

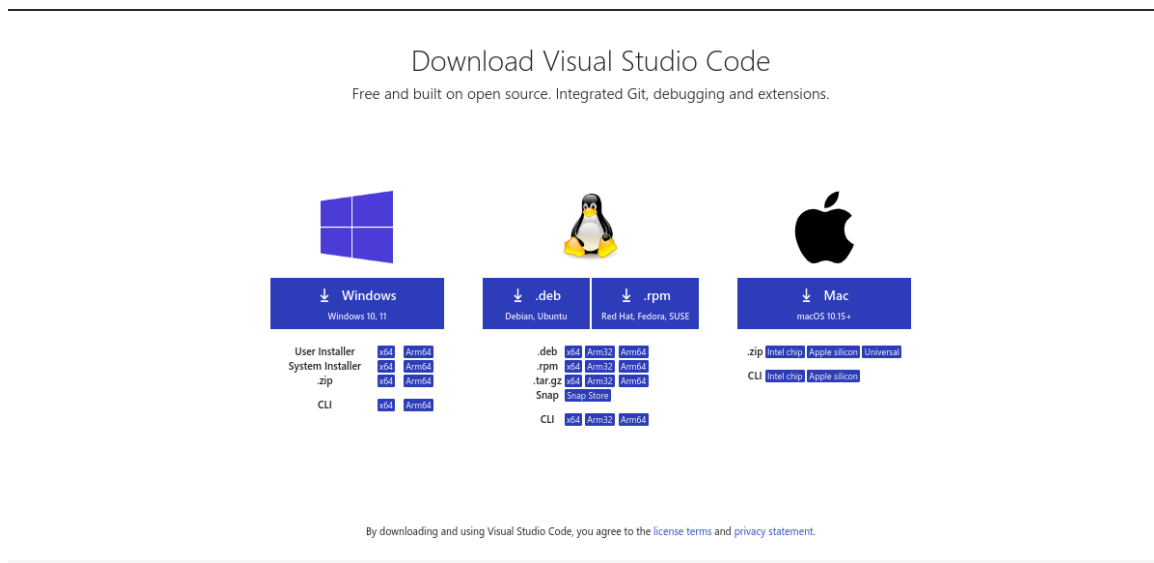
# SE-Assignment-5: Installation and Navigation of Visual Studio Code (VS Code)

---

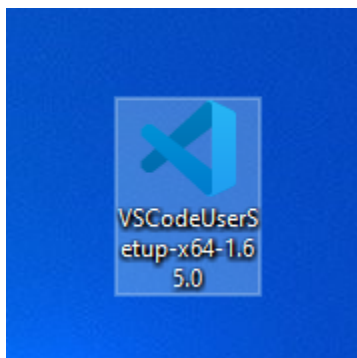
## 1. Installation of VS Code

Steps to download and install Visual Studio Code on Windows 11 operating system:

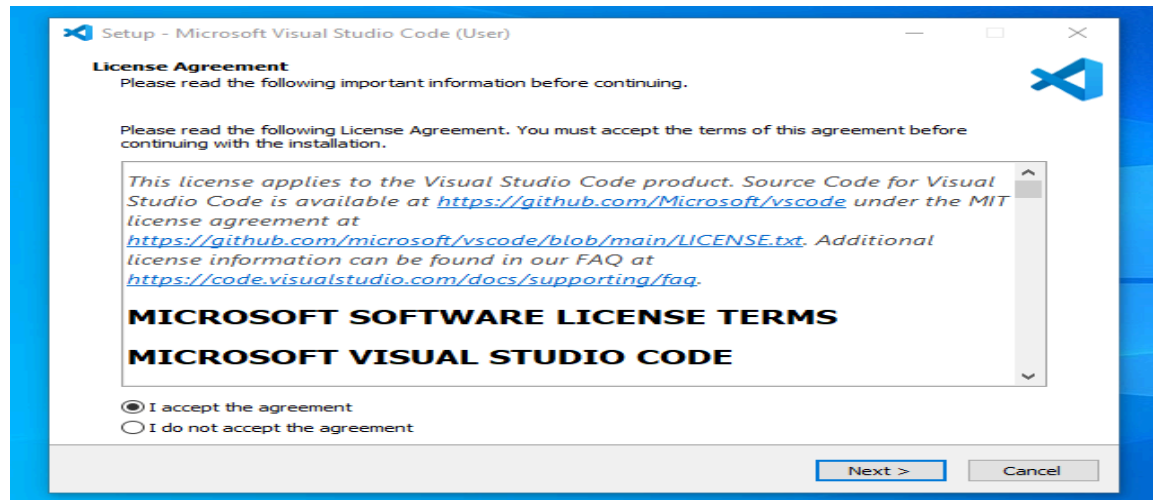
1. Go to the Visual Studio Code website: <https://code.visualstudio.com/>.



