

# BLOCKS

Blocks are a layer of storage devices that allow individual access to each independently. They allow programs to access storage without worrying about whether the underlying hardware device is a hard drive, solid state drive, flash drive, etc.

In Linux, you can view block devices and file systems attached to your system using the **lsblk** command. This command gathers information about all devices attached to the system, and prints them out using a tree-like structure. To view the devices attached to your VM, use the **lsblk** command.

## Lsblk

```
eduit914728_student@linux-instance:~$ lsblk
NAME        MAJ:MIN RM  SIZE RO TYPE MOUNTPOINT
sda          8:0    0   10G  0 disk
└─sda1       8:1    0   10G  0 part
sdb          8:16   0   10G  0 disk
└─sdb1       8:17   0   10G  0 part /
```

You'll see that your instance has two block devices attached to it (disks). Each of them is 10GB in size. The column MOUNTPOINT shows where a block device is mounted. It's from this location that files on the disk can be accessed. In this case, the MOUNTPOINT is displaying "/" against **sdb**, which means the second disk (sdb) is mounted at the root of the Linux file system tree. Thus, the files you're seeing on your system right now are from this disk.

A first disk, **sda**, is also available, but it's not mounted. In this lab, you'll divide this disk into two partitions. You'll then mount one of these partitions onto the file system, so you can start accessing files from it.

Optionally, you can view disks mounted on the system using the **df** command. This command is normally used to display the amount of space available on the file system. It lists all block devices with the available space on them. Use the **-h** option to display file sizes in human readable format.

## df -h

```
eduit914728_student@linux-instance:~$ df -h
Filesystem      Size  Used Avail Use% Mounted on
udev            1.8G   0    1.8G   0% /dev
tmpfs           371M   6.4M  365M   2% /run
/dev/sdb1       9.8G   1.1G   8.3G  12% /
tmpfs           1.9G   0    1.9G   0% /dev/shm
tmpfs           5.0M   0    5.0M   0% /run/lock
tmpfs           1.9G   0    1.9G   0% /sys/fs/cgroup
```