Installing a C compiler

The systems programming projects we will be working with need us to used a more finely-tuned language: C.

If you are a Windows user then I recommend you install Cygwin which will simulate using the Unix OS on Windows. Cygwin has the gcc (C compiler) that we will use to test, debug and ultimately run our programs.

If you are a MAC user then you just need to install gcc and use the available MAC terminal.

You can find a browser-based compiler but that won’t work as our projects become more advanced. Again if you elect to find and use another solution to coding in C at home other than using gcc that is fine but I am only available for support with the two options below:

**Cygwin**

Cygwin offers a rather robust library of tools. When you download and install Cygwin you get to pick and choose which packages you install along with it. You really just need to install gcc and not any of the other additional components. Below are a few links to help you with this.

<https://preshing.com/20141108/how-to-install-the-latest-gcc-on-windows/> Only need Steps 1 and 2 and after that you are all done.

<https://www.youtube.com/watch?v=nrXh1P2gnWo> Can ignore looking for make, vim and the part involving changing your path. Only need gcc-core

<https://www.youtube.com/watch?v=24_xtaAePDY> – streamlined explanation still don’t need *make* or changing a path

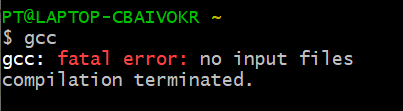
**Mac**

[How to Open The Terminal](https://support.apple.com/guide/terminal/open-or-quit-terminal-apd5265185d-f365-44cb-8b09-71a064a42125/mac)

[How to Install GCC](https://mkyong.com/mac/how-to-install-gcc-compiler-on-mac-os-x/)

**How To Verify It Worked**

Type gcc into the command prompt and press Enter. You should see a fatal error like this:



This is actually a good thing! If you get a message saying “gcc not found” then you still have not installed it correctly.

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**Use an Editor**

Cygwin or the Mac terminal is where you will use gcc to compile and ultimately run your C programs. You still need an editor to type them up in. I recommend NotePad++ . It’s up to you what editor you decide to use but that is my recommendation

Windows - [NotePad++](https://notepad-plus-plus.org/downloads/v7.8.5/)

Mac - [XCode](https://apps.apple.com/us/app/xcode/id497799835?mt=12)