

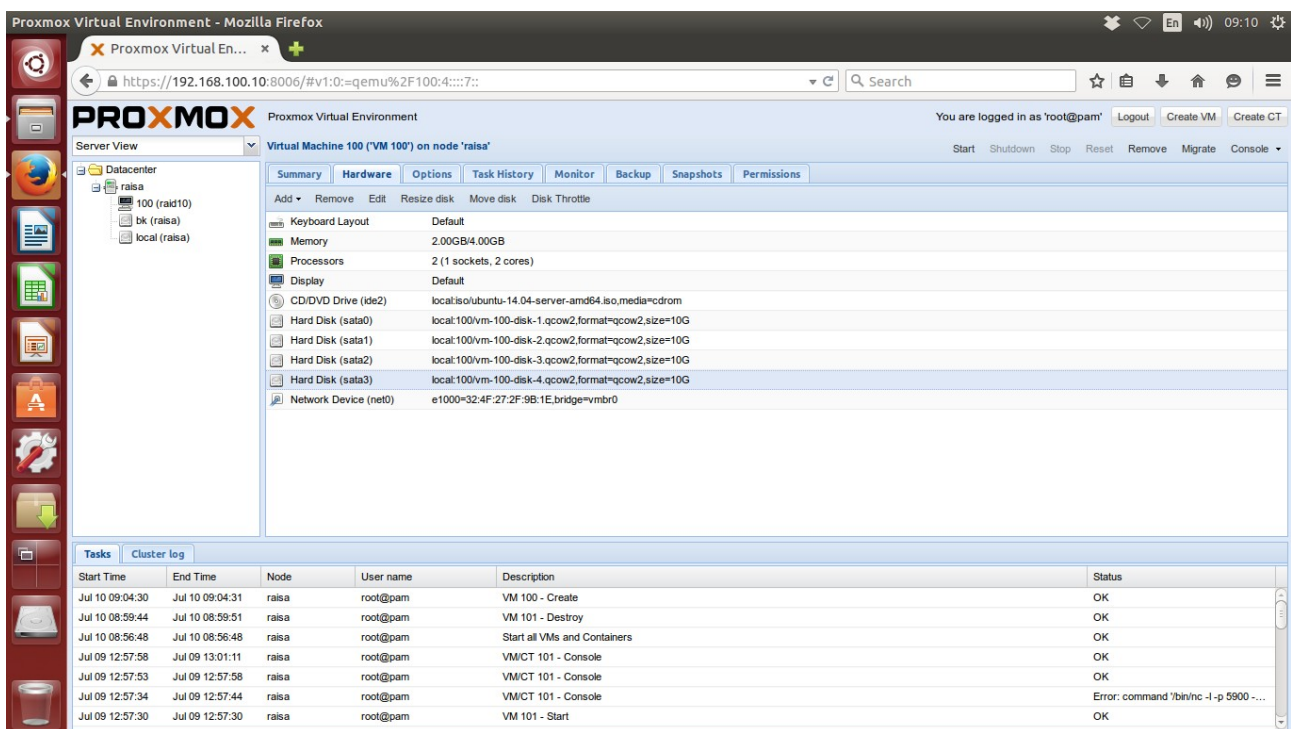
# INSTALLING UBUNTU WITH SOFTWARE RAID10

Note : Contoh instalasi dilakukan di proxmox ve.

Untuk set Raid10 mirror > 4 hdd (config di sesuaikan).

Kelebihan : gabungan dari raid0 & raid1 (stripping & mirroring).

1. buat vm ubuntu dengan 4 hdd.



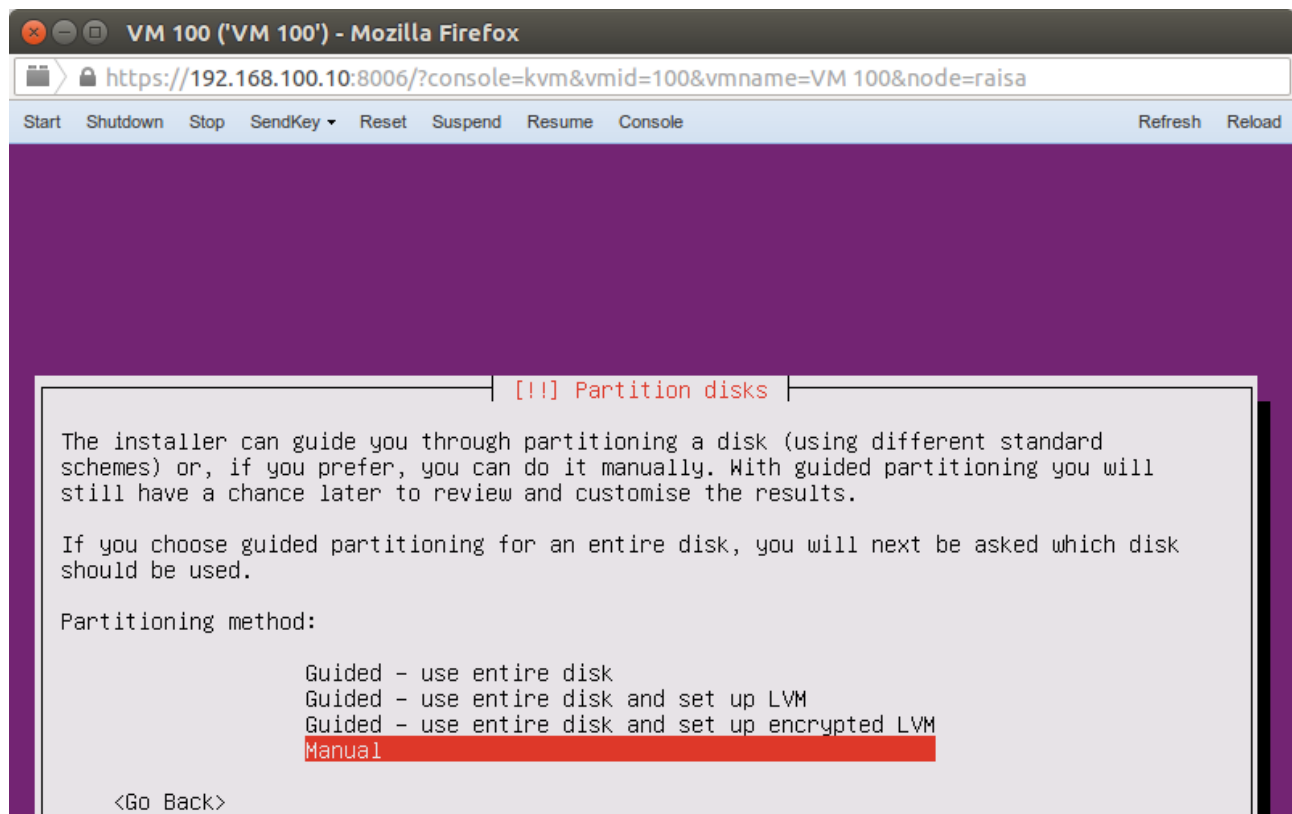
The screenshot displays the Proxmox Virtual Environment (VE) web interface in Mozilla Firefox. The browser address bar shows the URL `https://192.168.100.10:8006/#v1:0:=qemu%2F100:4:::7::`. The interface is logged in as 'root@pam'. The left sidebar shows the 'Server View' with a tree structure: 'Datacenter' > 'raisa' > '100 (raid10)' > 'bk (raisa)' > 'local (raisa)'. The main panel shows the configuration for 'Virtual Machine 100 (VM 100) on node 'raisa''. The 'Hardware' tab is selected, showing the following configuration:

Component	Configuration
Keyboard Layout	Default
Memory	2.00GB/4.00GB
Processors	2 (1 sockets, 2 cores)
Display	Default
CD/DVD Drive (ide2)	local:iso/ubuntu-14.04-server-amd64.iso,media=cdrom
Hard Disk (sata0)	local:100/vm-100-disk-1.qcow2,format=qcow2,size=10G
Hard Disk (sata1)	local:100/vm-100-disk-2.qcow2,format=qcow2,size=10G
Hard Disk (sata2)	local:100/vm-100-disk-3.qcow2,format=qcow2,size=10G
Hard Disk (sata3)	local:100/vm-100-disk-4.qcow2,format=qcow2,size=10G
Network Device (net0)	e1000=32:4F:27:2F:9B:1E,bridge=vbr0

