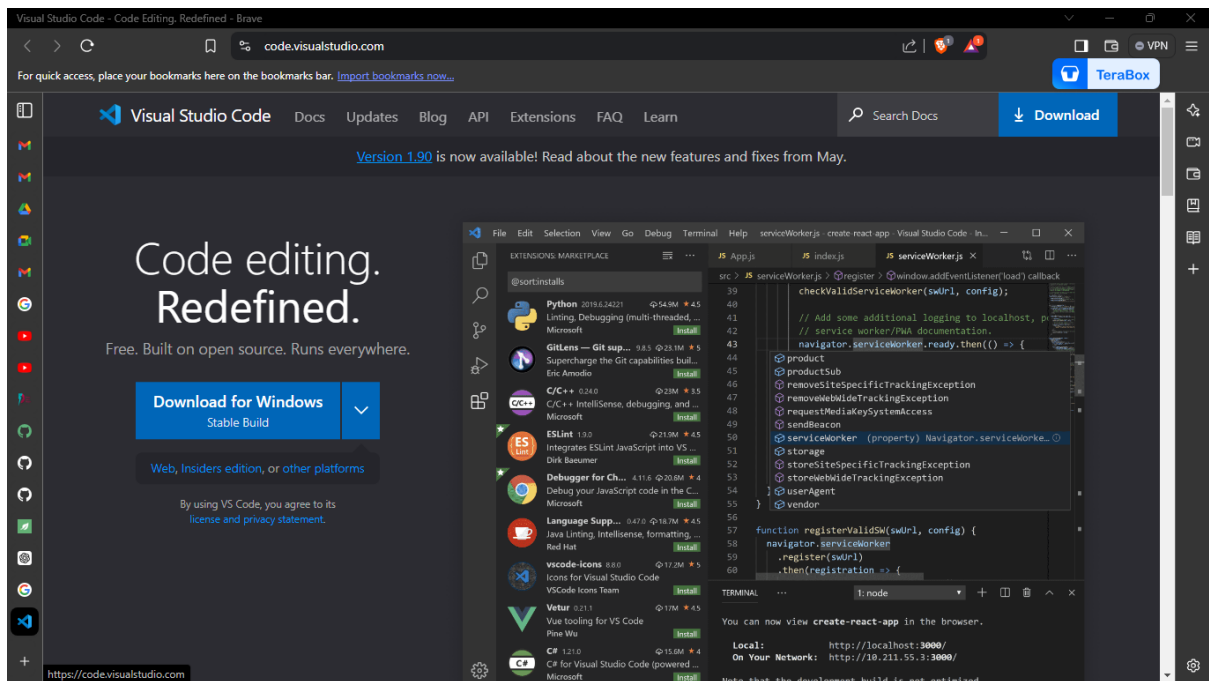**Installation of VS Code:**

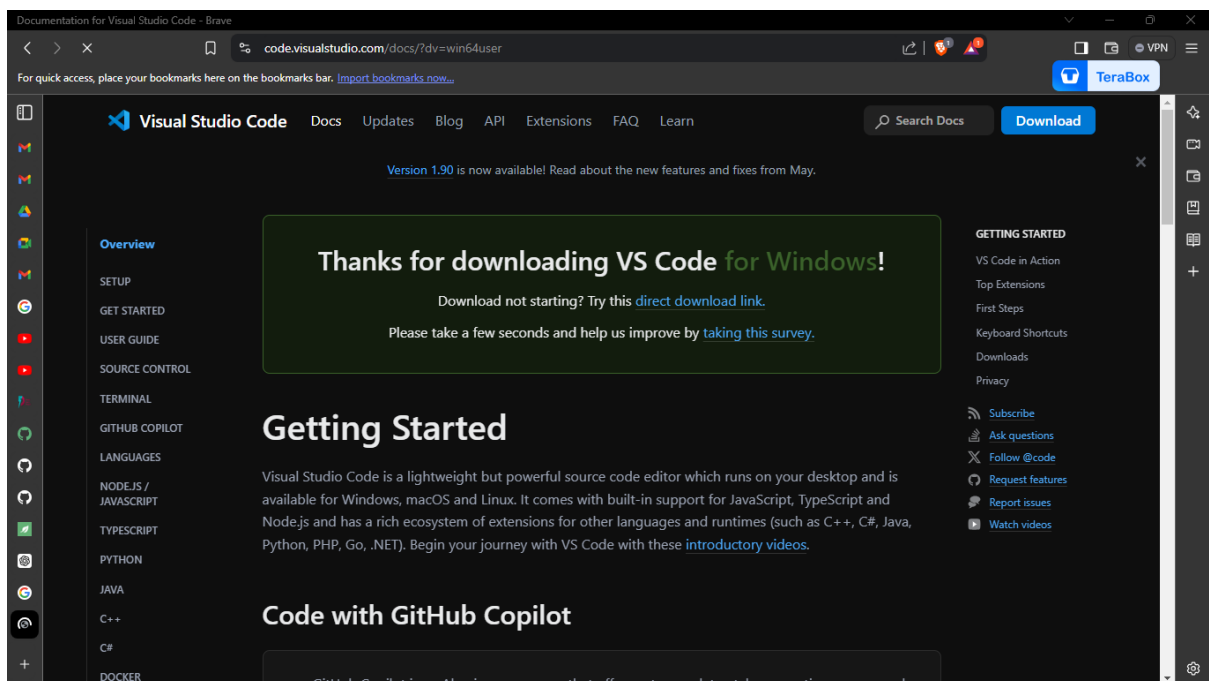**Steps to Download and Install Visual Studio Code on Windows 11:**

