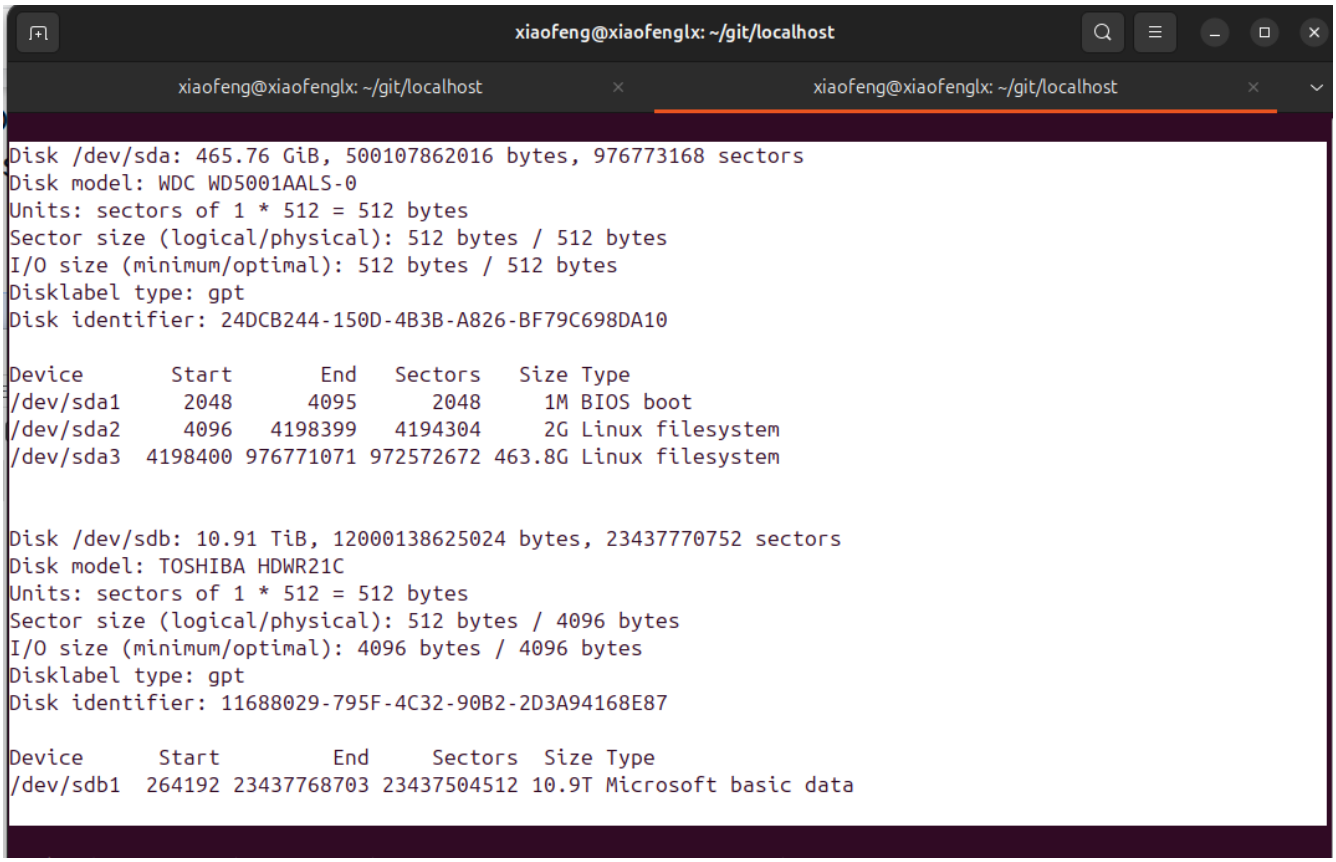
In-class Lab
Mounting NTFS in Linux Lab Notes

Abstract: how to mount a windows machine disk into Linux server

First I use `sudo fdisk -l` to view all the partitions and hard drive on my linux system.



In order to mount my NTFS hard drive taken from an old windows server, I need to mount the disk/partition into my linux machine using /etc/fstab. However, we might need to take the partition or disk's UUID, and we need another command,

The other command I use is the `blkid`, and it allows me to see all the UUID of the system.

