

DAY-5
ASSINGMENT-2

My laptop will not support VMware due to low specifications. So that I am using AWS-linux insta

Before adding disc , how many disc's are present in the VM ?

COMMAND TO CHECK DISC'S : lsblk

One disc is already exists Name : xvda as show in below picture.

```
[ec2-user@ip-10-100-1-18 ~]$  
[ec2-user@ip-10-100-1-18 ~]$  
[ec2-user@ip-10-100-1-18 ~]$  
[ec2-user@ip-10-100-1-18 ~]$ lsblk  
NAME        MAJ:MIN RM  SIZE RO TYPE MOUNTPOINT  
xvda         202:0    0   8G  0 disk  
└─xvda1      202:1    0   8G  0 part /  
[ec2-user@ip-10-100-1-18 ~]$
```

1.Added New disc(volume) - 10 GB size in AWS-instance(VM) with Name : xvdf

```
[ec2-user@ip-10-100-1-18 ~]$  
[ec2-user@ip-10-100-1-18 ~]$  
[ec2-user@ip-10-100-1-18 ~]$  
[ec2-user@ip-10-100-1-18 ~]$ lsblk  
NAME        MAJ:MIN RM  SIZE RO TYPE MOUNTPOINT  
xvda         202:0    0   8G  0 disk  
└─xvda1      202:1    0   8G  0 part /  
[ec2-user@ip-10-100-1-18 ~]$ lsblk  
NAME        MAJ:MIN RM  SIZE RO TYPE MOUNTPOINT  
xvda         202:0    0   8G  0 disk  
└─xvda1      202:1    0   8G  0 part /  
xvdf         202:80    0  10G  0 disk  
[ec2-user@ip-10-100-1-18 ~]$
```

2.Steps to Create two partitions of **4GB** and **6GB**.

FOR 4GB PARTITION :-

a) Command to create partitions in **xvdf** disk

COMMAND : fdisk /dev/xvdf

```
[root@ip-10-100-1-18 ec2-user]# lsblk
NAME        MAJ:MIN RM  SIZE RO  TYPE MOUNTPOINT
xvda         202:0    0   8G  0  disk
└─xvda1      202:1    0   8G  0  part /
xvdf         202:80   0  10G  0  disk
[root@ip-10-100-1-18 ec2-user]# fdisk /dev/xvdf
```

b) Creating 4GB partition by the following steps.

--> Enter Command : m for help

--> Select option : n to create new partition

--> Select partition **type: p** , **partition_number : 1**,
1st sector : 2048, **2nd sector : +4GB** as shown in
below picture

```
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 (2048-20971519, default 2048): 2048
Last sector, +sectors or +size{K,M,G,T,P} (2048-20971519, default 20971519): +4G

Created a new partition 1 of type 'Linux' and of size 4 GiB.
Command (m for help):
```

--> First partition is created with size 4GB

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FOR 6GB PARTITION :-

--> Select option : n to create new partition
--> Select partition **type: p** , **partition_number : 2**,
1st sector : 8390656 (or) default value , **2nd sector :**
+6GB (or) default value of 6GB as shown in below
picture

```
Command (m for help): n
Partition type
   p   primary (1 primary, 0 extended, 3 free)
   e   extended (container for logical partitions)
Select (default p): p
Partition number (2-4, default 2): 2
First sector (8390656-20971519, default 8390656):
Last sector, +sectors or +size{K,M,G,T,P} (8390656-20971519, default 20971519):

Created a new partition 2 of type 'Linux' and of size 6 GiB.
```

--> Second partition is created with size 6GB

Following tree shows partitions of 4GB and 6GB.

```
[root@ip-10-100-1-18 ec2-user]# lsblk
NAME        MAJ:MIN RM  SIZE RO TYPE MOUNTPOINT
└─xvda      202:0    0   8G  0 disk
   └─xvda1   202:1    0   8G  0 part /
xvdf        202:80    0  10G  0 disk
├─xvdf1     202:81    0   4G  0 part
└─xvdf2     202:82    0   6G  0 part
[root@ip-10-100-1-18 ec2-user]#
```

