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### **Montaxe de dispositivos de almacenamento I**



9. Montaxe de dispositivos de almacenamento (inclúe as capturas de pantalla que sexan necesarias)

- a) Engade a unha máquina virtual Linux un novo sistema de almacenamento de 10 GB. Formatea esa nova unidade en ext4 baixo un esquema MBR.
- b) Mostra en gparted a unidade que creaches no punto anterior,
- c) Configura o sistema linux para que este sistema de arquivos se monte en /mnt/cloud de forma automática durante o inicio do sistema e coas opcións de montaxe por defecto. Configura o sistema de arquivos para que non se efectúe copia de seguridade nin se efectúe comprobación do sistema de arquivos.
- d) Edita a configuración para que se active a comprobación do sistema de arquivos cando se execute fsck,
- e) Edita a configuración para que este sistema de arquivos non se monte de forma automática durante o inicio do sistema,
- f) Monta de forma manual o sistema de arquivos da unidade de 10GB
- g) Edita de novo a configuración para que o sistema de arquivos se monte de forma automática en /mnt/cloud pero en modo de so lectura.
- h) Edita de novo a configuración para que o sistema de arquivos se monte de forma automática en /mnt/cloud (en modo lectura escritura) pero sin a posibilidade de executar procesos dende ese punto de montaxe. Para probalo descarga e trata de executar Geekbench dende ese punto de montaxe.

### **Resposta**

a)

```

UD2_P3_Ubuntu_rin_Rodrigo [Corriendo] - Oracle VM VirtualBox
Archivo  Máquina  Ver  Entrada  Dispositivos  Ayuda
Actividades  Terminal  9 de ene 17:50
rodrigo@rodrigo-VirtualBox: ~
rodrigo@rodrigo-VirtualBox:~$ man mkfs
rodrigo@rodrigo-VirtualBox:~$ sudo mkfs -t ext4 /dev/sdb
[sudo] contraseña para rodrigo:
mke2fs 1.46.5 (30-Dec-2021)
Se está creando un sistema de ficheros con 2621440 bloques de 4k y 655360 nodos
-i
UUID del sistema de ficheros: d63674a3-05ce-4ab2-99be-836d2335d128
Respalos del superbloque guardados en los bloques:
    32768, 98304, 163840, 229376, 294912, 819200, 884736, 1605632
Reservando las tablas de grupo: hecho
Escribiendo las tablas de nodos-i: hecho
Creando el fichero de transacciones (16384 bloques): hecho
Escribiendo superbloques y la información contable del sistema de archivos: 0/
hecho
rodrigo@rodrigo-VirtualBox:~$ sudo fdisk -l /dev/sdb
Disco /dev/sdb: 10 GiB, 10737418240 bytes, 20971520 sectores
Disk model: VBOX HARDDISK
Unidades: sectores de 1 * 512 = 512 bytes
Tamaño de sector (lógico/físico): 512 bytes / 512 bytes
Tamaño de E/S (mínimo/óptimo): 512 bytes / 512 bytes
rodrigo@rodrigo-VirtualBox:~$

```

Corregido (/dev/sdb1):

