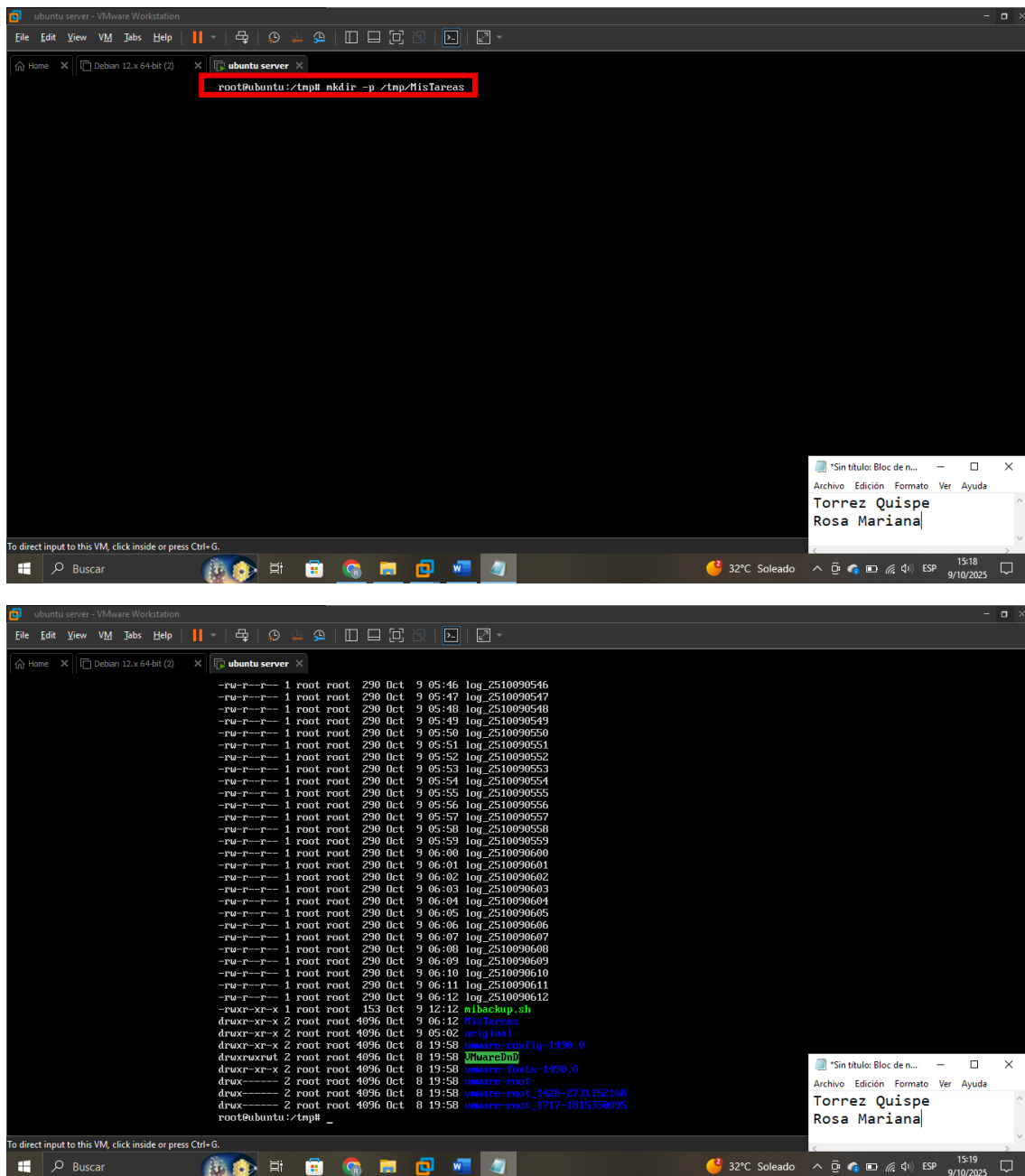


4. Creamos el directorio y el archivo a ser guardado

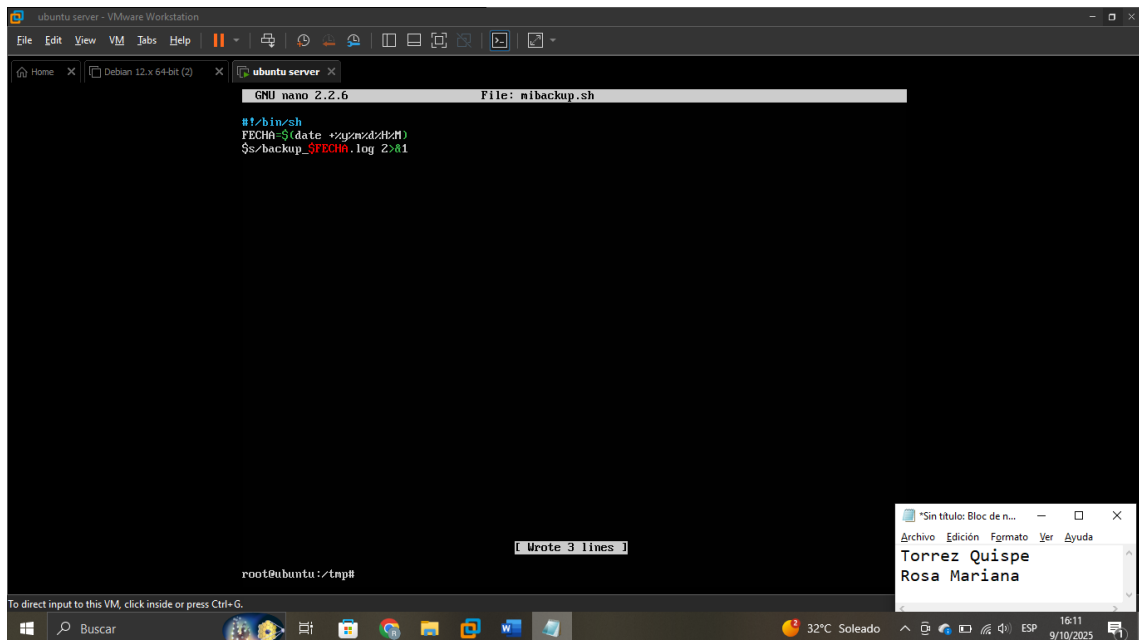
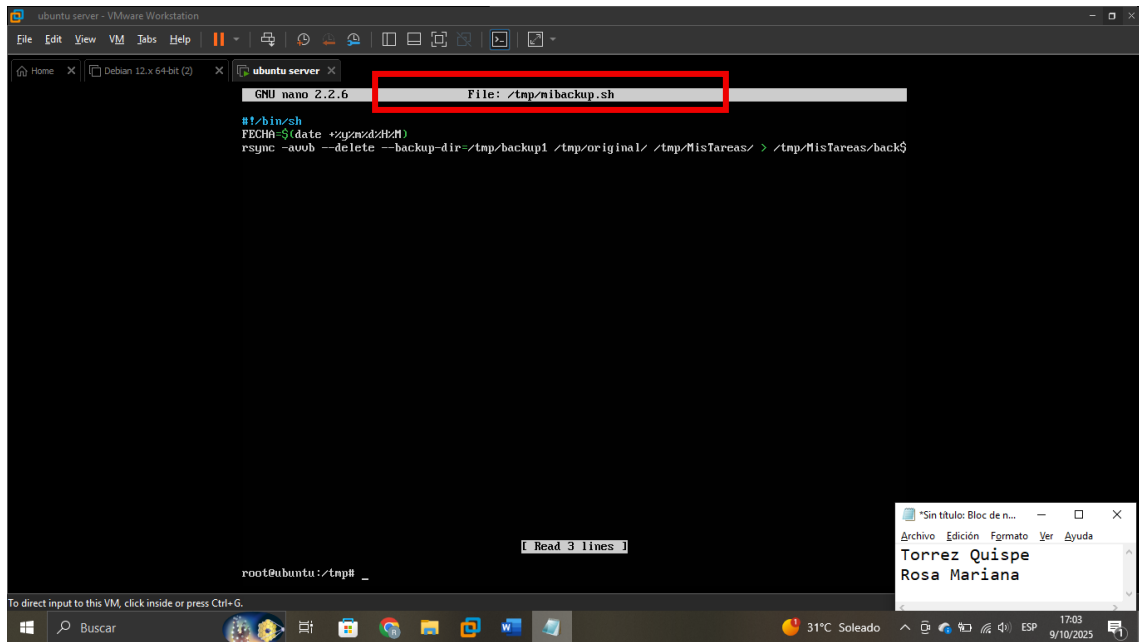


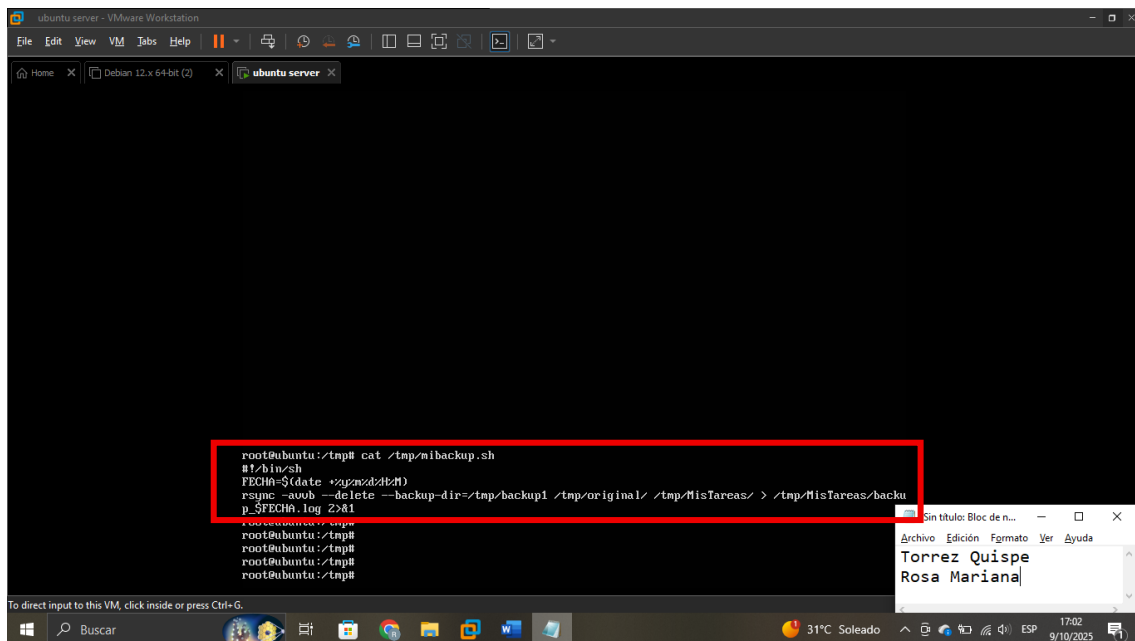
The first screenshot shows a terminal window with the command `root@ubuntu:/tmp# mkdir -p /tmp/MisTareas` highlighted in a red box. The second screenshot shows the terminal output, which includes a series of system logs and the command `root@ubuntu:/tmp#`. A text box in the bottom right corner of both screenshots contains the text "Sin título: Bloc de n..." and "Torrez Quispe Rosa Mariana".

```
root@ubuntu:/tmp# mkdir -p /tmp/MisTareas
```

```
-rw-r--r-- 1 root root 290 Oct 9 05:46 log_2510090546
-rw-r--r-- 1 root root 290 Oct 9 05:47 log_2510090547
-rw-r--r-- 1 root root 290 Oct 9 05:48 log_2510090548
-rw-r--r-- 1 root root 290 Oct 9 05:49 log_2510090549
-rw-r--r-- 1 root root 290 Oct 9 05:50 log_2510090550
-rw-r--r-- 1 root root 290 Oct 9 05:51 log_2510090551
-rw-r--r-- 1 root root 290 Oct 9 05:52 log_2510090552
-rw-r--r-- 1 root root 290 Oct 9 05:53 log_2510090553
-rw-r--r-- 1 root root 290 Oct 9 05:54 log_2510090554
-rw-r--r-- 1 root root 290 Oct 9 05:55 log_2510090555
-rw-r--r-- 1 root root 290 Oct 9 05:56 log_2510090556
-rw-r--r-- 1 root root 290 Oct 9 05:57 log_2510090557
-rw-r--r-- 1 root root 290 Oct 9 05:58 log_2510090558
-rw-r--r-- 1 root root 290 Oct 9 05:59 log_2510090559
-rw-r--r-- 1 root root 290 Oct 9 06:00 log_2510090600
-rw-r--r-- 1 root root 290 Oct 9 06:01 log_2510090601
-rw-r--r-- 1 root root 290 Oct 9 06:02 log_2510090602
-rw-r--r-- 1 root root 290 Oct 9 06:03 log_2510090603
-rw-r--r-- 1 root root 290 Oct 9 06:04 log_2510090604
-rw-r--r-- 1 root root 290 Oct 9 06:05 log_2510090605
-rw-r--r-- 1 root root 290 Oct 9 06:06 log_2510090606
-rw-r--r-- 1 root root 290 Oct 9 06:07 log_2510090607
-rw-r--r-- 1 root root 290 Oct 9 06:08 log_2510090608
-rw-r--r-- 1 root root 290 Oct 9 06:09 log_2510090609
-rw-r--r-- 1 root root 290 Oct 9 06:10 log_2510090610
-rw-r--r-- 1 root root 290 Oct 9 06:11 log_2510090611
-rw-r--r-- 1 root root 290 Oct 9 06:12 log_2510090612
-rwxr-xr-x 1 root root 153 Oct 9 12:12 mibackup.sh
drwxr-xr-x 2 root root 4096 Oct 9 06:12 MisTareas
drwxr-xr-x 2 root root 4096 Oct 9 05:02 original
drwxr-xr-x 2 root root 4096 Oct 8 19:58 umare-config-1490.0
drwxr-xr-x 2 root root 4096 Oct 8 19:58 umare-00
drwxr-xr-x 2 root root 4096 Oct 8 19:58 umare-fonts-1490.0
drwxr-xr-x 2 root root 4096 Oct 8 19:58 umare-root
drwxr-xr-x 2 root root 4096 Oct 8 19:58 umare-root_1428-2731152168
drwxr-xr-x 2 root root 4096 Oct 8 19:58 umare-root_1717-1815350895
root@ubuntu:/tmp#
```

