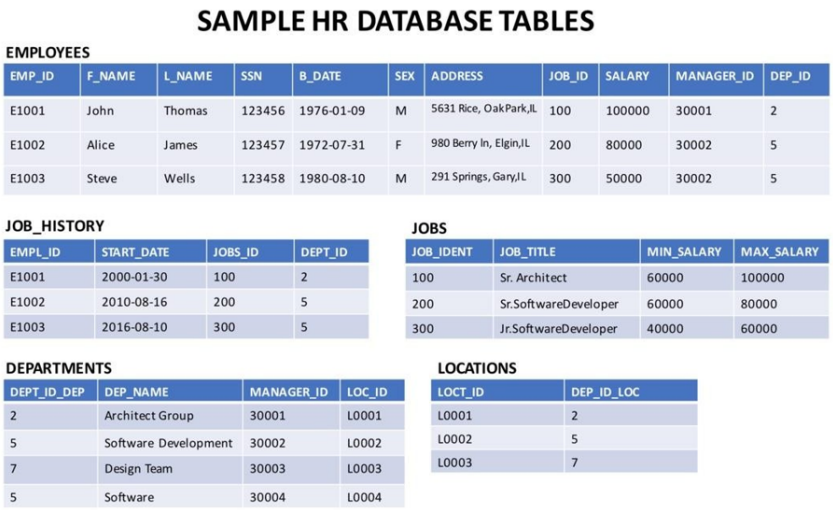
本实验室使用的软件

在本实验中，您将使用MySQL。MySQL 是一个关系数据库管理系统 (RDBMS)，旨在高效存储、操作和检索数据。

为了完成本实验，您将使用作为 IBM Skills Network Labs (SN Labs) Cloud IDE 一部分提供的 MySQL 关系数据库服务。SN Labs 是本课程中使用的虚拟实验室环境。

本实验使用的数据库

本实验使用的数据库是内部数据库。您将使用一个示例 HR 数据库。此 HR 数据库模式由 5 个表组成，分别为**EMPLOYEES**、**JOB_HISTORY**、**JOBS**、**DEPARTMENTS**和**LOCATIONS**。每个表都有几行示例数据。下图显示了 HR 数据库的表：



