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Xestión de disco II

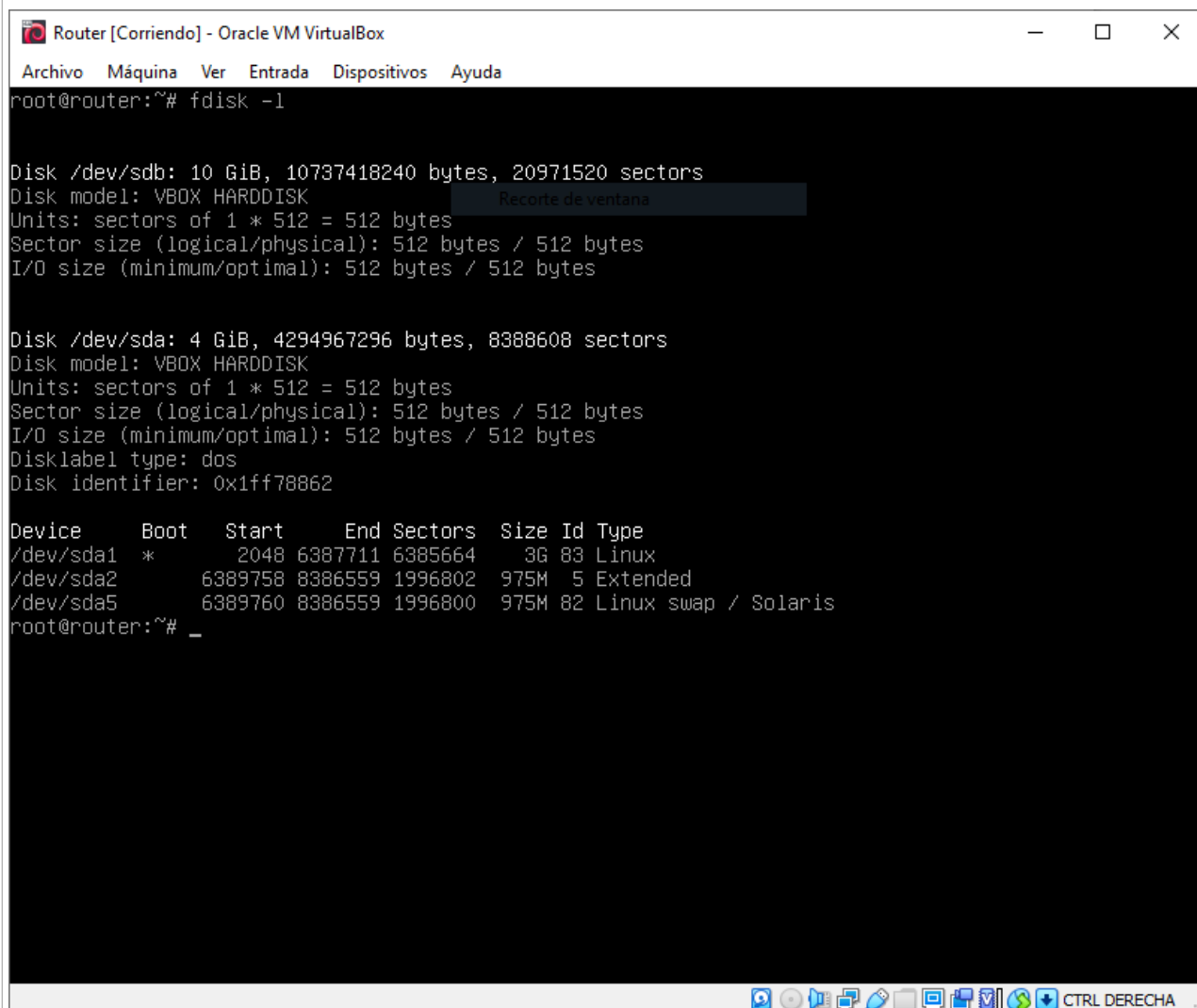


9. Realiza os seguintes exercicios empregando fdisk.

- a) Mostrar todas as particións de discos.
- b) Borra a partición do disco de 10 GB que engadiches na práctica de montaxe de sistemas de almacenamento
- c) Crea unha nova partición que ocupe un 50% do tamaño do disco
- d) Formatea nova partición con sistema de arquivos ext4
- e) Crea unha nova partición que ocupe un 25% do tamaño do disco
- f) Formatea nova partición con sistema de arquivos fat
- g) Crea unha nova partición que ocupe un 25% do tamaño do disco
- h) Formatea nova partición con sistema de arquivos ntfs
- i) Investiga se se pode empregar algún comando para ver os tipos de sistemas de arquivos que están instalados nas distintas particións

