

Setting Up My Development Environment

OS Installation

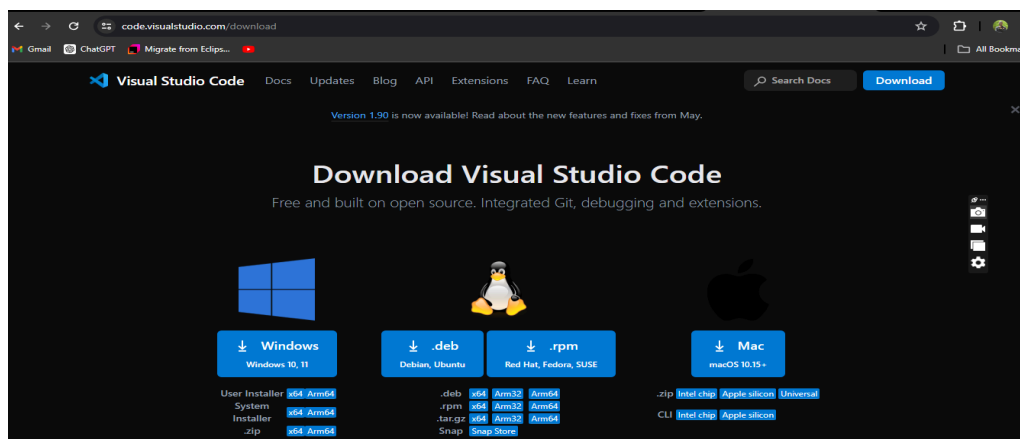
Downloading and Installing Windows 11

1. **Visit the Windows 11 Download Page:**
 - Navigate to [Windows 11 Download](#).
2. **Create Installation Media:**
 - Download the **Windows 11 Installation Media Tool** and run it.
 - Follow the on-screen instructions to create a bootable USB drive or download an ISO file.
3. **Install Windows 11:**
 - Insert the bootable USB drive into your PC or mount the ISO file.
 - Restart your computer and boot from the USB drive or ISO.
 - Follow the installation prompts, select your language, time, and keyboard preferences, and proceed with the installation.
4. **Setup Windows 11:**
 - Complete the initial setup process, including setting up a Microsoft account, region, and privacy settings.

IDE Installation

Installing Visual Studio Code (VS Code)

1. **Download VS Code:**
 - Visit the [Visual Studio Code Download Page](#).
 - Choose the installer according to your Operating System



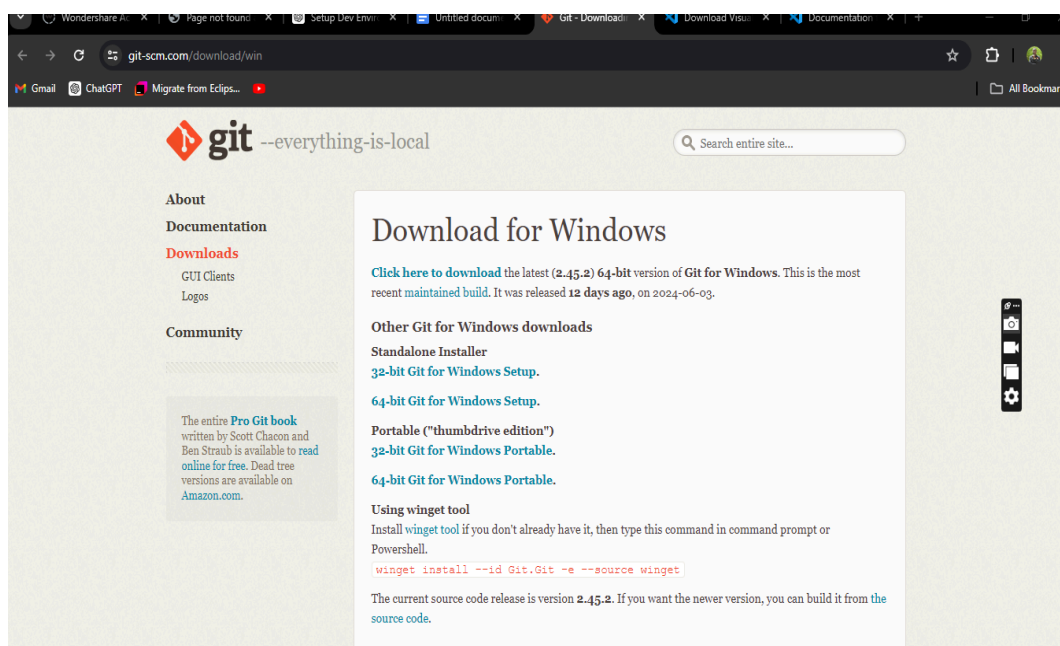
2. **Install Visual Studio Code:**

- Run the installer and follow the prompts. Ensure to select the option to add VS Code to your PATH.
3. **Launch VS Code:**
- Open VS Code and set up your workspace.

