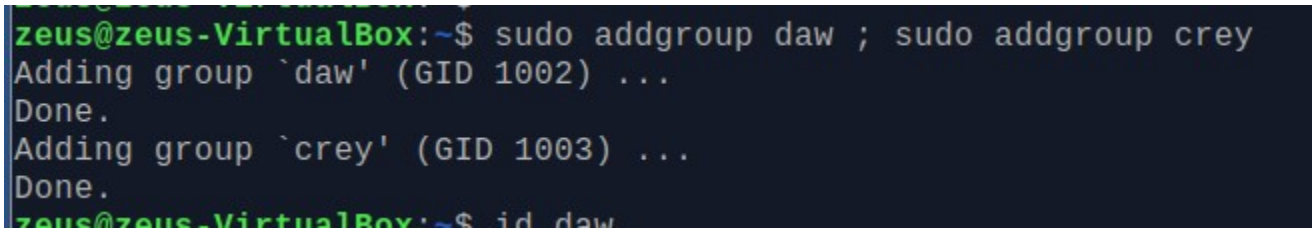
Exercises about users and groups management

NOTE 1: We have to start a root session to do the exercises

NOTE 2: Take into account that user and group names are CASE SENSITIVE

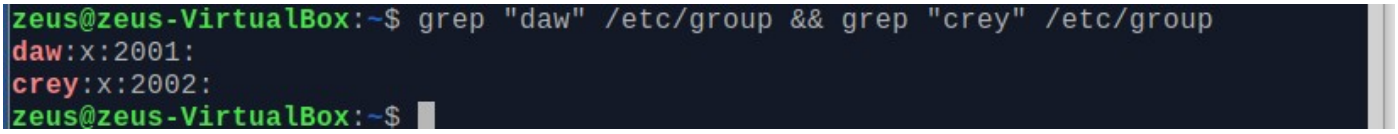
1. Add two new groups named “daw” and “crey”

   sudo addgroup daw ; sudo addgroup crey



2. Change “daw” and “crey” GIDS to 2001 and 2002, respectively.

   sudo groupmod -g 2001 daw && sudo groupmod -g 2002 crey



3. Create a new group called “profesores” with GID of 2000. Then, modify the group name to teachers

   sudo groupadd -g 2000 profesores; sudo groupmod -n teachers profesores

4. Verify that you have correctly created the groups named “daw”, “crey” and “teachers”

   grep 2000 /etc/group; grep 2001 /etc/group; grep 2002 /etc/group

   grep “daw” /etc/group; grep “crey” /etc/group; grep “teachers” /etc/group

5. Add a new user named “john” whose primary group is “crey”. Has the home directory been created with the default command?

   useradd -g crey John # adding to group crey and no home directory is create

   useradd -g crey -m john # home is not create

   useradd -r John # deleting a user

```
zeus@zeus-VirtualBox:~$ grep john /etc/passwd; grep john /etc/group; sudo grep john /etc/shadow
john:x:1002:2002::/home/john:/bin/sh
john:!:18656:0:99999:7:::
zeus@zeus-VirtualBox:~$
```

6. Add a new user named “mary”, whose primary group is “daw” and the home directory /home/mary

   useradd -g daw -d “/home/mary” mary·

   useradd -g daw -m” mary·

```
zeus@zeus-VirtualBox:~$ grep mary /etc/passwd; grep mary /etc/group; sudo grep mary /etc/shadow
mary:x:1003:2001::/home/mary:/bin/sh
mary:!:18656:0:99999:7:::
zeus@zeus-VirtualBox:~$ grep mary /etc/passwd; grep daw /etc/group; sudo grep mary /etc/shadow
mary:x:1003:2001::/home/mary:/bin/sh
daw:x:2001:
mary:!:18656:0:99999:7:::
zeus@zeus-VirtualBox:~$
```