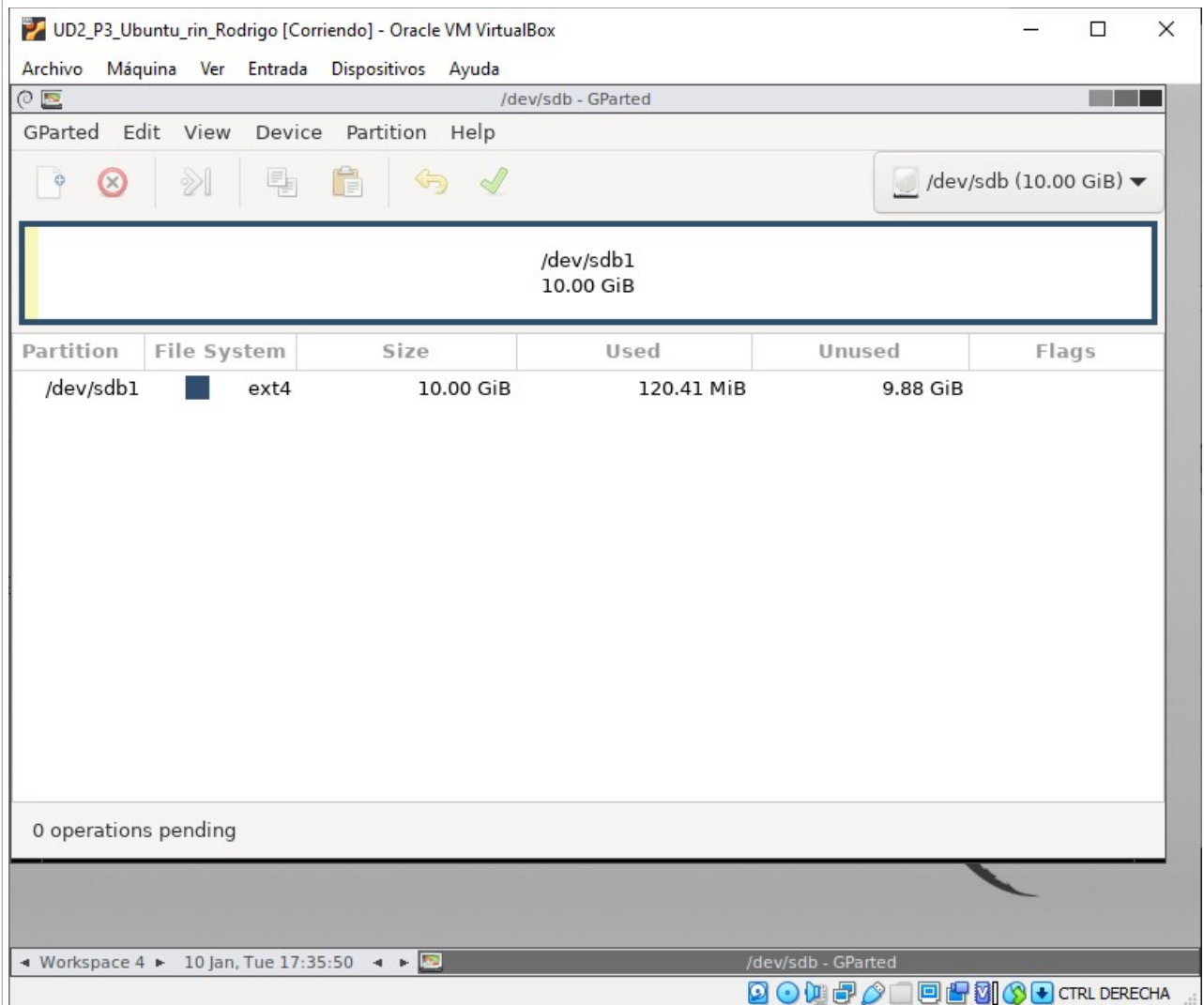
```

Disco /dev/sdb: 10 GiB, 10737418240 bytes, 20971520 sectores
Disk model: VBOX HARDDISK
Unidades: sectores de 1 * 512 = 512 bytes
Tamaño de sector (lógico/físico): 512 bytes / 512 bytes
Tamaño de E/S (mínimo/óptimo): 512 bytes / 512 bytes
Tipo de etiqueta de disco: dos
Identificador del disco: 0x7a4273fc

Dispositivo Inicio Comienzo      Final Sectores Tamaño Id Tipo
/dev/sdb1          2048 20971519 20969472    10G 83 Linux

```

## b) (Corregido)



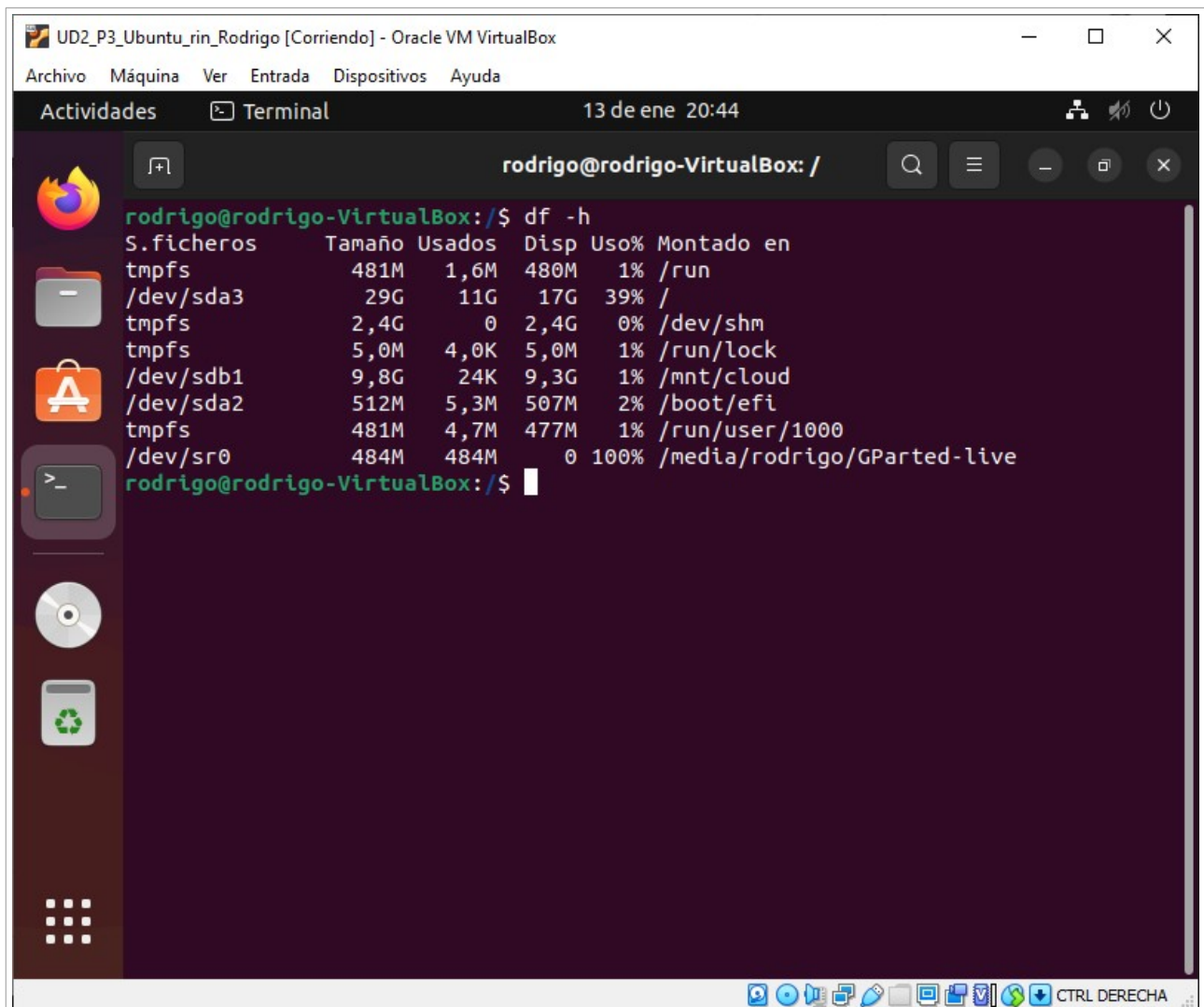
c)

