

ALEXIS YAHIR ALVAREZ LEON

EXAMEN PRACTICO DE SISTEMAS OPERATIVOS

1. Muestre todos los usuarios registrados en su Distro Linux

1.1. Depure los usuarios existentes, así como su escritorio y conserve únicamente el usuario de instalación.

1.2. Cree un grupo en su distro Linux con el nombre “TeamScrum”,

1.3. Cree un nuevo usuario con el “nombre de un familiar”,

1.3.1. Agregue una contraseña,

1.3.2. Complete el resto del nombre empleando los datos de su familiar,

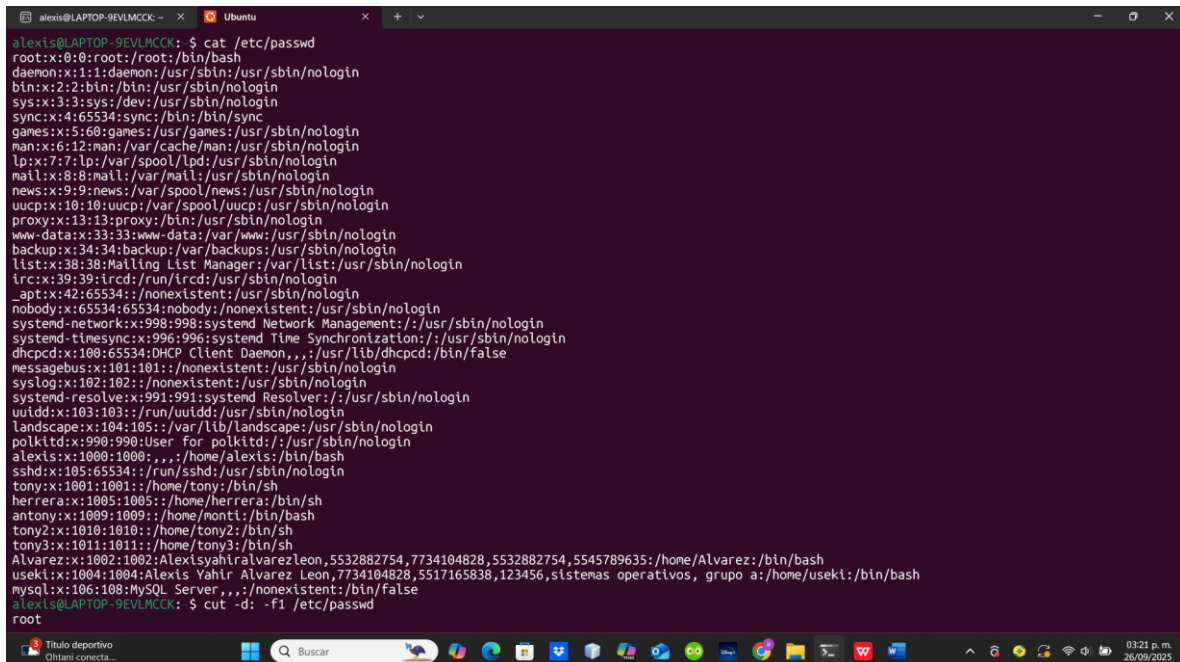
1.3.3. En el campo Otro [] ingrese su correo institucional,

