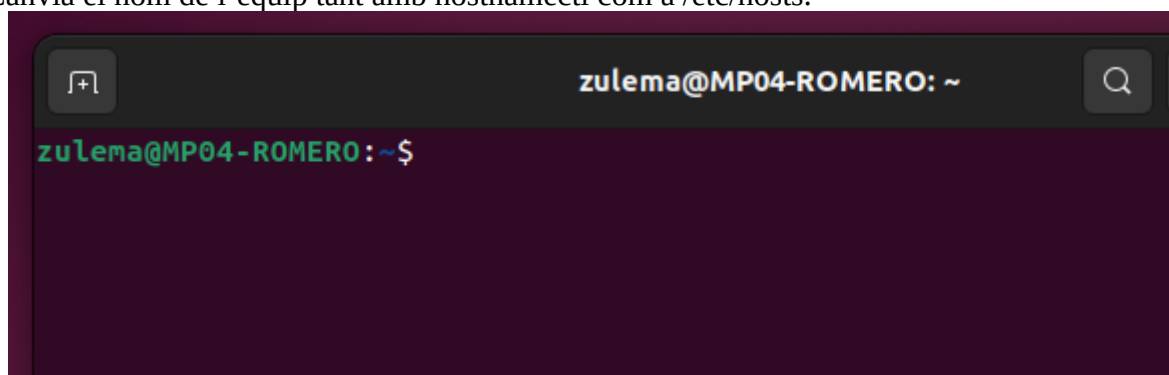


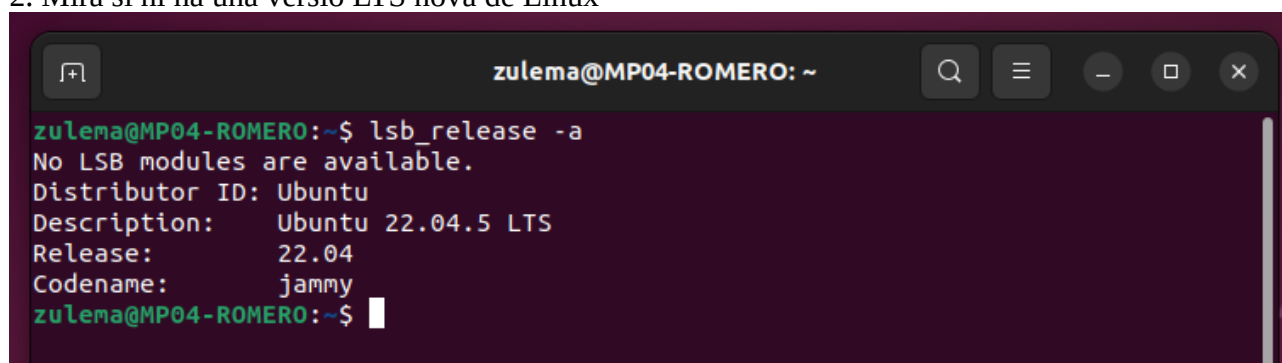
Activitat 1 - Gestió de disc a Linux

1. Canvia el nom de l'equip tant amb hostnamectl com a /etc/hosts.



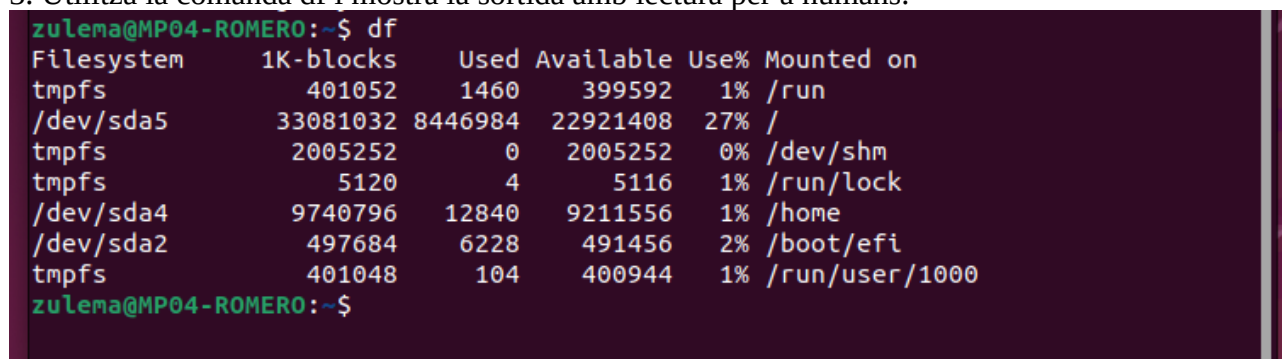
```
zulema@MP04-ROMERO: ~  
zulema@MP04-ROMERO:~$
```