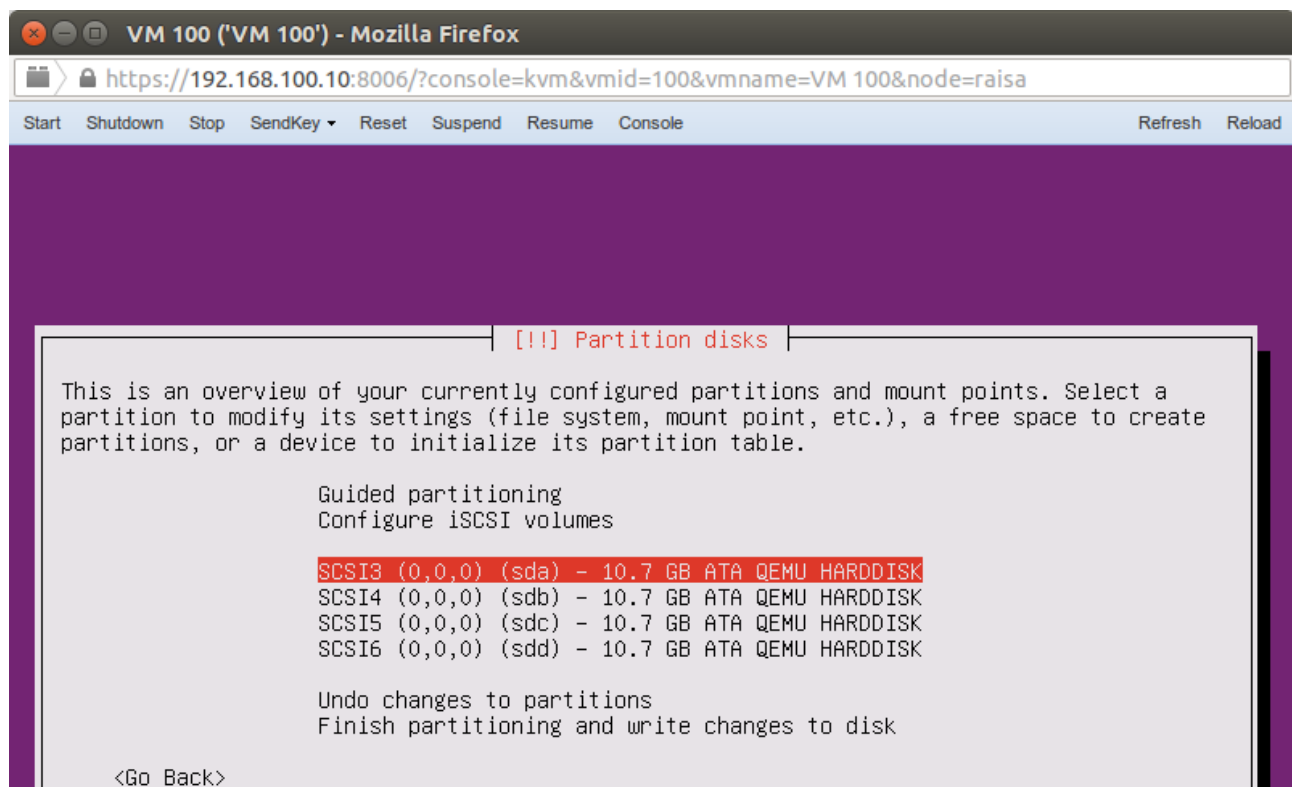
At the bottom, the 'Tasks' tab is active, showing a log of operations:

Start Time	End Time	Node	User name	Description	Status
Jul 10 09:04:30	Jul 10 09:04:31	raisa	root@pam	VM 100 - Create	OK
Jul 10 08:59:44	Jul 10 08:59:51	raisa	root@pam	VM 101 - Destroy	OK
Jul 10 08:56:48	Jul 10 08:56:48	raisa	root@pam	Start all VMs and Containers	OK
Jul 09 12:57:58	Jul 09 13:01:11	raisa	root@pam	VM/CT 101 - Console	OK
Jul 09 12:57:53	Jul 09 12:57:58	raisa	root@pam	VM/CT 101 - Console	OK
Jul 09 12:57:34	Jul 09 12:57:44	raisa	root@pam	VM/CT 101 - Console	Error: command 'bin/inc -l-p 5900 -...
Jul 09 12:57:30	Jul 09 12:57:30	raisa	root@pam	VM 101 - Start	OK

## 2. install ubuntu, pada pemilihan partisi pilih manual.



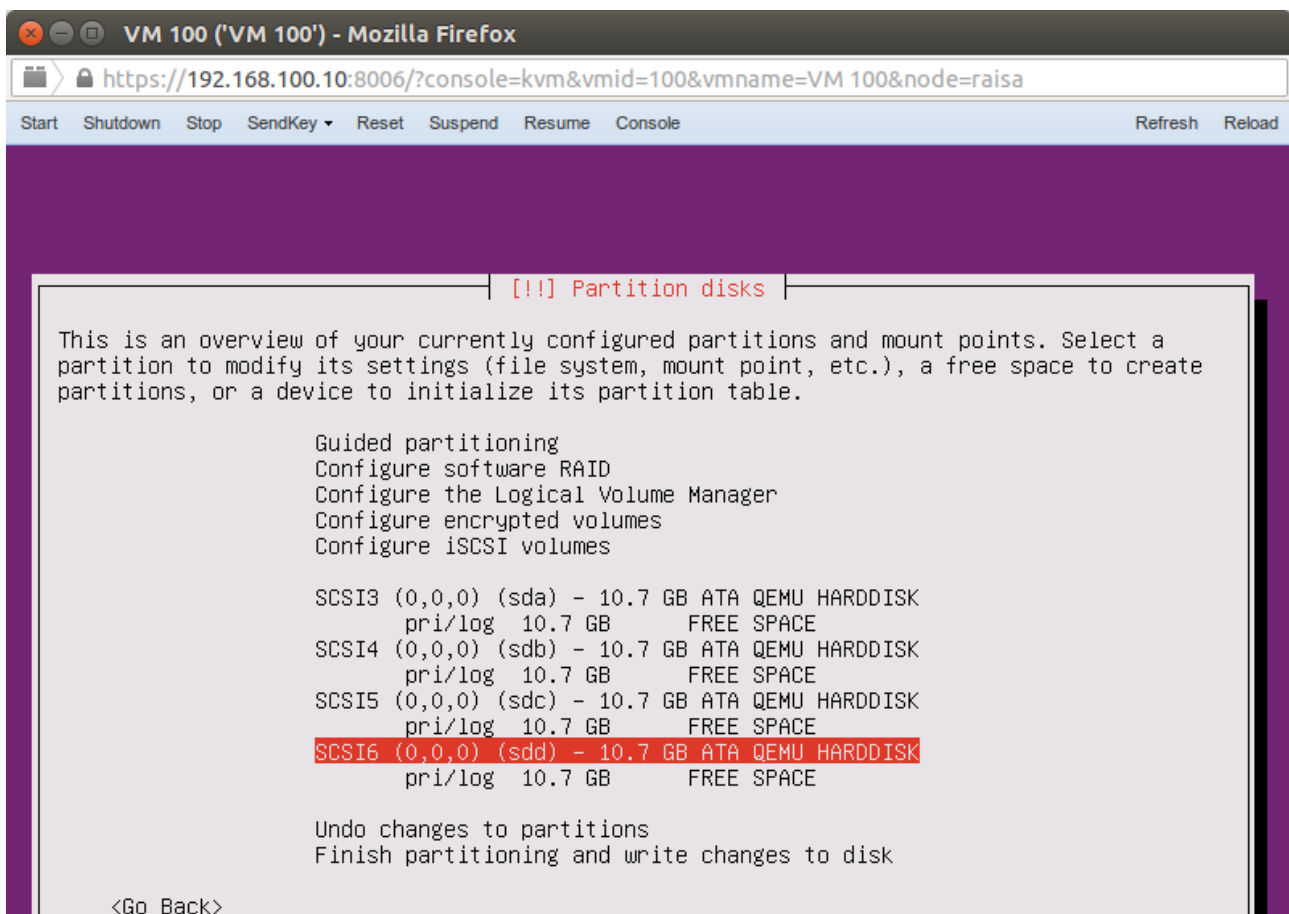
## 3. pada hdd1.



