



Hands-on Lab: Creating tables, inserting and querying Data in MySQL using phpMyAdmin

Estimated time needed: 20 minutes

In this lab, you will learn how to create tables and load data in the MySQL database service using the phpMyAdmin graphical user interface (GUI) tool.

Software Used in this Lab

In this lab, you will use [MySQL](#). MySQL is a Relational Database Management System (RDBMS) designed to efficiently store, manipulate, and retrieve data.



To complete this lab you will utilize MySQL relational database service available as part of IBM Skills Network Labs (SN Labs) Cloud IDE. SN Labs is a virtual lab environment used in this course.

Database Used in this Lab

Mysql_learners database has been used in this lab.

Objectives

After completing this lab, you will be able to use phpMyAdmin with MySQL to:

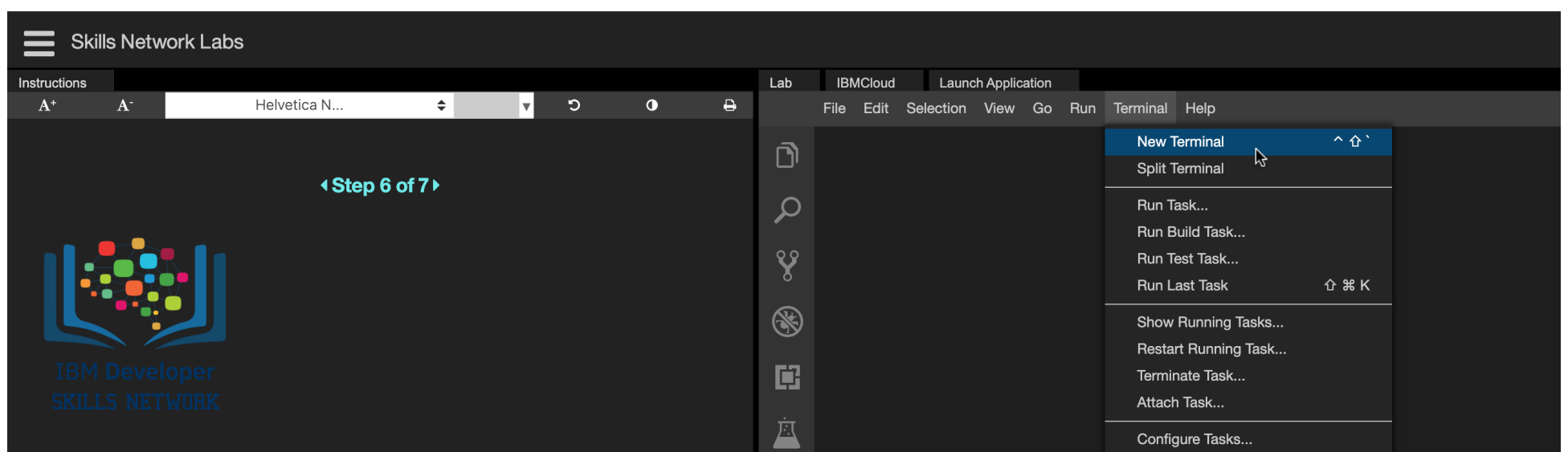
- Create a database.
- Create a new table in a database using Create Statement.
- Insert records into the table.
- Retrieve data from the table
- Delete an existing table in a database

Exercise

In this exercise through different tasks, you will learn how to create tables and load data in the MySQL database service using the phpMyAdmin graphical user interface (GUI) tool.

Task 1: Create a database

1. Go to **Terminal** > **New Terminal** to open a terminal from the side by side launched Cloud IDE.



2. Start MySQL service session in the Cloud IDE using the command below in the terminal. Find your MySQL service session password from the highlighted location of the terminal shown in the image below. Note down your MySQL service session password because you may need to use it later in the lab.

```
start_mysql
```

```
theia@theiadocker-sandipsahajo:/home/project$ start_mysql
Starting your MySQL database....
This process can take up to a minute.

MySQL database started, waiting for all services to be ready....

Your MySQL database is now ready to use and available with username: root password: MTY5MTUtc2FuZGJw

You can access your MySQL database via:
• The browser at: https://sandipsahajo-8080.theiadocker-27.proxy.cognitiveclass.ai
• CommandLine: mysql --host=127.0.0.1 --port=3306 --user=root --password=MTY5MTUtc2FuZGJw
theia@theiadocker-sandipsahajo:/home/project$
```

3. Copy your phpMyAdmin weblink from the highlighted location of the terminal shown in the image below. Past it into the address bar in a new tab of your web browser. This will open the phpMyAdmin tool.

