**My Assignment on set up**

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### **Installation of VS Code**

**Steps to Download and Install Visual Studio Code on Windows 11:**

**Prerequisites:**

First, I ensured my system was running Windows 11.

I made sure I had administrative rights to install software.

**Download:**

I visited the [official Visual Studio Code website](https://code.visualstudio.com/).

Then, I clicked on the "Download" button for Windows.

**Install:**

Once the download was complete, I opened the downloaded executable file.

I followed the installation wizard:

Accepted the license agreement.

Chose the destination folder.

Selected additional tasks (created a desktop icon, added to PATH, etc.).

I clicked "Install" to complete the setup.

Once installed, I launched Visual Studio Code.

### **First-time Setup**

**Initial Configurations and Settings:**

**Theme and Appearance:**

I went to File > Preferences > Color Theme to select a theme that suited my preference.

I adjusted the font size and other editor settings under File > Preferences > Settings.

**Extensions:**

I clicked on the Extensions view icon on the Sidebar or pressed Ctrl+Shift+X.

I installed essential extensions like:

**Python** (for Python development)

**ESLint** (for JavaScript linting)

**Prettier - Code formatter** (for code formatting)

**Live Server** (for a local development server)

**Editor Settings:**

I enabled auto-save by setting "files.autoSave": "afterDelay" in settings.json.

I adjusted the tab size and other editor configurations.

### **User Interface Overview**

**Main Components of the VS Code User Interface:**

**Activity Bar:**

Located on the far left.

Contains icons for the Explorer, Search, Source Control, Run and Debug, Extensions, and more.

Allows easy navigation between different functionalities.

**Side Bar:**

Displays different views such as Explorer, Source Control, and Extensions.

The content changes based on the selected activity from the Activity Bar.

**Editor Group:**

The main area where files are opened and edited.

Supports multiple tabs and split views for editing multiple files simultaneously.

**Status Bar:**

Located at the bottom of the window.

Displays important information like line and column numbers, Git branch, encoding, and more.

### **Command Palette**

**Command Palette:**

**Access:**

I press Ctrl+Shift+P or F1 to open the Command Palette.

**Common Tasks:**

Opening files: > Open File

Running commands: > Run Task

Installing extensions: > Extensions: Install Extensions

Changing settings: > Preferences: Open Settings

### **Extensions in VS Code**

**Role and Management of Extensions:**

**Role:**

Extensions add functionality to VS Code, such as language support, themes, debuggers, and tools.

**Finding and Installing:**

I open the Extensions view with Ctrl+Shift+X.

I search for extensions by name or functionality.

I click Install to add the extension.

**Managing Extensions:**

I can disable, uninstall, or configure extensions from the Extensions view.

I update extensions regularly for new features and bug fixes.

**Essential Extensions for Web Development:**

**HTML, CSS, and JavaScript support**: Provides IntelliSense, snippets, and syntax highlighting.

**Debugger for Chrome**: Debug JavaScript code in Google Chrome.

**REST Client**: Make HTTP requests directly within VS Code.

### **Integrated Terminal**

**Opening and Using the Integrated Terminal:**

**Access:**

I open with Ctrl+ or View > Terminal.

The integrated terminal allows me to run command-line applications within VS Code without switching to an external terminal.

**Advantages:**

Convenience of having the terminal within the same window.

Ability to run scripts, compile code, and manage version control directly.

### **File and Folder Management**

**Creating, Opening, and Managing Files and Folders:**

**Creating:**

I right-click in the Explorer view and select New File or New Folder.

I can also use the Command Palette with > File: New File or > File: New Folder.

**Opening:**

I use File > Open File or File > Open Folder to navigate to and open files and folders.

**Managing:**

I can drag and drop files to move them.

I use the Explorer view to navigate between different files and directories efficiently.

### **Settings and Preferences**

**Finding and Customizing Settings:**

**Accessing Settings:**

I go to File > Preferences > Settings to open the settings UI.

**Changing Theme:**

I select Color Theme from the Command Palette or File > Preferences > Color Theme.

**Adjusting Font Size:**

I search for Font Size in the settings UI and adjust it to my preference.

**Customizing Keybindings:**

I go to File > Preferences > Keyboard Shortcuts to customize keybindings.

### **Debugging in VS Code**

**Setting Up and Starting Debugging:**

**Configuration:**

I open the Debug view from the Activity Bar.

I click on the gear icon to create a launch.json file with debugging configurations.

**Starting Debugging:**

I set breakpoints by clicking in the gutter next to the line numbers.

I click the green play button in the Debug view or press F5 to start debugging.

**Key Debugging Features:**

Stepping through code (F10 for Step Over, F11 for Step Into).

Watching variables and expressions.

Inspecting the call stack.

### **Using Source Control**

**Integrating Git with VS Code:**

**Initializing a Repository:**

I open the Source Control view from the Activity Bar.

I click Initialize Repository to create a new Git repository.

**Making Commits:**

I stage changes by clicking the + icon next to changed files.

I write a commit message and click the checkmark icon to commit.

**Pushing Changes to GitHub:**

I click on the ellipsis (...) in the Source Control view and select Push.

I provide my GitHub credentials and push the changes.