目标

完成本实验后，您将能够将 phpMyAdmin 与 MySQL 结合使用来：

- 创建数据库。
- 使用 SQL 脚本创建表
- 将数据加载到表中

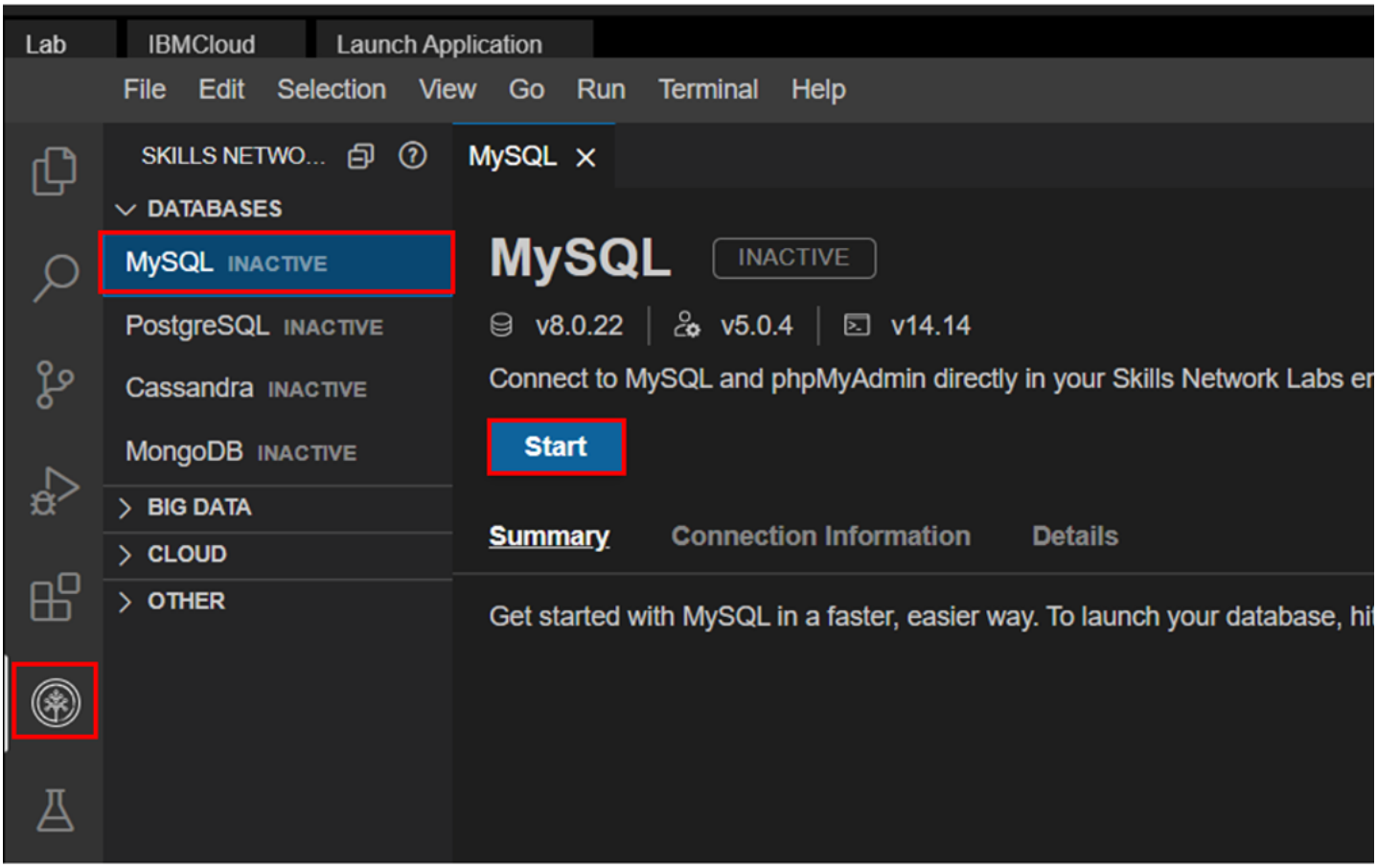
锻炼

在本练习中，通过不同的任务，您将学习如何使用 phpMyAdmin 图形用户界面 (GUI) 工具在 MySQL 数据库服务中创建表和加载数据。

