区。                                                                                                          |
| backup_used_space        | String                                             | 备份使用空间。                                                                                                      |
| az_mode                  | String                                             | 可用区模式。<br>取值范围：<br><ul style="list-style-type: none"> <li>• single: 单可用区</li> <li>• double: 多可用区-</li> </ul> |
| master_az_code           | String                                             | 主可用区。                                                                                                        |
| enterprise_project_id    | String                                             | 企业项目ID。                                                                                                      |
| port_info                | <a href="#">port_info</a> object                   | 端口信息。                                                                                                        |
| volume_code              | String                                             | 磁盘规格码。                                                                                                       |
| support_data_replication | Boolean                                            | 是否支持副本。                                                                                                      |
| new_version_available    | Boolean                                            | 是否有数据库新版本。                                                                                                   |
| ssl_option               | Boolean                                            | SSL开关。                                                                                                       |

| 参数                    | 参数类型   | 描述                                                                                     |
|-----------------------|--------|----------------------------------------------------------------------------------------|
| dedicated_resource_id | String | 专属资源池ID。                                                                               |
| pay_model             | String | 支付模式。<br>取值范围： <ul style="list-style-type: none"><li>0: 按需计费</li><li>1: 包周期-</li></ul> |

表 4-1293 param\_group

| 参数   | 参数类型   | 描述    |
|------|--------|-------|
| id   | String | 参数ID。 |
| name | String | 参数名。  |

表 4-1294 ChQueryActionInfo

| 参数         | 参数类型    | 描述        |
|------------|---------|-----------|
| id         | String  | 实例动作ID。   |
| action     | String  | 实例动作名称。   |
| object_id  | String  | 实例动作对象ID。 |
| type       | String  | 实例动作类型。   |
| job_id     | String  | 实例动作任务ID。 |
| status     | String  | 实例动作状态。   |
| created_at | Integer | 实例动作创建时间。 |
| updated_at | Integer | 实例动作更新时间。 |

表 4-1295 groups

| 参数              | 参数类型   | 描述                       |
|-----------------|--------|--------------------------|
| id              | String | 分组ID。                    |
| name            | String | 分组名。                     |
| group_type_name | String | 实例分组类型名，现在只支持clickhouse。 |

| 参数    | 参数类型                                       | 描述      |
|-------|--------------------------------------------|---------|
| nodes | Array of <b>ClickHouseNodeInfo</b> objects | 实例节点信息。 |

表 4-1296 ClickHouseNodeInfo

| 参数           | 参数类型                    | 描述                                                                                                        |
|--------------|-------------------------|-----------------------------------------------------------------------------------------------------------|
| id           | String                  | 实例节点ID。                                                                                                   |
| name         | String                  | 实例节点名。                                                                                                    |
| type         | String                  | 实例节点类型。<br>取值范围：<br><ul style="list-style-type: none"> <li>• master: 主节点</li> <li>• slave: 备节点</li> </ul> |
| status       | String                  | 实例节点状态。                                                                                                   |
| period       | String                  | 实例节点周期。                                                                                                   |
| volume       | <b>volume</b> object    | 实例节点存储信息。                                                                                                 |
| cpu          | String                  | 实例节点cpu数量。                                                                                                |
| mem          | String                  | 实例节点内存大小 ( GB ) 。                                                                                         |
| datastore    | <b>datastore</b> object | 数据存储信息。                                                                                                   |
| priority     | Integer                 | 节点优先级。                                                                                                    |
| frozen_flag  | Integer                 | 冻结标志。<br>取值范围：<br><ul style="list-style-type: none"> <li>• 0: 不冻结</li> <li>• 1: 冻结</li> </ul>             |
| db_port      | Integer                 | 数据库端口号。取值范围：0~65535。                                                                                      |
| pay_model    | String                  | 支付模式。<br>取值范围：<br><ul style="list-style-type: none"> <li>• 0: 按需计费</li> <li>• 1: 包周期</li> </ul>           |
| order_id     | String                  | 包周期订单ID。                                                                                                  |
| traffic_ip   | String                  | 节点数据ip。                                                                                                   |
| traffic_ipv6 | String                  | 节点数据ipv6。                                                                                                 |
| traffic_vip  | String                  | 节点数据vip。                                                                                                  |



| 参数              | 参数类型    | 描述          |
|-----------------|---------|-------------|
| traffic_vipv6   | String  | 节点数据vipV6。  |
| az_code         | String  | 可用区。        |
| az_description  | String  | 可用区描述。      |
| az_type         | String  | 可用区类型。      |
| region          | String  | 节点所在区。      |
| create_at       | Integer | 节点创建时间。     |
| update_at       | Integer | 节点更新时间。     |
| flavor_id       | String  | 节点规格ID。     |
| flavor_ref      | String  | 节点规格码。      |
| iass_flavor_ref | String  | IaaS规格码。    |
| max_connections | String  | 公网最大连接数。    |
| vpc_id          | String  | 虚拟私有云ID。    |
| subnet_id       | String  | 子网ID。       |
| need_restart    | Boolean | 参数更新是否需要重启。 |
| sg_id           | String  | 安全组         |

表 4-1297 volume

| 参数   | 参数类型    | 描述                                                                                                    |
|------|---------|-------------------------------------------------------------------------------------------------------|
| type | String  | 实例节点存储类型。<br>取值范围：<br><ul style="list-style-type: none"> <li>SSD：超高IO</li> <li>ESSD：极速型SSD</li> </ul> |
| size | String  | 实例节点存储大小。                                                                                             |
| used | String  | 实例节点存储使用大小。                                                                                           |
| iops | Integer | 实例节点存储IOPS大小。                                                                                         |

表 4-1298 datastore

| 参数   | 参数类型   | 描述                     |
|------|--------|------------------------|
| id   | String | 引擎ID。                  |
| type | String | 引擎类型，现在只支持click-house。 |

| 参数      | 参数类型   | 描述    |
|---------|--------|-------|
| version | String | 引擎版本。 |

表 4-1299 ops\_window

| 参数         | 参数类型   | 描述       |
|------------|--------|----------|
| period     | String | 时间窗周期。   |
| start_time | String | 时间窗开始时间。 |
| end_time   | String | 时间窗结束时间。 |

表 4-1300 tags\_info

| 参数       | 参数类型                             | 描述    |
|----------|----------------------------------|-------|
| tags     | Array of <b>tags</b> objects     | 用户标签。 |
| sys_tags | Array of <b>sys_tags</b> objects | 系统标签。 |

表 4-1301 tags

| 参数    | 参数类型   | 描述   |
|-------|--------|------|
| key   | String | 标签键。 |
| value | String | 标签值。 |

表 4-1302 sys\_tags

| 参数    | 参数类型   | 描述   |
|-------|--------|------|
| key   | String | 标签键。 |
| value | String | 标签值。 |

表 4-1303 port\_info

| 参数       | 参数类型    | 描述                  |
|----------|---------|---------------------|
| tep_port | Integer | tep端口。取值范围：0~65535。 |

| 参数              | 参数类型    | 描述                     |
|-----------------|---------|------------------------|
| http_port       | Integer | http端口。取值范围：0~65535。   |
| mysql_port      | Integer | MySQL端口号。取值范围：0~65535。 |
| https_port      | Integer | https端口号。取值范围：0~65535。 |
| tep_secure_port | Integer | tep安全端口。取值范围：0~65535。  |

状态码： 400

表 4-1304 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-1305 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

查询ClickHouse实例详情。

```
GET https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/  
fb632d1d531a4107804f0f082581810fin07/clickhouse/df3ae779e2ad4993a03ccd7a81240125in16
```

## 响应示例

状态码： 200

Success.

```
{  
  "instance": {  
    "id": "f8d286fa7db44f51aed30ed7eb6da007in16",  
    "name": "htap-1fb3",  
    "project_id": "23a50154cf494ec9ad6883979a12db0a",  
    "public_ip": "",  
    "can_enable_public_access": false,  
    "current_backup_node_id": null,  
    "cluster_mode": "Single",  
    "status": "normal",
```

```
"is_frozen": 0,
"frozen_time": null,
"db_user": null,
"bak_period": null,
"bak_keep_day": null,
"bak_expected_start_time": null,
"datastore_version_id": "6a9e233f-e7da-3e81-b12f-7a41a8689250",
"datastore_version": "1.23.3.24",
"datastore_type": "click-house",
"create_at": 1714099209183,
"update_at": 1714099209781,
"delete_at": null,
"db_port": "3306",
"param_group": {
  "id": "1661d4eddd4444dd8447992e74fa3b3epr16",
  "name": "Default-clickhouse"
},
"actions": [],
"create_fail_error_code": "",
"groups": [ {
  "id": "f3f95d4a837f42ee921760f3c7a0e730gr16",
  "name": "htap-1fb3_shard01",
  "group_type_name": "clickhouse",
  "nodes": [ {
    "id": "8f23427bf3764627bca1ee40e2364abfno16",
    "name": "htap-1fb3_shard01_node01",
    "type": "master",
    "status": "normal",
    "period": "null",
    "volume": {
      "type": "SSD",
      "size": "50000000000"
    }
  }
],
  "cpu": "4",
  "mem": "16",
  "datastore": {
    "id": "6a9e233f-e7da-3e81-b12f-7a41a8689250",
    "type": "click-house",
    "version": "1.23.3.24"
  }
},
"priority": 1,
"frozen_flag": 0,
"db_port": 3306,
"pay_model": "0",
"order_id": "",
"traffic_ip": "192.168.0.55",
"traffic_ipv6": "",
"traffic_vip": "",
"traffic_vipv6": "",
"az_code": "cn-southwest-244b",
"az_description": "可用区2",
"az_type": "Center",
"region": "cn-southwest-244",
"create_at": 1714099209183,
"update_at": 1714099209183,
"flavor_id": "b44cfde6-d250-313c-8d7a-cd216f071658",
"flavor_ref": "gaussdb.ch.xlarge.x86.4",
"iass_flavor_ref": "c3.xlarge.4",
"max_connections": "0",
"vpc_id": "134c4042-1a1f-4cb8-8258-219a2f6c0d4d",
"subnet_id": "072e022f-13aa-4c8f-8d64-492cfd123305",
"need_restart": false,
"sg_id": ""
} ]
} ],
"ops_window": {
  "period": null,
  "start_time": "18:00",
  "end_time": "22:00"
}
```

```
    },
    "tags_info" : {
      "tags" : [ ],
      "sys_tags" : [ {
        "key" : "_sys_enterprise_project_id",
        "value" : "0"
      } ]
    },
    "time_zone" : "UTC+08:00",
    "backup_used_space" : null,
    "az_mode" : "single",
    "master_az_code" : null,
    "enterprise_project_id" : null,
    "port_info" : {
      "tep_port" : 9000,
      "http_port" : 8123,
      "mysql_port" : 3306,
      "https_port" : 8443,
      "tep_secure_port" : 9440
    },
    "volume_code" : "gaussdb.ch.evs.ultrahighio",
    "support_data_replication" : true,
    "new_version_available" : false,
    "ssl_option" : true,
    "dedicated_resource_id" : null,
    "pay_model" : null
  }
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListClickHouseInstanceSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
    }
}
```

```
ListClickHouseInstanceRequest request = new ListClickHouseInstanceRequest();
request.withInstanceId("{instance_id}");
request.withClickhouseInstanceId("{clickhouse_instance_id}");
try {
    ListClickHouseInstanceResponse response = client.listClickHouseInstance(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListClickHouseInstanceRequest()
        request.instance_id = "{instance_id}"
        request.clickhouse_instance_id = "{clickhouse_instance_id}"
        response = client.list_click_house_instance(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
```

```
)  
  
func main() {  
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    // variables and decrypted during use to ensure security.  
    // In this example, AK and SK are stored in environment variables for authentication. Before running this  
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak := os.Getenv("CLOUD_SDK_AK")  
    sk := os.Getenv("CLOUD_SDK_SK")  
    projectId := "{project_id}"  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).  
        WithSk(sk).  
        WithProjectId(projectId).  
        Build()  
  
    client := gaussdb.NewGaussDBClient(  
        gaussdb.GaussDBClientBuilder().  
            WithRegion(region.ValueOf("<YOUR REGION>")).  
            WithCredential(auth).  
            Build()  
    )  
  
    request := &model.ListClickHouseInstanceRequest{}  
    request.InstanceId = "{instance_id}"  
    request.ClickhouseInstanceId = "{clickhouse_instance_id}"  
    response, err := client.ListClickHouseInstance(request)  
    if err == nil {  
        fmt.Printf("%v\n", response)  
    } else {  
        fmt.Println(err)  
    }  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.16.17 实例磁盘扩容

### 功能介绍

实例磁盘扩容。

## 调用方法

请参见[如何调用API](#)。

## URI

PUT /v3/{project\_id}/instances/{instance\_id}/clickhouse/resize

表 4-1306 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | ClickHouse实例ID，严格匹配UUID规则。                                   |

## 请求参数

表 4-1307 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

表 4-1308 请求 Body 参数

| 参数         | 是否必选 | 参数类型    | 描述                          |
|------------|------|---------|-----------------------------|
| size_in_gb | 是    | Integer | 磁盘容量。取值范围：<br>50GB~32000GB。 |

## 响应参数

状态码： 200



表 4-1309 响应 Body 参数

| 参数     | 参数类型   | 描述       |
|--------|--------|----------|
| job_id | String | 创建的任务ID。 |

状态码： 400

表 4-1310 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-1311 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

ClickHouse实例磁盘扩容。

```
PUT https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/  
fb632d1d531a4107804f0f082581810fin07/clickhouse/resize  
  
{  
  "size_in_gb" : 110  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "job_id" : "18ef8ee3-b880-4851-8978-bb6acbd4e695"  
}
```

## SDK 代码示例

SDK代码示例如下。

## Java

ClickHouse实例磁盘扩容。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ResizeClickHouseInstanceSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ResizeClickHouseInstanceRequest request = new ResizeClickHouseInstanceRequest();
        request.withInstanceId("{instance_id}");
        ChEnlargeVolumeRequestBody body = new ChEnlargeVolumeRequestBody();
        body.withSizeInGb(110);
        request.withBody(body);
        try {
            ResizeClickHouseInstanceResponse response = client.resizeClickHouseInstance(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

ClickHouse实例磁盘扩容。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
```

```
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ResizeClickHouseInstanceRequest()
        request.instance_id = "{instance_id}"
        request.body = ChEnlargeVolumeRequestBody(
            size_in_gb=110
        )
        response = client.resize_click_house_instance(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

ClickHouse实例磁盘扩容。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())
```

```
request := &model.ResizeClickHouseInstanceRequest{}
request.InstanceId = "{instance_id}"
request.Body = &model.ChEnlargeVolumeRequestBody{
    SizeInGb: int32(110),
}
response, err := client.ResizeClickHouseInstance(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.16.18 重启实例

### 功能介绍

重启实例。

### 调用方法

请参见[如何调用API](#)。

### URI

PUT /v3/{project\_id}/instances/{instance\_id}/clickhouse/restart

表 4-1312 路径参数

| 参数         | 是否必选 | 参数类型   | 描述                                                           |
|------------|------|--------|--------------------------------------------------------------|
| project_id | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |

| 参数          | 是否必选 | 参数类型   | 描述                          |
|-------------|------|--------|-----------------------------|
| instance_id | 是    | String | ClickHouse实例ID, 严格匹配UUID规则。 |

## 请求参数

表 4-1313 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

## 响应参数

状态码： 200

表 4-1314 响应 Body 参数

| 参数     | 参数类型   | 描述       |
|--------|--------|----------|
| job_id | String | 创建的任务ID。 |

状态码： 400

表 4-1315 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-1316 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

重启ClickHouse实例。

```
PUT https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/  
fb632d1d531a4107804f0f082581810fin07/clickhouse/restart
```

## 响应示例

状态码： 200

Success.

```
{  
  "job_id" : "18ef8ee3-b880-4851-8978-bb6acbd4e695"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class RebootClickHouseInstanceSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)
```

```
        .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
        .build();
RebootClickHouseInstanceRequest request = new RebootClickHouseInstanceRequest();
request.withInstanceId("{instance_id}");
try {
    RebootClickHouseInstanceResponse response = client.rebootClickHouseInstance(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.valueOf("<YOUR REGION>")) \
        .build()

    try:
        request = RebootClickHouseInstanceRequest()
        request.instance_id = "{instance_id}"
        response = client.reboot_click_house_instance(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
```

```
)  
  
func main() {  
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.  
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak := os.Getenv("CLOUD_SDK_AK")  
    sk := os.Getenv("CLOUD_SDK_SK")  
    projectId := "{project_id}"  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).  
        WithSk(sk).  
        WithProjectId(projectId).  
        Build()  
  
    client := gaussdb.NewGaussDBClient(  
        gaussdb.GaussDBClientBuilder().  
            WithRegion(region.ValueOf("<YOUR REGION>")).  
            WithCredential(auth).  
            Build()  
    )  
  
    request := &model.RebootClickHouseInstanceRequest{  
        InstanceId: "{instance_id}"  
    }  
    response, err := client.RebootClickHouseInstance(request)  
    if err == nil {  
        fmt.Printf("%+v\n", response)  
    } else {  
        fmt.Println(err)  
    }  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.16.19 创建数据库账号

### 功能介绍

创建数据库账号。



## 调用方法

请参见[如何调用API](#)。

## URI

POST /v3/{project\_id}/instances/{instance\_id}/clickhouse/users

表 4-1317 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | ClickHouse实例ID，严格匹配UUID规则。                                   |

## 请求参数

表 4-1318 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

表 4-1319 请求 Body 参数

| 参数        | 是否必选 | 参数类型   | 描述                                                                 |
|-----------|------|--------|--------------------------------------------------------------------|
| user_name | 是    | String | 数据库账户名。长度为2-32个字符，必须以小写字母开头，小写字母或数字结尾，可以包含小写字母、数字以及下划线，不能包含其它特殊字符。 |

| 参数        | 是否必选 | 参数类型             | 描述                                                                                                                                              |
|-----------|------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| password  | 是    | String           | 账户密码。<br><ul style="list-style-type: none"> <li>8-32个字符</li> <li>至少包含以下字符中的三种：大写字母、小写字母、数字和特殊字符~!@#%^*-_+=?</li> <li>不能与用户名或倒序的用户名相同</li> </ul> |
| databases | 是    | Array of strings | 数据库列表。“*”表示所有数据库。                                                                                                                               |
| dml       | 否    | Integer          | DML权限，默认2。<br>取值范围： <ul style="list-style-type: none"> <li>1：只读权限</li> <li>2：读取和设置权限</li> </ul>                                                 |

## 响应参数

状态码： 200

表 4-1320 响应 Body 参数

| 参数     | 参数类型   | 描述    |
|--------|--------|-------|
| result | String | 请求结果。 |

状态码： 400

表 4-1321 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-1322 响应 Body 参数

| 参数         | 参数类型   | 描述   |
|------------|--------|------|
| error_code | String | 错误码。 |

| 参数        | 参数类型   | 描述    |
|-----------|--------|-------|
| error_msg | String | 错误描述。 |

## 请求示例

创建数据库账号。

```
POST https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/df3ae779e2ad4993a03ccd7a81240125in16/clickhouse/users
```

```
{
  "user_name": "user_test1",
  "password": "Rds_1234",
  "databases": [ "*" ],
  "dml": 1
}
```

## 响应示例

状态码: 200

Success.

```
{
  "result": "SUCCESS"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

创建数据库账号。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class CreateClickHouseDatabaseUserSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";
```

```
ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
CreateClickHouseDatabaseUserRequest request = new CreateClickHouseDatabaseUserRequest();
request.withInstanceId("{instance_id}");
ClickHouseDatabaseUserInfo body = new ClickHouseDatabaseUserInfo();
List<String> listbodyDatabases = new ArrayList<>();
listbodyDatabases.add("");
body.withDml(1);
body.withDatabases(listbodyDatabases);
body.withPassword("Rds_1234");
body.withUserName("user_test1");
request.withBody(body);
try {
    CreateClickHouseDatabaseUserResponse response = client.createClickHouseDatabaseUser(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrMsg());
}
}
```

## Python

创建数据库账号。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateClickHouseDatabaseUserRequest()
        request.instance_id = "{instance_id}"
```

```
listDatabasesbody = [
    "*"
]
request.body = ClickHouseDatabaseUserInfo(
    dml=1,
    databases=listDatabasesbody,
    password="Rds_1234",
    user_name="user_test1"
)
response = client.create_click_house_database_user(request)
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

创建数据库账号。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateClickHouseDatabaseUserRequest{}
    request.InstanceId = "{instance_id}"
    var listDatabasesbody = []string{
        "*",
    }
    dmlClickHouseDatabaseUserInfo := int32(1)
    request.Body = &model.ClickHouseDatabaseUserInfo{
        Dml: &dmlClickHouseDatabaseUserInfo,
        Databases: listDatabasesbody,
        Password: "Rds_1234",
        UserName: "user_test1",
    }
    response, err := client.CreateClickHouseDatabaseUser(request)
    if err == nil {
        fmt.Printf("%v\n", response)
    } else {
```

```
    fmt.Println(err)
  }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.16.20 查询数据库账户

### 功能介绍

查询数据库账户。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/instances/{instance\_id}/clickhouse/users

表 4-1323 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | ClickHouse实例ID，严格匹配UUID规则。                                   |

表 4-1324 Query 参数

| 参数        | 是否必选 | 参数类型    | 描述                                                                    |
|-----------|------|---------|-----------------------------------------------------------------------|
| limit     | 否    | Integer | 查询记录数，默认10。不能为负数，最小值为1，最大值为100。                                       |
| offset    | 否    | Integer | 索引位置，偏移量。默认0。从第一条数据偏移offset条数据后开始查询（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。 |
| user_name | 否    | String  | 数据库账户。                                                                |

## 请求参数

表 4-1325 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

## 响应参数

状态码： 200

表 4-1326 响应 Body 参数

| 参数           | 参数类型                                          | 描述       |
|--------------|-----------------------------------------------|----------|
| user_details | Array of <a href="#">user_details</a> objects | 数据库账户信息。 |
| total_count  | Integer                                       | 数据库账户数量。 |

表 4-1327 user\_details

| 参数        | 参数类型             | 描述                                                                                              |
|-----------|------------------|-------------------------------------------------------------------------------------------------|
| user_name | String           | 数据库账户名。                                                                                         |
| databases | Array of strings | 已授权数据库。                                                                                         |
| dml       | Integer          | DML权限。<br>取值范围： <ul style="list-style-type: none"><li>• 1: 只读权限</li><li>• 2: 读取和设置权限</li></ul>  |
| ddl       | Integer          | DDL授权。<br>取值范围： <ul style="list-style-type: none"><li>• 0: 无DDL权限</li><li>• 1: 有DDL权限</li></ul> |

状态码： 400

表 4-1328 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-1329 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

查询数据库10个账号信息。

```
GET https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/  
54e42160670e48e789af7075e1efea1fin16/clickhouse/users?limit=10
```

## 响应示例

状态码： 200



Success.

```
{
  "user_details": [ {
    "user_name": "root",
    "databases": [ "*" ],
    "dml": 2,
    "ddl": 0
  }, {
    "user_name": "user_test1",
    "databases": [ "*" ],
    "dml": 2,
    "ddl": 0
  } ],
  "total_count": 2
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowClickHouseDatabaseUserSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ShowClickHouseDatabaseUserRequest request = new ShowClickHouseDatabaseUserRequest();
        request.withInstanceId("{instance_id}");
        try {
            ShowClickHouseDatabaseUserResponse response = client.showClickHouseDatabaseUser(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
        }
    }
}
```

```
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowClickHouseDatabaseUserRequest()
        request.instance_id = "{instance_id}"
        response = client.show_click_house_database_user(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
```

```
WithSk(sk).
WithProjectId(projectId).
Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.ShowClickHouseDatabaseUserRequest{}
request.InstanceId = "{instance_id}"
response, err := client.ShowClickHouseDatabaseUser(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

### 4.16.21 修改数据库账号密码

#### 功能介绍

修改数据库账号密码。

#### 调用方法

请参见[如何调用API](#)。

#### URI

PUT /v3/{project\_id}/instances/{instance\_id}/clickhouse/users/password

表 4-1330 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | ClickHouse实例ID，严格匹配UUID规则。                                   |

## 请求参数

表 4-1331 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

表 4-1332 请求 Body 参数

| 参数        | 是否必选 | 参数类型   | 描述                                                                                                                                           |
|-----------|------|--------|----------------------------------------------------------------------------------------------------------------------------------------------|
| user_name | 是    | String | 数据库账号名。                                                                                                                                      |
| password  | 是    | String | 数据库账号密码。 <ul style="list-style-type: none"><li>8-32个字符</li><li>至少包含以下字符中的三种：大写字母、小写字母、数字和特殊字符~!@#%^*-_+=?,</li><li>不能与用户名或倒序的用户名相同</li></ul> |

## 响应参数

状态码： 200

表 4-1333 响应 Body 参数

| 参数     | 参数类型   | 描述    |
|--------|--------|-------|
| result | String | 请求结果。 |

状态码： 400

表 4-1334 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-1335 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

修改数据库账户密码。

```
PUT https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/  
54e42160670e48e789af7075e1efea1fin16/clickhouse/users/password  
  
{  
  "user_name" : "user_test0",  
  "password" : "Clickhouse_1234"  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "result" : "SUCCESS"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

修改数据库账户密码。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateClickHouseDatabaseUserPasswordSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();

        UpdateClickHouseDatabaseUserPasswordRequest request = new
        UpdateClickHouseDatabaseUserPasswordRequest();
        request.withInstanceId("{instance_id}");
        ClickHouseDatabaseUserPWInfo body = new ClickHouseDatabaseUserPWInfo();
        body.withPassword("Clickhouse_1234");
        body.withUserName("user_test0");
        request.withBody(body);
        try {
            UpdateClickHouseDatabaseUserPasswordResponse response =
            client.updateClickHouseDatabaseUserPassword(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

修改数据库账户密码。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateClickHouseDatabaseUserPasswordRequest()
        request.instance_id = "{instance_id}"
        request.body = ClickHouseDatabaseUserPWInfo(
            password="Clickhouse_1234",
            user_name="user_test0"
        )
        response = client.update_click_house_database_user_password(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

修改数据库账户密码。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"
```

```
auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    WithProjectId(projectId).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.UpdateClickHouseDatabaseUserPasswordRequest{
    request.InstanceId = "{instance_id}"
    request.Body = &model.ClickHouseDatabaseUserPWInfo{
        Password: "Clickhouse_1234",
        UserName: "user_test0",
    }
}
response, err := client.UpdateClickHouseDatabaseUserPassword(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.16.22 修改数据库账号权限

### 功能介绍

修改数据库账号权限。

### 调用方法

请参见[如何调用API](#)。

### URI

PUT /v3/{project\_id}/instances/{instance\_id}/clickhouse/users/permission



表 4-1336 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | ClickHouse实例ID，严格匹配UUID规则。                                   |

## 请求参数

表 4-1337 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

表 4-1338 请求 Body 参数

| 参数        | 是否必选 | 参数类型             | 描述                                                                                         |
|-----------|------|------------------|--------------------------------------------------------------------------------------------|
| user_name | 是    | String           | 数据库账号名。                                                                                    |
| databases | 是    | Array of strings | 数据库列表。“*”表示所有数据库。                                                                          |
| dml       | 是    | Integer          | DML权限。<br>取值范围： <ul style="list-style-type: none"><li>1: 只读权限</li><li>2: 读取和设置权限</li></ul> |

## 响应参数

状态码： 200

表 4-1339 响应 Body 参数

| 参数     | 参数类型   | 描述    |
|--------|--------|-------|
| result | String | 请求结果。 |

状态码： 400

表 4-1340 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-1341 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

修改数据库账户权限。

```
PUT https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/  
86fd60a5256a4592b957e8e6bb2d1b59in07/clickhouse/users/permission
```

```
{  
  "user_name": "user_test1",  
  "databases": [ "*" ],  
  "dml": 2  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "result": "SUCCESS"  
}
```

## SDK 代码示例

SDK代码示例如下。

## Java

修改数据库账户权限。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class UpdateClickHouseDatabaseUserPermissionSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();

        UpdateClickHouseDatabaseUserPermissionRequest request = new
        UpdateClickHouseDatabaseUserPermissionRequest();
        request.withInstanceId("{instance_id}");
        ClickHouseDatabaseUserPSInfo body = new ClickHouseDatabaseUserPSInfo();
        List<String> listbodyDatabases = new ArrayList<>();
        listbodyDatabases.add("");
        body.withDml(2);
        body.withDatabases(listbodyDatabases);
        body.withUserName("user_test1");
        request.withBody(body);
        try {
            UpdateClickHouseDatabaseUserPermissionResponse response =
            client.updateClickHouseDatabaseUserPermission(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

修改数据库账户权限。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateClickHouseDatabaseUserPermissionRequest()
        request.instance_id = "{instance_id}"
        listDatabasesbody = [
            "*"
        ]
        request.body = ClickHouseDatabaseUserPSinfo(
            dml=2,
            databases=listDatabasesbody,
            user_name="user_test1"
        )
        response = client.update_click_house_database_user_permission(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

修改数据库账户权限。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
```

```
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")
projectId := "{project_id}"

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    WithProjectId(projectId).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.UpdateClickHouseDatabaseUserPermissionRequest{}
request.InstanceId = "{instance_id}"
var listDatabasesbody = []string{
    "*",
}
request.Body = &model.ClickHouseDatabaseUserPSInfo{
    Dml: int32(2),
    Databases: listDatabasesbody,
    UserName: "user_test1",
}
response, err := client.UpdateClickHouseDatabaseUserPermission(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.16.23 创建数据同步

### 功能介绍

创建数据同步。

## 调用方法

请参见[如何调用API](#)。

## URI

POST /v3/{project\_id}/instances/{instance\_id}/clickhouse/replication

表 4-1342 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | ClickHouse实例ID，严格匹配UUID规则。                                   |

## 请求参数

表 4-1343 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

表 4-1344 请求 Body 参数

| 参数                 | 是否必选 | 参数类型   | 描述                                        |
|--------------------|------|--------|-------------------------------------------|
| source_instance_id | 是    | String | 源实例ID。                                    |
| source_node_id     | 否    | String | 源节点ID。TaurusDB只读节点ID。如为空，则取TaurusDB主节点ID。 |

| 参数              | 是否必选 | 参数类型   | 描述    |
|-----------------|------|--------|-------|
| source_database | 是    | String | 源数据库。 |

## 响应参数

状态码： 200

表 4-1345 响应 Body 参数

| 参数     | 参数类型   | 描述       |
|--------|--------|----------|
| job_id | String | 创建的任务ID。 |

状态码： 400

表 4-1346 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-1347 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

创建ClickHouse数据同步。

```
POST https://{localhost}/v3/23a50154cf494ec9ad6883979a12db0a/instances/54e42160670e48e789af7075e1efea1fin16/clickhouse/replication
{
  "source_instance_id": "source_instance_id",
  "source_node_id": "source_node_id",
  "source_database": "source_database"
}
```

## 响应示例

状态码： 200

Success.

```
{
  "job_id" : "18ef8ee3-b880-4851-8978-bb6acbd4e695"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

创建ClickHouse数据同步。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class CreateClickHouseDataBaseReplicationSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();

        CreateClickHouseDataBaseReplicationRequest request = new
        CreateClickHouseDataBaseReplicationRequest();
        request.withInstanceId("{instance_id}");
        CreateChDatabaseReplicationRequestBody body = new CreateChDatabaseReplicationRequestBody();
        body.withSourceDatabase("source_database");
        body.withSourceNodeId("source_node_id");
        body.withSourceInstanceId("source_instance_id");
        request.withBody(body);
        try {
            CreateClickHouseDataBaseReplicationResponse response =
            client.createClickHouseDataBaseReplication(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        }
    }
}
```



```
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
```

## Python

创建ClickHouse数据同步。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateClickHouseDataBaseReplicationRequest()
        request.instance_id = "{instance_id}"
        request.body = CreateChDatabaseReplicationRequestBody(
            source_database="source_database",
            source_node_id="source_node_id",
            source_instance_id="source_instance_id"
        )
        response = client.create_click_house_data_base_replication(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

创建ClickHouse数据同步。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)
```

```
func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateClickHouseDataBaseReplicationRequest{
        request.InstanceId = "{instance_id}"
        sourceNodeIdCreateChDatabaseReplicationRequestBody := "source_node_id"
        request.Body = &model.CreateChDatabaseReplicationRequestBody{
            SourceDatabase: "source_database",
            SourceNodeId: &sourceNodeIdCreateChDatabaseReplicationRequestBody,
            SourceInstanceId: "source_instance_id",
        }
    }
    response, err := client.CreateClickHouseDataBaseReplication(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.16.24 查询数据同步信息

### 功能介绍

查询数据同步信息。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/instances/{instance\_id}/clickhouse/replication

表 4-1348 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | ClickHouse实例ID, 严格匹配UUID规则。                                  |

表 4-1349 Query 参数

| 参数     | 是否必选 | 参数类型    | 描述                                                                          |
|--------|------|---------|-----------------------------------------------------------------------------|
| limit  | 否    | Integer | 查询记录数, 默认10。不能为负数, 最小值为1, 最大值为100。                                          |
| offset | 否    | Integer | 索引位置, 偏移量, 默认0。从第一条数据偏移offset条数据后开始查询 (偏移0条数据, 表示从第一条数据开始查询), 必须为数字, 不能为负数。 |

## 请求参数

表 4-1350 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

## 响应参数

状态码： 200

表 4-1351 响应 Body 参数

| 参数           | 参数类型                                                       | 描述                      |
|--------------|------------------------------------------------------------|-------------------------|
| total_count  | Integer                                                    | 查询数据同步任务数。              |
| replications | Array of <a href="#">ChDatabaseReplicationInfo</a> objects | 数据同步任务信息。               |
| ext_text     | String                                                     | taurus操作表示，重启、规格变更、倒换等。 |

表 4-1352 ChDatabaseReplicationInfo

| 参数              | 参数类型   | 描述                                                                                             |
|-----------------|--------|------------------------------------------------------------------------------------------------|
| source_database | String | 源数据库。                                                                                          |
| target_database | String | 目标数据库。                                                                                         |
| status          | String | 当前状态。<br>取值范围： <ul style="list-style-type: none"><li>normal: 正常</li><li>abnormal: 异常</li></ul> |

| 参数            | 参数类型   | 描述                                                                                                                                                                      |
|---------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| stage         | String | 同步阶段。<br>取值范围： <ul style="list-style-type: none"><li>• wait: 等待同步</li><li>• failed: 同步失败</li><li>• incremental: 增量同步</li><li>• full: 全量同步</li><li>• other: 其他</li></ul> |
| percentage    | String | 进度百分比。                                                                                                                                                                  |
| catchup_stage | String | 追赶阶段。<br>取值范围： <ul style="list-style-type: none"><li>• wait: 等待同步</li><li>• failed: 同步失败</li><li>• incremental: 增量同步</li><li>• full: 全量同步</li><li>• other: 其他</li></ul> |

状态码：400

表 4-1353 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码：500

表 4-1354 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

查询第一页的前10个同步任务。

```
GET https://{localhost}/v3/23a50154cf494ec9ad6883979a12db0a/instances/  
54e42160670e48e789af7075e1feaf1fin16/clickhouse/replication?offset=1&limit=10
```

## 响应示例

状态码: 200

Success.

```
{  
  "total_count": 3,  
  "replications": [ {  
    "source_database": "test",  
    "target_database": "test",  
    "status": "abnormal",  
    "stage": "Full",  
    "percentage": 0,  
    "catchup_stage": null  
  }, {  
    "target_database": "blackwhite_0018_61474479",  
    "status": "normal",  
    "stage": "Incremental",  
    "percentage": 100,  
    "catchup_stage": null  
  }, {  
    "target_database": "blackwhite_0017_22525694",  
    "status": "normal",  
    "stage": "Wait",  
    "percentage": 0,  
    "catchup_stage": null  
  } ],  
  "ext_text": null  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ListClickHouseDataBaseReplicationSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)
```

```
        .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ListClickHouseDataBaseReplicationRequest request = new
ListClickHouseDataBaseReplicationRequest();
        request.withInstanceId("{instance_id}");
        try {
            ListClickHouseDataBaseReplicationResponse response =
client.listClickHouseDataBaseReplication(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListClickHouseDataBaseReplicationRequest()
        request.instance_id = "{instance_id}"
        response = client.list_click_house_data_base_replication(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main
```

```
import (  
    "fmt"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"  
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"  
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"  
)  
  
func main() {  
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    // variables and decrypted during use to ensure security.  
    // In this example, AK and SK are stored in environment variables for authentication. Before running this  
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak := os.Getenv("CLOUD_SDK_AK")  
    sk := os.Getenv("CLOUD_SDK_SK")  
    projectId := "{project_id}"  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).  
        WithSk(sk).  
        WithProjectId(projectId).  
        Build()  
  
    client := gaussdb.NewGaussDBClient(  
        gaussdb.GaussDBClientBuilder().  
            WithRegion(region.ValueOf("<YOUR REGION>")).  
            WithCredential(auth).  
            Build())  
  
    request := &model.ListClickHouseDataBaseReplicationRequest{}  
    request.InstanceId = "{instance_id}"  
    response, err := client.ListClickHouseDataBaseReplication(request)  
    if err == nil {  
        fmt.Printf("%+v\n", response)  
    } else {  
        fmt.Println(err)  
    }  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。



## 4.16.25 删除数据同步

### 功能介绍

删除数据同步。

### 调用方法

请参见[如何调用API](#)。

### URI

DELETE /v3/{project\_id}/instances/{instance\_id}/clickhouse/replication/  
{database\_name}

表 4-1355 路径参数

| 参数            | 是否必选 | 参数类型   | 描述                                                           |
|---------------|------|--------|--------------------------------------------------------------|
| project_id    | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id   | 是    | String | ClickHouse实例ID, 严格匹配UUID规则。                                  |
| database_name | 是    | String | 数据库名。                                                        |

### 请求参数

表 4-1356 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

## 响应参数

状态码： 200

表 4-1357 响应 Body 参数

| 参数     | 参数类型   | 描述       |
|--------|--------|----------|
| job_id | String | 创建的任务ID。 |

状态码： 400

表 4-1358 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-1359 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

删除数据库db\_test的数据同步。

```
DELETE https://{localhost}/v3/23a50154cf494ec9ad6883979a12db0a/instances/  
54e42160670e48e789af7075e1efea1fin16/clickhouse/replication/db_test
```

## 响应示例

状态码： 200

Success.