The screenshot shows a terminal window titled "UD2\_P3\_Ubuntu\_rin\_Rodrigo [Corriendo] - Oracle VM VirtualBox". The terminal output shows the user attempting to mount /mnt/cloud, failing because it's not in /etc/fstab. They then use 'cat' to display the contents of /etc/fstab, which includes instructions for using 'blkid' and a table of filesystem entries.

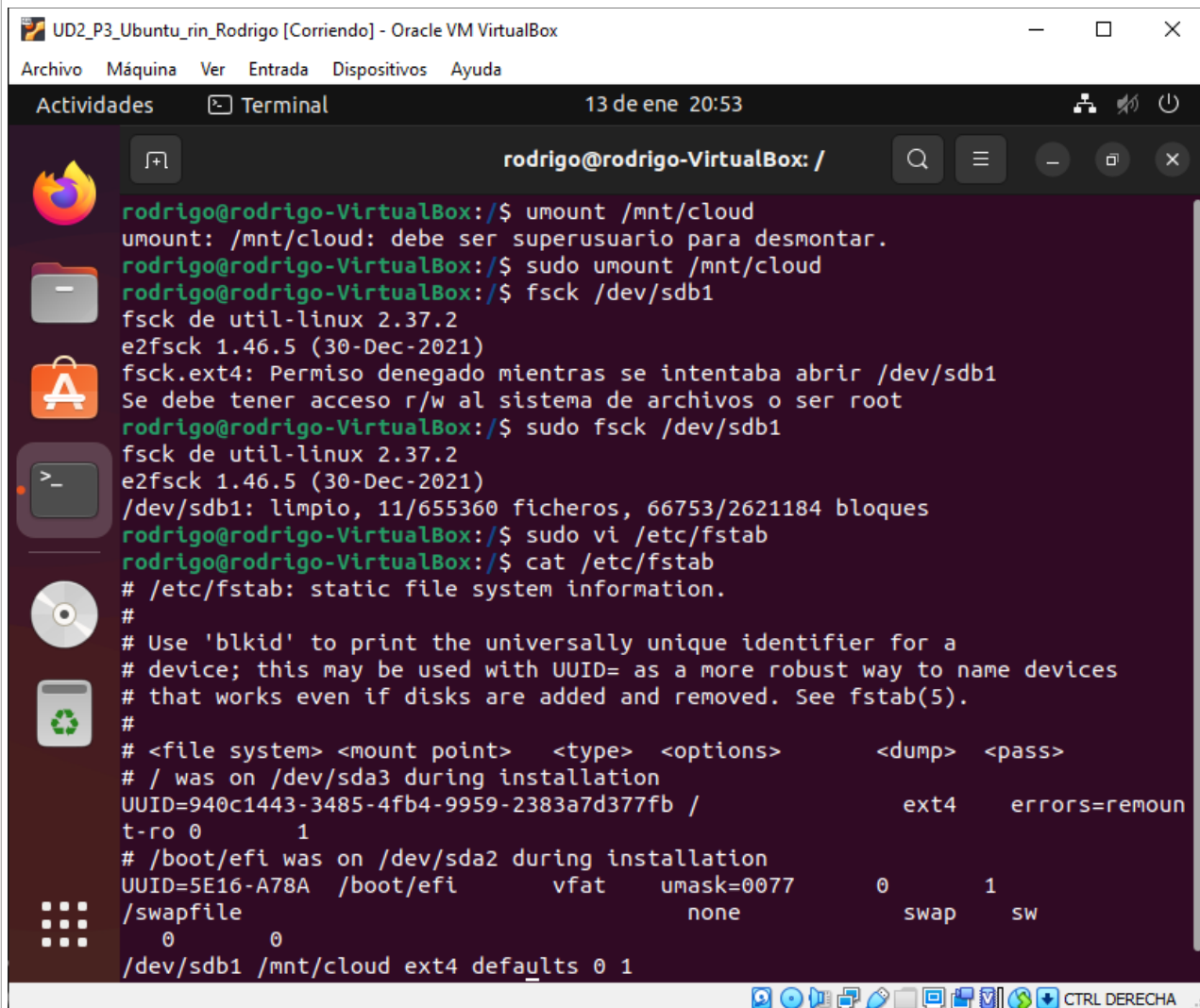
```

rodrigo@rodrigo-VirtualBox:~$ mount /mnt/cloud
mount: /mnt/cloud: no se puede encontrar en /etc/fstab.
rodrigo@rodrigo-VirtualBox:~$ sudo nano /etc/fstab
rodrigo@rodrigo-VirtualBox:~$ cat /etc/fstab
# /etc/fstab: static file system information.
#
# Use 'blkid' to print the universally unique identifier for a
# device; this may be used with UUID= as a more robust way to name devices
# that works even if disks are added and removed. See fstab(5).
#
# <file system> <mount point> <type> <options>          <dump>  <pass>
# / was on /dev/sda3 during installation
UUID=940c1443-3485-4fb4-9959-2383a7d377fb /
t-ro 0      1
# /boot/efi was on /dev/sda2 during installation
UUID=5E16-A78A /boot/efi vfat umask=0077 0      1
/swapfile
0          0          none      swap      sw
/dev/sdb1 /mnt/cloud ext4 defaults 0 0
rodrigo@rodrigo-VirtualBox:~$

