

# 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.

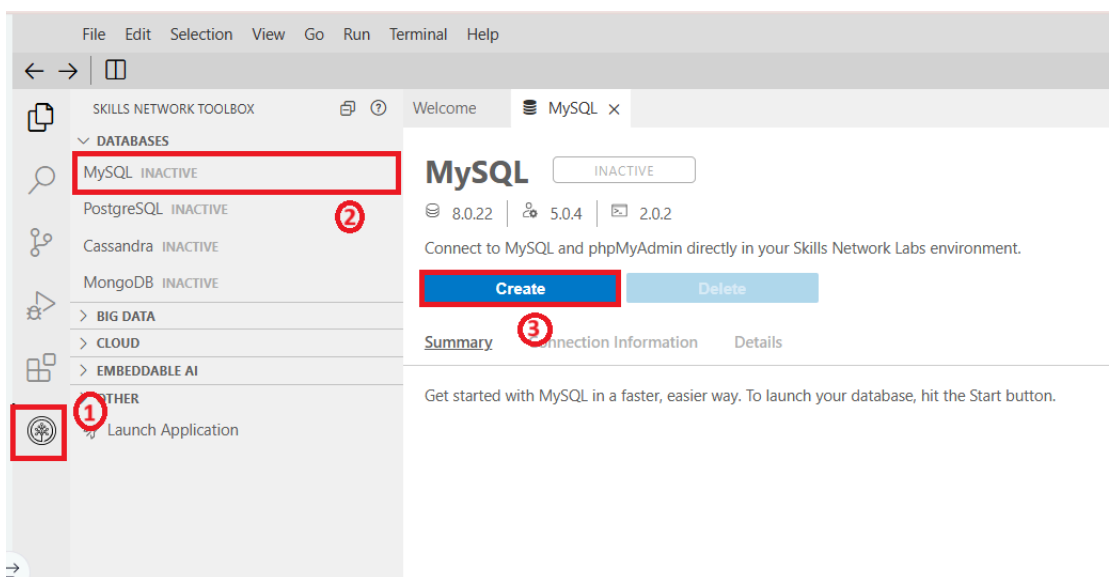
## Task A: Create a database

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.

Welcome MySQL x

# MySQL

ACTIVE

8.0.22 | 5.0.4 | 2.0.2

Connect to MySQL and phpMyAdmin directly in your Skills Network Labs environment.

CreateDelete

SummaryConnection InformationDetails

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.

You can manage MySQL via:

phpMyAdmin

Or to interact with the database in the terminal, select one of these options:

MySQL CLINew Terminal

5. You will see the phpMyAdmin GUI tool.

The screenshot displays the phpMyAdmin interface in a web browser. The address bar indicates the URL is `sandipsahajo-8080.theiadocker-27.proxy.cognitiveclass.ai`. The interface includes a sidebar with a tree view of databases: `New`, `information_schema`, `mysql`, `performance_schema`, `sakila`, and `sys`. The main content area shows the 'General settings' and 'Appearance settings' sections. In 'General settings', the 'Server connection collation' is set to `utf8mb4_unicode_ci`. In 'Appearance settings', the 'Language' is set to 'English' and the 'Theme' is set to '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.

← → ↻ 🏠 sandipsahajo-8080.theiadocker-27.proxy.cognitiveclass.ai/server\_data

# phpMyAdmin

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Recent Favorites

1 **New**

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

Server: mysql:3306

Databases SQL Status User accounts

## Databases

📁 Create database ⓘ

2

	Database	Collation	Master replication
<input type="checkbox"/>	information_schema	utf8_general_ci	✓ Replicated
<input type="checkbox"/>	mysql	utf8mb4_0900_ai_ci	✓ Replicated
<input type="checkbox"/>	performance_schema	utf8mb4_0900_ai_ci	✓ Replicated
<input type="checkbox"/>	sakila	utf8mb4_0900_ai_ci	✓ Replicated
<input type="checkbox"/>	sys	utf8mb4_0900_ai_ci	✓ Replicated

Total: 5

⬆️ ☐ Check all With selected: 📄 Drop

⚠️ Note: Enabling the database statistics here might cause heavy t

- **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**.

← → ↻ 🏠 sandipsahajo-8080.theiadocker-27.proxy.cognitiveclass.ai/server\_data

# phpMyAdmin

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Recent Favorites

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

Server: mysql:3306 » Database: Books

Structure SQL Search Query

⚠️ No tables found in database.

