

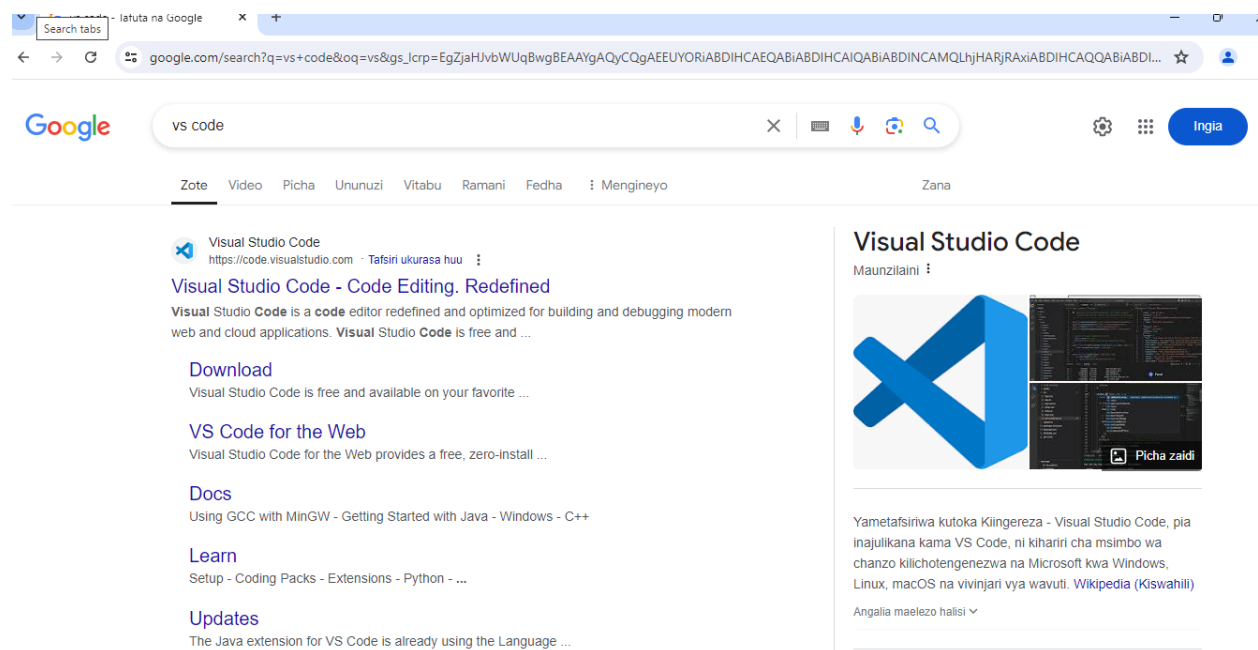
Installation and Navigation of Visual Studio Code (VS Code) Instructions: Answer the following questions based on your understanding of the installation and navigation of Visual Studio Code (VS Code). Provide detailed explanations and examples where appropriate.

## 1. Installation of VS Code:

### Prerequisites/requirements

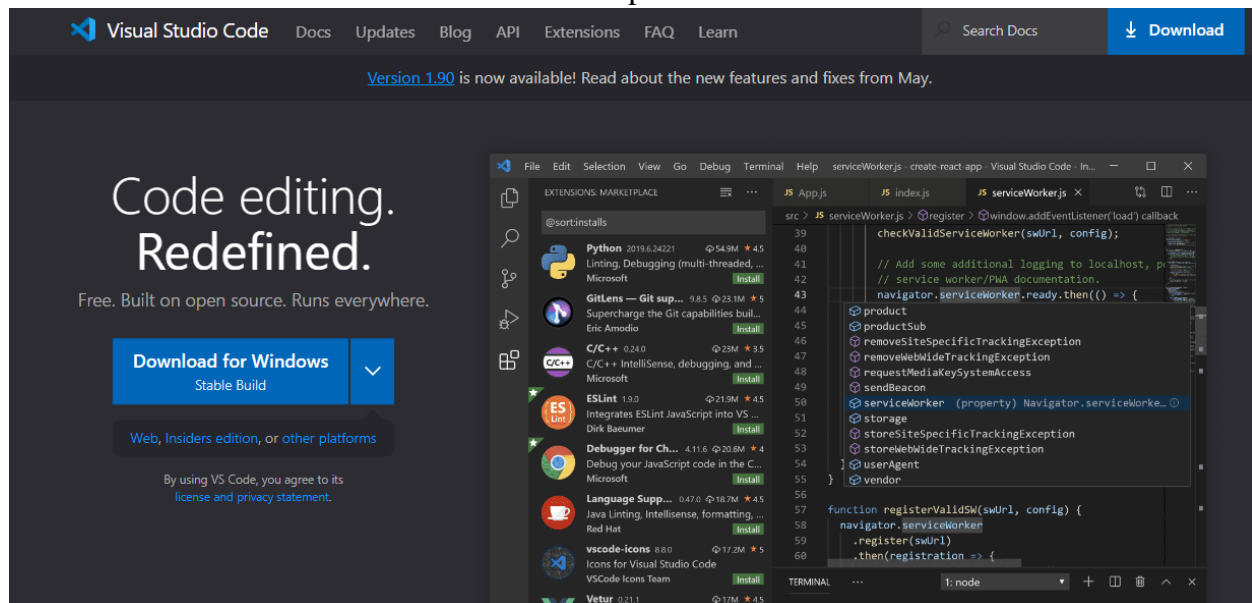
- Windows 11 operating system
- Internet connection

