**IT-5423 - Lab 2**

**Total Points: 100**

**Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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**Initial Activities**

* Login to CSEView: [**https://cseview.kennesaw.edu/portal/webclient/index.html#/desktop**](https://cseview.kennesaw.edu/portal/webclient/index.html#/desktop)
* Select the Ubuntu VM of our class IT-5423
* Click on Administrator
* Password: linuxadmin (all lowercase)

**Lab Content**

Answer all the questions below.

1. From the /root directory (it is the same location when you open command prompt terminal), try the following “ls” command, examine the results and explain. Provide screenshots. [5\*3 = 15 points]

a) ls /.\*

b) ls .\*/

c) ls /\*/ -d

d) ls /\* -d

e) ls \* -d

2. Given that you are in root directory, use the ls command to display as below and take screenshots [3\*5 = 15 points]

(a) all file names starting with the letter “d”

[Hints: <https://askubuntu.com/questions/225621/how-to-search-for-all-the-files-starting-with-the-name-abc-in-a-directory>]

(b) all directory names starting with the letter “d”

(c) all file names containing “abc”

3. File copy, move, and removal. Use one command to finish each step, provide screenshot of command and result to get marks. You should not use “cd” command at all. [8\*3 = 24 points]

* Under your root directory, create a new text file using your netid as the file name.
* Create a copy of the file in the same directory using any name you like.
* Create a subdirectory “backup”.
* Move the original file (netid) to “backup” and rename it using your first name.
* Create a copy of the “backup” directory (and all file in it); name it “backup2”.
* Delete “backup”.
* Rename “backup2” to “backup3”.
* List the files in the new directory (backup3).

4. Link – commands and options [6\*5 = 30 points]

Go to your “Documents” directory;

a) Create a file “file1” with the text “hello” in it; Provide command and screenshot.

b) Create a hard link named “file2” linked to “file1”;

[Hint: <https://www.tecmint.com/create-hard-and-symbolic-links-in-linux/>]

c) Create a soft link named “soft1” linked to “file1”; create another soft link named “soft2”

linked to “file2”.

[Hint:<https://www.tecmint.com/create-hard-and-symbolic-links-in-linux/>]

d) View information of the 4 files (what command should you use to produce output) – how do you verify which file is a hard link and which file is a soft link?

[hint:<https://unix.stackexchange.com/questions/170444/how-to-find-out-a-file-is-hard-link-or-symlink>]

e) Use a text editor (Nano or VIM) to edit “soft2”: change “hello” to “hello, world”. Now, what

is the content in each of the files? Provide screenshots. Are they all the same? If yes, why?

f) How do you remove all these hard and soft links? Apply the command and provide screenshots of the removal results.

[Hint:<https://www.cyberciti.biz/faq/linux-remove-delete-symbolic-softlink-command/>]

5. Permissions– commands and options [4\*4 = 16 points]

Provide commands with screenshots. You can look up websites to answer these questions. Here is one website,<https://kb.iu.edu/d/abdb>

(a) Create a new file in the root directory. What is the default permission for this file?

(b) Set the directory permission to 400. What does it mean?

(c) Set the directory permission to 100. What does it mean?

(d) Set the directory permission to 200. What does it mean?