2. Mira si hi ha una versió LTS nova de Linux



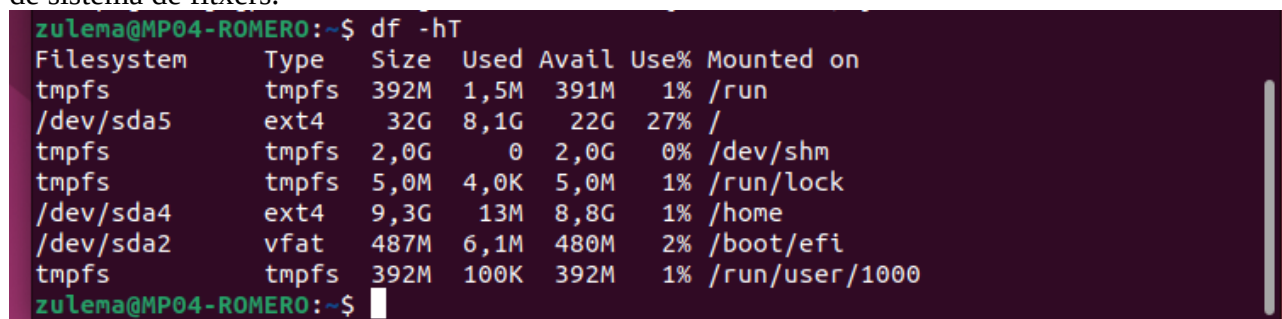
```
zulema@MP04-ROMERO: ~  
zulema@MP04-ROMERO:~$ lsb_release -a  
No LSB modules are available.  
Distributor ID: Ubuntu  
Description:    Ubuntu 22.04.5 LTS  
Release:        22.04  
Codename:       jammy  
zulema@MP04-ROMERO:~$
```

3. Utilitza la comanda df i mostra la sortida amb lectura per a humans.



```
zulema@MP04-ROMERO:~$ df  
Filesystem      1K-blocks    Used Available Use% Mounted on  
tmpfs           401052      1460    399592   1% /run  
/dev/sda5       33081032 8446984 22921408  27% /  
tmpfs           2005252        0 2005252   0% /dev/shm  
tmpfs           5120         4     5116   1% /run/lock  
/dev/sda4       9740796  12840   9211556   1% /home  
/dev/sda2       497684    6228   491456   2% /boot/efi  
tmpfs           401048     104   400944   1% /run/user/1000  
zulema@MP04-ROMERO:~$
```

4. Personalitza la comanda df per que mostri a la sortida tota la informació normal i també el tipus de sistema de fitxers.

