

The development environment setup process

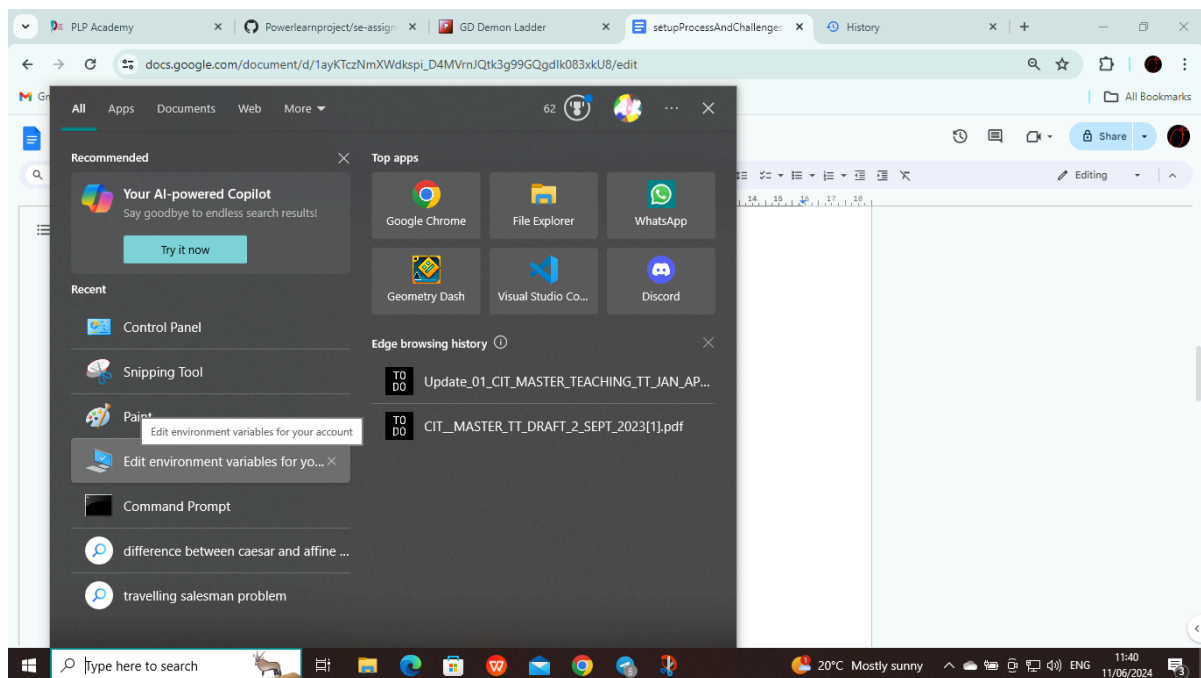
Most, if not all tools and configurations that are to be installed, have a similar installation process. Thus, I will give a general procedure on how to install and configure said tools and configurations. This procedure is what I used when configuring VS Code, MySQL, Python, Dart and Flutter.

- I visited the official download website for said tool. These are the official download websites for [VS Code](#), [Git for Windows](#), [GitHub Desktop](#), [Python](#), [MySQL](#), [Dart](#) and [Flutter](#).
- I selected the operating system I am currently using and the architecture of my processor. I carefully read any instructions before progressing. For example, on the Flutter website, you are instructed to not put the downloaded zip file or extracted file in a directory whose name has a space or special character. I also ensured that my computer met the minimum requirements of the tool.
- I then clicked on the download button and waited for either the installer or ZIP file to be downloaded. I checked the progress of downloading on the 'Downloads' page of the browser I was using(Google Chrome).
- If the tool being downloaded had an installer(e.g. MySQL), I followed the steps provided by the installer and allowed any settings that the computer may have prompted me to allow. I then configured the app being installed to my desired requirements. The program folder was put inside the 'Program Files' directory in the local disk (C:).
- If the tool being downloaded was in a ZIP folder(e.g. Dart), then, I navigated to the 'Downloads' folder where the ZIP folder is usually placed once downloading is complete. I cut the ZIP folder and pasted it in the local disk folder. I ensured that I had a ZIP file/folder extractor. I personally used BreeZIP(free), but you can use others such as 7-ZIP(free) and WinRAR(monthly subscription). I then used the 'Extract Here' option to extract the folder in the same directory.
- I opened the extracted folder and redirected to the **bin** folder. I then copied the entire path. For example, in the case of Dart, this was the

path that I copied:

`C:\dart-sdk-windows-x64-release\dart-sdk\bin`

- Using my computer's search bar, I searched for 'Environment Variables', then clicked on 'Edit Environment Variables'. I clicked on 'Path' in User Variables, then 'Edit', but you can also double-click 'Path'. I then clicked on 'New' to add a new path. I pasted the path I copied that led to the `bin` folder, then clicked 'OK'. I clicked 'OK' again on the initial popup window to ensure changes are saved. I had now installed the tool that I required.



User variables for N.PK

Variable	Value
OneDrive	C:\Users\N.PK\OneDrive
OneDriveConsumer	C:\Users\N.PK\OneDrive
Path	C:\Users\N.PK\AppData\Local\Programs\Python\Launcher\;C:\Use...
TEMP	C:\Users\N.PK\AppData\Local\Temp
TMP	C:\Users\N.PK\AppData\Local\Temp

New...

Edit...

Delete

System variables

Variable	Value
ComSpec	C:\Windows\system32\cmd.exe
DriverData	C:\Windows\System32\Drivers\DriverData
NUMBER_OF_PROCESSORS	4
OS	Windows_NT
Path	C:\Windows\system32;C:\Windows;C:\Windows\System32\Wbem;...
PATHEXT	.COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH;.MSC
PROCESSOR_ARCHITECTURE	AMD64

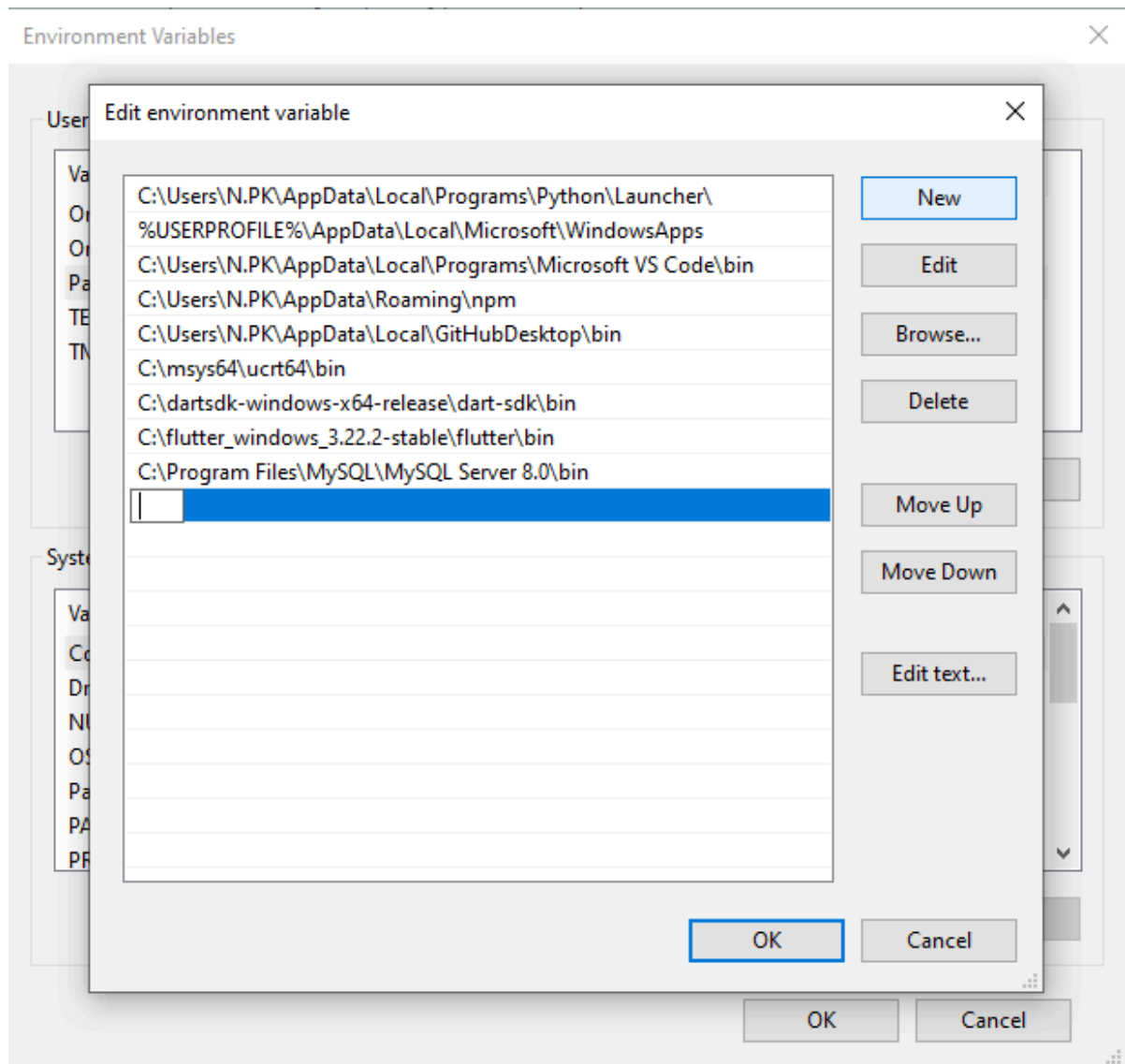
New...

