Nested Select in SQL

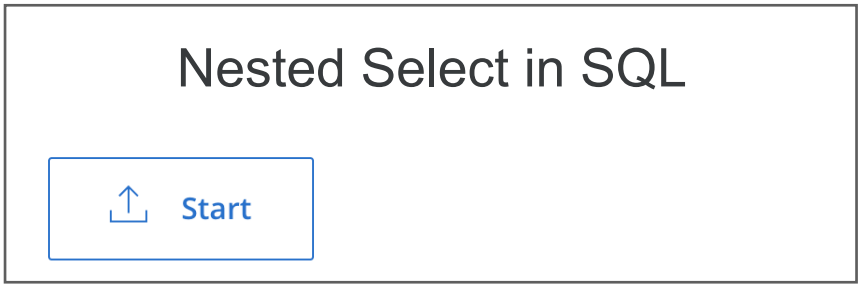
Welcome to this Lab activity

In this lab activity, you will be exploring how to use nested select functions to query your databases. 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 easy to 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!



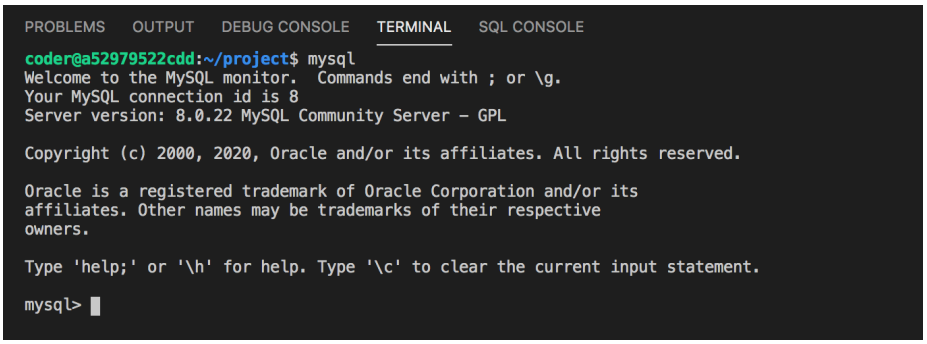
Task 1: Accessing the MySQL interactive shell

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 already have linked to your virtual server:

SHOW DATABASES;

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 all the books that are more expensive than 'Database Book':

SELECT name, price FROM Book WHERE price > (SELECT price FROM Book WHERE name = 'Node.js Book');

Make sure not to hard code the price of the database book in your inner SELECT statement but that you make use of nested SELECTS like shown above.

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 all the dishes that are more expensive than a “cheese burger”:

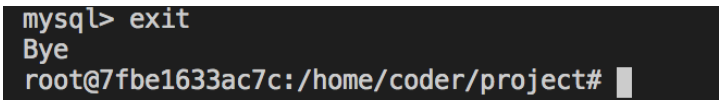
  Which database query do you need to use to perform the above task?

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 nested SELECT can be used when querying a database. In the next lab activity you will be practicing more with database operations and explore more advanced querying techniques.