



Hands-on Lab: Create Tables using SQL Scripts and Load Data into Tables 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

The database used in this lab is an internal database. You will be working on a sample HR database. This HR database schema consists of 5 tables called **EMPLOYEES**, **JOB_HISTORY**, **JOBS**, **DEPARTMENTS** and **LOCATIONS**. Each table has a few rows of sample data. The following diagram shows the tables for the HR database:

SAMPLE HR DATABASE TABLES

EMPLOYEES

EMP_ID	F_NAME	L_NAME	SSN	B_DATE	SEX	ADDRESS	JOB_ID	SALARY	MANAGER_ID	DEP_ID
E1001	John	Thomas	123456	1976-01-09	M	5631 Rice, OakPark,IL	100	100000	30001	2
E1002	Alice	James	123457	1972-07-31	F	980 Berry Ln, Elgin,IL	200	80000	30002	5
E1003	Steve	Wells	123458	1980-08-10	M	291 Springs, Gary,IL	300	50000	30002	5

JOB_HISTORY

EMPL_ID	START_DATE	JOBS_ID	DEPT_ID
E1001	2000-01-30	100	2
E1002	2010-08-16	200	5
E1003	2016-08-10	300	5

JOBS

JOB_ID	JOB_TITLE	MIN_SALARY	MAX_SALARY
100	Sr. Architect	60000	100000
200	Sr. Software Developer	60000	80000
300	Jr. Software Developer	40000	60000

DEPARTMENTS

DEPT_ID	DEPT_NAME	MANAGER_ID	LOC_ID
2	Architect Group	30001	L0001
5	Software Development	30002	L0002
7	Design Team	30003	L0003
5	Software	30004	L0004