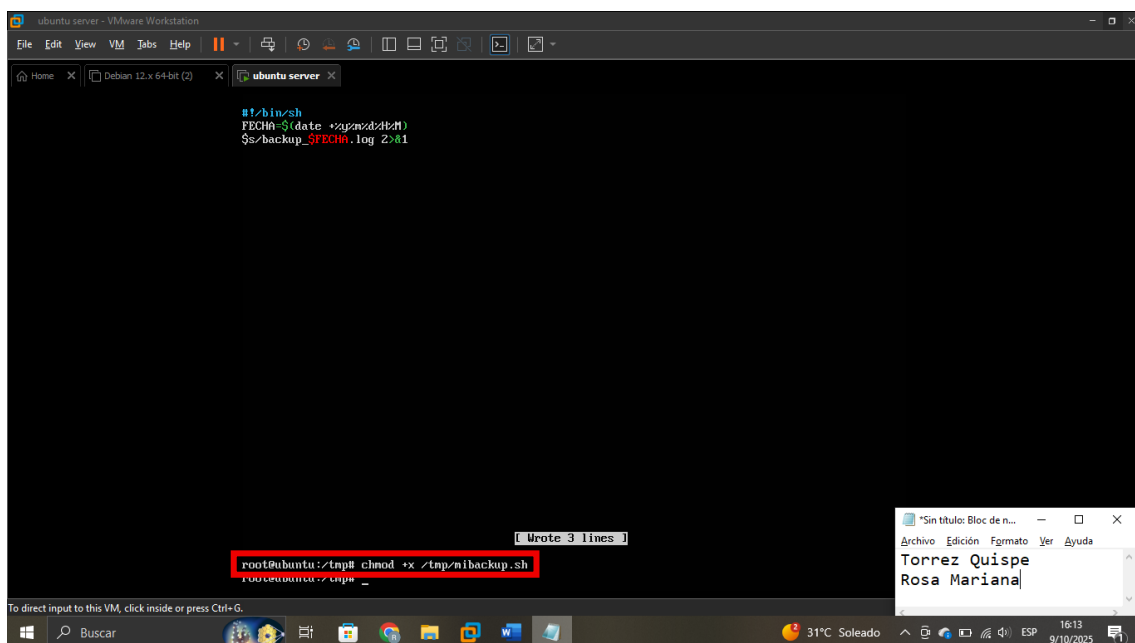
CREAR EL SCRIPT EN MIBACKUP





```
root@ubuntu:/tmp# cat /tmp/mibackup.sh
#!/bin/sh
FECHA=$(date +%Y/%m/%d%T)
rsync -aoub --delete --backup-dir=/tmp/backup1 /tmp/original/ /tmp/MisTareas/ > /tmp/MisTareas/backu
p_$(FECHA).log 2>&1
root@ubuntu:/tmp#
root@ubuntu:/tmp#
root@ubuntu:/tmp#
root@ubuntu:/tmp#
```

DAR LOS PERMISOS DE EJECUCIÓN



```
#!/bin/sh
FECHA=$(date +%Y/%m/%d%T)
$S/backup_$(FECHA).log 2>&1

root@ubuntu:/tmp# [ Wrote 3 lines ]
root@ubuntu:/tmp# chmod +x /tmp/mibackup.sh
root@ubuntu:/tmp#
```

PROGRAMAR CON CRON LOS SABADOS 23:55

Usar el siguiente comando: Crontab -e

Dentro del el poner:

```
55 23 * * 6 /tmp/mibackup.sh
```

Explicación:

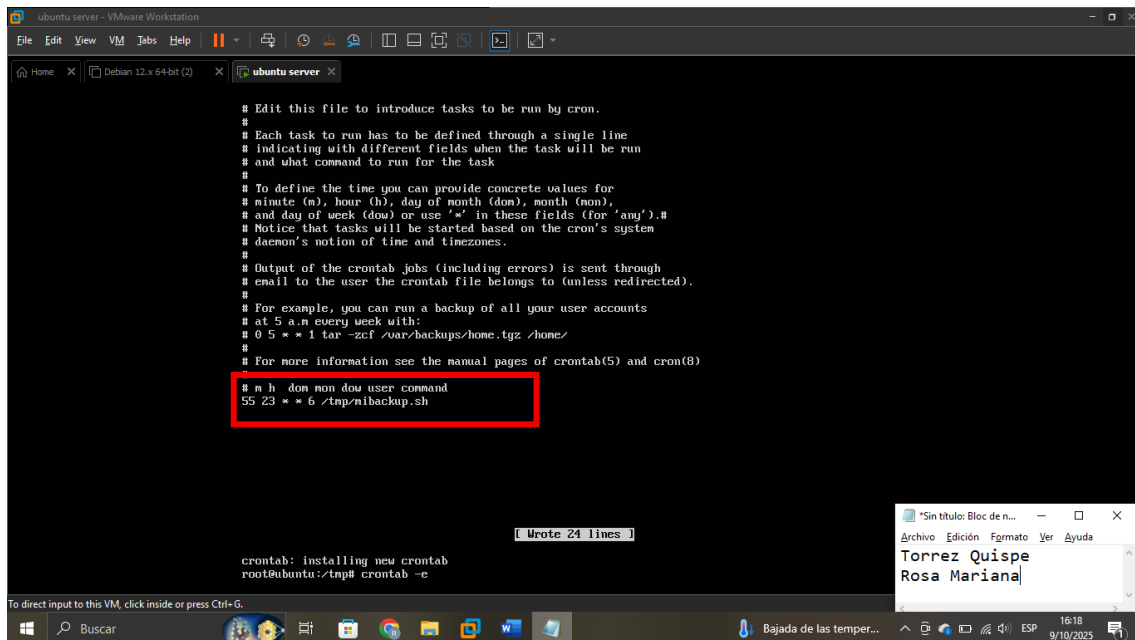
55 = minuto 55

23 = hora 23 (11:55 PM)

***** = cualquier día del mes

* = cualquier mes

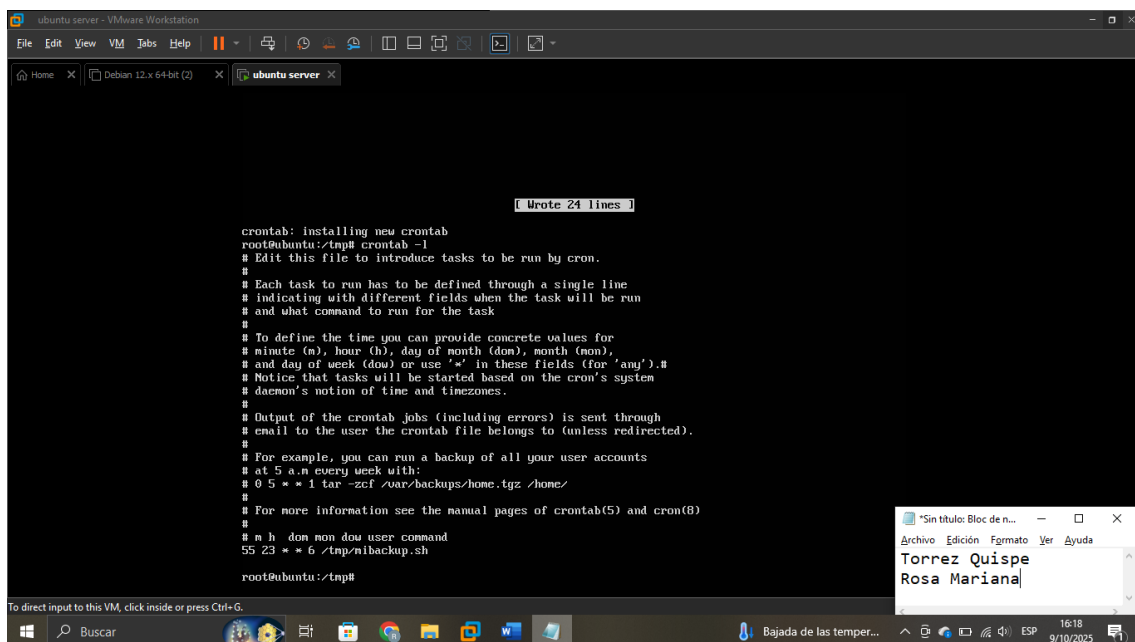
6 = día 6 (sábado, donde 0=domingo)



```
# Edit this file to introduce tasks to be run by cron.
#
# Each task to run has to be defined through a single line
# indicating with different fields when the task will be run
# and what command to run for the task
#
# To define the time you can provide concrete values for
# minute (m), hour (h), day of month (dom), month (mon),
# and day of week (dow) or use '*' in these fields (for 'any').#
# Notice that tasks will be started based on the cron's system
# daemon's notion of time and timezones.
#
# Output of the crontab jobs (including errors) is sent through
# email to the user the crontab file belongs to (unless redirected).
#
# For example, you can run a backup of all your user accounts
# at 5 a.m every week with:
# 0 5 * * 1 tar -zcf /var/backups/home.tgz /home/
#
# For more information see the manual pages of crontab(5) and cron(8)
# m h dom mon dow user command
55 23 * * 6 /tmp/mibackup.sh

crontab: installing new crontab
root@ubuntu:/tmp# crontab -e
```

Crontab -l



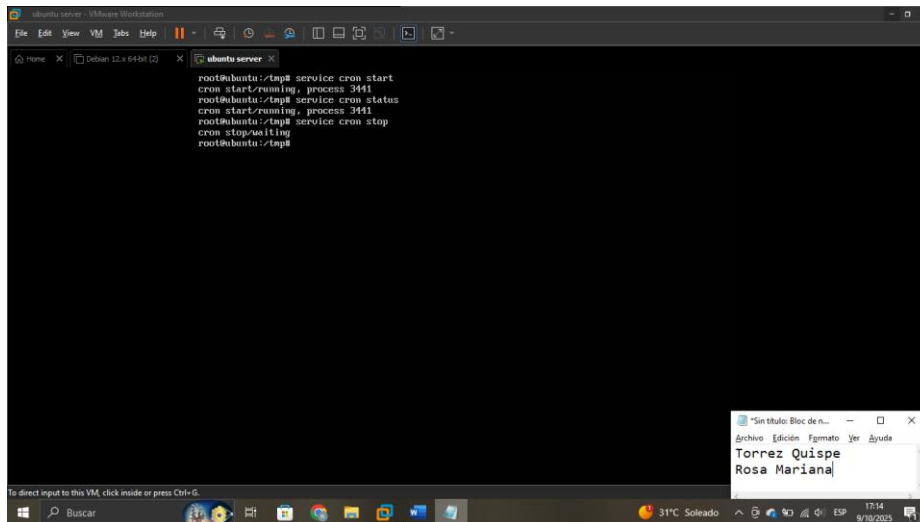
```
crontab: installing new crontab
root@ubuntu:/tmp# crontab -l
# Edit this file to introduce tasks to be run by cron.
#
# Each task to run has to be defined through a single line
# indicating with different fields when the task will be run
# and what command to run for the task
#
# To define the time you can provide concrete values for
# minute (m), hour (h), day of month (dom), month (mon),
# and day of week (dow) or use '*' in these fields (for 'any').#
# Notice that tasks will be started based on the cron's system
# daemon's notion of time and timezones.
#
# Output of the crontab jobs (including errors) is sent through
# email to the user the crontab file belongs to (unless redirected).
#
# For example, you can run a backup of all your user accounts
# at 5 a.m every week with:
# 0 5 * * 1 tar -zcf /var/backups/home.tgz /home/
#
# For more information see the manual pages of crontab(5) and cron(8)
# m h dom mon dow user command
55 23 * * 6 /tmp/mibackup.sh

root@ubuntu:/tmp#
```