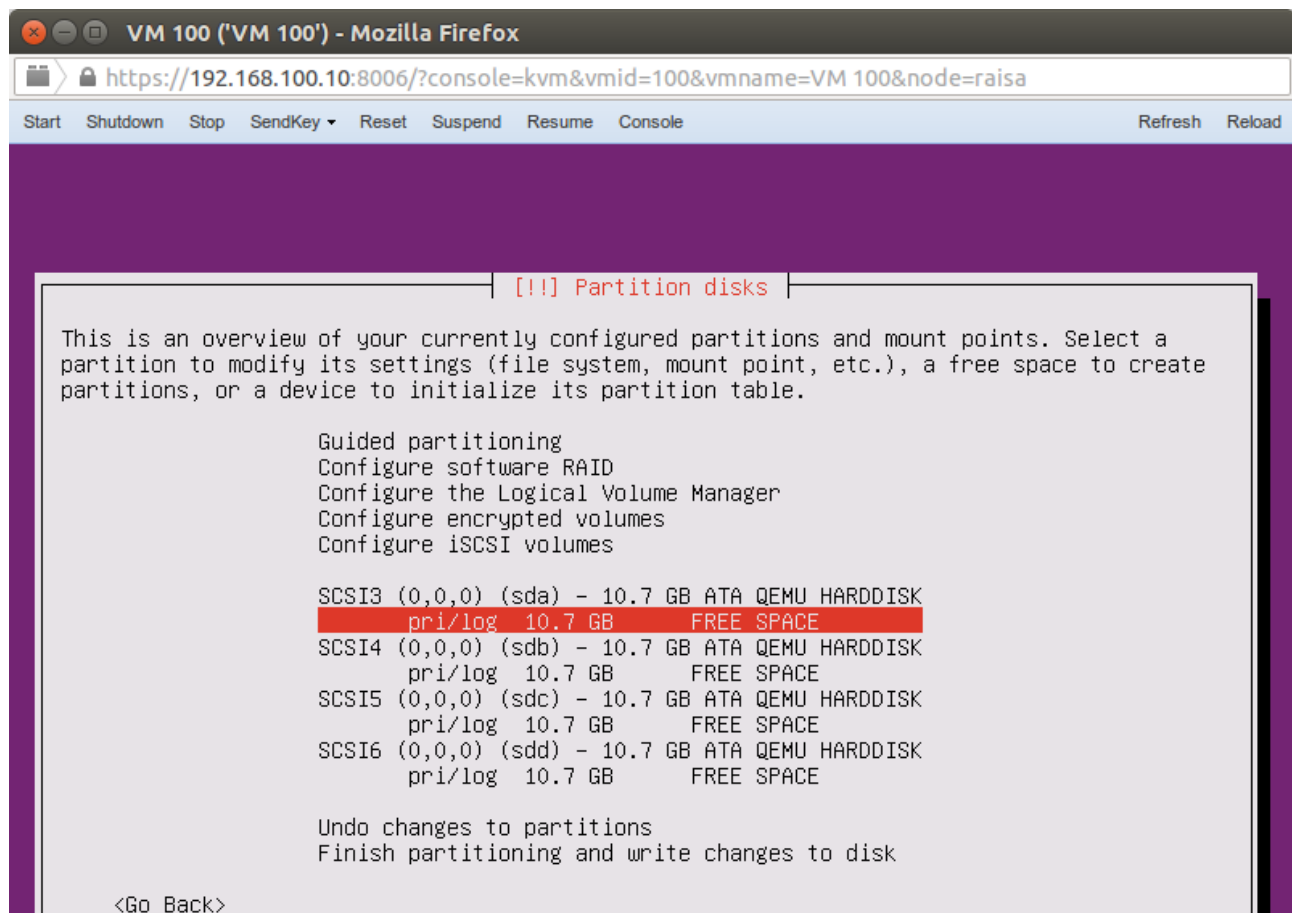
#### 4. buat tabel partisi baru.



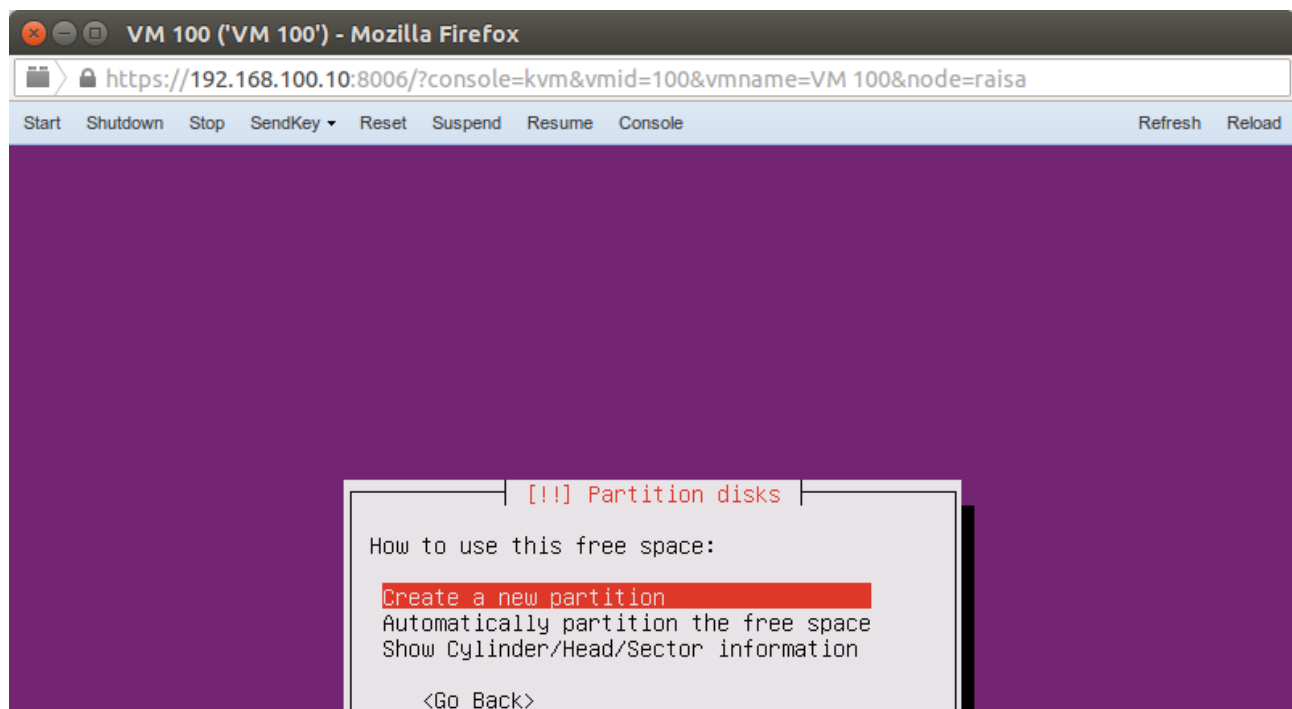
#### 5. lakukan hal yg sama pada hdd2,3,4.



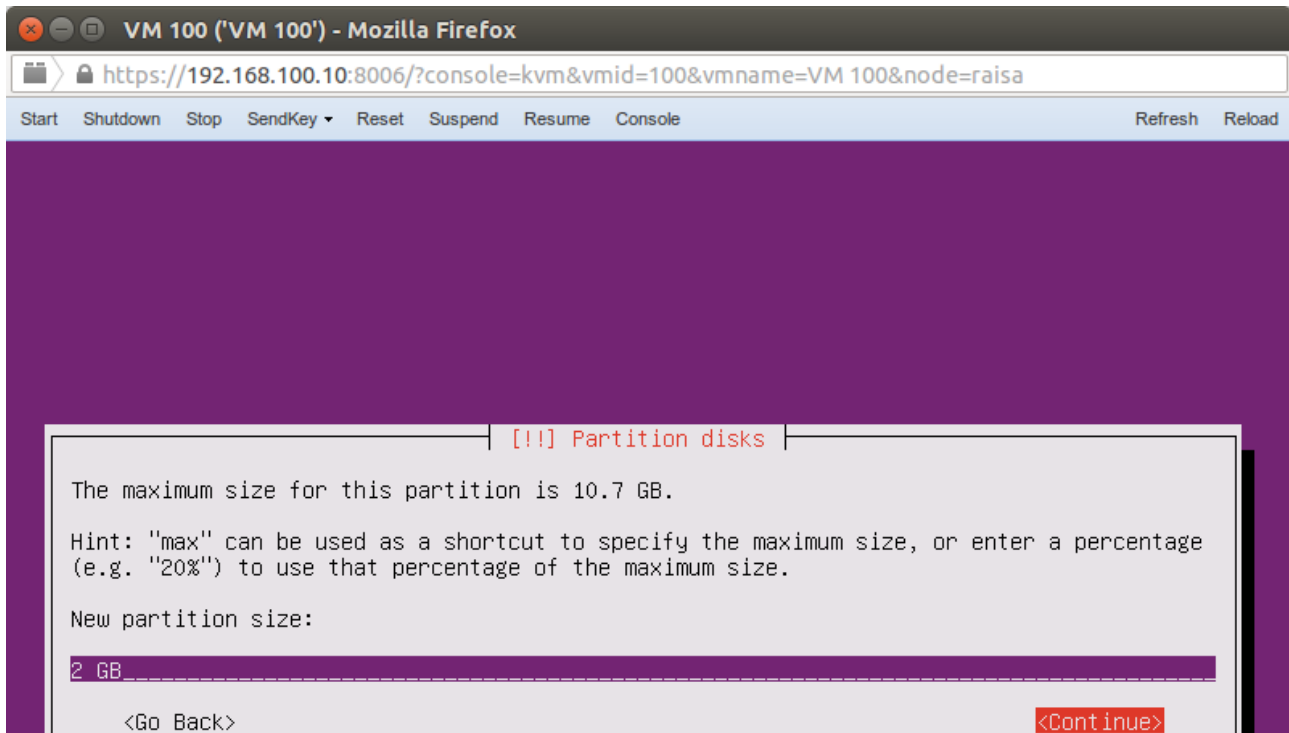
6. pada free space hdd1.



