

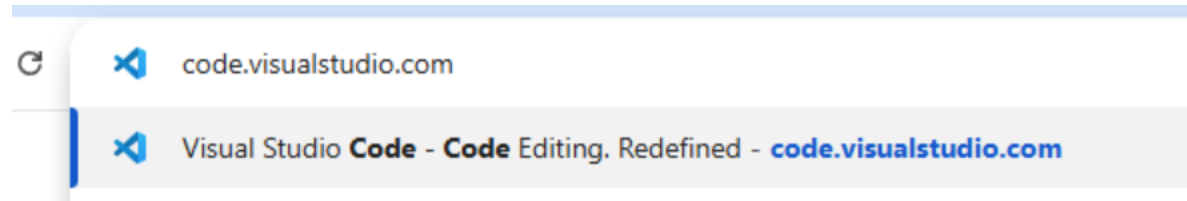
# Visual Studio Code Mac (Apple) Installation Guide

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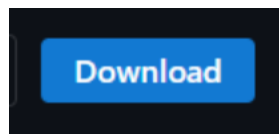
## Part 1: Installing the VS Code software on to your computer

**Step 1:** Go to the official Visual Studio Code (VS Code) website at

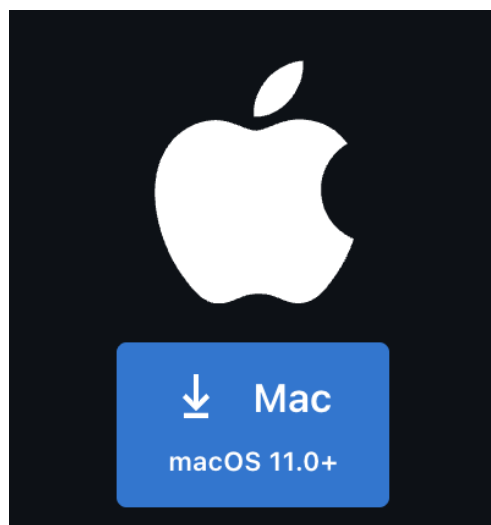
<https://code.visualstudio.com/>



**Step 2:** Look for a download button to download the software. (As of Fall 2025 it is on the top right corner, but website layout may change over time.)



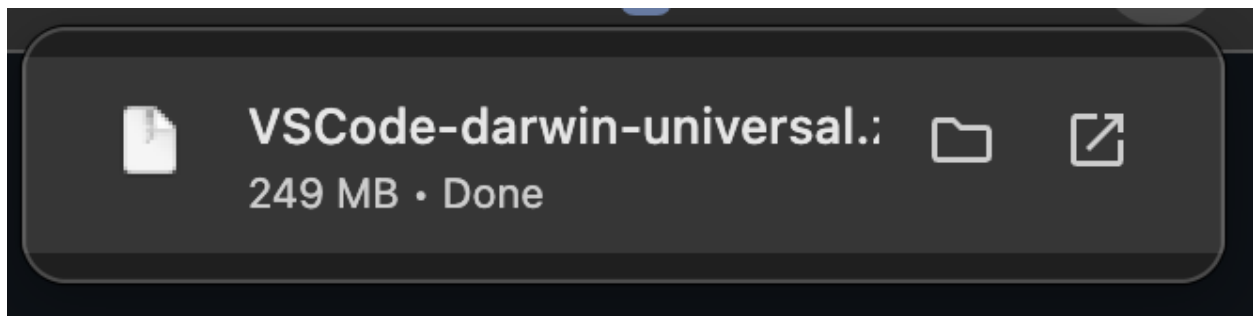
**Step 3:** Click on the Mac button if you are on an Apple device for the Mac installation. (If you are on a Windows 10 or 11 device, please refer to the Windows installation guide instead.)



