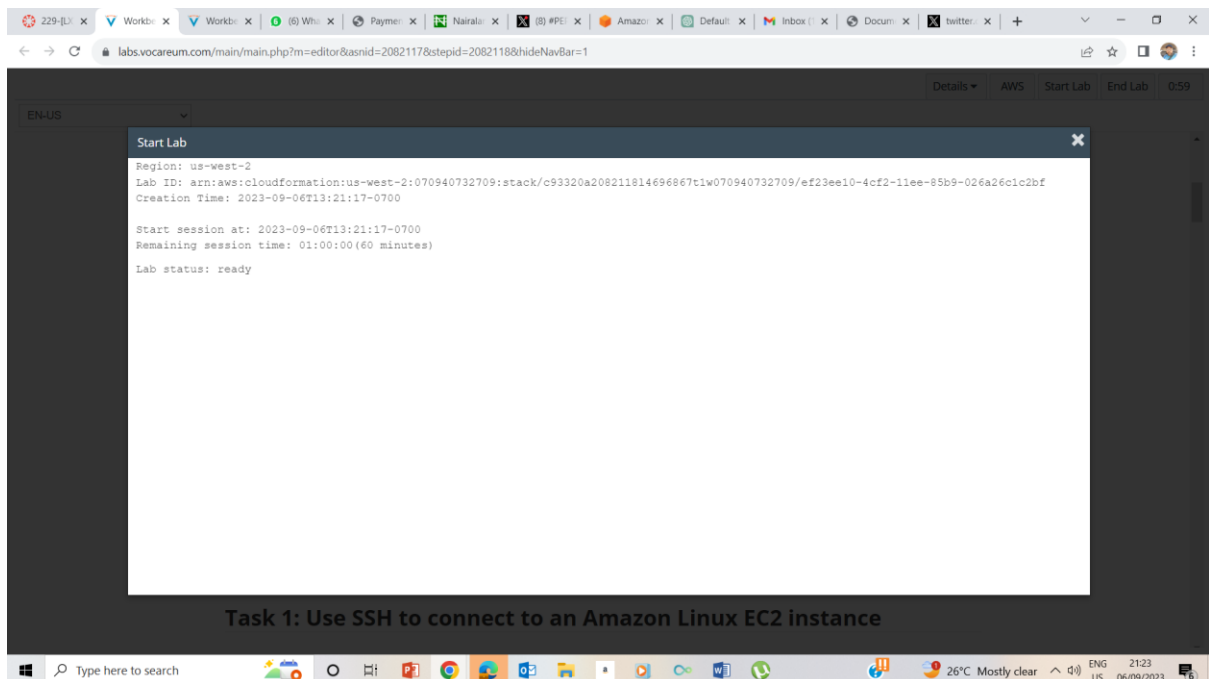
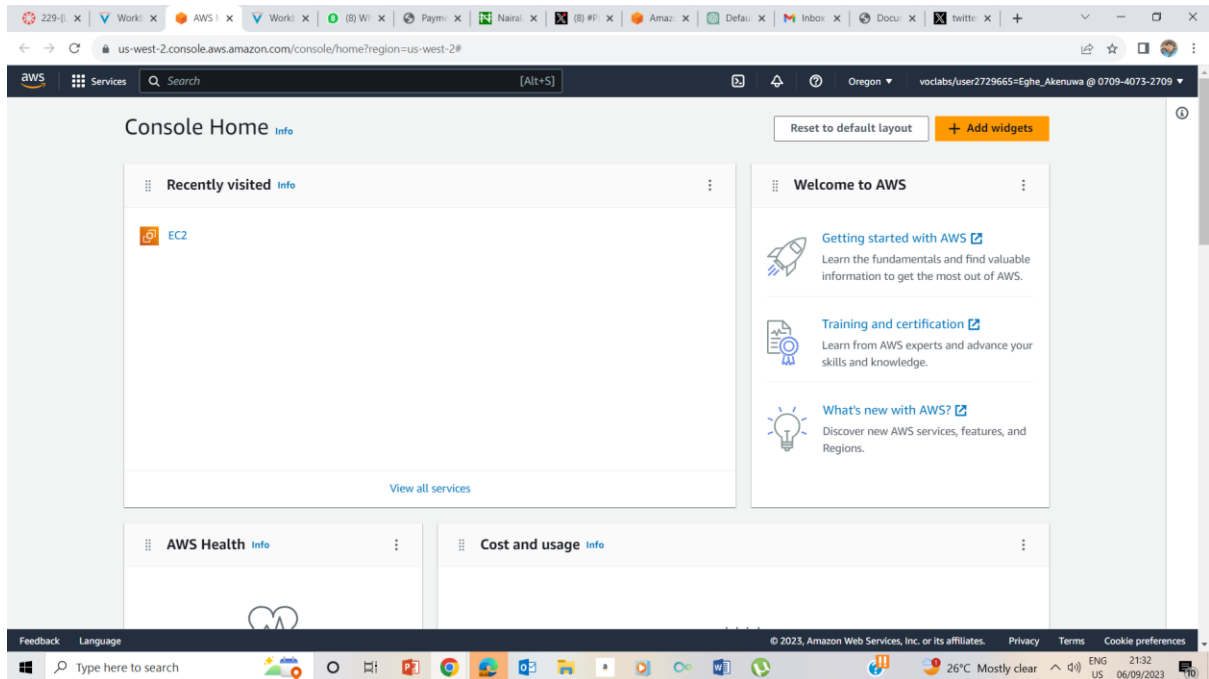


