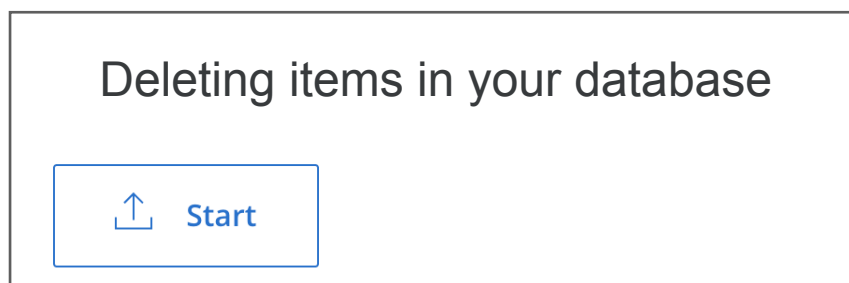# Deleting items in your database

Welcome to this Lab activity

In this lab activity you will be learning how to delete items in an existing database. 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 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!

<div style="border:1px solid">

Deleting items in your database

[↑ Start]

</div>

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 "topic6" inside this lab environment; it is only there as a reference for you and you are not required to add any content to it at the moment. 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:

```
PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL    SQL CONSOLE

coder@a52979522cdd:~/project$ mysql
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 8.0.22 MySQL Community Server - GPL

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql>
```

Task 2: Deleting items in the "myBookshop" database

First of all, let's check the list of databases present in your virtual server.

Use the Visual Studio Code Terminal and run the following command:

- **SHOW DATABASES;** type this command and press *Enter*. This command will show you all the databases that already exist in your virtual server.

```
mysql> SHOW DATABASES;
+--------------------+
| Database           |
+--------------------+
| information_schema |
| myBookshop         |
| myRestaurantMenu   |
| mysql              |
| performance_schema |
| sys                |
+--------------------+
6 rows in set (0.01 sec)
```

Go ahead and select the "myBookshop" database. Use the Visual Studio Code Terminal and run the following command:

- **USE myBookshop;** type this command and press *Enter*. This command will switch and select the "myBookshop" database.

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

```
mysql> USE myBookshop;
Database changed
mysql>
```

Run the following terminal command to view the "books" table content:

- **SELECT * FROM books;** type this command and press *Enter*. This command will retrieve all the data from the "books" table.

```
mysql> SELECT * FROM books;
+----+---------------+-------+
| id | name          | price |
+----+---------------+-------+
|  1 | database book | 25.50 |
|  2 | Node.js book  | 18.99 |
|  3 | Express book  | 31.99 |
+----+---------------+-------+
3 rows in set (0.00 sec)
```

Remember that you will have two additional books in your database if you have completed all the activities so far.

In order to delete data in a database with SQL, you need to use the DELETE statement.

The basic format of the DELETE statement looks like below:

DELETE FROM TableName;

TableName is the name of the table where you want to delete data from.

The above statement will delete all the items in your database table but you can combine your query with the WHERE statement to target a particular entry of a table.

Delete the "database book" which has an id of 1.

Use the Visual Studio Code Terminal and run the following command:

- **DELETE FROM books WHERE id = 1;** type this command and press *Enter*. This command will delete the "database book" from the table;

You can now verify that the "database book" has been deleted from the "books" table.

Run the following terminal command:

- **SELECT * FROM books;** type this command and press *Enter*. This command will retrieve all the data from the "books" table.

```
mysql> SELECT * FROM books;
+----+--------------+-------+
| id | name         | price |
+----+--------------+-------+
|  2 | Node.js book | 25.00 |
|  3 | Express book | 31.99 |
+----+--------------+-------+
2 rows in set (0.00 sec)
```

As you can see the book is no longer present in the table.

Remember that you will have two additional books in your database if you have completed all the activities so far.

Let's now switch database and delete some data in the "myRestaurantMenu" database.

Task 3: Deleting items in the "myRestaurantMenu" database

First of all, let's check the list of databases present in your virtual server.

Use the Visual Studio Code Terminal and run the following command:

- **SHOW DATABASES;** type this command and press *Enter*. This command will show you all the databases that already exist in your virtual server.

```
mysql> SHOW DATABASES;
+--------------------+
| Database           |
+--------------------+
| information_schema |
| myBookshop         |
| myRestaurantMenu   |
| mysql              |
| performance_schema |
| sys                |
+--------------------+
6 rows in set (0.01 sec)
```

Go ahead and select the "myRestaurantMenu" database. Use the Visual Studio Code Terminal and run the following command:

- **USE myRestaurantMenu;** type this command and press *Enter*. This command will switch and select the "myRestaurantMenu" database.

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

```
mysql> USE myRestaurantMenu;
Database changed
mysql>
```

Run the following terminal command to view the "dishes" table content:

- **SELECT * FROM dishes;** type this command and press *Enter*. This command will retrieve all the data from the "dishes" table.

```
mysql> SELECT * FROM dishes;
+----+------------------+-------+---------------+----------+
| id | name             | price | is_vegetarian | is_vegan |
+----+------------------+-------+---------------+----------+
|  1 | pizza margherita |  8.90 |             1 |        0 |
|  2 | soya burger      |  9.50 |             1 |        1 |
+----+------------------+-------+---------------+----------+
2 rows in set (0.00 sec)
```

Remember that you will have one additional dish in your database if you have completed all the activities so far.

Let's delete the "pizza margherita" which has an id of 1.

Use the Visual Studio Code Terminal and run the following command:

- **DELETE FROM dishes WHERE id = 1;** type this command and press *Enter*. This command will delete the "pizza margherita" from the table;

You can now verify that the "pizza margherita" has been deleted from the "dishes" table.

Run the following terminal command:

- **SELECT * FROM dishes;** type this command and press *Enter*. This command will retrieve all the data from the "dishes" table.

```
mysql> SELECT * FROM dishes;
+----+-------------+-------+---------------+----------+
| id | name        | price | is_vegetarian | is_vegan |
+----+-------------+-------+---------------+----------+
|  2 | soya burger |  9.50 |             1 |        1 |
+----+-------------+-------+---------------+----------+
1 row in set (0.00 sec)
```

As you can see the dish is no longer present in the table.

Remember that you will have one additional dish in your database if you have completed all the activities so far.

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:

```
mysql> exit
Bye
root@7fbe1633ac7c:/home/coder/project#
```

End of Section

Congratulations for completing this section. As long as you have saved your work, your files will remain when you close this lab activity so do not worry about losing your data. In this activity you have learnt how to delete items in your database tables.

In the next lab activity you will be integrating a database with your web application.