HUMBER
Faculty of Applied Sciences & Technology

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 folllowing 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
```

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