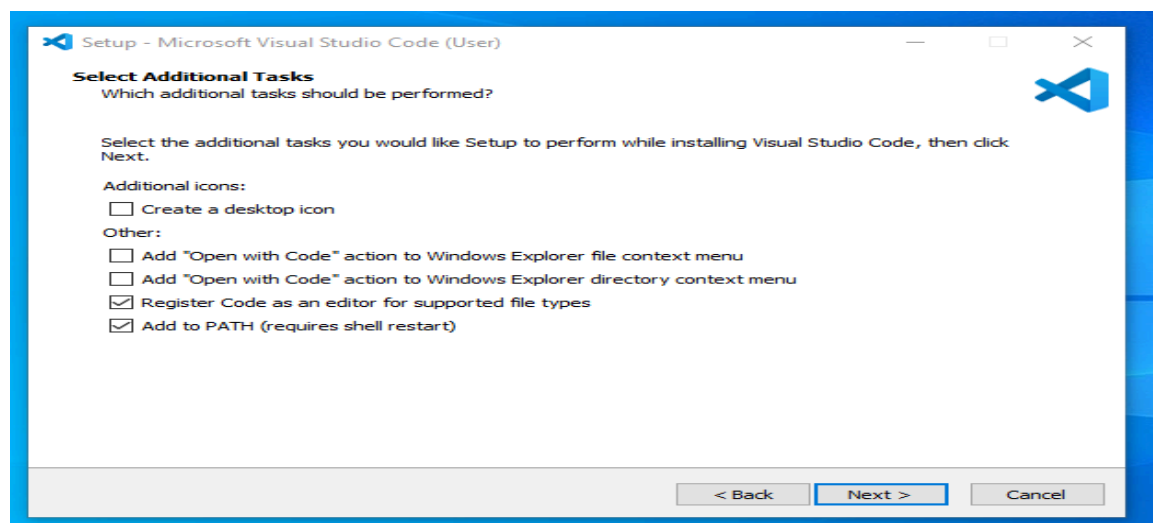
2. Click on the "Download for Windows" button.
3. Once the download is complete, run the installer.