Managing Users and Groups

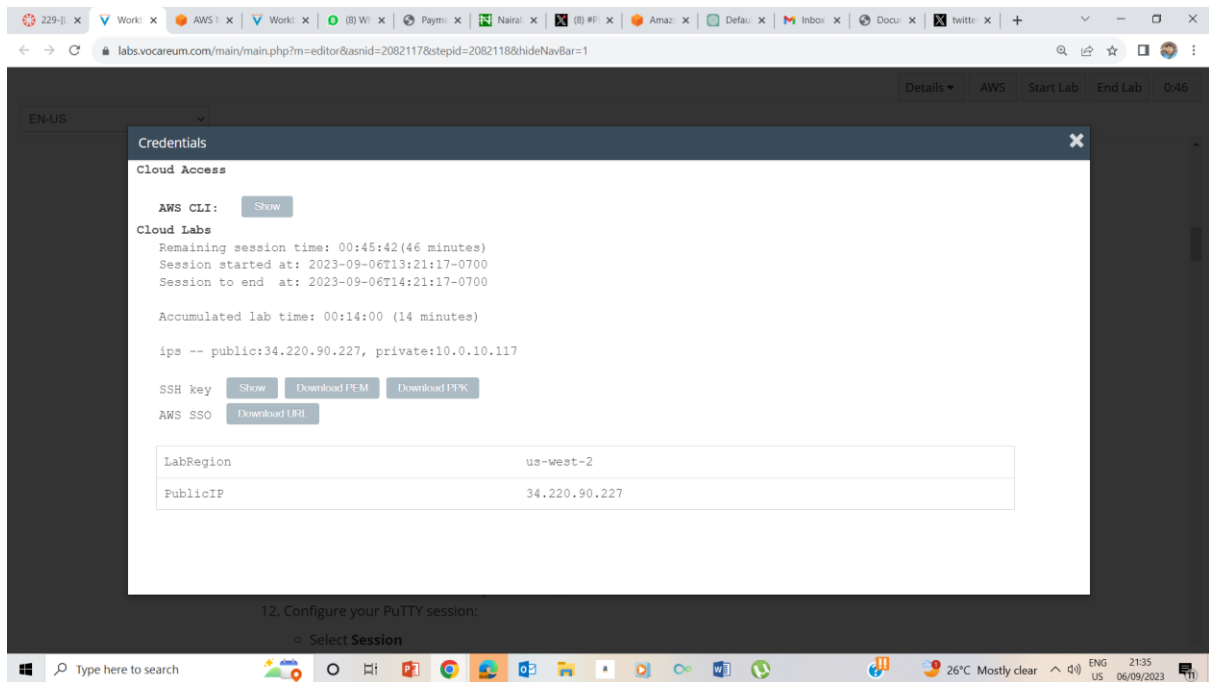
Accessing the AWS Management Console



Accessing the AWS Management Console

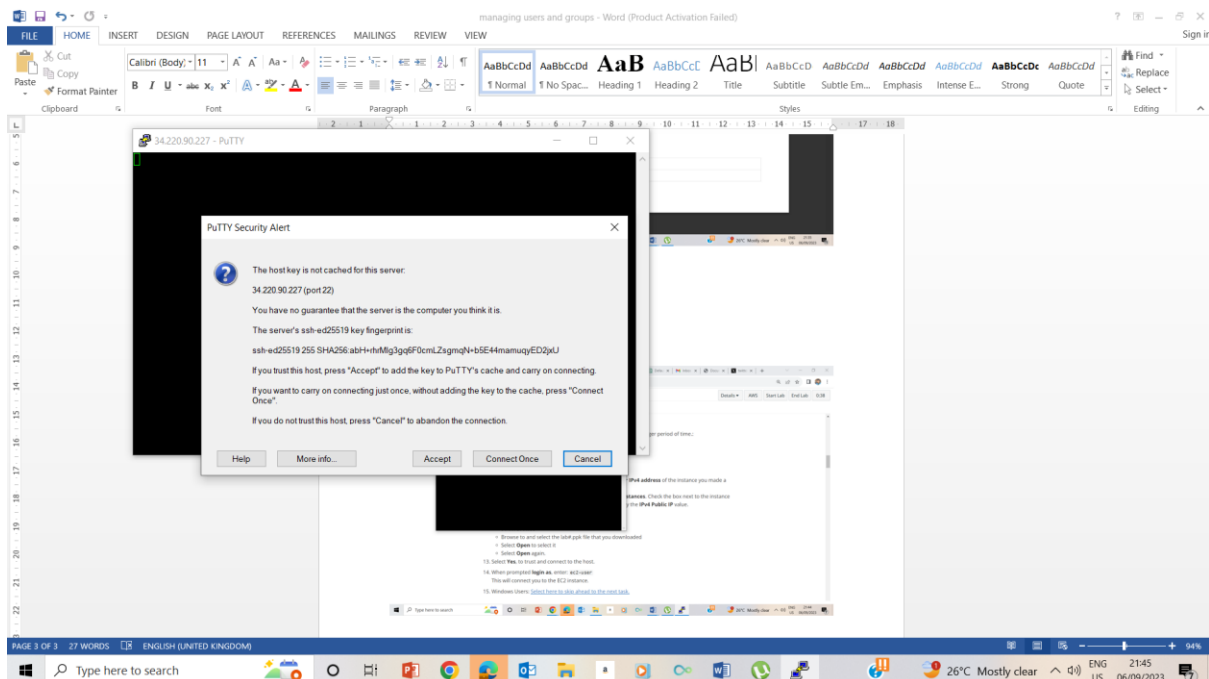


Task 1: Use SSH to connect to an Amazon Linux EC2 instance



Clicked on the Details drop down box, selected show and on the credentials page, I downloaded PPK file, and noted the Publicip address .

13



Downloaded putty file, ran putty.exe and also configured it as in previous labs, clicked on accept to trust it and get connected

12-14

EN-US

```

ec2-user@ip-10-0-10-117:~
login as: ec2-user
Authenticating with public key "imported-openssh-key"

      _ _ _ _ _
     /_ _ _ _ _\   Amazon Linux 2 AMI
    /_ _ _ _ _\

https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-10-0-10-117 ~]$
  
```

Details AWS Start Lab End Lab 0:47

open for a longer period of time.:

DNS or IPv4 address of the instance you made a

lect **Instances**. Check the box next to the instance
 ab copy the **IPv4 Public IP** value.

SSH

- Select **Browse**
- Browse to and select the lab#.ppk file that you downloaded
- Select **Open** to select it
- Select **Open** again.

13. Select **Yes**, to trust and connect to the host.

14. When prompted **login as**, enter: **ec2-user**
 This will connect you to the EC2 instance.

15. Windows Users: [Select here to skip ahead to the next task.](#)

Type here to search

26°C 22:01 ENG US 06/09/2023

The putty is connected.

