**Data Admin Service** 

## **Best Practices**

 Issue
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# SQL Explorer

#### Overview

SQL Explorer is also called SQL audit. It allows you to not only query all executed SQL statements, but also analyze and search for the tables that are accessed and updated the most frequently, and SQL statements that have the longest lock wait, helping you quickly identify exceptions to ensure stable database services.

#### Scenarios

- SQL query for performance tuning
- SQL diagnosis for problem tracking

#### FAQs

- Is SQL Explorer available to all RDS instances?
   No. This function is available to only RDS for MySQL 5.7 instances whose minor versions are later than 5.7.29.2.
- Does this function affect the storage space of DB instances? No. This function does not occupy storage space.
- Is this function available to databases built on ECSs?
   No. This function is not available to community edition databases built on ECSs.
- Does this function affect performance of DB instances?
   This function has slight impact on instance performance. The performance loss is within 5%.

# 1.1 How Do I Check and Optimize Tables by Checking Top SQL?

#### **Example Problem**

A user found in the exported logs that it took more than 2s for a SELECT statement to query information of table **test** and the lock wait duration was long.

#### D NOTE

This feature is available only in regions CN-Hong Kong, CN East-Shanghai1, AP-Singapore, and LA-Sao Paulo1.

#### Suggestion

- Add indexes.
- Optimize tables

#### Procedure

- **Step 1** Log in to the DAS console.
- Step 2 Choose Intelligent O&M > Instance List.
- **Step 3** On the **Instance Overview** page, locate the instance you want to view and click **Details**.
- **Step 4** On the displayed page, choose **SQL** > **SQL Explorer**.
- **Step 5** Click the **TOP SQL** tab.
- **Step 6** In the template list, locate the required SELECT template and click **Details** in the **Operation** column.
- **Step 7** In the SQL statement list, locate database **db\_test** whose template execution took over 2s.
- Step 8 Log in to the target instance on the Development Tool page and choose Database Management. Select the database found in Step 7. Choose Tables in the navigation pane on the left, locate the table that you want to view, and click View in the Operation column. View the index length and row count in the table.
- **Step 9** (Example) If there are few indexes, click **Alter** and add indexes. Return to the **Tables** tab and click **Query SQL Statements**.

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