Create table

Name: myauthors Number of columns: 1

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

←

→

↻

🏠

sandipsahajo-8080.theiadocker-27.proxy.cognitiveclass.ai/sql.php?db=

phpMyAdmin

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Recent

Favorites

+

 New

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 Books

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 information\_schema

+

 mysql

+

 performance\_schema

+

 sakila

+

 sys

←

 Server: mysql:3306 » Database: Books » Table: myauth

📄 Browse

📊 Structure

📄 SQL

🔍 Search

⚙️

Table name: myauthors 

👤

 A

Name	Type ?	Length/Values
author_id	INT ▼	
first_name	VARCHAR ▼	100
middle_name	VARCHAR ▼	50
last_name	VARCHAR ▼	100

Structure ?

Table comments:  Collation:

PARTITION definition: ?

Partition by: 

▼

 ( Expression or column li

Partitions:

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

Server: mysql:3306 » Database: Books » Table: myauthors

Navigation: Browse | Structure | SQL | Search | **Insert**

Views: Table structure | Relation view

#	Name	Type	Collation	Attrib
<input type="checkbox"/> 1	<b>author_id</b>	int		
<input type="checkbox"/> 2	<b>first_name</b>	varchar(100)	utf8mb4_0900_ai_ci	
<input type="checkbox"/> 3	<b>middle_name</b>	varchar(50)	utf8mb4_0900_ai_ci	
<input type="checkbox"/> 4	<b>last_name</b>	varchar(100)	utf8mb4_0900_ai_ci	

Actions: ☐ Check all | With selected: Browse | Char

Tools: Print | Move columns | Normalize

Add:  column(s) |  |

## 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

Server: mysql:3306 » Database: Books » Table: myauthors

Browse

Structure

SQL

Search

Insert

Column	Type	Function	Null	Value
author_id	int			1
first_name	varchar(100)			Merrit
middle_name	varchar(50)			
last_name	varchar(100)			Eric

☐ Ignore

Column	Type	Function	Null	Value
author_id	int			2
first_name	varchar(100)			Linda
middle_name	varchar(50)			
last_name	varchar(100)			Mui

Insert as new row

and then

Go back to previous

Preview SQL

Reset

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



✓ 2 rows inserted.

```
INSERT INTO `myauthors` (`author_id`, `first_name`, `middle_name`, `last_name`) VALUES ('1', 'Merritt', '', 'Er:
```

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

Server: mysql:3306 » Database: Books » Table: myauthors

**Browse** Structure SQL Search Insert

⚠ Current selection does not contain a unique column. Grid edit, checkbox, Ed

✓ Showing rows 0 - 1 (2 total, Query took 0.0004 seconds.)

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

☐ Show all | Number of rows: 25 ▼ Filter rows: Search this t

+ Options

author_id	first_name	middle_name	last_name
1	Merritt		Eric
2	Linda		Mui

☐ Show all | Number of rows: 25 ▼ Filter rows: Search this t

## 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.

phpMyAdmin



Recent Favorites

New

Books

- New
- myauthors

information\_schema

mysql

performance\_schema

sakila

sys

Server: mysql:3306 » Database: Books » Table: myauthors

BrowseStructureSQLSearchInsert

## 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]**. Example: **.sql**.

Browse your computer: 

Choose File

mysql\_table...sert-data.sql (Max: 2,04

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 script detects it is close to the

Skip this number of queries (for SQL) starting from the first one: 0

Other options:

☒ Enable foreign key checks

Format:

SQL

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\_insert-data.sql)

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

Recent

Favorites

New

Books

New

myauthors

information\_schema

mysql

performance\_schema

sakila

sys

Server: mysql:3306 » Database: Books » Table: myauthors

Browse

Structure

SQL

Search

Insert

⚠ Current selection does not contain a unique column. Grid edit, checkbox, Ed

✓ Showing rows 0 - 24 (1378 total, Query took 0.0003 seconds.)

SELECT \* FROM `myauthors`

1 > >> | Number of rows: 25 Filter rows: Search

+ Options

author_id	first_name	middle_name	last_name
1	Merritt		Eric
2	Linda		Mui
3	Alecos		Papadatos
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		McShaffry
24	Norman		Matloff
25	John	E.	Hopcroft

1 > >> | Number of rows: 25 Filter rows: Search

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

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Other Contributor(s)

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