7. Add a new user named “martha”, whose primary group is “teachers”, the home directory

   adduser -g teachers -G crey -m martha·# adding Martha primary group teachers secondary group “crey” and automatic home creation

```
zeus@zeus-VirtualBox:~$ sudo useradd  -g teachers -G crey -m martha
zeus@zeus-VirtualBox:~$ grep "martha" /etc/passwd; grep "daw" /etc/group; sudo grep "martha" /etc/shadow
martha:x:1004:2000::/home/martha:/bin/sh
daw:x:2001:
martha:!:18656:0:99999:7:::
zeus@zeus-VirtualBox:~$ grep "martha" /etc/passwd; grep "teacher" /etc/group grep "daw" /etc/group; sudo grep
 "martha" /etc/shadow
martha:x:1004:2000::/home/martha:/bin/sh
/etc/group:teachers:x:2000:
grep: grep: No such file or directory
grep: daw: No such file or directory
/etc/group:teachers:x:2000:
martha:!:18656:0:99999:7:::
zeus@zeus-VirtualBox:~$ grep "martha" /etc/passwd; grep "teacher" /etc/group ; grep "daw" /etc/group; sudo gr
ep "martha" /etc/shadow
martha:x:1004:2000::/home/martha:/bin/sh
teachers:x:2000:
daw:x:2001:
martha:!:18656:0:99999:7:::
zeus@zeus-VirtualBox:~$ id martha
uid=1004(martha) gid=2000(teachers) groups=2000(teachers),2002(crey)
zeus@zeus-VirtualBox:~$
```

8. Add the following names to the users that you have just created:
    a. John= “John Doe”
    b. Mary = “Mary Williams”
    c. Martha = “Martha Jones”

sudo usermod -c "john Doe" john && sudo usermod -c "mary Williams" mary && sudo usermod -c "artha Jones" martha

```
zeus@zeus-VirtualBox:~$ sudo usermod -c "John Doe" john && sudo usermod -c "Mary Williams" mary && sudo usermod -c "Martha
ones" martha
zeus@zeus-VirtualBox:~$ tail /etc/passwd
colord:x:121:128:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin
pulse:x:122:129:PulseAudio daemon,,,:/var/run/pulse:/usr/sbin/nologin
zeus:x:1000:1000:Zeus,,,:/home/zeus:/bin/bash
systemd-coredump:x:999:999:systemd Core Dumper:/:/usr/sbin/nologin
desarrollador:x:1001:1001:desarrollador,,,,:/home/desarrollador:/bin/bash
vboxadd:x:998:1::/var/run/vboxadd:/bin/false
geoclue:x:123:133::/var/lib/geoclue:/usr/sbin/nologin
john:x:1002:2002:John Doe:/home/john:/bin/sh
mary:x:1003:2001:Mary Williams:/home/mary:/bin/sh
martha:x:1004:2000:Martha Jones:/home/martha:/bin/sh
zeus@zeus-VirtualBox:~$
```

9. How could you check that you have created all the users with the right primary groups?

tail -3 /etc/passwd

or

for user in john mary martha; do id "${user}"; done

```
uid=1002(john) gid=2002(crey) groups=2002(crey) # only primary group
uid=1003(mary) gid=2001(daw) groups=2001(daw) # only primary group
uid=1004(martha) gid=2000(teachers) groups=2000(teachers),2002(crey) # primary
and secondly group
```

```
zeus@zeus-VirtualBox:~$ for user in john mary martha; do id "${user}"; done
uid=1002(john) gid=2002(crey) groups=2002(crey)
uid=1003(mary) gid=2001(daw) groups=2001(daw)
uid=1004(martha) gid=2000(teachers) groups=2000(teachers),2002(crey)
zeus@zeus-VirtualBox:~$
```

10. Verify if crey and daw groups have martha as a member

grep "crey" /etc/group ; grep "daw" /etc/group

```
zeus@zeus-VirtualBox:~$ grep "crey" /etc/group ; grep "daw" /etc/group
crey:x:2002:martha
daw:x:2001:
zeus@zeus-VirtualBox:~$
```

11. Can you log in with any of the users you have created?

No.

sudo cat *etc*/shadow

```
zeus@zeus-VirtualBox:~$ su john
Password:
su: Authentication failure
zeus@zeus-VirtualBox:~$ su martha
Password:
su: Authentication failure
zeus@zeus-VirtualBox:~$ su mary
Password:
su: Authentication failure
zeus@zeus-VirtualBox:~$
```

