FACULTAD DE INGENIERÍA

PASO A PASO DE NGINX Y PARTICIÓN DE DISCO

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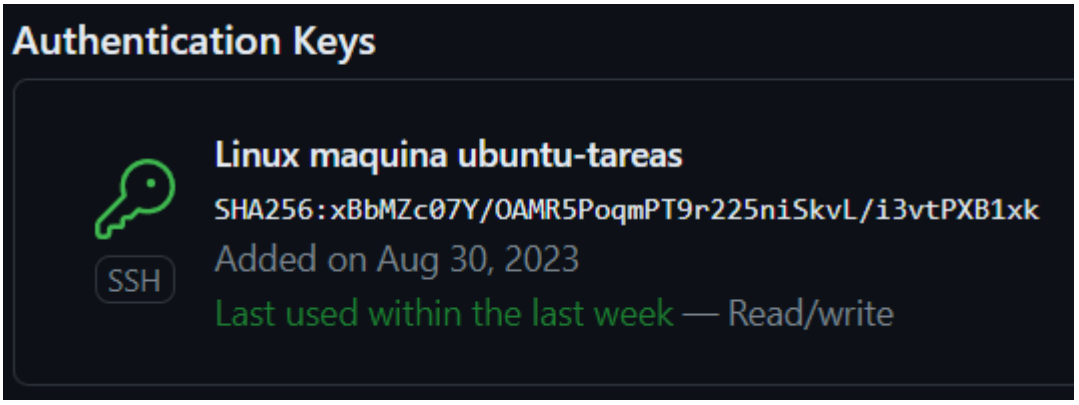
Generamos la llave ssh desde la carpeta .ssh para poder conectarnos a github

```
eduvasva@Ubuntu-tareas:~/tareas/EAM_CNC/EAM_CNC$ cd ~/.ssh
eduvasva@Ubuntu-tareas:~/.ssh$ ls
authorized_keys  id_rsa  id_rsa.pub
eduvasva@Ubuntu-tareas:~/.ssh$ ssh-keygen -o -t rsa
Generating public/private rsa key pair.
Enter file in which to save the key (/home/eduvasva/.ssh/id_rsa): guardo
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in guardo
Your public key has been saved in guardo.pub
The key fingerprint is:
SHA256:xBbMZc07Y/OAMR5PoqmPT9r225niSkvL/i3vtPXB1xk eduvasva@Ubuntu-tareas
The key's randomart image is:
+---[RSA 3072]----+
|       o..oo     |
|       .oo= +    |
|        ++ O .   |
|       oo o O    |
|       .S  . * E |
|      .       o +|
|       o+   . .+o|
|      .Booo+ = .o|
|      .+O==*O   .|
+----[SHA256]-----+
eduvasva@Ubuntu-tareas:~/.ssh$ ls
authorized_keys  guardo  guardo.pub  id_rsa  id_rsa.pub
eduvasva@Ubuntu-tareas:~/.ssh$ mod guardo.pub
Command 'mod' not found, but can be installed with:
apt install monodoc-base
Please ask your administrator.
```

Usamos el comando more en la llave que acabamos de crear para ingresar ese codigo en la opción de crear llaves ssh en github

```
eduvasva@Ubuntu-tareas:~/.ssh$ more guardo.pub
ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAABgQDB/lG0gXqd
kDEeinA3w4yTXpfTntHdDSYwoeXnjzG3RGtRrRikLQ6y4Rfe
buxVgWNRY3wKSklMmiAor4dGHt64TURtQBiO5JogCDdlsZRt
SNTxOXGw1UngmyoAWYIydYWaqQ1LDekTDlsfsQW91yhwL9ay
```

Creamos la llave con el codigo



Ahora hacemos la prueba de la coneccion con el ssh, el git clone y arreglo las carpetas que tenia sin coneccion real

```
eduvasva@Ubuntu-tareas:~/tareas$ ls
taller1
eduvasva@Ubuntu-tareas:~/tareas$ ssh -T git@github.com
The authenticity of host 'github.com (140.82.112.4)' can't be established.
ED25519 key fingerprint is SHA256:+DiY3wvvV6TuJJhbpZisF/zLDA0zPMSvHdkr4UvCOqU.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'github.com' (ED25519) to the list of known hosts.
Hi eduvasva17! You've successfully authenticated, but GitHub does not provide shell access.
eduvasva@Ubuntu-tareas:~/tareas$ ssh -T git@github.com
Hi eduvasva17! You've successfully authenticated, but GitHub does not provide shell access.
eduvasva@Ubuntu-tareas:~/tareas$ git clone git@github.com:eduvasva17/EAM_CNC
Cloning into 'EAM_CNC'...
remote: Enumerating objects: 3, done.
remote: Counting objects: 100% (3/3), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Receiving objects: 100% (3/3), done.
eduvasva@Ubuntu-tareas:~/tareas$ ls
EAM_CNC  taller1
```