1.3.4. Agregue el resto de los datos empleando sus datos personales,

1.3.5. Renombre al usuario con el “nombre de un compañero de clase”

REACTIVO 1

1-



```
alexis@LAPTOP-9EVLNCKC: ~$ cat /etc/passwd
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/usr/sbin/nologin
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
proxy:x:13:13:proxy:/bin:/usr/sbin/nologin
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin
list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin
irc:x:39:39:ircd:/run/ircd:/usr/sbin/nologin
_apt:x:42:65534::/nonexistent:/usr/sbin/nologin
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
systemd-network:x:998:998:systemd Network Management:/:/usr/sbin/nologin
systemd-timesync:x:996:996:systemd Time Synchronization:/:/usr/sbin/nologin
dhcpd:x:100:65534:DHCP Client Daemon,,,:/usr/lib/dhcpd:/bin/false
messagebus:x:101:101::/nonexistent:/usr/sbin/nologin
syslog:x:102:102::/nonexistent:/usr/sbin/nologin
systemd-resolve:x:991:991:systemd Resolver:/:/usr/sbin/nologin
uidd:x:103:103:/:/run/uidd:/usr/sbin/nologin
landscape:x:104:105:/:/var/lib/landscape:/usr/sbin/nologin
polkitd:x:990:990:User for polkitd:/:/usr/sbin/nologin
alexis:x:1000:1000:,,,:/home/alexis:/bin/bash
sshd:x:105:65534:/:/run/sshd:/usr/sbin/nologin
tony:x:1001:1001:/:/home/tony:/bin/sh
herrera:x:1005:1005:/:/home/herrera:/bin/sh
antony:x:1009:1009:/:/home/antony:/bin/sh
tony2:x:1010:1010:/:/home/tony2:/bin/sh
tony3:x:1011:1011:/:/home/tony3:/bin/sh
Alvarez:x:1002:1002:AlexisyahirAlvarezLeon,5532882754,7734104828,5532882754,5545789635:/home/Alvarez:/bin/bash
usekl:x:1004:1004:Alexis Yahir Alvarez Leon,7734104828,5517165838,123456,sistemas operativos, grupo a:/home/usekl:/bin/bash
mysql:x:106:106:MySQL Server,,,:/nonexistent:/bin/false
alexis@LAPTOP-9EVLNCKC: ~$ cut -d: -f1 /etc/passwd
root
```

```
mysql:x:106:108:MySQL Server,,,:/nonexistent:/bin/false
alexis@LAPTOP-9EVLACCK: $ cut -d: -f1 /etc/passwd
root
daemon
bin
sys
sync
games
man
lp
mail
news
uucp
proxy
www-data
backup
list
irc
_apt
nobody
systemd-network
systemd-timesync
dhcpcd
messagebus
syslog
systemd-resolve
uuidd
landscape
polkitd
alexis
sshd
tony
herrera
antony
tony2
tony3
Alvarez
useki
mysql
alexis@LAPTOP-9EVLACCK: $
```

```
alexis@LAPTOP-9EVLACCK: $ sudo deluser --remove-home tony
[sudo] password for alexis:
info: Looking for files to backup/remove ...
info: Removing crontab ...
info: Removing user 'tony' ...
alexis@LAPTOP-9EVLACCK: $ sudo deluser --remove-home herrera
info: Looking for files to backup/remove ...
info: Removing crontab ...
info: Removing user 'herrera' ...
alexis@LAPTOP-9EVLACCK: $ sudo deluser --remove-home antony
info: Looking for files to backup/remove ...
info: Removing files ...
info: Removing crontab ...
info: Removing user 'antony' ...
alexis@LAPTOP-9EVLACCK: $ sudo deluser --remove-home tony2
info: Looking for files to backup/remove ...
info: Removing crontab ...
info: Removing user 'tony2' ...
alexis@LAPTOP-9EVLACCK: $ sudo deluser --remove-home tony3
info: Looking for files to backup/remove ...
info: Removing files ...
info: Removing crontab ...
info: Removing user 'tony3' ...
alexis@LAPTOP-9EVLACCK: $ sudo deluser --remove-home Alvarez
info: Looking for files to backup/remove ...
info: Removing files ...
info: Removing crontab ...
info: Removing user 'Alvarez' ...
alexis@LAPTOP-9EVLACCK: $ sudo deluser --remove-home useki
info: Looking for files to backup/remove ...
info: Removing files ...
info: Removing crontab ...
info: Removing user 'useki' ...
alexis@LAPTOP-9EVLACCK: $
```

```
alexis@LAPTOP-9EVLNCKK: ~  
info: Removing files ...  
info: Removing crontab ...  
info: Removing user 'Alvarez' ...  
alexis@LAPTOP-9EVLNCKK: $ sudo deluser --remove-home useki  
info: Looking for files to backup/remove ...  
info: Removing files ...  
info: Removing crontab ...  
info: Removing user 'useki' ...  
alexis@LAPTOP-9EVLNCKK: $ cut -d: -f1 /etc/passwd  
root  
daemon  
bin  
sys  
sync  
games  
man  
lp  
mail  
news  
uucp  
proxy  
www-data  
backup  
list  
irc  
_apt  
nobody  
systemd-network  
systemd-timesync  
dhcpcd  
messagebus  
syslog  
systemd-resolve  
uiddd  
landscape  
polkitd  
alexis  
sshd  
mysql  
alexis@LAPTOP-9EVLNCKK: $
```