```
{  
  "job_id": "18ef8ee3-b880-4851-8978-bb6acbd4e695"  
}
```

## SDK 代码示例

SDK代码示例如下。

## Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class DeleteClickHouseDataBaseReplicationSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        DeleteClickHouseDataBaseReplicationRequest request = new
        DeleteClickHouseDataBaseReplicationRequest();
        request.withInstanceId("{instance_id}");
        request.withDatabaseName("{database_name}");
        try {
            DeleteClickHouseDataBaseReplicationResponse response =
            client.deleteClickHouseDataBaseReplication(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
```

risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.

# In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD\_SDK\_AK and CLOUD\_SDK\_SK in the local environment

```
ak = os.environ["CLOUD_SDK_AK"]
sk = os.environ["CLOUD_SDK_SK"]
projectId = "{project_id}"

credentials = BasicCredentials(ak, sk, projectId)

client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = DeleteClickHouseDataBaseReplicationRequest()
    request.instance_id = "{instance_id}"
    request.database_name = "{database_name}"
    response = client.delete_click_house_data_base_replication(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteClickHouseDataBaseReplicationRequest{
        request.InstanceId = "{instance_id}"
        request.DatabaseName = "{database_name}"
    }
    response, err := client.DeleteClickHouseDataBaseReplication(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

```
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.16.26 修改数据同步

### 功能介绍

修改数据同步。

### 调用方法

请参见[如何调用API](#)。

## URI

PUT /v3/{project\_id}/instances/{instance\_id}/clickhouse/databases/replication/  
config

表 4-1360 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | ClickHouse实例ID，严格匹配UUID规则。                                   |

## 请求参数

**表 4-1361** 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

**表 4-1362** 请求 Body 参数

| 参数                 | 是否必选 | 参数类型   | 描述                                                                                                                                                                          |
|--------------------|------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| source_instance_id | 是    | String | 源实例ID，严格匹配UUID规则。                                                                                                                                                           |
| source_node_id     | 否    | String | 源实例节点ID。                                                                                                                                                                    |
| database           | 是    | String | 数据库名。                                                                                                                                                                       |
| value              | 是    | String | 配置值。仅支持修改同步范围，不支持修改白名单或黑名单类型。<br>例如：创建了白名单数据同步，调用本接口修改时，支持 "value":<br>"{\"white_list\":\"test1,test2,test3\"}"<br>不支持 "value":<br>"{\"black_list\":\"test1,test2,test3\"}" |

## 响应参数

状态码： 200

表 4-1363 响应 Body 参数

| 参数     | 参数类型   | 描述       |
|--------|--------|----------|
| job_id | String | 创建的任务ID。 |

状态码： 400

表 4-1364 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-1365 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

修改数据同步白名单。

```
PUT https://{localhost}/v3/23a50154cf494ec9ad6883979a12db0a/instances/  
54e42160670e48e789af7075e1efea1fin16/clickhouse/databases/replication/config  
{  
  "source_instance_id": "5a377c0073cd4264be308fd968e60312in07",  
  "source_node_id": "",  
  "database": "db1",  
  "value": "{\"white_list\": \"t1,t2,t3\"}"  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "job_id": "3077fd46-2924-4513-ae07-82bac7886a9c"  
}
```

## SDK 代码示例

SDK代码示例如下。

## Java

修改数据同步白名单。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateClickHouseDataBaseConfigSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        UpdateClickHouseDataBaseConfigRequest request = new UpdateClickHouseDataBaseConfigRequest();
        request.withInstanceId("{instance_id}");
        UpdateChDatabaseConfigRequestBody body = new UpdateChDatabaseConfigRequestBody();
        body.withValue("{\"white_list\":\"t1,t2,t3\"}");
        body.withDatabase("db1");
        body.withSourceNodeId("");
        body.withSourceInstanceId("5a377c0073cd4264be308fd968e60312in07");
        request.withBody(body);
        try {
            UpdateClickHouseDataBaseConfigResponse response =
            client.updateClickHouseDataBaseConfig(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

修改数据同步白名单。

```
# coding: utf-8
```



```
import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateClickHouseDataBaseConfigRequest()
        request.instance_id = "{instance_id}"
        request.body = UpdateChDatabaseConfigRequestBody(
            value="{\"white_list\":\"t1,t2,t3\"}",
            database="db1",
            source_node_id="",
            source_instance_id="5a377c0073cd4264be308fd968e60312in07"
        )
        response = client.update_click_house_data_base_config(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

修改数据同步白名单。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()
```

```
client := gaussdb.NewGaussDBClient(  
    gaussdb.GaussDBClientBuilder().  
        WithRegion(region.ValueOf("<YOUR REGION>")).  
        WithCredential(auth).  
        Build())  
  
request := &model.UpdateClickHouseDataBaseConfigRequest{  
    request.InstanceId = "{instance_id}"  
    sourceNodeIdUpdateChDatabaseConfigRequestBody:= ""  
    request.Body = &model.UpdateChDatabaseConfigRequestBody{  
        Value: "{\"white_list\":\"t1,t2,t3\"}",  
        Database: "db1",  
        SourceNodeId: &sourceNodeIdUpdateChDatabaseConfigRequestBody,  
        SourceInstanceId: "5a377c0073cd4264be308fd968e60312in07",  
    }  
    response, err := client.UpdateClickHouseDataBaseConfig(request)  
    if err == nil {  
        fmt.Printf("%+v\n", response)  
    } else {  
        fmt.Println(err)  
    }  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.16.27 停止修改数据同步

### 功能介绍

停止修改数据同步。

### 调用方法

请参见[如何调用API](#)。

### URI

DELETE /v3/{project\_id}/instances/{instance\_id}/clickhouse/databases/replication/  
config

表 4-1366 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | ClickHouse实例ID，严格匹配UUID规则。                                   |

表 4-1367 Query 参数

| 参数       | 是否必选 | 参数类型   | 描述    |
|----------|------|--------|-------|
| database | 是    | String | 数据库名。 |

## 请求参数

表 4-1368 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

## 响应参数

状态码： 200

表 4-1369 响应 Body 参数

| 参数     | 参数类型   | 描述       |
|--------|--------|----------|
| job_id | String | 创建的任务ID。 |

状态码： 400

表 4-1370 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500

表 4-1371 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

停止修改数据同步配置。

```
DELETE https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/5eee1a10401b451eb7e6d3badc9c5b95in16/clickhouse/databases/replication/config?database=db
```

## 响应示例

状态码： 200

Success.

```
{  
  "job_id" : "3077fd46-2924-4513-ae07-82bac7886a9c"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class DeleteClickHouseDataBaseConfigSolution {
```

```
public static void main(String[] args) {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running
    // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    String ak = System.getenv("CLOUD_SDK_AK");
    String sk = System.getenv("CLOUD_SDK_SK");
    String projectId = "{project_id}";

    ICredential auth = new BasicCredentials()
        .withProjectId(projectId)
        .withAk(ak)
        .withSk(sk);

    GaussDBClient client = GaussDBClient.newBuilder()
        .withCredential(auth)
        .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
        .build();
    DeleteClickHouseDataBaseConfigRequest request = new DeleteClickHouseDataBaseConfigRequest();
    request.withInstanceId("{instance_id}");
    try {
        DeleteClickHouseDataBaseConfigResponse response =
client.deleteClickHouseDataBaseConfig(request);
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteClickHouseDataBaseConfigRequest()
```

```
request.instance_id = "{instance_id}"
response = client.delete_click_house_data_base_config(request)
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/taurusdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/taurusdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/taurusdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteClickHouseDataBaseConfigRequest{}
    request.InstanceId = "{instance_id}"
    response, err := client.DeleteClickHouseDataBaseConfig(request)
    if err == nil {
        fmt.Printf("%v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |

| 状态码 | 描述            |
|-----|---------------|
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.16.28 实例规格变更

### 功能介绍

实例规格变更。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/instances/{instance\_id}/clickhouse/resize-flavor

表 4-1372 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | ClickHouse实例ID，严格匹配UUID规则。                                   |

### 请求参数

表 4-1373 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |

| 参数         | 是否必选 | 参数类型   | 描述                                                                                           |
|------------|------|--------|----------------------------------------------------------------------------------------------|
| X-Language | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul> |

表 4-1374 请求 Body 参数

| 参数          | 是否必选 | 参数类型    | 描述                                           |
|-------------|------|---------|----------------------------------------------|
| flavor_ref  | 是    | String  | 规格ID。可通过“HTAP查询规格信息”接口获取。<br>仅允许使用对应实例的规格ID。 |
| delay       | 是    | Boolean | 是否延迟变更。默认false。                              |
| instance_id | 否    | String  | 实例ID，严格匹配UUID规则。                             |

## 响应参数

状态码： 200

表 4-1375 响应 Body 参数

| 参数     | 参数类型   | 描述    |
|--------|--------|-------|
| result | String | 请求结果。 |

状态码： 400

表 4-1376 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

状态码： 500



表 4-1377 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误描述。 |

## 请求示例

ClickHouse实例规格变更。

```
POST https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/
fb632d1d531a4107804f0f082581810fin07/clickhouse/resize-flavor

{
  "flavor_ref" : "6ebc6add-7462-3c27-b92b-3d79ae37a309",
  "delay" : false,
  "instance_id" : "59c6b263cd884178b7395e1ee8d93fbdin16"
}
```

## 响应示例

状态码: 200

Success.

```
{
  "result" : "3077fd46-2924-4513-ae07-82bac7886a9c"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

ClickHouse实例规格变更。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ResizeClickHouseFlavorSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
    }
}
```

```
String projectId = "{project_id}";

ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();

ResizeClickHouseFlavorRequest request = new ResizeClickHouseFlavorRequest();
request.withInstanceId("{instance_id}");
ClickHouseResizeFlavorRequestBody body = new ClickHouseResizeFlavorRequestBody();
body.withInstanceId("59c6b263cd884178b7395e1ee8d93fbdin16");
body.withDelay(false);
body.withFlavorRef("6ebc6add-7462-3c27-b92b-3d79ae37a309");
request.withBody(body);
try {
    ResizeClickHouseFlavorResponse response = client.resizeClickHouseFlavor(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

ClickHouse实例规格变更。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ResizeClickHouseFlavorRequest()
        request.instance_id = "{instance_id}"
        request.body = ClickHouseResizeFlavorRequestBody(
            instance_id="59c6b263cd884178b7395e1ee8d93fbdin16",
```

```
        delay=False,  
        flavor_ref="6ebc6add-7462-3c27-b92b-3d79ae37a309"  
    )  
    response = client.resize_click_house_flavor(request)  
    print(response)  
except exceptions.ClientRequestException as e:  
    print(e.status_code)  
    print(e.request_id)  
    print(e.error_code)  
    print(e.error_msg)
```

## Go

ClickHouse实例规格变更。

```
package main  
  
import (  
    "fmt"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"  
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"  
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"  
)  
  
func main() {  
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    // variables and decrypted during use to ensure security.  
    // In this example, AK and SK are stored in environment variables for authentication. Before running this  
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak := os.Getenv("CLOUD_SDK_AK")  
    sk := os.Getenv("CLOUD_SDK_SK")  
    projectId := "{project_id}"  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).  
        WithSk(sk).  
        WithProjectId(projectId).  
        Build()  
  
    client := gaussdb.NewGaussDBClient(  
        gaussdb.GaussDBClientBuilder().  
            WithRegion(region.ValueOf("<YOUR REGION>")).  
            WithCredential(auth).  
            Build())  
  
    request := &model.ResizeClickHouseFlavorRequest{  
        request.InstanceId = "{instance_id}"  
        instanceIdClickHouseResizeFlavorRequestBody := "59c6b263cd884178b7395e1ee8d93fbdin16"  
        request.Body = &model.ClickHouseResizeFlavorRequestBody{  
            InstanceId: &instanceIdClickHouseResizeFlavorRequestBody,  
            Delay: false,  
            FlavorRef: "6ebc6add-7462-3c27-b92b-3d79ae37a309",  
        }  
    }  
    response, err := client.ResizeClickHouseFlavor(request)  
    if err == nil {  
        fmt.Printf("%+v\n", response)  
    } else {  
        fmt.Println(err)  
    }  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.17 多租特性

### 4.17.1 查询多租特性开关状态

#### 功能介绍

查询多租特性开关状态。

#### 调用方法

请参见[如何调用API](#)。

#### URI

GET /v3/{project\_id}/instances/{instance\_id}/multi-tenant

表 4-1378 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 4-1379 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

## 响应参数

状态码： 200

表 4-1380 响应 Body 参数

| 参数                  | 参数类型    | 描述                                                                                  |
|---------------------|---------|-------------------------------------------------------------------------------------|
| multi_tenant_switch | Boolean | 实例多租特性开关。 <ul style="list-style-type: none"><li>true:开启</li><li>false:关闭。</li></ul> |

状态码： 400

表 4-1381 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-1382 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

查询多租特性开关状态。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/af315b8e6aaa41799bd9a31f2de15abcin07/multi-tenant
```

## 响应示例

状态码： 200

Success.

```
{  
  "multi_tenant_switch" : true  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ShowMultiTenantSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)
```

```
        .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
        .build();
ShowMultiTenantRequest request = new ShowMultiTenantRequest();
request.withInstanceId("{instance_id}");
try {
    ShowMultiTenantResponse response = client.showMultiTenant(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrMsg());
}
}
```

## Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.valueOf("<YOUR REGION>")) \
        .build()

    try:
        request = ShowMultiTenantRequest()
        request.instance_id = "{instance_id}"
        response = client.show_multi_tenant(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
```

```
)  
  
func main() {  
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    // variables and decrypted during use to ensure security.  
    // In this example, AK and SK are stored in environment variables for authentication. Before running this  
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak := os.Getenv("CLOUD_SDK_AK")  
    sk := os.Getenv("CLOUD_SDK_SK")  
    projectId := "{project_id}"  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).  
        WithSk(sk).  
        WithProjectId(projectId).  
        Build()  
  
    client := gaussdb.NewGaussDBClient(  
        gaussdb.GaussDBClientBuilder().  
            WithRegion(region.ValueOf("<YOUR REGION>")).  
            WithCredential(auth).  
            Build()  
    )  
  
    request := &model.ShowMultiTenantRequest{}  
    request.InstanceId = "{instance_id}"  
    response, err := client.ShowMultiTenant(request)  
    if err == nil {  
        fmt.Printf("%+v\n", response)  
    } else {  
        fmt.Println(err)  
    }  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.17.2 开启或者关闭多租特性

### 功能介绍

开启或者关闭多租特性。



## 调用方法

请参见[如何调用API](#)。

## URI

PUT /v3/{project\_id}/instances/{instance\_id}/multi-tenant

表 4-1383 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 4-1384 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。<br>取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>           |

表 4-1385 请求 Body 参数

| 参数                  | 是否必选 | 参数类型    | 描述                                                                                  |
|---------------------|------|---------|-------------------------------------------------------------------------------------|
| multi_tenant_switch | 是    | Boolean | 实例多租特性开关。 <ul style="list-style-type: none"><li>true:开启</li><li>false:关闭。</li></ul> |

## 响应参数

状态码： 200

表 4-1386 响应 Body 参数

| 参数     | 参数类型   | 描述           |
|--------|--------|--------------|
| job_id | String | 开启/关闭多租特性ID。 |

状态码： 400

表 4-1387 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-1388 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

- 开启多租特性。

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
af315b8e6aaa41799bd9a31f2de15abcin07/multi-tenant
```

```
{  
  "multi_tenant_switch": true  
}
```

- 关闭多租特性。

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
af315b8e6aaa41799bd9a31f2de15abcin07/multi-tenant
```

```
{  
  "multi_tenant_switch": false  
}
```

## 响应示例

状态码： 200

Success.

```
{
  "job_id" : "aef6a470-fb63-4d5b-b644-12ead7e019b3"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

- 开启多租特性。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateMultiTenantSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        UpdateMultiTenantRequest request = new UpdateMultiTenantRequest();
        request.withInstanceId("{instance_id}");
        OperateMultiTenantReq body = new OperateMultiTenantReq();
        body.withMultiTenantSwitch(true);
        request.withBody(body);
        try {
            UpdateMultiTenantResponse response = client.updateMultiTenant(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- 关闭多租特性。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateMultiTenantSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        UpdateMultiTenantRequest request = new UpdateMultiTenantRequest();
        request.withInstanceId("{instance_id}");
        OperateMultiTenantReq body = new OperateMultiTenantReq();
        body.withMultiTenantSwitch(false);
        request.withBody(body);
        try {
            UpdateMultiTenantResponse response = client.updateMultiTenant(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

- 开启多租特性。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *
```

```
if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateMultiTenantRequest()
        request.instance_id = "{instance_id}"
        request.body = OperateMultiTenantReq(
            multi_tenant_switch=True
        )
        response = client.update_multi_tenant(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- 关闭多租特性。

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateMultiTenantRequest()
        request.instance_id = "{instance_id}"
        request.body = OperateMultiTenantReq(
            multi_tenant_switch=False
        )
        response = client.update_multi_tenant(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
```

```
print(e.error_code)
print(e.error_msg)
```

## Go

- 开启多租特性。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateMultiTenantRequest{}
    request.InstanceId = "{instance_id}"
    request.Body = &model.OperateMultiTenantReq{
        MultiTenantSwitch: true,
    }
    response, err := client.UpdateMultiTenant(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- 关闭多租特性。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
```

```
running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")
projectId := "{project_id}"

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    WithProjectId(projectId).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.UpdateMultiTenantRequest{
    request.InstanceId = "{instance_id}"
    request.Body = &model.OperateMultiTenantReq{
        MultiTenantSwitch: false,
    }
}
response, err := client.UpdateMultiTenant(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

# 5 API (即将下线)

## 5.1 查询数据库引擎的版本

### 5.1.1 查询数据库引擎的版本

#### 功能介绍

获取指定数据库引擎对应的数据库版本信息。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[查询数据库引擎的版本](#)。

#### 调试

您可以在[API Explorer](#)中调试该接口。

#### URI

GET /mysql/v3/{project\_id}/datastores/{database\_name}

表 5-1 路径参数

| 参数            | 是否必选 | 参数类型   | 描述                                                           |
|---------------|------|--------|--------------------------------------------------------------|
| project_id    | 是    | String | 租户在某一region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| database_name | 是    | String | 数据库引擎。支持的引擎如下，不区分大小写：gaussdb-mysql                           |



## 请求参数

表 5-2 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

## 响应参数

状态码： 200

表 5-3 响应 Body 参数

| 参数         | 参数类型                                                    | 描述        |
|------------|---------------------------------------------------------|-----------|
| datastores | Array of <a href="#">MysqlEngineVersionInfo</a> objects | 数据库版本信息列表 |

表 5-4 MysqlEngineVersionInfo

| 参数             | 参数类型   | 描述                     |
|----------------|--------|------------------------|
| id             | String | 数据库版本ID，该字段不会有重复。      |
| name           | String | 数据库版本号，只返回两位数的大版本号。    |
| kernel_version | String | 数据库内核版本号，返回完整的四位版本号。   |
| version        | String | 兼容的开源数据库版本号，返回三位开源版本号。 |

状态码： 400

表 5-5 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 5-6 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

```
GET https://{endpoint}/mysql/v3/619d3e78f61b4be68bc5aa0b59edcf7b/datastores/gaussdb-mysql
```

## 响应示例

状态码： 200

Success.

```
{  
  "datastores": [{  
    "id": "87620726-6802-46c0-9028-a8785e1f1921",  
    "name": "8.0",  
    "kernel_version": "2.0.51.240300",  
    "version": "8.0.22"  
  }]  
}
```

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 5.2 查询数据库规格

### 5.2.1 查询数据库规格

#### 功能介绍

获取指定数据库引擎版本对应的规格信息。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[查询数据库规格](#)。

#### 调试

您可以在[API Explorer](#)中调试该接口。

#### URI

GET /mysql/v3/{project\_id}/flavors/{database\_name}

表 5-7 路径参数

| 参数            | 是否必选 | 参数类型   | 描述                                                           |
|---------------|------|--------|--------------------------------------------------------------|
| project_id    | 是    | String | 租户在某一region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| database_name | 是    | String | 数据库引擎名称。                                                     |

表 5-8 Query 参数

| 参数                     | 是否必选 | 参数类型   | 描述                                     |
|------------------------|------|--------|----------------------------------------|
| version_name           | 否    | String | 数据库版本号，目前仅支持兼容MySQL 8.0。               |
| availability_zone_mode | 是    | String | 规格的可用区模式，现在仅支持"single"、"multi"，不区分大小写。 |
| spec_code              | 否    | String | 规格编码。                                  |

## 请求参数

表 5-9 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

## 响应参数

状态码： 200

表 5-10 响应 Body 参数

| 参数      | 参数类型                                              | 描述       |
|---------|---------------------------------------------------|----------|
| flavors | Array of <a href="#">MysqlFlavorsInfo</a> objects | 实例规格信息列表 |

表 5-11 MysqlFlavorsInfo

| 参数            | 参数类型   | 描述                                                     |
|---------------|--------|--------------------------------------------------------|
| vcpus         | String | CPU大小。例如：1表示1U。                                        |
| ram           | String | 内存大小，单位为GB。                                            |
| type          | String | 规格类型，取值为arm和x86。                                       |
| id            | String | 规格ID，该字段唯一                                             |
| spec_code     | String | 资源规格编码，同创建指定的flavor_ref。例如：gaussdb.mysql.xlarge.x86.4。 |
| version_name  | String | 数据库版本号。                                                |
| instance_mode | String | 实例类型。目前仅支持Cluster。                                     |

| 参数        | 参数类型               | 描述                                                                                                                                |
|-----------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| az_status | Map<String,String> | 规格所在az的状态，包含以下状态： <ul style="list-style-type: none"><li>• normal，在售</li><li>• unsupported，暂不支持该规格</li><li>• sellout，售罄。</li></ul> |

状态码： 400

表 5-12 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 5-13 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

```
GET https://{endpoint}/mysql/v3/0483b6b16e954cb88930a360d2c4e663/flavors/gaussdb-mysql?version_name=8.0&spec_code=gaussdb.mysql.xlarge.x86.4&availability_zone_mode=single
```

## 响应示例

状态码： 200

Success.

```
{
  "flavors": [ {
    "type": "x86",
    "vcpus": "1",
    "ram": "4",
    "id": "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
    "spec_code": "gaussdb.mysql.xlarge.x86.4",
    "instance_mode": "Cluster",
    "version_name": "8.0",
    "az_status": {
      "cn-north-4a": "normal",
      "cn-north-4b": "normal"
    }
  }
]
```

```
  }  
}
```

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 5.3 实例管理

### 5.3.1 创建数据库实例

#### 功能介绍

创建云数据库 TaurusDB实例。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[创建数据库实例](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

POST /mysql/v3/{project\_id}/instances

表 5-14 路径参数

| 参数         | 是否必选 | 参数类型   | 描述                                                           |
|------------|------|--------|--------------------------------------------------------------|
| project_id | 是    | String | 租户在某一region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |

## 请求参数

表 5-15 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| Content-Type | 是    | String | 内容类型。取值：application/json。                                                                              |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

表 5-16 请求 Body 参数

| 参数          | 是否必选 | 参数类型                                   | 描述                                                                                                                                    |
|-------------|------|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| charge_info | 否    | <a href="#">MysqlChargeInfo</a> object | 计费类型信息，支持包年包月和按需，默认为按需。说明：DeC专属云账号不支持创建包周期。                                                                                           |
| region      | 是    | String                                 | 区域ID。                                                                                                                                 |
| name        | 是    | String                                 | 实例名称。用于表示实例的名称，同一租户下，同类型的实例名可重名。<br>取值范围：最小为4个字符，最大为64个字符且不超过64个字节（注意：一个中文字符占用3个字节），必须以字母或中文开头，区分大小写，可以包含字母、数字、中划线、下划线或中文，不能包含其他特殊字符。 |
| datastore   | 是    | <a href="#">MysqlDatastore</a> object  | 数据库信息。                                                                                                                                |
| mode        | 是    | String                                 | 实例类型，目前仅支持Cluster。                                                                                                                    |

| 参数                       | 是否必选 | 参数类型                              | 描述                                                                                                                                                                          |
|--------------------------|------|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| flavor_ref               | 是    | String                            | 规格码。使用可参考查询数据库规格响应消息表5中的“spec_code”。                                                                                                                                        |
| vpc_id                   | 是    | String                            | 虚拟私有云ID，获取方法如下： <ul style="list-style-type: none"><li>方法1：登录虚拟私有云服务的控制台界面，在虚拟私有云的详情页面查找VPC ID。</li><li>方法2：通过虚拟私有云服务的API接口查询，具体操作可参考<a href="#">查询VPC列表</a>。</li></ul>      |
| subnet_id                | 是    | String                            | 子网的网络ID，获取方法如下： <ul style="list-style-type: none"><li>方法1：登录虚拟私有云服务的控制台界面，单击VPC下的子网，进入子网详情页面，查找网络ID。</li><li>方法2：通过虚拟私有云服务的API接口查询，具体操作可参考<a href="#">查询子网列表</a>。</li></ul> |
| security_group_id        | 否    | String                            | 安全组ID。如果实例所选用的子网开启网络ACL进行访问控制，则该参数非必选。如果未开启ACL进行访问控制，则该参数必选。                                                                                                                |
| configuration_id         | 否    | String                            | 参数模板ID。                                                                                                                                                                     |
| password                 | 是    | String                            | 数据库密码。取值范围：至少包含以下字符的三种：大小写字母、数字和特殊符号 .!@#\$%^*_-=+?,()&，长度8~32个字符。建议您输入高强度密码，以提高安全性，防止出现密码被暴力破解等安全风险。如果您输入弱密码，系统会自动判定密码非法。                                                  |
| backup_strategy          | 否    | <b>MysqlBackupStrategy</b> object | 自动备份策略                                                                                                                                                                      |
| time_zone                | 否    | String                            | 时区。                                                                                                                                                                         |
| availability_zone_mode   | 是    | String                            | 可用区类型,单可用区Single或多可用区multi。                                                                                                                                                 |
| master_availability_zone | 否    | String                            | 主可用区。                                                                                                                                                                       |



| 参数                    | 是否必选 | 参数类型                                       | 描述                                                                                                                                                         |
|-----------------------|------|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| slave_count           | 是    | Integer                                    | 备节点个数。单次接口调用最多支持创建9个备节点。                                                                                                                                   |
| volume                | 否    | <a href="#">MysqlVolume</a> object         | volume信息。创建包周期实例可选。                                                                                                                                        |
| tags                  | 否    | Array of <a href="#">MysqlTags</a> objects | 标签列表，根据标签键值对创建实例。 <ul style="list-style-type: none"><li>• {key}表示标签键，不可以为空或重复。</li><li>• {value}表示标签值，可以为空。</li></ul> 如果创建实例时同时使用多个标签键值对，中间使用逗号分隔，最多包含10组。 |
| enterprise_project_id | 否    | String                                     | 企业项目ID。如果账户开通企业项目服务则该参数必选，未开启该参数不可选。                                                                                                                       |
| dedicated_resource_id | 否    | String                                     | 专属资源池ID，只有开通专属资源池后才可以下发此参数。                                                                                                                                |

表 5-17 MysqlChargeInfo

| 参数          | 是否必选 | 参数类型   | 描述                                                                                                                                                                                                                   |
|-------------|------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| charge_mode | 是    | String | 计费模式。<br>取值范围： <ul style="list-style-type: none"><li>• prePaid: 预付费，即包年/包月。</li><li>• postPaid: 后付费，即按需付费。</li></ul> 枚举值： <ul style="list-style-type: none"><li>• <b>prePaid</b></li><li>• <b>postPaid</b></li></ul> |

| 参数            | 是否必选 | 参数类型    | 描述                                                                                                                                                                                                                                                            |
|---------------|------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| period_type   | 否    | String  | <p>订购周期类型。</p> <p>取值范围：</p> <ul style="list-style-type: none"> <li>• month：包月。</li> <li>• year：包年。</li> </ul> <p>说明：“charge_mode”为“prePaid”时生效，且为必选值。</p> <p>枚举值：</p> <ul style="list-style-type: none"> <li>• <b>month</b></li> <li>• <b>year</b></li> </ul> |
| period_num    | 否    | Integer | <p>“charge_mode”为“prePaid”时生效，且为必选值，指定订购的时间。</p> <p>取值范围：</p> <p>当“period_type”为“month”时，取值为1~9。当“period_type”为“year”时，取值为1~3。</p>                                                                                                                            |
| is_auto_renew | 否    | String  | <p>创建包周期实例时可指定，表示是否自动续订，续订的周期和原周期相同，且续订时会自动支付。</p> <ul style="list-style-type: none"> <li>• true，为自动续订。</li> <li>• false，为不自动续订，默认该方式。</li> </ul> <p>枚举值：</p> <ul style="list-style-type: none"> <li>• <b>true</b></li> <li>• <b>false</b></li> </ul>         |
| is_auto_pay   | 否    | String  | <p>创建包周期时可指定，表示是否自动从客户的账户中支付，此字段不影响自动续订的支付方式。</p> <ul style="list-style-type: none"> <li>• true，为自动支付，默认该方式。</li> <li>• false，为手动支付。</li> </ul> <p>枚举值：</p> <ul style="list-style-type: none"> <li>• <b>true</b></li> <li>• <b>false</b></li> </ul>           |

表 5-18 MysqlDatastore

| 参数             | 是否必选 | 参数类型   | 描述                                                                                        |
|----------------|------|--------|-------------------------------------------------------------------------------------------|
| type           | 是    | String | 数据库引擎，现在只支持 gaussdb-mysql                                                                 |
| version        | 是    | String | 数据库版本。<br>数据库支持的详细版本信息，可调用查询数据库引擎的版本接口获取。                                                 |
| kernel_version | 否    | String | 内核数据库版本。如果需要指定具体的内核版本，请联系客服人员添加白名单。<br>完整的四位内核数据库版本，获取方法请参见查询数据库引擎的版本返回的kernel_version字段。 |

表 5-19 MysqlBackupStrategy

| 参数         | 是否必选 | 参数类型   | 描述                                                                                                                     |
|------------|------|--------|------------------------------------------------------------------------------------------------------------------------|
| start_time | 是    | String | 自动备份开始时间段。自动备份将在该时间一个小时内触发。<br>取值范围：非空，格式必须为 hh:mm-HH:MM且有效，当前时间指UTC时间。<br>1. HH取值必须比hh大1。<br>2. mm和MM取值必须相同，且取值必须为00。 |
| keep_days  | 否    | String | 自动备份保留天数，取值范围：1-732                                                                                                    |

表 5-20 MysqlVolume

| 参数   | 是否必选 | 参数类型   | 描述                                         |
|------|------|--------|--------------------------------------------|
| size | 是    | String | 磁盘大小。默认值为10，单位GB。取值范围：10~128000，必须为10的整数倍。 |

表 5-21 MysqlTags

| 参数    | 是否必选 | 参数类型   | 描述                                                                                         |
|-------|------|--------|--------------------------------------------------------------------------------------------|
| key   | 是    | String | 标签键。最大长度36个unicode字符。key不能为空或者空字符串，不能为空格。字符集：A-Z，a-z，0-9，‘-’，‘_’，UNICODE字符（\u4E00-\u9FFF）。 |
| value | 是    | String | 标签值。最大长度43个unicode字符。可以为空字符串。字符集：A-Z，a-z，0-9，‘.’，‘-’，‘_’，UNICODE字符（\u4E00-\u9FFF）。         |

