LAB - 08

- ☐ **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-C: SCHEDULING ***all lab activity in TORONTO*** **Inclass Activity : 18,19,20,21,22,23,24,36,37**

16. List the packages of cron and anacron using yum
17. Display the status of service that does scheduling
18. Create file testat1 using **cron** by scheduling (one time) 2 mins from your current time., and check if the file is created after 2 minutes.
19. Create a directory **/backup** and take user and group ownership to yourself.
20. In your home directory, create a file that has its name as the date and time when it was created
21. Create a script named **mydailybak** using tar command to archive and compress your home directory and save it in **/backup** directory. The archived and compressed filename should be the date and time of filecreation with tgz extension. **No sudo should be used** for this backup automation.
22. Schedule your own backup task using **mydailybak** script to run from Monday to Friday at 12.05am. **No sudo should be used** for this backup automation.
23. Schedule another task of the same **mydailybak** script to run during your lab time, and confirm that this schedule works and backup is created.

SCREENSHOTS *(type **cd** and enter before taking following screenshots)*

a)ls -l b)ls -ld /backup c)ls -l /backup d)cat mydailybak e)crontab -l f)history |grep cron

24. Schedule using **at** command
    a. to run a script printrep1 at 7.59pm end of November.
    b. to create a file named **testlog** in your home directory after 1 min
    c. to have the date and time saved to the file testlog after 2 mins
    d. to have the date and time saved again to the file testlog in 15 mins with date/time
    e. to have the text “end of file” with date and time saved to file testlog today after 20 mins
    f. to have the last line of messages log file saved to testlog file at 12.59 pm end of month (**SCREENSHOT a)atq b)history |grep -w at c)cat testlog**)
25. Use batch command to create a file named batchlog in your home directory 2 hours later and then use batch command to create a file named batchlog1 in your home directory now. Compare batchlog and

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batchlog1 time and also were you able to give date/time parameters to batch ?
(**SCREENSHOT a)atq b)history |grep -w batch c)ls -l ~/batch***)

PART – D : Managing Service Units (SCREENSHOT *for all the activities in this section)*

26. In **rhelg VM** List all the services using systemctl (**systemctl -t service**)
27. Check if crond and sshd service is active, then stop and start crond and sshd service
28. Check if crond and NetworkManager service is enabled.
29. Disable and enable crond and Network Manager service. **a)**Then **SCREENSHOT** display status of sshd, NetworkManager and crond service. **b)SCREENSHOT history |grep systemctl**

PART-E: SYSTEM LOGGING

30. List the log files and analyze the available files.
31. Note that **lastlog** file in **/var/log** is not a text file, to view the file use **lastlog** command
32. Similarly for **/var/log/wtmp** is also not a text file. Type **man wtmp** and note the purpose of the file.
33. Similarly for **/var/log/btmp** type **man lastb** and find the purpose of btmp file.
34. View the **/var/log/messages** and analyse the contents in the file.
35. List the logging configuration files **(SCREENSHOT)**
36. Type **logger "This message is from LAB-9 on `date` by `echo $LOGNAME`"** and display the line in **/var/log/messages**. **(SCREENSHOT)**
37. Type **sudo tail -f /var/log/messages** and open another terminal and **su – user2** *(create user user2 with password if not available)* and note the logging information in messages file. Type exit and exit to close the second terminal. You can use CTL+C to exit the tail -f. **(SCREENSHOT:** *tail -f output when user2 logs in*)
38. Analyse the three sections of the logging configuration file and familiarise the facilities and level(s) defined therein. *Use man logger to get more info on the logger command, facilities and levels.*
39. Analyze the manual pages **logrotate**, **logger**, **syslog(3)** and **rsyslogd**
40. Display the **pid** and **status** of logging daemon **(SCREENSHOT)**
41. Analyse the logrotate configuration file for the rotation period given. Also find the rotation interval for **/var/log/wtmp**, **/var/log/btmp** and **yum** (dnf). **(SCREENSHOT** *the rotation config for wtmp, btmp and yum***)**
42. Display **journald** configuration file and its service **(SCREENSHOT)**
43. Retrieve messages from journal and display it **(SCREENSHOT** *first 5 lines***)**
44. Display alerts generated by **rsyslog**, **sshd**, **NetworkManager**, **tuned** using **journalctl**.
45. Display System tuning's service status **(SCREENSHOT)**
46. List available tuning profiles and active tuning profiles using **tuned-adm (SCREENSHOT)**
47. List the files and diretory where predefined tuned profiles and custom tuned profiles **(SCREENSHOT)**

SCREENSHOT: a) history |grep log b)history |grep -E 'journal|tuned' c) history |grep man *(only Part-E)*

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