

Hands-on Lab: Create Tables and Load Data in MySQL using phpMyAdmin



**Skills
Network**

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.

Objectives

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

- Create a database.
- Create tables.
- Load data into tables manually using the phpMyAdmin GUI.
- Load data into tables using a text/script file.

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

Books database has been used in this lab.

The following diagram shows the structure of the **myauthors** table from the Books database:

| myauthors | |
|-------------|--------------|
| author_id | int |
| first_name | varchar(100) |
| middle_name | varchar(50) |
| last_name | varchar(100) |

In the table, **author_id** is an integer, **first_name** is a string that stores a maximum of 100 characters, **middle_name** is a string that stores a maximum of 50 characters, and **last_name** is a string that stores a maximum of 100 characters.

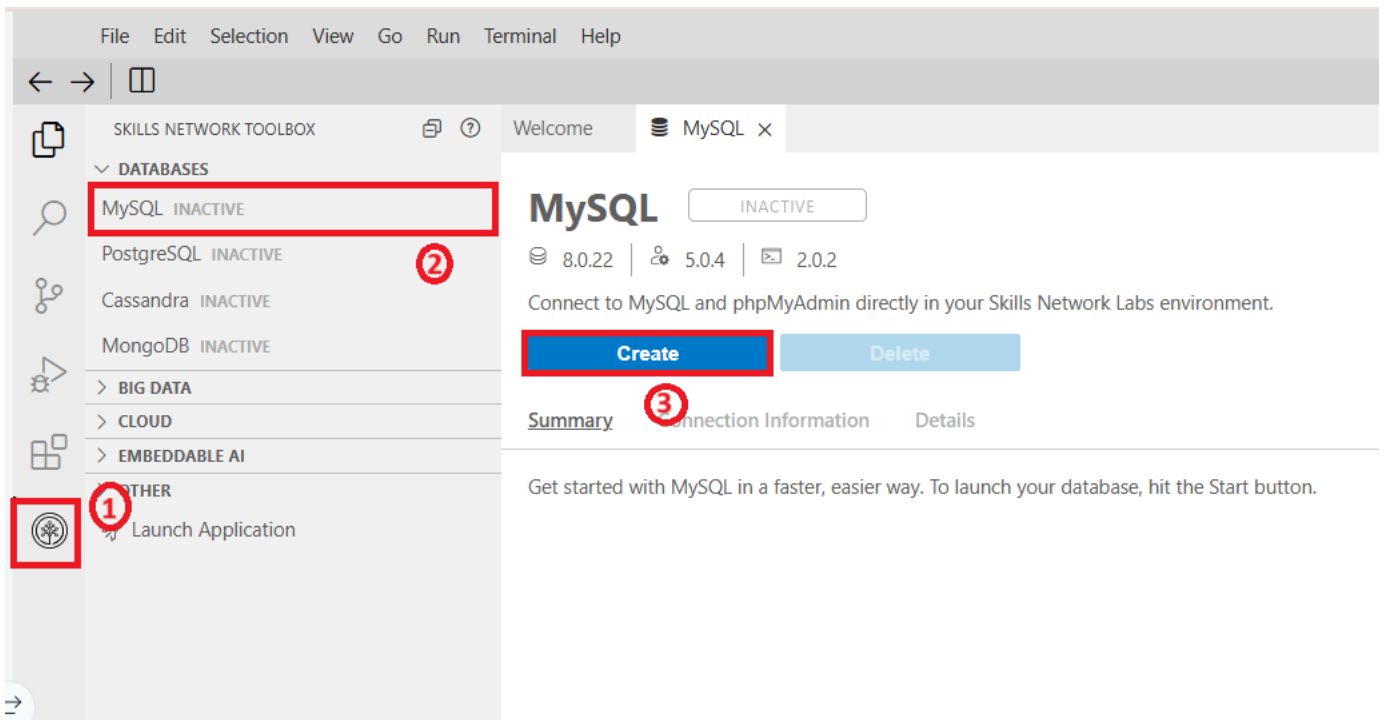
Task A: Create a database

Start the MySQL service session using the `Start MySQL in IDE` button directive.