### Steps:



1. Visit the official VS Code download page: <https://code.visualstudio.com/download>
2. Select "Windows" from the dropdown menu and click the "Download" button.
3. Run the downloaded installer file (e.g., VSCodeUserSetup-x64-1.75.1.exe).

4. Follow the on-screen instructions to complete the installation.

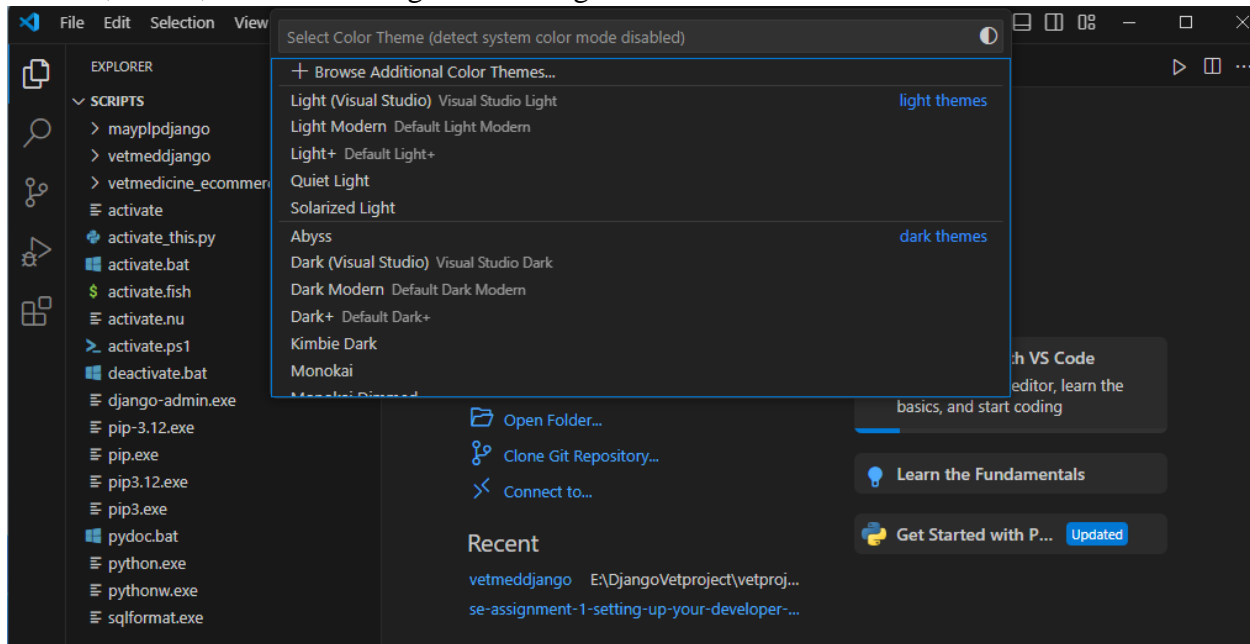


## 2. first-time Setup:

After installing VS Code, what initial configurations and settings should be adjusted for an optimal coding environment? Mention any important settings or extensions.

- **Adjust Font Size:** Go to "File" > "Preferences" > "Settings" (or press "Ctrl+,"). In the "Settings" search bar, type "Font Size" and adjust the value to your preference.
- **Install Essential Extensions:** Install extensions like "Code Spell Checker," "Prettier - Code formatter," and "Debugger for Chrome" for improved code editing, formatting, and debugging.
- **Change Theme:** Go to "File" > "Preferences" > "Color Theme" to select a light or dark theme that suits your preferences.

