**Partitioning**

*Naming conventions*

hdd1 = /dev/sda - partition1 (/dev/sda1), -partiton2 (/dev/sda2)

hdd2 = /dev/sdb - partition1 (/dev/sdb1), -partiton2 (/dev/sdb2)

hdd3 = /dev/sdc - partition1 (/dev/sdc1)

*Types of partitions*

1. Primary partition

2. Extended partition

In one hdd, we can create maximum 4 partitions

p1, p2, p3, p4

or

p1, p2, p3, e(L1, L2, L3...) //e=extended,L=Logical

MBR (master boot record)

\*. total size = 512 bytes (size cannot be modified)

\*. 1st sector on hdd

\*. 446 bytes = GRUB (GRand Unified Boot) loader

\*. 64 bytes = Partition info (hdd geometry, 16 bytes per partition)

\*. 2 bytes = magic bytes (partition validation, partition is perfect(geo)or not)

**Creating partition**

Query:- create the partition with 5gb size & mount it on /oracle mount point

*steps:*

1. fdisk = to create partition

2. mkxfs.xfs = to create xfs file system

3. mkdir = create a mount point

4. vim = to add an entry of new partition in /etc/fstab file

5. mount = to mount new partition & verify it

**Method:**

*Step 1:*

#fdisk /dev/sda

m = help

p = print table

n = new partition

p = primary partition

partiton number = <3>

w = write & save

init 6 // to reboot for initiate the partition

Step 2:

#mkfs.xfs /dev/sda6

step 3.

#mkdir /oracle

step 4.

#vim /etc/fstab

at end

press o

/dev/sda3 /oracle xfs defaults 1 2

:wq!

step 5.

#mount -a //mount

#mount //verify

#df -h

**Advance partitioning**

step a

physical partitions [hdd1], [hdd2], [hdd3]

step b

physical volume (pv)

to create = pvcreate

to display = pvdisplay

to remove = pvremove

step c

volume group (vg) // name = vg1

to create = vgcreate

to display = vgdisplay

to remove = vgremove

step d

logical volume (lv) // name = lv1

to create = lvcreate

to display = lvdisplay

to remove = lvremove

Now full procedure for advance partitoning

s1. fdisk

s2. physical partitions [hdd1], [hdd2], [hdd3]

s3. physical volume (pv)

s4. volume group (vg)

s5. logical volume (lv)

s6. mkfs.xfs

s7. mkdir

s8. vim

s9. mount

checking new partition

#fdisk -l

create disks

#fdisk /dev/sda

n // to create a new partition

w // save & quit

#fdisk /dev/sdb

n

w

#fdisk /dev/sdc

n

w

reboot

pv create

#pvcreate /dev/sda7 /dev/sba1 /dev/sdc1

#pvdisplay

vg create

#vgcreate vg1 /dev/sda7 /dev/sdb1 /dev/sdc1

vg1 = name for volume group

#vgdisplay

lv create

#lvcreate -n lv1 -L 20G vg1

n=name

L=size

#lvdisplay

#mkfs.xfs

#mkdir

#vim

#mount