

MySQL

MySQL is one of the world's most popular relational database system.

Install

You can install it on the Raspberry Pi this way:

- `sudo apt update`
- `sudo apt upgrade`
- `sudo apt install mariadb-server`

The MySQL server is now installed, you will now need to secure it by setting a password for the *root* user.

By default, MySQL is installed **without any password** set up meaning you can access the MySQL server without any authentication.

Run the following command to begin the MySQL securing process.

- `sudo mysql_secure_installation`

Make sure you write down the password you set during this process as we will need to use it to access the MySQL server.

To access your Raspberry Pi's MySQL server and start making changes to your databases, you can use this command.

```
sudo mysql -u root -p
```

You will be prompted to enter the password that you just created.

Note: *Like most Linux password inputs, the password will not show up as you type.*

Show databases

Execute the following command to see databases present in the you MySQL server.

```
show databases;
```

Enable Remote Access

To be able to connect from any IP address, do the following in the MySQL prompt:

```
sudo mysql -u root -p
grant all privileges on *.* to root@'%' identified by 'yourpassword';
flush privileges;
```

Allow mysql server to accept remote connections.

Start with editing MySQL config file:

```
sudo nano /etc/mysql/mariadb.conf.d/50-server.cnf
```

Find the line starting with *bind-address* and comment it out:

```
#skip-external-locking

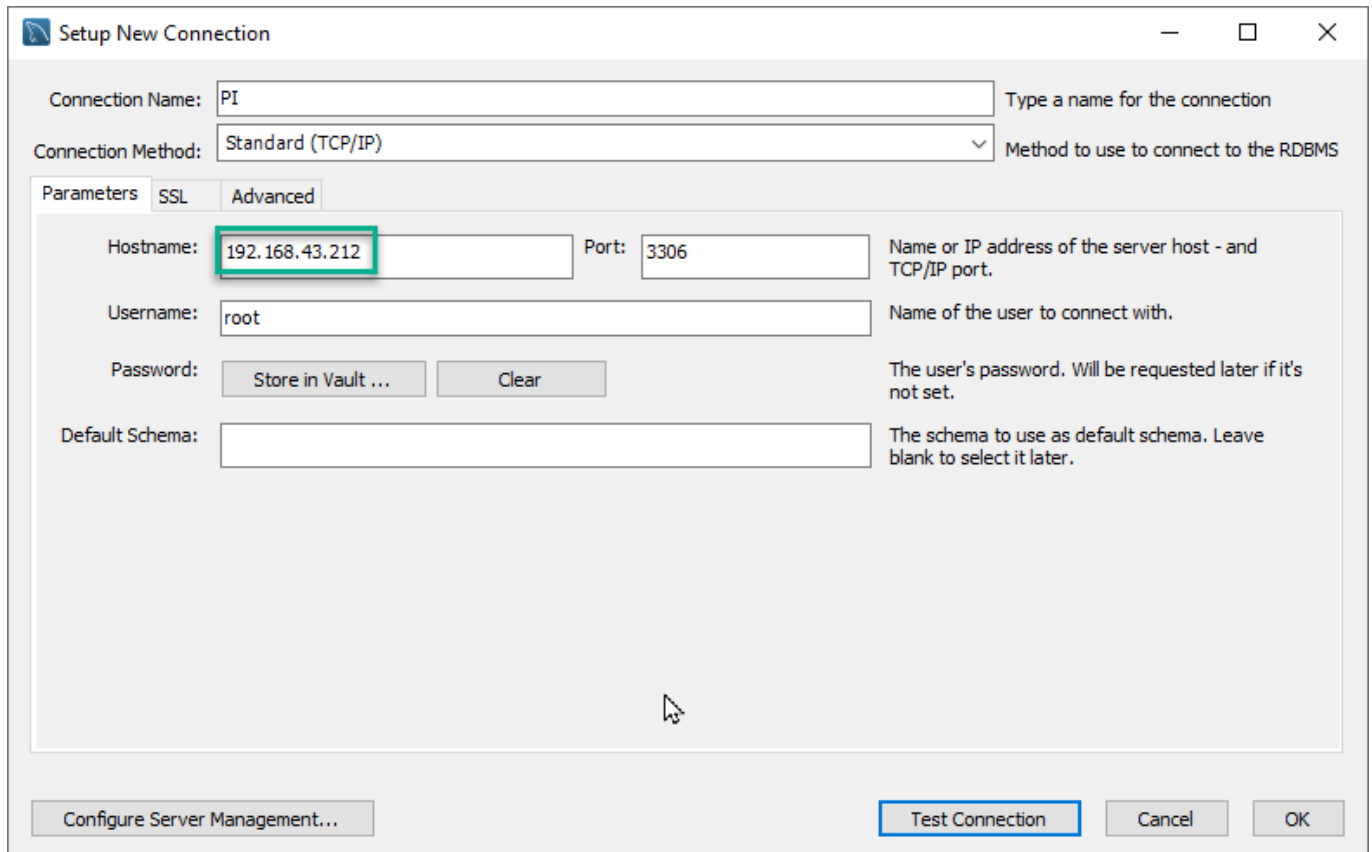
# Instead of skip-networking the default is now to listen only on
# localhost which is more compatible and is not less secure.
# bind-address             = 127.0.0.1
```

Restart mysql server

```
sudo systemctl restart mysql
```

Workbench

You can use MySQL Workbench from another computer - *Remember to connect it to the same network as the Raspberry PI.*



The screenshot shows the 'Setup New Connection' dialog box in MySQL Workbench. The dialog has a title bar with a MySQL logo and standard window controls. It contains several input fields and tabs for configuring a new database connection.

- Connection Name:** A text field containing 'PI'. To its right is the instruction 'Type a name for the connection'.
- Connection Method:** A dropdown menu showing 'Standard (TCP/IP)'. To its right is the instruction 'Method to use to connect to the RDBMS'.
- Parameters Tab:** This tab is selected, showing fields for Hostname, Username, Password, and Default Schema.
 - Hostname:** A text field containing '192.168.43.212'. To its right is the instruction 'Name or IP address of the server host - and TCP/IP port.'.
 - Port:** A text field containing '3306'.
 - Username:** A text field containing 'root'. To its right is the instruction 'Name of the user to connect with.'.
 - Password:** A text field with two buttons: 'Store in Vault ...' and 'Clear'. To its right is the instruction 'The user's password. Will be requested later if it's not set.'.
 - Default Schema:** An empty text field. To its right is the instruction 'The schema to use as default schema. Leave blank to select it later.'

At the bottom of the dialog, there are four buttons: 'Configure Server Management...', 'Test Connection', 'Cancel', and 'OK'.