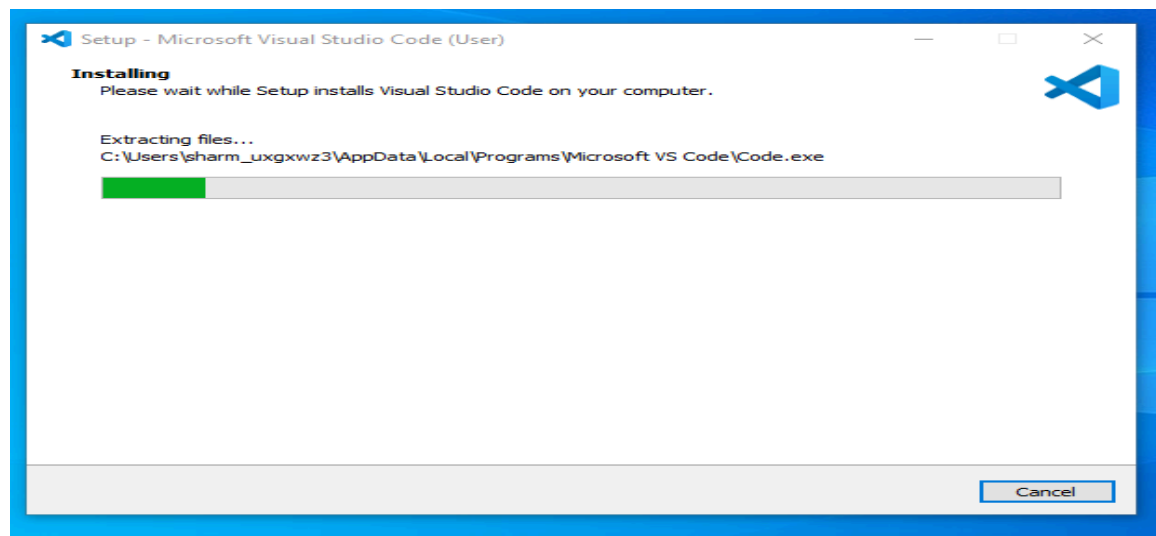
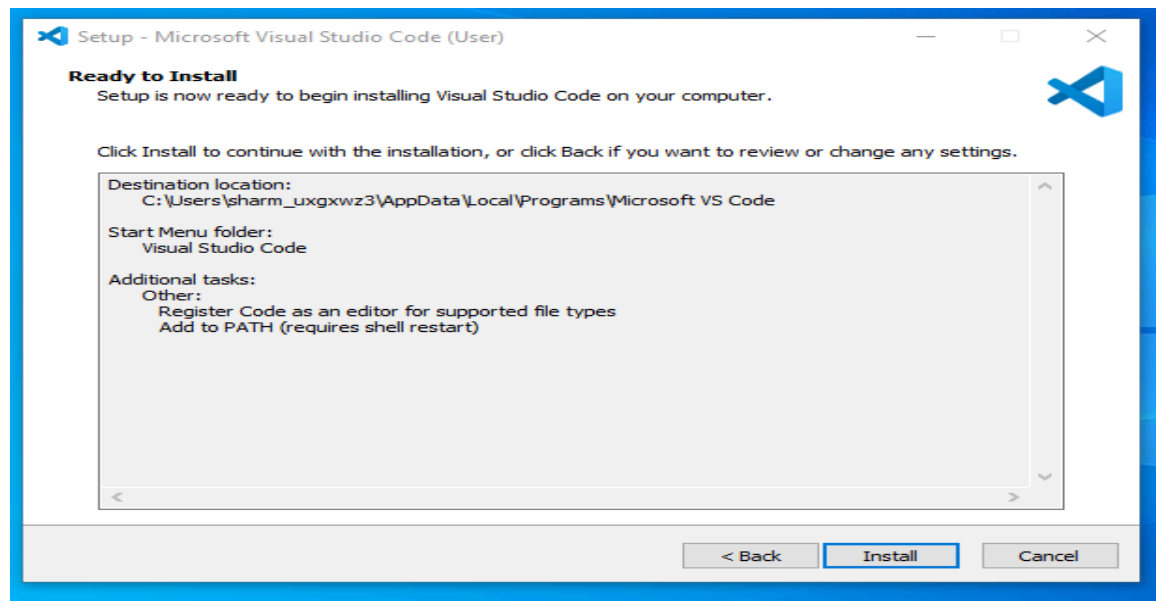
4. Follow the installation wizard, accept the agreement, and choose the installation location.

