

# Relational Database Systems

## Install MySQL on Windows

## Database Systems

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#### Introduction:

The goal of this document is to serve as a walkthrough of the installation of MySQL in Windows.

## Database Systems

### Install MySQL on Windows

Step 1:


Download the MySQL Installer from <https://dev.mysql.com/downloads/installer/>

Look for the full version (larger download), not the web installer.

(ex: mysql-installer-community-8.0.39.0.msi)

**General Availability (GA) Releases** Archives ⓘ


## MySQL Installer 8.0.39

 **Note:** MySQL 8.0 is the final series with MySQL Installer. As of MySQL 8.1, use a MySQL product's MSI or Zip archive for installation. MySQL Server 8.1 and higher also bundle MySQL Configurator, a tool that helps configure MySQL Server.

Select Version:  
8.0.39 ▼

Select Operating System:  
Microsoft Windows ▼

<b>Windows (x86, 32-bit), MSI Installer</b> (mysql-installer-web-community-8.0.39.0.msi)	8.0.39	2.1M	<b>Download</b>
MD5: d8499da0b2c4b5dfa81a5c5185af9238   <a href="#">Signature</a>			
<b>Windows (x86, 32-bit), MSI Installer</b> (mysql-installer-community-8.0.39.0.msi)	8.0.39	303.6M	<b>Download</b>
MD5: 353c5e5ab9350d0e9ddcb42264229b5d   <a href="#">Signature</a>			

 We suggest that you use the [MD5 checksums](#) and [GnuPG signatures](#) to verify the integrity of the packages you download.

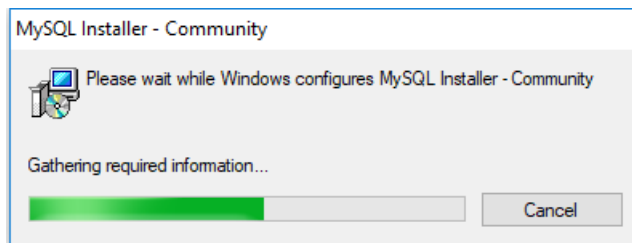
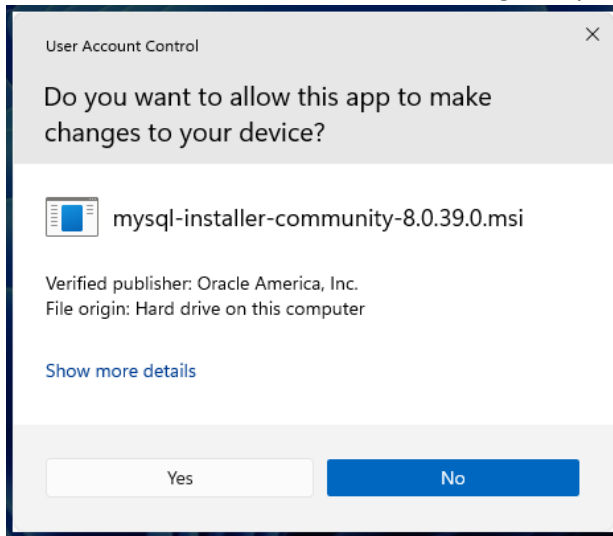
Step 2:

Run the MySQL 8 Installer (ex: mysql-installer-community-8.0.39.0.msi)

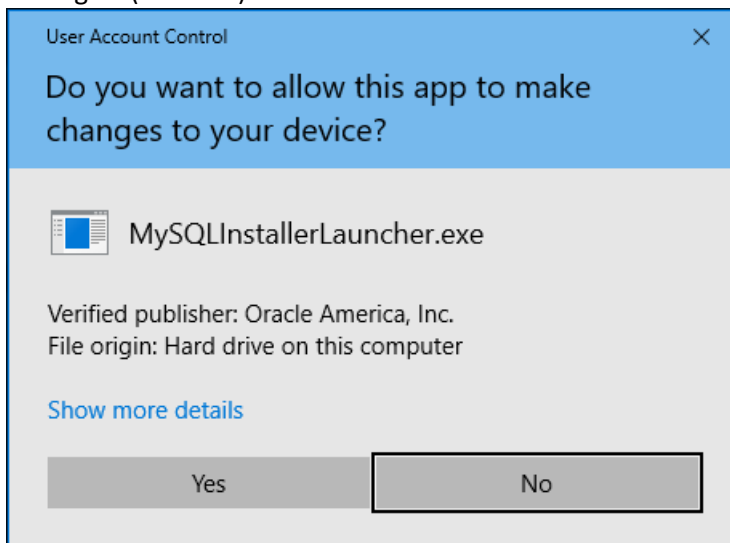
## Database Systems

### Install MySQL on Windows

Allow User Account Control to make changes to your device - YES



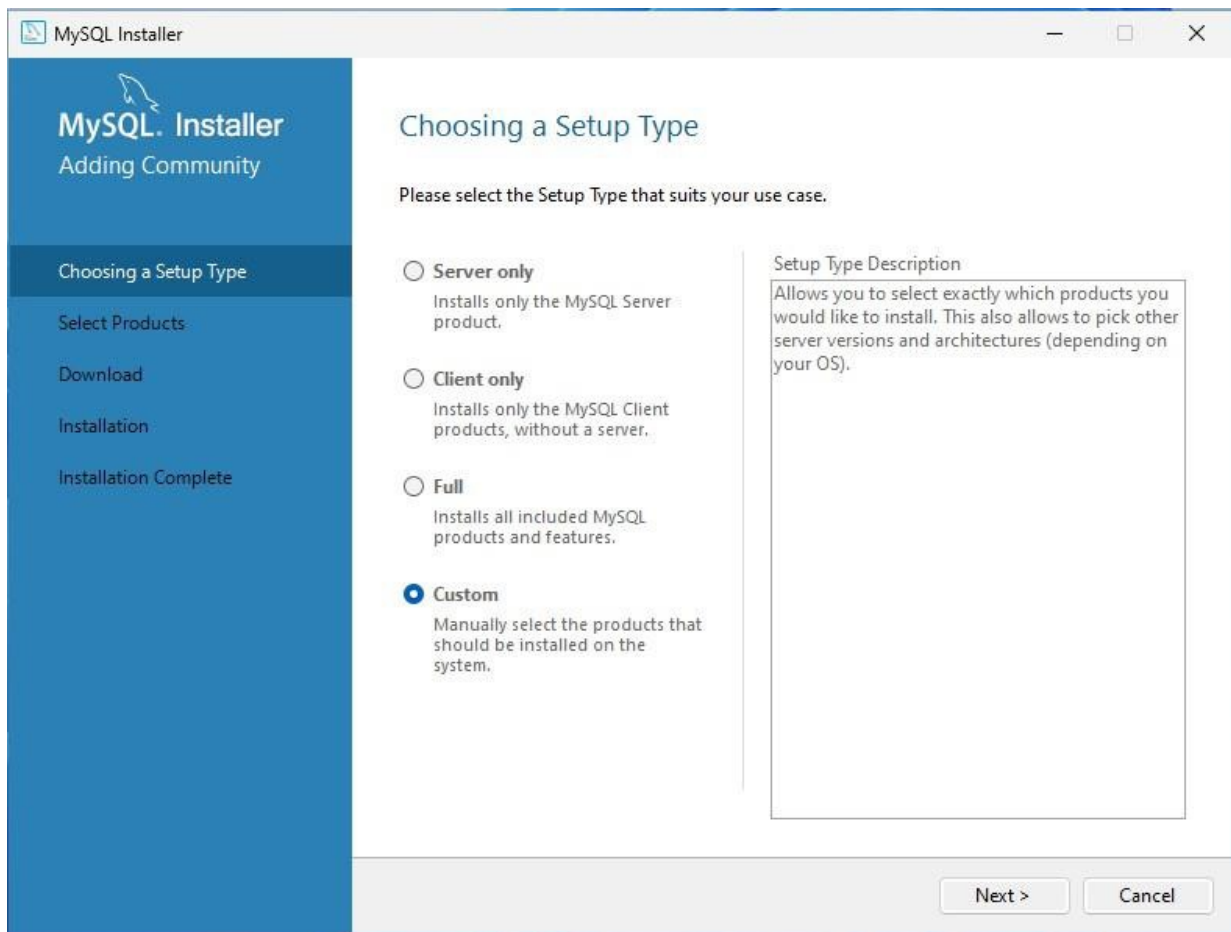
And again (click YES):



## Database Systems

### Install MySQL on Windows

For Setup Type, choose "Custom".



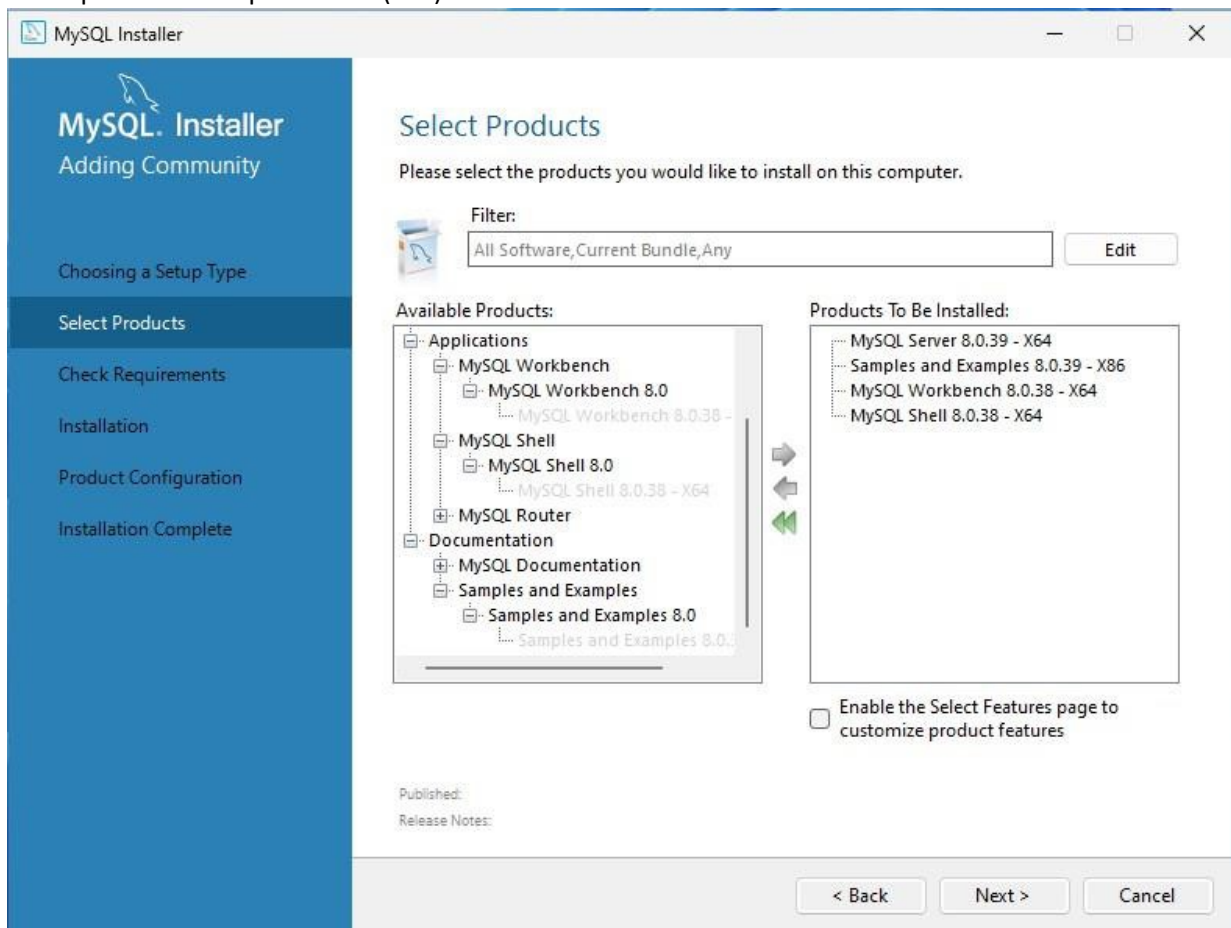
## Database Systems

### Install MySQL on Windows

**Note:** Your version may be newer than the ones provided here. Ex: 8.0.**41** instead of 8.0.**39**.  
Please use the latest version of MySQL.

