

Guides for Mac User

- [Python Installation](#)
- [IDE Installation: Visual Studio Code](#)
- [Libraries Installation](#)
- [Install C++ compiler in Visual Studio Code](#)

Python Installation

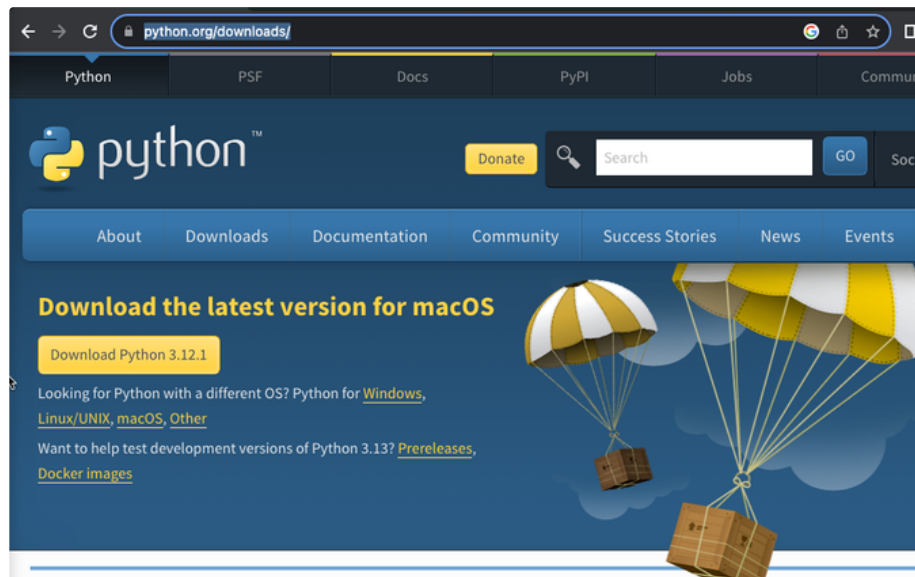
1. Go to your terminal.
2. Enter command below to check python version installed in your Mac.

```
1 python3 --version
```

3. If you get the output like below. You will need to install python from the official website.

```
chong@Chongs-Mac ~ % python3 --version
xcode-select: note: no developer tools were found at '/Applications/Xcode.app',
requesting install. Choose an option in the dialog to download the command line
developer tools.
```

4. Go to your browser, download and install the latest python version for macOS from [Download Python](#).

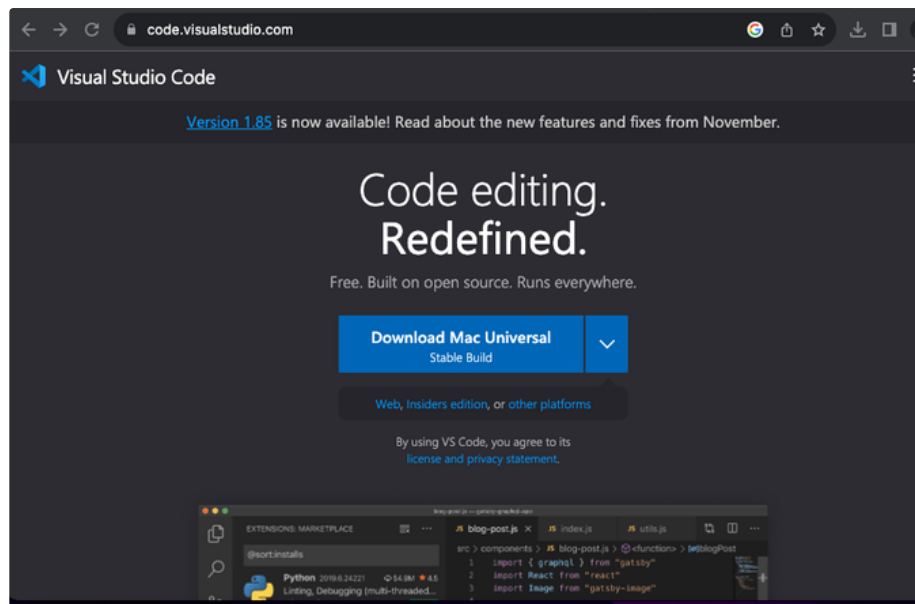


5. After finished installed, open your terminal again and check your python 3 version.
6. If you get the output like below, it means Python is successfully installed to your Mac.

```
chong@Chongs-Mac ~ % python3 --version
Python 3.12.1
```