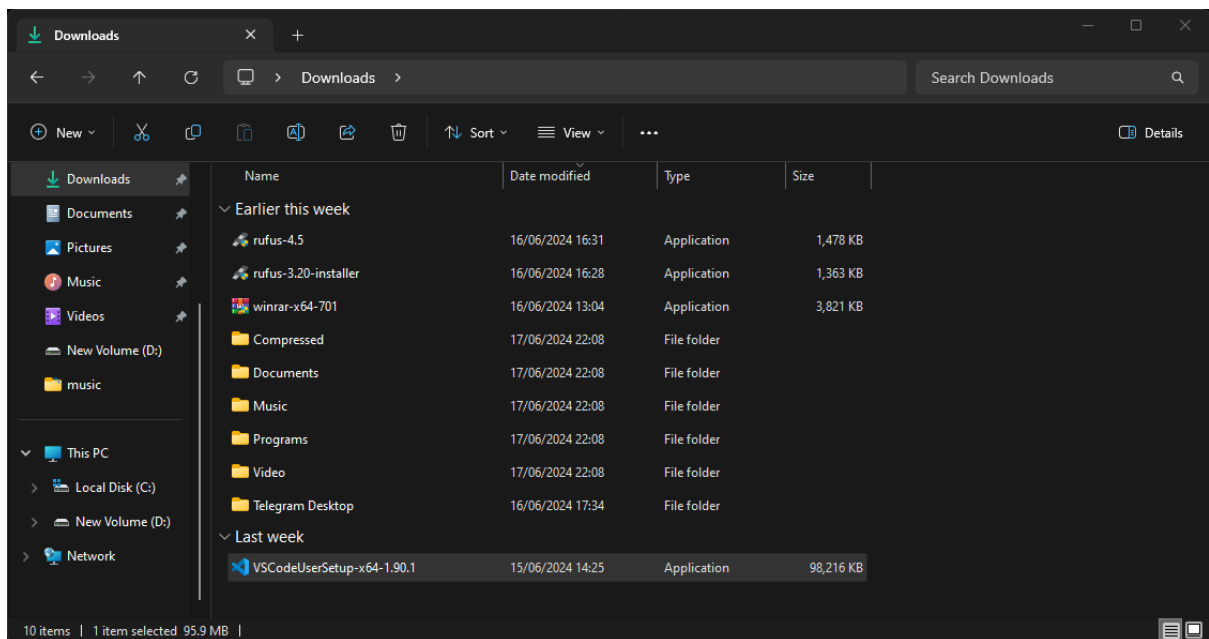1. **Download:**

   - Go to the official Visual Studio Code website: https://code.visualstudio.com/

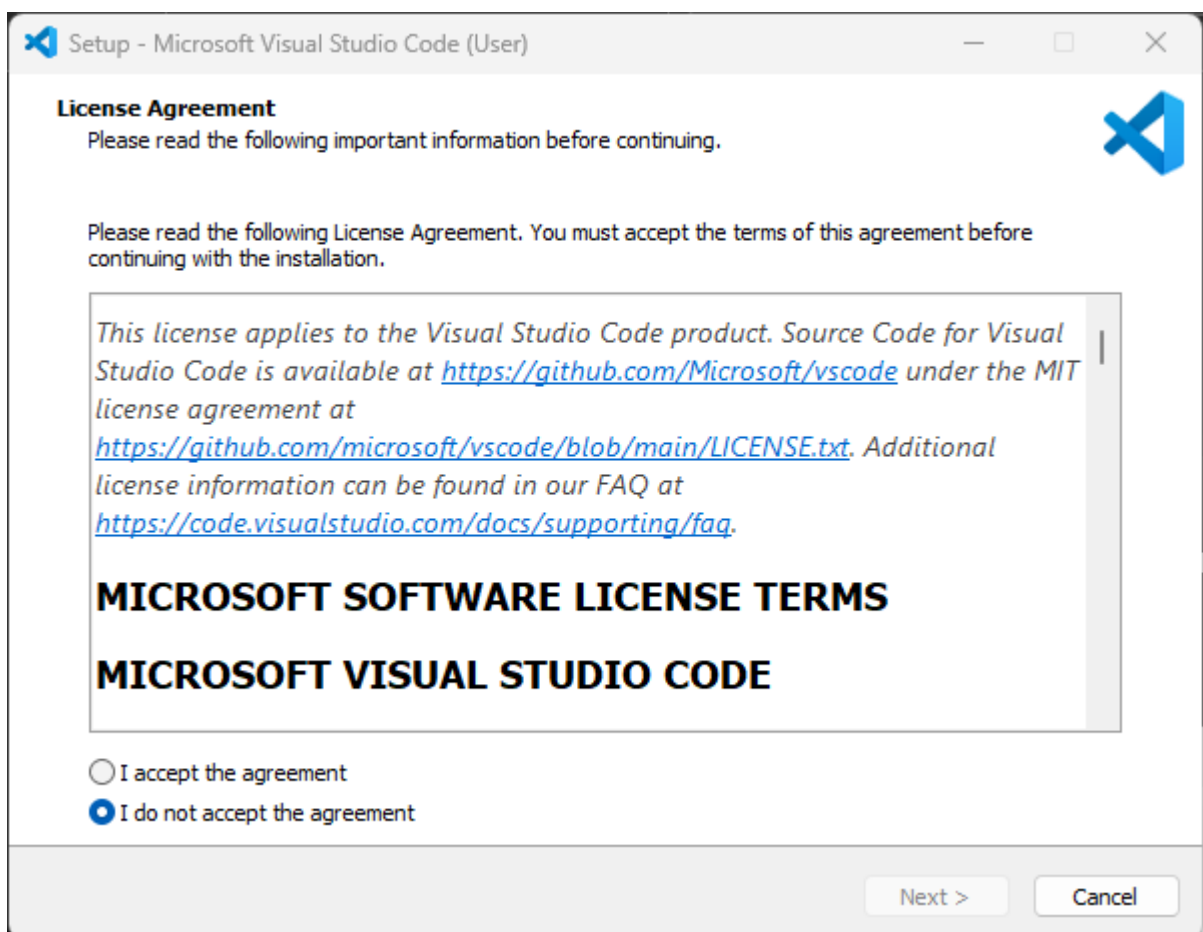   - Click on the "Download for Windows" button.

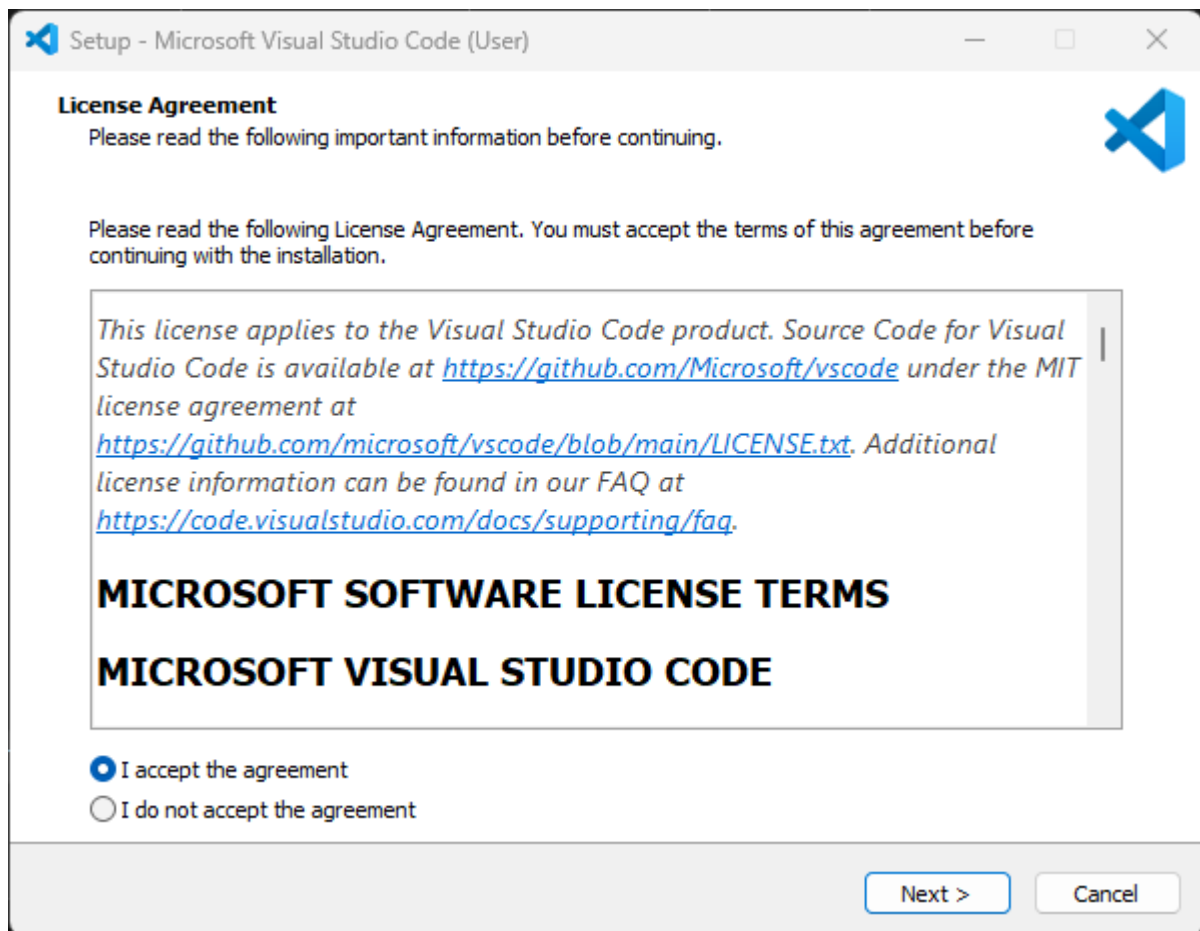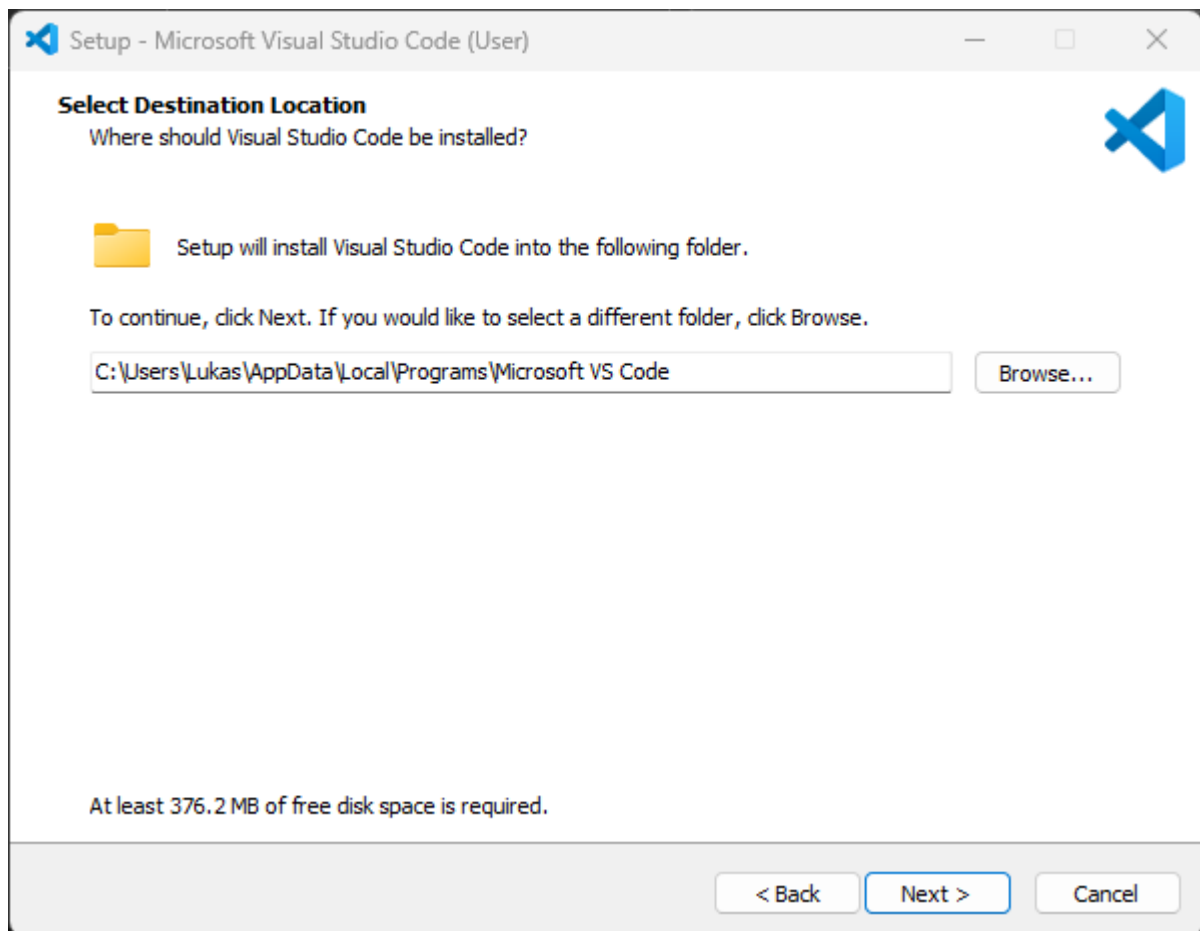   - Once the download is complete, open the downloaded installer.

2. **Installation:**

   - Run the installer by double-clicking the downloaded file (**VSCodeSetup.exe**).

   - Accept the license agreement and click "Next".

Setup - Microsoft Visual Studio Code (User) — □ ✕

License Agreement
Please read the following important information before continuing.

Please read the following License Agreement. You must accept the terms of this agreement before continuing with the installation.