Include the following (4) in the install:

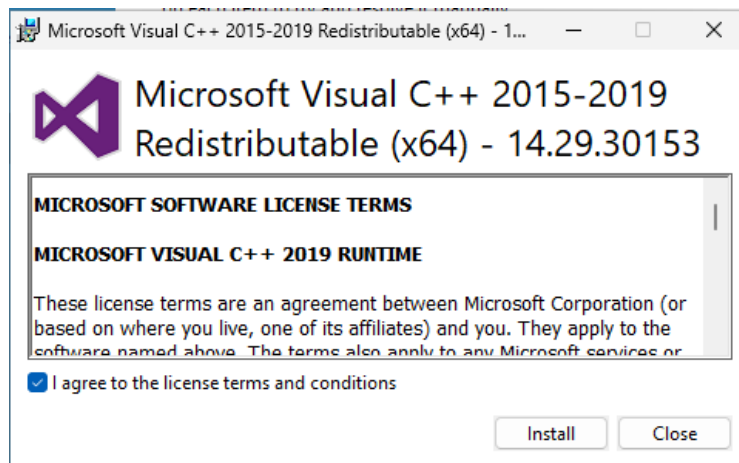
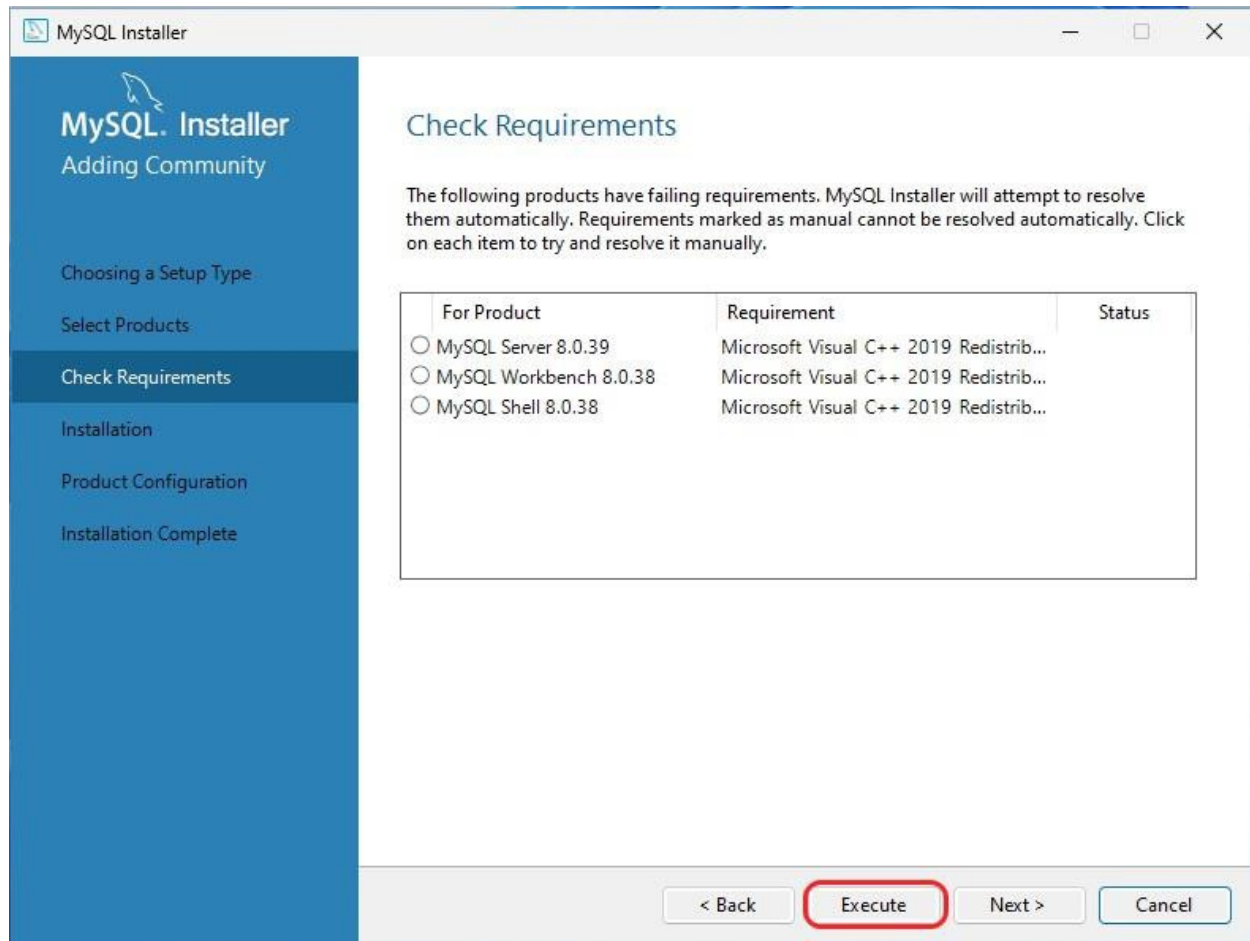
- MySQL Server 8.0.**39** (X64)
- MySQL Workbench 8.0.**39** (X64)
- MySQL Shell 8.0.**39** (X64)
- Samples and Examples 8.0.**39** (X86)



## Database Systems

### Install MySQL on Windows

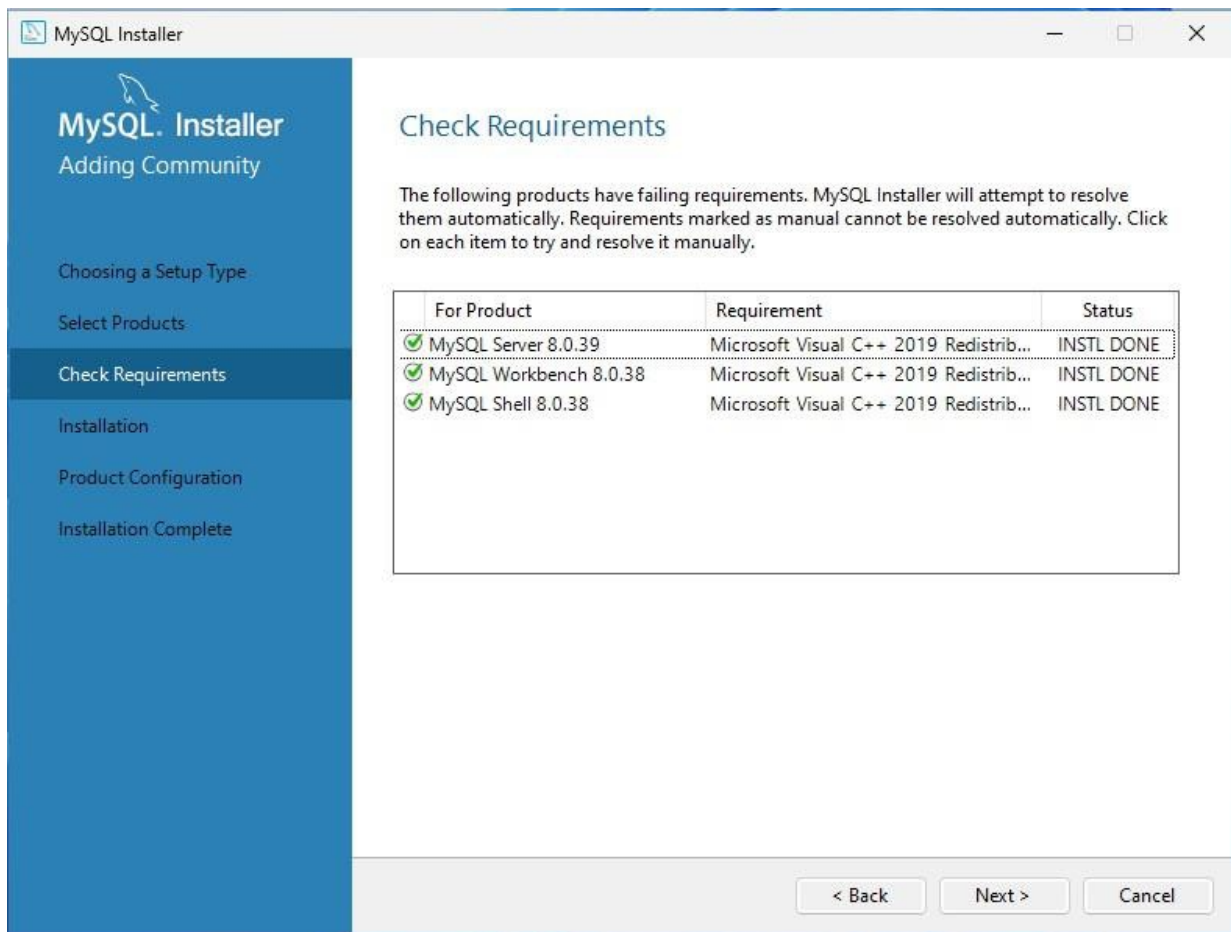
Install Microsoft Visual C++ Redistributable if required – click "Execute", Agree to Terms and Conditions and Install:



## Database Systems

### Install MySQL on Windows

Click "Next" once the Redistributables have installed

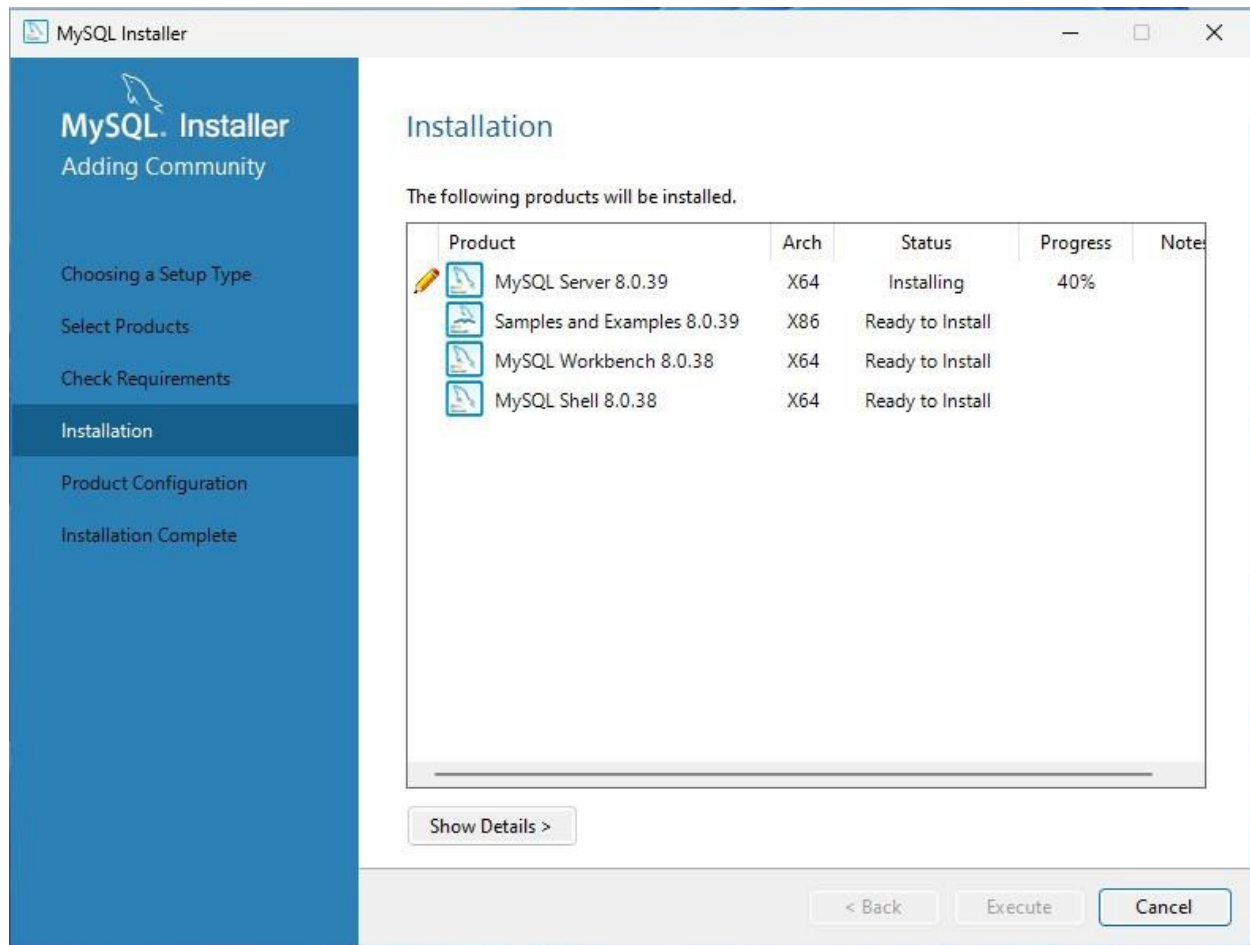




## Database Systems

### Install MySQL on Windows

Click Execute and sit back and watch the show:

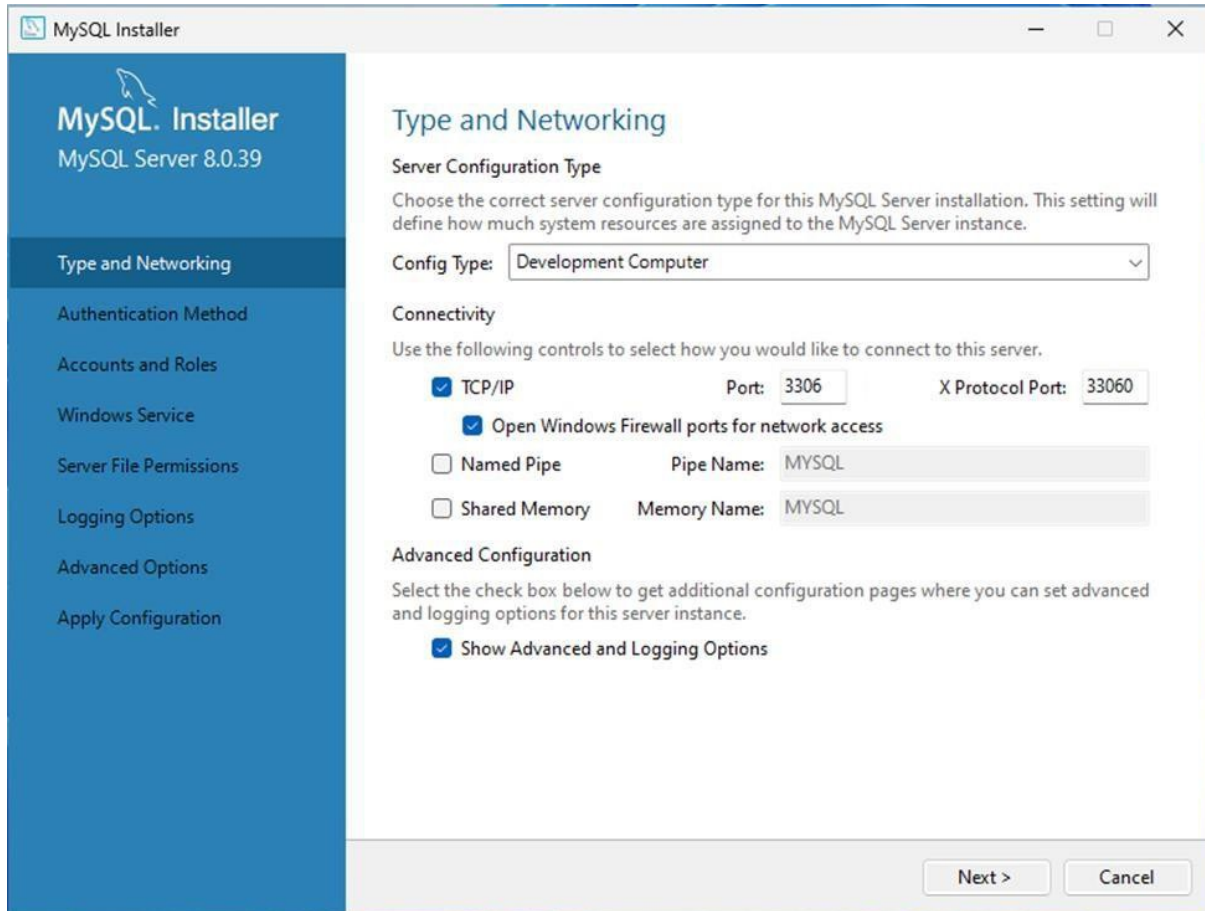


**Note:** *This portion of the install wizard changes **frequently**.* If your steps are slightly different than the ones shown here, you should be able to accept the defaults and continue with the installation.

