

Data Admin Service

Getting Started

Issue 01
Date 2021-02-23



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1 Cloud DBA

1.1 Overview

Scenarios

This topic describes how to monitor DB instances using DAS Cloud DBA.

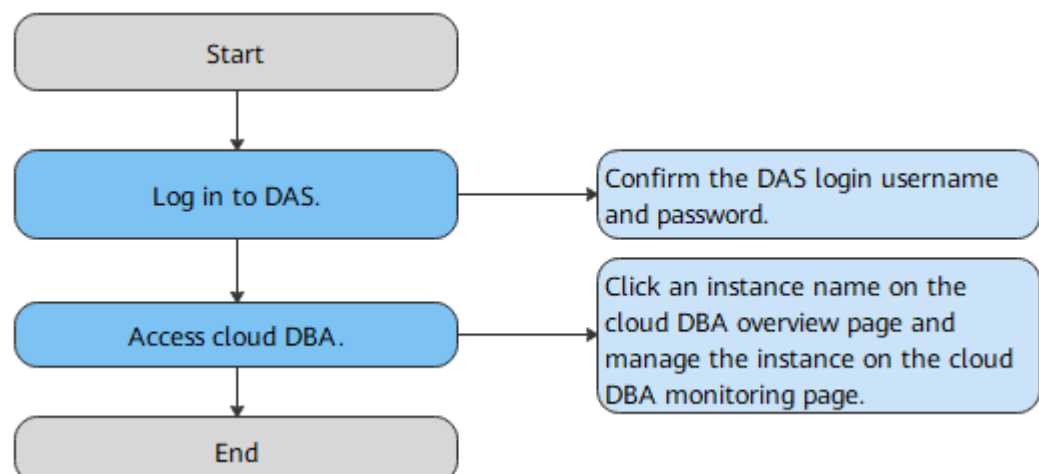
Procedure

Perform the following operations to monitor databases with Cloud DBA.

Step 1: Logging In to DAS

Step 2: Accessing Cloud DBA

Figure 1-1 Using Cloud DBA



1.2 Step 1: Logging In to DAS

Procedure

Step 1 On the login page, enter the account and password to log in to the DAS console.

Figure 1-2 Login page

Account Login

Account name or email

Password


Mobile Number Login Remember me

Log In

Free Registration Forgot Password

IAM User Login HUAWEI ID Login

Use Another Account ▾

Step 2 Click  in the upper left corner and select the desired region and project.

Step 3 Under **Database**, click **Data Admin Service**.

Figure 1-3 Data Admin Service

Database

GaussDB

Relational Database Service

Distributed Database Middleware

Distributed Database Middleware

Document Database Service

GaussDB NoSQL

Data Replication Service

Data Admin Service



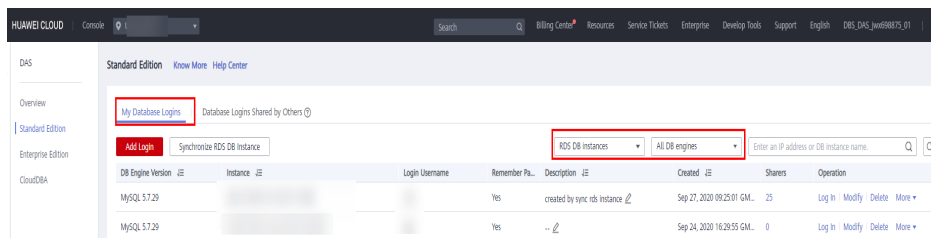
----End

1.3 Step 2: Accessing Cloud DBA

Procedure

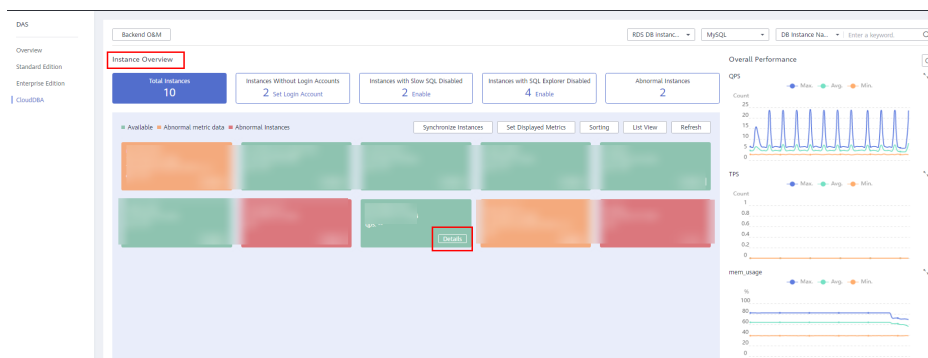
Step 1 In the navigation pane, choose **Cloud DBA** to go to the **Instance Overview** page.

Figure 1-4 DAS homepage



Step 2 Locate the card of the instance you want to view and click **Details**.