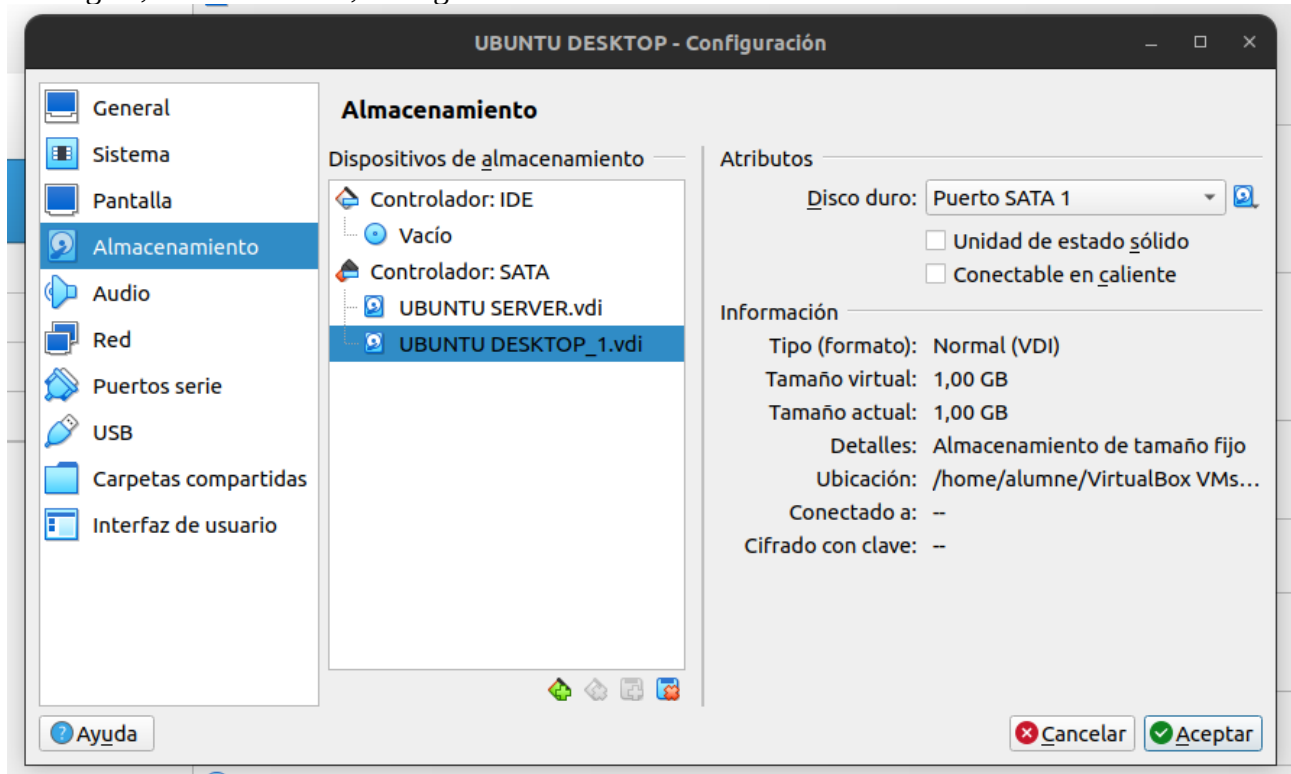


```
zulema@MP04-ROMERO:~$ df -hT  
Filesystem      Type      Size  Used Avail Use% Mounted on  
tmpfs           tmpfs     392M  1,5M  391M   1% /run  
/dev/sda5       ext4      32G   8,1G   22G  27% /  
tmpfs           tmpfs     2,0G    0    2,0G   0% /dev/shm  
tmpfs           tmpfs     5,0M   4,0K  5,0M   1% /run/lock  
/dev/sda4       ext4      9,3G   13M   8,8G   1% /home  
/dev/sda2       vfat      487M   6,1M  480M   2% /boot/efi  
tmpfs           tmpfs     392M  100K  392M   1% /run/user/1000  
zulema@MP04-ROMERO:~$
```

5. Personalitza la comanda df fent que les dades que es mostrin siguin, origen de dades, espai disponible i sistema de fitxers, només per als que utilitzin ext4 (fes servir grep).

```
zulema@MP04-ROMERO:~$ df -hT | grep ext4
/dev/sda5      ext4    32G   8,2G   22G   28% /
/dev/sda4      ext4    9,3G   13M    8,8G    1% /home
zulema@MP04-ROMERO:~$
```

6. Afegeix, si no ho has fet, un segon disc dur virtual de 1GB a la MV.



7. Fent servir fdisk mostra el tamany del segon disc.

```
Disk /dev/sdb: 1 GiB, 1073741824 bytes, 2097152 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
```

