1. Operating System (OS)

Selection: I chose windows as my operating system due to its open-source nature, stability, and popularity among developers.

2. Text Editor / IDE

Selection: I installed Visual Studio Code (VS Code) as my IDE. (https://code.visualstudio.com/download)

Reasoning: VS Code is a popular, free, and open-source IDE that supports various programming languages and offers extensive extensions for customization.

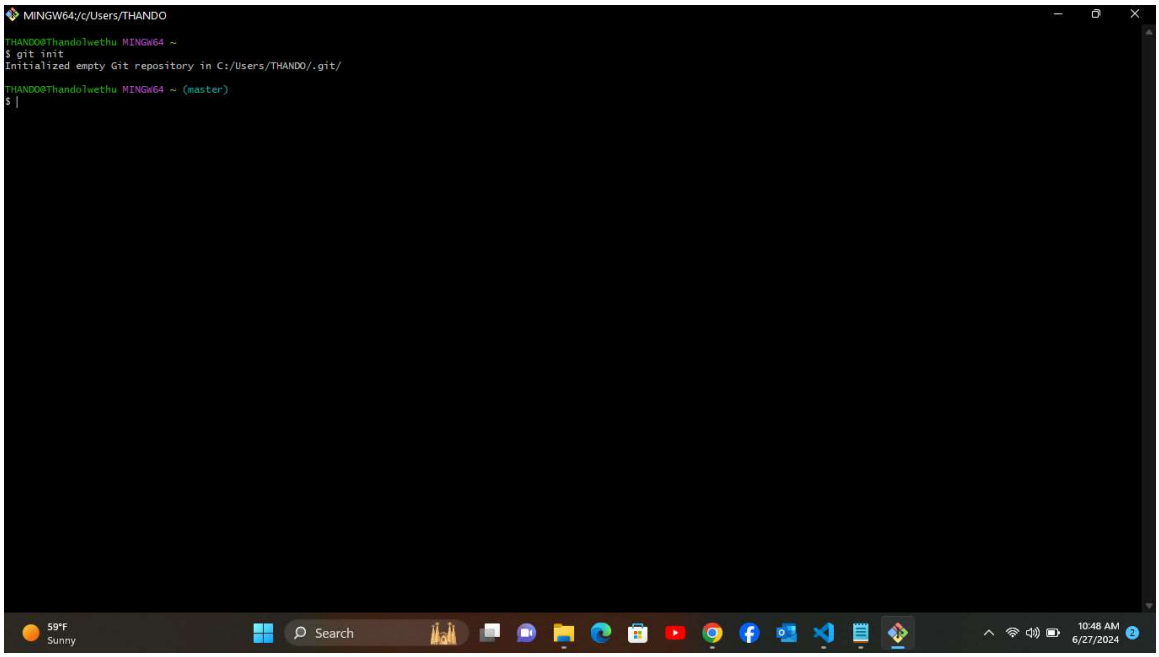
3. Version Control System

Git Installation: I installed Git on my local machine following the official guide (https://git-scm.com/downloads).

GitHub Account: I created a GitHub account at [https://github.com/index.html] (https://github.com/index.html) for online repository hosting.

Project Setup: I initialized a Git repository for a sample project and made my first commit.

Screenshots:



4. Programming Languages & Runtimes

Selection: I chose Python as my sample programming language due to its versatility and beginner-friendliness.

Installation: I downloaded and installed Python from the official website (https://www.python.org/downloads/).

Here are the steps for installing Python

1. Select the Python version:

Visit the official Python downloads page: https://www.python.org/downloads/

Choose a stable version of Python 3 (e.g., `3.12.3`) that suits your needs.

Download the appropriate installer file (Windows installer (64-bit)

2. Runing the installer.

Double-click the downloaded .exe file (e.g., `Python 3.12.3`-amd64.exe).

In the installation wizard, it's advisory to:

Check the box to Add Python 3.x to PATH. This allows you to run Python commands from any directory in your command prompt or terminal.

You can leave most other options at their defaults.

Click Install Now to proceed with the installation.

3. Verify the installation:

Open a new command prompt window (search for "cmd" in the Start menu).

Type python --version and press Enter. If the installation was successful, you should see the installed Python version information displayed.

5. Package Managers

Selection: Since I chose Python, I also installed the `pip` package manager, which comes bundled with most Python installations.

1. Verify pip installation:

pip is a package manager for Python that allows you to install additional libraries and modules.

In the same command prompt window, type pip --version and press Enter.

If pip is installed correctly, you should see the pip version information displayed.

6. Database

MySQL Installation : For this basic setup, I installed MySQL. I found the instructions for downloading and installing MySQL on this link ([https://dev.mysql.com/downloads/mysql/] (https://dev.mysql.com/downloads/mysql/)).

7. Development Environments & Virtualization

Virtualization: In this basic setup, I did not explore virtualization tools like Docker or virtual machines. These can be helpful for isolating project dependencies in larger projects.

8. Extensions & Plugins

VS Code Extensions: I explored and installed some helpful VS Code extensions, including:

Python extension for syntax highlighting and linting.

GitLens for improved Git integration within VS Code.

Bracket Pair Colorizer for better code readability.