

ASSIGNMENT – 2 | DAY – 5

Que 1: Add a 10GB disk to the CentOS.

```
[root@localhost Desktop]# lsblk
NAME                                MAJ:MIN RM  SIZE RO TYPE MOUNTPOINT
sr0                                11:0    1   3.7G  0 rom  /media/CentOS_6.10_Final
sda                                8:0     0   20G   0 disk
├─sda1                             8:1     0   500M   0 part /boot
└─sda2                             8:2     0  19.5G   0 part
   ├─VolGroup-lv_root (dm-0) 253:0     0  17.6G   0 lvm  /
   └─VolGroup-lv_swap (dm-1) 253:1     0    2G   0 lvm  [SWAP]
sdb                                8:16     0   20G   0 disk
```

Sir, I have created 20GB because it is showing out of value in 10GB.

Que 2: Create 2 Partitions 4GB and 6GB of Space respectively.

Device	Boot	Start	End	Blocks	Id	System
/dev/sdb1		1	523	4200966	83	Linux
/dev/sdb2		525	1308	6297480	83	Linux

Que 3: Format 4GB with xfs and 6GB with ext4 file system.

For 4GB one I.E. sdb1:

```
[root@localhost Desktop]# mkfs.ext4 -j /dev/sdb1
mke2fs 1.41.12 (17-May-2010)
Filesystem label=
OS type: Linux
Block size=4096 (log=2)
Fragment size=4096 (log=2)
Stride=0 blocks, Stripe width=0 blocks
262944 inodes, 1050241 blocks
52512 blocks (5.00%) reserved for the super user
First data block=0
Maximum filesystem blocks=1077936128
33 block groups
32768 blocks per group, 32768 fragments per group
7968 inodes per group
Superblock backups stored on blocks:
    32768, 98304, 163840, 229376, 294912, 819200, 884736

Writing inode tables: done
Creating journal (32768 blocks): done
Writing superblocks and filesystem accounting information: done

This filesystem will be automatically checked every 27 mounts or
180 days, whichever comes first.  Use tune2fs -c or -i to override.
```

Sir, xfs showing trouble in format. So, I have used ext4 for formatting.

For 6GB one I.E. sdb2:

```
[root@localhost Desktop]# mkfs.ext4 -j /dev/sdb2
mke2fs 1.41.12 (17-May-2010)
Filesystem label=
OS type: Linux
Block size=4096 (log=2)
Fragment size=4096 (log=2)
Stride=0 blocks, Stripe width=0 blocks
394352 inodes, 1574370 blocks
78718 blocks (5.00%) reserved for the super user
First data block=0
Maximum filesystem blocks=1614807040
49 block groups
32768 blocks per group, 32768 fragments per group
8048 inodes per group
Superblock backups stored on blocks:
    32768, 98304, 163840, 229376, 294912, 819200, 884736

Writing inode tables: done
Creating journal (32768 blocks): done
Writing superblocks and filesystem accounting information: done

This filesystem will be automatically checked every 31 mounts or
180 days, whichever comes first.  Use tune2fs -c or -i to override.
```

Que 4: Mount 4GB and 6GB in /data and /music directory respectively.

For 4GB one I.E. sdb1:

```
[root@localhost Desktop]# mount /dev/sdb1 /data
[root@localhost Desktop]# df -h
Filesystem                Size      Used Avail Use% Mounted on
/dev/mapper/VolGroup-lv_root
                           18G       3.4G   13G   21% /
tmpfs                      498M      224K   498M    1% /dev/shm
/dev/sda1                  477M       35M   417M    8% /boot
/dev/sr0                   3.8G       3.8G     0 100% /media/CentOS_6.10_Final
/dev/sdb1                  3.9G       8.1M   3.7G    1% /data
```

For 6GB one I.E. sdb2:

```
[root@localhost Desktop]# mount /dev/sdb2 /music
[root@localhost Desktop]#
[root@localhost Desktop]# df -h
Filesystem                Size      Used Avail Use% Mounted on
/dev/mapper/VolGroup-lv_root
                           18G       3.4G   13G   21% /
tmpfs                      498M      224K   498M    1% /dev/shm
/dev/sda1                  477M       35M   417M    8% /boot
/dev/sr0                   3.8G       3.8G     0 100% /media/CentOS_6.10_Final
/dev/sdb1                  3.9G       8.1M   3.7G    1% /data
/dev/sdb2                  5.8G       13M   5.5G    1% /music
[root@localhost Desktop]#
```

Que 5: Create one file of 1GB in each of the mount point created above.

```
[root@localhost Desktop]# seq 1000000000 > /data/file
[root@localhost Desktop]#
[root@localhost Desktop]# du -h /data
16K      /data/lost+found
848M     /data
[root@localhost Desktop]# seq 1000000000 > /music/file
[root@localhost Desktop]# df -h
```

Que 6: Verify the disk Consumption and disk space free in the mounted partitions.

```
[root@localhost Desktop]# df -h
Filesystem      Size  Used Avail Use% Mounted on
/dev/mapper/VolGroup-lv_root
                18G  3.5G   13G  22% /
tmpfs           498M  224K  498M   1% /dev/shm
/dev/sda1       477M   35M  417M   8% /boot
/dev/sr0        3.8G  3.8G    0 100% /media/CentOS_6.10_Final
/dev/sdb1       3.9G  856M  2.8G  24% /data
/dev/sdb2       5.8G  860M  4.7G  16% /music
[root@localhost Desktop]# █
```