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3.To format partitions into xfs & ext4 file system

For 4GB = COMMAND : mkfs.xfs /dev/xvdf1

For 6GB = COMMAND : mkfs.ext4 -j /dev/xvdf2

4. To mount into the directories data & music we need to create new directories in / (root directory)

-->COMMAND : **mkdir /data /music**

```
[root@ip-10-100-1-18 /]# ls
bin  data  etc  lib  local  mnt  opt  root  sbin  sys  usr
boot dev  home lib64 media music proc  run  srv  tmp  var
[root@ip-10-100-1-18 /]#
```

-->Command to mount into directories **data & music**

4GB into data = **mount /dev/xvdf1 /data**

6GB into music =**mount /dev/xvdf2 /music**

```
[root@ip-10-100-1-18 ec2-user]# mount /dev/xvdf1 /data
[root@ip-10-100-1-18 ec2-user]# mount /dev/xvdf2 /music
```

5. To create 1GB file in both data and music

COMMAND : dd if=/dev/zero of=testfile bs=1024 count=1024000

```
[root@ip-10-100-1-18 music]# dd if=/dev/zero of=testfile bs=1024 count=1024000
1024000+0 records in
1024000+0 records out
1048576000 bytes (1.0 GB) copied, 13.2613 s, 79.1 MB/s
[root@ip-10-100-1-18 music]#
```

Activate Windows
Go to PC settings to activate Windows.

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--> below picture shows 1GB file named testfile in /data

```
[root@ip-10-100-1-18 data]# pwd
/data
[root@ip-10-100-1-18 data]# ls
testfile
[root@ip-10-100-1-18 data]# ls -l
total 1024000
-rw-r--r-- 1 root root 1048576000 Dec  5 17:37 testfile
[root@ip-10-100-1-18 data]#
```

--> below picture shows 1GB file named : testfile in /music

```
[root@ip-10-100-1-18 music]# pwd
/music
[root@ip-10-100-1-18 music]# ls
testfile
[root@ip-10-100-1-18 music]# ls -l
total 1024004
-rw-r--r-- 1 root root 1048576000 Dec  5 17:38 testfile
[root@ip-10-100-1-18 music]#
```

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6. To check the disk Consumption and disk space free in the mounted partitions.

COMMAND : df -h

```
[root@ip-10-100-1-18 ec2-user]# df -h
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        482M   0    482M   0% /dev
tmpfs           492M   0    492M   0% /dev/shm
tmpfs           492M 580K   492M   1% /run
tmpfs           492M   0    492M   0% /sys/fs/cgroup
/dev/xvda1       8.0G 1.4G   6.7G  18% /
tmpfs           99M   0     99M   0% /run/user/1000
/dev/xvdf1       4.0G 37M   4.0G   1% /data
/dev/xvdf2       5.8G 24M   5.5G   1% /music
```

(OR)

COMMAND : df -h /music/ /data/

```
[root@ip-10-100-1-18 music]#
[root@ip-10-100-1-18 music]# df -h /music/ /data/
Filesystem      Size  Used Avail Use% Mounted on
/dev/xvdf2       5.8G 1.0G   4.5G  19% /music
/dev/xvdf1       4.0G 1.1G   3.0G  26% /data
[root@ip-10-100-1-18 music]#
```

(OR)

COMMAND : df -ht ext4

COMMAND : df -ht xfs

Above two commands shows results based on type of file systems.

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Disk Consumption and disk space free in the mounted partitions.

| | | |
|----------------------------|------|------|
| Size | 6GB | 4GB |
| Disk-Consumption (Used) | 1.0G | 1.1G |
| Disk space free (Avail) | 4.5G | 3.0G |