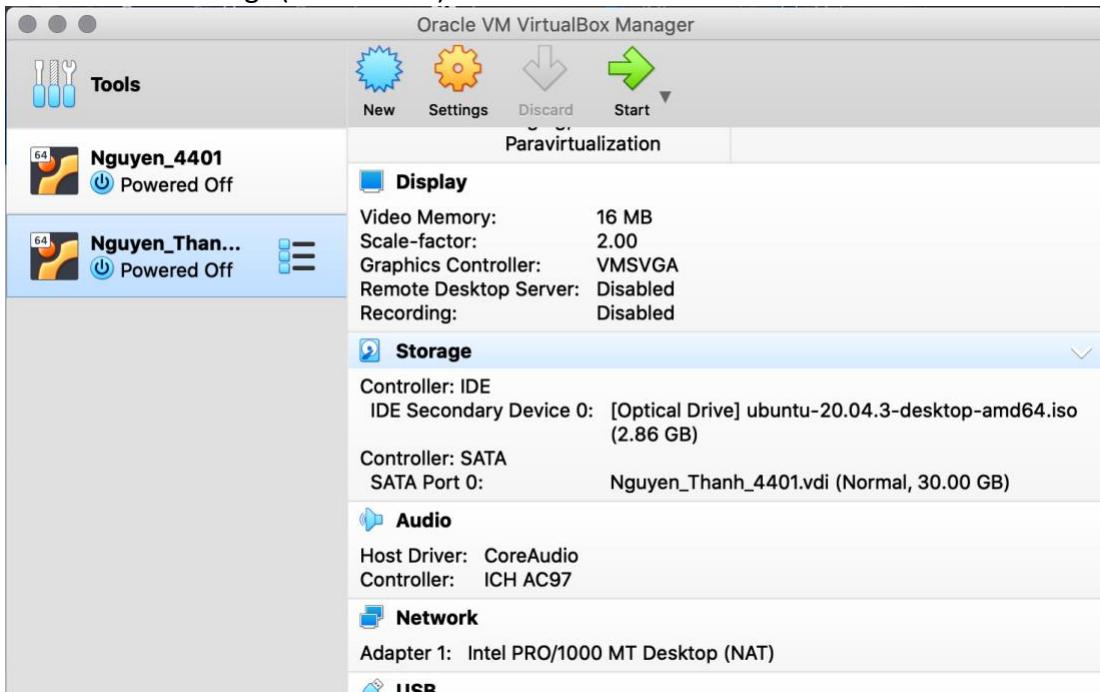
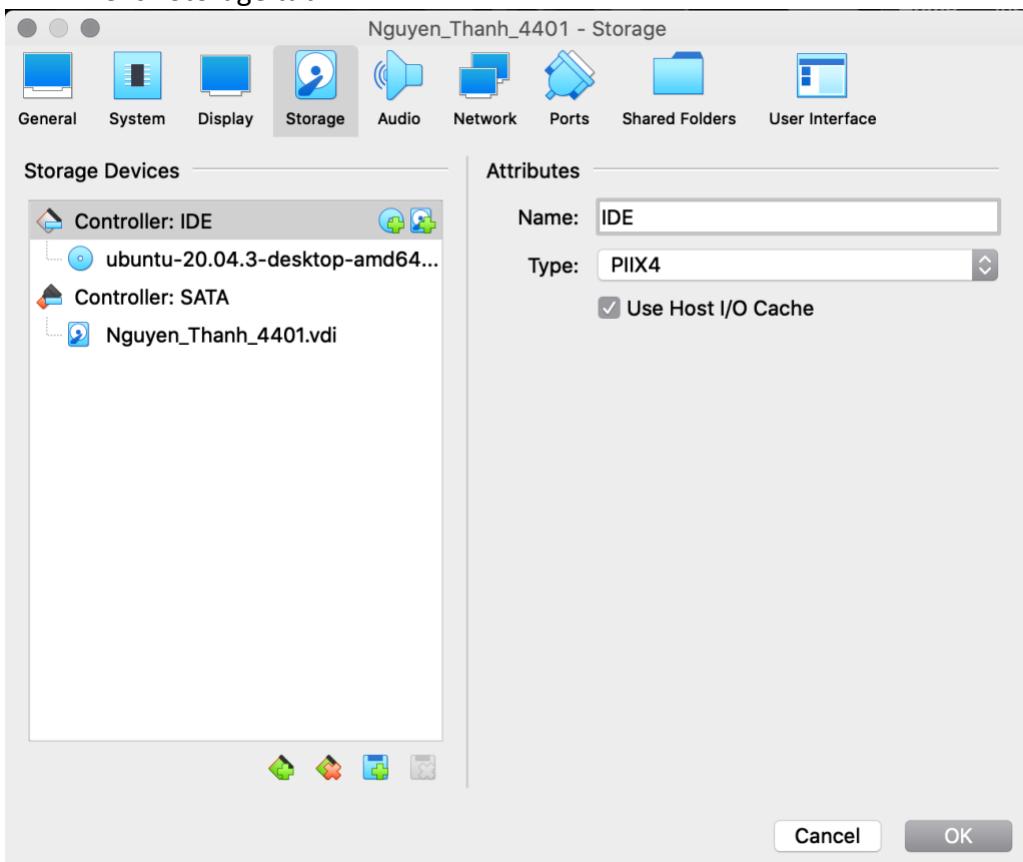


Thanh Nguyen

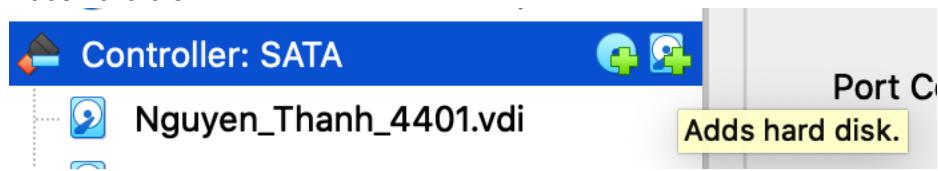
1. Click Settings (Yellow Icon)



