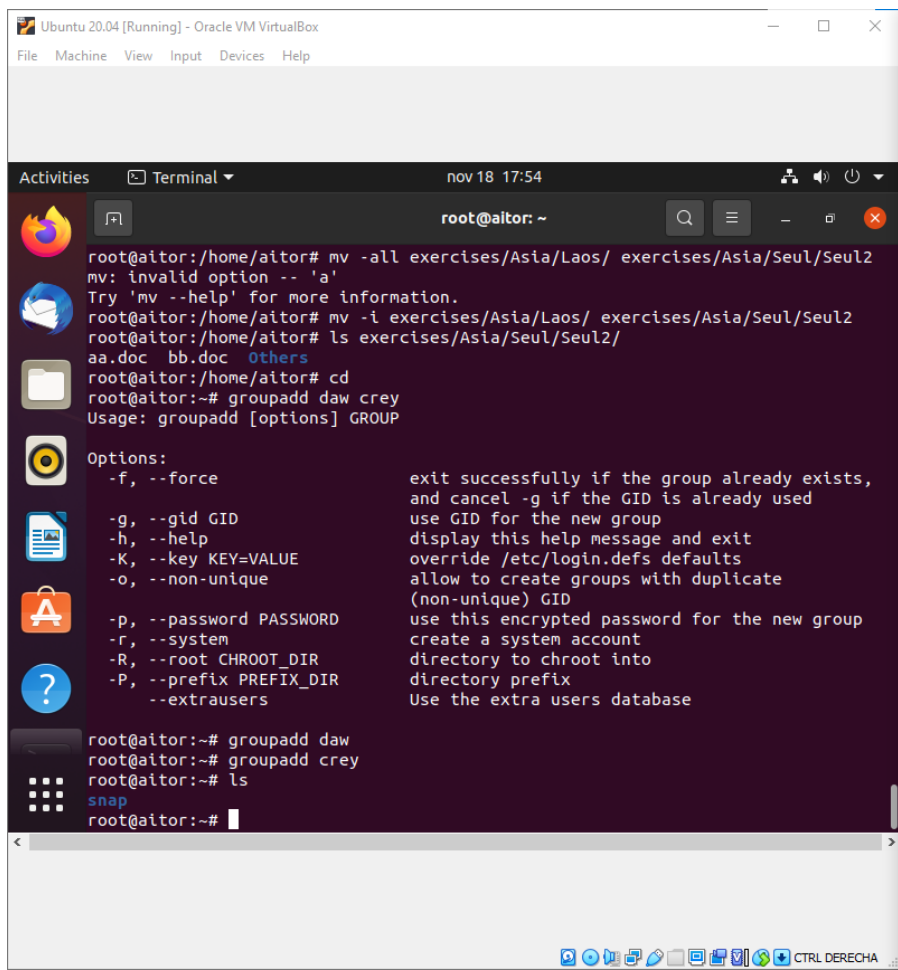


Exercises about users and groups management

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



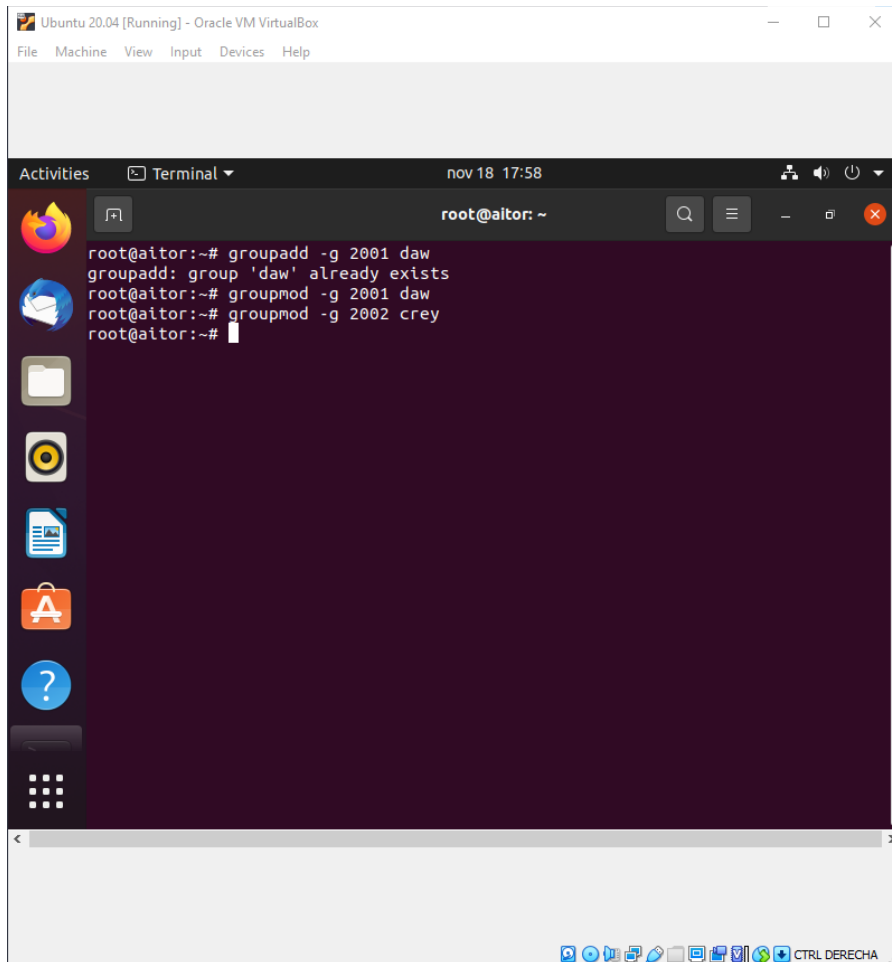
The screenshot shows a terminal window titled "Ubuntu 20.04 [Running] - Oracle VM VirtualBox". The terminal output is as follows:

```
root@aitor:/home/aitor# mv -all exercises/Asia/Laos/ exercises/Asia/Seul/Seul2
mv: invalid option -- 'a'
Try 'mv --help' for more information.
root@aitor:/home/aitor# mv -i exercises/Asia/Laos/ exercises/Asia/Seul/Seul2
root@aitor:/home/aitor# ls exercises/Asia/Seul/Seul2/
aa.doc bb.doc others
root@aitor:/home/aitor# cd
root@aitor:~# groupadd daw crey
Usage: groupadd [options] GROUP

Options:
  -f, --force                exit successfully if the group already exists,
                             and cancel -g if the GID is already used
  -g, --gid GID              use GID for the new group
  -h, --help                 display this help message and exit
  -K, --key KEY=VALUE        override /etc/login.defs defaults
  -o, --non-unique           allow to create groups with duplicate
                             (non-unique) GID
  -p, --password PASSWORD    use this encrypted password for the new group
  -r, --system               create a system account
  -R, --root CHROOT_DIR      directory to chroot into
  -P, --prefix PREFIX_DIR    directory prefix
  --extrausers               Use the extra users database

root@aitor:~# groupadd daw
root@aitor:~# groupadd crey
root@aitor:~# ls
snap
root@aitor:~#
```

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

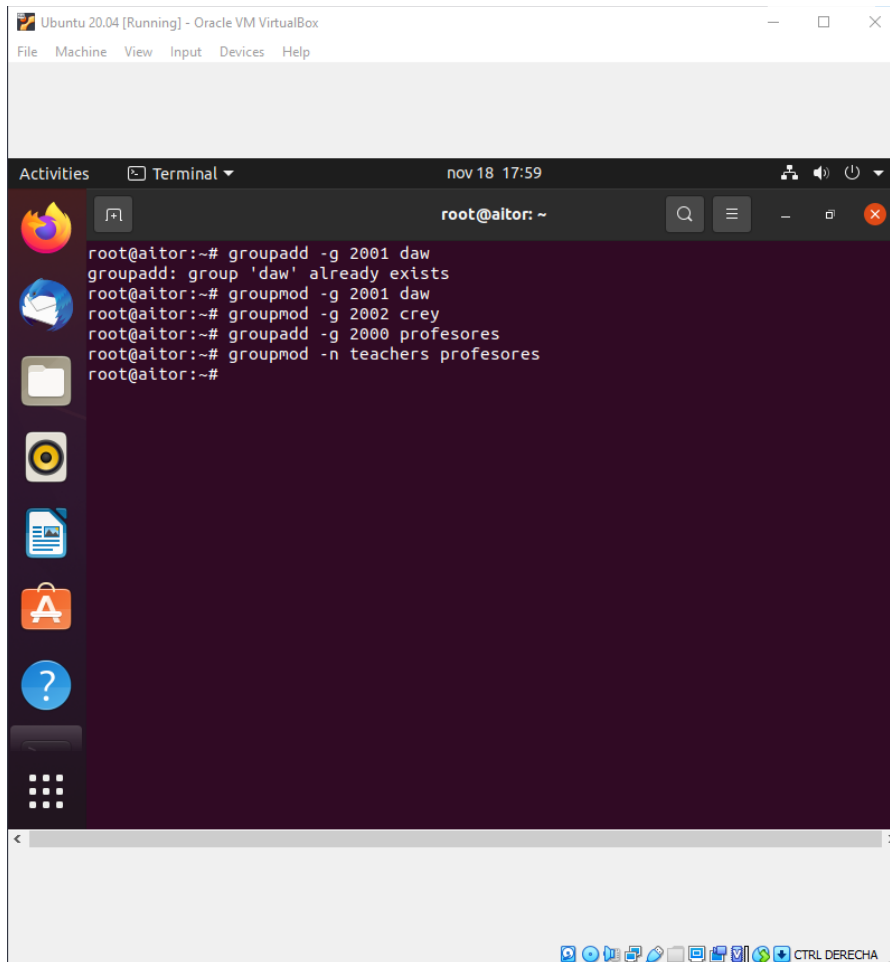


The screenshot shows a terminal window titled "Ubuntu 20.04 [Running] - Oracle VM VirtualBox". The terminal is running as root on a machine named "aitor". The user has executed the following commands:

```
root@aitor:~# groupadd -g 2001 daw
groupadd: group 'daw' already exists
root@aitor:~# groupmod -g 2001 daw
root@aitor:~# groupmod -g 2002 crey
root@aitor:~#
```

The terminal window is part of a desktop environment with a sidebar on the left containing icons for Firefox, a mail client, a file manager, a media player, a document viewer, an application store, and a help icon. The top of the window shows the "Activities" menu and the date "nov 18 17:58". The bottom of the window has a taskbar with various system icons and a "CTRL DERECHA" label.