```



d)



The screenshot shows a terminal window titled "UD2\_P3\_Ubuntu\_rin\_Rodrigo [Corriendo] - Oracle VM VirtualBox". The window has a menu bar with "Archivo", "Máquina", "Ver", "Entrada", "Dispositivos", and "Ayuda". Below the menu bar is a toolbar with "Actividades" and "Terminal" buttons, and a clock showing "13 de ene 20:53". The terminal itself has a title bar "rodrigo@rodrigo-VirtualBox: /" and a search bar. The terminal output shows the following commands and their results:

```
rodrigo@rodrigo-VirtualBox:/$ umount /mnt/cloud
umount: /mnt/cloud: debe ser superusuario para desmontar.
rodrigo@rodrigo-VirtualBox:/$ sudo umount /mnt/cloud
rodrigo@rodrigo-VirtualBox:/$ fsck /dev/sdb1
fsck de util-linux 2.37.2
e2fsck 1.46.5 (30-Dec-2021)
fsck.ext4: Permiso denegado mientras se intentaba abrir /dev/sdb1
Se debe tener acceso r/w al sistema de archivos o ser root
rodrigo@rodrigo-VirtualBox:/$ sudo fsck /dev/sdb1
fsck de util-linux 2.37.2
e2fsck 1.46.5 (30-Dec-2021)
/dev/sdb1: limpio, 11/655360 ficheros, 66753/2621184 bloques
rodrigo@rodrigo-VirtualBox:/$ sudo vi /etc/fstab
rodrigo@rodrigo-VirtualBox:/$ cat /etc/fstab
# /etc/fstab: static file system information.
#
# Use 'blkid' to print the universally unique identifier for a
# device; this may be used with UUID= as a more robust way to name devices
# that works even if disks are added and removed. See fstab(5).
#
# <file system> <mount point> <type> <options> <dump> <pass>
# / was on /dev/sda3 during installation
UUID=940c1443-3485-4fb4-9959-2383a7d377fb / ext4 errors=remoun
t-ro 0 1
# /boot/efi was on /dev/sda2 during installation
UUID=5E16-A78A /boot/efi vfat umask=0077 0 1
/swapfile none swap sw 0 0
/dev/sdb1 /mnt/cloud ext4 defaults 0 1
```