Edit...

Delete

OK

Cancel



- To ensure that what I was installing has been installed correctly, I ran `tool -version` on either my Git Bash terminal, Command Line interface or Windows Powershell. You can use Kali Linux as well.

```
N.PK@DESKTOP-L1EPCE6 MINGW64 ~ (master)
$ mysql --version
C:\Program Files\MySQL\MySQL Server 8.0\bin\mysql.exe Ver 8.0.37 for Win64 on x86_64 (MySQL Community Server - GPL)

N.PK@DESKTOP-L1EPCE6 MINGW64 ~ (master)
$ |
```

```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

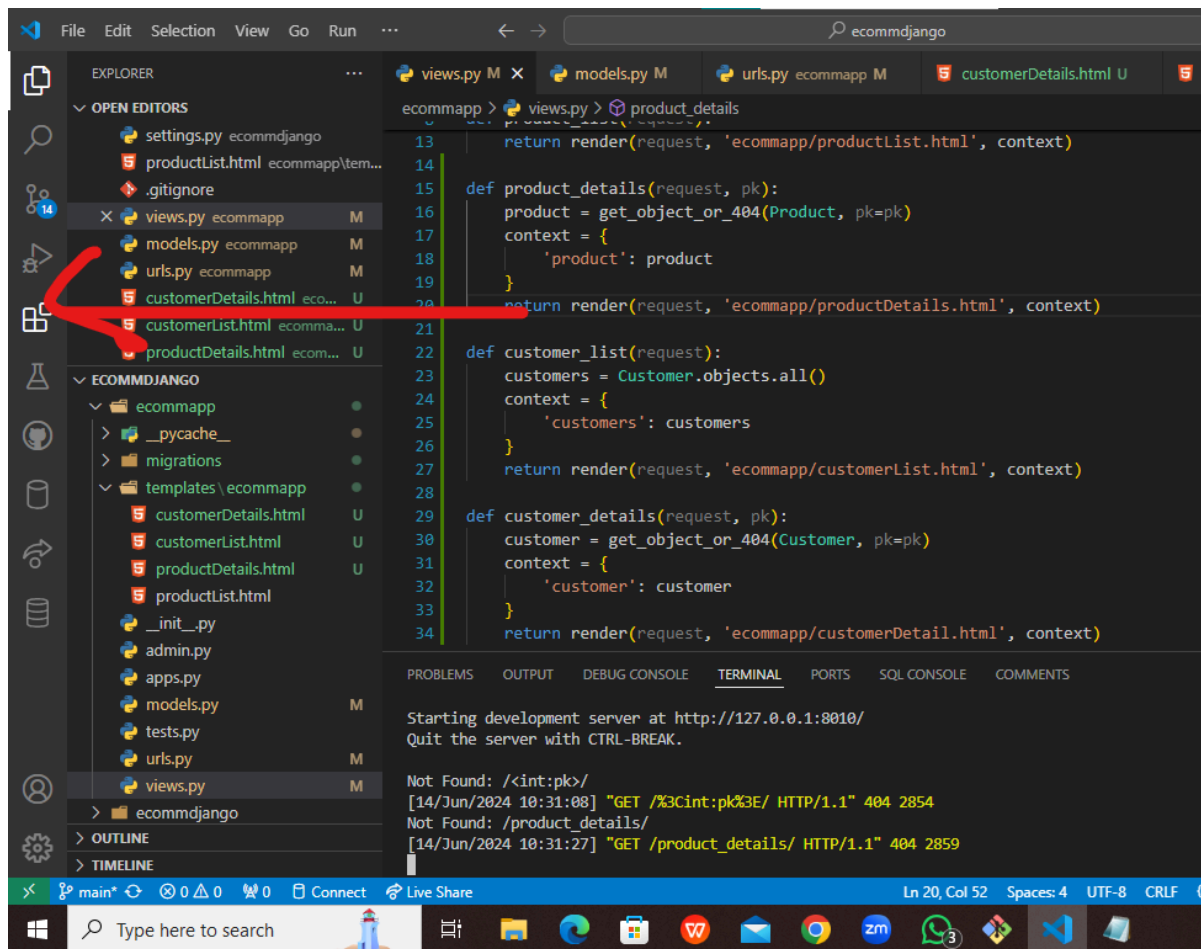
PS C:\Users\N.PK> dart --version
Dart SDK version: 3.4.3 (stable) (Tue Jun 4 19:51:39 2024 +0000) on "windows_x64"
PS C:\Users\N.PK>
```

```
Microsoft Windows [Version 10.0.19045.4412]
(c) Microsoft Corporation. All rights reserved.

C:\Users\N.PK>flutter --version
Flutter 3.22.2 • channel stable • https://github.com/flutter/flutter.git
Framework • revision 761747bfc5 (6 days ago) • 2024-06-05 22:15:13 +0200
Engine • revision edd8546116
Tools • Dart 3.4.3 • DevTools 2.34.3

C:\Users\N.PK>_
```

