**Reminder:**

**chown – changes the ownership on a file/directory**

**chgrp – changes the group associated with a file or a directory**

**the ‘-R’ option makes the changes recursive.**

**The command ‘ls –l’ will show a file’s owner and group name. The file inode actually stores the owner id and group id. These are converted into readable names by a lookup in /etc/passwd. /etc/group. The command ‘ls –ln’ shows the actual numeric ids instead of the names.**

# **Scenario Based Questions**

**Login to the Unix system using the account you are given.**

**Run the command**

**sudo -i**

**This will enable you to run a series of administrative commands *as root*.**

***Please be patient, some of the commands take a minute or so to run.***

# **User Administration**

These questions use the accounts ‘jill’ and ‘quentin’ and you may be asked to login them as part of the scenario. Please remember to logout of either/both of these accounts at the end of each question so that your one remaining session is just the root session.

### **Question 1**

**Run the script**

****/scenariolabs/UserAdmin/Q1****

**This introduces two users, jill & quentin. The both have a password of ‘S@nit1zer’. However, as is the way of things, sometimes software does not work the way it should.**

**Use a second window to login as quentin. You will need to replace the user name ‘instructor’ with the user name ‘quentin in the connection string. Type ‘pwd’ to see quentin’s home directory. Run the command ‘touch myfile’ to create a file then ‘ls –l’ to see the file attributes. Then run ‘ls –ln’. This time instead of user quentin and group quentin you will see something like ‘1011 1011’ where the username and group should be in the ls –l output. These are just quentin’s user ID and group ID numbers. Everything thing is well. [The ls –ln information is just a learning point. It is relevant to a later question and will not help you fix this this problem.]**

**Exit this login. (‘**exit’**).**

**Now do the same for the jill account. You will see the output to ‘pwd’ is wrong and you cannot ‘touch myfile’. Try to fix it so that jill can login and create a file.**

**First window**

**[quentin@ml-refvm-422293 ~]$ touch myfile**

**[quentin@ml-refvm-422293 ~]$ ls**

**myfile**

**[quentin@ml-refvm-422293 ~]$ ls -l**

**total 0**

**-rw-rw-r--. 1 quentin quentin 0 Jul 21 20:57 myfile**

**[quentin@ml-refvm-422293 ~]$ ls -ln**

**total 0**

**-rw-rw-r--. 1 1005 1006 0 Jul 21 20:57 myfile**

**Now for jill**

Could not chdir to home directory /home/quentin: Permission denied

-bash: /home/quentin/.bash\_profile: Permission denied

-bash-4.2$

**Check: chage -l jill (NB: if the password is locked we need to use chage -u jill)**

**Use: grep ‘jill’ /etc/shadow to see if the system is locked “looking for !”**

**Use: grep ‘jill’ /etc/passwd (NB: we see jill:x:1006:1007::/home/quentin:/bin/bash)**

**Clearly can see that jill has quentin’s home directory**

**Use: usermod -d /home/jill jill to change the home directory for Jill to /home/jill NB: make sure that you have loged out of the jill account before you do**

**Use: grep 'jill' /etc/passwd to check**

### **Question 2**

**Run the command**

****/scenariolabs/UserAdmin/Q2****

“Now login as Jill. Note Jill is now asked to change password.  Do as instructed set a new password.

Log in as jill using this new password. Note Jill is warned that her password has expires already! Try to set yet a new password. This fails. So Jill is in the unenviable position of being told to change her password but is prevented from doing so.  Please fix this, so that Jill can do as she is asked and the expirey message disappears.

Cheak if the password is locked: passwd -S jill

In instructor use: chage -l jill to check, you can see that the Maximum number of days between password change : 0

Use: chage jill and change Maximum Password Age [0]: 99

## Question 3

As root run

****/scenariolabs/UserAdmin/Q3****

Login as jill. Run the ‘id’ command to show you are jill and are in group ‘jill. (Password S@nit1zer).

[jill@ml-refvm-422293 ~]$ id

uid=1006(jill) gid=1007(jill) groups=1007(jill) context=unconfined\_u:unconfined\_r:unconfined\_t:s0-s0:c0.c1023

As jill run the following commands:

cat /tmp/fish

cat /tmp/chips

You will note that there is a permission failure on chips. Run the commands

ls –l /tmp/fish

ls –l /tmp/chips

[jill@ml-refvm-422293 ~]$ cat /tmp/fish

This data

[jill@ml-refvm-422293 ~]$ cat /tmp/chips

cat: /tmp/chips: Permission denied

Any difference? What is going on? Try to explain this and then correct it so that the ‘ls –l’ output will show jill she has no permission to the /tmp/chips file.

[jill@ml-refvm-422293 ~]$ grep 'jill' /etc/group

**jill**:x:1007:

**jill**:x:9999:

[root@ml-refvm-422293 ~]# grpck /etc/group

duplicate group entry

delete line 'jill:x:1007:'? n

duplicate group entry

delete line 'jill:x:9999:'? y

grpck: the files have been updated

[root@ml-refvm-422293 ~]# grep 'jill' /etc/group

**jill**:x:1007:

[root@ml-refvm-422293 ~]# groupadd nojill

[root@ml-refvm-422293 ~]# tail /etc/group

omiusers:x:992:nxautomation

omi:x:991:

omsagent:x:990:nxautomation

nxautomation:x:989:

alison:x:1003:

robert:x:1004:

cluster:x:1005:alison,robert

quentin:x:1006:

jill:x:1007:

nojill:x:1008:

[root@ml-refvm-422293 ~]# chgrp +1008 /tmp/chips

### Question 4

As root run the command

/scenariolabs/UserAdmin/Q4

Try to login as jill. Why cannot jill login? Correct this situation.

(The information logged to file /var/log/secure may be of some use.)