## Database Systems

### Install MySQL on Windows

Keep Development Computer as Config Type, Keep all other defaults  
**EXCEPT** click "Show Advanced and Logging Options"



The screenshot shows the 'MySQL Installer' window for 'MySQL Server 8.0.39'. The left sidebar contains a list of configuration steps: 'Type and Networking' (selected), 'Authentication Method', 'Accounts and Roles', 'Windows Service', 'Server File Permissions', 'Logging Options', 'Advanced Options', and 'Apply Configuration'. The main pane is titled 'Type and Networking' and contains the following sections:

- Server Configuration Type**: A description states, 'Choose the correct server configuration type for this MySQL Server installation. This setting will define how much system resources are assigned to the MySQL Server instance.' Below this, the 'Config Type' is set to 'Development Computer' in a dropdown menu.
- Connectivity**: A description states, 'Use the following controls to select how you would like to connect to this server.' It includes three options:
  - ☒ **TCP/IP**: The 'Port' is set to '3306' and the 'X Protocol Port' is set to '33060'.
  - ☒ **Open Windows Firewall ports for network access**
  - ☐ **Named Pipe**: The 'Pipe Name' is set to 'MYSQL'.
  - ☐ **Shared Memory**: The 'Memory Name' is set to 'MYSQL'.
- Advanced Configuration**: A description states, 'Select the check box below to get additional configuration pages where you can set advanced and logging options for this server instance.' Below this, the checkbox ☒ **Show Advanced and Logging Options** is selected.

At the bottom right of the window, there are two buttons: 'Next >' and 'Cancel'.

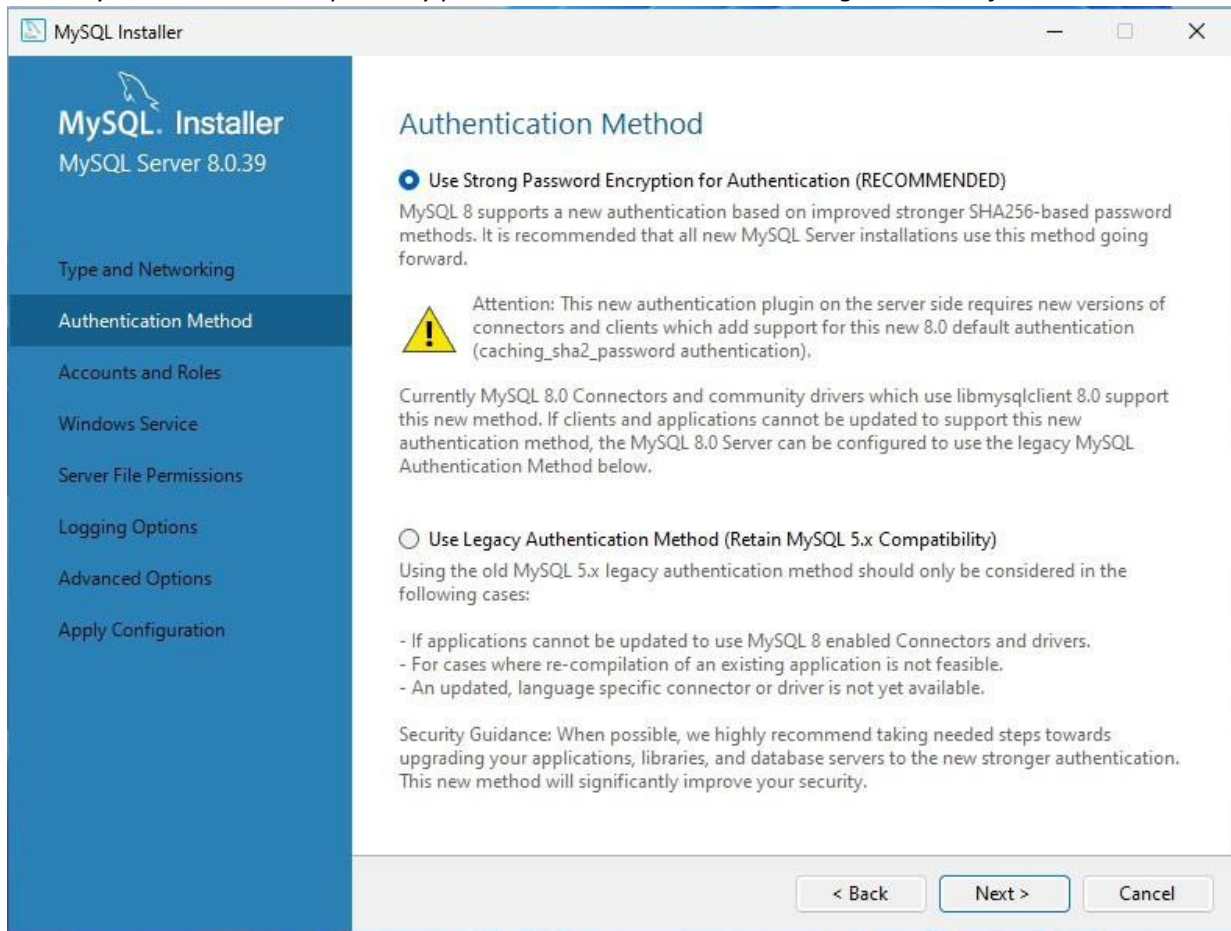
## Database Systems

### Install MySQL on Windows

Authentication Method – Use Strong Password Encryption:

Notice: the many warnings about strong encryption.

*This may cause some incompatibility problems but will see how to change this later if needed.*

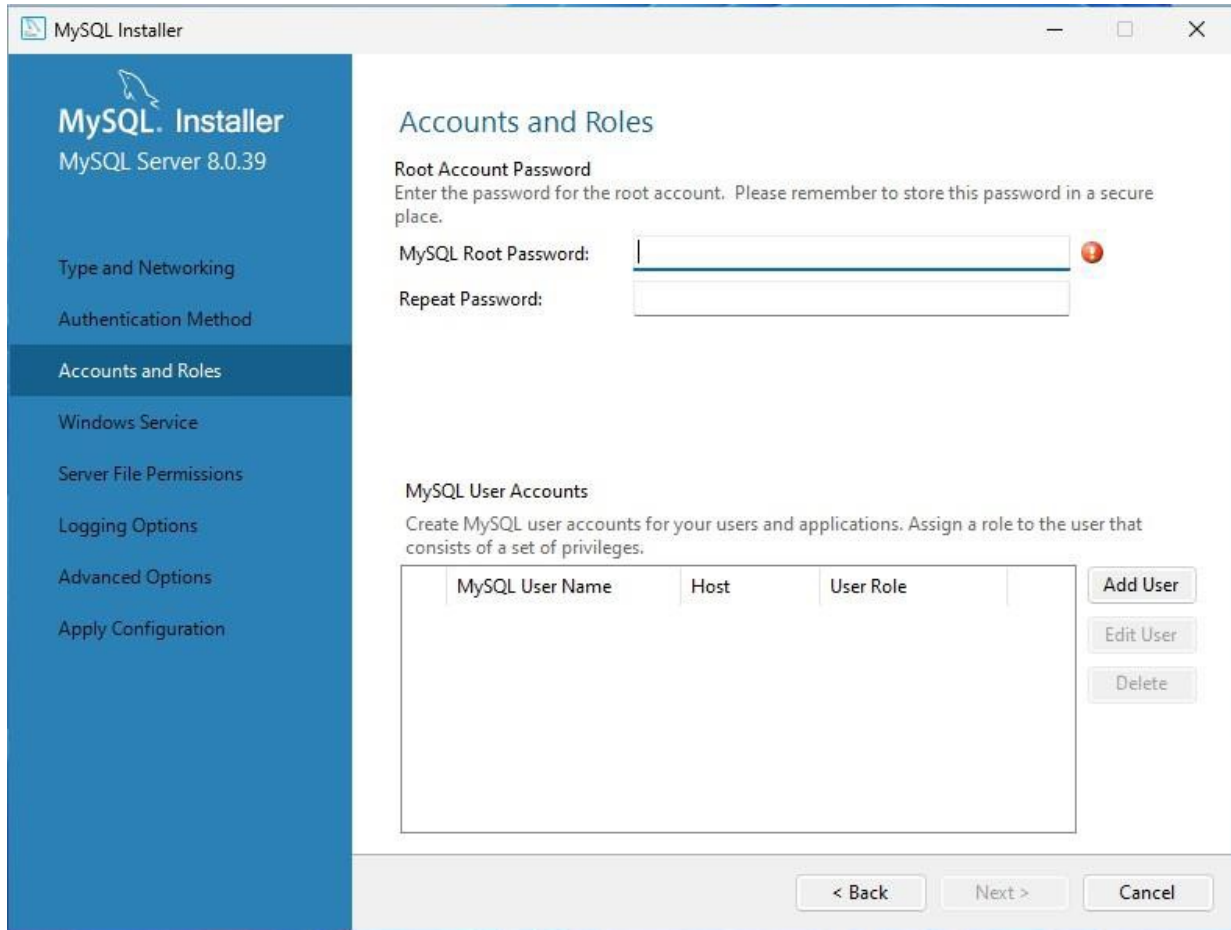


## Database Systems

### Install MySQL on Windows

Create a root password.

**IMPORTANT:** Write down your password so you can remember it!



The screenshot shows the MySQL Installer window for MySQL Server 8.0.39. The left sidebar contains a list of installation steps: Type and Networking, Authentication Method, Accounts and Roles (selected), Windows Service, Server File Permissions, Logging Options, Advanced Options, and Apply Configuration. The main area is titled 'Accounts and Roles' and contains two sections. The first section, 'Root Account Password', prompts the user to enter a password for the root account, with a warning icon indicating a requirement. The second section, 'MySQL User Accounts', provides instructions on creating user accounts and assigning roles, accompanied by a table with columns for MySQL User Name, Host, and User Role. To the right of the table are buttons for 'Add User', 'Edit User', and 'Delete'. At the bottom of the window are navigation buttons: '< Back', 'Next >', and 'Cancel'.

MySQL Installer

MySQL Server 8.0.39

Type and Networking

Authentication Method

**Accounts and Roles**

Windows Service

Server File Permissions

Logging Options

Advanced Options

Apply Configuration

### Accounts and Roles

**Root Account Password**  
Enter the password for the root account. Please remember to store this password in a secure place.

MySQL Root Password:

Repeat Password:

**MySQL User Accounts**  
Create MySQL user accounts for your users and applications. Assign a role to the user that consists of a set of privileges.