LOCATIONS

LOC_ID	DEPT_ID	LOC
L0001	2	
L0002	5	
L0003	7	

Objectives

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

- Create a database.
- Create tables using SQL scripts
- Load data into tables

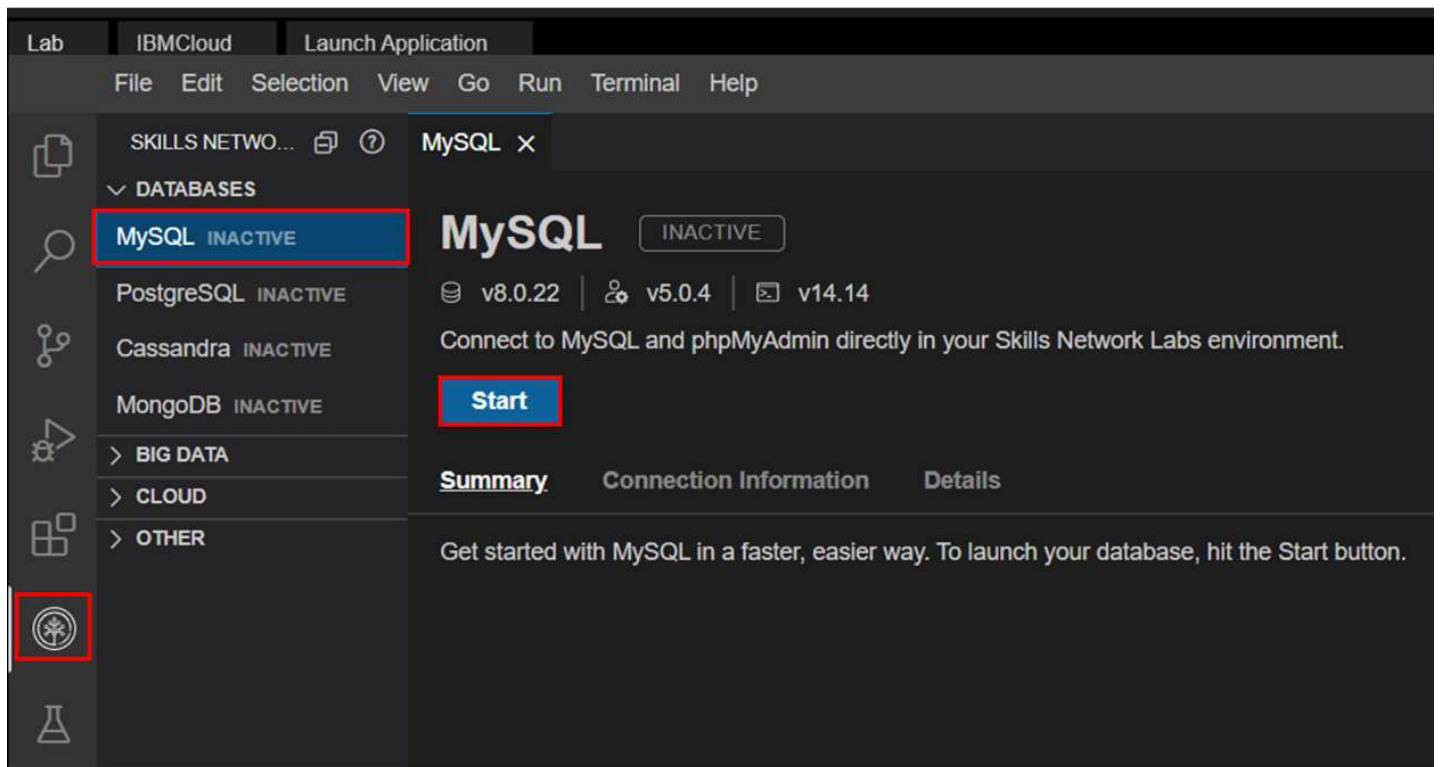
Exercise

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.

