

# RAID types

RAID (Redundant Array of Inexpensive Disks or Drives, or Redundant Array of Independent Disks).

Purposes:

performance improvement (max. write read speed),  
increased data security against hard drive failure.

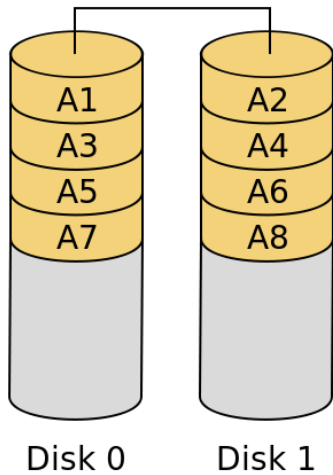
Hardware RAID = RAID controller

or

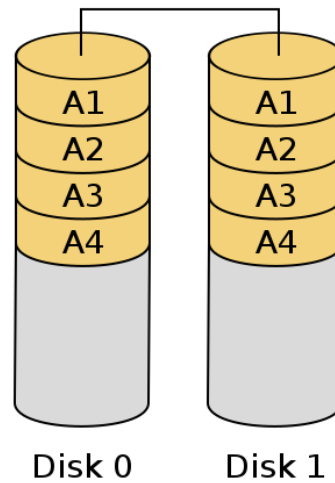
Software RAID

# RAID types

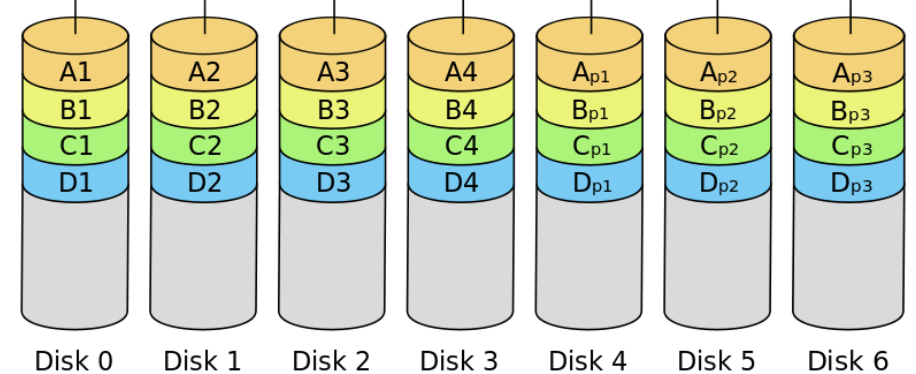
RAID 0



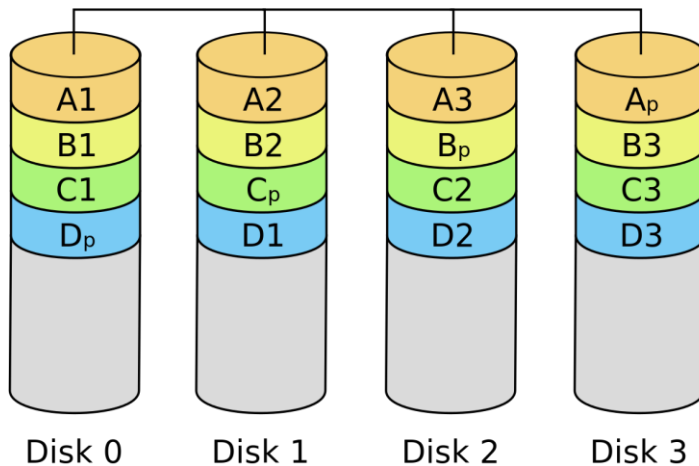
RAID 1



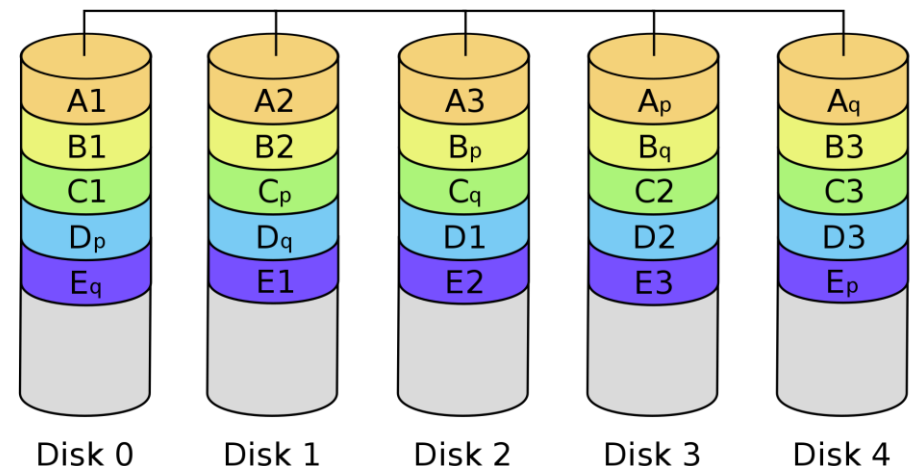
RAID 2 (Hamming code)



