

# Hands-on Lab: Create Tables and Load 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.

## 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.

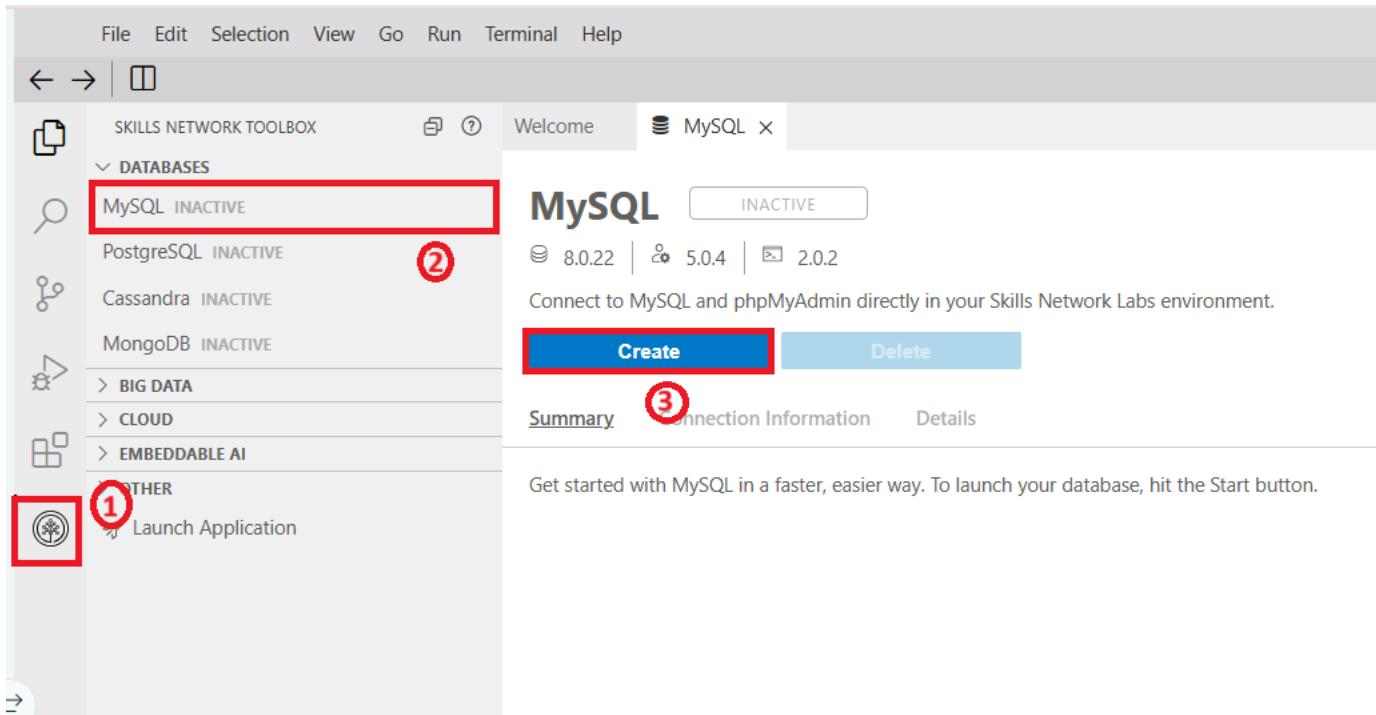
## Task A: Create a database

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.

This screenshot shows the MySQL summary page. At the top, it says 'MySQL ACTIVE'. Below that, it lists the same version information: 8.0.22, 5.0.4, and 2.0.2. It also includes the note: 'Connect to MySQL and phpMyAdmin directly in your Skills Network Labs environment.' There are 'Create' and 'Delete' buttons. The 'Summary' tab is selected. Below the summary, it says: 'Your database and phpMyAdmin server are now ready to use and available with the following login credentials. To navigate MySQL, please check out the Details section.' It then says: 'You can manage MySQL via:' followed by a 'phpMyAdmin' button with a red box around it and a red arrow pointing to it. At the bottom, it says: 'Or to interact with the database in the terminal, select one of these options:' with 'MySQL CLI' and 'New Terminal' buttons.

5. You will see the phpMyAdmin GUI tool.

The screenshot shows the phpMyAdmin interface. On the left, there is a tree-view sidebar with the following structure:

- New
- + information\_schema
- + mysql
- + performance\_schema
- + sakila
- + sys

At the top right, the server connection details are shown:

Server: mysql:3306

Databases SQL Status

The main content area contains two sections:

### General settings

Server connection collation: utf8r

[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 with the following steps highlighted:

- New**: A red box highlights the "New" button in the sidebar, which is step 1.
- Create database**: A red box highlights the "Create database" input field containing "Books", which is step 2.

**Databases**

Database	Collation
information_schema	utf8_general_ci
mysql	utf8mb4_0900_ai_ci
performance_schema	utf8mb4_0900_ai_ci
sakila	utf8mb4_0900_ai_ci
sys	utf8mb4_0900_ai_ci

**Total: 5**

**Note:** Enabling the database statistics helps to improve performance.

- Enable statistics

## Task B: Create tables

- 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**.

