Homework 4 – CYSE 270

Task A – User Account Management

1. Open a terminal window in VM and execute the correct command to display user account information (including the login shell and home directory) for the current user using grep: cat *etc*/passwd | grep '/current_username'

```
alex@alex-VirtualBox:~$ cat /etc/passwd | grep '/alex'
alex:x:1000:1000:Alex,,,:/home/alex:/bin/bash
alex@alex-VirtualBox:~$
```

2.Execute the correct command to display user password information (including the encrypted password and password aging) for the current user using grep: sudo cat *etc*/shadow | grep '/current_username'

```
alex@alex-VirtualBox:~$ sudo cat /etc/shadow | grep 'alex'
[sudo] password for alex:
alex:$y$j9T$yuTt84sQA6tVKAqrqACx7.$6FAgNexrxNWpXud0LlUiipiWiB1murO/jDtncjpCkY4:19605:0:99999:7:::
alex@alex-VirtualBox:~$
```

3. Create a new user named xxxxx and explicitly use options to create the home directory/home/xxxxx for this user: sudo useradd -m -k *etc*/skel agard012

```
alex@alex-VirtualBox:~$ sudo useradd -m -k /etc/skel agard012
useradd: user 'agard012' already exists
alex@alex-VirtualBox:~$ sudo ls -lA /home/agard012
total 12
-rw-r--r-- 1 agard012 agard012  220 Jan  6  2022 .bash_logout
-rw-r--r-- 1 agard012 agard012 3771 Jan  6  2022 .bashrc
-rw-r--r-- 1 agard012 agard012  807 Jan  6  2022 .profile
alex@alex-VirtualBox:~$
```

4. Set a password for the new user: passwd 'user'

```
alex@alex-VirtualBox:~$ sudo passwd agard012
New password:
Retype new password:
passwd: password updated successfully
alex@alex-VirtualBox:~$
```

5. Set bash shell as the default login shell for the new user xxxxx, then verify the change: sudo usermod -s *bin*/bash agard012

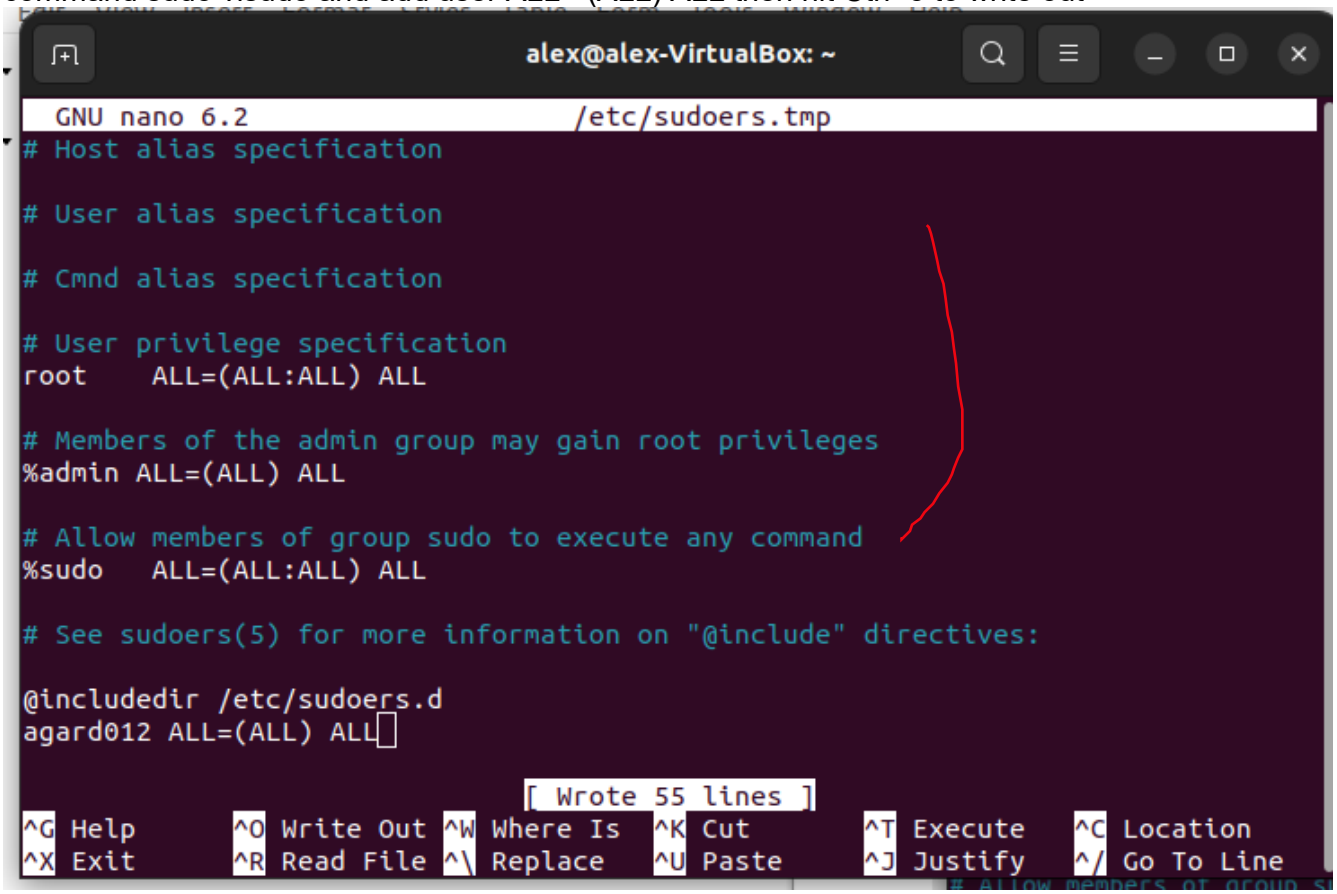
6.

```
alex@alex-VirtualBox:~$ sudo usermod -s /bin/bash agard012
alex@alex-VirtualBox:~$ sudo cat /etc/passwd | grep 'agard012'
agard012:x:1001:1001::/home/agard012:/bin/bash
alex@alex-VirtualBox:~$
```