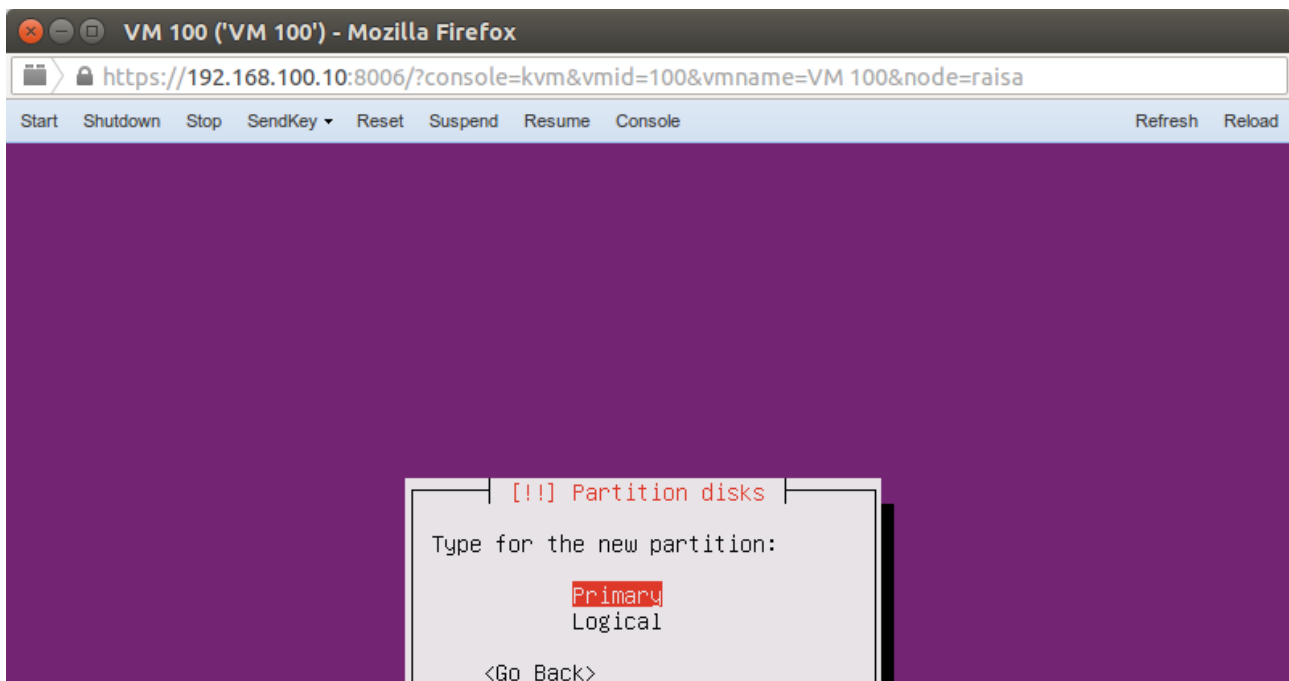
7. buat partisi baru.



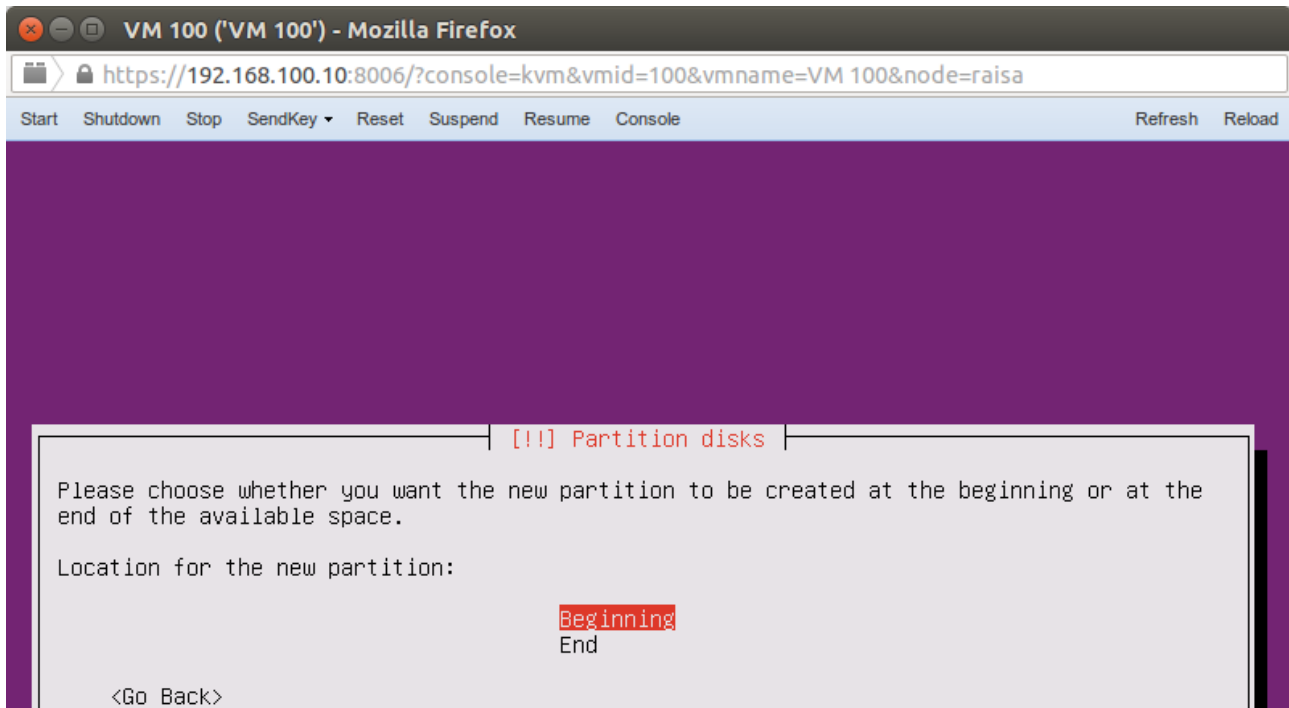
8. set 2 GB.



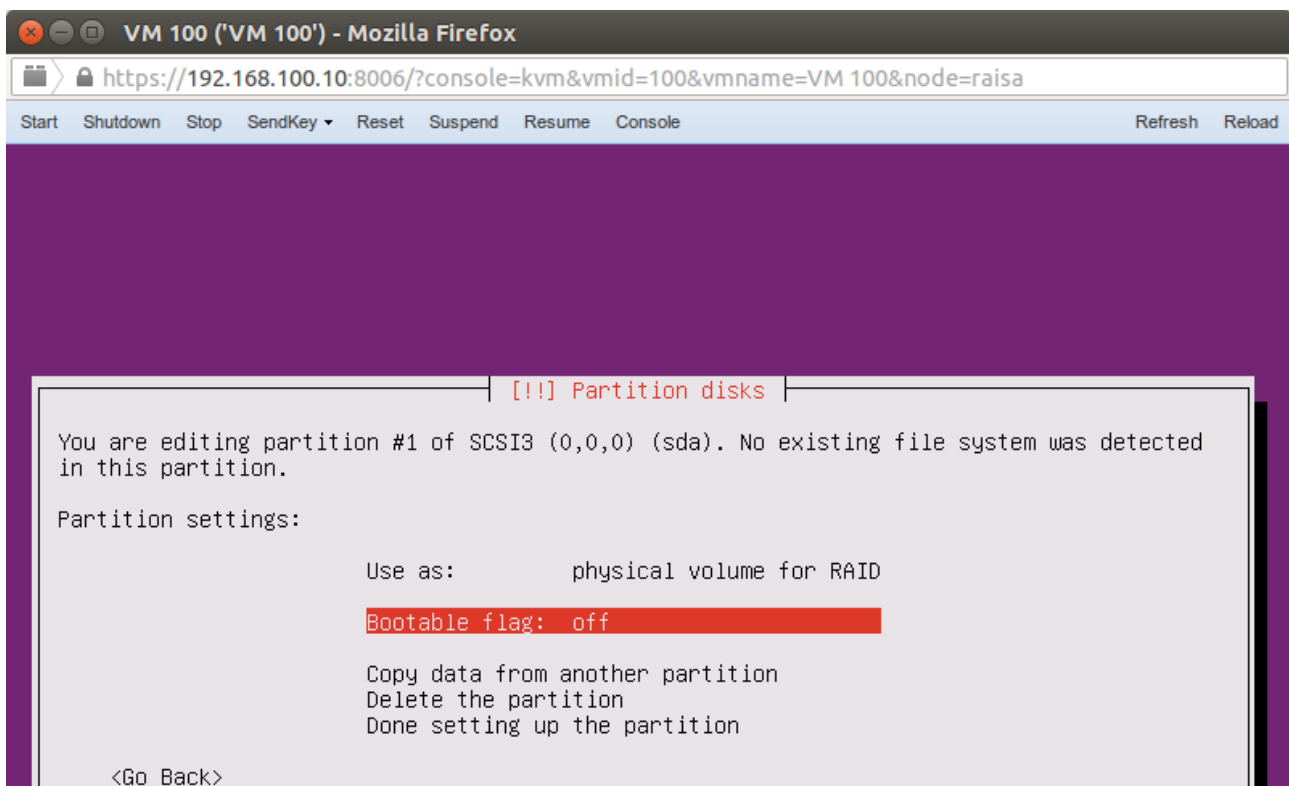
9. set primary.