## 响应参数

状态码： 201

表 5-22 响应 Body 参数

| 参数       | 参数类型                                         | 描述                            |
|----------|----------------------------------------------|-------------------------------|
| instance | <a href="#">MysqlInstanceResponse</a> object | 实例信息                          |
| job_id   | String                                       | 实例创建的任务id。<br>仅创建按需实例时会返回该参数。 |
| order_id | String                                       | 订单号，创建包年包月时返回该参数。             |

表 5-23 MysqlInstanceResponse

| 参数        | 参数类型                                  | 描述                                                                                             |
|-----------|---------------------------------------|------------------------------------------------------------------------------------------------|
| id        | String                                | 实例ID。                                                                                          |
| name      | String                                | 实例名称。用于表示实例的名称，同一租户下，同类型的实例名称可相同。取值范围：4~64个字符之间，必须以字母开头，不区分大小写，可以包含字母、数字、中划线或者下划线，不能包含其它的特殊字符。 |
| status    | String                                | 实例状态。                                                                                          |
| datastore | <a href="#">MysqlDatastore</a> object | 数据库信息。                                                                                         |
| mode      | String                                | 实例类型，仅支持Cluster。                                                                               |

| 参数                       | 参数类型                                       | 描述                      |
|--------------------------|--------------------------------------------|-------------------------|
| configuration_id         | String                                     | 参数组ID。                  |
| port                     | String                                     | 数据库端口信息。                |
| backup_strategy          | <a href="#">MysqlBackupStrategy</a> object | 自动备份策略                  |
| enterprise_project_id    | String                                     | 企业项目ID。                 |
| region                   | String                                     | 区域ID，与请求参数相同。           |
| availability_zone_mode   | String                                     | 可用区模式，与请求参数相同。          |
| master_availability_zone | String                                     | 主可用区ID。                 |
| vpc_id                   | String                                     | 虚拟私有云ID，与请求参数相同。        |
| security_group_id        | String                                     | 安全组ID，与请求参数相同。          |
| subnet_id                | String                                     | 子网ID，与请求参数相同。           |
| flavor_ref               | String                                     | 规格码，与请求参数相同。            |
| charge_info              | <a href="#">MysqlChargeInfo</a> object     | 计费类型信息，支持包年包月和按需，默认为按需。 |

表 5-24 MysqlDatastore

| 参数             | 参数类型   | 描述                                        |
|----------------|--------|-------------------------------------------|
| type           | String | 数据库引擎，现在只支持gaussdb-mysql                  |
| version        | String | 数据库版本。<br>数据库支持的详细版本信息，可调用查询数据库引擎的版本接口获取。 |
| kernel_version | String | 内核数据库版本。如果需要指定具体的内核版本，请联系客服人员添加白名单。       |

表 5-25 MysqlBackupStrategy

| 参数         | 参数类型   | 描述                                                                                                                    |
|------------|--------|-----------------------------------------------------------------------------------------------------------------------|
| start_time | String | 自动备份开始时间段。自动备份将在该时间一个小时内触发。<br>取值范围：非空，格式必须为hh:mm-HH:MM且有效，当前时间指UTC时间。<br>1. HH取值必须比hh大1。<br>2. mm和MM取值必须相同，且取值必须为00。 |
| keep_days  | String | 自动备份保留天数，取值范围：1-732                                                                                                   |

表 5-26 MysqlChargeInfo

| 参数          | 参数类型    | 描述                                                                                                                                                                                                                        |
|-------------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| charge_mode | String  | 计费模式。<br>取值范围： <ul style="list-style-type: none"><li>prePaid：预付费，即包年/包月。</li><li>postPaid：后付费，即按需付费。</li></ul> 枚举值： <ul style="list-style-type: none"><li><b>prePaid</b></li><li><b>postPaid</b></li></ul>                |
| period_type | String  | 订购周期类型。<br>取值范围： <ul style="list-style-type: none"><li>month：包月。</li><li>year：包年。</li></ul> 说明：“charge_mode”为“prePaid”时生效，且为必选值。<br>枚举值： <ul style="list-style-type: none"><li><b>month</b></li><li><b>year</b></li></ul> |
| period_num  | Integer | “charge_mode”为“prePaid”时生效，且为必选值，指定订购的时间。<br>取值范围：<br>当“period_type”为“month”时，取值为1~9。当“period_type”为“year”时，取值为1~3。                                                                                                       |

| 参数            | 参数类型   | 描述                                                                                                                                                                                                                                                    |
|---------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| is_auto_renew | String | <p>创建包周期实例时可指定，表示是否自动续订，续订的周期和原周期相同，且续订时会自动支付。</p> <ul style="list-style-type: none"> <li>• true，为自动续订。</li> <li>• false，为不自动续订，默认该方式。</li> </ul> <p>枚举值：</p> <ul style="list-style-type: none"> <li>• <b>true</b></li> <li>• <b>false</b></li> </ul> |
| is_auto_pay   | String | <p>创建包周期时可指定，表示是否自动从客户的账户中支付，此字段不影响自动续订的支付方式。</p> <ul style="list-style-type: none"> <li>• true，为自动支付，默认该方式。</li> <li>• false，为手动支付。</li> </ul> <p>枚举值：</p> <ul style="list-style-type: none"> <li>• <b>true</b></li> <li>• <b>false</b></li> </ul>   |

状态码： 400

表 5-27 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 5-28 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

创建实例

```
POST https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/instances
{
```

```
"name" : "gaussdb-mysql-instance1",
"region" : "br-iaas-odin1",
"charge_info" : {
  "charge_mode" : "postPaid"
},
"datastore" : {
  "type" : "gaussdb-mysql",
  "version" : "8.0"
},
"mode" : "Cluster",
"flavor_ref" : "gaussdb.mysql.large.x86.4",
"vpc_id" : "3cedfc54-b105-4652-a4e0-847b11576b58",
"subnet_id" : "c1cfa53c-65d3-431e-8552-326bf310c7ad",
"security_group_id" : "fc577a1a-f202-424a-977f-24faec3fdd55",
"configuration_id" : "43570e0de32e40c5a15f831aa5ce4176pr07",
"password" : "Hu2wei@13",
"backup_strategy" : {
  "start_time" : "08:00-09:00"
},
"availability_zone_mode" : "single",
"slave_count" : 1,
"enterprise_project_id" : 0
}
```

## 响应示例

**状态码： 201**

Success.

```
{
  "instance" : {
    "id" : "5eebbb4c0f9f4a99b42ed1b6334569aain07",
    "name" : "gaussdb-mysql-instance1",
    "status" : "BUILD",
    "region" : "br-iaas-odin1",
    "charge_info" : {
      "charge_mode" : "postPaid"
    },
    "datastore" : {
      "type" : "gaussdb-mysql",
      "version" : "8.0",
      "kernel_version" : "2.0.51.240300"
    },
    "mode" : "Cluster",
    "port" : "3306",
    "enterprise_project_id" : "0",
    "flavor_ref" : "gaussdb.mysql.large.x86.4",
    "vpc_id" : "3cedfc54-b105-4652-a4e0-847b11576b58",
    "subnet_id" : "c1cfa53c-65d3-431e-8552-326bf310c7ad",
    "security_group_id" : "fc577a1a-f202-424a-977f-24faec3fdd55",
    "configuration_id" : "43570e0de32e40c5a15f831aa5ce4176pr07",
    "backup_strategy" : {
      "start_time" : "08:00-09:00",
      "keep_days" : 7
    },
    "availability_zone_mode" : "single",
    "slave_count" : 1
  },
  "job_id" : "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```



## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 201 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 5.3.2 查询实例列表

### 功能介绍

根据指定条件查询实例列表。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[查询实例列表](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

GET /mysql/v3/{project\_id}/instances

表 5-29 路径参数

| 参数         | 是否必选 | 参数类型   | 描述                                                           |
|------------|------|--------|--------------------------------------------------------------|
| project_id | 是    | String | 租户在某一region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |

表 5-30 Query 参数

| 参数             | 是否必选 | 参数类型    | 描述                                                                      |
|----------------|------|---------|-------------------------------------------------------------------------|
| id             | 否    | String  | 实例ID。“ ”为系统保留字符，如果id是以“ ”起始，表示按照“ ”后面的值模糊匹配，否则，按照id精确匹配查询。不能只传入“ ”。     |
| name           | 否    | String  | 实例名称。“ ”为系统保留字符，如果name是以“ ”起始，表示按照“ ”后面的值模糊匹配，否则，按照name精确匹配查询。不能只传入“ ”。 |
| type           | 否    | String  | 按照实例类型查询。目前仅支持Cluster。                                                  |
| datastore_type | 否    | String  | 数据库类型，现在只支持gaussdb-mysql。                                               |
| vpc_id         | 否    | String  | 虚拟私有云ID。                                                                |
| subnet_id      | 否    | String  | 子网的网络ID信息。                                                              |
| offset         | 否    | Integer | 索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。  |
| limit          | 否    | Integer | 查询记录数。默认为100，不能为负数，最小值为1，最大值为100。                                       |

## 请求参数

表 5-31 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |

| 参数         | 是否必选 | 参数类型   | 描述                                                                                       |
|------------|------|--------|------------------------------------------------------------------------------------------|
| X-Language | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul> |

## 响应参数

状态码： 200

表 5-32 响应 Body 参数

| 参数          | 参数类型                                                   | 描述      |
|-------------|--------------------------------------------------------|---------|
| instances   | Array of <a href="#">MysqlInstanceListInfo</a> objects | 实例列表信息。 |
| total_count | Integer                                                | 总记录数。   |

表 5-33 MysqlInstanceListInfo

| 参数   | 参数类型   | 描述       |
|------|--------|----------|
| id   | String | 实例ID。    |
| name | String | 创建的实例名称。 |

| 参数                | 参数类型                                  | 描述                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| status            | String                                | 实例状态。<br>取值：<br><ul style="list-style-type: none"> <li>● BUILD：表示实例正在创建。</li> <li>● ACTIVE：表示实例正常。</li> <li>● FAILED：表示实例创建失败。</li> <li>● FROZEN：表示实例冻结。</li> <li>● MODIFYING：表示实例正在扩容。</li> <li>● REBOOTING：表示实例正在重启。</li> <li>● RESTORING：表示实例正在恢复。</li> <li>● SWITCHOVER：表示实例正在主备切换。</li> <li>● MIGRATING：表示实例正在迁移。</li> <li>● BACKING UP：表示实例正在进行备份。</li> <li>● MODIFYING DATABASE PORT：表示实例正在修改数据库端口。</li> <li>● STORAGE FULL：表示实例磁盘空间满。</li> </ul> |
| private_ips       | Array of strings                      | 实例写内网IP地址列表。弹性云服务器创建成功后该值存在，其他情况下为空字符串。                                                                                                                                                                                                                                                                                                                                                                                                                  |
| public_ips        | Array of strings                      | 实例外网IP地址列表。                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| port              | String                                | 数据库端口号。                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| type              | String                                | 实例类型，取值为“Cluster”。                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| region            | String                                | 实例所在区域。                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| datastore         | <a href="#">MysqlDatastore</a> object | 数据库信息。                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| created           | String                                | 创建时间，格式为"yyyy-mm-ddThh:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如北京时间偏移显示为+0800。说明：创建时返回值为空，数据库实例创建成功后该值不为空。                                                                                                                                                                                                                                                                                                                                                        |
| updated           | String                                | 更新时间，格式与"created"字段对应格式完全相同。说明：创建时返回值为空，数据库实例创建成功后该值不为空。                                                                                                                                                                                                                                                                                                                                                                                                 |
| db_user_name      | String                                | 默认用户名。                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| vpc_id            | String                                | 虚拟私有云ID。                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| subnet_id         | String                                | 子网的网络ID信息。                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| security_group_id | String                                | 安全组ID。                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

| 参数                    | 参数类型                                       | 描述                             |
|-----------------------|--------------------------------------------|--------------------------------|
| flavor_ref            | String                                     | 规格码。                           |
| flavor_info           | <a href="#">MysqlFlavorInfo</a> object     | flavor规格信息。                    |
| volume                | <a href="#">MysqlVolumeInfo</a> object     | 存储盘信息。                         |
| backup_strategy       | <a href="#">MysqlBackupStrategy</a> object | 自动备份策略                         |
| enterprise_project_id | String                                     | 企业项目ID。                        |
| time_zone             | String                                     | 时区。                            |
| charge_info           | <a href="#">MysqlChargeInfo</a> object     | 计费类型信息，支持包年包月和按需，默认为按需。        |
| dedicated_resource_id | String                                     | 专属资源池ID，只有数据库实例属于专属资源池才会返回该参数。 |

表 5-34 MysqlDatastore

| 参数      | 参数类型   | 描述                                        |
|---------|--------|-------------------------------------------|
| type    | String | 数据库引擎，现在只支持gaussdb-mysql                  |
| version | String | 数据库版本。<br>数据库支持的详细版本信息，可调用查询数据库引擎的版本接口获取。 |

表 5-35 MysqlFlavorInfo

| 参数    | 参数类型   | 描述         |
|-------|--------|------------|
| vcpus | String | CPU核数。     |
| ram   | String | 内存大小，单位GB。 |

表 5-36 MysqlVolumeInfo

| 参数   | 参数类型   | 描述            |
|------|--------|---------------|
| type | String | 磁盘类型。         |
| size | String | 已使用磁盘大小，单位GB。 |

表 5-37 MysqlBackupStrategy

| 参数         | 参数类型   | 描述                                                                                                                    |
|------------|--------|-----------------------------------------------------------------------------------------------------------------------|
| start_time | String | 自动备份开始时间段。自动备份将在该时间一个小时内触发。<br>取值范围：非空，格式必须为hh:mm-HH:MM且有效，当前时间指UTC时间。<br>1. HH取值必须比hh大1。<br>2. mm和MM取值必须相同，且取值必须为00。 |
| keep_days  | String | 自动备份保留天数，取值范围：1-732                                                                                                   |

表 5-38 MysqlChargeInfo

| 参数          | 参数类型    | 描述                                                                                                                                                                                                                        |
|-------------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| charge_mode | String  | 计费模式。<br>取值范围： <ul style="list-style-type: none"><li>prePaid：预付费，即包年/包月。</li><li>postPaid：后付费，即按需付费。</li></ul> 枚举值： <ul style="list-style-type: none"><li><b>prePaid</b></li><li><b>postPaid</b></li></ul>                |
| period_type | String  | 订购周期类型。<br>取值范围： <ul style="list-style-type: none"><li>month：包月。</li><li>year：包年。</li></ul> 说明：“charge_mode”为“prePaid”时生效，且为必选值。<br>枚举值： <ul style="list-style-type: none"><li><b>month</b></li><li><b>year</b></li></ul> |
| period_num  | Integer | “charge_mode”为“prePaid”时生效，且为必选值，指定订购的时间。<br>取值范围：<br>当“period_type”为“month”时，取值为1~9。当“period_type”为“year”时，取值为1~3。                                                                                                       |

| 参数            | 参数类型   | 描述                                                                                                                                                                                                                                                    |
|---------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| is_auto_renew | String | <p>创建包周期实例时可指定，表示是否自动续订，续订的周期和原周期相同，且续订时会自动支付。</p> <ul style="list-style-type: none"> <li>• true，为自动续订。</li> <li>• false，为不自动续订，默认该方式。</li> </ul> <p>枚举值：</p> <ul style="list-style-type: none"> <li>• <b>true</b></li> <li>• <b>false</b></li> </ul> |
| is_auto_pay   | String | <p>创建包周期时可指定，表示是否自动从客户的账户中支付，此字段不影响自动续订的支付方式。</p> <ul style="list-style-type: none"> <li>• true，为自动支付，默认该方式。</li> <li>• false，为手动支付。</li> </ul> <p>枚举值：</p> <ul style="list-style-type: none"> <li>• <b>true</b></li> <li>• <b>false</b></li> </ul>   |

状态码： 400

表 5-39 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 5-40 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

查询实例列表

```
GET https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/instances?
id=ed7cc6166ec24360a5ed5c5c9c2ed726in01&name=hy&type=Cluster&datastore_type=gaussdb-
```

```
mysql&vpc_id=19e5d45d-70fd-4a91-87e9-  
b27e71c9891f&subnet_id=bd51fb45-2dcb-4296-8783-8623bfe89bb7&offset=0&limit=10
```

## 响应示例

状态码: 200

Success.

```
{  
  "instances": [ {  
    "id": "d738399de028480fabb2b8120d4e01a4in07",  
    "status": "ACTIVE",  
    "name": "gaussdb-mysql-instance01",  
  
    "private_ips": ["192.168.100.136"],  
    "readonly_private_ips": ["192.168.100.78","192.168.100.147"],  
    "proxy_ips": ["192.168.100.83"],  
    "port": "3306",  
    "type": "Cluster",  
    "private_ips": [ "192.168.0.142" ],  
    "db_user_name": "root",  
    "region": "cn-north-4",  
    "datastore": {  
      "type": "gaussdb-mysql",  
      "version": "8.0",  
      "kernel_version": "2.0.54.240600"  
    },  
    "created": "2018-08-20T02:33:49_0800",  
    "updated": "2018-08-20T02:33:49_0800",  
    "volume": {  
      "type": "POOL",  
      "used_size": 100  
    },  
    "vpc_id": "3cedfc54-b105-4652-a4e0-847b11576b58",  
    "subnet_id": "c1cfa53c-65d3-431e-8552-326bf310c7ad",  
    "security_group_id": "fc577a1a-f202-424a-977f-24faec3fdd55",  
    "flavor_ref": "gaussdb.mysql.c3.small.4",  
    "flavor_info": {  
      "vcpus": 8,  
      "ram": 16  
    },  
    "backup_strategy": {  
      "start_time": "19:00-20:00",  
      "keep_days": 7  
    },  
    "charge_info": {  
      "charge_mode": "postPaid"  
    },  
    "enterprise_project_id": 0,  
    "time_zone": "UTC",  
    "tags": [ ],  
    "dedicated_resource_id": ""  
  } ],  
  "total_count": 1  
}
```

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |



| 状态码 | 描述            |
|-----|---------------|
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

### 5.3.3 查询实例列表

#### 功能介绍

根据指定条件查询实例列表。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[查询实例列表](#)。

#### 调试

您可以在[API Explorer](#)中调试该接口。

#### URI

GET /v3/{project\_id}/instances

表 5-41 路径参数

| 参数         | 是否必选 | 参数类型   | 描述                                                           |
|------------|------|--------|--------------------------------------------------------------|
| project_id | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |

表 5-42 Query 参数

| 参数 | 是否必选 | 参数类型   | 描述                                                                  |
|----|------|--------|---------------------------------------------------------------------|
| id | 否    | String | 实例ID。“*”为系统保留字符，如果id是以“*”起始，表示按照“*”后面的值模糊匹配，否则，按照id精确匹配查询。不能只传入“*”。 |

| 参数                  | 是否必选 | 参数类型    | 描述                                                                                                                                                                      |
|---------------------|------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| name                | 否    | String  | 实例名称。<br>“*”为系统保留字符，如果name是以“*”起始，表示按照“*”后面的值模糊匹配，否则，按照name精确匹配查询。不能只传入“*”。                                                                                             |
| type                | 否    | String  | 按照实例类型查询。目前仅支持Cluster。                                                                                                                                                  |
| datastore_type      | 否    | String  | 数据库类型，现在只支持gaussdb-mysql。                                                                                                                                               |
| vpc_id              | 否    | String  | 虚拟私有云ID。                                                                                                                                                                |
| subnet_id           | 否    | String  | 子网的网络ID信息。                                                                                                                                                              |
| private_ip          | 否    | String  | 读写内网IP地址。                                                                                                                                                               |
| readonly_private_ip | 否    | String  | 读内网IP地址。                                                                                                                                                                |
| proxy_ip            | 否    | String  | 读写分离IP地址。                                                                                                                                                               |
| offset              | 否    | Integer | 索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。                                                                                                  |
| limit               | 否    | Integer | 查询记录数。默认为100，不能为负数，最小值为1，最大值为100。                                                                                                                                       |
| tags                | 否    | String  | 根据实例标签键值对进行查询。 <ul style="list-style-type: none"><li>• {key}表示标签键。</li><li>• {value}表示标签值。</li></ul> 如果同时使用多个标签键值对进行查询，中间使用逗号分隔开，表示查询同时包含指定标签键值对的实例。key不能重复，key之间是与的关系。 |

## 请求参数

表 5-43 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

## 响应参数

状态码： 200

表 5-44 响应 Body 参数

| 参数          | 参数类型                                                   | 描述      |
|-------------|--------------------------------------------------------|---------|
| instances   | Array of <a href="#">MysqlInstanceListInfo</a> objects | 实例列表信息。 |
| total_count | Integer                                                | 总记录数。   |

表 5-45 MysqlInstanceListInfo

| 参数   | 参数类型   | 描述               |
|------|--------|------------------|
| id   | String | 实例ID，严格匹配UUID规则。 |
| name | String | 创建的实例名称。         |

| 参数                   | 参数类型                                          | 描述                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------------------|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| status               | String                                        | 实例状态。<br>取值：<br><ul style="list-style-type: none"> <li>● BUILD：表示实例正在创建。</li> <li>● ACTIVE：表示实例正常。</li> <li>● FAILED：表示实例创建失败。</li> <li>● FROZEN：表示实例冻结。</li> <li>● MODIFYING：表示实例正在扩容。</li> <li>● REBOOTING：表示实例正在重启。</li> <li>● RESTORING：表示实例正在恢复。</li> <li>● SWITCHOVER：表示实例正在主备切换。</li> <li>● MIGRATING：表示实例正在迁移。</li> <li>● BACKING UP：表示实例正在进行备份。</li> <li>● MODIFYING DATABASE PORT：表示实例正在修改数据库端口。</li> <li>● STORAGE FULL：表示实例磁盘空间满。</li> </ul> |
| private_ips          | Array of strings                              | 实例写内网IP地址列表。弹性云服务器创建成功后该值存在，其他情况下为空字符串。                                                                                                                                                                                                                                                                                                                                                                                                                  |
| proxy_ips            | Array of strings                              | 实例读写分离IP地址列表。TaurusDB实例开启代理成功后该值存在，其他情况下为空列表。                                                                                                                                                                                                                                                                                                                                                                                                            |
| readonly_private_ips | Array of strings                              | 实例读内网IP地址列表。弹性云服务器创建成功后该值存在，其他情况下为空列表。                                                                                                                                                                                                                                                                                                                                                                                                                   |
| public_ips           | Array of strings                              | 实例外网IP地址列表。                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| port                 | String                                        | 数据库端口号。                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| type                 | String                                        | 实例类型，取值为“Cluster”。                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| region               | String                                        | 实例所在区域。                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| datastore            | <b>MySQLDatastoreWithKernelVersion</b> object | 数据库信息。                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| created              | String                                        | 创建时间，格式为"yyyy-mm-ddThh:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。                                                                                                                                                                                                                                                                                                                                                                                    |
| updated              | String                                        | 更新时间，格式与"created"字段对应格式完全相同。                                                                                                                                                                                                                                                                                                                                                                                                                             |
| db_username          | String                                        | 默认用户名。                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

| 参数                    | 参数类型                                             | 描述                             |
|-----------------------|--------------------------------------------------|--------------------------------|
| vpc_id                | String                                           | 虚拟私有云ID。                       |
| subnet_id             | String                                           | 子网的网络ID信息。                     |
| security_group_id     | String                                           | 安全组ID。                         |
| flavor_ref            | String                                           | 规格码。                           |
| flavor_info           | <a href="#">MysqlFlavorInfo</a> object           | flavor规格信息。                    |
| volume                | <a href="#">MysqlVolumeInfo</a> object           | 存储盘信息。                         |
| backup_strategy       | <a href="#">MysqlBackupStrategy</a> object       | 自动备份策略。                        |
| enterprise_project_id | String                                           | 企业项目ID。                        |
| time_zone             | String                                           | 时区。                            |
| charge_info           | <a href="#">MysqlChargeInfo</a> object           | 计费类型信息，支持包年包月和按需，默认为按需。        |
| dedicated_resource_id | String                                           | 专属资源池ID，只有数据库实例属于专属资源池才会返回该参数。 |
| tags                  | Array of <a href="#">InstanceTagItem</a> objects | 标签列表。                          |

表 5-46 MysqlDatastoreWithKernelVersion

| 参数             | 参数类型   | 描述                        |
|----------------|--------|---------------------------|
| type           | String | 数据库引擎，现在只支持gaussdb-mysql。 |
| version        | String | 数据库版本。                    |
| kernel_version | String | 数据库内核版本。                  |

表 5-47 MysqlFlavorInfo

| 参数    | 参数类型   | 描述         |
|-------|--------|------------|
| vcpus | String | CPU核数。     |
| ram   | String | 内存大小，单位GB。 |

表 5-48 MysqlVolumeInfo

| 参数   | 参数类型   | 描述            |
|------|--------|---------------|
| type | String | 磁盘类型。         |
| size | String | 已使用磁盘大小，单位GB。 |

表 5-49 MysqlBackupStrategy

| 参数         | 参数类型   | 描述                                                                                                                    |
|------------|--------|-----------------------------------------------------------------------------------------------------------------------|
| start_time | String | 自动备份开始时间段。自动备份将在该时间一个小时内触发。<br>取值范围：非空，格式必须为hh:mm-HH:MM且有效，当前时间指UTC时间。<br>1. HH取值必须比hh大1。<br>2. mm和MM取值必须相同，且取值必须为00。 |
| keep_days  | String | 自动备份保留天数，取值范围：1-732。                                                                                                  |

表 5-50 MysqlChargeInfo

| 参数          | 参数类型   | 描述                                                                                                                                                                                                                        |
|-------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| charge_mode | String | 计费模式。<br>取值范围： <ul style="list-style-type: none"><li>prePaid：预付费，即包年/包月。</li><li>postPaid：后付费，即按需付费。</li></ul> 枚举值： <ul style="list-style-type: none"><li><b>prePaid</b></li><li><b>postPaid</b></li></ul>                |
| period_type | String | 订购周期类型。<br>取值范围： <ul style="list-style-type: none"><li>month：包月。</li><li>year：包年。</li></ul> 说明：“charge_mode”为“prePaid”时生效，且为必选值。<br>枚举值： <ul style="list-style-type: none"><li><b>month</b></li><li><b>year</b></li></ul> |

| 参数            | 参数类型    | 描述                                                                                                                                                                      |
|---------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| period_num    | Integer | “charge_mode”为“prePaid”时生效，且为必选值，指定订购的时间。<br>取值范围： <ul style="list-style-type: none"><li>“period_type”为“month”时，取值为1~9。</li><li>“period_type”为“year”时，取值为1~3。</li></ul> |
| is_auto_renew | String  | 创建包年/包月实例时可指定，表示是否自动续订，续订的周期和原周期相同，且续订时会自动支付。 <ul style="list-style-type: none"><li>true：为自动续订。</li><li>false：为不自动续订，默认该方式。</li></ul>                                   |
| is_auto_pay   | String  | 创建包年/包月实例时可指定，表示是否自动从客户的帐户中支付，此字段不影响自动续订的支付方式。 <ul style="list-style-type: none"><li>true：为自动支付，默认该方式。</li><li>false：为手动支付。</li></ul>                                   |

表 5-51 InstanceTagItem

| 参数    | 参数类型   | 描述   |
|-------|--------|------|
| key   | String | 标签键。 |
| value | String | 标签值。 |

状态码：400

表 5-52 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码：500

表 5-53 响应 Body 参数

| 参数         | 参数类型   | 描述   |
|------------|--------|------|
| error_code | String | 错误码。 |

| 参数        | 参数类型   | 描述    |
|-----------|--------|-------|
| error_msg | String | 错误消息。 |

## 请求示例

查询TaurusDB实例列表，读写内网IP地址是192.168.0.142。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances?
id=61a4ea66210545909d74a05c27a7179ein07&name=gaussdb-mysql-
instance01&type=Cluster&datastore_type=gaussdb-mysql&vpc_id=3cedfc54-b105-4652-
a4e0-847b11576b58&subnet_id=c1cfa53c-65d3-431e-8552-326bf310c7ad&private_ip=192.168.0.142&offset=
0&limit=10&tags=taurusKey1=value1
```

## 响应示例

状态码： 200

Success.

```
{
  "instances": [ {
    "id": "61a4ea66210545909d74a05c27a7179ein07",
    "status": "ACTIVE",
    "name": "gaussdb-mysql-instance01",

    "private_ips": [ "192.168.0.142" ],
    "readonly_private_ips": [ "192.168.0.228", "192.168.0.165" ],
    "proxy_ips": [ "192.168.0.15" ],
    "port": 3306,
    "type": "Cluster",
    "db_user_name": "root",
    "region": "cn-north-4",
    "datastore": {
      "type": "gaussdb-mysql",
      "version": "8.0",
      "kernel_version": "2.0.29.1"
    },
    "created": "2018-08-20T02:33:49_0800",
    "updated": "2018-08-20T02:33:49_0800",
    "volume": {
      "type": "POOL",
      "size": 100
    },
    "vpc_id": "3cedfc54-b105-4652-a4e0-847b11576b58",
    "subnet_id": "c1cfa53c-65d3-431e-8552-326bf310c7ad",
    "security_group_id": "fc577a1a-f202-424a-977f-24faec3fdd55",
    "flavor_ref": "gaussdb.mysql.c3.small.4",
    "flavor_info": {
      "vcpus": 8,
      "ram": 16
    },
    "backup_strategy": {
      "start_time": "19:00-20:00",
      "keep_days": 7
    },
    "charge_info": {
      "charge_mode": "postPaid"
    },
    "enterprise_project_id": 0,
    "time_zone": "UTC",
    "tags": [ {
      "key": "taurusKey1",
```



```
"value": "value1"  
  }],  
  "dedicated_resource_id": ""  
}],  
"total_count": 1  
}
```

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 5.3.4 删除实例

### 功能介绍

删除数据库实例，不支持删除包周期实例。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[删除实例](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

DELETE /mysql/v3/{project\_id}/instances/{instance\_id}

表 5-54 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 5-55 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| Content-Type | 是    | String | 内容类型。取值：application/json。                                                                              |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

## 响应参数

状态码： 200

表 5-56 响应 Body 参数

| 参数       | 参数类型   | 描述    |
|----------|--------|-------|
| job_id   | String | 任务ID。 |
| order_id | String | 订单ID。 |

状态码： 400

表 5-57 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 5-58 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

```
DELETE https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/instances/  
3d39c18788b54a919bab633874c159dfin01
```

## 响应示例

状态码: 200

Server error.

```
{  
  "job_id": "04efe8e2-9255-44ae-a98b-d87cae411890",  
  "order_id": null  
}
```

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 5.3.5 查询实例详情信息

### 功能介绍

查询实例详情信息。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[查询实例详情信息](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

GET /mysql/v3/{project\_id}/instances/{instance\_id}

表 5-59 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID。                                                        |

## 请求参数

表 5-60 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

## 响应参数

状态码： 200

表 5-61 响应 Body 参数

| 参数       | 参数类型                                           | 描述    |
|----------|------------------------------------------------|-------|
| instance | <a href="#">MysqlInstanceInfoDetail</a> object | 实例信息。 |

表 5-62 MysqlInstanceInfoDetail

| 参数                | 参数类型                                  | 描述                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| id                | String                                | 实例ID。                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| name              | String                                | 创建的实例名称。                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| project_id        | String                                | 租户在某一region下的project ID。                                                                                                                                                                                                                                                                                                                                                                                                                 |
| status            | String                                | 实例状态。<br>取值： <ul style="list-style-type: none"><li>● BUILD：表示实例正在创建。</li><li>● ACTIVE：表示实例正常。</li><li>● FAILED：表示实例创建失败。</li><li>● FROZEN：表示实例冻结。</li><li>● MODIFYING：表示实例正在扩容。</li><li>● REBOOTING：表示实例正在重启。</li><li>● RESTORING：表示实例正在恢复。</li><li>● SWITCHOVER：表示实例正在主备切换。</li><li>● MIGRATING：表示实例正在迁移。</li><li>● BACKING UP：表示实例正在进行备份。</li><li>● MODIFYING DATABASE PORT：表示实例正在修改数据库端口。</li><li>● STORAGE FULL：表示实例磁盘空间满。</li></ul> |
| port              | String                                | 数据库端口号。                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| type              | String                                | 实例类型，取值为“Cluster”。                                                                                                                                                                                                                                                                                                                                                                                                                       |
| node_count        | Integer                               | 节点个数。                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| datastore         | <a href="#">MysqlDatastore</a> object | 数据库信息。                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| backup_used_space | Number                                | 备份空间使用大小，单位为GB。                                                                                                                                                                                                                                                                                                                                                                                                                          |
| created           | String                                | 创建时间，格式为"yyyy-mm-ddThh:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如北京时间偏移显示为+0800。说明：创建时返回值为空，数据库实例创建成功后该值不为空。                                                                                                                                                                                                                                                                                                                                        |
| updated           | String                                | 更新时间，格式与"created"字段对应格式完全相同。说明：创建时返回值为空，数据库实例创建成功后该值不为空。                                                                                                                                                                                                                                                                                                                                                                                 |
| private_write_ips | Array of strings                      | 实例的写内网IP。                                                                                                                                                                                                                                                                                                                                                                                                                                |
| public_ips        | String                                | 实例的公网IP。                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| 参数                    | 参数类型                                          | 描述                              |
|-----------------------|-----------------------------------------------|---------------------------------|
| db_user_name          | String                                        | 默认用户名。                          |
| vpc_id                | String                                        | 虚拟私有云ID。                        |
| subnet_id             | String                                        | 子网的网络ID信息。                      |
| security_group_id     | String                                        | 安全组ID。                          |
| configuration_id      | String                                        | 实例创建的模板ID, 或者应用到实例的最新参数组模板ID。   |
| volume                | <b>MysqlVolumeInfo</b> object                 | 存储盘信息。                          |
| backup_strategy       | <b>MysqlBackupStrategy</b> object             | 自动备份策略                          |
| nodes                 | Array of <b>MysqlInstanceNodeInfo</b> objects | 节点信息。                           |
| enterprise_project_id | String                                        | 企业项目ID。                         |
| time_zone             | String                                        | 时区。                             |
| az_mode               | String                                        | 可用区模式, 单可用区single或多可用区multi。    |
| master_az_code        | String                                        | 主可用区。                           |
| maintenance_window    | String                                        | 可维护时间窗, 为UTC时间。                 |
| tags                  | Array of <b>MysqlTags</b> objects             | 实例标签。                           |
| dedicated_resource_id | String                                        | 专属资源池ID, 只有数据库实例属于专属资源池才会返回该参数。 |

