punto 1

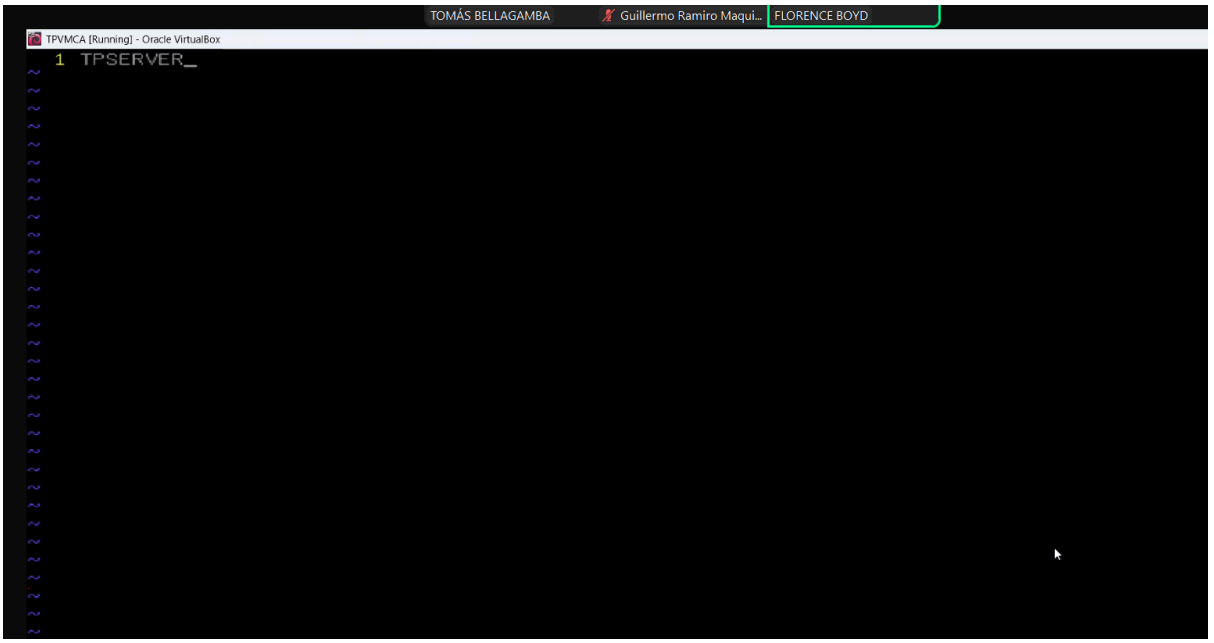
1.1)

1.2)

-cambiar password accediendo con e al grub

-luego editar init=/bin/bash para entrar en modo de usuario único.

1.3) cambiar hostname



punto 2

pasos previos)
creamos carpeta compartida desde el VM y asignamos los archivos
luego ejecutamos:
mkdir /mnt/carpetacomp
mount -t vboxsf carpetacomp /mnt/carpetacomp
apt update para actualizar paquetes

2.1)
Instalamos servidor SSH: apt install openssh-server -y

iniciamos y habilitamos para ejecucion al comenzar el servicio:
systemctl start ssh
systemctl enable ssh

verificamos con systemctl status ssh:

creamos ssh y damos permisos:
mkdir -p /root/.ssh
chmod 700 /root/.ssh

pasamos la clave de BB a authorizedkeys y ajustamos permisos:
cp /mnt/carpetacomp/clave_publica.pub /root/.ssh/authorized_keys
chmod 600 /root/.ssh/authorized_keys
chown -R root:root /root/.ssh

configurar ssh para permitir root:
nano /etc/ssh/sshd_config

```
#LoginGraceTime 2m
PermitRootLogin yes
#StrictModes yes
#MaxAuthTries 6
#MaxSessions 10

PubkeyAuthentication yes

# Expect .ssh/authorized_keys2 to be disregarded by default in future.
AuthorizedKeysFile      .ssh/authorized_keys .ssh/authorized_keys2
```

reiniciamos systemctl restart ssh

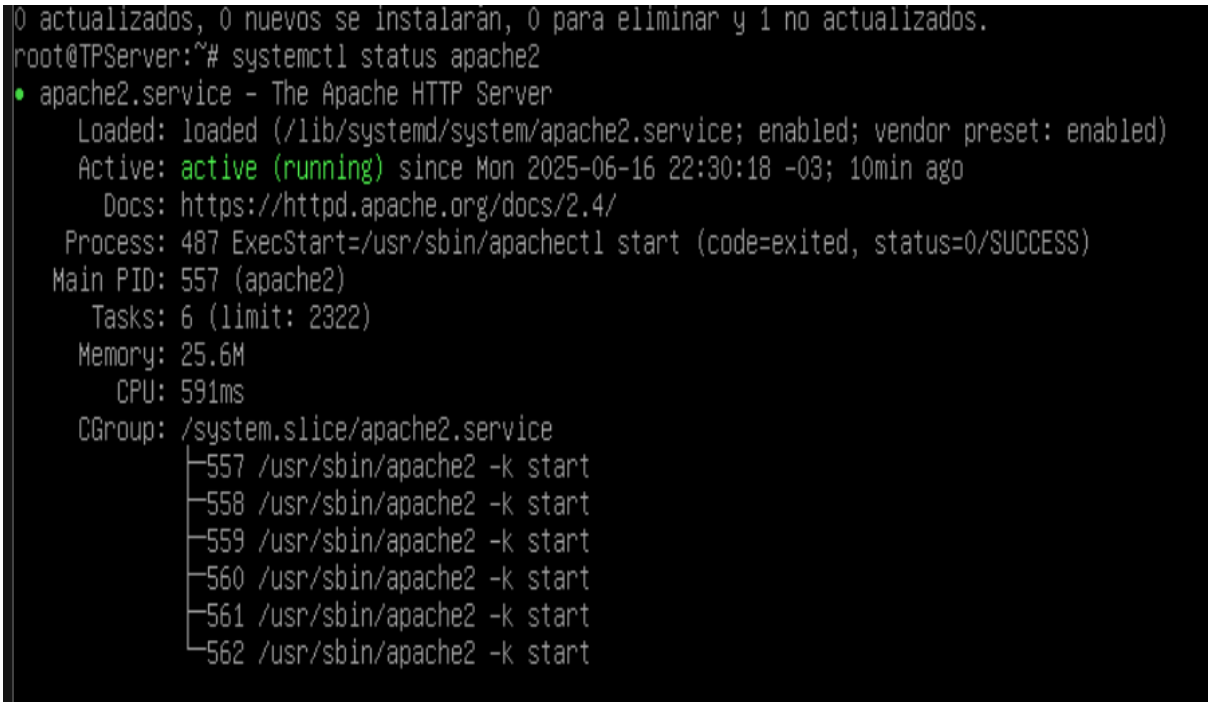
probamos desde cmd windows maquina fisica:

```
C:\Users\totag\Downloads\tp integrador>ssh -i "C:\Users\totag\Downloads\tp integrador\id_rsa" root@192.168.1.37
Linux TPServer 5.10.0-35-amd64 #1 SMP Debian 5.10.237-1 (2025-05-19) x86_64

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

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
Last login: Tue Jun  3 20:49:26 2025 from 192.168.1.63
root@TPServer:~#
```