Task 2: Create Users

24

EN-US

```

ec2-user@ip-10-0-10-117:~
login as: ec2-user
Authenticating with public key "imported-openssh-key"

      _ _ _ _ _
     /_ _ _ _ _\   Amazon Linux 2 AMI
    /_ _ _ _ _\

https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-10-0-10-117 ~]$ pwd
/home/ec2-user
[ec2-user@ip-10-0-10-117 ~]$
  
```

ales Manager P@ssword1234!

hipping P@ssword1234!

hipping P@ssword1234!

R Manager P@ssword1234!

inance Manager P@ssword1234!

EO P@ssword1234!

ales Representative P@ssword1234!

hipping P@ssword1234!

R Specialist P@ssword1234!

inance Specialist P@ssword1234!

Ensure that you are spelling the user IDs correctly so that these users can use default credentials to log in.

24. Validate that you are in the home folder of your current user by typing **pwd** and pressing ENTER.

```

[ec2-user]$ pwd
/home/ec2-user
[ec2-user]$
  
```

25. To add the first user from the list above, **Alejandro Rosalez**, enter **sudo useradd arosalez** and press

Type here to search

26°C Mostly clear 22:03 ENG US 06/09/2023

Entered pwd confirm my current folder

25-26

229-[] x Work: x AWS: x Work: x (10) W: x Paym: x Nairai: x (16) #P: x Amaz: x Defau: x Inbo: x Docu: x (8) #I: x +

labs.vocareum.com/main.php?m=editor&asnid=2082117&stepid=2082118&hideNavBar=1

EN-US

ec2-user@ip-10-0-10-117-~
login as: ec2-user
Authenticating with public key "imported-openssh-key"
Amazon Linux 2 AMI
https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-10-0-10-117 ~]\$ pwd
/home/ec2-user
[ec2-user@ip-10-0-10-117 ~]\$ sudo useradd arosalez
[ec2-user@ip-10-0-10-117 ~]\$ sudo passwd arosalez
Changing password for user arosalez.
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
[ec2-user@ip-10-0-10-117 ~]\$

EO	P@ssword1234!
ales Representative	P@ssword1234!
hipping	P@ssword1234!
IR Specialist	P@ssword1234!
inance Specialist	P@ssword1234!

at these users can use default credentials to log in.

urrent user by typing **pwd** and pressing ENTER.

25. To add the first user from the list above, **Alejandro Rosalez**, enter `sudo useradd arosalez` and press Enter.

This step creates the user **arosalez**.

26. Enter `sudo passwd arosalez` and press Enter.

You are required to enter the password twice. You can use the password **P@ssword1234!**

Note

When entering the password, nothing appears on the screen, so type your password and press

Created a user arosalez with added password

27-33

229-[] x Work: x AWS: x Work: x (10) W: x Paym: x Nairai: x (16) #P: x Amaz: x Defau: x Inbo: x Docu: x (8) #I: x +

labs.vocareum.com/main.php?m=editor&asnid=2082117&stepid=2082118&hideNavBar=1

EN-US

In this section, you create users based on the following

First Name	Last Name	User ID
Alejandro	Rosalez	arosalez
Efua	Owusu	eowusu
Jane	Doe	jdoe
Li	Juan	ljuan
Mary	Major	mmajor
Mateo	Jackson	mjackson
Nikki	Wolf	nwolf
Paulo	Santos	psantos
Sofia	Martinez	smartinez
Saanvi	Sarkar	ssarkar

Sales Representative	P@ssword1234!
Shipping	P@ssword1234!
HR Specialist	P@ssword1234!
Finance Specialist	P@ssword1234!

ec2-user@ip-10-0-10-117-~
login as: ec2-user
Authenticating with public key "imported-openssh-key"
Amazon Linux 2 AMI
https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-10-0-10-117 ~]\$ pwd
/home/ec2-user
[ec2-user@ip-10-0-10-117 ~]\$ sudo useradd arosalez
[ec2-user@ip-10-0-10-117 ~]\$ sudo passwd arosalez
Changing password for user arosalez.
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
[ec2-user@ip-10-0-10-117 ~]\$ sudo cat/etc/passwd | cut -d: -f1
sudo: cat/etc/passwd: command not found
[ec2-user@ip-10-0-10-117 ~]\$ sudo cat/etc/passwd | cut -d: -f1
root
bin
daemon

Ensure that you are spelling the user IDs correctly so that these users can use default credentials to log in.

24. Validate that you are in the home folder of your current user by typing **pwd** and pressing ENTER.

`ec2-user@ip-10-0-10-117 ~$ pwd`

28

In this section, you create users based on the following

First Name	Last Name	User ID	Role	Default Password
Alejandro	Rosalez	arosalez	Shipping	P@ssword1234!
Efua	Owusu	eowusu	HR Specialist	P@ssword1234!
Jane	Doe	jdoe	Finance Specialist	P@ssword1234!
Li	Juan	ljuan		
Mary	Major	mmajor		
Mateo	Jackson	mjackson		
Nikki	Wolf	nwolf	Sales Representative	P@ssword1234!
Paulo	Santos	psantos	Shipping	P@ssword1234!
Sofia	Martinez	smartinez	HR Specialist	P@ssword1234!
Saanvi	Sarkar	ssarkar	Finance Specialist	P@ssword1234!

Ensure that you are spelling the user IDs correctly so that these users can use default credentials to log in.

24. Validate that you are in the home folder of your current user by typing **pwd** and pressing ENTER.

```
ec2-user@ip-10-0-10-117:~$ pwd
~
```

29

27. To validate that users have been created, enter **sudo cat /etc/passwd | cut -d: -f1** and press ENTER.

```
ec2-user@ip-10-0-10-117:~$ sudo cat /etc/passwd | cut -d: -f1
nobody
systemd-network
dbus
rpc
libstoragemgmt
sshd
trond
chrony
rpcuser
nfsnobody
ec2-instance-connect
postfix
tcpdump
ec2-user
arosalez
eowusu
jdoe
ljuan
mmajor
mjackson
nwolf
psantos
smartinez
ssarkar
ec2-user@ip-10-0-10-117:~$
```

Note
This command helps visualize the created users. Now, **cat** is one of the most popular commands. To enter **cat /etc/passwd** to display the whole content of the file, the output is less readable. Don't bother with the second part of the command for now. You will learn more about the **cat**, **cut**, and **|** commands later in this course.

