

Purpose: To test your accounts, logins, remote access, demos, and write simple programs on Linux. This assignment is ungraded but should help familiarize you with the Linux environment.

Please follow instructions carefully.

- 1) Login to your machine. Use your mycsulb and beachboard credentials (student id and password)
- 2) Open a command line terminal. On linux, there should be an icon on your desktop or you can type `ctrl+alt+t`. On mac, I recommend using `iterm2`, but if not, the native terminal can be found in the Applications/Utilities directory.

The terminal will start you out in your home directory. It is in `/home` and is named after your student id. If you do an `ls` you should see sub directories like Downloads and Desktop.

- 3) Use `cd Desktop` to go to your desktop. Now, make a new directory called `testdir` using the command `mkdir testdir`. You should see this directory appear on your desktop.
- 4) Create an empty file with the touch command. `touch emptyfile`. You'll see an empty file on your desktop. You can open and edit it if you wish.
- 5) Delete the empty file with `rm emptyfile`. You should see it disappear. Delete the directory using `rm -r testdir`. (the `-r` argument is needed for directories. It stands for recursive.)
- 6) Use `cd ..` to go back up one level to the root of your home directory. Make a new directory there called `Homework00` (this should not be on your desktop, although you can open a file explorer and see it in a window).
- 7) Create 3 files in this Homework00 directory.

- a) The first should be called `whereami` and should contain a single line with the output of the `pwd` command.
- b) The second is a python `helloworld.py`. You should already know how to do this, but perhaps you haven't done this outside of an IDE like pycharm. I'd like you to write this with a basic text editor and run it on the command line using `python helloworld.py`.
- c) Lastly, you'll write an equivalent C++ `helloworld.cpp` program in a basic text editor. To compile the program:

```
g++ helloworld.cpp -o helloworld
```

- 8) After the first homework, work will be done on a remote server called `linux1.cecs.csulb.edu`. First, run the `hostname` command on your local machine and note the name. Then use `ssh yourstudentid@linux1.cecs.csulb.edu` and run the `hostname` command there.

- 9) OPTIONAL: If you have a laptop or are at home, you may still access linux1 remotely. If you use Linux or a Mac, open a terminal, use `ssh -p 2022 yourstudentid@134.139.248.2`. If you are using windows, download a tool called "Putty" and use ssh (port 2022) with that. Note: ssh may work with the default port 22, but this is not guaranteed due to campus firewall rules.

Demo: The instructor would like to see demonstrations of the two helloworld programs. This isn't graded or required but is how most future assignments will be graded.