CIS-350
Infrastructure Technologies
Lab 3 Report

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The total number of points granted for this lab is 50. The answers to 25 questions in this Lab 3 Report are worth 25 points. <u>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</u> *CIS-350-Lab3-Linux Command Prompt.pdf.* **If you follow the Lab 3 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 *CIS-350-Lab3-Linux Command Prompt.pdf*, document named *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 command displays your working directory? _____pwd_____

2. What command moves you to the parent directory? ___cd .._____

3. What command moves you to the root directory from anywhere? ____cd /_____

4. What command moves you to your home directory from anywhere? ___cd_____

5. What command displays all files and directories in a long form and includes invisible files? __ls -al_____

6. What command displays the contents of file *Andy*? __cat ANDY_____

7. What command allows you to get the manual on-line help on the *ls* command? _man ls_____

8. What command would you use to sort data in the ascending order coming from file *MyData* and redirect (route) the sorted output to file *MyDataSorted*? (Watch the lower and upper case!)

___sort <MyData > MyDataSorted_____

9. Display the content of the directory in a long form. Include invisible files and protect the directory list from scrolling off the screen. ___ls -al | more_____

10. What command would you use to open the *nano* editor to create file *students*? __nano students_____

11. What command would you use to open the *vi* editor to create file *KIM*? ___vi KIM_____

12. What command would you use to remove the directory *letters*? ____rmdir letters_____

13. What command is used to change the password? ____passwd_____

14. What does the command *cat students > letters* do?

<u>To display the content of a file named students, and redirect the output to the file named letters</u>

15. Assume that your home directory is your login directory. Write a command that
    (a) creates directory named *mary3* in your home directory
    ___mkdir mary3_____

(b) copies all files with extension *cc* from your home directory to the *mary3* directory
_____cp *.cc mary3_____
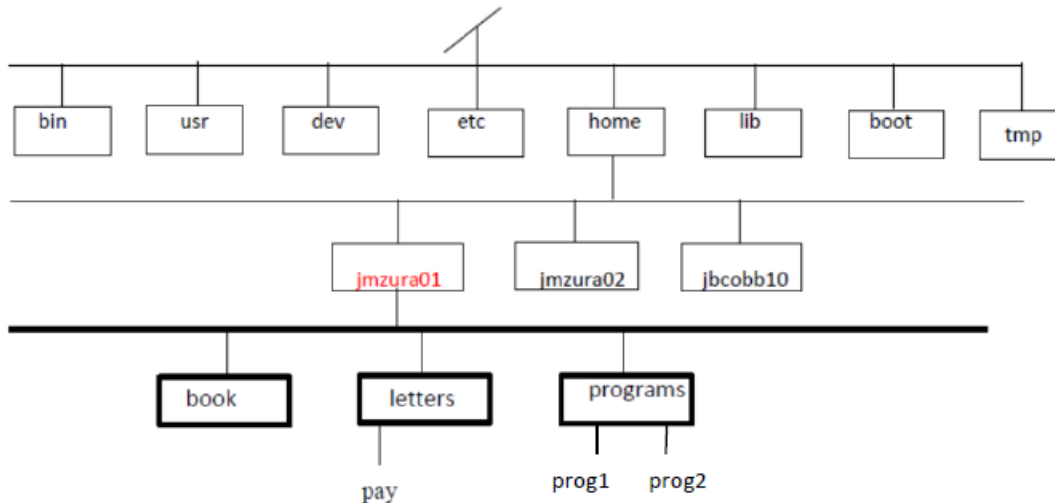
(c) changes your home directory to the *mary3* directory
_____cd mary3_____

16. Describe briefly what does a command *cat tom1 | sort* do.
<u>To display the content of a file name tom1 and sort the output</u>

17. Look at the Linux directory diagram below. Circle the correct <u>absolute</u> path to file *prog1*?
(a) /home/jmzura01/programs/prog1   b. /home/jmzura02/letters/prog1
c. /home/jmzura01/letters/prog1   d. /home/jmzura01/letters/pay
e. programs/prog1

18. Look at the Linux directory diagram above. You are already in directory *jmzura01*. Circle the correct <u>relative</u> path to file *prog1*?
a. /home/jmzura01/programs/prog1   b. /home/jmzura02/letters/prog1
c. /home/jmzura01/letters/prog1   d. /programs/prog1
(e) programs/prog1

19. You have typed the command *ls -al*, pressed Enter key, and the first 10 characters are displayed as
– r w x   r - -   - - -   indicating the file type and file access permissions. Circle the correct access permissions for the owner?
a. –   (b) r w x   c. r - -   d. - - -   e. r w –

20. The link (*ln*) command does not copy a file; it merely assigns another name to the same file by creating a new directory entry. Circle the correct answer.
(a) True   b. False

21. What commercial or open version of Linux you have been using in this lab? Circle the correct answer.
a. RedHat   b. Debian   (c) Ubuntu   d. Gentoo   e. X Windows

22. What is the name of the default shell that you have logged into in this lab? Circle the correct answer.
a. Korn shell   b. C shell   c. Bourne shell   (d) Bourne Again shell or Bash shell
e. Joy shell

23. What command do you use to log off from Linux? Circle the correct answer.
a. CTRL-U   b. end   (c) logout or exit   d. finish   e. terminate