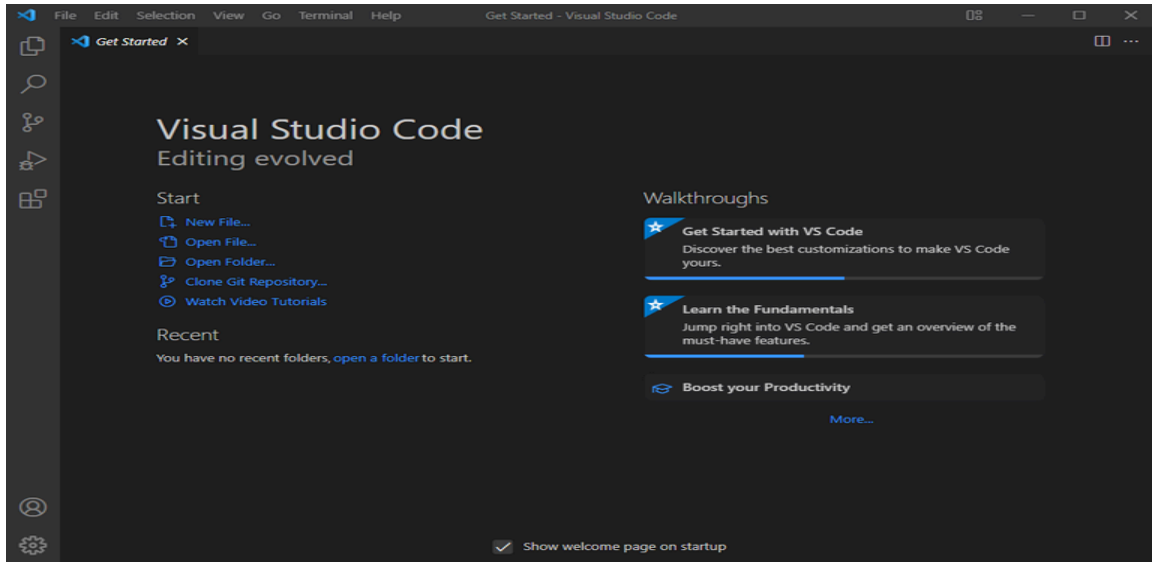


5. Select additional tasks such as adding VS Code to the PATH (recommended).



6. Click on "Install" to complete the installation.

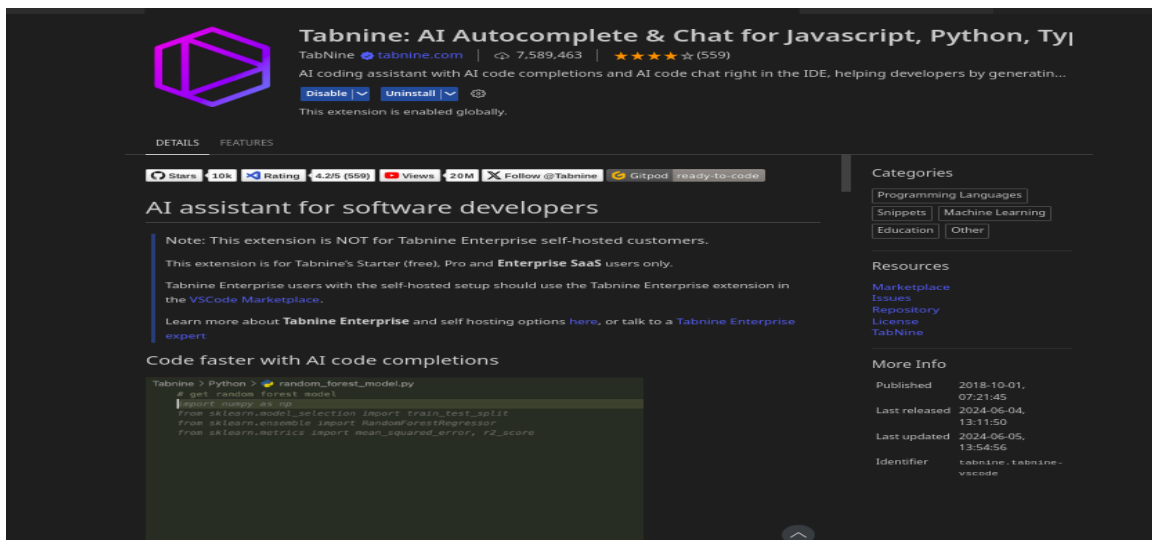





## 2. First-time Setup

Initial configurations and settings for an optimal coding environment:

1. **Theme:** Choose a preferred color theme from File > Preferences > Color Theme.
2. **Extensions:** Install essential extensions like Python, Prettier, ESLint.





# Dart

v3.98.0

Dart Code [dartcode.org](https://dartcode.org) | 9,308,451 | ★★★★★ (80)

Dart language support and debugger for Visual Studio Code.

Disable

Uninstall

Switch to Pre-Release Version

This extension is enabled globally.

DETAILSFEATURESCHANGELOG

chatdiscordtwitterdartcodehelpcontribute

## Introduction

Dart Code extends **VS Code** with support for the **Dart** programming language, and provides tools for effectively editing, refactoring, running, and reloading **Flutter** mobile apps.

## Installation

Dart Code can be installed from the **Visual Studio Code Marketplace** or by searching within **VS Code**.

If you have any issues using Dart Code, please file issues on GitHub at <https://github.com/Dart-Code/Dart-Code/issues/new/choose>.

## Features

- Edit and Debug Flutter mobile apps (launch using **F5** or the **Debug** menu)
- Edit and Debug Dart command line apps (launch using **F5** or the **Debug** menu)
- Automatic hot reloads for Flutter
- Refactorings and Code fixes (lightbulb)
- Quickly switch between devices for Flutter
- Flutter Doctor command
- Flutter Get Packages command
- Flutter Upgrade Packages command
- Automatically gets packages when **pubspec.yaml** is saved
- Automatically finds SDKs from **PATH**
- Notification of new stable Dart SDK releases
- Sort Members command

## Categories

Programming Languages

SnippetsLinters

DebuggersFormatters

Testing

## Resources

Marketplace

Issues


Repository

License

Dart Code

## More Info

Published	2016-08-05, 17:51:42
Last released	2024-05-29, 18:03:28
Identifier	dart-code.dart-code



# Python

Microsoft

[microsoft.com](https://microsoft.com)

125,069,660

★★★★☆ (592)

Python language support with extension access points for IntelliSense (Pylance), Debugging (Python Debugger), lint...

Disable

Uninstall

This extension is enabled globally.

DETAILS

FEATURES

CHANGELOG

EXTENSION PACK

## Python extension for Visual Studio Code

A **Visual Studio Code** extension with rich support for the **Python** language (for all **actively supported Python versions**), providing access points for extensions to seamlessly integrate and offer support for IntelliSense (Pylance), debugging (Python Debugger), formatting, linting, code navigation, refactoring, variable explorer, test explorer, and more!