2.2) instalar apache y modulo necesario:

apt install apache2 -y

apt install php libapache2-mod-php -y



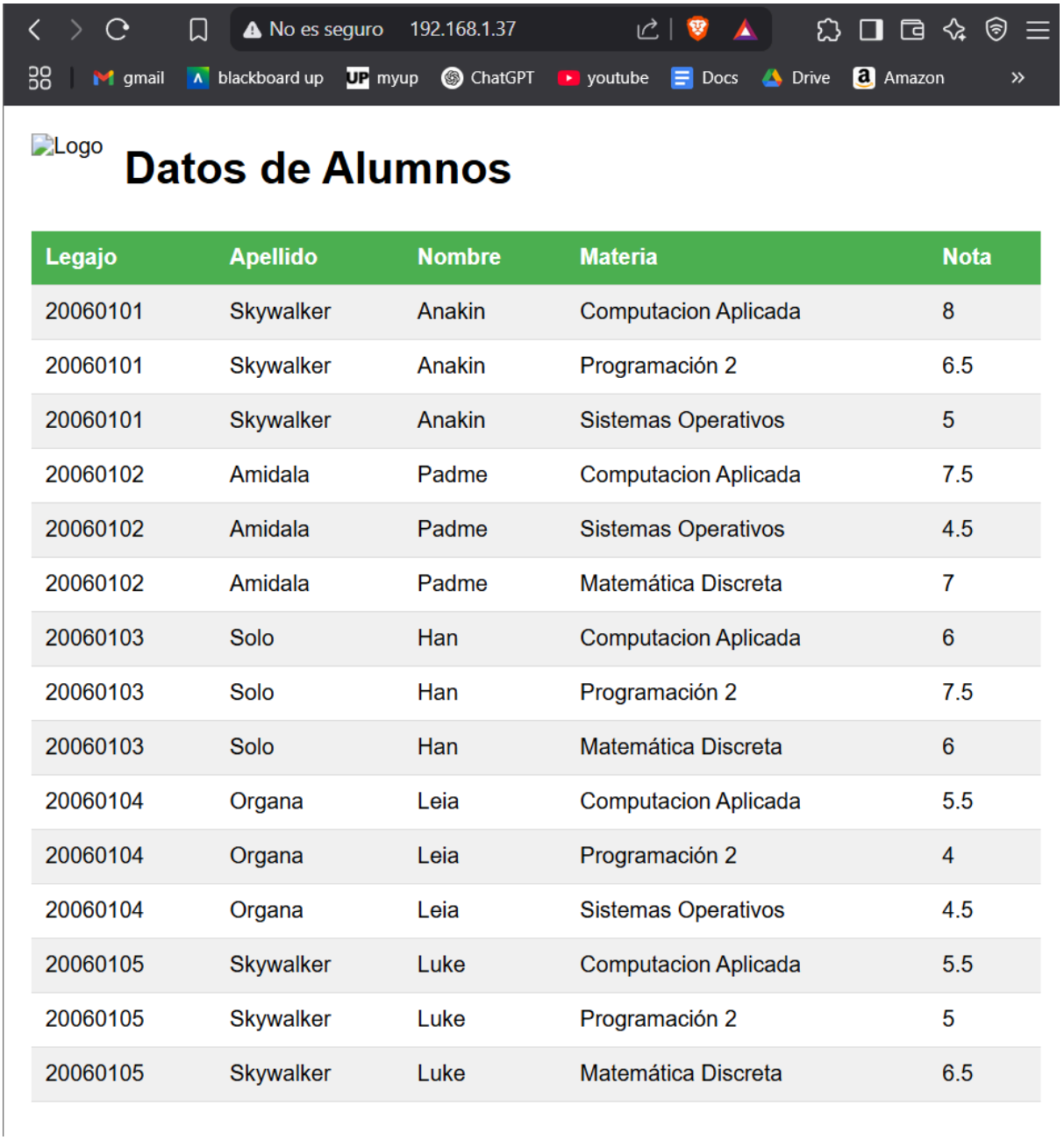
se copio el index a la carpeta y se ajustaron permisos con:

/mnt/carpetacomp/index.php /var/www/html/

chmod 644 /var/www/html/index.php

reiniciamos:systemctl restart apache2

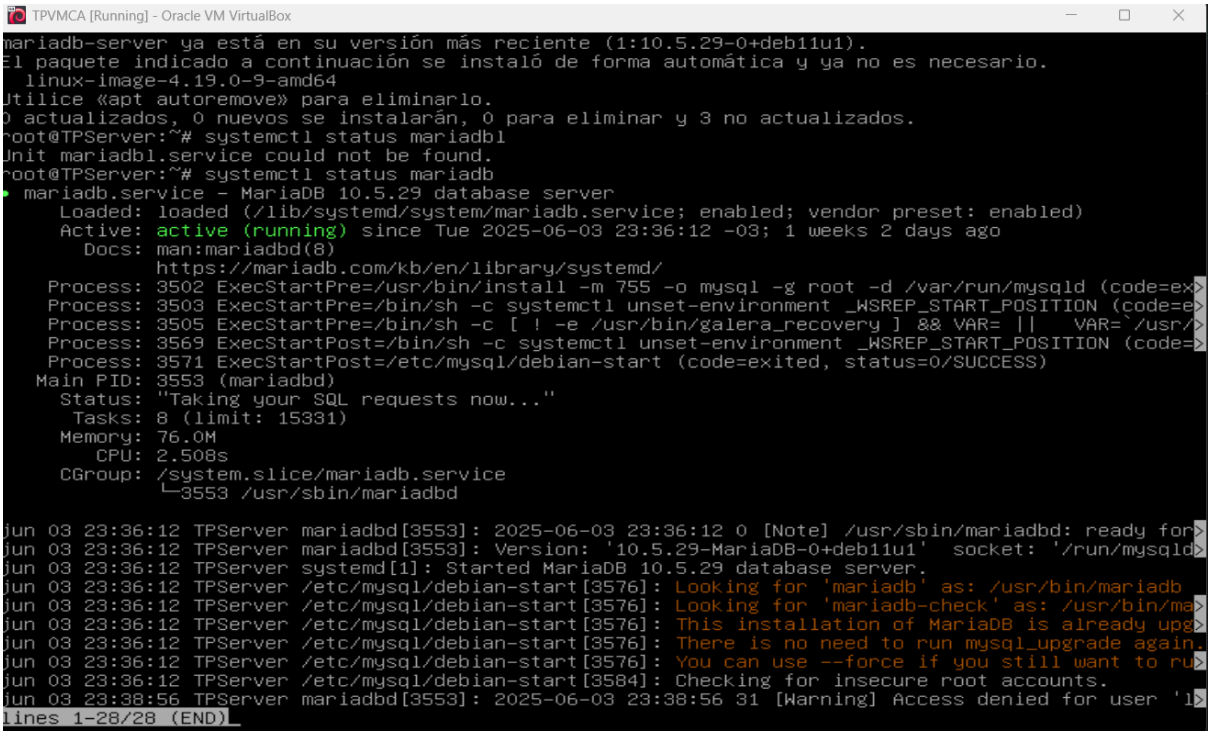
accedemos a http://192.168.1.37 q se encuentra index:



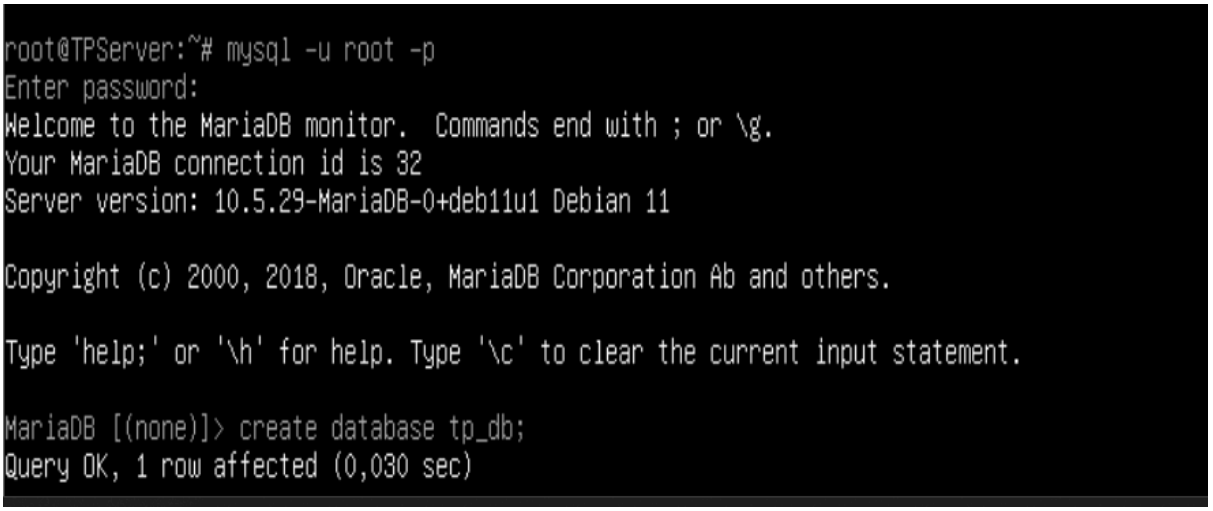
Legajo	Apellido	Nombre	Materia	Nota
20060101	Skywalker	Anakin	Computacion Aplicada	8
20060101	Skywalker	Anakin	Programación 2	6.5
20060101	Skywalker	Anakin	Sistemas Operativos	5
20060102	Amidala	Padme	Computacion Aplicada	7.5
20060102	Amidala	Padme	Sistemas Operativos	4.5
20060102	Amidala	Padme	Matemática Discreta	7
20060103	Solo	Han	Computacion Aplicada	6
20060103	Solo	Han	Programación 2	7.5
20060103	Solo	Han	Matemática Discreta	6
20060104	Organa	Leia	Computacion Aplicada	5.5
20060104	Organa	Leia	Programación 2	4
20060104	Organa	Leia	Sistemas Operativos	4.5
20060105	Skywalker	Luke	Computacion Aplicada	5.5
20060105	Skywalker	Luke	Programación 2	5
20060105	Skywalker	Luke	Matemática Discreta	6.5