IDE Installation: Visual Studio Code

1. In your browser, go to <https://code.visualstudio.com/> and click on Download Mac Universal to download VSCode zip.



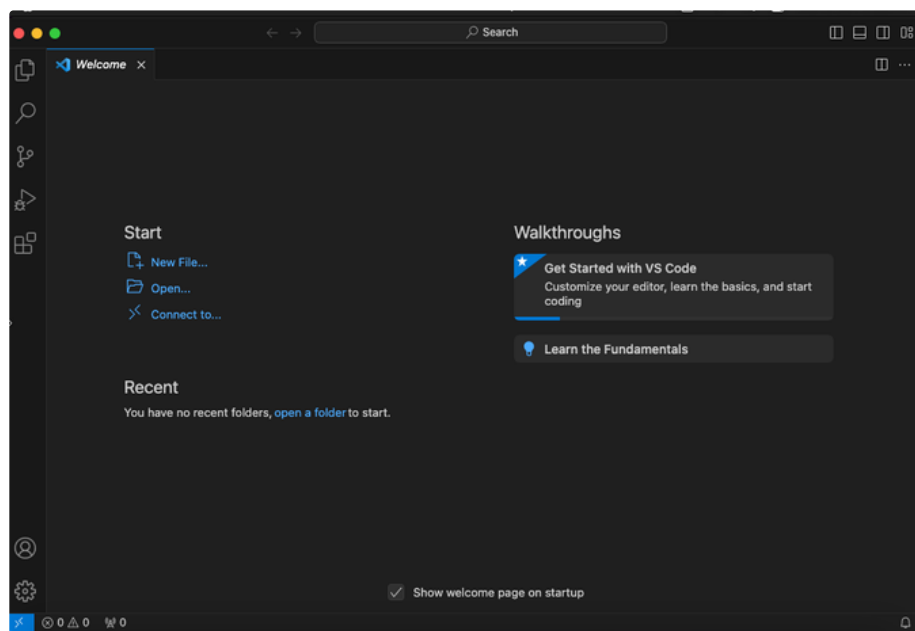
2. After downloaded the zip file, open and unzip it, your VSCode should be ready to use.



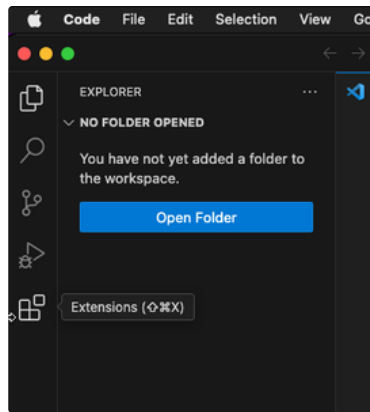
3. Open your VSCode.



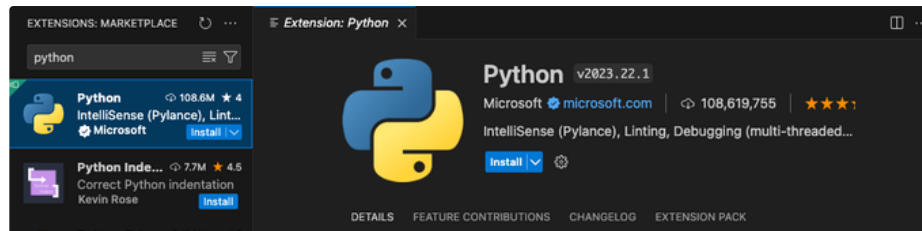
4. You should be able to see the welcome page of VS Code like below.



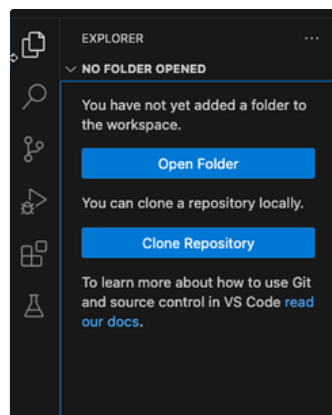
5. Next, you need to install Python extension in VSCode. Go to the Extensions tab on the left side.