### Support for **vscode.dev**

The Python extension does offer **some support** when running on **vscode.dev** (which includes **github.dev**). This includes partial IntelliSense for open files in the editor.

### Installed extensions

The Python extension will automatically install the following extensions by default to provide the best Python development experience in VS Code:

- Pylance** - to provide performant Python language support
- Python Debugger** - to provide a seamless debug experience with debugpy

These extensions are optional dependencies, meaning the Python extension will remain fully functional if they fail to be installed. Any or all of these extensions can be **disabled** or **uninstalled** at the expense of some features. Extensions installed through the marketplace are subject to the **Marketplace Terms of Use**.

### Extensibility

The Python extension provides pluggable access points for extensions that extend various feature areas to further improve your Python development experience. These extensions are all optional and depend on **Python**

### Categories

Programming Languages

Debuggers

Other

Data Science

Machine Learning

### Resources

Marketplace

Issues

Repository


License

Microsoft

### More Info

Published	2016-01-19, 18:03:11
Last released	2024-06-06, 01:36:54
Last updated	2024-06-06, 06:23:38
Identifier	ms-python.python

[illegible]



## GitHub Classroom

[GitHub](#)
[github.com](#)
187,979
★★★★☆ (9)

Browse, edit and collaborate on your GitHub Classroom assignments

[Disable](#)
[Uninstall](#)

⚠ This extension is deprecated as it is no longer being maintained.

DETAILS FEATURES CHANGELOG EXTENSION PACK

### GitHub Classroom

*! This extension is no longer in active development. The one click "Open in VS Code" experience for opening the assignment from your GitHub repository will still work, but some features of the extension may not work as expected.*

The **GitHub Classroom** extension allows you to browse your classroom assignments, and begin working on them in a single-click. You can open assignments, sync your progress back to GitHub, and see **auto-grading test results**, directly within Visual Studio Code. When working on a group assignment, you can view the other students in your group, and **collaboratively edit and debug** together in real-time. Additionally, you can **view and reply to feedback** that your teacher/TA has left, without having to ever leave your editor 🍌

#### Prerequisites

Before installing this extension, make sure you have the following prerequisites:

1. An active [GitHub account](#)
2. Membership in one or more **GitHub Classroom** courses
3. **Git** installed on your computer

*! This extension allows you to get started without having any Git experience. So don't worry about needing to learn anything in order start working on an assignment 🍌*

#### Getting Started

Once you've satisfied the prerequisites, perform the following steps to get started:

1. Install [this extension](#) and reload VS Code

#### Categories

Education

#### Resources

[Marketplace](#)  
[Issues](#)  
[License](#)  
[GitHub](#)

#### More Info

Published	2021-08-09, 19:08:11
Last released	2023-11-02, 18:44:59
Last updated	2024-06-05, 13:49:24
Identifier	github-classroom

### 3. Settings Sync: Enable settings sync to save your configurations.

Search settings

User

Commonly Used

- > Text Editor
- > Workbench
- > Window
- > Features
- > Application
- > Security
- > Extensions

Backup and Sync Settings

### Commonly Used

Files: Auto Save

Controls **auto save** of editors that have unsaved changes.

afterDelay

Editor: Font Size

Controls the font size in pixels.

14

Editor: Font Family

Controls the font family.

"Droid Sans Mono", "monospace", monospace

Editor: Tab Size (Modified elsewhere)

The number of spaces a tab is equal to. This setting is overridden based on the file contents when **Editor: Detect Indentation** is on.

4

editor.detectIndentation

Editor: Render Whitespace

Controls how the editor should render whitespace characters.

selection

Editor: Cursor Style

Controls the cursor style.

line

Editor: Multi Cursor Modifier

The modifier to be used to add multiple cursors with the mouse. The Go to Definition and Open Link mouse gestures will adapt such that they do not conflict with the **multiCursor** modifier.

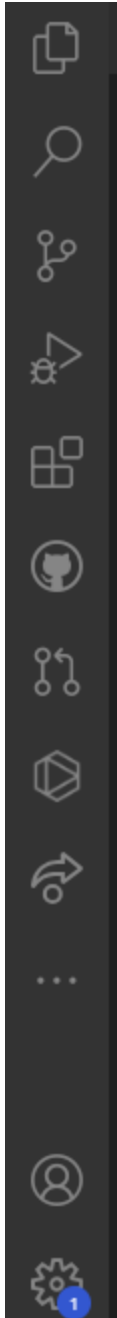
## 3. User Interface Overview

Main components of the VS Code user interface:

- Activity Bar: Located on the left side, provides access to views and their actions.