1.2

```
alexis@LAPTOP-9EVLNCKK: ~  
alexis@LAPTOP-9EVLNCKK: $ sudo groupadd TeamScrum  
alexis@LAPTOP-9EVLNCKK: $ sudo cat /etc/group  
root:x:0:  
daemon:x:1:  
bin:x:2:  
sys:x:3:  
adm:x:4:syslog,alexis  
tty:x:5:  
disk:x:6:  
lp:x:7:  
mail:x:8:  
news:x:9:  
uucp:x:10:  
man:x:12:  
proxy:x:13:  
kmem:x:15:  
dialout:x:20:  
fax:x:21:  
voice:x:22:  
cdrom:x:24:alexis  
floppy:x:25:  
tape:x:26:  
sudo:x:27:alexis  
audio:x:29:  
dip:x:30:alexis  
www-data:x:33:  
backup:x:34:  
operator:x:37:  
list:x:38:  
irc:x:39:  
src:x:40:  
shadow:x:42:  
utmp:x:43:  
video:x:44:  
sas1:x:45:  
plugdev:x:46:alexis  
staff:x:50:  
games:x:60:  
users:x:100:alexis  
nogroup:x:65534:
```


REACTIVO 2

2.1

```
alexis@LAPTOP-9EVLNCK: $ sudo usermod -aG TeamScrum antonio
alexis@LAPTOP-9EVLNCK: $ groups antonio
antonio : yaned TeamScrum
alexis@LAPTOP-9EVLNCK: $
```

2.2

```
alexis@LAPTOP-9EVLNCK: $ sudo chage -l antonio
Last password change           : Sep 26, 2025
Password expires               : never
Password inactive              : never
Account expires                : never
Minimum number of days between password change : 0
Maximum number of days between password change : 99999
Number of days of warning before password expires : 7
alexis@LAPTOP-9EVLNCK: $
```

2.3

```
Number of days of warning before password expires : 7
alexis@LAPTOP-9EVLNCK: $ sudo chage -E 2025-09-27 antonio
alexis@LAPTOP-9EVLNCK: $
```

2.4 y 2.5

```
Number of days of warning before password expires : 7
alexis@LAPTOP-9EVLNCK: $ sudo chage -E 2025-09-27 antonio
alexis@LAPTOP-9EVLNCK: $ sudo passwd antonio
New password:
Retype new password:
passwd: password updated successfully
alexis@LAPTOP-9EVLNCK: $ sudo chage -l antonio
Last password change           : Sep 26, 2025
Password expires               : never
Password inactive              : never
Account expires                : Sep 27, 2025
Minimum number of days between password change : 0
Maximum number of days between password change : 99999
Number of days of warning before password expires : 7
alexis@LAPTOP-9EVLNCK: $
```

REACTIVO 3

3.1

```
alexis@LAPTOP-9EVLNCK: $ su - antonio
Password:
Welcome to Ubuntu 24.04.3 LTS (GNU/Linux 6.6.87.2-microsoft-standard-WSL2 x86_64)

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

System information as of Fri Sep 26 15:54:07 CST 2025

System load: 0.08      Processes:      37
Usage of /: 0.3% of 1006.85GB   Users logged in: 1
Memory usage: 27%      IPv4 address for eth0: 172.23.202.30
Swap usage: 0%

 * Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s
   just raised the bar for easy, resilient and secure K8s cluster deployment.

https://ubuntu.com/engage/secure-kubernetes-at-the-edge

This message is shown once a day. To disable it please create the
/home/antonio/.hushlogin file.
antonio@LAPTOP-9EVLNCK: $
```

3.1

```
alexis@LAPTOP-9EVLNCKK:~$ su - antonio
Password:
Welcome to Ubuntu 24.04.3 LTS (GNU/Linux 6.6.87.2-microsoft-standard-WSL2 x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
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just raised the bar for easy, resilient and secure K8s cluster deployment.

https://ubuntu.com/engage/secure-kubernetes-at-the-edge

This message is shown once a day. To disable it please create the
/home/antonio/.hushlogin file.
antonio@LAPTOP-9EVLNCKK:~$ cd ~/Documentos
-bash: cd: /home/antonio/Documentos: No such file or directory
antonio@LAPTOP-9EVLNCKK:~$ mkdir -p ~/Documentos
antonio@LAPTOP-9EVLNCKK:~$ cd ~/Documentos
antonio@LAPTOP-9EVLNCKK:~/Documentos$
```

3.2 y 3.3

```
antonio@LAPTOP-9EVLNCKK:~/Documentos$ nano MyPer25B.txt
antonio@LAPTOP-9EVLNCKK:~/Documentos$ nano SisOpe25B.txt
antonio@LAPTOP-9EVLNCKK:~/Documentos$
```