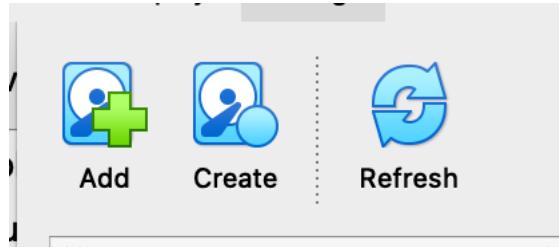
2. Click Storage tab



3. Adds hard disk



4. Click Create



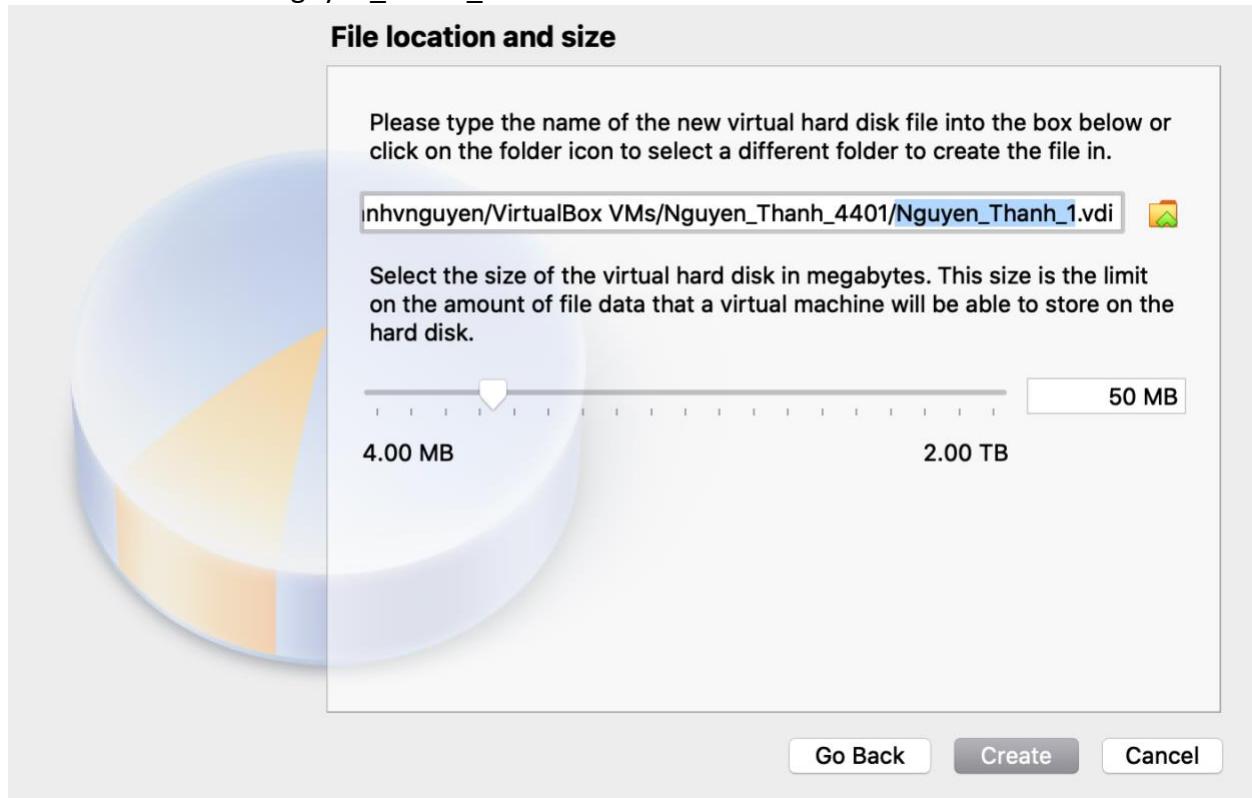
5. Choose VDI and continue



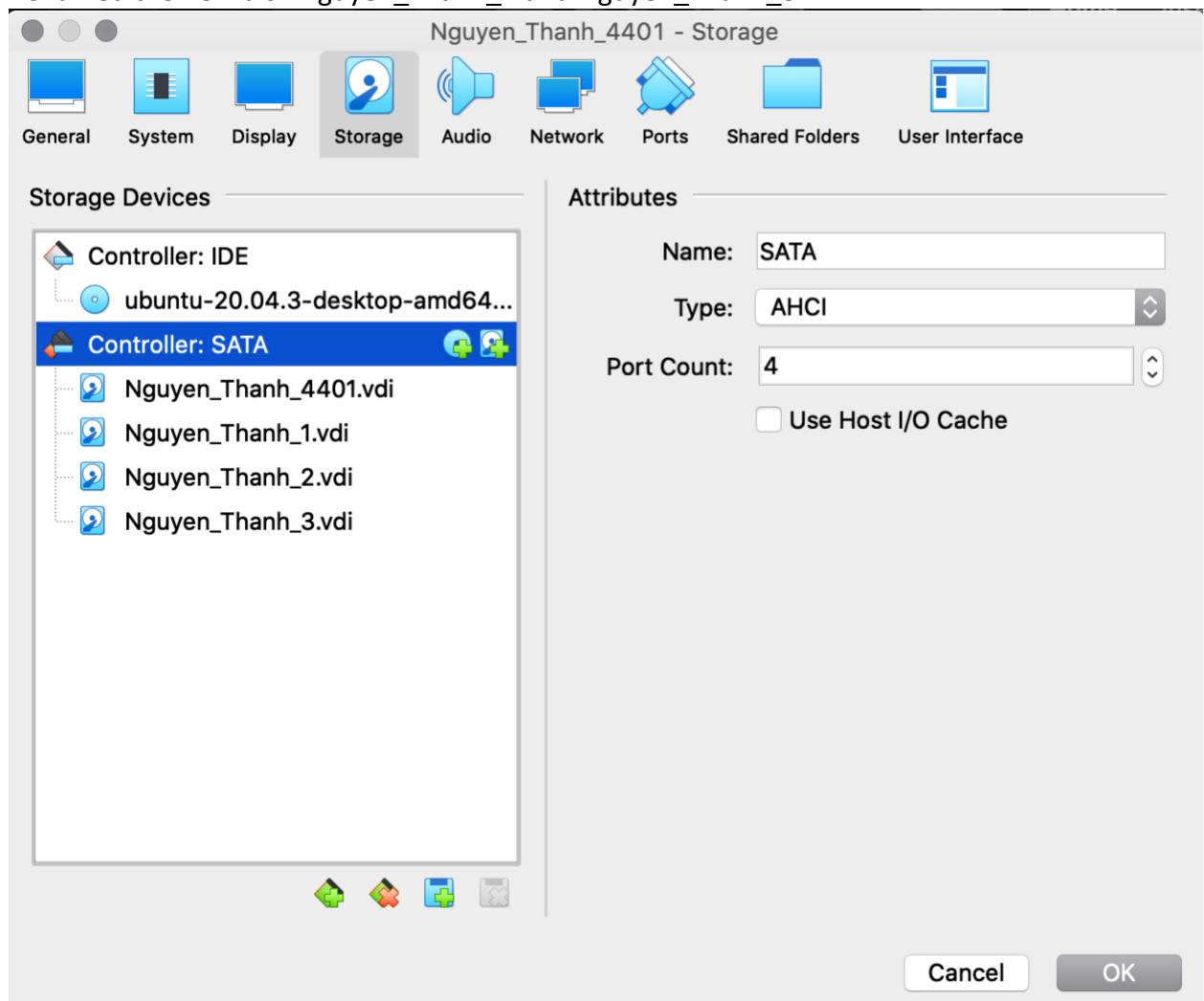
6. Select Dynamically allocated



7. Renamed the vdi to Nguyen_Thanh_1.vdi and resized the disk to 50 MB and click Create



8. Repeated Step 7-12 to create two more disks
9. Renamed the new disk Nguyen_Thanh_2 and Nguyen_Thanh_3



Storage	
Controller: IDE	
IDE Primary Device 0:	[Optical Drive] ubuntu-20.04.3-desktop-amd64.iso (2.86 GB)
Controller: SATA	
SATA Port 0:	Nguyen_Thanh_4401.vdi (Normal, 30.00 GB)
SATA Port 1:	Nguyen_Thanh_1.vdi (Normal, 50.00 MB)
SATA Port 2:	Nguyen_Thanh_2.vdi (Normal, 50.00 MB)
SATA Port 3:	Nguyen_Thanh_3.vdi (Normal, 50.00 MB)