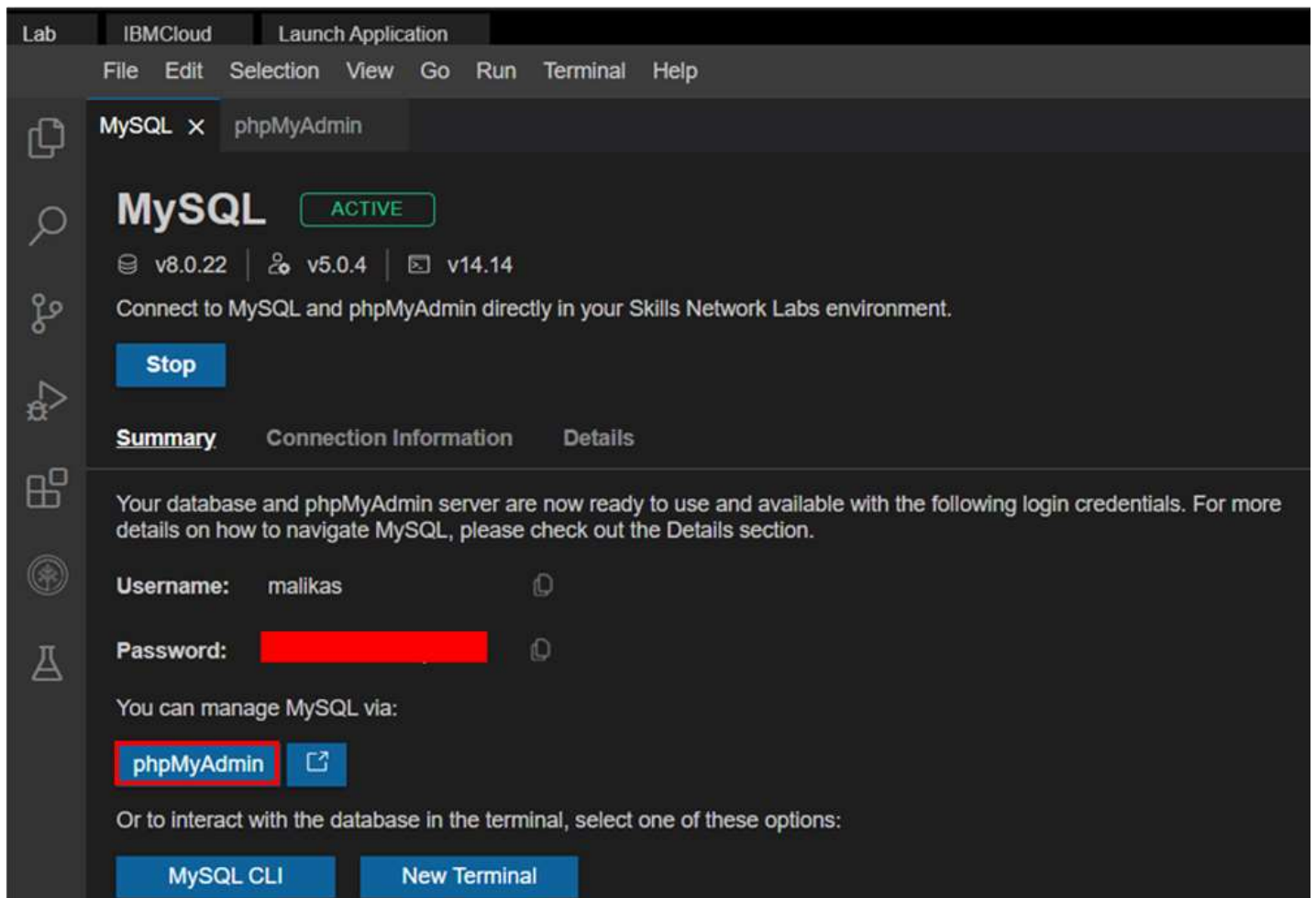
Task A: Create a database

1. Click on **Skills Network Toolbox**. In **Database** section, click **MySQL**.

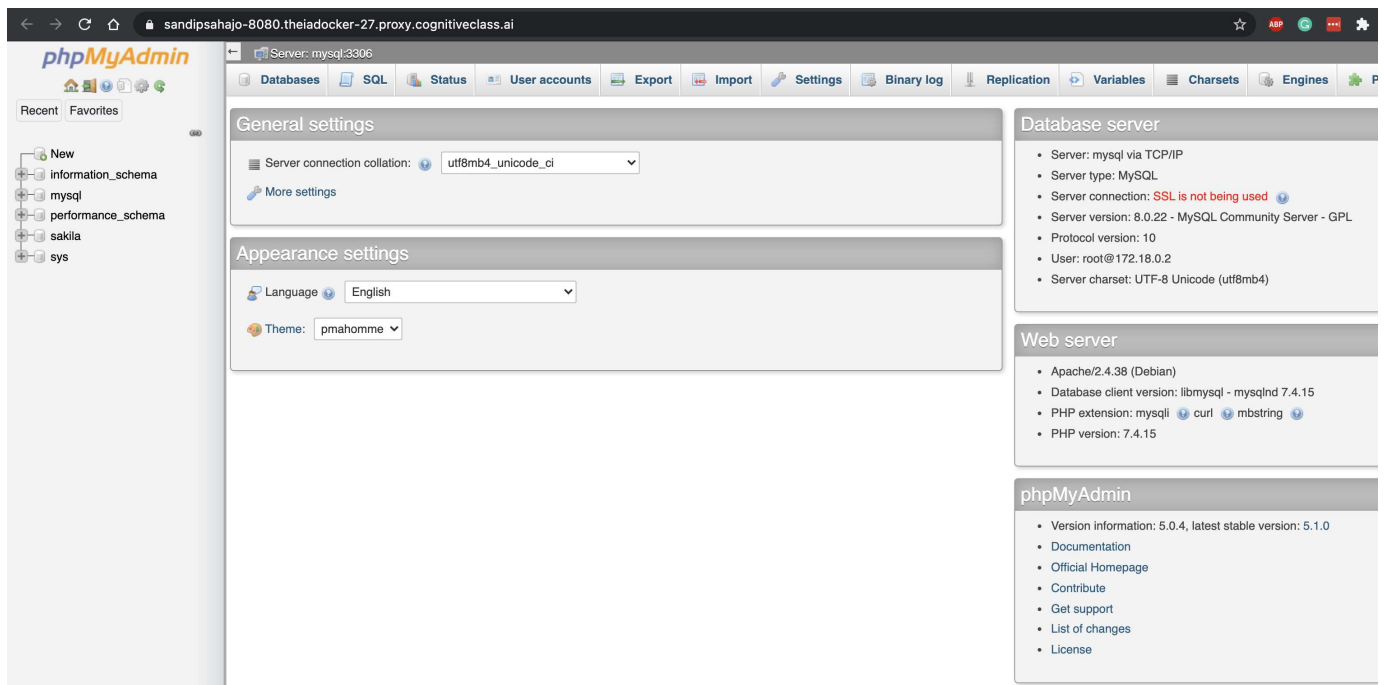
To start the MySQL click **Start**.