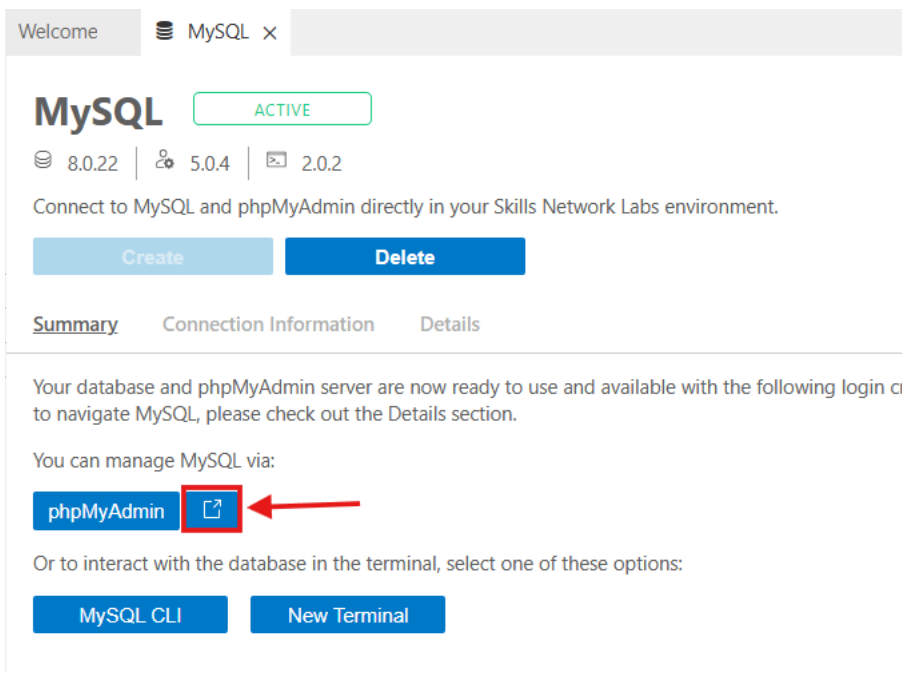
Open MySQL Page in IDE

If the icon doesn't start the MySQL database, follow the steps below.

1. Click the Skills Network extension button on the left side of the window.
2. Open the DATABASES menu and click MySQL.
3. Click Create. MySQL may take a few moments to start.









4. Open the phpMyAdmin tool in a new tab in your browser.



5. You will see the phpMyAdmin GUI tool.


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phpMyAdmin







Recent



Favorites



 New

  information_schema


  mysql


  performance_schema


  sakila

  sys

← Server: mysql:3306


 **Databases**


 **SQL**

 **Status**



General settings


☰

 Server connection collation:  utf8m

 [More settings](#)

Appearance settings

 Language  English

 Theme:

pmahomme ▼

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

The screenshot shows the phpMyAdmin interface for a MySQL server. The left sidebar contains a 'New' button (labeled 1) and a list of databases: information_schema, mysql, performance_schema, sakila, and sys. The main content area shows the 'Databases' tab. Under 'Create database', there is a text input field (labeled 2) containing 'Books' and a dropdown menu showing 'utf8mb4_0900_ai_ci'. Below this is a table listing existing databases and their collations.

| Database | Collation |
|---|--------------------|
| <input type="checkbox"/> information_schema | utf8_general_ci |
| <input type="checkbox"/> mysql | utf8mb4_0900_ai_ci |
| <input type="checkbox"/> performance_schema | utf8mb4_0900_ai_ci |
| <input type="checkbox"/> sakila | utf8mb4_0900_ai_ci |
| <input type="checkbox"/> sys | utf8mb4_0900_ai_ci |

Total: 5

☐ Check all With selected:

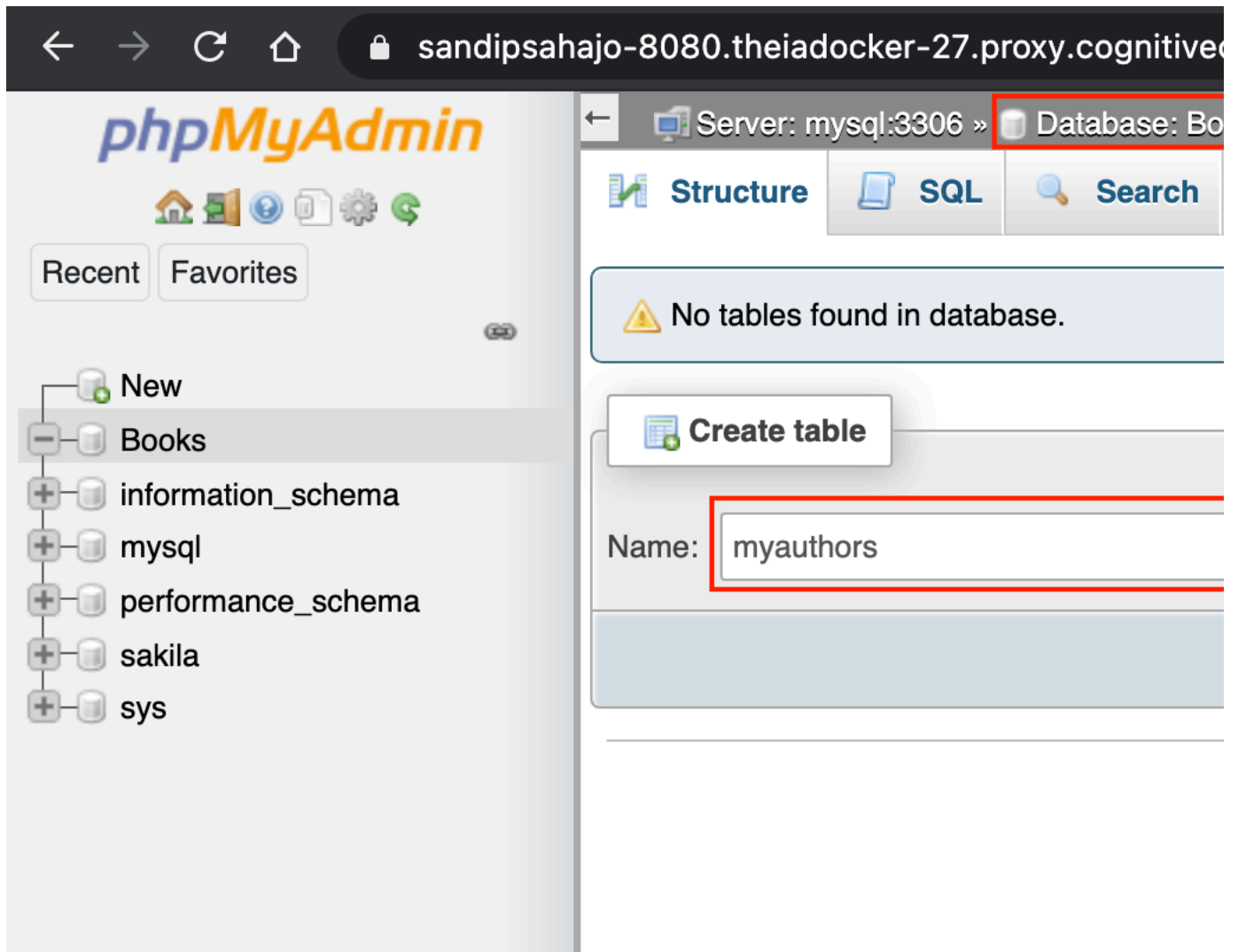
Note: Enabling the database statistics help

- Enable statistics

Task B: Create tables

1. In the Create table interface for the empty database **Books**, enter **myauthors** as the table name and **4** for the Number of columns. This is the first step to creating the table **myauthors** that was shown earlier in this lab.

Then click **Go**.



2. Enter the table definition for the **myauthors** table as shown in the image below with highlighted boxes. Then click **Save**.

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phpMyAdmin

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Recent Favorites

- New
- Books
- information_schema
- mysql
- performance_schema
- sakila
- sys

Server: mysql:3306 » Database: Bo

Browse **Structure** **SQL**

Table name: myauthors

| Name | Type |
|-------------|---------|
| author_id | INT |
| first_name | VARCHAR |
| middle_name | VARCHAR |
| last_name | VARCHAR |

Structure

Table comments:

PARTITION definition:

Partition by: (

Partitions:

3. The Table structure for the **myauthors** table will appear.

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phpMyAdmin

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Recent Favorites

+ New
 - Books
 + New
 + **myauthors**
 + information_schema
 + mysql
 + performance_schema
 + sakila
 + sys

Server: mysql:3306 » Database: Bo

Browse Structure SQL
 Table structure Relation view

| | # | Name | Type | Colla |
|--------------------------|---|--------------------|--------------|-------|
| <input type="checkbox"/> | 1 | author_id | int | |
| <input type="checkbox"/> | 2 | first_name | varchar(100) | utf8m |
| <input type="checkbox"/> | 3 | middle_name | varchar(50) | utf8m |
| <input type="checkbox"/> | 4 | last_name | varchar(100) | utf8m |

⬆️ ☐ Check all With selected:

Print Move columns Normalize

Add column(s) after last_n

Task C: Load data into tables manually using the phpMyAdmin GUI

1. Sometimes, you may want to load a few data rows of data, but you may not have a SQL script on hand to do that. In this case, you can manually load the data into phpMyAdmin. Since this is a manual process, it is better for inserting a small amount of data rather than a large amount.

To load data manually, go to the **Insert** tab for the **myauthors** table. Enter data for 2 rows of the **myauthors** table as shown in the image below with highlighted boxes. Then click **Go** at the bottom.



