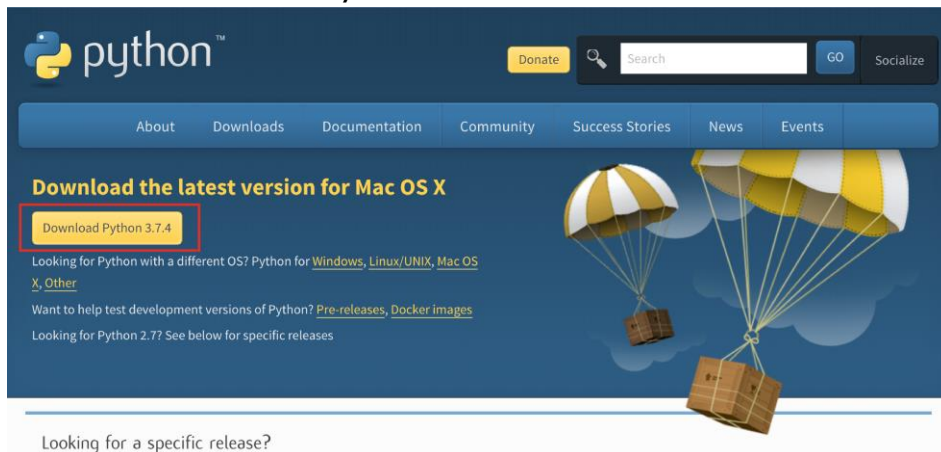# Mac Installation Guide for Microsoft Visual Studio Code (VSC)

Updated: 10/4/2019

Procedure: Installation of Python 3.7.x

1. Navigate to the following website: https://www.python.org/downloads/

2. Click the yellow button at the top of the page labeled "Download Python 3.7.4" to download the installer to your default download location.
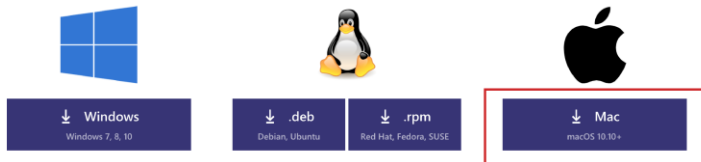

3. Once the file downloads double click on the downloaded file to execute the installer and follow the prompts in the install wizard.

Procedure: Installation of Microsoft Visual Studio Code

1. Navigate to the following website: https://code.visualstudio.com/download

2. Select the installer for your OS:

Download Visual Studio Code

Free and built on open source. Integrated Git, debugging and extensions.

| ↓ Windows | ↓ .deb | ↓ .rpm | ↓ Mac |
| Windows 7, 8, 10 | Debian, Ubuntu | Red Hat, Fedora, SUSE | macOS 10.10+ |

3. Allow the download to complete.

4. Click to launch the zip file, which should be named VSCode-Darwin-stable.zip, This will unpack the file, which contains only the Visual Studio Code application, to where the zip file was downloaded.

5. Once the launcher is in place double click on the Visual Studio Code application to launch the application.

> ***Note, Once VSC launches we suggest 2 finger clicking the icon on your dock, going to Options, and then clicking on Keep in Dock. This will make the application easier to launch as it does not get added to the launchpad automatically.**