28. Use the **sudo useradd <User ID>** and **sudo passwd <User ID>** commands to add the remaining users from the table. Replace **<User ID>** with each **User ID** in the table at the beginning of this task.

29. To validate that all users have been created, enter **sudo cat /etc/passwd | cut -d: -f1** and press ENTER.

```
ec2-user@ip-10-0-10-117:~$ sudo cat /etc/passwd | cut -d: -f1
ec2-user
```

Used **cat /etc/passwd | cut -d: -f1** to list all users created

Task 3: Create Groups

30

The screenshot shows a web browser window with a tutorial page for creating groups. The page includes a list of groups to create: Shipping, Managers, Finance, and CEO. It also includes a note about using 'sudo' and a warning about managers. The terminal window shows the command 'cat /etc/group' and its output, which lists the groups and their members.

EN-US

- Shipping
- Managers

Once you've created these groups, you add the users to the groups provided in the table in Task 2.

Note
You may have to use **sudo** to complete this exercise.

Watch out! Managers are personnel, but not all personnel are managers. Some users belong to multiple groups.

30. To validate that you are in the home folder of your current user, enter **pwd** and press Enter.

31. To create the **Sales** group, enter **sudo groupadd Sales** and press Enter.

32. To verify that the group was added, enter **cat /etc/group** and press Enter.

```
...
ec2-user:x:1000:
...
Sales:x:1014
...
```

Note
The **/etc/group** file contains all the groups. You should notice that there is already one group for each user that you created earlier because a group is created for each new user. You may have

Pwd confirms my current folder

31

The screenshot shows a web browser window with a tutorial page for creating groups. The page includes a list of groups to create: Shipping, Managers, Finance, and CEO. It also includes a note about using 'sudo' and a warning about managers. The terminal window shows the command 'cat /etc/group' and its output, which lists the groups and their members.

EN-US

Watch out! Managers are personnel, but not all personnel are managers. Some users belong to multiple groups.

30. To validate that you are in the home folder of your current user, enter **pwd** and press Enter.

31. To create the **Sales** group, enter **sudo groupadd Sales** and press Enter.

32. To verify that the group was added, enter **cat /etc/group** and press Enter.

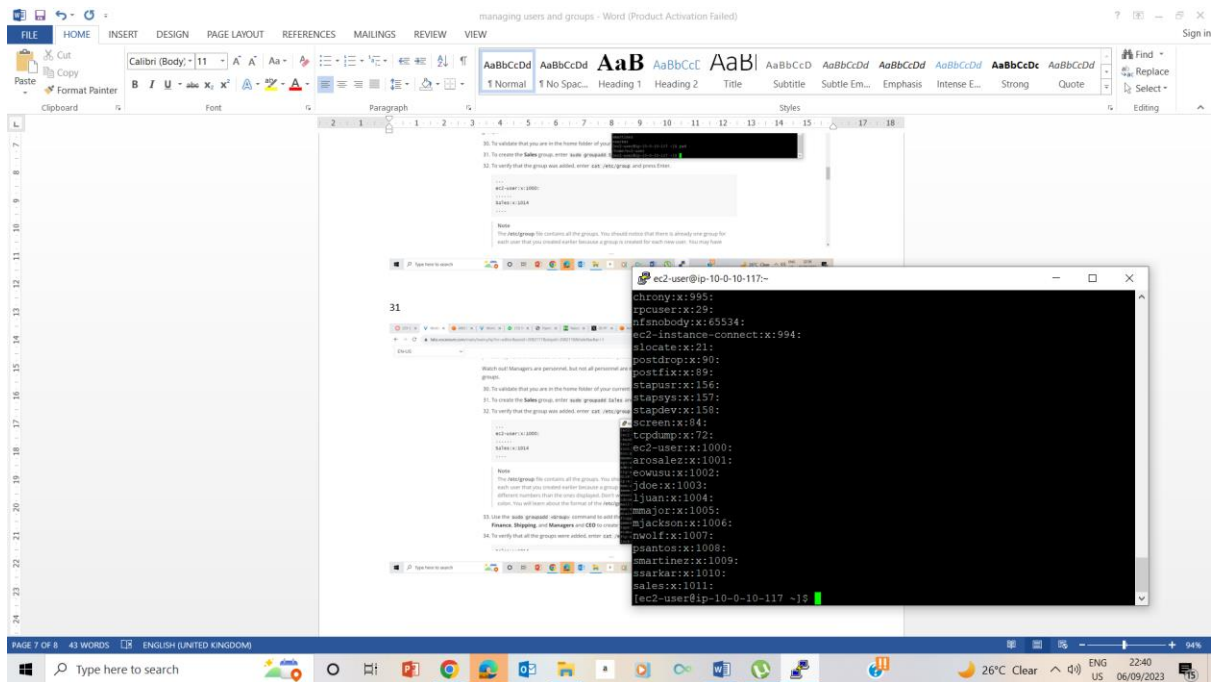
```
...
ec2-user:x:1000:
...
Sales:x:1014
...
```

Note
The **/etc/group** file contains all the groups. You should notice that there is already one group for each user that you created earlier because a group is created for each new user. You may have

33. Use the **sudo groupadd <Group>** command to add the **Finance**, **Shipping**, and **Managers** and **CEO** to create