UD2\_P3\_Ubuntu\_rin\_Rodrigo [Corriendo] - Oracle VM VirtualBox

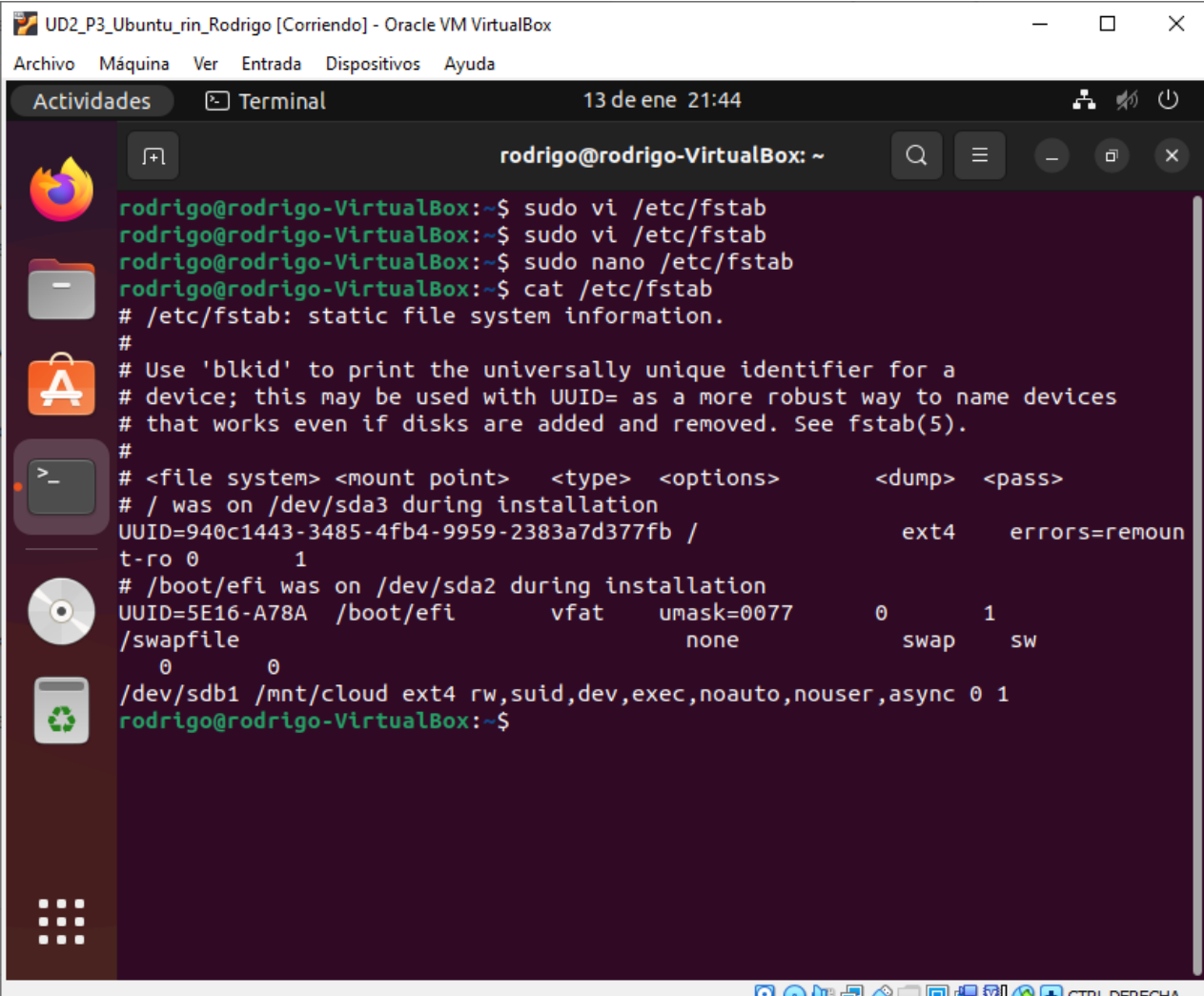
Archivo Máquina Ver Entrada Dispositivos Ayuda

Actividades Terminal 13 de ene 20:54

rodrigo@rodrigo-VirtualBox: /mnt

```
fsck de util-linux 2.37.2
e2fsck 1.46.5 (30-Dec-2021)
/dev/sdb1: limpio, 11/655360 ficheros, 66753/2621184 bloques
rodrigo@rodrigo-VirtualBox:/$ sudo vi /etc/fstab
rodrigo@rodrigo-VirtualBox:/$ cat /etc/fstab
# /etc/fstab: static file system information.
#
# Use 'blkid' to print the universally unique identifier for a
# device; this may be used with UUID= as a more robust way to name devices
# that works even if disks are added and removed. See fstab(5).
#
# <file system> <mount point> <type> <options> <dump> <pass>
# / was on /dev/sda3 during installation
UUID=940c1443-3485-4fb4-9959-2383a7d377fb / ext4 errors=remoun
t-ro 0 1
# /boot/efi was on /dev/sda2 during installation
UUID=5E16-A78A /boot/efi vfat umask=0077 0 1
/swapfile none swap sw
0 0
/dev/sdb1 /mnt/cloud ext4 defaults 0 1
rodrigo@rodrigo-VirtualBox:/$ cd /mnt
rodrigo@rodrigo-VirtualBox:/mnt$ touch /forcefsck
touch: no se puede efectuar 'touch' sobre '/forcefsck': Permiso denegado
rodrigo@rodrigo-VirtualBox:/mnt$ sudo touch /forcefsck
rodrigo@rodrigo-VirtualBox:/mnt$ ls /
bin datos forcefsck lib32 lost+found opt run srv tmp
boot dev home lib64 media proc sbin swapfile usr
cdrom etc lib libx32 mnt root snap sys var
rodrigo@rodrigo-VirtualBox:/mnt$
```

e)