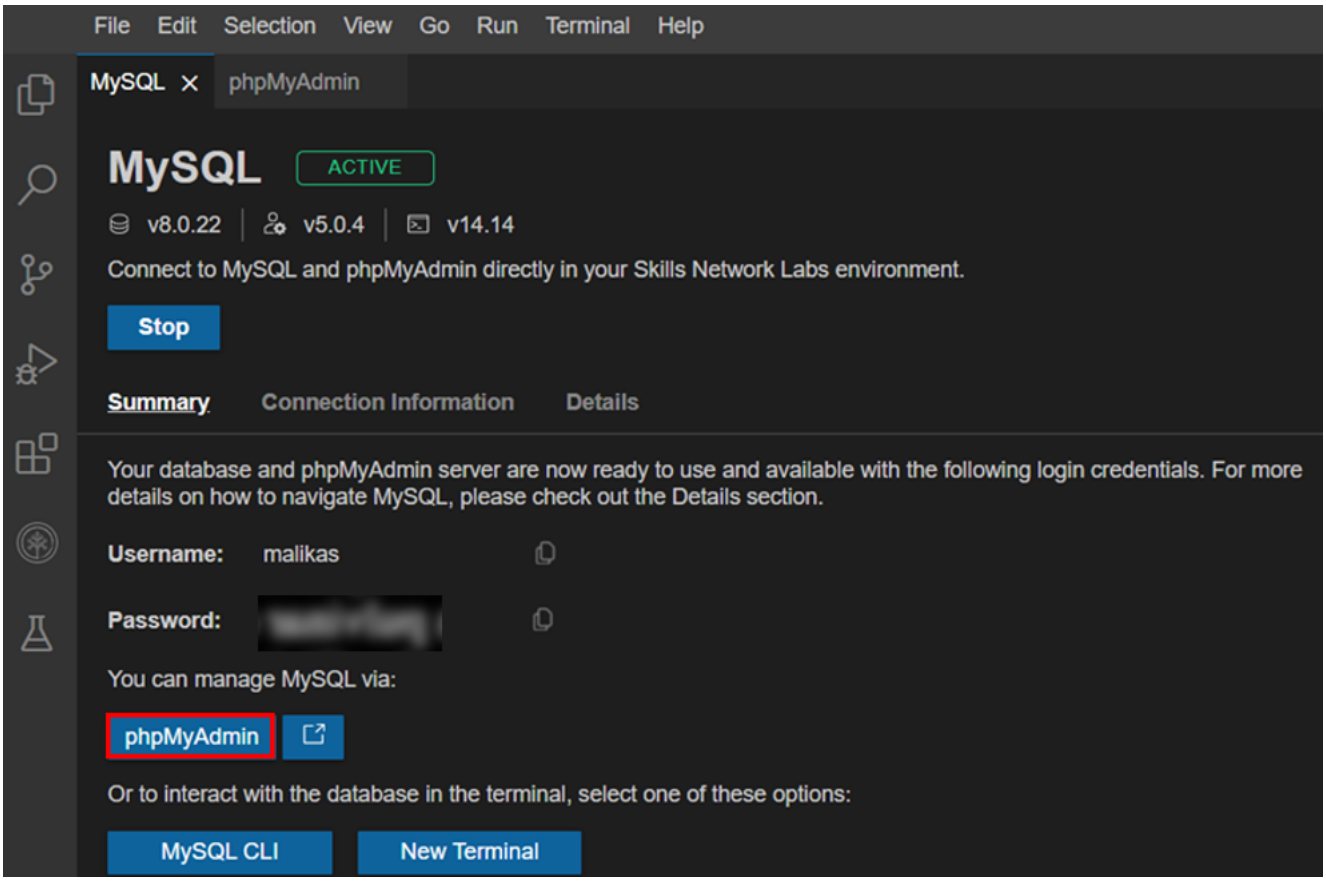
任务A：创建数据库

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

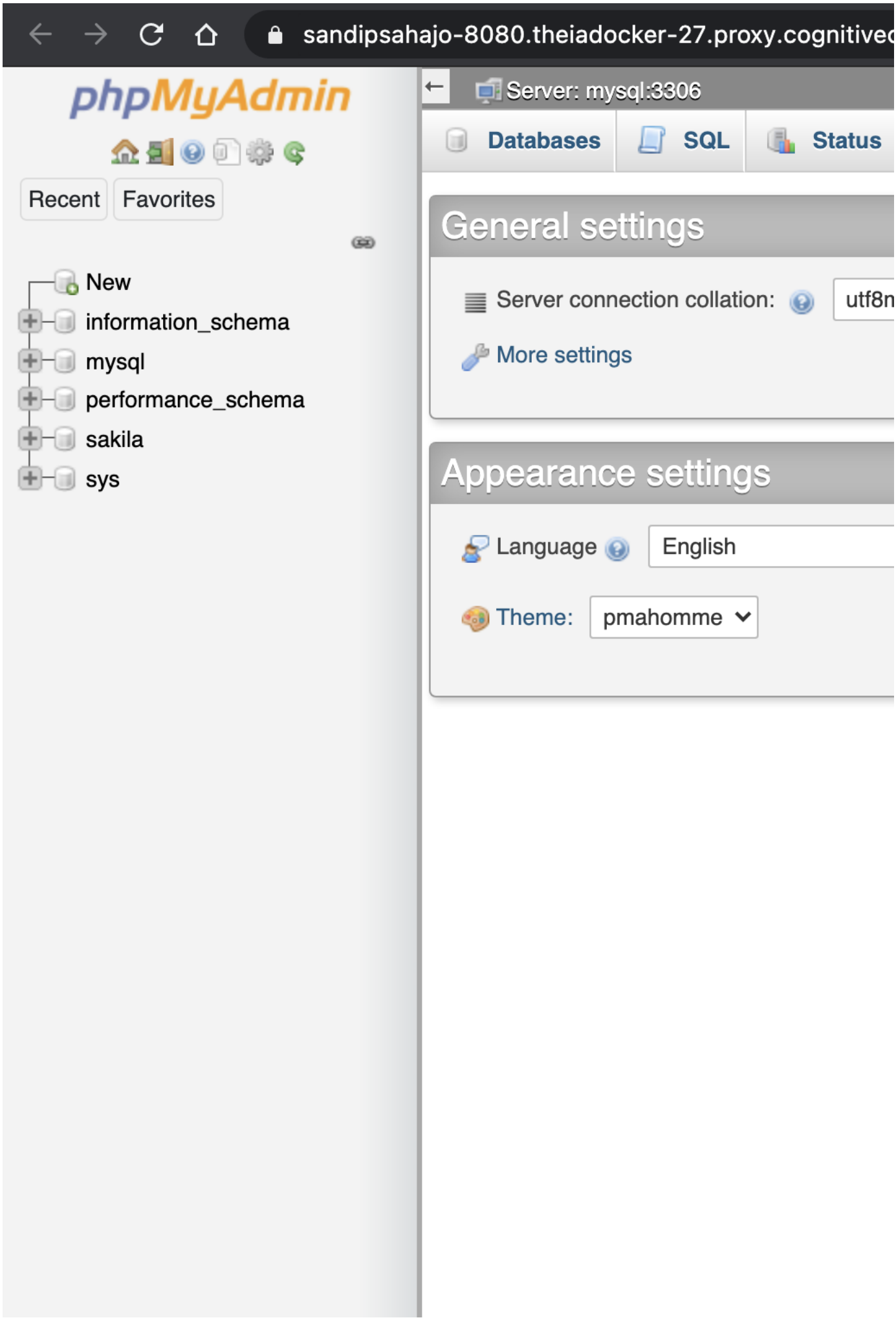
To start the MySQL click **Start**.



