# NOTES ON SETTING UP MYSQL
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There are two pieces of software that need to be installed.  The "server" is the actual database management system. It runs in the background.  The "workbench" is the client application that you will use to interact with the server.   These notes cover both Mac and Windows. If you are on Linux, send me your installation notes, and I'll add them.

## Apple Mac OSX (Server)

1.  Go to https://dev.mysql.com/downloads/mysql/8.0.html
2.  Select Operating System = MacOS
3.  Press Download button next to macOS (x86, 64-bit), DMG Archive
    **Note**: If you are on a version of Mac OSX before Mohave (10.14) you'll want to upgrade your Mac.   Otherwise you may need to install an older version of MySQL, such as 5.X.
4.  Click the link at the bottom of the page  "No thanks, just start my download"
5.  Open the DMG and double click on the .pkg object (installer)
    **Note**: If an error comes up saying that Apple can't validate the package for Malicious software, or something to that effect, it means that you have a newer Mac like me.  Close the error message.  Now *hold down the control key while clicking on the pkg file.  Select "open" from the pop-up menu.*
6.  Click continue
    **Note:** A warning may come up about only running programs from trusted sources beforehand. Click 'Agree' or give the program permission in the security & privacy panel in settings.
7.  Click continue again and agree to license.
8.  Click install, enter password when asked
9.  Use default Strong Password encryption.
    **Note:** I used to recommend Legacy password protection because early releases of MySQL 8 had some quirks, but I think that is all now resolved.
10. Enter a root password, WRITE THIS PASSWORD DOWN, and click Finish
11. Enter laptop admin password or use fingerprint recognition to allow installation
12. Click close. You can move the dmg to trash if it asks.

    STEPS 13-15 ARE OPTIONAL BUT WILL COME IN HANDY IF YOU WANT TO RUN COMMAND-LINE UTILITIES LATER.  OTHERWISE YOU CAN PROCEED WITH INSTALLING THE WORKBENCH (STEP 16) BELOW. **Note: '$' is the command prompt – don't type it!**

13. Open a terminal window and verify you see listings for mysql:

    $ cd /usr/local
    $ ls
    e.g.  mysql -> mysql-8.0.20-macos10.15-x86_64

14. Go to mysql/bin directory:  $ cd mysql/bin

15. Start the MySQL terminal client: $ ./mysql -u root -p
    When prompted,  enter the root password given in step 10.)
    This starts up the text client.  You should get a **mysql>** prompt.

**We won't actually use this client, it is just to verify that the MySQL server is running.  If you get an error, it may be that the server did not actually start up. Go to Settings….MySQL (a new icon in your settings)….and click the button that says "Start MySQL Server".  The red buttons should now be green.**

**We'll actually be using the MySQL Workbench to interact with the MySQL Server, write queries, import data, and manage the server.   See below for installation instructions.**

```
[508 13:46:08 rachlin:/usr/local/mysql/bin ] ./mysql –u root –p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 8.0.11 MySQL Community Server – GPL

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

mysql> ▊
```

16. Go to https://dev.mysql.com/downloads/workbench/
17. Select Operating System = MacOS
18. Click Download button, again say "No thanks, just start my download"
19. When download finishes, open the DMG
20. Drag workbench to applications
21. In applications folder, double click on MySQL Workbench to start

    **Note**: You might get a one-time warning about opening applications downloaded from the internet.  Click open to bypass.

    **Note:** If you get that annoying message again saying "MySQLWorkbench can't be opened because Apple cannot check it for malicious software" then:
    a. Click the *Show in Finder* button
    b. Hold down the control button while clicking once on the application. This brings up a pop-up menu.  Click open.
    c. The message appears again but now with an "open" button – click to proceed.
    d. Don't worry, you will only have to do this once.

22. Click the local instance connection
    **Note:** If a connection does not appear, there should be an option to rescan for any local servers. You can also set up a new connection by clicking the plus button next to connections with the following parameters: hostname: 127.0.0.1, port: 3306, username: root, password: [the root password from step 10]
23. When popup for user root displays, enter your new root password (from step 10)
24. Verify that it shows the server as "running"
    Click the 'Administration' Tab on the left-hand side
    Click 'Server Status' – It should say the status on the right-hand panel

## WINDOWS 10: MySQL Version 8.0.X (Both Server and Workbench)

1. https://dev.mysql.com/downloads/
2. Select Mysql Installer for Windows (Installer and Tools)
3. Scroll to the bottom where it gives you two download options. Click the first download (smaller file) – we'll only download what we need as we install
4. Click "No Thanks, just start my download"
5. When it's done downloading, open the installer
6. If it asks if you want to upgrade the installer, go ahead and do that
7. On pop up, check that you accept agreement and it Next
8. Select Custom – we'll only install what we need – you can install other stuff later.
9. You open the various branches and pick the items you want by highlighting the item and then clicking on the right arrow to make the item appear in the right panel (To be installed). The items you should include are:

   **REQUIRED: Mysql Servers ...MySQL Server 8.0.X – X64 (or 32 bit OS if necessary)**
   **REQUIRED: Applications … MySQL Workbench 8.0.X**
   OPTIONAL: Documentation …MySQL Documentation 8.0
   OPTIONAL: MySQL Connectors .. Connector/J 8.0  (Java developers)
   OPTIONAL: MySQL Connectors .. Connector/Python (Python developers)

10. Click next, then **execute**.  Downloading begins.
11. After everything completes, hit **next**.
12. Hit **Next** again to configure server
13. Choose default (Standalone MySQL Server) and hit Next
14. Accept defaults (Development Computer) and hit Next
15. Select "Use Legacy Authentication Method"
16. Enter root password
17. For Windows Service, check "Start the MySQL Server at System Startup"  and hit next
18. Plugins and Extensions – leave blank and hit next
19. Apply Configuration: Hit Execute
20. Click Finish, Then Next, Then Finish