2. Once **MySQL** has started, click on **phpMyAdmin button** to open **phpMyAdmin** in the same window.



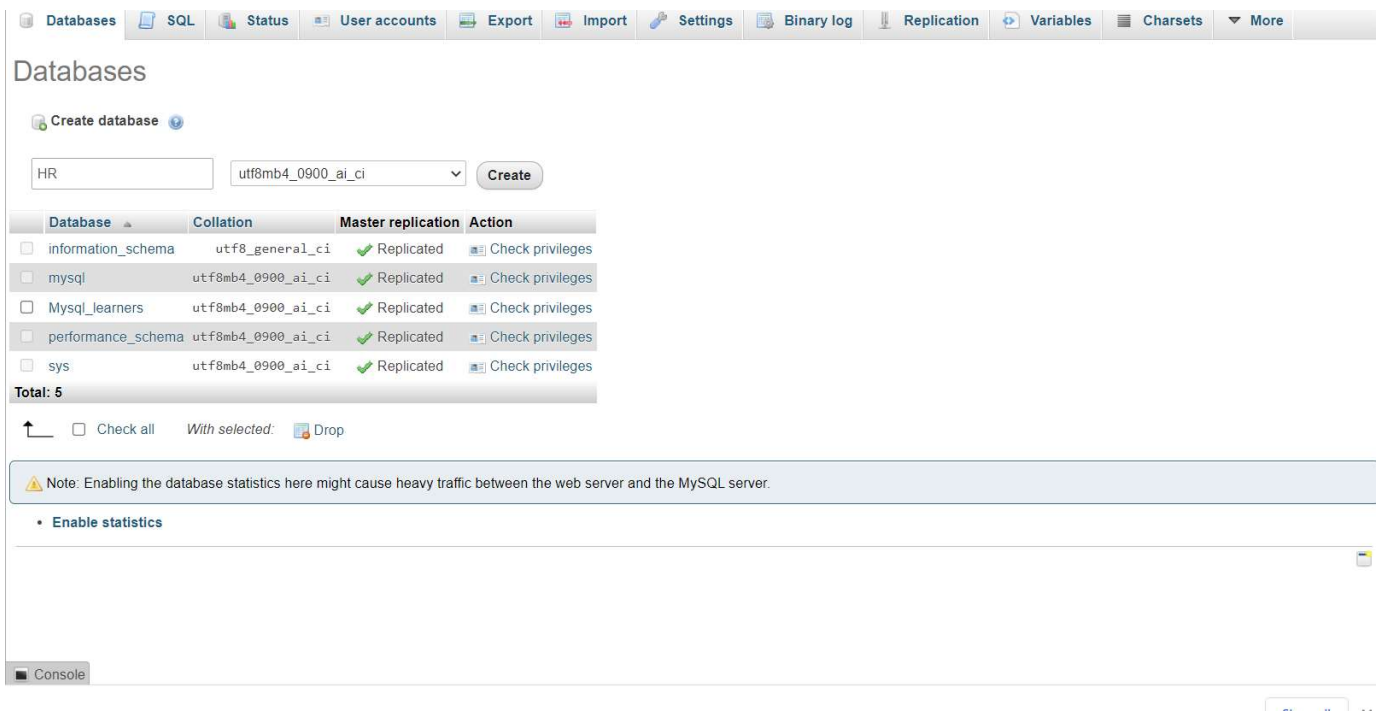
3. You will see the phpMyAdmin GUI tool.



4. In the tree-view, click **New** to create a new empty database. Then enter **HR** 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.

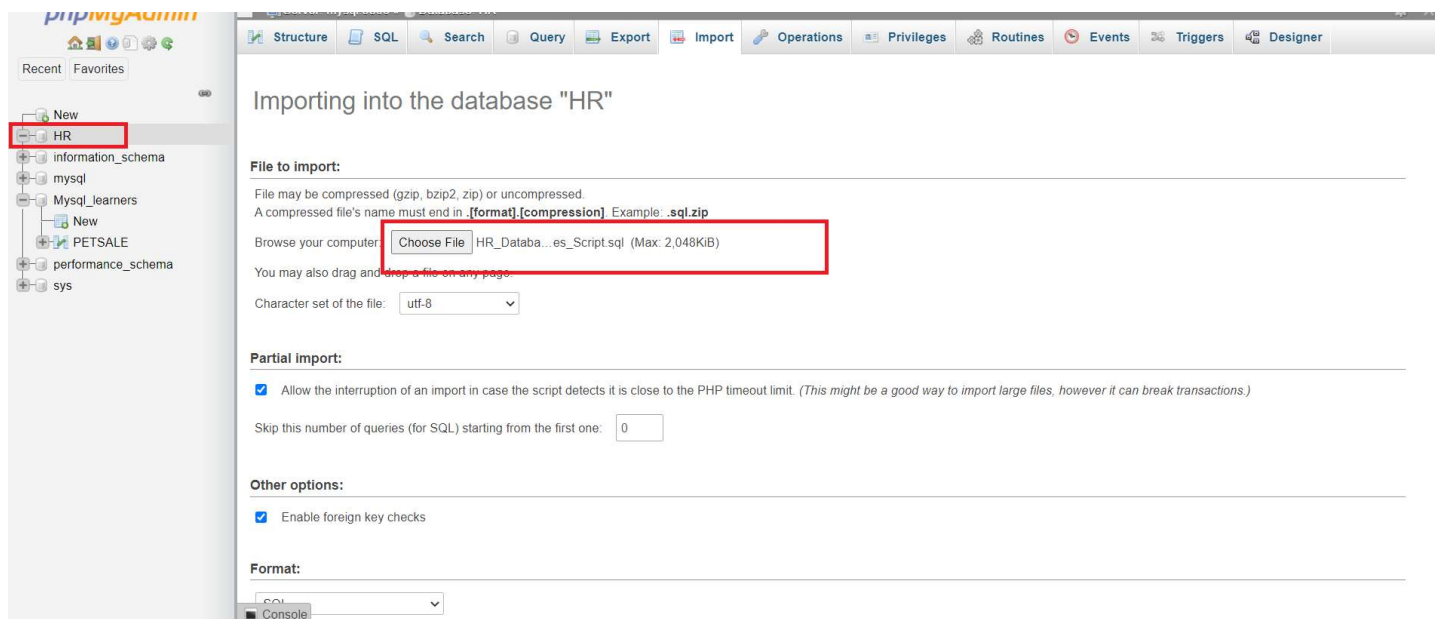
Proceed to Task B.