表 5-63 MysqlDatastore

| 参数   | 参数类型   | 描述                        |
|------|--------|---------------------------|
| type | String | 数据库引擎, 现在只支持gaussdb-mysql |

| 参数             | 参数类型   | 描述                                        |
|----------------|--------|-------------------------------------------|
| version        | String | 数据库版本。<br>数据库支持的详细版本信息，可调用查询数据库引擎的版本接口获取。 |
| kernel_version | String | 数据库内核版本。                                  |

表 5-64 MysqlVolumeInfo

| 参数   | 参数类型   | 描述            |
|------|--------|---------------|
| type | String | 磁盘类型。         |
| size | String | 已使用磁盘大小，单位GB。 |

表 5-65 MysqlBackupStrategy

| 参数         | 参数类型   | 描述                                                                                                                    |
|------------|--------|-----------------------------------------------------------------------------------------------------------------------|
| start_time | String | 自动备份开始时间段。自动备份将在该时间一个小时内触发。<br>取值范围：非空，格式必须为hh:mm-HH:MM且有效，当前时间指UTC时间。<br>1. HH取值必须比hh大1。<br>2. mm和MM取值必须相同，且取值必须为00。 |
| keep_days  | String | 自动备份保留天数。                                                                                                             |

表 5-66 MysqlInstanceNodeInfo

| 参数               | 参数类型                                   | 描述                 |
|------------------|----------------------------------------|--------------------|
| id               | String                                 | 实例ID。              |
| name             | String                                 | 节点名称。              |
| type             | String                                 | 节点类型，master或slave。 |
| status           | String                                 | 节点状态。              |
| port             | Integer                                | 数据库端口号。            |
| private_read_ips | Array of strings                       | 节点的读内网地址。          |
| volume           | <a href="#">MysqlVolumeInfo</a> object | 存储盘信息。             |

| 参数              | 参数类型    | 描述                                                                                                |
|-----------------|---------|---------------------------------------------------------------------------------------------------|
| az_code         | String  | 可用区。                                                                                              |
| region_code     | String  | 实例所在的区域。                                                                                          |
| created         | String  | 创建时间，格式为"yyyy-mm-ddThh:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如北京时间偏移显示为+0800。说明：创建时返回值为空，数据库实例创建成功后该值不为空。 |
| updated         | String  | 更新时间，格式与"created"字段对应格式完全相同。说明：创建时返回值为空，数据库实例创建成功后该值不为空。                                          |
| flavor_ref      | String  | 规格码。                                                                                              |
| max_connections | String  | 允许的最大连接数。                                                                                         |
| vcpus           | String  | CPU核数。                                                                                            |
| ram             | String  | 内存大小，单位为GB。                                                                                       |
| need_restart    | Boolean | 是否需要重启使修改的参数生效。                                                                                   |
| priotiry        | Integer | 主备倒换优先级。                                                                                          |

表 5-67 MysqlTags

| 参数    | 参数类型   | 描述                                                                                         |
|-------|--------|--------------------------------------------------------------------------------------------|
| key   | String | 标签键。最大长度36个unicode字符。key不能为空或者空字符串，不能为空格。字符集：A-Z，a-z，0-9，'-'，'_'，UNICODE字符（\u4E00-\u9FFF）。 |
| value | String | 标签值。最大长度43个unicode字符。可以为空字符串。字符集：A-Z，a-z，0-9，'.'，'-'，'_'，UNICODE字符（\u4E00-\u9FFF）。         |

状态码：400

表 5-68 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |



状态码： 500

表 5-69 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

查询实例详情信息

```
GET https://{endpoint}/mysql/v3/97b026aa9cc4417888c14c84a1ad9860/instances/  
436aaafb689c4250a9a5bb33cb271e8cin07
```

## 响应示例

状态码： 200

Success.

```
{  
  "instance": {  
    "id": "d738399de028480fabb2b8120d4e01a4in07",  
    "name": "gaussdb-mysql-instance01",  
    "project_id": "3cedfc54-b105-4652-a4e0-847b11576628",  
    "status": "ACTIVE",  
    "port": 3306,  
    "type": "Cluster",  
    "node_count": 2,  
    "backup_used_space": 20,  
    "private_write_ips": [ "192.168.0.142" ],  
    "public_ips": [ "10.154.219.187" ],  
    "db_user_name": "root",  
    "datastore": {  
      "type": "gaussdb-mysql",  
      "version": "8.0.22",  
      "kernel_version": "2.0.48.231200"  
    },  
    "created": "2018-08-20T02:33:49+0800",  
    "updated": "2018-08-20T02:33:49+0800",  
    "volume": {  
      "type": "POOL",  
      "used_size": 100  
    },  
    "vpc_id": "3cedfc54-b105-4652-a4e0-847b11576b58",  
    "subnet_id": "c1cfa53c-65d3-431e-8552-326bf310c7ad",  
    "security_group_id": "fc577a1a-f202-424a-977f-24faec3fdd55",  
    "configuration_id": "3cedfc54-b105-4652-a4e0-24faec3fdd23",  
    "backup_strategy": {  
      "start_time": "19:00-20:00",  
      "keep_days": 7  
    },  
    "enterprise_project_id": 0,  
    "time_zone": "UTC+08:00",  
    "az_mode": "single",  
    "master_az_code": "cn-north-4b",  
    "maintenance_window": "18:00-22:00",  
    "nodes": [ {  
      "id": "799a0f2fa49a4151bf9f7063c1fbba36no07",  
      "name": "gauss-d616-lb07_node01",  
    }  
  ]  
}
```

```
"type": "master",
"status": "normal",
"port": 3306,
"private_read_ips": [ "192.168.0.163" ],
"volume": {
  "type": "POOL",
  "used": 0.0
},
"az_code": "cn-north-4b",
"region_code": "cn-north-4",
"flavor_id": "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
"flavor_ref": "taurus.large.4",
"max_connections": null,
"vcpus": 1,
"ram": 4,
"need_restart": false,
"priority": 1
}, {
  "id": "799a0f2fa49a4151bf9f7063c1fbba35no07",
  "name": "gauss-d616-lb07_node02",
  "type": "slave",
  "status": "normal",
  "port": 3306,
  "private_read_ips": [ "192.168.0.162" ],
  "volume": {
    "type": "POOL",
    "used": 0.0
  },
  "az_code": "cn-north-4b",
  "region_code": "cn-north-4",
  "flavor_id": "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
  "flavor_ref": "taurus.large.4",
  "max_connections": null,
  "vcpus": 1,
  "ram": 4,
  "need_restart": false,
  "priority": 1
}]
}
}
```

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 201 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 5.3.6 查询实例详情信息

### 功能介绍

查询实例详情信息。

### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[查询实例详情信息](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

GET /v3/{project\_id}/instances/{instance\_id}

表 5-70 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 5-71 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

## 响应参数

状态码： 200

表 5-72 响应 Body 参数

| 参数       | 参数类型                                           | 描述    |
|----------|------------------------------------------------|-------|
| instance | <a href="#">MysqlInstanceInfoDetail</a> object | 实例信息。 |

表 5-73 MysqlInstanceInfoDetail

| 参数          | 参数类型                                           | 描述                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| id          | String                                         | 实例ID，严格匹配UUID规则。                                                                                                                                                                                                                                                                                                                                                                                                                         |
| name        | String                                         | 创建的实例名称。                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| project_id  | String                                         | 租户在某一Region下的project ID。                                                                                                                                                                                                                                                                                                                                                                                                                 |
| status      | String                                         | 实例状态。<br>取值： <ul style="list-style-type: none"><li>● BUILD：表示实例正在创建。</li><li>● ACTIVE：表示实例正常。</li><li>● FAILED：表示实例创建失败。</li><li>● FROZEN：表示实例冻结。</li><li>● MODIFYING：表示实例正在扩容。</li><li>● REBOOTING：表示实例正在重启。</li><li>● RESTORING：表示实例正在恢复。</li><li>● SWITCHOVER：表示实例正在主备切换。</li><li>● MIGRATING：表示实例正在迁移。</li><li>● BACKING UP：表示实例正在进行备份。</li><li>● MODIFYING DATABASE PORT：表示实例正在修改数据库端口。</li><li>● STORAGE FULL：表示实例磁盘空间满。</li></ul> |
| port        | String                                         | 数据库端口号。                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| alias       | String                                         | 实例备注                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| type        | String                                         | 实例类型，取Cluster”。                                                                                                                                                                                                                                                                                                                                                                                                                          |
| charge_info | <a href="#">MysqlInstanceChargeInfo</a> object | 计费类型信息，支持包年包月和按需，默认为按需。                                                                                                                                                                                                                                                                                                                                                                                                                  |
| node_count  | Integer                                        | 节点个数。                                                                                                                                                                                                                                                                                                                                                                                                                                    |

| 参数                    | 参数类型                                                   | 描述                                                                                                     |
|-----------------------|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| datastore             | <a href="#">MysqlDatastoreWithKernelVersion</a> object | 数据库信息。                                                                                                 |
| backup_used_space     | Double                                                 | 备份空间使用大小，单位为GB。                                                                                        |
| created               | String                                                 | 创建时间，格式为"yyyy-mm-ddThh:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。                                  |
| updated               | String                                                 | 更新时间，格式与"created"字段对应格式完全相同。                                                                           |
| private_write_ips     | Array of strings                                       | 实例的写内网IP地址。                                                                                            |
| private_dns_names     | Array of strings                                       | 实例内网域名列表。实例创建成功后，需要手动申请内网域名，否则查询内网域名为空。                                                                |
| public_ips            | String                                                 | 实例的公网IP地址。                                                                                             |
| db_username           | String                                                 | 默认用户名。                                                                                                 |
| vpc_id                | String                                                 | 虚拟私有云ID。                                                                                               |
| subnet_id             | String                                                 | 子网的网络ID信息。                                                                                             |
| security_group_id     | String                                                 | 安全组ID。                                                                                                 |
| configuration_id      | String                                                 | 实例创建的模板ID，或者应用到实例的最新参数组模板ID。                                                                           |
| backup_strategy       | <a href="#">MysqlBackupStrategy</a> object             | 自动备份策略。                                                                                                |
| nodes                 | Array of <a href="#">MysqlInstanceNodeInfo</a> objects | 节点信息。                                                                                                  |
| enterprise_project_id | String                                                 | 企业项目ID。                                                                                                |
| time_zone             | String                                                 | 时区。                                                                                                    |
| az_mode               | String                                                 | 可用区模式。<br>取值范围： <ul style="list-style-type: none"><li>• single: 单可用区。</li><li>• multi: 多可用区。</li></ul> |

| 参数                    | 参数类型                                            | 描述                             |
|-----------------------|-------------------------------------------------|--------------------------------|
| master_az_code        | String                                          | 主可用区。                          |
| maintenance_window    | String                                          | 可维护时间窗，为UTC时间。                 |
| tags                  | Array of <a href="#">MysqlTags</a> objects      | 实例标签。                          |
| dedicated_resource_id | String                                          | 专属资源池ID，只有数据库实例属于专属资源池才会返回该参数。 |
| proxies               | Array of <a href="#">MysqlProxyInfo</a> objects | 数据库代理信息。                       |

表 5-74 MysqlInstanceChargeInfo

| 参数          | 参数类型   | 描述           |
|-------------|--------|--------------|
| charge_mode | String | 计费模式。        |
| order_id    | String | 订单号。仅包年包月返回。 |

表 5-75 MysqlDatastoreWithKernelVersion

| 参数             | 参数类型   | 描述                        |
|----------------|--------|---------------------------|
| type           | String | 数据库引擎，现在只支持gaussdb-mysql。 |
| version        | String | 数据库版本。                    |
| kernel_version | String | 数据库内核版本。                  |

表 5-76 MysqlBackupStrategy

| 参数         | 参数类型   | 描述                                                                                                                    |
|------------|--------|-----------------------------------------------------------------------------------------------------------------------|
| start_time | String | 自动备份开始时间段。自动备份将在该时间一个小时内触发。<br>取值范围：非空，格式必须为hh:mm-HH:MM且有效，当前时间指UTC时间。<br>1. HH取值必须比hh大1。<br>2. mm和MM取值必须相同，且取值必须为00。 |
| keep_days  | String | 自动备份保留天数，取值范围：1-732。                                                                                                  |

表 5-77 MysqlInstanceNodeInfo

| 参数               | 参数类型                                               | 描述                                                                                                   |
|------------------|----------------------------------------------------|------------------------------------------------------------------------------------------------------|
| id               | String                                             | 实例ID, 严格匹配UUID规则。                                                                                    |
| name             | String                                             | 节点名称。                                                                                                |
| type             | String                                             | 节点类型。<br>取值范围: <ul style="list-style-type: none"><li>• master: 主节点。</li><li>• slave: 只读节点。</li></ul> |
| status           | String                                             | 节点状态。                                                                                                |
| port             | Integer                                            | 数据库端口号。                                                                                              |
| private_read_ips | Array of strings                                   | 节点的读内网地址。                                                                                            |
| volume           | <a href="#">MysqlInstanceNodeVolumeInfo</a> object | 存储盘信息。                                                                                               |
| az_code          | String                                             | 可用区。                                                                                                 |
| region_code      | String                                             | 实例所在的区域。                                                                                             |
| created          | String                                             | 创建时间, 格式为"yyyy-mm-ddThh:mm:ssZ"。<br>其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。                        |
| updated          | String                                             | 更新时间, 格式与"created"字段对应格式完全相同。                                                                        |
| flavor_id        | String                                             | 规格ID。                                                                                                |
| flavor_ref       | String                                             | 规格码。                                                                                                 |
| max_connections  | String                                             | 允许的最大连接数。                                                                                            |
| vcpus            | String                                             | CPU核数。                                                                                               |
| ram              | String                                             | 内存大小, 单位为GB。                                                                                         |
| need_restart     | Boolean                                            | 是否需要重启使修改的参数生效。                                                                                      |
| priority         | Integer                                            | 主备倒换优先级。                                                                                             |

表 5-78 MysqlInstanceNodeVolumeInfo

| 参数   | 参数类型   | 描述    |
|------|--------|-------|
| type | String | 磁盘类型。 |

| 参数   | 参数类型   | 描述                      |
|------|--------|-------------------------|
| used | String | 已使用磁盘大小, 单位GB。          |
| size | Long   | 包年/包月实例购买的存储空间大小, 单位GB。 |

表 5-79 MysqlTags

| 参数    | 参数类型   | 描述                                                                                                    |
|-------|--------|-------------------------------------------------------------------------------------------------------|
| key   | String | 标签键。最大长度36个unicode字符。key不能为空或者空字符串, 不能为空格。<br>字符集: A-Z, a-z, 0-9, '-', '_', UNICOD字符 (\u4E00-\u9FFF)。 |
| value | String | 标签值。最大长度43个unicode字符。可以为空字符串。<br>字符集: A-Z, a-z, 0-9, '.', '-', '_', UNICOD字符 (\u4E00-\u9FFF)。         |

表 5-80 MysqlProxyInfo

| 参数      | 参数类型   | 描述           |
|---------|--------|--------------|
| pool_id | String | 数据库代理ID。     |
| name    | String | 数据库代理名称。     |
| address | String | Proxy读写分离地址。 |

状态码: 400

表 5-81 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码: 500



表 5-82 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

查询指定实例的详细信息。

```
GET https://{endpoint}/v3/3cedfc54-b105-4652-a4e0-847b11576628/instances/  
d738399de028480fabb2b8120d4e01a4in07
```

## 响应示例

状态码： 200

Success.

```
{  
  "instance": {  
    "id": "d738399de028480fabb2b8120d4e01a4in07",  
    "name": "gaussdb-mysql-instance01",  
    "alias": "",  
    "status": "ACTIVE",  
    "project_id": "3cedfc54-b105-4652-a4e0-847b11576628",  
    "enterprise_project_id": 0,  
    "type": "Cluster",  
    "charge_info": {  
      "charge_mode": "postPaid",  
      "order_id": ""  
    },  
    "node_count": 2,  
    "datastore": {  
      "type": "gaussdb-mysql",  
      "version": "8.0",  
      "kernel_version": "2.0.29.1"  
    },  
    "created": "2022-07-14T16:26:58+0800",  
    "updated": "2022-07-18T14:20:33+0800",  
    "public_ips": "10.154.219.187",  
    "private_write_ips": [ "192.168.0.142" ],  
    "private_dns_names": [ "d738399de028480fabb2b8120d4e01a4in07.internal.cn-  
xianhz-1.gaussdbformysql.myhuaweicloud.com" ],  
    "db_user_name": "root",  
    "port": 3306,  
    "vpc_id": "3cedfc54-b105-4652-a4e0-847b11576628",  
    "subnet_id": "c1cfa53c-65d3-431e-8552-326bf310c7ad",  
    "security_group_id": "fc577a1a-f202-424a-977f-24faec3fdd55",  
    "backup_strategy": {  
      "start_time": "19:00-20:00",  
      "keep_days": 7  
    },  
    "nodes": [ {  
      "id": "799a0f2fa49a4151bf9f7063c1fbba36no07",  
      "name": "gauss-d616-lb07_node01",  
      "type": "master",  
      "status": "ACTIVE",  
      "port": 3306,  
      "private_read_ips": [ "192.168.0.163" ],  
      "volume": {  
        "type": "POOL",
```

```
    "used" : 0.07
  },
  "az_code" : "cn-north-4b",
  "region_code" : "cn-north-4",
  "flavor_id" : "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
  "flavor_ref" : "gaussdb.mysql.xlarge.arm.4",
  "max_connections" : 1500,
  "vcpus" : 1,
  "ram" : 4,
  "need_restart" : false,
  "priority" : 1,
  "created" : "2022-07-14T16:26:58+0800",
  "updated" : "2022-07-18T09:24:18+0800"
}, {
  "id" : "799a0f2fa49a4151bf9f7063c1fbba35no07",
  "name" : "gauss-d616-lb07_node02",
  "type" : "slave",
  "status" : "ACTIVE",
  "port" : 3306,
  "private_read_ips" : [ "192.168.0.162" ],
  "volume" : {
    "type" : "POOL",
    "used" : 0.07
  },
  "az_code" : "cn-north-4b",
  "region_code" : "cn-north-4",
  "flavor_id" : "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
  "flavor_ref" : "gaussdb.mysql.xlarge.arm.4",
  "max_connections" : 1500,
  "vcpus" : 1,
  "ram" : 4,
  "need_restart" : false,
  "priority" : 1,
  "created" : "2022-07-14T16:26:58+0800",
  "updated" : "2022-07-18T09:36:18+0800"
}],
"time_zone" : "UTC+08:00",
"backup_used_space" : 0.24,
"az_mode" : "single",
"master_az_code" : "cn-north-4b",
"maintenance_window" : "18:00-22:00",
"tags" : [],
"configuration_id" : "53570e0de54e40c5a15f331aa5sd2176pr07",
"dedicated_resource_id" : "",
"proxies" : [ {
  "pool_id" : "dab1cfc5150c4d1ca0e8c6596bfc0d8cpo01",
  "address" : "192.168.10.76",
  "name" : "proxy-name"
} ]
}
}
```

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 5.3.7 批量查询实例详情

### 功能介绍

批量查询实例详情。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[批量查询实例详情](#)。

### 调试

您可以在[API Explorer](#)中调试该接口。

### URI

GET /v3/{project\_id}/instances/details

表 5-83 路径参数

| 参数         | 是否必选 | 参数类型   | 描述                                                           |
|------------|------|--------|--------------------------------------------------------------|
| project_id | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |

表 5-84 Query 参数

| 参数           | 是否必选 | 参数类型   | 描述                                         |
|--------------|------|--------|--------------------------------------------|
| instance_ids | 是    | String | 实例ID，严格匹配UUID规则。<br>最多同时输入20个实例ID，用英文逗号分隔。 |

### 请求参数

表 5-85 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |

| 参数         | 是否必选 | 参数类型   | 描述                                                                                       |
|------------|------|--------|------------------------------------------------------------------------------------------|
| X-Language | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul> |

## 响应参数

状态码： 200

表 5-86 响应 Body 参数

| 参数        | 参数类型                                                     | 描述    |
|-----------|----------------------------------------------------------|-------|
| instances | Array of <a href="#">MysqlInstanceInfoDetail</a> objects | 实例详情。 |

表 5-87 MysqlInstanceInfoDetail

| 参数         | 参数类型   | 描述                       |
|------------|--------|--------------------------|
| id         | String | 实例ID，严格匹配UUID规则。         |
| name       | String | 创建的实例名称。                 |
| project_id | String | 租户在某一Region下的project ID。 |

| 参数                | 参数类型                                                   | 描述                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| status            | String                                                 | 实例状态。<br>取值：<br><ul style="list-style-type: none"> <li>● BUILD：表示实例正在创建。</li> <li>● ACTIVE：表示实例正常。</li> <li>● FAILED：表示实例创建失败。</li> <li>● FROZEN：表示实例冻结。</li> <li>● MODIFYING：表示实例正在扩容。</li> <li>● REBOOTING：表示实例正在重启。</li> <li>● RESTORING：表示实例正在恢复。</li> <li>● SWITCHOVER：表示实例正在主备切换。</li> <li>● MIGRATING：表示实例正在迁移。</li> <li>● BACKING UP：表示实例正在进行备份。</li> <li>● MODIFYING DATABASE PORT：表示实例正在修改数据库端口。</li> <li>● STORAGE FULL：表示实例磁盘空间满。</li> </ul> |
| port              | String                                                 | 数据库端口号。                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| alias             | String                                                 | 实例备注                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| type              | String                                                 | 实例类型，取“Cluster”。                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| charge_info       | <a href="#">MysqlInstanceChargeInfo</a> object         | 计费类型信息，支持包年包月和按需，默认为按需。                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| node_count        | Integer                                                | 节点个数。                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| datastore         | <a href="#">MysqlDatastoreWithKernelVersion</a> object | 数据库信息。                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| backup_used_space | Double                                                 | 备份空间使用大小，单位为GB。                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| created           | String                                                 | 创建时间，格式为"yyyy-mm-ddThh:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。                                                                                                                                                                                                                                                                                                                                                                                    |
| updated           | String                                                 | 更新时间，格式与"created"字段对应格式完全相同。                                                                                                                                                                                                                                                                                                                                                                                                                             |
| private_write_ips | Array of strings                                       | 实例的写内网IP地址。                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| private_dns_names | Array of strings                                       | 实例内网域名列表。实例创建成功后，需要手动申请内网域名，否则查询内网域名为空。                                                                                                                                                                                                                                                                                                                                                                                                                  |

| 参数                    | 参数类型                                          | 描述                                                                                                     |
|-----------------------|-----------------------------------------------|--------------------------------------------------------------------------------------------------------|
| public_ips            | String                                        | 实例的公网IP地址。                                                                                             |
| db_user_name          | String                                        | 默认用户名。                                                                                                 |
| vpc_id                | String                                        | 虚拟私有云ID。                                                                                               |
| subnet_id             | String                                        | 子网的网络ID信息。                                                                                             |
| security_group_id     | String                                        | 安全组ID。                                                                                                 |
| configuration_id      | String                                        | 实例创建的模板ID，或者应用到实例的最新参数组模板ID。                                                                           |
| backup_strategy       | <b>MysqlBackupStrategy</b> object             | 自动备份策略。                                                                                                |
| nodes                 | Array of <b>MysqlInstanceNodeInfo</b> objects | 节点信息。                                                                                                  |
| enterprise_project_id | String                                        | 企业项目ID。                                                                                                |
| time_zone             | String                                        | 时区。                                                                                                    |
| az_mode               | String                                        | 可用区模式。<br>取值范围： <ul style="list-style-type: none"><li>• single: 单可用区。</li><li>• multi: 多可用区。</li></ul> |
| master_az_code        | String                                        | 主可用区。                                                                                                  |
| maintenance_window    | String                                        | 可维护时间窗，为UTC时间。                                                                                         |
| tags                  | Array of <b>MysqlTags</b> objects             | 实例标签。                                                                                                  |
| dedicated_resource_id | String                                        | 专属资源池ID，只有数据库实例属于专属资源池才会返回该参数。                                                                         |
| proxies               | Array of <b>MysqlProxyInfo</b> objects        | 数据库代理信息。                                                                                               |

表 5-88 MysqlInstanceChargeInfo

| 参数          | 参数类型   | 描述           |
|-------------|--------|--------------|
| charge_mode | String | 计费模式。        |
| order_id    | String | 订单号。仅包年包月返回。 |

表 5-89 MysqlDatastoreWithKernelVersion

| 参数             | 参数类型   | 描述                        |
|----------------|--------|---------------------------|
| type           | String | 数据库引擎，现在只支持gaussdb-mysql。 |
| version        | String | 数据库版本。                    |
| kernel_version | String | 数据库内核版本。                  |

表 5-90 MysqlBackupStrategy

| 参数         | 参数类型   | 描述                                                                                                                    |
|------------|--------|-----------------------------------------------------------------------------------------------------------------------|
| start_time | String | 自动备份开始时间段。自动备份将在该时间一个小时内触发。<br>取值范围：非空，格式必须为hh:mm-HH:MM且有效，当前时间指UTC时间。<br>1. HH取值必须比hh大1。<br>2. mm和MM取值必须相同，且取值必须为00。 |
| keep_days  | String | 自动备份保留天数，取值范围：1-732。                                                                                                  |

表 5-91 MysqlInstanceNodeInfo

| 参数     | 参数类型    | 描述                                                                                                 |
|--------|---------|----------------------------------------------------------------------------------------------------|
| id     | String  | 实例ID，严格匹配UUID规则。                                                                                   |
| name   | String  | 节点名称。                                                                                              |
| type   | String  | 节点类型。<br>取值范围： <ul style="list-style-type: none"><li>• master：主节点。</li><li>• slave：只读节点。</li></ul> |
| status | String  | 节点状态。                                                                                              |
| port   | Integer | 数据库端口号。                                                                                            |

| 参数               | 参数类型                                               | 描述                                                                    |
|------------------|----------------------------------------------------|-----------------------------------------------------------------------|
| private_read_ips | Array of strings                                   | 节点的读内网地址。                                                             |
| volume           | <a href="#">MysqlInstanceNodeVolumeInfo</a> object | 存储盘信息。                                                                |
| az_code          | String                                             | 可用区。                                                                  |
| region_code      | String                                             | 实例所在的区域。                                                              |
| created          | String                                             | 创建时间，格式为"yyyy-mm-ddThh:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。 |
| updated          | String                                             | 更新时间，格式与"created"字段对应格式完全相同。                                          |
| flavor_id        | String                                             | 规格ID。                                                                 |
| flavor_ref       | String                                             | 规格码。                                                                  |
| max_connections  | String                                             | 允许的最大连接数。                                                             |
| vcpus            | String                                             | CPU核数。                                                                |
| ram              | String                                             | 内存大小，单位为GB。                                                           |
| need_restart     | Boolean                                            | 是否需要重启使修改的参数生效。                                                       |
| priority         | Integer                                            | 主备倒换优先级。                                                              |

表 5-92 MysqlInstanceNodeVolumeInfo

| 参数   | 参数类型   | 描述                     |
|------|--------|------------------------|
| type | String | 磁盘类型。                  |
| used | String | 已使用磁盘大小，单位GB。          |
| size | Long   | 包年/包月实例购买的存储空间大小，单位GB。 |

表 5-93 MysqlTags

| 参数  | 参数类型   | 描述                                                                                                 |
|-----|--------|----------------------------------------------------------------------------------------------------|
| key | String | 标签键。最大长度36个unicode字符。key不能为空或者空字符串，不能为空格。<br>字符集：A-Z，a-z，0-9，'-'，'_'，<br>UNICODE字符（\u4E00-\u9FFF）。 |



| 参数    | 参数类型   | 描述                                                                                           |
|-------|--------|----------------------------------------------------------------------------------------------|
| value | String | 标签值。最大长度43个unicode字符。可以为空字符串。<br>字符集：A-Z, a-z, 0-9, '.', '-', '_', UNICOD字符 (\u4E00-\u9FFF)。 |

表 5-94 MysqlProxyInfo

| 参数      | 参数类型   | 描述           |
|---------|--------|--------------|
| pool_id | String | 数据库代理ID。     |
| name    | String | 数据库代理名称。     |
| address | String | Proxy读写分离地址。 |

状态码： 400

表 5-95 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 5-96 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

批量查询实例信息。

```
GET https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/details?  
instance_ids=11684a0e59e94bceba7880d58cfb07b5in07
```

## 响应示例

状态码： 200

Success.

```
{
  "instances": [ {
    "id": "11684a0e59e94bceba7880d58cfb07b5in07",
    "name": "gaussdb-mysql-instance01",
    "alias": "",
    "status": "ACTIVE",
    "project_id": "3cedfc54-b105-4652-a4e0-847b11576628",
    "enterprise_project_id": 0,
    "type": "Cluster",
    "charge_info": {
      "charge_mode": "postPaid",
      "order_id": ""
    },
  },
  "node_count": 2,
  "datastore": {
    "type": "gaussdb-mysql",
    "version": "8.0",
    "kernel_version": "2.0.29.1"
  },
  "created": "2022-07-14T16:26:58+0800",
  "updated": "2022-07-18T14:20:33+0800",
  "public_ips": "10.154.219.187",
  "private_write_ips": [ "192.168.0.142" ],
  "private_dns_names": [ "11684a0e59e94bceba7880d58cfb07b5in07.internal.cn-xianhz-1.gaussdbformysql.myhuaweicloud.com" ],
  "db_user_name": "root",
  "port": 3306,
  "vpc_id": "3cedfc54-b105-4652-a4e0-847b11576b58",
  "subnet_id": "c1cfa53c-65d3-431e-8552-326bf310c7ad",
  "security_group_id": "fc577a1a-f202-424a-977f-24faec3fdd55",
  "backup_strategy": {
    "start_time": "19:00-20:00",
    "keep_days": 7
  },
  "nodes": [ {
    "id": "799a0f2fa49a4151bf9f7063c1fbba36no07",
    "name": "gauss-d616-lb07_node01",
    "type": "master",
    "status": "ACTIVE",
    "port": 3306,
    "private_read_ips": [ "192.168.0.163" ],
    "volume": {
      "type": "POOL",
      "used": 0.07
    },
  },
  "az_code": "cn-north-4b",
  "region_code": "cn-north-4",
  "flavor_id": "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
  "flavor_ref": "gaussdb.mysql.xlarge.arm.4",
  "max_connections": 1500,
  "vcpus": 1,
  "ram": 4,
  "need_restart": false,
  "priority": 1,
  "created": "2022-07-14T16:26:58+0800",
  "updated": "2022-07-18T09:24:18+0800"
  }, {
    "id": "799a0f2fa49a4151bf9f7063c1fbba35no07",
    "name": "gauss-d616-lb07_node02",
    "type": "slave",
    "status": "ACTIVE",
    "port": 3306,
    "private_read_ips": [ "192.168.0.162" ],
    "volume": {
      "type": "POOL",
      "used": 0.07
    },
  },
  "az_code": "cn-north-4b",
```

```
"region_code": "cn-north-4",
"flavor_id": "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
"flavor_ref": "gaussdb.mysql.xlarge.arm.4",
"max_connections": 1500,
"vcpus": 1,
"ram": 4,
"need_restart": false,
"priority": 1,
"created": "2022-07-14T16:26:58+0800",
"updated": "2022-07-18T09:36:18+0800"
}],
"time_zone": "UTC+08:00",
"backup_used_space": 0.24,
"az_mode": "single",
"master_az_code": "cn-north-4b",
"maintenance_window": "18:00-22:00",
"tags": [],
"configuration_id": "53570e0de54e40c5a15f331aa5sd2176pr07",
"dedicated_resource_id": "",
"proxies": [{
  "pool_id": "dab1cfc5150c4d1ca0e8c6596bfc0d8cpo01",
  "address": "192.168.10.76",
  "name": "proxy-name"
}]
}]
}
```

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 5.3.8 创建只读节点

### 功能介绍

创建只读节点。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[创建只读节点](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

POST /mysql/v3/{project\_id}/instances/{instance\_id}/nodes/enlarge

表 5-97 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 5-98 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| x-auth-token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| Content-Type | 是    | String | 内容类型。取值：application/json。                                                                              |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

表 5-99 请求 Body 参数

| 参数         | 是否必选 | 参数类型              | 描述                                                                                                             |
|------------|------|-------------------|----------------------------------------------------------------------------------------------------------------|
| priorities | 是    | Array of integers | 指定创建的只读节点故障倒换优先级。倒换优先级列表个数即为只读节点格式。故障倒换优先级的取值范围为1~16，数字越小，优先级越大，即故障倒换时，主节点会优先倒换到优先级高的备节点上，优先级相同的备节点选为主节点的概率相同。 |

| 参数          | 是否必选 | 参数类型   | 描述                                                                                                                                                                                                                |
|-------------|------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| is_auto_pay | 否    | String | 创建包周期时可指定，表示是否自动从客户的账户中支付，此字段不影响自动续订的支付方式。 <ul style="list-style-type: none"><li>• true，为自动支付，默认该方式。</li><li>• false，为手动支付。</li></ul> 枚举值： <ul style="list-style-type: none"><li>• true</li><li>• false</li></ul> |

## 响应参数

状态码： 201

表 5-100 响应 Body 参数

| 参数          | 参数类型             | 描述                            |
|-------------|------------------|-------------------------------|
| instance_id | String           | 实例ID。                         |
| node_names  | Array of strings | 节点名称列表。                       |
| job_id      | String           | 实例创建的任务id。<br>仅创建按需实例时会返回该参数。 |
| order_id    | String           | 订单号，创建包年包月时返回该参数。             |

状态码： 400

表 5-101 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 5-102 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

### 创建只读节点

```
POST https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/instances/  
ba62a0b83a1b42bfab275829d86ac0fdin07/nodes/enlarge
```

```
{  
  "priorities": [ 1, 2 ]  
}
```

## 响应示例

状态码: 201

Success.

```
{  
  "instance_id": "f381d0b539e644df8f5b0d3a62129515in07",  
  "node_names": [  
    "gauss-ccf5_node03",  
    "gauss-ccf5_node04"  
  ],  
  "job_id": "dff1d289-4d03-4942-8b9f-463ea07c000d"  
}
```

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 201 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 5.3.9 删除只读节点

### 功能介绍

删除实例的只读节点。多可用区模式删除只读节点时，要保证删除后，剩余的只读节点和主节点在不同的可用区中，否则无法删除该只读节点。

### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[删除只读节点](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

DELETE /mysql/v3/{project\_id}/instances/{instance\_id}/nodes/{node\_id}

表 5-103 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |
| node_id     | 是    | String | 节点ID，严格匹配UUID规则。                                             |

## 请求参数

表 5-104 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| Content-Type | 是    | String | 内容类型。取值：application/json。                                                                              |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

## 响应参数

状态码： 200

表 5-105 响应 Body 参数

| 参数       | 参数类型   | 描述    |
|----------|--------|-------|
| job_id   | String | 任务ID。 |
| order_id | String | 订单ID。 |

