Setting up a developer environment involves several steps to ensure the necessary tools for development. Here's a step-by-step guide that I followed:

- My computer came with Windows 11 already installed and set-up.

Step 1: Install Visual Studio Code (VS Code)

1. **Download VS Code**:

   o Go to the VS Code website.

   o Download the installer for Windows.

2. **Install VS Code**:

   o Run the downloaded installer.

   o Follow the installation instructions, keep the default settings while following the documentation provided in the LMS.

Step 2: Install Git

1. **Download Git**:

   o Go to the Git website.

   o Download the Git for Windows installer.

2. **Install Git**:

   o Run the downloaded installer.

   o Follow the installation instructions, using the recommended settings while following the documentation provided in the LMS.

Step 3: Set Up GitHub

1. **Create a GitHub Account**:

   o Go to GitHub.

   o Sign up for an account.

2. **Configure Git with GitHub**:

   o Open Git Bash (installed with Git).

   o Set your username

   o Set your email

   o Generate an SSH key.

   o Add the SSH key to your GitHub account.

Step 4: Install Python

1. **Download Python**:

   o Go to the Python website.

o   Download the latest version of Python for Windows.

2. **Install Python**:

    o   Run the downloaded installer.

    o   Check the box "Add Python to PATH".

    o   Follow the installation instructions.

Step 5: Install MySQL

1. **Download MySQL**:

    o   Go to the MySQL website.

    o   Download the MySQL Installer for Windows.

2. **Install MySQL**:

    o   Run the downloaded installer.

    o   Choose the "Developer Default" setup type.

    o   Follow the installation instructions, including setting up a root password.

    o   Configure MySQL Server and MySQL Workbench as part of the installation process using the documentation provided in LMS accordingly.

Step 6: Verify Installations

```
MINGW64:/c/Users/Admin                                        —    □    ×

njeri.wekesa@njeri MINGW64 ~
$ git --version
git version 2.44.0.windows.1

njeri.wekesa@njeri MINGW64 ~
$ python --version
Python 3.12.2

njeri.wekesa@njeri MINGW64 ~
$ pip --version
pip 24.0 from C:\Users\Admin\pyproj\my_env\Lib\site-packages\pip (python 3.12)

njeri.wekesa@njeri MINGW64 ~
$ mysql --version
C:\Program Files\MySQL\MySQL Server 8.0\bin\mysql.exe  Ver 8.0.37 for Win64 on x
86_64 (MySQL Community Server - GPL)

njeri.wekesa@njeri MINGW64 ~
$
```
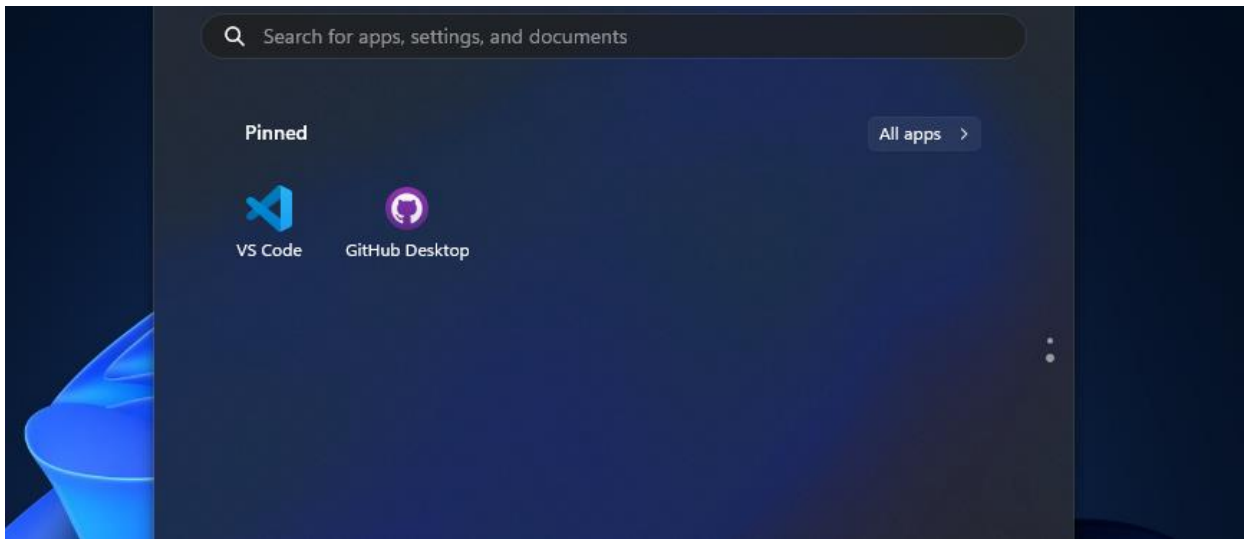
Challenges and troubleshooting

The success of this setup was aided by prompting Chat Gpt to troubleshoot the challenges I had in configuring MySQL.

The challenge that I faced in setting up MySQL occurred because I had previously uninstalled an older version.

Through prompt engineering, I discovered that the problem was with the program files belonging to the old version I had uninstalled, that were still in my C:\ drive. I then proceeded to delete them, thereby ensuring a successful re-installation and re-configuration of MySQL Server's latest version.