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



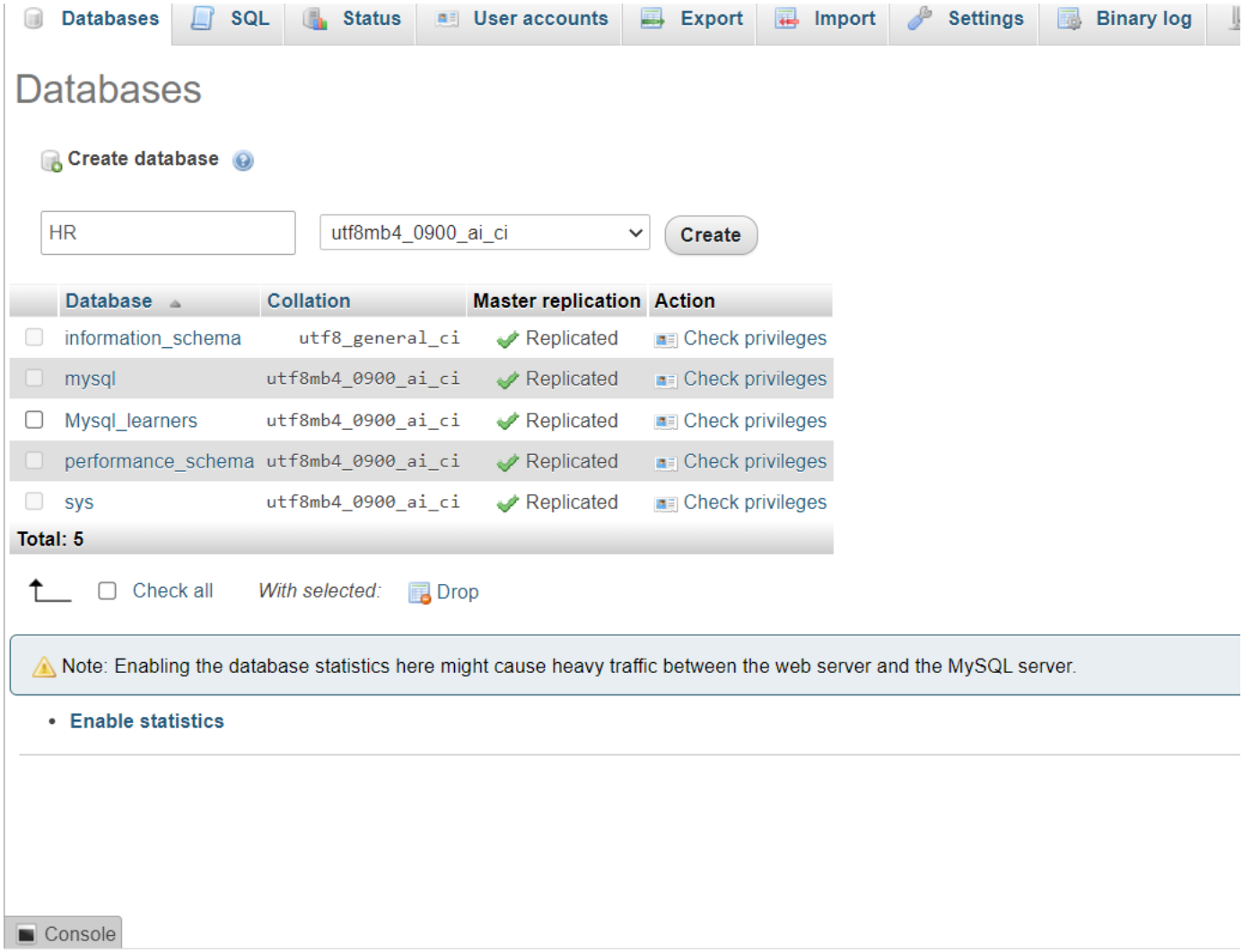
3. You will see the phpMyAdmin GUI tool.



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.

