

Install Python and Visual Studio Code (Mac)

— Interactive Checklist Form

Objective

This guide explains, step by step, how to install:

- Python
- Visual Studio Code (VS Code)
- The Python extension for VS Code
- A simple test program to confirm everything is working

Review Information

Name

Date

Overall Comments

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Before You Start

You need:

- A Mac computer
- Internet access
- Permission to install software

It is a good idea to close unnecessary programs before starting.

Completed

Step 1 — Download Python

1. Open your web browser.
2. Go to <https://www.python.org/downloads/macos/>.
3. Download the latest Python installer for macOS.
4. Wait for the `.pkg` file to finish downloading.

Completed

Step 2 — Install Python

1. Open the downloaded Python `.pkg` installer.
2. Click **Continue** through the installation steps.
3. Click **Install**.
4. Enter your Mac password if asked.
5. Wait for installation to complete.
6. Click **Close** when finished.

Completed

Step 3 — Verify Python Installation

1. Open **Terminal**.
 - Open **Finder**
 - Go to **Applications > Utilities**
 - Open **Terminal**
2. Type:

```
python3 --version
```

3. Press **Return**.

You should see something like:

```
Python 3.x.x
```

4. Also test pip by typing:

```
pip3 --version
```

Completed

Step 4 — If Python Does Not Work

If `python3` is not found:

1. Close Terminal.
2. Install Python again from python.org.
3. Open a new Terminal window.
4. Test again with:

```
python3 --version
```

Completed

Step 5 — Download Visual Studio Code

1. Open your web browser.
2. Go to <https://code.visualstudio.com/>.
3. Click **Download for Mac**.
4. Wait for the file to download.

Completed

Step 6 — Install Visual Studio Code

1. Open the downloaded VS Code file.
2. Drag **Visual Studio Code** into the **Applications** folder.
3. Open **Applications**.
4. Double-click **Visual Studio Code**.
5. If macOS shows a security message, click **Open**.

Completed

Step 7 — Install the code Command in Terminal

1. Open VS Code.
2. Press:

```
Cmd + Shift + P
```

3. Type:

```
Shell Command: Install 'code' command in PATH
```

4. Click the command.

This allows you to open folders from Terminal using `code ..`

Completed

Step 8 — Install the Python Extension

1. In VS Code, click the **Extensions** icon on the left.
2. In the search box, type:

```
Python
```

3. Find **Python** by **Microsoft**.
4. Click **Install**.

Completed

Step 9 — Open a Working Folder

1. In VS Code, click **File > Open Folder**.
2. Create or choose a folder for Python work.

Example:

```
/Users/YourName/Documents/Python-Projects
```

3. Click **Open**.

Completed

Step 10 — Create a Test Python File

1. In VS Code, click **File > New File**.
2. Save the file as:

```
test.py
```

3. Add the following code:

```
print("Hello Yahya - Python is working on Mac!")
```

4. Save the file.

Completed

Step 11 — Select the Python Interpreter

1. Press:

```
Cmd + Shift + P
```

2. Type:

```
Python: Select Interpreter
```

3. Click it.
4. Select the installed Python 3 interpreter.

Completed

Step 12 — Run the Test Program

You can run the file in either of these ways.

Option A — Run from VS Code Button

1. Open `test.py`.
2. Click the **Run** button.
3. Check the terminal output.

Option B — Run from Terminal

1. In VS Code, click **Terminal > New Terminal**.
2. Find the full path to your `test.py` file:

On Mac — using Finder:

- Open **Finder** and locate your `test.py` file.
- In the menu bar, click **View > Show Path Bar**.
- A path bar will appear at the bottom of the Finder window, showing the full folder path.
- **Right-click** on the folder name in the path bar and choose **Copy “FolderName” as Pathname**.
- The full path is now copied to your clipboard (for example: `/Users/YourName/Documents/PythonCourse`).

3. In the terminal, type `cd` followed by a space, then paste your path:

Mac:

```
cd /Users/YourName/Documents/PythonCourse
```

Completed

Step 13 — Install Common Python Packages

In the VS Code terminal, type:

```
pip3 install pandas matplotlib numpy openpyxl
```

Press **Return**.

Completed

Step 14 — Check Installed Packages

To confirm installation, type:

```
pip3 list
```

Look for packages such as:

- pandas
- matplotlib
- numpy
- openpyxl

Completed

Step 15 — Optional: Install Homebrew

Mac comes with an older version of Python that Apple uses internally — it is not meant for everyday coding. Homebrew is a free tool that lets you easily install the latest version of Python (and other developer tools) with a single command. Think of it as an **app store for your terminal**.

1. Open Terminal

Press **Command + Space**, type **Terminal**, and press **Return**.

2. Install Homebrew

Copy and paste the following command into Terminal, then press **Return**:

```
/bin/bash -c "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/HEAD/install.sh)"
```

This may take a few minutes. You may be asked to enter your Mac password — this is normal.

3. Install Python via Homebrew

Once Homebrew is installed, run:

```
brew install python
```

4. Confirm Python is Working

Run the following to check the installed version:

```
python3 --version
```

You should see something like:

```
Python 3.x.x
```

If a version number appears, you are all set!

Completed

Step 16 — Useful Mac Notes

- On Mac, use `python3` instead of `python` in most cases.
- On Mac, use `pip3` instead of `pip` in most cases.
- If VS Code does not immediately find Python, restart VS Code.
- If Terminal does not see the new installation, close and reopen Terminal.

Completed

Troubleshooting

Problem 1 — `python3` not recognized

Fix:

- Reinstall Python from python.org
- Open a new Terminal window
- Test again

Problem 2 — VS Code cannot find interpreter

Fix:

- Press `Cmd + Shift + P`
- Select `Python: Select Interpreter`
- Choose the correct Python 3 version

Problem 3 — Permission error with `pip`

Try:

```
pip3 install --user pandas matplotlib numpy openpyxl
```

Problem 4 — code command not found

Fix:

- Open VS Code
- Run Shell Command: Install 'code' command in PATH
- Restart Terminal

Completed

Summary

You have now completed the following:

- Installed Python on Mac
- Installed Visual Studio Code
- Installed the Python extension
- Enabled the `code` command
- Selected the Python interpreter
- Created and ran a test Python file
- Installed common Python packages

Completed

Next Suggested Step

Create a second file named:

```
hello.py
```

Add:

```
name = input("What is your name? ")  
print("Hello", name)
```

Then run:

```
python3 hello.py
```

Completed

Save for Review

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