状态码： 400

表 5-106 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 5-107 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

```
DELETE https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/instances/  
3d39c18788b54a919bab633874c159dfin01/nodes/ss62c18799854a919bab633874c159dfin55
```

## 响应示例

状态码： 500

Server error.

```
{  
  "job_id" : "04efe8e2-9255-44ae-a98b-d87cae411890",  
  "order_id": null  
}
```

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |



| 状态码 | 描述            |
|-----|---------------|
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 5.3.10 包周期存储扩容

### 功能介绍

包周期存储扩容。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[包周期存储扩容](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

POST /mysql/v3/{project\_id}/instances/{instance\_id}/volume/extend

表 5-108 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 5-109 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

表 5-110 请求 Body 参数

| 参数          | 是否必选 | 参数类型    | 描述                                                                                                                                                                              |
|-------------|------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| size        | 是    | Integer | 扩容后的容量，每次扩容最小容量为10GB，实例所选容量大小必须为10的整数倍                                                                                                                                          |
| is_auto_pay | 否    | String  | 表示是否自动从客户的账户中支付。 <ul style="list-style-type: none"><li>true，为自动支付，默认该方式。</li><li>false，为手动支付。</li></ul> 枚举值： <ul style="list-style-type: none"><li>true</li><li>false</li></ul> |

## 响应参数

状态码： 200

表 5-111 响应 Body 参数

| 参数       | 参数类型    | 描述     |
|----------|---------|--------|
| size     | Integer | 扩容后容量。 |
| order_id | String  | 订单号。   |

**状态码： 400**

表 5-112 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

**状态码： 500**

表 5-113 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

### 包周期存储扩容

```
POST https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/instances/  
ba62a0b83a1b42bfab275829d86ac0fdin07/volume/extend  
  
{  
  "size" : 50  
}
```

## 响应示例

**状态码： 200**

Success.

```
{  
  "size" : 50,  
  "order_id" : "dff1d289-4d03-4942-8b9f-463ea07c000d"  
}
```

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

### 5.3.11 修改实例名称

#### 功能介绍

修改实例名称。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[修改实例名称](#)。

#### 调试

您可以在[API Explorer](#)中调试该接口。

#### URI

PUT /mysql/v3/{project\_id}/instances/{instance\_id}/name

表 5-114 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

#### 请求参数

表 5-115 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |

| 参数         | 是否必选 | 参数类型   | 描述                                                                                       |
|------------|------|--------|------------------------------------------------------------------------------------------|
| X-Language | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul> |

表 5-116 请求 Body 参数

| 参数   | 是否必选 | 参数类型   | 描述                                                                                                  |
|------|------|--------|-----------------------------------------------------------------------------------------------------|
| name | 是    | String | 实例名称。长度最小为4个字符，最大为64个字符且不超过64个字节（注意：一个中文字符占用3个字节），必须以字母或中文开头，区分大小写，可以包含字母、数字、中划线、下划线或中文，不能包含其他特殊字符。 |

## 响应参数

状态码： 200

表 5-117 响应 Body 参数

| 参数     | 参数类型   | 描述          |
|--------|--------|-------------|
| job_id | String | 修改实例名称的任务id |

状态码： 400

表 5-118 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 5-119 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

修改实例名称

```
POST https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/instances/  
ba62a0b83a1b42bfab275829d86ac0fdin07/name
```

```
{  
  "name": "gaussdb-name"  
}
```

## 响应示例

状态码: 200

Success.

```
{  
  "job_id": "0f6b6a9e-bd39-4e95-9374-e4d134e5a3d1"  
}
```

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 5.3.12 重置数据库密码

### 功能介绍

重置数据库密码。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[重置数据库密码](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

POST /mysql/v3/{project\_id}/instances/{instance\_id}/password

表 5-120 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 5-121 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| Content-Type | 是    | String | 内容类型。取值：application/json。                                                                              |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

表 5-122 请求 Body 参数

| 参数       | 是否必选 | 参数类型   | 描述                                                                                                                              |
|----------|------|--------|---------------------------------------------------------------------------------------------------------------------------------|
| password | 是    | String | 数据库密码。取值范围：至少包含以下字符的三种：大写字母、小写字母、数字和特殊符号 ~!@#\$%^*_-=+?,()&, 长度8~32个字符。建议您输入高强度密码，以提高安全性，防止出现密码被暴力破解等安全风险。如果您输入弱密码，系统会自动判定密码非法。 |

## 响应参数

状态码： 400

表 5-123 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 5-124 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

重置数据库密码

```
POST https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/instances/  
ba62a0b83a1b42bfab275829d86ac0fdin07/password  
  
{  
  "password" : "Test_345612"  
}
```

## 响应示例

无



## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

### 5.3.13 变更实例规格

#### 功能介绍

变更数据库实例的规格。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[变更实例规格](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

POST /mysql/v3/{project\_id}/instances/{instance\_id}/action

表 5-125 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 5-126 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| Content-Type | 是    | String | 内容类型。取值：application/json。                                                                              |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

表 5-127 请求 Body 参数

| 参数            | 是否必选 | 参数类型                                     | 描述                                                          |
|---------------|------|------------------------------------------|-------------------------------------------------------------|
| resize_flavor | 是    | <a href="#">MysqlResizeFlavor</a> object | 规格变更信息。                                                     |
| is_auto_pay   | 否    | String                                   | 变更包周期实例规格时可指定，表示是否自动从客户的账户中支付。true，为自动支付，默认该方式。false，为手动支付。 |

表 5-128 MysqlResizeFlavor

| 参数        | 是否必选 | 参数类型   | 描述  |
|-----------|------|--------|-----|
| spec_code | 是    | String | 规格码 |

## 响应参数

状态码： 200

表 5-129 响应 Body 参数

| 参数       | 参数类型   | 描述                        |
|----------|--------|---------------------------|
| job_id   | String | 规格变更的任务id, 仅变更按需实例时会返回该参数 |
| order_id | String | 订单id, 仅变更包周期实例时会返回该参数     |

状态码: 400

表 5-130 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码: 500

表 5-131 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

### 变更实例规格

```
POST https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/instances/  
ba62a0b83a1b42bfab275829d86ac0fdin07/action
```

```
{  
  "resize_flavor": {  
    "spec_code": "gaussdb.mysql.large.x86.normal.4"  
  }  
}
```

## 响应示例

```
{  
  "job_id": "dff1d289-4d03-4942-8b9f-463ea07c000d",  
  "order_id": null  
}
```

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 5.4 备份管理

### 5.4.1 设置同区备份策略

#### 功能介绍

修改备份策略。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[设置备份策略](#)。

#### 调试

您可以在[API Explorer](#)中调试该接口。

#### URI

PUT /mysql/v3/{project\_id}/instances/{instance\_id}/backups/policy/update

表 5-132 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 5-133 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

表 5-134 请求 Body 参数

| 参数            | 是否必选 | 参数类型                                      | 描述     |
|---------------|------|-------------------------------------------|--------|
| backup_policy | 是    | <a href="#">MysqlBackup Policy</a> object | 数据库信息。 |

表 5-135 MysqlBackupPolicy

| 参数                          | 是否必选 | 参数类型    | 描述                                                                                                           |
|-----------------------------|------|---------|--------------------------------------------------------------------------------------------------------------|
| start_time                  | 是    | String  | 备份时间段。自动备份将在该时间段内触发。取值范围：非空，格式必须为hh:mm-HH:MM且有效，当前时间指UTC时间。HH取值必须比hh大1。mm和MM取值必须相同，且取值必须为00。取值示例：21:00-22:00 |
| keep_days                   | 是    | Integer | 备份文件的保留天数。                                                                                                   |
| period                      | 是    | String  | 备份周期配置。自动备份将在每星期指定的天进行。取值范围：格式为逗号隔开的数字，数字代表星期。取值示例：1,2,3,4则表示备份周期配置为星期一、星期二、星期三和星期四。                         |
| retention_num_backup_level1 | 否    | Integer | 1级备份保留数量，默认值为0。当一级备份开关开启时，该参数值有效。取值：0或1                                                                      |

## 响应参数

状态码： 200

表 5-136 响应 Body 参数

| 参数            | 参数类型   | 描述   |
|---------------|--------|------|
| status        | String | 状态信息 |
| instance_id   | String | 实例ID |
| instance_name | String | 实例名称 |

状态码： 400

表 5-137 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 5-138 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

修改备份策略

```
PUT https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/instances/  
ba62a0b83a1b42bfab275829d86ac0fdin07/backups/policy/update
```

```
{  
  "backup_policy" : {  
    "keep_days" : 7,  
    "start_time" : "19:00-20:00",  
    "period" : "1,2,3,4,5"  
  }  
}
```

## 响应示例

状态码： 200

Success.

```
{
  "status": "COMPLETED",
  "instance_id": "ef25188419f941309882d2986b2210b9in07",
  "instance_name": "gauss-mysql"
}
```

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 5.4.2 创建手动备份

### 功能介绍

创建手动备份。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[创建手动备份](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

POST /mysql/v3/{project\_id}/backups/create

表 5-139 路径参数

| 参数         | 是否必选 | 参数类型   | 描述                                                           |
|------------|------|--------|--------------------------------------------------------------|
| project_id | 是    | String | 租户在某一region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |

## 请求参数

表 5-140 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

表 5-141 请求 Body 参数

| 参数          | 是否必选 | 参数类型   | 描述                                                                                      |
|-------------|------|--------|-----------------------------------------------------------------------------------------|
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                                                        |
| name        | 是    | String | 备份名称。取值范围：4~64个字符之间，（注意：一个中文字符占用3个字节），必须以字母或中文开头，区分大小写，可以包含字母、数字、中文、中划线或下划线，不能包含其他特殊字符。 |
| description | 否    | String | 备份描述，不能包含>!<"&'=特殊字符和回车，不大于256个字符。                                                      |

## 响应参数

状态码： 201

表 5-142 响应 Body 参数

| 参数     | 参数类型                          | 描述    |
|--------|-------------------------------|-------|
| backup | <a href="#">backup object</a> | 备份信息。 |



| 参数     | 参数类型   | 描述     |
|--------|--------|--------|
| job_id | String | 工作流ID。 |

表 5-143 backup

| 参数          | 参数类型   | 描述                                                                                                                                                                                  |
|-------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| id          | String | 备份ID                                                                                                                                                                                |
| name        | String | 备份名称。                                                                                                                                                                               |
| descripion  | String | 备份描述。                                                                                                                                                                               |
| begin_time  | String | 备份开始时间，格式为“yyyy-mm-ddThh:mm:ssZ”，其中T指时间字段的开始；Z指时区偏移量。                                                                                                                               |
| status      | Object | 备份状态<br>枚举值： <ul style="list-style-type: none"><li>● <b>BUILDING</b>：备份中。</li><li>● <b>COMPLETED</b>：备份完成。</li><li>● <b>FAILED</b>：备份失败。</li><li>● <b>AVAILABLE</b>：备份可用。</li></ul> |
| type        | Object | 备份类型，取值：<br>枚举值： <ul style="list-style-type: none"><li>● <b>manual</b>：手动全量备份。</li></ul>                                                                                            |
| instance_id | String | 实例ID。                                                                                                                                                                               |

状态码： 400

表 5-144 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 5-145 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

### 创建手动备份

POST https://{endpoint}/mysql/v3/619d3e78f61b4be68bc5aa0b59edcf7b/backups/create

```
{
  "instance_id": "ef25188419f941309882d2986b2210b9in07",
  "name": "backup-01",
  "description": "create backup"
}
```

## 响应示例

状态码: 201

Success.

```
{
  "backup": {
    "id": "2f4ddb93-b901-4b08-93d8-1d2e472f30fe",
    "name": "backup-1",
    "description": "手动备份",
    "begin_time": "2020-07-07T01:17:05+0800",
    "status": "BUILDING",
    "type": "manual",
    "instance_id": "ef25188419f941309882d2986b2210b9in07"
  }
  "job_id": "e08bbfc8-1ac5-6721-b9e9-7dd685c6bdd7"
}
```

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 201 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 5.4.3 查询备份列表

### 功能介绍

查询备份列表。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[查询备份列表](#)。

### 调试

您可以在[API Explorer](#)中调试该接口。

### URI

GET /mysql/v3/{project\_id}/backups

表 5-146 路径参数

| 参数         | 是否必选 | 参数类型   | 描述                                                           |
|------------|------|--------|--------------------------------------------------------------|
| project_id | 是    | String | 租户在某一region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |

表 5-147 Query 参数

| 参数          | 是否必选 | 参数类型   | 描述                                                                     |
|-------------|------|--------|------------------------------------------------------------------------|
| instance_id | 否    | String | 实例ID。                                                                  |
| backup_id   | 否    | String | 备份ID。                                                                  |
| backup_type | 否    | String | 备份类型，取值："auto"：自动全量备份 "manual"：手动全量备份                                  |
| offset      | 否    | String | 索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。 |
| limit       | 否    | String | 查询记录数。默认为100，不能为负数，最小值为1，最大值为100。                                      |

| 参数         | 是否必选 | 参数类型   | 描述                                                                                |
|------------|------|--------|-----------------------------------------------------------------------------------|
| begin_time | 否    | String | 查询开始时间，格式为“yyyy-mm-ddThh:mm:ssZ”。其中，T指某个时间的开始；Z指时区偏移量，例如北京时间偏移显示为+0800。           |
| end_time   | 否    | String | 查询结束时间，格式为“yyyy-mm-ddThh:mm:ssZ”，且大于查询开始时间。其中，T指某个时间的开始；Z指时区偏移量，例如北京时间偏移显示为+0800。 |

## 请求参数

表 5-148 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

## 响应参数

状态码： 200

表 5-149 响应 Body 参数

| 参数          | 参数类型                                     | 描述       |
|-------------|------------------------------------------|----------|
| backups     | Array of <a href="#">backups</a> objects | 备份信息。    |
| total_count | Number                                   | 备份文件的总数。 |

表 5-150 backups

| 参数           | 参数类型                                  | 描述                                                                                                                                                                                  |
|--------------|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| id           | String                                | 备份ID。                                                                                                                                                                               |
| name         | String                                | 备份名称。                                                                                                                                                                               |
| begin_time   | String                                | 备份开始时间，格式为“yyyy-mm-ddThh:mm:ssZ”。其中，T指某个时间的开始；Z指时区偏移量，例如北京时间偏移显示为+0800。                                                                                                             |
| end_time     | String                                | 备份结束时间，格式为“yyyy-mm-ddThh:mm:ssZ”。其中，T指某个时间的开始；Z指时区偏移量，例如北京时间偏移显示为+0800。                                                                                                             |
| status       | Object                                | 备份状态<br>枚举值： <ul style="list-style-type: none"><li>● <b>BUILDING</b>：备份中。</li><li>● <b>COMPLETED</b>：备份完成。</li><li>● <b>FAILED</b>：备份失败。</li><li>● <b>AVAILABLE</b>：备份可用。</li></ul> |
| take_up_time | Integer                               | 备份花费时间(单位：minutes)                                                                                                                                                                  |
| type         | Object                                | 备份类型<br>枚举值： <ul style="list-style-type: none"><li>● <b>auto</b>：自动全量备份。</li><li>● <b>manual</b>：手动全量备份。</li></ul>                                                                  |
| size         | Number                                | 备份大小，(单位：MB)                                                                                                                                                                        |
| datastore    | <a href="#">MysqlDatastore</a> object | 数据库信息。                                                                                                                                                                              |
| instance_id  | String                                | 实例ID。                                                                                                                                                                               |
| backup_level | Object                                | 备份级别。当开启一级备份开关时，返回该参数。<br>枚举值： <ul style="list-style-type: none"><li>● <b>0</b>：备份正在创建中或者备份失败。</li><li>● <b>1</b>：一级备份。</li><li>● <b>2</b>：二级备份。</li></ul>                          |
| description  | String                                | 备份文件描述信息                                                                                                                                                                            |

表 5-151 MysqlDatastore

| 参数      | 参数类型   | 描述                                        |
|---------|--------|-------------------------------------------|
| type    | String | 数据库引擎，现在只支持gaussdb-mysql                  |
| version | String | 数据库版本。<br>数据库支持的详细版本信息，可调用查询数据库引擎的版本接口获取。 |

状态码： 400

表 5-152 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 5-153 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

```
GET https://{endpoint}/mysql/v3/97b026aa9cc4417888c14c84a1ad9860/backups?instance_id=43e4feaab48f11e89039fa163ebaa7e4br01&backup_id=c0c9f155c7b7423a9d30f0175998b63bbr01&backup_type=auto&offset=0&limit=10&begin_time=2020-07-06T10:41:14+0800&end_time=2020-07-16T10:41:14+0800
```

## 响应示例

状态码： 200

Success.

```
{
  "backups": [ {
    "id": "1fe4feaab48f11e6654hfa163eba87e4b66u",
    "name": "GaussDBforMySQL-gauss-e747-20200705185048266",
    "begin_time": "2018-08-06T12:41:14+0800",
    "end_time": "2018-08-06T12:43:14+0800",
    "take_up_time": 2,
    "status": "COMPLETED",
    "type": "auto",
    "size": 2803,
```

```
"datastore" : {  
  "type" : "GaussDB(for MySQL )",  
  "version" : "8.0"  
},  
"instance_id" : "43e4feaab48f11e89039fa163ebaa7e4br01",  
"backup_level" : "2"  
}],  
"total_count" : 1  
}
```

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

### 5.4.4 查询自动备份策略

#### 功能介绍

查询自动备份策略。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[查询自动备份策略](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

GET /mysql/v3/{project\_id}/instances/{instance\_id}/backups/policy

表 5-154 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 5-155 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

## 响应参数

状态码： 200

表 5-156 响应 Body 参数

| 参数            | 参数类型                                | 描述      |
|---------------|-------------------------------------|---------|
| backup_policy | <a href="#">BackupPolicy</a> object | 备份策略信息。 |

表 5-157 BackupPolicy

| 参数         | 参数类型    | 描述                                                                       |
|------------|---------|--------------------------------------------------------------------------|
| keep_days  | Integer | 指定已生成的备份文件可以保存的天数。取值范围：1~732，您也可以联系客服将最大保留天数调整为3660。<br>最小值：1<br>最大值：732 |
| start_time | String  | 备份时间段。自动备份将在该时间段内触发。取值范围：格式必须为hh:mm-HH:MM且有效，当前时间指UTC时间。                 |
| period     | String  | 备份周期配置。自动备份将在每星期指定的天进行。取值范围：格式为逗号隔开的数字，数字代表星期。                           |



| 参数                          | 参数类型    | 描述                         |
|-----------------------------|---------|----------------------------|
| retention_num_backup_level1 | Integer | 一级备份保留数量。当一级备份开关开启时，返回此参数。 |

状态码： 400

表 5-158 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 5-159 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

```
GET https://{endpoint}/mysql/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/e73893ef73754465a8bd2e0857bbf13ein07/backups/policy
```

## 响应示例

状态码： 200

Success.

```
{
  "backup_policy": {
    "start_time": "19:00-20:00",
    "keep_days": "7",
    "period": "1,2",
    "retention_num_backup_level1": 1
  }
}
```

## 状态码

| 状态码 | 描述       |
|-----|----------|
| 200 | Success. |

| 状态码 | 描述            |
|-----|---------------|
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

# 5.5 参数模板管理

## 5.5.1 查询参数模板

### 功能介绍

获取参数模板列表，包括所有数据库的默认参数模板和用户创建的参数模板。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[查询参数模板](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

GET /mysql/v3/{project\_id}/configurations

表 5-160 路径参数

| 参数         | 是否必选 | 参数类型   | 描述                                                           |
|------------|------|--------|--------------------------------------------------------------|
| project_id | 是    | String | 租户在某一region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |

## 请求参数

表 5-161 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| x-auth-token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

## 响应参数

状态码： 200

表 5-162 响应 Body 参数

| 参数             | 参数类型                                                  | 描述       |
|----------------|-------------------------------------------------------|----------|
| configurations | Array of <a href="#">ConfigurationSummary</a> objects | 参数模板信息。  |
| total_count    | Integer                                               | 参数模板的总数。 |

表 5-163 ConfigurationSummary

| 参数                     | 参数类型   | 描述     |
|------------------------|--------|--------|
| id                     | String | 参数组ID。 |
| name                   | String | 参数组名称。 |
| description            | String | 参数组描述。 |
| datastore_version_name | String | 引擎版本。  |
| datastore_name         | String | 引擎名。   |

| 参数           | 参数类型    | 描述                                                                                                              |
|--------------|---------|-----------------------------------------------------------------------------------------------------------------|
| created      | String  | 创建时间，格式为"yyyy-MM-ddTHH:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如北京时间偏移显示为+0800。                                           |
| updated      | String  | 更新时间，格式为"yyyy-MM-ddTHH:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如北京时间偏移显示为+0800。                                           |
| user_defined | Boolean | 是否是用户自定义参数模板： <ul style="list-style-type: none"><li>• false，表示为系统默认参数模板。</li><li>• true，表示为用户自定义参数模板。</li></ul> |

状态码： 400

表 5-164 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 5-165 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

```
GET https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/configurations
```

## 响应示例

状态码： 200

Success.

```
{  
  "configurations" : [ {  
    "id" : "887ea0d1bb0843c49e8d8e5a09a95652pr07",  
    "name" : "configuration_test",  
    "description" : "configuration_test",  
    "datastore_version_name" : "8.0",
```

```
"datastore_name": "GaussDB(for MySQL)",  
"created": "2019-05-15T11:53:34+0000",  
"updated": "2019-05-15T11:53:34+0000",  
"user_defined": true  
}, {  
  "id": "3bc1e9cc0d34404b9225ed7a58fb284epr07",  
  "name": "Default-GaussDBforMySQL",  
  "description": "Default parameter template for GaussDBforMySQL",  
  "datastore_version_name": "8.0",  
  "datastore_name": "GaussDB(for MySQL)",  
  "created": "2019-05-27T03:38:51+0000",  
  "updated": "2019-05-27T03:38:51+0000",  
  "user_defined": false  
}]  
}
```

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 5.6 配额管理

### 5.6.1 查询租户的实例配额

#### 功能介绍

获取指定租户的资源配额。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[查询租户的实例配额](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

GET /mysql/v3/{project\_id}/project-quotas

表 5-166 路径参数

| 参数         | 是否必选 | 参数类型   | 描述                                                           |
|------------|------|--------|--------------------------------------------------------------|
| project_id | 是    | String | 租户在某一region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |

表 5-167 Query 参数

| 参数   | 是否必选 | 参数类型   | 描述                                                          |
|------|------|--------|-------------------------------------------------------------|
| type | 否    | String | 根据type过滤查询指定类型的配额。<br>取值范围：instance<br>枚举值： <b>instance</b> |

## 请求参数

表 5-168 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

## 响应参数

状态码： 200

表 5-169 响应 Body 参数

| 参数     | 参数类型                                  | 描述        |
|--------|---------------------------------------|-----------|
| quotas | <a href="#">project-quotas</a> object | 租户实例配额信息。 |

表 5-170 project-quotas

| 参数        | 参数类型                                      | 描述      |
|-----------|-------------------------------------------|---------|
| resources | Array of <a href="#">resource</a> objects | 资源列表对象。 |

表 5-171 resource

| 参数    | 参数类型    | 描述                                                                                                                                                        |
|-------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| mode  | String  | 资源类型。<br><ul style="list-style-type: none"> <li>cluster: 表示集群版实例的配额</li> </ul> 枚举值:<br><ul style="list-style-type: none"> <li><b>cluster</b></li> </ul>   |
| type  | String  | 指定类型的配额。<br><ul style="list-style-type: none"> <li>instance: 表示实例的配额</li> </ul> 枚举值:<br><ul style="list-style-type: none"> <li><b>instance</b></li> </ul> |
| used  | Integer | 已创建的资源个数。                                                                                                                                                 |
| quota | Integer | 资源最大的配额数。                                                                                                                                                 |

状态码: 400

表 5-172 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码: 500

表 5-173 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

```
GET https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/quotas?type=instance
```

## 响应示例

状态码: 200

Success.

```
{
  "quotas": [
    {
      "resources": [
        {
          "type": "instance",
          "used": "4",
          "quota": 50,
          "mode": "cluster"
        }
      ]
    }
  ]
}
```

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 5.6.2 查询租户基于企业项目的资源配额

### 功能介绍

获取指定企业项目的资源配额。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[查询租户基于企业项目的资源配额](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

```
GET /mysql/v3/{project_id}/quotas
```



表 5-174 路径参数

| 参数         | 是否必选 | 参数类型   | 描述                                                           |
|------------|------|--------|--------------------------------------------------------------|
| project_id | 是    | String | 租户在某一region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |

表 5-175 Query 参数

| 参数                      | 是否必选 | 参数类型   | 描述                                                                                   |
|-------------------------|------|--------|--------------------------------------------------------------------------------------|
| offset                  | 否    | String | 索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。取值范围：0 - 10000 |
| limit                   | 否    | String | 查询记录数。默认为10，不能为负数，最小值为1，最大值为100。                                                     |
| enterprise_project_name | 否    | String | 企业项目名称。                                                                              |

## 请求参数

表 5-176 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| Content-Type | 是    | String | 内容类型。<br>取值：application/json。                                                                          |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

## 响应参数

状态码： 200

表 5-177 响应 Body 参数

| 参数          | 参数类型                          | 描述       |
|-------------|-------------------------------|----------|
| quota_list  | Array of <b>quota</b> objects | 资源列表对象。  |
| total_count | Integer                       | 配额记录的条数。 |

表 5-178 quota

| 参数                          | 参数类型    | 描述            |
|-----------------------------|---------|---------------|
| enterprise_project_id       | String  | 企业项目ID。       |
| enterprise_project_name     | String  | 企业项目名称。       |
| instance_quota              | Integer | 实例个数配额。       |
| vcpus_quota                 | Integer | CPU核数配额。      |
| ram_quota                   | Integer | 内存使用配额，单位为GB。 |
| availability_instance_quota | Integer | 实例剩余配额。       |
| availability_vcpus_quota    | Integer | CPU核数剩余配额。    |
| availability_ram_quota      | Integer | 内存剩余配额。       |

状态码： 400

表 5-179 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 5-180 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

GET https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/quotas

## 响应示例

状态码: 200

Success.

```
{
  "quota_list": [ {
    "enterprise_project_id": "0",
    "enterprise_project_name": "default",
    "instance_quota": 20,
    "vcpus_quota": 20,
    "ram_quota": 40,
    "availability_instance_quota": 1,
    "availability_vcpus_quota": 4,
    "availability_ram_quota": 8
  } ]
}
```

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 5.6.3 设置租户基于企业项目的资源配额

### 功能介绍

设置指定企业项目的资源配额。

**须知**

该接口计划于2025-03-31下线，建议及时切换到新接口[设置租户基于企业项目的资源配额](#)。

**调试**

您可以在[API Explorer](#)中调试该接口。

**URI**

POST /mysql/v3/{project\_id}/quotas

表 5-181 路径参数

| 参数         | 是否必选 | 参数类型   | 描述                                                           |
|------------|------|--------|--------------------------------------------------------------|
| project_id | 是    | String | 租户在某一region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |

**请求参数**

表 5-182 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

表 5-183 请求 Body 参数

| 参数         | 是否必选 | 参数类型                                      | 描述      |
|------------|------|-------------------------------------------|---------|
| quota_list | 是    | Array of <a href="#">setQuota</a> objects | 资源列表对象。 |

表 5-184 setQuota

| 参数                    | 是否必选 | 参数类型    | 描述                                                  |
|-----------------------|------|---------|-----------------------------------------------------|
| enterprise_project_id | 是    | String  | 企业项目ID。                                             |
| instance_quota        | 是    | Integer | 实例个数配额。取值范围0~1000。(如果已经存在实例,应该大于已经存在的实例个数)          |
| vcpus_quota           | 是    | Integer | CPU核数配额。取值范围0~3600000。(如果已经存在实例,应该大于已经占用的cpu个数)     |
| ram_quota             | 是    | Integer | 内存使用配额,单位为GB。取值范围0~19200000。(如果已经存在实例,应该大于已经占用的内存数) |

## 响应参数

状态码: 200

表 5-185 响应 Body 参数

| 参数         | 参数类型                                      | 描述      |
|------------|-------------------------------------------|---------|
| quota_list | Array of <a href="#">setQuota</a> objects | 资源列表对象。 |

表 5-186 setQuota

| 参数                    | 参数类型    | 描述                                                  |
|-----------------------|---------|-----------------------------------------------------|
| enterprise_project_id | String  | 企业项目ID。                                             |
| instance_quota        | Integer | 实例个数配额。取值范围0~1000。(如果已经存在实例,应该大于已经存在的实例个数)          |
| vcpus_quota           | Integer | CPU核数配额。取值范围0~3600000。(如果已经存在实例,应该大于已经占用的cpu个数)     |
| ram_quota             | Integer | 内存使用配额,单位为GB。取值范围0~19200000。(如果已经存在实例,应该大于已经占用的内存数) |

## 请求示例

无

## 响应示例

状态码: 200

Success.

```
{
  "quota_list": [ {
    "enterprise_project_id": "0",
    "instance_quota": 20,
    "vcpu_quota": 20,
    "ram_quota": 40
  } ]
}
```

## 状态码

| 状态码 | 描述       |
|-----|----------|
| 200 | Success. |

## 错误码

请参见[错误码](#)。

## 5.6.4 修改租户基于企业项目的资源配额

### 功能介绍

修改指定企业项目的资源配额。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[修改租户基于企业项目的资源配额](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

PUT /mysql/v3/{project\_id}/quotas

表 5-187 路径参数

| 参数         | 是否必选 | 参数类型   | 描述                                                           |
|------------|------|--------|--------------------------------------------------------------|
| project_id | 是    | String | 租户在某一region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |

## 请求参数

表 5-188 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

表 5-189 请求 Body 参数

| 参数         | 是否必选 | 参数类型                                      | 描述      |
|------------|------|-------------------------------------------|---------|
| quota_list | 是    | Array of <a href="#">setQuota</a> objects | 资源列表对象。 |

表 5-190 setQuota

| 参数                    | 是否必选 | 参数类型    | 描述                                         |
|-----------------------|------|---------|--------------------------------------------|
| enterprise_project_id | 是    | String  | 企业项目ID。                                    |
| instance_quota        | 是    | Integer | 实例个数配额。取值范围0~1000。(如果已经存在实例,应该大于已经存在的实例个数) |

| 参数          | 是否必选 | 参数类型    | 描述                                                    |
|-------------|------|---------|-------------------------------------------------------|
| vcpus_quota | 是    | Integer | CPU核数配额。取值范围0~3600000。(如果已经存在实例, 应该大于已经占用的cpu个数)      |
| ram_quota   | 是    | Integer | 内存使用配额, 单位为GB。取值范围0~19200000。(如果已经存在实例, 应该大于已经占用的内存数) |

## 响应参数

状态码: 200

表 5-191 响应 Body 参数

| 参数         | 参数类型                                      | 描述      |
|------------|-------------------------------------------|---------|
| quota_list | Array of <a href="#">setQuota</a> objects | 资源列表对象。 |

表 5-192 setQuota

| 参数                    | 参数类型    | 描述                                                    |
|-----------------------|---------|-------------------------------------------------------|
| enterprise_project_id | String  | 企业项目ID。                                               |
| instance_quota        | Integer | 实例个数配额。取值范围0~1000。(如果已经存在实例, 应该大于已经存在的实例个数)           |
| vcpus_quota           | Integer | CPU核数配额。取值范围0~3600000。(如果已经存在实例, 应该大于已经占用的cpu个数)      |
| ram_quota             | Integer | 内存使用配额, 单位为GB。取值范围0~19200000。(如果已经存在实例, 应该大于已经占用的内存数) |

状态码: 400

表 5-193 响应 Body 参数

| 参数         | 参数类型   | 描述   |
|------------|--------|------|
| error_code | String | 错误码。 |



| 参数        | 参数类型   | 描述    |
|-----------|--------|-------|
| error_msg | String | 错误消息。 |

状态码： 500

表 5-194 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

```
POST https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/quotas
{
  "quota_list": [ {
    "enterprise_project_id": "0",
    "instance_quota": 20,
    "vcpu_quota": 20,
    "ram_quota": 40
  } ]
}
```

## 响应示例

状态码： 200

Success.

```
{
  "quota_list": [ {
    "enterprise_project_id": "0",
    "instance_quota": 20,
    "vcpu_quota": 20,
    "ram_quota": 40
  } ]
}
```

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 5.7 数据库代理

### 5.7.1 开启数据库代理

#### 功能介绍

开启数据库代理，只支持ELB模式。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[开启数据库代理](#)。

#### 调试

您可以在[API Explorer](#)中调试该接口。

#### URI

POST /mysql/v3/{project\_id}/instances/{instance\_id}/proxy

表 5-195 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID                                                         |

#### 请求参数

表 5-196 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |

| 参数         | 是否必选 | 参数类型   | 描述                                                                                       |
|------------|------|--------|------------------------------------------------------------------------------------------|
| X-Language | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul> |

表 5-197 请求 Body 参数

| 参数         | 是否必选 | 参数类型    | 描述                                            |
|------------|------|---------|-----------------------------------------------|
| flavor_ref | 是    | String  | 代理规格码。<br>获取方法请参见 <a href="#">查询数据库代理规格信息</a> |
| node_num   | 是    | Integer | 代理实例节点数，取值整数 2-32。                            |

## 响应参数

状态码： 202

表 5-198 响应 Body 参数

| 参数     | 参数类型   | 描述    |
|--------|--------|-------|
| job_id | String | 任务ID。 |

状态码： 400

表 5-199 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 5-200 响应 Body 参数

| 参数         | 参数类型   | 描述   |
|------------|--------|------|
| error_code | String | 错误码。 |

| 参数        | 参数类型   | 描述    |
|-----------|--------|-------|
| error_msg | String | 错误消息。 |

## 请求示例

```
POST https://{endpoint}/mysql/v3/0483b6b16e954cb88930a360d2c4e663/instances/43e4feaab48f11e89039fa163ebaa7e4br01/proxy
```

```
{
  "flavor_ref": "gaussdb.mysql.large.x86.4",
  "node_num": 2
}
```

## 响应示例

状态码： 202

Success.

```
{
  "job_id": "04efe8e2-9255-44ae-a98b-d87cae411890"
}
```

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 202 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 5.7.2 关闭数据库代理

### 功能介绍

关闭数据库代理。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[关闭数据库代理](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

DELETE /mysql/v3/{project\_id}/instances/{instance\_id}/proxy

表 5-201 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID                                                         |

## 请求参数

表 5-202 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

## 响应参数

状态码： 200

表 5-203 响应 Body 参数

| 参数     | 参数类型   | 描述    |
|--------|--------|-------|
| job_id | String | 任务ID。 |

状态码： 400

表 5-204 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 5-205 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

```
DELETE https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/instances/  
3d39c18788b54a919bab633874c159dfin01/proxy
```

## 响应示例

状态码： 200

Success.

```
{  
  "job_id": "04efe8e2-9255-44ae-a98b-d87cae411890"  
}
```

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 5.7.3 查询单个数据库代理信息

### 功能介绍

查询单个数据库代理信息，只支持单proxy查询。

### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[查询数据库代理信息列表](#)。

## URI

GET /v3/{project\_id}/instances/{instance\_id}/proxy

表 5-206 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID                                                         |

## 请求参数

表 5-207 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

## 响应参数

状态码： 200

表 5-208 响应 Body 参数

| 参数    | 参数类型                              | 描述         |
|-------|-----------------------------------|------------|
| proxy | <a href="#">MysqlProxy</a> object | Proxy实例信息。 |

| 参数             | 参数类型                                            | 描述      |
|----------------|-------------------------------------------------|---------|
| master_node    | <a href="#">MysqlProxyNode</a> object           | 主节点信息。  |
| readonly_nodes | Array of <a href="#">MysqlProxyNode</a> objects | 只读节点信息。 |

表 5-209 MysqlProxy

| 参数                         | 参数类型                                             | 描述                                                                                      |
|----------------------------|--------------------------------------------------|-----------------------------------------------------------------------------------------|
| pool_id                    | String                                           | Proxy实例id。                                                                              |
| status                     | String                                           | Proxy实例开启状态。<br>取值范围: closed、open、frozen、opening、closing、enlarging、freezing和unfreezing。 |
| address                    | String                                           | Proxy读写分离地址。                                                                            |
| port                       | Integer                                          | Proxy端口信息。                                                                              |
| pool_status                | String                                           | Proxy实例状态。取值范围: ACTIVE、BUILD、FAILED和DELETED。                                            |
| delay_threshold_in_seconds | Integer                                          | 延时阈值, 单位: 秒。                                                                            |
| elb_vip                    | String                                           | Elb模式的虚拟ip信息。                                                                           |
| eip                        | String                                           | 弹性公网IP信息。                                                                               |
| vcpus                      | String                                           | Proxy实例规格的CPU数量。                                                                        |
| ram                        | String                                           | Proxy实例规格的内存数量。                                                                         |
| node_num                   | Integer                                          | Proxy节点个数。                                                                              |
| mode                       | String                                           | Proxy主备模式, 取值范围: Cluster。                                                               |
| nodes                      | Array of <a href="#">MysqlProxyNodes</a> objects | Proxy节点信息。                                                                              |
| flavor_ref                 | String                                           | Proxy规格信息。                                                                              |
| name                       | String                                           | Proxy实例名称。                                                                              |



表 5-210 MysqlProxyNodes

| 参数          | 参数类型    | 描述                                           |
|-------------|---------|----------------------------------------------|
| id          | String  | Proxy节点id。                                   |
| status      | String  | Proxy节点状态。取值范围：ACTIVE、ABNORMAL、BUILD和FAILED。 |
| name        | String  | Proxy节点名称。                                   |
| role        | String  | Proxy节点角色：master和slave。                      |
| az_code     | String  | 可用区。                                         |
| frozen_flag | Integer | Proxy节点是否被冻结：0-未冻结；1-冻结；2-冻结删除。              |

表 5-211 MysqlProxyNode

| 参数              | 参数类型                                                 | 描述         |
|-----------------|------------------------------------------------------|------------|
| id              | String                                               | 节点id。      |
| instance_id     | String                                               | 实例id。      |
| status          | String                                               | 节点状态。      |
| name            | String                                               | 节点名称。      |
| weight          | Integer                                              | 节点读写分离读权重。 |
| available_zones | Array of <a href="#">MysqlProxyAvailable</a> objects | 可用区信息。     |

表 5-212 MysqlProxyAvailable

| 参数          | 参数类型   | 描述     |
|-------------|--------|--------|
| code        | String | 可用区编码。 |
| description | String | 可用区描述。 |

状态码： 400

表 5-213 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码: 500

表 5-214 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
096c0fc43e804757b59946b80dc27f8bin07/proxy
```

## 响应示例

状态码: 200

Success.