8. Crea una nova partició primària de 256MB al segon disc.

```
zuLema@MP04-ROMERO:~$ sudo fdisk /dev/sdb

Welcome to fdisk (util-linux 2.37.2).
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 0x982cf192.

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 (2048-2097151, default 2048):
Last sector, +/-sectors or +/-size{K,M,G,T,P} (2048-2097151, default 2097151): +
256

Created a new partition 1 of type 'Linux' and of size 128,5 KiB.

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

zuLema@MP04-ROMERO:~$
```

9. Mostra la nova partició creada amb fdisk.

```
zuLema@MP04-ROMERO:~$ sudo fdisk -l /dev/sdb
Disk /dev/sdb: 1 GiB, 1073741824 bytes, 2097152 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: 0x982cf192

Device      Boot Start    End Sectors  Size Id Type
/dev/sdb1           2048   2304      257  128,5K 83 Linux
zuLema@MP04-ROMERO:~$
```

10. Mostra l'espai lliure del disc amb fdisk.

```
zuLema@MP04-ROMERO:~$ sudo fdisk -l /dev/sdb
Disk /dev/sdb: 1 GiB, 1073741824 bytes, 2097152 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: 0x982cf192

Device      Boot Start    End Sectors  Size Id Type
/dev/sdb1           2048   2304      257  128,5K 83 Linux
/dev/sdb2        4096 528383  524288   256M 83 Linux
zuLema@MP04-ROMERO:~$
```

11. Esborra la partició amb fdisk.

```
zuLema@MP04-ROMERO:~$ sudo fdisk /dev/sdb

Welcome to fdisk (util-linux 2.37.2).
Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.


Command (m for help): p
Disk /dev/sdb: 1 GiB, 1073741824 bytes, 2097152 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: 0x982cf192


Device      Boot Start    End Sectors  Size Id Type
/dev/sdb1             2048    2304      257  128,5K 83 Linux
/dev/sdb2           4096 528383  524288   256M 83 Linux


Command (m for help): d
Partition number (1,2, default 2): 1

Partition 1 has been deleted.


Command (m for help): d
Selected partition 2
Partition 2 has been deleted.


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

zuLema@MP04-ROMERO:~$
```

12. Crea les següents particions al segon disc. • Primària 100MB. • Primària 400MB. • Estesa de tot el tamany restant (uns 500MB). • Lògica de 250MB. • Lògica de la resta del tamany de disc.

```
Device      Boot Start    End Sectors  Size Id Type
/dev/sdb1             2048  206847  204800   100M 83 Linux
/dev/sdb2           206848 1026047  819200   400M 83 Linux
/dev/sdb3           1026048 2050047 1024000   500M  5 Extended
/dev/sdb5           1028096 1540095  512000   250M 83 Linux
/dev/sdb6           1542144 2050047  507904   248M 83 Linux


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

zuLema@MP04-ROMERO:~$
```

13. Mostra les particions creades i escriu-les amb la comanda w.

```
Device      Boot    Start      End  Sectors  Size Id Type
/dev/sdb1                2048    206847    204800    100M 83 Linux
/dev/sdb2           206848    1026047    819200    400M 83 Linux
/dev/sdb3           1026048    2050047    1024000    500M  5 Extended
/dev/sdb5           1028096    1540095    512000    250M 83 Linux
/dev/sdb6           1542144    2050047    507904    248M 83 Linux

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

zuLema@MP04-ROMERO:~$
```

