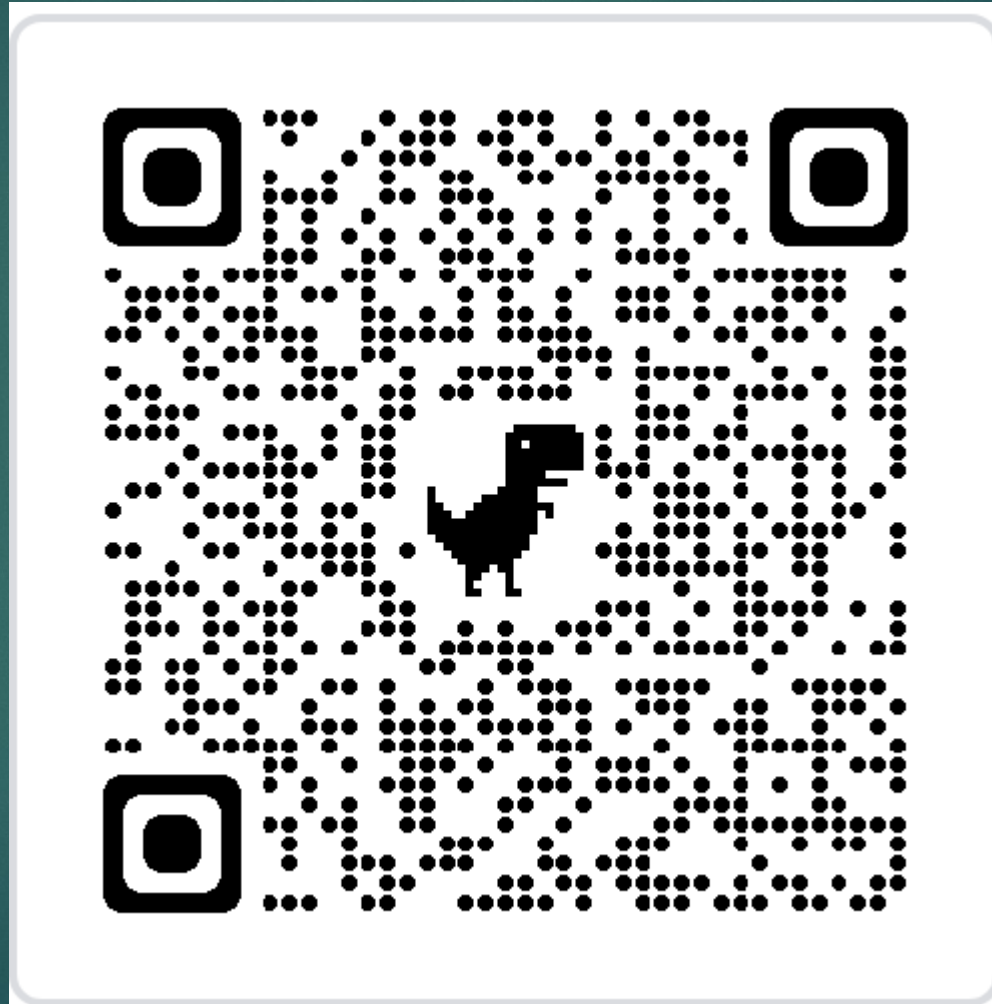


Do Attendance please. □







# RAID and Local Cache Repository

BY: CONNOR ANDERSON



# Verse

Count it all joy, my brothers, when you meet trials of various kinds, for you know that the testing of your faith produces steadfastness.

James 1:2&3 (NIV)