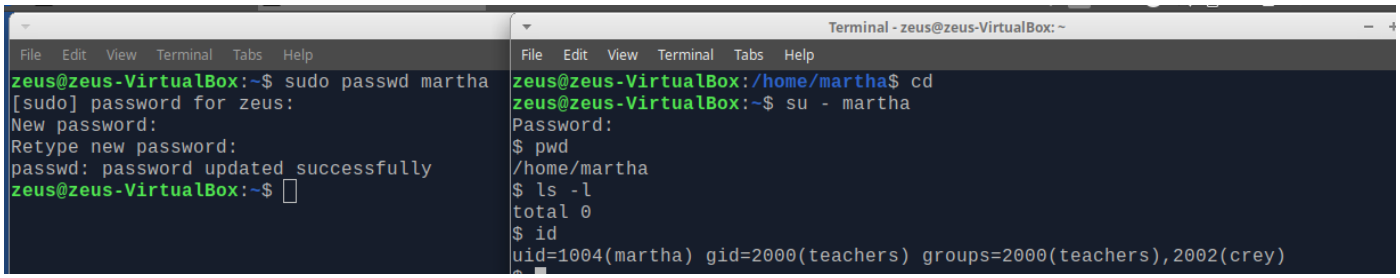
12. Set the password “martha22” for the user “martha”

sudo passwd martha

```
[sudo] password for zeus:
New password:
Retype new password:
passwd: password updated successfully
```

su – Martha # to loging into Martha’s directory, no primitive shell

sudo openssl-passwd -crypt martha22 /#return zipher password
AsA.SzIK
sudo usermod -p AsA.SzIK martha



13. Display on the shell prompt the groups to which Martha belongs

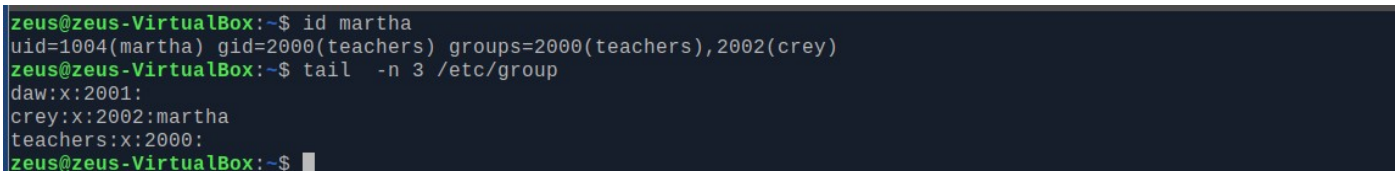
id martha

```
uid=1004(martha) gid=2000(teachers) groups=2000(teachers),2002(crey)
```

tail -n 3 /etc/group

```
daw:x:2001:
crey:x:2002:martha
teachers:x:2000:
```

grep martha */etc/group*
grep martha etc/shadow
groups



14. Create a directory named “teachers” in “/home”. Then, assign the directory “/home/teachers” to the user martha (you can do all the steps typing just one command).