14. Formateja les particions primàries com ext4.

```
zuLema@MP04-ROMERO:~$ sudo mkfs.ext4 /dev/sdb1
mke2fs 1.46.5 (30-Dec-2021)
Creating filesystem with 25600 4k blocks and 25600 inodes

Allocating group tables: done
Writing inode tables: done
Creating journal (1024 blocks): done
Writing superblocks and filesystem accounting information: done

zuLema@MP04-ROMERO:~$ sudo mkfs.ext4 /dev/sdb2
mke2fs 1.46.5 (30-Dec-2021)
Creating filesystem with 102400 4k blocks and 102400 inodes
Filesystem UUID: e6fad343-8eff-4001-aec1-2c6f32a47316
Superblock backups stored on blocks:
    32768, 98304

Allocating group tables: done
Writing inode tables: done
Creating journal (4096 blocks): done
Writing superblocks and filesystem accounting information: done

zuLema@MP04-ROMERO:~$
```

15. Formateja les particions esteses com NTFS.

```
zuLema@MP04-ROMERO:~$ sudo mkfs.ntfs /dev/sdb5
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.
zuLema@MP04-ROMERO:~$ sudo mkfs.ntfs /dev/sdb6
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.
zuLema@MP04-ROMERO:~$
```

16. Munta les particions a les carpetes següents: • /dev/sda1 a /disc1-X (on X és el teu cognom) • /dev/sda2 a /disc2-X (on X és el teu cognom) • /dev/sda5 a /disc3-X (on X és el teu cognom) • /dev/sda6 a /disc4-X (on X és el teu cognom)

```
zulema@MP04-ROMERO: ~  
zulema@MP04-ROMERO:~$ sudo mount /dev/sdb1 /disc1-Romero  
zulema@MP04-ROMERO:~$ sudo mount /dev/sdb2 /disc2-Romero  
zulema@MP04-ROMERO:~$ sudo mount /dev/sdb3 /disc3-Romero  
mount: /disc3-Romero: mount(2) system call failed: Cannot allocate memory.  
zulema@MP04-ROMERO:~$ sudo mount /dev/sdb5 /disc3-Romero  
zulema@MP04-ROMERO:~$ sudo mount /dev/sdb6 /disc4-Romero  
zulema@MP04-ROMERO:~$
```

17. Prova que pots accedir als discos (accedeix i utilitza la comanda pwd).

```
zulema@MP04-ROMERO:~$ cd /disc1-Romero/  
zulema@MP04-ROMERO:/disc1-Romero$ pwd  
/disc1-Romero  
zulema@MP04-ROMERO:/disc1-Romero$
```

18. Mostra les particions i punt de muntatge amb la comanda lsblk

```
zulema@MP04-ROMERO:/$ lsblk  
NAME        MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS  
loop0        7:0    0   74,3M  1 loop /snap/core22/1612  
loop1        7:1    0     4K   1 loop /snap/bare/5  
loop2        7:2    0   73,9M  1 loop /snap/core22/1663  
loop3        7:3    0  271,2M  1 loop /snap/firefox/4848  
loop4        7:4    0  505,1M  1 loop /snap/gnome-42-2204/176  
loop5        7:5    0   91,7M  1 loop /snap/gtk-common-themes/1535  
loop6        7:6    0   12,9M  1 loop /snap/snap-store/1113  
loop7        7:7    0   38,8M  1 loop /snap/snapd/21759  
loop8        7:8    0    500K  1 loop /snap/snapd-desktop-integration/178  
loop9        7:9    0    568K  1 loop /snap/snapd-desktop-integration/253  
sda          8:0    0    50G   0 disk  
├─sda1       8:1    0     1M   0 part  
├─sda2       8:2    0   487M   0 part /boot/efi  
├─sda3       8:3    0    7,6G   0 part [SWAP]  
├─sda4       8:4    0    9,5G   0 part /home  
└─sda5       8:5    0   32,4G   0 part /  
sdb          8:16   0     1G   0 disk  
├─sdb1       8:17   0   100M   0 part /disc1-Romero  
├─sdb2       8:18   0   400M   0 part /disc2-Romero  
├─sdb3       8:19   0     1K   0 part  
├─sdb5       8:21   0   250M   0 part /disc3-Romero  
└─sdb6       8:22   0   248M   0 part /disc4-Romero  
sr0         11:0    1  1024M   0 rom  
zulema@MP04-ROMERO:/$
```