Version Control Setup

Installing Git and Configuring It

1. **Download Git:**
- Go to the [Git Download Page](#).
 - Download the latest version of Git for Windows.



2. **Install Git:**
- Run the installer and follow the setup wizard. Choose the default settings.

Configure Git:

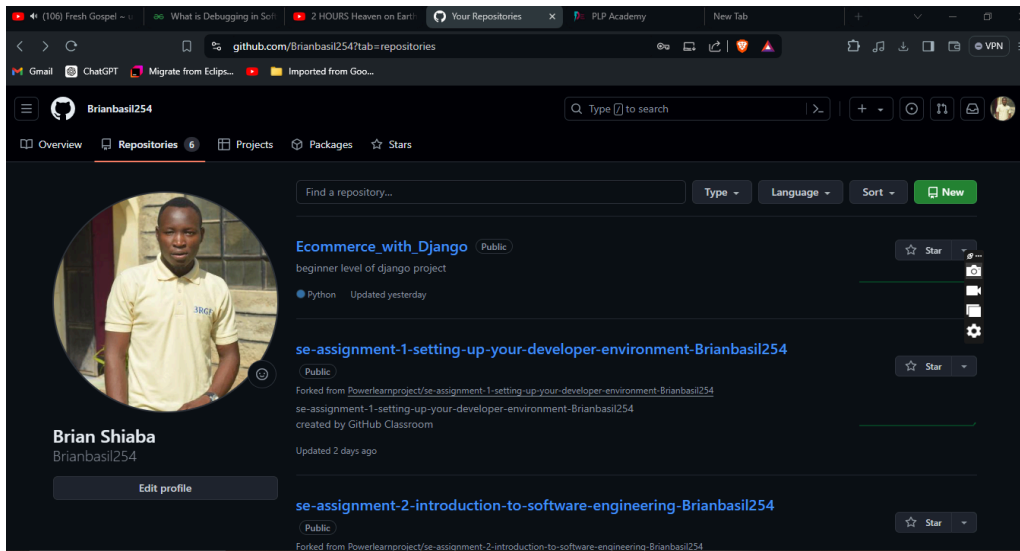
sh

Copy code

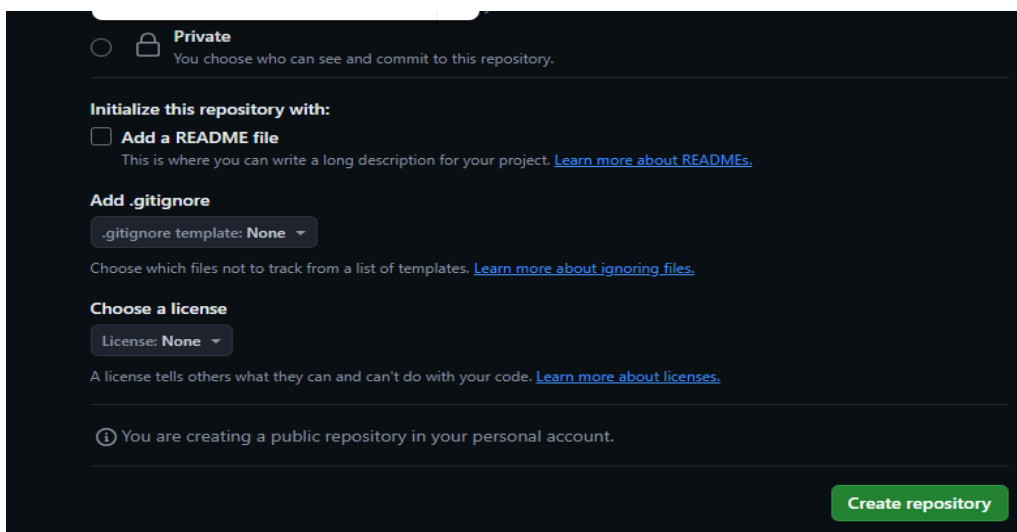
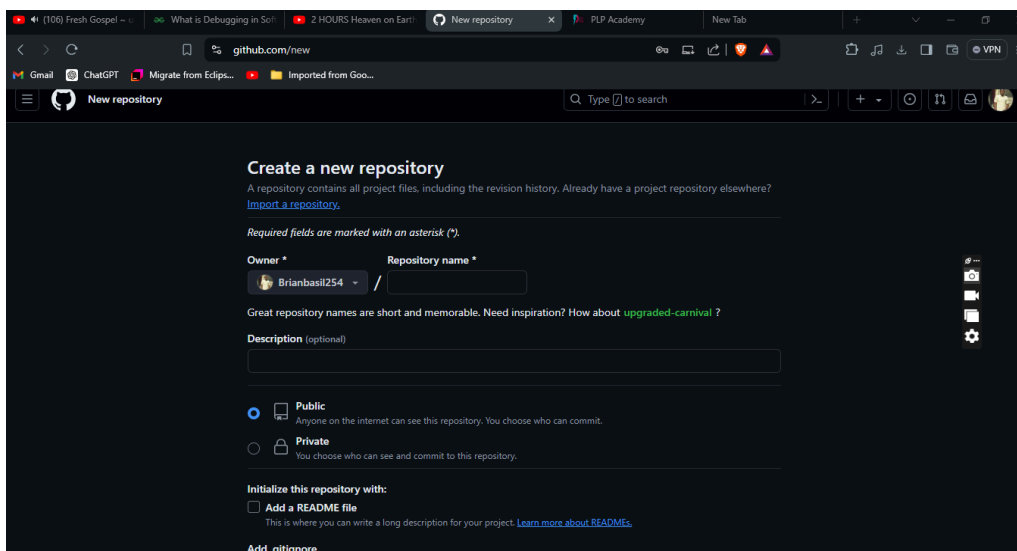
```
git config --global user.name "Your Name"
git config --global user.email "your.email@example.com"
```

Creating a GitHub Account and Repository

1. **Sign Up on GitHub:**
- Go to [GitHub](#) and sign up for a new account.
2. **Create a New Repository:**
- Click the + icon in the top right corner and select **New repository**.