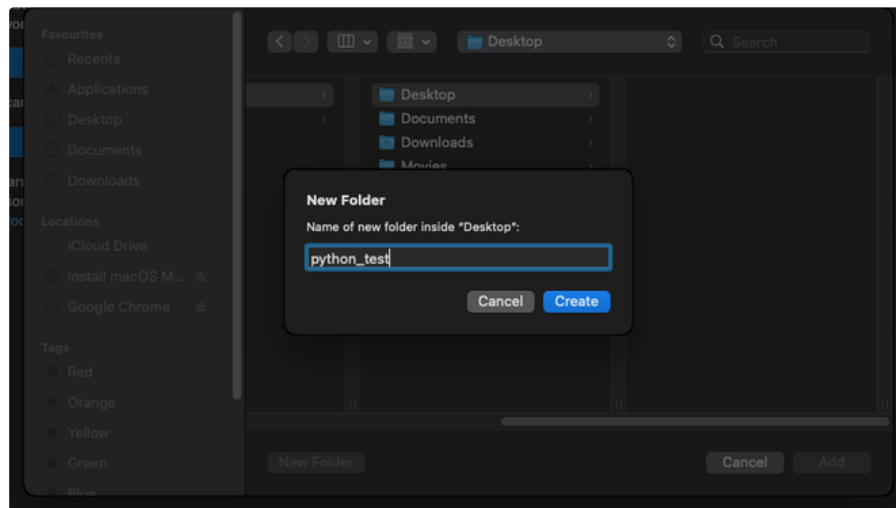
6. Search python and install it.



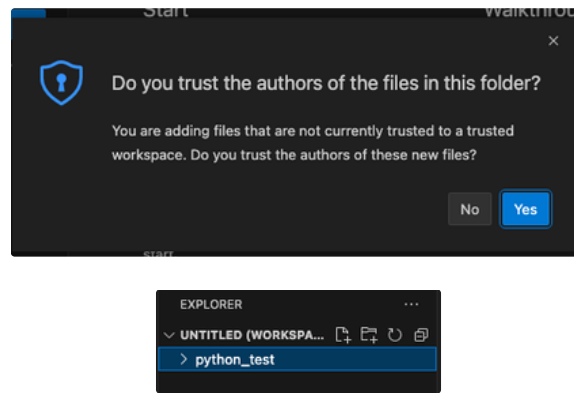
7. After completed, you are ready to code! Go back to Explorer tab on the left side and click on Open Folder.



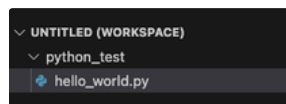
8. Click on Desktop followed by New Folder, name your folder as python_test, click on Create, then Add.



9. Next, click on Yes to make the file trusted in workspace. You will see python_test added to your workspace.



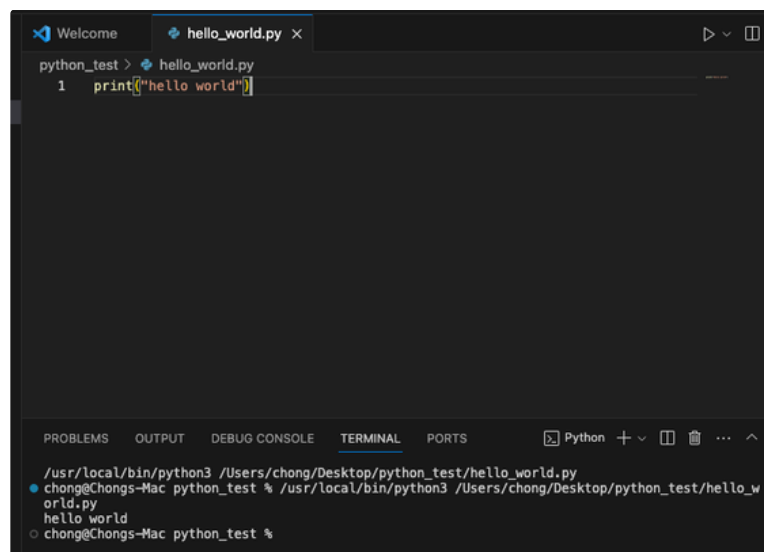
10. Right click on the python_test, and click on New File, enter hello_world.py to create a python file.