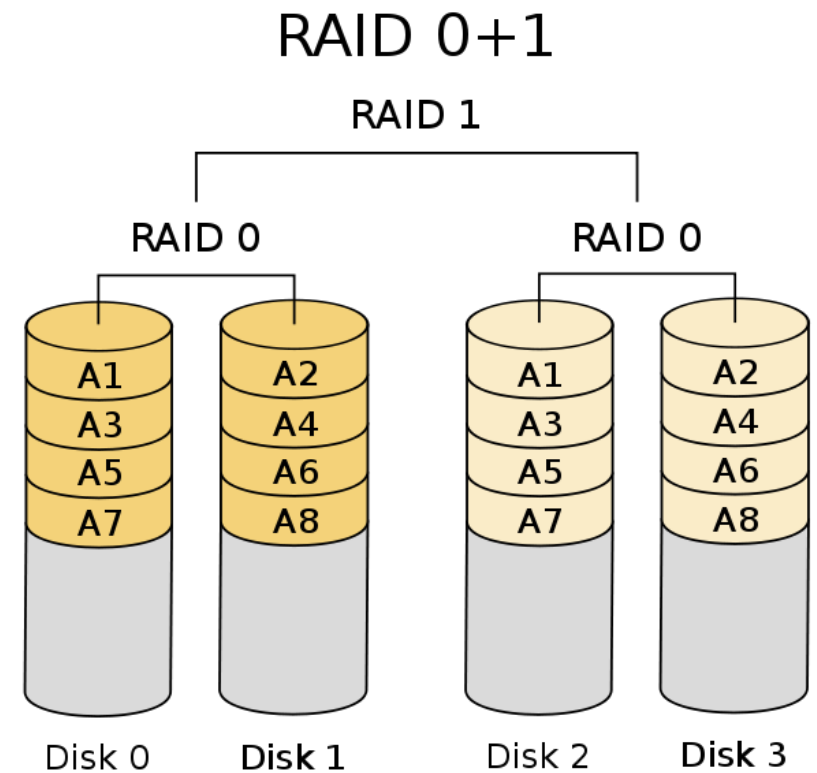
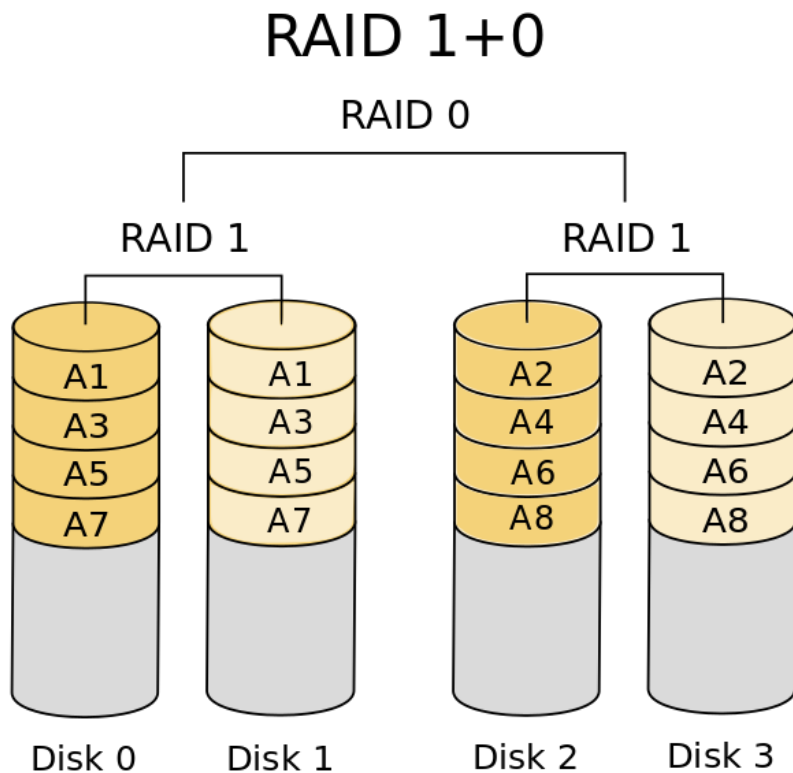
RAID 5