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



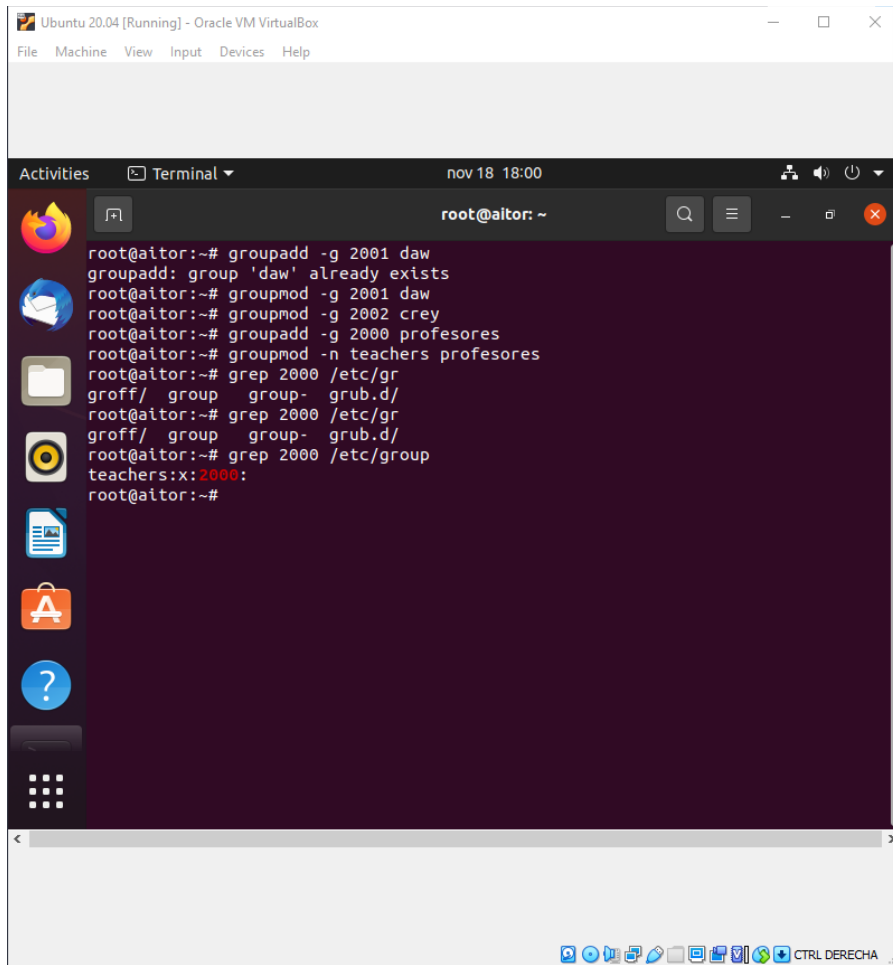
The screenshot shows a terminal window titled "Ubuntu 20.04 [Running] - Oracle VM VirtualBox". The terminal is running as root on a machine named "aitor". The user has executed several commands to create and modify groups:

```
root@aitor:~# groupadd -g 2001 daw
groupadd: group 'daw' already exists
root@aitor:~# groupmod -g 2001 daw
root@aitor:~# groupmod -g 2002 crey
root@aitor:~# groupadd -g 2000 profesores
root@aitor:~# groupmod -n teachers profesores
root@aitor:~#
```

The terminal window is part of a desktop environment with a sidebar on the left containing icons for various applications. The bottom of the window shows a system tray with icons for network, volume, and other system utilities.

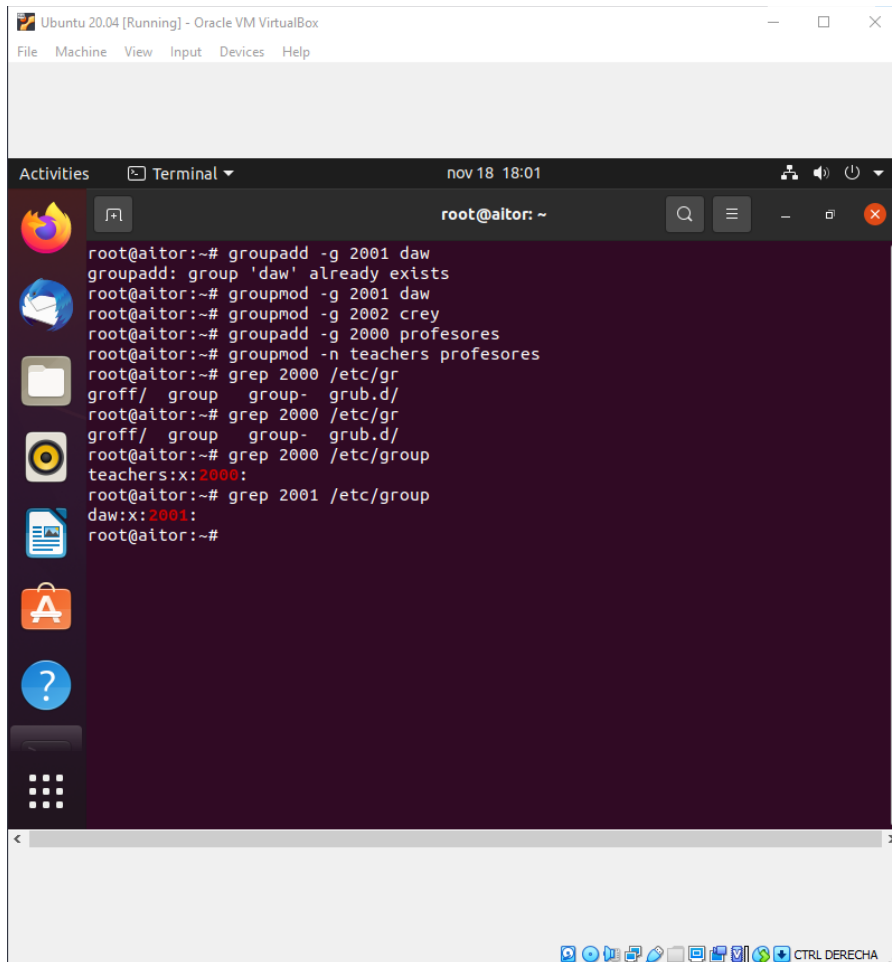
4. Verify that you have correctly created the groups named “daw”, “crey” and “teachers”

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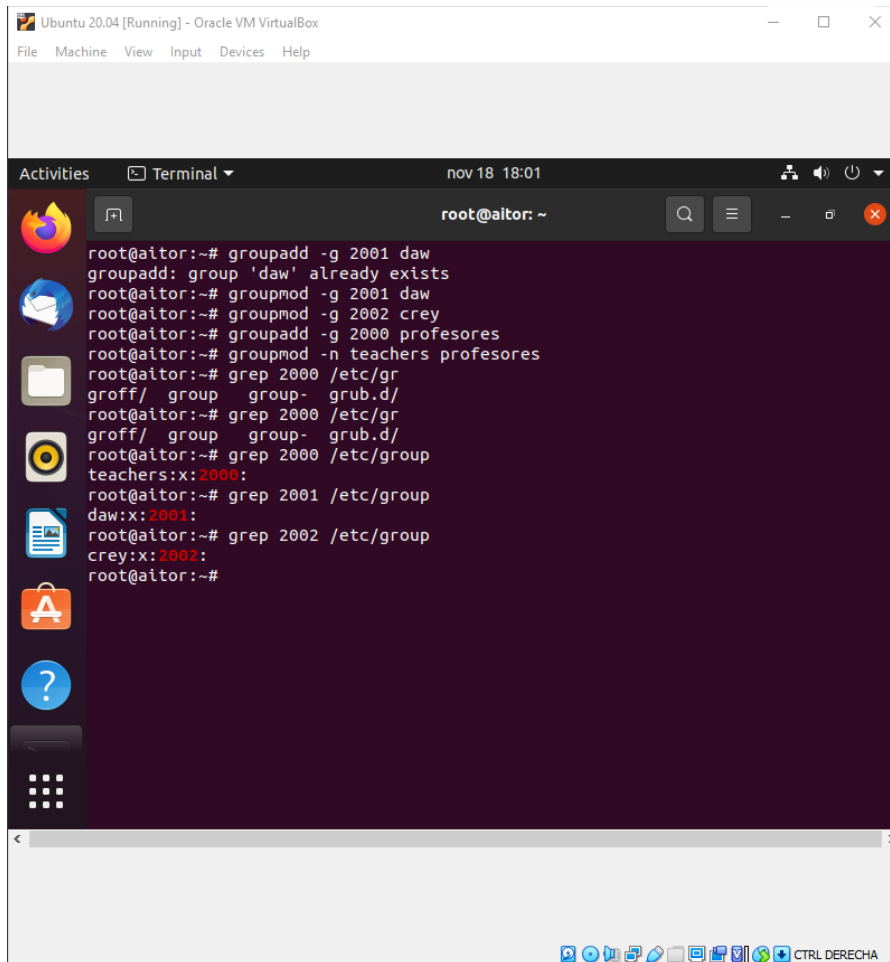


```
root@aitor:~# groupadd -g 2001 daw
groupadd: group 'daw' already exists
root@aitor:~# groupmod -g 2001 daw
root@aitor:~# groupmod -g 2002 crey
root@aitor:~# groupadd -g 2000 profesores
root@aitor:~# groupmod -n teachers profesores
root@aitor:~# grep 2000 /etc/gr
groff/ group group- grub.d/
root@aitor:~# grep 2000 /etc/gr
groff/ group group- grub.d/
root@aitor:~# grep 2000 /etc/group
teachers:x:2000:
root@aitor:~#
```