```
{  
  "proxy": {  
    "pool_id": "2e7cf21d14794bafab623a334efd9ad8po01",  
    "status": "open",  
    "address": "192.168.125.69",  
    "port": 3306,  
    "pool_status": "ACTIVE",  
    "delay_threshold_in_seconds": 30,  
    "elb_vip": "192.168.125.60",  
    "eip": "192.168.125.50",  
    "vcpus": 4,  
    "ram": 8,  
    "node_num": 2,  
    "mode": "Cluster",  
    "nodes": {  
      "id": "db53a238a02240c49365e72e284a4890pn01",  
      "name": "PROXY-2e7cf21d14794bafab623a334efd9ad8po01_0",  
      "role": "master",  
      "az_code": "az1xahz",  
      "status": "ACTIVE",  
      "frozen_flag": 0  
    },  
    "name": "proxy-name"  
  },  
  "master_node": {  
    "id": "5ee8010ab992460d8d9cffcc5edabb59no07",  
    "instance_id": "7a871d6d494e4327ad2e326afb591108in07",  
    "status": "ACTIVE",  
    "name": "taurus_mysql80_x86-ondemand-2-1U4G_1_202103070251274842281_node01",  
    "weight": 0,  
  }  
}
```

```
"available_zones" : {  
  "code" : "az1",  
  "description" : "可用区1"  
}  
},  
"readonly_nodes" : {  
  "id" : "d23535333138462880bfa1838dfced2no07",  
  "instance_id" : "7a871d6d494e4327ad2e326afb591108in07",  
  "status" : "ACTIVE",  
  "name" : "taurus_mysql80_x86-ondemand-2-1U4G_1_202103070251274842281_node02",  
  "weight" : 100,  
  "available_zones" : {  
    "code" : "az1",  
    "description" : "可用区1"  
  }  
}  
}
```

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 5.7.4 查询数据库代理信息

### 功能介绍

查询数据库代理信息。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[查询数据库代理信息列表](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

GET /mysql/v3/{project\_id}/instances/{instance\_id}/proxy

表 5-215 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID                                                         |

## 请求参数

表 5-216 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

## 响应参数

状态码： 202

表 5-217 响应 Body 参数

| 参数             | 参数类型                                            | 描述         |
|----------------|-------------------------------------------------|------------|
| proxy          | <a href="#">MysqlProxy</a> object               | Proxy实例信息。 |
| master_node    | <a href="#">MysqlProxyNode</a> object           | 主节点信息。     |
| readonly_nodes | Array of <a href="#">MysqlProxyNode</a> objects | 只读节点信息。    |

表 5-218 MysqlProxy

| 参数                         | 参数类型                                             | 描述                                                                                    |
|----------------------------|--------------------------------------------------|---------------------------------------------------------------------------------------|
| pool_id                    | String                                           | Proxy实例id。                                                                            |
| status                     | String                                           | Proxy实例开启状态。<br>取值范围：closed、open、frozen、opening、closing、enlarging、freezing和unfreezin。 |
| address                    | String                                           | Proxy读写分离地址。                                                                          |
| port                       | Integer                                          | Proxy端口信息。                                                                            |
| pool_status                | String                                           | Proxy实例状态。取值范围：abnormal、normal、creating和deleted。                                      |
| delay_threshold_in_seconds | Integer                                          | 延时阈值，单位：秒。                                                                            |
| elb_vip                    | String                                           | Elb模式的虚拟ip信息。                                                                         |
| eip                        | String                                           | 弹性公网IP信息。                                                                             |
| vcpus                      | String                                           | Proxy实例规格的CPU数量。                                                                      |
| ram                        | String                                           | Proxy实例规格的内存数量。                                                                       |
| node_num                   | Integer                                          | Proxy节点个数。                                                                            |
| mode                       | String                                           | Proxy主备模式，取值范围：Cluster。                                                               |
| nodes                      | Array of <a href="#">MysqlProxyNodes</a> objects | Proxy节点信息。                                                                            |
| flavor_ref                 | String                                           | Proxy规格信息。                                                                            |

表 5-219 MysqlProxyNodes

| 参数          | 参数类型    | 描述                                               |
|-------------|---------|--------------------------------------------------|
| id          | String  | Proxy节点id。                                       |
| status      | String  | Proxy节点状态。取值范围：normal、abnormal、creating和deleted。 |
| name        | String  | Proxy节点名称。                                       |
| role        | String  | Proxy节点角色：master和slave。                          |
| az_code     | String  | 可用区。                                             |
| frozen_flag | Integer | Proxy节点是否被冻结：0-未冻结；1-冻结；2-冻结删除。                  |

表 5-220 MysqlProxyNode

| 参数              | 参数类型                                        | 描述        |
|-----------------|---------------------------------------------|-----------|
| id              | String                                      | 节点id。     |
| instance_id     | String                                      | 实例id。     |
| status          | String                                      | 节点状态。     |
| name            | String                                      | 节点名称。     |
| weight          | Integer                                     | 节点读写分离权重。 |
| available_zones | Array of <b>MysqlProxyAvailable</b> objects | 可用区信息。    |

表 5-221 MysqlProxyAvailable

| 参数          | 参数类型   | 描述     |
|-------------|--------|--------|
| code        | String | 可用区编码。 |
| description | String | 可用区描述。 |

状态码： 400

表 5-222 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 5-223 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

```
GET https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/instances/  
3d39c18788b54a919bab633874c159dfin01/proxy
```

## 响应示例

**状态码: 202**

Success.

```
{  
  "proxy": {  
    "pool_id": "2e7cf21d14794bafab623a334efd9ad8po01",  
    "status": "open",  
    "address": "192.168.125.69",  
    "port": 3306,  
    "pool_status": "ACTIVE",  
    "delay_threshold_in_seconds": 30,  
    "elb_vip": "192.168.125.60",  
    "eip": "192.168.125.50",  
    "vcpus": 4,  
    "ram": 8,  
    "node_num": 2,  
    "mode": "Cluster",  
    "nodes": {  
      "id": "db53a238a02240c49365e72e284a4890pn01",  
      "name": "PROXY-2e7cf21d14794bafab623a334efd9ad8po01_0",  
      "role": "master",  
      "az_code": "az1xahz",  
      "status": "ACTIVE",  
      "frozen_flag": 0  
    }  
  },  
  "master_node": {  
    "id": "2a111d6d494e4327ad2e326afb591108in07",  
    "instance_id": "7a871d6d494e4327ad2e326afb591108in07",  
    "status": "ACTIVE",  
    "name": "taurus_mysql80_x86-ondemand-2-1U4G_1_202103070251274842281_node01",  
    "weight": 0,  
    "available_zones": {  
      "code": "az1xahz",  
      "description": "可用区1"  
    }  
  },  
  "readonly_nodes": {  
    "id": "d23535333138462880bfa1838dfced2no07",  
    "instance_id": "7a871d6d494e4327ad2e326afb591108in07",  
    "status": "ACTIVE",  
    "name": "taurus_mysql80_x86-ondemand-2-1U4G_1_202103070251274842281_node02",  
    "weight": 100,  
    "available_zones": {  
      "code": "az1xahz",  
      "description": "可用区1"  
    }  
  }  
}
```

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 202 | Success.      |
| 400 | Client error. |

| 状态码 | 描述            |
|-----|---------------|
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 5.7.5 查询数据库代理规格信息

### 功能介绍

查询数据库代理规格信息。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[查询数据库代理规格信息](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

GET /mysql/v3/{project\_id}/instances/{instance\_id}/proxy/flavors

表 5-224 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID                                                         |



## 请求参数

表 5-225 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

## 响应参数

状态码： 202

表 5-226 响应 Body 参数

| 参数                  | 参数类型                                                    | 描述     |
|---------------------|---------------------------------------------------------|--------|
| proxy_flavor_groups | Array of <a href="#">MysqlProxyFlavorGroups</a> objects | 规格组信息。 |

表 5-227 MysqlProxyFlavorGroups

| 参数            | 参数类型                                                     | 描述               |
|---------------|----------------------------------------------------------|------------------|
| group_type    | String                                                   | 规格组类型,如x86, arm。 |
| proxy_flavors | Array of <a href="#">MysqlProxyComputeFlavor</a> objects | 规格信息。            |

表 5-228 MysqlProxyComputeFlavor

| 参数 | 参数类型   | 描述         |
|----|--------|------------|
| id | String | Proxy规格id。 |

| 参数            | 参数类型   | 描述                           |
|---------------|--------|------------------------------|
| spec_code     | String | Proxy规格码。                    |
| vcpus         | String | CPU大小。例如：1表示1U。              |
| ram           | String | 内存大小，单位为GB。                  |
| db_type       | String | 数据库类型。                       |
| az_status     | Object | 其中key是可用区编号，value是规格所在az的状态。 |
| region_status | String | Region状态。                    |

状态码： 400

表 5-229 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 5-230 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

```
GET https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/instances/3d39c18788b54a919bab633874c159dfin01/proxy/flavors
```

## 响应示例

状态码： 202

Success.

```
{
  "proxy_flavor_groups": {
    "group_type": "X86",
    "proxy_flavors": {
      "id": "19be4c5d-d363-3342-bdbc-0dd9dbf7fafe",
      "spec_code": "gaussdb.proxy.large.x86.2",
      "vcpus": 2,
```

```
"ram" : 4,  
"db_type" : "Proxy",  
"az_status" : {  
  "az1" : "normal"  
},  
"region_status" : "normal"  
}  
}  
}
```

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 202 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 5.7.6 扩容数据库代理节点的数量

### 功能介绍

扩容数据库代理节点的数量。DeC专属云账号暂不支持数据库代理。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[扩容数据库代理节点的数量](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

POST /mysql/v3/{project\_id}/instances/{instance\_id}/proxy/enlarge

表 5-231 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 5-232 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

表 5-233 请求 Body 参数

| 参数       | 是否必选 | 参数类型    | 描述                                                                      |
|----------|------|---------|-------------------------------------------------------------------------|
| node_num | 是    | Integer | proxy节点扩容操作需要扩容的节点数。本次扩容的节点数的取值范围：1~30之间的整数。限制条件：该实例的proxy节点的总数量小于等于32。 |
| proxy_id | 是    | String  | 数据库代理ID。<br>如果实例只开启了一个代理，可不传该参数；如果实例开启了多个代理，则必须指定一个数据库代理，扩容新的代理节点。      |

## 响应参数

状态码： 201

表 5-234 响应 Body 参数

| 参数     | 参数类型   | 描述    |
|--------|--------|-------|
| job_id | String | 任务ID。 |

状态码： 400

表 5-235 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 5-236 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

```
post https://{endpoint}/mysql/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/  
e73893ef73754465a8bd2e0857bbf13ein07/proxy/enlarge  
  
{  
  "node_num" : 2,  
  "proxy_id": "151c14381ac14ecfb9703a745b992677po01"  
}
```

## 响应示例

状态码： 201

Success.

```
{  
  "job_id" : "04efe8e2-9255-44ae-a98b-d87cae411890"  
}
```

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 201 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 5.8 日志管理

### 5.8.1 查询数据库错误日志

#### 功能介绍

查询数据库错误日志。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[获取错误日志详情列表](#)。

#### 调试

您可以在[API Explorer](#)中调试该接口。

#### URI

GET /mysql/v3/{project\_id}/instances/{instance\_id}/errorlog

表 5-237 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID                                                         |

表 5-238 Query 参数

| 参数         | 是否必选 | 参数类型   | 描述                                                                    |
|------------|------|--------|-----------------------------------------------------------------------|
| start_date | 是    | String | 开始时间，格式为“yyyy-mm-ddThh:mm:ssZ”。其中，T指某个时间的开始；Z指时区偏移量，例如北京时间偏移显示为+0800。 |
| end_date   | 是    | String | 结束时间，格式为“yyyy-mm-ddThh:mm:ssZ”。其中，T指某个时间的开始；Z指时区偏移量，例如北京时间偏移显示为+0800。 |

| 参数      | 是否必选 | 参数类型    | 描述                                                                    |
|---------|------|---------|-----------------------------------------------------------------------|
| offset  | 否    | Integer | 索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数 |
| limit   | 否    | Integer | 查询记录数。默认为100，不能为负数，最小值为1，最大值为100                                      |
| level   | 否    | String  | 日志级别                                                                  |
| node_id | 是    | String  | 节点ID                                                                  |

## 请求参数

表 5-239 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| x-auth-token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

## 响应参数

状态码： 200

表 5-240 响应 Body 参数

| 参数             | 参数类型                                               | 描述        |
|----------------|----------------------------------------------------|-----------|
| error_log_list | Array of <a href="#">MysqlErrorLogList</a> objects | 错误日志具体信息。 |
| total_record   | Integer                                            | 总记录数。     |

表 5-241 MysqlErrorLogList

| 参数      | 参数类型   | 描述         |
|---------|--------|------------|
| node_id | String | 节点ID。      |
| time    | String | 日期时间UTC时间。 |
| level   | String | 日志级别。      |
| content | String | 错误日志内容。    |

状态码： 400

表 5-242 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 5-243 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

无

## 响应示例

状态码： 200

Success.

```
{
  "error_log_list": [ {
    "node_id": "cc07c60e94ec4575989840e648fb4f66no07",
    "time": "2021-03-06T12:07:05",
    "level": "ERROR, content:[MY013508] [Repl] do failed: 1",
    "total_record": 15
  } ]
}
```



## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 5.8.2 查询数据库错误日志

### 功能介绍

查询数据库错误日志。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[获取错误日志详情列表](#)。

## 调试

您可以在[API Explorer](#)中调试该接口，支持自动认证鉴权。API Explorer可以自动生成SDK代码示例，并提供SDK代码示例调试功能。

## URI

GET /v3/{project\_id}/instances/{instance\_id}/errorlog

表 5-244 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID                                                         |

表 5-245 Query 参数

| 参数         | 是否必选 | 参数类型    | 描述                                                                                                                                                                                 |
|------------|------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| start_date | 是    | String  | 开始时间，格式为“yyyy-mm-ddThh:mm:ssZ”。<br>其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。                                                                                                          |
| end_date   | 是    | String  | 结束时间，格式为“yyyy-mm-ddThh:mm:ssZ”。<br>其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。                                                                                                          |
| offset     | 否    | Integer | 索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数                                                                                                              |
| limit      | 否    | Integer | 查询记录数。默认为100，不能为负数，最小值为1，最大值为100。                                                                                                                                                  |
| level      | 否    | String  | 日志级别。<br>取值范围： <ul style="list-style-type: none"><li>• ALL</li><li>• INFO</li><li>• LOG</li><li>• WARNING</li><li>• ERROR</li><li>• FATAL</li><li>• PANIC</li><li>• NOTE</li></ul> |
| node_id    | 是    | String  | 节点ID                                                                                                                                                                               |

## 请求参数

表 5-246 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

## 响应参数

状态码： 200

表 5-247 响应 Body 参数

| 参数             | 参数类型                                               | 描述        |
|----------------|----------------------------------------------------|-----------|
| error_log_list | Array of <a href="#">MysqlErrorLogList</a> objects | 错误日志具体信息。 |
| total_record   | Integer                                            | 总记录数。     |

表 5-248 MysqlErrorLogList

| 参数      | 参数类型   | 描述         |
|---------|--------|------------|
| node_id | String | 节点ID。      |
| time    | String | 日期时间UTC时间。 |
| level   | String | 日志级别。      |
| content | String | 错误日志内容。    |

状态码： 400

表 5-249 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 5-250 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
096c0fc43e804757b59946b80dc27f8bin07/errorlog?  
offset=0&limit=1&level=ALL&start_date=2022-07-10T00:00:00+0800&end_date=2022-07-19T00:00:00+0800&  
node_id=cc07c60e94ec4575989840e648fb4f66no07
```

## 响应示例

状态码： 200

Success.

```
{  
  "error_log_list": [ {  
    "node_id": "cc07c60e94ec4575989840e648fb4f66no07",  
    "time": "2022-07-17T07:34:33",  
    "level": "ERROR",  
    "content": "[MY013508] [Repl] do failed: 1"  
  } ]  
}
```

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 5.8.3 查询数据库慢日志

### 功能介绍

查询数据库慢日志。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[获取慢日志详情列表](#)。

### 调试

您可以在[API Explorer](#)中调试该接口。

### URI

GET /mysql/v3/{project\_id}/instances/{instance\_id}/slowlog

表 5-251 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID                                                         |

表 5-252 Query 参数

| 参数         | 是否必选 | 参数类型    | 描述                                                                    |
|------------|------|---------|-----------------------------------------------------------------------|
| start_date | 是    | String  | 开始时间，格式为“yyyy-mm-ddThh:mm:ssZ”。其中，T指某个时间的开始；Z指时区偏移量，例如北京时间偏移显示为+0800。 |
| end_date   | 是    | String  | 结束时间，格式为“yyyy-mm-ddThh:mm:ssZ”。其中，T指某个时间的开始；Z指时区偏移量，例如北京时间偏移显示为+0800。 |
| offset     | 否    | Integer | 索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数 |

| 参数      | 是否必选 | 参数类型    | 描述                                                                |
|---------|------|---------|-------------------------------------------------------------------|
| limit   | 否    | Integer | 查询记录数。默认为100，不能为负数，最小值为1，最大值为100                                  |
| type    | 否    | String  | 语句类型，取空值，表示查询所有语句类型，也可指定如下日志类型：INSERT、UPDATE、SELECT、DELETE和CREATE |
| node_id | 是    | String  | 节点ID                                                              |

## 请求参数

表 5-253 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| x-auth-token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

## 响应参数

状态码： 200

表 5-254 响应 Body 参数

| 参数              | 参数类型                                              | 描述        |
|-----------------|---------------------------------------------------|-----------|
| slow_log_list   | Array of <a href="#">MysqlSlowLogList</a> objects | 错误日志具体信息。 |
| long_query_time | String                                            | 慢日志阈值。    |
| total_record    | Integer                                           | 总记录数。     |

表 5-255 MysqlSlowLogList

| 参数            | 参数类型   | 描述         |
|---------------|--------|------------|
| node_id       | String | 节点ID。      |
| count         | String | 执行次数。      |
| time          | String | 执行时间。      |
| lock_time     | String | 等待锁时间。     |
| rows_sent     | String | 结果行数量。     |
| rows_examined | String | 扫描的行数量。    |
| database      | String | 所属数据库。     |
| users         | String | 账号。        |
| query_sample  | String | 执行语法。      |
| type          | String | 语句类型。      |
| start_time    | String | 发生时间,UTC时间 |
| client_ip     | String | IP地址。      |

状态码： 400

表 5-256 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 5-257 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

```
GET https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/instances/3d39c18788b54a919bab633874c159dfin01/slowlog
```

## 响应示例

状态码： 200

Success.

- 示例 1

```
{
  "error_log_list": [ {
    "node_id": "cc07c60e94ec4575989840e648fb4f66no07",
    "count": 1,
    "time": "1.04899 s",
    "lock_time": "0.00003 s",
    "rows_sent": 0,
    "rows_examined": 0,
    "database": "gaussdb-mysql",
    "users": "root",
    "query_sample": "INSERT INTO time_zone_name (Name, Time_zone_id) VALUES (N
@time_zone_id);",
    "type": "INSERT",
    "start_time": "2121-03-25T10:55:16",
    "client_ip": "192.*.*1"
  } ]
}
```

- 示例 2

10

- 示例 3

15

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

### 5.8.4 查询数据库慢日志

#### 功能介绍

查询数据库慢日志。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[获取慢日志详情列表](#)。



## 调试

您可以在 [API Explorer](#) 中调试该接口，支持自动认证鉴权。API Explorer 可以自动生成 SDK 代码示例，并提供 SDK 代码示例调试功能。

## URI

GET /v3/{project\_id}/instances/{instance\_id}/slowlog

表 5-258 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID                                                         |

表 5-259 Query 参数

| 参数         | 是否必选 | 参数类型    | 描述                                                                        |
|------------|------|---------|---------------------------------------------------------------------------|
| start_date | 是    | String  | 开始时间，格式为“yyyy-mm-ddThh:mm:ssZ”。<br>其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。 |
| end_date   | 是    | String  | 结束时间，格式为“yyyy-mm-ddThh:mm:ssZ”。<br>其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。 |
| offset     | 否    | Integer | 索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数     |
| limit      | 否    | Integer | 查询记录数。默认为100，不能为负数，最小值为1，最大值为100。                                         |

| 参数      | 是否必选 | 参数类型   | 描述                                                                                                                                                                                                  |
|---------|------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| type    | 否    | String | 语句类型，取空值，表示查询所有语句类型，也可指定如下日志类型： <ul style="list-style-type: none"> <li>• INSERT</li> <li>• UPDATE</li> <li>• SELECT</li> <li>• DELETE</li> <li>• ALTER</li> <li>• DROP</li> <li>• CREATE</li> </ul> |
| node_id | 是    | String | 节点ID                                                                                                                                                                                                |

## 请求参数

表 5-260 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"> <li>• en-us</li> <li>• zh-cn</li> </ul>        |

## 响应参数

状态码： 200

表 5-261 响应 Body 参数

| 参数            | 参数类型                                              | 描述        |
|---------------|---------------------------------------------------|-----------|
| slow_log_list | Array of <a href="#">MysqlSlowLogList</a> objects | 错误日志具体信息。 |

| 参数              | 参数类型    | 描述     |
|-----------------|---------|--------|
| long_query_time | String  | 慢日志阈值。 |
| total_record    | Integer | 总记录数。  |

表 5-262 MysqlSlowLogList

| 参数            | 参数类型   | 描述          |
|---------------|--------|-------------|
| node_id       | String | 节点ID。       |
| count         | String | 执行次数。       |
| time          | String | 执行时间。       |
| lock_time     | String | 等待锁时间。      |
| rows_sent     | String | 结果行数量。      |
| rows_examined | String | 扫描的行数量。     |
| database      | String | 所属数据库。      |
| users         | String | 账号。         |
| query_sample  | String | 执行语法。       |
| type          | String | 语句类型。       |
| start_time    | String | 发生时间, UTC时间 |
| client_ip     | String | IP地址。       |

状态码: 400

表 5-263 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码: 500

表 5-264 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/096c0fc43e804757b59946b80dc27f8bin07/slowlog?offset=0&limit=1&start_date=2022-07-10T00:00:00+0800&end_date=2022-07-19T00:00:00+0800&node_id=cc07c60e94ec4575989840e648fb4f66no07&type=INSERT
```

## 响应示例

状态码： 200

Success.

```
{
  "slow_log_list" : [ {
    "node_id" : "cc07c60e94ec4575989840e648fb4f66no07",
    "count" : 1,
    "time" : "1.04899 s",
    "lock_time" : "0.00003 s",
    "rows_sent" : 0,
    "rows_examined" : 0,
    "database" : "gaussdb-mysql",
    "users" : "root",
    "query_sample" : "INSERT INTO time_zone_name (Name, Time_zone_id) VALUES (N @time_zone_id);",
    "type" : "INSERT",
    "start_time" : "2121-03-25T10:55:16.000Z",
    "client_ip" : "192.*.*.1"
  } ],
  "long_query_time" : 10,
  "total_record" : 15
}
```

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 5.9 获取任务信息

## 5.9.1 获取指定 ID 的任务信息

### 功能介绍

获取指定ID的任务信息。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[获取指定ID的任务信息](#)。

### 接口约束

该接口只可查询任务中心一个月内的异步任务。

### 调试

您可以在[API Explorer](#)中调试该接口。

### URI

GET /mysql/v3/{project\_id}/jobs

表 5-265 路径参数

| 参数         | 是否必选 | 参数类型   | 描述                                                           |
|------------|------|--------|--------------------------------------------------------------|
| project_id | 是    | String | 租户在某一region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |

表 5-266 Query 参数

| 参数 | 是否必选 | 参数类型   | 描述    |
|----|------|--------|-------|
| id | 是    | String | 任务ID。 |

## 请求参数

表 5-267 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| x-auth-token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

## 响应参数

状态码： 200

表 5-268 响应 Body 参数

| 参数  | 参数类型                                    | 描述    |
|-----|-----------------------------------------|-------|
| job | <a href="#">GetJobInfoDetail</a> object | 任务信息。 |

表 5-269 GetJobInfoDetail

| 参数     | 参数类型   | 描述                                                                                                                                                                                                                                                                   |
|--------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| id     | String | 任务ID。                                                                                                                                                                                                                                                                |
| name   | String | 任务名称。                                                                                                                                                                                                                                                                |
| status | String | 任务执行状态。<br>取值： <ul style="list-style-type: none"><li>值为“Running”，表示任务正在执行。</li><li>值为“Completed”，表示任务执行成功。</li><li>值为“Failed”，表示任务执行失败。</li></ul> 枚举值： <ul style="list-style-type: none"><li><b>Running</b></li><li><b>Completed</b></li><li><b>Failed</b></li></ul> |

| 参数          | 参数类型                                            | 描述                                                                                                 |
|-------------|-------------------------------------------------|----------------------------------------------------------------------------------------------------|
| created     | String                                          | 创建时间，格式为"yyyy-mm-ddThh:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如北京时间偏移显示为 +0800 说明：创建时返回值为空，数据库实例创建成功后该值不为空。 |
| ended       | String                                          | 结束时间，格式为"yyyy-mm-ddThh:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如北京时间偏移显示为 +0800 说明：创建时返回值为空，数据库实例创建成功后该值不为空。 |
| process     | String                                          | 任务执行进度。执行中状态才返回执行进度，例如60%，否则返回""。                                                                  |
| instance    | <a href="#">GetJobInstanceInfoDetail</a> object | 指定ID任务的实例信息。                                                                                       |
| entities    | Object                                          | 根据不同的任务，显示不同的内容。                                                                                   |
| fail_reason | String                                          | 任务执行失败时的错误信息。                                                                                      |

表 5-270 GetJobInstanceInfoDetail

| 参数   | 参数类型   | 描述    |
|------|--------|-------|
| id   | String | 实例ID。 |
| name | String | 实例名称。 |

状态码： 400

表 5-271 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 5-272 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

```
GET https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/jobs?id=a9767ede-fe0f-4888-9003-e843a4c90514
```

## 响应示例

状态码: 200

Success.