Recent

Favorites

- New
- Books
 - New
 - myauthors
- information_schema
- mysql
- performance_schema
- sakila
- sys

Browse

Structure

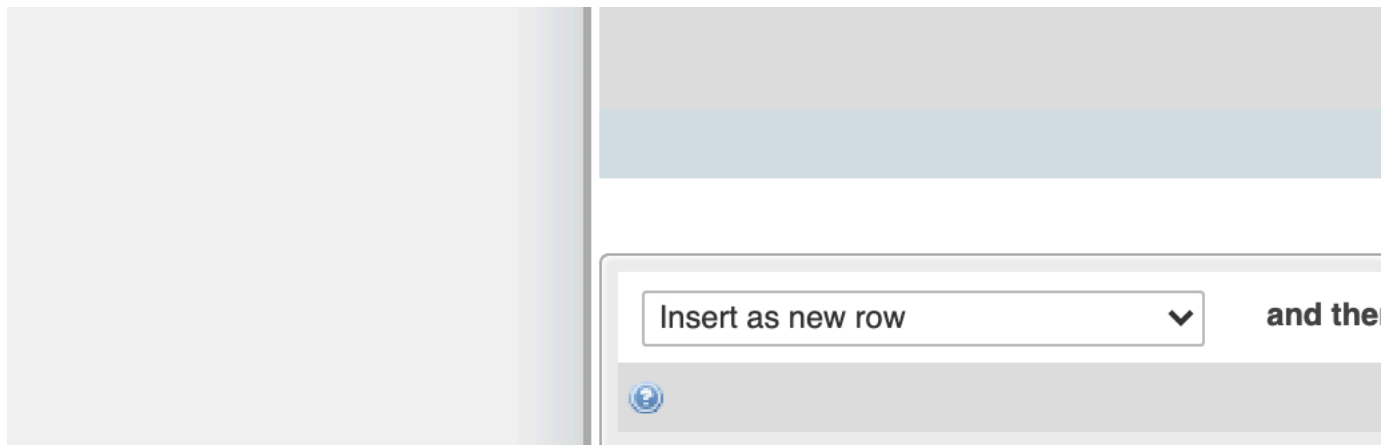
SQL

Search

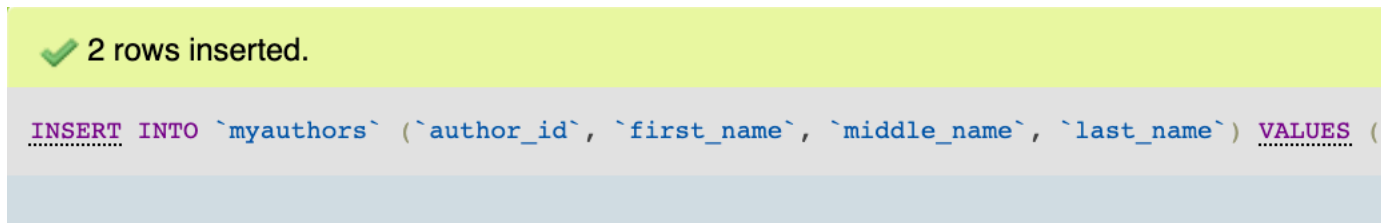
| Column | Type | Function |
|-------------|--------------|----------|
| author_id | int | |
| first_name | varchar(100) | |
| middle_name | varchar(50) | |
| last_name | varchar(100) | |