- In VS Code, I downloaded various extensions to aid me in my coding experience. These extensions are in the 'Extensions' window shown below.

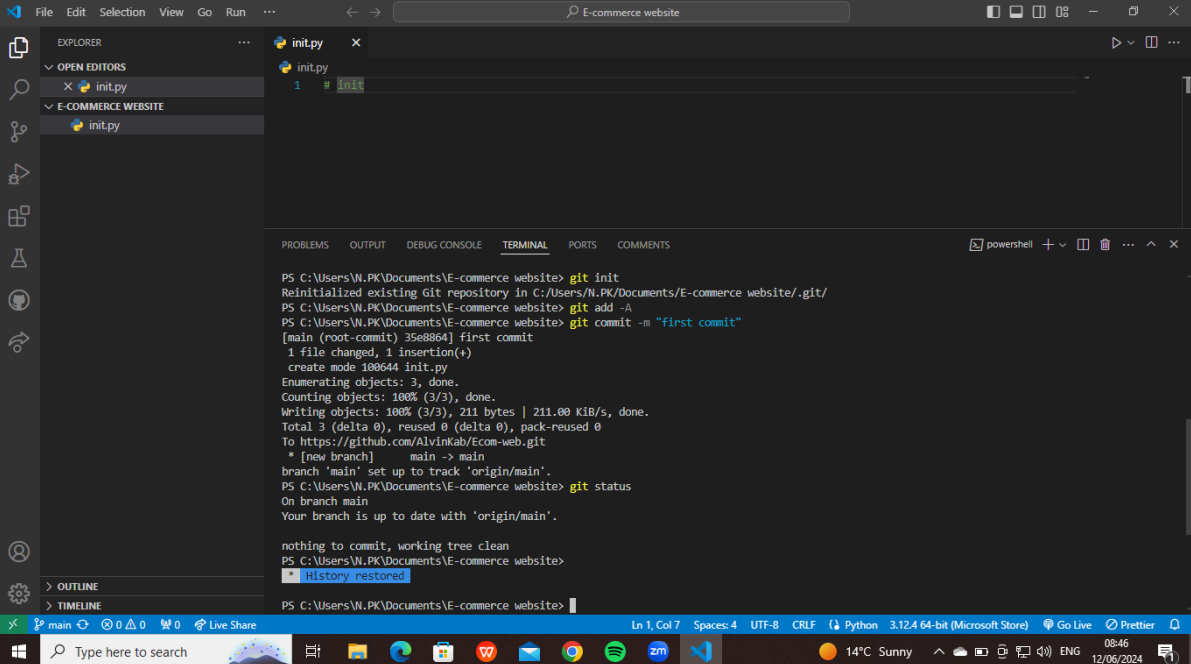


- Useful extensions that I downloaded include:
 - C/C++ Extension Pack
 - CMake, CMake Tools
 - Code Runner
 - Dart
 - Flutter
 - Flutter widget snippets
 - Jinja template support
 - Jupyter, Jupyter cell tags, Jupyter keymap, Jupyter slideshow, Jupyter Notebook
 - Live Server
 - Live Share
 - Multiple cursor case preserve
 - Prettier
 - Python, Pylance
 - SQLite Viewer
 - TailwindCSS IntelliSense

- vscode-icons

Sample project initialised using Git

The GitHub repository where this assignment was submitted through was initialised in a similar way to what is shown in the following screenshot:



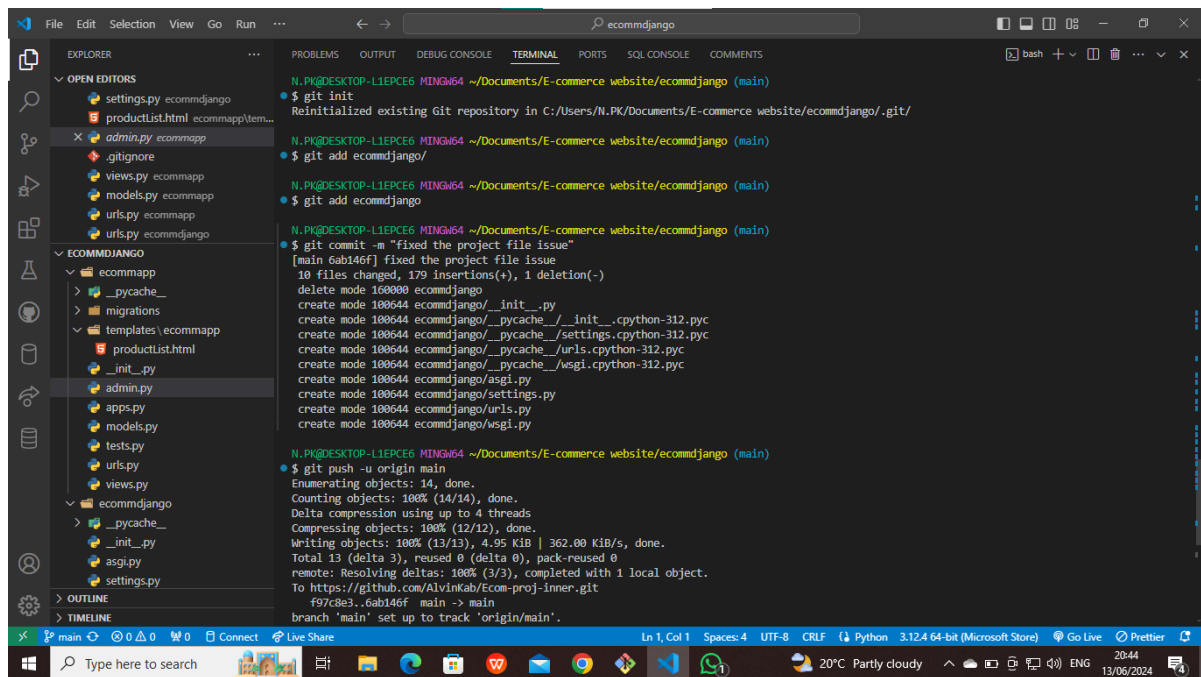
```
PS C:\Users\W.PK\Documents\E-commerce website> git init
Reinitialized existing Git repository in C:/Users/W.PK/Documents/E-commerce website/.git/
PS C:\Users\W.PK\Documents\E-commerce website> git add -A
PS C:\Users\W.PK\Documents\E-commerce website> git commit -m "first commit"
[main (root-commit) 35e8864] first commit
1 file changed, 1 insertion(+)
create mode 100644 init.py
Enumerating objects: 3, done.
Counting objects: 100% (3/3), 211 bytes | 211.00 KiB/s, done.
Writing objects: 100% (3/3), 211 bytes | 211.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/AlvinKab/Ecom-web.git
* [new branch]    main -> main
branch 'main' set up to track 'origin/main'.
PS C:\Users\W.PK\Documents\E-commerce website> git status
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean
PS C:\Users\W.PK\Documents\E-commerce website>
```