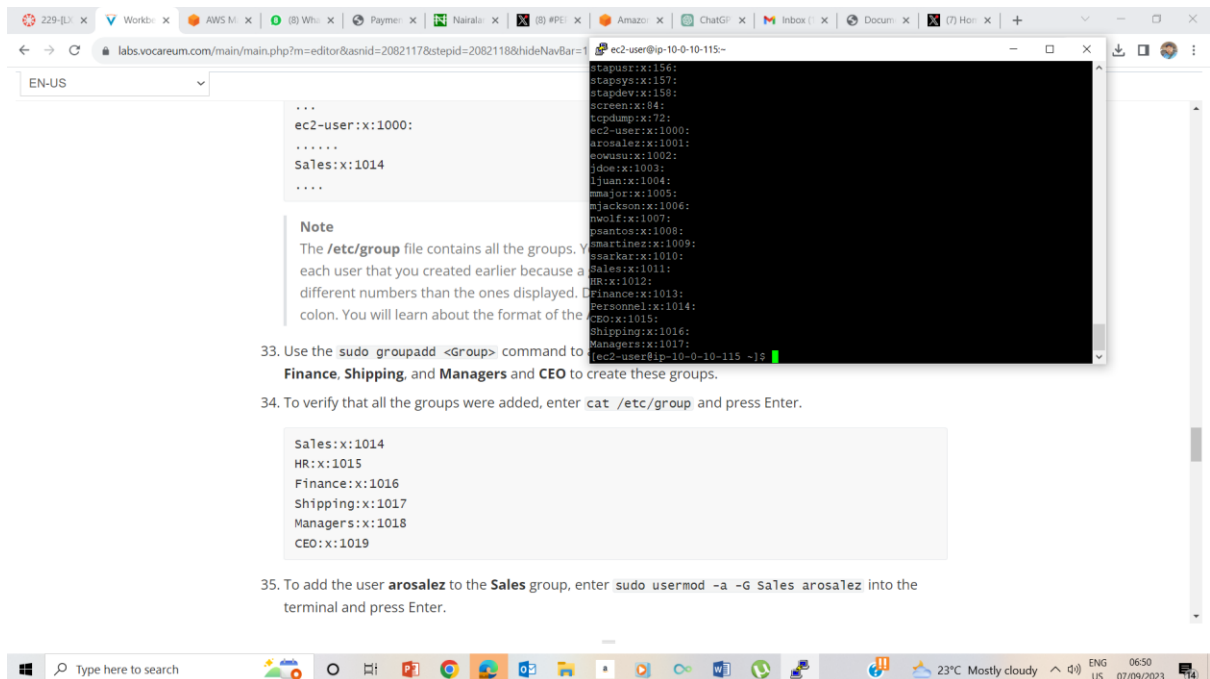
34. To verify that all the groups were added, enter **cat /etc/group** and press Enter.

sudo groupadd Sales creates Sales group



Cat /etc/group

32-34



Cat /etc/group is used to verify that a group was created.

35 Added aroalez to Sales Group using sudo usermod -a -G Sales aroalez

EN-US

33. Use the `sudo groupadd <Group Name>` command to create the **Finance, Shipping, and Managers** groups.

34. To verify that all the groups were created, enter `cat /etc/group` and press Enter.

```

Sales:x:1014
HR:x:1015
Finance:x:1016
Shipping:x:1017
Managers:x:1018
CEO:x:1019

```

35. To add the user **arosalez** to the **Sales** group, enter `sudo usermod -a -G Sales arosalez` into the terminal and press Enter.

36. To verify that the user was added, enter `cat /etc/group` and press Enter.

```

....
Sales:x:1014:arosalez
....

```

37. Use the `sudo usermod -a -G <Group Name> <User ID>` command to add the remaining users to the appropriate groups. Using the information in the following table, replace **<Group Name>** with the **Group Name**, and replace **<User ID>** with each user ID in the **User IDs** columns.

User IDs	Group Name
1014	Finance
1015	Shipping
1016	Managers
1017	Managers
1018	Managers
1019	Managers

36. VERIFYING arosalez is in Sales group

EN-US

33. Use the `sudo groupadd <Group Name>` command to create the **Finance, Shipping, and Managers** groups.

34. To verify that all the groups were created, enter `cat /etc/group` and press Enter.

```

Sales:x:1014
HR:x:1015
Finance:x:1016
Shipping:x:1017
Managers:x:1018
CEO:x:1019

```

35. To add the user **arosalez** to the **Sales** group, enter `sudo usermod -a -G Sales arosalez` into the terminal and press Enter.

36. To verify that the user was added, enter `cat /etc/group` and press Enter.

```

....
Sales:x:1014:arosalez
....

```

37. Use the `sudo usermod -a -G <Group Name> <User ID>` command to add the remaining users to the appropriate groups. Using the information in the following table, replace **<Group Name>** with the **Group Name**, and replace **<User ID>** with each user ID in the **User IDs** columns.

User IDs	Group Name
1014	Finance
1015	Shipping
1016	Managers
1017	Managers
1018	Managers
1019	Managers

37 -42 Adding to Groups

EN-US

Managers:x:1018
CEO:x:1019

35. To add the user **arosalez** to the terminal and press Enter.

36. To verify that the user was added

```
....
Sales:x:1014:arosalez
....
```

```

finance:x:1013:
Personnel:x:1014:
CEO:x:1015:
Shipping:x:1016:
Managers:x:1017:
ec2-user@ip-10-0-10-115:~$ sudo usermod -a -G Shipping eowusu
ec2-user@ip-10-0-10-115:~$ sudo usermod -a -G HR ljuan
ec2-user@ip-10-0-10-115:~$ sudo usermod -a -G Managers arosalez
ec2-user@ip-10-0-10-115:~$ sudo usermod -a -G Managers ljuan
ec2-user@ip-10-0-10-115:~$ sudo usermod -a -G Managers mmajor
ec2-user@ip-10-0-10-115:~$ sudo usermod -a -G HR smartinez
ec2-user@ip-10-0-10-115:~$ sudo usermod -a -G Shipping jdoe
ec2-user@ip-10-0-10-115:~$ sudo usermod -a -G Shipping psantos
ec2-user@ip-10-0-10-115:~$ sudo usermod -a -G Sales nwolf
ec2-user@ip-10-0-10-115:~$ sudo usermod -a -G Finance mmajor
ec2-user@ip-10-0-10-115:~$ sudo usermod -a -G Finance ssarkar
ec2-user@ip-10-0-10-115:~$ sudo usermod -a -G CEO mjackson
ec2-user@ip-10-0-10-115:~$ sudo usermod -a -G CEO ec2-user
ec2-user@ip-10-0-10-115:~$ sudo usermod -a -G Finance ec2-user
ec2-user@ip-10-0-10-115:~$ sudo usermod -a -G Managers ec2-user
ec2-user@ip-10-0-10-115:~$ sudo usermod -a -G HR ec2-user
ec2-user@ip-10-0-10-115:~$ sudo usermod -a -G Shipping ec2-user
ec2-user@ip-10-0-10-115:~$ sudo usermod -a -G Sales ec2-user
ec2-user@ip-10-0-10-115:~$ sudo usermod -a -G Sales ec2-user

```

37. Use the `sudo usermod -a -G <Group Name> <User ID>` command to add the remaining users to the appropriate groups. Using the information in the following table, replace **<Group Name>** with the **Group Name**, and replace **<User ID>** with each user ID in the **User IDs** columns.

