





**CIS-350**  
**Infrastructure Technologies**  
**Lab 5 Report**

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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.

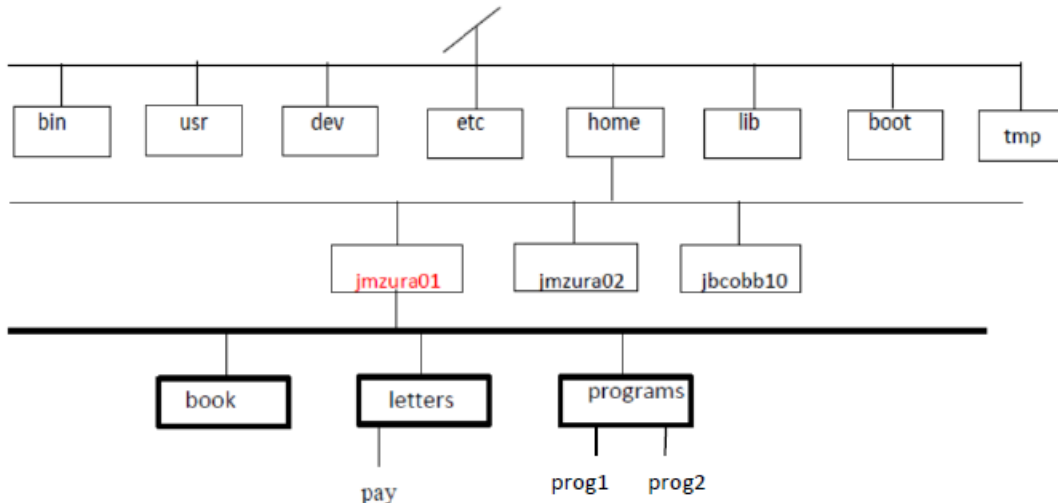
1. What does the `echo $SHELL` command do? Describe briefly. **This command lets you find out which shell is the login shell**
2. What command would you use to output the directory listing (in a long form and including invisible files) to both the computer screen and file *Names* at the same time?  
**ls -la | 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.)  
**A number that shows the word count for the names file.**
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.  
**it changes the user's permissions to include reading and executing and removes the writing authority from the script/file designmenu**
13. What command allows the user to check Linux environment, i.e., how environmental variables are set up? **the set or env commands**
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? **entry 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.

```
- rwx r-x --- jacobbb02      850   Mar 13 12:30 2021  designmenu
```

The first part shows that the file type is a “-” which means ordinary file. The next part shows the permissions of the owner which are r for read w for write and x for execute. The next part shows the owners group permissions which are r for read and x for execute. The next part shows the permissions for other users which are all dashes which means they have none the next part is the username which is jacobbb02 . The next part is the file size which is 850 and after that shows the date it was last modified and what the file’s name is.

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`? `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.  
**Jacob William Forcht**
21. Describe briefly which command(s) did not work and/or what places in the lab could be improved. I forgot a couple of times to enter my own userid when it says user id. I think if you highlighted that yellow or changed the text color to red it would be even easier to know that you need to change it to your own user id.