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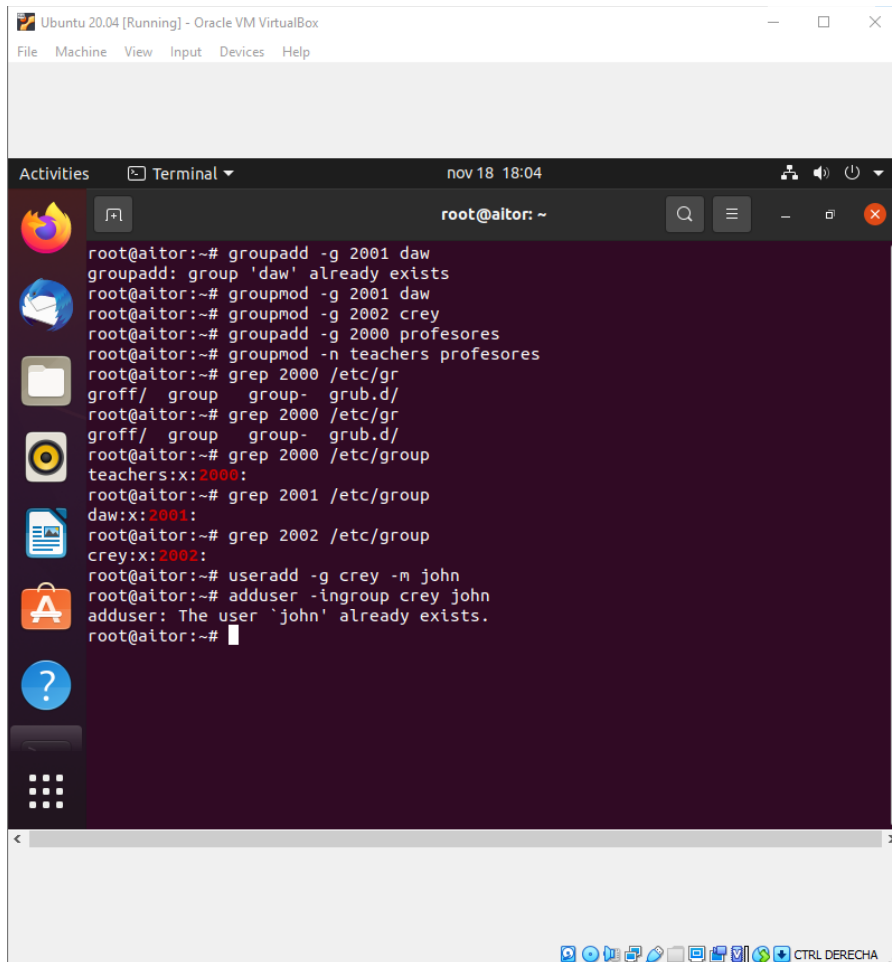
```
root@aitor:~# groupadd -g 2001 daw
groupadd: group 'daw' already exists
root@aitor:~# groupmod -g 2001 daw
root@aitor:~# groupmod -g 2002 crey
root@aitor:~# groupadd -g 2000 profesores
root@aitor:~# groupmod -n teachers profesores
root@aitor:~# grep 2000 /etc/gr
groff/ group group- grub.d/
root@aitor:~# grep 2000 /etc/gr
groff/ group group- grub.d/
root@aitor:~# grep 2000 /etc/group
teachers:x:2000:
root@aitor:~# grep 2001 /etc/group
daw:x:2001:
root@aitor:~#
```



```
root@aitor:~# groupadd -g 2001 daw
groupadd: group 'daw' already exists
root@aitor:~# groupmod -g 2001 daw
root@aitor:~# groupmod -g 2002 crey
root@aitor:~# groupadd -g 2000 profesores
root@aitor:~# groupmod -n teachers profesores
root@aitor:~# grep 2000 /etc/gr
groff/ group group- grub.d/
root@aitor:~# grep 2000 /etc/gr
groff/ group group- grub.d/
root@aitor:~# grep 2000 /etc/group
teachers:x:2000:
root@aitor:~# grep 2001 /etc/group
daw:x:2001:
root@aitor:~# grep 2002 /etc/group
crey:x:2002:
root@aitor:~#
```

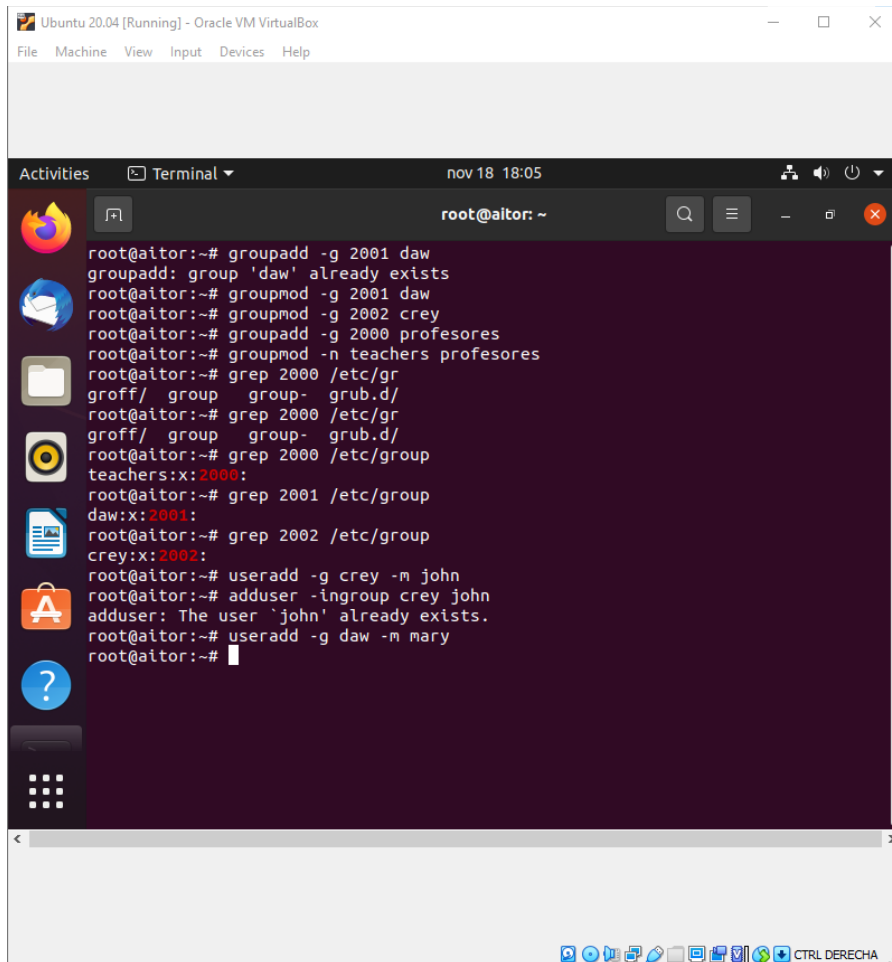
5. Add a new user named “john” whose primary group is “crey”. Has the home directory been created with the default command?

No but it can be created using the second command I use



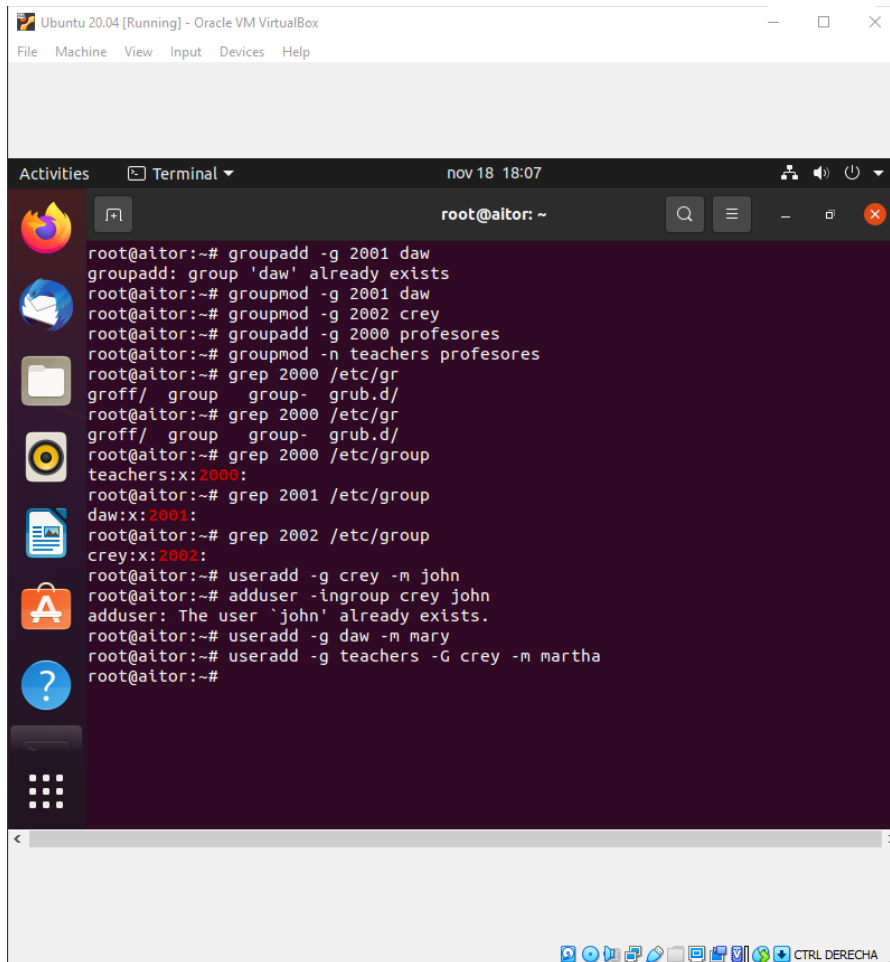
```
root@aitor:~# groupadd -g 2001 daw
groupadd: group 'daw' already exists
root@aitor:~# groupmod -g 2001 daw
root@aitor:~# groupmod -g 2002 crey
root@aitor:~# groupadd -g 2000 profesores
root@aitor:~# groupmod -n teachers profesores
root@aitor:~# grep 2000 /etc/gr
groff/ group group- grub.d/
root@aitor:~# grep 2000 /etc/gr
groff/ group group- grub.d/
root@aitor:~# grep 2000 /etc/group
teachers:x:2000:
root@aitor:~# grep 2001 /etc/group
daw:x:2001:
root@aitor:~# grep 2002 /etc/group
crey:x:2002:
root@aitor:~# useradd -g crey -m john
root@aitor:~# adduser -ingroup crey john
adduser: The user 'john' already exists.
root@aitor:~#
```