This license applies to the Visual Studio Code product. Source Code for Visual Studio Code is available at https://github.com/Microsoft/vscode under the MIT license agreement at https://github.com/microsoft/vscode/blob/main/LICENSE.txt. Additional license information can be found in our FAQ at https://code.visualstudio.com/docs/supporting/faq.

MICROSOFT SOFTWARE LICENSE TERMS

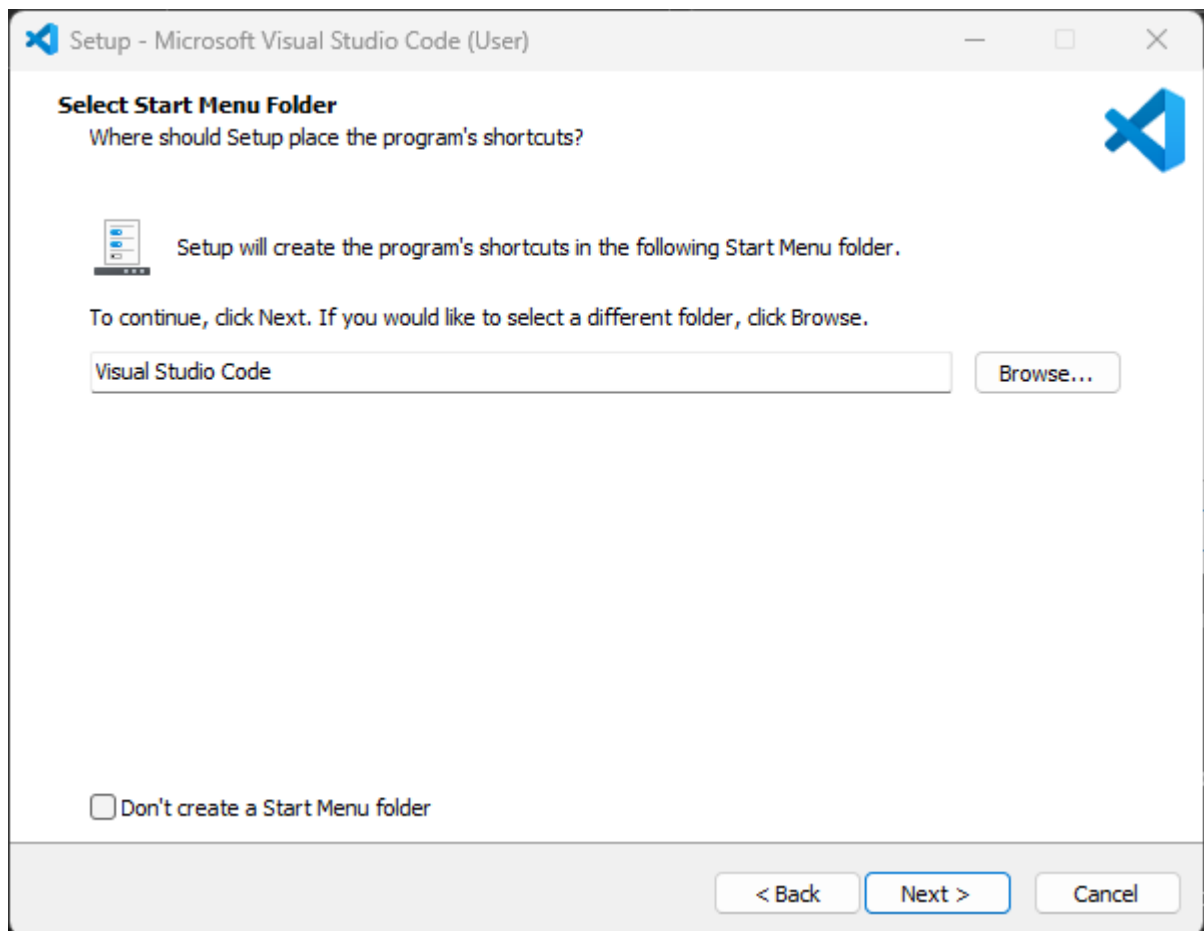**MICROSOFT VISUAL STUDIO CODE**

🔘 I accept the agreement
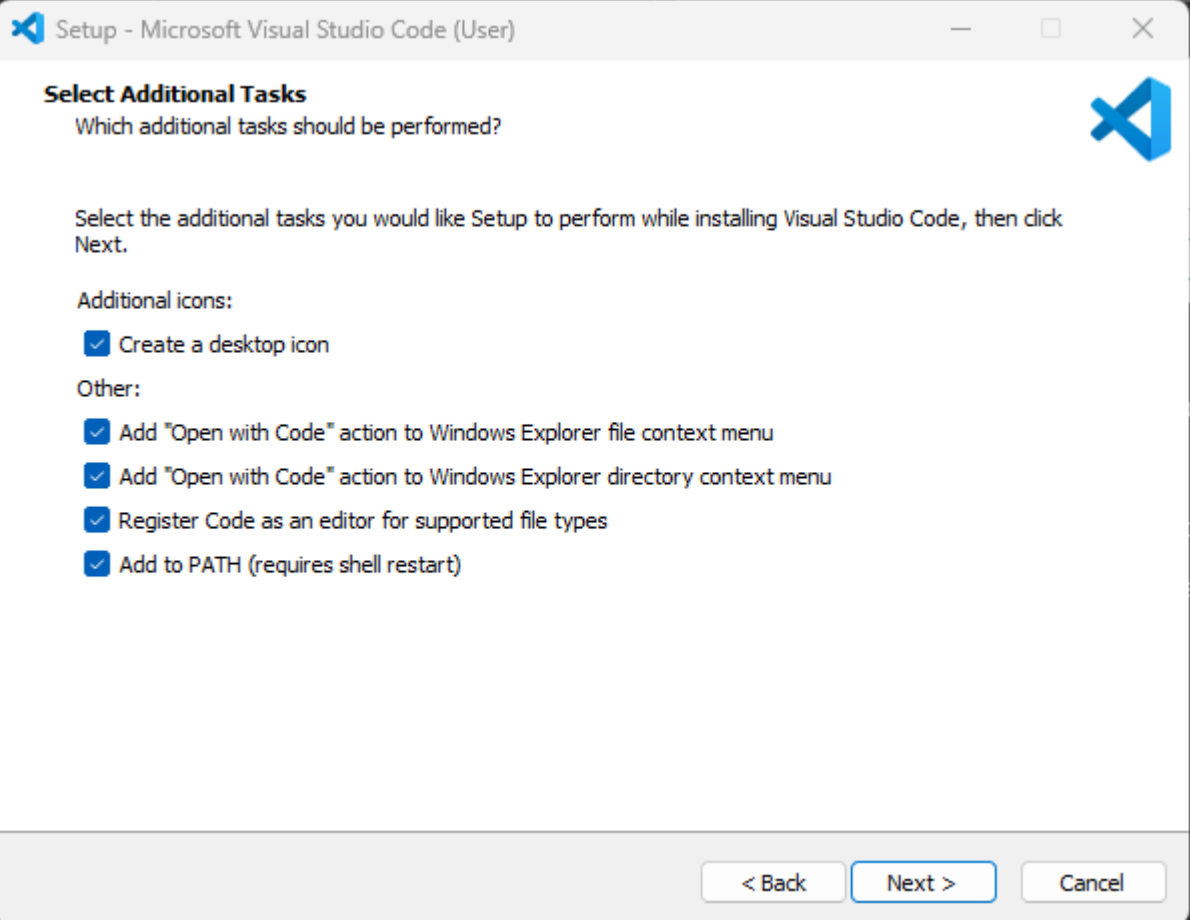⚪ I do not accept the agreement

Next >   Cancel

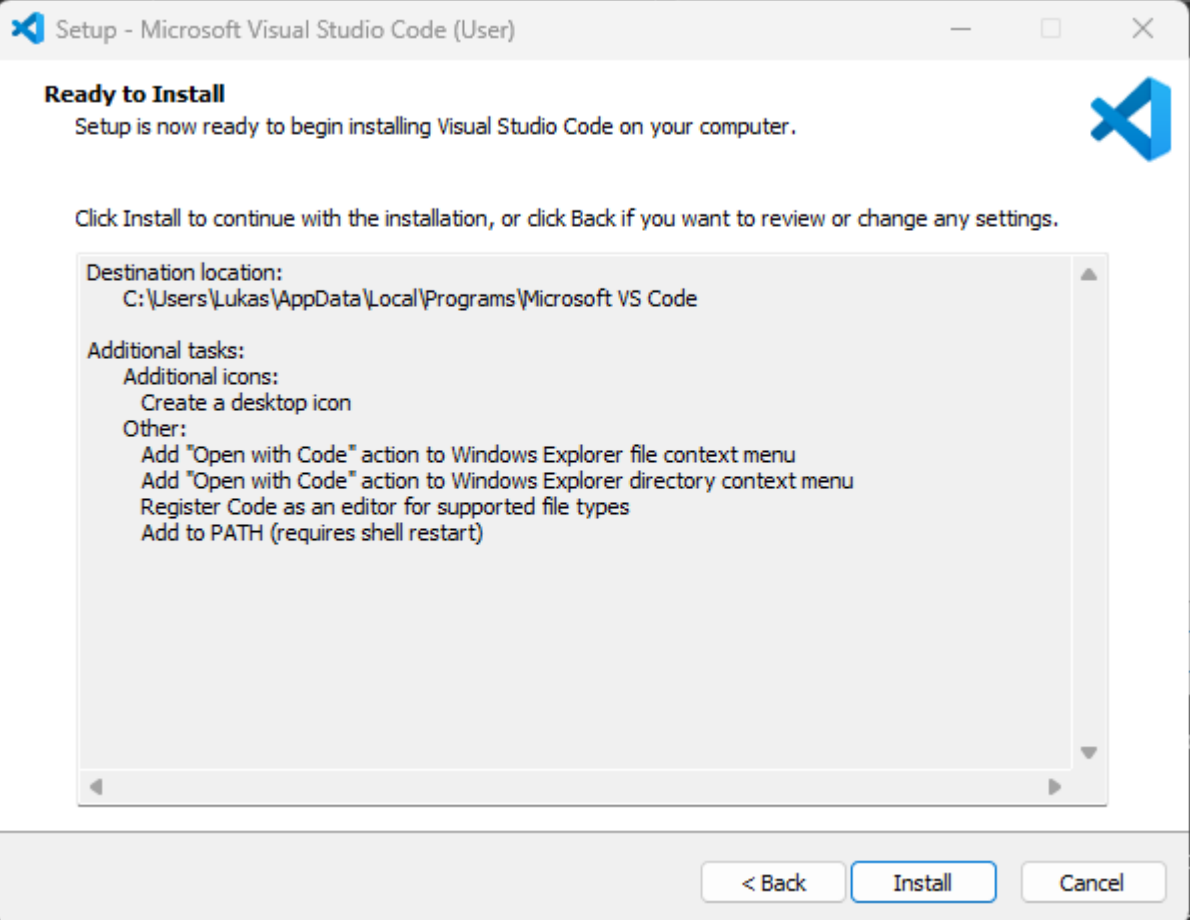- Choose the destination folder for installation and click "Next".