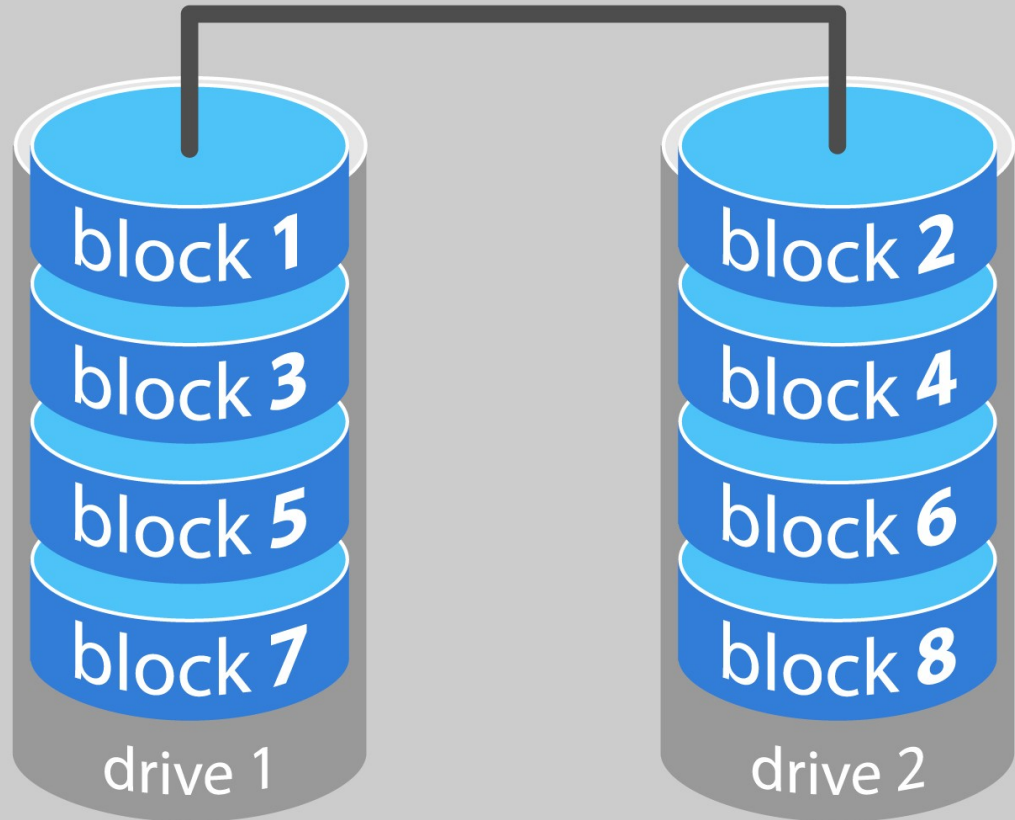
# What is RAID

- ▶ Stands for Redundant Array of Independent Disks
- ▶ Takes multiple disks and makes them one unit
- ▶ Used for increasing writing speed or information safety
- ▶ Not a replacement for backups
- ▶ Software and Hardware RAID