Figure 1-5 Cloud DBA instance overview page

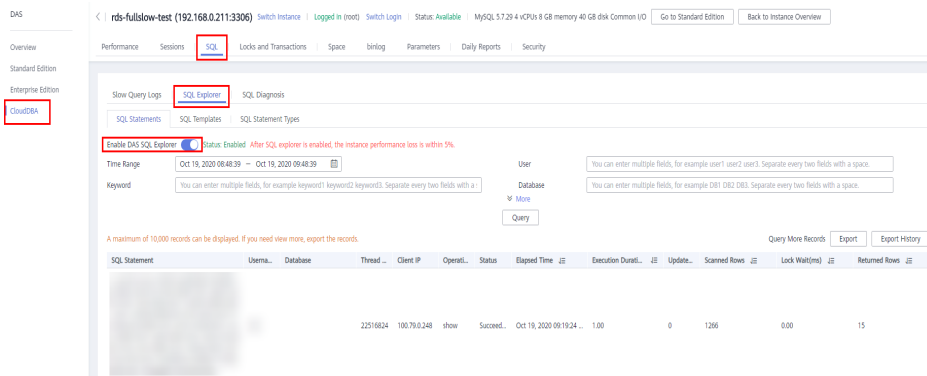


NOTE

In the following example, **SQL Explorer** is used to show how to use cloud DBA functions. For more information, see CloudDBA.

Step 3 On the displayed page, choose **SQL > SQL Explorer**.

Figure 1-6 SQL Explorer

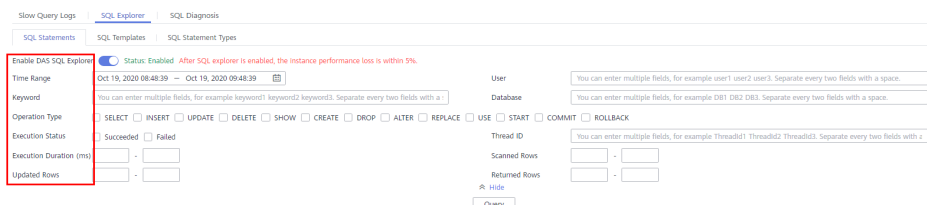


NOTE

- **Enable DAS SQL Explorer** must be enabled so that the system can collect and analyze full SQL statements.
- With **Enable DAS SQL Explorer** enabled, the instance performance loss is within 5%.

Step 4 Click the **SQL Statements** tab.

Figure 1-7 SQL Statements



NOTE

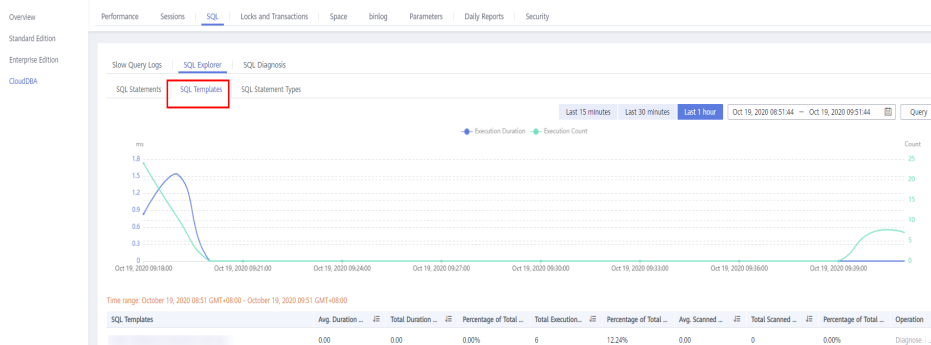
- A maximum of 10,000 data records can be displayed on the **SQL Statements** tab page. To view more records, export the records for view. Columns such as execution duration, elapsed time, scanned rows, and lock wait are also provided. Additionally, SQL statements can be searched by multiple dimensions, including keyword, time range, and number of updated rows.
- To view more records, click **Export** to view them on your local PC.

Figure 1-8 Export



Step 5 Click the **SQL Templates** tab.

Figure 1-9 SQL Templates

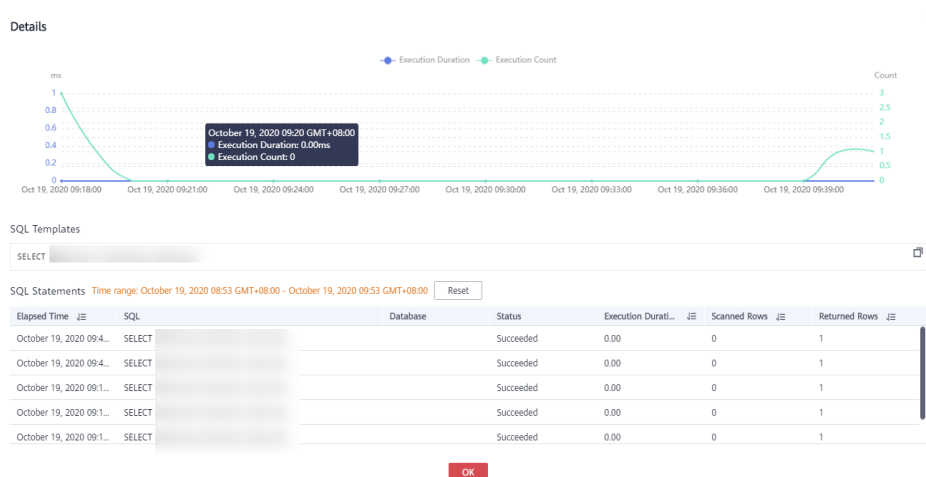


NOTE

- By default, the SQL statement executions in the last 15 minutes are displayed. You can also specify a time range as needed. Columns such as average duration, total duration, total executions, and average scanned rows are provided.

