**CSI 333 - Programming at the Hardware-Software Interface**

**(Lab and Discussion Classes)**

# Reading Materials and Resources

Lecture Slides

# Lab 0 – Setup and a little command line work

If you are running on Mac, you will be using Terminal. Skip down to the using bash section.

For Windows:

We will be using the Windows Subsystem for Linux.

Follow the directions here: <https://docs.microsoft.com/en-us/windows/wsl/install-win10>

Personally, I used Ubuntu as my distribution of choice. It shouldn’t matter which you choose for this course, though.

Once you have followed these instructions, start a bash shell (windows key, type “bash”, accept).

**Using bash**

Bash is a command line interpreter. It accepts commands and responds. There are no menus or icons to show you what the commands are. You have to remember them. Here I will introduce you to a number of them.

You are probably aware – your computer’s disk/SSD is organized as a tree. In Linux, the root of the tree is “/”. /bin is where most of the system’s programs are stored. Your personal directory is typically /home/yourUserName/.

To see where you are, use the command:

pwd

This should Print the Working Directory.

To make a new directory, use mkdir:

mkdir myNewDirectory

To change the working directory, use cd (change directory):

cd myNewDirectory

To see what files are in a directory, use the “ls” (list) command:

ls

This will print nothing. Why? If there is nothing in myNewDirectory, there is nothing to see.

You can leave this directory with cd, specifying the parent (..) directory:

cd ..

You can remove the directory that you made using the rmdir command:

rmdir myNewDirectory

Finally, the most important thing for this class is to ensure that you have gcc (the C compiler) installed. Try this:

gcc --version

If you get a response like something like this:

gcc (Ubuntu 7.4.0-1ubuntu1~18.04.1) 7.4.0

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Then you are all done with this lab!

If not, you will need to install gcc.

In Ubuntu, you can do this:

sudo apt install gcc

It will tell you how much disk space you will use and ask confirmation.

Submit a screenshot of gcc --version as your gradable item for this lab.