```
{
  "job": {
    "id": "31b8ae23-c687-4d80-b7b4-42a66c9bb886",
    "name": "CreateMysqlInstance",
    "status": "Completed",
    "created": "2018-08-06T10:41:14+0800",
    "ended": "2018-08-06T16:41:14+0000",
    "process": "",
    "instance": {
      "id": "a48e43ff268f4c0e879652d65e63d0fbin07",
      "name": "DO-NOT-TOUCH-mgr2-mysql-single"
    },
    "entities": {
      "instance": {
        "endpoint": "192.168.1.203:3306",
        "type": "Cluster",
        "datastore": {
          "type": "gaussdb-mysql",
          "version": "8.0"
        }
      }
    },
    "resource_ids": [ "a48e43ff268f4c0e879652d65e63d0fbin07.vm",
"a48e43ff268f4c0e879652d65e63d0fbin07.volume" ]
  }
}
```

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。



# 6 权限策略和授权项

## 6.1 策略及授权项说明

如果您需要对您所拥有的云数据库TaurusDB进行精细的权限管理，您可以使用统一身份认证服务（Identity and Access Management，简称IAM），如果华为账号已经能满足您的要求，不需要创建独立的IAM用户，您可以跳过本章节，不影响您使用云数据库TaurusDB的其它功能。

默认情况下，新建的IAM用户没有任何权限，您需要将其加入用户组，并给用户组授予策略或角色，才能使用户组中的用户获得相应的权限，这一过程称为授权。授权后，用户就可以基于已有权限对云服务进行操作。

权限根据授权的精细程度，分为**角色**和**策略**。角色以服务为粒度，是IAM最初提供的一种根据用户的工作职能定义权限的粗粒度授权机制。策略以API接口为粒度进行权限拆分，授权更加精细，可以精确到某个操作、资源和条件，能够满足企业对权限最小化的安全管控要求。

### 📖 说明

如果您要允许或是禁止某个接口的操作权限，请使用策略。

账号具备所有接口的调用权限，如果使用账号下的IAM用户发起API请求时，该IAM用户必须具备调用该接口所需的权限，否则，API请求将调用失败。每个接口所需要的权限，与各个接口所对应的授权项相对应，只有发起请求的用户被授予授权项所对应的策略，该用户才能成功调用该接口。例如，用户要调用接口来查询GaussDB实例列表，那么这个IAM用户被授予的策略中必须包含允许“gaussdb:instance:list”的授权项，该接口才能调用成功。

## 支持的授权项

策略包含系统策略和自定义策略，如果系统策略不满足授权要求，管理员可以创建自定义策略，并通过给用户组授予自定义策略来进行精细的访问控制。策略支持的操作与API相对应，授权项列表说明如下：

- 权限：允许或拒绝某项操作。
- 对应API接口：自定义策略实际调用的API接口。
- 授权项：自定义策略中支持的Action，在自定义策略中的Action中写入授权项，可以实现授权项对应的权限功能。

- 依赖的授权项：部分Action存在对其他Action的依赖，需要将依赖的Action同时写入授权项，才能实现对应的权限功能。
- IAM项目(Project)/企业项目(Enterprise Project)：自定义策略的授权范围，包括IAM项目与企业项目。授权范围如果同时支持IAM项目和企业项目，表示此授权项对应的自定义策略，可以在IAM和企业管理两个服务中给用户组授权并生效。如果仅支持IAM项目，不支持企业项目，表示仅能在IAM中给用户组授权并生效，如果在企业管理中授权，则该自定义策略不生效。关于IAM项目与企业项目的区别，详情请参见：[IAM与企业管理的区别](#)。

### 📖 说明

“√”表示支持，“x”表示暂不支持。

## 6.2 TaurusDB 授权分类

表 6-1 授权列表

| 权限        | 对应API接口                                                                                         | 授权项 ( Action )        | IAM项目 ( Project ) | 企业项目 ( Enterprise Project ) |
|-----------|-------------------------------------------------------------------------------------------------|-----------------------|-------------------|-----------------------------|
| 查询资源配额    | GET /mysql/v3/{project_id}/quotas                                                               | gaussdb:instance:list | √                 | √                           |
| 设置资源配额    | POST /mysql/v3/{project_id}/quotas                                                              | gaussdb:quota:modify  | √                 | √                           |
| 修改资源配额    | PUT /mysql/v3/{project_id}/quotas                                                               | gaussdb:quota:modify  | √                 | √                           |
| 查询数据库引擎版本 | GET /mysql/v3/{project_id}/datastores/{database_name}                                           | gaussdb:instance:list | √                 | √                           |
| 查询数据库规格   | GET /mysql/v3/{project_id}/flavors/{database}?version_name={version_name}&spec_code={spec_code} | gaussdb:instance:list | √                 | √                           |

| 权限       | 对应API接口                                                                                  | 授权项 ( Action )          | IAM项目 ( Project ) | 企业项目 ( Enterprise Project ) |
|----------|------------------------------------------------------------------------------------------|-------------------------|-------------------|-----------------------------|
| 创建实例     | POST<br>/mysql/v3/<br>{projectId}/<br>instances                                          | gaussdb:instance:create | √                 | √                           |
| 查询实例列表   | GET<br>/mysql/v3/<br>{projectId}/<br>instances                                           | gaussdb:instance:list   | √                 | √                           |
| 查询实例详细信息 | GET<br>/mysql/v3/<br>{project_id}/<br>instances/<br>{instance_id}                        | gaussdb:instance:list   | √                 | √                           |
| 删除实例     | DELETE<br>/mysql/v3/<br>{project_id}/<br>instances/<br>{instance_id}                     | gaussdb:instance:delete | √                 | √                           |
| 查询参数模板   | GET<br>/mysql/v3/<br>{project_id}/<br>configurations                                     | gaussdb:parameter:list  | √                 | √                           |
| 获取任务信息   | GET<br>/mysql/v3/<br>{projectId}/jobs                                                    | gaussdb:instance:list   | √                 | √                           |
| 新增只读节点   | POST<br>/mysql/v3/<br>{project_id}/<br>instances/<br>{instance_id}/<br>nodes/enlarge     | gaussdb:instance:create | √                 | √                           |
| 删除只读节点   | DELETE<br>/mysql/v3/<br>{project_id}/<br>instances/<br>{instance_id}/<br>nodes/{node_id} | gaussdb:instance:delete | √                 | √                           |

| 权限              | 对应API接口                                                                              | 授权项 ( Action )              | IAM项目 ( Project ) | 企业项目 ( Enterprise Project ) |
|-----------------|--------------------------------------------------------------------------------------|-----------------------------|-------------------|-----------------------------|
| 扩容包周期实例<br>磁盘容量 | POST<br>/mysql/v3/<br>{project_id}/<br>instances/<br>{instance_id}/<br>volume/extend | gaussdb:instance:modifySpec | √                 | √                           |
| 修改实例名称          | PUT<br>/mysql/v3/<br>{project_id}/<br>instances/<br>{instance_id}/<br>name           | gaussdb:instance:modify     | √                 | √                           |
| 重置数据库密码         | POST<br>/mysql/v3/<br>{project_id}/<br>instances/<br>{instance_id}/<br>password      | gaussdb:instance:modify     | √                 | √                           |
| 变更数据库实例<br>的规格  | POST<br>/mysql/v3/<br>{project_id}/<br>instances/<br>{instance_id}/<br>action        | gaussdb:instance:modifySpec | √                 | √                           |
| 创建手动备份          | POST<br>/mysql/v3/<br>{project_id}/<br>backups/create                                | gaussdb:backup:create       | √                 | √                           |
| 查询备份列表          | GET<br>/mysql/v3/<br>{project_id}/<br>backups                                        | gaussdb:backup:list         | √                 | √                           |
| 查询自动备份策略        | GET<br>/mysql/v3/<br>{project_id}/<br>instances/<br>{instance_id}/<br>backups/policy | gaussdb:backup:list         | √                 | √                           |

| 权限       | 对应API接口                                                                                         | 授权项<br>( Action )                   | IAM项目<br>( Project ) | 企业项目<br>( Enterprise Project ) |
|----------|-------------------------------------------------------------------------------------------------|-------------------------------------|----------------------|--------------------------------|
| 修改自动备份策略 | PUT<br>/mysql/v3/<br>{project_id}/<br>instances/<br>{instance_id}/<br>backups/policy/<br>update | gaussdb:instance:modifyBackupPolicy | √                    | √                              |

# 7 附录

## 7.1 异常请求结果

- 异常响应要素说明

表 7-1 异常响应要素说明

| 名称         | 参数类型   | 说明                                              |
|------------|--------|-------------------------------------------------|
| error_code | String | 提交任务异常时返回的错误编码，详细错误码描述请参见 <a href="#">错误码</a> 。 |
| error_msg  | String | 提交任务异常时返回的错误描述信息。                               |

- 响应样例

```
{  
  "error_code": "DBS.280234",  
  "error_msg": "非法实例名称"  
}
```

## 7.2 状态码

状态码列表：

表 7-2 状态码说明

| 状态码 | 编码                  | 错误码说明                                         |
|-----|---------------------|-----------------------------------------------|
| 100 | Continue            | 继续请求。<br>这个临时响应用来通知客户端，它的部分请求已经被服务器接收，且仍未被拒绝。 |
| 101 | Switching Protocols | 切换协议。只能切换到更高级的协议。<br>例如，切换到HTTP的新版本协议。        |

| 状态码 | 编码                            | 错误码说明                                                                                   |
|-----|-------------------------------|-----------------------------------------------------------------------------------------|
| 200 | OK                            | 请求成功。                                                                                   |
| 201 | Created                       | 创建类的请求完全成功。                                                                             |
| 202 | Accepted                      | 已经接受请求，但未处理完成。                                                                          |
| 203 | Non-Authoritative Information | 非授权信息，请求成功。                                                                             |
| 204 | NoContent                     | 请求完全成功，同时HTTP响应不包含响应体。在响应OPTIONS方法的HTTP请求时返回此状态码。                                       |
| 205 | Reset Content                 | 重置内容，服务器处理成功。                                                                           |
| 206 | Partial Content               | 服务器成功处理了部分GET请求。                                                                        |
| 300 | Multiple Choices              | 多种选择。请求的资源可包括多个位置，相应可返回一个资源特征与地址的列表用于用户终端（例如：浏览器）选择。                                    |
| 301 | Moved Permanently             | 永久移动，请求的资源已被永久的移动到新的URI，返回信息会包括新的URI。                                                   |
| 302 | Found                         | 资源被临时移动。                                                                                |
| 303 | See Other                     | 查看其它地址。<br>使用GET和POST请求查看。                                                              |
| 304 | Not Modified                  | 所请求的资源未修改，服务器返回此状态码时，不会返回任何资源。                                                          |
| 305 | Use Proxy                     | 所请求的资源必须通过代理访问。                                                                         |
| 306 | Unused                        | 已经被废弃的HTTP状态码。                                                                          |
| 400 | BadRequest                    | 非法请求。<br>建议直接修改该请求，不要重试该请求。                                                             |
| 401 | Unauthorized                  | 在客户端提供认证信息后，返回该状态码，表明服务端指出客户端所提供的认证信息不正确或非法。                                            |
| 402 | Payment Required              | 保留请求。                                                                                   |
| 403 | Forbidden                     | 请求被拒绝访问。<br>返回该状态码，表明请求能够到达服务端，且服务端能够理解用户请求，但是拒绝做更多的事情，因为该请求被设置为拒绝访问，建议直接修改该请求，不要重试该请求。 |
| 404 | NotFound                      | 所请求的资源不存在。<br>建议直接修改该请求，不要重试该请求。                                                        |

| 状态码 | 编码                              | 错误码说明                                                                                 |
|-----|---------------------------------|---------------------------------------------------------------------------------------|
| 405 | MethodNotAllowed                | 请求中带有该资源不支持的方法。<br>建议直接修改该请求，不要重试该请求。                                                 |
| 406 | Not Acceptable                  | 服务器无法根据客户端请求的内容特性完成请求。                                                                |
| 407 | Proxy Authentication Required   | 请求要求代理的身份认证，与401类似，但请求者应当使用代理进行授权。                                                    |
| 408 | Request Time-out                | 服务器等候请求时发生超时。<br>客户端可以随时再次提交该请求而无需进行任何更改。                                             |
| 409 | Conflict                        | 服务器在完成请求时发生冲突。<br>返回该状态码，表明客户端尝试创建的资源已经存在，或者由于冲突请求的更新操作不能被完成。                         |
| 410 | Gone                            | 客户端请求的资源已经不存在。<br>返回该状态码，表明请求的资源已被永久删除。                                               |
| 411 | Length Required                 | 服务器无法处理客户端发送的不带Content-Length的请求信息。                                                   |
| 412 | Precondition Failed             | 未满足前提条件，服务器未满足请求者在请求中设置的其中一个前提条件。                                                     |
| 413 | Request Entity Too Large        | 由于请求的实体过大，服务器无法处理，因此拒绝请求。为防止客户端的连续请求，服务器可能会关闭连接。如果只是服务器暂时无法处理，则会包含一个Retry-After的响应信息。 |
| 414 | Request-URI Too Large           | 请求的URI过长（URI通常为网址），服务器无法处理。                                                           |
| 415 | Unsupported Media Type          | 服务器无法处理请求附带的媒体格式。                                                                     |
| 416 | Requested range not satisfiable | 客户端请求的范围无效。                                                                           |
| 417 | Expectation Failed              | 服务器无法满足Expect的请求头信息。                                                                  |
| 422 | Unprocessable Entity            | 请求格式正确，但是由于含有语义错误，无法响应。                                                               |
| 429 | Too Many Requests               | 表明请求超出了客户端访问频率的限制或者服务端接收到多于它能处理的请求。建议客户端读取相应的Retry-After首部，然后等待该首部指出的时间后再重试。          |
| 500 | InternalServerError             | 表明服务端能被请求访问到，但是不能理解用户的请求。                                                             |



| 状态码 | 编码                            | 错误码说明                                         |
|-----|-------------------------------|-----------------------------------------------|
| 501 | Not Implemented               | 服务器不支持请求的功能，无法完成请求。                           |
| 502 | Bad Gateway                   | 充当网关或代理的服务器，从远端服务器接收到了一个无效的请求。                |
| 503 | ServiceUnavailabl<br>e        | 被请求的服务无效。<br>建议直接修改该请求，不要重试该请求。               |
| 504 | ServerTimeout                 | 请求在给定的时间内无法完成。客户端仅在为请求指定超时（Timeout）参数时会得到该响应。 |
| 505 | HTTP Version not<br>supported | 服务器不支持请求的HTTP协议的版本，无法完成处理。                    |

## 7.3 错误码

当您调用API时，如果遇到“APIGW”开头的错误码，请参见[API网关错误码](#)进行处理。

| 状态码 | 错误码              | 错误信息                                                                   | 描述                    | 处理措施              |
|-----|------------------|------------------------------------------------------------------------|-----------------------|-------------------|
| 500 | DBS.0500000<br>0 | server error.                                                          | 服务器错误。                | 请联系客服进行处理。        |
| 400 | DBS.0500000<br>1 | The kernel<br>version is too<br>early.                                 | 内核版本过低，不支持创建数据库代理。    | 内核版本过低，请进行内核版本升级。 |
| 400 | DBS.0500000<br>6 | The username<br>and password<br>must be<br>different.                  | 用户名和密码不能相同。           | 请使用强度更高的密码。       |
| 400 | DBS.0500000<br>7 | The password<br>cannot be the<br>username<br>spelled<br>backwards.     | 密码不能是用户名的倒序。          | 请使用强度更高的密码。       |
| 400 | DBS.0500000<br>8 | The current<br>version is the<br>latest. No<br>update is<br>available. | 当前实例源版本与目标版本相同，不需要升级。 | 请选择比原版本更高的版本。     |

| 状态码 | 错误码          | 错误信息                                                                                                               | 描述                                           | 处理措施                                         |
|-----|--------------|--------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----------------------------------------------|
| 400 | DBS.05000009 | The truncate_lsn value exceeds the threshold. Change the value during off-peak hours or contact technical support. | truncate_lsn 超过阈值，请在业务低峰期进行变更，或者联系技术人员处理后变更。 | truncate_lsn 超过阈值，请在业务低峰期进行变更，或者联系技术人员处理后变更。 |
| 400 | DBS.05000010 | The write priority of proxy nodes must be unique.                                                                  | 数据库代理下的写优先级不能重复，请重新设置。                       | 数据库代理下的写优先级不能重复，请重新设置。                       |
| 400 | DBS.05000011 | The value must be a positive integer and less than the number of primary nodes.                                    | 写优先级取值为正整数，且小于实例的主节点数量，请重新设置。                | 写优先级取值为正整数，且小于实例的主节点数量，请重新设置。                |
| 400 | DBS.05000012 | Please contact Huawei cloud customer service to upgrade.                                                           | 请联系华为云客服进行升级。                                | 请联系客服进行升级。                                   |
| 400 | DBS.05000014 | Dedicated edition cannot be changed to general-purpose edition.                                                    | 实例规格不允许从独享型变更到通用型。                           | 实例规格不允许从独享型变更到通用型。                           |
| 400 | DBS.05000015 | General-purpose edition is not supported.                                                                          | 当前租户不支持通用型规格。                                | 当前租户不支持通用型规格。                                |
| 400 | DBS.05000018 | Request parameter list is empty.                                                                                   | 请求参数列表为空。                                    | 请求参数列表为空，请检查参数列表。                            |

| 状态码 | 错误码          | 错误信息                                                                                     | 描述                                                 | 处理措施               |
|-----|--------------|------------------------------------------------------------------------------------------|----------------------------------------------------|--------------------|
| 400 | DBS.05000019 | DBA Assistant is not supported.                                                          | 不支持智能DBA。                                          | 不支持智能DBA，请联系客服开通。  |
| 400 | DBS.05000020 | No more ip addresses are available, need \$ {ipNumNeed} ,left \$ {ipNumLeft}.            | 子网内IP不足，需要IP\$ {ipNumNeed} 个,剩余IP\$ {ipNumLeft} 个。 | 请更换子网创建实例。         |
| 400 | DBS.05000021 | dnsName has already exist.                                                               | 内网域名已存在。                                           | 请更换内网域名。           |
| 400 | DBS.05000022 | InstanceId do not match proxy.                                                           | 实例与数据库代理不匹配。                                       | 请更换数据库代理。          |
| 400 | DBS.05000023 | The operation not supported. Contact the administrator please.                           | 不支持该操作，请联系客服人员。                                    | 不支持该操作，请联系客服人员处理。  |
| 400 | DBS.05000024 | This operation cannot be performed because there are large transactions in the database. | 数据库中存存在大事务，不能进行操作。                                 | 数据库中存存在大事务，不能进行操作。 |
| 400 | DBS.05000025 | Failed to lock the resource package.                                                     | 资源包加锁失败。                                           | 资源包加锁失败，请联系客服人员处理。 |
| 400 | DBS.05000026 | Resource package already exists.                                                         | 资源包已存在。                                            | 资源包已存在，请联系客服人员处理。  |

| 状态码 | 错误码          | 错误信息                                                                                                                                | 描述                                       | 处理措施                              |
|-----|--------------|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|-----------------------------------|
| 400 | DBS.05000027 | If read replicas can be automatically added or deleted during the auto scaling policy, you cannot create or delete proxy instances. | 开启自动变配的增删只读功能后，不允许开关数据库代理。               | 开启自动变配的增删只读功能后，不允许开关数据库代理。        |
| 400 | DBS.05000028 | You do not have operation permissions \$ {agencyName}. Check account permissions on IAM.                                            | 当前用户没有操作权限 \$ {agencyName}，请通过IAM检查账户权限。 | 当前用户没有操作权限，请通过IAM检查账户权限。          |
| 400 | DBS.05000029 | Encrypted backup and cross-region backup cannot be both enabled.                                                                    | 备份加密实例不支持打开跨区域备份。                        | 备份加密实例不支持打开跨区域备份，请先关系备份加密功能。      |
| 400 | DBS.05000030 | Encrypted backup and cross-region backup cannot be both enabled.                                                                    | 存在跨区域备份实例不支持打开备份加密。                      | 存在跨区域备份实例不支持打开备份加密，请先关闭跨区备份功能。    |
| 400 | DBS.05000031 | The current KMS algorithm does not support encrypted backup.                                                                        | kms密钥算法不支持备份加密。                          | 当前kms密钥算法不支持备份加密，请选择SM4或AES算法的密钥。 |
| 400 | DBS.05000032 | Proxy not support this port.                                                                                                        | 数据库代理不支持该端口号，请参考官方文档填写正确的端口号。            | 数据库代理不支持该端口号，请参考官方文档填写正确的端口号。     |

| 状态码 | 错误码          | 错误信息                                                                                                      | 描述                                  | 处理措施                     |
|-----|--------------|-----------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------|
| 400 | DBS.05000033 | Proxy dns duplicate, please reset it.                                                                     | 数据库代理地址域名重复, 请重新设置。                 | 需要重新设置代理地址 (即读写分离地址) 域名。 |
| 400 | DBS.05000034 | The kernel version of the new instance must be later than or equal to original instance, please reset it. | 新实例内核版本应该大于等于原实例内核版本, 请重新设置。        | 请选择更高的内核版本               |
| 400 | DBS.05000035 | Specifying complete kernel version is not supported, please reset it.                                     | 不支持指定4位内核版本, 请重新设置。                 | 请联系客服开启对应的白名单。           |
| 400 | DBS.05000036 | Invalid records. Enter a valid value.                                                                     | 无效的查询记录数, 请按照取值范围重新输入。              | 无效的查询记录数, 请按照取值范围重新输入。   |
| 400 | DBS.05000037 | Invalid database charset. Enter a valid charset from [{charsets}].                                        | 无效的数据库字符集, 请按照[{charsets}]取值范围重新输入。 | 根据提示信息修改为正确的字符集。         |
| 400 | DBS.05000038 | The tag is not compliant. The tag must comply with the corresponding tag policy.                          | 标签不合规。标签应该符合对应的标签策略。                | 请联系客服进行处理。               |
| 400 | DBS.05000042 | Invalid databases. Enter a valid value.                                                                   | 无效的数据库表, 请重新输入。                     | 请核对数据库表名是否正确。            |
| 400 | DBS.05000043 | Invalid last_table_info. Enter a valid value.                                                             | 无效的最终库表, 请重新输入。                     | 请核对最终库表是否正确。             |

| 状态码 | 错误码              | 错误信息                                                                                                          | 描述                                            | 处理措施             |
|-----|------------------|---------------------------------------------------------------------------------------------------------------|-----------------------------------------------|------------------|
| 400 | DBS.0500004<br>4 | Param error: [\$ {parameter}].                                                                                | 参数错误: [\$ {parameter}]。<br>。                  | 请根据错误描述输入正确的参数。  |
| 400 | DBS.0500004<br>5 | Some databases name are repeated.                                                                             | 备份的数据库重复。                                     | 请检查备份的数据库是否重复。   |
| 400 | DBS.0500004<br>6 | Some tables name are repeated.                                                                                | 备份的数据库表重复。                                    | 请检查备份的数据库表是否重复。  |
| 400 | DBS.0500004<br>7 | Some databases name are not exists.                                                                           | 源数据库不存在。                                      | 请检查源数据库是否正确。     |
| 400 | DBS.0500004<br>8 | Some tables name are not exists.                                                                              | 源数据库表不存在。                                     | 请检查源数据库表是否正确。    |
| 400 | DBS.0500004<br>9 | Binlog meta data is not exist.                                                                                | Binlog日志元数据不存在。                               | 请联系客服进行处理。       |
| 400 | DBS.0500005<br>8 | The non-extended-use specifications cannot be changed to extended-use specifications or the other way around. | 实例规格不允许增程型与非增程型互相变更。                          | 请选择正确的规格进行变更。    |
| 400 | DBS.0500006<br>2 | Kernel parameter [\$ {parameter}] must be [\$ {paraValue}].                                                   | 内核参数[\$ {parameter}]必须为[\$ {paraValue}]。<br>。 | 请根据错误描述修改参数值。    |
| 400 | DBS.0500006<br>8 | Not support open TDE function.                                                                                | 不支持打开TDE。                                     | 请联系客服打开对应的白名单。   |
| 400 | DBS.0500006<br>9 | The current kernel version does not support the TDE function.                                                 | 当前内核版本不支持打开TDE。                               | 请选择支持打开TDE的内核版本。 |

| 状态码 | 错误码              | 错误信息                                                                                   | 描述                       | 处理措施             |
|-----|------------------|----------------------------------------------------------------------------------------|--------------------------|------------------|
| 400 | DBS.0500007<br>0 | Invalid TDE encryption type. Only SM4 or AES256 is supported.                          | TDE加密类型无效，仅支持SM4或AES256。 | 请选择支持的TDE加密类型。   |
| 400 | DBS.0500007<br>1 | Failed to update the TDE information.                                                  | 更新TDE信息失败。               | 请联系客服进行处理。       |
| 400 | DBS.0500007<br>2 | The current user is in the blacklist. They have no permissions to create DB instances. | 当前用户在黑名单中，无权限创建实例。       | 请联系客服进行处理。       |
| 400 | DBS.0500007<br>3 | The TDE instance cannot change to a kernel version that does not support TDE.          | TDE实例无法变更到不支持TDE的内核版本。   | 请选择支持TDE的内核版本。   |
| 400 | DBS.0500007<br>4 | You cannot specify AZs for read replicas.                                              | 不支持指定可用区创建只读节点。          | 请联系客服打开对应的白名单。   |
| 400 | DBS.0500007<br>6 | Invalid proxy name.                                                                    | 无效的Proxy名称。              | 请选择有效的代理名称。      |
| 400 | DBS.0500007<br>7 | Node deletion failed. Delete residual data on the node first.                          | 操作节点存在数据库尚未清理，不允许删除。     | 请清理数据库后再删除对应的节点。 |
| 400 | DBS.0500007<br>8 | New node weight is null. Please input it.                                              | 新增节点权重为空，请输入。            | 新增节点时，请输入对应的权重。  |

| 状态码 | 错误码          | 错误信息                                                                                      | 描述                            | 处理措施                 |
|-----|--------------|-------------------------------------------------------------------------------------------|-------------------------------|----------------------|
| 400 | DBS.05000079 | Failed to verify the database synchronization configuration. Please check: [{parameter}]. | 库同步配置校验失败，请检查： [{parameter}]。 | 请根据错误描述，检查报错参数。      |
| 400 | DBS.05000080 | Failed to verify the table synchronization configuration. Please check: [{parameter}].    | 表同步配置校验失败，请检查： [{parameter}]。 | 请根据错误描述，检查报错参数。      |
| 400 | DBS.05000081 | Too many nodes.                                                                           | 节点个数超过最大配额。                   | 请选择低于最大配额的节点个数。      |
| 400 | DBS.05000084 | Read replicas are being created.                                                          | 创建只读节点过程中不允许关闭自动变配策略。         | 等只读节点创建完毕，再关闭自动变配策略。 |
| 400 | DBS.05000085 | The availability zone mode is not supported: [{parameter}].                               | 不支持该可用区类型： [{parameter}]。     | 请根据错误描述，检查报错参数。      |
| 400 | DBS.05000086 | Invalid AZ: [{parameter}].                                                                | 可用区取值非法： [{parameter}]。       | 请根据错误描述，检查报错参数。      |
| 400 | DBS.05000087 | Invalid dedicated resource id: [{parameter}].                                             | 专属资源ID非法： [{parameter}]。      | 请根据错误描述，检查报错参数。      |
| 400 | DBS.05000088 | Invalid backup time: [{parameter}].                                                       | 备份时间非法： [{parameter}]。        | 请根据错误描述，检查报错参数。      |



| 状态码 | 错误码          | 错误信息                                                                                                         | 描述                                      | 处理措施             |
|-----|--------------|--------------------------------------------------------------------------------------------------------------|-----------------------------------------|------------------|
| 400 | DBS.05000089 | Invalid node quantity: [{parameter}].                                                                        | 节点数量非法: [{parameter}]。                  | 请根据错误描述, 检查报错参数。 |
| 400 | DBS.05000090 | Invalid security group: [{parameter}].                                                                       | 安全组非法: [{parameter}]。                   | 请根据错误描述, 检查报错参数。 |
| 400 | DBS.05000091 | Unsupported operation: [{parameter}].                                                                        | 不支持该操作: [{parameter}]。                  | 请根据错误描述, 检查报错参数。 |
| 400 | DBS.05000092 | General volume is not supported.                                                                             | 当前租户不支持通用存储规格。                          | 请联系客服打开对应的白名单。   |
| 400 | DBS.05000093 | Readonly proxy with balance route not support route to master.                                               | 只读模式数据库代理开启负载均衡时不支持路由到主。                | 请联系客服进行处理。       |
| 400 | DBS.05000094 | The cv_lsn value exceeds the threshold. Change the value during off-peak hours or contact technical support. | cv_lsn超过阈值, 请在业务低峰期进行变更, 或者联系技术人员处理后变更。 | 请联系客服进行处理。       |
| 400 | DBS.05000095 | This operation cannot be performed because there are long transactions in the database.                      | 数据库中存在长事务, 不能进行操作。                      | 请联系客服进行处理。       |

| 状态码 | 错误码          | 错误信息                                                                                                                           | 描述                           | 处理措施                           |
|-----|--------------|--------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------------------------|
| 400 | DBS.05000096 | CPU usage is too high or tables number exceeds the upper limit not support re-diagnose.                                        | CPU过高或者表数量超过限制值时不支持下发重新诊断。   | 请联系客服进行处理。                     |
| 409 | DBS.05000097 | The same account name and host IP already exist.                                                                               | 已存在相同的账号名称和主机IP。             | 请选择不同的账号名称或者主机IP。              |
| 400 | DBS.05000098 | The current kernel version does not support level-1 backups.                                                                   | 当前内核版本不支持打开一级备份。             | 请选择合适的内核版本。                    |
| 400 | DBS.05000099 | The flavor of arm standard don't support to resize.                                                                            | 标准版规格不支持规格变更。                | 请选择正确的规格码进行规格变更。               |
| 400 | DBS.05000100 | The failover priority cannot be set to 1 because the specifications of this node are different from those of the primary node. | 该节点与主节点规格不一致，不允许设定故障倒换优先级为1。 | 请设置为其他故障倒换优先级。                 |
| 400 | DBS.05000101 | A manual switchover can be performed only for nodes with the failover priority set to 1.                                       | 仅可手动倒换到优先级为1的节点。             | 手动倒换时只支持倒换到优先级为1的节点。           |
| 400 | DBS.05000102 | A node with failover priority set to 1 is required.                                                                            | 必须存在一个倒换优先级为1的节点。            | 修改故障倒换优先级需要确保至少存在一个倒换优先级为1的节点。 |

| 状态码 | 错误码          | 错误信息                                                                                           | 描述               | 处理措施                             |
|-----|--------------|------------------------------------------------------------------------------------------------|------------------|----------------------------------|
| 400 | DBS.05000103 | Specifications of yearly/monthly instances cannot be upgraded and downgraded at the same time. | 不支持包周期资源同时升配和降配。 | 请联系客服进行处理。                       |
| 400 | DBS.200001   | Parameter error.                                                                               | 参数错误。            | 检查传入的参数或URL是否全部正确。               |
| 400 | DBS.200004   | Parameter error.                                                                               | 参数错误。            | 检查传入的参数或URL是否全部正确。               |
| 400 | DBS.200006   | The request is null. Enter a request parameter.                                                | 请求为空，请输入请求参数。    | 检查是否有必选请求参数为空。                   |
| 400 | DBS.200021   | Invalid DB instance name.                                                                      | 实例名非法。           | 检查实例名称是否正确。                      |
| 400 | DBS.200023   | Storage space is out of range.                                                                 | 卷大小超出允许范围。       | 检查磁盘大小是否超出允许范围。                  |
| 400 | DBS.200024   | Invalid region.                                                                                | Region非法。        | 检查可用区名称是否正确，可用区是否在可用范围内。         |
| 400 | DBS.200025   | Invalid AZ.                                                                                    | 可用区取值非法。         | 检查可用区名称是否正确，可用区是否在可用范围内。         |
| 400 | DBS.200026   | Invalid storage type.                                                                          | 卷类型非法。           | 检查磁盘类型是否正确。                      |
| 400 | DBS.200027   | Storage space must be a multiple of 10.                                                        | 卷大小不是10的整数倍。     | 检查磁盘大小是否是10的整数倍。                 |
| 400 | DBS.200040   | The DB engine or version is not supported.                                                     | 不支持的数据库类型或版本。    | 检查是否数据库类型和版本是否匹配，数据库类型和版本是否符合要求。 |

| 状态码 | 错误码        | 错误信息                                                     | 描述           | 处理措施                         |
|-----|------------|----------------------------------------------------------|--------------|------------------------------|
| 400 | DBS.200041 | Invalid database version.                                | 数据库版本非法。     | 检查数据库的版本号是否支持。               |
| 400 | DBS.200042 | The DB engine does not exist.                            | 引擎版本不存在。     | 检查数据库引擎是否为云数据库 GaussDB支持的引擎。 |
| 400 | DBS.200043 | Invalid synchronize model.                               | HA同步模式非法。    | 检查HA同步模式是否符合要求。              |
| 400 | DBS.200048 | Invalid VPC ID.                                          | VPC id非法。    | 检查VPC ID、名称是否正确，是否符合要求。      |
| 400 | DBS.200049 | Invalid subnet ID.                                       | 子网的网络id非法。   | 检查子网ID、名称是否正确，是否符合要求。        |
| 400 | DBS.200051 | Invalid HA mode.                                         | 不合法的ha模式。    | 检查HA模式是否符合要求。                |
| 400 | DBS.200052 | Invalid database root password.                          | 数据库root密码非法。 | 检查用户名和密码是否匹配，密码是否符合密码要求。     |
| 400 | DBS.200053 | The selected specifications do not exist.                | 所选规格不存在。     | 检查规格是否正确，当前可用区是否支持该规格。       |
| 400 | DBS.200054 | Invalid specifications.                                  | 所选规格非法。      | 检查规格是否正确，当前可用区是否支持该规格。       |
| 400 | DBS.200056 | The maximum number of nodes has been reached.            | 节点个数达到最大值。   | 检查实例节点个数是否达到最大值。             |
| 400 | DBS.200063 | Invalid cluster mode.                                    | 集群模式非法。      | 检查传入的mode参数是否非法。             |
| 400 | DBS.200086 | This operation is not allowed by the DB instance status. | 实例状态不允许做该操作。 | 检查实例的状态或实例正在进行的操作是否与请求冲突。    |

| 状态码 | 错误码        | 错误信息                                                                               | 描述              | 处理措施                      |
|-----|------------|------------------------------------------------------------------------------------|-----------------|---------------------------|
| 400 | DBS.200087 | The number of tags added for the DB instance has reached the quota.                | 单个实例标签数量达到最大配额。 | 检查实例的标签是否超过最大限制           |
| 400 | DBS.200098 | The tag already exists.                                                            | 该资源标签已存在。       | 检查标签是否已经存在。               |
| 400 | DBS.200302 | Storage space must be a multiple of 10.                                            | 磁盘大小不是10的整数倍。   | 检查磁盘大小是否是10的倍数。           |
| 400 | DBS.200306 | The new storage space must be greater than or equal to the original storage space. | 扩容参数不合法。        | 检查设置的磁盘大小是否已经超过上限。        |
| 400 | DBS.200461 | The parameter value is out of range.                                               | 参数值超出范围。        | 检查传入的port参数是否非法           |
| 400 | DBS.200504 | Invalid database version.                                                          | 数据库版本非法。        | 检查传入的数据库版本号是否非法           |
| 400 | DBS.200543 | The job does not exist.                                                            | 任务不存在           | 检查传入的任务Id是否非法             |
| 400 | DBS.200823 | The database does not exist.                                                       | 数据库不存在。         | 检查传入的数据库是否存在              |
| 400 | DBS.200824 | The database account does not exist.                                               | 数据库帐号不存在。       | 检查传入的用户是否存在               |
| 400 | DBS.201014 | This operation is not allowed by the DB instance status.                           | 实例状态不允许做该操作。    | 检查实例的状态或实例正在进行的操作是否与请求冲突。 |
| 400 | DBS.201101 | Invalid backup cycle.                                                              | 备份周期非法。         | 检查备份周期是否符合要求。             |

| 状态码 | 错误码        | 错误信息                                               | 描述            | 处理措施                         |
|-----|------------|----------------------------------------------------|---------------|------------------------------|
| 400 | DBS.201103 | Invalid backup start time.                         | 备份开始时间非法。     | 检查备份开始时间是否符合要求。              |
| 400 | DBS.201106 | Invalid retention days.                            | 备份保留天数非法。     | 检查备份保留天数是否符合要求。              |
| 400 | DBS.201203 | The backup file does not exist.                    | 备份文件不存在。      | 检查该备份是否存在，备份是否匹配实例。          |
| 400 | DBS.201207 | The DB engine or version is not supported.         | 不支持该数据库引擎或版本。 | 检查数据库引擎是否为云数据库 GaussDB支持的引擎。 |
| 400 | DBS.201208 | The operation is not allowed by the backup status. | 备份状态不允许。      | 请检查备份状态是否为"备份完成"。            |
| 400 | DBS.212002 | Incorrect parameter group quota.                   | 参数组配额错误。      | 参数组配额超过限制，请删除无用的参数模板再重新创建。   |
| 400 | DBS.212003 | Operation not allowed.                             | 不支持此操作。       | 默认参数模板不允许重置和删除。              |
| 400 | DBS.212004 | Parameter group update error.                      | 参数组更新错误。      | 请检查要修改的参数值是否合法。              |
| 400 | DBS.212005 | The node does not belong to the group.             | 节点不属于组。       | 该节点不属于该实例，请检查实例id或节点id是否正确。  |
| 400 | DBS.212007 | The DB engine does not exist.                      | 引擎不存在。        | 检查数据库引擎是否存在。                 |
| 400 | DBS.212008 | The DB engine is not supported.                    | 不支持的引擎。       | 检查数据库引擎是否为云数据库 GaussDB支持的引擎。 |
| 400 | DBS.212009 | Task processing failed.                            | 任务处理失败。       | 任务处理失败，请联系客服解决。              |

| 状态码 | 错误码        | 错误信息                                              | 描述          | 处理措施                                        |
|-----|------------|---------------------------------------------------|-------------|---------------------------------------------|
| 400 | DBS.212010 | The parameter group is being applied.             | 绑定正在执行。     | 正在应用参数模板，待完成后再进行其他操作。                       |
| 400 | DBS.212011 | Application failed.                               | 绑定失败。       | 应用参数模板失败，请联系客服解决。                           |
| 400 | DBS.212012 | The parameter does not exist.                     | 参数不存在。      | 请检查要修改的参数名是否正确。                             |
| 400 | DBS.212014 | The node does not have a default parameter group. | 节点没有默认参数组。  | 请检查节点ID或参数组ID是否正确。                          |
| 400 | DBS.212015 | Partial success.                                  | 部分成功。       | 请检查要修改的参数名是否正确。                             |
| 400 | DBS.212016 | Parameter update failed.                          | 参数更新失败。     | 修改参数失败，请联系客服解决。                             |
| 400 | DBS.212017 | Invalid parameter.                                | 参数错误。       | 请检查参数名是否合法。                                 |
| 400 | DBS.212025 | Update failed.                                    | 更新失败。       | 修改参数失败，请联系客服解决                              |
| 400 | DBS.212030 | Parameter error                                   | 参数错误。       | 参数模板名已经存在。                                  |
| 400 | DBS.212032 | The parameter template has been applied.          | 参数模板已被应用。   | 参数模板已经被应用，不能删除该模板。                          |
| 400 | DBS.212037 | Parameters are incorrectly set.                   | 参数设置不正确。    | 检查参数是否合法或参数是否在合法范围内。                        |
| 400 | DBS.270024 | Proxy instance does not exist.                    | Proxy实例不存在。 | 检查租户是否拥有该proxy实例，传入的proxy实例id是否正确，代理实例是否存在。 |
| 400 | DBS.270025 | Invalid weight.                                   | 权重非法。       | 检查传入的权重格式和范围是否正确。                           |

| 状态码 | 错误码        | 错误信息                                                     | 描述                     | 处理措施                                 |
|-----|------------|----------------------------------------------------------|------------------------|--------------------------------------|
| 400 | DBS.270026 | Invalid proxy mode.                                      | 数据库代理类型非法。             | 检查传入的数据库代理类型是否正确。                    |
| 400 | DBS.270027 | Select a proxy instance.                                 | 未指定数据库代理。              | 检查参数数据库代理id是否为空。                     |
| 400 | DBS.280001 | Parameter error.                                         | 参数错误。                  | 检查传入的参数或URL是否全部正确，是否符合要求。            |
| 400 | DBS.280127 | Invalid backup description.                              | 备份描述非法。                | 检查备份描述是否正确，是否符合要求。                   |
| 400 | DBS.280128 | The database name does not exist.                        | 数据库名不存在。               | 检查租户是否拥有该实例，实例名或实例ID是否正确，实例是否存在。     |
| 400 | DBS.280203 | This is a weak password. Please enter a strong password. | 这是一个弱密码，请输入一个强度大一些的密码。 | 检查密码是否过于简单，请更改为较复杂的密码。               |
| 400 | DBS.280204 | Invalid parameter.                                       | 输入参数不合法。               | 检查参数是否合法或参数是否在合法范围内。                 |
| 400 | DBS.280214 | The backup does not exist.                               | 备份不存在。                 | 检查备份保留天数是否正确。                        |
| 400 | DBS.280216 | Invalid backup start time.                               | 备份开始时间非法。              | 检查备份开始时间是否符合要求，备份开始时间和备份结束时间的关系是否正确。 |
| 400 | DBS.280235 | Invalid database type.                                   | 数据库类型非法                | 检查数据库引擎名称是否正确。                       |
| 400 | DBS.280237 | Datastore not specified.                                 | Datastore为空。           | 检查数据库引擎是否为云数据库 GaussDB支持的引擎。         |



| 状态码 | 错误码        | 错误信息                                       | 描述            | 处理措施                                 |
|-----|------------|--------------------------------------------|---------------|--------------------------------------|
| 400 | DBS.280238 | The DB engine or version is not supported. | 不支持的数据库类型或版本。 | 检查是否数据库类型和版本是否匹配，数据库类型和版本是否符合要求。     |
| 400 | DBS.280239 | Invalid specifications.                    | 所选规格非法。       | 检查规格码是否正确，规格在当前可用区是否存在，规格是否支持。       |
| 400 | DBS.280241 | Invalid storage type.                      | 卷类型非法。        | 检查磁盘的类型是否正确，是否符合要求。                  |
| 400 | DBS.280242 | Storage space is out of range.             | 卷大小超出允许范围。    | 检查磁盘大小的值是否正确。                        |
| 400 | DBS.280246 | Invalid database root password             | 数据库root密码非法。  | 检查用户名和密码是否匹配，密码是否符合密码要求。             |
| 400 | DBS.280250 | Invalid backup retention days.             | 备份保留期非法。      | 检查输入备份数据的保留时间是否合法或是否在合法范围内。          |
| 400 | DBS.280251 | Invalid backup cycle.                      | 备份周期不合法。      | 检查输入备份周期是否合法或是否在合法范围内。               |
| 400 | DBS.280253 | Invalid backup start time.                 | 备份开始时间非法。     | 检查备份开始时间是否符合要求，备份开始时间和备份结束时间的关系是否正确。 |
| 400 | DBS.280260 | Invalid available zone mode.               | 无效的可用区模式。     | 检查可用区的模式是否有效。                        |
| 400 | DBS.280270 | The parameter does not exist.              | 参数不存在。        | 请检查要修改的参数名是否正确。                      |
| 400 | DBS.280271 | The parameter value is out of range.       | 参数值超出范围。      | 检查参数值是否在有效范围内。                       |

| 状态码 | 错误码        | 错误信息                                                     | 描述                     | 处理措施                             |
|-----|------------|----------------------------------------------------------|------------------------|----------------------------------|
| 400 | DBS.280272 | The tag key must be unique.                              | 新增tag存在重复的key。         | 检查新增tag是否已存在。                    |
| 400 | DBS.280277 | Invalid backup name.                                     | 备份名称非法。                | 检查备份名称是否正确，是否符合要求。               |
| 400 | DBS.280285 | Invalid AZ.                                              | 可用区取值非法。               | 检查可用区名称是否正确，可用区是否在可用范围内。         |
| 400 | DBS.280288 | Invalid FlavorRef.                                       | 规格非法。                  | 检查规格ID是否为null或空串。                |
| 400 | DBS.280311 | Invalid storage space size.                              | 存储空间大小非法。              | 检查磁盘大小的值是否正确，是否符合要求。             |
| 400 | DBS.280325 | Invalid storage information.                             | 硬盘信息不合法。               | 检查磁盘大小或磁盘类型是否合法。                 |
| 400 | DBS.280342 | Invalid cluster mode.                                    | 集群模式非法。                | 检查实例模式是否正确，是否符合要求，实例模式与实例ID是否匹配。 |
| 400 | DBS.280364 | Invalid database port.                                   | 数据库端口号无效。              | 检查数据库设置的端口是否可用。                  |
| 400 | DBS.280402 | Invalid HA mode.                                         | Ha模式非法。                | 检查输入的Ha模式是否符合要求。                 |
| 400 | DBS.280404 | Invalid DB instance ID or node ID format.                | 实例ID非法。                | 检查实例ID是否符合规则。                    |
| 400 | DBS.280434 | Invalid specification code.                              | 所选规格码非法。               | 检查规格码是否符合规则，规格是否存在，规格是否可用。       |
| 400 | DBS.280439 | Invalid records. Enter a positive integer less than 100. | 无效的查询记录数，请输入小于100的正整数。 | 检查查询记录数是否在有效范围内。                 |
| 400 | DBS.280448 | The storage type is sold out.                            | 当前卷类型已售罄。              | 检查当前卷类型是否存在可用。                   |

| 状态码 | 错误码        | 错误信息                                                                           | 描述                       | 处理措施                           |
|-----|------------|--------------------------------------------------------------------------------|--------------------------|--------------------------------|
| 400 | DBS.280449 | Operation not allowed on frozen objects.                                       | 不能对冻结的对象执行该操作。           | 检查实例是否冻结，当前操作是否支持在实例冻结期间进行。    |
| 400 | DBS.280450 | The DB instance specifications are sold out.                                   | 当前规格已售罄。                 | 规格已售罄，请更换可用区或联系客服。             |
| 400 | DBS.280500 | ELB must be enabled.                                                           | 需开启ELB。                  | 需开启ELB。                        |
| 400 | DBS.280505 | CBC error: There are unprocessed orders.                                       | CBC错误：存在未处理的订单，不能进行当前操作。 | 检查当前订单是否已处理完成。                 |
| 400 | DBS.290000 | Parameter error.                                                               | 参数错误。                    | 检查传入的参数或URL是否全部正确，是否符合要求。      |
| 400 | DBS.290001 | Invalid parameter letter case.                                                 | 参数大小写错误。                 | 检查传入的参数大小写是否正确，是否符合要求。         |
| 403 | DBS.200010 | The DB instance ID or user ID may be null, or the operation is not authorized. | 实例ID和用户ID可能为空，或者操作越权。    | 检查入参是否正确，实例是否存在，检查租户是否操作越权。    |
| 403 | DBS.200044 | Resource not found or permission denied.                                       | 访问资源不存在，或者无访问权限。         | 检查入参是否正确，访问资源是否存在，检查租户是否有访问权限。 |
| 403 | DBS.200604 | The DB instance ID or user ID may be null, or the operation is not authorized. | 实例ID和用户ID可能为空，或者操作越权。    | 检查入参是否正确，实例是否存在，检查租户是否操作越权。    |
| 403 | DBS.200810 | You are not allowed to create databases on read replicas.                      | 不能在只读实例创建数据库。            | 只读实例不允许创建数据库，请更换读写实例创建数据库。     |

| 状态码 | 错误码        | 错误信息                                                             | 描述                              | 处理措施                                    |
|-----|------------|------------------------------------------------------------------|---------------------------------|-----------------------------------------|
| 403 | DBS.200819 | You are not allowed to delete database users on read replicas.   | 不能在只读实例执行删除数据库用户。               | 只读实例不允许删除数据库用户。                         |
| 403 | DBS.201003 | Resource not found or permission denied.                         | 访问资源不存在，或者无访问权限。                | 检查入参是否正确，访问资源是否存在，检查租户是否有访问权限。          |
| 403 | DBS.280015 | Resource not found or permission denied.                         | 访问资源不存在，或者无访问权限。                | 检查入参是否正确，访问资源是否存在，检查租户是否有访问权限。          |
| 403 | DBS.280056 | Invalid token.                                                   | Token非法。                        | 检查实例是否属于租户，token是否已经重新获取。               |
| 404 | DBS.200002 | The DB instance does not exist.                                  | 实例不存在。                          | 检查实例ID、实例是否正确，实例是否存在。                   |
| 404 | DBS.200008 | The ECS information of the DB instance cannot be found.          | 请检查数据库，确认实例的虚拟机信息，找不到该实例的虚拟机信息。 | 检查入参是否正确，实例状态是否正常。                      |
| 404 | DBS.200013 | The original DB instance does not exist.                         | 源实例不存在。                         | 检查实例ID、实例是否正确，实例是否存在。                   |
| 404 | DBS.200045 | The DB instance does not exist.                                  | 实例不存在。                          | 检查实例ID、实例是否正确，实例是否存在。                   |
| 404 | DBS.200050 | The security group does not exist or does not belong to the VPC. | 安全组不存在，或不属于该VPC。                | 检查输入安全组ID是否合法，安全组是否存在，节点的读内网地址是否属于该安全组。 |
| 404 | DBS.200408 | The DB instance does not exist.                                  | 实例不存在或已删除。                      | 检查实例ID、实例是否正确，实例是否存在。                   |

| 状态码 | 错误码        | 错误信息                                                     | 描述               | 处理措施                    |
|-----|------------|----------------------------------------------------------|------------------|-------------------------|
| 404 | DBS.200470 | The region or AZ does not exist.                         | Region或可用区不存在。   | 检查可用区是否正确。              |
| 404 | DBS.200501 | The subnet does not exist or does not belong to the VPC. | 子网不存在, 或不属于该VPC。 | 检查子网ID、名称是否存在, 是否匹配VPC。 |
| 404 | DBS.200503 | The VPC does not exist or does not belong to the user.   | VPC不存在, 或不属于该用户。 | 检查租户是否拥有该VPC。           |
| 404 | DBS.200602 | The DB instance does not exist.                          | 该实例不存在。          | 检查实例ID、实例是否正确, 实例是否存在。  |
| 404 | DBS.201010 | The backup information does not exist.                   | 备份信息不存在。         | 检查该备份是否存在, 备份是否匹配实例。    |
| 404 | DBS.201028 | The DB instance does not exist.                          | 实例不存在或已删除。       | 检查实例ID、实例是否正确, 实例是否存在。  |
| 404 | DBS.212001 | The parameter group does not exist.                      | 参数组不存在。          | 检查参数组是否存在。              |
| 404 | DBS.290002 | The selected specifications do not exist.                | 所选规格不存在。         | 检查规格是否正确, 当前可用区是否支持该规格。 |
| 404 | DBS.290005 | The DB instance does not exist.                          | 该实例不存在。          | 检查实例ID、实例是否正确, 实例是否存在。  |
| 404 | DBS.290011 | The DB instance does not exist.                          | 实例不存在。           | 检查实例ID、实例是否正确, 实例是否存在。  |
| 404 | DBS.290013 | Resource not found.                                      | 未找到资源。           | 检查入参是否正确, 实例是否存在。       |

| 状态码 | 错误码        | 错误信息                                                                                  | 描述                               | 处理措施                     |
|-----|------------|---------------------------------------------------------------------------------------|----------------------------------|--------------------------|
| 409 | DBS.200011 | Another operation is being performed on the DB instance or the DB instance is faulty. | 该实例正在进行其它操作或该实例故障，无法执行该操作，请稍后重试。 | 检查实例状态或实例正在进行的操作是否和请求冲突。 |
| 409 | DBS.200019 | Another operation is being performed on the DB instance or the DB instance is faulty. | 该实例正在进行其他操作或该实例故障，无法执行该操作，请稍后重试。 | 检查实例状态或实例正在进行的操作是否和请求冲突。 |
| 409 | DBS.200022 | The DB instance name already exists.                                                  | 实例名称已存在。                         | 检查实例名称是否已经存在。            |
| 409 | DBS.200047 | Another operation is being performed on the DB instance or the DB instance is faulty. | 该实例正在进行其它操作或该实例故障，无法执行该操作，请稍后重试。 | 检查实例状态或实例正在进行的操作是否和请求冲突。 |
| 409 | DBS.200316 | This operation cannot be performed because the DB instance status is Storage full.    | 当前实例状态为存储空间满，不能进行该操作。            | 实例存储空间已满，请调整存储空间大小。      |
| 409 | DBS.200826 | The database name already exists.                                                     | 数据库名称已存在。                        | 检查数据库名称是否合法。             |
| 409 | DBS.200827 | The database user already exists.                                                     | 账号名称已存在。                         | 检查数据库用户是否合法。             |

| 状态码 | 错误码        | 错误信息                                                                                  | 描述                               | 处理措施                                  |
|-----|------------|---------------------------------------------------------------------------------------|----------------------------------|---------------------------------------|
| 409 | DBS.200828 | You are not allowed to create a database built-in account.                            | 数据库内置账号，用户不可创建。                  | 检查数据库用户是否合法。                          |
| 409 | DBS.201202 | Another operation is being performed on the DB instance or the DB instance is faulty. | 该实例正在进行其它操作或该实例故障，无法执行该操作，请稍后重试。 | 检查实例状态或实例正在进行的操作是否和请求冲突。              |
| 409 | DBS.201205 | Backup is in progress, please wait.                                                   | 正在备份中，请稍等。                       | 实例正在备份中，等待备份完成后重试操作。                  |
| 409 | DBS.212006 | Another operation is being performed on the DB instance or the DB instance is faulty. | 该实例正在进行其它操作或该实例故障，无法执行该操作，请稍后重试。 | 检查实例状态或实例正在进行的操作是否和请求冲突。              |
| 409 | DBS.280406 | Operation not allowed by the DB instance type or status.                              | 实例类型或状态受限，操作不允许。                 | 操作不允许，可能是实例类型错误或实例状态不允许，请检查实例类型和实例状态。 |
| 413 | DBS.200046 | The number of DB instances has reached the quota.                                     | 实例数量达到配额。                        | 实例数量配额达到限制，请联系管理员调整配额。                |
| 413 | DBS.290003 | The number of DB instances has reached the quota.                                     | 实例数量达到配额。                        | 实例数量配额达到限制，请联系管理员调整配额。                |
| 422 | DBS.212019 | The parameter cannot be processed.                                                    | 请求中的参数或对象不能被正确识别。                | 请求参数错误，请检查参数合法性。                      |

| 状态码 | 错误码        | 错误信息                                        | 描述           | 处理措施                  |
|-----|------------|---------------------------------------------|--------------|-----------------------|
| 500 | DBS.108000 | Server failure.                             | 服务器错误。       | 服务内部错误，请联系客服。         |
| 500 | DBS.108002 | Server failure.                             | 服务器错误。       | 服务内部错误，请联系客服。         |
| 500 | DBS.108005 | Server failure.                             | 服务器错误。       | 服务内部错误，请联系客服。         |
| 500 | DBS.200005 | Server failure.                             | 服务器错误。       | 服务内部错误，请联系客服。         |
| 500 | DBS.200208 | Server failure.                             | 服务器错误。       | 服务内部错误，请联系客服。         |
| 500 | DBS.200811 | Failed to create the database.              | 创建数据库失败。     | 检查失败原因，可能是资源不足，请联系客服。 |
| 500 | DBS.200821 | Failed to modify database user permissions. | 修改数据库用户权限失败。 | 可能是操作状态校验拦截，请重试。      |
| 500 | DBS.213002 | Failed to process the request.              | 请求处理失败。      | 服务内部错误，请联系客服。         |
| 500 | DBS.213004 | Failed to process the request.              | 请求处理失败。      | 服务内部错误，请联系客服。         |
| 500 | DBS.290006 | Failed to process the request.              | 请求处理失败。      | 服务内部错误，请联系客服。         |
| 500 | DBS.290015 | Failed to process the request.              | 请求处理失败。      | 服务内部错误，请联系客服。         |

## 7.4 获取项目 ID

### 操作场景

在调用接口的时候，部分URL中需要填入项目编号，所以需要获取到项目编号。有如下两种获取方式：

- [调用API获取项目ID](#)
- [从控制台获取项目ID](#)



## 调用 API 获取项目 ID

项目ID可以通过调用[查询指定条件下的项目信息](#)API获取。

获取项目ID的接口为“GET https://{Endpoint}/v3/projects”，其中{Endpoint}为IAM的终端节点，可以从[地区和终端节点](#)获取。接口的认证鉴权请参见[认证鉴权](#)。

响应示例如下，其中projects下的“id”即为项目ID。

