**CSCD 240  
Lab 2**

**NOTE: Capture means copy and paste from a command line into a text editor. “Capture command xyz” means to capture the xyz command AND its resulting output. If the question does not say capture still capture all the commands.**

**NOTE: You must do it on the cslinux machine by using remote login.**

1. Clearly explain why programs should be placed in /bin or /usr/bin.
2. You are asked to use a program named mystery which you have never used before. Explain how you would find information on the program and what it does. List all the ways you know.
3. There are many other environment variables available to the user. Capture the printenv command. Describe 3 of the environment variables.
4. Capture the output of the file command on the chmod executable. (Where does chmod live?) Explain the information being displayed.
5. Capture the output of the stat command on the chmod executable. Explain the information being displayed.
6. Try and delete chmod. Did it delete why or why not?
7. Try and delete chmod and capture the output from standard error to a file named err.txt
8. Capture the command to create test1, test2, test3, test33, stu1, stu2, stu22.
9. Using meta characters and a single ls command list all files named test.
10. Using meta characters and a single ls command list only the files with the number 2 or 22 in them.
11. Using meta characters and a single ls command list only the files with a single 2 not 22 in them.
12. Issue the which command on ls. Was and where was the command found?
13. Issue the which command on pthread.h. Was the command found? If it was not found why not? How would you modify this.
14. Using only octal values add executable access to test1, test2, test3.
15. Using only alphanumeric characters remove read access from stu1 and stu2.
16. Execute help set
17. Explain the --help option for a program.
18. Using the **man** page describe what is output by the **env** command with no arguments.
19. Show a shell command that will add the current directory to the **PATH** (without removing any existing variables from the current value of **PATH**.)
20. Describe what you would have to do to make a change to the Shell permanent.
21. Capture the output from the **echo “Current time and date is `date`”** command.
22. Issue the **date** command and capture its output. Now, capture the output from the **echo 'Current time and date is `date`'** command. Note that the ` character is an accent NOT an apostrophe ' . Explain why the output is different in particular to the single and double quotes. Also explain what the ` character does.
23. Create a symbolic link called **almost** that links to the lab1 directory (hint **ln** command). Capture the output.
24. Following #23, change to **almost** and capture the output.
25. Use "help" to get information on how to use the alias command.
    1. What information is provided in from “help”?
    2. When should you use “help” compared to when you should use “man”?
26. Create an alias named LA that is ls –al. Capture the output and show it worked.
27. In #24 you issued the date command and captured the output. Issue the date command and redirect your output to a file named date.txt. Redirect the output of **echo “Current time and date is `date`”**  to date.txt ensuring it appends to the end of the file.
28. Issue the more command or the less command on date.txt and capture the output. How to move to the beginning of a file in less? How to move to the end of file in less? How to scroll down or up? Please explain if you cannot capture the screen.
29. Capture the long listing of date.txt.
30. Modify date.txt to add **executable** privileges to date.txt for the owner, Capture the command and prove that the permissions were changed. No other permissions will be changed. You must do this with the octal values.
31. Modify date.txt to remove **w** from the group. Capture the command and prove that the permissions were changed. No other permissions will be changed. You must do this without using the octal values.
32. Capture the command echo $SHELL.
    1. What shell are you using?
    2. Where do the “shells” live?
    3. Capture the command to switch to a different shell
    4. Capture the command echo $SHELL.
    5. What shell are you using? Why is the shell different than you expected?
    6. Capture the command to leave the different shell
33. Using nano to create a text file myvi.txt in your home directory. The file myvi.txt contains the following texts.

***I took a bus today   
Making a tour the American way   
I wondered as I was told***

1. Try out the command **echo** **b{i,a,o}ke,** capture the output and explain what does the { do?
2. Explain what does the following command do? **cp ~/play/old\*.mp[34]** **/tmp/existingFolder**
3. Try out **!!** and **!cd** command, what do these commands do?
4. Assume you have 5 files in the current working directory, Section.pdf, Lecture.pdf, soundecho.mp3, neck.jpg, Monday.sh. If you type in **ls –l [^A-P]ec\*,** what output you will see? Clearly explain why you see your output.

**TO TURN IN:**

* A PDF file - Name this text file your last name, first letter of your first name lab2.pdf. This file will contain all your answers. **I want the question copied and then the answer to the question below it.**
* A zip file that contains your pdf, and all text and files created for this lab.
* You could capture a screen using screen shot.
* You should turn in through the EWU Canvas system. Go to EWU Canvas 2014 CSCD240-01 🡪 Assignments 🡪 Lab2 🡪 Submit Assignment, then you can choose your zip file to upload.

You zip will be named your last name first letter of your first name + lab2.zip (example smithjlab2.zip for John Smith)