---

se instala mariadb y verifica:
apt install mariadb-server -y

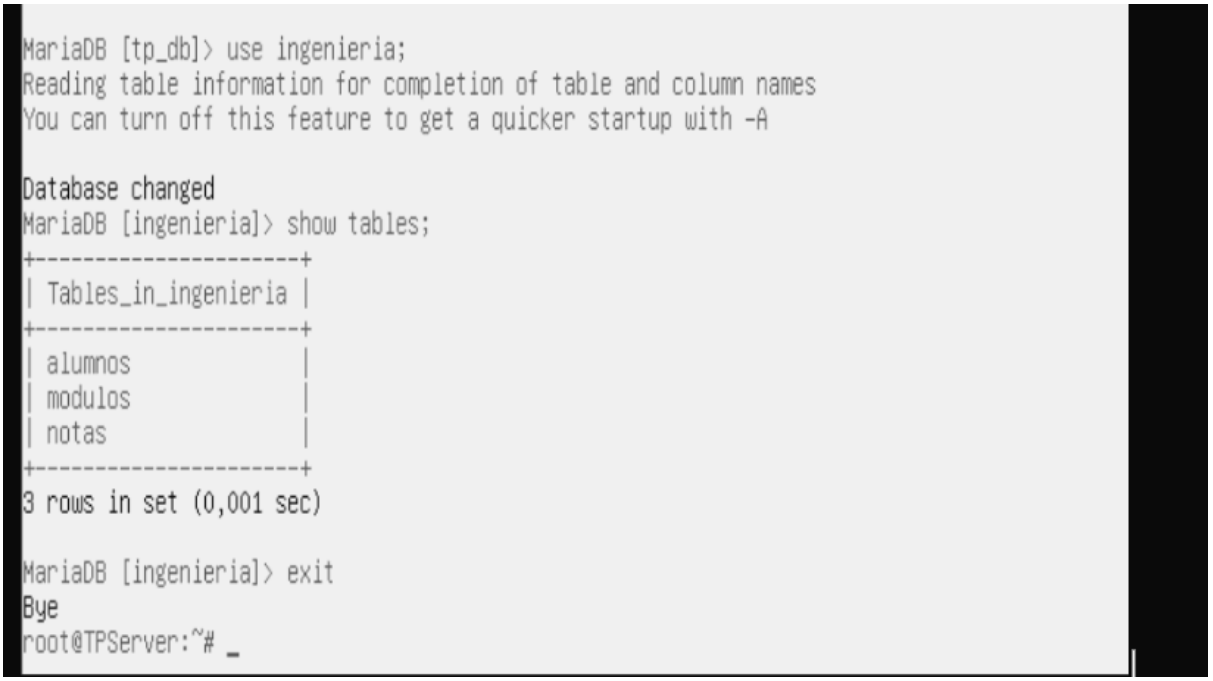


se accede a mariadb y se crea la database:



se importa el sql: mysql tp_db < /mnt/carpetacomp/db.sql

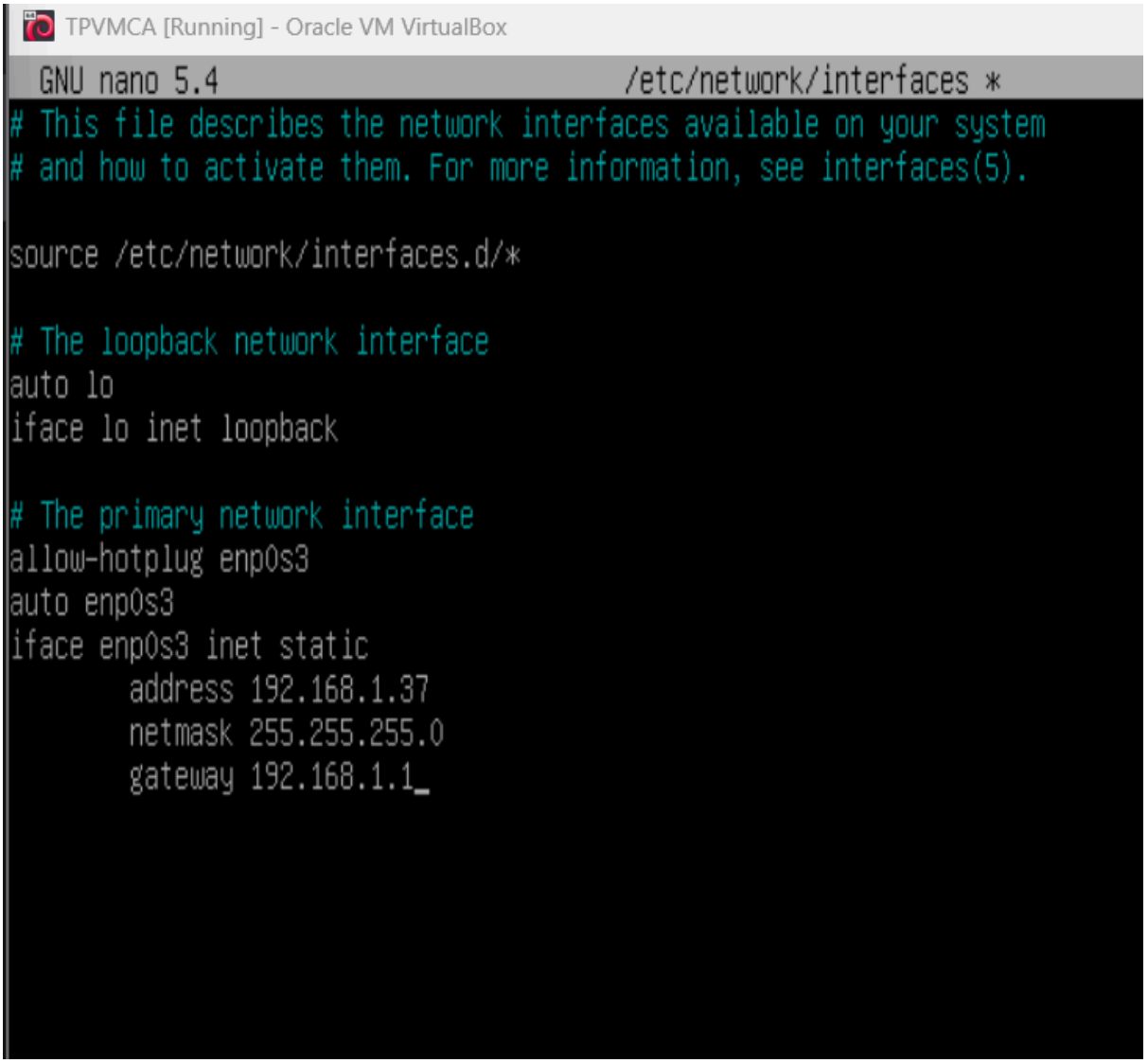
luego se selecciona con USE para llamar a la tabla dentro del sql y lo mostramos con SHOW:



punto 3

3)
abro nano /etc/network/interfaces para editar la interfaz de configuracion

configuro la interfaz modificando para que quede asi:



reiniciamos: systemctl restart networking

probamos:

```
Failed to disable unit: Unit file NetworkManager.service does not exist.
root@TPServer:~# systemctl restart networking
root@TPServer:~# ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    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: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP group default qlen 1
000
    link/ether 08:00:27:99:b6:18 brd ff:ff:ff:ff:ff:ff
    inet 192.168.1.37/24 brd 192.168.1.255 scope global enp0s3
       valid_lft forever preferred_lft forever
    inet6 2802:8010:9508:4a00:a00:27ff:fe99:b618/64 scope global dynamic mngtmpaddr
       valid_lft 86396sec preferred_lft 86396sec
    inet6 fe80::a00:27ff:fe99:b618/64 scope link
       valid_lft forever preferred_lft forever
root@TPServer:~# _
```