6. Select the Extensions menu on the left.
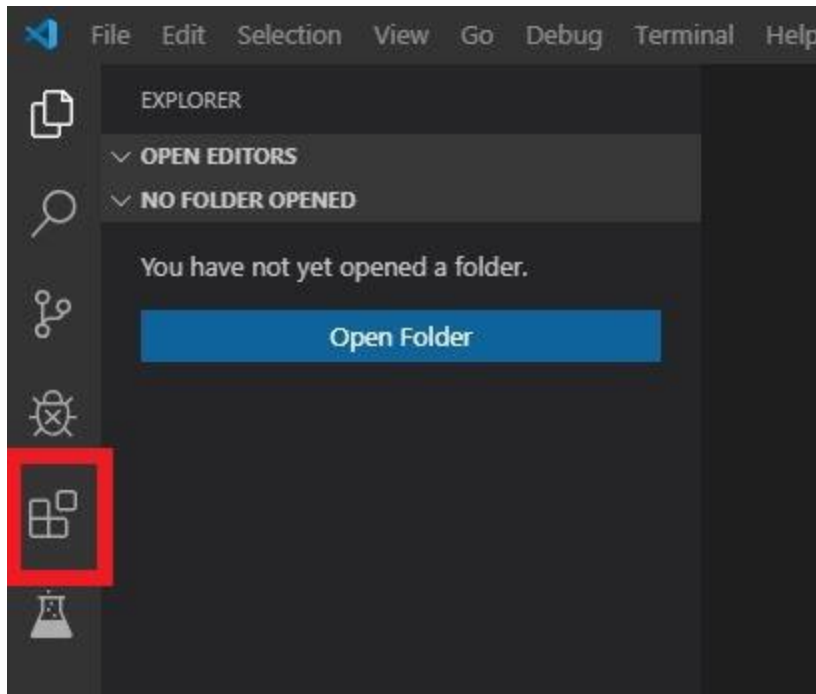
7. Search for "python" and install the Python extension shown in the picture below. It will have "linting, debugging" in the description. Your version of Visual Studio Code may not include icons for these extensions.
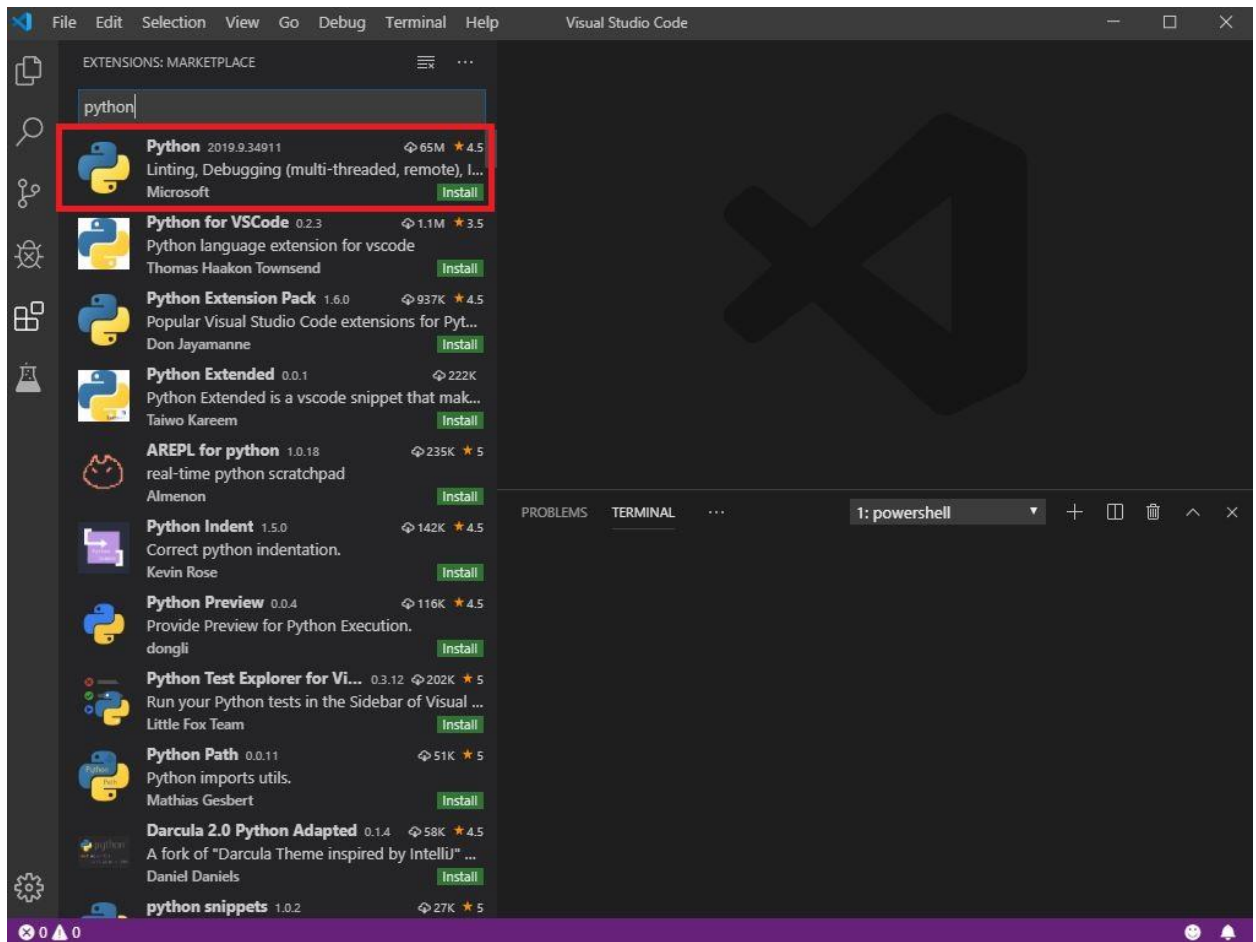
8. Quit Microsoft Visual Studio Code.