Ahora probaremos crear un documento de texto para subirlo al repositorio de github

```
eduvasva@Ubuntu-tareas:~/tareas$ cd EAM_CNC/
eduvasva@Ubuntu-tareas:~/tareas/EAM_CNC$ ls
README.md
eduvasva@Ubuntu-tareas:~/tareas/EAM_CNC$ nano preuba1
```

```
eduvasva@Ubuntu-tareas:~/tareas/EAM_CNC$ git add *
eduvasva@Ubuntu-tareas:~/tareas/EAM_CNC$ git commit
[main d647602] este es un commit de prueba
 Committer: eduvasva <eduvasva@Ubuntu-tareas.myguest.
Your name and email address were configured automatic
on your username and hostname. Please check that they
You can suppress this message by setting them explici
following command and follow the instructions in your
your configuration file:

    git config --global --edit

After doing this, you may fix the identity used for t

    git commit --amend --reset-author

 1 file changed, 1 insertion(+)
 create mode 100644 preuba1
eduvasva@Ubuntu-tareas:~/tareas/EAM_CNC$ git push
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 6 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 328 bytes | 328.00 KiB/s
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To github.com:eduvasva17/EAM_CNC
   2adf831..d647602  main -> main
```

Viva la vida, se quizo y se pudo :D ahora podremos pasar a la instalacion de nginx.
Primero instalamos las aplicaciones del sistema operativo

```
eduvasva@Ubuntu-tareas:/$ su -
Password:
root@Ubuntu-tareas:~# apt update
Get:1 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Hit:2 http://co.archive.ubuntu.com/ubuntu jammy InRelease
Get:3 http://co.archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]
Get:4 http://co.archive.ubuntu.com/ubuntu jammy-backports InRelease [109 k
Get:5 http://co.archive.ubuntu.com/ubuntu jammy-updates/main amd64 DEP-11
Get:6 http://co.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 DEP
Get:7 http://security.ubuntu.com/ubuntu jammy-security/main amd64 DEP-11 M
Get:8 http://co.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 D
Get:9 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 DEP-
Get:10 http://co.archive.ubuntu.com/ubuntu jammy-backports/main amd64 DEP-
Get:11 http://co.archive.ubuntu.com/ubuntu jammy-backports/universe amd64
Fetched 832 kB in 2s (409 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
15 packages can be upgraded. Run 'apt list --upgradable' to see them.
root@Ubuntu-tareas:~#
```

ahora la instalacion de nginx

```
root@Ubuntu-tareas:~# apt install nginx
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  libnginx-mod-http-geoip2 libnginx-mod-http-image-f
  nginx-common nginx-core
Suggested packages:
  fcgiwrap nginx-doc
The following NEW packages will be installed:
  libnginx-mod-http-geoip2 libnginx-mod-http-image-f
  nginx nginx-common nginx-core
0 upgraded, 9 newly installed, 0 to remove and 15 no
Need to get 697 kB of archives.
After this operation, 2.395 kB of additional disk sp
Do you want to continue? [Y/n] y
Get:1 http://co.archive.ubuntu.com/ubuntu jammy-upda
Get:2 http://co.archive.ubuntu.com/ubuntu jammy-upda
Get:3 http://co.archive.ubuntu.com/ubuntu jammy-upda
Get:4 http://co.archive.ubuntu.com/ubuntu jammy-upda
Get:5 http://co.archive.ubuntu.com/ubuntu jammy-upda
Get:6 http://co.archive.ubuntu.com/ubuntu jammy-upda
Get:7 http://co.archive.ubuntu.com/ubuntu jammy-upda
Get:8 http://co.archive.ubuntu.com/ubuntu jammy-upda
Get:9 http://co.archive.ubuntu.com/ubuntu jammy-upda
Fetched 697 kB in 1s (534 kB/s)
```