Resposta

a)



```
Router [Corriendo] - Oracle VM VirtualBox
Archivo  Máquina  Ver  Entrada  Dispositivos  Ayuda
root@router:~# fdisk -l

Disk /dev/sdb: 10 GiB, 10737418240 bytes, 20971520 sectors
Disk model: VBOX HARDDISK
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes

Disk /dev/sda: 4 GiB, 4294967296 bytes, 8388608 sectors
Disk model: VBOX HARDDISK
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: dos
Disk identifier: 0x1ff78862

Device      Boot    Start        End Sectors   Size Id Type
/dev/sda1   *          2048    6387711 6385664    3G 83 Linux
/dev/sda2                6389758    8386559 1996802    975M  5 Extended
/dev/sda5                6389760    8386559 1996800    975M 82 Linux swap / Solaris
root@router:~# _
```

c)

```
Router [Corriendo] - Oracle VM VirtualBox
Archivo  Máquina  Ver  Entrada  Dispositivos  Ayuda

Disk model: VBOX HARDDISK
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: dos
Disk identifier: 0x1ff78862

Device      Boot      Start        End  Sectors  Size Id Type
/dev/sda1   *          2048 6387711 6385664    3G 83 Linux
/dev/sda2             6389758 8386559 1996802    975M  5 Extended
/dev/sda5             6389760 8386559 1996800    975M 82 Linux swap / Solaris
root@router:~# fdisk /dev/sdb

Welcome to fdisk (util-linux 2.36.1).
Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.

Device does not contain a recognized partition table.
Created a new DOS disklabel with disk identifier 0x40c27366.

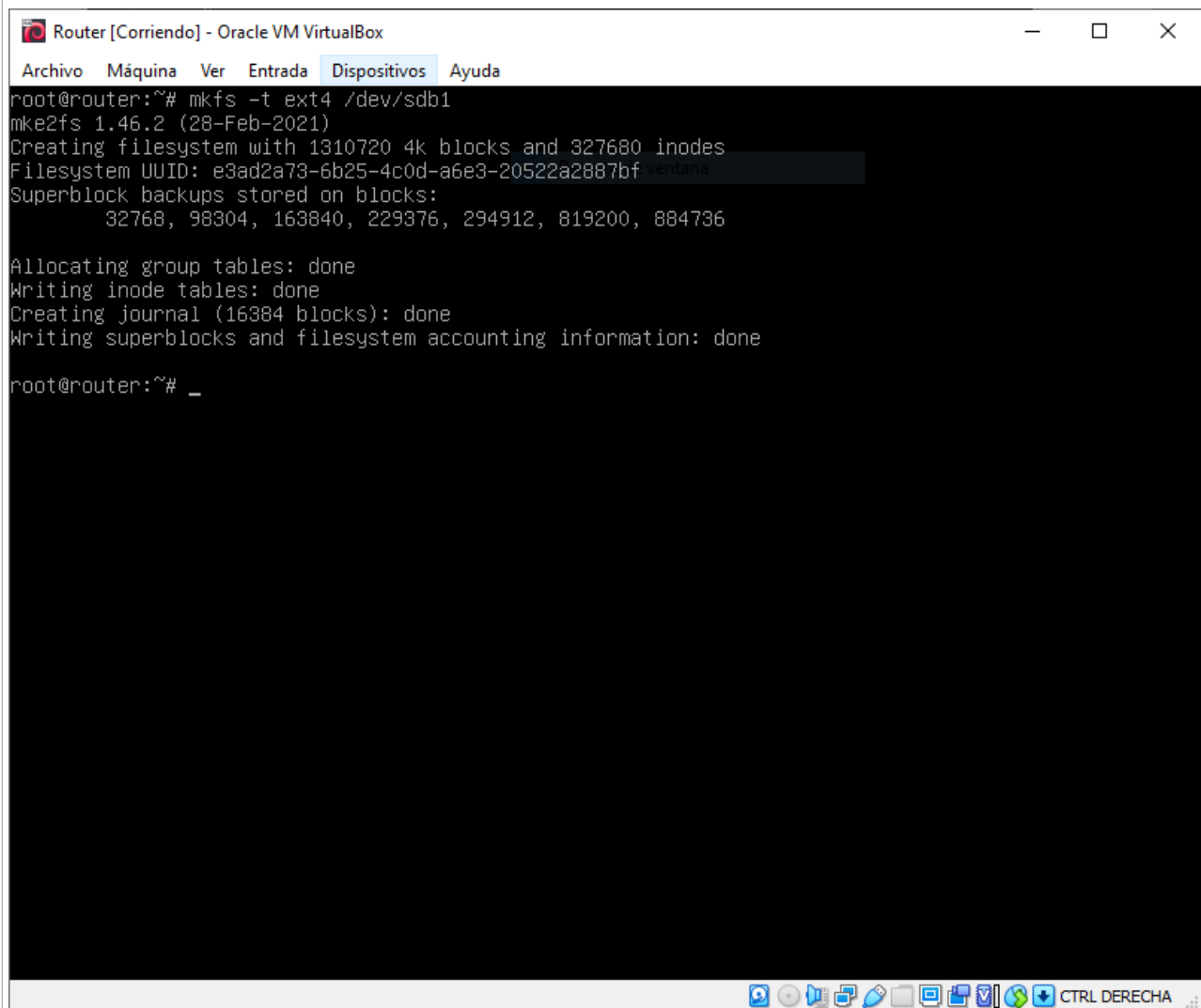
Command (m for help): n
Partition type
  p   primary (0 primary, 0 extended, 4 free)
  e   extended (container for logical partitions)
Select (default p): p
Partition number (1-4, default 1): 1
First sector (2048-20971519, default 2048):
Last sector, +/-sectors or +/-size{K,M,G,T,P} (2048-20971519, default 20971519): +5G

Created a new partition 1 of type 'Linux' and of size 5 GiB.

Command (m for help): w
The partition table has been altered.
Calling ioctl() to re-read partition table.
Syncing disks.

root@router:~# _
```