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



```
root@aitor:~# groupadd -g 2001 daw
groupadd: group 'daw' already exists
root@aitor:~# groupmod -g 2001 daw
root@aitor:~# groupmod -g 2002 crey
root@aitor:~# groupadd -g 2000 profesores
root@aitor:~# groupmod -n teachers profesores
root@aitor:~# grep 2000 /etc/gr
groff/ group group- grub.d/
root@aitor:~# grep 2000 /etc/gr
groff/ group group- grub.d/
root@aitor:~# grep 2000 /etc/group
teachers:x:2000:
root@aitor:~# grep 2001 /etc/group
daw:x:2001:
root@aitor:~# grep 2002 /etc/group
crey:x:2002:
root@aitor:~# useradd -g crey -m john
root@aitor:~# adduser -ingroup crey john
adduser: The user 'john' already exists.
root@aitor:~# useradd -g daw -m mary
root@aitor:~#
```

7. Add a new user named “martha”, whose primary group is “teachers”, the home directory /home/martha and belonging to the secondary group “crey”

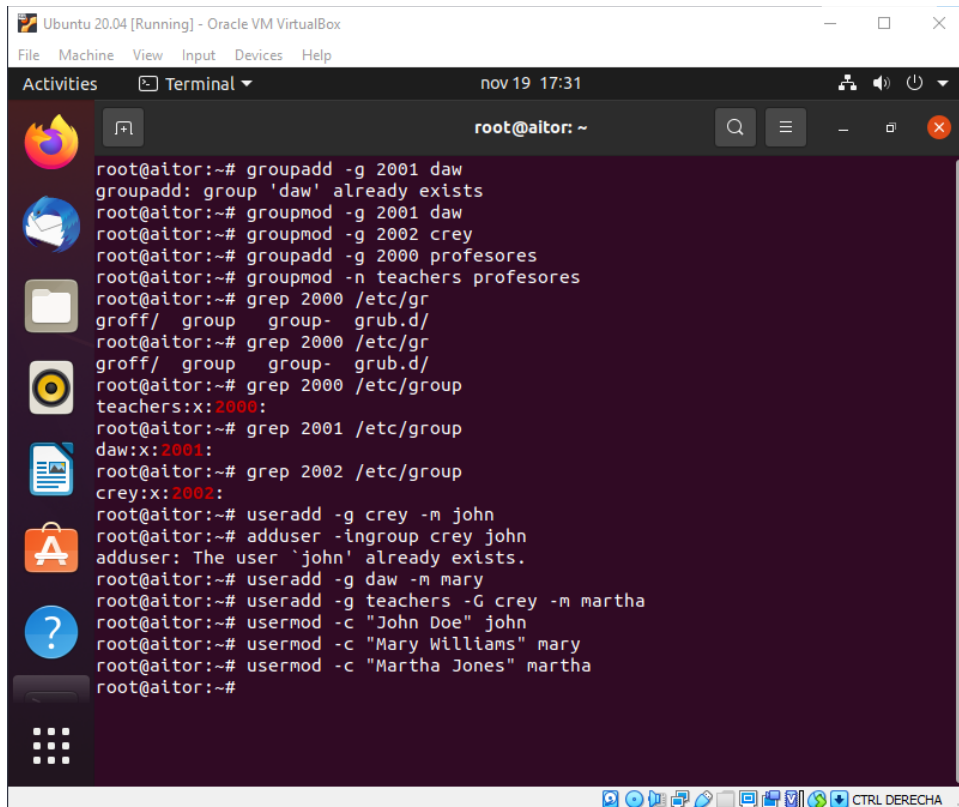


```
Ubuntu 20.04 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

Activities Terminal nov 18 18:07
root@aitor: ~

root@aitor:~# groupadd -g 2001 daw
groupadd: group 'daw' already exists
root@aitor:~# groupmod -g 2001 daw
root@aitor:~# groupmod -g 2002 crey
root@aitor:~# groupadd -g 2000 profesores
root@aitor:~# groupmod -n teachers profesores
root@aitor:~# grep 2000 /etc/gr
groff/ group group- grub.d/
root@aitor:~# grep 2000 /etc/gr
groff/ group group- grub.d/
root@aitor:~# grep 2000 /etc/group
teachers:x:2000:
root@aitor:~# grep 2001 /etc/group
daw:x:2001:
root@aitor:~# grep 2002 /etc/group
crey:x:2002:
root@aitor:~# useradd -g crey -m john
root@aitor:~# adduser -ingroup crey john
adduser: The user 'john' already exists.
root@aitor:~# useradd -g daw -m mary
root@aitor:~# useradd -g teachers -G crey -m martha
root@aitor:~#
```

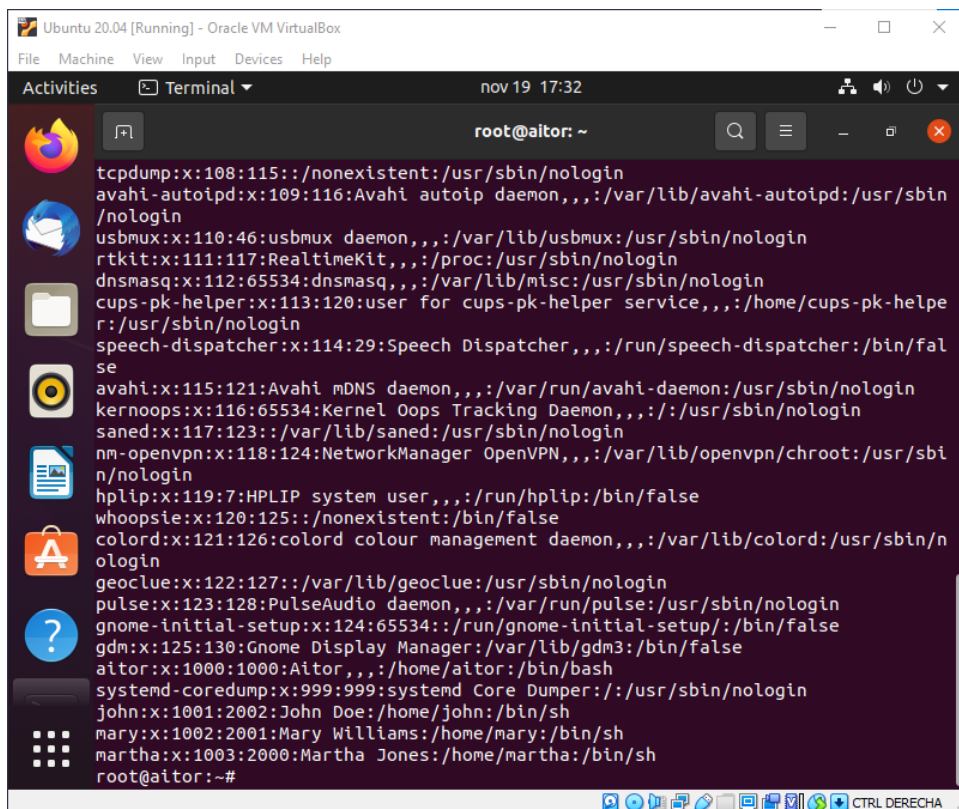
8. Add the following names to the users that you have just created: a. John= "John Doe" b. Mary = "Mary Williams" c. Martha = "Martha Jones"



A terminal window titled 'Ubuntu 20.04 [Running] - Oracle VM VirtualBox' showing a series of commands to create groups and users. The commands are executed as root. The output shows that some groups already exist and some users already exist. The final state shows three users: john, mary, and martha, each associated with a specific group.

```
root@aitor:~# groupadd -g 2001 daw
groupadd: group 'daw' already exists
root@aitor:~# groupmod -g 2001 daw
root@aitor:~# groupmod -g 2002 crey
root@aitor:~# groupadd -g 2000 profesores
root@aitor:~# groupmod -n teachers profesores
root@aitor:~# grep 2000 /etc/gr
groff/ group group- grub.d/
root@aitor:~# grep 2000 /etc/gr
groff/ group group- grub.d/
root@aitor:~# grep 2000 /etc/group
teachers:x:2000:
root@aitor:~# grep 2001 /etc/group
daw:x:2001:
root@aitor:~# grep 2002 /etc/group
crey:x:2002:
root@aitor:~# useradd -g crey -m john
root@aitor:~# adduser -ingroup crey john
adduser: The user 'john' already exists.
root@aitor:~# useradd -g daw -m mary
root@aitor:~# useradd -g teachers -G crey -m martha
root@aitor:~# usermod -c "John Doe" john
root@aitor:~# usermod -c "Mary Williams" mary
root@aitor:~# usermod -c "Martha Jones" martha
root@aitor:~#
```