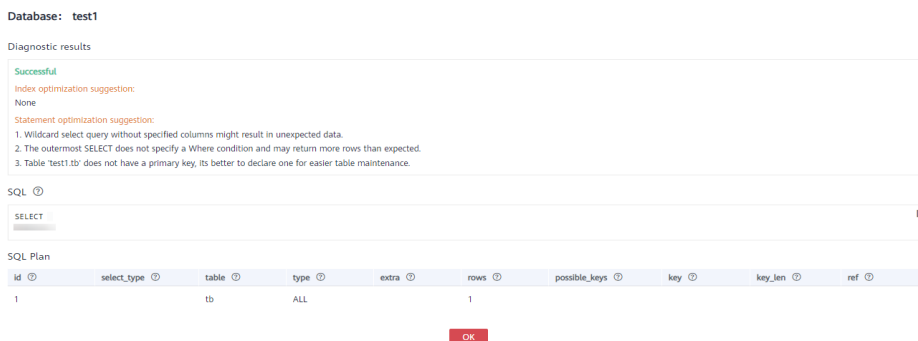
Step 6 Click **Details** in the **Operation** column to view the SQL template details.

Figure 1-10 SQL template details



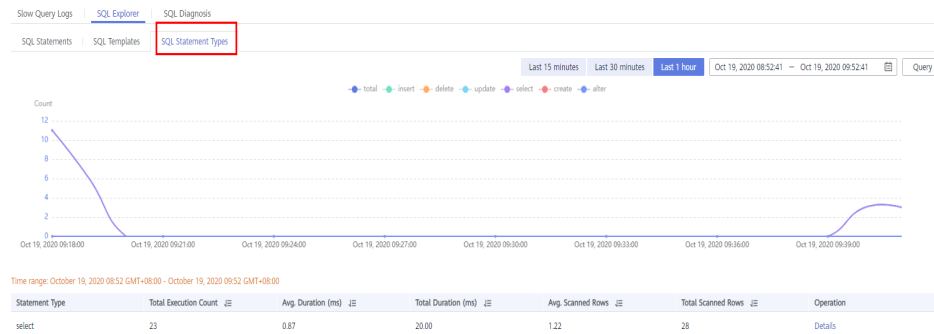
Step 7 Diagnose again and view the diagnosis details.

Figure 1-11 Diagnosis details



Step 8 Click the **SQL Statement Types** tab.

Figure 1-12 SQL Statement Types



NOTE

- On the **SQL Statement Types** tab page, six types of frequently used SQL statements such as INSERT, DELETE, and UPDATE are analyzed and displayed. By default, the SQL statement executions with the last 15 minutes will be displayed. You can also specify a time range for statement display.

Step 9 Click **Details** in the **Operation** column to view SQL details.

Figure 1-13 SQL details



----End

2 Data Management

2.1 Overview

Scenarios

This topic describes how to manage data on the **Database Management** page.

Procedure

Perform the following operations to manage data on the **Database Management** page:

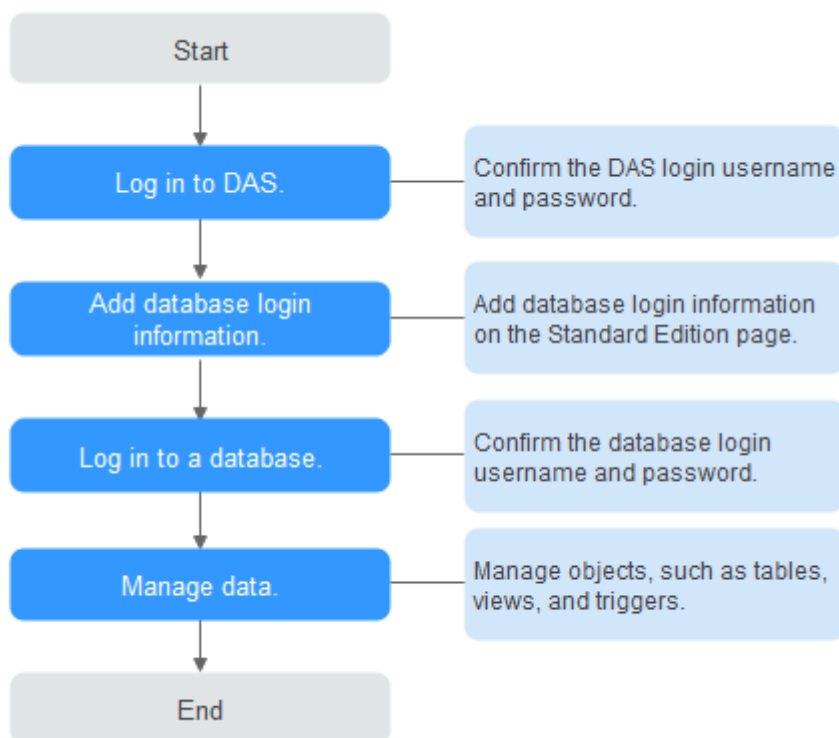
Step 1: Logging In to DAS

Step 2: Adding Database Login Information

Step 3: Logging In to a Database

Step 4: Managing Data

Figure 2-1 Data management operations



2.2 Step 1: Logging In to DAS

Procedure

Step 1 On the login page, enter the account and password to log in to the DAS console.