3.4

```
antonio@LAPTOP-9EVLNCKK:~/Documentos$ cat MyPer25B.txt SisOpe25B.txt > S025B.txt
antonio@LAPTOP-9EVLNCKK:~/Documentos$
```

3.5

```
antonio@LAPTOP-9EVLNCKK:~/Documentos$ cat SisOpe25B.txt S025B.txt MyPer25B.txt > UltCon2025B.txt
antonio@LAPTOP-9EVLNCKK:~/Documentos$
```

REACTIVO 4

4.1

```
antonio@LAPTOP-9EVLNCKK:~/Documentos$ su - alexis
Password:
alexis@LAPTOP-9EVLNCKK:~$ sudo usermod -aG sudo antonio
[sudo] password for alexis:
alexis@LAPTOP-9EVLNCKK:~$ groups antonio
antonio : yaned sudo TeamScurm
alexis@LAPTOP-9EVLNCKK:~$ su - antonio
Password:
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

antonio@LAPTOP-9EVLNCKK:~$
```

4.2

```
antonio@LAPTOP-9EVLNCKK:~$ grep -E "Port|PermitRootLogin|PasswordAuthentication" /etc/ssh/sshd_config
# configuration must be re-generated after changing Port, AddressFamily, or
#Port 22
#PermitRootLogin prohibit-password
#PasswordAuthentication yes
# PasswordAuthent. Depending on your PAM configuration,
# the setting of "PermitRootLogin prohibit-password".
# PAM authentication, then enable this but set PasswordAuthentication
#GatewayPorts no
antonio@LAPTOP-9EVLNCKK:~$
```

4.3

```
antonio@LAPTOP-9EVLNCKK:~$ login as: antonio
antonio@172.23.202.30's password:
Welcome to Ubuntu 24.04.3 LTS (GNU/Linux 6.6.87.2-microsoft-standard-WSL2 x86_64)

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

System information as of Fri Sep 26 16:21:02 CST 2025

System load: 0.08      Processes:      47
Usage of /:  0.3% of 1006.85GB   Users logged in: 1
Memory usage: 28%      IPv4 address for eth0: 172.23.202.30
Swap usage:  0%

 * Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s
   just raised the bar for easy, resilient and secure K8s cluster deployment.
   https://ubuntu.com/engage/secure-kubernetes-at-the-edge

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

antonio@LAPTOP-9EVLNCKK:~$
```

4.4

```
antonio@LAPTOP-9EVLNCKK:~$ ls
Documentos
antonio@LAPTOP-9EVLNCKK:~$ sudo mv documentos/UtilCon2025B.txt /home/alexis/
mv: cannot stat 'documentos/UtilCon2025B.txt': No such file or directory
antonio@LAPTOP-9EVLNCKK:~$ sudo ls -l /home/alexis
total 80
drwxr-xr-x 3 alexis alexis 4096 Aug 23 17:34 Sistemas-Operativos-
-rw-r--r-- 1 antonio yaned 768 Sep 26 16:08 UtilCon2025B.txt
-rw-r--r-- 1 alexis alexis 47 Sep 1 17:15 archivo.txt
drwxr-xr-x 8 alexis alexis 4096 Sep 18 20:06 canny
-rw-r--r-- 1 alexis alexis 1 Aug 28 15:33 canny.py
-rw-r--r-- 1 alexis alexis 91 Sep 25 15:35 fonsaca.txt
-rw-r--r-- 1 alexis alexis 128 Sep 25 15:36 monosaurio.txt
-rw-r--r-- 1 alexis alexis 438 Sep 25 15:44 output.txt
-rw-r--r-- 1 alexis alexis 38297 Aug 28 20:28 packages.txt
-rw-r--r-- 1 alexis alexis 219 Sep 25 15:43 salida.txt
-rw-r--r-- 1 alexis alexis 219 Sep 25 15:39 saldauno.txt
antonio@LAPTOP-9EVLNCKK:~$
```