Group Name	User IDs	Group Name	User IDs	Group Name	User IDs
Sales	arosaleznwolf	HR	ljuansmartinez	Finance	mmajorssarkar
Shipping	eowusujdoepsantos	Managers	arosalezljuanmmajor	CEO	mjackson

38. Add ec2-user to all groups.

39. To check the group memberships, enter `sudo cat /etc/group` into the terminal and press Enter.

25°C Sunny 07:04 07/09/2023

39. Confirming Group membership status using sudo cat /etc/group

EN-US

35. To add the user **arosalez** to the terminal and press Enter.

36. To verify that the user was added

```
....
Sales:x:1014:arosalez
....
```

37. Use the `sudo usermod -a -G` appropriate groups. Using the **Group Name**, and replace **<User ID>** with each user ID in the **User IDs** columns.

Group Name	User IDs	Group Name	User IDs	Group Name	User IDs
Sales	arosaleznwolf	HR	ljuansmartinez	Finance	mmajorssarkar
Shipping	eowusujdoepsantos	Managers	arosalezljuanmmajor	CEO	mjackson

38. Add ec2-user to all groups.

39. To check the group memberships, enter `sudo cat /etc/group` into the terminal and press Enter.

```

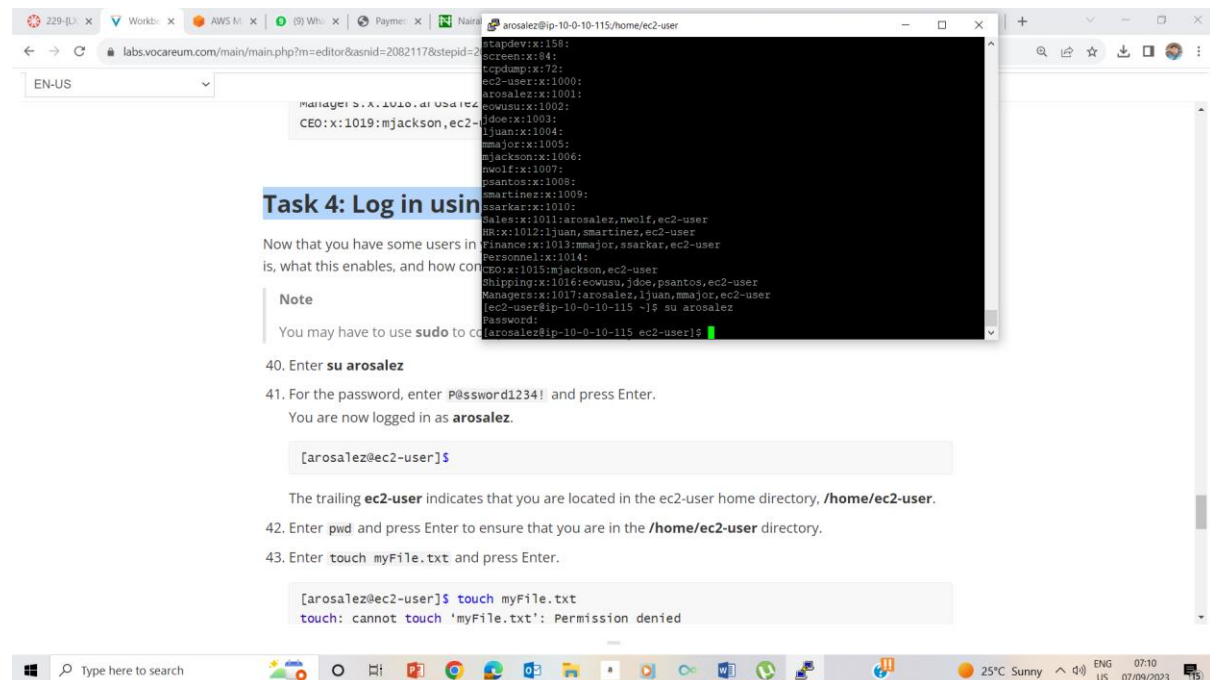
Sales:x:1014:arosalez,nwolf,ec2-user
HR:x:1015:ljuan,smartinez,ec2-user

```

25°C Sunny 07:06 07/09/2023

Task 4: Log in using the new users

40-41



The screenshot shows a web browser window with the URL `labs.vocareum.com/main.php?m=editor&asnid=2082117&stepid=2`. The page content includes a dropdown menu set to "EN-US", a "Task 4: Log in using the new users" heading, and a "Note" section stating: "You may have to use `sudo` to create files in the `/home/ec2-user` directory." Below the note, steps 40 and 41 are listed: "40. Enter `su arosalez`" and "41. For the password, enter `P@ssword1234!` and press Enter. You are now logged in as `arosalez`." A terminal window is overlaid on the page, showing a list of users and their home directories, followed by the command `su arosalez` and the prompt `[arosalez@ec2-user]$`. The Windows taskbar at the bottom shows the date and time as 07:10 on 07/09/2023.

Task 4: Log in using the new users

Now that you have some users in the system, what this enables, and how you can use them.

Note

You may have to use `sudo` to create files in the `/home/ec2-user` directory.