- Name your repository, set the visibility to **Public** or **Private**, and click **Create repository**.



Initializing a Git Repository Locally

Navigate to Your Project Directory:

```
cd path/to/your/project
```

1. Initialize Git:

```
git init
```

2. Add and Commit Files:

```
git add .
```

```
git commit -m "Initial commit"
```

3. Link to GitHub Repository:

```
git remote add origin
```

```
https://github.com/your-username/your-repository.git
```

```
git push -u origin main
```

Programming Languages and Runtimes Installation

Installing Python

Download Python:

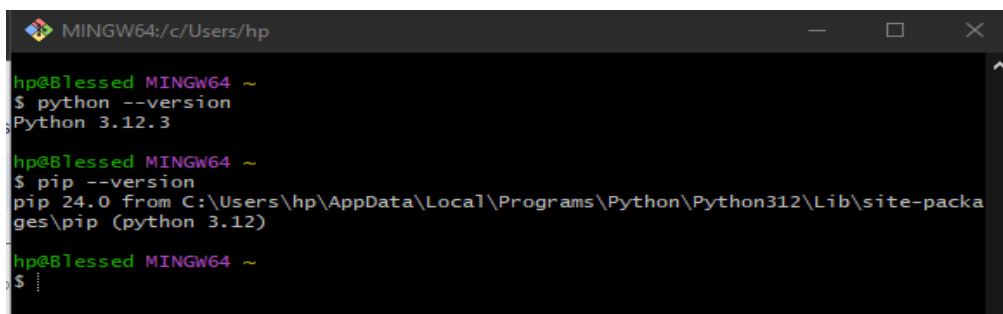
- Visit the [Python Download Page](#).

Install Python:

- Run the installer, ensure to check the box to add Python to your PATH, and click **Install Now**.