The aforementioned repository should contain the sample project folder. If it does not, or the project folder cannot load, then use this repository to access the project:

<https://github.com/AlvinKab/Ecom-proj-inner>

This repository was initialised in a similar way to what is shown below:



```
N.PK@DESKTOP-LIEPC66 MINGW64 ~/Documents/E-commerce website/ecommdjango (main)
$ git init
Reinitialized existing Git repository in C:/Users/N.PK/Documents/E-commerce website/ecommdjango/.git/

N.PK@DESKTOP-LIEPC66 MINGW64 ~/Documents/E-commerce website/ecommdjango (main)
$ git add ecommdjango/

N.PK@DESKTOP-LIEPC66 MINGW64 ~/Documents/E-commerce website/ecommdjango (main)
$ git add ecommdjango

N.PK@DESKTOP-LIEPC66 MINGW64 ~/Documents/E-commerce website/ecommdjango (main)
$ git commit -m "fixed the project file issue"
[main 6ab146f] fixed the project file issue
10 files changed, 179 insertions(+), 1 deletion(-)
delete mode 100000 ecommdjango
create mode 100644 ecommdjango/_init_.py
create mode 100644 ecommdjango/_pycache_/_init_.cpython-312.pyc
create mode 100644 ecommdjango/_pycache_/settings.cpython-312.pyc
create mode 100644 ecommdjango/_pycache_/urls.cpython-312.pyc
create mode 100644 ecommdjango/_pycache_/wsgi.cpython-312.pyc
create mode 100644 ecommdjango/asgi.py
create mode 100644 ecommdjango/settings.py
create mode 100644 ecommdjango/urls.py
create mode 100644 ecommdjango/wsgi.py

N.PK@DESKTOP-LIEPC66 MINGW64 ~/Documents/E-commerce website/ecommdjango (main)
$ git push -u origin main
Enumerating objects: 14, done.
Counting objects: 100% (14/14), done.
Delta compression using up to 4 threads
Compressing objects: 100% (12/12), done.
Writing objects: 100% (13/13), 4.95 KiB | 362.00 KiB/s, done.
Total 13 (delta 3), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (3/3), completed with 1 local object.
To https://github.com/Alvinkab/Ecom-proj-inner.git
f97c8e3..6ab146f main -> main
branch 'main' set up to track 'origin/main'.
```

Please note that in both cases, during the initial initialisation, `git branch -M main` was used to change the branch from master to main. `git remote add origin [repo link]` was used to connect the local repository to the remote GitHub repository before pushing.

Challenges faced and how I overcame them

Fortunately, I only faced one major challenge during installation, and it was the installation of MySQL. I first installed MySQL last July. I installed MySQL Server 5.7 and Shell 8.0. However, when I ran `mysql --version` on Git Bash, `mysql` was not recognised as a command, even though I had done all the processes above. Redownloading the installer didn't help either. To fix this, I searched 'How to safely uninstall MySQL' on Google. One of the top results directed me to [this website](#). After following the procedures provided, I reinstalled and configured MySQL using the steps above, but I installed Server 8.0 to prevent more issues from popping up. Now running `mysql --version` gives me the correct version(8.0.37).