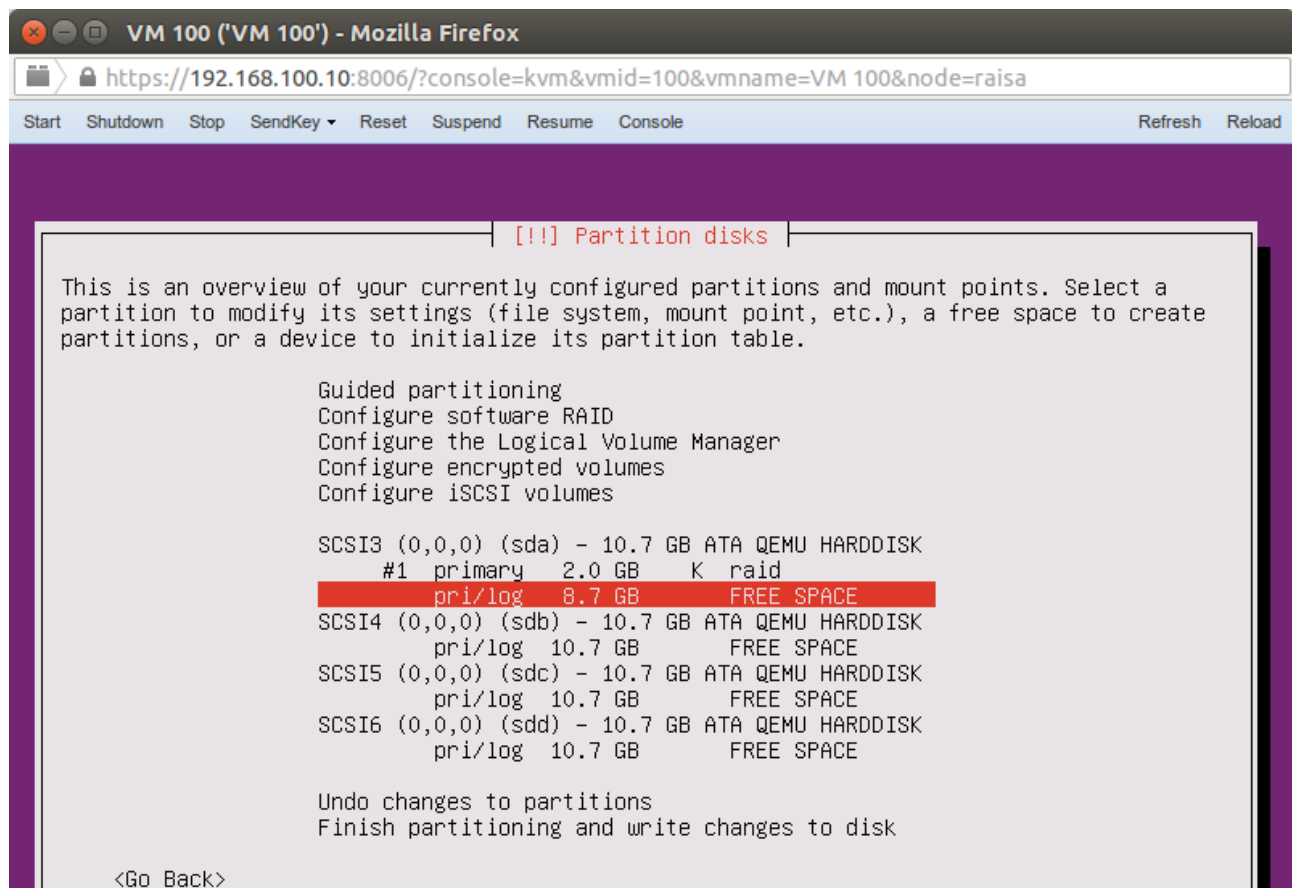
10. set begin.



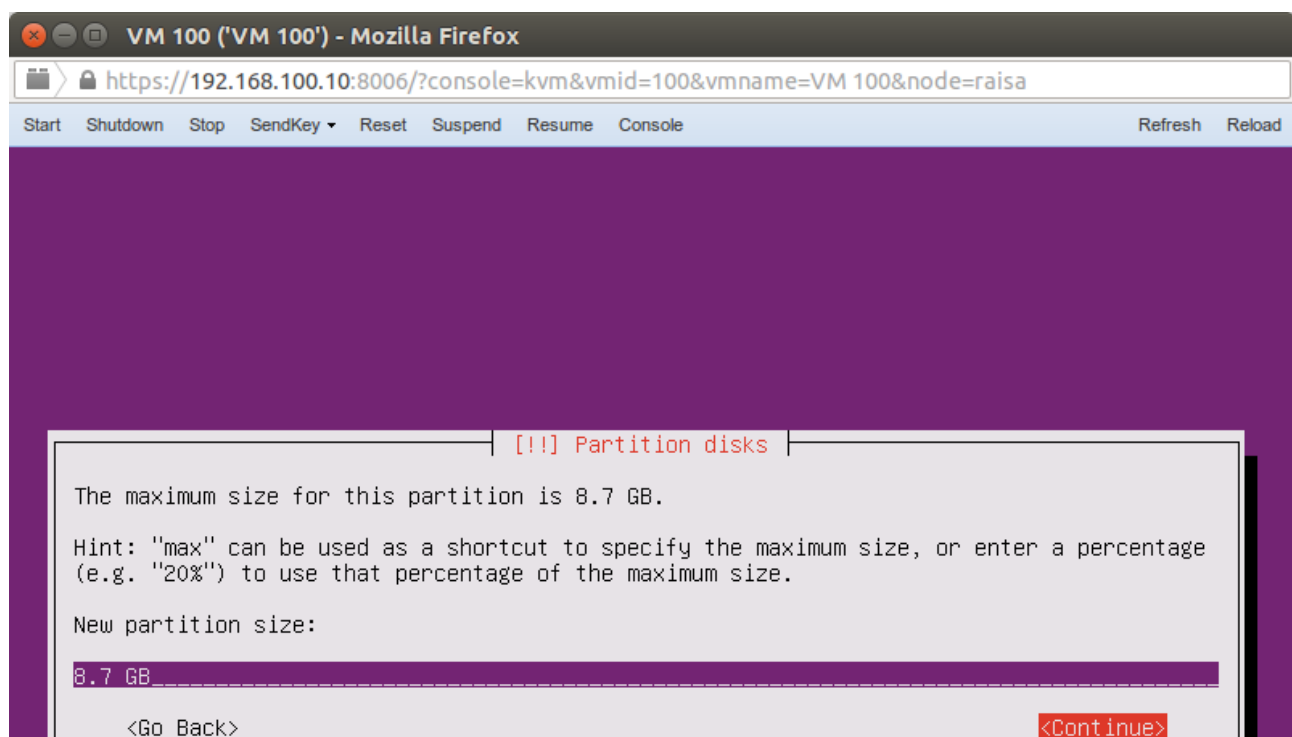
11. set use as for raid.



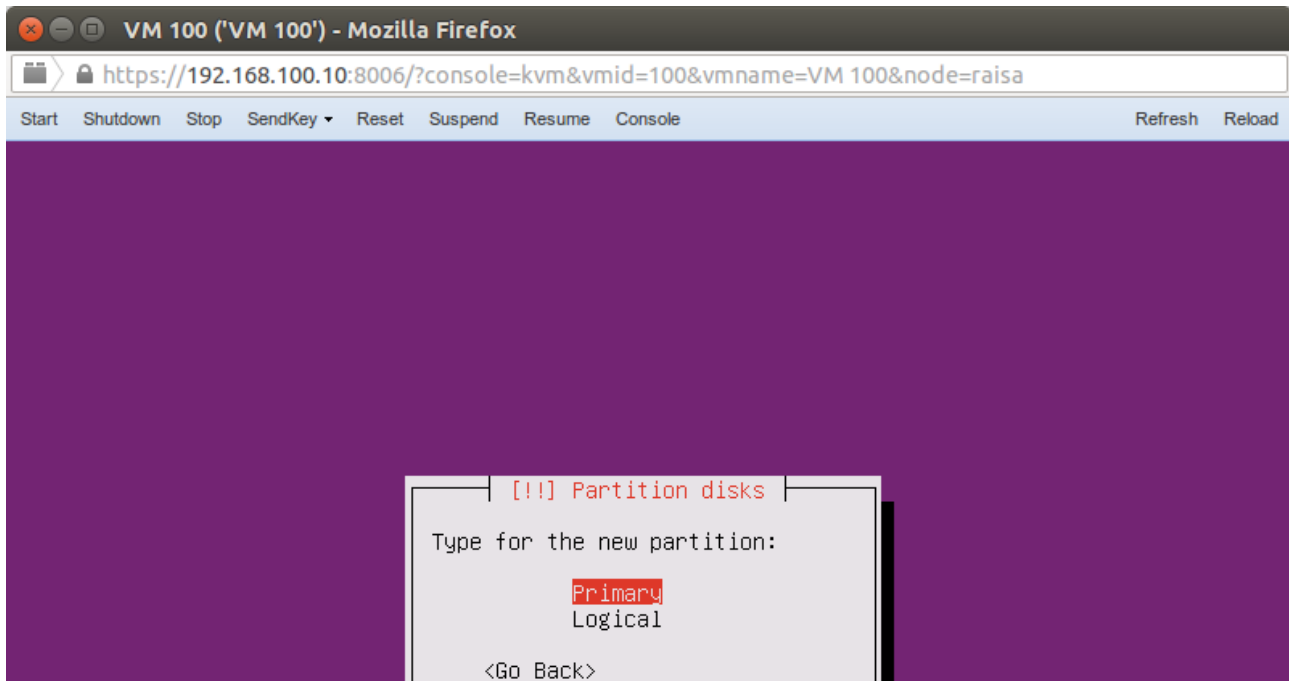
12. pada hdd1 partisi 2.