# RAID 0

striping

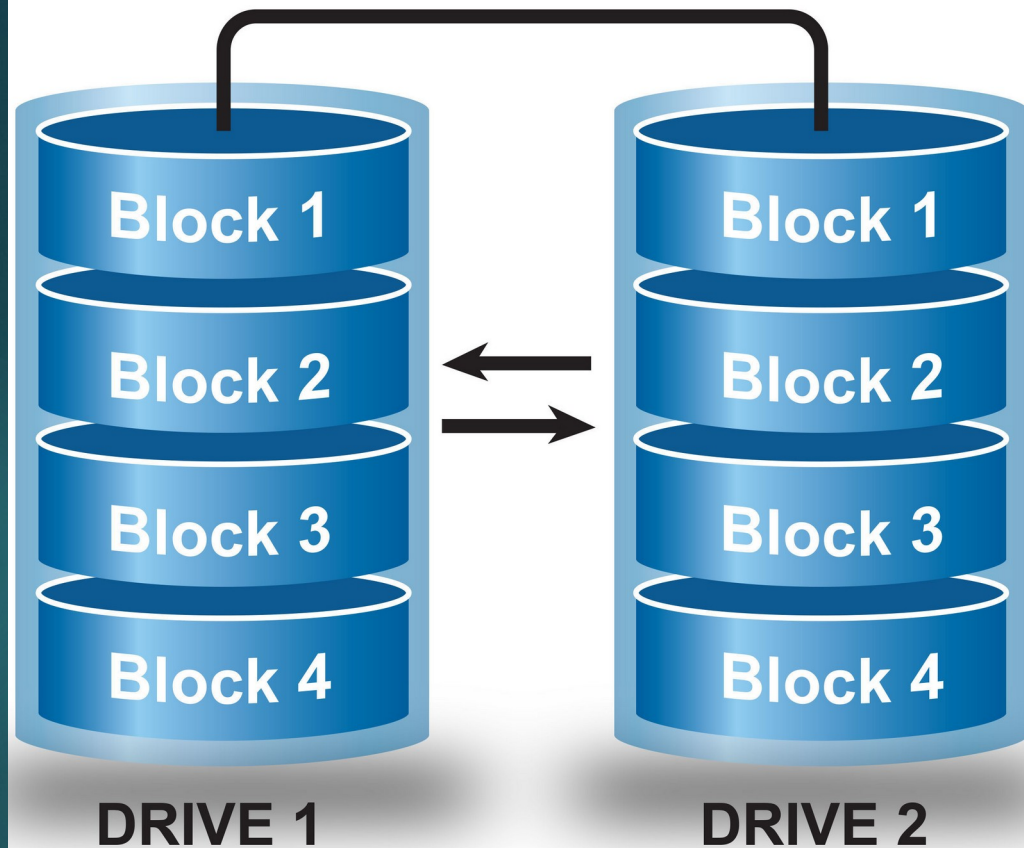


## Raid 0

### STRIPING

- Faster writing speeds
- Easier to lose data

# RAID 1



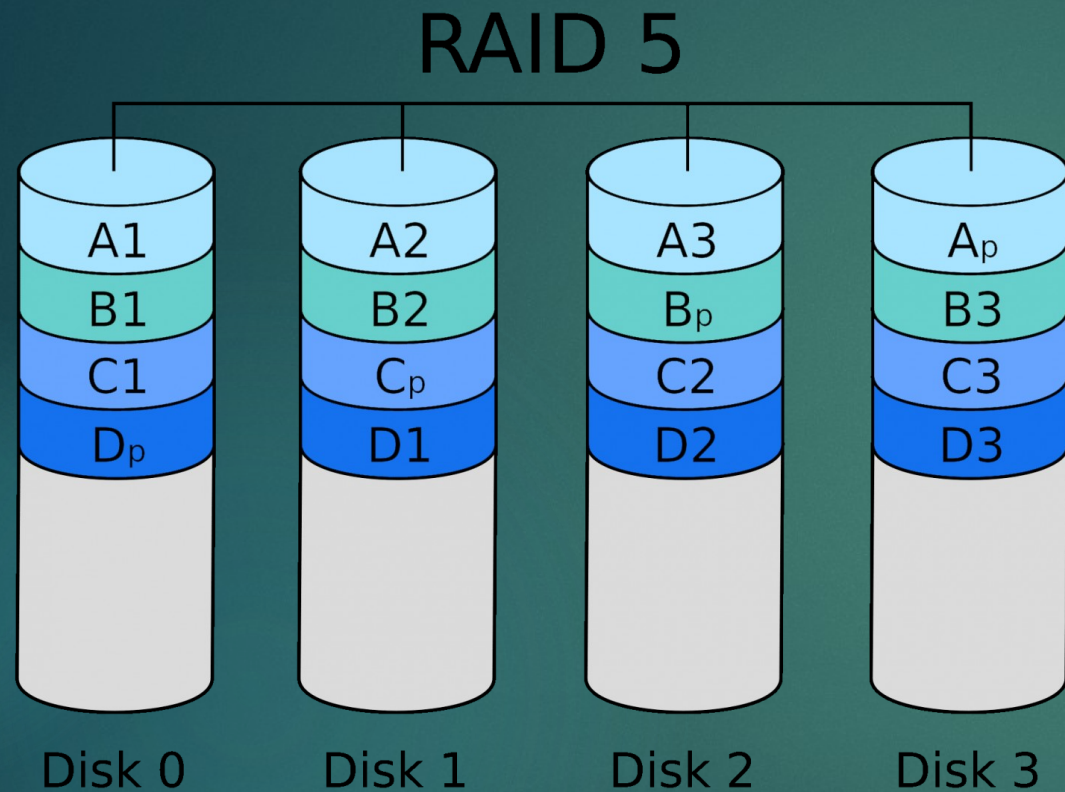
Mirrored Data to both Drives

## Raid 1

### MIRRORING

- Slower writing speeds
- More secure data





# Raid 5

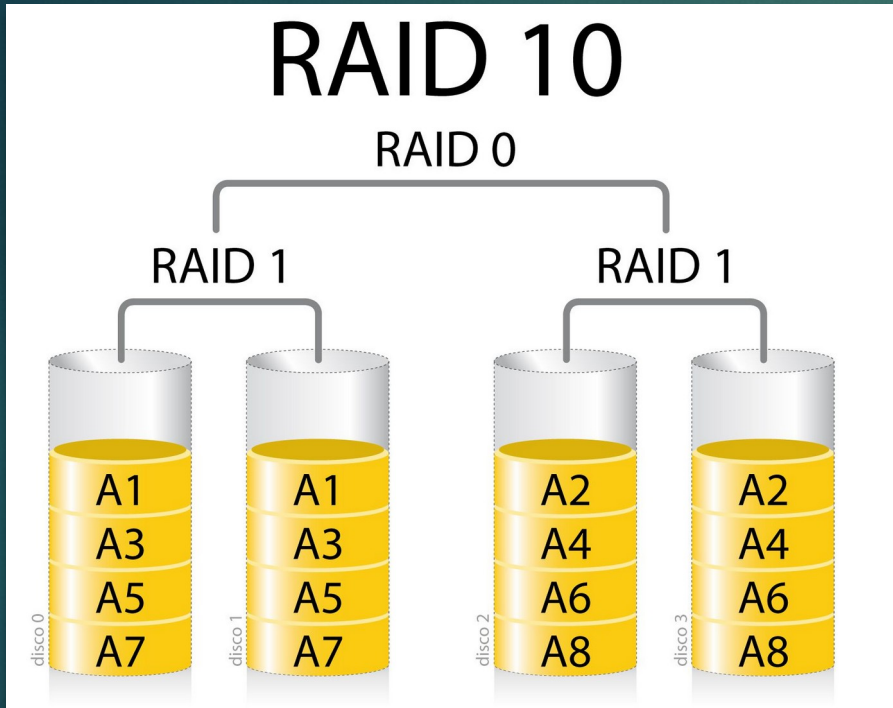
STRIPING WITH PARITY

- Loses an entire drive
- Faster writing speeds
- More secure
- Needs a min of two drives

# Raid 10

WHAT IS 1 + 0? 10

- ▶ Combination of Raid 1 and 0
- ▶ Faster writing speeds
- ▶ Redundancy





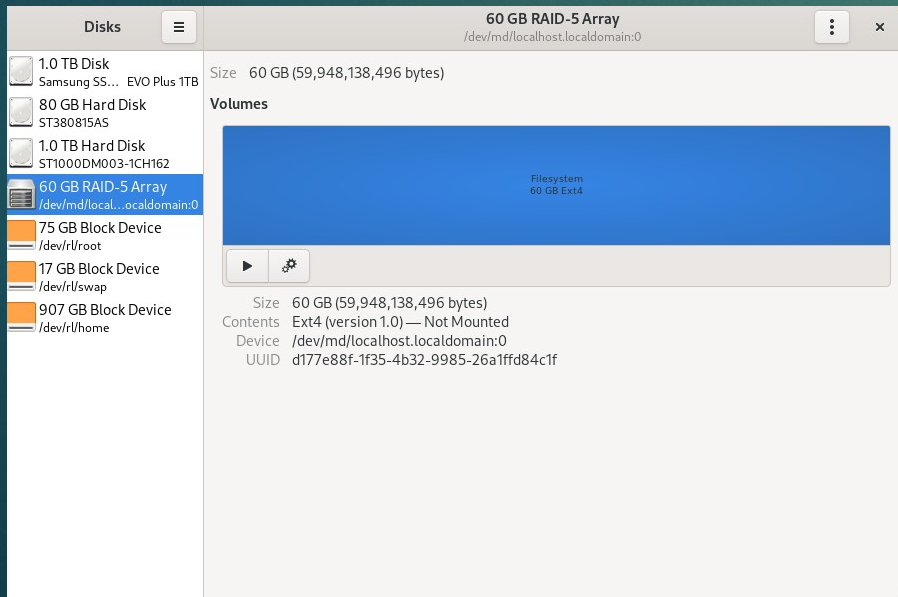
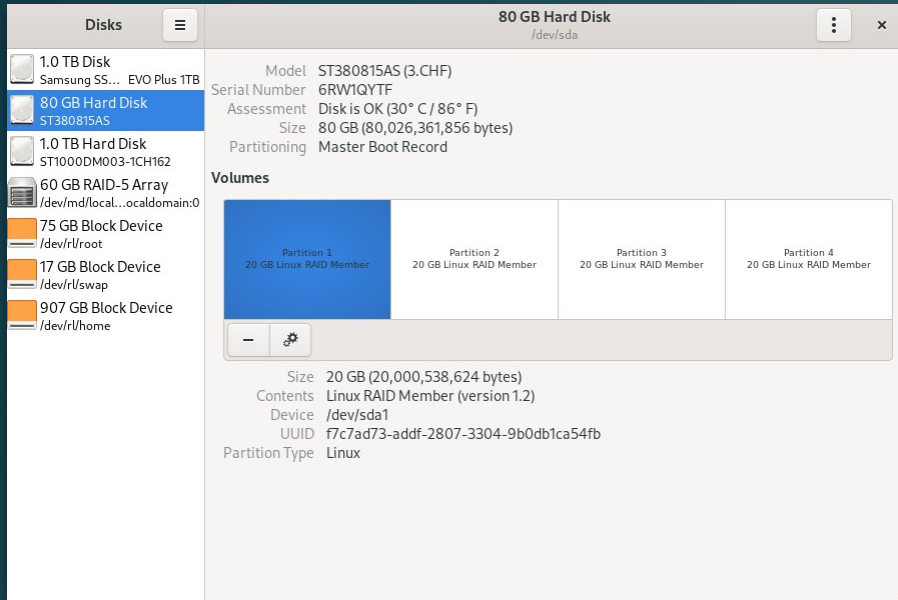
# How to set up Raid

```
kendar@localhost:~  
[kendar@localhost ~]$ cat /proc/partitions  
major minor #blocks name  
259      0 976762584 nvme0n1  
259      1   102400 nvme0n1p1  
259      2    16384 nvme0n1p2  
259      3 976105714 nvme0n1p3  
259      4   534528 nvme0n1p4  
8        0 78150744 sda  
8        1 19531776 sda1  
8        2 19531776 sda2  
8        3 19531776 sda3  
8        4 19554304 sda4  
8       16 976762584 sdb  
8       17   524288 sdb1  
8       18  1048576 sdb2  
8       19 975187968 sdb3  
253      0 73400320 dm-0  
253      1 16461824 dm-1  
9       127 58543104 md127  
253      2 885321728 dm-2  
[kendar@localhost ~]$
```