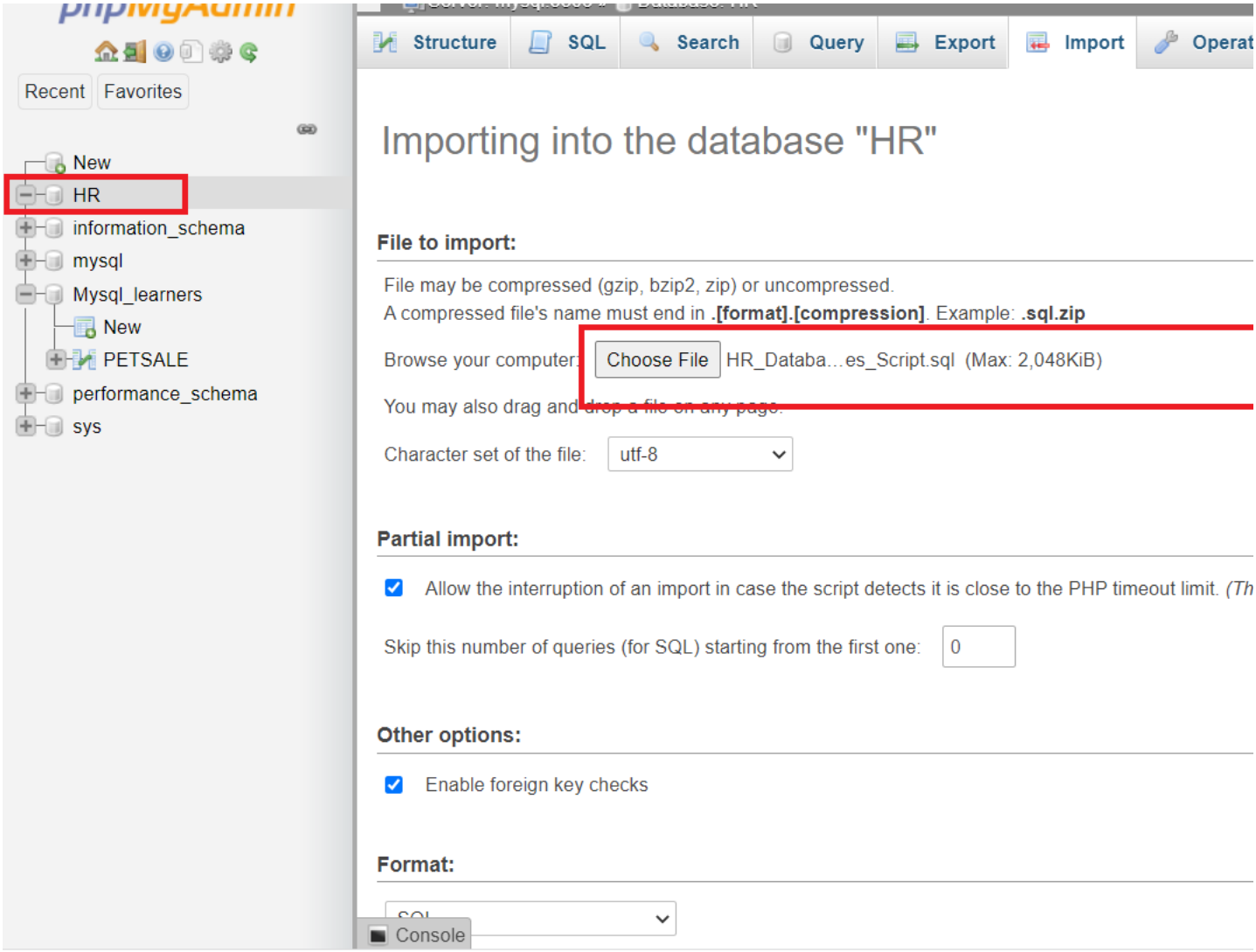


Exercise 1: Create tables using SQL scripts

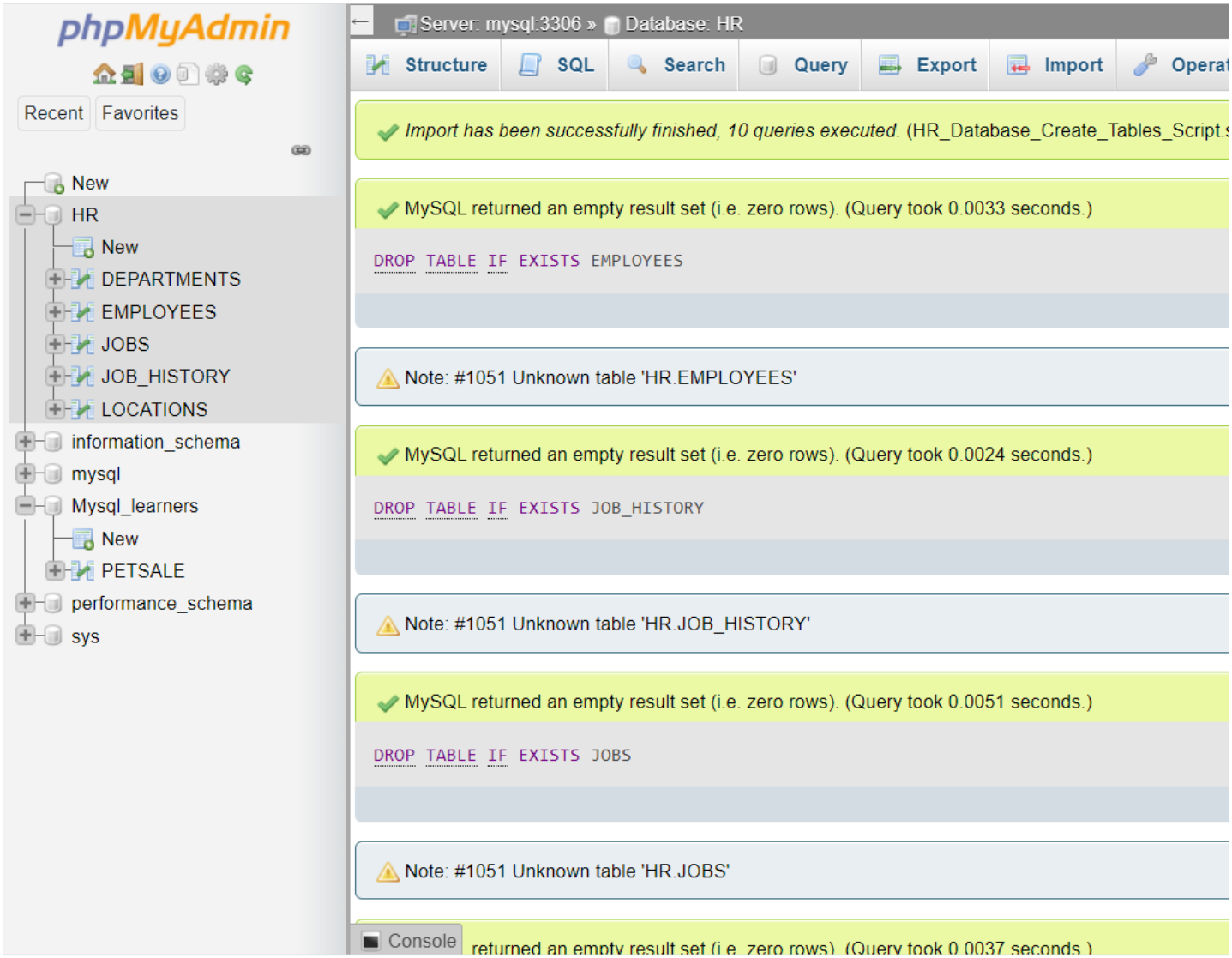
In this exercise, you will learn how to execute a script containing the CREATE TABLE commands for all the tables rather than create each table manually by typing the DDL commands in the SQL editor.