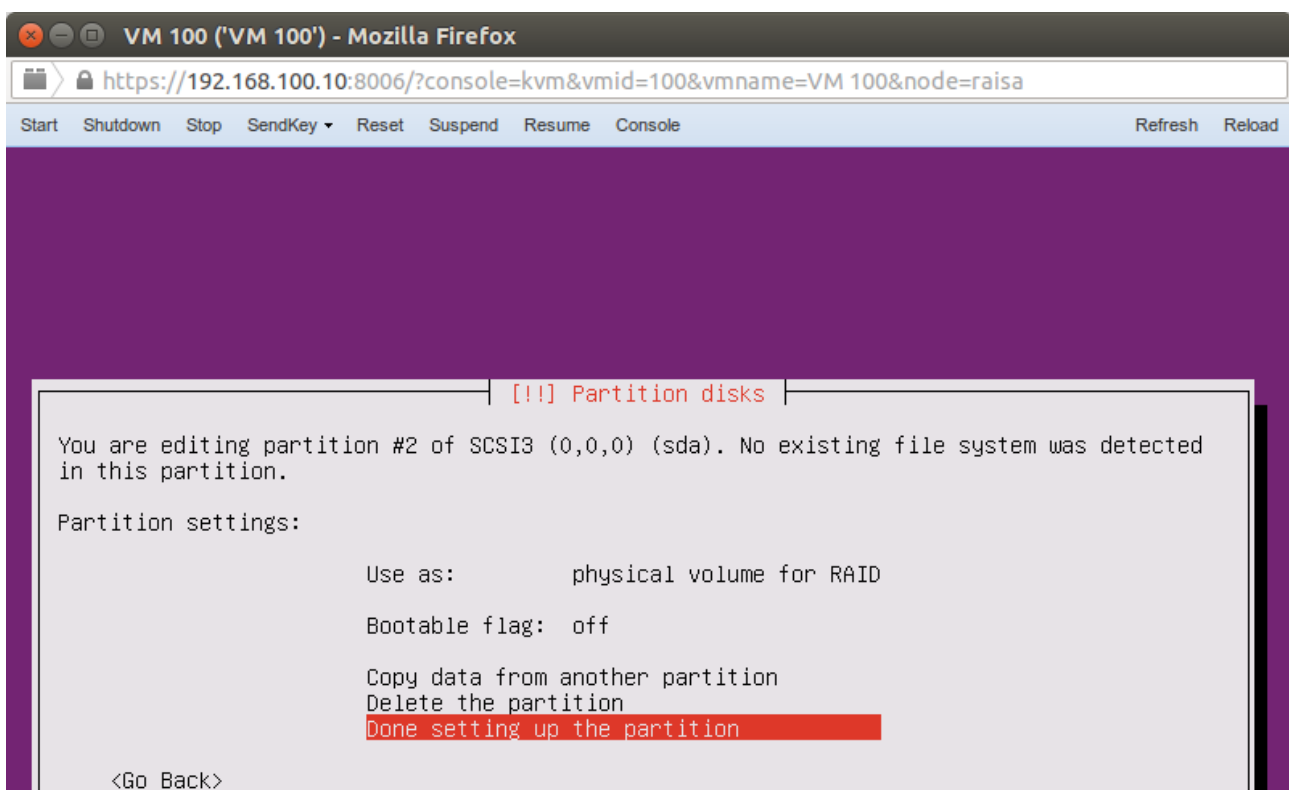
13. next.



14. set primary.

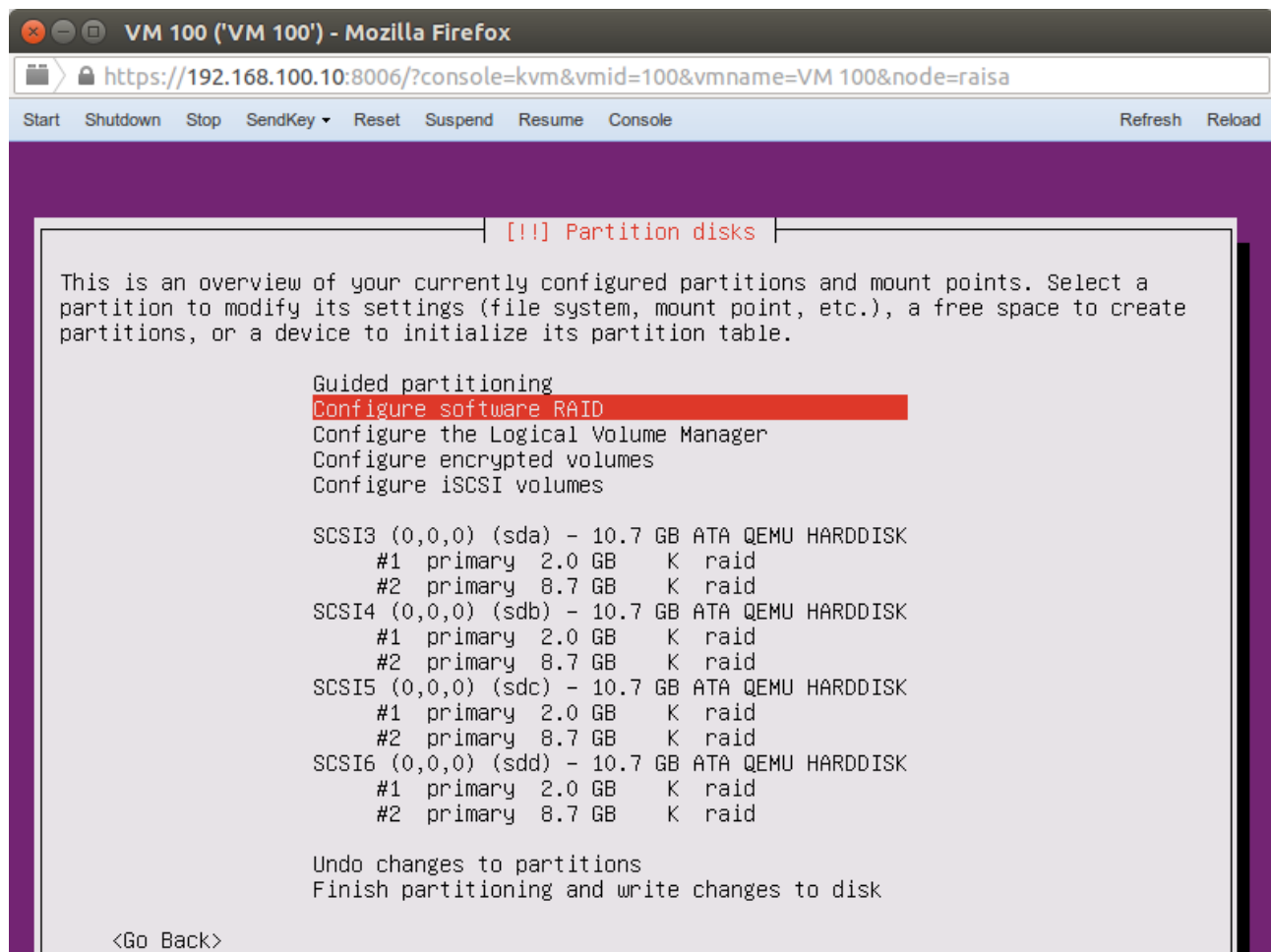


15. set use as for raid.

