1. Installation:

Download:

- Official Site: Go to the <u>VS Code download page</u>.
- Installer: Select the appropriate 64-bit installer for Windows. Choose the "User Setup" version for a simple, per-user installation.

    Installation Process:

1. Run Installer: Double-click the downloaded installer file (`VSCodeUserSetup-x64-<version>.exe`).
2. License Agreement: Accept the license agreement.
3. Installation Location: Choose a suitable installation location or accept the default path.
4. Additional Tasks: Optionally select additional tasks such as creating a desktop icon or adding to the PATH for easier command-line access.
5. Complete Installation: Click "Install" and wait for the process to complete.

2. Initial Configuration:

Welcome Screen:

- Open Folder: Upon the first launch, you can open a project folder directly from the welcome screen. This helps in getting started with your existing projects quickly.

    Extension Management:

- Access Extensions: Open the Extensions view by pressing `Ctrl+Shift+X`.
- Extensions I included:
    - Python: Python extension by Microsoft for Python language support.
    - Dart
    - Prettier: Code formatter for consistent code styling.

    Settings Customization:

- Open Settings: Press `Ctrl+`, or navigate to `File > Preferences > Settings`.
- Themes: Select a theme under `Settings > Appearance > Theme`. Popular themes include:
    - Dark+ (default dark theme)
    - One Dark Pro (popular dark theme)
    - Light+ (default light theme)
- Font Size: Adjust font size under `Settings > Editor > Font Size`.

3. Understanding the User Interface:

Activity Bar (left):

- Icons: Provides quick access to core functionalities:
  - Explorer: `Ctrl+Shift+E`
  - Search: `Ctrl+Shift+F`
  - Source Control: `Ctrl+Shift+G`
  - Run and Debug: `Ctrl+Shift+D`
  - Extensions: `Ctrl+Shift+X`

Side Bar (left):

- Explorer View: Manage your project's files and folders. Use `Ctrl+Shift+E` to access.
- Search View: Find and replace across your project. Use `Ctrl+Shift+F` to access.

Editor Group (center):

- Tabs: Open and edit multiple files simultaneously. Use `Ctrl+Tab` to switch between open files.

Status Bar (bottom):

- Information: Displays essential information such as:
  - Current line and column number
  - Indentation mode
  - Encoding
  - Git branch and status (if integrated)
  - Language mode

4. Command Palette (Ctrl+Shift+P):

- Access: Open the Command Palette using `Ctrl+Shift+P`.
- Examples:
  - New File: Type "New File" to create a new file.
  - Configure Settings: Type "Preferences: Configure Settings" to adjust settings.
  - Install Extension: Type "Extensions: Install Extension" to find and install extensions.

5. Extensions:

Finding Extensions:

- Open Extensions View: Press `Ctrl+Shift+X`.

- Browse Categories: Explore extensions by categories such as "Popular", "Themes", "Programming Languages".

  Installation and Management:

- Install: Click the "Install" button next to an extension.
- Manage: Enable, disable, update, or uninstall extensions from the Extensions view.

6. Integrated Terminal for Streamlined Workflow:

  Open Terminal:

- Shortcut: Press `Ctrl+\` or `Ctrl+Shift+` to open the integrated terminal.

  Benefits:

- Seamless Integration: Execute commands and view outputs within the editor.
- Multi-Terminal Support: Open multiple terminal instances for different tasks.

7. File and Folder Management:

  Creating Files/Folders:

- New File/Folder: Right-click in the Explorer view (`Ctrl+Shift+E`) and select "New File" or "New Folder".

  Opening Files:

- Double-Click: Double-click a file in the Explorer view.
- Command Palette: Use the "Open File" command in the Command Palette (`Ctrl+Shift+P`).

8. Navigation:

  Explorer View:

- Navigate Directories: Efficiently browse through your project's directory structure.

  Go to File:

- Shortcut: Press `Ctrl+P` to quickly open the "Go to File" dialog and jump to specific files.

9. Settings and Preferences Customization:

  Access:

- Open Settings: Press `Ctrl+,` or navigate to `File > Preferences > Settings`.

  Customization:

- Themes: Select a theme under `Settings > Appearance > Theme`.
- Font Size: Adjust the editor font size under `Settings > Editor > Font Size`.
- Keybindings: Modify keyboard shortcuts under `Settings > Keyboard Shortcuts`.

10. Debugging in VS Code (if applicable):

Set Up:

- Debugger Extension: Install a language-specific debugger extension if necessary, e.g., Pylance for Python.

  Launch Configuration:

- Configuration File: Configure launch configurations in `.vscode/launch.json`.

  Start Debugging:

- Run and Debug View: Press `Ctrl+Shift+D` to open the Run and Debug view.
- Set Breakpoints: Click in the margin next to the line number to set breakpoints.
- Step Through Code: Use debugging controls to step through code and inspect variables.

11. Using Source Control with Git:

Integration:

- Git Extension: Install the Git extension for version control functionalities.

  Workflow:

- Initialize Repository: Initialize a Git repository for your project using the Source Control view (`Ctrl+Shift+G`).
- Commit Changes: Make frequent commits to track changes to your project.
- Push/Pull: Use the Git commands to push and pull changes from a remote repository.
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