MySQL User Name	Host	User Role
-----------------	------	-----------

Add User

Edit User

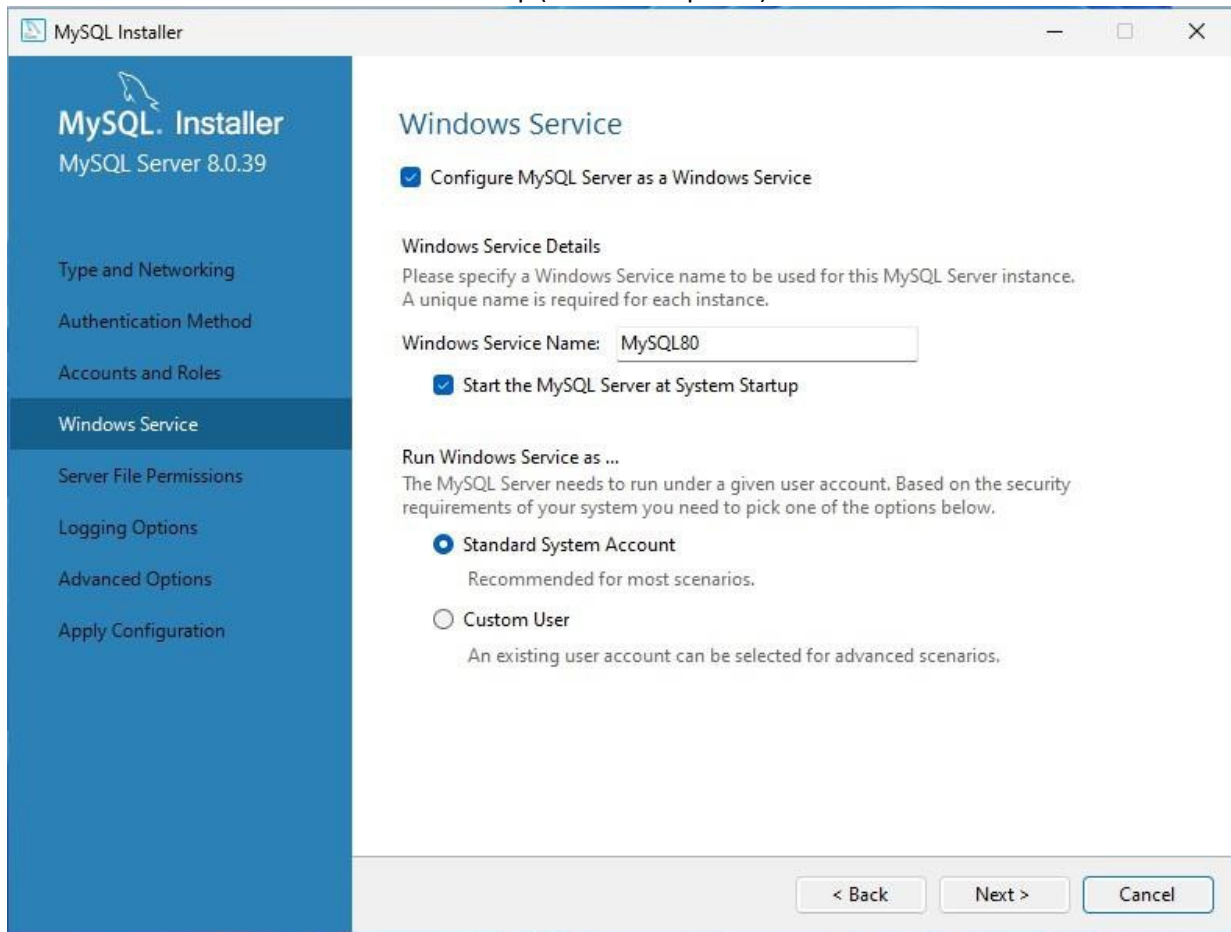
Delete

< Back   Next >   Cancel

## Database Systems

### Install MySQL on Windows

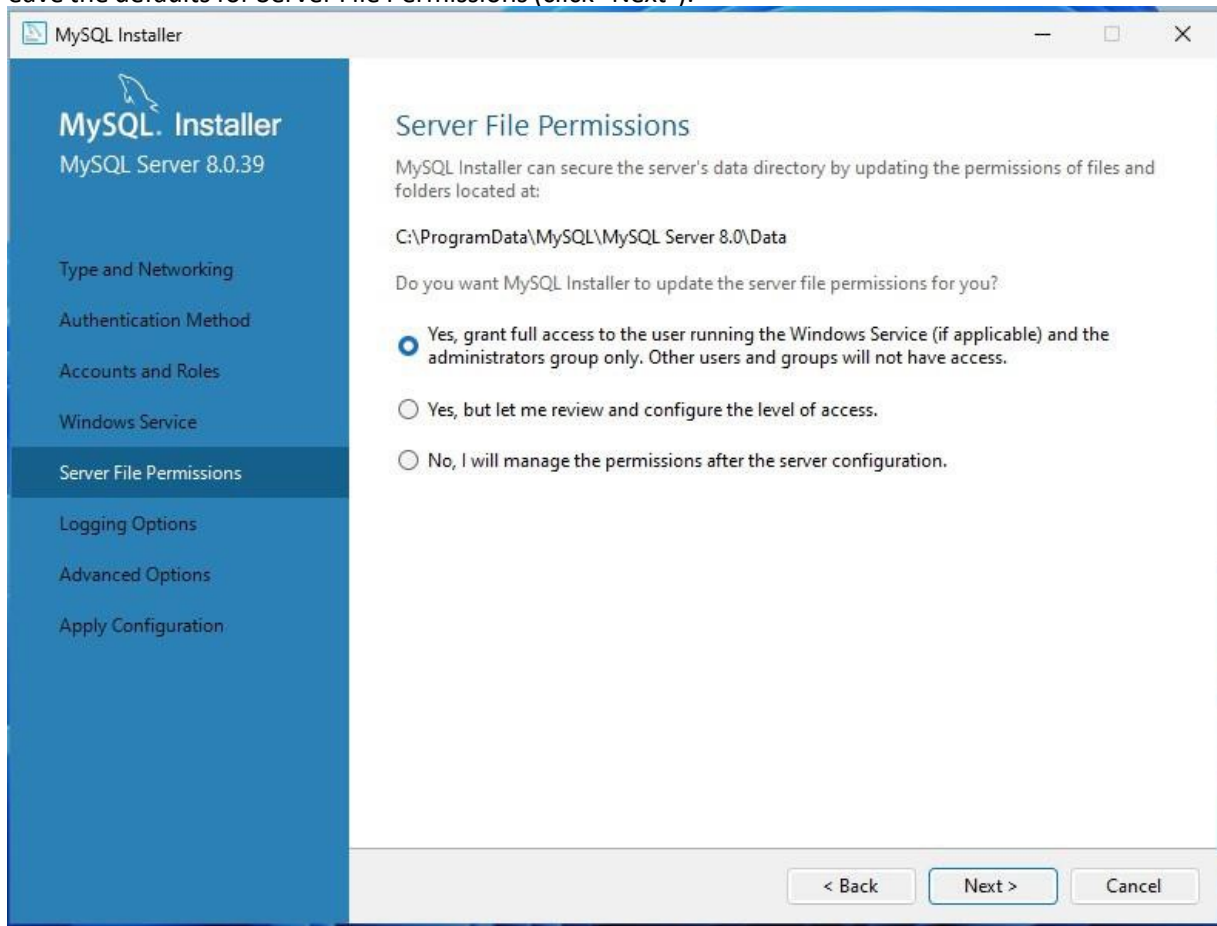
Create a Windows Service and run at startup (all default options):



## COMP 2714 Relational Database Systems

### Install MySQL on Windows

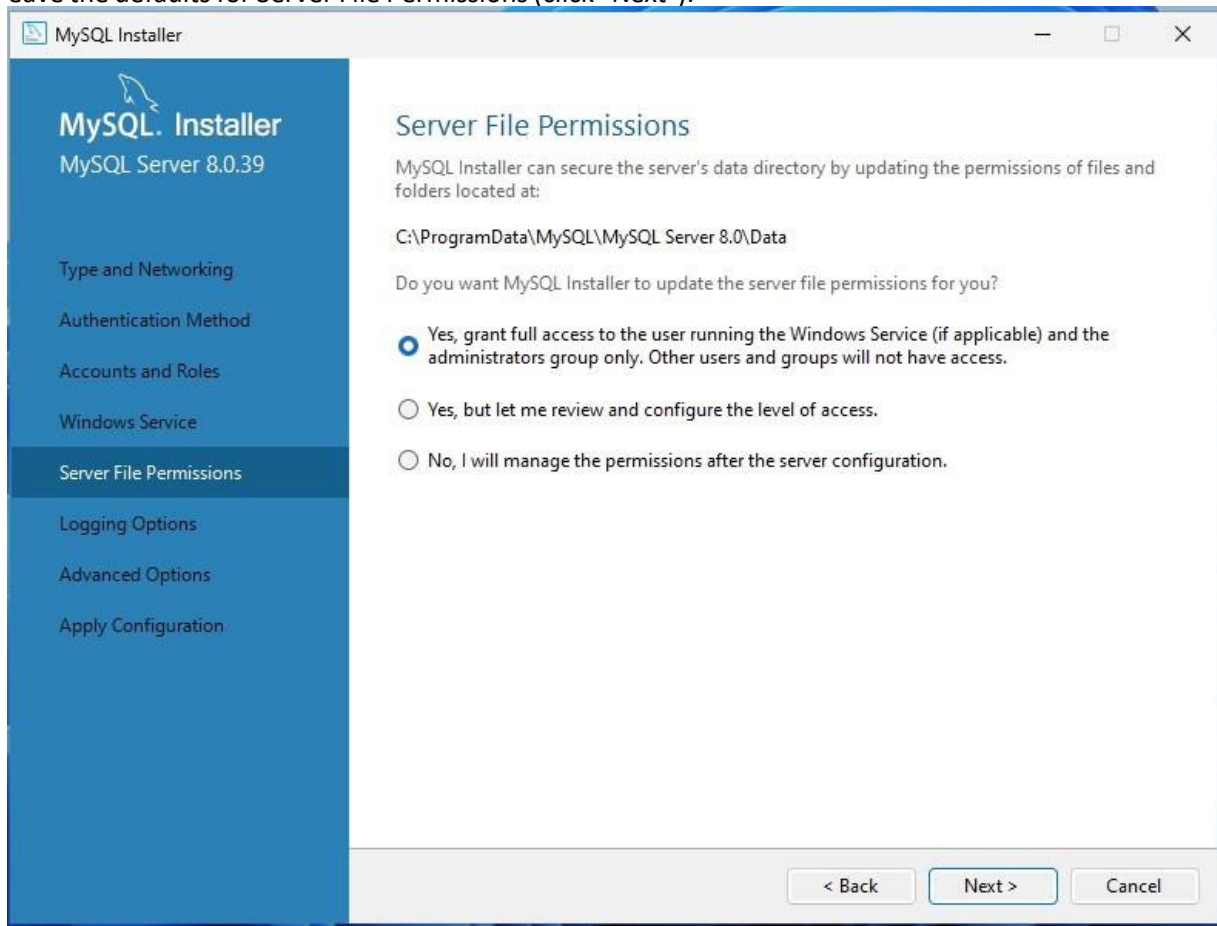
Leave the defaults for Server File Permissions (click "Next"):



## COMP 2714 Relational Database Systems

### Install MySQL on Windows

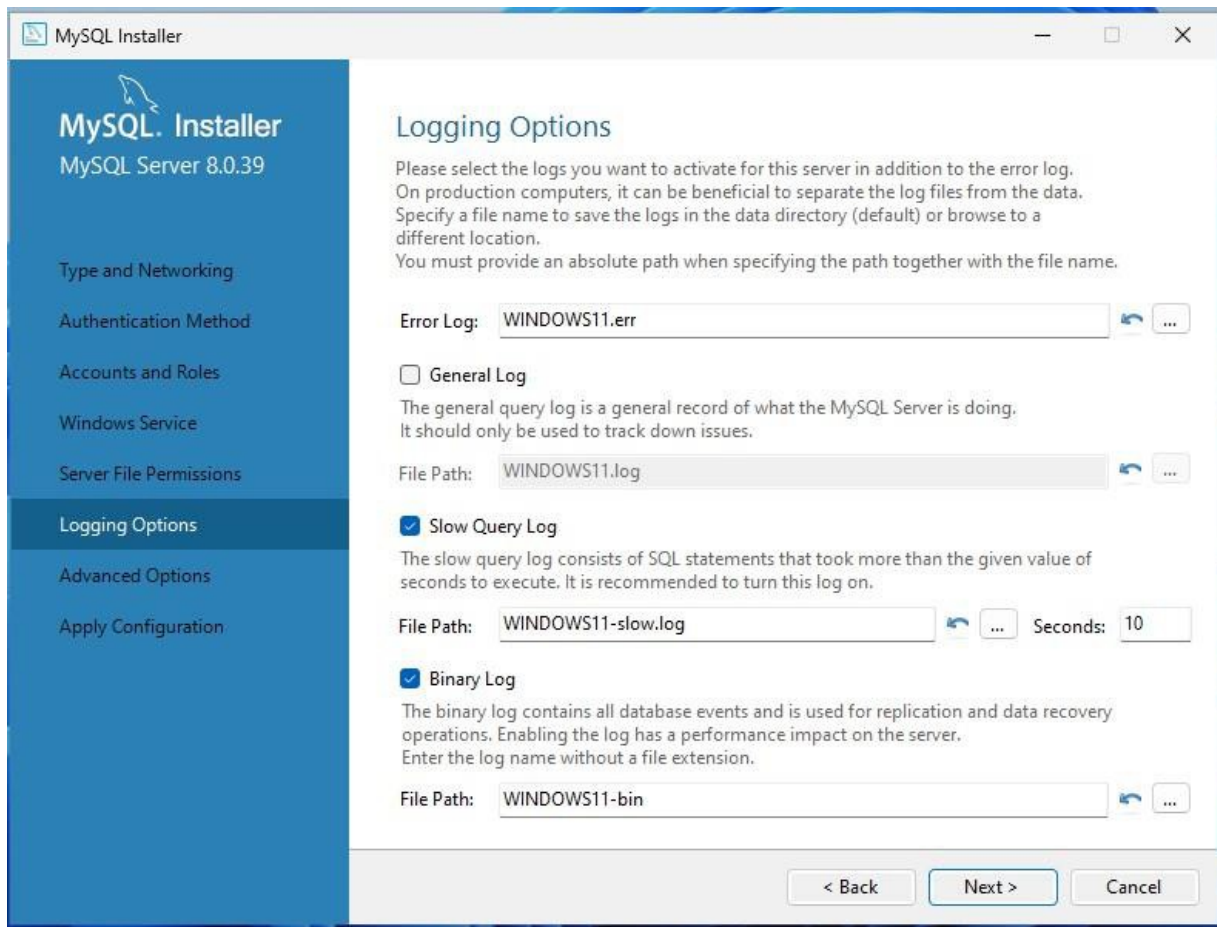
Leave the defaults for Server File Permissions (click "Next"):





The defaults should also be ok for logging.

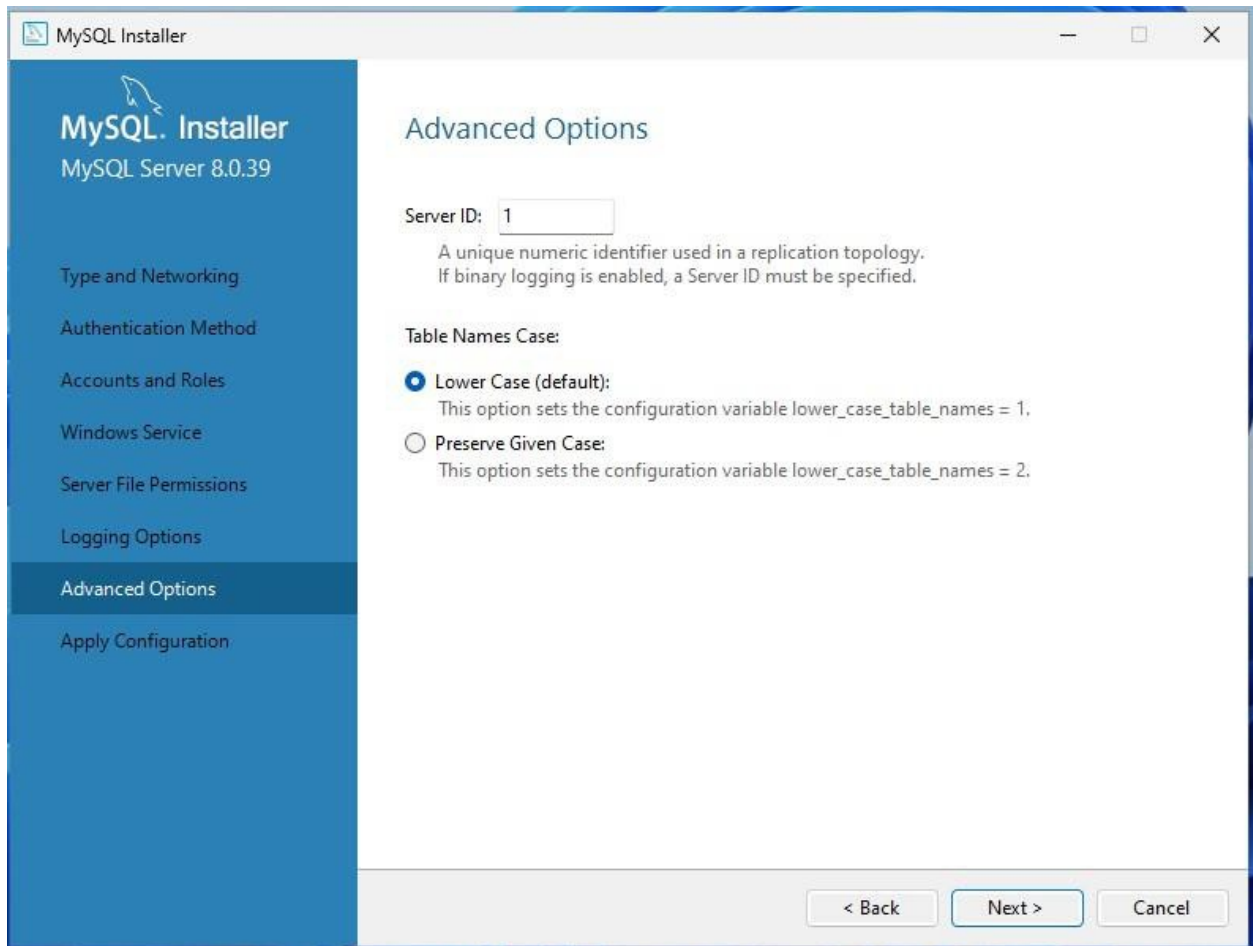
Binary and Slow Query logs should be enabled and General log should be disabled.



