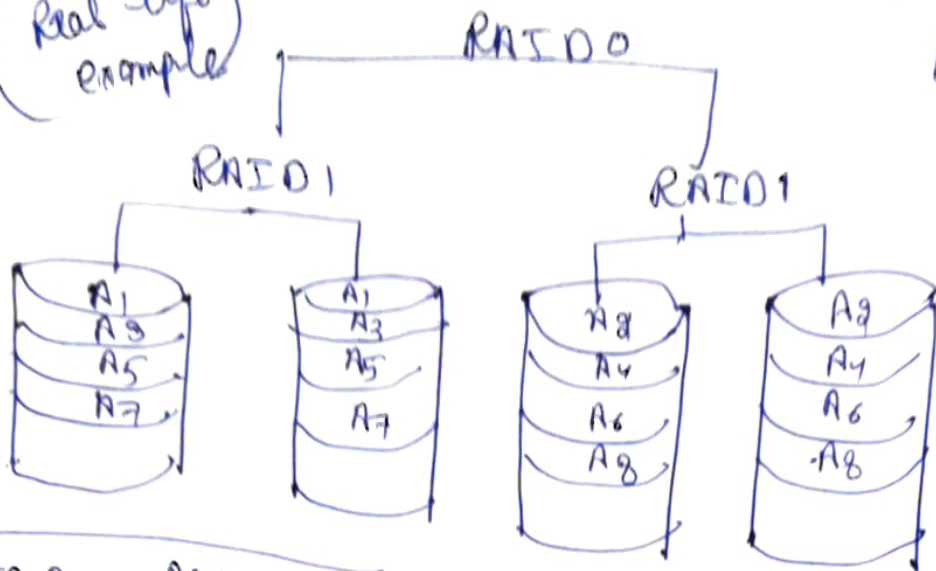
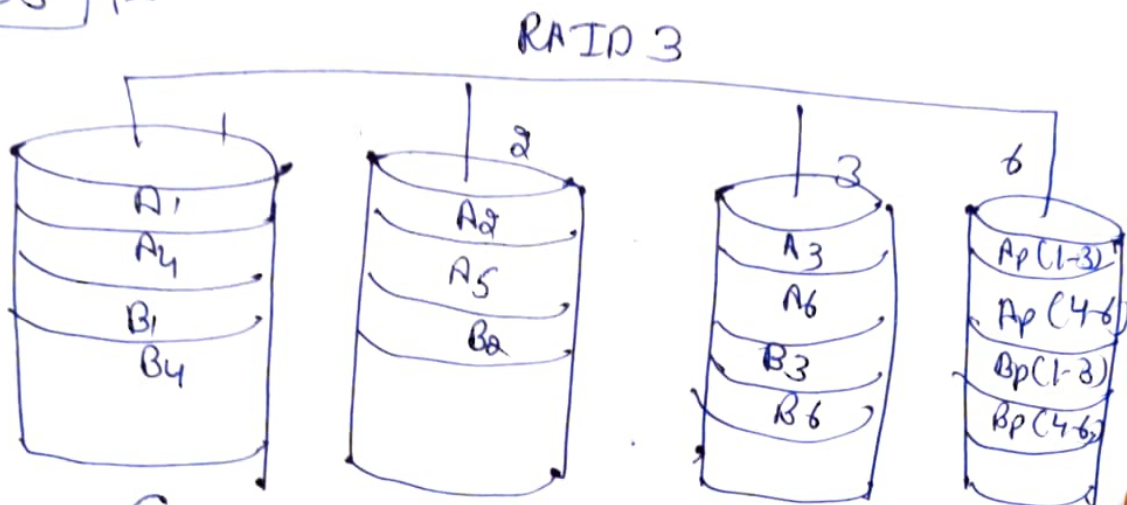


(Real life example) RAID 1 to (RAID 10) (Security, performance)



