

# Setting up VS Code

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## 1 Downloading and Installing

This document will walk you through the setup of Python and an Integrated Development Environment (IDE) called VS Code. VS Code was chosen both because it provides functionality to open your Google Collab notebooks which run off of Jupiter Notebooks (*more on this later*) in the IDE, as well as allows for many different language files to be created in case you would like to experiment with other languages, or if you take another Computer Science course. **This means your programs for the class and your notebooks will be centralized to VS Code.**

**Please install Python first as it will be necessary when setting up VS Code**

*Python Download Link*

- <https://www.python.org/downloads/>

*VS Code Download Link*

- <https://code.visualstudio.com/>

***Note for Windows OS:***

When you reach the setup wizard for Python be sure to check "Add Python 3.X.X to path" before hitting the install button. This will ensure your computer correctly adds the path to your file system.

## 2 Checking Python was installed correctly

For Windows:

1. Open Windows PowerShell App
2. Type **python --version**

If the PowerShell returns Python 3.X.X it will have installed correctly

For Mac:

1. Open Apple Terminal App
2. Type **python3 --version**

If the Terminal returns Python 3.X.X it will have installed correctly

## 3 Setting up VS Code Workspace

This will be the hardest part of the install process, but if done correctly will set you up for a smoother experience later in the course in terms of file management and organization

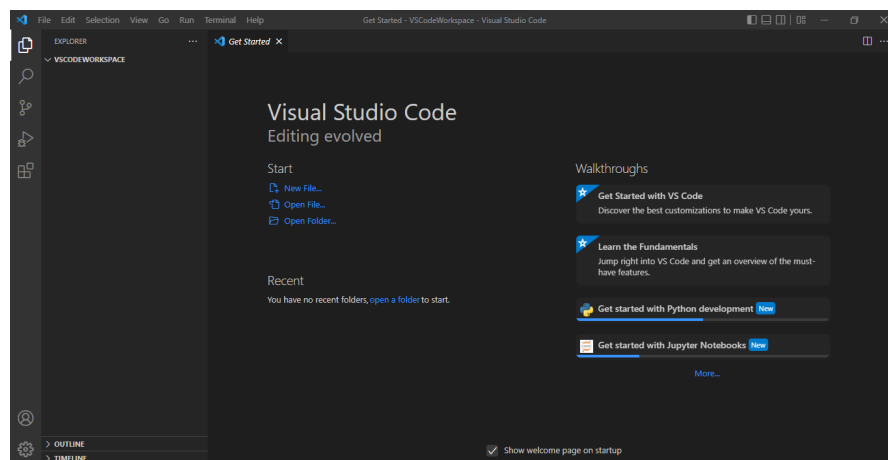


Figure 1: Homepage of VS Code

Upon opening VS Code you should see the screen above. Select *Open Folder*. This should open your file explorer. From there we will select a file path in which we want to put a new folder for our programs and notebooks saved to.

For Windows: *To ensure file continuity between VS Code and your computer's file explorer be sure to click open the soon to be created VS Code Workspace folder **not** the Microsoft VS Code folder.*

**C:** → **User** → *Your profile name* → **AppData** → **local** → **Programs** → **Microsoft VS Code**

At this point you should be able to create a new folder inside of this file path by right clicking. Name it VS Code Workspace. Once made, go into the newly created folder, and then and only then should you select the open button at the bottom of the Graphical User Interface (GUI, pronounced gooey)

*If you are having trouble finding **AppData**, or any of the file paths for that matter, don't stress it's probably just being treated as a hidden file by your OS. To rectify this, simply click view at the top of file explorer, then hit show, then hidden items*

This is the last time we will have to set up file paths from the root. If done correctly we can now simply use the built in file and folder adders in VS Code and they will automatically save to the directory we created.

For Mac: *Your profile name* → **Applications** → **VS Code**

You will have to move VS Code from your download folder to the application folder. This is because on Mac VS Code is considered to be a download, and not automatically installed as an app. This can be done by drag and dropping the VS Code icon from downloads to applications.

As you can see it is generally an easier install on Mac, but you lose some of the direct control over your files because you cannot access the AppData to

my knowledge. For this class it is not important, but is generally good to be aware of.

## 4 Adding a folder, a file, and a notebook to VS Code

At this point you are free to organize your VS Code folders however you want, but I have provided further documentation if you still feel a bit new to this kind of thing.