sudo usermod -d /home/teacher -m martha

usermod: user martha is currently used by process 3069

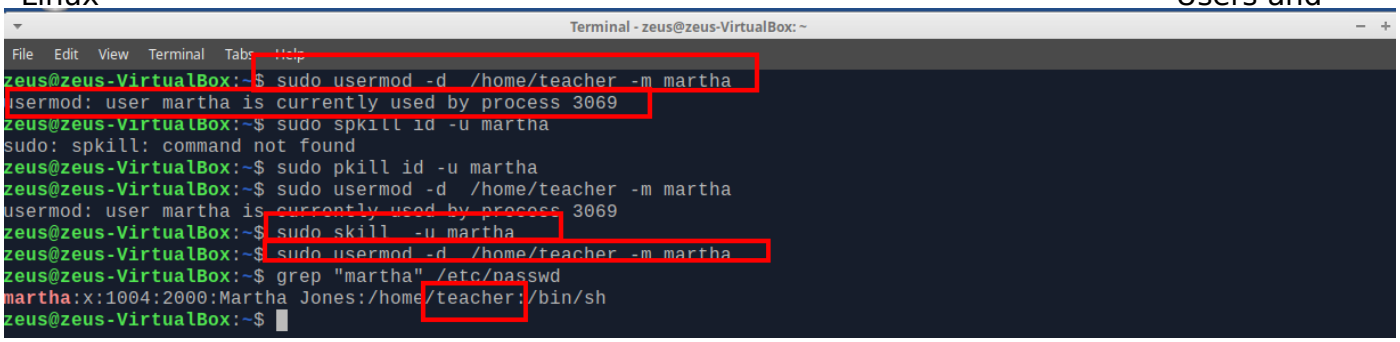
sudo pkill -9 -u martha

This shut the terminal open a new terminal and

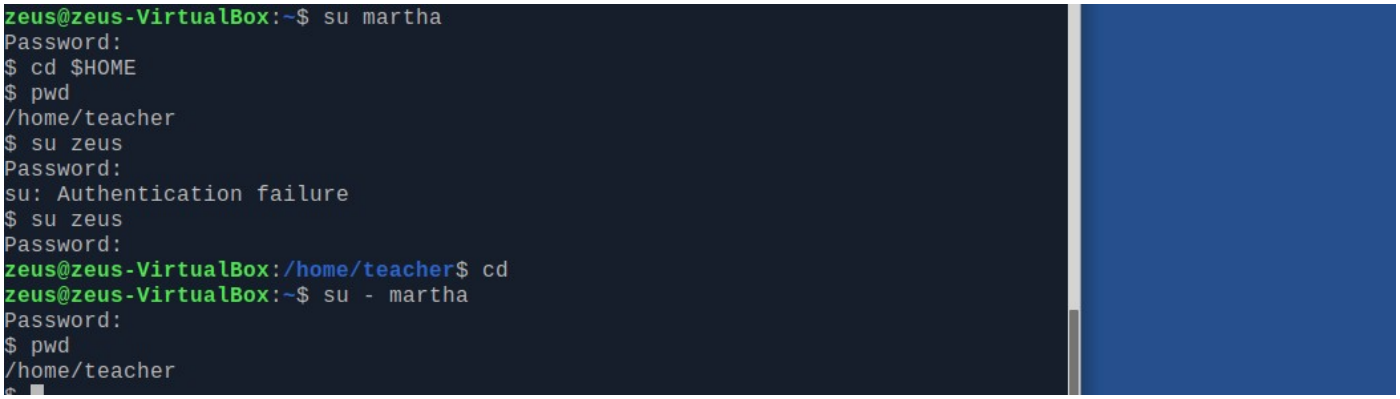
sudo usermod -d /home/teacher -m Martha # home directory is created

grep "martha" /etc/passwd

```
martha:x:1004:2000:Martha Jones:/home/teacher:/bin/sh
```



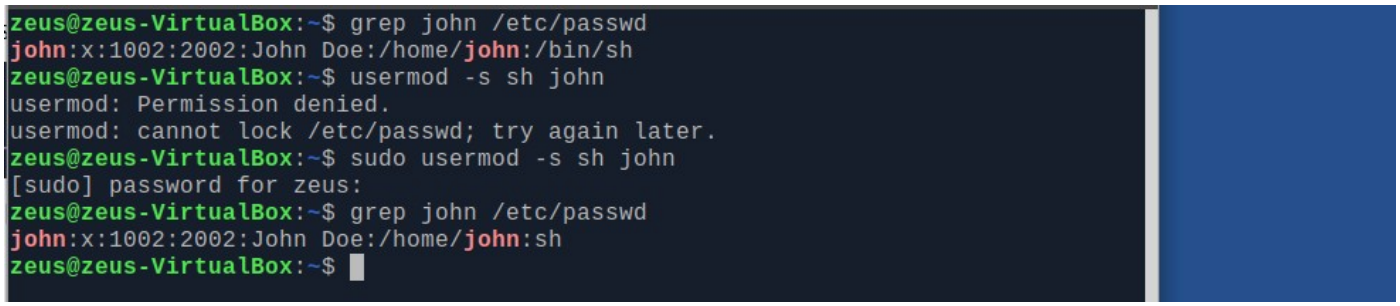
15. Now, log in as user “martha”. Run the command “cd $SHOME” and check that the home directory is “/home/teachers”



