# Terms and concepts

- Difference between kibi and kb
- Hard disk types:
    - Magnetic
    - HDD
    - SSD
- How about speed of disk ?
    - Throughput: generally used for HDD which represents the total volume of data that can be read/write in a second
    - IOPS (I/O per second): Used for SSDs represnt number or read/write operation that can be performed in a second
- File System: Every disk needs some filesystem (which organizes the whole storage to be used by operating systems)
    - Windows File systems: NTFS
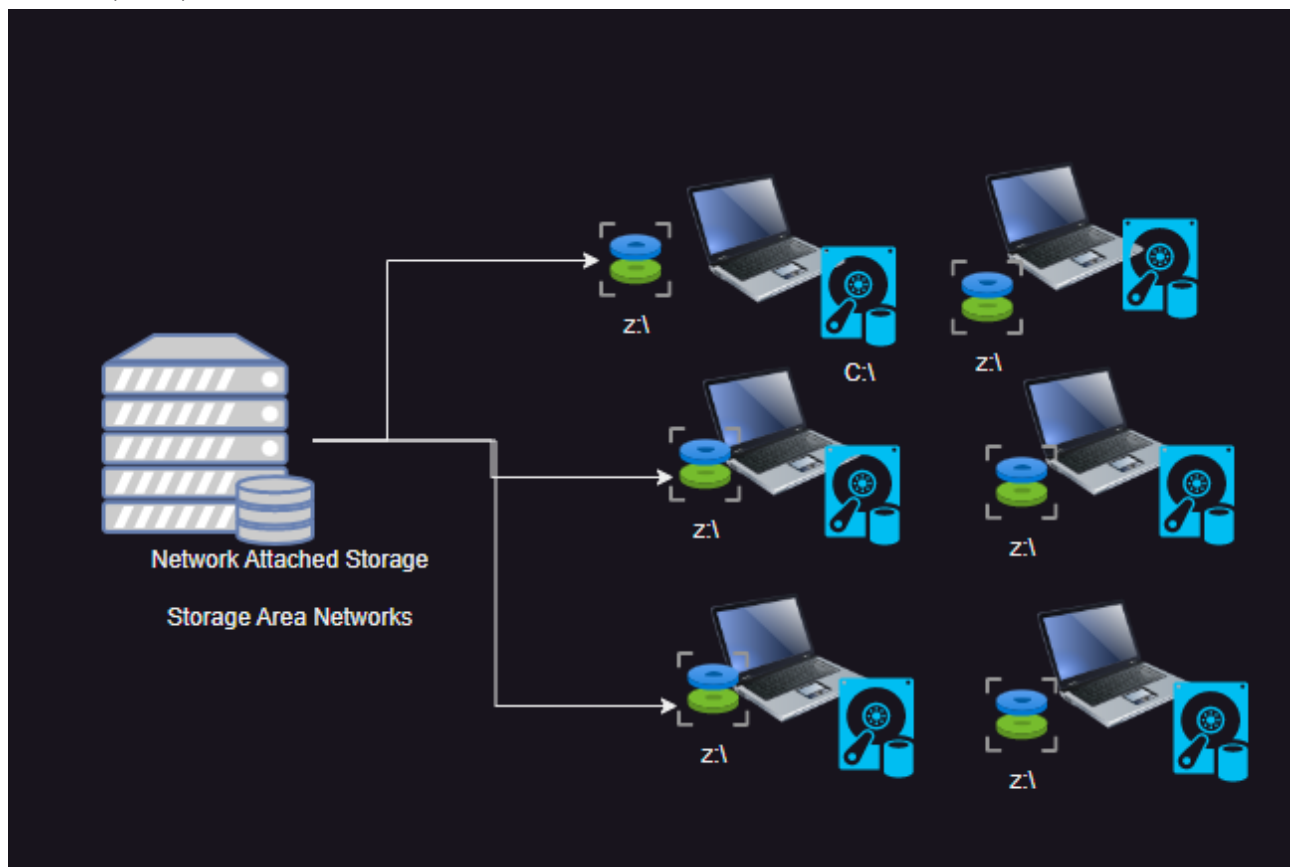   - From physical disks logical drives (C, D,,,) can be created
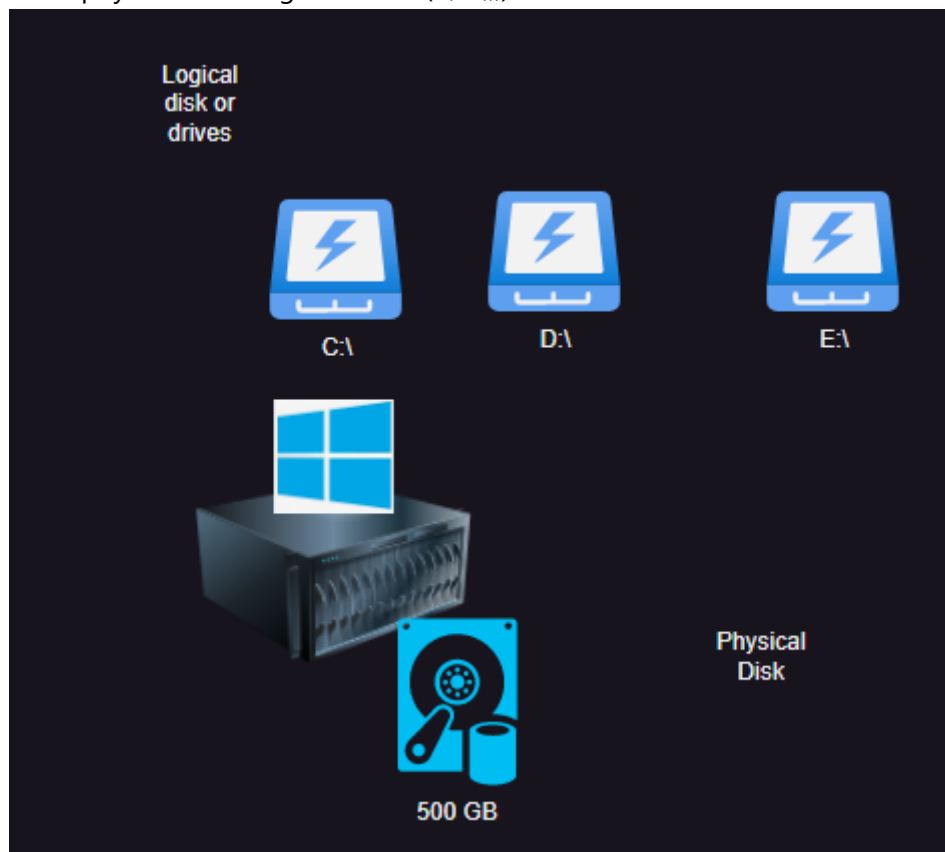
    - Linux File System: ext4, xfs, btrfs,zfs

