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

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**The total number of points granted for this lab is 50. The answers to 20 questions in this Lab 5 Report are worth 25 points. The other 25 points you earn for the hand-on work in Ubuntu Linux. You must login to your Ubuntu Linux account on the Mercury server and work all of the commands in file** [[File](https://blackboard.louisville.edu/bbcswebdav/pid-18728627-dt-content-rid-66730975_2/xid-66730975_2) CIS-350-Lab5-Linux Command Prompt.pdf](https://blackboard.louisville.edu/bbcswebdav/pid-18728627-dt-content-rid-66730975_2/xid-66730975_2). **If you follow the Lab 5 instructions carefully, you should have all the required directories and files stored in your Linux home directory (/home/your\_login\_name; for example, /home/jmzura01). 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 25 points. If I see partial activity, you will earn between 0 and 25 points. No excuses please and no makeup work.**

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 [[File](https://blackboard.louisville.edu/bbcswebdav/pid-18728621-dt-content-rid-66716967_2/xid-66716967_2) *CIS-350-Lab3-Linux Command Prompt.pdf*](https://blackboard.louisville.edu/bbcswebdav/pid-18728621-dt-content-rid-66716967_2/xid-66716967_2), [[File](https://blackboard.louisville.edu/bbcswebdav/pid-18728624-dt-content-rid-66730972_2/xid-66730972_2) CIS-350-Lab4-Linux Command Prompt.pdf](https://blackboard.louisville.edu/bbcswebdav/pid-18728624-dt-content-rid-66730972_2/xid-66730972_2), [[File](https://blackboard.louisville.edu/bbcswebdav/pid-18728627-dt-content-rid-66730975_2/xid-66730975_2) CIS-350-Lab5-Linux Command Prompt.pdf](https://blackboard.louisville.edu/bbcswebdav/pid-18728627-dt-content-rid-66730975_2/xid-66730975_2), [File](https://blackboard.louisville.edu/bbcswebdav/pid-19082872-dt-content-rid-66599265_2/xid-66599265_2) [CIS-350 Unix-Linux Features, Commands and Utilities.pdf](https://blackboard.louisville.edu/bbcswebdav/pid-19082872-dt-content-rid-66599265_2/xid-66599265_2), 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 shows 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? **-al > 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 output the number of words in 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. **This gives the user the ability to read and execute a file, but not write.**
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? **command input**

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*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. **The '-' tells you this is an ordinary file where the owner has read, write,and execute permissions.**
2. **The second set tells you the permissions within the owner's group which is read**
3. **and execute.**
4. **The third set is permissions for other users which is none.**
5. **'jacobb02' is the owner of the file.**
6. **850 is the size of the file.**
7. **Mar 13 12:30 2021 is the date and time the file was**
8. **created.**
9. **'designmenu' is the file name.**

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**

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



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**

1. 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.

**Destinee Matsoumou**

1. Describe briefly which command(s) did not work and/or what places in the lab could be improved. **N/A**