10. Started my VirtualBox and terminal and went into my root

```
root@thanh-VirtualBox: /home/thanh
thanh@thanh-VirtualBox:~$ gparted
Command 'gparted' not found, but can be installed with:
sudo apt install gparted
thanh@thanh-VirtualBox:~$ fdisk -lu /dev/sd[bcd]
fdisk: cannot open /dev/sdb: Permission denied
fdisk: cannot open /dev/sdc: Permission denied
fdisk: cannot open /dev/sdd: Permission denied
thanh@thanh-VirtualBox:~$ sudo -s
[sudo] password for thanh:
root@thanh-VirtualBox:/home/thanh# fdisk -l /dev/sda
Disk /dev/sda: 30 GiB, 32212254720 bytes, 62914560 sectors
Disk model: VBOX HARDDISK
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: dos
Disk identifier: 0x5f5c53df

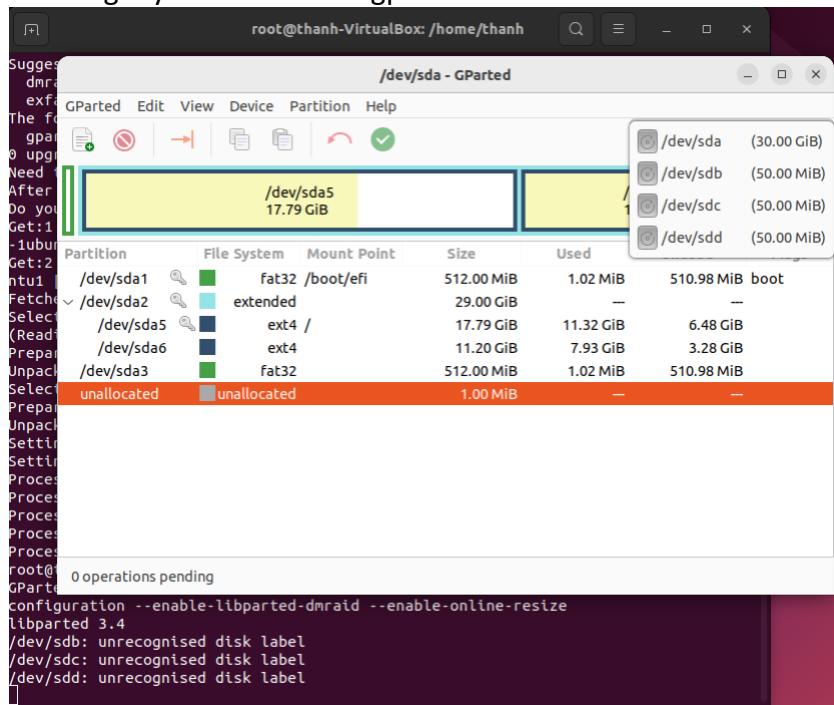
Device      Boot   Start     End   Sectors   Size Id Type
/dev/sda1    *      2048 1050623  1048576  512M  b W95 FAT32
/dev/sda2          1052670 61863935 60811266   29G  5 Extended
/dev/sda3          61863936 62912511  1048576  512M  b W95 FAT32
/dev/sda5          1052672 38367588 37314917 17.8G 83 Linux
/dev/sda6          38369280 61863935 23494656 11.2G 83 Linux

Partition table entries are not in disk order.
root@thanh-VirtualBox:/home/thanh# gparted
Command 'gparted' not found, but can be installed with:
apt install gparted
root@thanh-VirtualBox:/home/thanh# apt install gparted
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following packages were automatically installed and are no longer required:
  app-install-data-partner bsdmainutils chromium-codecs-ffmpeg-extra cpp-9
  gcc-10-base gcc-9-base gir1.2-clutter-1.0 gir1.2-clutter-gst-3.0
```

11. Installed gpt

```
root@thanh-VirtualBox: /home/thanh# apt install gparted
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following packages were automatically installed and are no longer required:
  app-install-data-partner bsdmainutils chromium-codecs-ffmpeg-extra cpp-9
  gcc-10-base gcc-9 gcc-9-base gir1.2-clutter-1.0 gir1.2-clutter-gst-3.0
  gir1.2-cogl-1.0 gir1.2-cogl-pango-1.0 gir1.2-gnomebluetooth-1.0
  gir1.2-gtkclutter-1.0 gnome-getting-started-docs gnome-screenshot
  gstreamer1.0-vaapi ippusbx libamtk-5.0 libamtk-5-common libaoam0 libasan5
  libasjni-8-heimdal libboost-date-time1.71.0 libboost-filesystem1.71.0
  libboost-iostreams1.71.0 libboost-locale1.71.0 libboost-thread1.71.0
  libbrlapi0.7 libcamel-1.2-62 libcbor0.6 libcdio18 libcmis-0.5-5v5
  libcodec2-0.9 libdns-export1109 libdpkg-perl libdvdn4 libdvdread7
  libedataserver-1.2-24 libedataserverui-1.2-2 libextutils-pkgconfig-perl
  libfftw3-double3 libfile-fcntllock-perl libfuse2 libfwupdplugin1
  libgcc-9-dev libgdk-pixbuf-xlib-2.0-0 libgdk-pixbuf2.0-0 libgssapi3-heimdal
  libgstreamer-plugins-bad1.0-0 libgupnp-1.2-0 libhandy-0.0-0
  libhcrypto4-heimdal libheimbase1-heimdal libheimntlm0-heimdal libhogweeds5
  libhx509-5-heimdal libicu66 libidn11 libigdgmm11 libisl22 libjson-c4
  libjuh-java libjurt-java libkrb5-26-heimdal libldap-2.4-2
  libreoffice-java libl10n12 libmozjs-68-0 libmpdec2 libmysqlclient21
  libneon27-gnutls libnettle7 libntfs-3g883 liborcus-0.15-0 libpgm-5.2-0
  libphonenumber7 libpoppler97 libprotobuf17 libpython3.8 libpython3.8-minimal
  libpython3.8-stdlib libqpdf26 libraw19 libreoffice-style-tango libridl-jav
  libbroken18-heimdal libsane libtepl-4.0 libtracker-control-2.0-0
  libtracker-miner-2.0-0 libtracker-sparql-2.0-0 libunloader-jav
  libva-wayland2 libvpx6 libwebp6 libwindo-heimdal libwmf0.2-7 libx264-155
  libx265-179 libxmlb1 ltrace lz4 mysql-common ncal pkg-config
  popularity-contest python3-entrypoints python3-requests-unixsocket
  python3-simplejson python3.8 python3.8-minimal syslinux syslinux-common
  syslinux-legacy ure-jav
  vino xul-ext-ubufox
Use 'apt autoremove' to remove them.
The following additional packages will be installed:
  gparted-common
```