- In linux logical partitions are mounted to folders
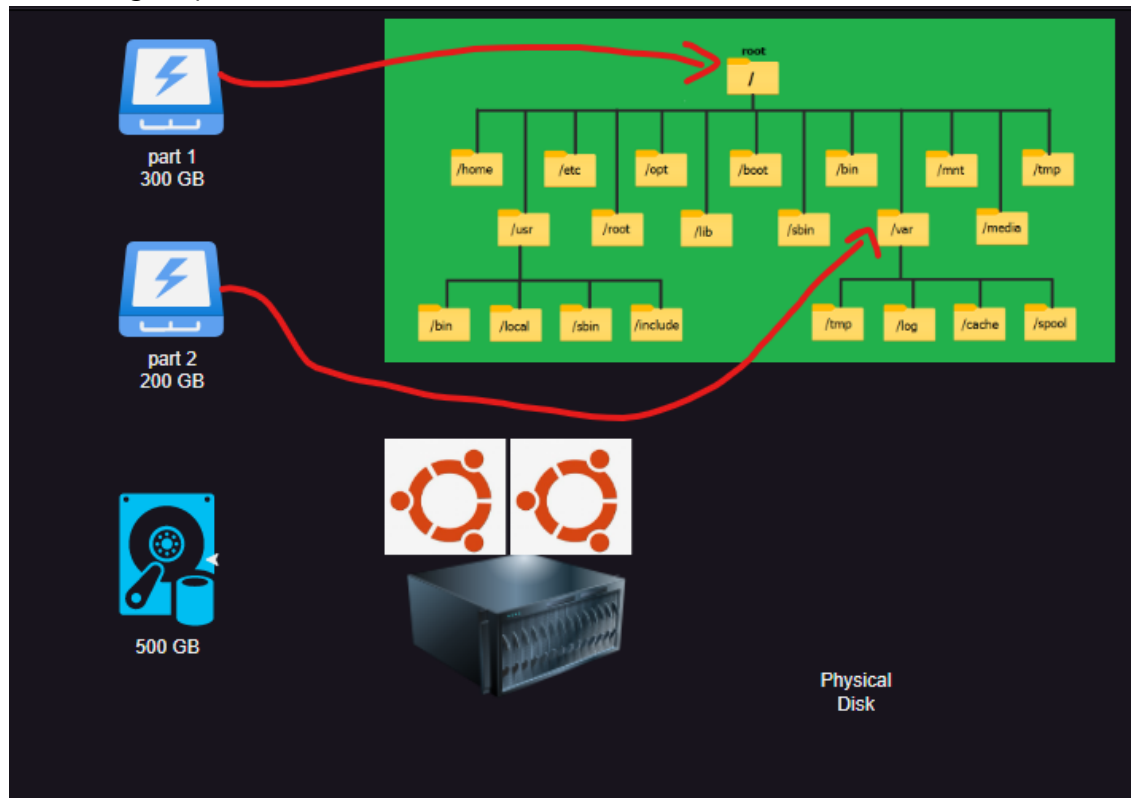
- Network Storage: In some cases we need the disks to be shared across multiple devices, Generally for this NAS, SAN, NFS

- On-Premises or On-prem: This represents the physical servers or data centers maintained by your organizations.
- Backup of Disks:
  - Types:
    - Full

- ■ Incremental
    - ○ Recovering from Backups is also called as Restore
    - ○ In most of cloud, Backup of a disk is referred as snapshot.

Disk Storage on Cloud

- All the storage devices on cloud are virtual in nature.

- AWS:

    - ○ Elastic Block Storage: This is equivalent to physical disk on server and disk is called as EBS Volume
    - ○ For the same purpose they also have instance storage
    - ○ Network Disks: * EFS (Elastic File Storage) * FSx: * NetAPP

- Azure:

    - ○ Managed disk: This is equivalent to physical disk on server
    - ○ Un Managed disk: This is equivalent to physical disk on server
    - ○ Temp Disk (Local Storage): This is also a disk
    - ○ Network Disks:
        - ■ Azure File shares
        - ■ Azure Netapp