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



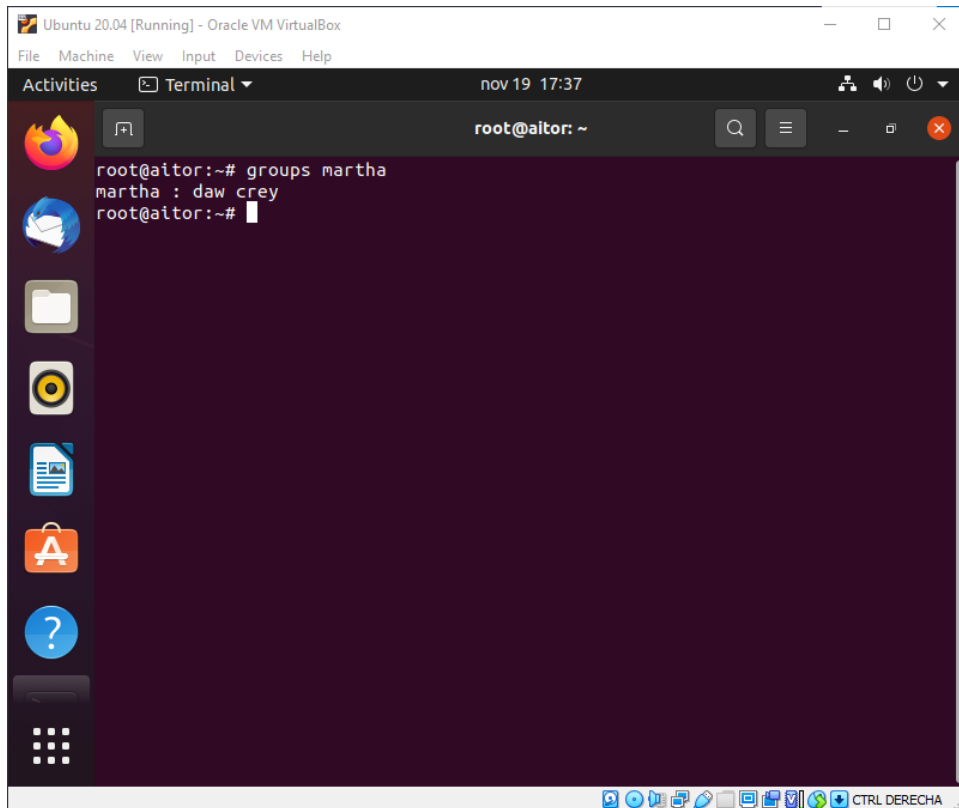
A terminal window titled 'Ubuntu 20.04 [Running] - Oracle VM VirtualBox' showing the contents of the /etc/passwd file. The output lists all system users and regular users, including their usernames, UIDs, GIDs, home directories, and shell programs. The users john, mary, and martha are listed at the bottom, each with their respective primary groups (crey, daw, and teachers).

```
tcpdump:x:108:115::/nonexistent:/usr/sbin/nologin
avahi-autoipd:x:109:116:Avahi autoip daemon,,,:/var/lib/avahi-autoipd:/usr/sbin/nologin
usbmux:x:110:46:usbmux daemon,,,:/var/lib/usbmux:/usr/sbin/nologin
rtkit:x:111:117:RealtimeKit,,,:/proc:/usr/sbin/nologin
dnsmasq:x:112:65534:dnsmasq,,,:/var/lib/misc:/usr/sbin/nologin
cups-pk-helper:x:113:120:user for cups-pk-helper service,,,:/home/cups-pk-helper:/usr/sbin/nologin
speech-dispatcher:x:114:29:Speech Dispatcher,,,:/run/speech-dispatcher:/bin/false
avahi:x:115:121:Avahi mDNS daemon,,,:/var/run/avahi-daemon:/usr/sbin/nologin
kerneloops:x:116:65534:Kernel Oops Tracking Daemon,,,:/usr/sbin/nologin
saned:x:117:123::/var/lib/saned:/usr/sbin/nologin
nm-openvpn:x:118:124:NetworkManager OpenVPN,,,:/var/lib/openvpn/chroot:/usr/sbin/nologin
hplip:x:119:7:HPLIP system user,,,:/run/hplip:/bin/false
whoopsie:x:120:125::/nonexistent:/bin/false
colord:x:121:126:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin
geoclue:x:122:127::/var/lib/geoclue:/usr/sbin/nologin
pulse:x:123:128:PulseAudio daemon,,,:/var/run/pulse:/usr/sbin/nologin
gnome-initial-setup:x:124:65534::/run/gnome-initial-setup:/bin/false
gdm:x:125:130:Gnome Display Manager:/var/lib/gdm3:/bin/false
aitor:x:1000:1000:Aitor,,,:/home/aitor:/bin/bash
systemd-coredump:x:999:999:systemd Core Dumper:/usr/sbin/nologin
john:x:1001:2002:John Doe:/home/john:/bin/sh
mary:x:1002:2001:Mary Williams:/home/mary:/bin/sh
martha:x:1003:2000:Martha Jones:/home/martha:/bin/sh
root@aitor:~#
```

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

It appeared only on crey but I also add martha to daw



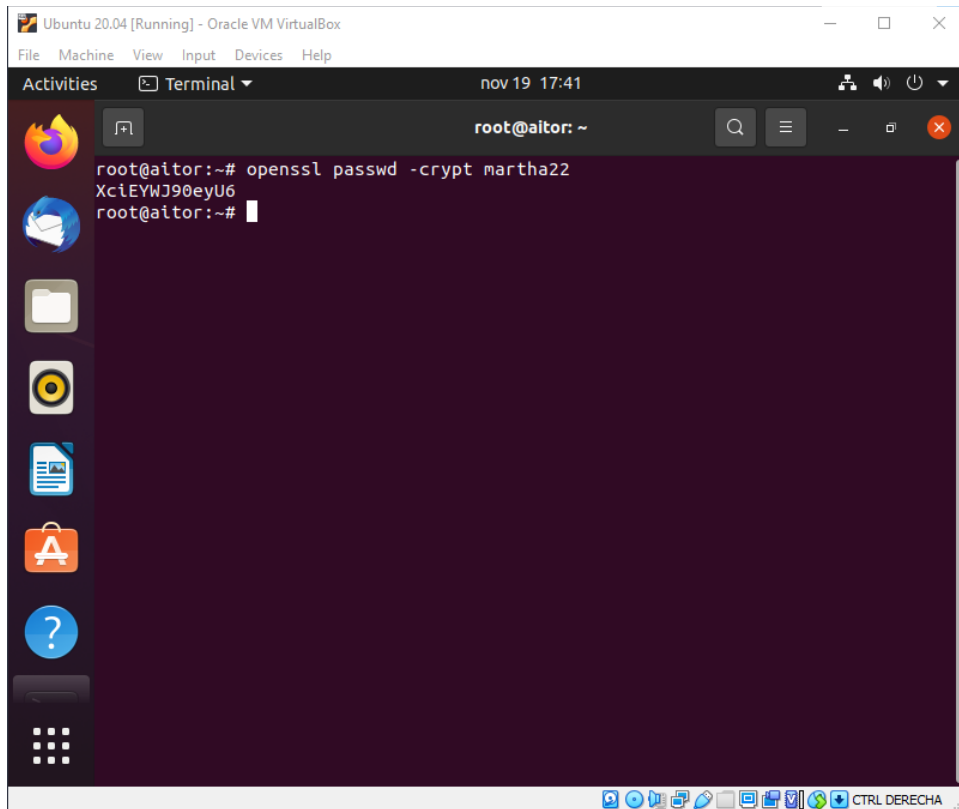
The screenshot shows a terminal window titled 'Ubuntu 20.04 [Running] - Oracle VM VirtualBox'. The terminal prompt is 'root@aitor: ~'. The command 'groups martha' has been entered, and the output is 'martha : daw crey'. The terminal window is part of a desktop environment with a sidebar on the left containing icons for Firefox, a mail client, a file manager, a terminal, a disk, a document, a shopping bag, and a question mark. The top of the window shows the date and time as 'nov 19 17:37'.

```
root@aitor:~# groups martha
martha : daw crey
root@aitor:~#
```

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

-No, you cant log in if you dont put a password

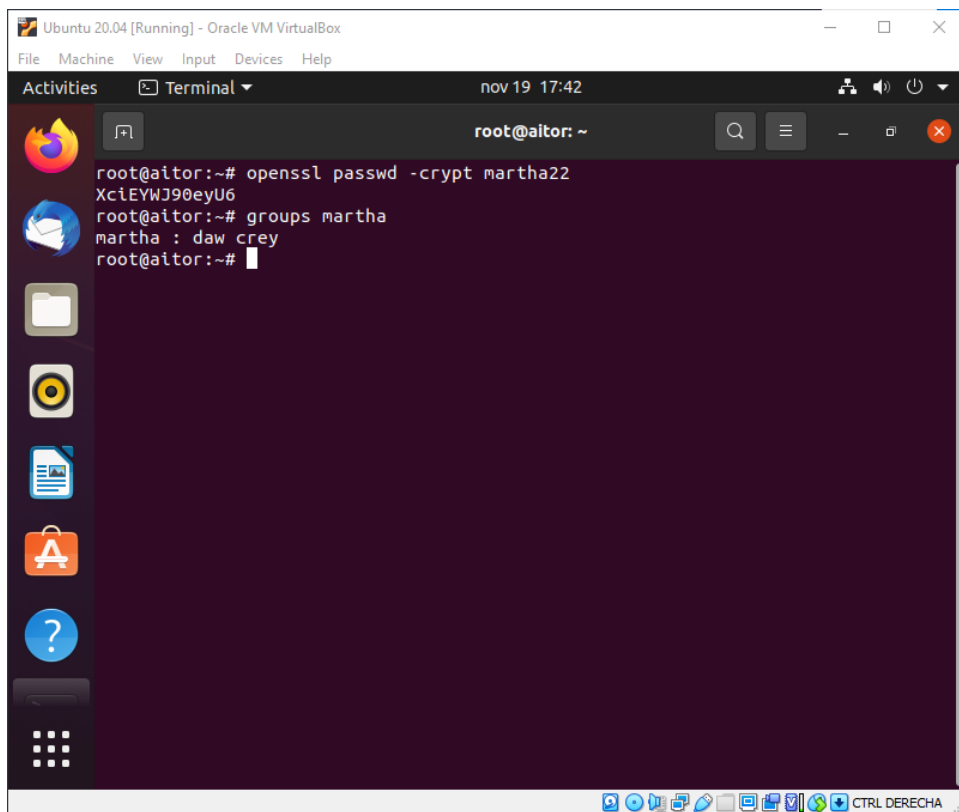
12. Set the password "martha22" for the user "martha"



A screenshot of a terminal window in a virtual machine. The window title is 'Ubuntu 20.04 [Running] - Oracle VM VirtualBox'. The terminal shows the user 'root@aitor' at the prompt '~'. The command 'openssl passwd -crypt martha22' has been executed, resulting in the output 'XciEYWJ90eyU6'. The terminal interface includes a sidebar with application icons and a top bar with system information and window controls.

```
root@aitor:~# openssl passwd -crypt martha22
XciEYWJ90eyU6
root@aitor:~#
```

