Sum and Count in SQL

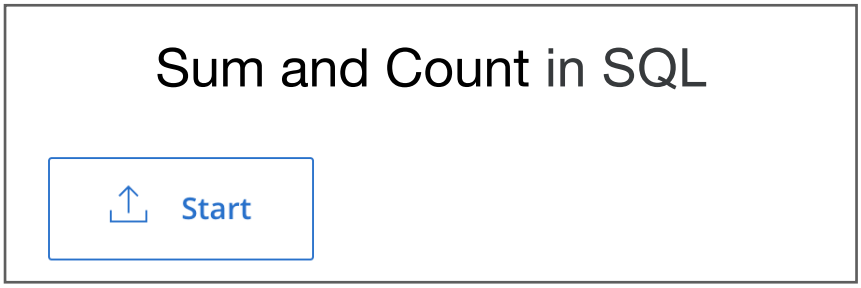
Welcome to this Lab activity

In this lab activity you will be exploring how to use the sum and count aggregate functions. For the purpose of this lab you will be working with the Terminal panel inside Visual Studio Code.

Start the Lab environment application

It is simple launch a lab exercise. You only need to click on the button “Start” below the activity title to enter a lab environment.

Let’s explore this lab activity. Go ahead and click on the “Start” button!



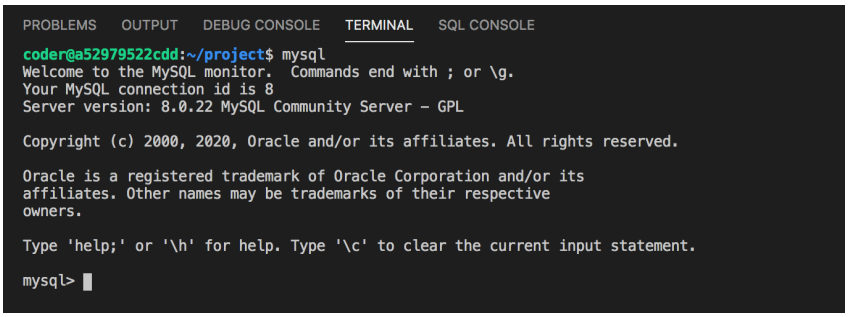
Task 1: Accessing the MySQL interactive shell

The folder structure has already been partially constructed for you and organised into different topics. For the purpose of this lab, you are not required to make any changes to the folder structure. You can see a folder called “topic9” inside this lab environment; it is only there as a reference for you and you are not required to add any content to it. Let’s get started!

In order to access your mysql interactive shell use the Visual Studio Code Terminal and run the following command:

- **mysql**: type this command and press *Enter*. This command will log you into mysql shell as the root (default) user.

If you have successfully followed all the above steps you should now be logged in inside mysql and see the following result on the Terminal:



Task 2: View databases

- First see what databases you have already linked to your virtual server:

SHOW DATABASES;

- You will already have a couple, including the “mysecondBookshop” database you created in the previous lab activity.

Task 3: Query the data in mySQL shell

Let’s first work with the “mysecondBookshop” database:

- Switch to the “mysecondBookshop” database:

USE <DATABASE_NAME>;

- Replace <DATABASE_NAME> with the name of your database (“mysecondBookshop”)
- Find the number of books priced less than £30:

SELECT COUNT(id) FROM Book WHERE Book.price < 30;

You can also perform the above operation in the “myRestaurantMenu” database;

USE <DATABASE_NAME>;

- Replace <DATABASE_NAME> with the name of your database (“myRestaurantMenu”)
- Find the number of all vegetarian dishes:

Which database query do you need to use to perform the above task?

Let’s switch back to the “mysecondBookshop” database:

- Switch to the “mysecondBookshop” database:

USE <DATABASE_NAME>;

- Replace <DATABASE_NAME> with the name of your database (“mysecondBookshop”)
- find the sum of all the prices of the books in your book shop:

SELECT SUM(price) FROM Book;

You can also perform the above operation in the “myRestaurantMenu” database;

USE <DATABASE_NAME>;

- Replace <DATABASE_NAME> with the name of your database (“myRestaurantMenu”)
- Find the sum of all the prices of the dishes in your menu:

  Which database query do you need to use to perform the above task?

Task 4: Exit mysql shell

Exiting the mysql shell is very straight forward. In your Terminal panel type the following command:

- **exit**: type this command and press *Enter*. This command will log you out from your mysql virtual server.

If you have successfully exited the database you will get the following confirmation:

End of Section

Congratulations for completing this section. You have seen how SUM and COUNT can be used when querying a database. In the next lab activity you will be practicing more with database operations and explore the MIN and MAX functions.