- Select additional tasks such as creating a desktop icon and adding VS Code to the system PATH, then click "Next".

- Click "Install" to begin the installation process.

Setup - Microsoft Visual Studio Code (User)

Select Additional Tasks

Which additional tasks should be performed?

Select the additional tasks you would like Setup to perform while installing Visual Studio Code, then click Next.

Additional icons:

- ☑ Create a desktop icon

Other:

- ☑ Add "Open with Code" action to Windows Explorer file context menu
- ☑ Add "Open with Code" action to Windows Explorer directory context menu
- ☑ Register Code as an editor for supported file types
- ☑ Add to PATH (requires shell restart)

< Back   Next >   Cancel

Setup - Microsoft Visual Studio Code (User)

Ready to Install
Setup is now ready to begin installing Visual Studio Code on your computer.

Click Install to continue with the installation, or click Back if you want to review or change any settings.

```
Destination location:
    C:\Users\Lukas\AppData\Local\Programs\Microsoft VS Code

Additional tasks:
    Additional icons:
        Create a desktop icon
    Other:
        Add "Open with Code" action to Windows Explorer file context menu
        Add "Open with Code" action to Windows Explorer directory context menu
        Register Code as an editor for supported file types
        Add to PATH (requires shell restart)
```

< Back   Install   Cancel

- Once the installation is complete, click "Finish" to launch VS Code.

Setup - Microsoft Visual Studio Code (User)
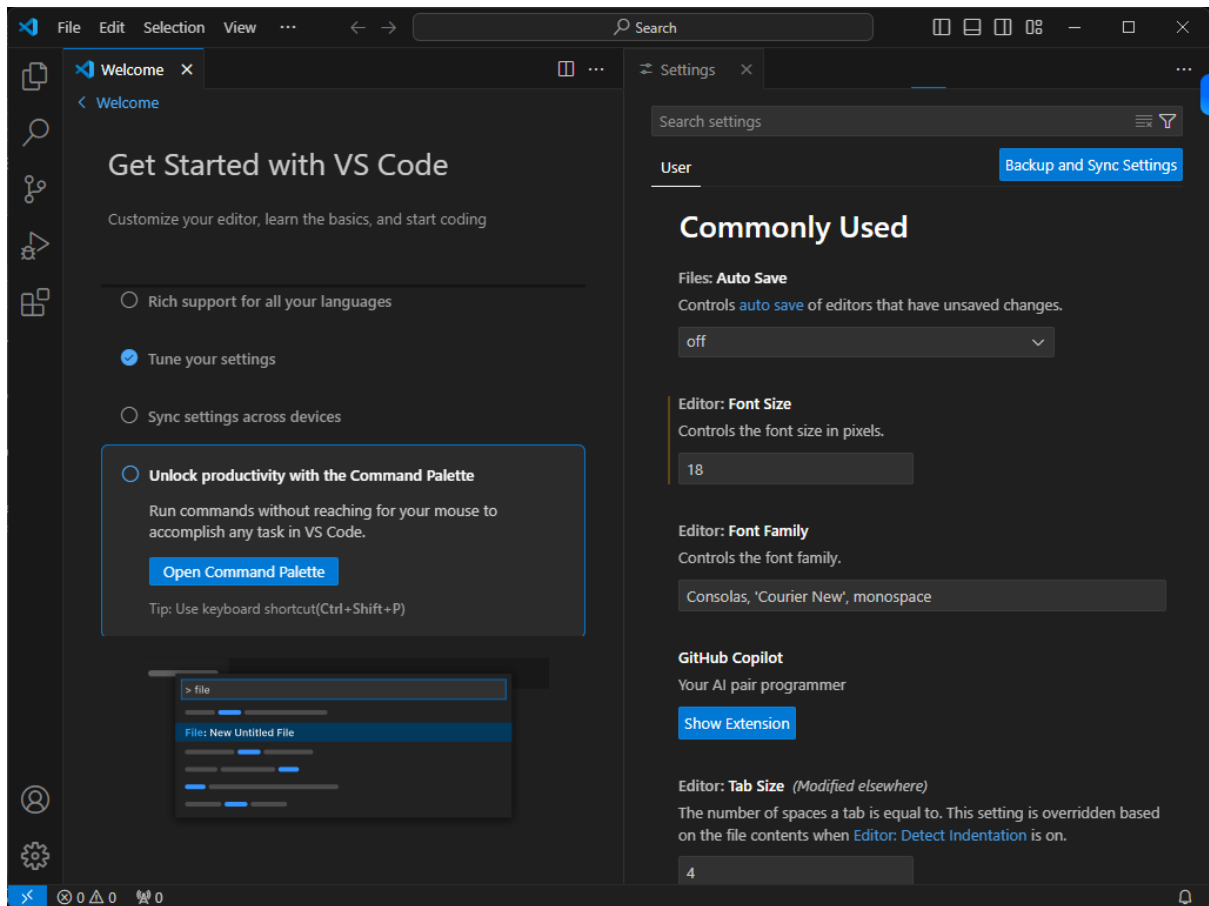
Completing the Visual Studio Code Setup Wizard

Setup has finished installing Visual Studio Code on your computer. The application may be launched by selecting the installed shortcuts.

Click Finish to exit Setup.
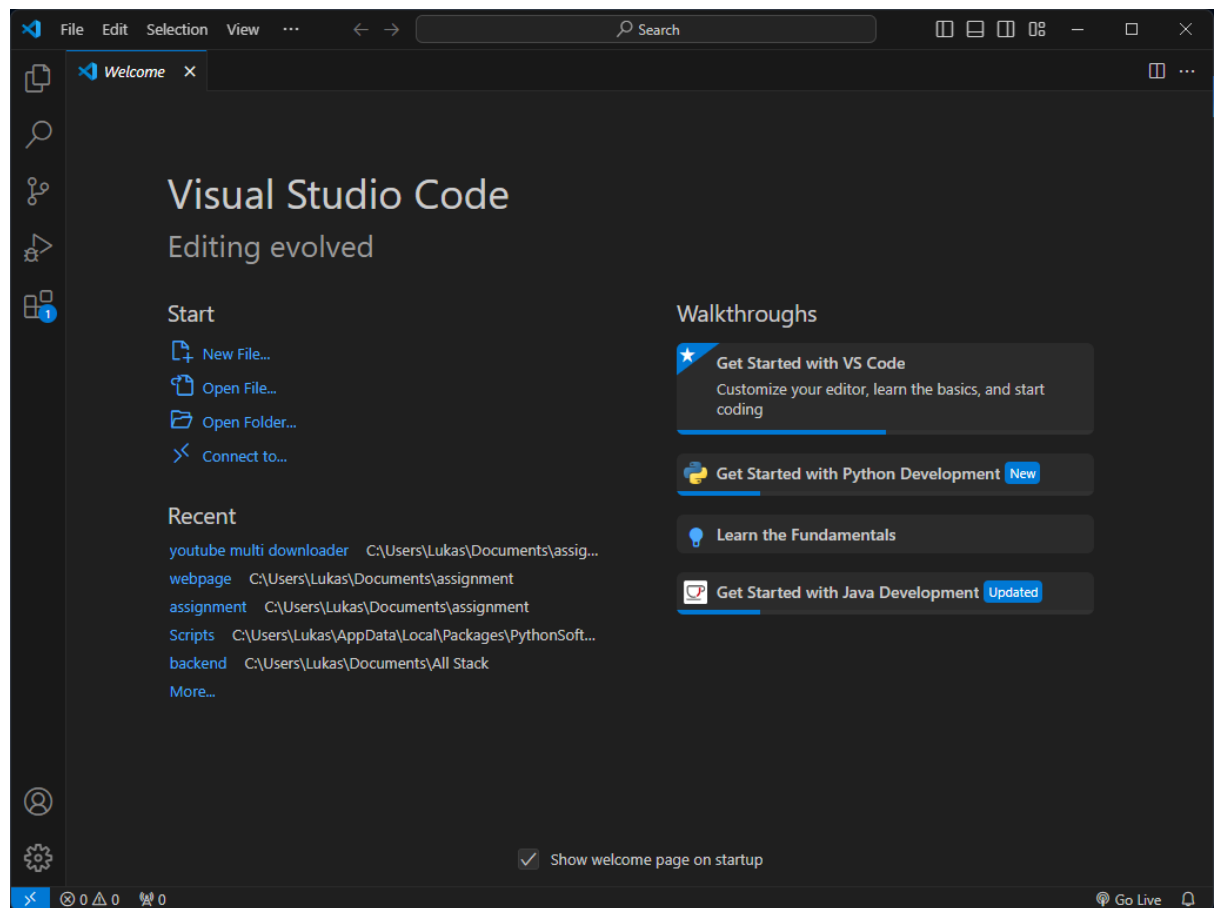
☑ Launch Visual Studio Code