File Edit Selection View Go Run Terminal Help

- Side Bar: Contains views like Explorer, Search, Source Control.



- Editor Group: Central area where files are opened and edited.

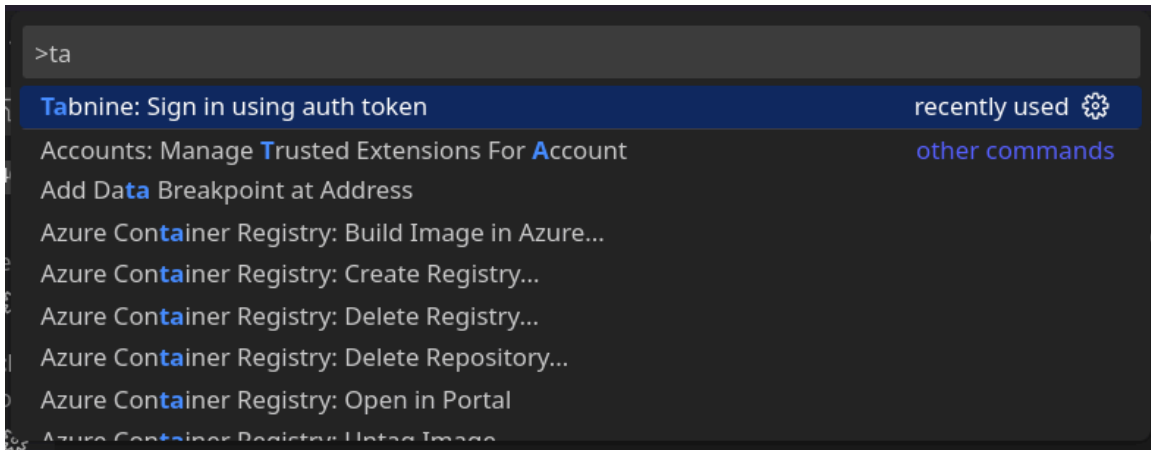


- Status Bar: Bottom bar displaying information like line number, Git branch, etc.



## 4. Command Palette

Command Palette in VS Code:



- Accessed via Ctrl+Shift+P or F1.



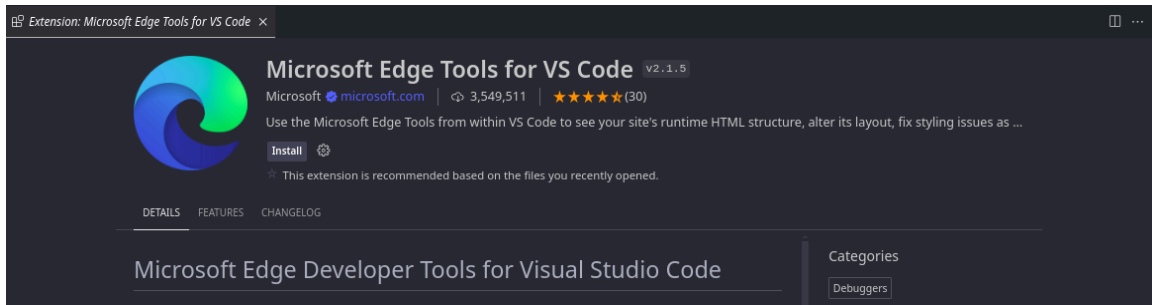
## 5. Extensions in VS Code

Role of extensions:

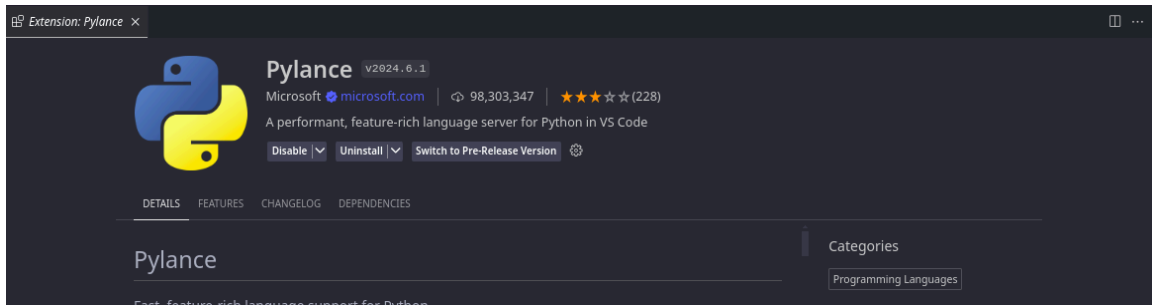
- Extensions enhance functionality (e.g., linters, debuggers, themes).
- Finding Extensions: Use the Extensions view (Ctrl+Shift+X).\



- Installing Extensions: Click "Install" on the desired extension.