d)



The screenshot shows a terminal window titled "Router [Corriendo] - Oracle VM VirtualBox". The terminal output is as follows:

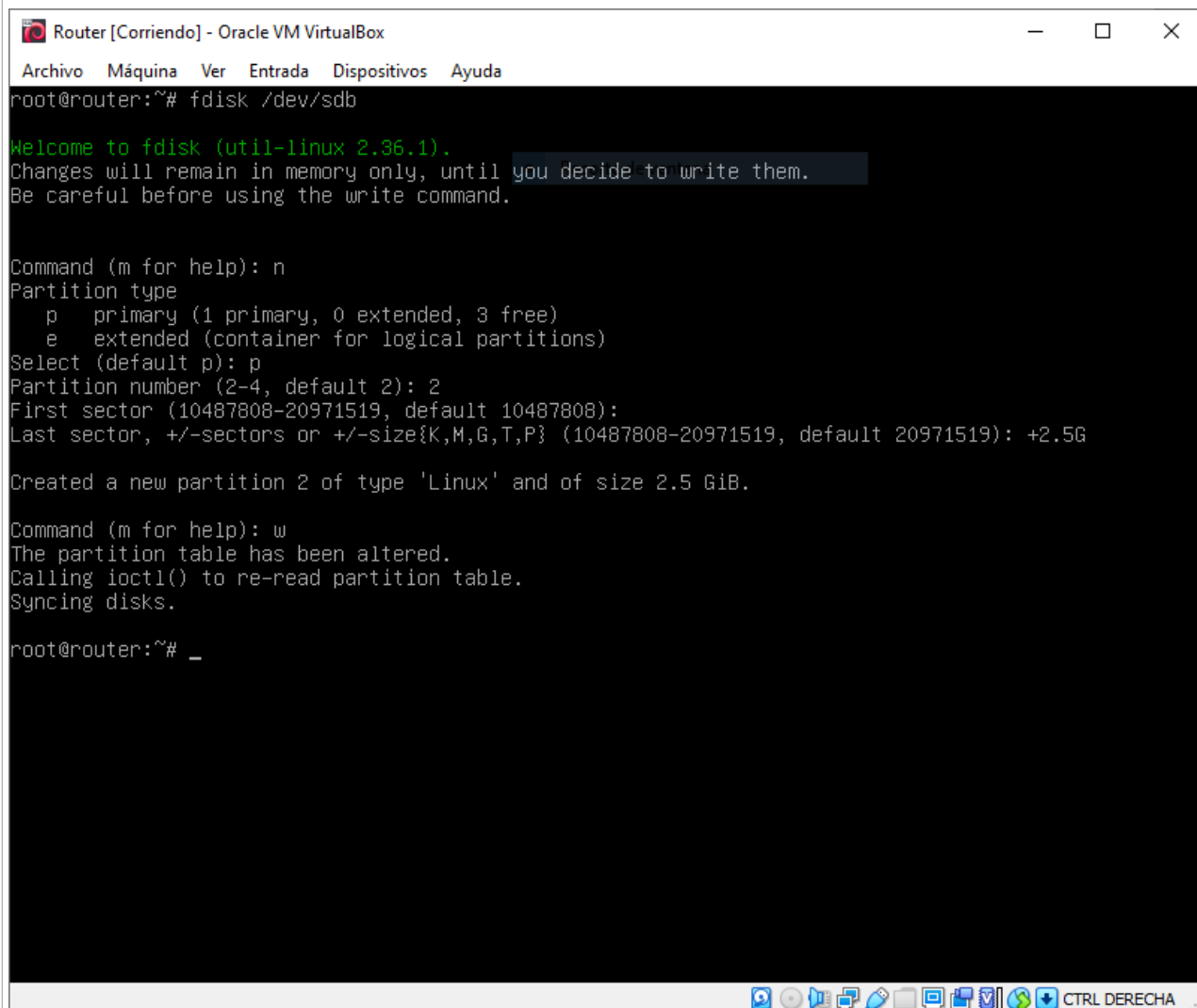
```
root@router:~# mkfs -t ext4 /dev/sdb1
mke2fs 1.46.2 (28-Feb-2021)
Creating filesystem with 1310720 4k blocks and 327680 inodes
Filesystem UUID: e3ad2a73-6b25-4c0d-a6e3-20522a2887bf
Superblock backups stored on blocks:
    32768, 98304, 163840, 229376, 294912, 819200, 884736

Allocating group tables: done
Writing inode tables: done
Creating journal (16384 blocks): done
Writing superblocks and filesystem accounting information: done

root@router:~# _
```

The terminal window has a menu bar with "Archivo", "Máquina", "Ver", "Entrada", "Dispositivos", and "Ayuda". The "Dispositivos" menu is currently selected. The terminal window is running on a Linux system, as indicated by the prompt "root@router:~#". The terminal output shows the successful creation of an ext4 filesystem on /dev/sdb1. The filesystem has 1310720 4k blocks and 327680 inodes. The UUID is e3ad2a73-6b25-4c0d-a6e3-20522a2887bf. Superblock backups are stored on blocks 32768, 98304, 163840, 229376, 294912, 819200, and 884736. The group tables, inode tables, journal, and superblocks are all successfully created and written.