1. Download the script file to your computer:
    - HR_Database_Create_Tables_Script.sql

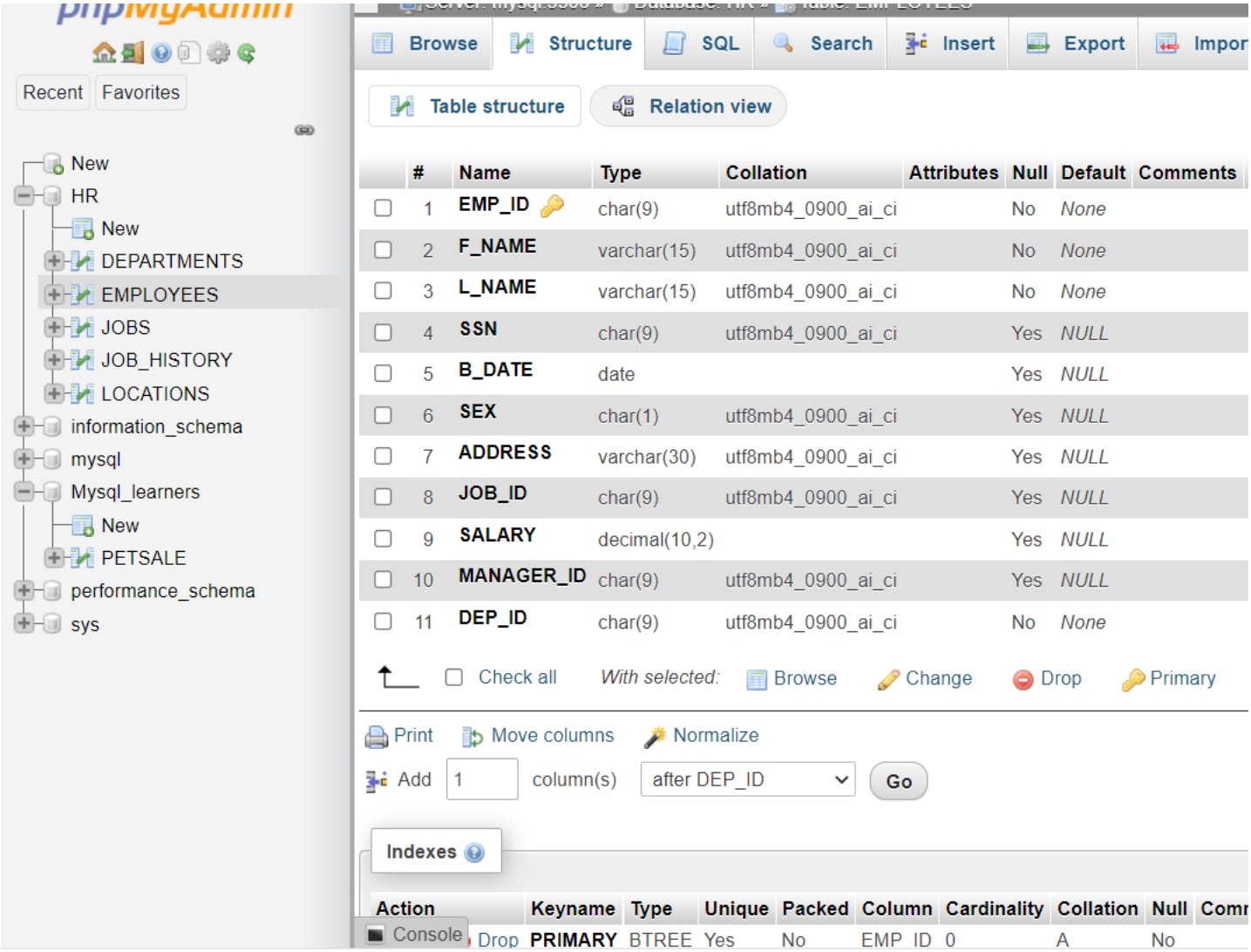
- Select the HR database. Later click on the Import tab.
- Click on **choose file**. Browse for the file and upload it .
- Later scroll down and click on **Go**.