9. Open Microsoft Visual Studio Code again.

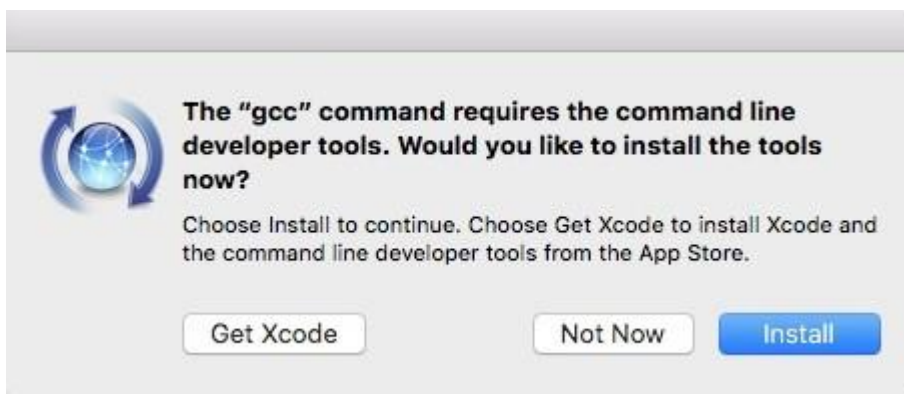10. Click the extensions icon again and verify the Python extension is installed.
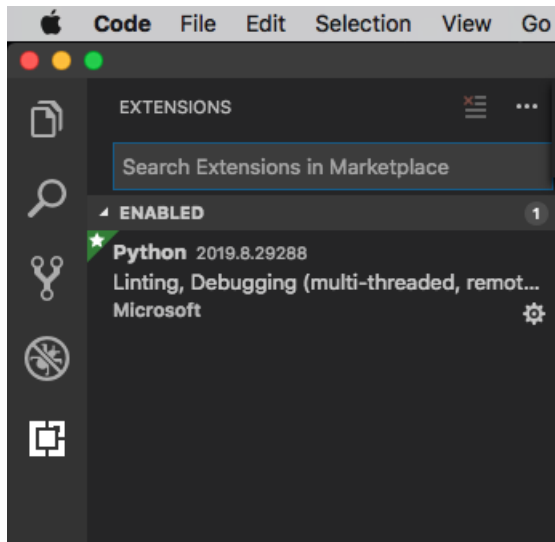
Procedure: Upgrading pip and Installing pylint

1. In VSC open a terminal by selecting Terminal from the menu bar and then selecting New Terminal

2. Upgrade pip by typing the command below or copy/paste it at the terminal prompt and entering your admin password when prompted.
   a. sudo python3 -m pip install --upgrade pip

3. Install pylint by typing the following in the terminal prompt
   a. pip install pylint

4. Your system will give the dialog below, click on the blue Install Button and follow the prompts to install the Command line Developer Tools. After this is done your installation of Pylint should continue or be completed as shown in the second screen shot below.

The "gcc" command requires the command line developer tools. Would you like to install the tools now?

Choose Install to continue. Choose Get Xcode to install Xcode and the command line developer tools from the App Store.

Get Xcode   Not Now   Install

```
(User) c:\Users\abusch\Desktop\VSC Test Files>pip install pylint
Collecting pylint
  Downloading https://files.pythonhosted.org/packages/59/65/adcffa71fe942313c4d9e9284565d9a9e67798f4771f464e1d5dd58fea88/pylint-1.9.4-py2.py3-none-any.whl (689kB)
    100% |UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU| 696kB 2.8MB/s
Collecting isort>=4.2.5 (from pylint)
  Downloading https://files.pythonhosted.org/packages/41/d8/a945da414f2adc1d9e2f7d6e7445b27f2be42766879062a2e63616ad4199/isort-4.3.4-py2-none-any.whl (45kB)
    100% |UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU| 51kB 2.4MB/s
```