- **Configure Terminal Settings:** Under "Preferences" > "Settings" > "Terminal," customize the font, colors, and shell settings of the integrated terminal.



### 3. User Interface Overview:

Explain the main components of the VS Code user interface. Identify and describe the purpose of the Activity Bar, Side Bar, Editor Group, and Status Bar.

- **Activity Bar (left):** Provides quick access to tasks like file exploration, searching, and debugging.
- **Side Bar (left):** Contains tabs for specific tasks, such as the "Explorer" (for managing files) and "Debug" (for debugging code).
- **Editor Group (center):** Where you write and edit code. It can contain multiple editor tabs.
- **Status Bar (bottom):** Displays information about the current file, including line numbers, encoding, and language mode.

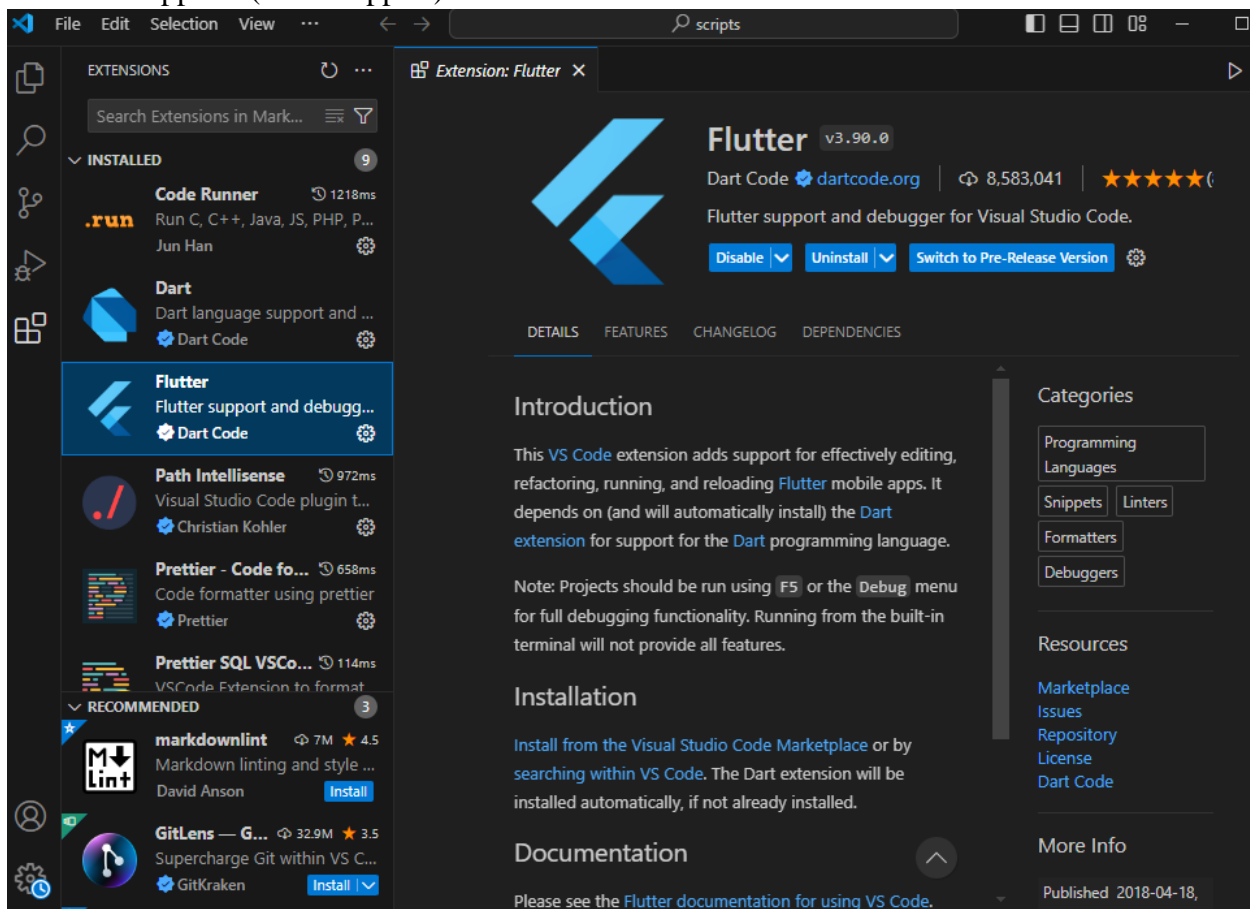
### 4. Command Palette:

- The Command Palette is a powerful tool that provides quick access to commands, settings, and actions.
- To access it, press "Ctrl+Shift+P" (Windows) or "Cmd+Shift+P" (macOS).
- Type in a keyword or command, e.g., "Open File" or "Format Document," and select the desired option.