40. Enter `su arosalez`

41. For the password, enter `P@ssword1234!` and press Enter.
You are now logged in as `arosalez`.

[arosalez@ec2-user]\$

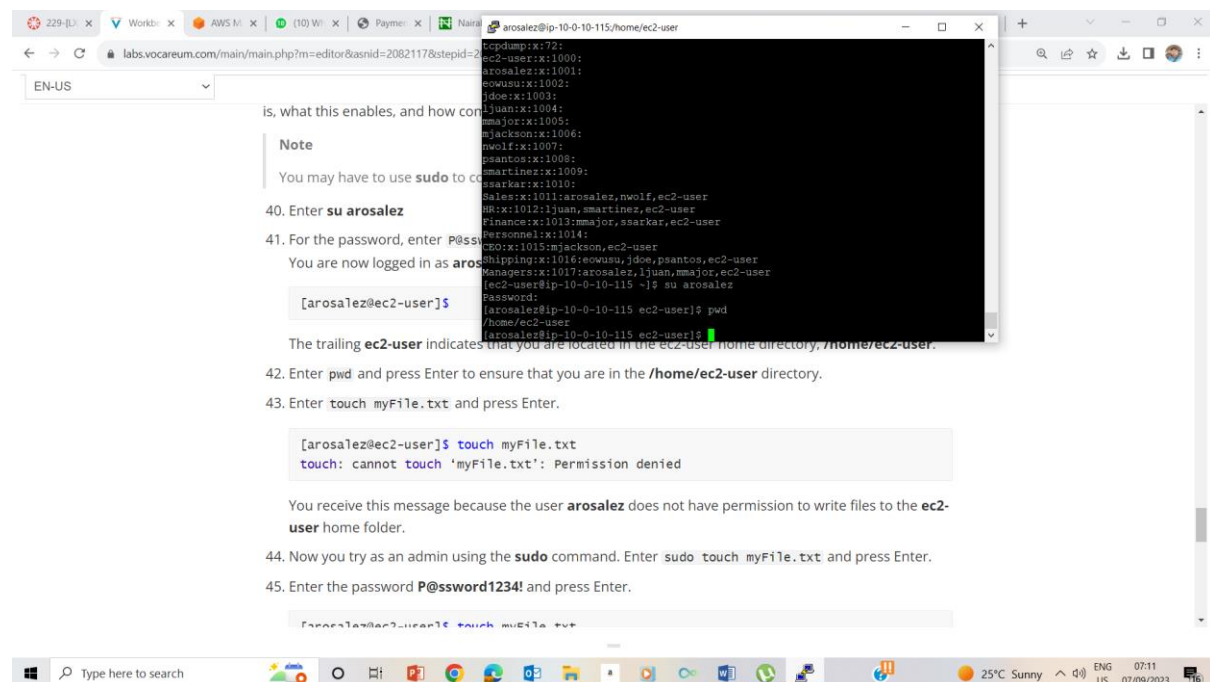
The trailing `ec2-user` indicates that you are located in the `ec2-user` home directory, `/home/ec2-user`.

42. Enter `pwd` and press Enter to ensure that you are in the `/home/ec2-user` directory.

43. Enter `touch myFile.txt` and press Enter.

[arosalez@ec2-user]\$ touch myFile.txt
touch: cannot touch 'myFile.txt': Permission denied

42 Home Directory using `pwd`



The screenshot shows the same web browser window as above, but with step 42 added: "42. Enter `pwd` and press Enter to ensure that you are in the `/home/ec2-user` directory." The terminal window now shows the output of the `pwd` command: `/home/ec2-user`. The Windows taskbar at the bottom shows the date and time as 07:11 on 07/09/2023.

is, what this enables, and how you can use them.

Note

You may have to use `sudo` to create files in the `/home/ec2-user` directory.

40. Enter `su arosalez`

41. For the password, enter `P@ssword1234!` and press Enter.
You are now logged in as `arosalez`.

[arosalez@ec2-user]\$

The trailing `ec2-user` indicates that you are located in the `ec2-user` home directory, `/home/ec2-user`.

42. Enter `pwd` and press Enter to ensure that you are in the `/home/ec2-user` directory.

43. Enter `touch myFile.txt` and press Enter.

[arosalez@ec2-user]\$ touch myFile.txt
touch: cannot touch 'myFile.txt': Permission denied

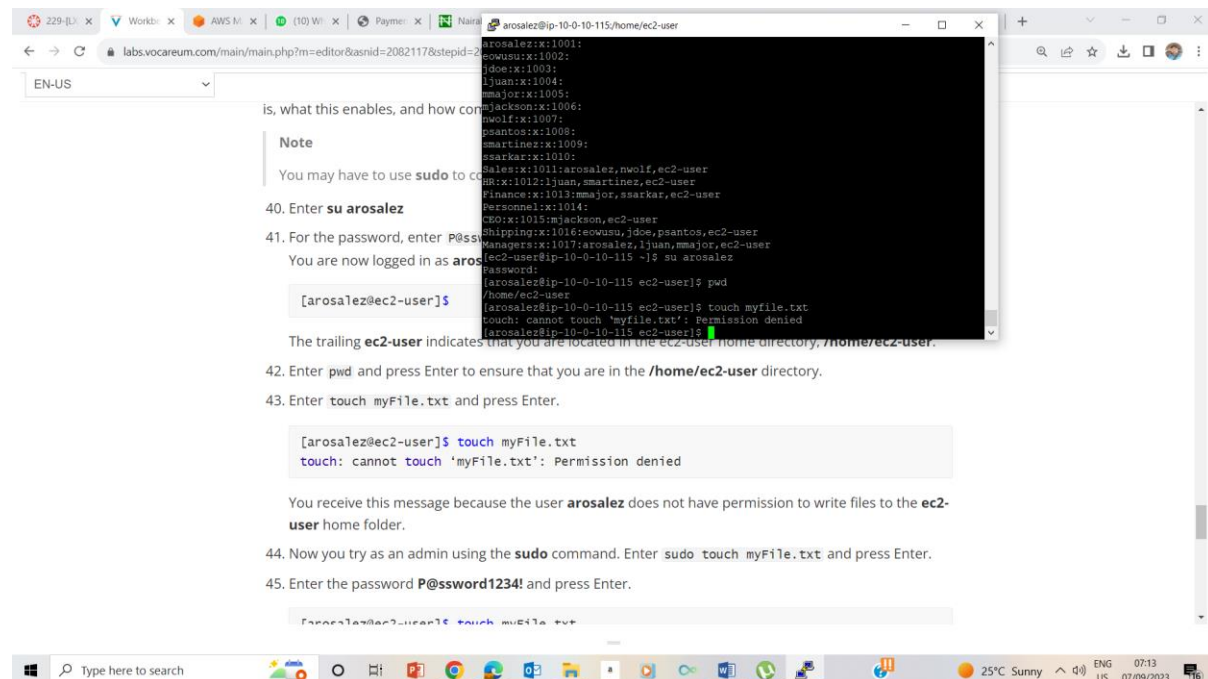
You receive this message because the user `arosalez` does not have permission to write files to the `ec2-user` home folder.