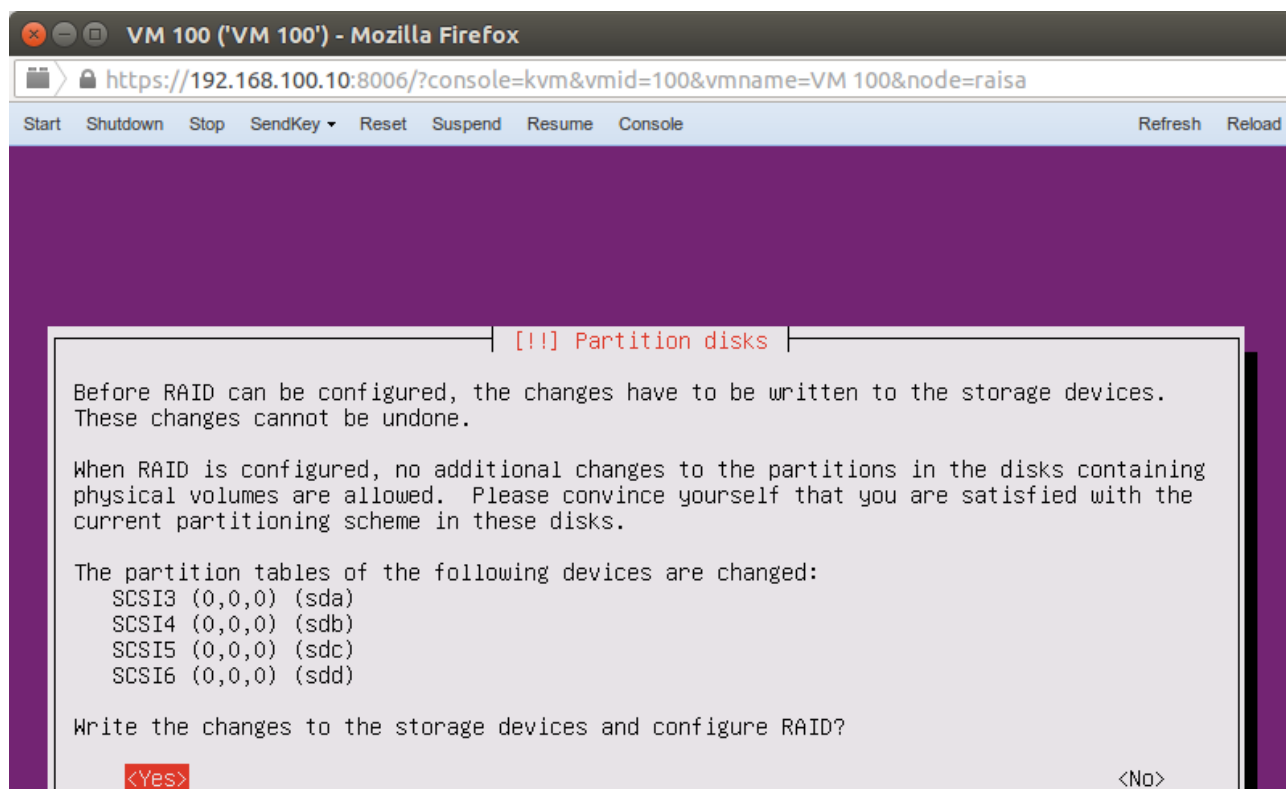




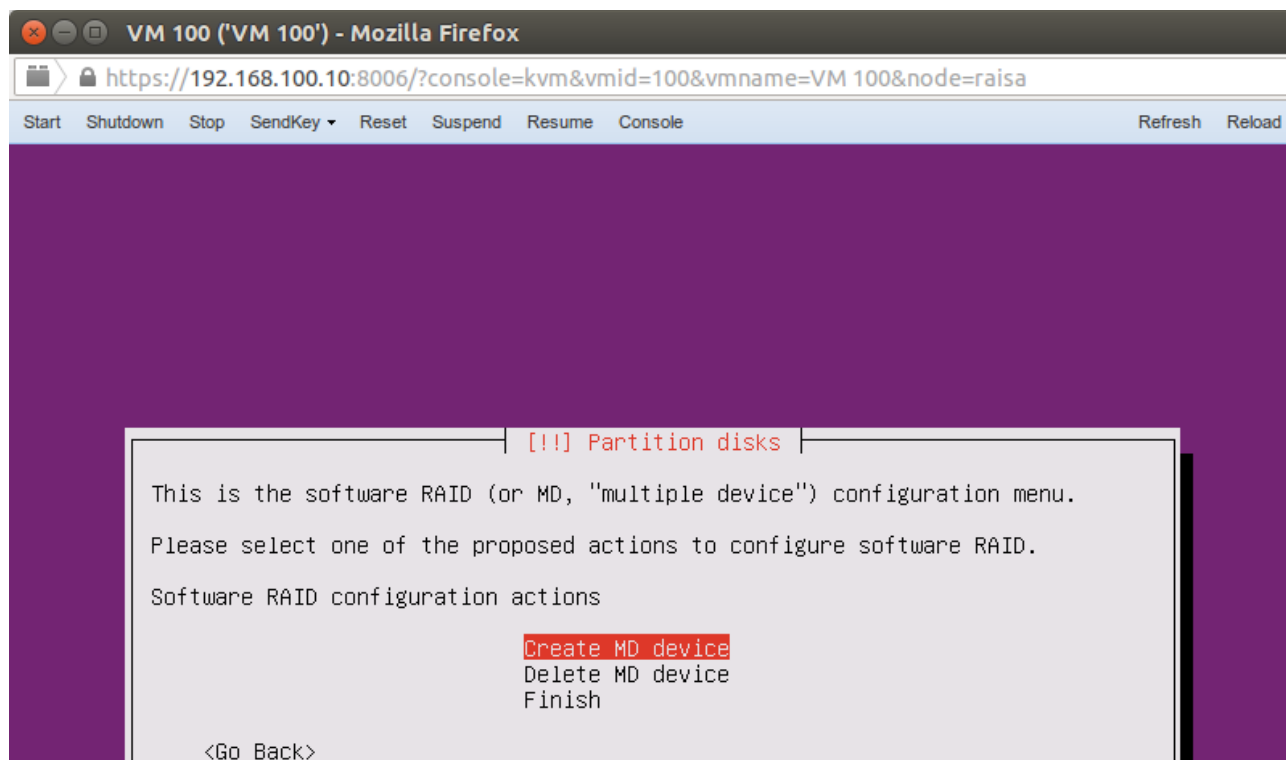
16. lakukan hal yg sama pada hdd2,3,4 & config software raid.