Ahora comprobamos el estado del nginx

```
root@Ubuntu-tareas:~# systemctl status nginx
* nginx.service - A high performance web server and a reverse proxy server
     Loaded: loaded (/lib/systemd/system/nginx.service; enabled; vendor preset:>
     Active: active (running) since Thu 2023-08-31 17:18:58 -05; 1min 51s ago
       Docs: man:nginx(8)
    Process: 739 ExecStartPre=/usr/sbin/nginx -t -q -g daemon on; master_proces>
    Process: 786 ExecStart=/usr/sbin/nginx -g daemon on; master_process on; (co>
   Main PID: 791 (nginx)
      Tasks: 7 (limit: 5482)
     Memory: 12.0M
        CPU: 515ms
     CGroup: /system.slice/nginx.service
             |-791 "nginx: master process /usr/sbin/nginx -g daemon on; master_>
             |-792 "nginx: worker process" "" "" "" "" "" "" "" "" "" "" "" "" >
             |-793 "nginx: worker process" "" "" "" "" "" "" "" "" "" "" "" "" >
             |-794 "nginx: worker process" "" "" "" "" "" "" "" "" "" "" "" "" >
             |-795 "nginx: worker process" "" "" "" "" "" "" "" "" "" "" "" "" >
             |-796 "nginx: worker process" "" "" "" "" "" "" "" "" "" "" "" "" >
             `-797 "nginx: worker process" "" "" "" "" "" "" "" "" "" "" "" "" >

ago 31 17:18:56 Ubuntu-tareas systemd[1]: Starting A high performance web serve>
ago 31 17:18:58 Ubuntu-tareas systemd[1]: Started A high performance web server>
```

Ahora entramos en la carpeta /etc/nginx para examinar la configuración de nginx

```
root@Ubuntu-tareas:~# cd /etc/nginx
root@Ubuntu-tareas:/etc/nginx# ls
conf.d        fastcgi_params  koi-win     modules-available  nginx.conf    scgi_params
fastcgi.conf  koi-utf         mime.types  modules-enabled    proxy_params  sites-avail
```

Abrimos la carpeta sites-available para ver cual es el archivo por defecto

```
root@Ubuntu-tareas:/etc/nginx# cd sites-available/
root@Ubuntu-tareas:/etc/nginx/sites-available# ls
default
```

para abrir diferentes sitios web tenemos que copiar el archivo default, ponerle un nombre para cada html que deseemos mostrar y cambiar algunas secciones

```
root@Ubuntu-tareas:/etc/nginx/sites-available# cp default sitios_personalizados
root@Ubuntu-tareas:/etc/nginx/sites-available# ls
default  sitios_personalizados
```

cambiamos valores del sitio personal como el puerto, la ruta y asignamos un server name

```
# Default server configuration
#
server {
        listen 80;
        listen [::]:80;

        # SSL configuration
        #
        # listen 443 ssl default_server;
        # listen [::]:443 ssl default_server;
        #
        # Note: You should disable gzip for SSL traffic.
        # See: https://bugs.debian.org/773332
        #
        # Read up on ssl_ciphers to ensure a secure configuration.
        # See: https://bugs.debian.org/765782
        #
        # Self signed certs generated by the ssl-cert package
        # Don't use them in a production server!
        #
        # include snippets/snakeoil.conf;

        root /var/www/sitio_personalizado;

        # Add index.php to the list if you are using PHP
        index index.html index.htm index.nginx-debian.html;

        server_name eduvasva17.com www.eduvasva17.com;
```

Despues de reescribir el archivo, nos movemos a la carpeta sites_enable para habilitar justo sitio web con el archivo de la configuracion

```
root@Ubuntu-tareas:/etc/nginx/sites-available# ln -s /etc/nginx/sites-available
/sitios_personalizado
```

```
root@Ubuntu-tareas:/etc/nginx/sites-available# ls
default  sitios_personalizado  sitios_personalizados
```

creamos la ruta /var/ww/ para almacenar el archivo html que queremos mostrar

```
root@Ubuntu-tareas:/etc/nginx/sites-available# sudo mkdir -p var/www/sitios_pers
onalizado
root@Ubuntu-tareas:/etc/nginx/sites-available# cd var/www/sitios_personalizado
root@Ubuntu-tareas:/etc/nginx/sites-available/var/www/sitios_personalizado# cd .
.
root@Ubuntu-tareas:/etc/nginx/sites-available/var/www#
```

Ahora hacemos un restart en el nginx para efectuar los cambios previos

```
root@Ubuntu-tareas:/etc/nginx/sites-available# systemctl restart nginx
```