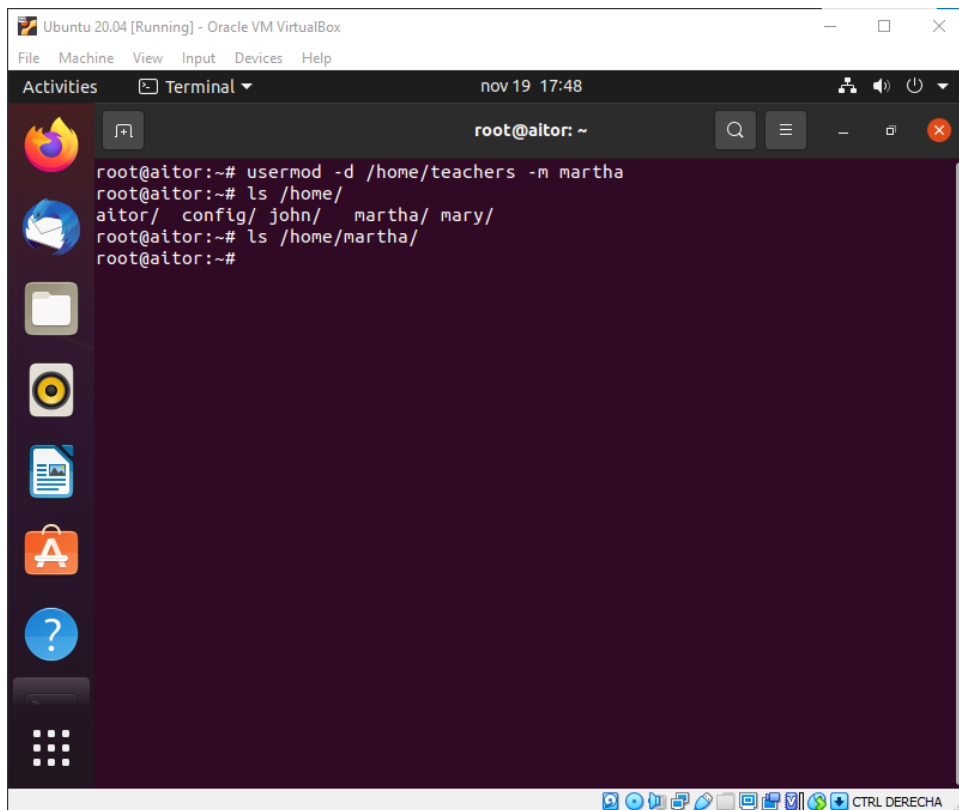
13. Display on the shell prompt the groups to which Martha belongs



A screenshot of a terminal window in a virtual machine, showing the continuation of the previous session. The user 'root@aitor' has entered the command 'groups martha', which outputs 'martha : daw crey'. The terminal window shows the same interface as the previous image, with the command history visible.

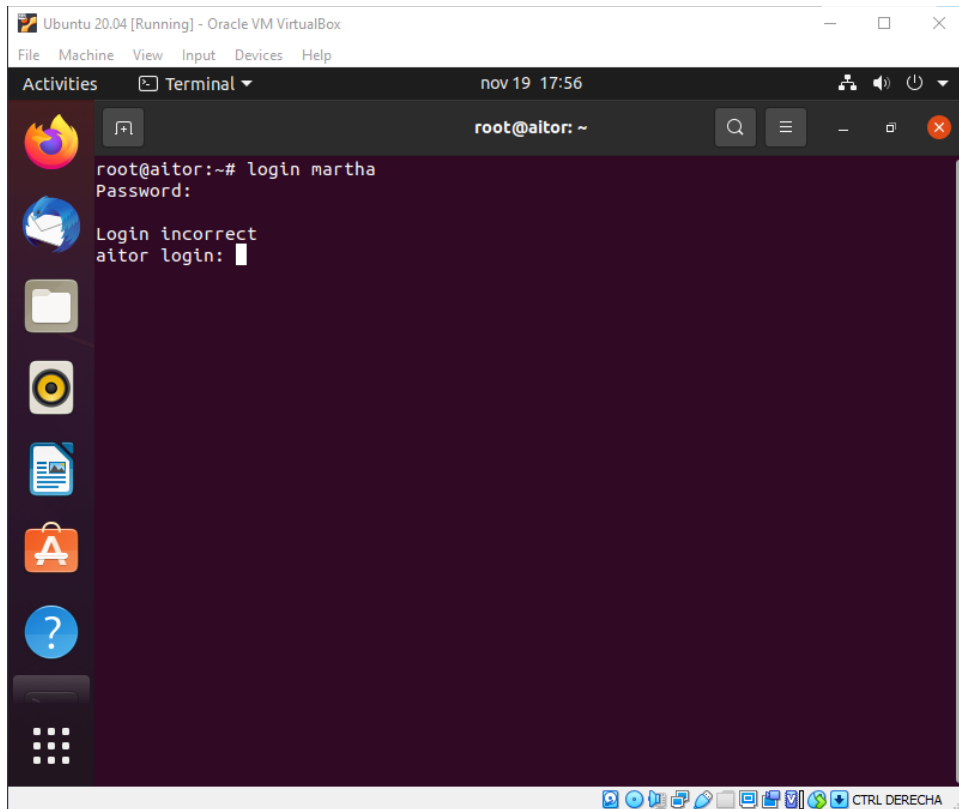
```
root@aitor:~# openssl passwd -crypt martha22
XciEYWJ90eyU6
root@aitor:~# groups martha
martha : daw crey
root@aitor:~#
```

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).



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

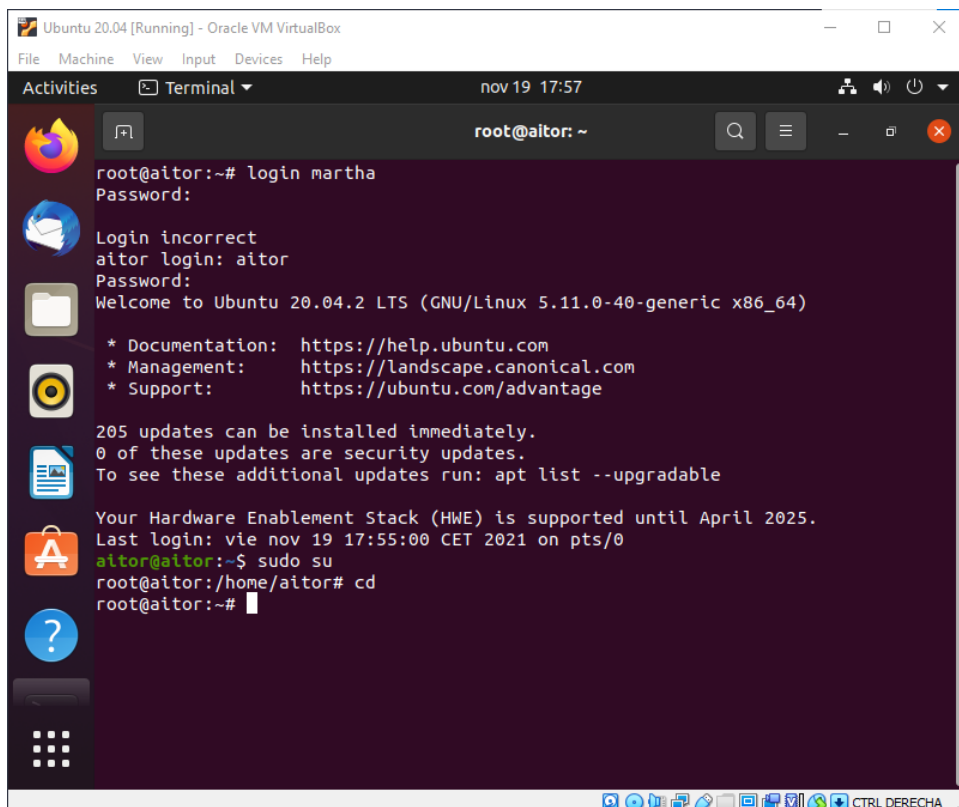
- I cant enter as martha i dont know why. Says that is incorrect



The screenshot shows a terminal window titled "Ubuntu 20.04 [Running] - Oracle VM VirtualBox". The terminal prompt is "root@aitor: ~". The user enters "login martha", followed by "Password:". The system responds with "Login incorrect" and then "aitor login:". The terminal window has a dark purple background and a sidebar with application icons on the left. The top bar shows the date and time as "nov 19 17:56".

```
root@aitor:~# login martha
Password:
Login incorrect
aitor login:
```

16. Go back to the root shell



The screenshot shows the same terminal window, but now the user "aitor" has successfully logged in. The prompt is "aitor@aitor: ~". The system displays a welcome message for Ubuntu 20.04.2 LTS and lists available updates. The user then enters "sudo su", which upgrades the shell to root. The prompt changes to "root@aitor:~#". The terminal window title remains "Ubuntu 20.04 [Running] - Oracle VM VirtualBox". The top bar shows the date and time as "nov 19 17:57".