☐ Ignore

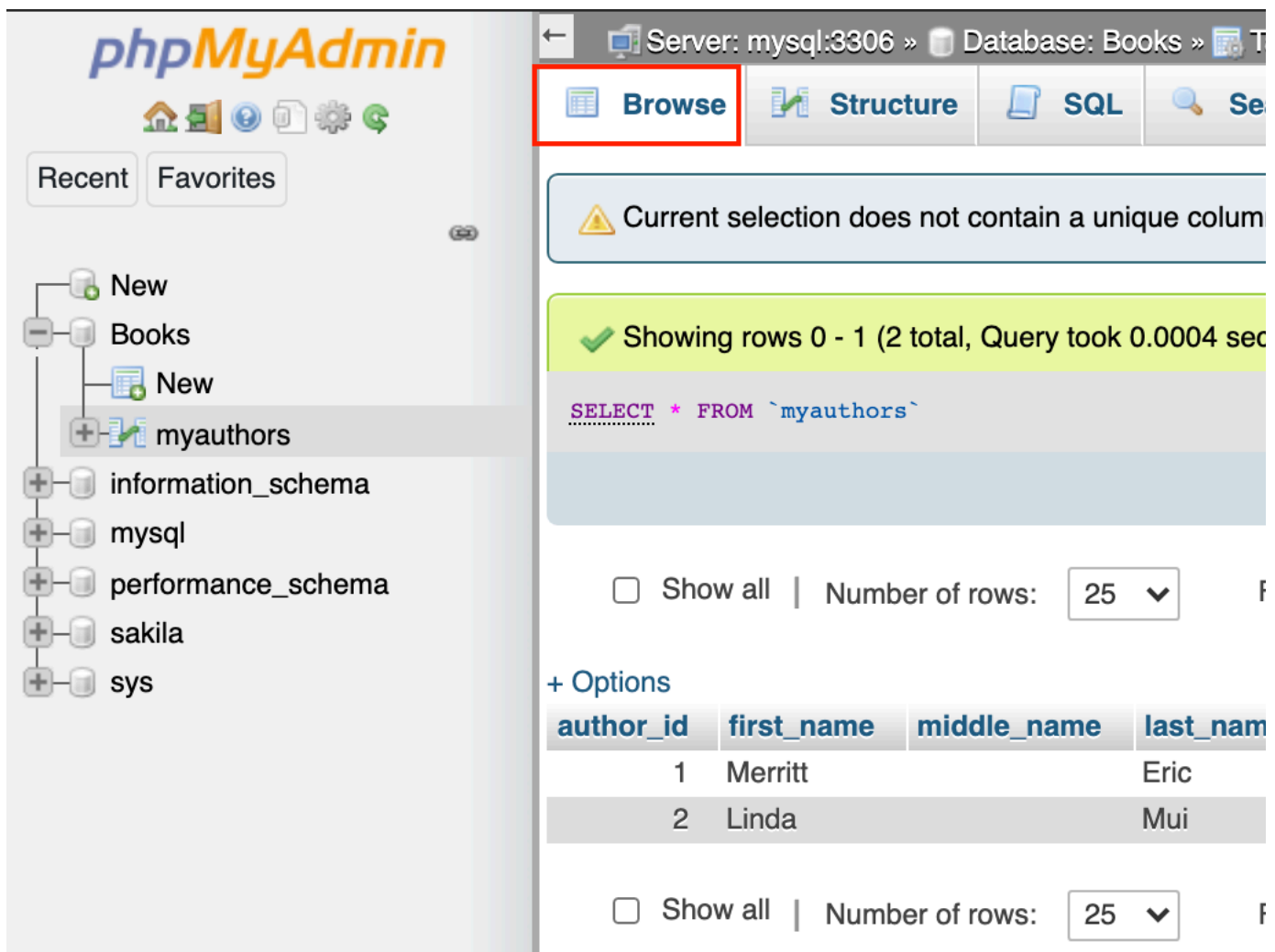
| Column | Type | Function |
|-------------|--------------|----------|
| author_id | int | |
| first_name | varchar(100) | |
| middle_name | varchar(50) | |
| last_name | varchar(100) | |



2. Notification of the successful insertion of 2 rows to the **myauthors** table will appear.



3. Go to the **Browse** tab for the **myauthors** table to check the newly inserted rows.



Task D: Load data into tables using a text/script file

1. Now you will use a SQL script to import the remainder of the **myauthors** table data. A SQL script file contains commands and statements that perform operations on your database, and can be useful when importing a large amount of data.

Download the SQL script below to your local computer:

- [mysql_table-myauthors_insert-data.sql](#)

2. Go to **Import** tab for the **myauthors** table. Click **Choose File** and load the **mysql_table-myauthors_insert-data.sql** file from your local computer storage. The rest of the settings can be left as they are because you are importing a SQL script that is encoded with UTF-8.

Then click **Go**. Notification of import success will appear.

- New
- Books
 - New
 - myauthors
- information_schema
- mysql
- performance_schema
- sakila
- sys

Importing into the table "myauthors"

File to import:

File may be compressed (gzip, bzip2, zip) or uncompressed. A compressed file's name must end in `.[format].[compression]`.

Browse your computer: mysql_table..

You may also drag and drop a file on any page.

Character set of the file:

Partial import:

☒ Allow the interruption of an import in case the script is interrupted.

Skip this number of queries (for SQL) starting from the beginning.

Other options:

☒ Enable foreign key checks

Format:

Format-specific options:

SQL compatibility mode:

☒ Do not use `AUTO_INCREMENT` for zero values.

✓ *Import has been successfully finished, 1376 queries executed. (mysql_table-myauthors_inse*

3. Go to the **Browse** tab for the **myauthors** table again to check the newly inserted rows appear along with previously inserted 2 rows.

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

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