Modificamos el host

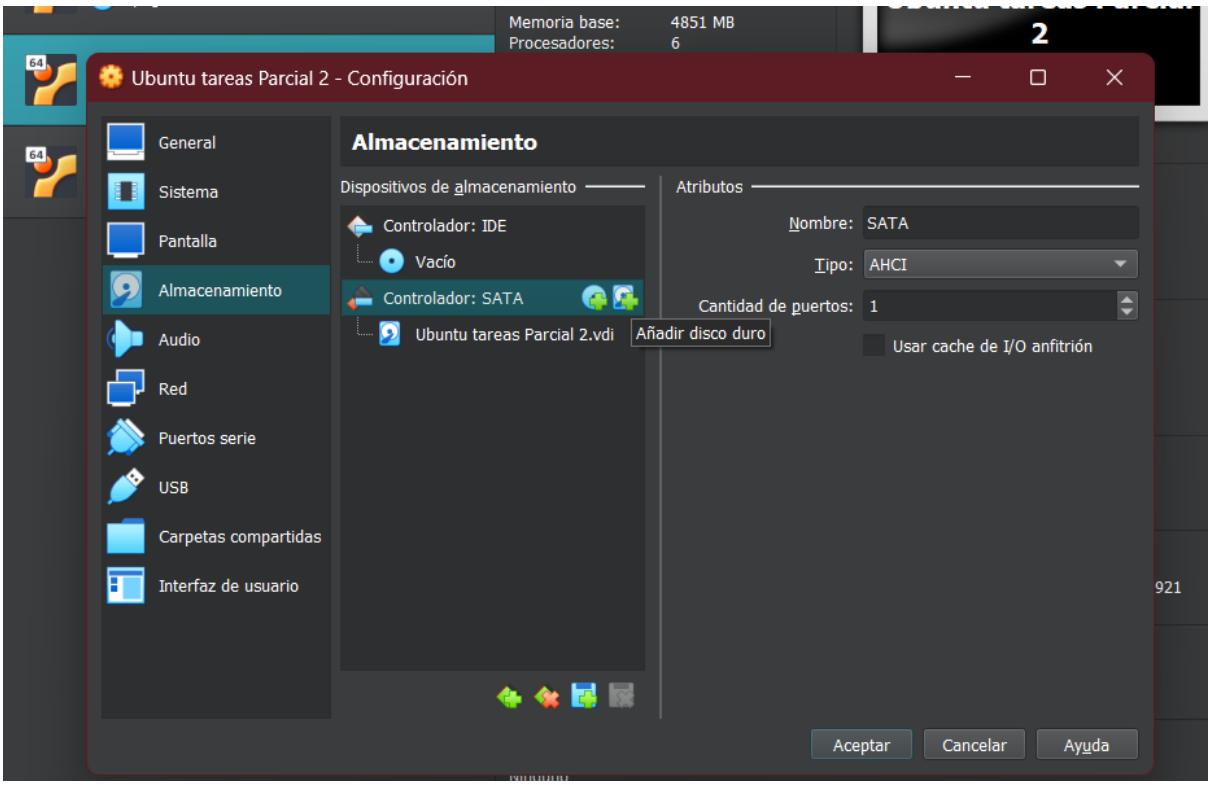
```
127.0.0.1       localhost
127.0.1.1       Ubuntu-tareas.myguest.virtualbox.org eduvasva17.com www.eduvasv>

# The following lines are desirable for IPv6 capable hosts
::1     ip6-localhost ip6-loopback
fe00::0 ip6-localnet
ff00::0 ip6-mcastprefix
ff02::1 ip6-allnodes
ff02::2 ip6-allrouters
```

