

MySQL Installation and Execution

Mac:

<https://dev.mysql.com/doc/refman/5.6/en/osx-installation-pkg.html>

Windows:

1. Download MySQL DBMS (when complete, you will see c:\mysql)
DO NOT use MSI Installer.
 - a. <http://dev.mysql.com/downloads/mysql/> (**win32.zip**)
 - b. MySQL Documentation: <http://dev.mysql.com/doc/>
2. See below: **Shutdown AND Remove (BEFORE installing)**
3. Extract MySQL:
 - a. Open the zip file & extract the folder to the Desktop
 - b. Rename the folder mysql (with no version numbers)
 - c. Place mysql directory in C:\
4. The next steps are to set up a proper installation, administration, and testing:

Single Server Setup

Shutdown and remove: (BEFORE installing, ONLY do this step if there is another MySQL server on same machine)

Single server:

1) Stop server:

C:\> NET STOP mysqld

2) Remove server:

C:\mysql\bin>mysqld --remove mysqld

...Or...

C:\mysql\bin>mysqladmin -u username -p shutdown

C:\mysql\bin>mysqld --remove mysqld (MUST be in bin directory where mysqld exists, then remove its associated service; e.g., mysqld1 service)

***MUST do these two steps when "renaming" the main MySQL dir. too. Also, be sure to exit the command prompt, otherwise, you cannot rename the directory (e.g., c:\mysql51 to c:\mysql).

3) Specify Options for ALL services:

Find Windows directory (Place **my.ini** file in Windows directory – to find):

Start > run, type cmd

C:\> echo %WINDIR%

Creating Option file (basic **my.ini** file):

<http://dev.mysql.com/doc/refman/5.0/en/windows-create-option-file.html>

Copy and paste following code (my.ini file), and place file in Windows directory:

```
# options for mysqld service
[mysqld]
basedir = C:/mysql
# set datadir to the location of your data directory
datadir=C:/mysql/data
port = 3307
```

Multiple Servers Setup (Use ONLY if installing multiple MySQL servers)

Shutdown AND Remove (BEFORE installing):

To remove a server that is installed as a service, first stop it if it is running by executing NET STOP MYSQL. Then use the --remove option to remove it:

Multiple servers:

1) Stop servers:

```
C:\> NET STOP mysqld1  
C:\> NET STOP mysqld2
```

2) Remove servers:

```
C:\mysql\bin>mysqld --remove mysqld1  
C:\mysql5\bin> mysqld --remove mysqld2
```

3) Specify Options for ALL services:

Place my.ini file in Windows directory – to find: C:\> echo %WINDIR%

Creating Option file (basic my.ini file):

<http://dev.mysql.com/doc/refman/5.0/en/windows-create-option-file.html>
<http://dev.mysql.com/doc/refman/5.0/en/multiple-windows-services.html>
http://mysqld.active-venture.com/Multiple_servers.html

```
# options for mysqld1 service  
[mysqld1]  
basedir = C:/mysql  
# set datadir to the location of your data directory  
datadir=C:/mysql/data  
port = 3308
```

```
# options for mysqld2 service  
[mysqld2]  
basedir = C:/mysql5  
# set datadir to the location of your data directory  
datadir=C:/mysql5/data  
port = 3309
```

4) Install:

Install the services as follows, using the full server pathnames to ensure that Windows registers the correct executable program for each service:

Single server:

```
C:\mysql\bin>mysqld --install mysqld
```

Multiple servers:

```
C:\mysql\bin>mysqld --install mysqld1  
C:\mysql5\bin>mysqld --install mysqld2
```

5) Starting:

*****NOTE***:** MySQL 5.7 (MUST initialize data directory *before* starting as service!)
<https://dev.mysql.com/doc/refman/5.7/en/data-directory-initialization-mysqld.html>

```
c:\mysql\bin>mysqld --initialize-insecure --user=mysql --basedir=c:/mysql --  
datadir=c:/mysql/data
```

(--initialize-insecure allows you to login w/o password! **Change it immediately!**)

Single server:

```
C:>net start mysqld  
The mysqld service is starting.  
The mysqld service was started successfully.
```

Multiple servers:

```
C:>net start mysqld1  
The mysqld1 service is starting.  
The mysqld1 service was started successfully.
```

```
C:>net start mysqld2  
The mysqld2 service is starting.  
The mysqld2 service was started successfully.
```

6) Testing (change option values accordingly):

```
C:>C:\mysql\bin\mysqladmin -h 127.0.0.1 -u root -p --port=3307 version  
shell> mysqladmin -h 127.0.0.1 -u root -p version --port=3307 variables
```

for UNIX...

```
C:>C:\mysql\bin\mysqladmin --protocol=socket --socket=/tmp/mysql.sock version
```

7) Logging into Servers (change option values accordingly):

```
C:\mysql\bin>mysql -h 127.0.0.1 -u root -p --port=3307
```

8) Administration:

Make the following changes:

```
c:\mysql\bin>mysql -u root -p --port=3307
```

Enter password:

```
mysql> use mysql;
```

```
mysql> select * from user;
```

make sure to do at least the following 3 items...

1. delete this default record in mysql.user table that allow the following connections:

```
Host='localhost' and User=''; # localhost any user
```

```
mysql> delete from user where host='localhost' and user='';
```

```
mysql> select * from user;
```

```
mysql> update user set user='your_username';
```

```
mysql> select * from user;
```

BE SURE to write down and SAVE your new user name!

**# 2. this sets password in mysql.user table that has user='root' password='';
As of MySQL 5.7.6, use this statement:**

```
mysql> SELECT User, Host, HEX(authentication_string) FROM mysql.user;
```

The statement uses HEX() because passwords stored in the authentication_string column might contain binary data that does not display well.

As of MySQL 5.7.6, use ALTER USER :

```
mysql> ALTER USER 'root'@'localhost' IDENTIFIED BY 'new_password';
```

Before 5.7.6, use SET PASSWORD :

```
mysql> SET PASSWORD FOR user = PASSWORD('new_password');
```

```
mysql>UPDATE user SET Password=password('newpassword') WHERE user='username';
```

```
mysql>FLUSH PRIVILEGES; # takes affect without server restart
```

```
mysql> select * from user;
```

BE SURE to write down and SAVE your new password!

3. then, be sure to view table privileges

```
mysql> select * from db;
```

```
mysql>update db set host='localhost', user='your_username' where user='';
```

```
mysql> select * from db;
```

```
mysql>FLUSH PRIVILEGES;
```

```
select now(), user(), version(); # will remain as root user until exit
```

-- test if MySQL is working...

```
c:\mysql\bin>mysqladmin -u your_username -p --port=3307 version status proc  
Enter password: *****
```