Installation of Visual Studio Code on Windows 11

Prerequisites: Ensure your Windows 11 system meets the system requirements for Visual Studio Code.

1. **Download Visual Studio Code:**
    - Go to the Visual Studio Code website.
    - Click on the "Download for Windows" button to download the installer.
2. **Install Visual Studio Code:**
    - Once the download is complete, run the installer.
    - Follow the installation wizard instructions.
    - Choose the default options unless you have specific preferences.

First-time Setup

Initial Configurations: After installing VS Code, consider adjusting the following for an optimal coding environment:

- **Settings:** Customize editor behavior, appearance, and extensions.
- **Extensions:** Install essential extensions for your development needs.
- **Keybindings:** Adjust shortcuts to match your preferences.

User Interface Overview

Main Components:

- **Activity Bar:** Provides quick access to different views like Explorer, Search, Source Control, and Extensions.
- **Side Bar:** Contains views like Explorer (file manager), Search, Source Control, and Extensions.
- **Editor Group:** Area where files are opened for editing.
- **Status Bar:** Displays information about the opened project and Git status.

Command Palette

Access and Use:

- **Access:** Use `Ctrl+Shift+P` (Windows/Linux) or `Cmd+Shift+P` (Mac) to open.
- **Tasks:** Search for and execute commands like opening files (`Open File`), installing extensions (`Install Extensions`), and configuring settings (`Preferences: Open Settings`).

Extensions in VS Code

Role and Management:

- **Role:** Extend functionality with features like language support, debugging tools, and themes.
- **Find and Install:** Go to the Extensions view (`Ctrl+Shift+X`), search for extensions, and click `Install`.
- **Essential Extensions for Web Development:** Examples include `Live Server`, `ESLint`, `Prettier`, and `Debugger for Chrome`.

Integrated Terminal

Opening and Advantages:

- **Open:** Use `Ctrl+` ` (backtick) to open the integrated terminal.
- **Advantages:** Allows running command-line tasks without leaving VS Code, maintaining context with the editor.

File and Folder Management

Operations:

- **Create and Open:** Use the Explorer view to create (`Right-click > New File/Folder`) and open files.
- **Navigation:** Switch between files (`Ctrl+Tab`) and directories (`Explorer view`).

Settings and Preferences

Customization:

- **Find:** Access through `File > Preferences` on Windows/Linux or `Code > Preferences` on macOS.
- **Examples:** Change theme (`Color Theme`), adjust font size (`Editor: Font Size`), and configure keybindings (`Keyboard Shortcuts`).

Debugging in VS Code

Setup and Features:

- **Setup:** Install necessary debugging extensions and configure launch configurations in `launch.json`.
- **Start:** Use `F5` to start debugging. Set breakpoints, inspect variables, and control execution flow.

Using Source Control (Git)

Integration and Operations:

- **Integration:** Install Git and ensure it's in the system `PATH`.
- **Initialize Repository:** Use `Git: Initialize Repository` in the Command Palette.
- **Commits and Push:** Stage changes in the Source Control view, commit with a message, and push to GitHub.