44. Now you try as an admin using the `sudo` command. Enter `sudo touch myFile.txt` and press Enter.

45. Enter the password `P@ssword1234!` and press Enter.

[arosalez@ec2-user]\$ touch myFile.txt

43. touch myfile.txt- permission denied



The screenshot shows a terminal window with the following content:

```
arosaldez@ip-10-0-10-115/home/ec2-user$ touch myfile.txt
touch: cannot touch 'myfile.txt': Permission denied
```

The trailing **ec2-user** indicates that you are located in the **ec2-user** home directory, **/home/ec2-user**.

42. Enter **pwd** and press Enter to ensure that you are in the **/home/ec2-user** directory.

43. Enter **touch myFile.txt** and press Enter.

```
[arosaldez@ec2-user]$ touch myFile.txt
touch: cannot touch 'myFile.txt': Permission denied
```

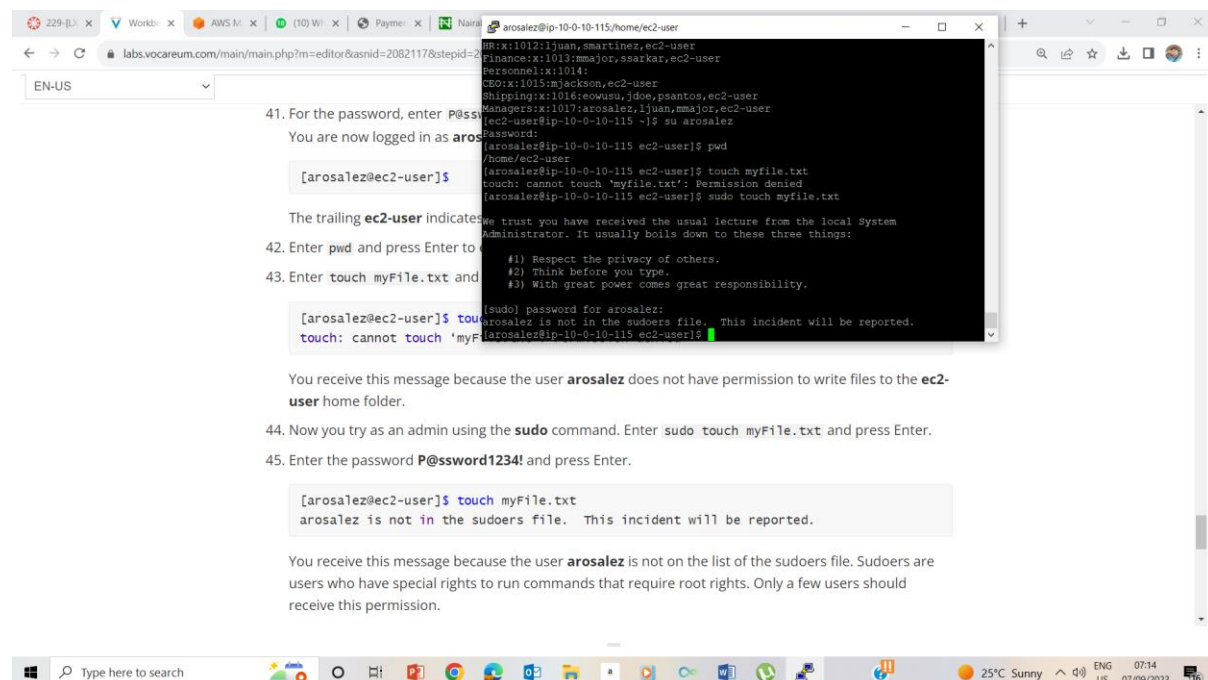
You receive this message because the user **arosaldez** does not have permission to write files to the **ec2-user** home folder.

44. Now you try as an admin using the **sudo** command. Enter **sudo touch myFile.txt** and press Enter.

45. Enter the password **P@ssword1234!** and press Enter.

```
[arosaldez@ec2-user]$ sudo touch myFile.txt
```

44.sudo using arosalez



The screenshot shows a terminal window with the following content:

```
arosaldez@ip-10-0-10-115/home/ec2-user$ touch myfile.txt
touch: cannot touch 'myfile.txt': Permission denied
arosaldez@ip-10-0-10-115/home/ec2-user$ sudo touch myfile.txt
[sudo] password for arosalez:
arosaldez is not in the sudoers file. This incident will be reported.
```

The trailing **ec2-user** indicates that you have received the usual lecture from the local System Administrator. It usually boils down to these three things:

- #1) Respect the privacy of others.
- #2) Think before you type.
- #3) With great power comes great responsibility.

You receive this message because the user **arosaldez** does not have permission to write files to the **ec2-user** home folder.

44. Now you try as an admin using the **sudo** command. Enter **sudo touch myFile.txt** and press Enter.

45. Enter the password **P@ssword1234!** and press Enter.

```
[arosaldez@ec2-user]$ touch myFile.txt
arosaldez is not in the sudoers file. This incident will be reported.
```

You receive this message because the user **arosaldez** is not on the list of the sudoers file. Sudoers are users who have special rights to run commands that require root rights. Only a few users should receive this permission.

46. Report Log

229- [L] x Workb x AWS M x (10) W x Payme x Nair

ec2-user@ip-10-0-10-115:~\$

43. Enter `touch myFile.txt` and press Enter to create the file.

[arosaltez@ec2-user]\$ touch myFile.txt

touch: cannot touch 'myFile.txt': Permission denied

You receive this message because the user **arosaltez** is not in the `sudoers` file.

44. Now you try as an admin using `sudo`.

45. Enter the password **P@ssw0rd** and press Enter.

[arosaltez@ec2-user]\$ sudo touch myFile.txt

arosaltez is not in the sudoers file. This incident will be reported.

You receive this message because the user **arosaltez** is not on the list of the `sudoers` file. Sudoers are users who have special rights to run commands that require root rights. Only a few users should receive this permission.

46. Enter `exit` and press Enter to switch to the previous user, **ec2-user**.

47. Now you visualize the content of the `/var/log/secure` file. Enter `sudo cat /var/log/secure` and press Enter to display the content of the secure file. Scroll to the bottom of the file using the down arrow:

```
Aug 9 14:45:55 ip-10-0-10-217 sudo: arosalez : user NOT in sudoers ; TTY=pts/1 ;  
PWD=/home/ec2-user ; USER=root ; COMMAND=/bin/touch myFile.txt
```

Windows taskbar: Type here to search, 25°C Sunny, 07:17, 07/09/2023

Lab Complete