### 5. Extensions in VS Code:

Discuss the role of extensions in VS Code. How can users find, install, and manage extensions? Provide examples of essential extensions for web development.

- Extensions enhance VS Code's functionality with additional features and productivity tools.
- To find extensions, go to "Extensions" in the Activity Bar.
- Search for specific extensions or browse through categories.
- Install extensions by clicking the "Install" button and then restarting VS Code.
- Example Essential Extensions: For web development, consider extensions like "Live Server" (live preview of code changes), "Debugger for Chrome" (debugging web apps), and "HTML Snippets" (code snippets).

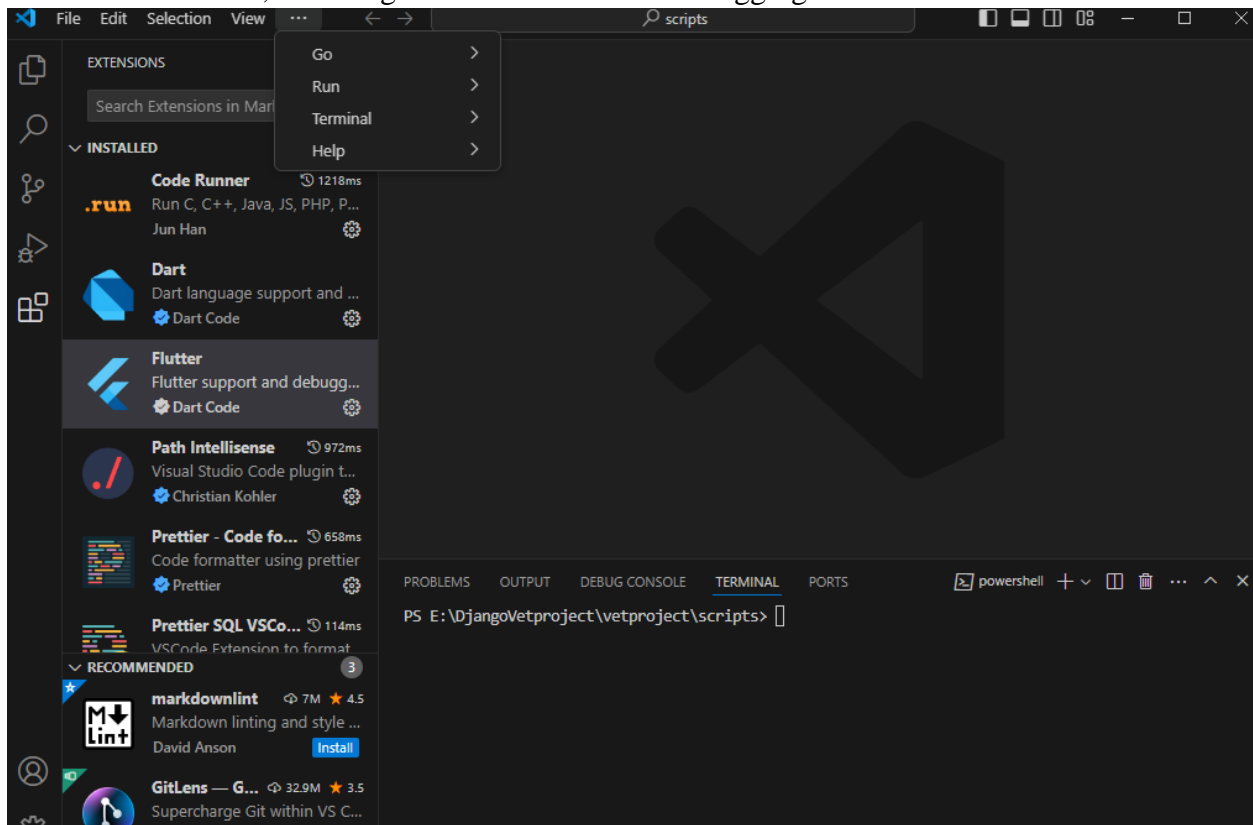


## 6. Integrated Terminal:

Describe how to open and use the integrated terminal in VS Code. What are the advantages of using the integrated terminal compared to an external terminal?

- Opening: Press `Ctrl + `` to

- open the integrated terminal within the VS Code window.
- Advantages: The integrated terminal offers convenience, allows quick access to command-line tools, and integrates with VS Code's debugging features.