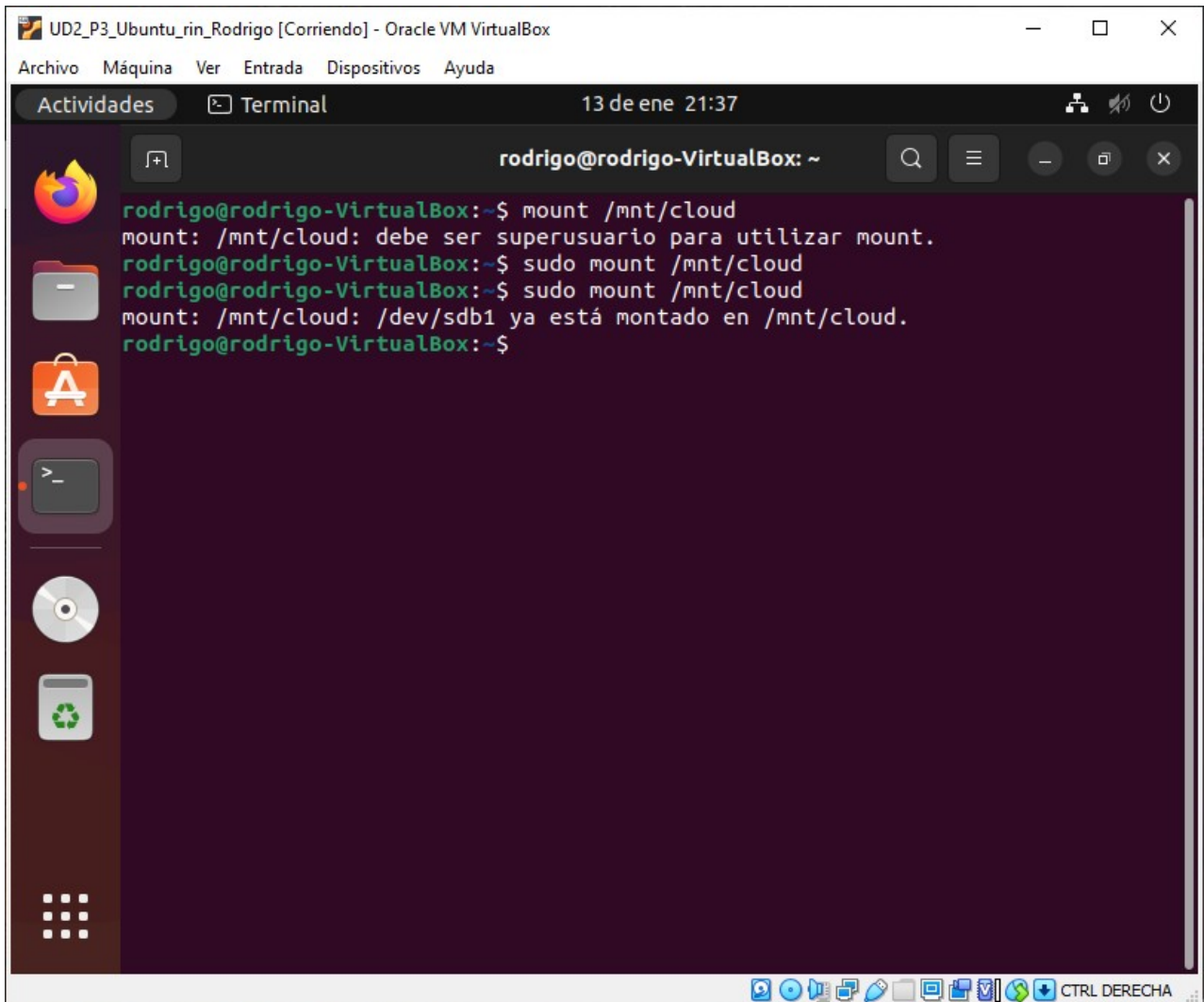
The screenshot shows a terminal window titled "UD2\_P3\_Ubuntu\_rin\_Rodrigo [Corriendo] - Oracle VM VirtualBox". The terminal output shows the user running several commands to view the contents of the `/etc/fstab` file. The output is as follows:

```
rodrigo@rodrigo-VirtualBox:~$ sudo vi /etc/fstab
rodrigo@rodrigo-VirtualBox:~$ sudo vi /etc/fstab
rodrigo@rodrigo-VirtualBox:~$ sudo nano /etc/fstab
rodrigo@rodrigo-VirtualBox:~$ cat /etc/fstab
# /etc/fstab: static file system information.
#
# Use 'blkid' to print the universally unique identifier for a
# device; this may be used with UUID= as a more robust way to name devices
# that works even if disks are added and removed. See fstab(5).
#
# <file system> <mount point> <type> <options> <dump> <pass>
# / was on /dev/sda3 during installation
UUID=940c1443-3485-4fb4-9959-2383a7d377fb / ext4 errors=remoun
t-ro 0 1
# /boot/efi was on /dev/sda2 during installation
UUID=5E16-A78A /boot/efi vfat umask=0077 0 1
/swapfile none swap sw
0 0
/dev/sdb1 /mnt/cloud ext4 rw,suid,dev,exec,noauto,nouser,async 0 1
rodrigo@rodrigo-VirtualBox:~$
```

