

This page describes how to use the Google Cloud Console to view statistics for the SQL queries on a Cloud Spanner database that had the highest total CPU usage during a recent period of time.

If you want to retrieve performance data for those queries using SQL, see [Query statistics tables \(/spanner/docs/query-stats-tables#sql-example-queries\)](/spanner/docs/query-stats-tables#sql-example-queries).

Query Statistics displayed in the Cloud Console do not include [DML queries \(/spanner/docs/dml-tasks\)](/spanner/docs/dml-tasks).

Statistics that the Cloud Console displays are an aggregate for all executions of a query over a given period of time, not information about individual executions of the query. Cloud Spanner might not capture every query execution, and the less frequently a query is run, the higher the probability that Cloud Spanner will not capture metrics for it.

Query statistics can include SQL queries on any table in your database. As a result, if you query the [information schema tables \(/spanner/docs/information-schema\)](/spanner/docs/information-schema), or even the [query statistics tables \(/spanner/docs/query-stats-tables\)](/spanner/docs/query-stats-tables), these queries can appear in the query statistics.

For more information on the underlying tables that the Cloud Console uses to display information in the **Query Stats** tab, see [Query statistics tables \(/spanner/docs/query-stats-tables\)](/spanner/docs/query-stats-tables).

To get details about the performance of individual queries, see [Understand how Cloud Spanner executes queries \(/spanner/docs/sql-best-practices#how-execute-queries\)](/spanner/docs/sql-best-practices#how-execute-queries).

Using [query parameters](#)

[\(/spanner/docs/sql-best-practices#use-query-parameters-to-speed-up-frequently-executed-queries\)](/spanner/docs/sql-best-practices#use-query-parameters-to-speed-up-frequently-executed-queries) is a best practice. It both improves query performance and improves the accuracy of query statistics tracking. Cloud Spanner groups the statistics by the text of the SQL query. If a query uses query parameters, all executions are grouped into one row. If the query uses string literals, the statistics are only grouped if the full query text is identical; when any text differs, each query appears as a separate row.

The Cloud Console displays summary statistics for queries on a database that had the highest total CPU usage. The statistics include the total CPU usage, execution count, average latency, and average CPU seconds. From the **Query Stats** tab, you can select a time period for the statistics and investigate individual queries.

To display the recent queries that used the most CPU, follow these steps:

1. Go to the Cloud Spanner **Instances** page.

[View your instances](https://console.cloud.google.com/spanner/instances) (https://console.cloud.google.com/spanner/instances)

2. Click the name of the instance that contains your database.
3. In the **Overview** tab, click the name of your database. The **Database details** page appears.
4. Click **Query stats**.

The list shows queries that had the highest total CPU usage for the complete one-minute interval that is the most recent. Below the list, the Cloud Console displays the time at which the interval ended.

5. Click **10 min**, **1 hour**, or **24 hours** to change the time period for the query statistics.

★ **Note:** If no queries ran on the database in the selected time period, the results will be empty. To see results, try a different time period.

From the **Query stats** tab, you can view additional metrics for a specific query:

1. Click the query for which you want to see additional metrics.

The **Details** panel displays the query metrics.

2. In the **Info panel**, click **Open query**.

The Cloud Console displays the query. You can now [run the query](#).

(/spanner/docs/quickstart-console#run_a_query) and [view its query execution plan](#)

(/spanner/docs/sql-best-practices#how-execute-queries).

The Cloud Console and **Info panel** display several query statistics:

Statistic	Description
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Statistic	Description
Total CPU usage	Total CPU time used for all executions of the query.
Execution count	Number of times Cloud Spanner saw the query during the interval of time.
Average latency	Average length of time, in seconds, for each query execution within the database. This average excludes the encoding and transmission time for the result set as well as overhead.
Average CPU time	Average number of seconds of CPU time Cloud Spanner spent on all operations to execute the query.
Average rows scanned	Average number of rows that the query scanned, excluding deleted values.
Average rows returned	Average number of rows that the query returned.
Average bytes scanned	Average number of bytes that the query scanned.
Average bytes returned	Average number of data bytes returned from the queries, excluding transmission encoding overhead.

Learn how to [retrieve query statistics using SQL queries \(/spanner/docs/query-stats-tables\)](/spanner/docs/query-stats-tables).