16. Go back to the root shell

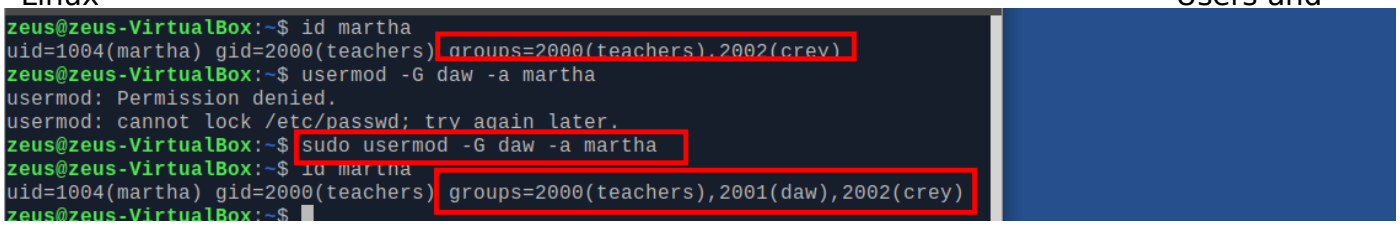
17. Change the shell of the user named “john” to “sh”

sudo usermod -s sh john



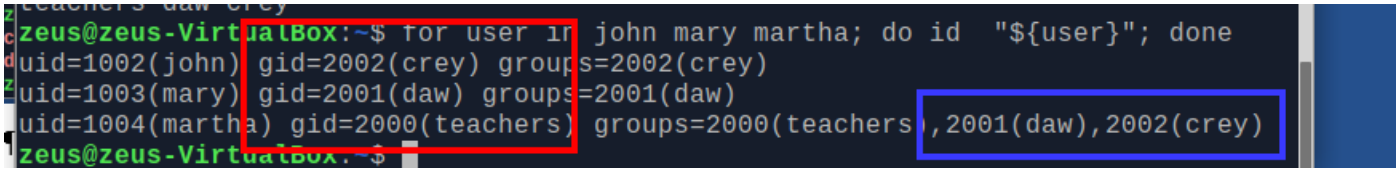
18. Add the user “martha” to the secondary group “daw” without removing the already assigned secondary groups.

sudo usermod -G daw -a Martha



19. Run a command to print the following information for each user

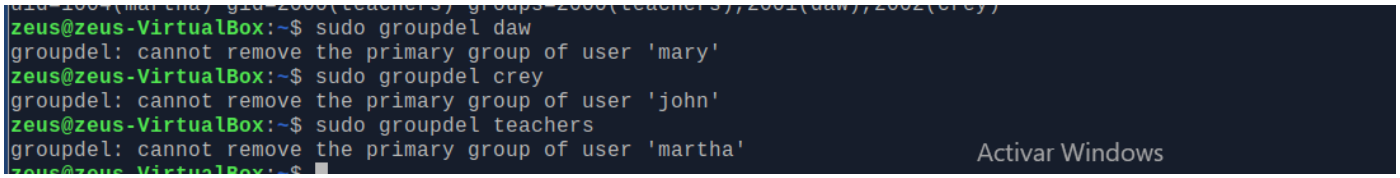
User	Primary group	Secondary groups
john	crey	
mary	daw	
martha	teachers	crey, daw



20. Delete all the groups you have created. Could you delete them? Why?

No, because, it cannot be removed the primary groups of any existing user. First it must be remove the thr user and then the group.