Verify Installation:

- `python --version`
- `pip --version`



```
MINGW64/c/Users/hp
hp@Blessed MINGW64 ~
$ python --version
Python 3.12.3
hp@Blessed MINGW64 ~
$ pip --version
pip 24.0 from C:\Users\hp\AppData\Local\Programs\Python\Python312\Lib\site-packages\pip (python 3.12)
hp@Blessed MINGW64 ~
$
```

Package Managers Installation

Installing pip (Python Package Installer)

Verify pip Installation:

```
pip --version
```

Install a Package (Example):

```
pip install numpy
```

Database Setup

Installing MySQL

1. **Download MySQL Installer:**
 - Go to the [MySQL Download Page](#).
2. **Install MySQL:**
 - Run the installer, choose the **Developer Default** setup, and follow the installation steps.
 - Set the root password and configure MySQL as a Windows service.
3. **Verify MySQL Installation:**

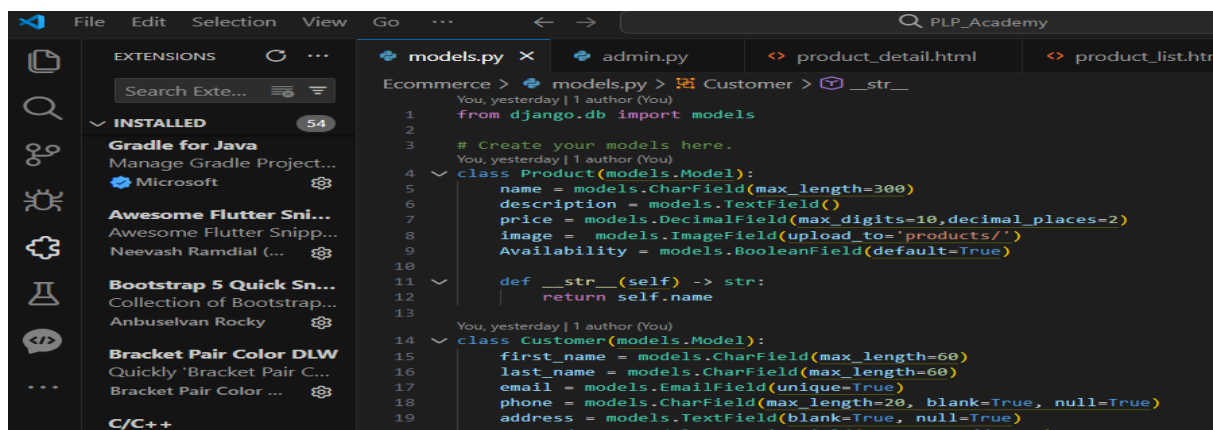
```
mysql -u root -p
```

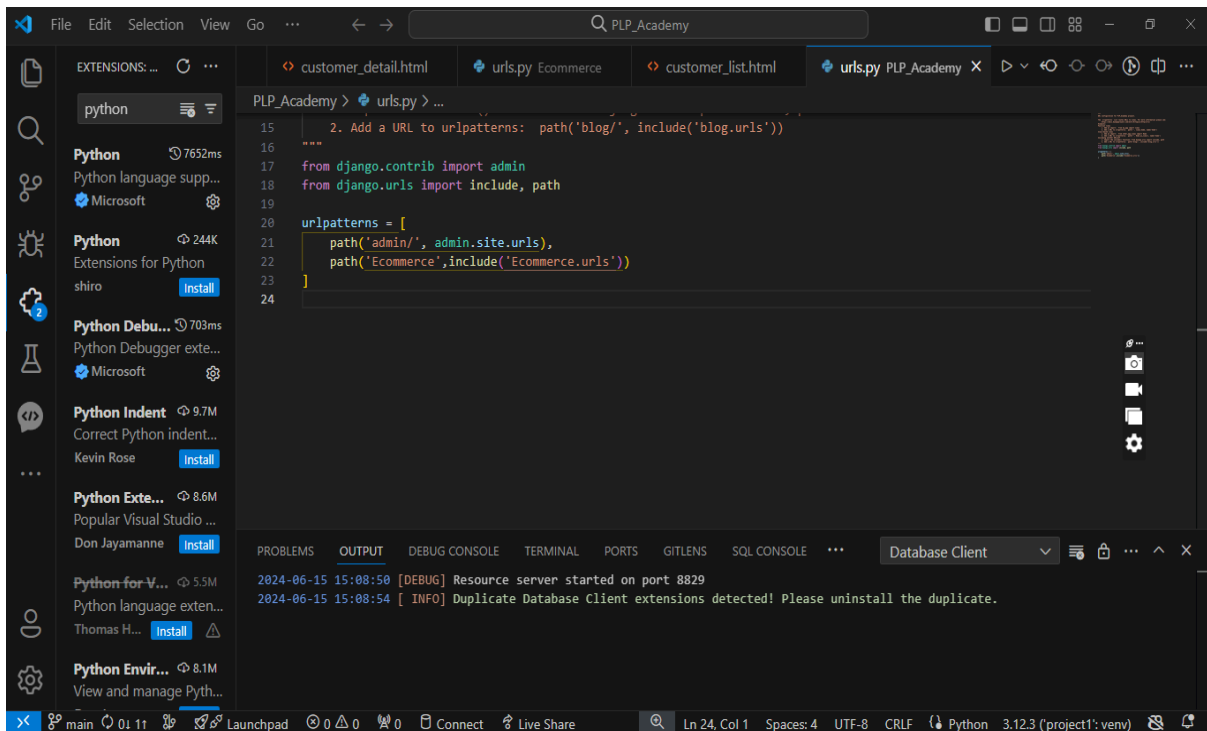
Extensions and Plugins

Visual Studio Code Extensions

1. **Install Extensions:**
 - Open VS Code and navigate to the Extensions view (**Ctrl+Shift+X**).
2. **Recommended Extensions:**
 - **Python:** For Python development.
 - **GitLens:** For advanced Git capabilities.
 - **Prettier:** For code formatting.
 - **ESLint:** For JavaScript/TypeScript linting.

Screenshot:





Troubleshooting

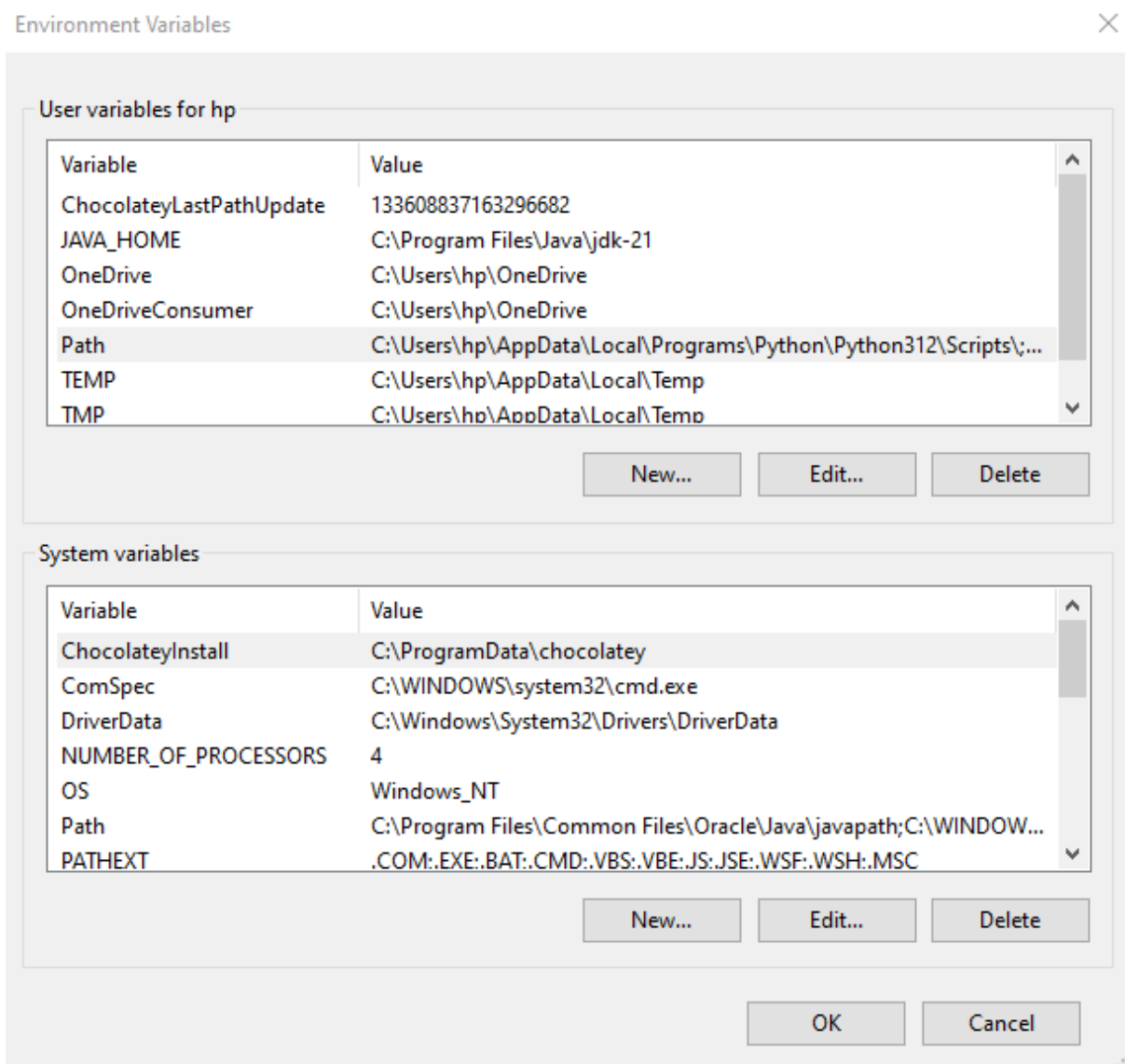
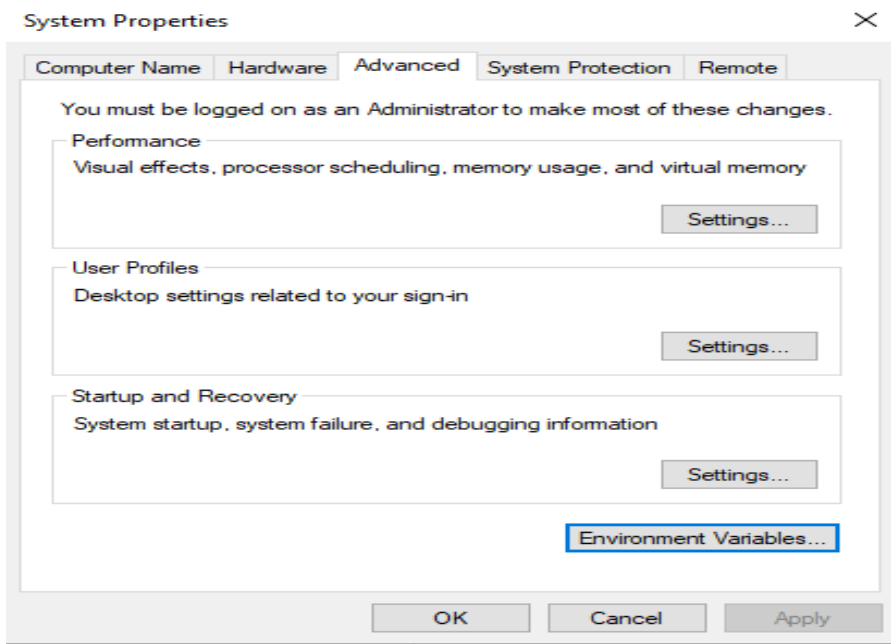
Common Issues and Solutions