12. Showing my 3 VM disk thru gparted



13. Showing off my 3 VMs through fdisk -lu /dev/sd/[bcd]

```
root@thanh-VirtualBox:/home/thanh# fdisk -lu /dev/sd[bcd]
Disk /dev/sdb: 50 MiB, 52428800 bytes, 102400 sectors
Disk model: VBOX HARDDISK
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes

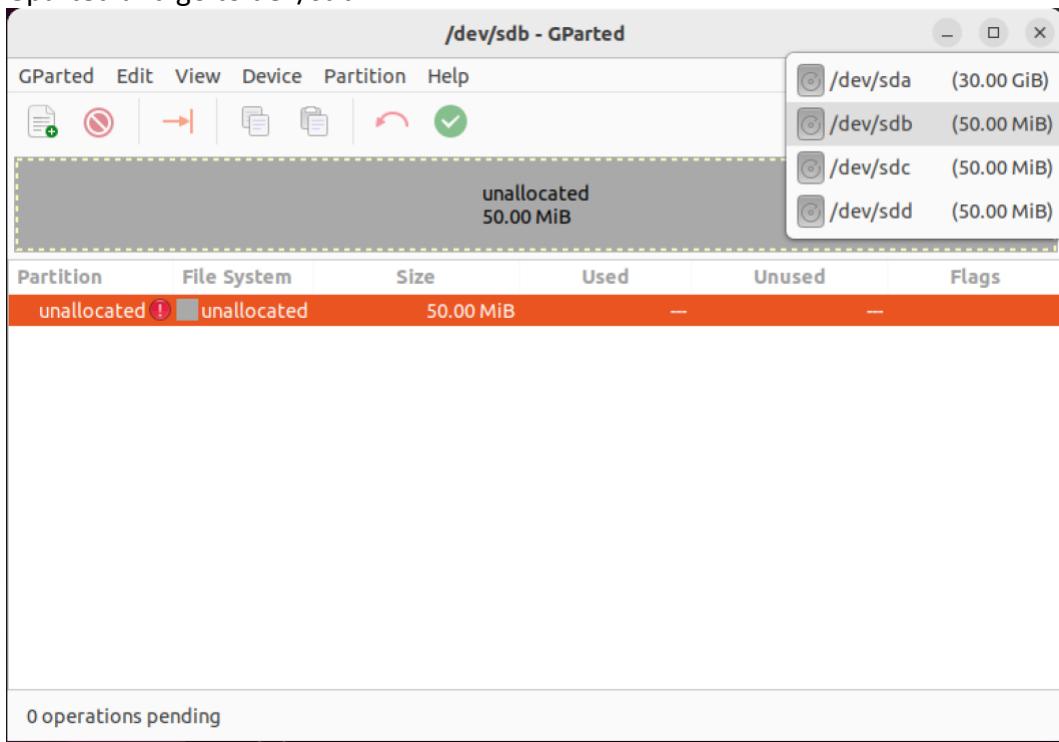
Disk /dev/sdc: 50 MiB, 52428800 bytes, 102400 sectors
Disk model: VBOX HARDDISK
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes

Disk /dev/sdd: 50 MiB, 52428800 bytes, 102400 sectors
Disk model: VBOX HARDDISK
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
root@thanh-VirtualBox:/home/thanh# █
```

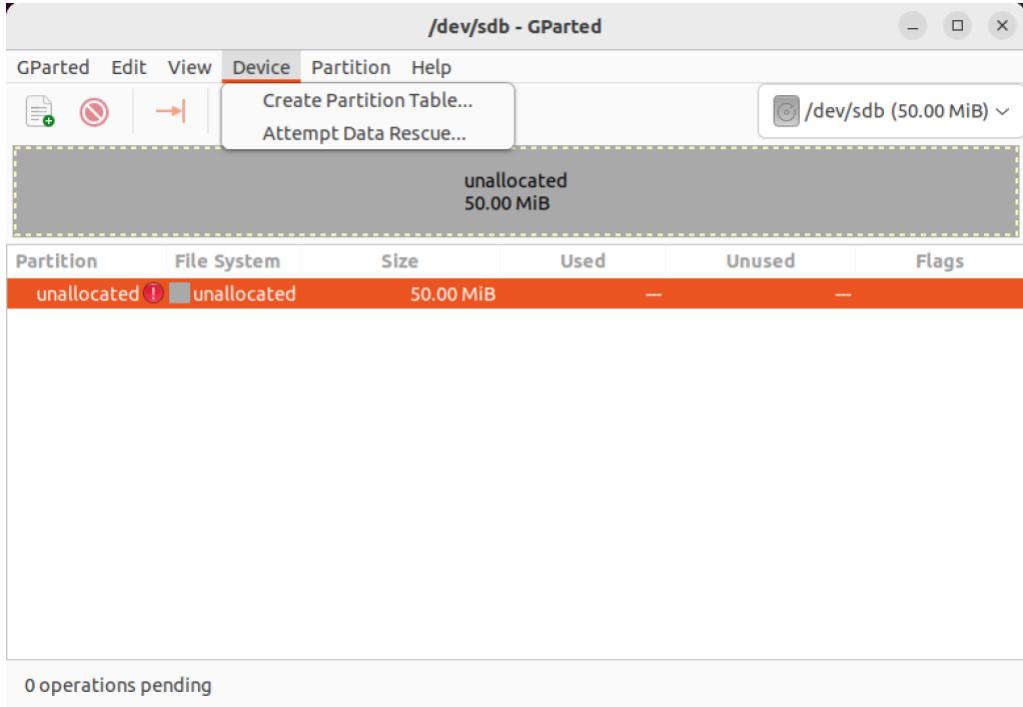
14. See all list information with “lsblk -a”

```
root@thanh-VirtualBox:/home/thanh# lsblk -a
NAME   MAJ:MIN RM   SIZE RO TYPE MOUNTPOINTS
loop0    7:0     0  55.6M  1 loop /snap/core18/2560
loop1    7:1     0     4K  1 loop /snap/bare/5
loop2    7:2     0  63.2M  1 loop /snap/core20/1623
loop3    7:3     0  55.6M  1 loop /snap/core18/2566
loop4    7:4     0 346.3M  1 loop /snap/gnome-3-38-2004/115
loop5    7:5     0   62M  1 loop /snap/core20/1611
loop6    7:6     0   48M  1 loop /snap/snapd/16778
loop7    7:7     0  91.7M  1 loop /snap/gtk-common-themes/1535
loop8    7:8     0 400.8M  1 loop /snap/gnome-3-38-2004/112
loop9    7:9     0  65.2M  1 loop /snap/gtk-common-themes/1519
loop10   7:10    0   47M  1 loop /snap/snapd/16292
loop11   7:11    0  54.2M  1 loop /snap/snap-store/558
loop12   7:12    0 177M  1 loop /snap/firefox/1775
loop13   7:13    0 176.9M  1 loop /snap/firefox/1810
loop14   7:14    0  45.9M  1 loop /snap/snap-store/592
loop15   7:15    0     0B  0 loop
sda      8:0     0   30G  0 disk
└─sda1   8:1     0  512M  0 part /boot/efi
└─sda2   8:2     0     1K  0 part
└─sda3   8:3     0  512M  0 part
└─sda5   8:5     0 17.8G  0 part /
└─sda6   8:6     0 11.2G  0 part
sdb      8:16    0   50M  0 disk
sdc      8:32    0   50M  0 disk
sdd      8:48    0   50M  0 disk
sr0     11:0    1 1024M  0 rom
root@thanh-VirtualBox:/home/thanh#
```