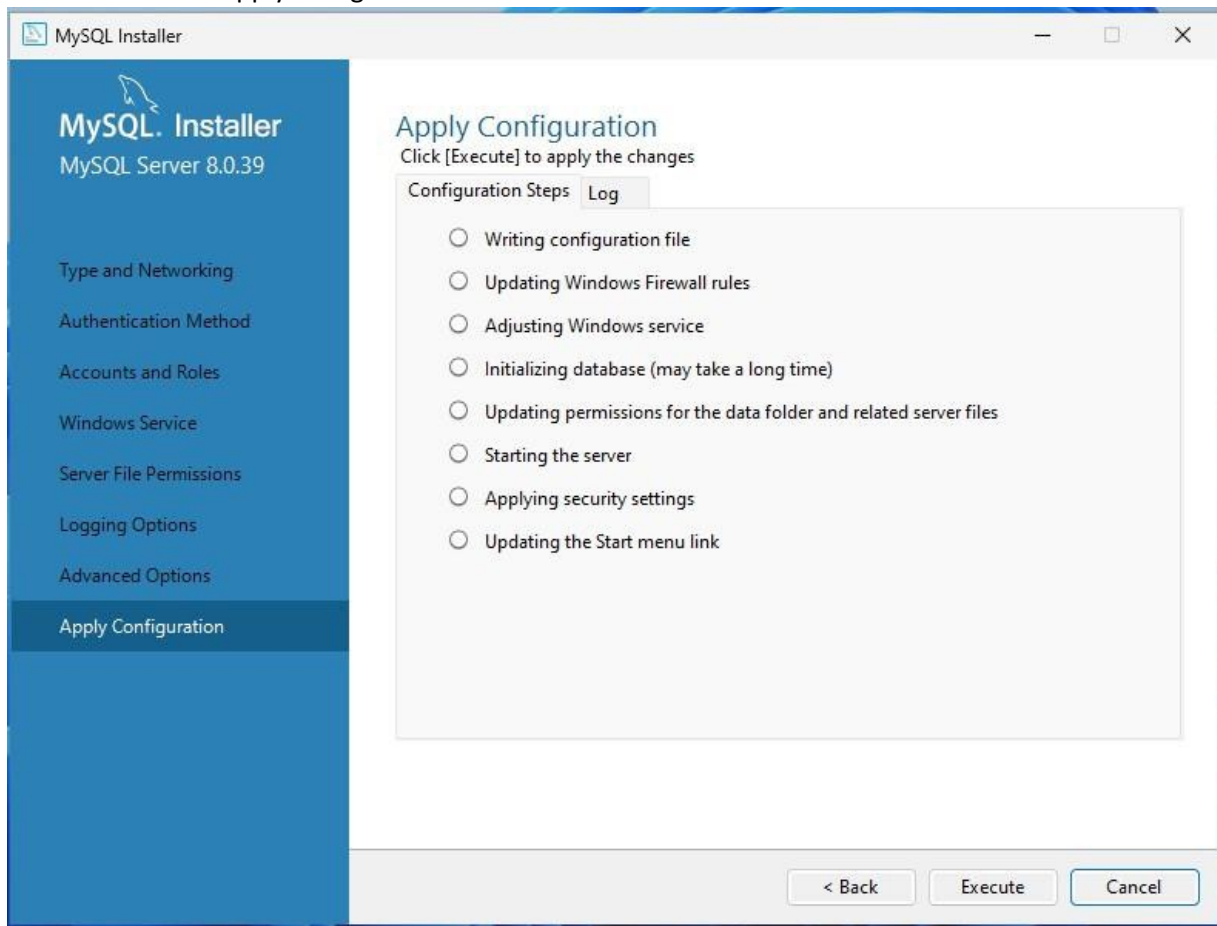


For case sensitivity it should be Lower Case (default):

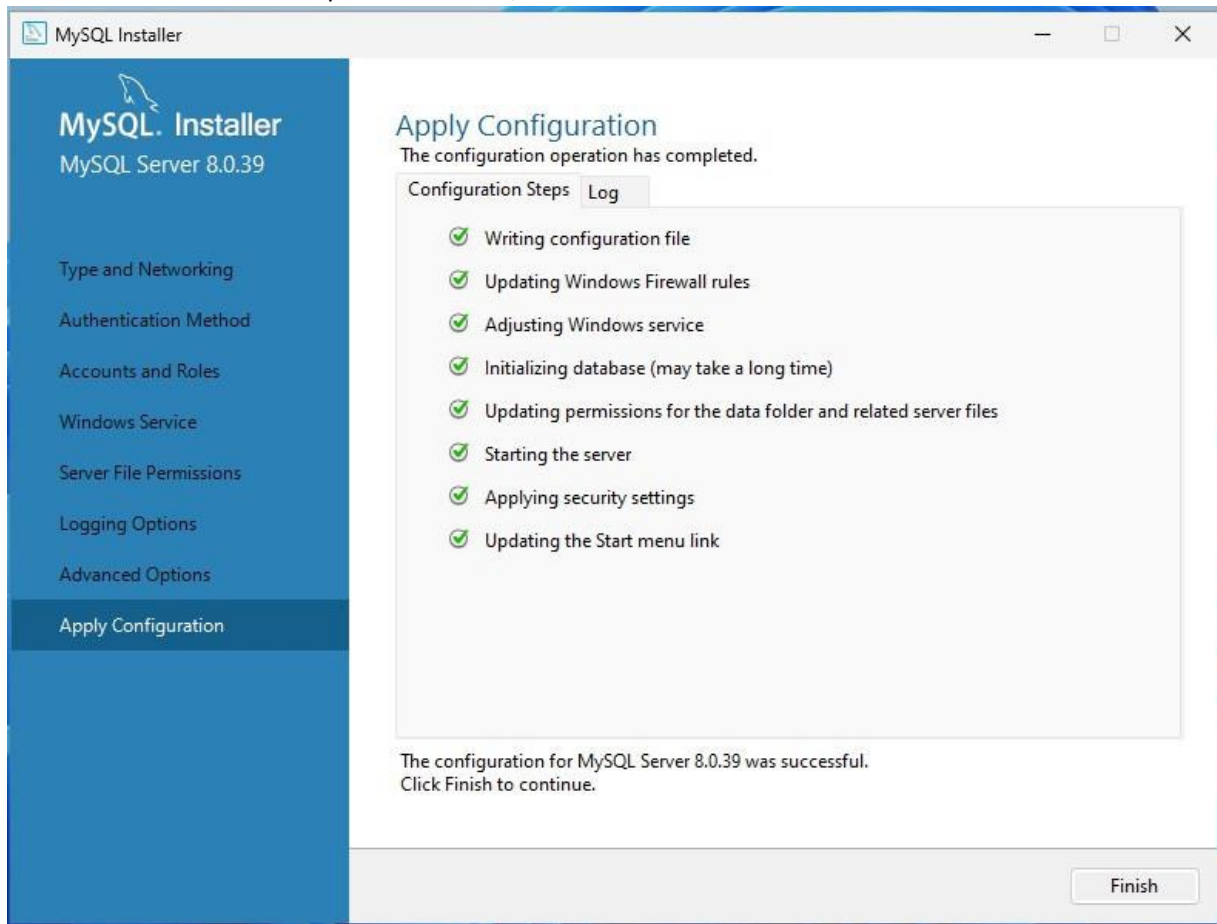
Server ID can be left as 1.



Click "Execute" to apply configuration:

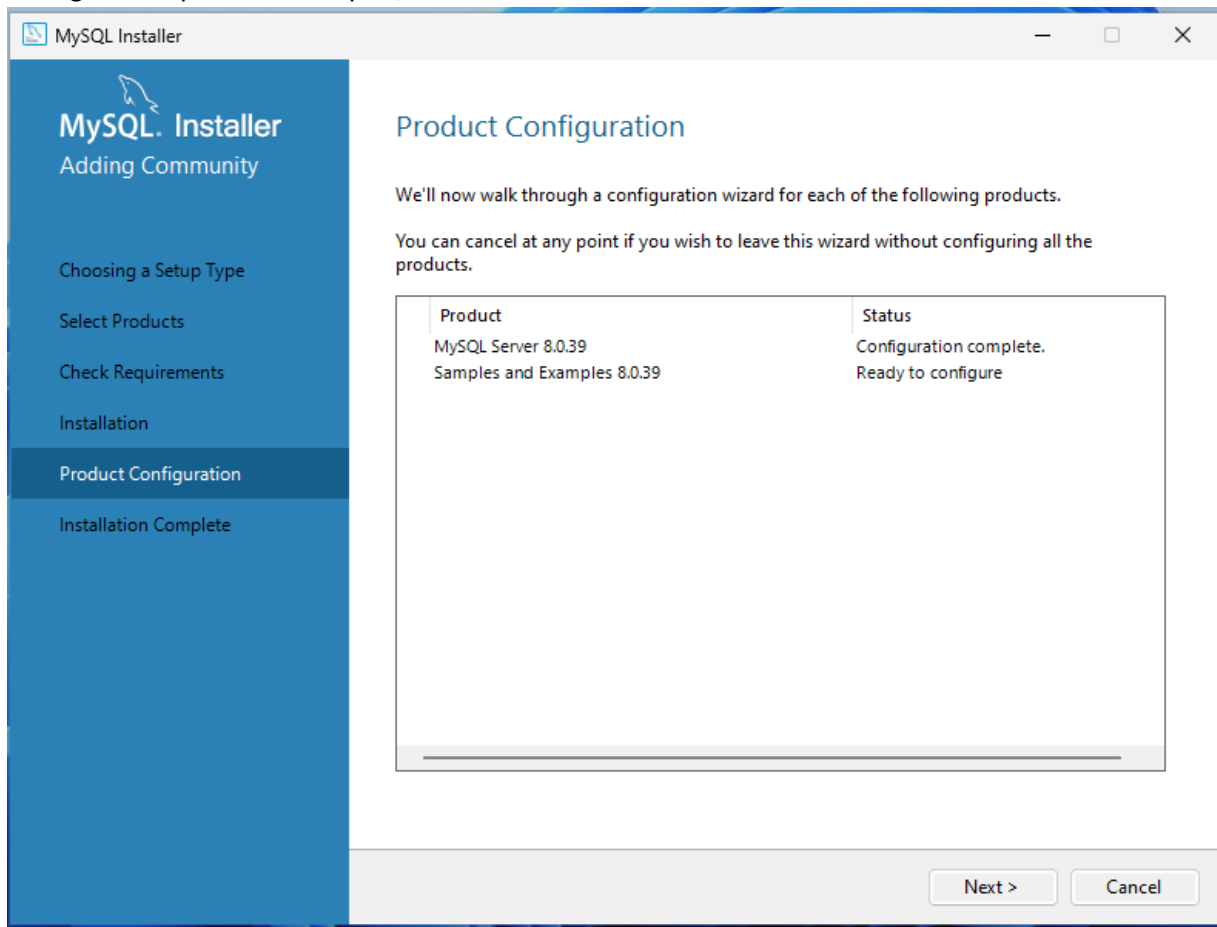


If it worked – it should complete as follows; click "Finish":

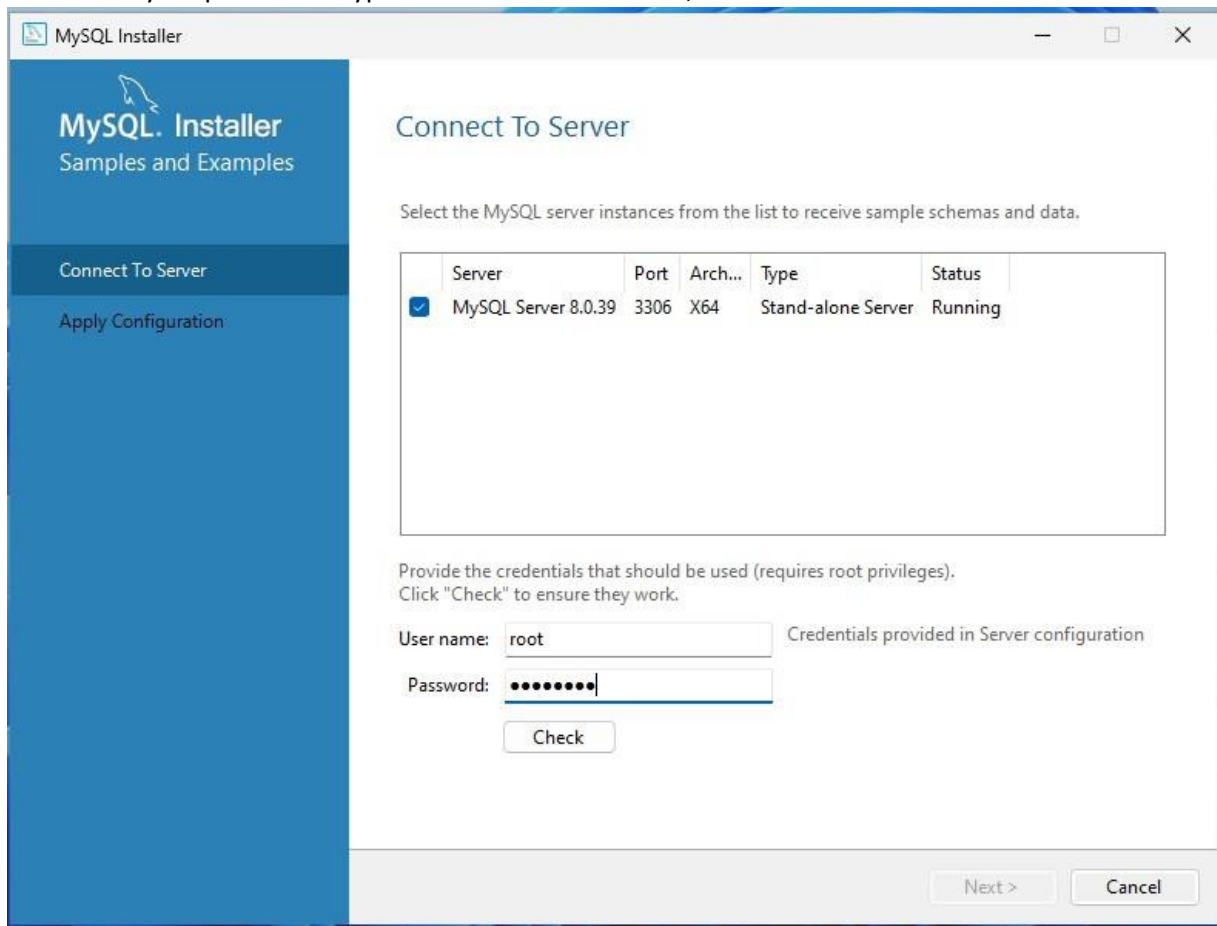


Step 3:

Configure Samples and Examples, click "Next":



Remember your password? Type it here and click "Check", then click "Next":



The image shows the 'Connect To Server' step of the MySQL Installer. The left sidebar has three options: 'MySQL. Installer Samples and Examples' (selected), 'Connect To Server', and 'Apply Configuration'. The main area is titled 'Connect To Server' and contains a table of server instances. Below the table, there is a section for providing credentials (username and password) and a 'Check' button. At the bottom right, there are 'Next >' and 'Cancel' buttons.