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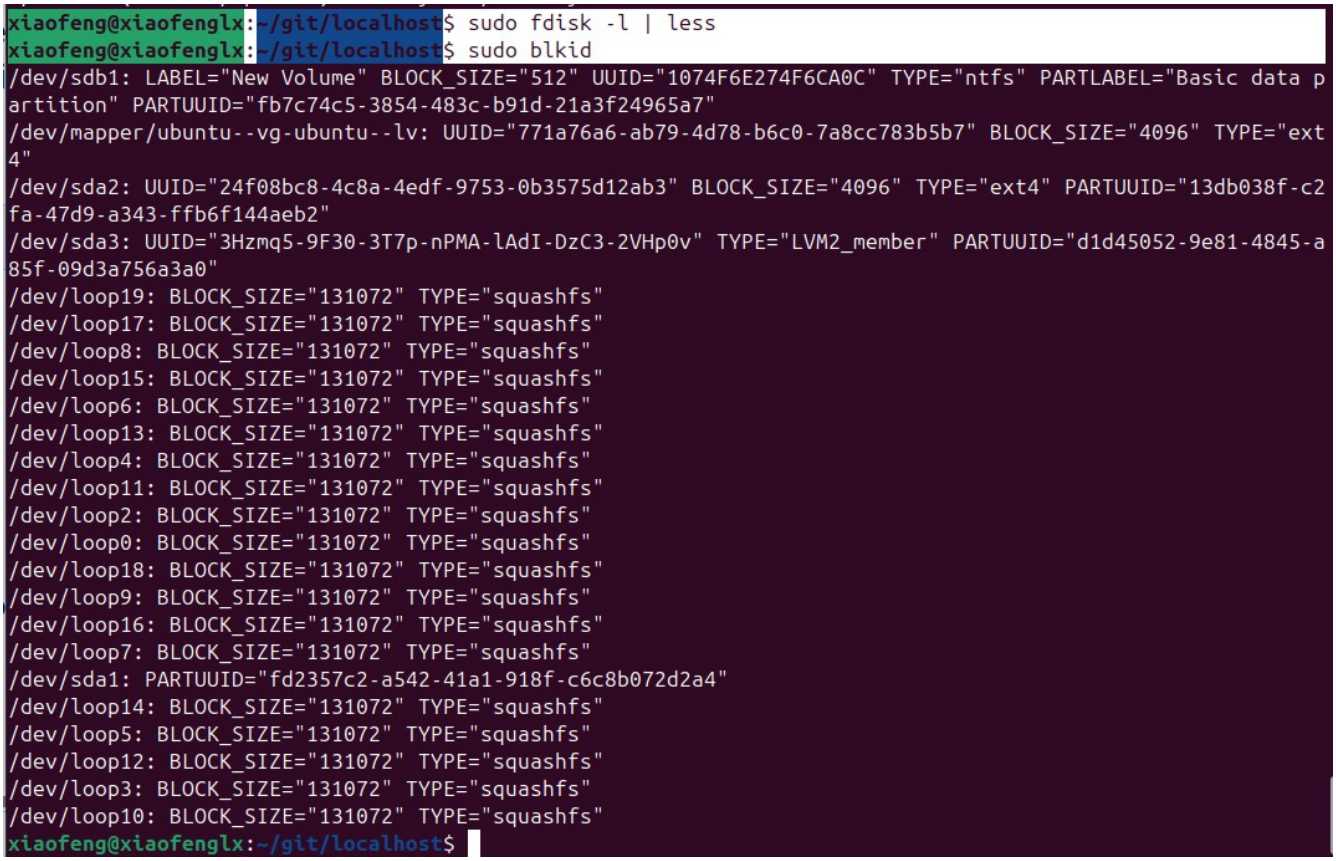

Now I am getting the UUID of that partition of /dev/sdb1,

/dev/sdb1: LABEL="New Volume" BLOCK_SIZE="512" UUID="1074F6E274F6CA0C" TYPE="ntfs" PARTLABEL="Basic data partition" PARTUUID="fb7c74c5-3854-483c-b91d-21a3f24965a7"

Step 2 Create a mounting directory

And we want to make sure that, we did create a folder before we reboot or let this fstab file to take effect.

`sudo mkdir /mnt/ntfs`

Step 3 Mounting the disk to a directory

To permanently mount the partition into the linux machine, so next time, when we boot up the machine, the drive is always good for use.

We will use the `mount` command to add a line of instruction into `/etc/fstab` and we need to use `sudo` which is a root permission to modify this file and save it.

So here I use the `vim` editor to add this line,

```
xiaofeng@xiaofenglx:~/git/localhost$ vi /etc/fstab
```

You can learn VIM editor commands in latter of the class, but when you first time to modify the /etc/fstab, I would recommend you to backup this file before you modify it,
You can use `sudo` and `mv` to make another copy.

```
xiaofeng@xiaofenglx:~/git/localhost$ sudo cp /etc/fstab /etc/fstab.bk
```

Solution 1:

Once we open the /etc/fstab, we will add the last line there [you see the UUID],

```
xiaofeng@xiaofenglx: ~/git/localhost        xiaofeng@xiaofenglx: ~/git/localhost
# /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/ubuntu-vg/ubuntu-lv during curtin installation
/dev/disk/by-id/dm-uuid-LVM-E44Yv6J5h6dWilca6NPtr4S6U44rxAoPS9PXuPaFKowb9NCXGgElin0iFYVh20En / ext4 defaul
ts 0 1
# /boot was on /dev/sda2 during curtin installation
/dev/disk/by-uuid/24f08bc8-4c8a-4edf-9753-0b3575d12ab3 /boot ext4 defaults 0 1
/swap.img       none    swap    sw      0       0
UUID="1074F6E274F6CA0C" /mnt/ntfs ntfs-3g defaults 0 0
```

Solution 2:

Or you can run the following command to simplify the process so that you might not need to grab the UUID of the partition.

```
sudo mount -t ntfs-3g /dev/sdb1 /mnt/ntfs
```

Side-notes:

As you can see in the /etc/fstab, there is a ntfs-3g, this is a unity that we might need to install, the command is like the follow, but in most cases, you might have had it already.

```
sudo apt install ntfs-3g
```