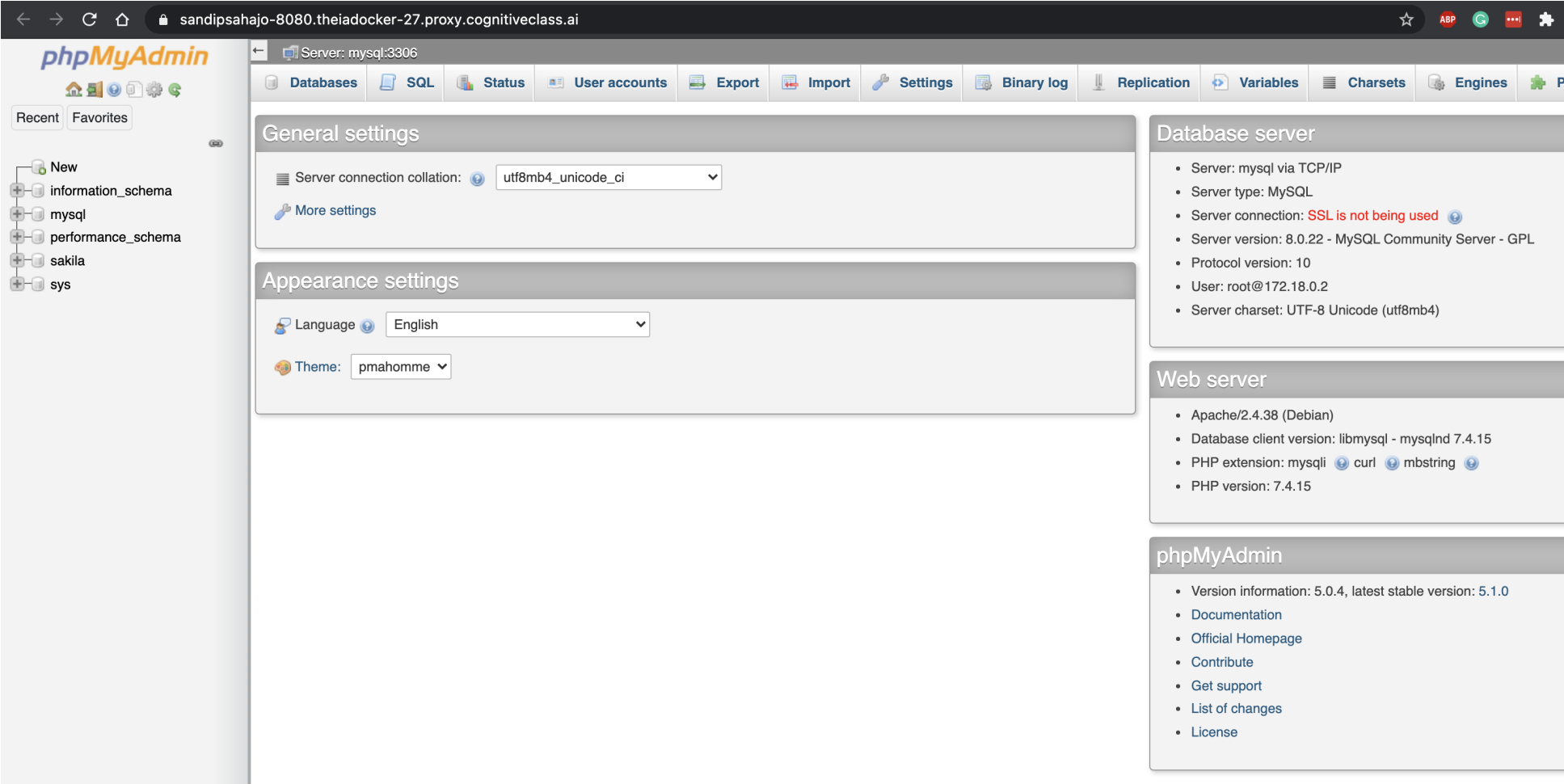
```
theia@theiadocker-sandipsahajo:/home/project$ start_mysql
Starting your MySQL database....
This process can take up to a minute.

MySQL database started, waiting for all services to be ready....

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```

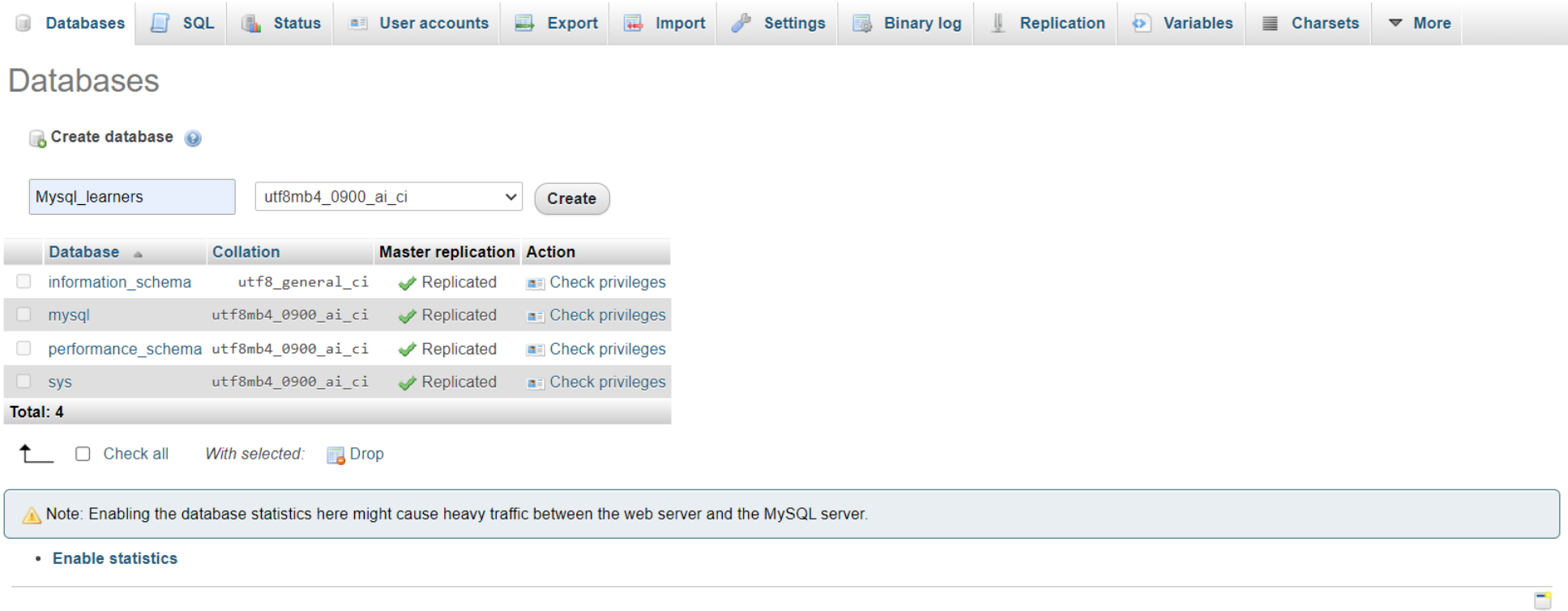
4. You will see the phpMyAdmin GUI tool.



5. In the tree-view, click **New** to create a new empty database. Then enter **Mysql_Learners** as the name of the database and click **Create**.

The encoding will be left as **utf8mb4_0900_ai_ci**. UTF-8 is the most commonly used character encoding for content or data.

Proceed to Task B.



Task 2: Create a table in the database

In this step we will create a table in the database with following details:

Table definition

INSTRUCTOR

| COLUMN NAME | DATA TYPE | NULLABLE |
|-------------|-----------|----------|
| ID | INTEGER | N |
| FNAME | VARCHAR | Y |
| LNAME | VARCHAR | Y |
| CITY | VARCHAR | Y |
| CCODE | CHARACTER | Y |

- Hint
- Solution
- Output

Task 3: Insert data into the table

In this step we will insert some rows of data into the table.

The INSTRUCTOR table we created in the previous step contains 3 rows of data:

| INSTRUCTOR | | | | |
|------------|-------------|-------------|-------------|--------------|
| ID | FNAME | LNAME | CITY | CCODE |
| INTEGER | VARCHAR(20) | VARCHAR(20) | VARCHAR(20) | CHARACTER(2) |
| 1 | Rav | Ahuja | TORONTO | CA |
| 2 | Raul | Chong | Markham | CA |
| 3 | Hima | Vasudevan | Chicago | US |

Insert one record first, followed by multiple records.

- Hint
- Solution
- Output

Task 4: Query data in the table

In this step we will retrieve data we inserted into the INSTRUCTOR table.

- Hint
- Solution
- Output

Task 5: Drop the table.

In this step we will drop the created instructor table.

- Hint
- Solution
- Output

Congratulations! You have completed this lab, and you are ready for the next topic.

Author(s)

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Changelog

| Date | Version | Changed by | Change Description |
|------------|---------|------------------------------|--------------------|
| 2021-11-01 | 0.1 | Lakshmi Holla, Malika Singla | Initial Version |