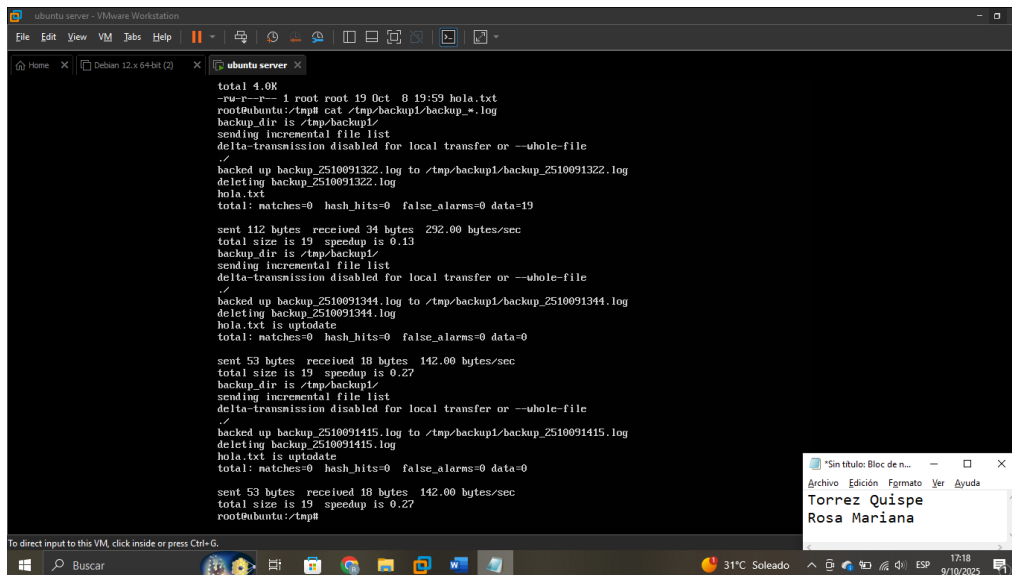
Iniciar el servicio de cron: `service cron start`

Verificar el estado del servicio: `service cron status`

Probar el script manualmente: `/tmp/mibackup.sh`

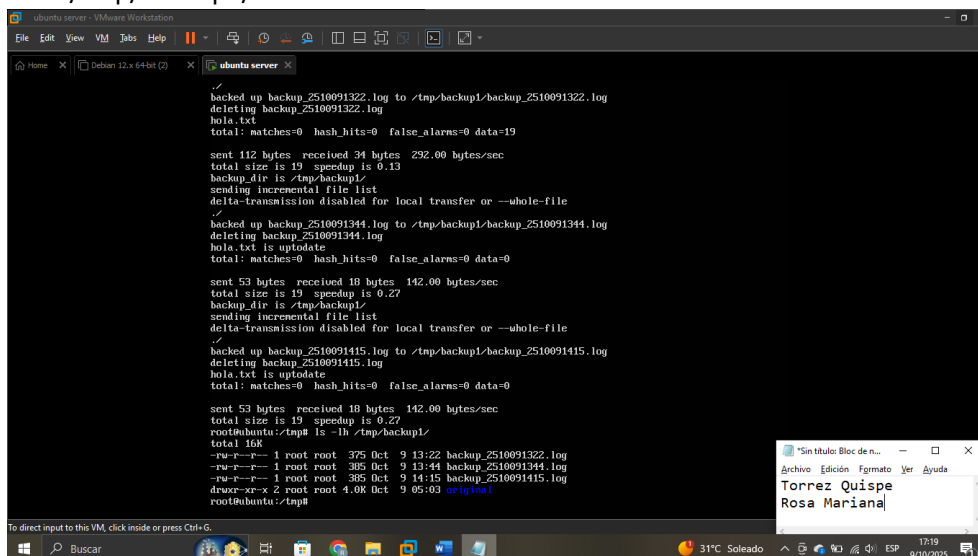


Ver el log generado: cat /tmp/MisTareas/backup_*.log



Ver archivos respaldados incrementalmente :

ls -lh /tmp/backup1/



```
service cron stop
```

The screenshot displays a VMware Workstation interface. The main window shows a terminal session on an 'ubuntu server' virtual machine. The terminal output shows a backup script running, detailing the deletion of old backups, sending incremental file lists, and backing up new files. The script uses 'rsync' for file synchronization. A red rectangle highlights the final output of the script, which shows the contents of the backup directory and the service status.

```
deleting backup_2510091322.log
hola.txt
total: matches=0 hash_hits=0 false_alarms=0 data=19

sent 112 bytes received 34 bytes 232.00 bytes/sec
total size is 19 speedup is 0.13
backup_dir is /tmp/backup1/
sending incremental file list
delta-transmission disabled for local transfer or --whole-file
./
backed up backup_2510091344.log to /tmp/backup1/backup_2510091344.log
deleting backup_2510091344.log
hola.txt is up to date
total: matches=0 hash_hits=0 false_alarms=0 data=0

sent 53 bytes received 18 bytes 142.00 bytes/sec
total size is 19 speedup is 0.27
backup_dir is /tmp/backup1/
sending incremental file list
delta-transmission disabled for local transfer or --whole-file
./
backed up backup_2510091415.log to /tmp/backup1/backup_2510091415.log
deleting backup_2510091415.log
hola.txt is up to date
total: matches=0 hash_hits=0 false_alarms=0 data=0

sent 53 bytes received 18 bytes 142.00 bytes/sec
total size is 19 speedup is 0.27
root@ubuntu:/tmp# ls -lh /tmp/backup1/
total 16K
-rw-r--r-- 1 root root 375 Oct 9 13:22 backup_2510091322.log
-rw-r--r-- 1 root root 385 Oct 9 13:44 backup_2510091344.log
-rw-r--r-- 1 root root 385 Oct 9 14:15 backup_2510091415.log
drwxr-xr-x 2 root root 4.0K Oct 9 05:03 original
root@ubuntu:/tmp# service cron stop
stop: Unknown instance.
root@ubuntu:/tmp#
```

A file explorer window titled 'Sin título: Bloc de n...' is open in the bottom right corner, showing the contents of a directory. The files listed are 'Torrez Quispe' and 'Rosa Mariana'.

At the bottom of the screen, a taskbar shows the system clock at 17:20 on 9/10/2025, and the system status as 31°C Soleado.

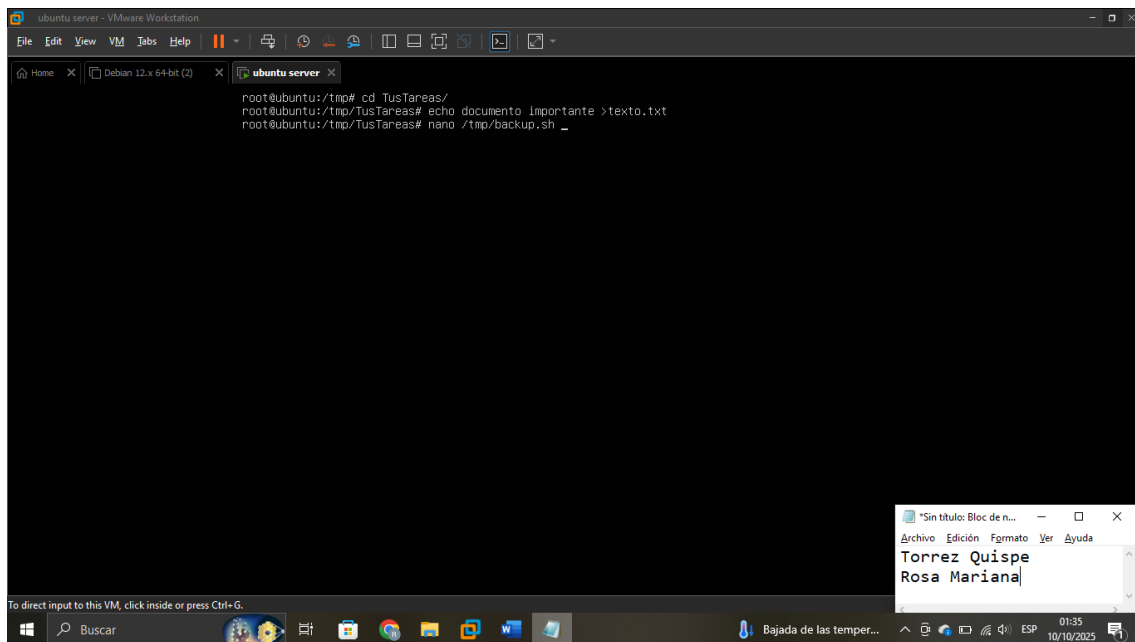
5. Eliminamos los anteriores logs y creamos un texto ejemplo

```
ubuntu server - VMware Workstation
File Edit View VM Tabs Help
Home x Debian 12.x 64-bit (2) x ubuntu server x
drux----- 2 root root 4096 Oct 8 19:58 umware-root
drux----- 2 root root 4096 Oct 8 19:58 umware-root_1428-2731152168
drux----- 2 root root 4096 Oct 8 19:58 umware-root_1717-1815350095
root@ubuntu:/tmp# find copia MisTareas/
copia/
copia/original
copia/original/hola.txt
copia/adios.txt
copia/hola.txt
MisTareas/
MisTareas/hola.txt
root@ubuntu:/tmp# ls
backu1      log_2510090512  log_2510090530  log_2510090548  log_2510090606
clear      log_2510090513  log_2510090531  log_2510090549  log_2510090607
copia      log_2510090514  log_2510090532  log_2510090550  log_2510090608
log_2510090453  log_2510090515  log_2510090533  log_2510090551  log_2510090609
log_2510090454  log_2510090516  log_2510090534  log_2510090552  log_2510090610
log_2510090455  log_2510090517  log_2510090535  log_2510090553  log_2510090611
log_2510090500  log_2510090518  log_2510090536  log_2510090554  log_2510090612
log_2510090501  log_2510090519  log_2510090537  log_2510090555  n1backu1.sh
log_2510090502  log_2510090520  log_2510090538  log_2510090556  MisTareas
log_2510090503  log_2510090521  log_2510090539  log_2510090557  original
log_2510090504  log_2510090522  log_2510090540  log_2510090558  umware-conf1g-1490.0
log_2510090505  log_2510090523  log_2510090541  log_2510090559  umware[mi]
log_2510090506  log_2510090524  log_2510090542  log_2510090560  umware-fonts-1490.0
log_2510090507  log_2510090525  log_2510090543  log_2510090561  umware-root
log_2510090508  log_2510090526  log_2510090544  log_2510090562  umware-root_1428-2731152168
log_2510090509  log_2510090527  log_2510090545  log_2510090563  umware-root_1717-1815350095
log_2510090510  log_2510090528  log_2510090546  log_2510090564
log_2510090511  log_2510090529  log_2510090547  log_2510090565
root@ubuntu:/tmp# rm -r log_*
root@ubuntu:/tmp# ls
backu1 n1backu1.sh umware-conf1g-1490.0 umware-root
clear  MisTareas umware[mi]
copia  original umware-fonts-1490.0 umware-root_1428-2731152168
root@ubuntu:/tmp# echo ejercicio2 > ./original/otroTexto.txt
root@ubuntu:/tmp# _
```

Creamos el directorio TusTareas

[illegible]