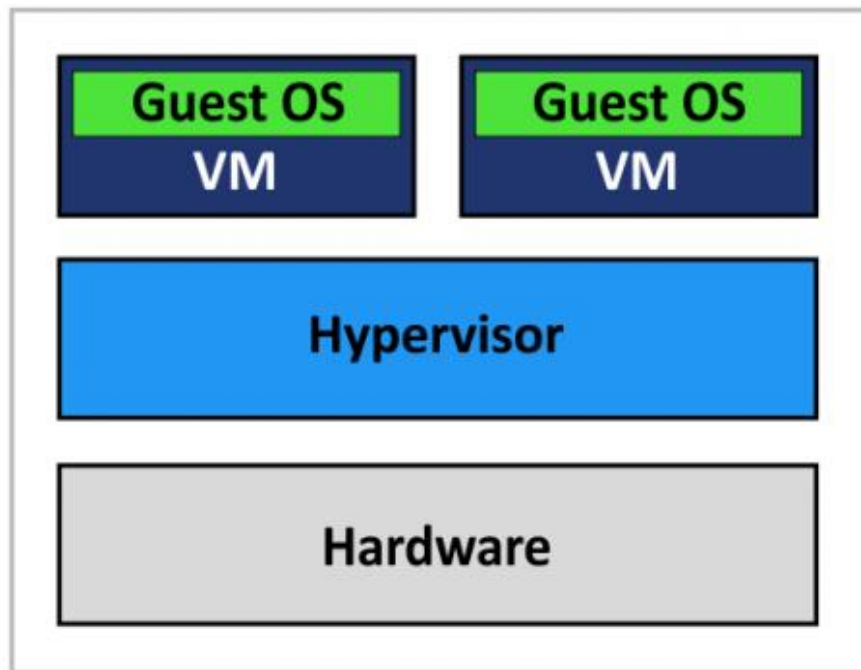
RAID 6



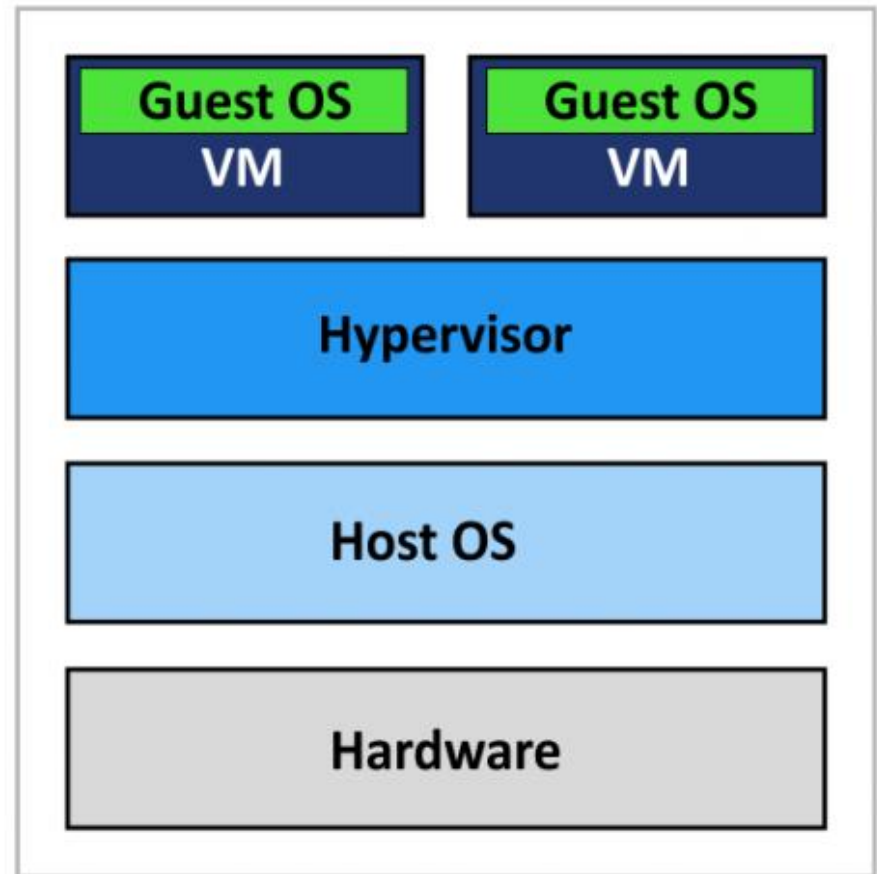
# Mixed RAID types principle



# Virtual machine approach

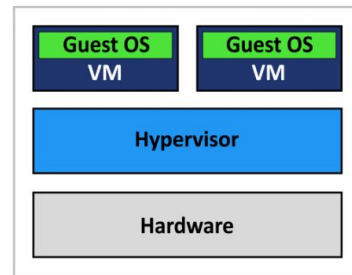


**Type 1 Hypervisor  
(Bare-Metal Architecture)**

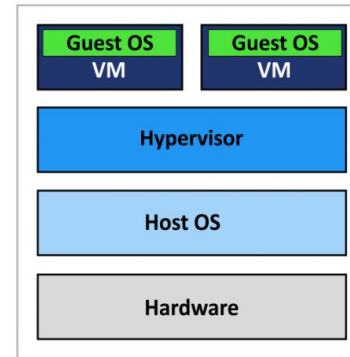


**Type 2 Hypervisor  
(Hosted Architecture)**

# Virtual machine approach



Type 1 Hypervisor  
(Bare-Metal Architecture)

