# Windows

This guide will only cover using the Windows Subsystem for Linux (WSL). There are a lot of other ways to get set up with Windows. The alternative I would suggest is MSYS2 with 64-bit mingw; it’s a more complicated setup but is much more “Windows native.”

* Have a relatively up to date version of Windows 10
  + 2004+ preferred
* Open the Start Menu and search for “Turn Windows Features On/Off”
* Enable Windows Subsystem for Linux
* (Build 2004+) Enable Virtual Machine Platform
* After setup completes, restart
* (Build 2004+) From Powershell: wsl --set-default-version 2
* Open Microsoft Store, search for Linux
* I recommend installing Debian
  + Ubuntu is also a good choice
* First boot takes a while
* After you select username and password, run the following commands:
  + sudo apt update
  + sudo apt upgrade -y
  + sudo apt install build-essential git vim -y
    - vim is optional, but I do recommend it
    - Installing git in the WSL environment will be for using git with your code, to keep up to date with lectures, Windows also needs git. It can be installed from [git-scm.com](https://git-scm.com/)
* VS Code has an extension for integrating with WSL (search for Remote WSL)
  + Subsequent extensions should be installed in the WSL

# macOS

* Install the XCode Command-Line Tools (CLT)
  + 1st method: Install XCode from the App Store, run it, CMD + , (comma) to get to settings, Locations tab, ensure an XCode CLT is selected
  + 2nd method: From Terminal app run: xcode-select –install
* Install homebrew
  + Follow instruction at <https://brew.sh>
* Install gcc and git
  + brew install gcc git
* Verify that the homebrew gcc is the default
  + From Terminal app: which g++
  + If a homebrew directory isn’t showing, you will need to edit the file /etc/paths