- 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

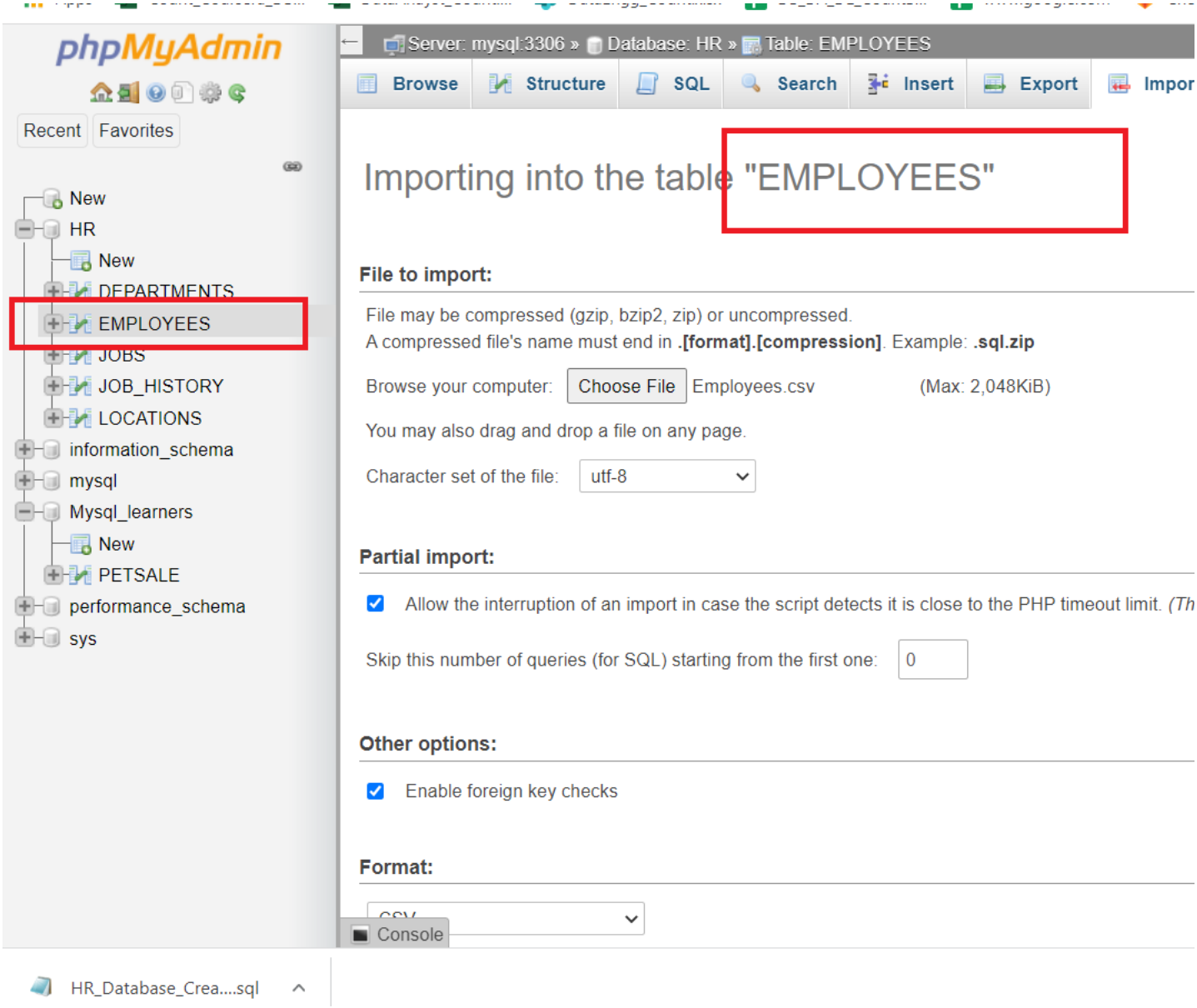
In this exercise, you will learn how data can be loaded into MySQL. You could manually insert each row into the table one by one, but that would take a long time. Instead, MySQL (and almost every other database) allows you to load data from .CSV files.