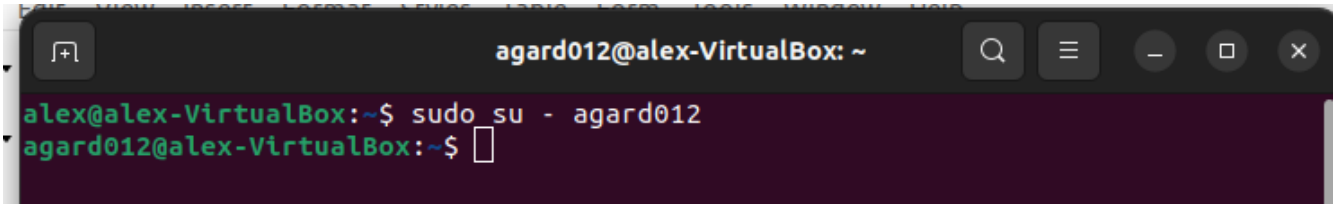
Execute the correct command to display user password information (including the encrypted password and password aging) for the new user xxxxx using grep: sudo cat *etc*/shadow | grep 'agard012'

```
alex@alex-VirtualBox:~$ sudo cat /etc/shadow | grep 'agard012'
agard012:$y$j9T$NBFKGoy956gKr8G8jE0Nk0$SlGcZ3lSpW.K6KiJwy2TmXBN9UH8cvO5uKEnQPDZwKD:19626:0:99999:7:::
alex@alex-VirtualBox:~$
```

7. Add the new user xxxxx to sudo group without overriding the existing group membership: use command sudo visudo and add user ALL =(ALL) ALL then hit Ctrl+o to write out