- Managing Extensions: Enable, disable, or uninstall through the Extensions view.



Essential Extensions for Web Development:

- Prettier: Code formatter.
- Live Server: Launches a local server with a live reload feature.

## 6. Integrated Terminal

Opening and using the integrated terminal:

- Open with Ctrl+` (backtick).

```
TERMINAL
bash - hello-world + - [ ] [ ] ^ X

~ took 508ms
• > mkdir hello-world && cd hello-world

~/hello-world
• > git init
Initialized empty Git repository in /Users/daimms/hello-world/.git/

~/hello-world  main
• > echo "test" > test_file

~/hello-world  main [?]
• > git add . && git commit -m "Hello world!"
[main (root-commit) c1c1283] Hello world!
1 file changed, 1 insertion(+)
create mode 100644 test_file

~/hello-world  main
○ >
```

- Advantages:

- Access to the terminal within the editor, supports multiple terminals, and maintains the project context.

## 7. File and Folder Management

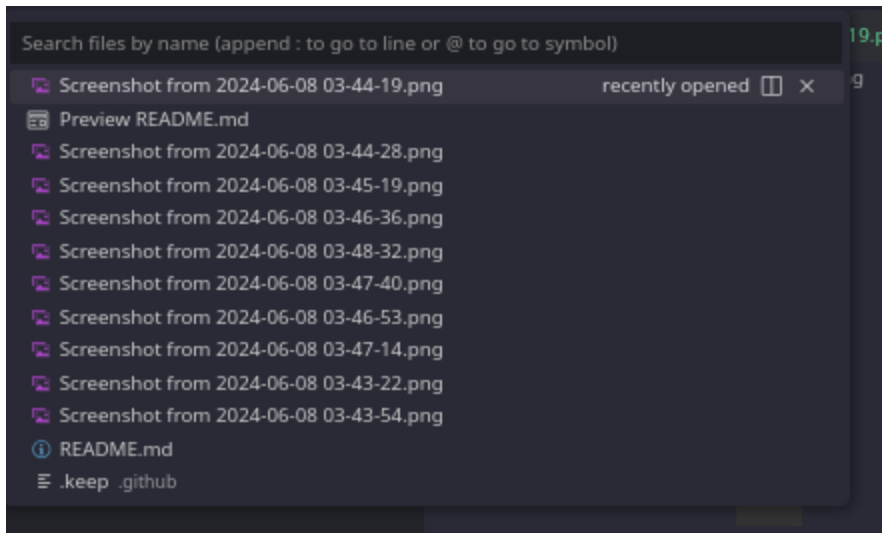
Managing files and folders:

- Creating: Right-click in Explorer view and select "New File" or "New Folder".



- Opening: Double-click on files in Explorer.