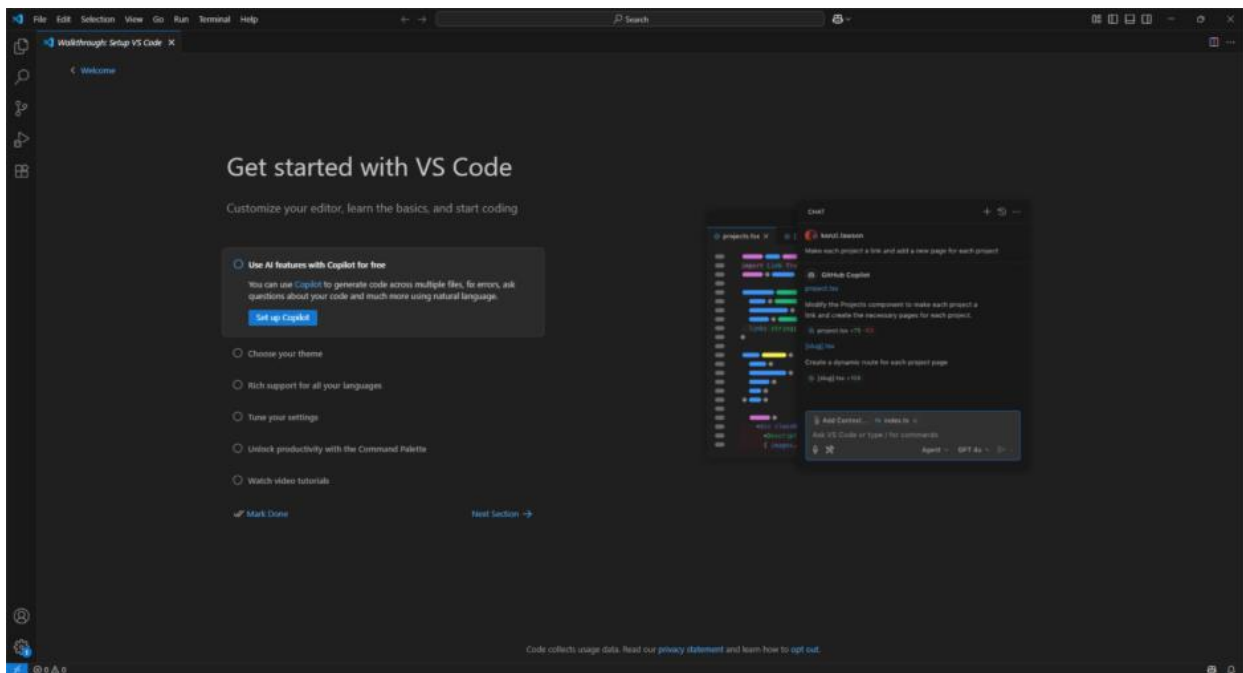
**Step 4:** Navigate to the top right of your browser, and there should be a button that looks like the following:



Click on this download button and the following window should pop up:



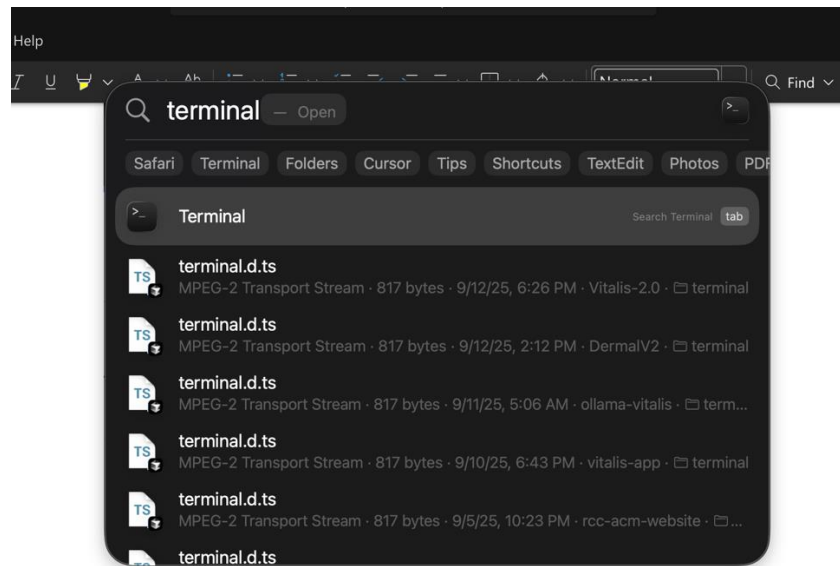
Follow the instructions to install VS Code on your Mac by dragging the VS Code icon into your application folder. Once you do so, you should be able to open the program which should look like the following:



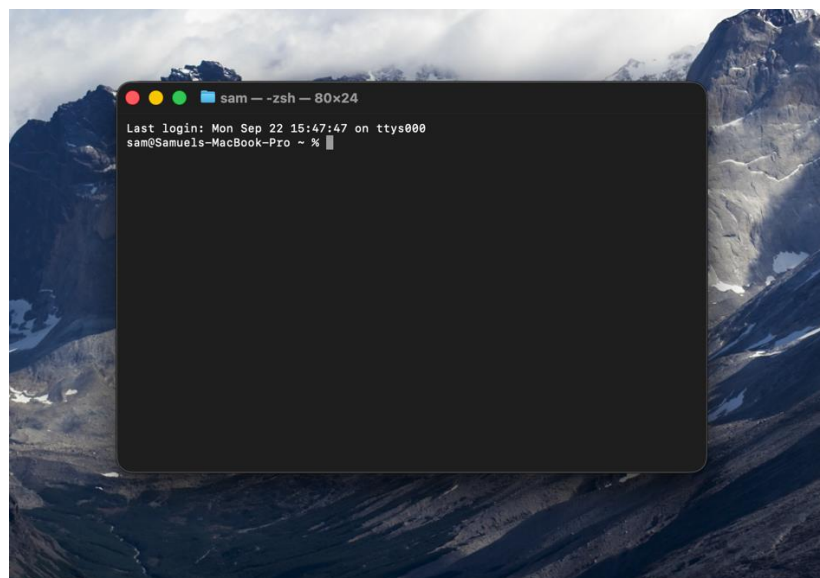
## Part 2: Installing clang as your compiler

**Step 1:** Open the terminal application by going to your applications folder and searching for it there.

\*Alternatively, you can press command + spacebar to open the spotlight search, then type terminal to search for the terminal application. *This alternative will be the new default soon as MacOS is discontinuing the applications app starting from MacOS Tahoe 26.*



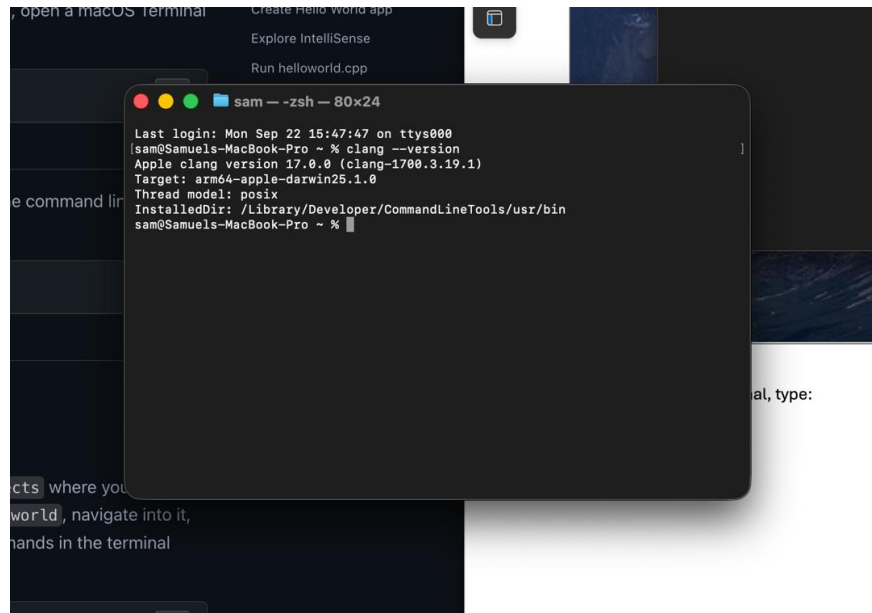
The terminal should look something like this:



**Step 2:** Within the terminal, type:

```
clang --version
```

This will check your computer to see if you have an existing version of clang, and if so, your terminal should list the clang version and should look something like this:

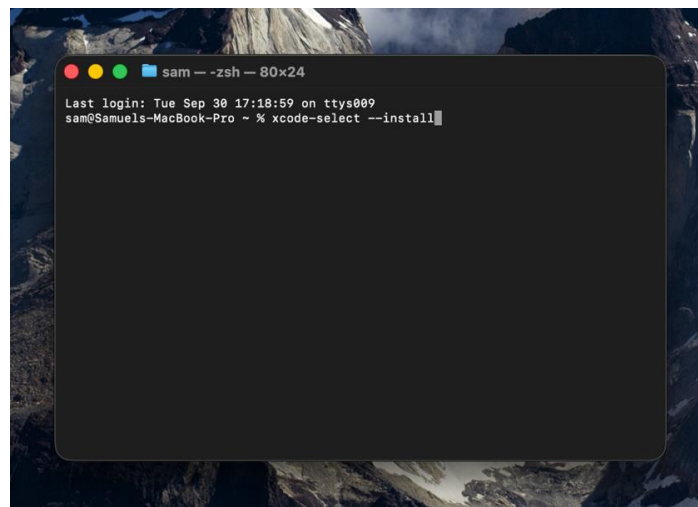
A screenshot of a macOS terminal window. The window title is 'sam --zsh -- 80x24'. The output of the 'clang --version' command is displayed, showing the Apple clang version 17.0.0 (clang-1700.3.19.1) for the arm64-apple-darwin25.1.0 target with a posix thread model, installed at /Library/Developer/CommandLineTools/usr/bin. The prompt 'sam@Samuels-MacBook-Pro ~ %' is visible at the bottom.

```
sam --zsh -- 80x24
Last login: Mon Sep 22 15:47:47 on ttys000
sam@Samuels-MacBook-Pro ~ % clang --version
Apple clang version 17.0.0 (clang-1700.3.19.1)
Target: arm64-apple-darwin25.1.0
Thread model: posix
InstalledDir: /Library/Developer/CommandLineTools/usr/bin
sam@Samuels-MacBook-Pro ~ %
```

**Step 3:** If your terminal does not list a clang version, this means that one does not exist on your machine, and we must install one.