The terminal window includes a sidebar with application icons (Firefox, Files, LibreOffice, etc.) and a top bar with the date and time (13 de ene 21:44). The bottom of the window shows a taskbar with various system icons and the text "CTRL DERECHA".



f)

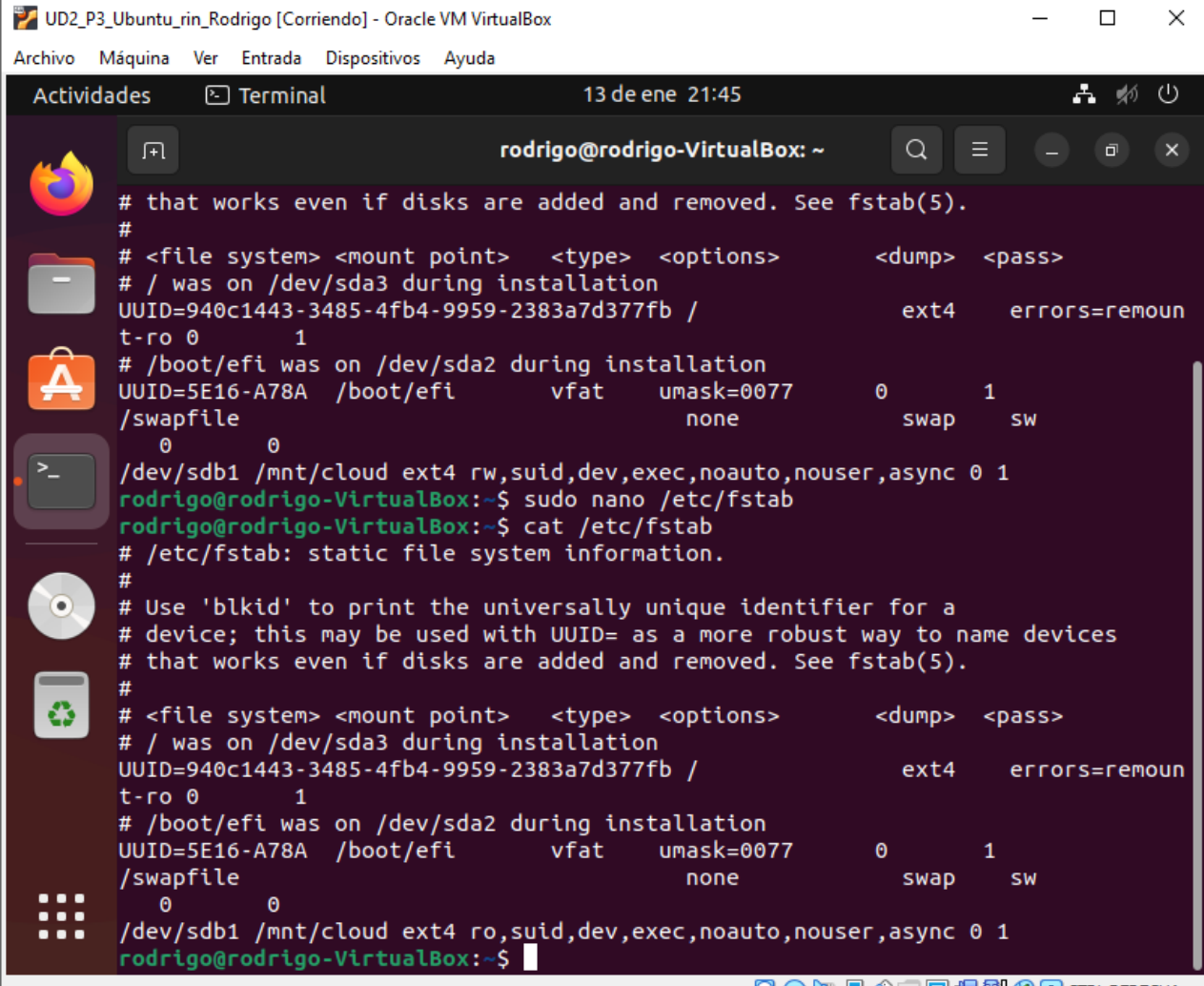


The screenshot shows a VirtualBox window titled "UD2\_P3\_Ubuntu\_rin\_Rodrigo [Corriendo] - Oracle VM VirtualBox". The window contains a terminal window titled "Terminal" with the prompt "rodrigo@rodrigo-VirtualBox: ~". The terminal output shows the following commands and responses:

```
rodrigo@rodrigo-VirtualBox:~$ mount /mnt/cloud
mount: /mnt/cloud: debe ser superusuario para utilizar mount.
rodrigo@rodrigo-VirtualBox:~$ sudo mount /mnt/cloud
rodrigo@rodrigo-VirtualBox:~$ sudo mount /mnt/cloud
mount: /mnt/cloud: /dev/sdb1 ya está montado en /mnt/cloud.
rodrigo@rodrigo-VirtualBox:~$
```

