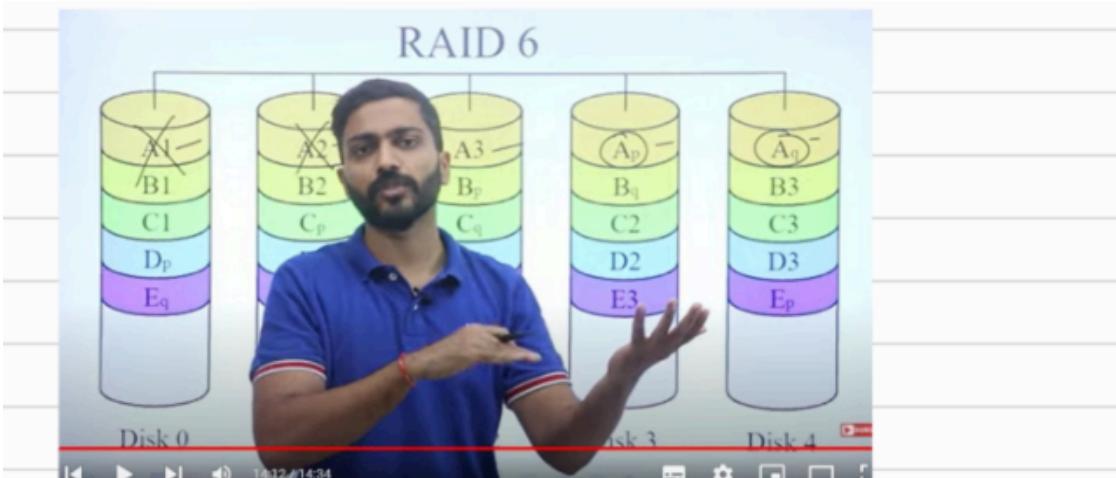


raid

September 9, 2025

[]: look for raid formulae

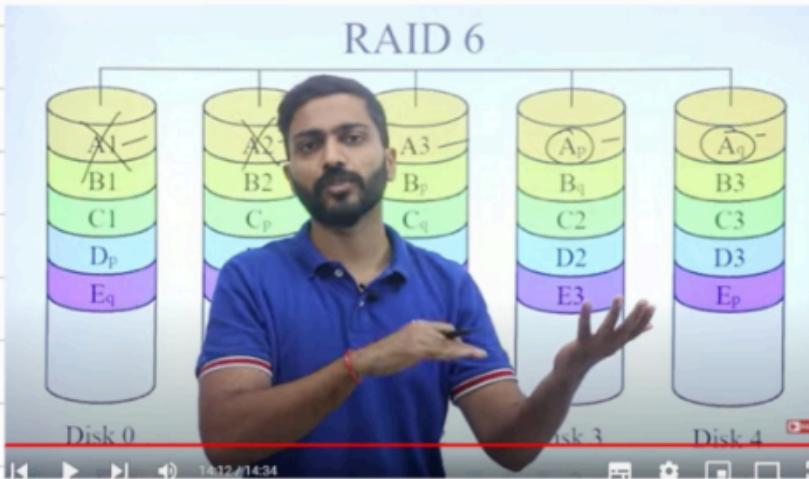


Two parity are there

Doubt, what is data stripping?

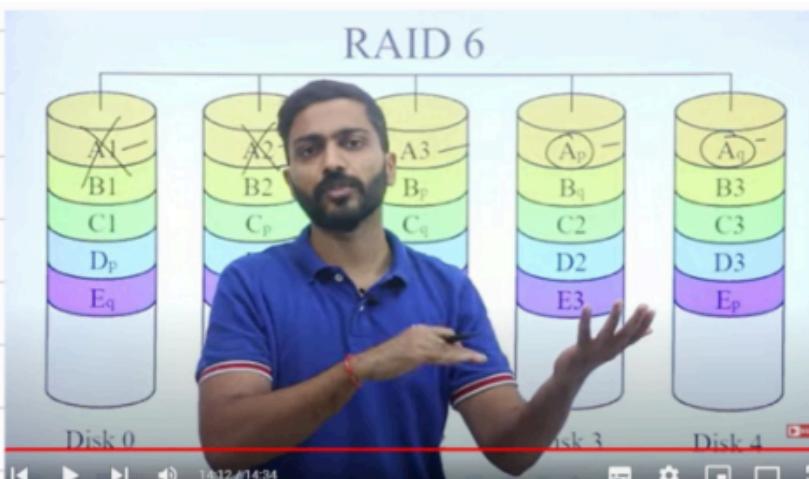
raid 0

we do data stripping parallel reads will be possible, so performance will be better