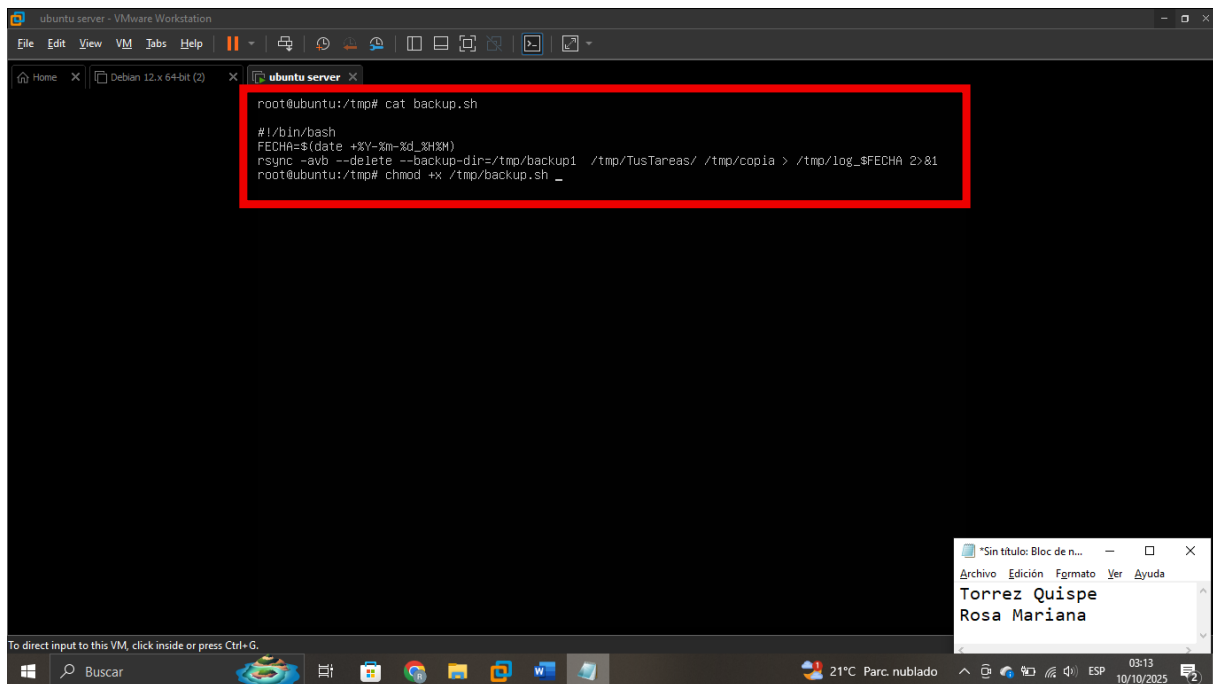
Entra al directorio: `cd /tmp/TusTareas` y creamos un archivo de ejemplo para respaldar



Crear o modificar el script de backup (backup.sh)

```
#!/bin/bash
FECHA=$(date +%Y-%m-%d_%H%M) # Genera fecha para el log (ej: 2025-10-10_0030)
rsync -avb --backup-dir=/tmp/backup1 --delete /tmp/TusTareas/ /tmp/copia > /tmp/log_$FECHA
```

y los permisos de ejecución: `chmod +x /tmp/backup.sh`



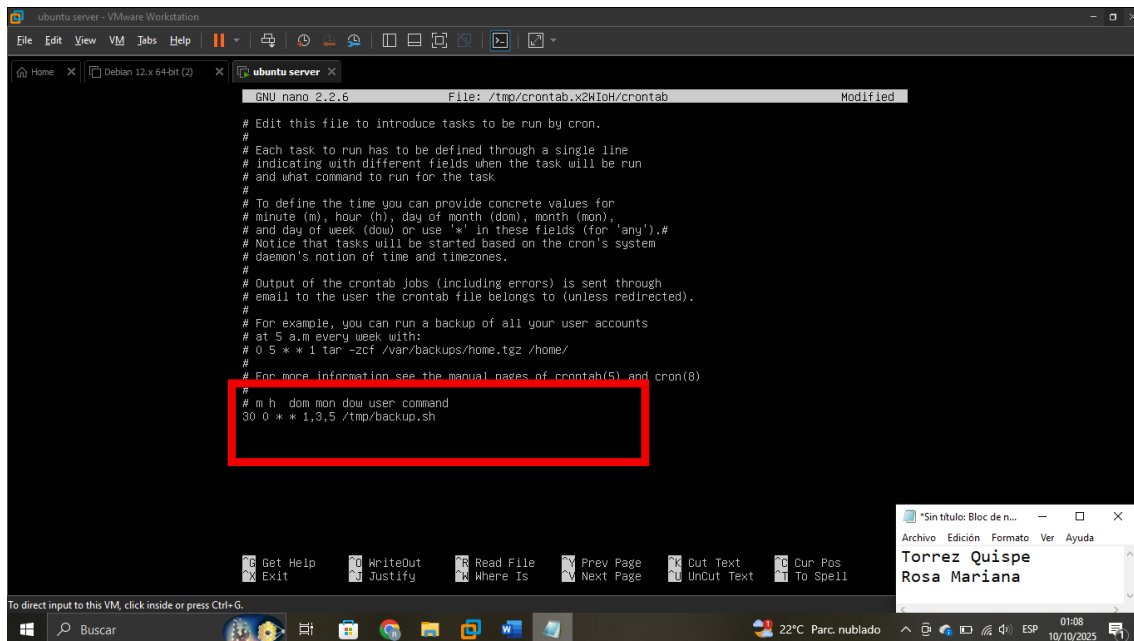
Configurar la programación automática con cron: crontab -e

Explicación del comando introducido:

30 0 = 00:30

* * = cualquier día/mes

1,3,5 = lunes (1), miércoles (3), viernes (5).



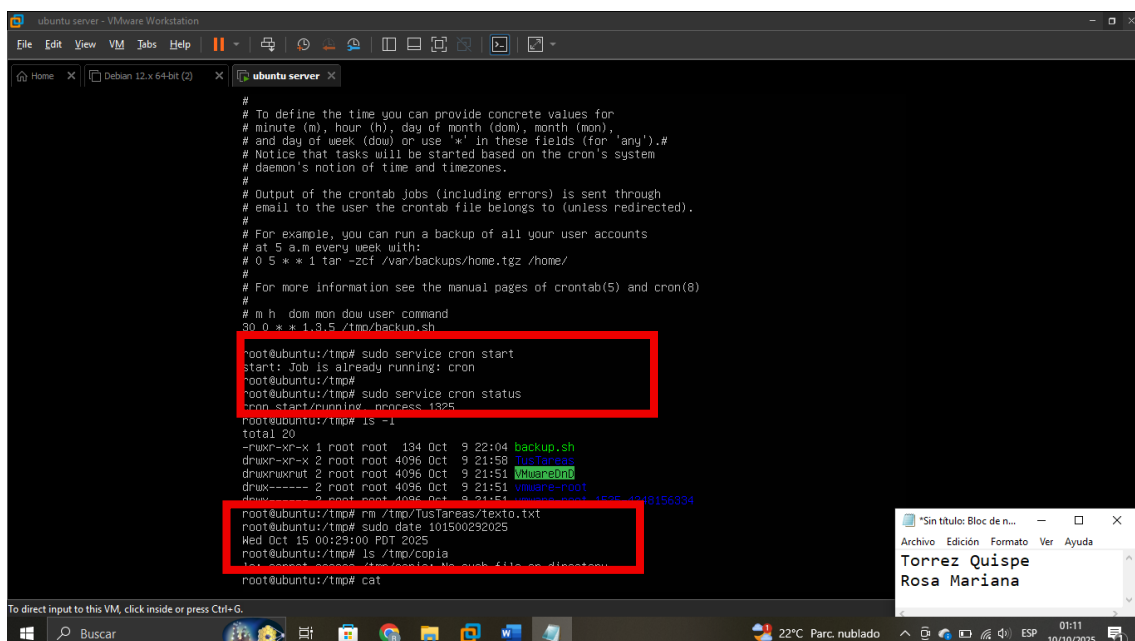
```
GNU nano 2.2.6 File: /tmp/crontab.x2H0H/crontab Modified

# Edit this file to introduce tasks to be run by cron.
#
# Each task to run has to be defined through a single line
# indicating with different fields when the task will be run
# and what command to run for the task
#
# To define the time you can provide concrete values for
# minute (m), hour (h), day of month (dom), month (mon),
# and day of week (dow) or use '*' in these fields (for 'any').#
# Notice that tasks will be started based on the cron's system
# daemon's notion of time and timezones.
#
# Output of the crontab jobs (including errors) is sent through
# email to the user the crontab file belongs to (unless redirected).
#
# For example, you can run a backup of all your user accounts
# at 5 a.m every week with:
# 0 5 * * 1 tar -zcf /var/backups/home.tgz /home/
#
# For more information see the manual pages of crontab(5) and cron(8)
#
# m h dom mon dow user command
30 0 * 1,3,5 /tmp/backup.sh
```

Iniciamos el servicio de cron

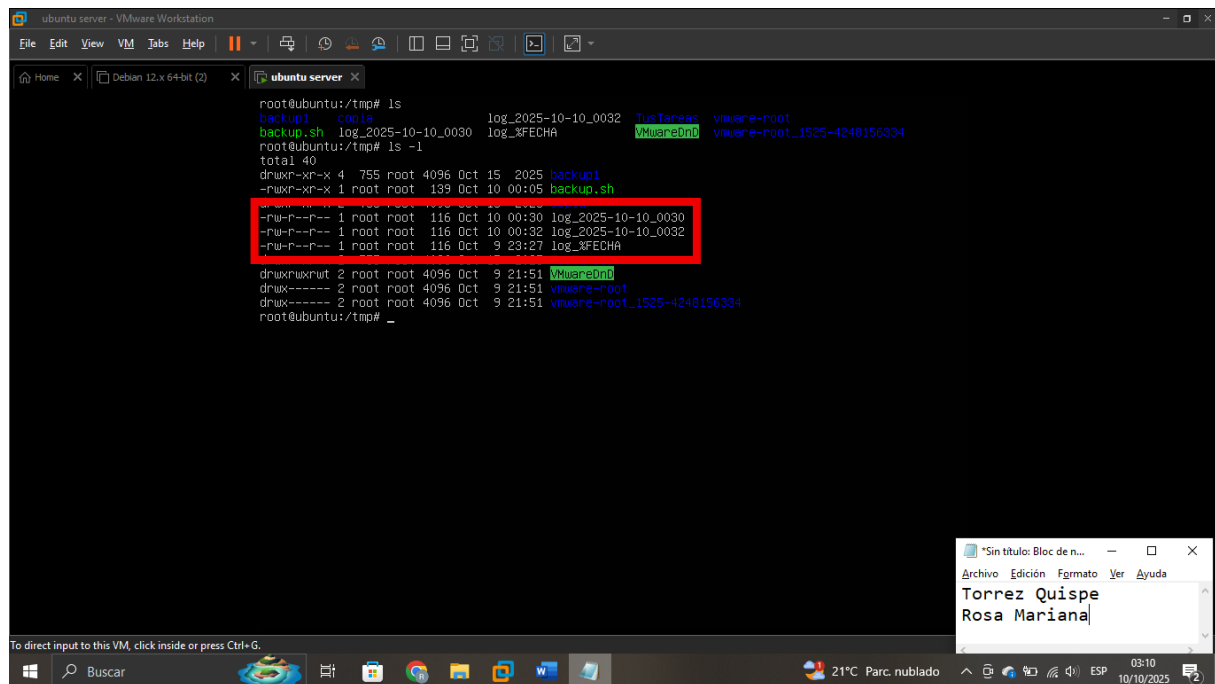
```
sudo service cron start
```

```
sudo service cron status
```