Figure 2-2 Login page

Account Login

Account name or email

Password

Mobile Number Login Remember me

Log In

Free Registration Forgot Password

IAM User Login HUAWEI ID Login

Use Another Account ▾


- Step 2** Click  in the upper left corner and select the desired region and project.
- Step 3** Under **Database**, click **Data Admin Service**.

Figure 2-3 Data Admin Service

Database

GaussDB

Relational Database Service

Distributed Database Middleware

Distributed Database Middleware

Document Database Service

GaussDB NoSQL

Data Replication Service

Data Admin Service



----End

2.3 Step 2: Adding Database Login Information

Scenarios

- With DAS, you can create logins to manage databases using a GUI.
- In the following example, a login is created for an RDS DB instance. For how to add logins for other DB instances, see Adding Login Information.

Adding RDS DB Instance Login Information

Step 1 On the login management page, click **Add Login**.

Step 2 On the displayed page, select the DB engine and source database, enter the login username, password, and description (optional), and enable **Collect Metadata Periodically** (optional) and **Show Executed SQL Statements** (optional).

Step 3 Test the connection as needed. If a message indicating that the connection failed is displayed, modify the connection according to the failure causes contained in the message.

NOTE

- The username and password required for adding the login are the database username and password.
- The database user must have the remote login permission. RDS DB instance users have the remote permission by default. In other cases, the remote permission must be granted to the users.
- To delete a password, you can modify or delete the login information.
- You are advised to enable **Show Executed SQL Statements**. With it enabled, you can view the executed SQL statements under **SQL Operations > SQL History** and execute them again without entering the SQL statements.

Step 4 Click **OK**.

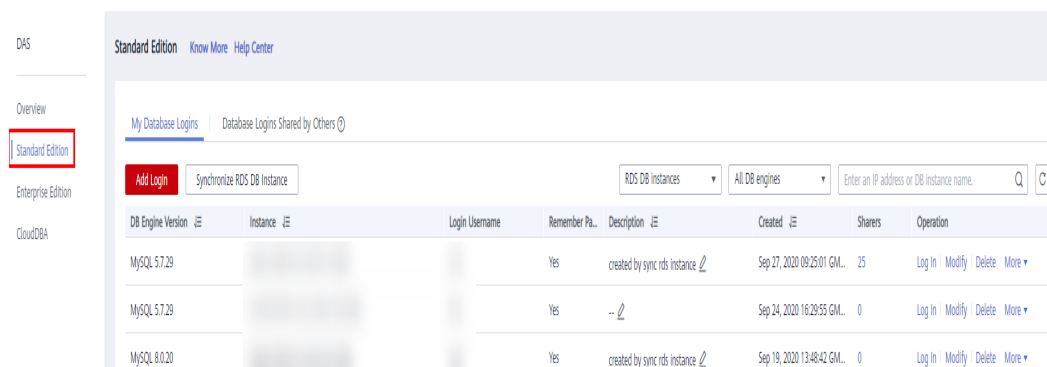
----End

2.4 Step 3: Logging In to a Database

Database Management

Step 1 In the navigation pane, choose **Standard Edition** to go to the **My Database Logins** tab page.

Figure 2-4 DAS Standard Edition



Step 2 Choose **RDS DB instances** and **MySQL** from the drop-down lists in the upper right corner.

NOTE

DAS supports multiple types of DB instances running different engines, including RDS DB instances and GaussDB instances. In this example, RDS for MySQL DB instances are used as examples. For how to use other type of instances, see the corresponding topics in the User Guide.

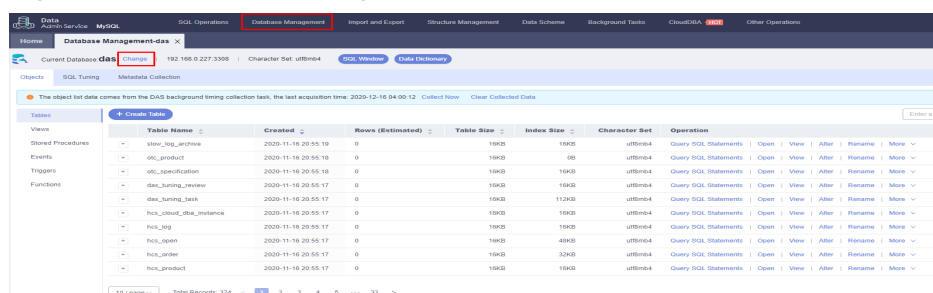
Step 3 Locate the MySQL DB instance you want to log in to and click **Log In** in the **Operation** column.

Figure 2-5 Logging in to a database



Step 4 On the top menu bar, click **Database Management** and click **Change** to select a database you want to operate.

Figure 2-6 Database Management



Step 5 Select the **Objects** tab to view objects such as tables, views, stored procedures, triggers, and functions.