The screenshot shows the phpMyAdmin interface. On the left, a sidebar lists databases: New, Books, information\_schema, mysql, performance\_schema, sakila, and sys. The Books database is selected. The main area shows a breadcrumb navigation path: Server: mysql:3306 » Books. Below the path, there are tabs for Structure, SQL, and Search, with Structure selected. A message box displays a warning: "No tables found in database." In the center, a "Create table" button is visible. To its right, a form field labeled "Name:" contains the value "myauthors", which is highlighted with a red box. The URL in the browser's address bar is "sandipsahajo-8080.theiadocker-27.proxy.cognitivec...

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

The screenshot shows the phpMyAdmin interface. On the left, there's a sidebar with a tree view of databases: Books, information\_schema, mysql, performance\_schema, sakila, and sys. A 'New' item is also listed under Books. Below the sidebar are 'Recent' and 'Favorites' buttons. The main area shows the 'Structure' tab selected for the 'myauthors' table. The table structure is displayed in a grid:

Name	Type
author_id	INT
first_name	VARCHAR
middle_name	VARCHAR
last_name	VARCHAR

Below the table structure, there are sections for 'Structure', 'Table comments:', and 'PARTITION definition:'. The 'Partition by:' dropdown is set to '( )'.

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

The screenshot shows the phpMyAdmin interface with the following details:

- Left Panel (Database Structure):** Shows the database tree with the 'Books' schema expanded, revealing 'New' and 'myauthors' tables.
- Top Bar:** Shows the URL as `sandipsahajo-8080.theiadocker-27.proxy.cognitive...`.
- Header:** Shows 'Server: mysql:3306 » Database: Books'.
- Toolbar:** Includes 'Browse', 'Structure' (selected), and 'SQL' tabs.
- Table Structure View:** Displays the 'myauthors' table with the following columns:
 

#	Name	Type	Collation
1	<b>author_id</b>	int	
2	<b>first_name</b>	varchar(100)	utf8mb4_general_ci
3	<b>middle_name</b>	varchar(50)	utf8mb4_general_ci
4	<b>last_name</b>	varchar(100)	utf8mb4_general_ci
- Buttons:** Includes 'Print', 'Move columns', 'Normalize', 'Add', and 'Insert' buttons.

## 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.

phpMyAdmin

Recent Favorites

New Books New myauthors information\_schema mysql performance\_schema sakila sys

Server: mysql:3306 » Database: Books » T

Browse Structure SQL Se

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)	

The screenshot shows a browser window with the URL 'about:blank'. In the main content area, there is a message box with a green checkmark icon and the text '2 rows inserted.' Below this, a SQL query is displayed:

```
INSERT INTO `myauthors` (`author_id`, `first_name`, `middle_name`, `last_name`) VALUES (
```

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.

The screenshot shows the phpMyAdmin interface. The left sidebar shows the database structure with the 'Books' schema selected. The 'myauthors' table is visible under the 'Books' schema. The top navigation bar shows 'Server: mysql:3306 » Database: Books ». The 'Browse' tab is highlighted with a red box. The main content area displays a warning message: 'Current selection does not contain a unique column'. Below it, a success message says 'Showing rows 0 - 1 (2 total, Query took 0.0004 sec)'. A SQL query is shown:

```
SELECT * FROM `myauthors`
```

Below the query, there are options to 'Show all' or set a 'Number of rows' (set to 25). The results table shows the following data:

author_id	first_name	middle_name	last_name
1	Merritt		Eric
2	Linda		Mui

## 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:

- o [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.

**phpMyAdmin**

Server: mysql:3306 » Database: Books » T

Browse Structure SQL Search

Recent Favorites

New Books New myauthors information\_schema mysql performance\_schema sakila sys

## Importing into the table "my

### File to import:

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

Choose File

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

Character set of the file: utf-8

### Partial import:

Allow the interruption of an import in case the scr

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

### Other options:

Enable foreign key checks

### Format:

SQL

### Format-specific options:

SQL compatibility mode:

Do not use AUTO\_INCREMENT for zero

✓ 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.

**phpMyAdmin**

Recent Favorites

- New
- Books
  - New
- myauthors
- information\_schema
- mysql
- performance\_schema
- sakila
- sys

Server: mysql:3306 » Database: Books » T

**Browse** Structure SQL Se

⚠ Current selection does not contain a unique column

Showing rows 0 - 24 (1378 total, Query took 0.000)

```
SELECT * FROM `myauthors`
```

1 < > >> | Number of rows: 25 ▾

+ Options

author_id	first_name	middle_name	last_name
1	Merritt		Eric
2	Linda		Mui
3	Alecos		Papadatc
4	Paul	C.van	Oorschot
5	David		Cronin
6	Richard		Blum
7	Yuval	Noah	Harari
8	Paul		Albitz
9	David		Beazley
10	John	Paul	Shen
11	Andrew		Miller
12	Melanie		Swan
13	Neal		Ford
14	Nir		Shavit
15	Tim		Kindberg
16	Mike		McQuaid
17	Brian	P.	Hogan
18	Jean-Philippe		Aumasson
19	Lance		Fortnow
20	Richard	C.	Jeffrey
21	William	L.	Simon
22	Magnus	Lie	Hetland
23	Mike		McShaffr
24	Norman		Matloff
25	John	E.	Hopcroft

1 ▾

&gt; &gt;&gt;

| Number of rows:

25 ▾

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

Author: [Sandip Saha Joy](#)



# Skills Network

## Other Contributor(s)

- Kathy An

© IBM Corporation 2021. All rights reserved.