4.5


```
antonio@LAPTOP-9EVLNCKK:~$ ls -l
ls: cannot access '*': No such file or directory
antonio@LAPTOP-9EVLNCKK:~$ ls -l
total 4
drwxr-xr-x 2 antonio yaned 4096 Sep 26 16:32 Documentos
antonio@LAPTOP-9EVLNCKK:~$ whoami
antonio
antonio@LAPTOP-9EVLNCKK:~$ df -h
Filesystem      Size  Used Avail Use% Mounted on
none            1.5G  0 1.5G   0% /usr/lib/modules/6.6.07.2-microsoft-standard-WSL2
none            1.5G  4.0K 1.5G   1% /mnt/wsl
drivers          476G  458G  19G  97% /usr/lib/wsl/drivers
/dev/sdd        1007G  2.8G  953G   1% /
none            1.5G  100K 1.5G   1% /mnt/wslg
none            1.5G  0 1.5G   0% /usr/lib/wsl/lib
rootfs          1.5G  2.7M  1.4G   1% /init
none            1.5G  560K 1.5G   1% /run
none            1.5G  0 1.5G   0% /run/lock
none            1.5G  0 1.5G   0% /run/shm
none            1.5G  76K 1.5G   1% /mnt/wslg/versions.txt
none            1.5G  76K 1.5G   1% /mnt/wslg/doc
C:\              476G  458G  19G  97% /mnt/c
tmpfs            1.5G  16K 1.5G   1% /run/user/1000
tmpfs            280M  16K 280M   1% /run/user/1001
antonio@LAPTOP-9EVLNCKK:~$
```

Herramienta Recortes

Captura de pantalla copiada en el portapapeles
Guardado automáticamente en la carpeta de capturas de pantalla.

Marcado y uso compartido

REACTIVO 5

5

```
antonio@LAPTOP-9EVLNCKK:~$ sudo ufw status numbered
Status: active

To Action From
--
[ 1] 22/tcp ALLOW IN Anywhere
[ 2] 22 ALLOW IN Anywhere
[ 3] 2222 ALLOW IN Anywhere
[ 4] 80/tcp DENY IN Anywhere
[ 5] 443 ALLOW IN Anywhere
[ 6] 6000:6007/tcp ALLOW IN Anywhere
[ 7] 6000:6007/udp ALLOW IN Anywhere
[ 8] Anywhere DENY IN 172.217.2.142
[ 9] 22 ALLOW IN 172.217.2.142
[10] Anywhere ALLOW IN 172.217.2.142/31
[11] 22 ALLOW IN 172.217.2.140/30
[12] 80 on eth0 ALLOW IN Anywhere
[13] 22/tcp (v6) ALLOW IN Anywhere (v6)
[14] 22 (v6) ALLOW IN Anywhere (v6)
[15] 2222 (v6) ALLOW IN Anywhere (v6)
[16] 80/tcp (v6) DENY IN Anywhere (v6)
[17] 443 (v6) ALLOW IN Anywhere (v6)
[18] 6000:6007/tcp (v6) ALLOW IN Anywhere (v6)
[19] 6000:6007/udp (v6) ALLOW IN Anywhere (v6)
[20] 80 (v6) on eth0 ALLOW IN Anywhere (v6)

antonio@LAPTOP-9EVLNCKK:~$
```

5.1

```
antonio@LAPTOP-9EVLNCKK:~$ sudo ufw reset
Resetting all rules to installed defaults. Proceed with operation (y/n)? y
Backing up 'user.rules' to '/etc/ufw/user.rules.20250926_164500'
Backing up 'before.rules' to '/etc/ufw/before.rules.20250926_164500'
Backing up 'after.rules' to '/etc/ufw/after.rules.20250926_164500'
Backing up 'user6.rules' to '/etc/ufw/user6.rules.20250926_164500'
Backing up 'before6.rules' to '/etc/ufw/before6.rules.20250926_164500'
Backing up 'after6.rules' to '/etc/ufw/after6.rules.20250926_164500'

antonio@LAPTOP-9EVLNCKK:~$
```

5.2

```
antonio@LAPTOP-9EVLNCKK:~$ sudo ufw deny 80
Rules updated
Rules updated (v6)
antonio@LAPTOP-9EVLNCKK:~$ nslookup example.com
Command 'nslookup' not found, but can be installed with:
sudo apt install bind9-dnsutils
antonio@LAPTOP-9EVLNCKK:~$
```