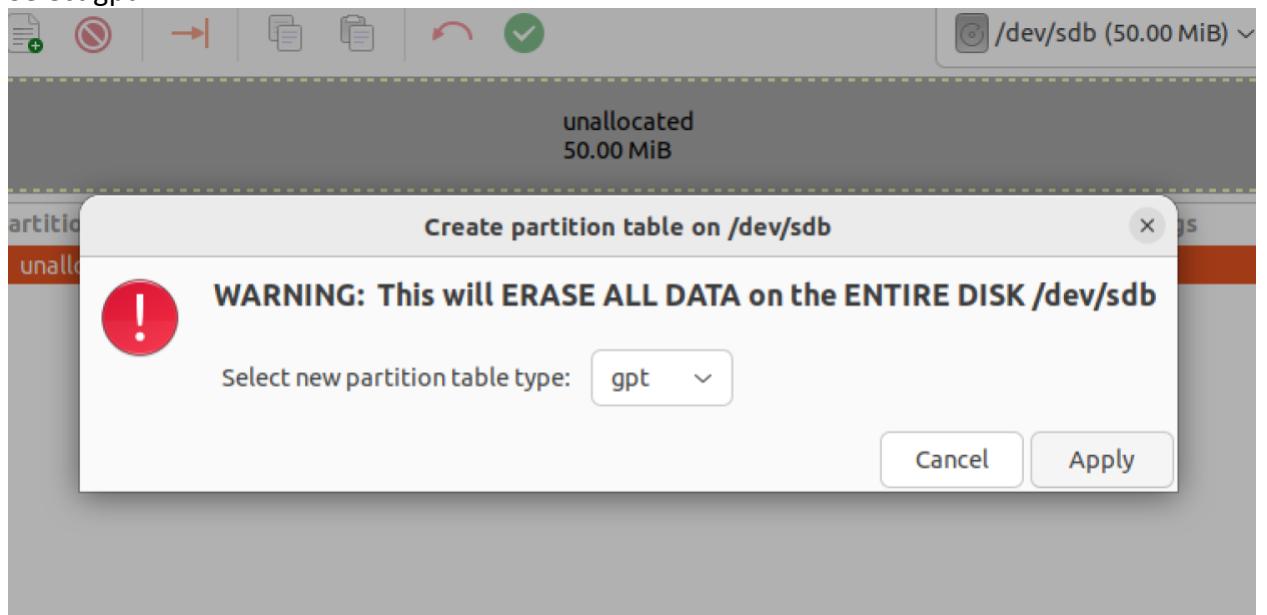
15. Gparted and go to dev/sdb



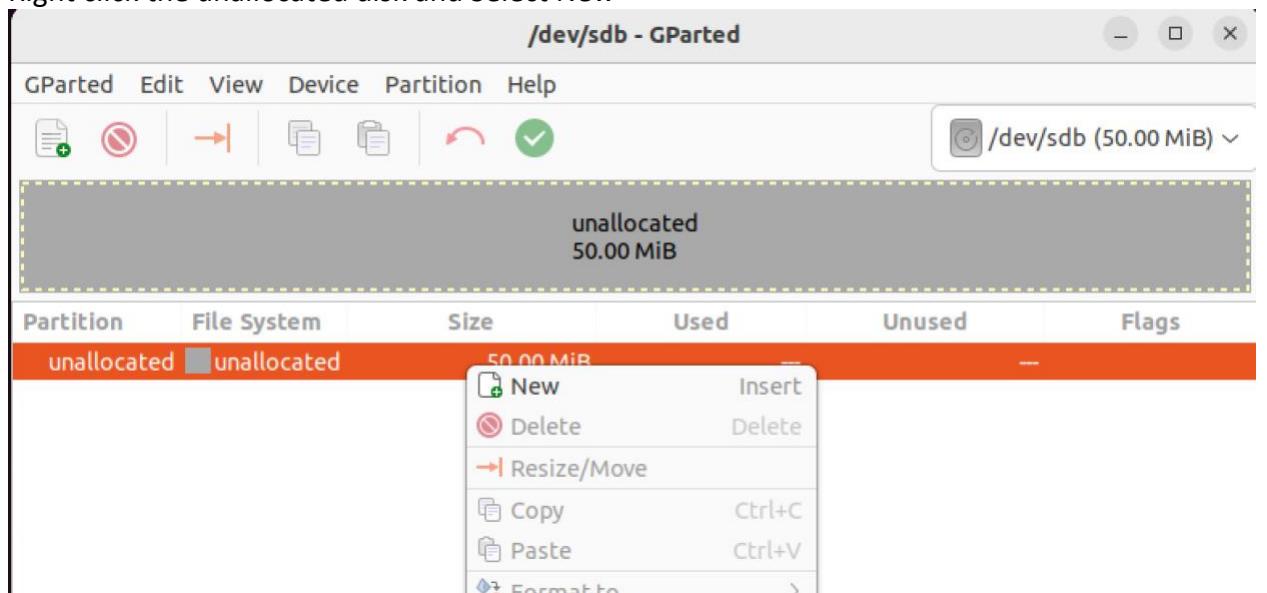
16. Click Device and Create Partition Table