11. In the text editor insert code below and click run button on the right upper side.

```
1 print("hello world")
```

12. You should see the output of "hello world" below.



Libraries Installation

1. Before you install any library, you will need to install pip (Package Installer for Python).

2. Open your terminal, enter command below to install pip.

```
1 curl https://bootstrap.pypa.io/get-pip.py -o get-pip.py
2 python3 get-pip.py
```

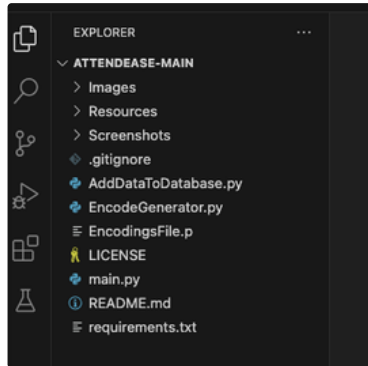
3. After completed, enter command below to check your pip version. Then you are ready to install libraries.

```
1 pip --version
```

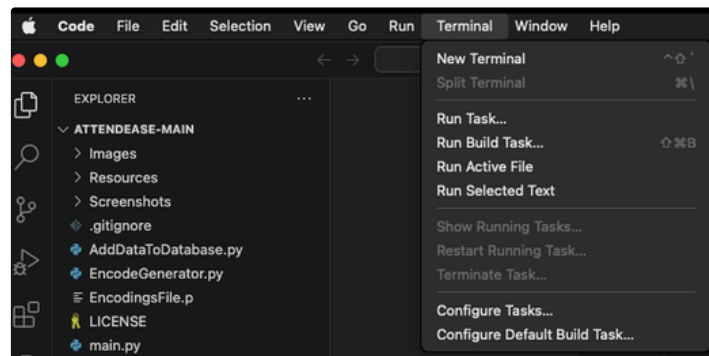
```
2 pip3 --version
```

```
chong@Chongs-Mac ~ % pip3 --version
pip 23.3.2 from /Library/Frameworks/Python.framework/Versions/3.12/lib/python3.12/site-packages/pip (python 3.12)
chong@Chongs-Mac ~ % pip3 --version
pip 23.3.2 from /Library/Frameworks/Python.framework/Versions/3.12/lib/python3.12/site-packages/pip (python 3.12)
```