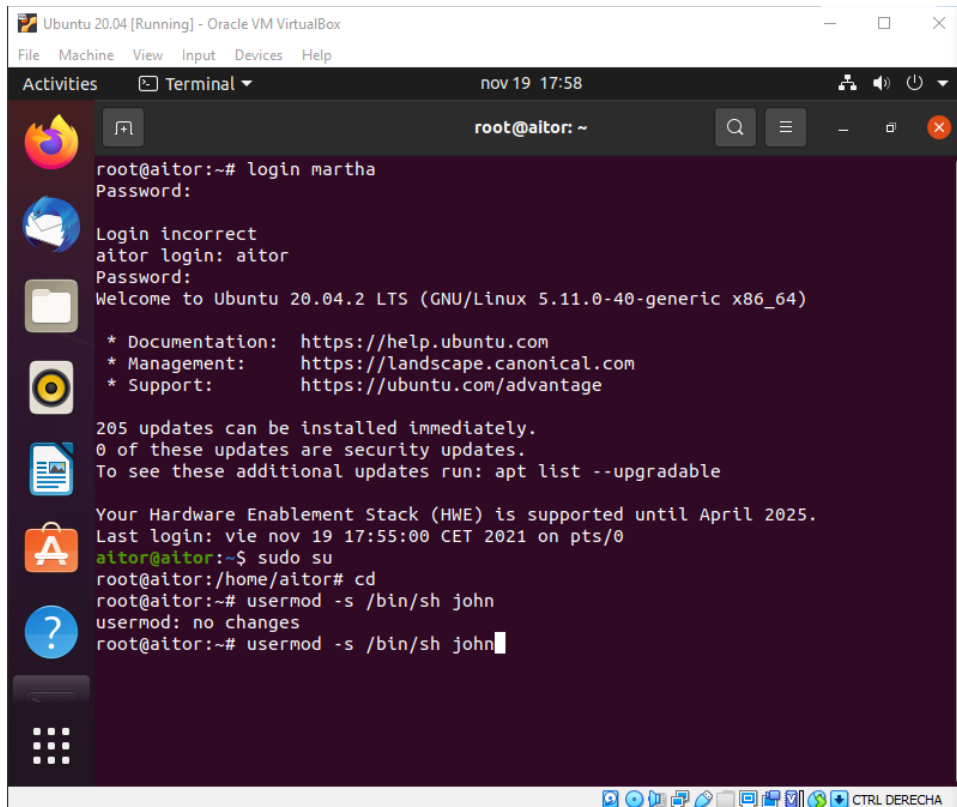
```
aitor@aitor:~# login martha
Password:
Login incorrect
aitor login: aitor
Password:
Welcome to Ubuntu 20.04.2 LTS (GNU/Linux 5.11.0-40-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

205 updates can be installed immediately.
0 of these updates are security updates.
To see these additional updates run: apt list --upgradable

Your Hardware Enablement Stack (HWE) is supported until April 2025.
Last login: vie nov 19 17:55:00 CET 2021 on pts/0
aitor@aitor:~$ sudo su
root@aitor:/home/aitor# cd
root@aitor:~#
```

17. Change the shell of the user named "john" to "sh"



A screenshot of a terminal window in a VirtualBox environment. The window title is 'Ubuntu 20.04 [Running] - Oracle VM VirtualBox'. The terminal shows a root user logging in as 'martha', which fails. Then, the 'aitor' user logs in successfully. The system displays the Ubuntu 20.04.2 LTS welcome message, including links for documentation, management, and support. It also shows that 205 updates can be installed immediately, with 0 being security updates. The hardware enablement stack (HWE) is supported until April 2025. The last login was on Nov 19, 2021. The user 'aitor' runs 'sudo su' to become root, then 'cd' to /home/aitor, and finally 'usermod -s /bin/sh john' twice.

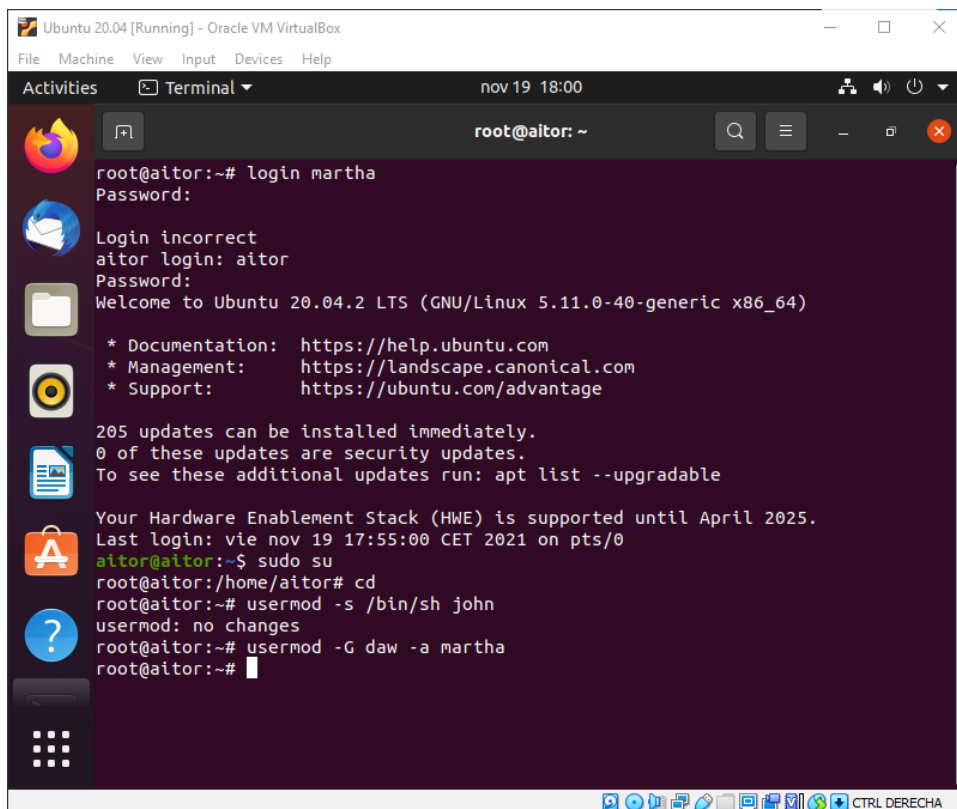
```
root@aitor:~# login martha
Password:
Login incorrect
aitor login: aitor
Password:
Welcome to Ubuntu 20.04.2 LTS (GNU/Linux 5.11.0-40-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

205 updates can be installed immediately.
0 of these updates are security updates.
To see these additional updates run: apt list --upgradable

Your Hardware Enablement Stack (HWE) is supported until April 2025.
Last login: vie nov 19 17:55:00 CET 2021 on pts/0
aitor@aitor:~$ sudo su
root@aitor:/home/aitor# cd
root@aitor:~# usermod -s /bin/sh john
usermod: no changes
root@aitor:~# usermod -s /bin/sh john
```

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

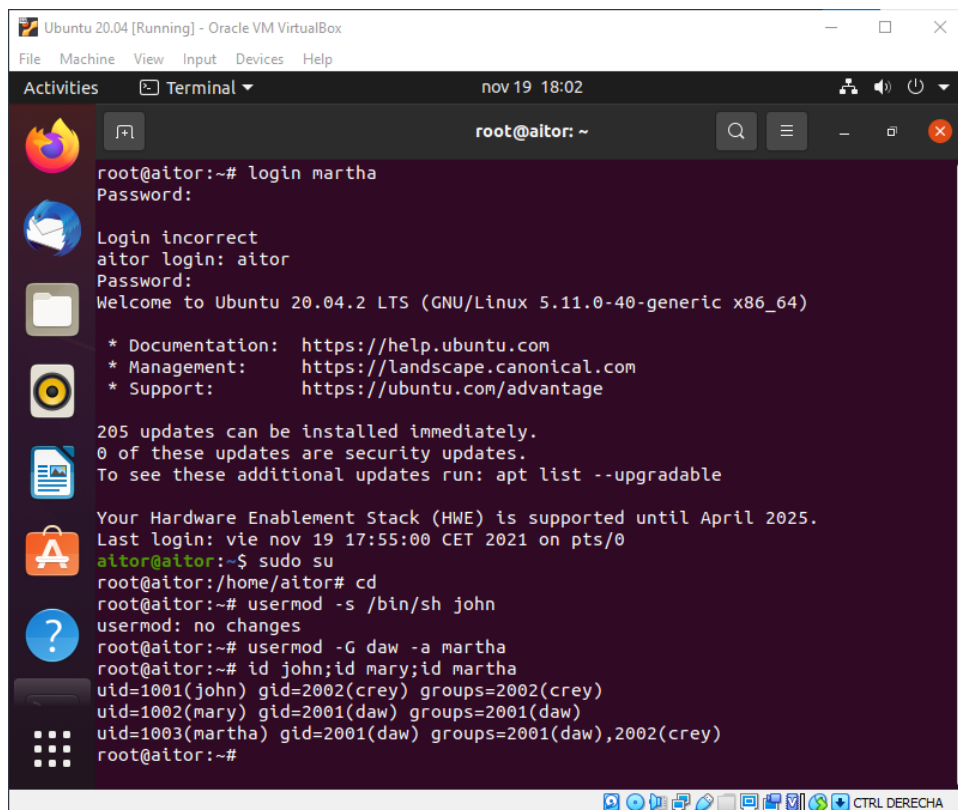


A screenshot of a terminal window in a VirtualBox environment, showing the continuation of the previous session. The user 'aitor' runs 'sudo su' to become root, then 'cd' to /home/aitor, and finally 'usermod -G daw -a martha' to add 'martha' to the 'daw' group. The terminal shows the command being executed and the prompt returning to root.

```
root@aitor:~# usermod -G daw -a martha
root@aitor:~#
```

