

# LAB - 04

- ☐ 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.

**PRE-LAB ACTIVITY: QUESTIONS-1,2,3** (need to be completed before start of lab-05 )

**IN-CLASS Activity: 4-12**

**In TORONTO VM**

## PART-A: USER MANAGEMENT-FILES & DIRECTORY

1. Display (SCREENSHOT) superuser, one regular and one system user in /etc/passwd and /etc/shadow files
2. Analyze the output of the above files and note the fields in each file
3. Find the purpose of /etc/skel directory

## PART-B: USER MANAGEMENT (all user names and group names MUST be in LOWER CASE only)-MANDATORY

In a company as system administrator, adhere to the following policies to create username and assignment of groups.

- a. need to create users where their username is firstname followed by first letter of last name
- b. make the users primary member of their departmental group.
- c. Any additional group membership will be supplementary if the user works in another department.
- d. Password can be same as the username.,
- e. When creating user, **home directory** must be created, **full name** of user be recorded and login shell is **bash shell**.
- f. there are 4 departments **finance, tech, sales** and **hrd**.
4. Each employee in the company, being a user in the system need to have the following files in their home directory by default (automatically - it MUST not be manually copied) (**this question must be completed to proceed further**)
  - i. a file named **hrwelcome** with text "**Welcome onboard**" and
  - ii. another file named **itpolicy** with text "**Welcome!, familiarise with policies and procedures**"
  - iii. Type **ls -l /etc/skel** and check if the files **hrwelcome** and **itpolicy** are listed.
5. Create users as per details given below and follow the company policies given above.
  - a. **John Smith** is the head of the company as CEO and heads the **sales** department. As CEO John Smith requires access to other departments.

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- b. **Nancy Taylor** heads **finance** department and **Preet Singh** works in the same department.
- c. **Raymond Cruz** heads **tech** department and **Ahmed Khan** works in the same department.
- d. **Leslie Lee** is in **sales** department
- e. **HRD** is headed by **Cassey Jones** and **Jane Williams** working in the same department
- f. **Leslie Lee** also works in **finance** department.
- g. **Jane Doe** and **Tom Harry** are interns attached to **tech** department, both these users should change password at their login (**SCREENSHOT** of *Tom Harry and Jane Doe being forced to change password*)

**SCREENSHOT:** a) `tail -15 /etc/passwd` b) `grep -E 'finance|tech|sales|hrd' /etc/group`

c) `sudo tail -15 /etc/shadow` d) `ls -l /etc/skel` e) `sudo ls -lR /home |grep -E 'hrwelcome|itpolicy'`

f) `sudo ls -l /home`

6. Lock user **Tom Harry** and set expiry date to January 31 2022, since internship has completed.

**SCREENSHOT:** a) `sudo grep tomh /etc/passwd /etc/group /etc/shadow` b) `passwd -S tomh` c) `chage -l tomh`

7. Set **Jane Doe**'s password to be changed every 30 days and display (**SCREENSHOT**) using both **passwd** and **chage** command
8. Use **id**, **users** command and note the purpose of the commands (**SCREENSHOT**)
9. Use **su** to login as **Jane Doe** and exit
10. Use **sudo -i** and find the purpose. Type **exit**.
11. Use **su -** and find the purpose. Type **exit**.
12. Use **su** and find the purpose. Type **exit**.

## PART-C: SCRIPTING

13. Write a script which gets input of your Firstname, Lastname and your humberid and then displays all three of them. (**SCREENSHOT**) an example is given aside – enter your own information.

=====

```
Enter your First Name :John
Enter your Last Name :Smith
Enter your HumberID  :n010101010
```

```
your First Name is : John
your Last Name is : Smith
Your Humber ID is : n010101010
```