Finish

First-time Setup:

Initial Configurations and Settings:
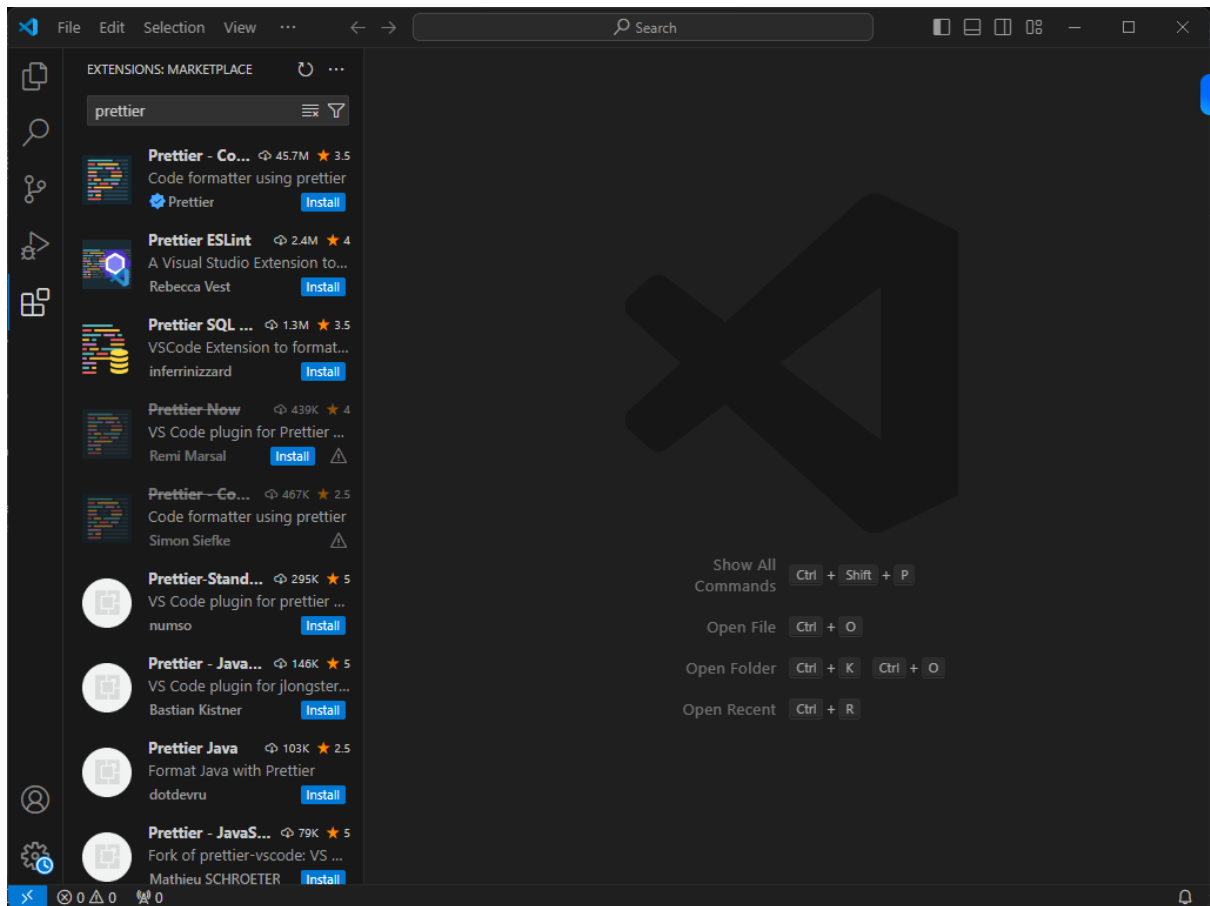
1. **Theme and Appearance:**

   - Open VS Code.

   - Go to **File > Preferences > Color Theme** or use **Ctrl+K Ctrl+T** to choose a theme.

Visual Studio Code
Editing evolved

Start
New File...
Open File...
Open Folder...
Connect to...

Recent
youtube multi downloader   C:\Users\Lukas\Documents\assig...
webpage   C:\Users\Lukas\Documents\assignment
assignment   C:\Users\Lukas\Documents\assignment
Scripts   C:\Users\Lukas\AppData\Local\Packages\PythonSoft...
backend   C:\Users\Lukas\Documents\All Stack
More...

Walkthroughs

Get Started with VS Code
Customize your editor, learn the basics, and start coding

Get Started with Python Development New

Learn the Fundamentals

Get Started with Java Development Updated
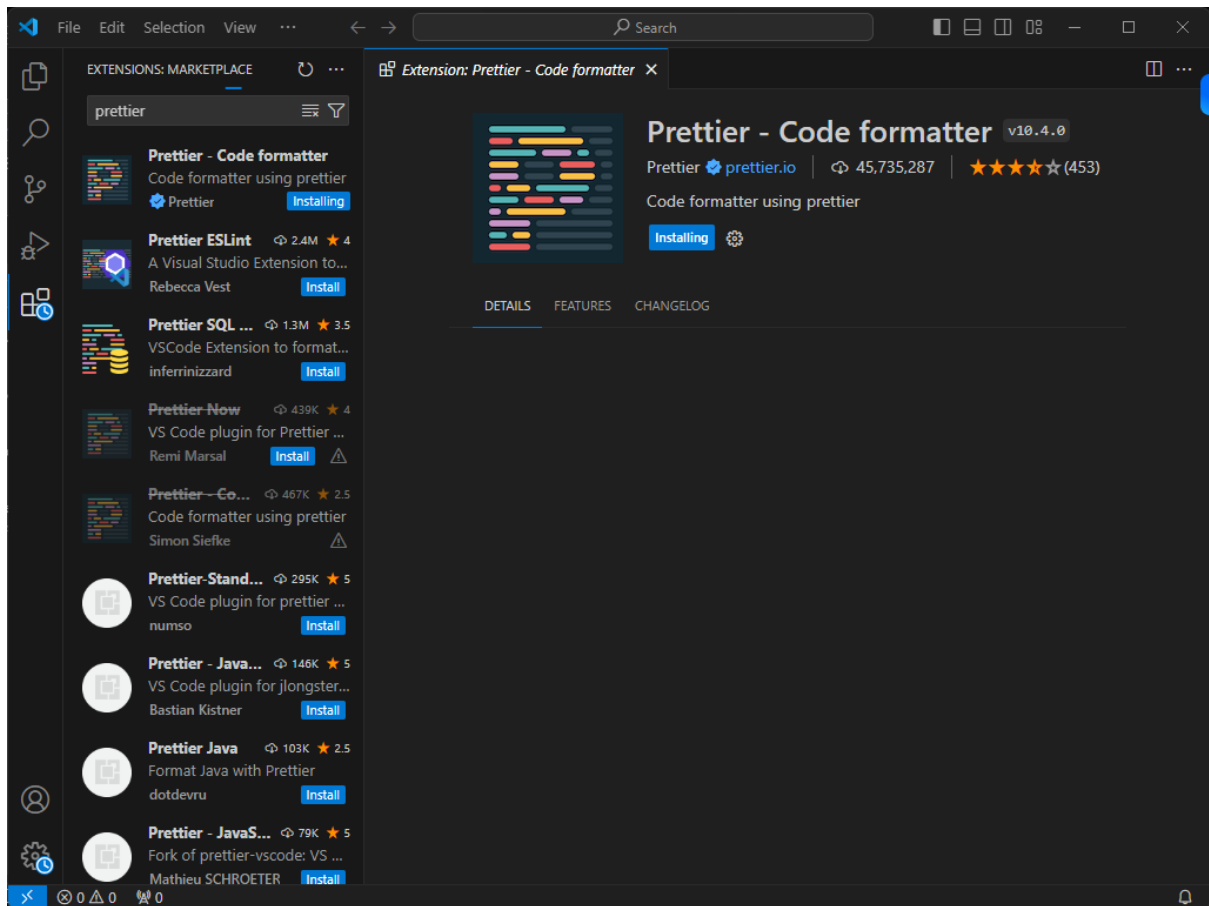
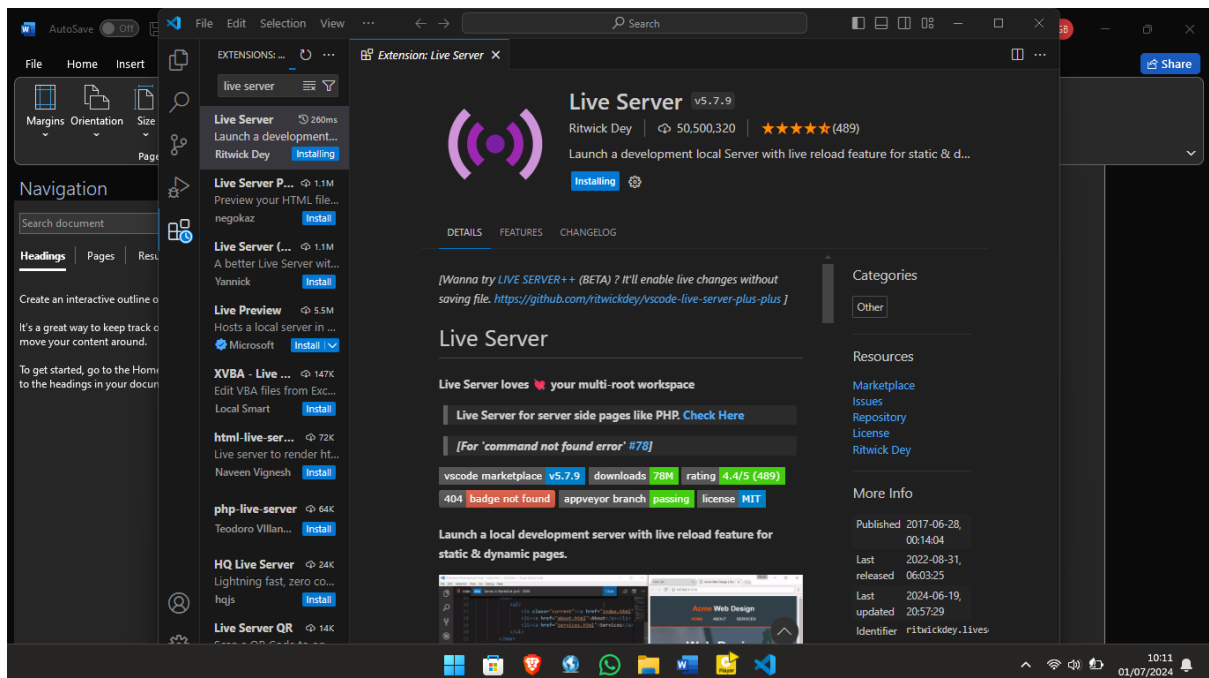☑ Show welcome page on startup