Figure 2-7 Objects

Table Name	Created	Rows (Estimated)	Table Size	Index Size	Character Set	Operation
slow_log_archive	2020-11-19 20:55:19	0	19KB	19KB	utf8mb4	Query SQL Statements Open View Alter Rename More
etc_product	2020-11-18 20:55:18	0	16KB	0B	utf8mb4	Query SQL Statements Open View Alter Rename More
etc_specification	2020-11-18 20:55:18	0	16KB	16KB	utf8mb4	Query SQL Statements Open View Alter Rename More
das_tuning_review	2020-11-19 20:55:17	0	16KB	16KB	utf8mb4	Query SQL Statements Open View Alter Rename More
das_tuning_task	2020-11-18 20:55:17	0	16KB	112KB	utf8mb4	Query SQL Statements Open View Alter Rename More
hcs_cloud_obs_instance	2020-11-18 20:55:17	0	16KB	16KB	utf8mb4	Query SQL Statements Open View Alter Rename More
hcs_bg	2020-11-18 20:55:17	0	16KB	16KB	utf8mb4	Query SQL Statements Open View Alter Rename More
hcs_open	2020-11-18 20:55:17	0	16KB	48KB	utf8mb4	Query SQL Statements Open View Alter Rename More
hcs_order	2020-11-18 20:55:17	0	16KB	32KB	utf8mb4	Query SQL Statements Open View Alter Rename More
hcs_product	2020-11-18 20:55:17	0	16KB	16KB	utf8mb4	Query SQL Statements Open View Alter Rename More

----End

2.5 Step 4: Managing Data

Table Management

Step 1 On the **Objects** tab page, select **Tables**. Click **Create Table** and specify information such as the table name and storage engine.

Figure 2-8 Creating a table

The screenshot displays the 'Create Table' wizard interface. At the top, there are navigation tabs: 'Objects', 'SQL Tuning', 'Metadata Collection', and 'Create Table' (which is active and has a close button 'x'). Below the tabs, a progress bar shows two steps: '1 Basic Information' (active) and '2 Column'. The 'Basic Information' section contains the following fields and options:

- * Table Name**: A text input field.
- Storage Engine**: A dropdown menu with 'InnoDB' selected.
- Character Set**: A dropdown menu with 'utf8mb4' selected.
- Collation**: A dropdown menu with 'utf8mb4_general_ci' selected.
- Comment**: A text area.
- Advanced Settings**: A section header with an upward arrow.
- Partition**: A radio button group with 'Yes' and 'No' (selected).
- Partition Definition**: A text area.
- Auto Increment Initial Value**: A text input field.
- Table Space**: A text input field.
- Row Format**: A dropdown menu.
- Compress**: A radio button group with 'ZLIB', 'LZ4', and 'NONE' options.

Step 2 Ensure the settings are correct and click **Next**. Then add table columns.

Step 3 Click **Next** and add virtual columns, indexes, and foreign keys.

Step 4 Click **Create**. In the **SQL Preview** dialog box, click **Back** if there is something wrong, and click **Execute** to create the table if everything is correct.