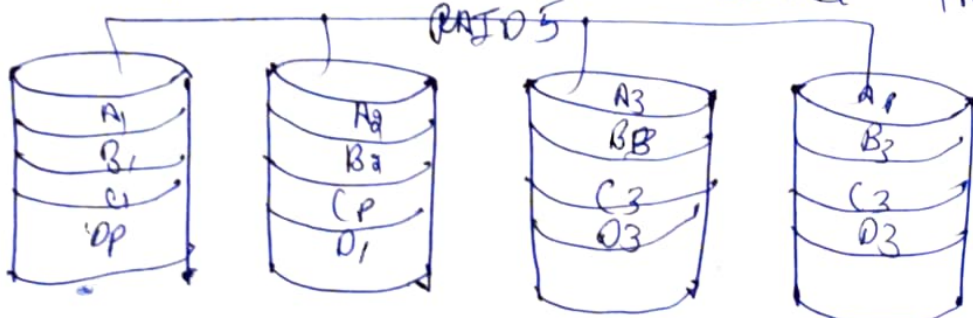
RAID 2 Not used (Obsolete)

RAID 3 :-



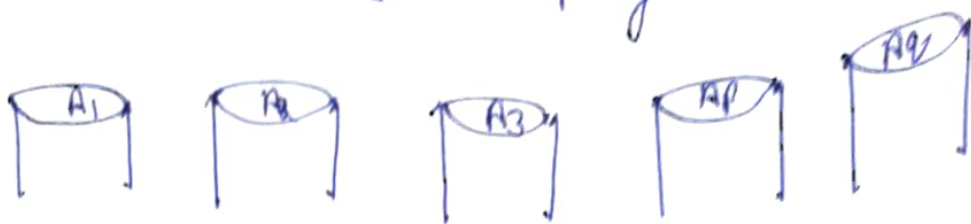
(We broke block level data)
(parity is in one disk)
(bottleneck state)

At This problem used in RAID 5 is solved in RAID 4



(Not Overutilized)

RAID-6 two parity



File System

→ Most Important in OS

There is one Module in OS file System which manages all files. windows NTFS file system.

DOS OS → Fat file System

UNIX → Unix " "

LINUX → Extended " "

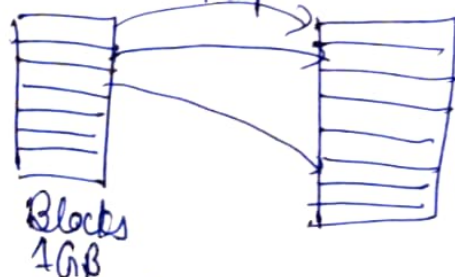
Big data → zfs " "

file System is a software → How the data will be stored / fetched.

folder → related files Collection

user → file → folder / → file System Directory

file System divides data into blocks

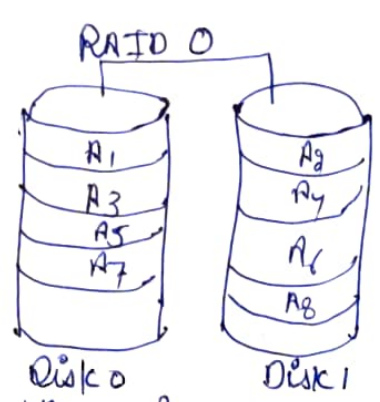
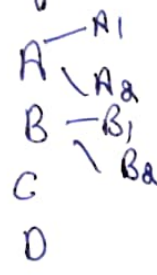


file System stores this Mapping information.

Intro

RAID:- (Redundant Array of Independent disks)
 (Redundant array of Inexpensive disks)
 (Redundancy means duplicacy) - Copy of disks
 Multiple disks → These disks are independent.
 (Most Costly Register, then R Cache then RAM).
 The Cost of disk is getting decreased.
 (performance for read/write)
 (Security / availability)

levels of RAID:- RAID 0 (Break the data)

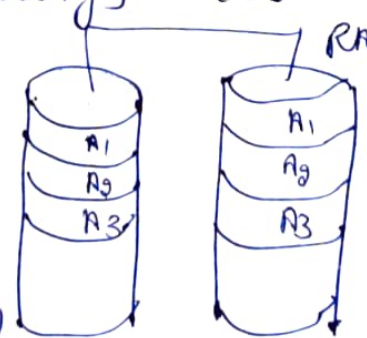


performance is high in RAID 0.

(RAID 0 → Striping)

RAID 1:- (Mirroring) (Cost will be More)

(for Security) →



(More and More Copies are used)
 (in many geographical area)