Resize Partition

Create Physical Partition

- Create first **partition of size 1 GB** on disk named **/dev/sdb**
- steps for creating partition.

- For show available disk
- #fdisk -l
- #fdisk /dev/sdb to go inside the disk
- n : for new partition
- Create 1GB primary partition and save changes with following command
- w: to save the created partition.

Format partition

For update partition

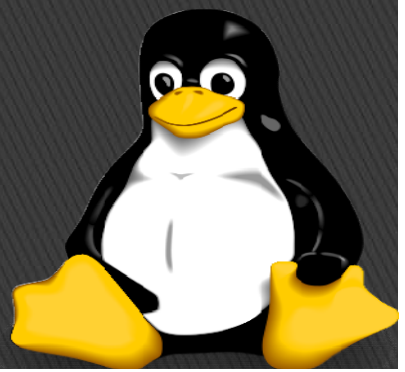
```
#partprobe   /dev/sdb
```

For show partition

```
#fdisk   -l   /dev/sdb
```

For format partition

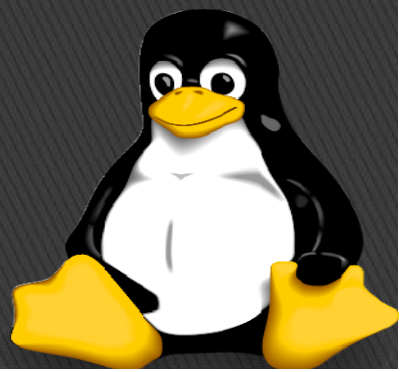
```
#mkfs.ext4     /dev/sdb1
```



For mount partition

For mount partition
#mkdir /database
#mount /dev/sdb1 /database
Or
#vim /etc/fstab
/dev/sdb1 /database ext4 defaults 0 0
:wq
For show mounting
#mount -a
Or
#df -h
Or
#lsblk

Create some database in partition
#mkdir /database/redhat{1..10}
#touch /database/imp{1..10}.txt
#ls



Increase the Partition(ext4 FS)

Before increment or decrement partition always recommended take backup of partition

For show partition
#df -h

For unmount partition
#umount /database
#lsblk
#df -h

For remove partition
#fdisk /dev/sdb

Delete partition number 1 (sdb1)

- d : it is for deleting partition
- w : to save the changes

For update partition
#partprobe /dev/sdb
#fdisk -l /dev/sdb

Create new partition again

For create new partition

#fdisk /dev/sdb

Now create partition with 1500M

it is asking to remove or save the ext4 signature, do not removing the ext4 signature.

- :N is for don't remove the ext4 signature.
- :w Press w for save and quit

- For update partition
- #partprobe /dev/sdb

- For show partition list
- #fdisk -l /dev/sdb

format the extended part of partition. (Not whole partition –ext4 FS)

- For Examine file system for errors
- #e2fsck -f /dev/sdb1

- For format the extended part of partition:
- #resize2fs /dev/sdb1

For mount partition

#mount -a

#df -h

#lsblk

#cd /database

#ls

Decrease (shrink) partition (ext4 FS)

#umount /database

Remove partition

#fdisk /dev/sdb

:d (delete partition)

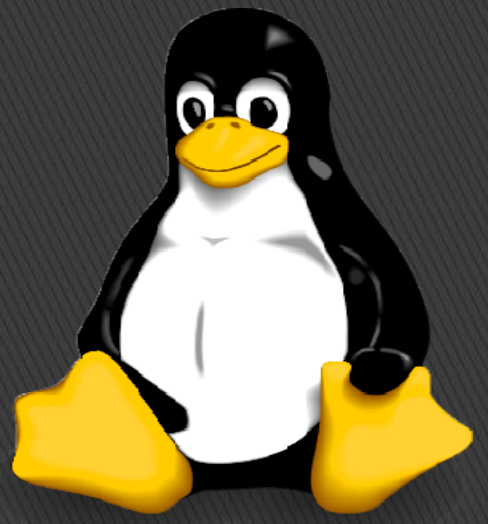
:p (check partition list)

:n (create new partition with 1000 MB)

if asking to remove or save the ext4 signature, do not removing the ext4 signature.

- :N is for don't remove the ext4 signature.
- :w Press w for save and quit

- For show partition list
- #fdisk -l /dev/sdb



Resize file system (ext4 FS)

- For Examine file system for errors
- #e2fsck -f /dev/sdb1

- For format the extended part of partition:
- #resize2fs /dev/sdb1

For mount partition

#mount -a

#df -h

#lsblk

#cd /database

#ls

mount partition with xfs file system

- Create new partition 1 gb with xfs file system
- #fdisk /dev/sdb
- :n (create new partition with 1000MB)
- :w
- Check new created partition
- #fdisk -l /dev/sdb

- Create file system on /dev/sdb2
- #mkfs.xfs /dev/sdb2
- For mount partition
- #mkdir /study
- #vim /etc/fstab
- /dev/sdb2 /study xfs defaults 0 0
- :wq

Create database

#lsblk
#df -h

Create some data in study directory
#cd /study
#mkdir secure{1..10}
#touch notes{1..10}.txt
#cd ..

Extend xfs file system

We have /dev/sdb2 partition with 1000 MB, now we extend it with 500MB

Remove partition

#fdisk /dev/sdb

:d (remote partition /dev/sdb2)

:n (create new partition with 1500 MB)

:w (save and quite)

#fdisk -l /dev/sdb

For extend file system

#xfs_growfs /study