ECE 282 Lab 2

Lab Assignment Due: 11:00pm August 23rd, 2019

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# Command practice

* What do the following commands do? Give an example of usage.

1. Which

Identifies executables in a given file/directory.

Which -file/directory-

Which who (identifies the location of the who command)

1. Last

Shows the listing of the lasted logged in users

Last -a will give you the listing of all previously logged in users, showing the hostname in the last column instead

1. Ping

Sends an echo request to a given network host ip

Ping 127.1.1.1 (Will continuously ping that ip showing the time it takes for the signal to be sent and received)

1. Df

Shows the file system disk space being used

Df -al (Shows the disk space being used, including dummy system, limited to locate files)

1. Du

Estimates the file space usage, showing all files and files within directories under a given public working directory

Du -a (show’s all the files under my current pwd, in this case it was within my ece282 folder)

1. Chmod

Allows for the user to change the file mode bits of a given directory/file. This is done to enable or restrict read, write and execute permission to 3 groups of users (yourself, root/group, others).

Chmod 755 ece282 (Changes the rwx permissions of my ece282 folder so that I can rwx, group/root can r and x, and others can r and x as well)

1. Kill

Terminates an active process

Kill -process id- (can be looked for by ps and terminated by its given id)

1. Pkill

Allows for users to look up active files/directories based on name or other attributes.

Pkill -file/directory name(among a bunch of other attributes)-

1. Dd

Allows for conversion or copying of a file, can be used for things like backing up a hard drive.

Dd if -input file directory/file- of -output file directory/file- (In this case it will copy the contents from the input file into the output file, replacing them if contents already exist in that location or creating it if they do not)

1. grep

Used to search text or searches in a given file for lines matching a given input

Grep /export/ ece282 (identifies my ece282 folder within the specified directory)

1. ifconfig

It is interface configuration allowing for systems to configure, manage and query network interface parameters.

Ifconfig (shows the network links to our connected server)

1. man -k

Allows for searching of the man pages

Man -k 10 will display the 10th page of the manual, used to look up specified manual pages

1. ps -ef

ps gives an overall of the current processes, -e displays all processes, similar to -a, -f gives a full-format listing

ps -ef shows all current processes in full format listing

1. sed

Can perform a variety of functions on a file like searching, find and replace, insertion or deletion.

Sed s/a/b inputfile.txt (replaces all a with b in the given file inputfile.txt)

1. diff

Allows users to compare files line by line, displays the difference between given files.

Diff a textfile1.txt textfile2.txt (this adds the difference from textfile1.txt to textfile2.txt)

# Exercise

1. Use the sample code, example.c, to show usage of debugging with ddd. Recall that you must use gcc with the –g switch to add the debugging symbols to the code. Then open the compiled file with the ddd command. EG ddd example. Find the bugs and be specific about where the bug is and how to fix it. The code should sort numbers so if the arguments are 6 9 3 4 1 it should sort them 1 3 4 6 9. Show screen shots of the ddd session in the submission do. Also send the repaired source code. To send a screen shot in Windows you can use the Snipping Tool that is included with the OS.