5.3


```
antonio@LAPTOP-9EVLNCK: $ nslookup example.com
Server:      10.255.255.254
Address:     10.255.255.254#53

Non-authoritative answer:
Name:   example.com
Address: 23.215.0.136
Name:   example.com
Address: 23.192.228.84
Name:   example.com
Address: 23.220.75.245
Name:   example.com
Address: 23.215.0.138
Name:   example.com
Address: 23.192.228.80
Name:   example.com
Address: 23.220.75.232
Name:   example.com
Address: 2600:1406:5e00:6::17ce:bc1b
Name:   example.com
Address: 2600:1408:ec00:36::1736:7f31
Name:   example.com
Address: 2600:1408:ec00:36::1736:7f24
Name:   example.com
Address: 2600:1406:bc00:53::b81e:94c8
Name:   example.com
Address: 2600:1406:bc00:53::b81e:94ce
Name:   example.com
Address: 2600:1406:5e00:6::17ce:bc12

antonio@LAPTOP-9EVLNCK: $ sudo ufw deny from 23.220.75.232
Rules updated
antonio@LAPTOP-9EVLNCK: $
```

5.4

```
antonio@LAPTOP-9EVLNCK: $ sudo ufw deny 7000:7006/tcp
Rules updated
Rules updated (v6)
antonio@LAPTOP-9EVLNCK: $ sudo ufw deny 7000:7006/udp
Rules updated
Rules updated (v6)
antonio@LAPTOP-9EVLNCK: $
```

5.5

```
antonio@LAPTOP-9EVLNCK: $ sudo ufw deny from 23.220.75.232/24 to any port 22
WARN: Rule changed after normalization
Rules updated
antonio@LAPTOP-9EVLNCK: $
```

5.6

```
antonio@LAPTOP-9EVLNCK: $ sudo ufw status numbered
Status: inactive
antonio@LAPTOP-9EVLNCK: $ sudo ufw enable
Firewall is active and enabled on system startup
antonio@LAPTOP-9EVLNCK: $ sudo ufw status numbered
Status: active

      To      Action      From
      --      -
[ 1] 80        DENY IN     Anywhere
[ 2] Anywhere  DENY IN     23.220.75.232
[ 3] 7000:7006/tcp DENY IN     Anywhere
[ 4] 7000:7006/udp DENY IN     Anywhere
[ 5] 22        DENY IN     23.220.75.0/24
[ 6] 80 (v6)   DENY IN     Anywhere (v6)
[ 7] 7000:7006/tcp (v6) DENY IN     Anywhere (v6)
[ 8] 7000:7006/udp (v6) DENY IN     Anywhere (v6)

antonio@LAPTOP-9EVLNCK: $
```

REACTIVO 6

```
antonio@LAPTOP-9EVLNCKC: $ sudo systemctl list-units --type=service
```

UNIT	LOAD	ACTIVE	SUB	DESCRIPTION
console-getty.service	loaded	active	running	Console Getty
console-setup.service	loaded	active	exited	Set console font and keymap
cron.service	loaded	active	running	Regular background program processing daemon
dbus.service	loaded	active	running	D-Bus System Message Bus
getty@tty1.service	loaded	active	running	Getty on tty1
keyboard-setup.service	loaded	active	exited	Set the console keyboard layout
knod-static-nodes.service	loaded	active	exited	Create List of Static Device Nodes
mysql.service	loaded	active	running	MySQL Community Server
packagekit.service	loaded	active	running	PackageKit Daemon
polkit.service	loaded	active	running	Authorization Manager
rsyslog.service	loaded	active	running	System Logging Service
setvtrgb.service	loaded	active	exited	Set console scheme
snapt.seeded.service	loaded	active	exited	Wait until snapt is fully seeded
ssh.service	loaded	active	running	OpenBSD Secure Shell server
systemd-binfmt.service	loaded	active	exited	Set Up Additional Binary Formats
systemd-journal-flush.service	loaded	active	exited	Flush Journal to Persistent Storage
systemd-journald.service	loaded	active	running	Journal Service
systemd-logind.service	loaded	active	running	User Login Management
systemd-modules-load.service	loaded	active	exited	Load Kernel Modules
systemd-remount-fs.service	loaded	active	exited	Remount Root and Kernel File Systems
systemd-resolved.service	loaded	active	running	Network Name Resolution
systemd-sysctl.service	loaded	active	exited	Apply Kernel Variables
systemd-timesyncd.service	loaded	active	running	Network Time Synchronization
systemd-tmpfiles-setup-dev-early.service	loaded	active	exited	Create Static Device Nodes in /dev gracefully
systemd-tmpfiles-setup-dev.service	loaded	active	exited	Create Static Device Nodes in /dev
systemd-tmpfiles-setup.service	loaded	active	exited	Create Volatile Files and Directories
systemd-udev-trigger.service	loaded	active	exited	Coldplug All udev Devices
systemd-udevd.service	loaded	active	running	Rule-based Manager for Device Events and Files
systemd-update-utmp.service	loaded	active	exited	Record System Boot/Shutdown in UTMP
systemd-user-sessions.service	loaded	active	exited	Permit User Sessions
ufw.service	loaded	active	exited	Uncomplicated Firewall
unattended-upgrades.service	loaded	active	running	Unattended Upgrades Shutdown
user-runtime-dir@1000.service	loaded	active	exited	User Runtime Directory /run/user/1000
user-runtime-dir@1001.service	loaded	active	exited	User Runtime Directory /run/user/1001
user@1000.service	loaded	active	running	User Manager for UID 1000
user@1001.service	loaded	active	running	User Manager for UID 1001

```
antonio@LAPTOP-9EVLNCKC: $ sudo systemctl list-units --type=service
```