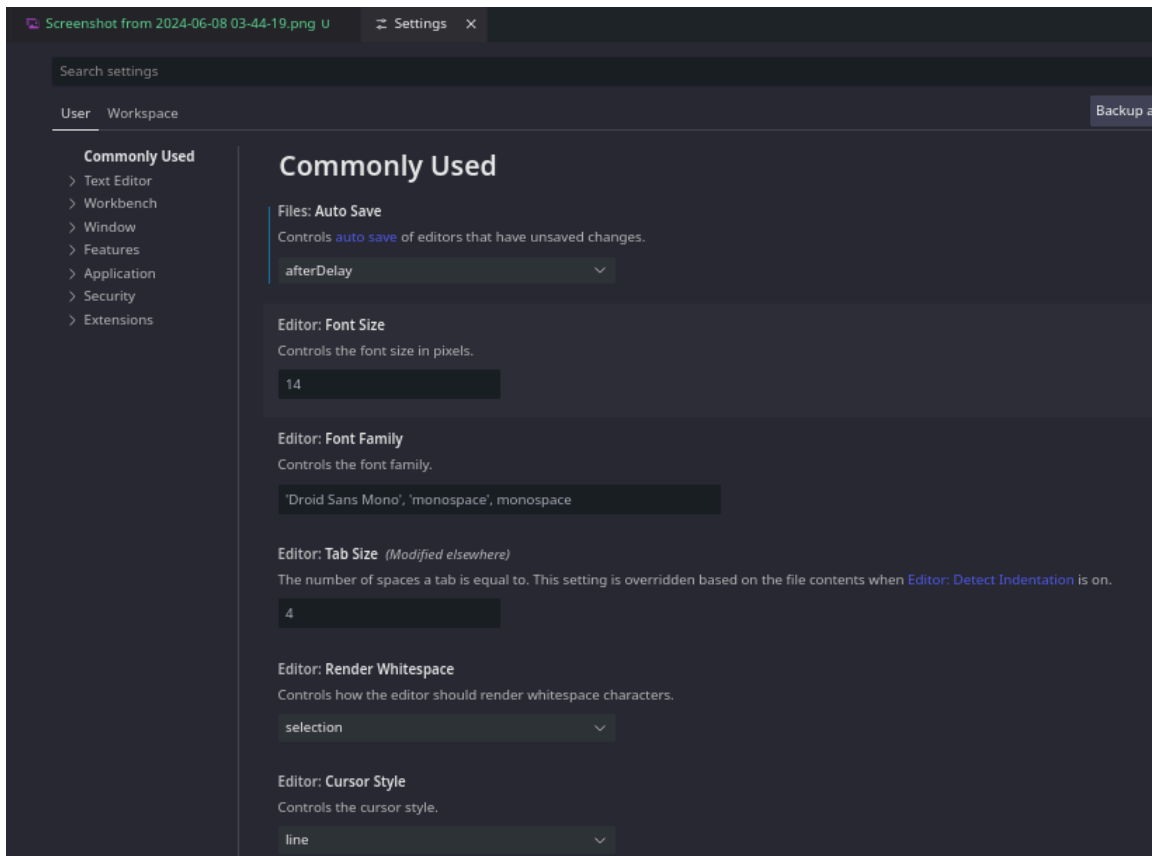
- Navigating: Use Ctrl+P to quickly open files by name.



## 8. Settings and Preferences

Customizing settings:

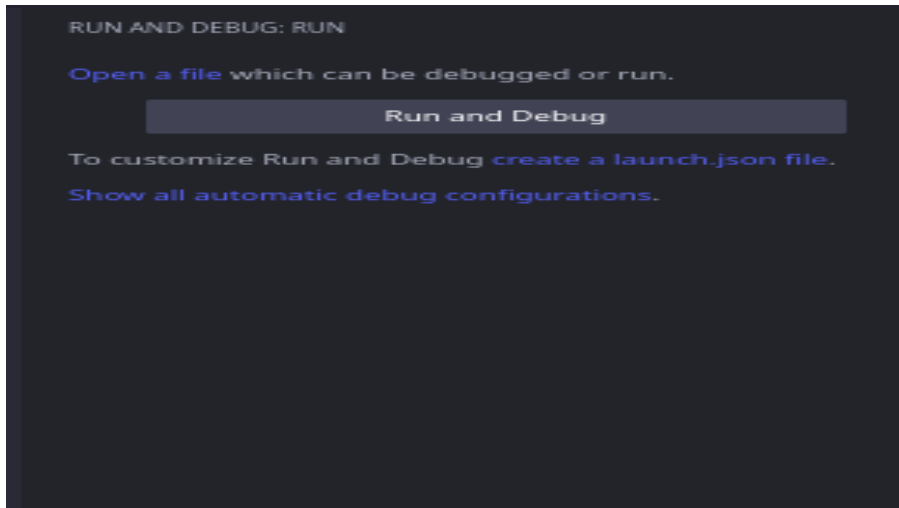
- Access via File > Preferences > Settings or Ctrl+,.
- Examples: Change theme, font size, keybindings from the settings UI or JSON configuration.



## 9. Debugging in VS Code

Setting up and starting debugging:

- Open the Debug view with Ctrl+Shift+D.



## 10. Using Source Control

Integrating Git with VS Code:

- Initializing a repository: Source Control view > Initialize Repository.
- Making commits: Stage changes and commit with a message.
- Pushing to GitHub: Use the Push command after setting up the remote repository.

```
git clone git@github.com:benard00118/repository.git\n
clear\n
git init\n
git add .\n
git commit -m "Latest updated assignment"\n
git remote add origin https://github.com/benard00118/se-assignment-1-setting-up-your-developer-environment-benard00118\n
git push -u origin master\n
git init\n
git add .\n
git commit -am "Latest"\n
git checkout master\n
git add .\n
git commit -m "Initial commit"\n
git checkout main\n
git add .\n
git commit -m "Initial commit"\n
git checkout main\n
git push origin main\n
code
```