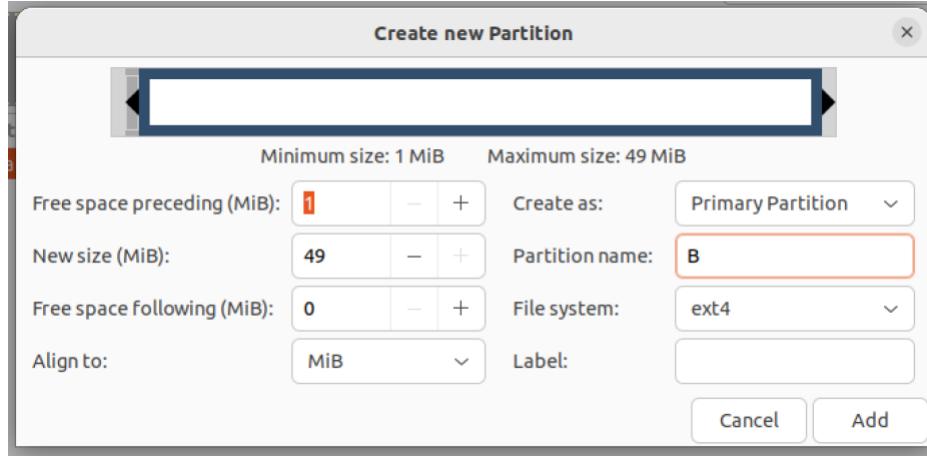
17. Select gpt



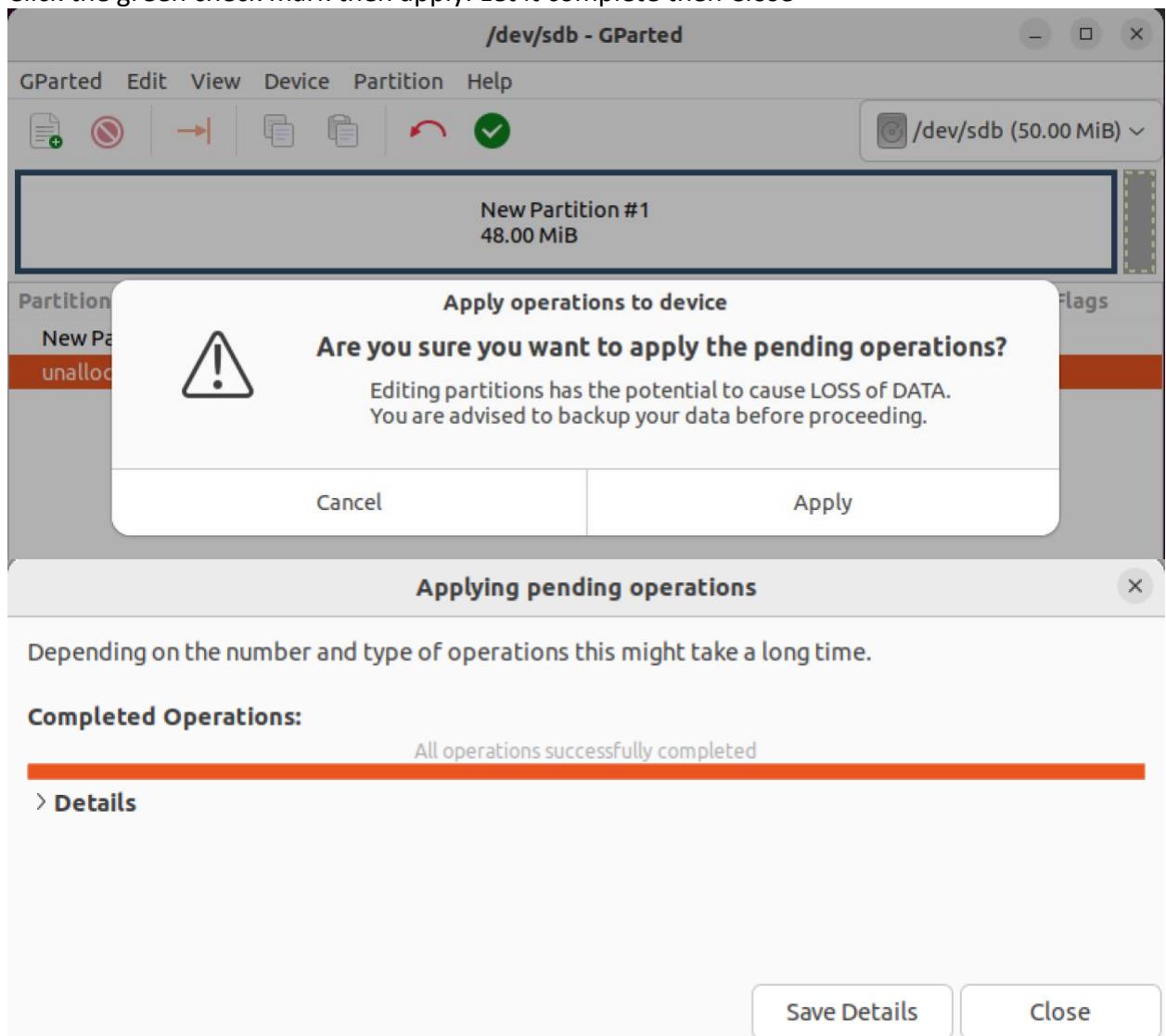
18. Right click the unallocated disk and Select New



19. Change partition name to B since this is /dev/adb and make sure File System is ext4



20. Click the green check mark then apply. Let it complete then Close



21. Repeat steps 16-20 for /dev/sdc and /dev/sdd and rename the Partition File to C and D
22. Lsblk -a

```
root@thanh-VirtualBox:/home/thanh# lsblk -a
NAME   MAJ:MIN RM   SIZE RO TYPE MOUNTPOINTS
loop0    7:0     0  55.6M  1 loop /snap/core18/2560
loop1    7:1     0     4K  1 loop /snap/bare/5
loop2    7:2     0  63.2M  1 loop /snap/core20/1623
loop3    7:3     0  55.6M  1 loop /snap/core18/2566
loop4    7:4     0 346.3M  1 loop /snap/gnome-3-38-2004/115
loop5    7:5     0    62M  1 loop /snap/core20/1611
loop6    7:6     0    48M  1 loop /snap/snapd/16778
loop7    7:7     0  91.7M  1 loop /snap/gtk-common-themes/1535
loop8    7:8     0 400.8M  1 loop /snap/gnome-3-38-2004/112
loop9    7:9     0  65.2M  1 loop /snap/gtk-common-themes/1519
loop10   7:10    0    47M  1 loop /snap/snapd/16292
loop11   7:11    0  54.2M  1 loop /snap/snap-store/558
loop12   7:12    0  177M  1 loop /snap/firefox/1775
loop13   7:13    0 176.9M  1 loop /snap/firefox/1810
loop14   7:14    0  45.9M  1 loop /snap/snap-store/592
loop15   7:15    0     0B  0 loop
sda      8:0     0   30G  0 disk
└─sda1   8:1     0  512M  0 part /boot/efi
└─sda2   8:2     0     1K  0 part
└─sda3   8:3     0  512M  0 part
└─sda5   8:5     0 17.8G  0 part /
└─sda6   8:6     0 11.2G  0 part
sdb      8:16    0   50M  0 disk
└─sdb1   8:17    0  48M  0 part
sdc      8:32    0   50M  0 disk
└─sdc1   8:33    0  48M  0 part
sdd      8:48    0   50M  0 disk
└─sdd1   8:49    0  48M  0 part
sr0     11:0    1 1024M  0 rom
root@thanh-VirtualBox:/home/thanh#
```

23. Tried pvcreate /dev/sd[bcd]

```
root@thanh-VirtualBox:/home/thanh# pvcreate /dev/sd/[bcd]
  No device found for /dev/sd/[bcd].
root@thanh-VirtualBox:/home/thanh# pvcreate /dev/sd[bcd]
  Cannot use /dev/sdb: device is partitioned
  Cannot use /dev/sdc: device is partitioned
  Cannot use /dev/sdd: device is partitioned
root@thanh-VirtualBox:/home/thanh# gparted
GParted 1.3.1
configuration --enable-libparted-dmraid --enable-online-resize
libparted 3.4
root@thanh-VirtualBox:/home/thanh# pvcreate /dev/sd[bcd]
  Cannot use /dev/sdb: device is partitioned
  Cannot use /dev/sdc: device is partitioned
  Cannot use /dev/sdd: device is partitioned
root@thanh-VirtualBox:/home/thanh#
```

24. Cat /proc/mdstat didn't work

```
root@thanh-VirtualBox:/home/thanh# cat /proc/mdstat
Personalities :
unused devices: <none>
root@thanh-VirtualBox:/home/thanh# mdadm --detail --scan
```