UNIT	LOAD	ACTIVE	SUB	DESCRIPTION
console-getty.service	loaded	active	running	Console Getty
console-setup.service	loaded	active	exited	Set console font and keymap
cron.service	loaded	active	running	Regular background program processing daemon
dbus.service	loaded	active	running	D-Bus System Message Bus
getty@tty1.service	loaded	active	running	Getty on tty1
keyboard-setup.service	loaded	active	exited	Set the console keyboard layout
knod-static-nodes.service	loaded	active	exited	Create List of Static Device Nodes
mysql.service	loaded	active	running	MySQL Community Server
packagekit.service	loaded	active	running	PackageKit Daemon
polkit.service	loaded	active	running	Authorization Manager
rsyslog.service	loaded	active	running	System Logging Service
setvtrgb.service	loaded	active	exited	Set console scheme
snapt.seeded.service	loaded	active	exited	Wait until snapt is fully seeded
ssh.service	loaded	active	running	OpenBSD Secure Shell server
systemd-binfmt.service	loaded	active	exited	Set Up Additional Binary Formats
systemd-journal-flush.service	loaded	active	exited	Flush Journal to Persistent Storage
systemd-journald.service	loaded	active	running	Journal Service
systemd-logind.service	loaded	active	running	User Login Management
systemd-modules-load.service	loaded	active	exited	Load Kernel Modules
systemd-remount-fs.service	loaded	active	exited	Remount Root and Kernel File Systems
systemd-resolved.service	loaded	active	running	Network Name Resolution
systemd-sysctl.service	loaded	active	exited	Apply Kernel Variables
systemd-timesyncd.service	loaded	active	running	Network Time Synchronization
systemd-tmpfiles-setup-dev-early.service	loaded	active	exited	Create Static Device Nodes in /dev gracefully
systemd-tmpfiles-setup-dev.service	loaded	active	exited	Create Static Device Nodes in /dev
systemd-tmpfiles-setup.service	loaded	active	exited	Create Volatile Files and Directories
systemd-udev-trigger.service	loaded	active	exited	Coldplug All udev Devices
systemd-udevd.service	loaded	active	running	Rule-based Manager for Device Events and Files
systemd-update-utmp.service	loaded	active	exited	Record System Boot/Shutdown in UTMP
systemd-user-sessions.service	loaded	active	exited	Permit User Sessions
ufw.service	loaded	active	exited	Uncomplicated Firewall
unattended-upgrades.service	loaded	active	running	Unattended Upgrades Shutdown
user-runtime-dir@1000.service	loaded	active	exited	User Runtime Directory /run/user/1000
user-runtime-dir@1001.service	loaded	active	exited	User Runtime Directory /run/user/1001
user@1000.service	loaded	active	running	User Manager for UID 1000
user@1001.service	loaded	active	running	User Manager for UID 1001
wsl-pro.service	loaded	active	running	Bridge to Ubuntu Pro agent on Windows

6.1

```
antonio@LAPTOP-9EVLNCK: $ sudo systemctl list-units --type=service --state=running
UNIT                                LOAD    ACTIVE SUB    DESCRIPTION
console-getty.service              loaded active running Console Getty
cron.service                       loaded active running Regular background program processing daemon
dbus.service                       loaded active running D-Bus System Message Bus
getty@tty1.service                 loaded active running Getty on tty1
mysql.service                      loaded active running MySQL Community Server
polkit.service                     loaded active running Authorization Manager
rsyslog.service                    loaded active running System Logging Service
ssh.service                        loaded active running OpenBSD Secure Shell server
systemd-journald.service            loaded active running Journal Service
systemd-logind.service              loaded active running User Login Management
systemd-resolved.service            loaded active running Network Name Resolution
systemd-timesyncd.service            loaded active running Network Time Synchronization
systemd-udev.service                loaded active running Rule-based Manager for Device Events and Files
unattended-upgrades.service         loaded active running Unattended Upgrades Shutdown
user@1000.service                  loaded active running User Manager for UID 1000
user@1001.service                  loaded active running User Manager for UID 1001
wsl-pro.service                    loaded active running Bridge to Ubuntu Pro agent on Windows

Legend: LOAD    → Reflects whether the unit definition was properly loaded.
          ACTIVE → The high-level unit activation state, i.e. generalization of SUB.
          SUB     → The low-level unit activation state, values depend on unit type.

17 loaded units listed.
antonio@LAPTOP-9EVLNCK: $
```

