

### • Using the command “`sudo parted -l`”

```
korakoch@korakoch-20-04:~$ sudo parted -l
Model: ATA VBOX HARDDISK (scsi)
Disk /dev/sda: 53.7GB
Sector size (logical/physical): 512B/512B
Partition Table: msdos
Disk Flags:

Number  Start   End     Size    Type      File system  Flags
 1      1049kB  538MB  537MB  primary   fat32        boot
 2      539MB   53.7GB  53.1GB  extended
 5      539MB   53.7GB  53.1GB  logical   ext4

Error: /dev/sdb: unrecognised disk label

Model: ATA VBOX HARDDISK (scsi)
Disk /dev/sdb: 2147MB
Sector size (logical/physical): 512B/512B
Partition Table: unknown
Disk Flags:
```

- How many partitions does sda have?
- What's wrong with the sdb?

Computer System Lab #7, Sept 17, 2024

How many partitions does sda have?

1 1049kB 10.7GB 10.7GB ext4 primary

What's wrong with the sdb?

Unrecognised disk lable

```
babyearn@babyearn:~$ sudo parted -l
Warning: Unable to open /dev/sda read-write (Read-only file system).  /dev/sda
has been opened read-only.
Model: QEMU QEMU HARDDISK (scsi)
Disk /dev/sda: 10.7GB
Sector size (logical/physical): 512B/512B
Partition Table: gpt
Disk Flags:

Number  Start   End     Size    File system  Name     Flags
 1      1049kB  10.7GB  10.7GB  ext4        primary

Model: Linux device-mapper (linear) (dm)
Disk /dev/mapper/ubuntu--vg-ubuntu--lv: 32.7GB
Sector size (logical/physical): 512B/512B
Partition Table: loop
Disk Flags:

Number  Start   End     Size    File system  Flags
 1      0.00B   32.7GB  32.7GB  ext4

Model: Virtio Block Device (virtblk)
Disk /dev/vda: 68.7GB
Sector size (logical/physical): 512B/512B
Partition Table: gpt
Disk Flags:

Number  Start   End     Size    File system  Name  Flags
 1      1049kB  1128MB  1127MB  fat32       boot, esp
 2      1128MB  3276MB  2147MB  ext4
 3      3276MB  68.7GB   65.4GB
```

```

Sep 17 06:16  ↗
babyearn@babyearn:~/Desktop$ lsblk
NAME      MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS
loop0      7:0    0   4K  1 loop /snap/bare/5
loop1      7:1    0  69.2M 1 loop /snap/core22/1590
loop2      7:2    0  69.2M 1 loop /snap/core22/1614
loop3      7:3    0 247.4M 1 loop /snap/firefox/4792
loop4      7:4    0 247.7M 1 loop /snap/firefox/4845
loop5      7:5    0 483.3M 1 loop /snap/gnome-42-2204/178
loop6      7:6    0  91.7M 1 loop /snap/gtk-common-themes/1535
loop7      7:7    0  33.7M 1 loop /snap/snappyd/21761
loop8      7:8    0 133.5M 1 loop /snap/thunderbird/491
sda        8:0    0   10G  0 disk
└─sda1     8:1    0   10G  0 part
sr0        11:0   1 1024M 0 rom
vda        253:0   0   64G  0 disk
└─vda1     253:1   0   1G  0 part /boot/efi
└─vda2     253:2   0   2G  0 part /boot
└─vda3     253:3   0  60.9G 0 part
  └─ubuntu--vg-ubuntu--lv 252:0   0 30.5G 0 lvm /
babyearn@babyearn:~/Desktop$ lsblk -f | grep sd
sda
└─sda1     ext4      1.0      776982c0-87cf-406b-ac58-b74c3323238d
babyearn@babyearn:~/Desktop$ lsblk -f | grep vd
vda
└─vda1     vfat      FAT32      AE63-3AA8
└─vda2     ext4      1.0      43b16935-4548-430d-b9fd-05b0d9992d1a      1.6G  10% /boot/efi
└─vda3     LVM2_member LVM2  001      aeJG2V-d6rP-RyEr-07Uq-2oFr-87dc-Sc1PYz
babyearn@babyearn:~/Desktop$ lsblk
NAME      MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS
loop0      7:0    0   4K  1 loop /snap/bare/5
loop1      7:1    0  69.2M 1 loop /snap/core22/1590
loop2      7:2    0  69.2M 1 loop /snap/core22/1614
loop3      7:3    0 247.4M 1 loop /snap/firefox/4792
loop4      7:4    0 247.7M 1 loop /snap/firefox/4845
loop5      7:5    0 483.3M 1 loop /snap/gnome-42-2204/178
loop6      7:6    0  91.7M 1 loop /snap/gtk-common-themes/1535
loop7      7:7    0  33.7M 1 loop /snap/snappyd/21761
loop8      7:8    0 133.5M 1 loop /snap/thunderbird/491
sda        8:0    0   10G  0 disk

GNU Parted 3.6
Using /dev/sda
Welcome to GNU Parted! Type 'help' to view a list of commands.
(parted) mklabel msdos
parted: invalid token: msdos

New disk label type? quite
parted: invalid token: quite
New disk label type? quit
parted: invalid token: quit
New disk label type? ^
Error: Expecting a disk label type.
(parted) mklabel msdos
parted: invalid token: msdos

New disk label type? msdos
Warning: The existing disk label on /dev/sda will be destroyed and all data on this disk will be lost. Do you want to continue?
Yes/No? Y
(parted) mkpart primary ext4 0 1024
Warning: The resulting partition is not properly aligned for best performance: 1s % 2048s != 0s
Ignore/Cancel? I
(parted) print
Model: QEMU QEMU HARDDISK (scsi)
Disk /dev/sda: 10.7GB
Sector size (logical/physical): 512B/512B
Partition Table: msdos
Disk Flags:

Number  Start   End     Size    Type      File system  Flags
 1       512B  1024MB  1024MB  primary   ext4

```

## Mounting a New File System

- Using the command “**sudo blkid /dev/sdb1**” to get its UUID

```
korakoch@korakoch-20-04:~$ sudo blkid /dev/sdb1
/dev/sdb1: UUID="a510ea07-0463-4d66-a2dd-dc878c91e41e" TYPE="ext4"
PARTUUID="52650c92-01"
```

- Repeat the same command **but** change the storage device to **sdb2**
- **Capture the result screen!**
- **What is UUID? How is it used in mounting devices?**  
**Find the answer from google ;)**

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```
babyearn@babyearn:~/Desktop$ sudo blkid /dev/sda1
/dev/sda1: UUID="776982c0-87cf-406b-ac58-b74c3323238d" BLOCK_SIZE="4096" TYPE="ext4" PARTLABEL="primary" PARTUUID="69e7a
cb8-2c90-40d2-988b-1fd219b544c0"
babyearn@babyearn:~/Desktop$ █
```