**CSIS 2260 - Lab #7**

***Linux Commands – Additional Practice***

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Due date: 20:59 March 12, 2021 (Pacific Time)

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**DO NOT upgrade to Ubuntu 20.04 LTS if the message prompts.**

**You may not use the numeric keypad on your keyboard in Ubuntu. It is turned off by default.**

**Insert the required screenshots in the Word file. Do not submit the screenshots separately.**

**Write down your answers in the highlighted areas.**

**Equipment/Document Required:**

1. A PC with VirtualBox installed and Ubuntu VM created.
2. The document *Introduction to UNIX Commands and Scripting*.
3. A web browser to search for more information about commands if you need them.

**Review Exercise**  **[\_\_\_\_\_/20]**

Start the Ubuntu virtual machine you created in lab 4. Log in and open a terminal window. Carry out the following steps and record the commands used on the right.

|  |  |  |
| --- | --- | --- |
|  |  | Command(s) used |
| 1 | With what command can you find out what your current working directory is (i.e., which directory you are in right now? On the right, indicate the command and its output. | pwd  /home/stephen |
| 2 | Note that you should be in your home directory – which is not /home, but /home/xyz, with your name instead of xyz. If you are not in your home directory, change into it now. Otherwise, nothing to do in this step. |  |
| 3 | We will begin with four different ways of creating files. Make sure to understand the purpose of each and when they would be used in practice.  First, put the content of the manual page of the command *cp* into a file named **file1.txt**. | man cp | cat > file1.txt |
| 4 | Second, create a new file named **file2.txt** and enter the following into the file.  Triple chocolate brownie  New York cheesecake  Oat fudge bar  Nanaimo bar  Chocolate chip cookie  What was the command used for creating the file? | cat > file2.txt |
| 5 | Third (NEW), use the command on the right to create a new, empty file **file3.txt**. | touch file3.txt |
| 6 | Fourth (NEW), use the editor nano to create a new file. Use the command on the right to start nano. Type whatever text you like and then press Ctrl-X to exit the editor. When prompted, press Y to save the file, type **file4.txt** as the file name to write, and press enter to save the file. | nano |
| 7 | Create a directory named **desserts** in the current directory. | mkdir desserts |
| 8 | Go into the directory **desserts**. | cd desserts |
| 9 | Create a (sub)directory named **cakes**. | mkdir cakes |
| 10 | Create another subdirectory named **pies**. | mkdir pies |
| 11 | Note that you should still be in the directory **desserts**. Go up one level in the directory hierarchy (i.e., to your home directory). | cd .. |
| 12 | Copy **file1.txt** into a new file named **file10.txt** in the current directory. | cp file1.txt file10.txt |
| 13 | Copy **file2.txt** into the directory **desserts**. | cp file2.txt desserts/ |
| 14 | Move **file3.txt** into the directory **cakes**. The command is given on the right. | mv file3.txt desserts/cakes/ |
| 15 | Move **file4.txt** into the directory **pies**. | mv file4.txt desserts/pies/ |
| 16 | Go into the directory **desserts**. | cd desserts/ |
| 17 | While you are still in the directory **desserts**, list the content of the directory **cakes**. Show the command and the output on the right. | ls cakes/  file3.txt |
| 18 | Go into the directory **pies**. | cd pies/ |
| 19 | List the content of the directory **pies**. Show the command and the output on the right. | ls  file4.txt |
| 20 | Go back to the directory **desserts**. Note: Your command should not contain the word “desserts”. | cd .. |
| 21 | List the content of the directory **desserts**. Show the command and the output on the right. | ls  cakes file2.txt pies |
| 22 | Go back to your home directory. | cd .. |
| 23 | Delete the directory **desserts** and all the files and directories it contains. This can be done with a single command, or with a number of commands. Whichever you chose, write it/them down on the right. | rm -r desserts |
| 24 | In you home directory (where you should still be), list all the files with a name that begins with **file**. Write down the command and the output on the right. | ls file\*  file10.txt file1.txt file2.txt |
| 25 | List all the files that contains the number **2** in the file name. Write down the command and the output on the right. | ls \*2\*  ex2 file2.txt |
| 26 | On the right, write down the output of the command **ls file?.txt** | file1.txt file2.txt |
| 27 | What are the current permissions for user, group and other for **file1.txt**? Write down the command to find out and the result on the right. | ls -l file1.txt  -rw-r---r--- |
| 28 | Change the permissions of **file1.txt** so that both the owner and the group can read and write the file, while other can only read but cannot write the file. | chmod g+w file1.txt |
| 29 | Using pipes, count how many files in your home directory that begin with **file**. Write down the command to find out and the result on the right. | ls file\* | wc -l  3 |
| 30 | Using pipes, output all the lines in **file2.txt** that contain the word **bar**, sorted alphabetically. Write down the command to find out and the result on the right. | grep bar file2.txt | sort  Nanaimo bar  Oat fudge bar |

**Shutdown the Virtual Machine**

1. Power off the Ubuntu virtual machine.
2. Close Oracle VM VirtualBox Manager.

**Submission**

1. Save your lab file as YourFirstname\_yourID\_Lab7.docx.
2. Submit the WORD file through Blackboard before the due (do not send labs by email please. Any lab submitted by email will be ignored). Late submissions will not be marked, and the student will lose the mark of that lab.
3. You may submit your work multiple times, but only the LAST submission before the due will be graded.