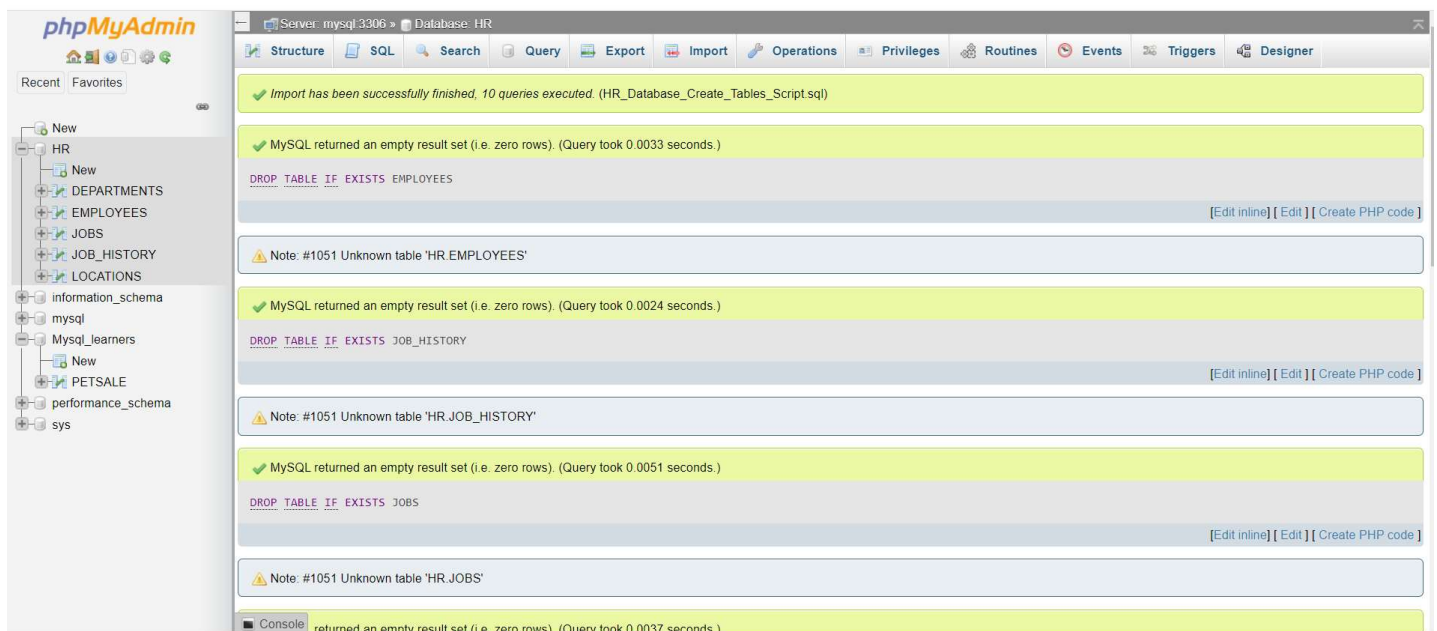
Exercise 1: Create tables using SQL scripts

In this exercise, you will learn how to execute a script containing the CREATE TABLE commands for all the tables rather than create each table manually by typing the DDL commands in the SQL editor.