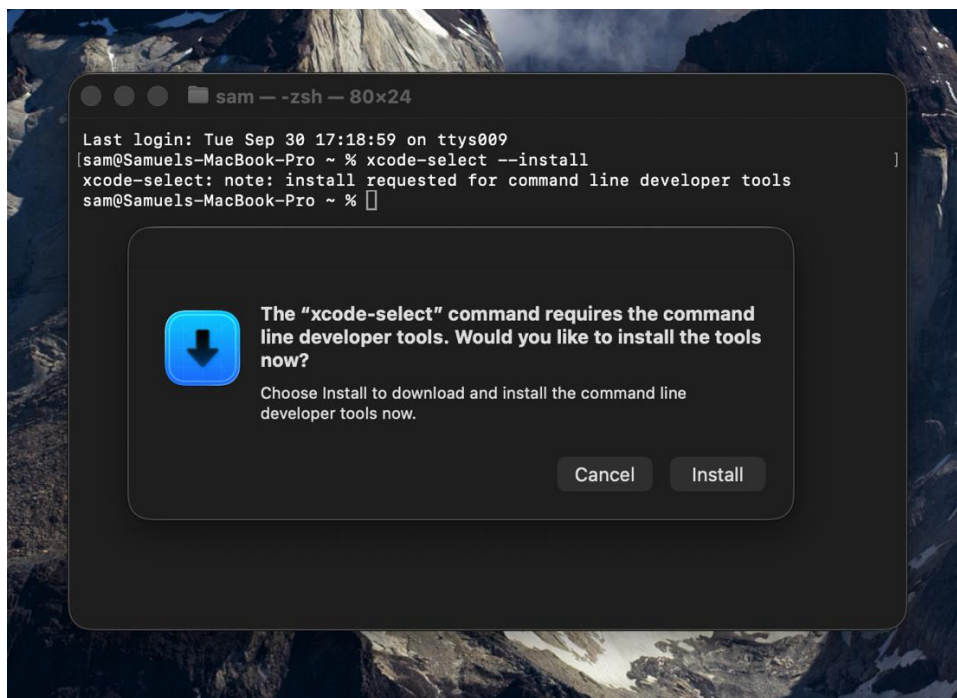
Type:

```
xcode-select --install
```

A screenshot of a macOS terminal window with a mountain landscape background. The window title is 'sam --zsh -- 80x24'. The command 'xcode-select --install' has been entered at the prompt. The output is not yet visible.

```
sam --zsh -- 80x24
Last login: Tue Sep 30 17:18:59 on ttys009
sam@Samuels-MacBook-Pro ~ % xcode-select --install
```

You will be asked if you would like to install the command line developer tools. Click install to install the command line tools.



**Step 4:** Once you have finished the installation, type:

```
xcode-select -p
```

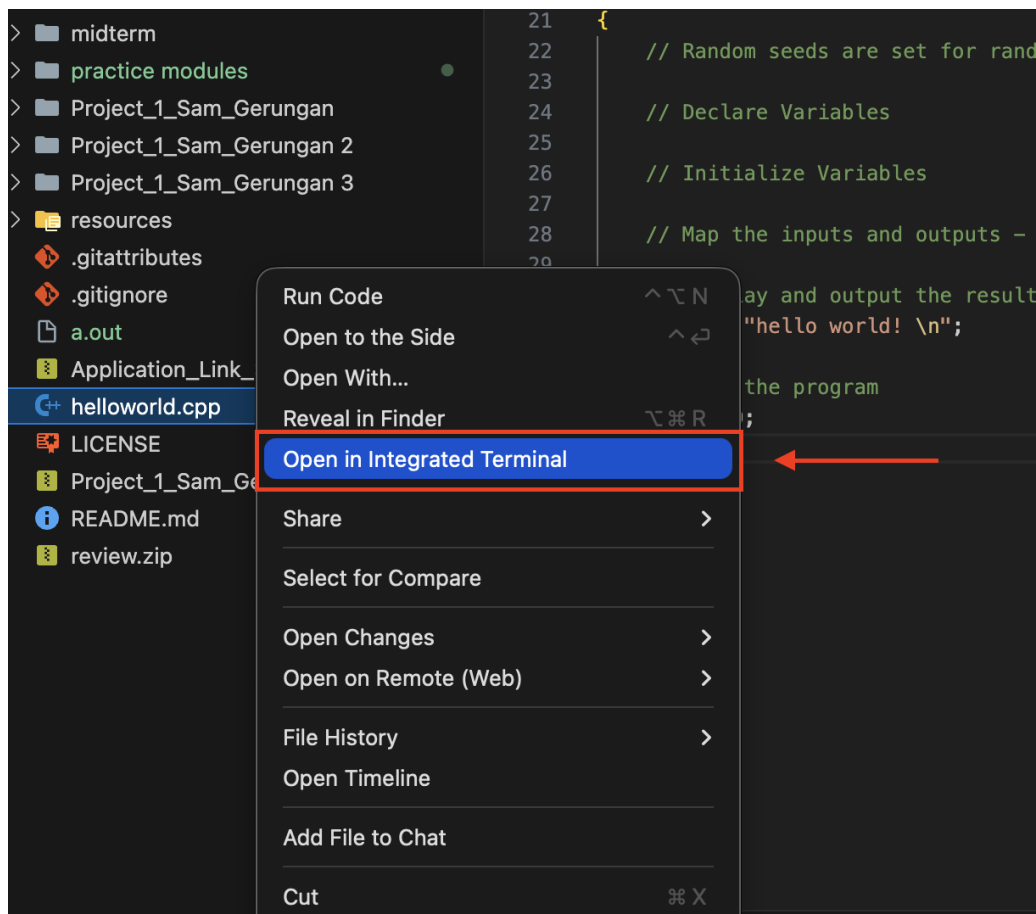
If your terminal has the following path configured: `/Library/Developer/CommandLineTools` then clang has been properly installed.

```
[sam@Samuels-MacBook-Pro ~ %] xcode-select -p  
/Library/Developer/CommandLineTools  
sam@Samuels-MacBook-Pro ~ %
```