e)



```
Router [Corriendo] - Oracle VM VirtualBox
Archivo  Máquina  Ver  Entrada  Dispositivos  Ayuda
root@router:~# fdisk /dev/sdb

Welcome to fdisk (util-linux 2.36.1).
Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.

Command (m for help): n
Partition type
  p   primary (1 primary, 0 extended, 3 free)
  e   extended (container for logical partitions)
Select (default p): p
Partition number (2-4, default 2): 2
First sector (10487808-20971519, default 10487808):
Last sector, +/-sectors or +/-size{K,M,G,T,P} (10487808-20971519, default 20971519): +2.5G

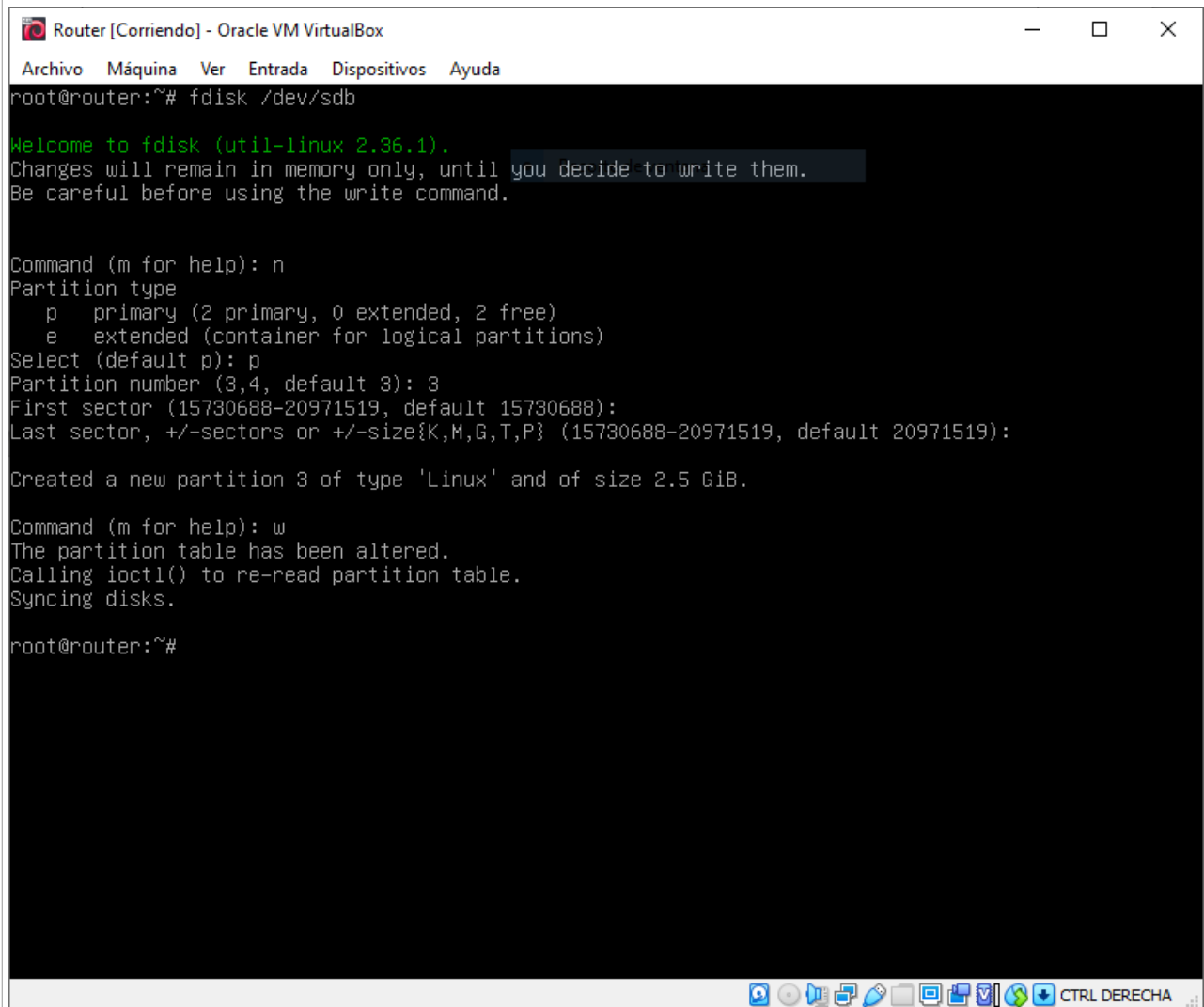
Created a new partition 2 of type 'Linux' and of size 2.5 GiB.

Command (m for help): w
The partition table has been altered.
Calling ioctl() to re-read partition table.
Syncing disks.

root@router:~# _
```

f)

g)



```
Router [Corriendo] - Oracle VM VirtualBox
Archivo  Máquina  Ver  Entrada  Dispositivos  Ayuda
root@router:~# fdisk /dev/sdb

Welcome to fdisk (util-linux 2.36.1).
Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.

Command (m for help): n
Partition type
  p   primary (2 primary, 0 extended, 2 free)
  e   extended (container for logical partitions)
Select (default p): p
Partition number (3,4, default 3): 3
First sector (15730688-20971519, default 15730688):
Last sector, +/-sectors or +/-size{K,M,G,T,P} (15730688-20971519, default 20971519):

Created a new partition 3 of type 'Linux' and of size 2.5 GiB.

Command (m for help): w
The partition table has been altered.
Calling ioctl() to re-read partition table.
Syncing disks.

root@router:~#
```