4. Click on File>Open Folder... and select AttendEase-main, click Open to open the AttendEase folder in VSCode.



5. Click on Terminal tab in the bar above, select New Terminal.



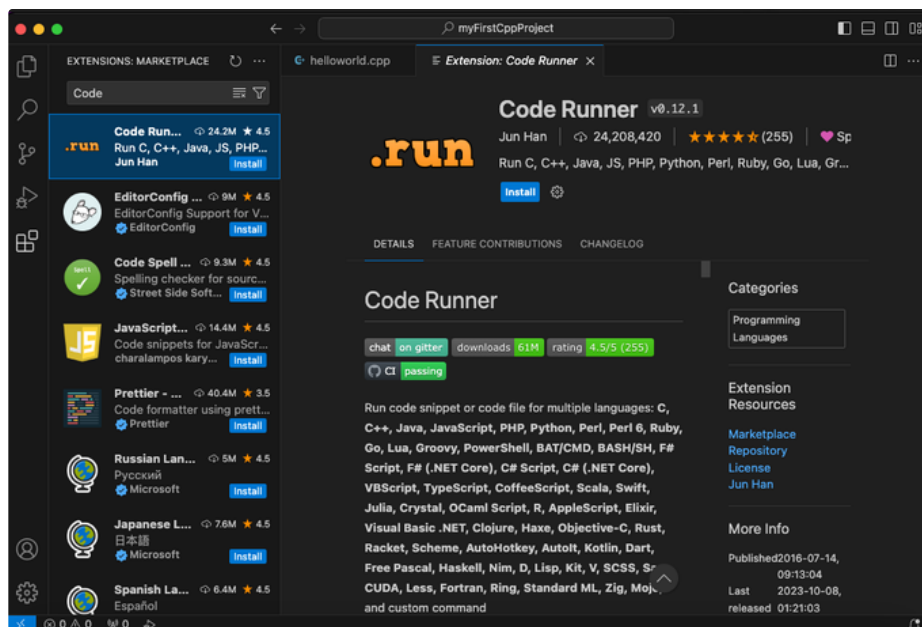
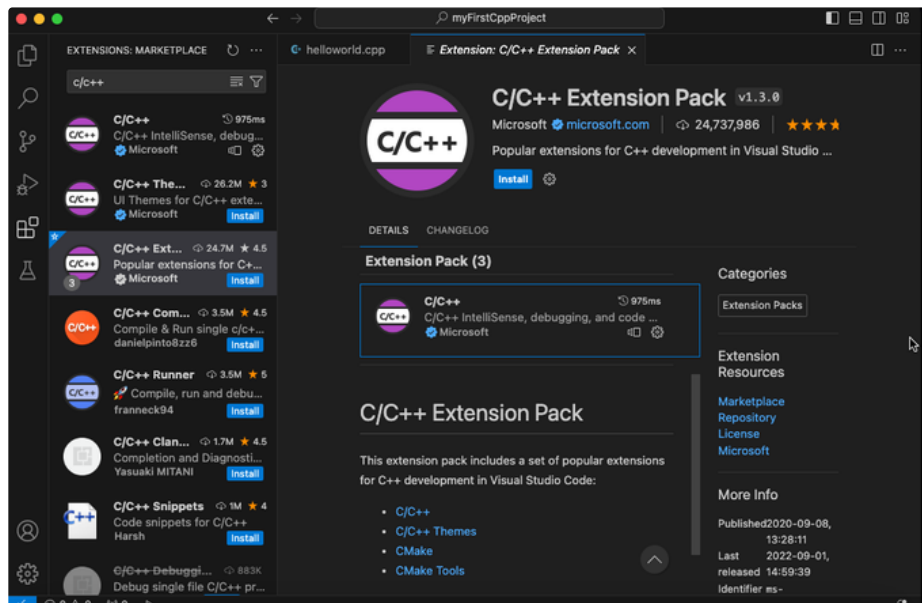
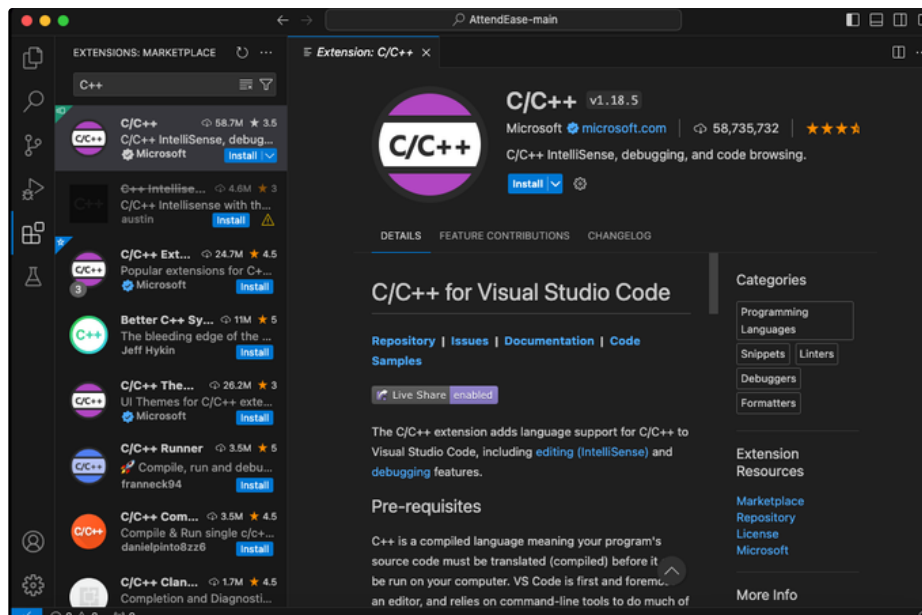
6. Enter command below to install the libraries required. It takes around 5-10 minutes, please wait until the installation completed.

```
1 pip install -r requirements.txt
```

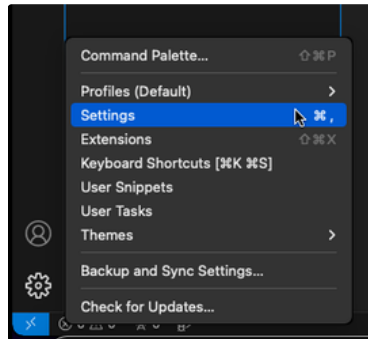
```
chong@Chongs-Mac AttendEase-main % pip install -r requirements.txt
Collecting cmake==3.28.1 (from -r requirements.txt (line 1))
  Downloading cmake-3.28.1-py2.py3-none-macosx_10_10_universal2.macosx_10_10_x86_64.macosx_11_0_arm64.macosx_11_0_universal2.whl.metadata (6.3 kB)
Collecting dlib==19.24.2 (from -r requirements.txt (line 2))
  Downloading dlib-19.24.2.tar.gz (11.8 MB)
  Installing build dependencies ... done
  Getting requirements to build wheel ... done
  Preparing metadata (pyproject.toml) ... done
Collecting opencv-python==4.9.0.80 (from -r requirements.txt (line 7))
  Downloading opencv_python-4.9.0.80-cp37-abi3-macosx_10_16_x86_64.whl.metadata (20 kB)
Collecting face-recognition==1.3.0 (from -r requirements.txt (line 8))
  Downloading face_recognition-1.3.0-py2.py3-none-any.whl (15 kB)
```