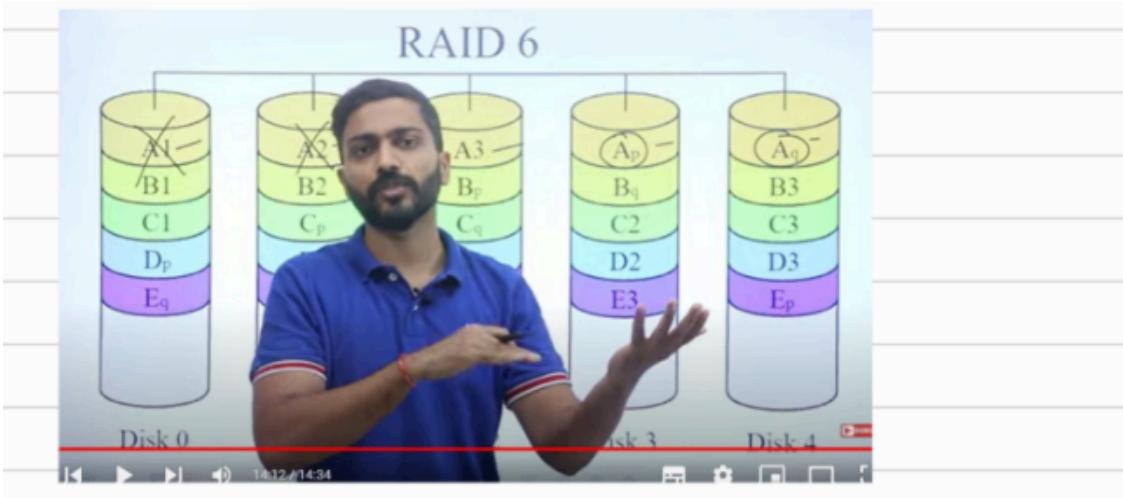
Two parity are there

Raid 1
mirroring

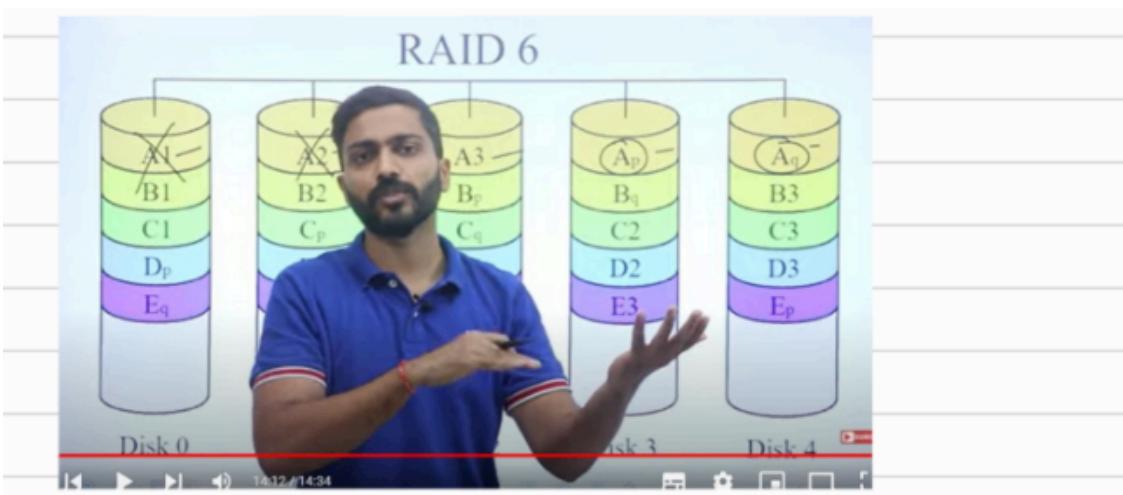


Two parity are there

Raid 1+0 / nested raid



Two parity are there

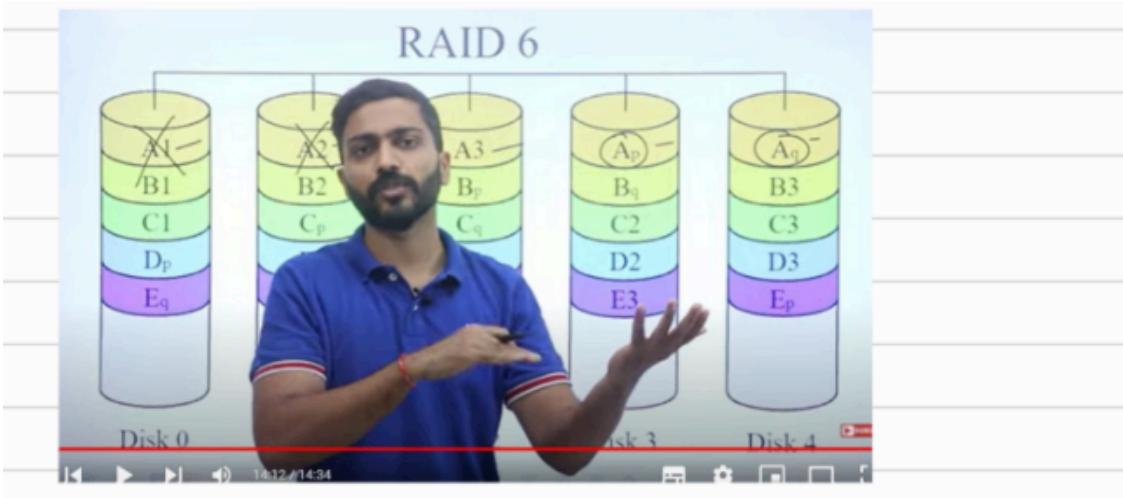