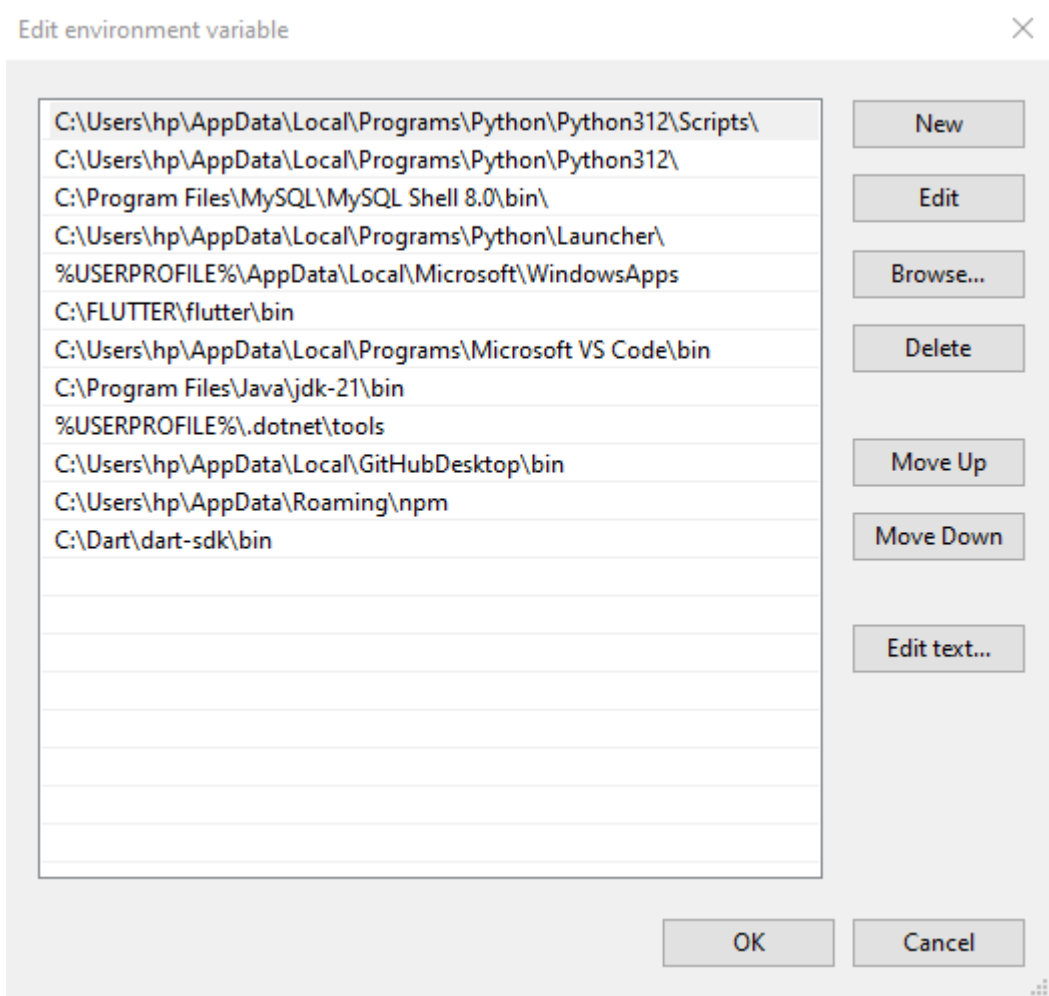
1. **Git Configuration Issues:**
 - **Problem:** Git not recognized in terminal.
 - **Solution:** Ensure Git is added to PATH during installation.
2. **Python Environment Issues:**
 - **Problem:** Python not recognized.
 - **Solution:** Reinstall Python and check the **Add Python to PATH** option.

Navigate to where you have stored python and into its bin and the scripts then copy the path as follows

C:\Users\hp\AppData\Local\Programs\Python\Python312\Scripts

On your search bar type environment variables then click enter to open the window below and click on the **Environment Variables** button to take you to the next window.





- On the above window click new and paste the path you copied and click ok to the end. By doing so you will have added python into your path variables.

3. MySQL Connection Issues:

- **Problem:** Unable to connect to MySQL.
 - **Solution:** Ensure MySQL service is running. Check the root password and port.

Just to make sure that you installed everything and your environment is set for your coding life. Pass the following commands.

```
MINGW64:/

hp@Blessed MINGW64 /
$ git --version
git version 2.45.2.windows.1

hp@Blessed MINGW64 /
$ python --version
Python 3.12.3

hp@Blessed MINGW64 /
$ pip --version
pip 24.0 from C:\Users\hp\AppData\Local\Programs\Python\Python312\Lib\site-packages\pip (python 3.12)

hp@Blessed MINGW64 /
$ code --version
1.90.1
611f9bfce64f25108829dd295f54a6894e87339d
x64

hp@Blessed MINGW64 /
$ dart --version
Dart SDK version: 3.4.3 (stable) (Tue Jun 4 19:51:39 2024 +0000) on "windows_x64"

hp@Blessed MINGW64 /
$ flutter --version
Flutter 3.22.2 • channel stable • https://github.com/flutter/flutter.git
Framework • revision 761747bfc5 (10 days ago) • 2024-06-05 22:15:13 +0200
Engine • revision edd8546116
Tools • Dart 3.4.3 • DevTools 2.34.3

hp@Blessed MINGW64 /
$ .....
```