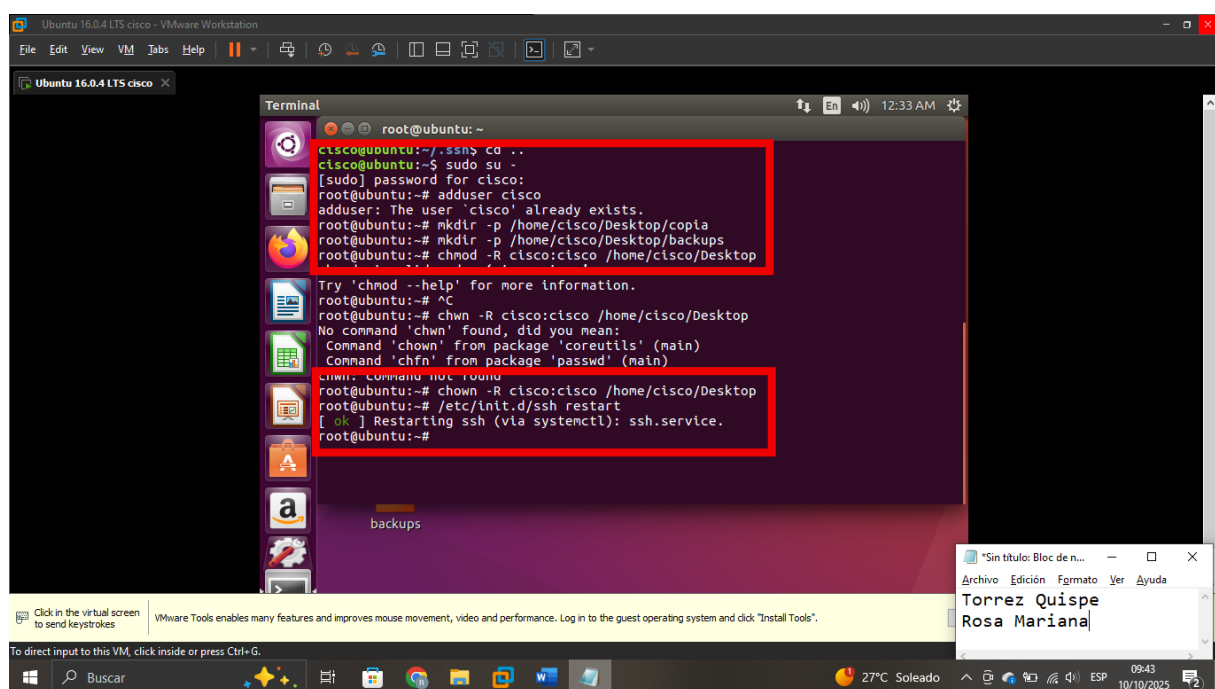


```
#
# To define the time you can provide concrete values for
# minute (m), hour (h), day of month (dom), month (mon),
# and day of week (dow) or use '*' in these fields (for 'any').#
# Notice that tasks will be started based on the cron's system
# daemon's notion of time and timezones.
#
# Output of the crontab jobs (including errors) is sent through
# email to the user the crontab file belongs to (unless redirected).
#
# For example, you can run a backup of all your user accounts
# at 5 a.m every week with:
# 0 5 * * 1 tar -zcf /var/backups/home.tgz /home/
#
# For more information see the manual pages of crontab(5) and cron(8)
#
# m h dom mon dow user command
30 0 * 1,3,5 /tmp/backup.sh

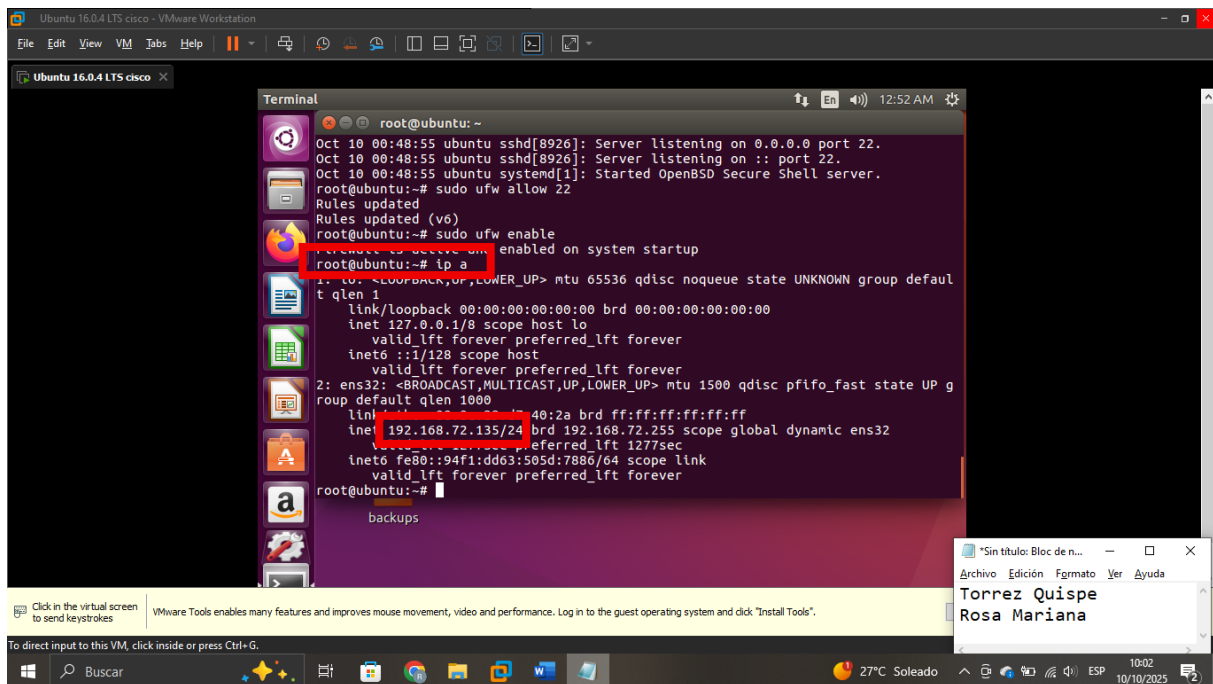
root@ubuntu:/tmp# sudo service cron start
start: Job is already running: cron
root@ubuntu:/tmp#
root@ubuntu:/tmp# sudo service cron status
cron start/running, process 1325
root@ubuntu:/tmp# ls -l
total 20
-rwxr-xr-x 1 root root 134 Oct 9 22:04 backup.sh
drwxr-xr-x 2 root root 4096 Oct 9 21:58 tusTareas
drwxr-xr-x 2 root root 4096 Oct 9 21:51 VMware-root
drwxr-xr-x 2 root root 4096 Oct 9 21:51 VMware-root
drwxr-xr-x 2 root root 4096 Oct 9 21:51 VMware-root
root@ubuntu:/tmp# rm /tmp/tusTareas/texto.txt
root@ubuntu:/tmp# sudo date 101500292025
Wed Oct 15 00:29:00 PDT 2025
root@ubuntu:/tmp# ls /tmp/copia
root@ubuntu:/tmp# cat
```

6. Primeramente entrar como sudo su- en Ubuntu cisco, posteriormente crea directorios y da permisos

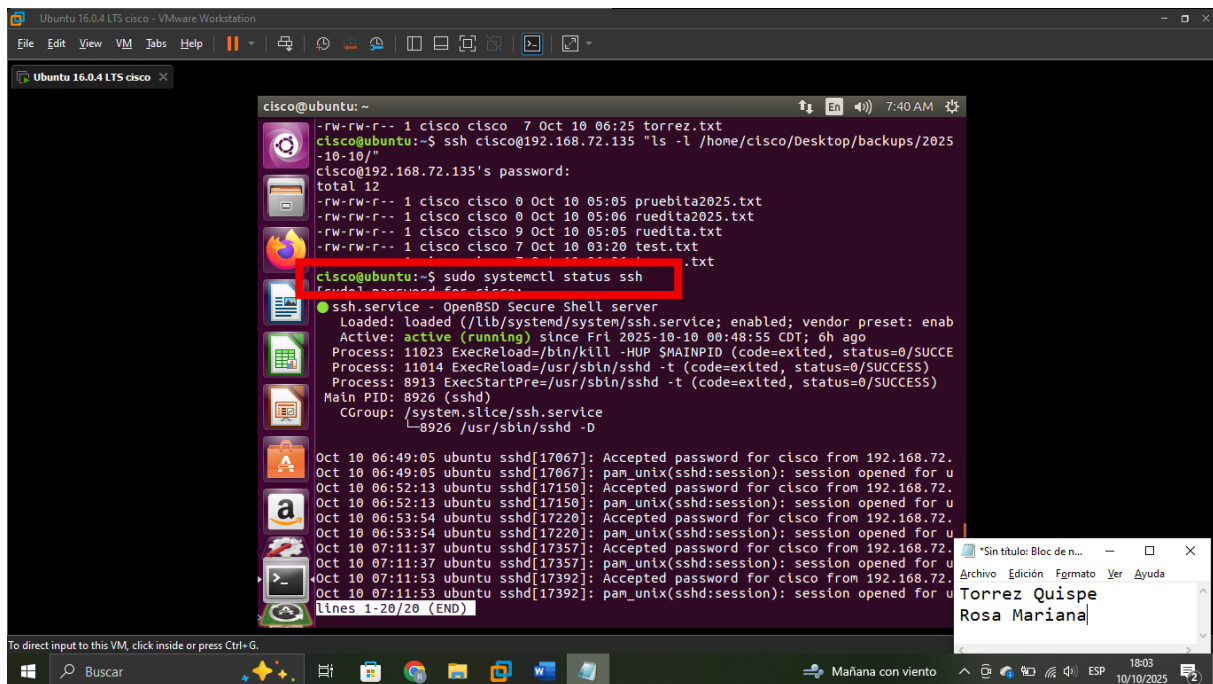


Ver la ip de la máquina virtual de ubuntu cisco



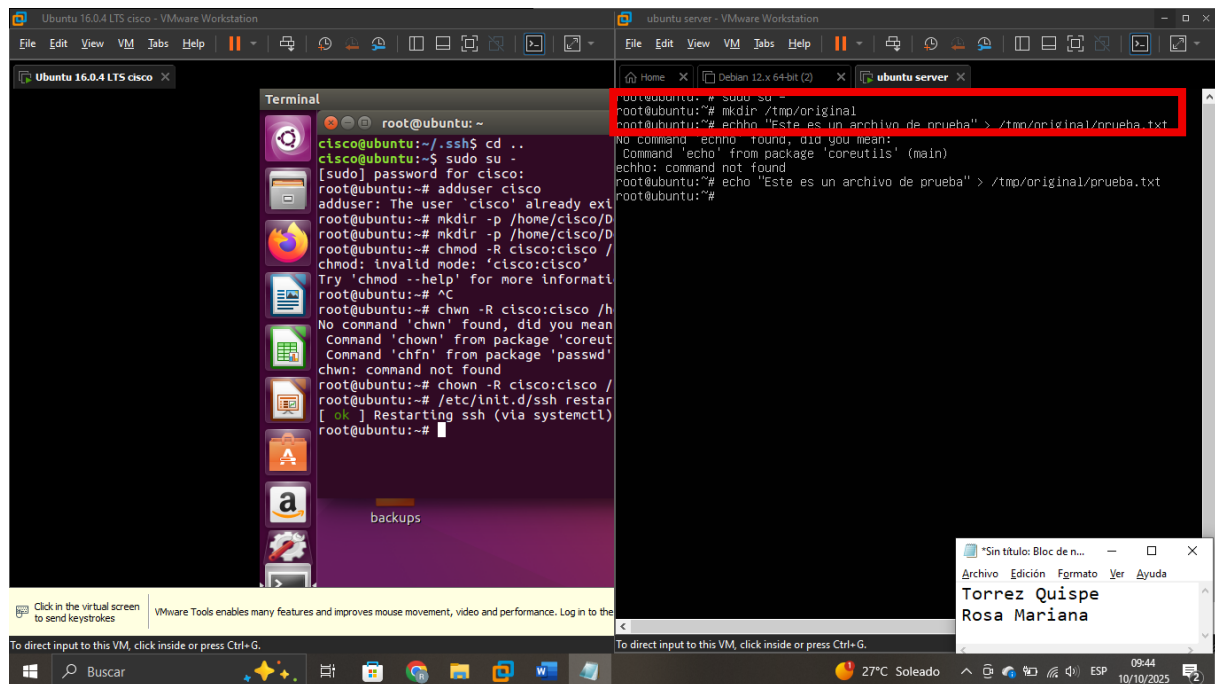
```
root@ubuntu: ~  
Oct 10 00:48:55 ubuntu sshd[8926]: Server listening on 0.0.0.0 port 22.  
Oct 10 00:48:55 ubuntu sshd[8926]: Server listening on :: port 22.  
Oct 10 00:48:55 ubuntu systemd[1]: Started OpenBSD Secure Shell server.  
root@ubuntu:~# sudo ufw allow 22  
Rules updated  
Rules updated (v6)  
root@ubuntu:~# sudo ufw enable  
UFW status active  
root@ubuntu:~# ip a  
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default  
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00  
    inet 127.0.0.1/8 scope host lo  
        valid_lft forever preferred_lft forever  
    inet6 ::1/128 scope host  
        valid_lft forever preferred_lft forever  
2: ens32: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP g  
    group default qlen 1000  
    link/ether 08:00:27:40:2a:40:2a brd ff:ff:ff:ff:ff:ff  
    inet 192.168.72.135/24 brd 192.168.72.255 scope global dynamic ens32  
        valid_lft forever preferred_lft 1277sec  
    inet6 fe80::94f1:dd63:505d:7886/64 scope link  
        valid_lft forever preferred_lft forever  
root@ubuntu:~#
```

Verificar que el servicio este activo:



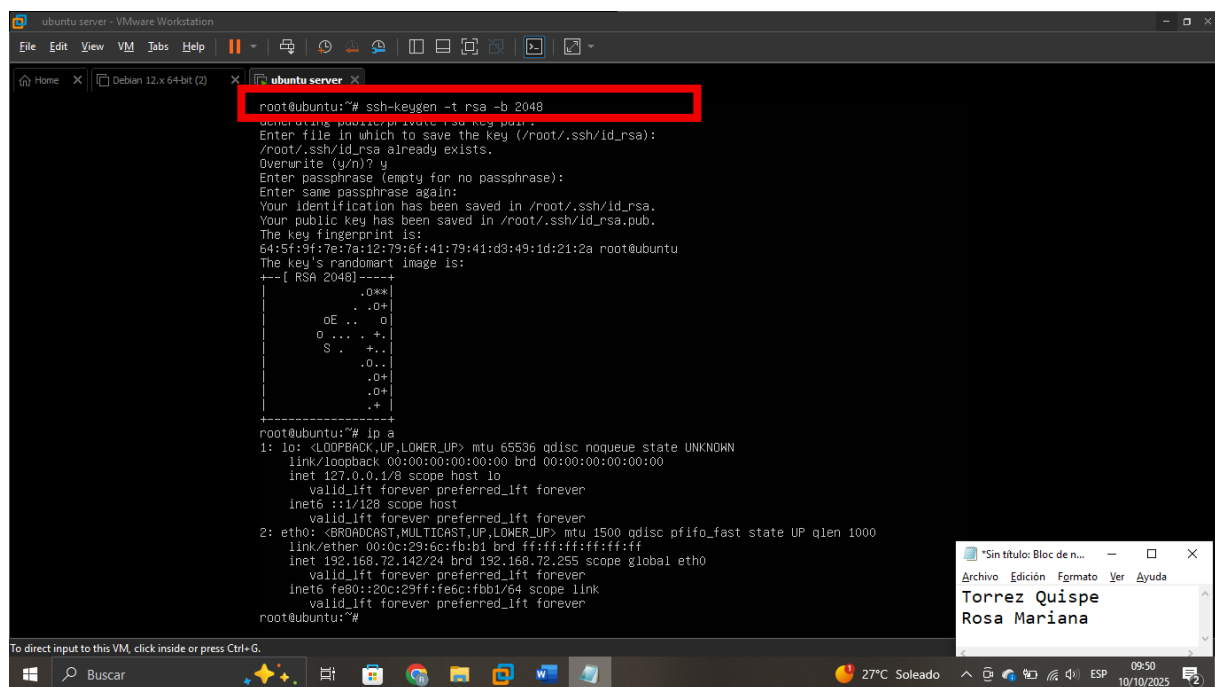
```
cisco@ubuntu: ~  
-rw-rw-r-- 1 cisco cisco 7 Oct 10 06:25 torrez.txt  
cisco@ubuntu:~$ ssh cisco@192.168.72.135 "ls -l /home/cisco/Desktop/backups/2025  
-10-10/"  
cisco@192.168.72.135's password:  
total 12  
-rw-rw-r-- 1 cisco cisco 0 Oct 10 05:05 pruebita2025.txt  
-rw-rw-r-- 1 cisco cisco 0 Oct 10 05:06 ruedita2025.txt  
-rw-rw-r-- 1 cisco cisco 9 Oct 10 05:05 ruedita.txt  
-rw-rw-r-- 1 cisco cisco 7 Oct 10 03:20 test.txt  
cisco@ubuntu:~$ sudo systemctl status ssh  
● ssh.service - OpenBSD Secure Shell server  
   Loaded: loaded (/lib/systemd/system/ssh.service; enabled; vendor preset: enab  
   Active: active (running) since Fri 2025-10-10 00:48:55 CDT; 6h ago  
     Process: 11023 ExecReload=/bin/kill -HUP $MAINPID (code=exited, status=0/SUCCE  
     Process: 11014 ExecReload=/usr/sbin/sshd -t (code=exited, status=0/SUCCESS)  
     Process: 8913 ExecStartPre=/usr/sbin/sshd -t (code=exited, status=0/SUCCESS)  
    Main PID: 8926 (sshd)  
      CGroup: /system.slice/ssh.service  
              └─8926 /usr/sbin/sshd -D  
  
Oct 10 06:49:05 ubuntu sshd[17067]: Accepted password for cisco from 192.168.72.  
Oct 10 06:49:05 ubuntu sshd[17067]: pam_unix(sshd:session): session opened for u  
Oct 10 06:52:13 ubuntu sshd[17150]: Accepted password for cisco from 192.168.72.  
Oct 10 06:52:13 ubuntu sshd[17150]: pam_unix(sshd:session): session opened for u  
Oct 10 06:53:54 ubuntu sshd[17220]: Accepted password for cisco from 192.168.72.  
Oct 10 06:53:54 ubuntu sshd[17220]: pam_unix(sshd:session): session opened for u  
Oct 10 07:11:37 ubuntu sshd[17357]: Accepted password for cisco from 192.168.72.  
Oct 10 07:11:37 ubuntu sshd[17357]: pam_unix(sshd:session): session opened for u  
Oct 10 07:11:53 ubuntu sshd[17392]: Accepted password for cisco from 192.168.72.  
Oct 10 07:11:53 ubuntu sshd[17392]: pam_unix(sshd:session): session opened for u  
lines 1-20/20 (END)
```

En Ubuntu server crear un directorio



Paso 2: Configurar acceso SSH sin contraseña

Basado en página 22-24 del PDF: Generar llave en fuente y copiarla a destino. Esto vincula las máquinas permitiendo transferencias automáticas sin pedir contraseña cada vez.



Completar la copia de la clave SSH

```
root@ubuntu:~# ssh cisco@192.168.72.135
The authenticity of host '192.168.72.135 (192.168.72.135)' can't be established.
ECDSA key fingerprint is 83:50:d2:0f:13:4e:40:d7:11:38:a0:f9:85:6b:7a:aa.
Are you sure you want to continue connecting (yes/no)? y
Please type 'yes' or 'no': y
Please type 'yes' or 'no': yes
Warning: Permanently added '192.168.72.135' (ECDSA) to the list of known hosts.
Connection closed by 192.168.72.135
root@ubuntu:~# sudo service ssh status
ssh: unrecognized service
root@ubuntu:~# ssh-copy-id cisco@192.168.72.135
cisco@192.168.72.135's password:
Now try logging into the machine, with 'ssh 'cisco@192.168.72.135'', and check in:
~/.ssh/authorized_keys
to make sure we haven't added extra keys that you weren't expecting.
root@ubuntu:~# ssh cisco@192.168.72.135
Welcome to Ubuntu 16.04 LTS (GNU/Linux 4.4.0-210-generic x86_64)

 * Documentation:  https://help.ubuntu.com/

283 packages can be updated.
1 update is a security update.

New release '18.04.6 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

Last login: Wed Jun 15 19:57:27 2016 from 127.0.0.1
cisco@ubuntu:~$
```

Verificación y persimos en Ubuntu server

```
root@ubuntu:~# ssh cisco@192.168.72.135
The authenticity of host '192.168.72.135 (192.168.72.135)' can't be established.
ECDSA key fingerprint is 83:50:d2:0f:13:4e:40:d7:11:38:a0:f9:85:6b:7a:aa.
Are you sure you want to continue connecting (yes/no)? y
Please type 'yes' or 'no': y
Please type 'yes' or 'no': yes
Warning: Permanently added '192.168.72.135' (ECDSA) to the list of known hosts.
Connection closed by 192.168.72.135
root@ubuntu:~# sudo service ssh status
ssh: unrecognized service
root@ubuntu:~# ssh-copy-id cisco@192.168.72.135
cisco@192.168.72.135's password:
Now try logging into the machine, with 'ssh 'cisco@192.168.72.135'', and check in:
~/.ssh/authorized_keys
to make sure we haven't added extra keys that you weren't expecting.
root@ubuntu:~# ssh cisco@192.168.72.135
Welcome to Ubuntu 16.04 LTS (GNU/Linux 4.4.0-210-generic x86_64)

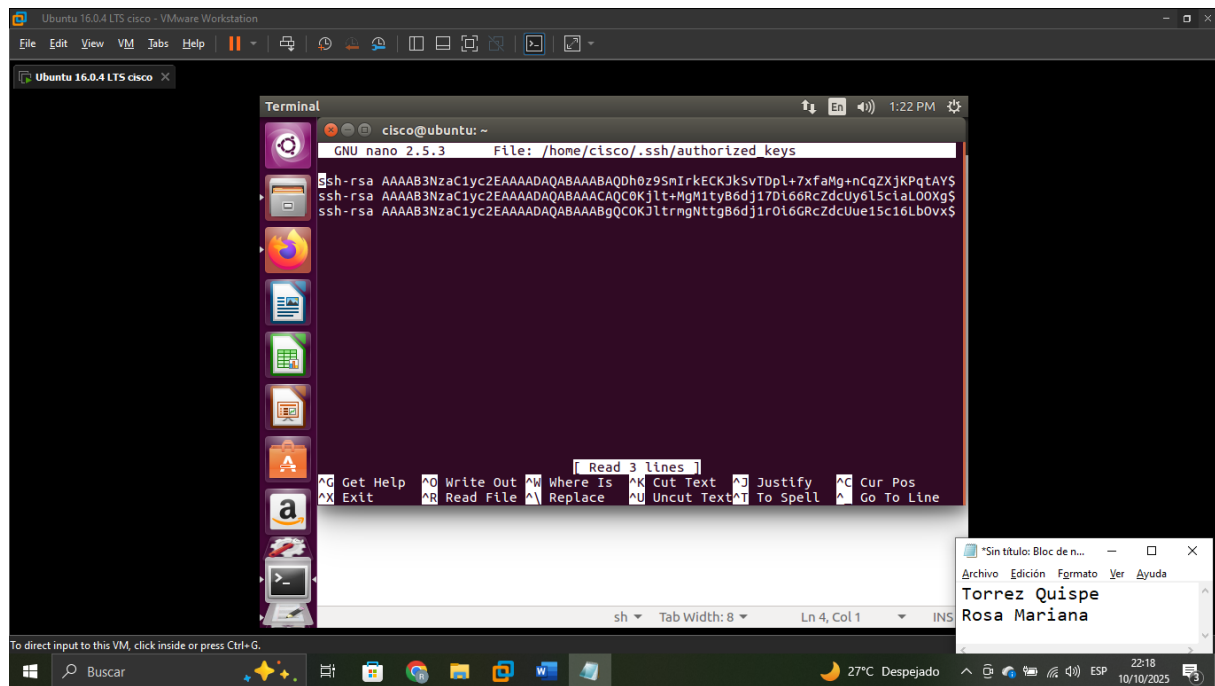
 * Documentation:  https://help.ubuntu.com/

283 packages can be updated.
1 update is a security update.

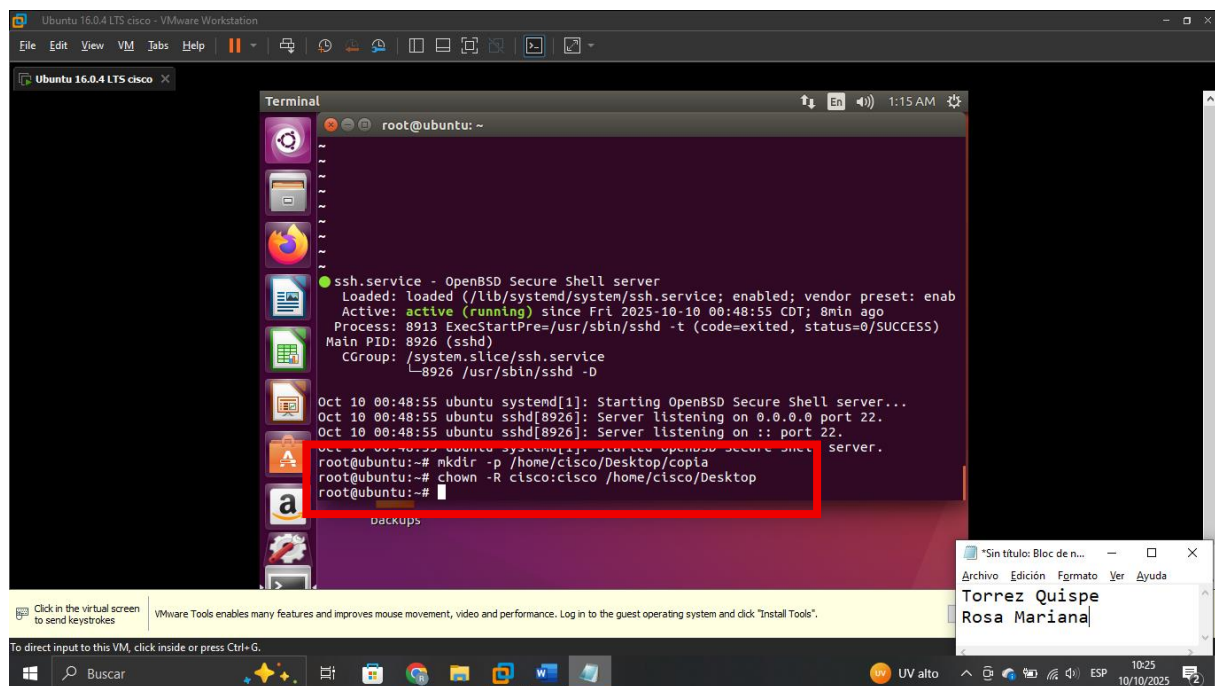
New release '18.04.6 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

Last login: Wed Jun 15 19:57:27 2016 from 127.0.0.1
cisco@ubuntu:~$ cat /home/cisco/.ssh/authorized_keys
ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQDAQh0zS3m1rEdK3kSvTdp1+7xfMg+nCqZXJKFqTAyZpp4F1a3oXukISuU0DEPr
sir7eaBdieztUttfajQXWTR3L62Bm15z20p0pHTM//dJN9vd073hKSHktBpW0fbd7No0xTZ2hDuiU8xyNLahbXH65E1xbM101e8
id2hlt+uXgEenCUG0cmvImfN62011SEgUdsuv6Evvn2XepPE14WDrb240owu+2KMAU0t9RRrtfudZw81Xj011/kZj0h7VU
iKKU/R+gJNE1TnA014ME4M0M032dpKXnn1X7a+QVdL0VK0qCKS1uTXnRv0g+CNJGsR2NM+uf91gH3f root@ubuntu
cisco@ubuntu:~$ chmod 700 /home/cisco/.ssh
cisco@ubuntu:~$ chmod 600 /home/cisco/.ssh/authorized_keys
cisco@ubuntu:~$ chown -R cisco:cisco /home/cisco/.ssh
cisco@ubuntu:~$
```