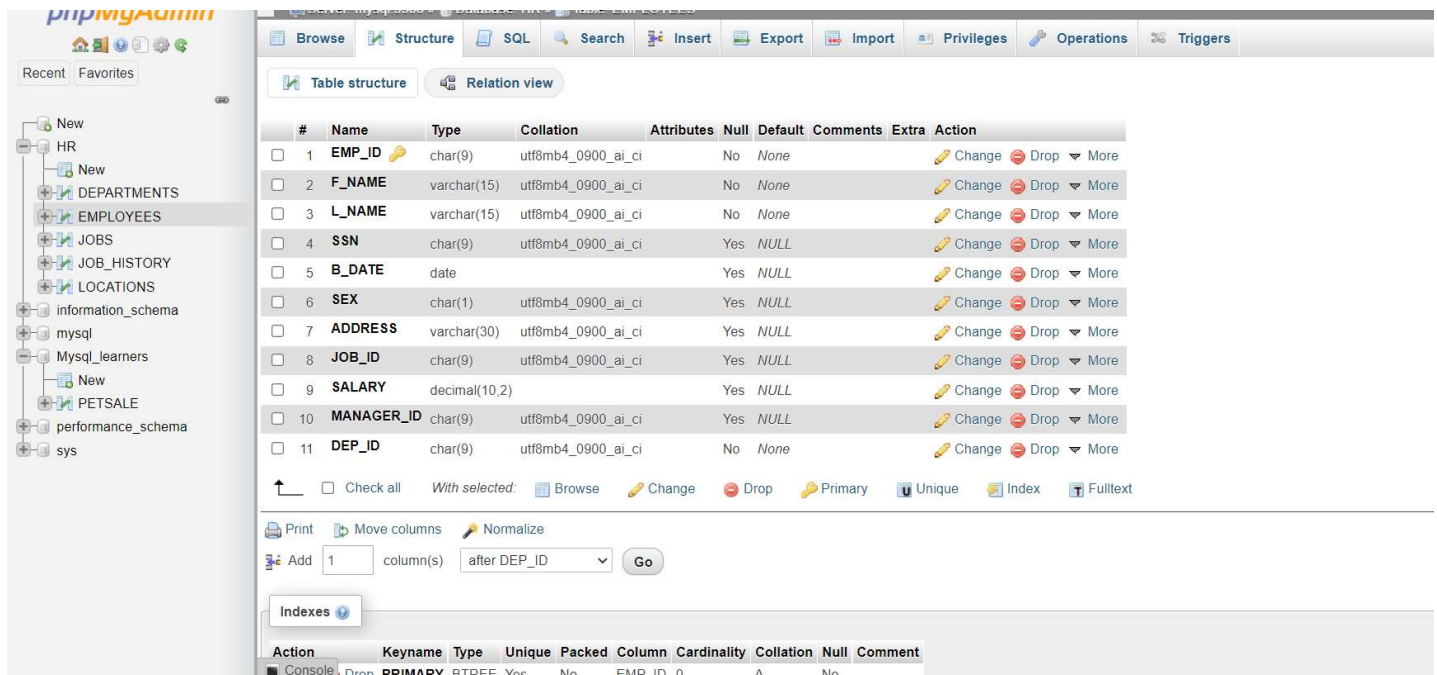
1. Download the script file to your computer:
 - [HR_Database_Create_Tables_Script.sql](#)
- Select the HR database. Later click on the Import tab.
- Click on **choose file**. Browse for the file and upload it .
- Later scroll down and click on **Go**.



- The script then gets imported successfully.



- Click on any of the tables and you will see its Table Definition (that is, its list of columns, data types, etc).



Exercise 2: Load data into tables

In this exercise, you will learn how data can be loaded into Db2. You could manually insert each row into the table one by one, but that would take a long time. Instead, Db2 (and almost every other database) allows you to load data from .CSV files.