25. Fdisk -lu /dev/sd[bcd]

```
root@thanh-VirtualBox:/home/thanh# fdisk -lu /dev/sd[bcd]
Disk /dev/sdb: 50 MiB, 52428800 bytes, 102400 sectors
Disk model: VBOX HARDDISK
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: gpt
Disk identifier: 0E795CD6-C547-41D6-B04A-02CFF33A00E6

Device      Start    End Sectors Size Type
/dev/sdb1    2048 100351   98304  48M Linux filesystem

Disk /dev/sdc: 50 MiB, 52428800 bytes, 102400 sectors
Disk model: VBOX HARDDISK
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: gpt
Disk identifier: BAA96F00-E037-4B1C-9227-103E3A52C63E

Device      Start    End Sectors Size Type
/dev/sdc1    2048 100351   98304  48M Linux filesystem

Disk /dev/sdd: 50 MiB, 52428800 bytes, 102400 sectors
Disk model: VBOX HARDDISK
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: gpt
Disk identifier: 4877BB51-8614-4BB8-A87D-00DA155CBD01

Device      Start    End Sectors Size Type
/dev/sdd1    2048 100351   98304  48M Linux filesystem
root@thanh-VirtualBox:/home/thanh#
```

26. Lsblk -a

```
root@thanh-VirtualBox: /home/thanh
Disk identifier: 4877BB51-8614-4BB8-A87D-00DA155CBD01

Device      Start    End Sectors Size Type
/dev/sdd1    2048  100351   98304  48M Linux filesystem
root@thanh-VirtualBox:/home/thanh# lsblk -a
NAME  MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS
loop0    7:0    0  55.6M  1 loop /snap/core18/2560
loop1    7:1    0     4K  1 loop /snap/bare/5
loop2    7:2    0  63.2M  1 loop /snap/core20/1623
loop3    7:3    0  55.6M  1 loop /snap/core18/2566
loop4    7:4    0 346.3M  1 loop /snap/gnome-3-38-2004/115
loop5    7:5    0    62M  1 loop /snap/core20/1611
loop6    7:6    0    48M  1 loop /snap/snapd/16778
loop7    7:7    0  91.7M  1 loop /snap/gtk-common-themes/1535
loop8    7:8    0 400.8M  1 loop /snap/gnome-3-38-2004/112
loop9    7:9    0  65.2M  1 loop /snap/gtk-common-themes/1519
loop10   7:10   0    47M  1 loop /snap/snapd/16292
loop11   7:11   0  54.2M  1 loop /snap/snap-store/558
loop12   7:12   0   177M  1 loop /snap/firefox/1775
loop13   7:13   0 176.9M  1 loop /snap/firefox/1810
loop14   7:14   0   45.9M  1 loop /snap/snap-store/592
loop15   7:15   0     0B  0 loop
sda      8:0    0   30G  0 disk
└─sda1   8:1    0   512M 0 part /boot/efi
└─sda2   8:2    0     1K 0 part
└─sda3   8:3    0   512M 0 part
└─sda5   8:5    0  17.8G 0 part /
└─sda6   8:6    0  11.2G 0 part
sdb      8:16   0    50M  0 disk
└─sdb1   8:17   0   48M  0 part
sdc      8:32   0    50M  0 disk
└─sdc1   8:33   0   48M  0 part
sdd      8:48   0    50M  0 disk
└─sdd1   8:49   0   48M  0 part
sr0     11:0    1 1024M 0 rom
root@thanh-VirtualBox:/home/thanh#
```

27. Follow tutorial from website “Create the Array”

```
root@thanh-VirtualBox:/home/thanh# lsblk -o NAME,SIZE,FSTYPE,TYPE,MOUNTPOINT
NAME      SIZE FSTYPE   TYPE MOUNTPOINT
loop0    55.6M squashfs loop /snap/core18/2560
loop1     4K squashfs loop /snap/bare/5
loop2   63.2M squashfs loop /snap/core20/1623
loop3    55.6M squashfs loop /snap/core18/2566
loop4  346.3M squashfs loop /snap/gnome-3-38-2004/115
loop5     62M squashfs loop /snap/core20/1611
loop6    48M squashfs loop /snap/snapd/16778
loop7   91.7M squashfs loop /snap/gtk-common-themes/1535
loop8  400.8M squashfs loop /snap/gnome-3-38-2004/112
loop9   65.2M squashfs loop /snap/gtk-common-themes/1519
loop10   47M squashfs loop /snap/snapd/16292
loop11  54.2M squashfs loop /snap/snap-store/558
loop12  177M squashfs loop /snap/firefox/1775
loop13 176.9M squashfs loop /snap/firefox/1810
loop14  45.9M squashfs loop /snap/snap-store/592
sda       30G      disk
└─sda1   512M vfat    part /boot/efi
└─sda2     1K      part
└─sda3   512M vfat    part
└─sda5  17.8G ext4    part /
└─sda6  11.2G ext4    part
sdb       50M      disk
└─sdb1   48M ext4    part
sdc       50M      disk
└─sdc1   48M ext4    part
sdd       50M      disk
└─sdd1   48M ext4    part
sr0     1024M     rom
root@thanh-VirtualBox:/home/thanh#
```

28. Sudo mdadm --create --verbose /dev/md0 --level=0 --raid-devices=3 /dev/sd[bcd]

```
root@thanh-VirtualBox:/home/thanh# sudo mdadm --create --verbose /dev/md0 --level=0
--raid-devices=3 /dev/sd[bcd]
mdadm: chunk size defaults to 512K
mdadm: partition table exists on /dev/sdb
mdadm: partition table exists on /dev/sdb but will be lost or
      meaningless after creating array
mdadm: partition table exists on /dev/sdc
mdadm: partition table exists on /dev/sdc but will be lost or
      meaningless after creating array
mdadm: partition table exists on /dev/sdd
mdadm: partition table exists on /dev/sdd but will be lost or
      meaningless after creating array
Continue creating array? y
mdadm: Defaulting to version 1.2 metadata
mdadm: array /dev/md0 started.
root@thanh-VirtualBox:/home/thanh#
```

29. Cat /proc/mdstat

```
root@thanh-VirtualBox:/home/thanh# cat /proc/mdstat
Personalities : [raid0]
md0 : active raid0 sdd[2] sdc[1] sdb[0]
      147456 blocks super 1.2 512k chunks

unused devices: <none>
root@thanh-VirtualBox:/home/thanh#
```

30. Mdadm --detail --scan

```
root@thanh-VirtualBox:/home/thanh# sudo mkfs.ext4 -F /devmd0
mke2fs 1.46.5 (30-Dec-2021)
The file /devmd0 does not exist and no size was specified.
root@thanh-VirtualBox:/home/thanh# mdadm --detail --scan
ARRAY /dev/md0 metadata=1.2 name=thanh-VirtualBox:0 UUID=73d14c69:0d339b6f:0ae906aa
:3b8fa06a
root@thanh-VirtualBox:/home/thanh#
```

