LAB – 08 PRELAB

- ☐ **All screenshots, must have your username at command prompt and screenshot should be legible.** Snipping tool is advised for the screen shots, no full page screenshot.
- ☐ **For LAB REPORT, The screenshots should be pasted in Word Document in order of the lab questions and submitted in Blackboard as a single document only. Plagiarism is awarded zero.**
- ☐ Refer to course details posted in BB for more info on Lab report and screenshots.
- ☐ **Do NOT login as root or user with UID=0 to do the lab, use sudo ONLY when required.**
- ☐ **Do not use changeme username** to do the lab, the lab(s) MUST be done using your own username as specified in PART-B of LAB-1
- ☐ **Strictly NO screenshots with full screen of terminal or desktop or partly taken screenshots**
- ☐ **It is highly required to following naming conventions and instructions and it would affect evaluation.**

PART A: System PROCESS

all lab activity in TORONTO

1. Use **ps** command with various options as below and observe the differences in output. Get familiarized with the fields/columns using manual pages of ps.
   a. **ps –e** |head -4 b. **ps -f** | head -4 c. **ps –ef** |head -4 d. **ps –a** |head -4
   e. **ps –u** |head -4 f. **ps –x** |head -4 g. **ps –X** |head -4 h. **ps –ax** |head -4
   i. **ps –aX** |head -4 j. **ps –eao ppid,pid,uid,stat,cmd,tty,user** |head
   k. **ps –afo ppid,pid,uid,stat,cmd,tty,user** |head
2. Display 3 processes with different states **(SCREENSHOT)**
3. Use **pidof** and **pgrep** to find pid of **NetworkManager**, **cupsd**, **crond** and **systemd (SCREENSHOT)**
4. Use **pstree** command to find the parent of **NetworkManager**, **cupsd**, **sshd**, **crond (SCREENSHOT)**

SCREENSHOT: history |grep ps

5. Create atleast 5 jobs using vim and display them **(SCREENSHOT)**, *(Note the jobID and PID for later purpose)*
6. Display all the kill signals **(SCREENSHOT)**
7. Use SIGTERM and SIGKILL signals to stop any two jobs. **(SCREENSHOT)** *(do not stop all jobs leave atleast one)*

PART-B: System monitoring (*When running the commands familiarize yourself with purpose of the commands)*

8. Run **vmstat** every 2 secs for 10 iterations
9. Run **iostat** command with atleast three various options,
10. Try **mpstat** and **mpstat –P ALL**, go through the difference of information
11. Use **top** command and find the available information
12. Use **top** to display only process with PID 2
13. Use **top** to display only the processes you own
14. Delay the **top** process by 10 secs
15. Using **top** stop the job you had created using vim **(SCREENSHOT** *end of* ***top*** *showing killed &* ***jobs*** *command***) SCREENSHOT: history | grep -E 'stat|top|ac'**

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