sudo groupdel <user>

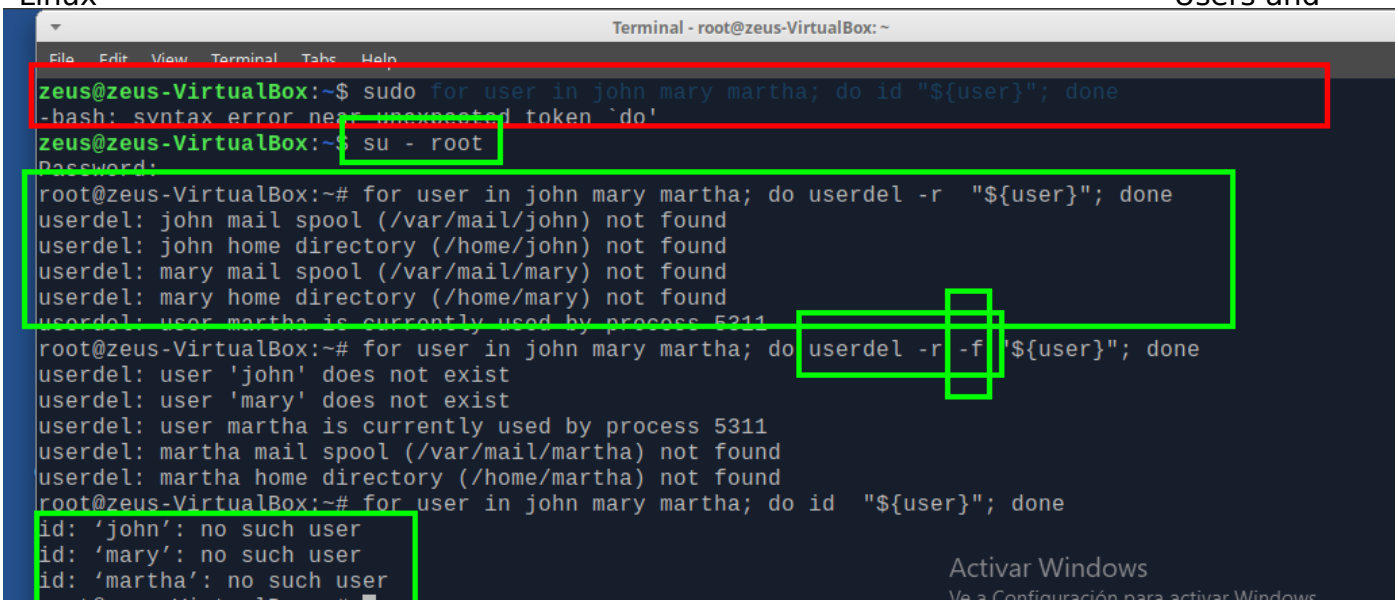


21. Delete all the users you have created, including the files and directories inside the home.

For loop for as root execute

for user in john mary martha; do userdel -r "${user}"; done

for user in john mary martha; do userdel -r -f "${user}"; done



-f: This option forces the removal of the specified user account. It doesn’t matter that the user is still logged in. It also forces the *userdel* to remove the user’s home directory and mail spool, even if another user is using the same home directory or even if the mail spool is not owned by the specified user

-r: remove the files in the user’s home directory along with the home directory itself and the user’s mail spool. All the files located in other file systems will have to be searched for and deleted manually.

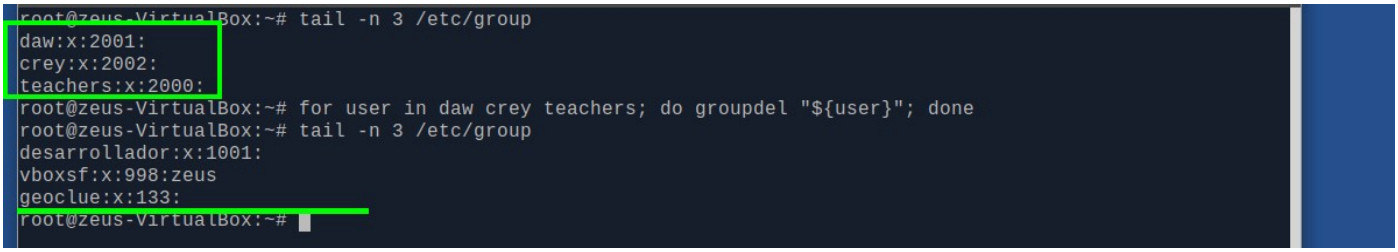
-R: This option apply changes in the *CHROOT_DIR* directory and use the configuration files from the *CHROOT_DIR* directory.

-Z : remove any SELinux policies.

22. Try again to delete the groups

For loop for as root execute

for user in daw crey teachers; do groupdel "${user}"; done



References:

https://linux.die.net/man/8/groupdel

https://linux.die.net/man/8/useradd

https://kb.iu.edu/d/adwf (find users by uid)

https://unix.stackexchange.com/questions/248426/add-multiple-user-to-unix-group-in-one-line

https://www.cyberciti.biz/tips/howto-linux-kill-and-logout-users.html

https://www.geeksforgeeks.org/userdel-command-in-linux-with-examples/