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



```
root@aitor:~# login martha
Password:
Login incorrect
aitor login: aitor
Password:
Welcome to Ubuntu 20.04.2 LTS (GNU/Linux 5.11.0-40-generic x86_64)

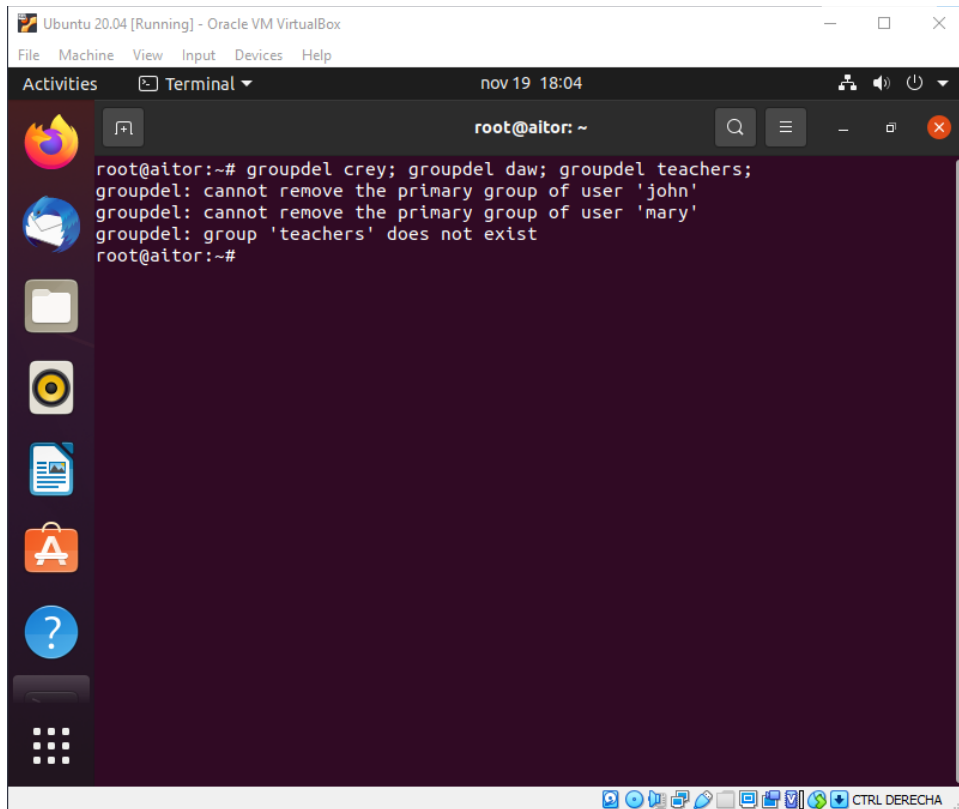
 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:        https://ubuntu.com/advantage

205 updates can be installed immediately.
0 of these updates are security updates.
To see these additional updates run: apt list --upgradable

Your Hardware Enablement Stack (HWE) is supported until April 2025.
Last login: vie nov 19 17:55:00 CET 2021 on pts/0
aitor@aitor:~$ sudo su
root@aitor:/home/aitor# cd
root@aitor:~# usermod -s /bin/sh john
usermod: no changes
root@aitor:~# usermod -G daw -a martha
root@aitor:~# id john;id mary;id martha
uid=1001(john) gid=2002(crey) groups=2002(crey)
uid=1002(mary) gid=2001(daw) groups=2001(daw)
uid=1003(martha) gid=2001(daw) groups=2001(daw),2002(crey)
root@aitor:~#
```

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

-Say that teachers dont exist because I deleted before with this command but I cleared the terminal.

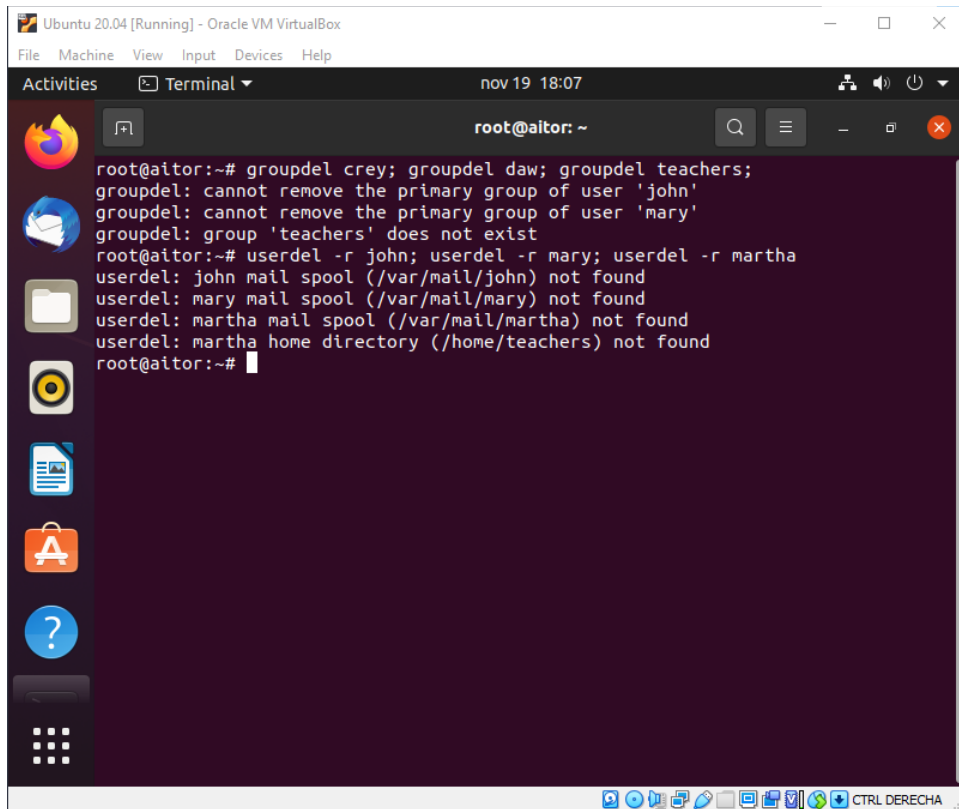


The screenshot shows a terminal window titled 'Ubuntu 20.04 [Running] - Oracle VM VirtualBox'. The terminal is running as root on a host named 'aitor'. The user has entered the command 'groupdel crey; groupdel daw; groupdel teachers;'. The terminal output shows three error messages: 'groupdel: cannot remove the primary group of user 'john'', 'groupdel: cannot remove the primary group of user 'mary'', and 'groupdel: group 'teachers' does not exist'. The terminal window has a dark purple background and a sidebar with application icons on the left. The bottom of the window shows a taskbar with various system icons and the text 'CTRL DERECHA'.

```
root@aitor:~# groupdel crey; groupdel daw; groupdel teachers;
groupdel: cannot remove the primary group of user 'john'
groupdel: cannot remove the primary group of user 'mary'
groupdel: group 'teachers' does not exist
root@aitor:~#
```

-I couldn't delete them because they are primary groups of users

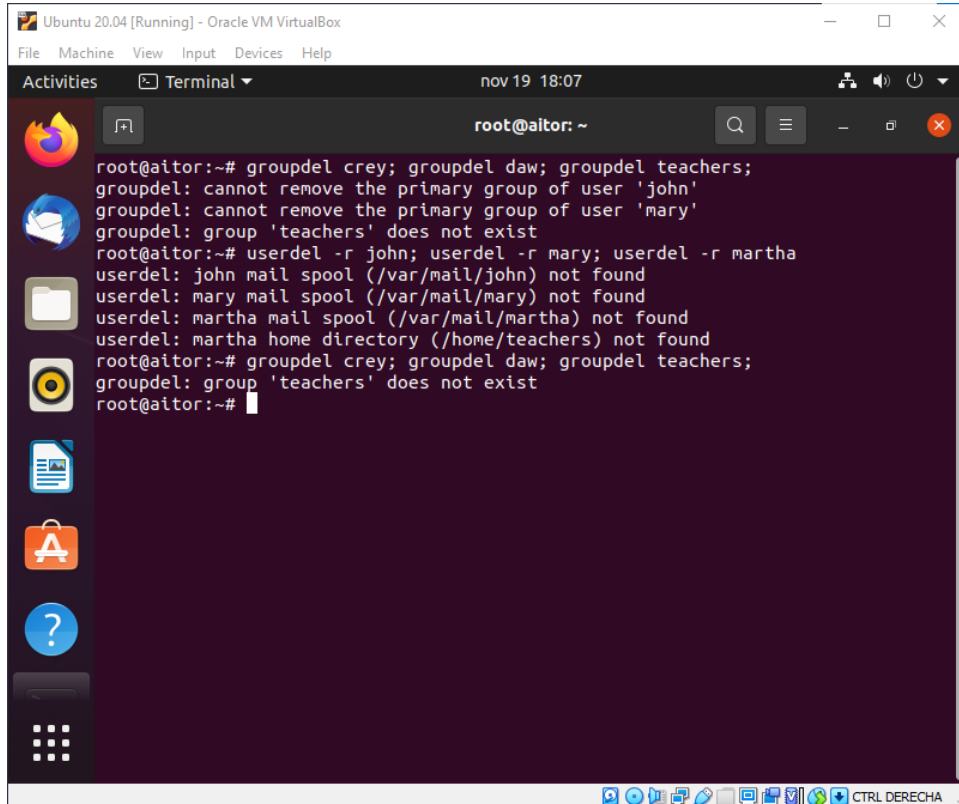
21. Delete all the users you have created, including the files and directories inside the home.



A screenshot of a terminal window titled 'Ubuntu 20.04 [Running] - Oracle VM VirtualBox'. The terminal shows a series of commands and their outputs. The user is root@aitor. The commands and outputs are as follows:

```
root@aitor:~# groupdel crey; groupdel daw; groupdel teachers;
groupdel: cannot remove the primary group of user 'john'
groupdel: cannot remove the primary group of user 'mary'
groupdel: group 'teachers' does not exist
root@aitor:~# userdel -r john; userdel -r mary; userdel -r martha
userdel: john mail spool (/var/mail/john) not found
userdel: mary mail spool (/var/mail/mary) not found
userdel: martha mail spool (/var/mail/martha) not found
userdel: martha home directory (/home/teachers) not found
root@aitor:~#
```

22. Try again to delete the groups



A screenshot of a terminal window titled 'Ubuntu 20.04 [Running] - Oracle VM VirtualBox'. The terminal shows the same commands and outputs as the previous screenshot, but with an additional attempt to delete the 'teachers' group at the end:

```
root@aitor:~# groupdel crey; groupdel daw; groupdel teachers;
groupdel: cannot remove the primary group of user 'john'
groupdel: cannot remove the primary group of user 'mary'
groupdel: group 'teachers' does not exist
root@aitor:~# userdel -r john; userdel -r mary; userdel -r martha
userdel: john mail spool (/var/mail/john) not found
userdel: mary mail spool (/var/mail/mary) not found
userdel: martha mail spool (/var/mail/martha) not found
userdel: martha home directory (/home/teachers) not found
root@aitor:~# groupdel crey; groupdel daw; groupdel teachers;
groupdel: group 'teachers' does not exist
root@aitor:~#
```