Adding a folder Create a folder by pressing the add folder button at the top of the explorer tab inside the VS Code app. Name it 155T Workspace. Inside of our **155T workspace** I would recommend making two folders. One to hold our programs and one for lab notebooks. I would recommend naming them *155T programs* and *155T notebooks* respectively.

Adding a file Adding a file is fairly easy. Navigate to the folder you want your new file to be created in, and hit create new file. This will prompt you to select a language, as you probably guessed we want to use a Python file. (**This is why it is important to download Python first**). Simply click on the blue select a language text and type Python in the search bar that pops up

The first time you create a file it will prompt you to install a Python interpreter, I would highly recommend installing this unless you are familiar with python enough to write it in plain .txt files

**A Python file name will always follow the notation *filename.py* changing the .py makes the file no longer a Python file.**

*Note for Mac OS:* From what I have seen it will prompt you to make an extra download that is like 28 hours long or so, this download is not necessary for your success in the course, and if you see it feel to terminate that download if you accidentally initiate it.

Adding a notebook To add a notebook, navigate to our Canvas page and click on the download link provided. This will prompt you to open it in VS Code. This will only open the notebook in VS Code, to save it to your 155T Notebooks folder

simply use the hot key *ctrl + s* (*Windows*) or *Command + s* (*Mac*). This will open up file explorer and you can save it to your notebook folder.

Like with your first file, VS Code will initially ask if you would like to install a Jupiter extension. I would also recommend this.

**A Jupiter Notebook file name will always follow the notation *filename.IPYNB*, similarly to Python files, if you remove the *.IPYNB* the file is no longer recognized as a Jupiter Notebook file**

## 5 Example IDE Setup

Here is a picture of my workspace with my other folders hidden if you are curious to see how it ideally should look when complete.

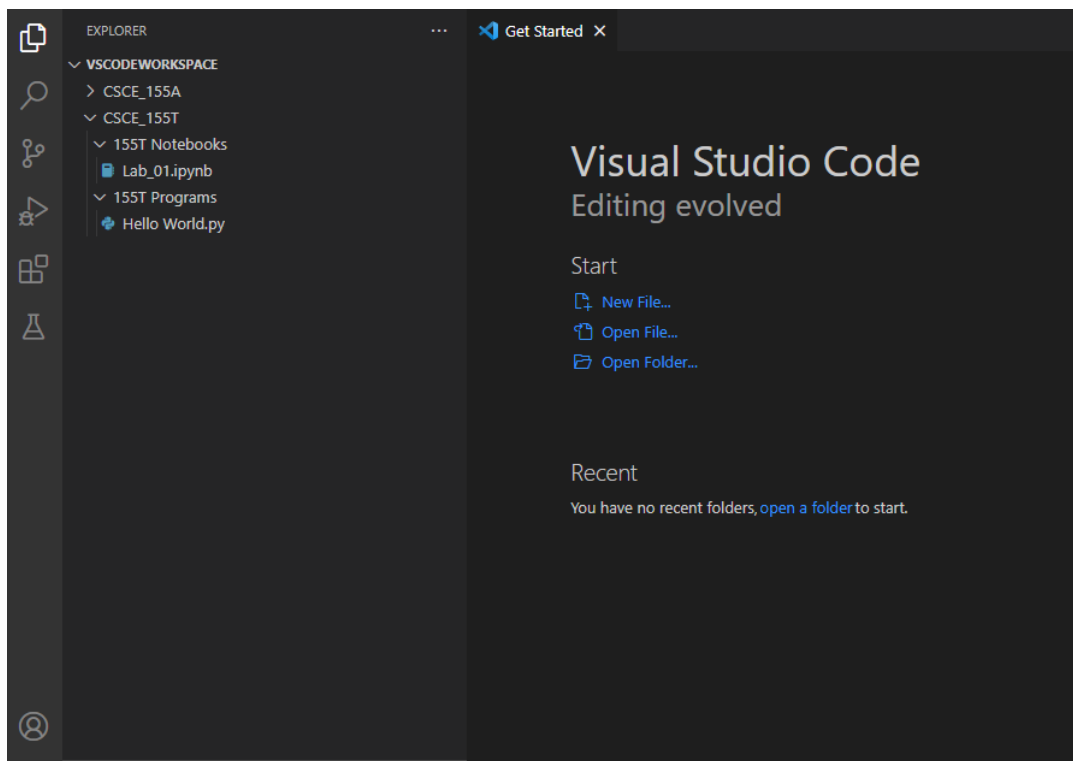


Figure 2: VS Code File Management