20240701-0707-23.1
227765.mp4

2. **Extensions:**

- Click on the Extensions icon in the Activity Bar or use **Ctrl+Shift+X**.

- Search and install essential extensions such as:

   - **Prettier - Code formatter** for code formatting.

prettier

Prettier - Co... 45.7M ★ 3.5
Code formatter using prettier
Prettier   Install

Prettier ESLint 2.4M ★ 4
A Visual Studio Extension to...
Rebecca Vest   Install

Prettier SQL ... 1.3M ★ 3.5
VSCode Extension to format...
inferrinizzard   Install

Prettier Now 439K ★ 4
VS Code plugin for Prettier ...
Remi Marsal   Install ⚠

Prettier - Co... 467K ★ 2.5
Code formatter using prettier
Simon Siefke   ⚠

Prettier-Stand... 295K ★ 5
VS Code plugin for prettier ...
numso   Install

Prettier - Java... 146K ★ 5
VS Code plugin for jlongster...
Bastian Kistner   Install

Prettier Java 103K ★ 2.5
Format Java with Prettier
dotdevru   Install

Prettier - JavaS... 79K ★ 5
Fork of prettier-vscode: VS ...
Mathieu SCHROETER   Install

Show All Commands   Ctrl + Shift + P

Open File   Ctrl + O

Open Folder   Ctrl + K   Ctrl + O

Open Recent   Ctrl + R

⊗ 0 ⚠ 0   0

- **Live Server** for launching a local development server with live reload.
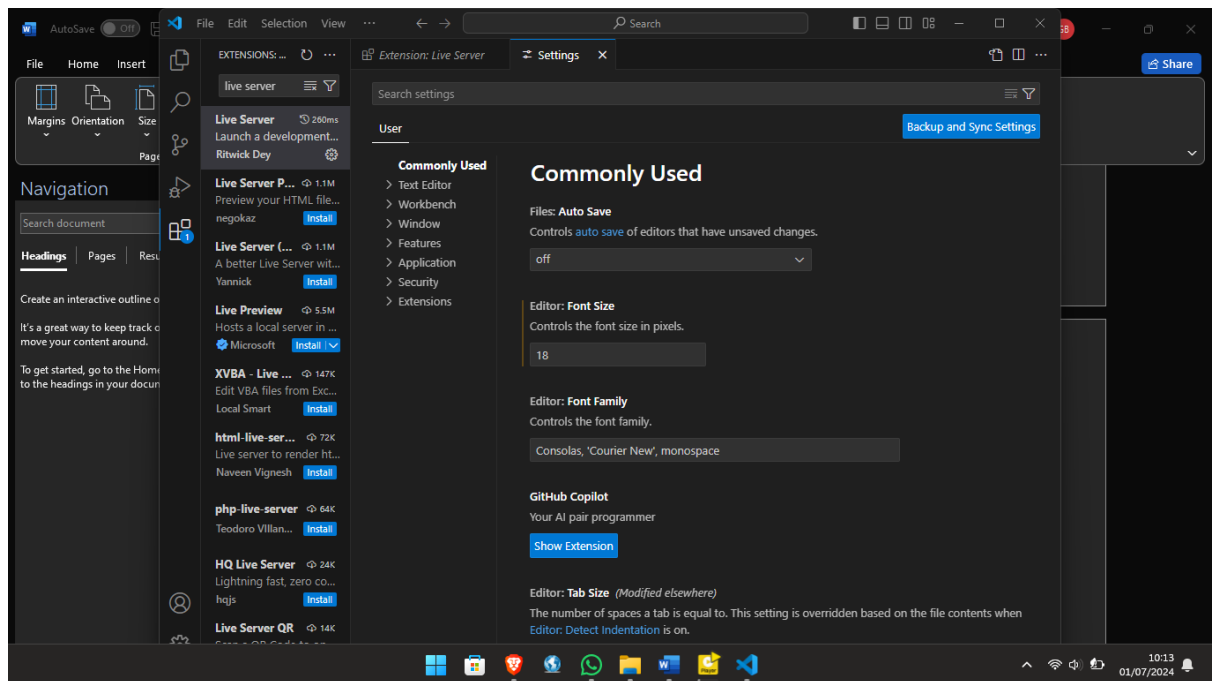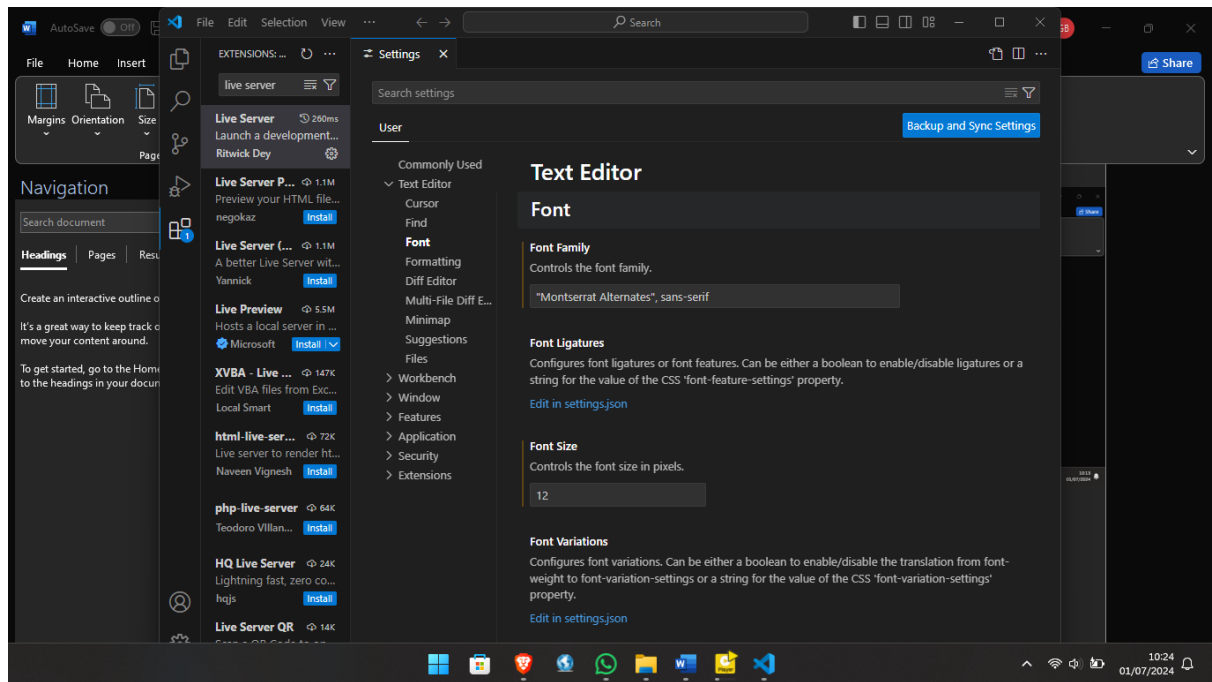