Ahora modificamos la pagina, en mi caso minimalista

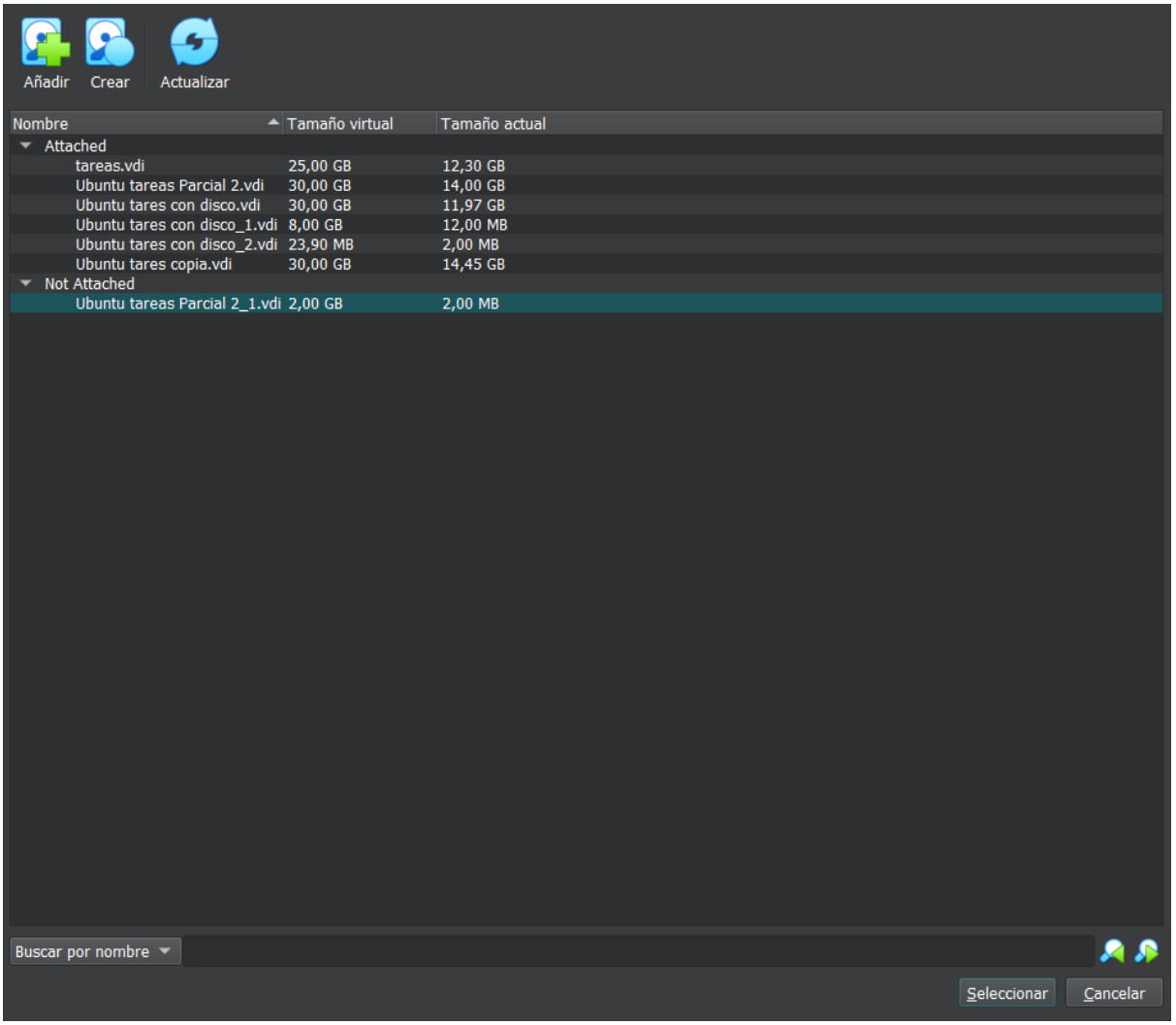
```
<!DOCTYPE html>
<html>
<head>
<title>Pagina de prueba</title>
</head>
<body>
<h1>Pagina de prueba<h1>
</body>
</html>
```

ahora veremos la pagina

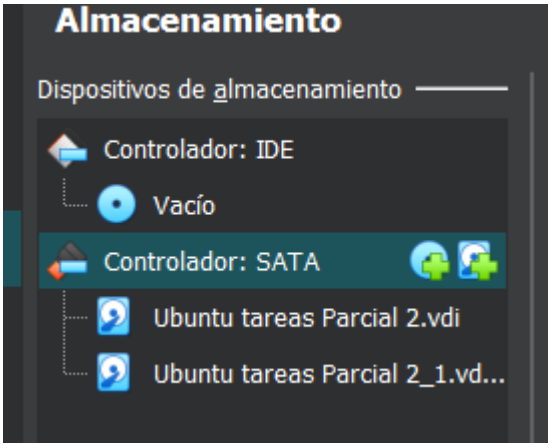
Guia creacion particion del disco
Primero entramos a la configuracion de la maquina virtual, seleccionamos almacenamiento y añadir disco duro en la seccion SATA