- ▶ Start by partitioning the hard drives
- ▶ This can be done in command line or “disks”
- ▶ Here’s how to do it in command line:
  - ▶ Cat /proc/partitions
  - ▶ Fdisk “partition location”
  - ▶ N (create a new partition)
  - ▶ P (primary partition)
  - ▶ 1 (partition number)
  - ▶ W (write out)

# Using MDADM create the RAID array

- ▶ Cat /proc/partitions
- ▶ Sudo mdadm --create /dev/md0 --yes --l 5 --n 4 /dev/sda1 /dev/sda2 /dev/sda3 /dev/sda4
- ▶ Cat /proc/partitions
- ▶ Mkfs.ext4 /dev/md0
- ▶ Mount /dev/md0 /mnt





# Repository

- ▶ A local storage area for important files or data
- ▶ Mirror's specifically are a location to get updates for software



# How to (hypothetically) set up a basic repository?

- ▶ Yum install yum-utils createrepo
- ▶ Reposync -gpcheck -1 -repoid=<rep-id>
- ▶ Cd /var/www/html/<rep-id>
- ▶ Createrepo -v /var/www/html/<rep\_id>

```
mirror_mod = modifier_ob.  
# Set mirror object to mirror_  
mirror_mod.mirror_object =  
operation == "MIRROR_X":  
mirror_mod.use_x = True  
mirror_mod.use_y = False  
mirror_mod.use_z = False  
operation == "MIRROR_Y":  
mirror_mod.use_x = False  
mirror_mod.use_y = True  
mirror_mod.use_z = False  
operation == "MIRROR_Z":  
mirror_mod.use_x = False  
mirror_mod.use_y = False  
mirror_mod.use_z = True  
  
# Selection at the end -add  
mirror_ob.select= 1  
modifier_ob.select=1  
context.scene.objects.active  
("Selected" + str(modifier_ob.  
mirror_ob.select = 0  
= bpy.context.selected_object  
data.objects[one.name].select  
  
print("please select exactly  
  
-- OPERATOR CLASSES --  
  
types.Operator):  
on X mirror to the selected  
object.mirror_mirror_x"  
mirror X"  
  
context):  
context.active_object is not
```





Thank you!