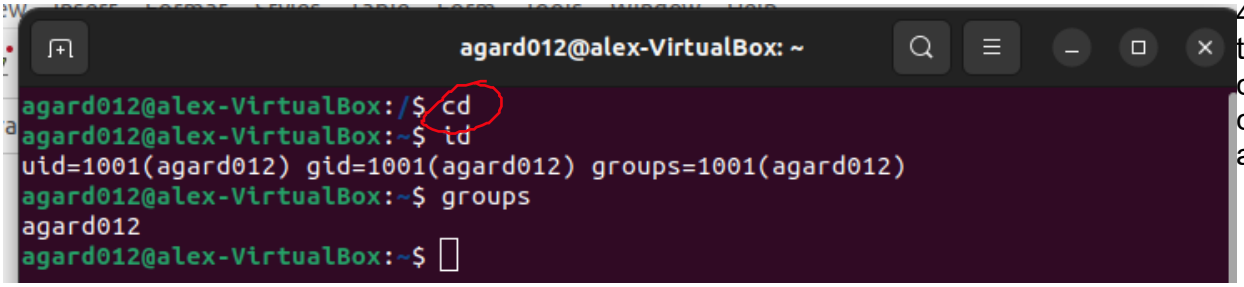


8. Switch to the new user's account: use sudo su – username



Task B – Group Account Management

1. Return to your home directory and determine the shell you are using: cd
2. Display the current user's ID and group membership: id
3. Display the group membership of the root account: groups



4.Run the correct comm and to

determine the user owner and group owner of the /etc/group file: head *etc*/group

```
agard012@alex-VirtualBox:~$ head /etc/group
root:x:0:
daemon:x:1:
bin:x:2:
sys:x:3:
adm:x:4:syslog,alex
tty:x:5:
disk:x:6:
lp:x:7:
mail:x:8:
news:x:9:
agard012@alex-VirtualBox:~$
```

5. Create a new group named test and use your UIN as the GID: sudo groupadd -g 12345689 test

```
agard012@alex-VirtualBox:~$ sudo groupadd -g 01239819 test
[sudo] password for agard012:
agard012@alex-VirtualBox:~$
```

6. Display the group account information for the test group using grep: cat *etc*/group | grep 'test'

```
[sudo] password for agard012:
agard012@alex-VirtualBox:~$ cat /etc/group | grep 'test'
test:x:1239819:
agard012@alex-VirtualBox:~$
```

7. Change the group name of the test group to newtest: sudo groupmod -n newtest test

```
agard012@alex-VirtualBox:~$ sudo groupmod -n newtest test
agard012@alex-VirtualBox:~$
```

8. Add the current account (xxxxx) as a secondary member of the newtest group without overriding this user's current group membership: sudo usermod -G newtest agard012

```
agard012@alex-VirtualBox:~$ sudo usermod -G newtest agard012
agard012@alex-VirtualBox:~$
```

9. Create a new file testfile in the account's home directory, then change the group owner to newtest: create new file with touch test file then use sudo chgrp newtest testfile

```
agard012@alex-VirtualBox:~$ touch testfile
agard012@alex-VirtualBox:~$ ls
testfile
agard012@alex-VirtualBox:~$ chgrp test testfile
chgrp: invalid group: ‘test’
agard012@alex-VirtualBox:~$ chgrp newtest testfile
chgrp: changing group of 'testfile': Operation not permitted
agard012@alex-VirtualBox:~$ sudo chgrp newtest testfile
agard012@alex-VirtualBox:~$
```

10. Display the user owner and group owner information of the file testfile: ls -l

```
agard012@alex-VirtualBox:~$ ls -l
total 0
-rw-rw-r-- 1 agard012 newtest 0 Sep 26 20:52 testfile
agard012@alex-VirtualBox:~$
```

11. Delete the newtest group, then repeat the previous step. What do you find? Sudo groupdel newtest, It no longer shows newtest and it is replaced by the GID of the group so the permissions are worthless

```
agard012@alex-VirtualBox:~$ sudo groupdel newtest
agard012@alex-VirtualBox:~$ ls -l
total 0
-rw-rw-r-- 1 agard012 1239819 0 Sep 26 20:52 testfile
agard012@alex-VirtualBox:~$
```

12. Delete the user xxxxx along with the home directory using a single command: sudo userdel -r agard012

```
alex@alex-VirtualBox:~$ sudo userdel -r agard012
[sudo] password for alex:
userdel: agard012 mail spool (/var/mail/agard012) not found
alex@alex-VirtualBox:~$
```