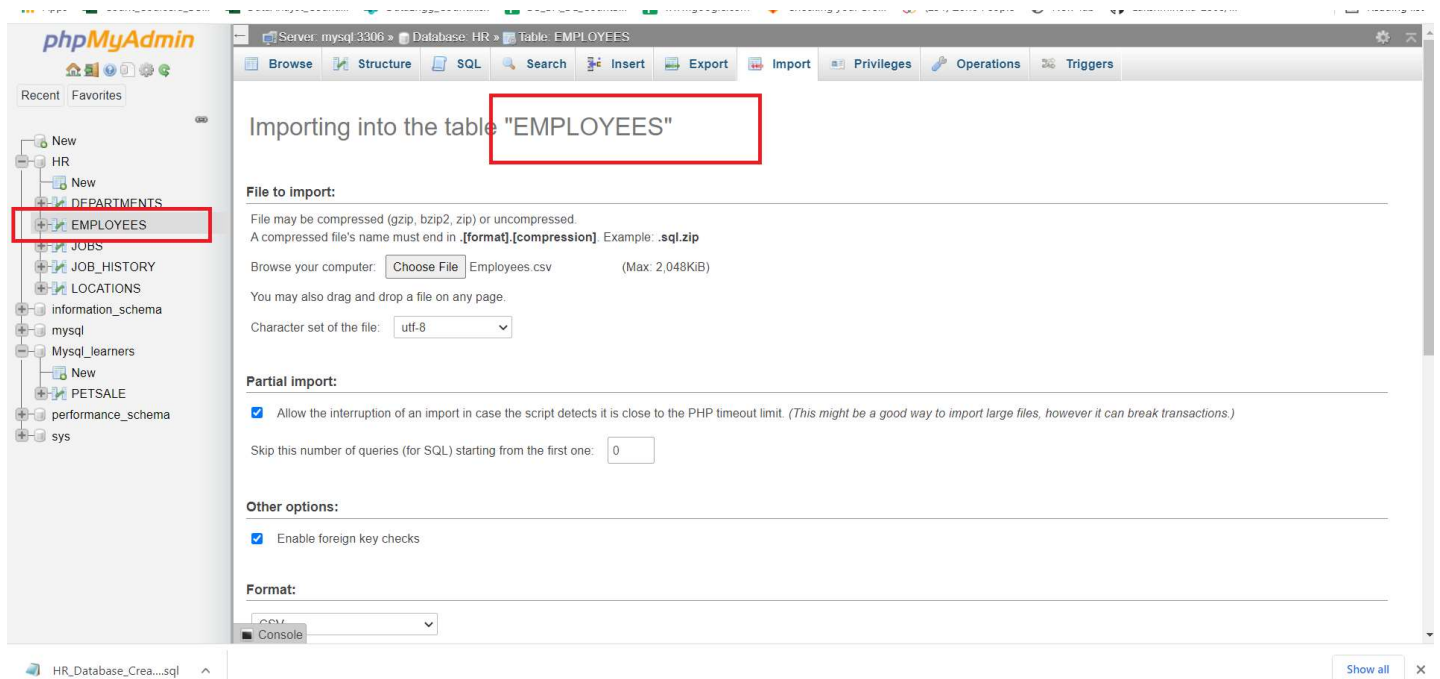
The steps below explain the process of loading data into the tables you created earlier in exercise 1.

- Download the 5 .csv files below to your local computer:

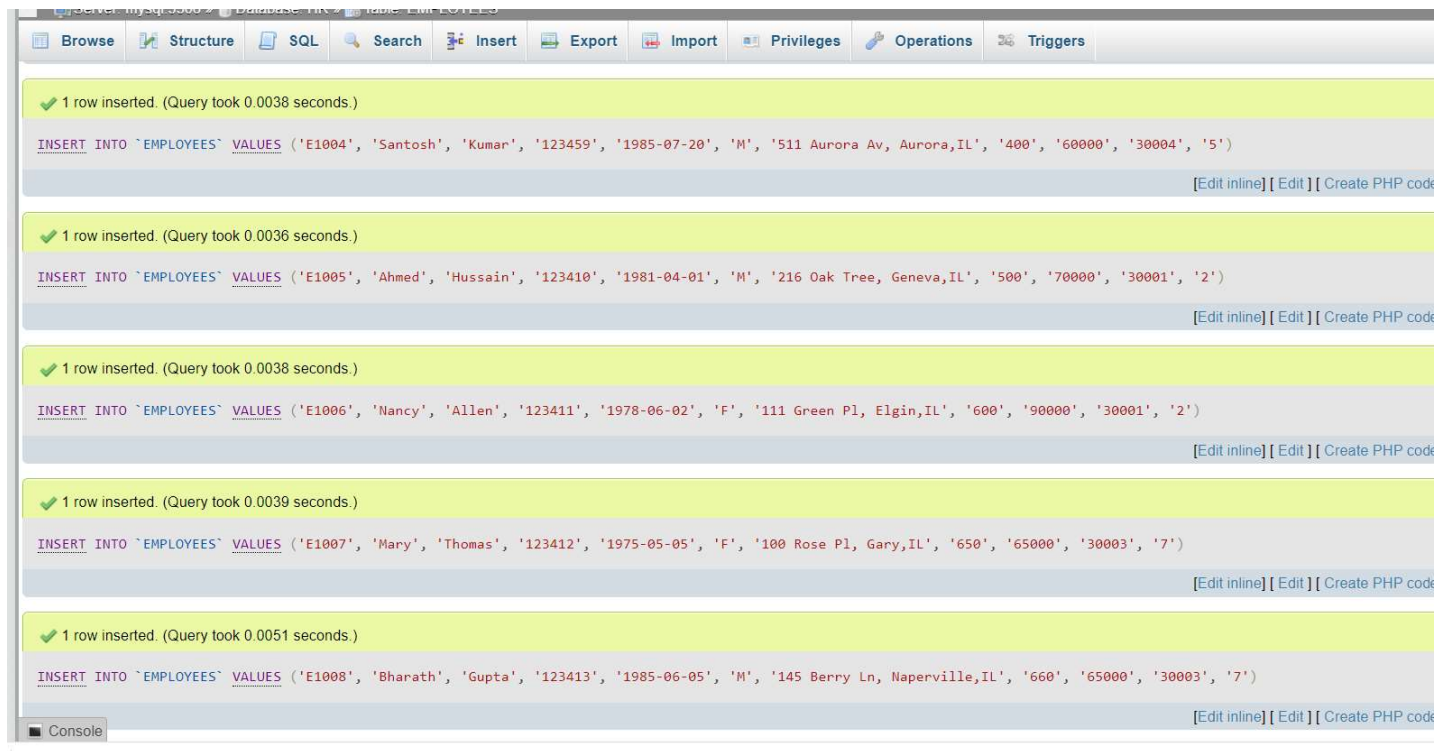
- [Departments.csv](#)
- [Employees.csv](#)
- [Jobs.csv](#)
- [Locations.csv](#)
- [JobsHistory.csv](#)