## 7. File and Folder Management:

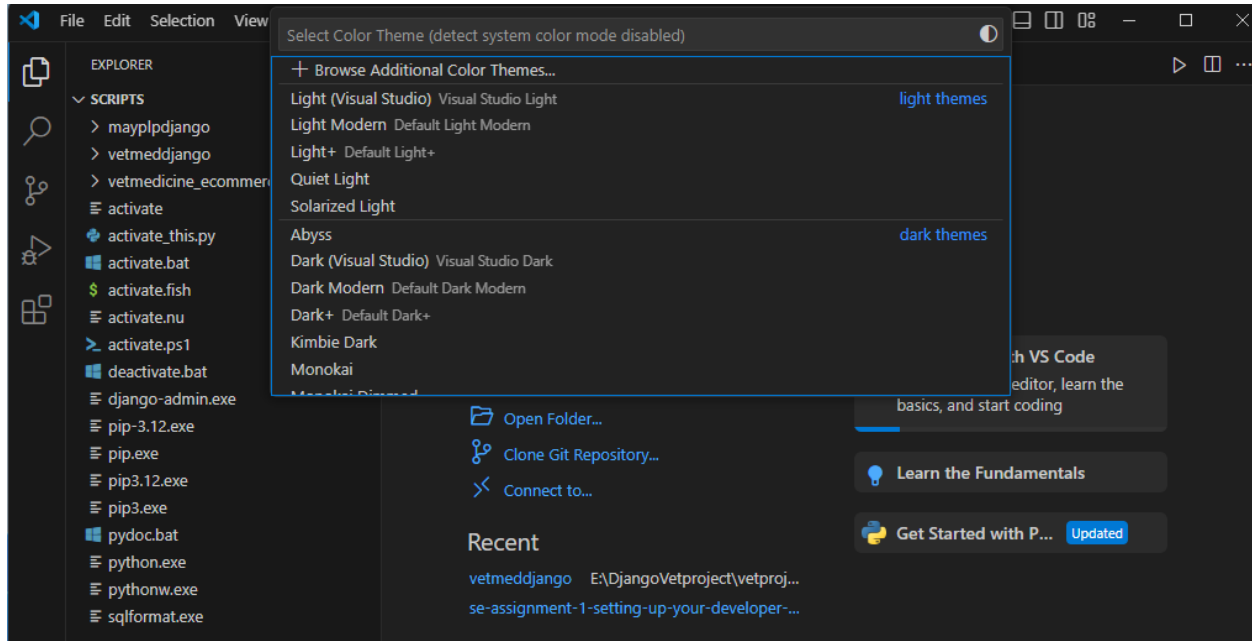
1. Explain how to create, open, and manage files and folders in VS Code. How can users navigate between different files and directories efficiently?

- Creating Files/Folders: Right-click in the File Explorer and select "New File" or "New Folder".
- Opening Files: Double-click on a file in the File Explorer or drag and drop it into the Editor Group.
- Navigating: Use the File Explorer toolbar to navigate to different directories. The "Go to File" command (Ctrl + P) allows quick file search.

## 8. Settings and Preferences:

1. Where can users find and customize settings in VS Code? Provide examples of how to change the theme, font size, and key bindings.

- **Settings Location:** Settings can be found in the "Settings" tab (Ctrl +,) under "File" > "Preferences".
- **Customization:** Change the theme, font size, key bindings, and other preferences as desired.
- **Example Customization:** Search for "theme" in the "Settings" tab to change the VS Code interface theme.



## 9. Debugging in VS Code:

Outline the steps to set up and start debugging a simple program in VS Code. What are some key debugging features available in VS Code?

- **Setup:** Create a debug configuration file (e.g., "launch.json").
- **Starting Debug:** Set breakpoints in the code, open the Debug view (Ctrl + Shift + D), and click the "Start Debugging" button.
- **Key Features:** Inspect variables, step through code, set watches, and view call stacks while debugging.

## 10. Using Source Control:

How can users integrate Git with VS Code for version control? Describe the process of initializing a repository, making commits, and pushing changes to GitHub

- **Integration with Git:** Install the Git extension if not already installed.
- **Initializing a Repository:** Open the command palette and type "Git: Initialize Repository".

- Making Commits: Stage changes using "Git: Stage Changes", write a commit message, and commit using "Git: Commit".
- Pushing to GitHub: Configure GitHub credentials in VS Code. Use "Git: Push" to push committed changes to GitHub.

## REFERENCE

Google