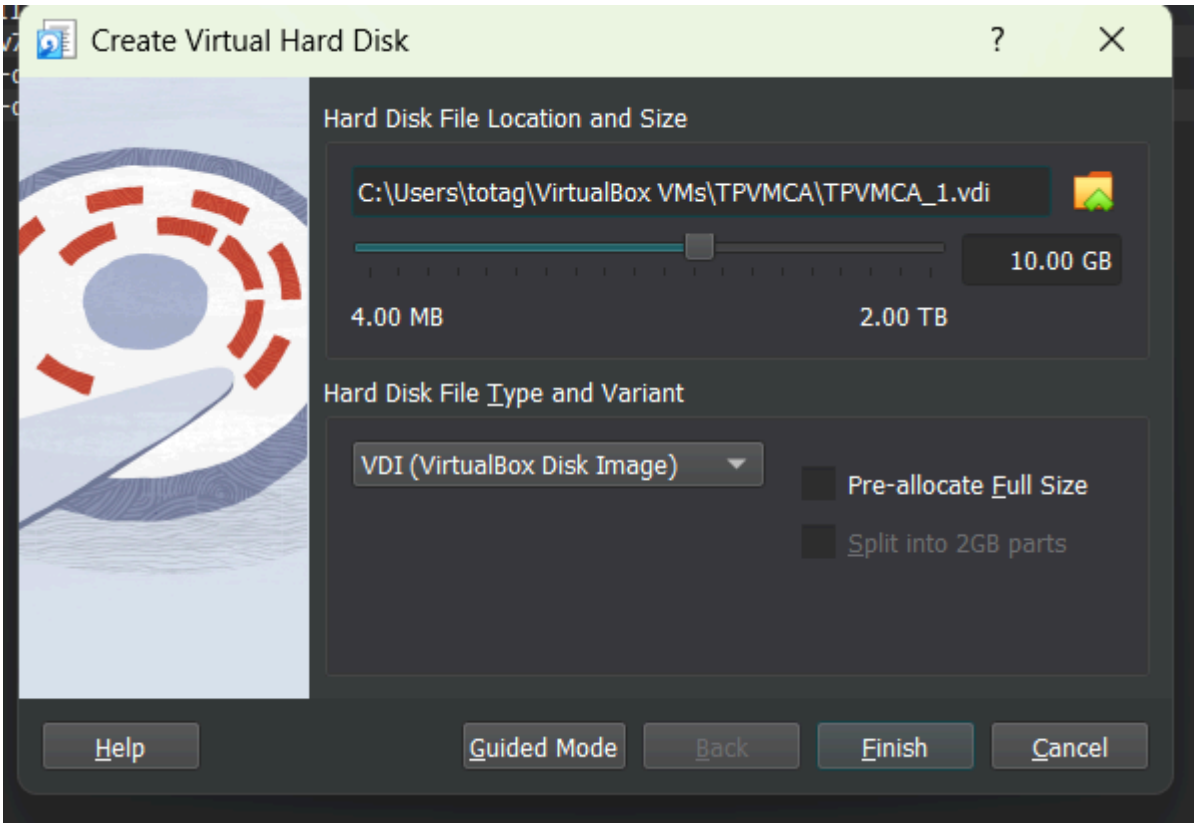
```
root@TPServer:~# ip route
default via 192.168.1.1 dev enp0s3 onlink
```

en mi maquina fisica:

```
C:\Users\totag>ping 192.168.1.37

Haciendo ping a 192.168.1.37 con 32 bytes de datos:
Respuesta desde 192.168.1.37: bytes=32 tiempo<1m TTL=64
Respuesta desde 192.168.1.37: bytes=32 tiempo=1ms TTL=64
Respuesta desde 192.168.1.37: bytes=32 tiempo=1ms TTL=64
```