Figure 2-9 SQL preview

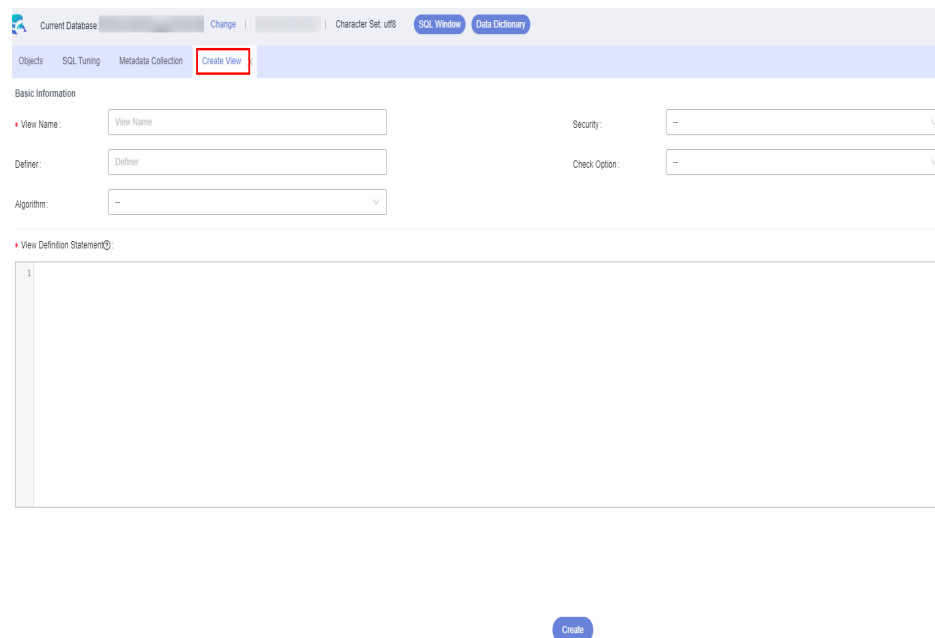


----End

View Management

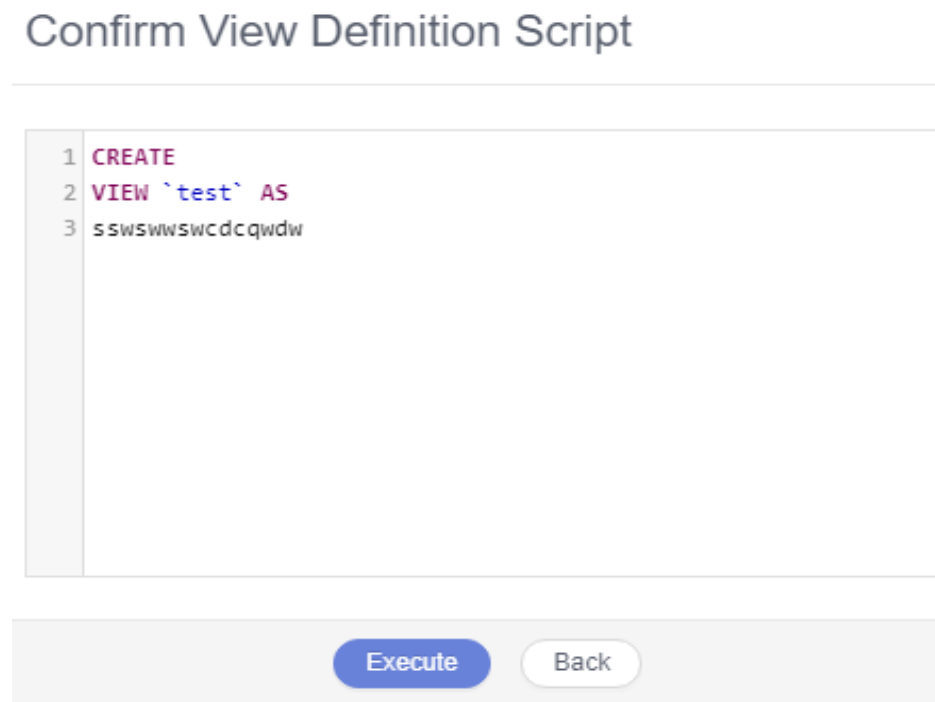
Step 1 On the **Objects** tab page, select **Views**. Click **Create View** and specify information such as the view name, algorithm, security, and view definition statement.

Figure 2-10 Creating a view



Step 2 Click **Create**. In the **SQL Preview** dialog box, click **Back** if there is something wrong, and click **Execute** to create the view if everything is correct.

Figure 2-11 SQL preview

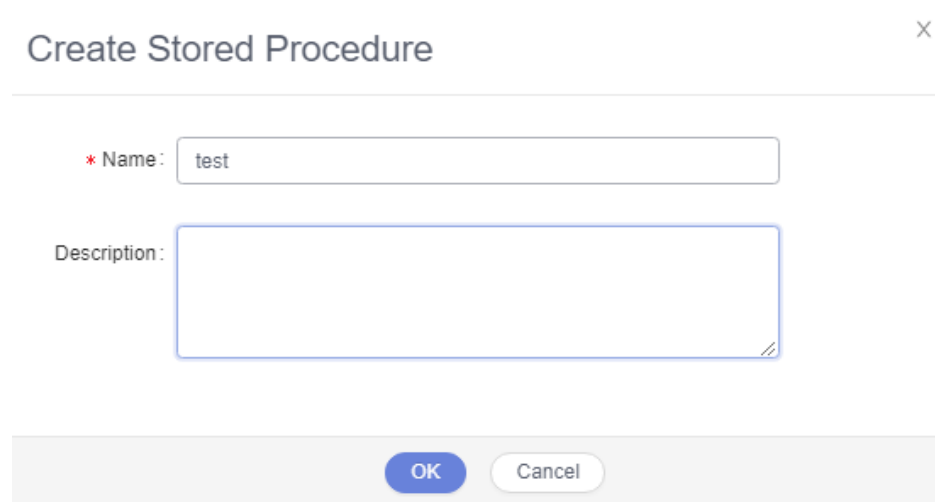


----End

Stored Procedure Management

Step 1 On the **Objects** tab page, select **Stored Procedures**. Click **Create Stored Procedure** and specify the name and description.

Figure 2-12 Creating a stored procedure



Step 2 Ensure the settings are correct and click **OK**. The **Create Stored Procedure** page is displayed.

Step 3 Click **Option** and configure the information such as SQL security and data access.

Figure 2-13 Configuring options

Option

SQL Security: **Default** INVOKER DEFINER

Determinacy: DETERMINISTIC **NOT DETERMINISTIC**

Data Access: **Default** CONTAINS SQL NO SQL READS SQL DATA
MODIFIES SQL DATA

OK Cancel

Step 4 Ensure the settings are correct, and click **OK** and then **Save**.

Step 5 Click **Execute** to create a stored procedure.

Figure 2-14 SQL execution

Objects SQL Tuning Metadata Collection Create Stored Procedure X

Option Save **Execute**

```
1 CREATE PROCEDURE `test1`.`test`()
2     NOT DETERMINISTIC
3 BEGIN
4
5
6 END
```

Message

Failed to save.PROCEDURE test already exists

----End

Event Management

Step 1 On the **Objects** tab page, select **Events**. Click **Create Event** and specify information such as the event name, status, remarks, and event definition statements.

