

Disk Management with fdisk

→ fdisk - Command

→ sudo fdisk -l
List all partitions on all disks.

→ Disk have two partitions
▷ primary → used to boot our system.
Include OS

▷ Extended → container in which we place different partitions.

Note: On each ~~disk~~ disk
u primart partition allowed
More then u create issue.

List existing partitions

→ sudo fdisk /dev/sdX

Replace X with actual disk identifier like

→ a for ssd

→ hdd for harddisk

→ init 0
for shutdown

i) What is Disk

physical or virtual → A disk is a storage device (like, HOD, SSD or virtual disk in VMs) used to store data. In Linux, it's usually represented as:

/dev/sda — First disk

/dev/sdb — Second disk
and so on...

ii) What is Partition.

→ A partition

~~it~~ is a section of a disk separated logically to manage storage efficiently.
A disk can have:

→ primary partitions: up to 4

→ Extended partition (1, which can hold multiple logical partitions)

→ logical partition: inside extended

Note: In GPT, we note all disks are equal.
Mean, NO primary, extended, logical

Create new partition (FAT)

Note:

If we want to create a partition like disk from current existing disk. Then we need to boot from a live USB.

→ lsblk
To show all disks

→ From loop 0 to loop 19
all are system snap loops used by apps

→ You can delete znf which is not mounted, it means that unused

Create fake disk (1GB)

→ fallocate -l 1G /tmp/devops-disk-ing
use to create file of size
1GB at location "/tmp/" without
actually writing data to reserve it.
This quick way

→ fallocate - command line tool
used to preallocate space
in a file.

-l 1G — This will tell 1GB
space.

2) sudo losetup -fP /tmp/devops-disk-ing

→ used to associate a file
with loop device, allowing
us to treat that file like
a block device (a physical
disk)

losetup — Command to manage

loop devices

-f — Auto find first available

loop device

-P — Auto scan file for partition
after attaching to loop device

3) losetup -a
Create details of loop device

4) sudo fdisk -l /dev/loop16
check disk details
List partition table

1) sudo fdisk /dev/loop16
use to create, delete or
manage partitions

5) sudo partprobe /dev/loop16
refresh partition table,

6) sudo mkfs.ext4 /dev/loop16
format free disc and
make it usable for storing
files

7) sudo mkdir /mnt/devops

8) sudo mount /dev/loop16 /mnt
Mounting partition make it
visible to os. After
formatting partition, it like
having a docked box.
mounting partition open
box and make it available
for operations

sudo fuses - v
to check which lmnnt / devops
user using process or
u can run process.

du - sh
use to check size.

df - hT - check disc mounted
or not

OR
mount | grep sdb- disc name - partition name.
→ check mount