3. **Settings:**

- Go to **File > Preferences > Settings** or use **Ctrl+,** .
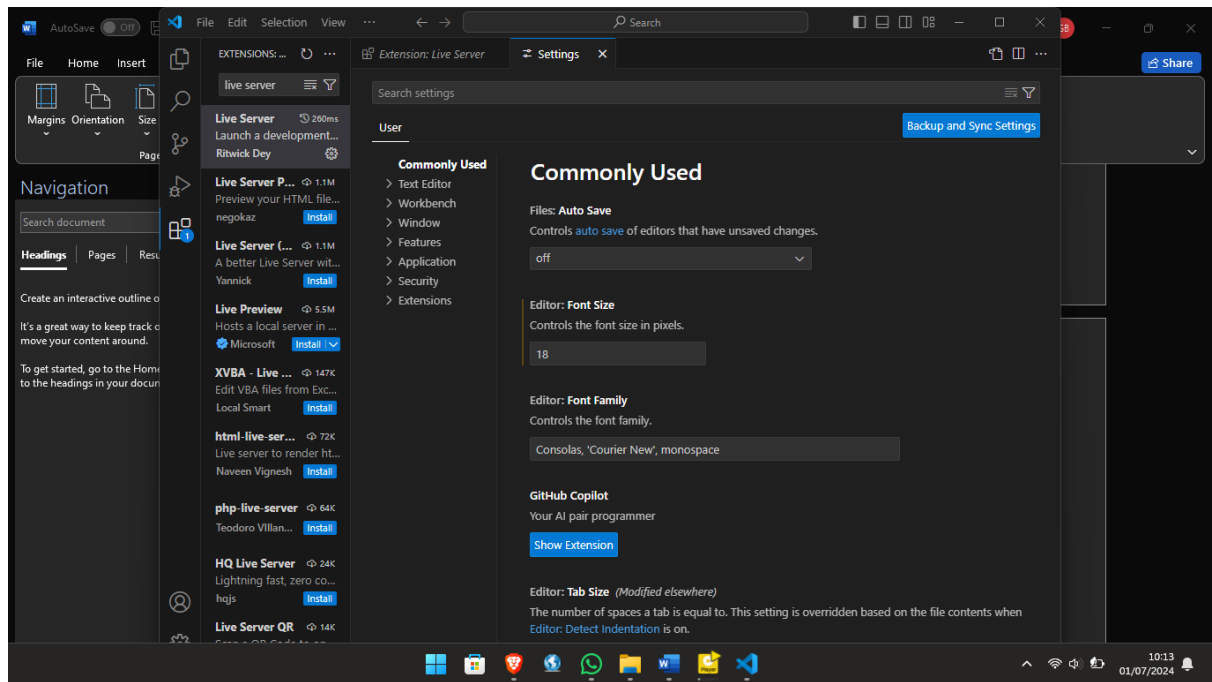
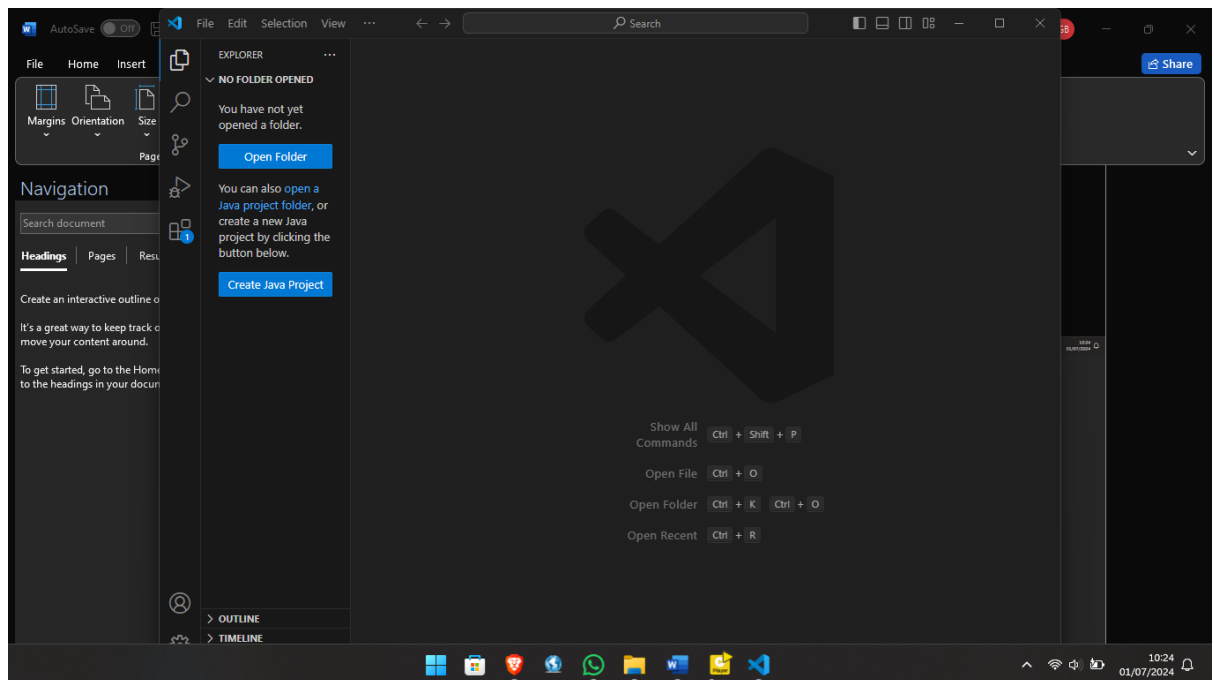- Adjust settings such as font size, tab size, auto-save, etc.
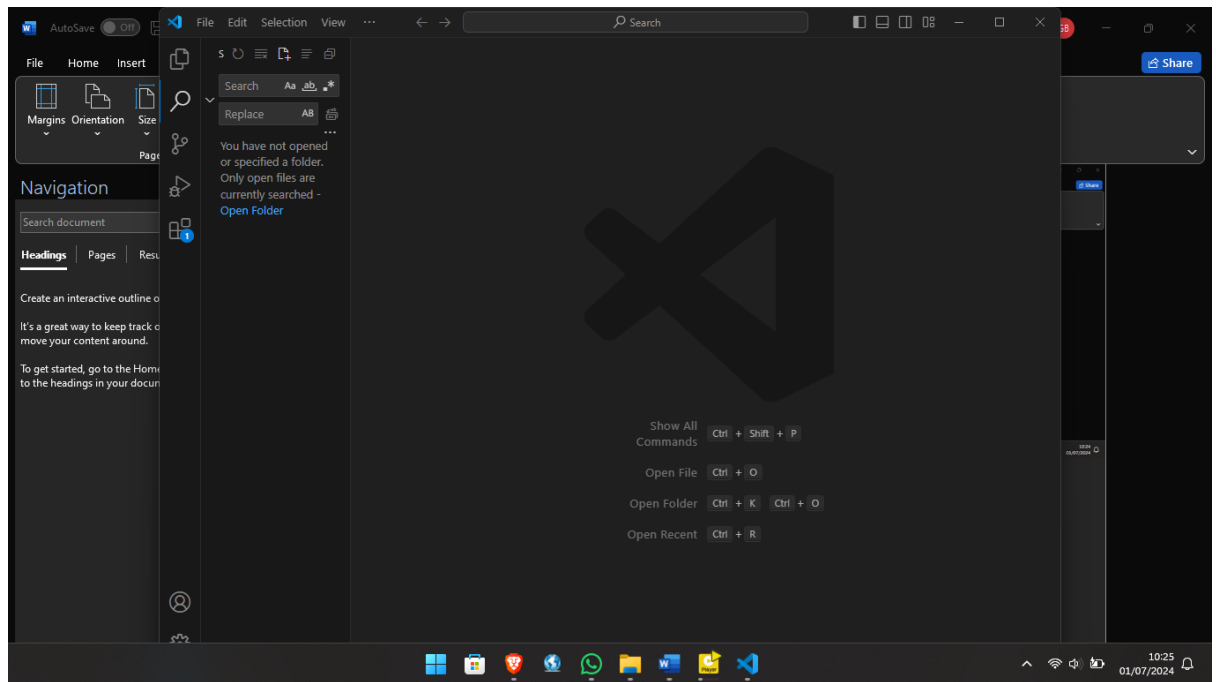
User Interface Overview:

Main Components of the VS Code User Interface:
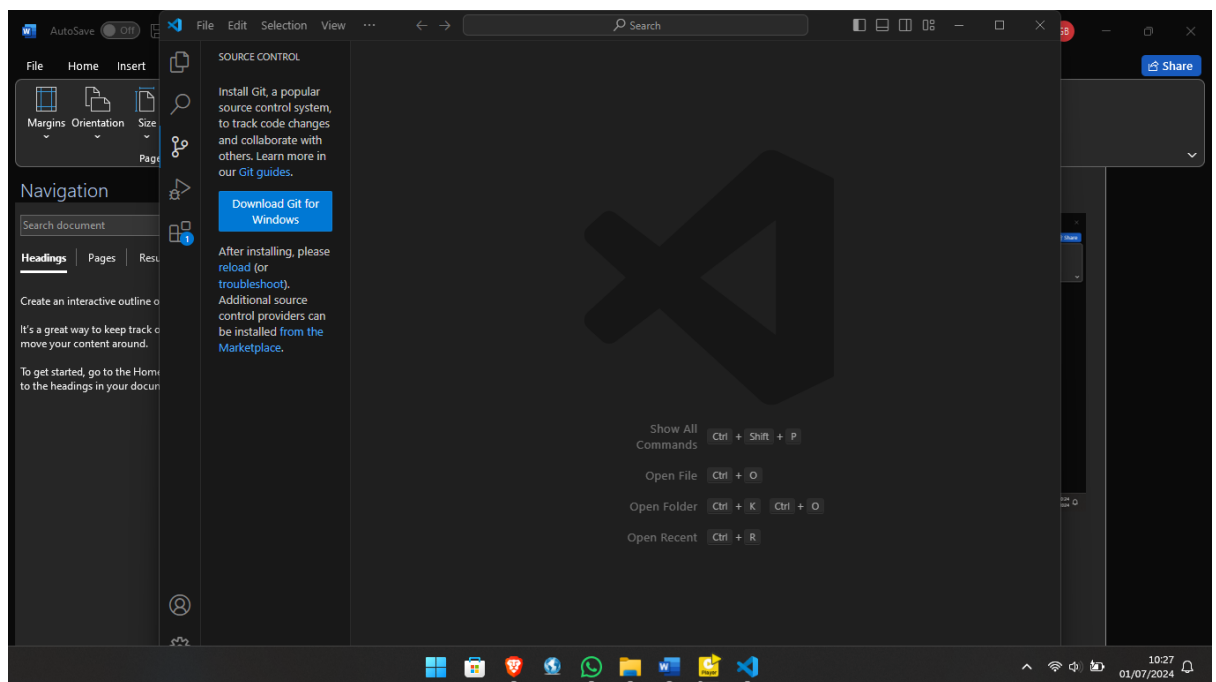
1. **Activity Bar:**

   - Located on the far left of the window.

