### 1. Operating System Installation

#### Windows 11

Go to the Windows 11 download page.

Click on "Download now" under the Windows 11 Installation Assistant.

I Followed the on-screen instructions to install Windows 11 on my machine.

### 2. IDE Installation

#### **Visual Studio Code**

Visit the Visual Studio Code download page.

Download the version suitable for your operating system.

Open the installer and follow the installation prompts.

## 3. Version Control Setup

#### **Git and GitHub**

Go to the Git download page and download the installer for your OS.

Run the installer and follow the prompts to install Git.

Open Git Bash (or Command Prompt/PowerShell) and configure your Git settings:

git config --global user.name "Your Name"

git config --global user.email "your.email@example.com"

Go to GitHub and sign up for an account if you don't already have one.

Create a new repository on GitHub by clicking on the "+" icon in the top-right corner and selecting "New repository."

Initialize a Git repository locally and make your first commit.

# 4. Programming Languages and Runtimes

#### **Python**

Go to the Python download page and download.

Run the installer and ensure you check "Add Python to PATH" before clicking "Install Now."

Verify the installation by opening a terminal and typing:

### 5. Package Managers

#### pip (Python)

pip should be installed automatically with Python.

### 6. Database Configuration

#### **MySQL**

Visit the MySQL download page.

Download the MySQL Installer and run it.

follow the prompts to install MySQL Server, MySQL Workbench, and other necessary components.

During installation, configure the root password and other settings as per your preference.

# 7. Extensions and Plugins

### **Visual Studio Code Extensions**

Open Visual Studio Code.

Go to the Extensions view by clicking the Extensions icon in the Activity Bar on the side of the window.

Search for and install extensions.

### 9. Reflection

#### **Challenges Faced**

Installation Issues: Encountered issues with setting environment variables.

Configuration Problems: Difficulty in configuring Git initially due to incorrect email format.

#### **Solutions**

Installation Issues: Followed the class recordings.

Configuration Problems: Followed class recordings.