31. Lblk -a

```
root@thanh-VirtualBox:/home/thanh# lsblk -a
NAME   MAJ:MIN RM   SIZE RO TYPE  MOUNTPOINTS
loop0    7:0     0  55.6M  1 loop  /snap/core18/2560
loop1    7:1     0     4K  1 loop  /snap/bare/5
loop2    7:2     0  63.2M  1 loop  /snap/core20/1623
loop3    7:3     0  55.6M  1 loop  /snap/core18/2566
loop4    7:4     0 346.3M  1 loop  /snap/gnome-3-38-2004/115
loop5    7:5     0    62M  1 loop  /snap/core20/1611
loop6    7:6     0    48M  1 loop  /snap/snapd/16778
loop7    7:7     0  91.7M  1 loop  /snap/gtk-common-themes/1535
loop8    7:8     0 400.8M  1 loop  /snap/gnome-3-38-2004/112
loop9    7:9     0  65.2M  1 loop  /snap/gtk-common-themes/1519
loop10   7:10   0    47M  1 loop  /snap/snapd/16292
loop11   7:11   0  54.2M  1 loop  /snap/snap-store/558
loop12   7:12   0  177M  1 loop  /snap/firefox/1775
loop13   7:13   0 176.9M  1 loop  /snap/firefox/1810
loop14   7:14   0  45.9M  1 loop  /snap/snap-store/592
loop15   7:15   0     0B  0 loop
sda      8:0     0   30G  0 disk
└─sda1   8:1     0  512M  0 part  /boot/efi
└─sda2   8:2     0     1K  0 part
└─sda3   8:3     0  512M  0 part
└─sda5   8:5     0 17.8G  0 part  /
└─sda6   8:6     0 11.2G  0 part
sdb      8:16   0    50M  0 disk
└─md0    9:0     0 144M  0 raid0
sdc      8:32   0    50M  0 disk
└─md0    9:0     0 144M  0 raid0
sdd      8:48   0    50M  0 disk
└─md0    9:0     0 144M  0 raid0
sr0     11:0   1 1024M  0 rom
root@thanh-VirtualBox:/home/thanh#
```

32. Sudo mkfs.ext4 -F /dev/md0

```
root@thanh-VirtualBox:/home/thanh# sudo mkfs.ext4 -F /dev/md0
mke2fs 1.46.5 (30-Dec-2021)
Creating filesystem with 36864 4k blocks and 36864 inodes
Filesystem UUID: e79238c1-2d56-4230-b57d-d31988ecf48b
Superblock backups stored on blocks:
      32768

Allocating group tables: done
Writing inode tables: done
Creating journal (4096 blocks): done
Writing superblocks and filesystem accounting information: done

root@thanh-VirtualBox:/home/thanh#
```

33. Sudo mkdir -p /mnt/md0
34. Sudo mkdir -p /mnt/md0
35. Sudo mount /dev/md0 /mnt/md0

```
root@thanh-VirtualBox:/home/thanh# sudo mkdir -p /mnt/md0
root@thanh-VirtualBox:/home/thanh# sudo mount /dev/md0 /mnt/md0
root@thanh-VirtualBox:/home/thanh# df -h -x devtmpfs -x tmpfs
Filesystem      Size  Used Avail Use% Mounted on
/dev/sda5        18G   11G   5.9G  65% /
/dev/sda1       511M   4.0K  511M   1% /boot/efi
/dev/md0         119M   24K  109M   1% /mnt/md0
root@thanh-VirtualBox:/home/thanh#
```

36. Umount /dev/md0
37. Mdadm --stop /dev/md0
38. Mdadm --remove /dev/md0
39. Cat /prc/mdstat

```
root@thanh-VirtualBox:/home/thanh# umount /dev/md0
root@thanh-VirtualBox:/home/thanh# mdadm --stop /dev/md0
mdadm: stopped /dev/md0
root@thanh-VirtualBox:/home/thanh# mdadm --remove /dev/md0
mdadm: error opening /dev/md0: No such file or directory
root@thanh-VirtualBox:/home/thanh# cat /proc/mdstat
Personalities : [raid0]
unused devices: <none>
root@thanh-VirtualBox:/home/thanh# █
```

40. Now creating RAID 1
41. Lblk -o NAME,SIZE,FSTYPE,TYPE,MOUNTPOINT

```

root@thanh-VirtualBox:/home/thanh# lsblk -o NAME,SIZE,FSTYPE,TYPE,MOUNTPOINT
  NAME      SIZE FSTYPE           TYPE MOUNTPOINT
loop0    55.6M squashfs        loop /snap/core18/2560
loop1     4K squashfs        loop /snap/bare/5
loop2   63.2M squashfs        loop /snap/core20/1623
loop3   55.6M squashfs        loop /snap/core18/2566
loop4  346.3M squashfs        loop /snap/gnome-3-38-2004/115
loop5    62M squashfs        loop /snap/core20/1611
loop6    48M squashfs        loop /snap/snapd/16778
loop7   91.7M squashfs        loop /snap/gtk-common-themes/1535
loop8  400.8M squashfs        loop /snap/gnome-3-38-2004/112
loop9   65.2M squashfs        loop /snap/gtk-common-themes/1519
loop10   47M squashfs        loop /snap/snapd/16292
loop11   54.2M squashfs        loop /snap/snap-store/558
loop12  177M squashfs        loop /snap/firefox/1775
loop13 176.9M squashfs        loop /snap/firefox/1810
loop14  45.9M squashfs        loop /snap/snap-store/592
sda      30G                disk
└─sda1   512M vfat          part /boot/efi
└─sda2    1K                part
└─sda3   512M vfat          part
└─sda5  17.8G ext4          part /
└─sda6  11.2G ext4          part
sdb      50M linux_raid_member disk
sdc      50M linux_raid_member disk
sdd      50M linux_raid_member disk
sr0    1024M                 rom
root@thanh-VirtualBox:/home/thanh# 
```

42. Sudo mdadm --create --verbose /dev/md0 --level=1 --raid-devices=3 /dev/sd[bcd]

```

root@thanh-VirtualBox:/home/thanh# sudo mdadm --create --verbose /dev/	md0 --level=1
--raid-devices=3 /dev/sd[bcd]
mdadm: /dev/sdb appears to be part of a raid array:
      level=raid0 devices=3 ctime=Mon Sep 19 23:43:11 2022
mdadm: partition table exists on /dev/sdb but will be lost or
      meaningless after creating array
mdadm: Note: this array has metadata at the start and
      may not be suitable as a boot device. If you plan to
      store '/boot' on this device please ensure that
      your boot-loader understands md/v1.x metadata, or use
      --metadata=0.90
mdadm: /dev/sdc appears to be part of a raid array:
      level=raid0 devices=3 ctime=Mon Sep 19 23:43:11 2022
mdadm: partition table exists on /dev/sdc but will be lost or
      meaningless after creating array
mdadm: /dev/sdd appears to be part of a raid array:
      level=raid0 devices=3 ctime=Mon Sep 19 23:43:11 2022
mdadm: partition table exists on /dev/sdd but will be lost or
      meaningless after creating array
mdadm: size set to 50176K
Continue creating array? y
mdadm: Defaulting to version 1.2 metadata
mdadm: array /dev/md0 started.
root@thanh-VirtualBox:/home/thanh# 
```

43. Cat /proc/mdstat

```
root@thanh-VirtualBox:/home/thanh# cat /proc/mdstat
Personalities : [raid0] [raid1]
md0 : active raid1 sdd[2] sdc[1] sdb[0]
      50176 blocks super 1.2 [3/3] [UUU]

unused devices: <none>
root@thanh-VirtualBox:/home/thanh#
```

44. Gparted

