Tugas Minggu 4 IF421

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1. Buatlah tiga buah hard disk virtual pada mesin virtual anda yang masing-masing berukuran 1 GB. Tambahkan virtual hard disk tersebut pada virtual machine anda. Periksa apakah hard disk tersebut sudah terpasang atau belum menggunakan perintah fdisk -l

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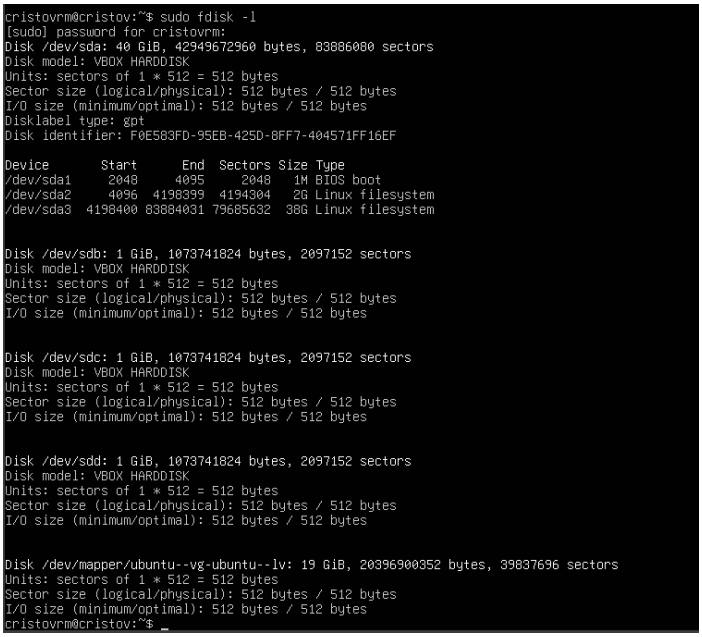

2. Membuat partisi dengan tipe fd pada setiap harddisk (fd partition type). Tipe fd berguna untuk mengatur partisi hard disk sebagai Linux RAID autodetect. Gunakan perintah fdisk

untuk masing-masing hardisk : Contoh : fdisk /dev/sdb Ikuti petunjuk yang ada di layar, ulangi juga untuk /dev/sdc dan /dev/sdd

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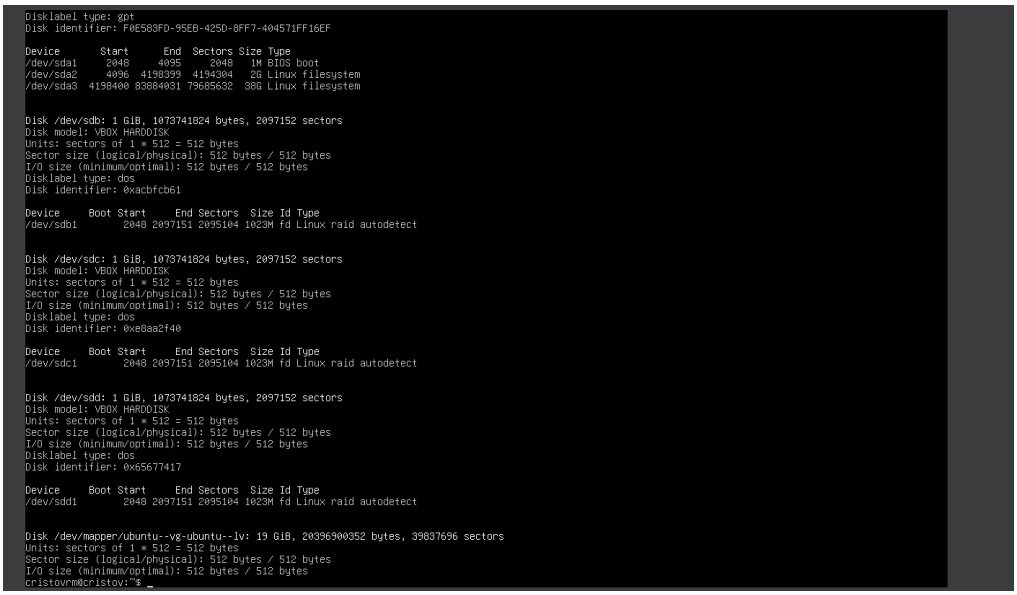