6.2

```
antonio@LAPTOP-9EVLNCK: $ sudo systemctl stop ssh
Stopping 'ssh.service', but its triggering units are still active:
ssh.socket
antonio@LAPTOP-9EVLNCK: $
```

6.3

```
antonio@LAPTOP-9EVLNCK: $ sudo systemctl status ssh
O ssh.service - OpenBSD Secure Shell server
   Loaded: loaded (/usr/lib/systemd/system/ssh.service; enabled; preset: enabled)
   Active: inactive (dead) since Fri 2025-09-26 16:52:10 CST; 16s ago
     Duration: 1h 47min 21.593s
   TriggeredBy: ● ssh.socket
     Docs: man:sshd(8)
           man:sshd_config(5)
   Process: 333 ExecStart=/usr/sbin/sshd -D $SSHD_OPTS (code=exited, status=0/SUCCESS)
   Main PID: 333 (code=exited, status=0/SUCCESS)
     CPU: 446ms

Sep 26 16:52:10 LAPTOP-9EVLNCK systemd[1]: Stopping ssh.service - OpenBSD Secure Shell server...
Sep 26 16:52:10 LAPTOP-9EVLNCK sshd[333]: Received signal 15; terminating.
Sep 26 16:52:10 LAPTOP-9EVLNCK systemd[1]: ssh.service: Deactivated successfully.
Sep 26 16:52:10 LAPTOP-9EVLNCK systemd[1]: Stopped ssh.service - OpenBSD Secure Shell server.
Notice: journal has been rotated since unit was started, output may be incomplete.
antonio@LAPTOP-9EVLNCK: $
```

6.4

```
antonio@LAPTOP-9EVLNCK: $ sudo systemctl start ssh
antonio@LAPTOP-9EVLNCK: $ sudo systemctl enable ssh
Synchronizing state of ssh.service with SysV service script with /usr/lib/systemd/systemd-sysv-install.
Executing: /usr/lib/systemd/systemd-sysv-install enable ssh
antonio@LAPTOP-9EVLNCK: $ sudo systemctl status ssh
● ssh.service - OpenBSD Secure Shell server
   Loaded: loaded (/usr/lib/systemd/system/ssh.service; enabled; preset: enabled)
   Active: active (running) since Fri 2025-09-26 16:52:58 CST; 18s ago
     TriggeredBy: ● ssh.socket
     Docs: man:sshd(8)
           man:sshd_config(5)
   Main PID: 4981 (sshd)
     Tasks: 1 (limit: 3442)
   Memory: 1.4M (peak: 1.8M)
     CPU: 51ms
   CGroup: /system.slice/ssh.service
           └─4981 "sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups"

Sep 26 16:52:58 LAPTOP-9EVLNCK systemd[1]: Starting ssh.service - OpenBSD Secure Shell server...
Sep 26 16:52:58 LAPTOP-9EVLNCK sshd[4981]: Server listening on 0.0.0.0 port 22.
Sep 26 16:52:58 LAPTOP-9EVLNCK sshd[4981]: Server listening on :: port 22.
Sep 26 16:52:58 LAPTOP-9EVLNCK systemd[1]: Started ssh.service - OpenBSD Secure Shell server.
antonio@LAPTOP-9EVLNCK: $
```

6.5

```
antonio@LAPTOP-9EVLNCK: $ sudo deluser --remove-home antonio
info: Looking for files to backup/remove ...
info: Removing files ...
info: Removing crontab ...
info: Removing user 'antonio' ...
userdel: user antonio is currently used by process 3179
fatal: /usr/sbin/userdel antonio returned error code 8. Exiting.
antonio@LAPTOP-9EVLNCK: $ sudo delgroup TeamScrum
info: Removing group 'TeamScrum' ...
antonio@LAPTOP-9EVLNCK: $
```