The terminal window is part of a desktop environment with a sidebar on the left containing icons for Firefox, Files, Applications, Dash, and a power button. The bottom of the window shows a taskbar with various application icons and a system tray on the right with a "CTRL DERECHA" button.

g)



UD2\_P3\_Ubuntu\_rin\_Rodrigo [Corriendo] - Oracle VM VirtualBox

Archivo Máquina Ver Entrada Dispositivos Ayuda

Actividades Terminal 13 de ene 21:45

rodrigo@rodrigo-VirtualBox: ~

```
# that works even if disks are added and removed. See fstab(5).
#
# <file system> <mount point> <type> <options> <dump> <pass>
# / was on /dev/sda3 during installation
UUID=940c1443-3485-4fb4-9959-2383a7d377fb / ext4 errors=remoun
t-ro 0 1
# /boot/efi was on /dev/sda2 during installation
UUID=5E16-A78A /boot/efi vfat umask=0077 0 1
/swapfile none swap sw
0 0
/dev/sdb1 /mnt/cloud ext4 rw,suid,dev,exec,noauto,nouser,async 0 1
rodrigo@rodrigo-VirtualBox:~$ sudo nano /etc/fstab
rodrigo@rodrigo-VirtualBox:~$ cat /etc/fstab
# /etc/fstab: static file system information.
#
# Use 'blkid' to print the universally unique identifier for a
# device; this may be used with UUID= as a more robust way to name devices
# that works even if disks are added and removed. See fstab(5).
#
# <file system> <mount point> <type> <options> <dump> <pass>
# / was on /dev/sda3 during installation
UUID=940c1443-3485-4fb4-9959-2383a7d377fb / ext4 errors=remoun
t-ro 0 1
# /boot/efi was on /dev/sda2 during installation
UUID=5E16-A78A /boot/efi vfat umask=0077 0 1
/swapfile none swap sw
0 0
/dev/sdb1 /mnt/cloud ext4 ro,suid,dev,exec,noauto,nouser,async 0 1
rodrigo@rodrigo-VirtualBox:~$
```

CTRL DERECHA

h)

The screenshot shows a terminal window titled "UD2\_P3\_Ubuntu\_rin\_Rodrigo [Corriendo] - Oracle VM VirtualBox". The terminal output shows the following commands and results:

```
rodrigo@rodrigo-VirtualBox: ~/Descargas$ ls
Geekbench-5.5.0-Linux.tar.gz
rodrigo@rodrigo-VirtualBox: ~/Descargas$ tar -xvf Geekbench-5.5.0-Linux.tar.gz
Geekbench-5.5.0-Linux/
Geekbench-5.5.0-Linux/geekbench5
Geekbench-5.5.0-Linux/geekbench_x86_64
Geekbench-5.5.0-Linux/geekbench.plar
rodrigo@rodrigo-VirtualBox: ~/Descargas$ ls Geekbench-5.5.0-Linux
geekbench5  geekbench.plar  geekbench_x86_64
rodrigo@rodrigo-VirtualBox: ~/Descargas$ sudo cp -r Geekbench-5.5.0-Linux /mnt/cloud/
rodrigo@rodrigo-VirtualBox: ~/Descargas$ ls /mnt/cloud/
Geekbench-5.5.0-Linux  lost+found
rodrigo@rodrigo-VirtualBox: ~/Descargas$ cd /mnt/cloud/
rodrigo@rodrigo-VirtualBox: /mnt/cloud$ cd /mnt/cloud/Geekbench-5.5.0-Linux/
rodrigo@rodrigo-VirtualBox: /mnt/cloud/Geekbench-5.5.0-Linux$ ls
geekbench5  geekbench.plar  geekbench_x86_64
rodrigo@rodrigo-VirtualBox: /mnt/cloud/Geekbench-5.5.0-Linux$ ./geekbench5
bash: ./geekbench5: Permiso denegado
rodrigo@rodrigo-VirtualBox: /mnt/cloud/Geekbench-5.5.0-Linux$ cat /etc/fstab
# /etc/fstab: static file system information.
#
# Use 'blkid' to print the universally unique identifier for a
# device; this may be used with UUID= as a more robust way to name devices
# that works even if disks are added and removed. See fstab(5).
#
# <file system> <mount point> <type> <options>          <dump>  <pass>
# / was on /dev/sda3 during installation
UUID=940c1443-3485-4fb4-9959-2383a7d377fb /          ext4      errors=remount-ro 0        1
# /boot/efi was on /dev/sda2 during installation
UUID=5E16-A78A /boot/efi  vfat      umask=0077       0        1
/swapfile   none      swap      sw                0        0
/dev/sdb1 /mnt/cloud ext4      rw,suid,dev,noexec,auto,nouser,async 0 1
rodrigo@rodrigo-VirtualBox: /mnt/cloud/Geekbench-5.5.0-Linux$
```