MySQL Installer

Connect To Server

Select the MySQL server instances from the list to receive sample schemas and data.

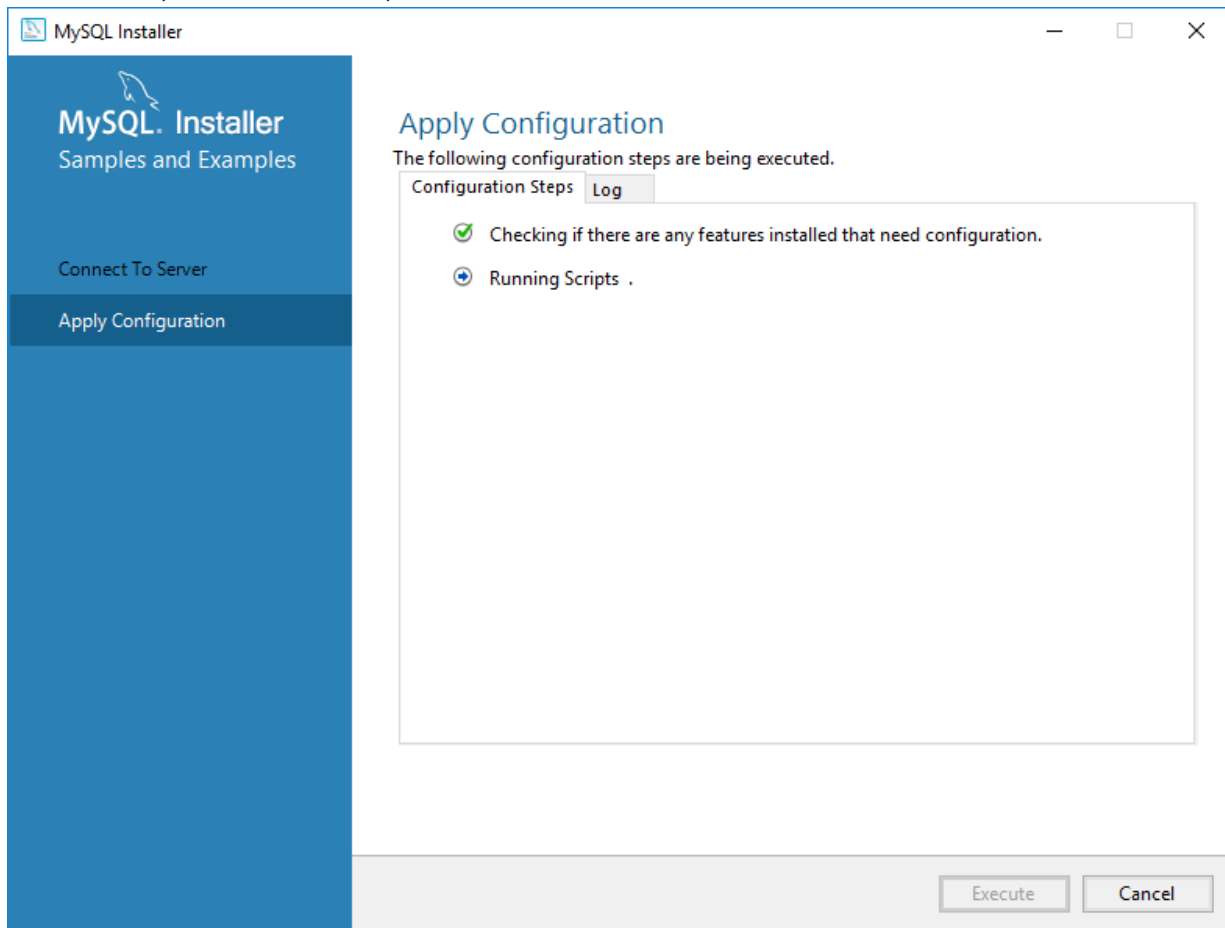
Server	Port	Arch...	Type	Status
<input checked="" type="checkbox"/> MySQL Server 8.0.39	3306	X64	Stand-alone Server	Running

Provide the credentials that should be used (requires root privileges).  
Click "Check" to ensure they work.

User name:  Credentials provided in Server configuration

Password:

Click Execute, wait until finished, click Finish:



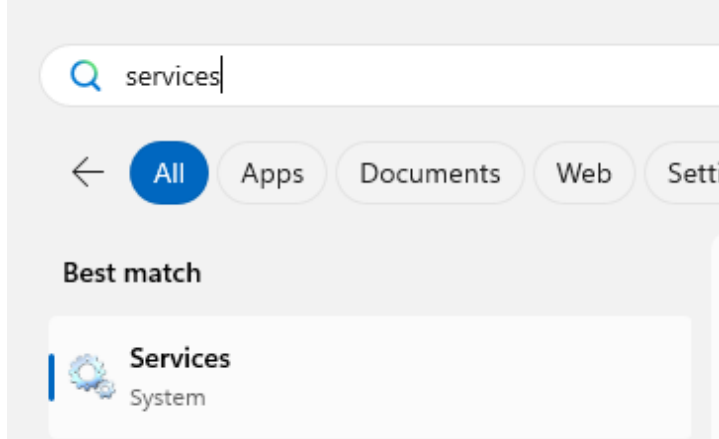
Step 4:

Check to see if MySQL was installed.

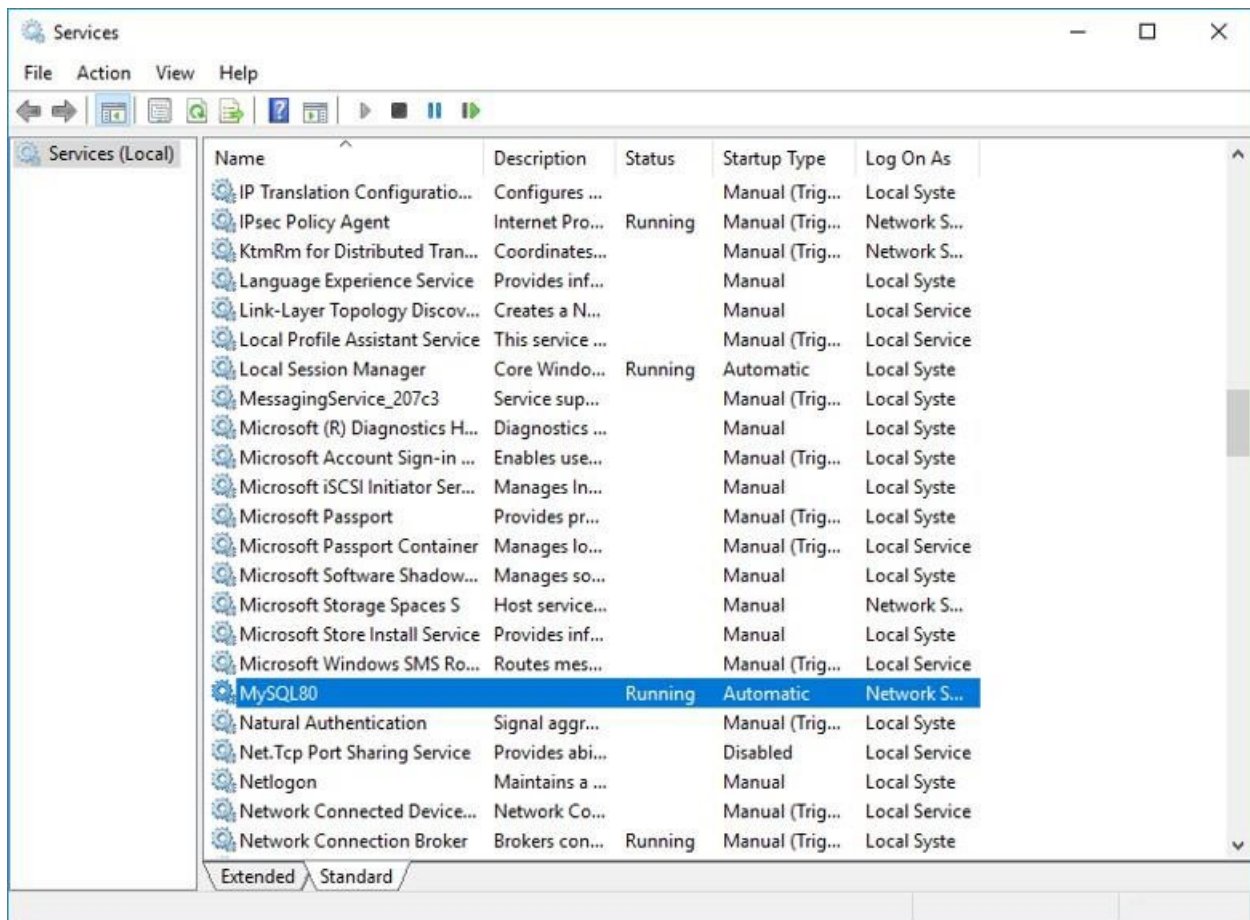
We've already created a sample database, but we're going to check the Windows Service is running and that we can connect to MySQL via the Command Prompt.

Next check to see if MySQL Server is running as a Windows Service:

Click Start Menu, type `services`, click Services Desktop App:

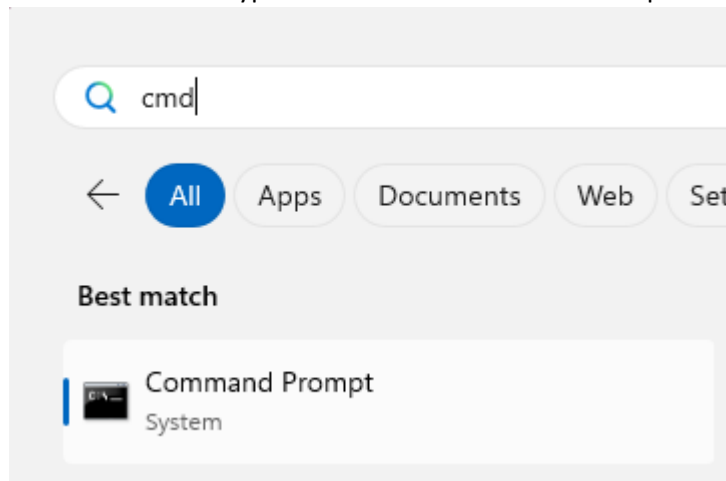


Find MySQL80 – Verify that Status = Running and Startup Type = Automatic:





Verify you can connect to mysql via the Command Prompt:  
Click Start Menu – type `cmd` and click Command Prompt Desktop App:



At the prompt, type the following `mysql -u root -p`

This:

- connects to the localhost (since we didn't specify another host with `-h` option)
- specifies we want to connect with user `root` (with the `-u` option)
- and forces a prompt for the password (with the `-p` option)

If you get the following error message:

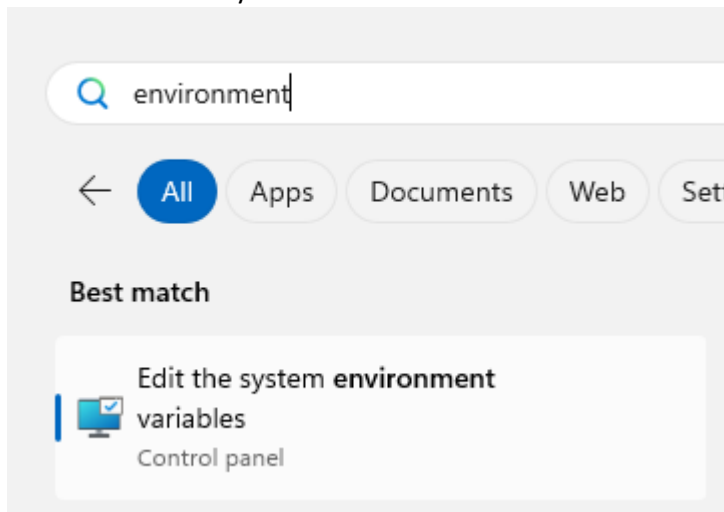
'mysql' is not recognized as an internal or external command, operable program or batch file.

follow the instructions below to add the mysql bin folder to the environment variables for the command prompt:

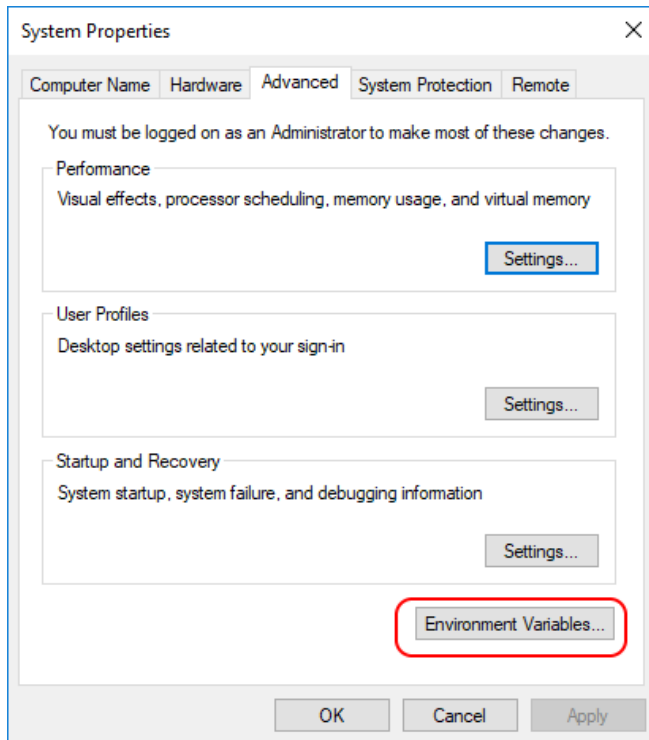
Add MySQL to environment variables:

Click Start Menu – type `environment`

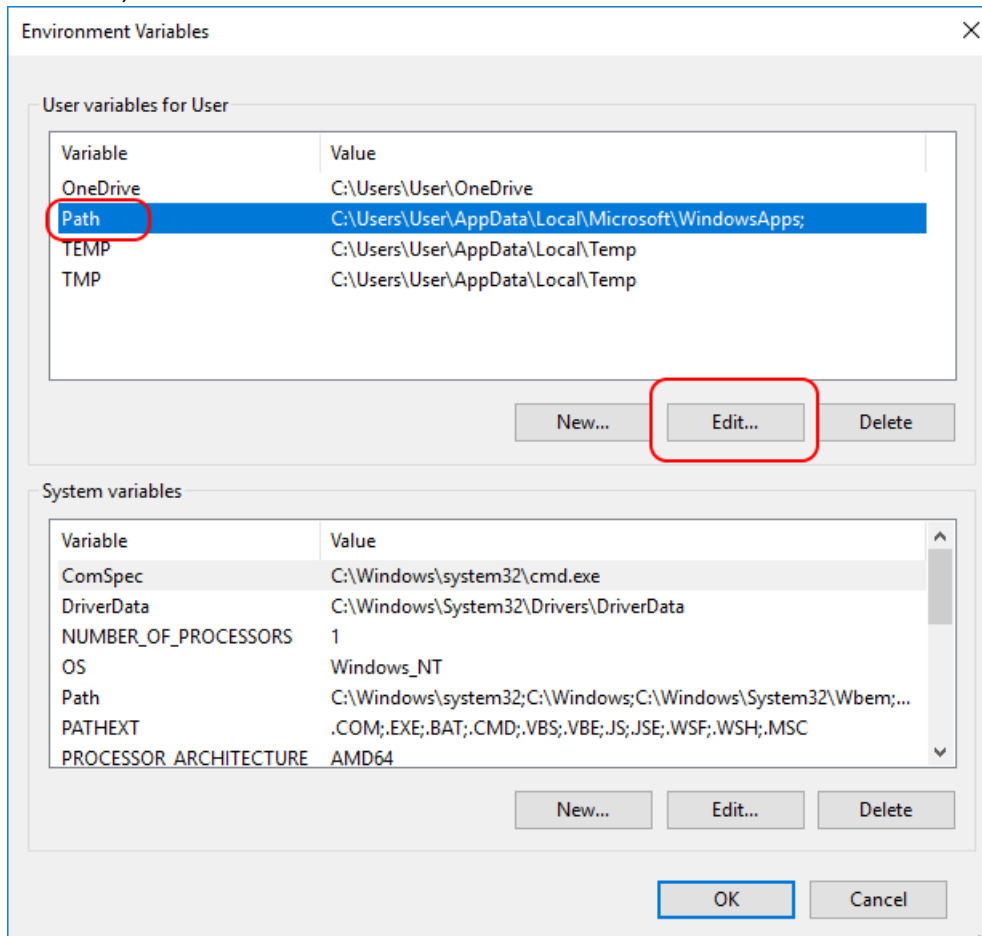
and click "Edit the system environment variables" Control Panel App:



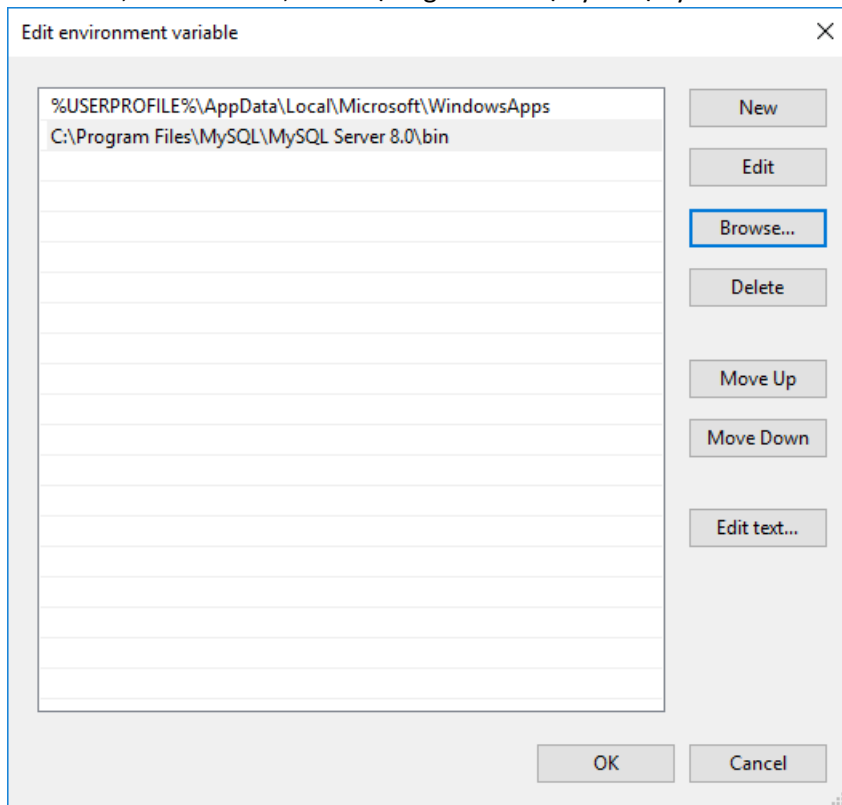
Click Environment Variables:



Click Path, Click Edit:



Click New, Click Browse, find C:\Program Files\MySQL\MySQL Server 8.0\bin\, click OK:



**Note:** That's C:\Program Files\MySQL\MySQL **Server** 8.0\bin\  
NOT C:\Program Files\MySQL\MySQL **Shell** 8.0\bin\

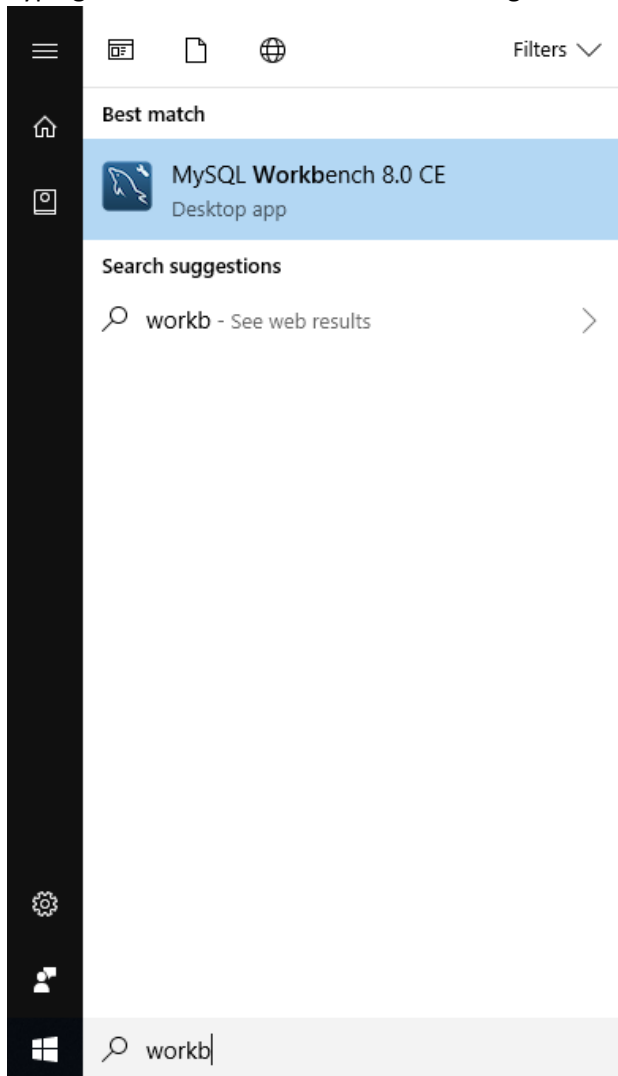
If you already have C:\Program Files\MySQL\MySQL Shell 8.0\bin\ it's ok to have both "**Shell**" and "**Server**" in the path environment variable.

Click Ok, 3 times to close the environment variables windows.

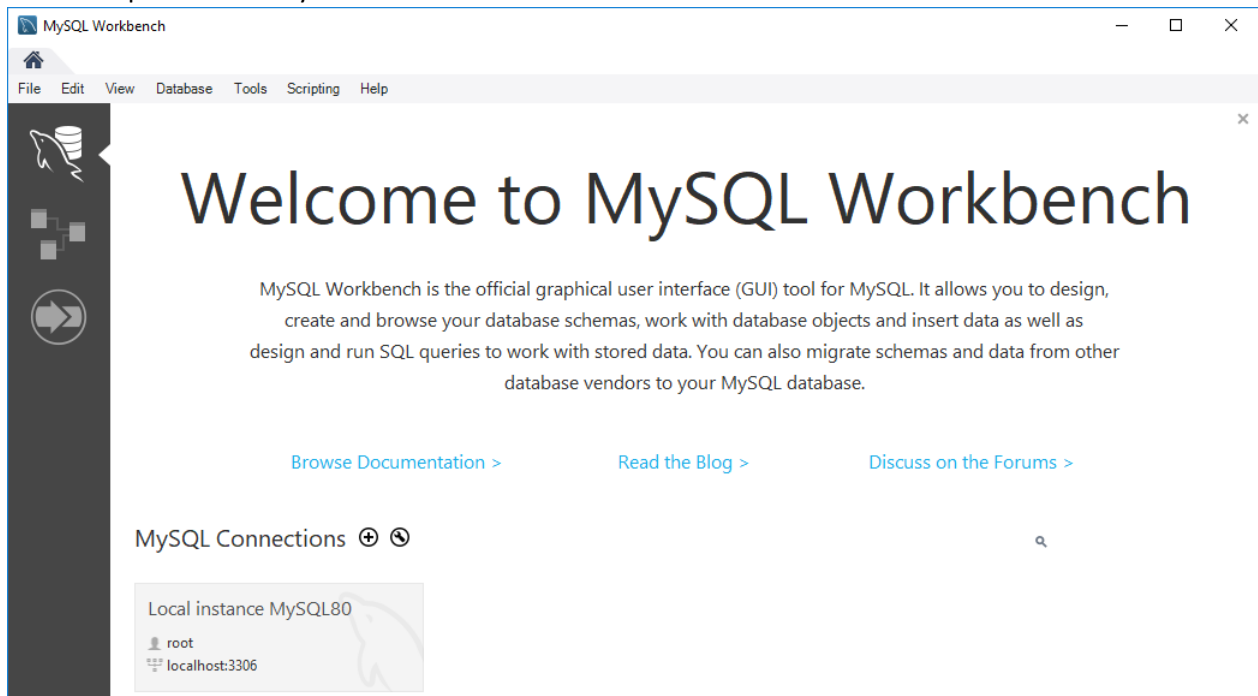
Step 5:

Open MySQL Workbench

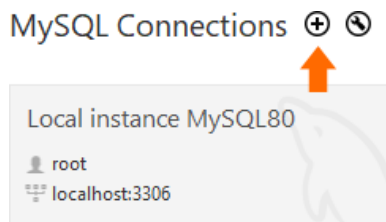
Typing `workb` in the start menu was enough to find it for me.



The startup screen for MySQL Workbench looks like this:



If you don't have a "Local instance MySQL80" connection button on the bottom right create a new connection by clicking the + next to MySQL Connections.



Creating a “Local instance MySQL80” connection button:  
Give your new connection a name: Local instance MySQL80  
Leave the Hostname as 127.0.0.1 (or you can use localhost – same thing).  
Keep the default port 3306.  
Click Test Connect to see if it works (it will prompt you for a password).  
Click Ok.

Setup New Connection

Connection Name:  Type a name for the connection

Connection Method:  Method to use to connect to the RDBMS

Parameters SSL Advanced

Hostname:  Port:  Name or IP address of the server host - and TCP/IP port.

Username:  Name of the user to connect with.

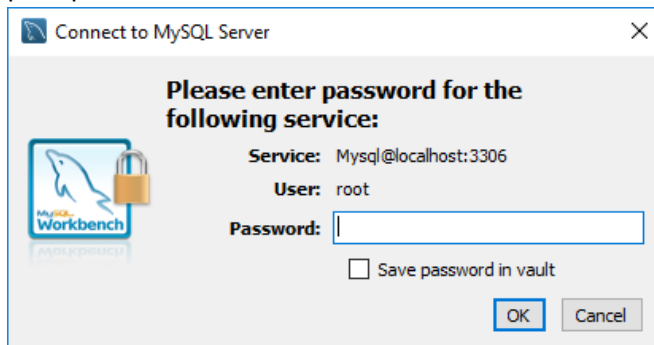
Password:   The user's password. Will be requested later if it's not set.

Default Schema:  The schema to use as default schema. Leave blank to select it later.

