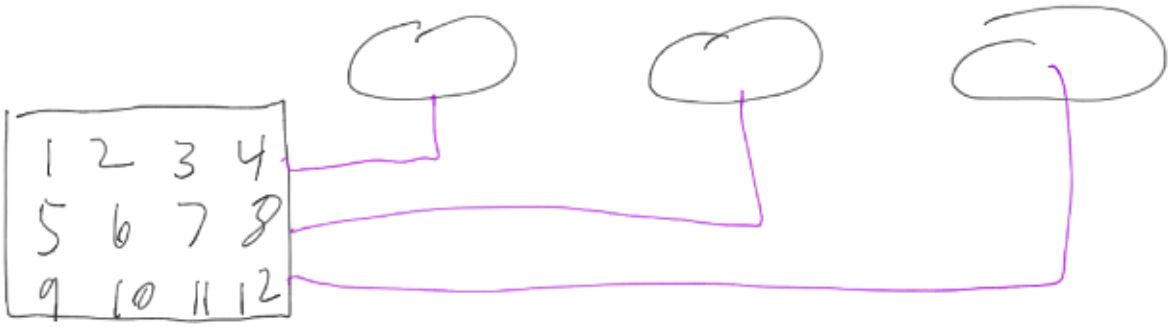
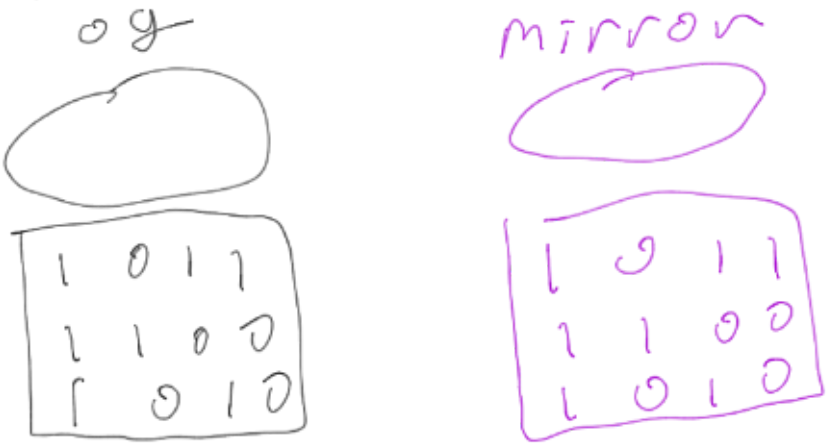
RAID

RAID 0



- poor reliability
- high bandwidth

RAID 1



- failure duplicate
- simpler
- expensive

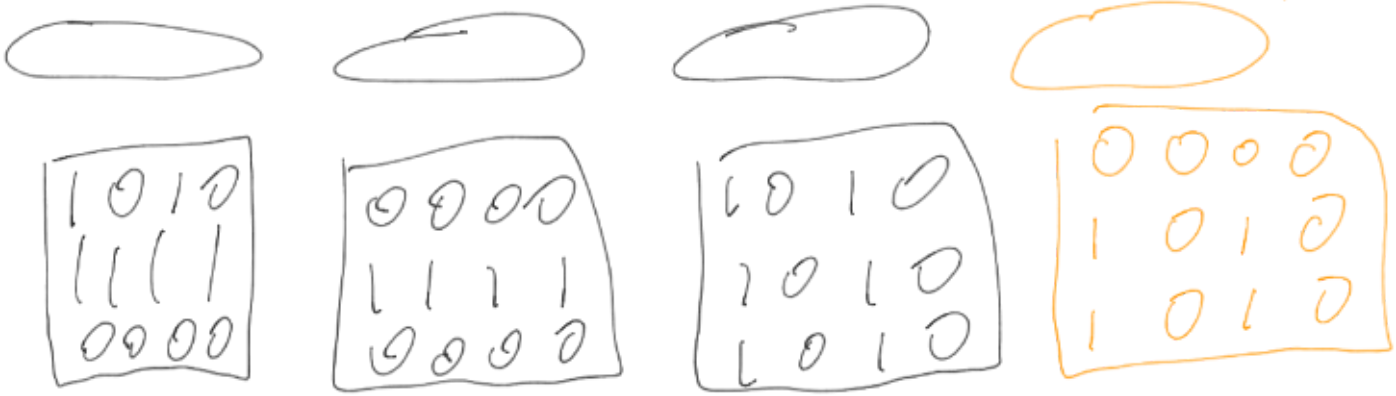
RAID 3 (byte parity)

even parity odd parity

- disk controller can find faulty disk

RAID 4 (block parity)

even parity



- RAID 0 & RAID 3
  - heavy load on parity
  - split based on blocks
- same adv as RAID 3

RAID 5 (interleaved parity block)

- alternate parity disk
- no single disk dedicated to parity

RAID 10
- RAID 0 implemented as RAID 1

RAID 50
- RAID 0 w/ interleaved parity like RAID 5

Hardware
- reliable
- offload parity comp from CPU
- dependent on card
- must buy card
- serial reconstruction of lost disk

Software
- other OS instances might be able to recover
- no addtl cost
- parallel reconstruction of lost disk
- bugs
- CPU intensive to compute parity

Last modified: Dec 12, 2018