Figure 2-15 Creating an event

Objects SQL Tuning Metadata Collection Create Event x

Basic Information

Event Name: Execution Time:

Dropped upon expiration

Status:

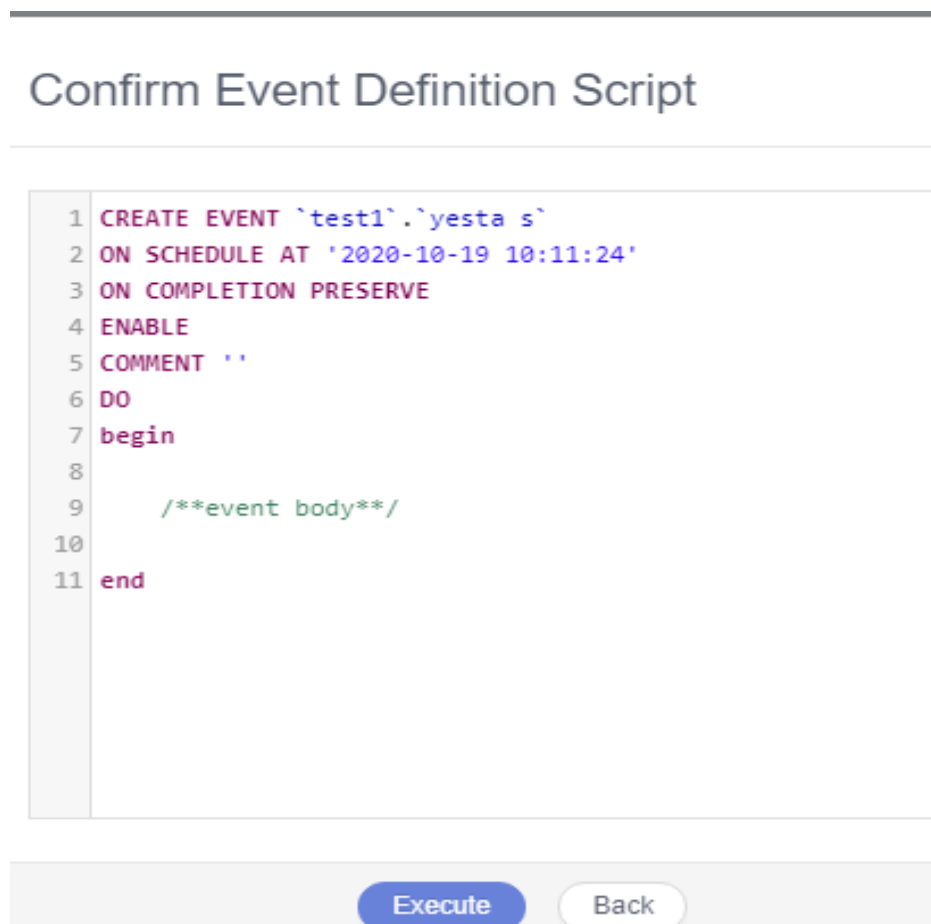
Comment:

Event Definition Statements:

```
1 begin
2
3 /**event body**/
4
5 end
```

Step 2 Click **Create**. In the **SQL Preview** dialog box, click **Back** if there is something wrong, and click **Execute** to create the event if everything is correct.

Figure 2-16 SQL preview



----End

Trigger Management

- Step 1** On the **Objects** tab page, select **Triggers**. Click **Create Trigger** and specify information such as the trigger name, trigger table, trigger condition, trigger event, and trigger definition statement.