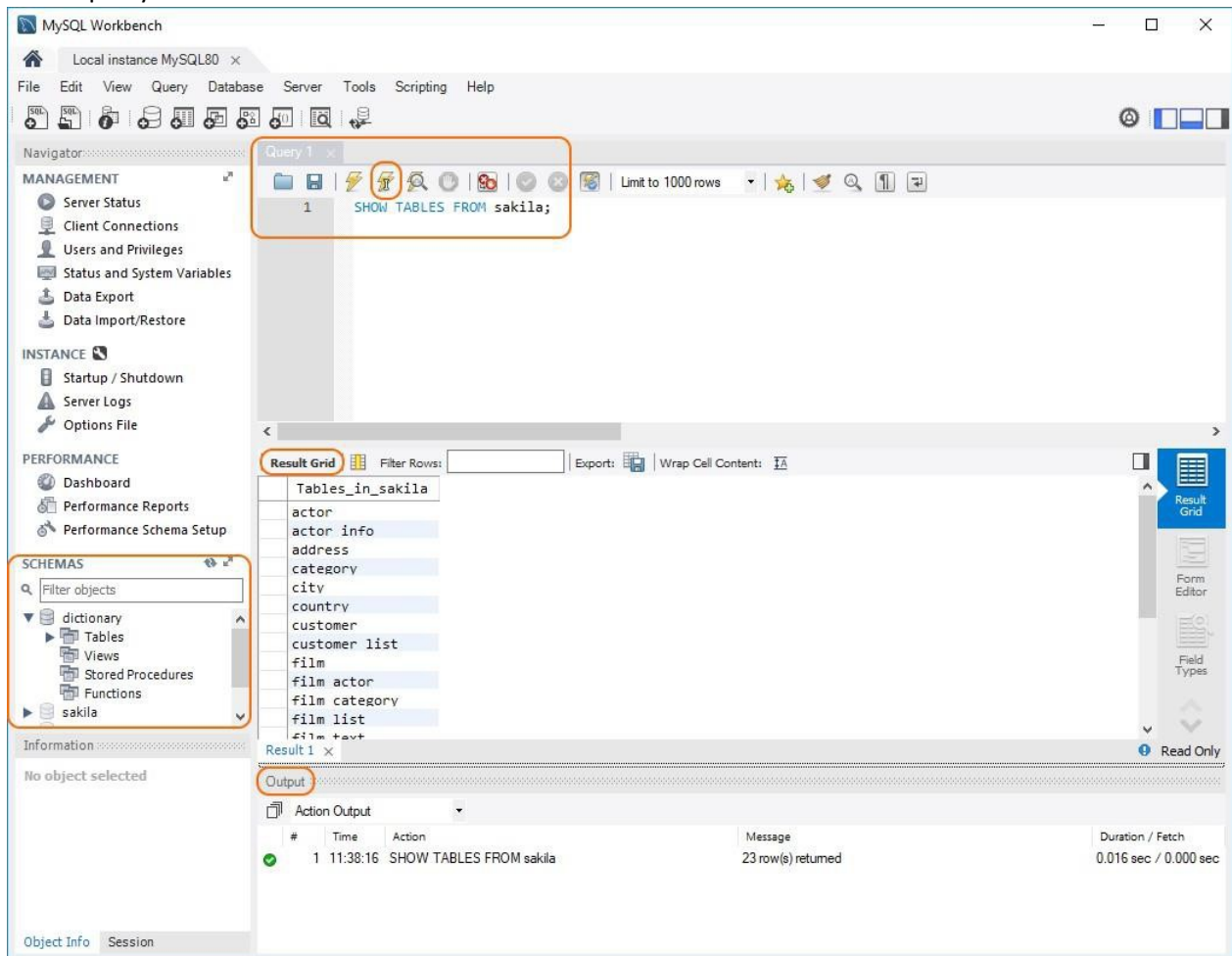


Open up Local instance MySQL80.


Double click the “Local instance MySQL80” connection button and enter your root password when prompted.



Once open you should see a screen like this:



At this point I'll point out 4 main parts of the screen.

1. There is a Schema (or Database) Section on the bottom left that shows all the databases, tables, views, procedures and functions with the databases.
2. At the top there is a Query Section for typing in your queries or opening an SQL file. You can click on the lightning bolt with the cursor  to execute a single query at a time.
3. Once you execute a query (for example a SELECT or SHOW TABLES) you'll see the results in the Result Grid below the Query Section
4. The Output Section shows additional information about the queries that have run. It will show the number of rows returned, how long the query took to execute or it will show an error and a hint to find your syntax error in your query.

There is a query editor window that will let you type SQL commands and run them.

Let's practice running a command.

In the query editor window type the following command:

```
SHOW VARIABLES LIKE 'version';
```

Note: the MYSQL keywords such as `SHOW`, `VARIABLES` and `LIKE` are case **INSENSITIVE**.

This means you can type them in all uppercase like this: `SHOW VARIABLES LIKE 'version';`

or in all lowercase like this: `show variables like 'version';`

and it makes no difference.



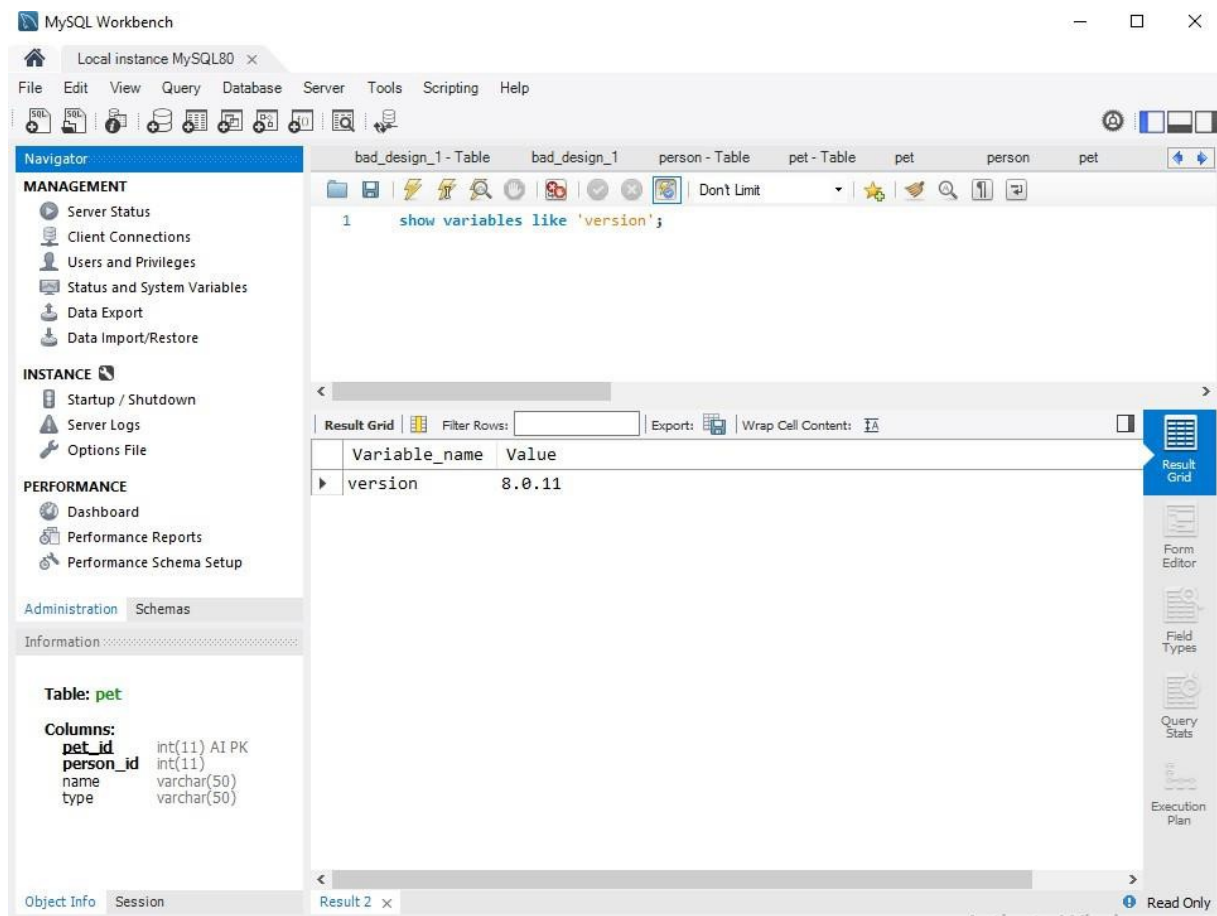
To run a command, click the lightning bolt with a cursor on it (⚡).

Run the command.

Submit a screenshot with the version that is shown on the screen.

Filename: **01\_MySQL\_Version\_Workbench.jpg**

Submit



Step 6:

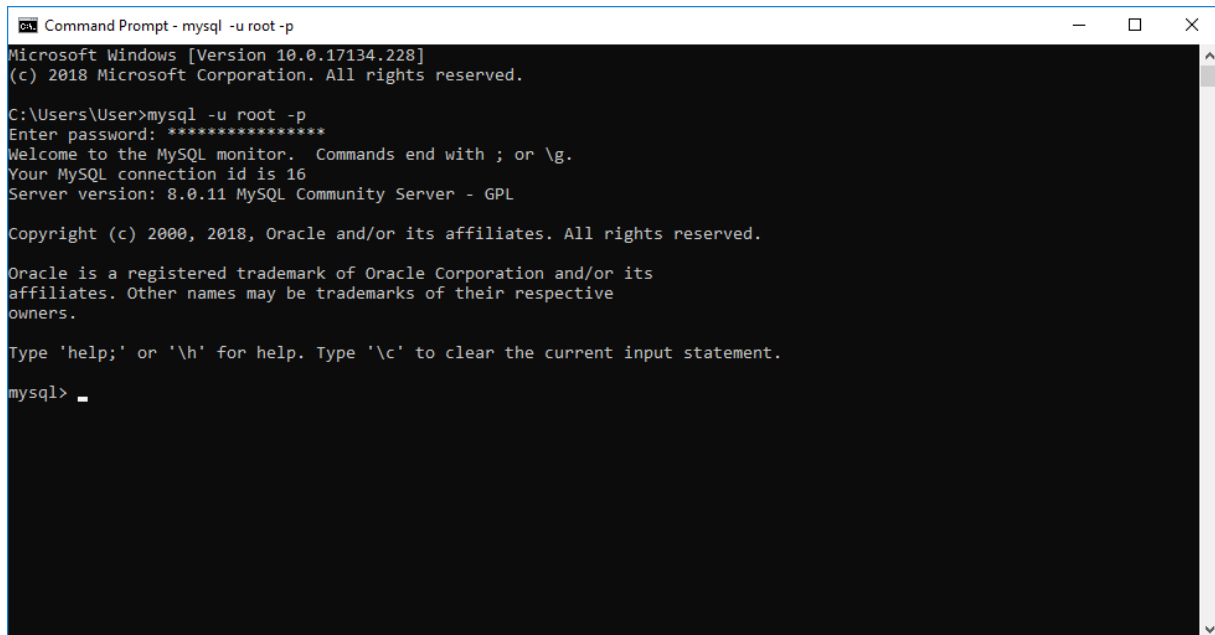
Run MySQL from the Command Line.

If a Command Prompt window is still running, close it and restart it.

At the prompt, type the following `mysql -u root -p`

It will prompt for a password (still remember it?).

If everything is good mysql should welcome you and you should see the prompt change to `mysql>`



```
Command Prompt - mysql -u root -p
Microsoft Windows [Version 10.0.17134.228]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\User>mysql -u root -p
Enter password: *****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 16
Server version: 8.0.11 MySQL Community Server - GPL

Copyright (c) 2000, 2018, Oracle and/or its affiliates. All rights reserved.

Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> _
```

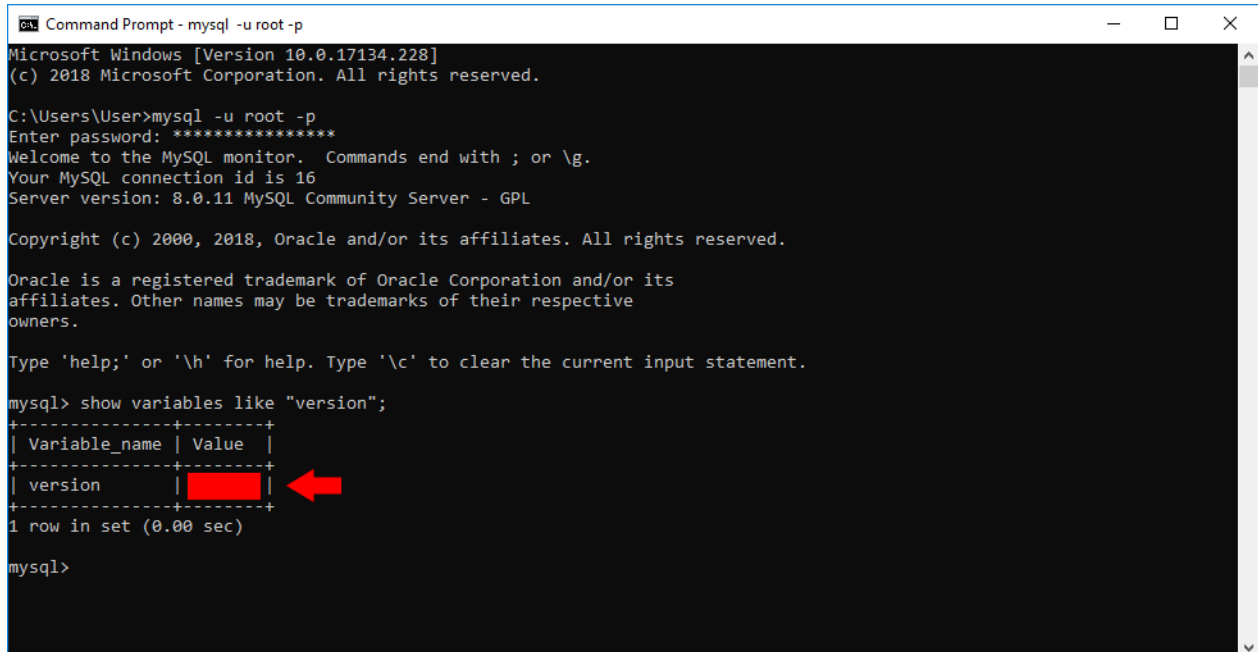
At the new `mysql>` prompt type:

`show variables like "version";`

Submit a screenshot with the version that is shown on the screen.

Filename: **02\_MySQL\_Version\_Command\_Line.jpg**

Submit



```
Command Prompt - mysql -u root -p
Microsoft Windows [Version 10.0.17134.228]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\User>mysql -u root -p
Enter password: *****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 16
Server version: 8.0.11 MySQL Community Server - GPL

Copyright (c) 2000, 2018, Oracle and/or its affiliates. All rights reserved.

Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> show variables like "version";
+-----+-----+
| Variable_name | Value |
+-----+-----+
| version       | [REDACTED] |
+-----+-----+
1 row in set (0.00 sec)

mysql>
```

Note: if you are still logged in at the `mysql>` prompt you can exit with the `quit` command.

Type `quit` to exit the MySQL Command Line Client tool.