

## Pre-lab 1: Linux Primer

- 1)[5] What command will show you which groups you are a member of?
  - `$groups` or `id -Gn` (equivalent to `groups` utility)
- 2)[5] What does the variable “\$?” show?
  - `$` is used to refer to some sort of variable
- 3)[5] What command will find all files with suffix ‘.txt’ in the subtree /foo/bar?
  - `find/foo/bar >name_of_file.txt`
  - Find (starting directory) (matching criteria and actions)
- 4)[5] With what command (and arguments) can you find out your kernel version and the “nodename”? [The output should not include any other information]
  - `$ uname -v -n`
- 5)[5] What is the difference between the paths “.”, “..”, and “~”? What does the path “/” refer to when not preceded by anything?
  - `..` would be the current directory
  - `..` would be the parent directory
  - `~` is the home directory where other users can't see or access those files/directories. Files in the `/` root directory are system wide and can be accessed by everyone who have the right permissions.
- 6)[5] Which command would you use to find the “pid” for a running process?
  - `Pidof <application name>`
  - Finds the process ID of a running program
- 7)[10] Write a single command that will return every username in the system in alphabetical order. [You may chain commands using piping and redirects]
  - `$ cut -d: f1 /etc/passwd|sort` information is stored in `/etc/passwd` and `sort` sorts the information.
  - `$ awk -F':' '{ print $1}' /etc/passwd`
  - Awk options ‘selection criteria{action}’ inputfile > outputfile

8)[10] What is the difference between “sudo” and “su root”?

- Su root - switches to the superuser when you execute it with no additional options.
- Sudo- the system prompts you for your current user accounts password before running command as the root user

9)[10] Where would you place a program or script that you wanted to execute on a schedule or set interval? E.g. Run this program once every 30 minutes.

- I would place the program or script in the user's private folder in home directory which wouldn't be able to be read by anyone for security and private reasons.
- Example command could be crontab
- Example script While true; do <file> ; sleep 30; done

10)[40] Write a shell script that only prints the odd numbered lines of each file in the current directory, except for the script itself. The output should be *filename: line* for each even numbered line. You do not need to print line numbers.

- Check other file for the script

Shared resources (ie google) with wesley chao