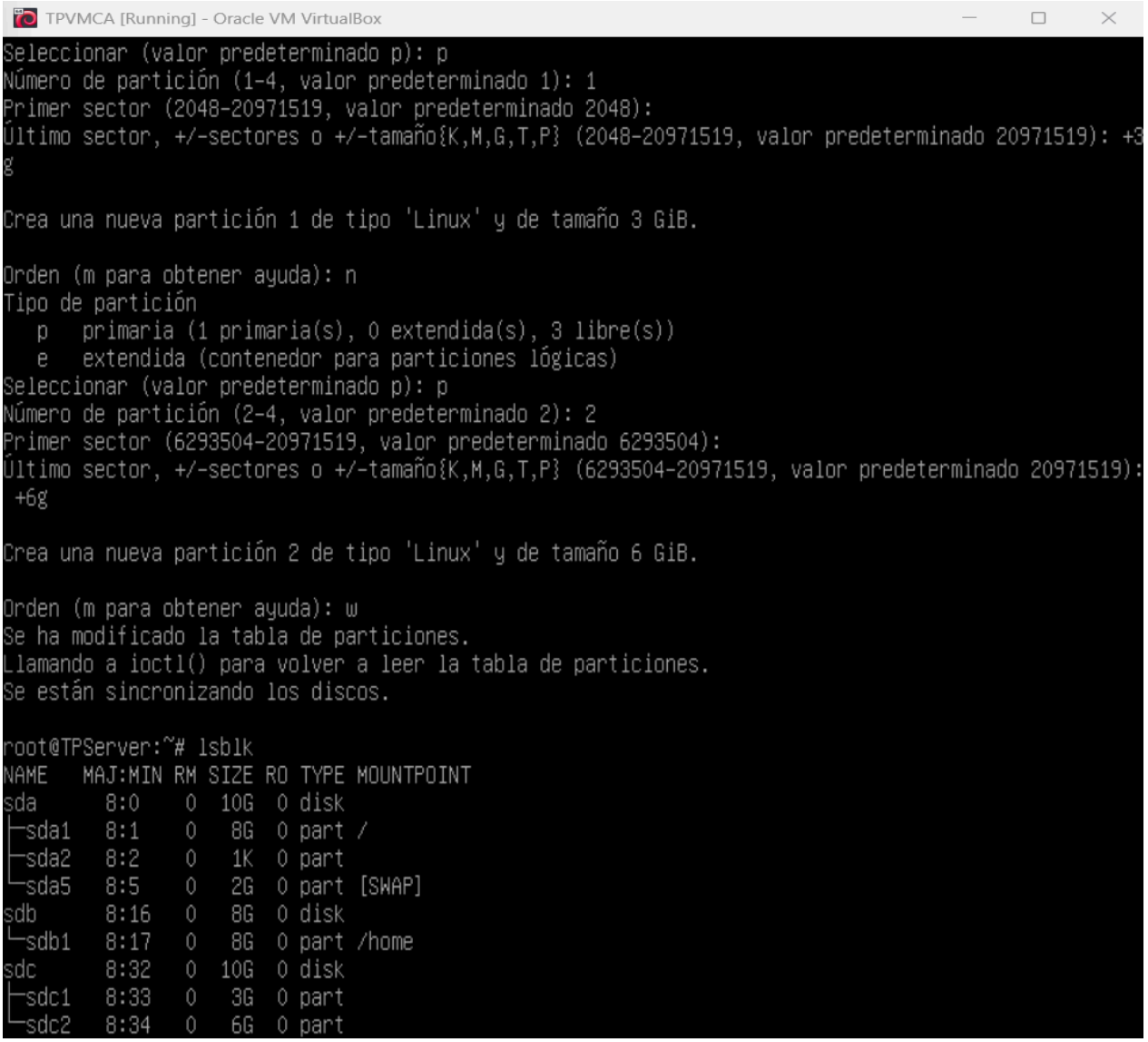
punto 4

se crea un nuevo disco desde VM



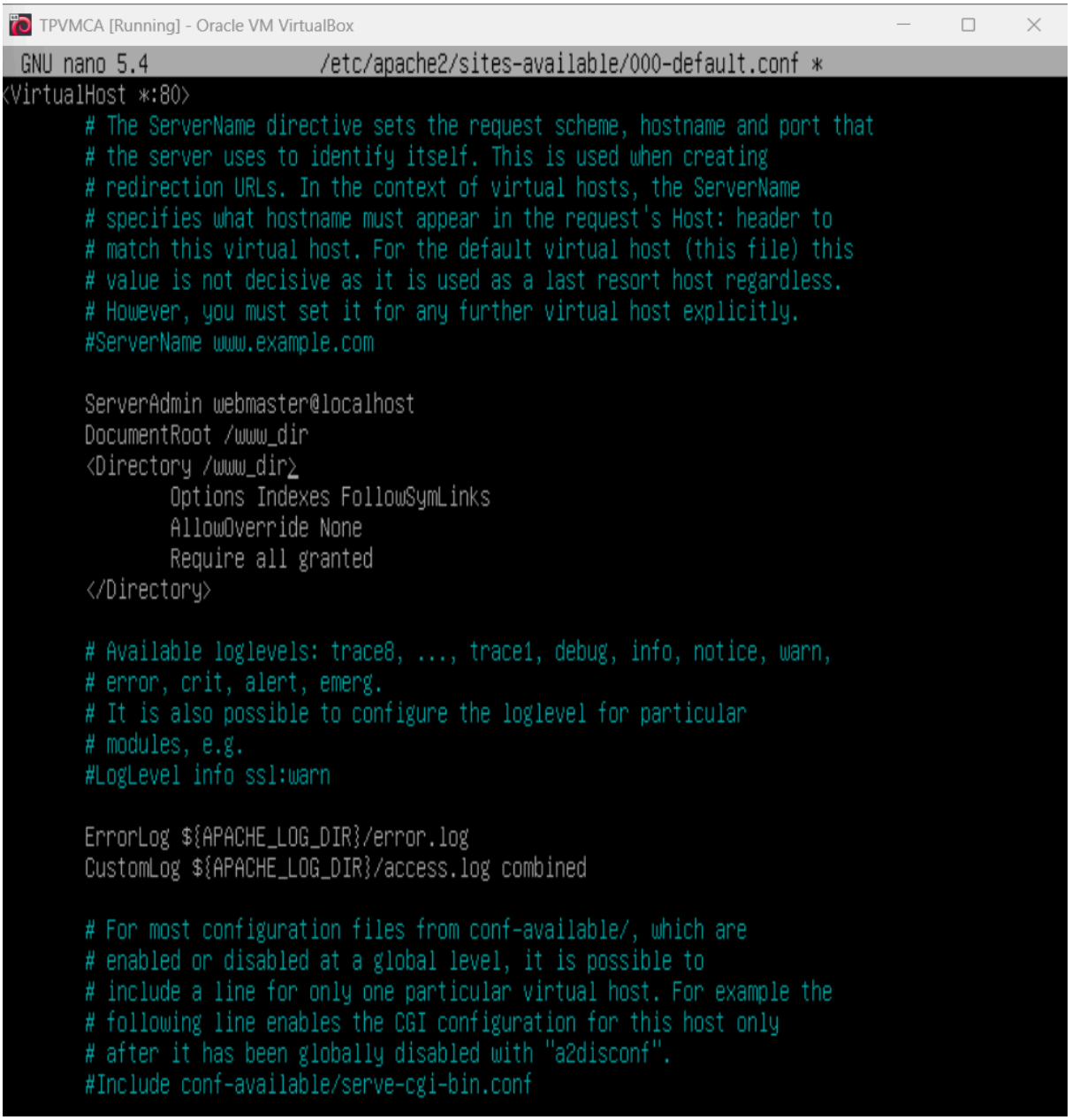
accedo al disco: fdisk /dev/sdb

luego creo y verifico las particiones:



movemos los archivos: cp /var/www/html/index.php /www_dir/

configuramos apache nano /etc/apache2/sites-available/000-default.conf:



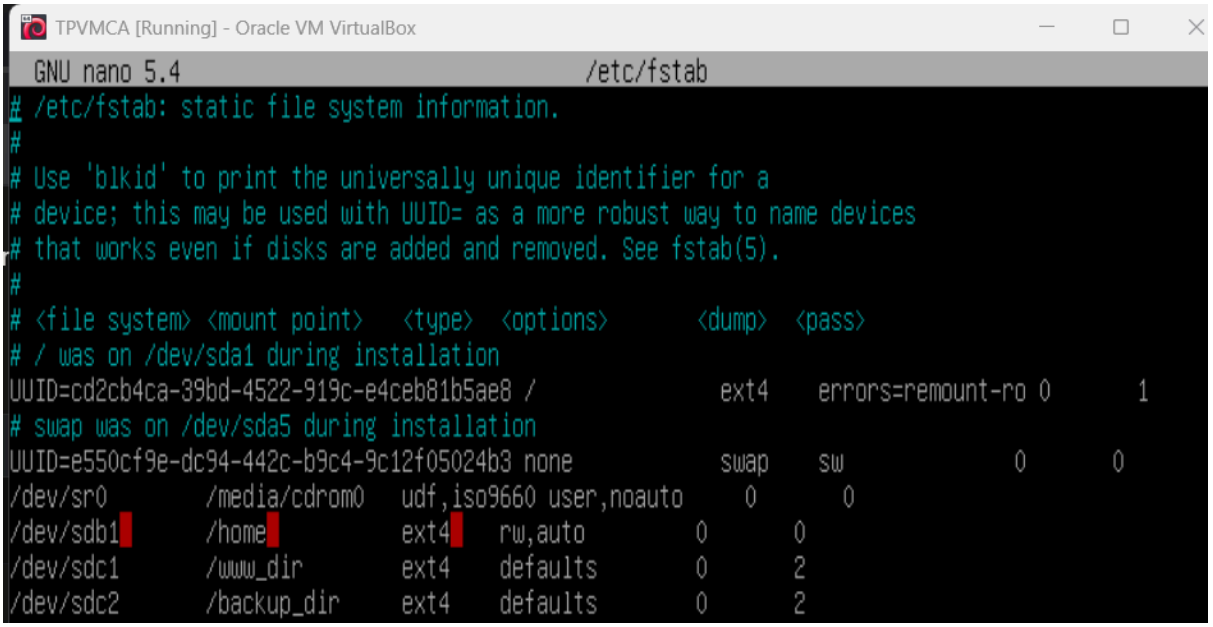
verificamos q sirve:

Logo

Datos de Alumnos

Legajo	Apellido	Nombre	Materia	
20060101	Skywalker	Anakin	Computacion Aplicada	8
20060101	Skywalker	Anakin	Programación 2	6
20060101	Skywalker	Anakin	Sistemas Operativos	5
20060102	Amidala	Padme	Computacion Aplicada	7
20060102	Amidala	Padme	Sistemas Operativos	4
20060102	Amidala	Padme	Matemática Discreta	7
20060103	Solo	Han	Computacion Aplicada	6
20060103	Solo	Han	Programación 2	7
20060103	Solo	Han	Matemática Discreta	6
20060104	Organa	Leia	Computacion Aplicada	5
20060104	Organa	Leia	Programación 2	4
20060104	Organa	Leia	Sistemas Operativos	4
20060105	Skywalker	Luke	Computacion Aplicada	5
20060105	Skywalker	Luke	Programación 2	5

montaje automatico:
sudo nano /etc/fstab:

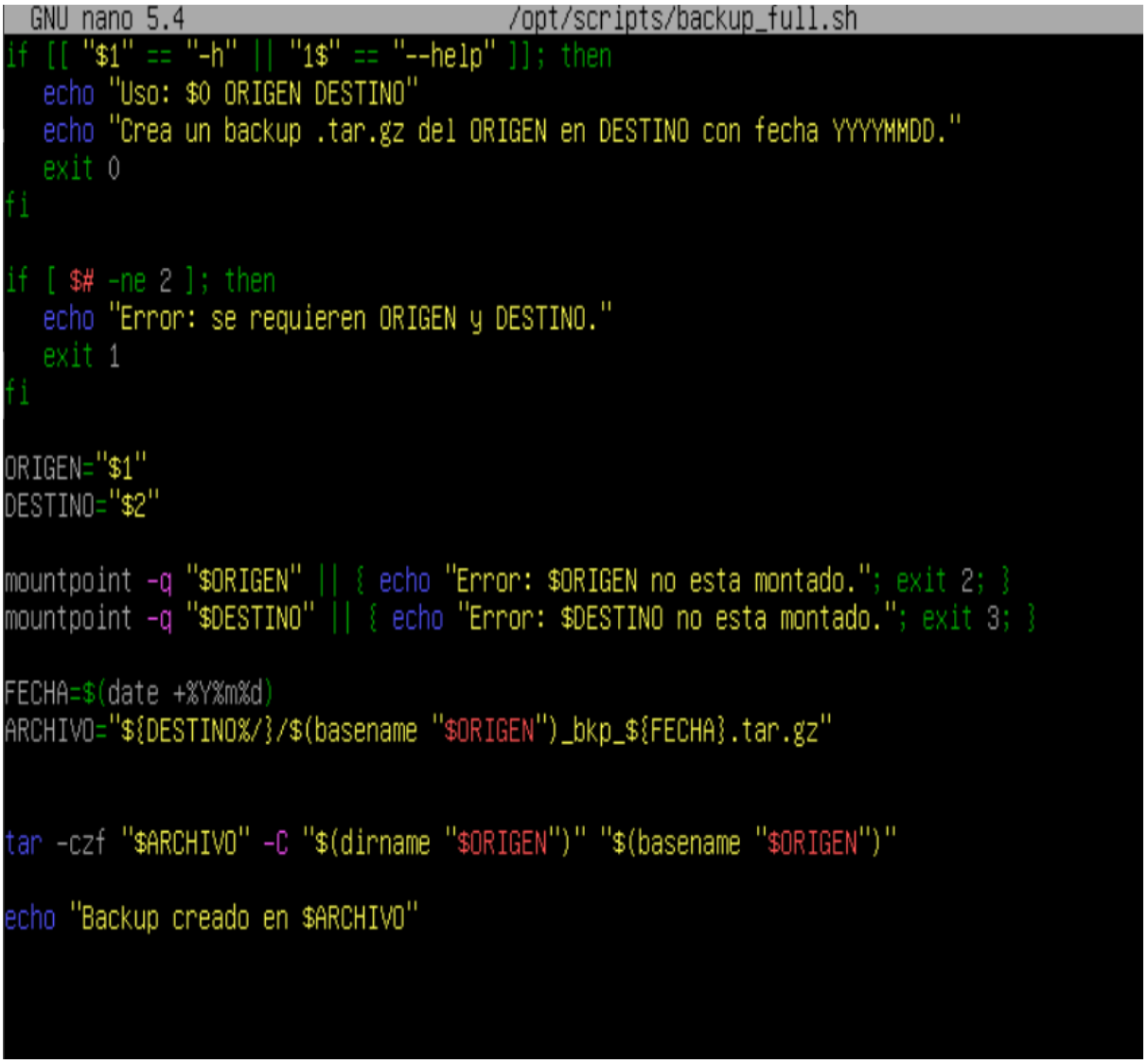


punto 5

creo carp
sudo mkdir -p /opt/scripts

creo script
sudo nano /opt/scripts/backup_full.sh

script:



doy permisos
sudo chmod +x /opt/scripts/backup_full.sh

test:

```
root@TPServer:~# /opt/scripts/backup_full.sh /var/logs /backup_dir
Backup creado en /backup_dir/logs_bkp_20250615.tar.gz
root@TPServer:~# _
```

test:

```
Uso: /opt/scripts/backup_full.sh ORIGEN DESTINO
Crea un backup .tar.gz del ORIGEN en DESTINO con fecha YYYYMMDD.
root@TPServer:~#
```

