

# Linux Lab 1 - Using the Command Line

## Instructions for Lab 1

1. Watch the videos in Module 6, Lesson **Linux Tutorials** before you do this Lab 1. You must have completed the practice in Chapters 1 and 2 in the [PCC Linux and Vim Manual](#) to be able to do this lab.
2. Here is a [video for Lab1](#), that you can follow along as you do this Lab.
3. First, login to PCC Linux Server (`cslinux.pcc.edu`)
4. Make sure you are in your home directory.
5. (Your home directory should look like this: `yourname@vmcslinuxprod01:~/`)
6. If not type `cd` and hit enter to get you back to the home directory
7. From your home directory, start the `script` command - type `script lab1.txt` at the command line.
8. List the files in your current directory `ls`
9. Move into the directory for your class `cd CS161B` (If this directory does not exist, go back to Step 1).
10. Make a new directory for Lab1 `mkdir Lab1`
11. Change into that directory `cd Lab1`
12. Type `vi lab1.cpp` and hit enter
13. Insert header comments to your file by typing `i` followed by comments
14. When you are done, hit the escape key
15. Let's now save our work by typing `:w`
16. Add code to this cpp file by following the video or reading through the Linux Manual on How to use Vim, or by using any one of the resources mentioned in the Special PSU Transfer section in your Syllabus
17. When you are done, hit the **escape key**
18. Save and quit your work by typing `:wq`
19. The next step is to compile the C++ source code file. To compile the `lab1.cpp` code type:  
`g++ -Wall -g lab1.cpp -o lab1`
20. If there are syntax errors, examine the line number of the first 2 or 3 errors and fix those before continuing. To fix the syntax errors use the Linux editor again:  
`vi lab1.cpp`
21. To run your program type `./lab1`, and the output will appear directly below. Test your program several times with different inputs and make sure your code is working properly.
22. Type `exit` and you are almost done with Lab 1 and you should have an `lab1.txt` file.
23. Type `ls` to list the contents of your directory. You should see `lab1.txt`
24. Follow the instructions in the Transferring Files section of your PCC Linux Manual and transfer the file to your pc and upload to D2L with assignment 5.
25. Now you are done with Lab 1.