3.Membuat raid 5 dengan menggunakan command mdadm. Jika belum tersedia, install dulu aplikasi mdadm pada server anda

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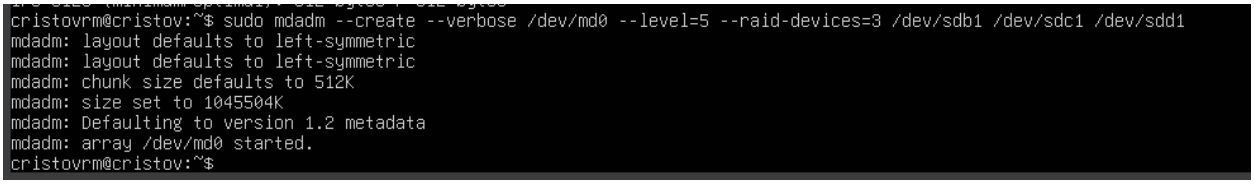

```
mdadm: array /dev/md0 started.
cristovrm@cristov:~$ cat /proc/mdstat
Personalities : [raid0] [raid1] [raid6] [raid5] [raid4] [raid10]
md0 : active raid5 sdd1[3] sdc1[1] sdb1[0]
      2091008 blocks super 1.2 level 5, 512k chunk, algorithm 2 [3/3] [UUU]

unused devices: <none>
cristovrm@cristov:~$ sudo mdadm --detail /dev/md0
/dev/md0:
           Version : 1.2
     Creation Time : Thu Apr 24 20:32:53 2025
        Raid Level : raid5
        Array Size : 2091008 (2042.00 MiB 2141.19 MB)
     Used Dev Size : 1045504 (1021.00 MiB 1070.60 MB)
      Raid Devices : 3
     Total Devices : 3
       Persistence : Superblock is persistent

       Update Time : Thu Apr 24 20:33:05 2025
             State : clean
    Active Devices : 3
   Working Devices : 3
    Failed Devices : 0
     Spare Devices : 0

            Layout : left-symmetric
        Chunk Size : 512K

Consistency Policy : resync

              Name : cristov:0  (local to host cristov)
              UUID : 1e6730d5:42cd444e:92f28cf6:f8385233
            Events : 18

    Number   Major   Minor   RaidDevice State
       0       8       17        0      active sync   /dev/sdb1
       1       8       33        1      active sync   /dev/sdc1
       3       8       49        2      active sync   /dev/sdd1
cristovrm@cristov:~$ _
```

4. Periksa raid5 yang sudah anda buat dengan perintah fdisk -l

```
/dev/sda3  4198400 83884031 79685632  38G Linux filesystem


Disk /dev/sdb: 1 GiB, 1073741824 bytes, 2097152 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: 0xacbfcb61

Device     Boot Start     End Sectors  Size Id Type
/dev/sdb1        2048 2097151 2095104 1023M fd Linux raid autodetect


Disk /dev/sdc: 1 GiB, 1073741824 bytes, 2097152 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: 0xe8aa2f40

Device     Boot Start     End Sectors  Size Id Type
/dev/sdc1        2048 2097151 2095104 1023M fd Linux raid autodetect


Disk /dev/sdd: 1 GiB, 1073741824 bytes, 2097152 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: 0x65677417

Device     Boot Start     End Sectors  Size Id Type
/dev/sdd1        2048 2097151 2095104 1023M fd Linux raid autodetect


Disk /dev/mapper/ubuntu--vg-ubuntu--lv: 19 GiB, 20396900352 bytes, 39837696 sectors
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/md0: 1.99 GiB, 2141192192 bytes, 4182016 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 524288 bytes / 1048576 bytes
cristovrm@cristov:~$
```