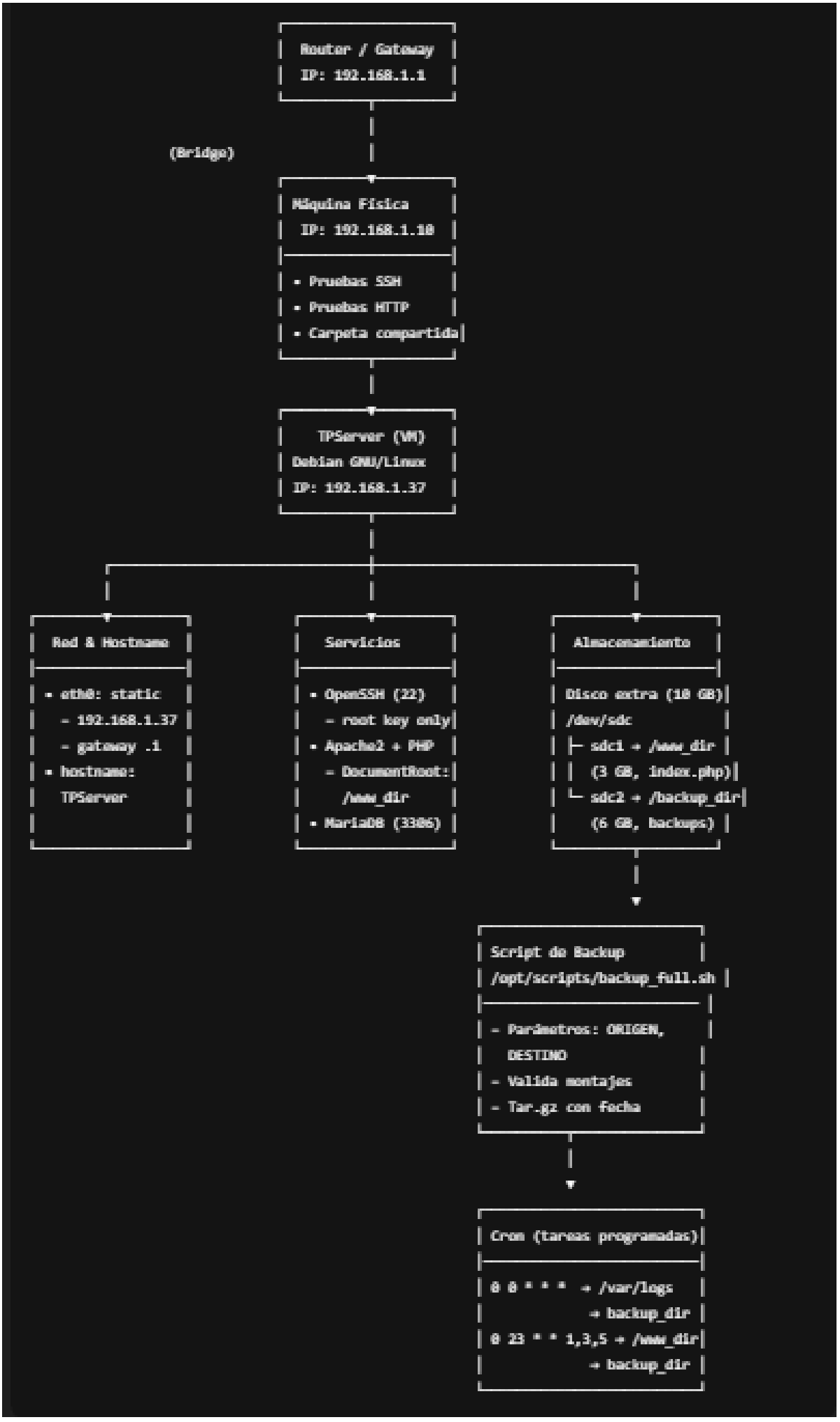
automatizr:

```
#
# m h  dom mon dow   command
@reboot /usr/sbin/iptables-restore /root/myfw.txt
0 0 * * * /opt/scripts/backup_full.sh /var/logs /backup_dir
0 23 * * 1,3,4 /opt/scripts/backup_full.sh /www_dir /backup_dir
root@TPServer:~#
```

montar perma:

```
#
# <file system> <mount point>   <type>  <options>       <dump>  <pass>
# / was on /dev/sda1 during installation
UUID=cd2cb4ca-39bd-4522-919c-e4ceb81b5ae8 /               ext4    errors=remount-ro 0
# swap was on /dev/sda5 during installation
UUID=e550cf9e-dc94-442c-b9c4-9c12f05024b3 none            swap    sw              0
/dev/sr0        /media/cdrom0   udf,iso9660 user,noauto     0       0
/dev/sdb1       /home           ext4    rw,auto         0       0
/dev/sdc1       /www_dir        ext4    defaults        0       2
/dev/sdc2       /backup_dir     ext4    defaults        0       2
/mnt/logs_real  /var/logs       none    bind            0       0
/mnt/www_real   /www_dir        none    bind            0       0
/mnt/backup_real /backup_dir    none    bind            0       0
```

topologia


Router / Gateway
IP: 192.168.1.1
(Bridge)
Máquina Física
IP: 192.168.1.10
• Pruebas SSH
• Pruebas HTTP
• Carpeta compartida
TPServer (VM)
Debian GNU/Linux
IP: 192.168.1.37
Red & Hostname
• eth0: static
- 192.168.1.37
- gateway .1
• hostname:
TPServer
Servicios
• OpenSSH (22)
- root key only
• Apache2 + PHP
- DocumentRoot:
/www_dir
• MariaDB (3306)
Almacenamiento
Disco extra (10 GB)
/dev/sdc
├─ sdc1 → /www_dir
│ (3 GB, index.php)
└─ sdc2 → /backup_dir
(6 GB, backups)
Script de Backup
/opt/scripts/backup_full.sh
- Parámetros: ORIGEN,
DESTINO
- Valida montajes
- Tar.gz con fecha
Cron (tareas programadas)
0 0 * * * → /var/logs
→ backup_dir
0 23 * * 1,3,5 → /www_dir
→ backup_dir