Install C++ compiler in Visual Studio Code

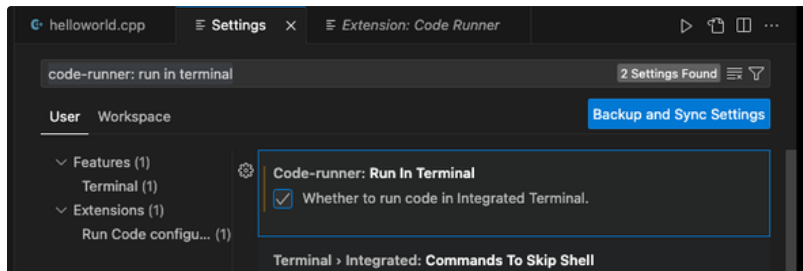
1. Launch Visual Studio Code, click on Extension tab on the left of the, search for C++ and install the C/C++, C/C++ Extension Pack, and Code Runner as below.



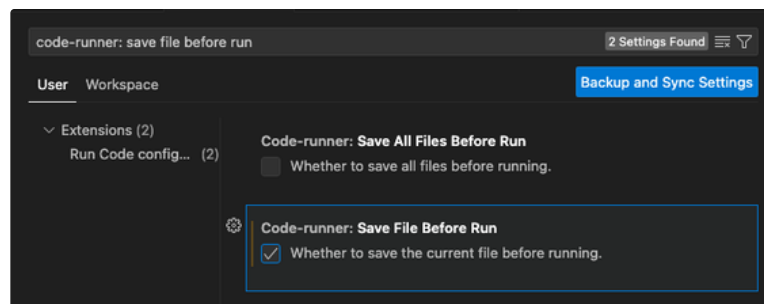
2. After installation completed, open the setting.