h)

```
Router [Corriendo] - Oracle VM VirtualBox
Archivo  Máquina  Ver  Entrada  Dispositivos  Ayuda
Need to get 581 kB/653 kB of archives.
After this operation, 2,043 kB of additional disk space will be used.
Do you want to continue? [Y/n] Y
Get:1 http://deb.debian.org/debian bullseye/main amd64 libntfs-3g883 amd64 1:2017.3.23AR.3-4+deb11u3
[170 kB]
Get:2 http://deb.debian.org/debian bullseye/main amd64 ntfs-3g amd64 1:2017.3.23AR.3-4+deb11u3 [410
kB]
Fetched 581 kB in 0s (1,682 kB/s)
Selecting previously unselected package fuse.
(Reading database ... 32591 files and directories currently installed.)
Preparing to unpack .../fuse_2.9.9-5_amd64.deb ...
Unpacking fuse (2.9.9-5) ...
Selecting previously unselected package libntfs-3g883.
Preparing to unpack .../libntfs-3g883_1%3a2017.3.23AR.3-4+deb11u3_amd64.deb ...
Unpacking libntfs-3g883 (1:2017.3.23AR.3-4+deb11u3) ...
Selecting previously unselected package ntfs-3g.
Preparing to unpack .../ntfs-3g_1%3a2017.3.23AR.3-4+deb11u3_amd64.deb ...
Unpacking ntfs-3g (1:2017.3.23AR.3-4+deb11u3) ...
Setting up fuse (2.9.9-5) ...
update-initramfs: deferring update (trigger activated)
Setting up libntfs-3g883 (1:2017.3.23AR.3-4+deb11u3) ...
Setting up ntfs-3g (1:2017.3.23AR.3-4+deb11u3) ...
Processing triggers for libc-bin (2.31-13+deb11u2) ...
Processing triggers for man-db (2.9.4-2) ...
Processing triggers for initramfs-tools (0.140) ...
update-initramfs: Generating /boot/initrd.img-5.10.0-12-amd64
root@router:~# mkfs.
mkfs.bfs      mkfs.ext2      mkfs.ext4      mkfs.minix     mkfs.ntfs
mkfs.cramfs   mkfs.ext3      mkfs.fat      mkfs.msdos     mkfs.vfat
root@router:~# mkfs.ntfs .
./              ./              .bash_history  .bashrc        .lessht        .profile
root@router:~# mkfs.ntfs /dev/sdb3
Cluster size has been automatically set to 4096 bytes.
Initializing device with zeroes: 100% - Done.
Creating NTFS volume structures.
mkntfs completed successfully. Have a nice day.
root@router:~#
```


i)

```
Router [Corriendo] - Oracle VM VirtualBox
Archivo  Máquina  Ver  Entrada  Dispositivos  Ayuda
root@router:~# parted -l
Model: ATA VBOX HARDDISK (scsi)
Disk /dev/sda: 4295MB
Sector size (logical/physical): 512B/512B
Partition Table: msdos
Disk Flags:

Number  Start   End     Size    Type     File system  Flags
 1      1049kB  3271MB  3269MB  primary  ext4          boot
 2      3272MB  4294MB  1022MB  extended
 5      3272MB  4294MB  1022MB  logical  linux-swap(v1)

Model: ATA VBOX HARDDISK (scsi)
Disk /dev/sdb: 10.7GB
Sector size (logical/physical): 512B/512B
Partition Table: msdos
Disk Flags:

Number  Start   End     Size    Type     File system  Flags
 1      1049kB  5370MB  5369MB  primary  ext4
 2      5370MB  8054MB  2684MB  primary  fat32
 3      8054MB  10.7GB  2683MB  primary  ntfs

root@router:~# _
```

CAMBIO DE TIPOS

```
Router [Corriendo] - Oracle VM VirtualBox
Archivo  Máquina  Ver  Entrada  Dispositivos  Ayuda

root@router:~# fdisk -l /dev/sdb
Disk /dev/sdb: 10 GiB, 10737418240 bytes, 20971520 sectors
Disk model: VBOX HARDDISK
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: dos
Disk identifier: 0x40c27366

Device      Boot      Start        End    Sectors   Size Id Type
/dev/sdb1                2048    10487807   10485760     5G 83 Linux
/dev/sdb2          10487808   15730687    5242880     2.5G  b W95 FAT32
/dev/sdb3          15730688   20971519    5240832     2.5G 86 NTFS volume set
root@router:~#
```