```
{
  "projects": [
    {
      "domain_id": "65382450e8f64ac0870cd180d14e684b",
      "is_domain": false,
      "parent_id": "65382450e8f64ac0870cd180d14e684b",
      "name": "project_name",
      "description": "",
      "links": {
        "next": null,
        "previous": null,
        "self": "https://www.example.com/v3/projects/a4a5d4098fb4474fa22cd05f897d6b99"
      },
      "id": "a4a5d4098fb4474fa22cd05f897d6b99",
      "enabled": true
    }
  ],
  "links": {
    "next": null,
    "previous": null,
    "self": "https://www.example.com/v3/projects"
  }
}
```

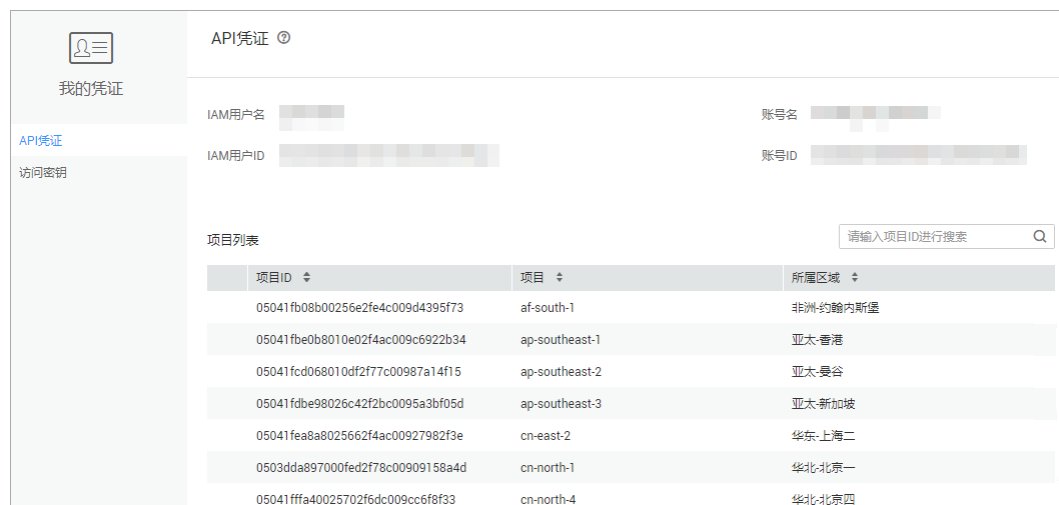
## 从控制台获取项目 ID

**步骤1** 注册并登录管理控制台。

**步骤2** 鼠标悬停在右上角的用户名，选择下拉列表中“我的凭证”。

在“API凭证”页面的项目列表中查看项目ID。

图 7-1 查看项目 ID



----结束

## 7.5 云数据库 TaurusDB 监控指标说明

### 功能说明

本节定义了云数据库TaurusDB上报云监控的监控指标的命名空间，监控指标列表和维度定义，用户可以通过云监控提供的API接口来检索云数据库TaurusDB产生的监控指标和告警信息。

### 命名空间

SYS.GAUSSDB

### 监控指标

表 7-3 监控指标说明

| 指标                                 | 指标名称    | 含义                             | 取值范围           | 备注                               |
|------------------------------------|---------|--------------------------------|----------------|----------------------------------|
| gaussdb_mysql001_cpu_util          | CPU使用率  | 该指标用于统计测量对象的CPU利用率。            | 0 ~ 100%       | 测量对象：弹性云服务器<br>监控实例类型：TaurusDB实例 |
| gaussdb_mysql002_mem_util          | 内存使用率   | 该指标用于统计测量对象的内存利用率。             | 0 ~ 100%       | 测量对象：弹性云服务器<br>监控实例类型：TaurusDB实例 |
| gaussdb_mysql004_bytes_in          | 网络输入吞吐量 | 该指标用于统计平均每秒从测量对象的所有网络适配器输入的流量。 | ≥0 Bytes/s     | 测量对象：弹性云服务器<br>监控实例类型：TaurusDB实例 |
| gaussdb_mysql005_bytes_out         | 网络输出吞吐量 | 该指标用于统计平均每秒从测量对象的所有网络适配器输出的流量。 | ≥0 Bytes/s     | 测量对象：弹性云服务器<br>监控实例类型：TaurusDB实例 |
| gaussdb_mysql006_conn_count        | 数据库总连接数 | 该指标用于统计连接到MySQL服务器的总连接数。       | ≥0 Connections | 测量对象：数据库<br>监控实例类型：TaurusDB实例    |
| gaussdb_mysql007_conn_active_count | 当前活跃连接数 | 该指标用于统计当前活跃的连接数。               | ≥0 Connections | 测量对象：数据库<br>监控实例类型：TaurusDB实例    |

| 指标                                          | 指标名称          | 含义                                            | 取值范围          | 备注                               |
|---------------------------------------------|---------------|-----------------------------------------------|---------------|----------------------------------|
| gaussdb_mysql008_qps                        | QPS           | 该指标用于统计SQL语句查询次数，包含DDL，DML，SHOW语句，SET语句和存储过程。 | ≥0 Times/s    | 测量对象：弹性云服务器<br>监控实例类型：TaurusDB实例 |
| gaussdb_mysql009_tps                        | TPS           | 该指标用于统计平均每秒事务执行次数，包含提交的和回退的。                  | ≥0 Times/s    | 测量对象：弹性云服务器<br>监控实例类型：TaurusDB实例 |
| gaussdb_mysql010_innodb_buf_usage           | 缓冲池利用率        | 该指标用于统计使用的页与InnoDB缓存中数据页总数比例。                 | 0 ~ 100%      | 测量对象：弹性云服务器<br>监控实例类型：TaurusDB实例 |
| gaussdb_mysql011_innodb_buf_hit             | 缓冲池命中率        | 该指标用于统计该段时间读命中与读请求数比例。                        | 0 ~ 100%      | 测量对象：弹性云服务器<br>监控实例类型：TaurusDB实例 |
| gaussdb_mysql012_innodb_buf_dirty           | 缓冲池脏块率        | 该指标用于统计InnoDB缓存中脏数据与数据比例。                     | 0 ~ 100%      | 测量对象：数据库<br>监控实例类型：TaurusDB实例    |
| gaussdb_mysql013_innodb_reads               | InnoDB读取吞吐量   | 该指标用于统计InnoDB平均每秒读字节数。                        | ≥0 Bytes/s    | 测量对象：数据库<br>监控实例类型：TaurusDB实例    |
| gaussdb_mysql014_innodb_writes              | InnoDB写入吞吐量   | 该指标用于统计InnoDB平均每秒写字节数。                        | ≥0 Bytes/s    | 测量对象：弹性云服务器<br>监控实例类型：TaurusDB实例 |
| gaussdb_mysql017_innodb_log_write_req_count | InnoDB日志写请求频率 | 该指标用于统计平均每秒的日志写请求数。                           | ≥0 Requests/s | 测量对象：弹性云服务器<br>监控实例类型：TaurusDB实例 |
| gaussdb_mysql020_temp_tbl_count             | 临时表数量         | 该指标用于统计MySQL执行语句时在硬盘上自动创建的临时表的数量。             | ≥0 Tables     | 测量对象：弹性云服务器<br>监控实例类型：TaurusDB实例 |

| 指标                                    | 指标名称                    | 含义                                  | 取值范围             | 备注                               |
|---------------------------------------|-------------------------|-------------------------------------|------------------|----------------------------------|
| gaussdb_mysql028_comdml_del_count     | Delete语句执行频率            | 该指标用于统计平均每秒Delete语句执行次数。            | ≥0 Statement s/s | 测量对象：弹性云服务器<br>监控实例类型：TaurusDB实例 |
| gaussdb_mysql029_comdml_ins_count     | Insert语句执行频率            | 该指标用于统计平均每秒Insert语句执行次数。            | ≥0 Statement s/s | 测量对象：数据库<br>监控实例类型：TaurusDB实例    |
| gaussdb_mysql030_comdml_ins_sel_count | Insert_Select语句执行频率     | 该指标用于统计平均每秒Insert_Select语句执行次数。     | ≥0 Statement s/s | 测量对象：数据库<br>监控实例类型：TaurusDB实例    |
| gaussdb_mysql031_comdml_rep_count     | Replace语句执行频率           | 该指标用于统计平均每秒Replace语句执行次数。           | ≥0 Statement s/s | 测量对象：弹性云服务器<br>监控实例类型：TaurusDB实例 |
| gaussdb_mysql032_comdml_rep_sel_count | Replace_Selection语句执行频率 | 该指标用于统计平均每秒Replace_Selection语句执行次数。 | ≥0 Statement s/s | 测量对象：弹性云服务器<br>监控实例类型：TaurusDB实例 |
| gaussdb_mysql033_comdml_sel_count     | Select语句执行频率            | 该指标用于统计平均每秒Select语句执行次数。            | ≥0 Statement s/s | 测量对象：弹性云服务器<br>监控实例类型：TaurusDB实例 |
| gaussdb_mysql034_comdml_upd_count     | Update语句执行频率            | 该指标用于统计平均每秒Update语句执行次数。            | ≥0 Statement s/s | 测量对象：弹性云服务器<br>监控实例类型：TaurusDB实例 |
| gaussdb_mysql035_innodb_del_row_count | 行删除速率                   | 该指标用于统计平均每秒从InnoDB表删除的行数。           | ≥0 Rows/s        | 测量对象：数据库<br>监控实例类型：TaurusDB实例    |
| gaussdb_mysql036_innodb_ins_row_count | 行插入速率                   | 该指标用于统计平均每秒向InnoDB表插入的行数。           | ≥0 Rows/s        | 测量对象：数据库<br>监控实例类型：TaurusDB实例    |

| 指标                                             | 指标名称       | 含义                              | 取值范围           | 备注                               |
|------------------------------------------------|------------|---------------------------------|----------------|----------------------------------|
| gaussdb_mysql037_innodb_read_row_count         | 行读取速率      | 该指标用于统计平均每秒从InnoDB表读取的行数。       | ≥0 Rows/s      | 测量对象：弹性云服务器<br>监控实例类型：TaurusDB实例 |
| gaussdb_mysql038_innodb_upd_row_count          | 行更新速率      | 该指标用于统计平均每秒向InnoDB表更新的行数。       | ≥0 Rows/s      | 测量对象：弹性云服务器<br>监控实例类型：TaurusDB实例 |
| gaussdb_mysql048_disk_used_size                | 磁盘使用量      | 该指标用于统计测量对象的磁盘使用大小。             | 0GB ~ 128TB    | 测量对象：弹性云服务器<br>监控实例类型：TaurusDB实例 |
| gaussdb_mysql072_conn_usage                    | 连接数使用率     | 该指标用于统计当前已用的MySQL连接数占最大连接数的百分比。 | 0~100%         | 测量对象：弹性云服务器<br>监控实例类型：TaurusDB实例 |
| gaussdb_mysql074_slow_queries                  | 慢日志个数统计    | 该指标展示每分钟MySQL产生慢日志的数量。          | ≥0 Queries/min | 测量对象：数据库<br>监控实例类型：TaurusDB实例    |
| gaussdb_mysql077_replication_delay             | 数据同步延迟     | 该指标用于采集集群实例的数据同步延迟时间。           | ≥0 s           | 测量对象：数据库<br>监控实例类型：TaurusDB实例    |
| gaussdb_mysql104_dfv_write_delay               | 存储写时延      | 该指标用于统计某段时间写入数据到存储层的平均时延。       | ≥0 ms          | 测量对象：弹性云服务器<br>监控实例类型：TaurusDB实例 |
| gaussdb_mysql105_dfv_read_delay                | 存储读时延      | 该指标用于统计某段时间从存储层读取数据的平均时延。       | ≥0 ms          | 测量对象：弹性云服务器<br>监控实例类型：TaurusDB实例 |
| gaussdb_mysql106_innodb_row_lock_current_waits | InnoDB行锁数量 | 该指标用于采集InnoDB表上的操作当前正在等待的行锁数量。  | ≥0 Locks       | 测量对象：弹性云服务器<br>监控实例类型：TaurusDB实例 |

| 指标                                                 | 指标名称                       | 含义                                      | 取值范围             | 备注                               |
|----------------------------------------------------|----------------------------|-----------------------------------------|------------------|----------------------------------|
| gaussdb_mysql107_comdml_ins_and_ins_sel_count      | Insert和Insert_Select语句执行频率 | 该指标用于统计平均每秒Insert和Insert_Select语句的执行次数。 | ≥0 Statement s/s | 测量对象：弹性云服务器<br>监控实例类型：TaurusDB实例 |
| gaussdb_mysql108_com_commit_count                  | Commit语句执行频率               | 该指标用于统计平均每秒Commit语句的执行次数。               | ≥0 Statement s/s | 测量对象：数据库<br>监控实例类型：TaurusDB实例    |
| gaussdb_mysql109_com_rollback_count                | Rollback语句执行频率             | 该指标用于统计平均每秒Rollback语句的执行次数。             | ≥0 Statement s/s | 测量对象：数据库<br>监控实例类型：TaurusDB实例    |
| gaussdb_mysql110_innodb_bufpool_reads              | InnoDB存储层读请求频率             | 该指标用于统计平均每秒InnoDB从存储层读取数据的请求次数。         | ≥0 Times/s       | 测量对象：数据库<br>监控实例类型：TaurusDB实例    |
| gaussdb_mysql111_innodb_bufpool_read_requests      | InnoDB读请求频率                | 该指标用于统计平均每秒InnoDB读取数据的请求次数。             | ≥0 Requests/s    | 测量对象：数据库<br>监控实例类型：TaurusDB实例    |
| gaussdb_mysql114_innodb_bufpool_read_ahead         | innodb顺序预读页数               | 该指标用于统计innodb顺序预读页数。                    | ≥0 Pages         | 测量对象：数据库<br>监控实例类型：TaurusDB实例    |
| gaussdb_mysql115_innodb_bufpool_read_ahead_evicted | innodb顺序预读，但未访问过的页数        | 该指标用于统计innodb顺序预读，但未访问过的页数。             | ≥0 Pages         | 测量对象：数据库<br>监控实例类型：TaurusDB实例    |
| gaussdb_mysql116_innodb_bufpool_read_ahead_rnd     | innodb随机预读页数               | 该指标用于统计innodb随机预读页数。                    | ≥0 Read-aheads   | 测量对象：数据库<br>监控实例类型：TaurusDB实例    |

| 指标                                               | 指标名称                             | 含义                                 | 取值范围             | 备注                                   |
|--------------------------------------------------|----------------------------------|------------------------------------|------------------|--------------------------------------|
| gaussdb_mysql117_innodb_pages_read               | innodb 读取物理page的数量               | 该指标用于统计innodb 读取物理page的数量。         | ≥0 Pages         | 测量对象：数据库<br>监控实例类型：TaurusDB实例        |
| gaussdb_mysql118_innodb_pages_written            | innodb 写入物理page的数量               | 该指标用于统计innodb 写入物理page的数量。         | ≥0 Pages         | 测量对象：数据库<br>监控实例类型：TaurusDB实例        |
| gaussdb_mysql019_innodb_log_writes               | innodb log buffer 写入log file的总次数 | 该指标用于统计对 InnoDB redo log文件的物理写入次数。 | ≥0 Writes        | 测量对象：数据库<br>监控实例类型：TaurusDB实例        |
| gaussdb_mysql342_iostat_iops_write               | IO写 IOPS                         | 该指标用于采集磁盘每秒写次数。                    | ≥0 Operation s/s | 测量对象：数据库<br>监控实例类型：TaurusDB实例        |
| gaussdb_mysql344_iostat_iops_read                | IO读 IOPS                         | 该指标用于采集磁盘每秒读次数。                    | ≥0 Operation s/s | 测量对象：数据库<br>监控实例类型：TaurusDB实例        |
| gaussdb_mysql346_iostat_throughput_write         | IO写带宽                            | 该指标用于采集磁盘每秒写带宽。                    | ≥0 Bytes/s       | 测量对象：数据库<br>监控实例类型：TaurusDB实例        |
| gaussdb_mysql348_iostat_throughput_read          | IO读带宽                            | 该指标用于采集磁盘每秒读带宽。                    | ≥0 Bytes/s       | 测量对象：数据库<br>监控实例类型：TaurusDB实例        |
| gaussdb_mysql119_disk_usage_ratio                | 磁盘使用率                            | 该指标用于统计磁盘的使用率。                     | 0~100%           | 测量对象：数据库<br>监控实例类型：TaurusDB实例<br>1分钟 |
| gaussdb_mysql371_taurus_binlog_total_file_counts | Binlog 文件个数                      | 该指标用于统计 TaurusDB Binlog文件数量。       | ≥0               | 测量对象：数据库<br>监控实例类型：TaurusDB实例<br>5分钟 |

| 指标                                       | 指标名称      | 含义                                        | 取值范围                   | 备注                                        |
|------------------------------------------|-----------|-------------------------------------------|------------------------|-------------------------------------------|
| gaussdb_mysql378_create_temp_tbl_per_min | 临时表每分钟创建数 | 该指标用于统计 TaurusDB 执行语句时在硬盘上每分钟自动创建的临时表的数量。 | $\geq 0$<br>Tables/min | 测量对象：数据库<br>监控实例类型：<br>TaurusDB 实例<br>1分钟 |

## 维度

| Key                       | Value              |
|---------------------------|--------------------|
| gaussdb_mysql_instance_id | TaurusDB 实例ID。     |
| gaussdb_mysql_node_id     | TaurusDB 实例下的节点ID。 |