Creamos uno y le damos clic sobre ese para luego seleccionar



Ahora tenemos el disco dentro de la maquina virtual solo falta agregarlo a través de comandos



Ahora revisamos con el comando lsblk para buscar el disco que creamos

```
root@Ubuntu-tareas:~# lsblk
NAME   MAJ:MIN RM   SIZE RO TYPE MOUNTPOINTS
loop0    7:0    0  63,4M  1 loop /snap/core20/1974
loop1    7:1    0     4K  1 loop /snap/bare/5
loop2    7:2    0  73,9M  1 loop /snap/core22/858
loop3    7:3    0  63,5M  1 loop /snap/core20/2015
loop4    7:4    0  73,9M  1 loop /snap/core22/864
loop5    7:5    0 237,2M  1 loop /snap/firefox/2987
loop6    7:6    0 236,8M  1 loop /snap/firefox/3068
loop7    7:7    0 349,7M  1 loop /snap/gnome-3-38-2004/143
loop8    7:8    0 485,5M  1 loop /snap/gnome-42-2204/120
loop9    7:9    0 485,5M  1 loop /snap/gnome-42-2204/126
loop10   7:10   0  91,7M  1 loop /snap/gtk-common-themes/1535
loop11   7:11   0  12,3M  1 loop /snap/snap-store/959
loop12   7:12   0  53,3M  1 loop /snap/snapd/19457
loop13   7:13   0   452K  1 loop /snap/snapd-desktop-integration/83
sda      8:0    0    30G  0 disk
|-sda1   8:1    0     1M  0 part
|-sda2   8:2    0   513M  0 part /boot/efi
`-sda3   8:3    0  29,5G  0 part /var/snap/firefox/common/host-hunspell
                                 /
sdb      8:16   0     2G  0 disk
sr0     11:0    1  1024M  0 rom
root@Ubuntu-tareas:~#
```

Usamos el comando fdisk en la nueva particion para instalarla n para que sea nueva p para que sea primaria 1 es la posicion de la particion y +2GB es el espacio que tendra

```
root@Ubuntu-tareas:~# 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 0xd9257503.

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 (2048-4194303, default 2048):
Last sector, +/-sectors or +/-size{K,M,G,T,P} (2048-4194303, default 4194303): +
2GB

Created a new partition 1 of type 'Linux' and of size 1,9 GiB.
```

Escribimos el comando w para escribir y probe para ver si si detecta la partición

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

root@Ubuntu-tareas:~# partprobe -s
/dev/sda: gpt partitions 1 2 3
/dev/sdb: msdos partitions 1
root@Ubuntu-tareas:~# mkfs-ext4 /dev/sdb1
mkfs-ext4: command not found
root@Ubuntu-tareas:~# mkfs.ext4 /dev/sdb1
mke2fs 1.46.5 (30-Dec-2021)
Creating filesystem with 488192 4k blocks and 122160 inodes
Filesystem UUID: 828ebe6c-d950-4207-9ea3-a616cf6be47d
Superblock backups stored on blocks:
        32768, 98304, 163840, 229376, 294912

Allocating group tables: done
Writing inode tables: done
Creating journal (8192 blocks): done
Writing superblocks and filesystem accounting information: done
```

Ahora creamos la dirección del disco b

```
root@Ubuntu-tareas:~# mkdir  /mnt/ext4
root@Ubuntu-tareas:~# mount /dev/sdb1 /mnt/ext4
root@Ubuntu-tareas:~# df -Th
Filesystem     Type   Size  Used Avail Use% Mounted on
tmpfs          tmpfs  465M  1,6M  463M   1% /run
/dev/sda3      ext4    29G   14G   14G  50% /
tmpfs          tmpfs  2,3G     0  2,3G   0% /dev/shm
tmpfs          tmpfs  5,0M  4,0K  5,0M   1% /run/lock
/dev/sda2      vfat   512M  6,1M  506M   2% /boot/efi
tmpfs          tmpfs  465M  120K  465M   1% /run/user/1000
/dev/sdb1      ext4   1,8G   24K  1,7G   1% /mnt/ext4
```

Ahora miramos el funcionamiento creando un archivo dentro de la extension

```
root@Ubuntu-tareas:~# cd /mnt/ext4
root@Ubuntu-tareas:/mnt/ext4# nano prueba
root@Ubuntu-tareas:/mnt/ext4# ls
lost+found  prueba
root@Ubuntu-tareas:/mnt/ext4#
```