5. Close VSC by clicking on the red X in the upper left-hand corner.

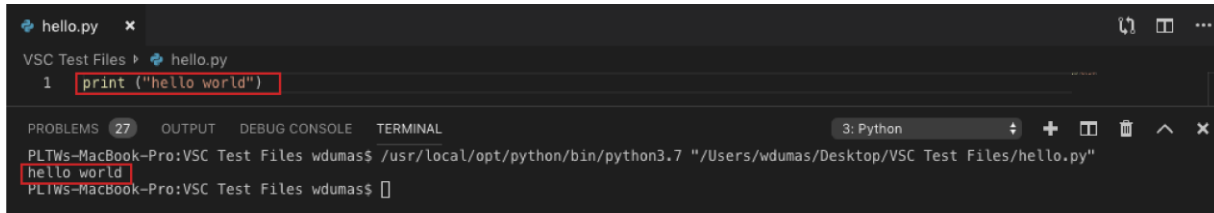# Procedure: Testing the Installation by Running a Python File

1. Create a folder named VSC Test Files on your desktop or anywhere else you want to save files.

2. Launch Visual Studio Code again.

3. Click on File and select Add Folder to Workspace.

4. In the browser select the folder you created.
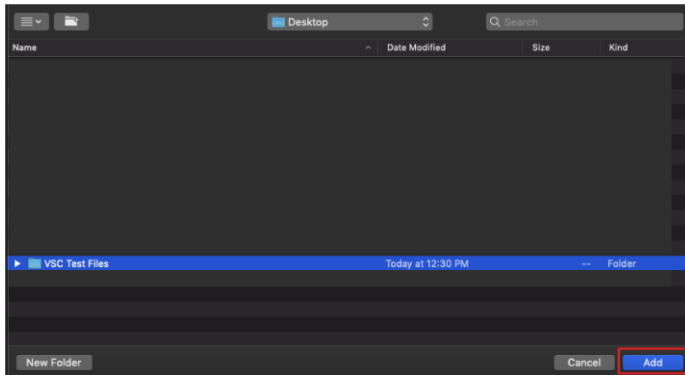
5. Create a new file by clicking File and selecting New File.

6. Type the following into the file.
   a. print ("hello world")

7. Save the file as a Python file. To do this you will click on File, then click Save As.
   Note To make the file able to be read as a python file the name must end with .py   this is the file extension for Python.
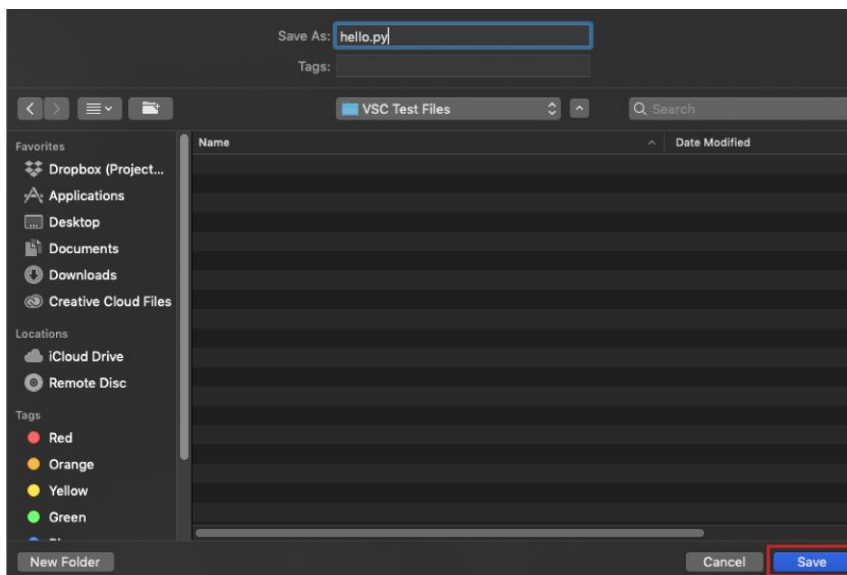
8. To run the script, right-click on the editor window and select "Run Python File in Terminal". You should see "hello world" appear as output in the Terminal.
   Note If you see any error message during the running of the script or saving of the script may be ignored at this point

Procedure: Installing the Additional Packages in VSC

1) Launch Visual Studio Code.

2) Open a new Terminal (Terminal > New Terminal).

3) Run the "install" command for each of the following packages:

Library	Install Command
Pillow	sudo pip3 install pillow
Pygame	sudo pip3 install pygame
Matplotlib	sudo pip3 install matplotlib
Pandas	sudo pip3 install pandas
Godirect	sudo pip3 install godirect[usb,ble]