To load each table do the following steps.

- Select each table .
- Click on Import tab.
- Select the **csv** file and click on **Go** to load the csv file.



Once the tables are loaded , you will get a message that the records are inserted successfully.



Further you can click on browse and view the data of each table.

Browse	Structure	SQL	Search	Insert	Export	Import	Privileges	Operations	Triggers
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Showing rows 0 - 9 (10 total, Query took 0.0007 seconds.)


```
SELECT * FROM `EMPLOYEES`
```

 Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

+ Options

				EMP_ID	F_NAME	L_NAME	SSN	B_DATE	SEX	ADDRESS	JOB_ID	SALARY	MANAGER_ID	DEP_ID
<input type="checkbox"/>	Edit	Copy	Delete	E1001	John	Thomas	123456	1976-09-01	M	5631 Rice, OakPark,IL	100	100000.00	30001	2
<input type="checkbox"/>	Edit	Copy	Delete	E1002	Alice	James	123457	1972-07-31	F	980 Berry In, Elgin,IL	200	80000.00	30002	5
<input type="checkbox"/>	Edit	Copy	Delete	E1003	Steve	Wells	123458	1980-10-08	M	291 Springs, Gary,IL	300	50000.00	30002	5
<input type="checkbox"/>	Edit	Copy	Delete	E1004	Santosh	Kumar	123459	1985-07-20	M	511 Aurora Av, Aurora,IL	400	60000.00	30004	5
<input type="checkbox"/>	Edit	Copy	Delete	E1005	Ahmed	Hussain	123410	1981-04-01	M	216 Oak Tree, Geneva,IL	500	70000.00	30001	2
<input type="checkbox"/>	Edit	Copy	Delete	E1006	Nancy	Allen	123411	1978-06-02	F	111 Green Pl, Elgin,IL	600	90000.00	30001	2
<input type="checkbox"/>	Edit	Copy	Delete	E1007	Mary	Thomas	123412	1975-05-05	F	100 Rose Pl, Gary,IL	650	65000.00	30003	7
<input type="checkbox"/>	Edit	Copy	Delete	E1008	Bharath	Gupta	123413	1985-06-05	M	145 Berry Ln, Naperville,IL	660	65000.00	30003	7
<input type="checkbox"/>	Edit	Copy	Delete	E1009	Andrea	Jones	123414	1990-09-07	F	120 Fall Creek, Gary,IL	234	70000.00	30003	7
<input type="checkbox"/>	Edit	Copy	Delete	E1010	Ann	Jacob	123415	1982-03-30	F	111 Britany Springs,Elgin,IL	220	70000.00	30004	5

☐ Check all | With selected: Edit Copy Delete Export

☐ Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

Console

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
2022-04-07	0.2	Malika Singla	Updated screenshot

2021-11-01	0.1	Lakshmi Holla, Malika Singla	Initial Version
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