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

1. Download the 5 .csv files below to your local computer:
    - Departments.csv
    - Employees.csv
    - Jobs.csv
    - Locations.csv
    - JobsHistory.csv

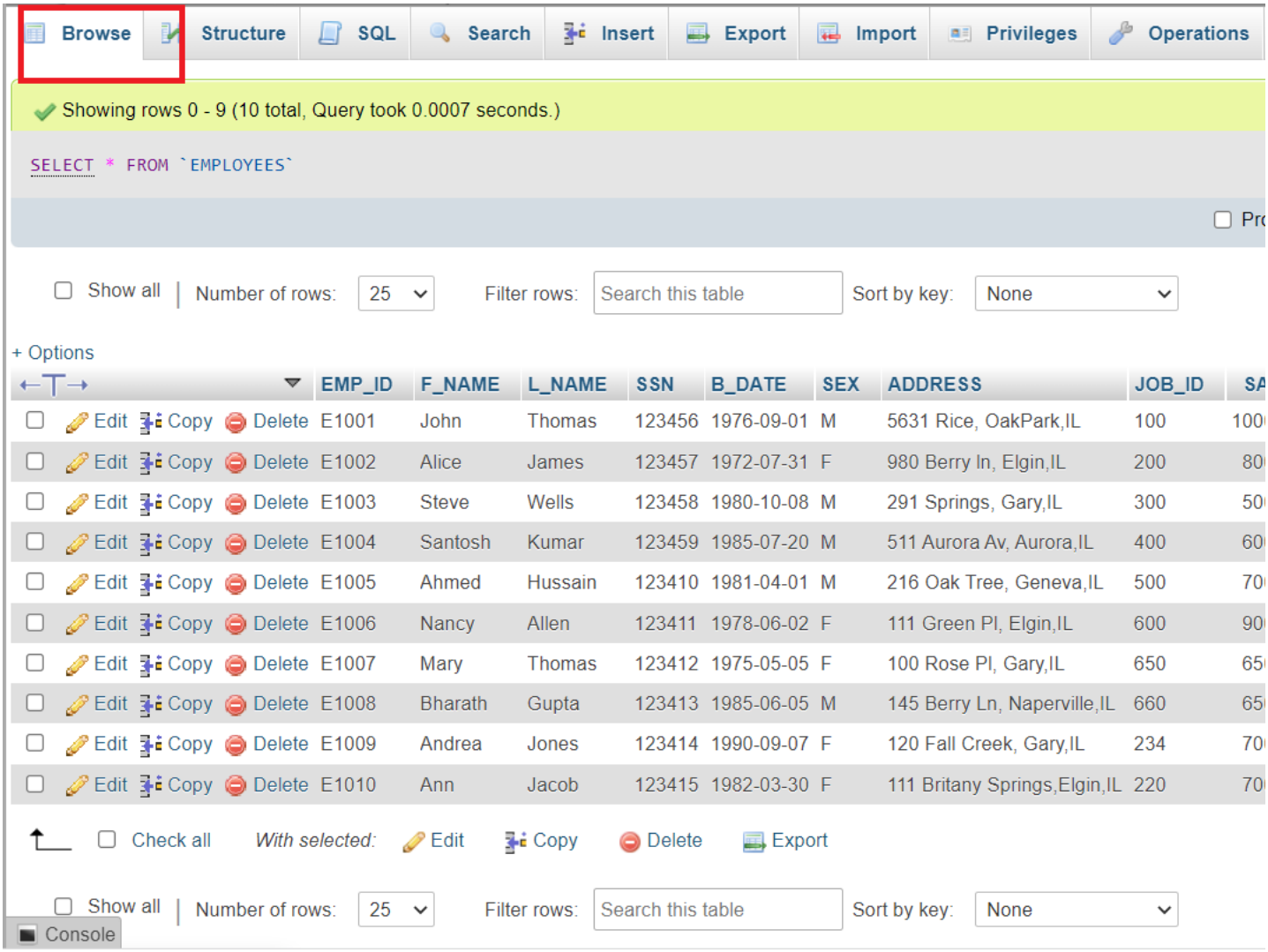
To load each table do the following steps.

- 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.



恭喜！您已完成本实验，并准备好学习下一个主题。

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变更日志

日期	版本	更改者	变更说明
2023-05-11	0.8	埃里克·郝 & 弗拉迪斯拉夫·博伊科	更新的页框
2023-05-10	0.7	埃里克·郝 & 弗拉迪斯拉夫·博伊科	更新的页框
2023-05-10	0.6	埃里克·郝 & 弗拉迪斯拉夫·博伊科	更新的页框
2023-05-05	0.5	李斌杰	更新并重新发布
2022-08-03	0.4	沙迪亚·普里亚	更新的 CSV 链接
2022-07-27	0.3	拉克希米·霍拉	更新了 HTML 标签
2022-04-07	0.2	玛莉卡·辛格拉	更新截图
2021-11-01	0.1	拉克希米·霍拉、马莉卡·辛格拉	初始版本

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