CIS-350
Infrastructure Technologies
Lab 5 Report

Student Name: _____**Mike Bergamini**_____

The total number of points granted for this lab is 50. The answers to 19 questions in this Lab 5 Report are worth 30 points. The other 20 points you earn for the hand-on work with Linux. You must login to your Ubuntu Linux account on the Mercury server and work all of the commands in file CIS-350-Lab5-Linux Command Prompt.pdf. **If you follow the Lab 5 instructions carefully, you should have all the required directories and files stored in or under your Linux home directory. I will go the Linux account of every student to check if the hands-on work was done. If I do not see any activity you will get 0 out of 20 points.**

NOTE 1: Linux commands, filenames, options, etc. are **case sensitive**. The vast majority of them is written in **lower case**. For example, filenames John, JOHN, and john represent three different files.

NOTE 2: You should find the answers to all questions below in the documents named *CIS-350-Lab3-Linux Command Prompt.pdf*, CIS-350-Lab4-Linux Command Prompt.pdf, CIS-350-Lab5-Linux Command Prompt.pdf, *CIS-350 Unix-Linux Features, Commands and Utilities.pdf*, and the recorded demo of Labs 3-5 and on Panopto and/or MS Teams.

1. What does the *echo $SHELL* command do? Describe briefly. _____It tells you which shell is the log in shell_____

2. What command would you use to output the directory listing (in a long form and including invisible files) to both the computer screen and file *Names* at the same time? _____ _____ls -a | tee Names _____

3. Assume file *Names* contains several spelling errors. What command would you use to find these errors in the file? _____spell Names_____

4. Assume that you created a script file named *displaymenu*. What command would you use to execute the script file? _____./displaymenu_____

5. What command would you use to display the first 5 lines in file *Prog2.c*? ____ _head -5 Prog2.c_____

6. What command would you use to display the calendar for year 2021? ____cal 2021___

7. What command would you use to put a shell to sleep for 50 seconds? ____sleep 50___

8. What would the command *wc -w Names* generate? (*Names* is a file.) _____ it would generate the number of words in the file Names_____

9. What command would you use to find all occurrences of word *Joe* in file *Names*? _____ __grep Joe Names_____

10. What command displays the current date? ____date_____

11. What command clears the screen? ____clear_____

12. What does a command *chmod u-w+rx designmenu* do? Briefly describe. _____this command grants you permission to execute the desigmnenu file_____
_____

13. What command allows the user to check Linux environment, i.e., how environmental variables are set up? _____set

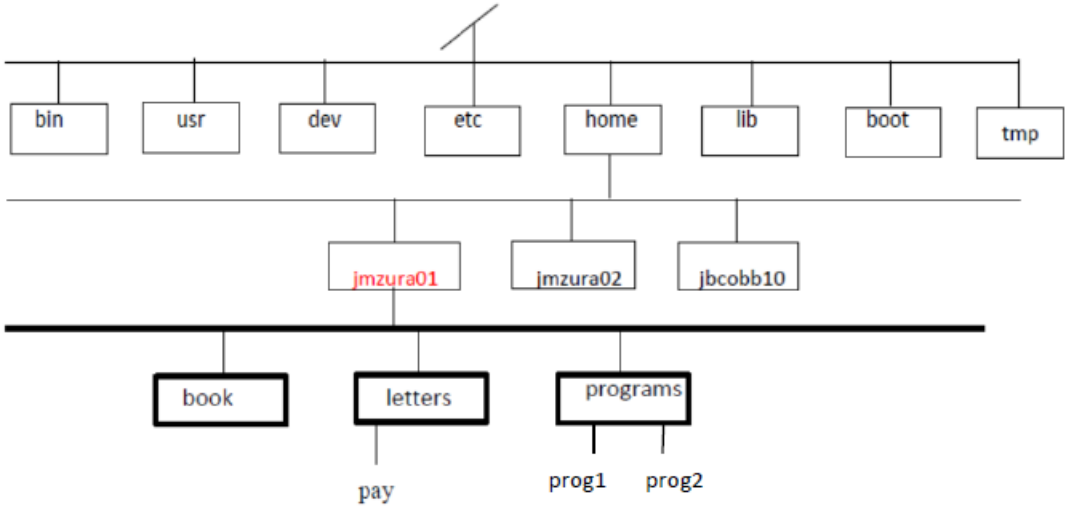
14. What command is derived from the physical device called T-joint attached to a water pipe, for example? (The T-joint lets water out from one source to two outlets.)
_____tee_____

15. What command allows you to change the Linux level 1 prompt? ___PS1_____

16. What are the two modes that the *vi* editor uses? _____insert mode and command mode_____

17. The *ls –al designmenu* command displayed the following attributes of file *designmenu*. Describe **all** attributes of file *designmenu*, including the 3 groups of users, access permissions given to each of the 3 groups of users and the permission types, the name of the owner, size of the file, date, and the name of the file.
- r w x r - x - - - jacobb02 850 Mar 13 12:30 2021 designmenu
___the user can read write and execute the file. r is read, w is write, x is execute. r – x means other users can only read and execute the file. Jacobb02 is the user. 850 is the size of bytes of the file. Then you have month, day, time, and year. Designmenu is the name of the file

18. Look at the Linux directory structure below. Write an absolute path that starts at the root directory (*/*) and leads to file *pay*? _____/home/jmzura01/letters/pay_____



19. Look at the Linux directory structure above. Assume that your current directory is *home*. Write a relative path that leads to file *pay*? ____jmzura01/letters/pay_____

20. Linux is an essential component of the course. By putting my full name below, I testify that I actually logged in to the Ubuntu Linux and worked the commands on the Ubuntu Linux system, not just answered the above questions on paper. I acknowledge that I will lose points for not working the lab in Linux.
_____Michael Bergamini_____

21. Describe briefly which command(s) did not work and/or what places in the lab could be improved.
_____When writing out the designmenu program, on the pdf, the #!/bin/ksh statement isn't at the top

of where the file starts. I'm guessing that's why I kept getting the do syntax error in my designmenu file. I copied the designmenu file from the tmp directory and that was the only difference I noticed.