CSCD 240
Lab 1

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.

1. Capture a detailed list of ALL files and directories, including dot files, in the /lib directory. By editing your text file, indicated which lines refer to: files, directories and links. – You don't need to do this for all the files, just a few to illustrate you understand the difference. (2 of each)

2. Capture the command and a detailed listing of the file properties of the .bashrc file in your home directory. Add a comment below this capture that explains all the file properties of .bashrc.

3. Create a subdirectory called cscd240 in your home directory. Capture the command that created the directory and the output of an ls command that shows that the new directory exists.

4. Create another subdirectory inside cscd240 that is named lab1. Capture the command that created the directory and the output of an ls command that shows that the new directory exists. NOTE: The creation of the directory lab1 must be made from /home/yourhomedirectory

5. With the home directory still as your current working directory, capture the command that copies the .bashrc file from your home directory to a file called orig.bashrc in the lab1 directory.

6. Within the home directory, capture a detailed listing of all the files in the lab1 directory.

7. Change to the lab1 directory capture the change directory command and capture a command that renames the .bashrc in lab1 to my.bashrc.

8. Capture a detailed listing of all the files in the lab1 directory.

9. Starting in your lab1 directory, capture a command that uses a relative pathname to make cscd240 the current working directory.

10. Use the **pwd** command to indicate the current working directory.

11. Starting in /usr/bin, (you will have to change to /usr/bin) (Prove you are in /usr/bin with pwd) capture the command using an absolute path that will make your home directory the current working directory. Prove the directory change with pwd.

12. Capture the command and output using **rmdir** (with no other commands) to delete the lab1 subdirectory. Does it delete the directory? Why or why not. What combination of commands will delete the directory? You don't need to issue the commands.

13. Using the **man** page describe what is output by the **env** command with no arguments.

14. Show a shell command that will add the current directory to the **PATH** (without removing any existing variables from the current value of **PATH**.)

15. Describe what you would have to do to make a change to the Shell permanent.

16. Explain how to make a Shell change permanent for all sessions including your current session. (i.e. how do I reload my current session without closing and reopening)

17. Capture the output from the **echo "Current time and date is `date`"** command.

18. 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.

19. Create a symbolic link called almost that links to the lab1 directory. Capture the output

20. Change to almost and capture the output.

21. Use "help" to get information on how to use the alias command.
    a. What information is provided in from "help"?
    b. When do should you use "help" compared to when you should use "man"?

22. Create an alias named LA that is ls –al. Capture the output and show it worked.

23. Capture the command to redirect your output from #17 to a file named date.txt.

24. Issue the more or less command on date.txt and capture the output.

25. Capture the long listing of date.txt.

26. Modify date.txt to add executable privileges to date.txt for the owner, Capture the command and proof that the permissions were changed. No other permissions will be changed. You must do this with the octal values.

27. Modify date.txt to remove w from the group. Capture the command and proof that the permissions were changed. No other permissions will be changed. You must do this without using the octal values.

28. Capture the command to create a tar file named date.tgz that contains date.txt. Capture the ls command to show the tar file was created.

29. Capture the command to create a zip file named date.zip that contains date.txt. Capture the ls command to show the zip file was created.

30. Change directory so you are working from within the lab1 directory. Once in the directory:
    a. Capture the command that will create 6 files using the touch command. The files will be named test, test1, test21, test3, something, nothing.
    b. Capture the use of PICO to add text to the file test1.
    c. Capture the long listing of test1 to show the size changed.
    d. Capture the ls command using metacharacters that will print all files named test followed by a single digit.

31. With your home directory as your current working directory complete the following:
    a. Create a symbolic link called myTest which refers to test1 in the lab1 directory
    b. Capture a long listing of all the files in your home directory.

32. Explain when and why one would ever use the sudo command? Is the sudo command ever issued behind the scenes by the operating system? Justify your answer.

33. Capture the command echo $SHELL.
    a. What shell are you using?
    b. Capture the command required to install ksh
    c. Capture the command to switch to ksh
    d. Capture the command echo $SHELL.
    e. What shell are you using? Why is the shell different than you expected?
    f. Capture the command to leave ksh

34. Capture the command echo $PS1.
    a. Capture the command PS1=”prompt : ”
    b. Explained what happened
    c. Capture the command to add the date to “prompt : “
    d. Explain how to change the prompt permanently.

35. Capture the df command
    a. What is the purpose of the df command
    b. Capture the df command that allows the output in human readable format

36. Capture the output of the command “history”
    a. How many lines were displayed?
    b. How do you execute the last command without retyping it?
    c. How do you change the number commands saved in the history file? (Hint: bashrc)

TO TURN IN:

- A PDF file - Name this text file your last name, first letter of your first name lab1.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, your tar file, your zip file, date.txt and all files created in #30.

You zip will be named your last name first letter of your first name lab1.zip (example steinerslab1.zip)

NOTE: I don't want anything but a zip file, and I don't want capital letters in the zip file.