24. Unix was created in _____. Circle the correct answer.
a. 1980's   (b) 1970's   c. 1960's   d. 1990's   e. 2000's
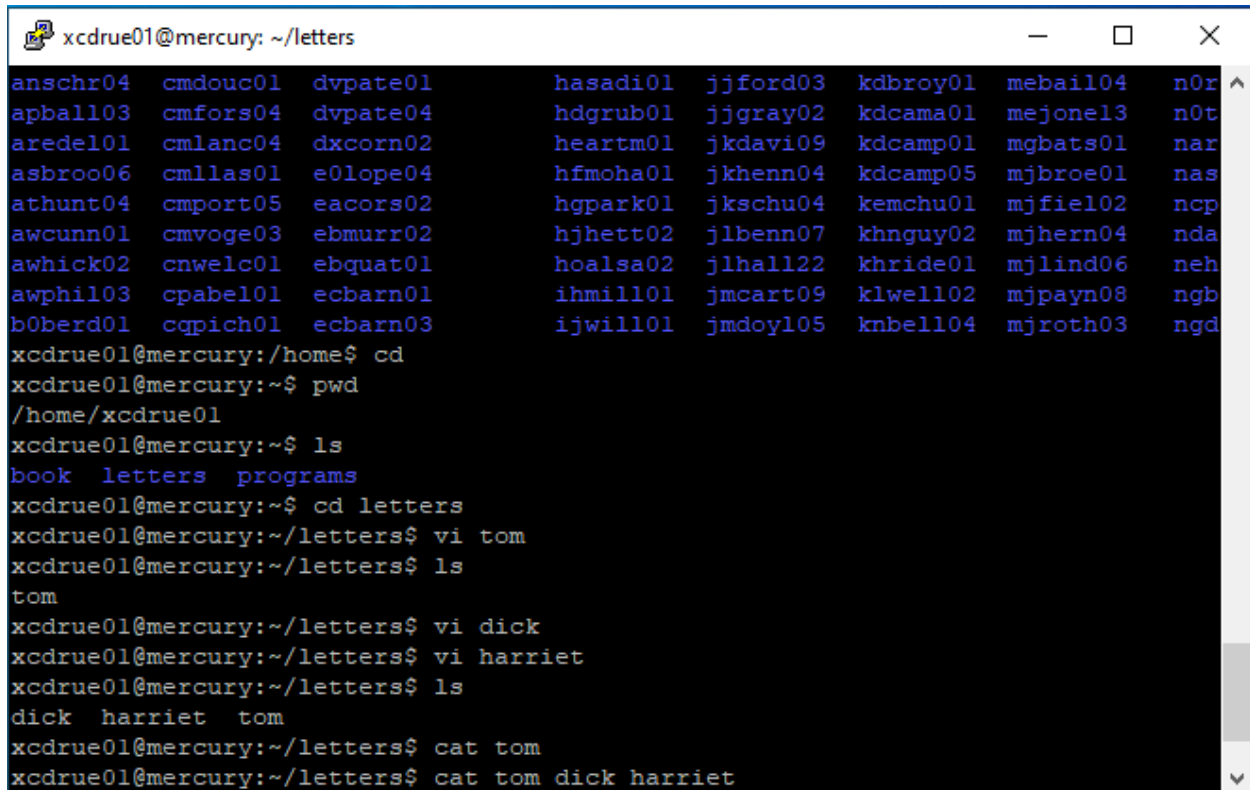
25. Linux was created by _____. Circle the correct answer.
a. Ken Thompson   b. Dennis Ritchie   c. Bill Joy   d. Brian Kernighan
(e) Linus Torvalds

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26. 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.
__Xiaoyin Druen_____

27. Describe briefly which commands did not work and/or which places in the tutorial need improvement/clarification.

The commands worked fine with me. I think it will take time to get use to them, especially the vi editor. The content I typed was not shown with cat. I did see the content as I typed and used :wq when I closed it.

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xcdrue01@mercury: ~/letters                                    —    □    ×
anschr04   cmdouc01   dvpate01        hasadi01  jjford03  kdbroy01  mebail04   n0r
apball03   cmfors04   dvpate04        hdgrub01  jjgray02  kdcama01  mejone13   n0t
arede101   cmlanc04   dxcorn02        heartm01  jkdavi09  kdcamp01  mgbats01   nar
asbroo06   cmllas01   e0lope04        hfmoha01  jkhenn04  kdcamp05  mjbroe01   nas
athunt04   cmport05   eacors02        hgpark01  jkschu04  kemchu01  mjfie102   ncp
awcunn01   cmvoge03   ebmurr02        hjhett02  jlbenn07  khnguy02  mjhern04   nda
awhick02   cnwelc01   ebquat01        hoalsa02  jlhall22  khride01  mjlind06   neh
awphil03   cpabel01   ecbarn01        ihmill01  jmcart09  klwell02  mjpayn08   ngb
b0berd01   cqpich01   ecbarn03        ijwill01  jmdoy105  knbell04  mjroth03   ngd
xcdrue01@mercury:/home$ cd
xcdrue01@mercury:~$ pwd
/home/xcdrue01
xcdrue01@mercury:~$ ls
book   letters   programs
xcdrue01@mercury:~$ cd letters
xcdrue01@mercury:~/letters$ vi tom
xcdrue01@mercury:~/letters$ ls
tom
xcdrue01@mercury:~/letters$ vi dick
xcdrue01@mercury:~/letters$ vi harriet
xcdrue01@mercury:~/letters$ ls
dick   harriet   tom
xcdrue01@mercury:~/letters$ cat tom
xcdrue01@mercury:~/letters$ cat tom dick harriet
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