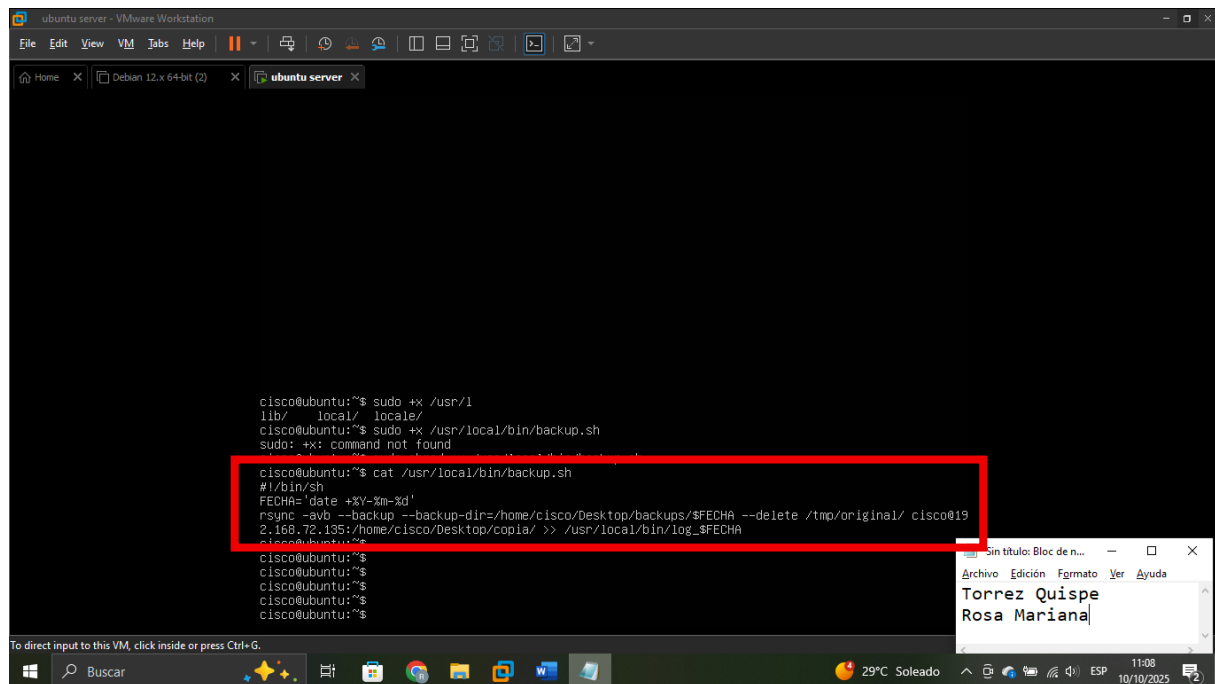
Copiar la clave de ssh del server Ubuntu y copie en cisco Ubuntu:



Configurar las rutas y directorios en Ubuntu Cisco

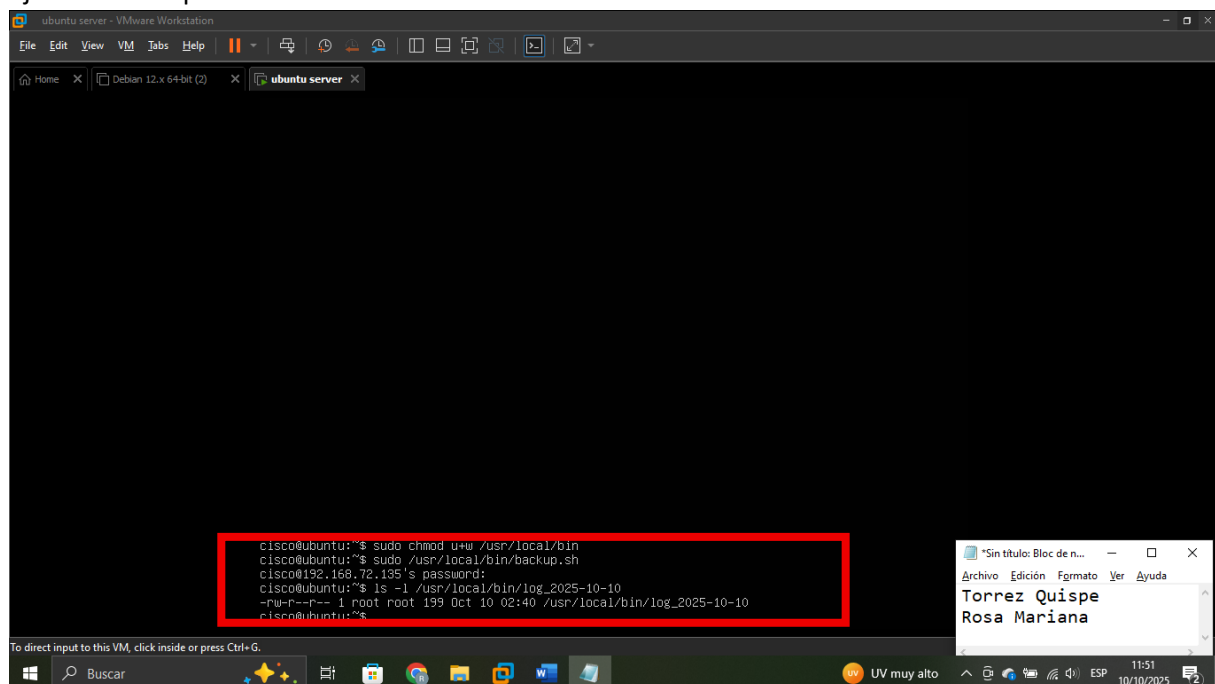


Crear y modificar el script backup.sh



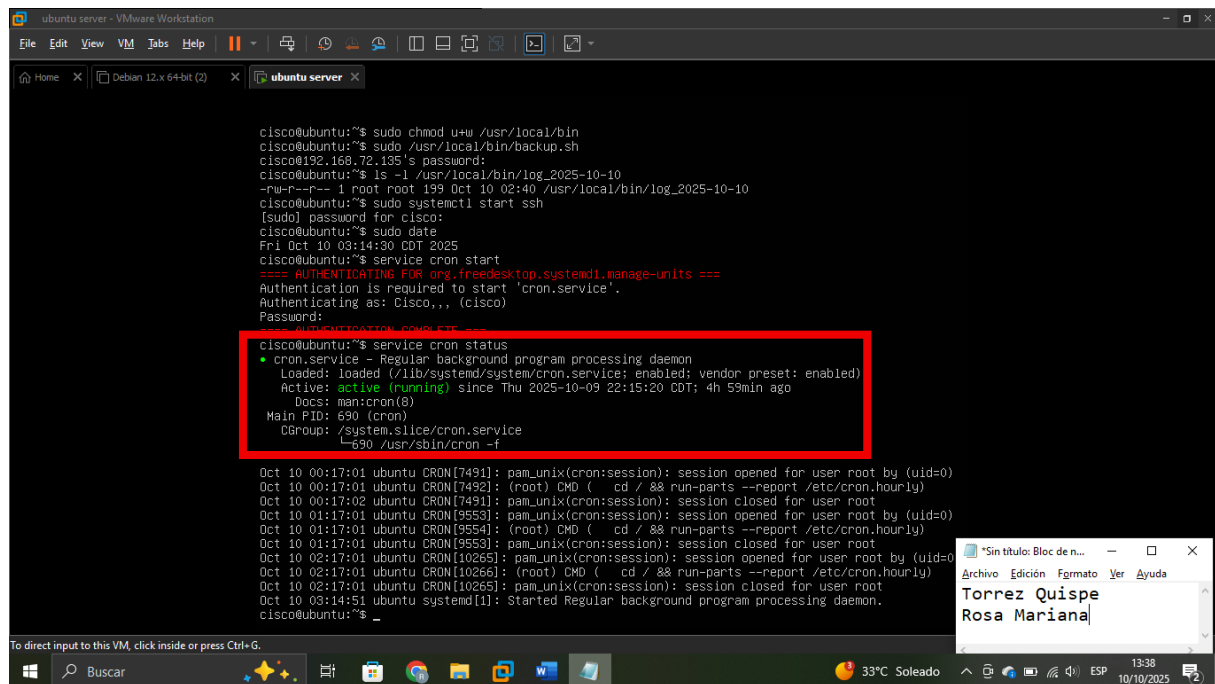
```
cisco@ubuntu:~$ sudo +x /usr/local/bin/backup.sh
cisco@ubuntu:~$ cat /usr/local/bin/backup.sh
#!/bin/sh
FECHA=$(date +%Y-%m-%d)
rsync -avb --backup --backup-dir=/home/cisco/Desktop/backups/$FECHA --delete /tmp/original/ cisco@192.168.72.135:/home/cisco/Desktop/copia/ >> /usr/local/bin/log_$FECHA
cisco@ubuntu:~$
cisco@ubuntu:~$
cisco@ubuntu:~$
cisco@ubuntu:~$
cisco@ubuntu:~$
```

ejecutar el script en Ubuntu server



```
cisco@ubuntu:~$ sudo chmod u+w /usr/local/bin/backup.sh
cisco@ubuntu:~$ sudo /usr/local/bin/backup.sh
cisco@192.168.72.135's password:
cisco@ubuntu:~$ ls -l /usr/local/bin/log_2025-10-10
-rw-r--r-- 1 root root 199 Oct 10 02:40 /usr/local/bin/log_2025-10-10
cisco@ubuntu:~$
```

verificar el estado con: service cron status



```
cisco@ubuntu:~$ sudo chmod u+w /usr/local/bin
cisco@ubuntu:~$ sudo /usr/local/bin/backup.sh
cisco@192.168.72.135's password:
cisco@ubuntu:~$ ls -l /usr/local/bin/log_2025-10-10
-rw-r--r-- 1 root root 199 Oct 10 02:40 /usr/local/bin/log_2025-10-10
cisco@ubuntu:~$ sudo systemctl start ssh
[sudo] password for cisco:
cisco@ubuntu:~$ sudo date
Fri Oct 10 03:14:30 CDT 2025
cisco@ubuntu:~$ sudo service cron start
==== AUTHENTICATING FOR org.freedesktop.systemd1.manage-units ====
Authentication is required to start 'cron.service'.
Authenticating as: Cisco,, (cisco)
Password:
===== AUTHENTICATION COMPLETE =====
cisco@ubuntu:~$ service cron status
• cron.service - Regular background program processing daemon
   Loaded: loaded (/lib/systemd/system/cron.service; enabled; vendor preset: enabled)
   Active: active (running) since Thu 2025-10-09 22:15:20 CDT; 4h 59min ago
     Docs: man:cron(8)
    Main PID: 690 (cron)
   CGroup: /system.slice/cron.service
           └─690 /usr/sbin/cron -f

Oct 10 00:17:01 ubuntu CRON[7491]: pam_unix(cron:session): session opened for user root by (uid=0)
Oct 10 00:17:01 ubuntu CRON[7492]: (root) CMD ( cd / && run-parts --report /etc/cron.hourly)
Oct 10 00:17:02 ubuntu CRON[7491]: pam_unix(cron:session): session closed for user root
Oct 10 01:17:01 ubuntu CRON[9553]: pam_unix(cron:session): session opened for user root by (uid=0)
Oct 10 01:17:01 ubuntu CRON[9554]: (root) CMD ( cd / && run-parts --report /etc/cron.hourly)
Oct 10 01:17:01 ubuntu CRON[9553]: pam_unix(cron:session): session closed for user root
Oct 10 02:17:01 ubuntu CRON[10265]: pam_unix(cron:session): session opened for user root by (uid=0)
Oct 10 02:17:01 ubuntu CRON[10266]: (root) CMD ( cd / && run-parts --report /etc/cron.hourly)
Oct 10 02:17:01 ubuntu CRON[10265]: pam_unix(cron:session): session closed for user root
Oct 10 03:14:51 ubuntu systemd[1]: Started Regular background program processing daemon.
cisco@ubuntu:~$
```

Verificando la funcionalidad

Crear primero : `sudo mkdir -p /tmp/original`

`echo "Prueba" > /tmp/original/test.txt`

Confirma que los directorios en Ubuntu Cisco existan:

- `ssh cisco@192.168.72.135 "mkdir -p /home/cisco/Desktop/backups /home/cisco/Desktop/copia"`
- `ssh cisco@192.168.72.135 "chown -R cisco:cisco /home/cisco/Desktop"`

Volvemos a ejecutar y verificar con los siguientes comandos:

- `sudo /usr/local/bin/backup.sh`
- `ssh cisco@192.168.72.135 "ls /home/cisco/Desktop/copia"`

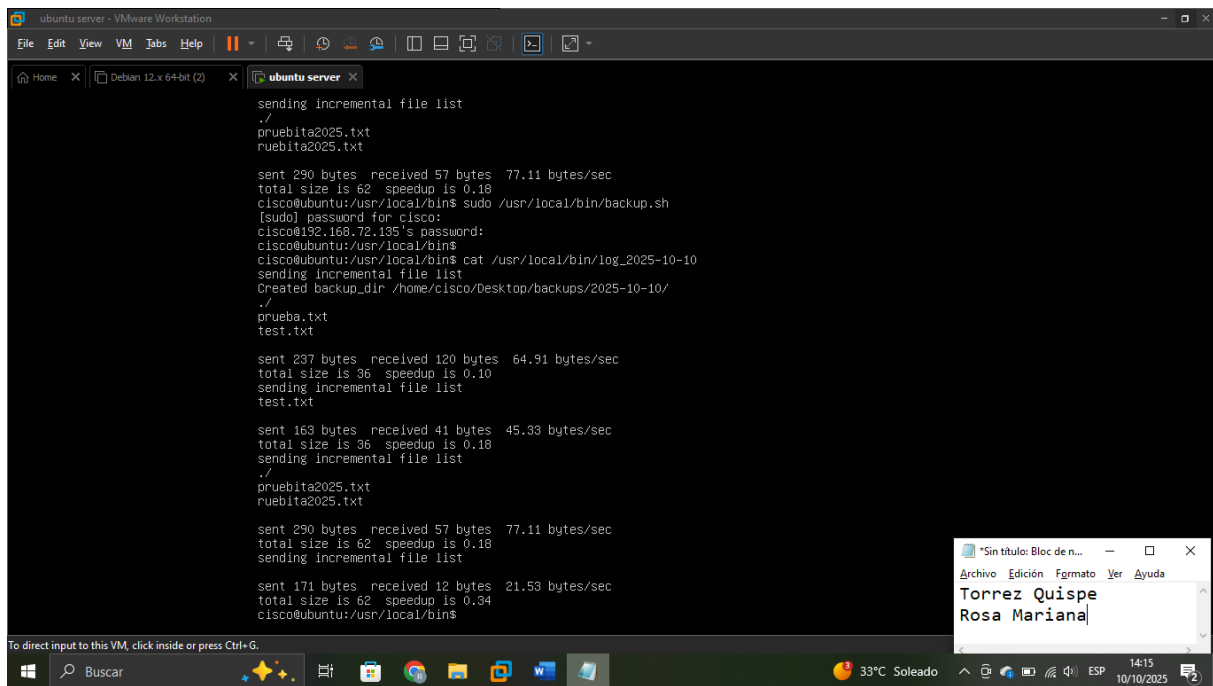
Revisa el log:

- `cat /usr/local/bin/log_2025-10-10`

```
ubuntu server - VMware Workstation
File Edit View VM Tabs Help
Home X Debian 12.x 64-bit (2) X ubuntu server X
drwxrwxr-x 2 cisco cisco 4096 Sep 28 15:28 rosa
cisco@ubuntu:~/Desktop$ cd ..
cisco@ubuntu:~$ cd /tmp/
cisco@ubuntu:/tmp$ ls -l
total 16
-rw-r--r-- 1 cisco cisco 0 Oct 9 22:15 config-err-Lm5VNL
drwxrwxr-x 2 cisco cisco 4096 Oct 10 02:30 original
drwx----- 3 root root 4096 Oct 9 22:15 systemd-private-a17e5cd0af6548ec8c6fd43182e36ec7-colord.s
ervice-31216x
drwx----- 3 root root 4096 Oct 9 22:15 systemd-private-a17e5cd0af6548ec8c6fd43182e36ec7-fwupd.se
rvice-h1LF9l
drwx----- 3 root root 4096 Oct 9 22:15 systemd-private-a17e5cd0af6548ec8c6fd43182e36ec7-rtkit-da
emon.service-E2ffgx
cisco@ubuntu:/tmp$ sudo mkdir -p /tmp/original
cisco@ubuntu:/tmp$ echo "Prueba" > /tmp/original/test.txt
cisco@ubuntu:/tmp$ ls -l /tmp/original/
total 8
-rw-rw-r-- 1 cisco cisco 29 Oct 10 01:13 prueba.txt
-rw-rw-r-- 1 cisco cisco 7 Oct 10 03:20 test.txt
cisco@ubuntu:/tmp$ sudo /usr/local/bin/backup.sh
cisco@192.168.72.135's password:
cisco@ubuntu:/tmp$ cat /usr/local/bin/log_2025-10-10
sending incremental file list
Created backup_dir /home/cisco/Desktop/backups/2025-10-10/
./
prueba.txt
test.txt
sent 237 bytes received 120 bytes 64.91 bytes/sec
total size is 36 speedup is 0.10
sending incremental file list
test.txt
sent 163 bytes received 41 bytes 45.33 bytes/sec
total size is 36 speedup is 0.18
cisco@ubuntu:/tmp$ _
```

Mas ejemplos introducidos para ver su efectividad

```
ubuntu server - VMware Workstation
File Edit View VM Tabs Help
Home X Debian 12.x 64-bit (2) X ubuntu server X
test.txt
sent 163 bytes received 41 bytes 45.33 bytes/sec
total size is 36 speedup is 0.18
cisco@ubuntu:/usr/local/bin$ echo "Pruebita2025" > /tmp/original/pruebita2025.txt
cisco@ubuntu:/usr/local/bin$ echo "Pruebita2025" > /tmp/original/pruebita2025.txt
cisco@ubuntu:/usr/local/bin$ ls -l /tmp/original/
total 16
-rw-rw-r-- 1 cisco cisco 29 Oct 10 01:13 prueba.txt
-rw-rw-r-- 1 cisco cisco 13 Oct 10 03:34 pruebita2025.txt
-rw-rw-r-- 1 cisco cisco 13 Oct 10 03:34 pruebita2025.txt
-rw-rw-r-- 1 cisco cisco 7 Oct 10 03:20 test.txt
cisco@ubuntu:/usr/local/bin$ sudo /usr/local/bin/backup.sh
[sudo] password for cisco:
cisco@192.168.72.135's password:
cisco@ubuntu:/usr/local/bin$ cat /usr/local/bin/log_2025-10-10
sending incremental file list
Created backup_dir /home/cisco/Desktop/backups/2025-10-10/
./
prueba.txt
test.txt
sent 237 bytes received 120 bytes 64.91 bytes/sec
total size is 36 speedup is 0.10
sending incremental file list
test.txt
sent 163 bytes received 41 bytes 45.33 bytes/sec
total size is 36 speedup is 0.18
sending incremental file list
pruebita2025.txt
pruebita2025.txt
sent 290 bytes received 57 bytes 77.11 bytes/sec
total size is 62 speedup is 0.18
cisco@ubuntu:/usr/local/bin$ sudo /usr/local/bin/backup.sh _
```

```
sending incremental file list
./
pruebita2025.txt
ruebita2025.txt

sent 290 bytes received 57 bytes  77.11 bytes/sec
total size is 62  speedup is 0.18
cisco@ubuntu:/usr/local/bin$ sudo /usr/local/bin/backup.sh
[sudo] password for cisco:
cisco@192.168.72.135's password:
cisco@ubuntu:/usr/local/bin$
cisco@ubuntu:/usr/local/bin$ cat /usr/local/bin/log_2025-10-10
sending incremental file list
Created backup_dir /home/cisco/Desktop/backups/2025-10-10/
./
prueba.txt
test.txt

sent 237 bytes received 120 bytes  64.91 bytes/sec
total size is 36  speedup is 0.10
sending incremental file list
test.txt

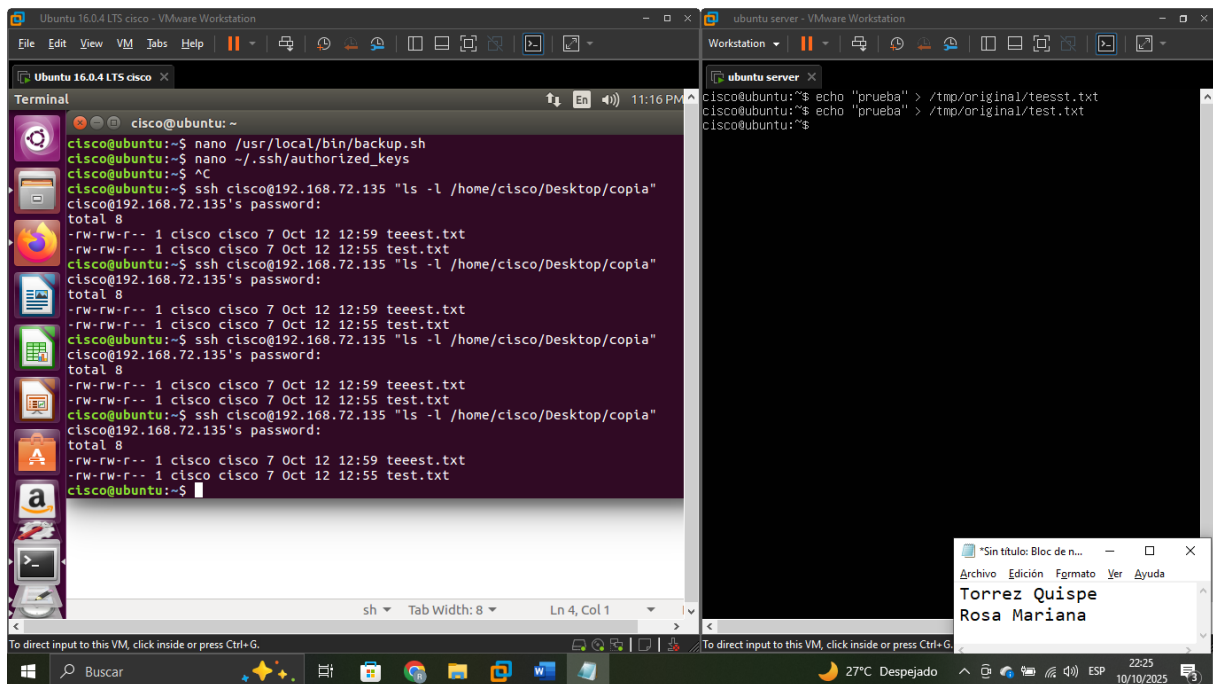
sent 163 bytes received 41 bytes  45.33 bytes/sec
total size is 36  speedup is 0.18
sending incremental file list
./
pruebita2025.txt
ruebita2025.txt

sent 290 bytes received 57 bytes  77.11 bytes/sec
total size is 62  speedup is 0.18
sending incremental file list

sent 171 bytes received 12 bytes  21.53 bytes/sec
total size is 62  speedup is 0.34
cisco@ubuntu:/usr/local/bin$
```

Resultado final:

Ya lo solucioné auxi ahora envía sin ejecutar el script, las claves de ssh las modifique y les di permisos



```
cisco@ubuntu:~$ nano /usr/local/bin/backup.sh
cisco@ubuntu:~$ nano ~/.ssh/authorized_keys
cisco@ubuntu:~$ ^C
cisco@ubuntu:~$ ssh cisco@192.168.72.135 "ls -l /home/cisco/Desktop/copia"
cisco@192.168.72.135's password:
total 8
-rw-rw-r-- 1 cisco cisco 7 Oct 12 12:59 teeest.txt
-rw-rw-r-- 1 cisco cisco 7 Oct 12 12:55 test.txt
cisco@ubuntu:~$ ssh cisco@192.168.72.135 "ls -l /home/cisco/Desktop/copia"
cisco@192.168.72.135's password:
total 8
-rw-rw-r-- 1 cisco cisco 7 Oct 12 12:59 teeest.txt
-rw-rw-r-- 1 cisco cisco 7 Oct 12 12:55 test.txt
cisco@ubuntu:~$ ssh cisco@192.168.72.135 "ls -l /home/cisco/Desktop/copia"
cisco@192.168.72.135's password:
total 8
-rw-rw-r-- 1 cisco cisco 7 Oct 12 12:59 teeest.txt
-rw-rw-r-- 1 cisco cisco 7 Oct 12 12:55 test.txt
cisco@ubuntu:~$
```

```
cisco@ubuntu:~$ echo "prueba" > /tmp/original/teeest.txt
cisco@ubuntu:~$ echo "prueba" > /tmp/original/test.txt
cisco@ubuntu:~$
```