3. Search for “Code-runner: Run In Terminal” and check.



4. After that, search “Code-runner: Save File Before Run” and check for saving current file before run.

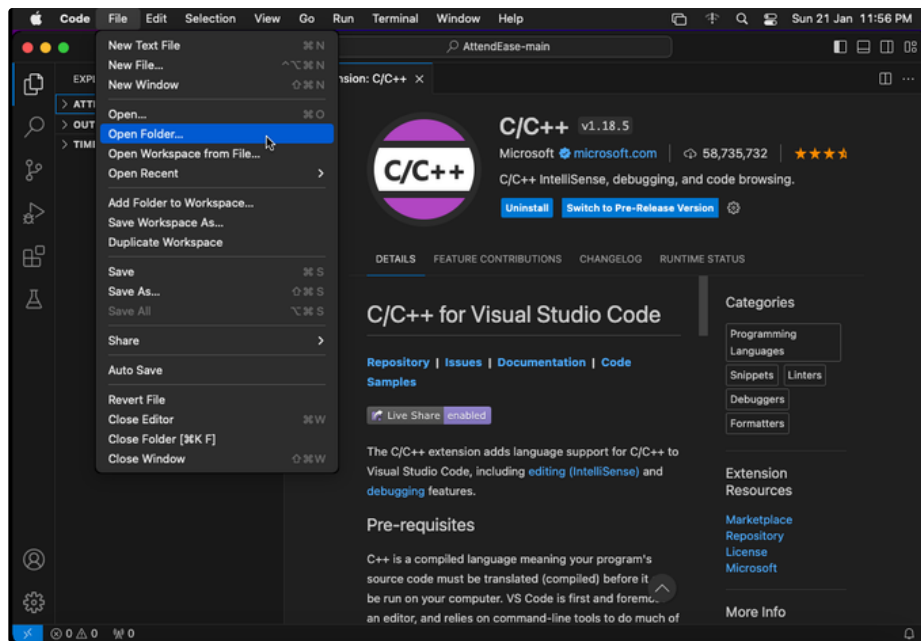


5. Open terminal, execute command below to check your C/C++ language version. You should able to see output as below.

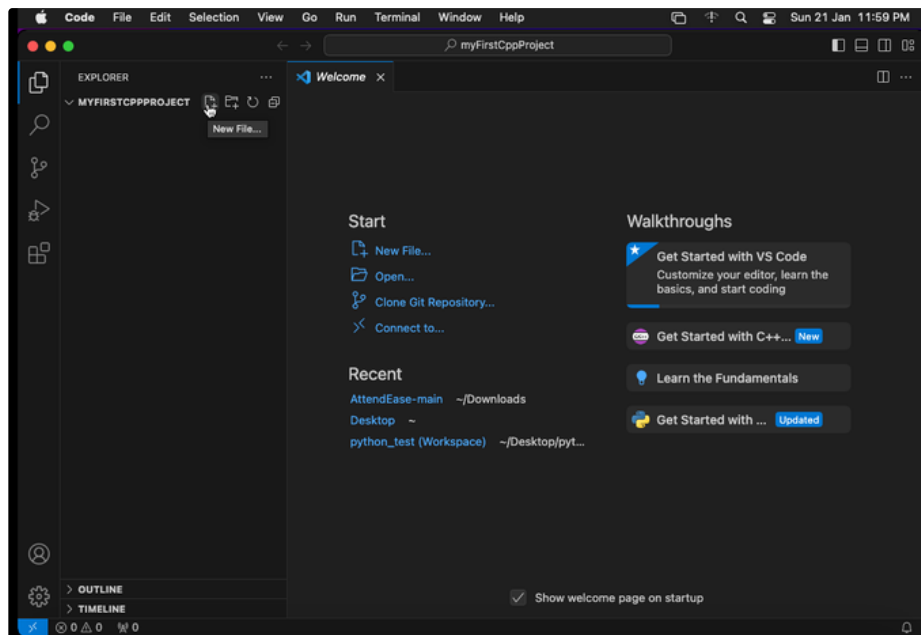
```
1 clang --version
```

```
chong@Chongs-Mac ~ % clang --version
Apple clang version 13.1.6 (clang-1316.0.21.2.5)
Target: x86_64-apple-darwin21.1.0
Thread model: posix
InstalledDir: /Library/Developer/CommandLineTools/usr/bin
```

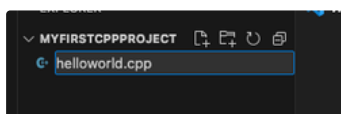
6. Now, you may test your C++ availability in your Mac, create a new folder by clicking File>Open Folder>New Folder. Name the folder as “myFirstCppProject” and create, open the folder.



3. After opened your new folder, click on New File logo as below.



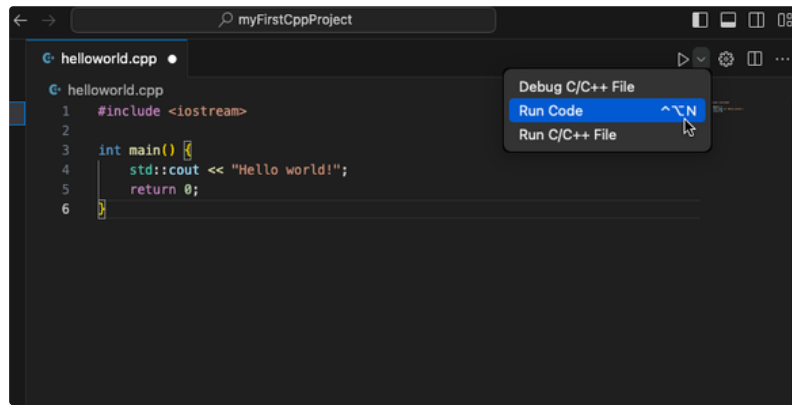
4. Name it as "helloworld.cpp" and click enter.



5. Copy the code snippet below into the text editor.

```
1 #include <iostream>
2
3 int main() {
4     std::cout << "Hello world!";
5     return 0;
6 }
```


6. Click the run logo in the right upper side.



7. If you get the output of "Hello world!" in the terminal. Then you are ready to go!

