

# Install MySQL

This procedure explains how to install [MySQL](#) on macOS, OpenSUSE, Ubuntu, CentOS and Windows.

## macOS 10.12

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The following instructions works on macOS Sierra 10.12, it should also work under 10.11 and 10.13.

One of the easy way to install MySQL on macOS is using [Homebrew](#). Homebrew is one package manager for macOS, unlike directly install some package such as python and node.js, homebrew installs the packages to its own directory (default path is `/usr/local/Celluar`) and then symlinks files including binaries to `/usr/local`, so Homebrew will not polute your system environment.

### Install Homebrew

- Open Terminal and enter:

```
/usr/bin/ruby -e "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/master/install)"
```

**Note:** Homebrew will download and install Command Line Tools for Xcode as part of the installation. **Note:** MySQL may conflicts with MariaDB and Percona, because they install the same binaries.

### Install MySQL

At the time of writing, Homebrew has MySQL version 5.7.20 as its default formula which is same with the latest stable version on official website.

- (optional) Enter the command in terminal: `$ brew info mysql`, you can get the information about mysql.
- `$ brew install mysql`
- `$ mysql -u root` would allow you access the MySQL with blank root password.

### Additional configuration

#### Homebrew Services

Homebrew services could manage the MySQL daemon easily.

- `$ brew tap homebrew/services`
- `$ brew services start mysql` could start the MySQL daemon
  - `start` | `stop` | `restart` are common options to manage the daemons

## MySQL

Rightnow MySQL root user doesn't have password, you can run `mysql_secure_installation` to perform some secure operations.

```
$ mysql_secure_installation
```

## GUI management

I recommend [Sequel Pro](#) as your GUI management, it is a wonderful management tool designed for macOS. I have used it for several years.

## OpenSUSE Leap 42.3

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**Note:** To follow the instructions, you need a openSUSE non-root user with `root` privileges. **Note:** OpenSUSE has different package name for MariaDB and MySQL.

```
$ sudo zypper install mysql
```

This command will install MariaDB instead of MySQL, so you should use the next command:

```
$ sudo zypper install mysql-community-server
```

Press `y` to finish the installation and press `y` to read the notification from installation. In the notification, the command `rcmysql start` was displayed to start the mysql server.

Similar to other platform, the next step is to do secure install.

```
$ sudo mysql_secure_installation
```

To verify the access, use the command to connect the server.

```
$ mysql -u root -p
```

# CentOS 7

**Note:** To follow the instructions, you need a CentOS non-root user with `root` privileges. **Note:** CentOS 7 prefers MariaDB, so if you run `yum install mysql` on CentOS 7, the installed database actually is MariaDB instead of MySQL. So we need install MySQL with rpm file.

## Install MySQL

Open web browser and visit <https://dev.mysql.com/downloads/repo/yum/>

Scroll down to the bottom and locate the Red Hat Enterprise Linux 7 section.

Please report any bugs or inconsistencies you observe to our [Bugs Database](#).

**Thank you for your support!**

<b>Red Hat Enterprise Linux 7 / Oracle Linux 7 (Architecture Independent), RPM Package</b>	9.0K	<a href="#">Download</a>
<code>(mysql57-community-release-el7-9.noarch.rpm)</code>	MD5: 1a29601dc380ef2c7bc25e2a0e25d31e	
<b>Red Hat Enterprise Linux 6 / Oracle Linux 6 (Architecture Independent), RPM Package</b>	9.0K	<a href="#">Download</a>

```
$ wget https://dev.mysql.com/get/mysql57-community-release-el7-9.noarch.rpm
```

Add rpm file to yum repositories.

```
$ sudo rpm -ivh mysql57-community-release-el7-9.noarch.rpm
```

Install MySQL server

```
$ sudo yum install mysql-server
```

Press `y` to confirm that you want to proceed. Since we've just added the package, we'll also be prompted to accept its GPG key. Press `y` to download it and complete the installation.

## Start MySQL

You can start the daemon with the command

```
$ sudo systemctl start mysqld
```

During the installation, installer has generated a temporary password for root user. Locate the temporary password with this command:

```
$ sudo grep 'temporary password' /var/log/mysqld.log
```

## Config MySQL

Use this command to run the security script.

```
$ sudo mysql_secure_installation
```

The security policy of MySQL on CentOS 7 require a minimum 12 characters for the password that contains at least one uppercase letter, one lowercase letter , one number and one special character.

To verify the connection, you can use the command to try to connect the database server.

```
$ mysql -u root -p
```

## Ubuntu 16.04

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**Note:** To follow the instructions, you need a Ubuntu non-root user with `root` privileges.

This command will install MySQL, so you can use this command to install MySQL.

```
$ sudo apt install mysql-server
```

You'll be prompted to create a root password during the installation. Choose a secure one and make sure you remember it, because you'll need it later. Next, we'll finish configuring MySQL. For fresh installations, you'll want to run the included security script.

```
$ sudo mysql_secure_installation
```

Under Ubuntu Linux, you can use `systemctl` to start, stop, restart the server or check the status.

```
$ systemctl start mysql.service  
$ systemctl status mysql.service
```

To verify the access, use the command to connect the server.

```
$ mysql -u root -p
```

## Windows 10

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Open the web browser and visit:

```
https://dev.mysql.com/downloads/windows/installer/5.7.html
```

Unlike the standard MySQL Installer, the smaller "web-community" version does not bundle any MySQL applications but it will download the MySQL products you choose to install.

At the step 'Choosing a Setup Type', a suggested choice is `Developer Default` . `Custom` mode provides manually selection if you just want to install MySQL server without additional applications, programming connectors, and documentations.

In the post installation steps, you can change the connect protocol, port number, password, user roles, windows service name and firewall configurations.

## GUI Management

One popular solution on Windows is [HeidiSQL](#). Another one wonderful application DataGrip comes from JetBrains, you can get it from [here](#). Although it is not free but as an USC student, you are eligible to use it for free.