   - Provides quick access to different views such as Explorer, Search, Source Control, Run and Debug, and Extensions.
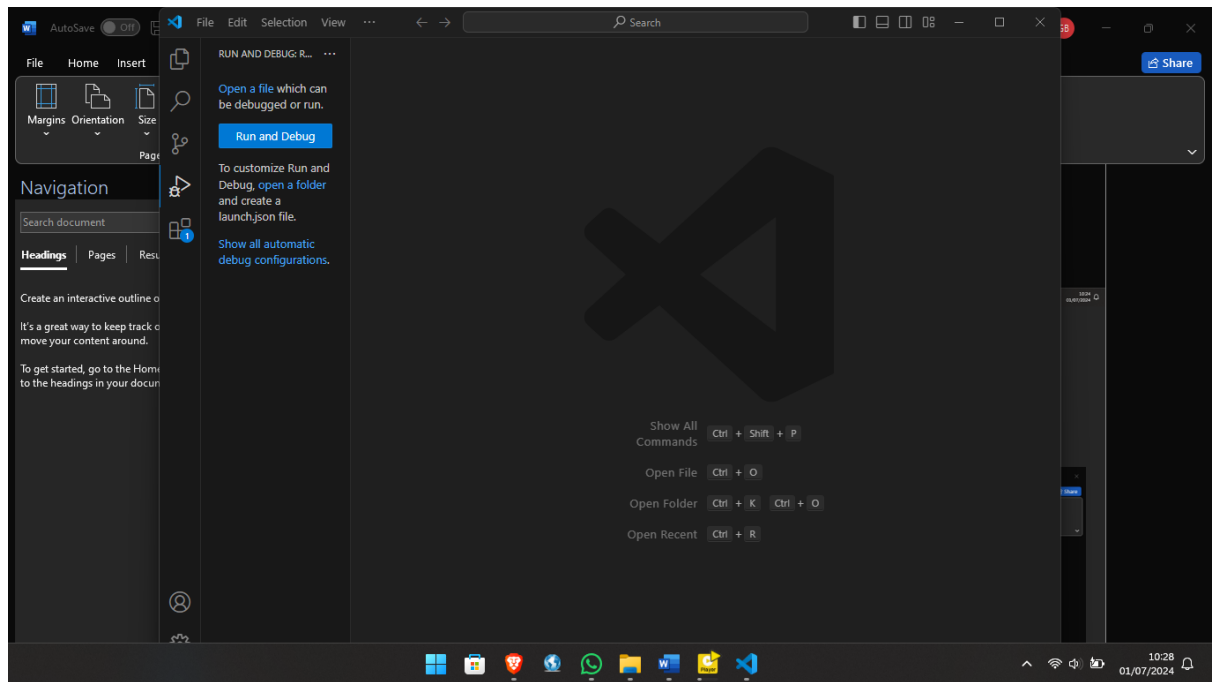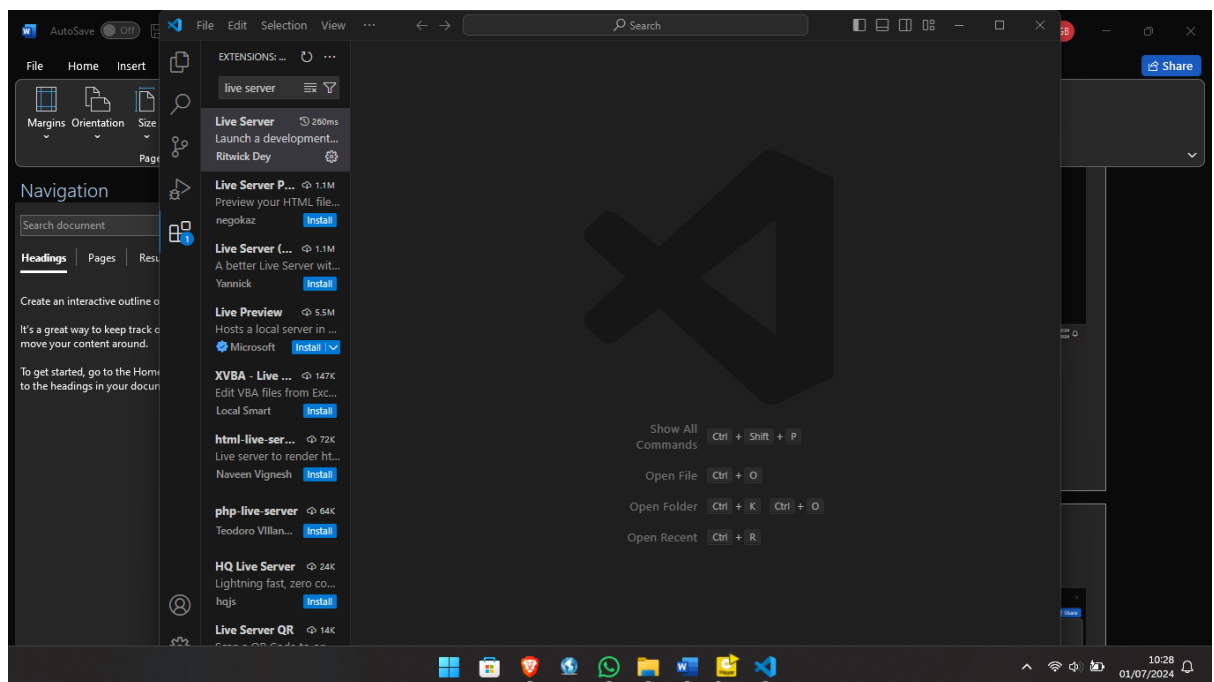

Explorer

Search

Source Control

Run and Debug

Extensions

2. **Side Bar:**

- Displays different views and panels based on the selection from the Activity Bar.

- Commonly used to show the Explorer, Source Control, and Extensions views.

3. **Editor Group:**

- The main area where files are opened and edited.

- Supports multiple tabs and split views for side-by-side editing.

4. **Status Bar:**

- Located at the bottom of the window.

- Displays information about the current file and workspace, such as encoding, line endings, language mode, and more.

- Provides shortcuts to manage various settings and extensions.

Command Palette:

What is the Command Palette and How to Access It:

- The Command Palette is a powerful feature that allows you to access and run commands quickly.

- Access it by pressing **Ctrl+Shift+P** or **F1**.

- Examples of common tasks:

  - Open a file: **Ctrl+P**.

  - Change the color theme: Type **>Theme: Change Color Theme**.

  - Install extensions: Type **>Extensions: Install Extensions**.

Extensions in VS Code:

Role of Extensions and How to Manage Them:

1. **Role:**

   - Extensions enhance the functionality of VS Code by adding support for new languages, themes, debuggers, and tools.

2. **Finding and Installing Extensions:**

   - Click on the Extensions icon in the Activity Bar or use **Ctrl+Shift+X**.

   - Search for the desired extension and click **Install**.

3. **Managing Extensions:**

   - View installed extensions, disable, or uninstall them from the Extensions view.

Examples of Essential Extensions for Web Development:

- **Prettier - Code formatter**

- **ESLint**

- **Live Server**

- **Debugger for Chrome**

- **HTML CSS Support**

Integrated Terminal:

Opening and Using the Integrated Terminal:

1. **Open Terminal:**

   - Go to **View > Terminal** or use the shortcut **Ctrl+** (backtick).

2. **Using the Terminal:**

   - Allows you to run command-line tools directly within VS Code.

   - You can open multiple terminal sessions and switch between them.

Advantages:

- Integrated environment reduces the need to switch contexts between your editor and a separate terminal window.

- Directly interacts with your project's file structure.

File and Folder Management:

Creating, Opening, and Managing Files and Folders:

1. **Creating Files and Folders:**

   - Right-click in the Explorer view and select **New File** or **New Folder**.

   - Use **Ctrl+N** to create a new file.

2. **Opening Files and Folders:**

   - Drag and drop files or folders into the VS Code window.

   - Use **Ctrl+O** to open a file and **Ctrl+K Ctrl+O** to open a folder.

3. **Navigating Files:**

   - Use the Explorer view to navigate the file structure.

   - Quick Open (**Ctrl+P**) to quickly open files by typing their names.

   - Use **Ctrl+Tab** to switch between open files.

Settings and Preferences:

Customizing Settings in VS Code:

1. **Access Settings:**

   - Go to **File > Preferences > Settings** or use **Ctrl+,**.

2. **Changing Theme:**

   - Search for "color theme" and select your preferred theme.

3. **Changing Font Size:**

   - Search for "font size" and adjust it to your preference.

4. **Changing Keybindings:**

   - Go to **File > Preferences > Keyboard Shortcuts** or use **Ctrl+K Ctrl+S**.

   - Customize keybindings by searching for commands and setting new keybindings.

Debugging in VS Code:

Setting Up and Starting Debugging:

1. **Set Up:**

   - Open the file you want to debug.

   - Set breakpoints by clicking in the gutter next to the line numbers.

2. **Start Debugging:**

   - Go to **Run > Start Debugging** or press **F5**.

Key Debugging Features:

- Breakpoints

- Watch expressions

- Call stack

- Step through code (Step Over, Step Into, Step Out)

Using Source Control:

Integrating Git with VS Code:

1. **Initialize a Repository:**

   - Open your project folder in VS Code.

   - Go to the Source Control view by clicking the Source Control icon in the Activity Bar.

   - Click on **Initialize Repository**.

2. **Making Commits:**

   - Stage changes by clicking the **+** icon next to changed files.

   - Enter a commit message and click the checkmark icon to commit.

3. **Pushing to GitHub:**

   - Add a remote repository by using the Command Palette (**Ctrl+Shift+P**) and typing **Git: Add Remote**.

   - Enter the GitHub repository URL.

   - Push changes using **Ctrl+Shift+P** and typing **Git: Push**.