### Part 3: Quickly Compiling Your Code in VS Code

Have your class or homework folder open in VS Code (recommend making one if you don't have one already.)

Right click your program file within the file explorer on the right and click on **Open in Integrated Terminal**. This opens a terminal within VS Code that automatically paths to the selected file's directory.



To compile your program, type:

```
g++ (name of C++ file here)
```



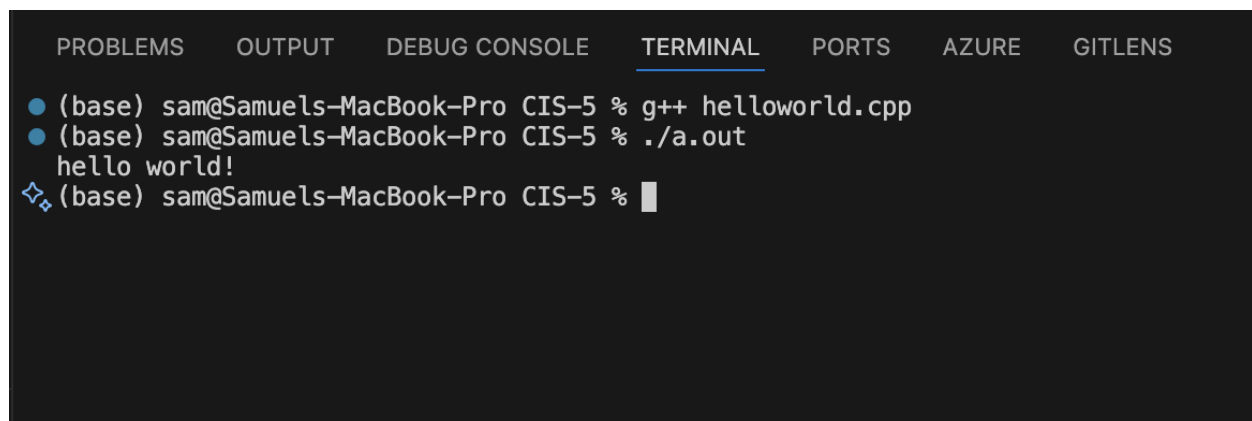
A screenshot of a terminal window within a code editor. The terminal has tabs at the top: PROBLEMS (with a blue circle containing the number 18), OUTPUT, DEBUG CONSOLE, TERMINAL (which is selected and underlined), PORTS, AZURE, and GITLENS. The terminal text shows a prompt: (base) sam@Samuels-MacBook-Pro CIS-5 % followed by the command g++ helloworld.cpp and a cursor.

```
PROBLEMS 18 OUTPUT DEBUG CONSOLE TERMINAL PORTS AZURE GITLENS
(base) sam@Samuels-MacBook-Pro CIS-5 % g++ helloworld.cpp
```

Then type:

```
./a.out
```

to run your program.



A screenshot of a terminal window within a code editor, showing the execution of the program. The terminal has the same tabs as the previous screenshot. The terminal text shows three lines: the first line is the compilation command g++ helloworld.cpp, the second line is the execution command ./a.out followed by the output hello world!, and the third line is a new prompt (base) sam@Samuels-MacBook-Pro CIS-5 % with a cursor.

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS AZURE GITLENS
(base) sam@Samuels-MacBook-Pro CIS-5 % g++ helloworld.cpp
(base) sam@Samuels-MacBook-Pro CIS-5 % ./a.out
hello world!
(base) sam@Samuels-MacBook-Pro CIS-5 %
```