Figure 2-17 Creating a trigger

Objects SQL Tuning Metadata Collection **Create Trigger x**

Basic Information

Trigger Name: test

Trigger Table: tb

Trigger Condition: BEFORE

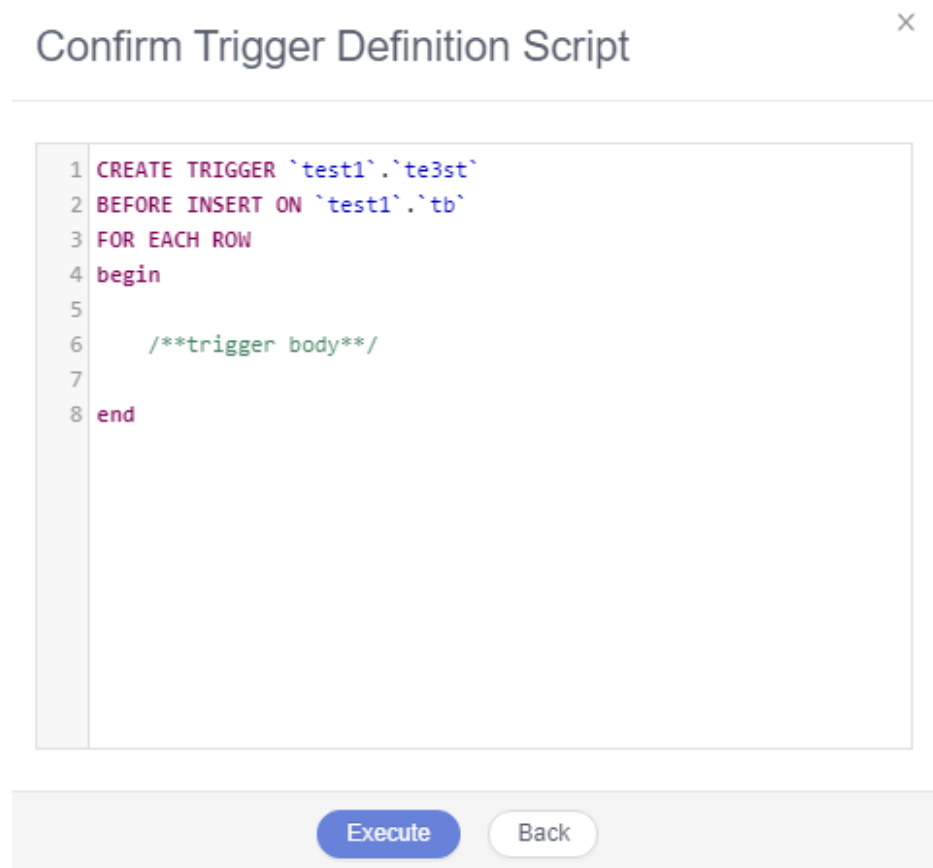
Trigger Event: INSERT

Trigger Definition Statement:

```
1 begin
2
3 /**trigger body**
4
```

Step 2 Click **Create**. In the **SQL Preview** dialog box, click **Back** if there is something wrong, and click **Execute** to create the trigger if everything is correct.

Figure 2-18 SQL preview



----End

Function Management

- Step 1** On the **Objects** tab page, select **Functions**. Click **Create Function** and specify information such as the function name and description.

Figure 2-19 Creating a function

The screenshot shows a 'Create Function' dialog box. It has a title bar with the text 'Create Function' and a close button 'X'. Below the title bar, there are three input fields: 'Function Name' with the value 'test', 'Returned Value Type' with the value 'tinyint', and a 'Description' text area. At the bottom of the dialog, there are two buttons: 'OK' and 'Cancel'.

Step 2 Ensure the settings are correct and click **OK**. The SQL preview page is displayed.

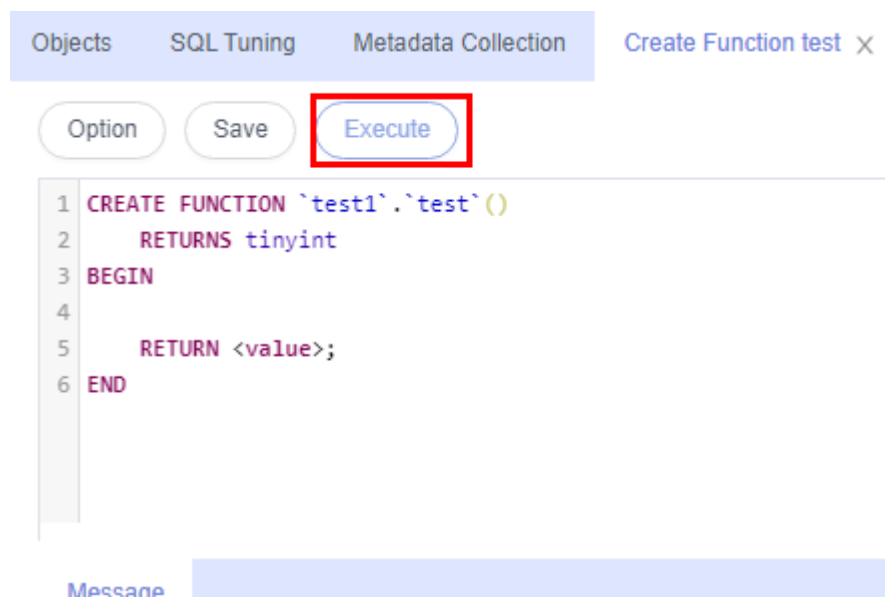
Step 3 Click **Option** and configure the information such as SQL security and data access.

Figure 2-20 Configuring options

The screenshot shows an 'Option' dialog box. It has a title bar with the text 'Option' and a close button 'X'. Below the title bar, there are three sections of radio buttons: 'SQL Security' with options 'Default', 'INVOKER', and 'DEFINER'; 'Determinacy' with options 'DETERMINISTIC' and 'NOT DETERMINISTIC'; and 'Data Access' with options 'DEFAULT', 'CONTAINS SQL', 'NO SQL', 'READS SQL DATA', and 'MODIFIES SQL DATA'. At the bottom of the dialog, there are two buttons: 'OK' and 'Cancel'.

Step 4 Ensure the settings are correct, and click **OK** and then **Save**. Then click **Execute** to create the function. If you want to modify SQL statements, modify them in the SQL window and then click **Execute**.

Figure 2-21 SQL execution



----End

A Change History

Date	Description
2020-10-15	Added the descriptions of CloudDBA and database management.
2020-09-27	Updated the constraints.
2020-08-17	Updated the contents.
2020-07-21	Changed TaurusDB to GaussDB(for MySQL).
2019-10-20	This issue is the second official release, which incorporates the following change: Adjusted the document structure and updated the content to adapt to the new console.
2018-06-25	This issue is the first official release.