Two parity are there

Raid 3:

Parity, helps use to recover if one of the disk fails

bottleneck because all reads and writes have to go through one parity

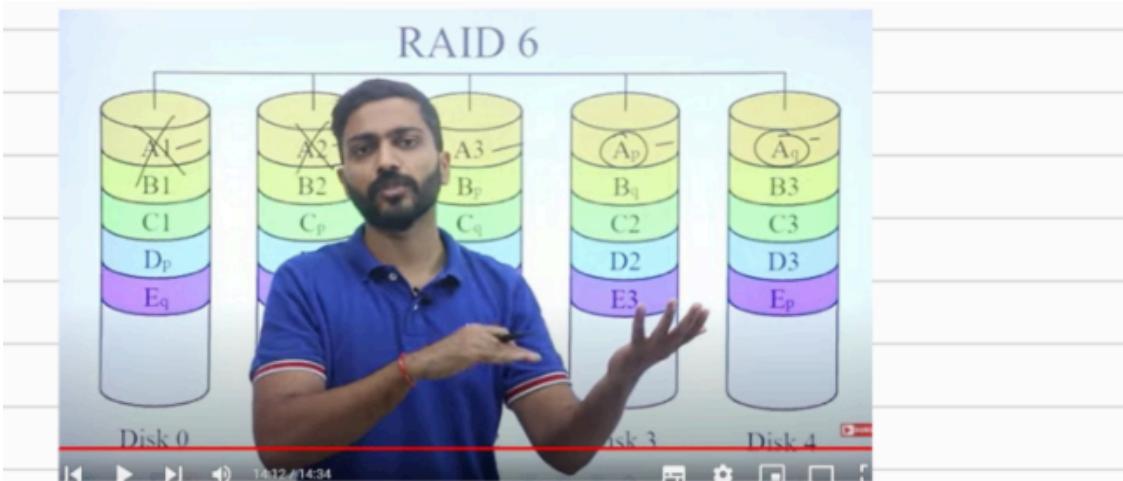


Two parity are there

Raid 4:

No difference from raid 3:

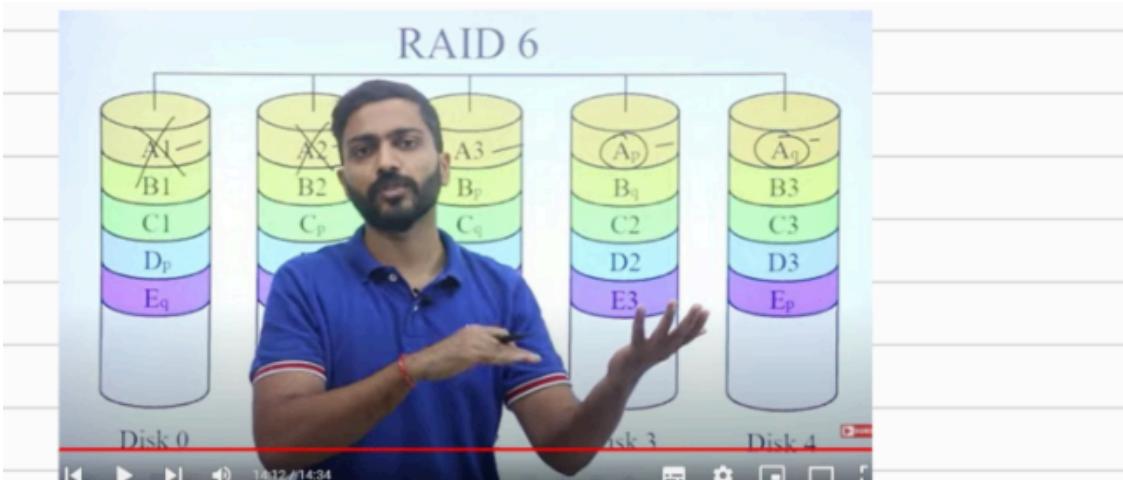
(raid 0) ==> dividing data raid 1 == mirror raid 1+0 == raid 2 == extict, at byte level raid 3 == parity raid 4 == same as raid 2 (hence raid 2 and 4 are both useless)



Two parity are there

Raid 5:

Distribute the parities

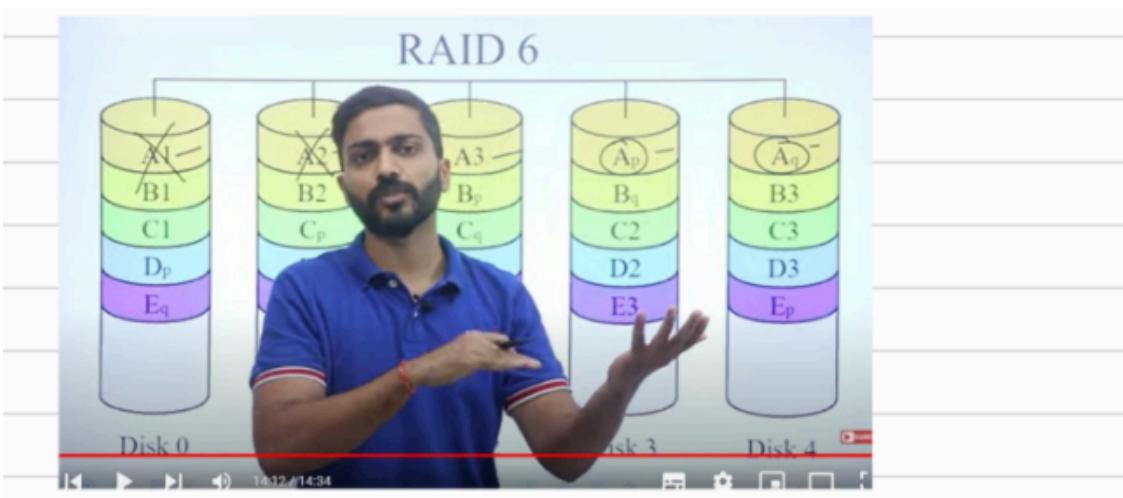


Two parities are there

Raid 6:

two separate parities are calculated

we can recover even if 2 disks fail (try to feel it)



Two parities are there