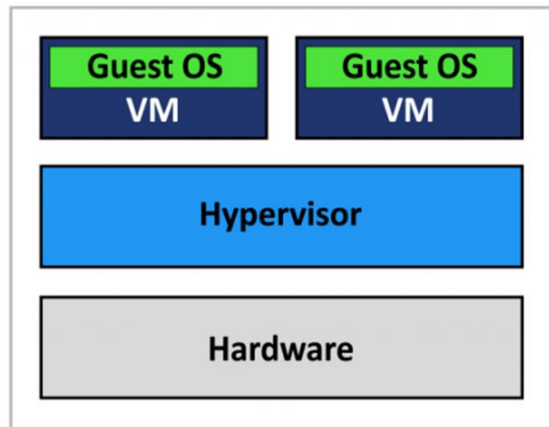


Type 2 Hypervisor  
(Hosted Architecture)

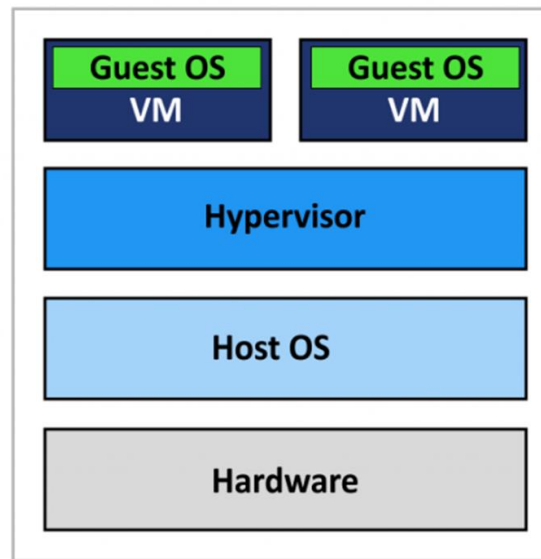
Vmware ESXi  
Microsoft Hyper-V Server  
Citrix XenServer  
KVM

VMware Workstation  
Virtualbox

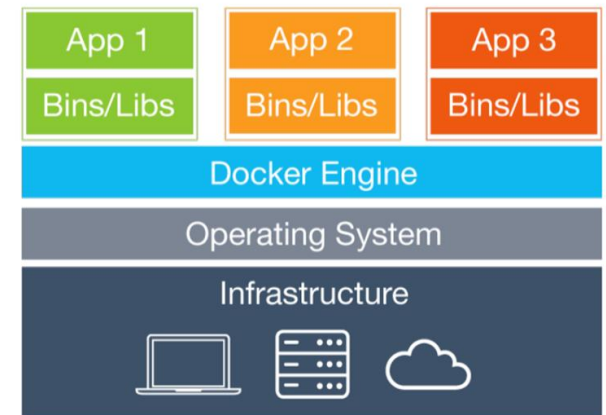
# VM vs Docker



**Type 1 Hypervisor  
(Bare-Metal Architecture)**



**Type 2 Hypervisor  
(Hosted Architecture)**



**Docker**

# VM vs Docker