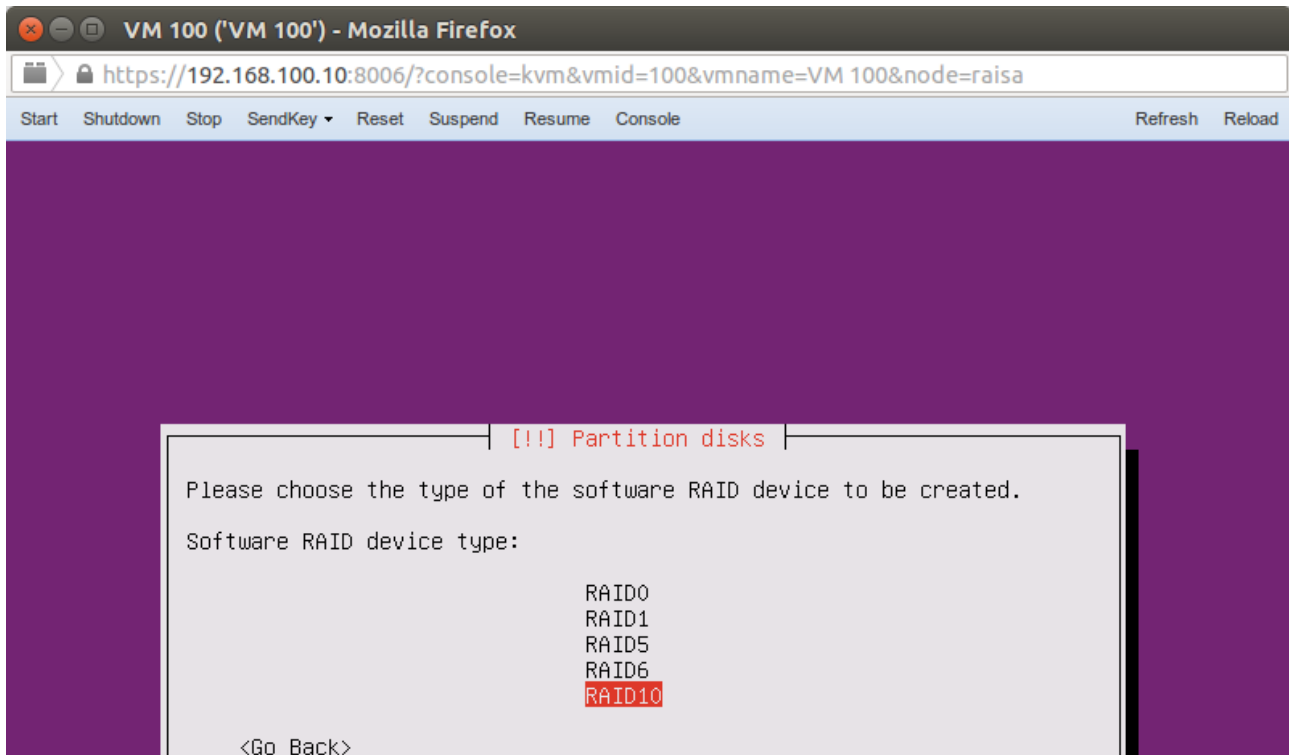
## 17. set yes



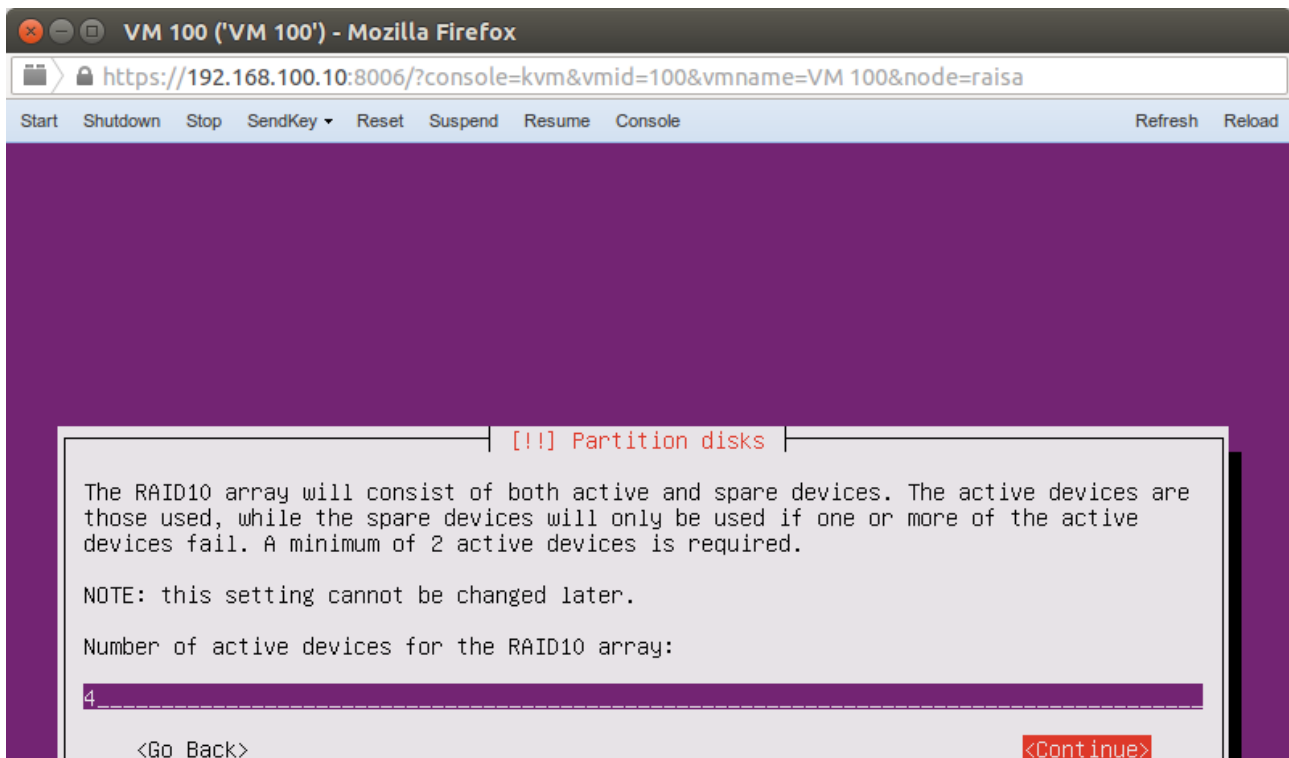
## 18. create md.



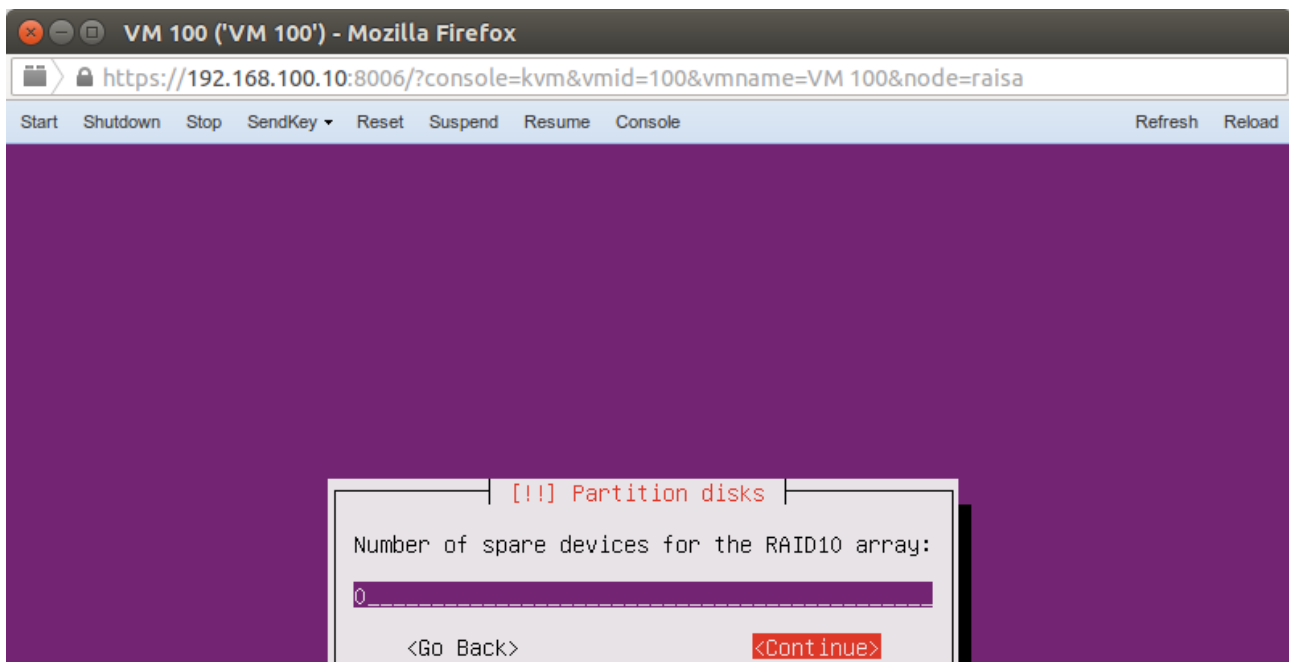
19. set raid10.



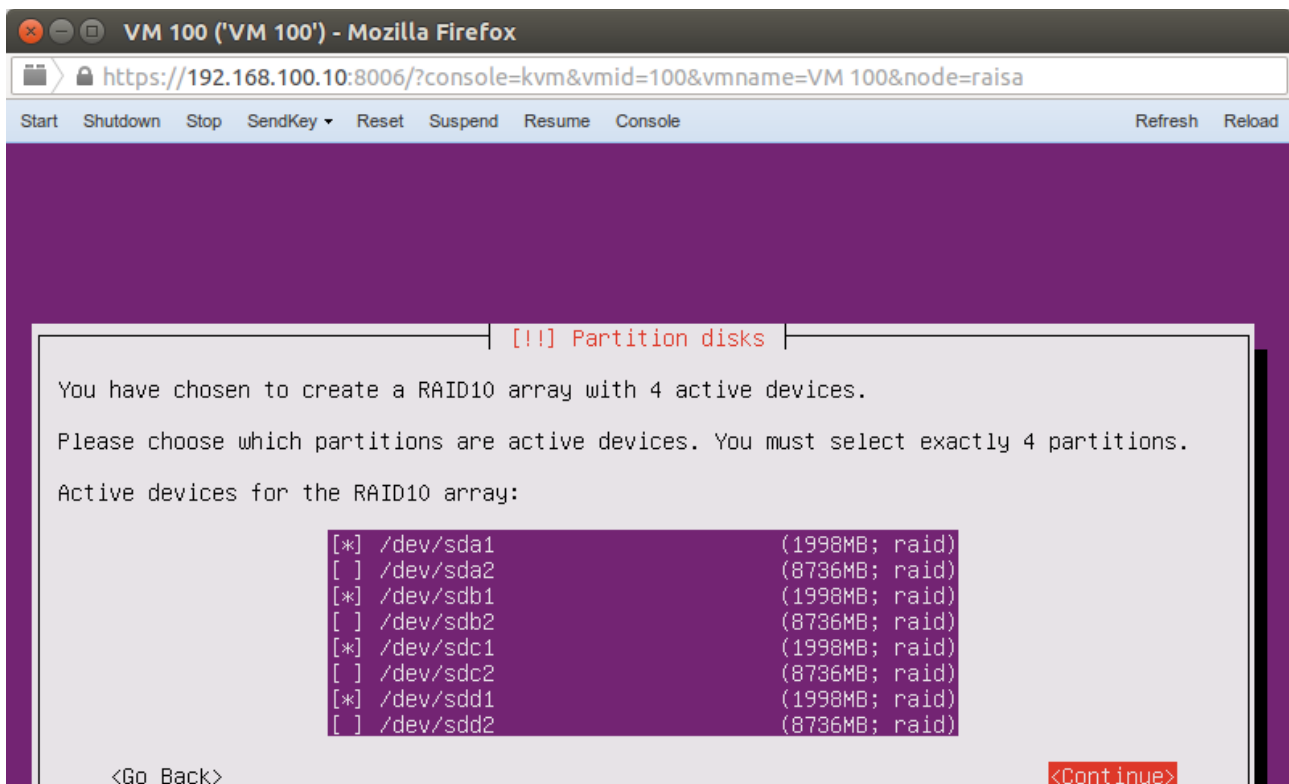
20. set 4.



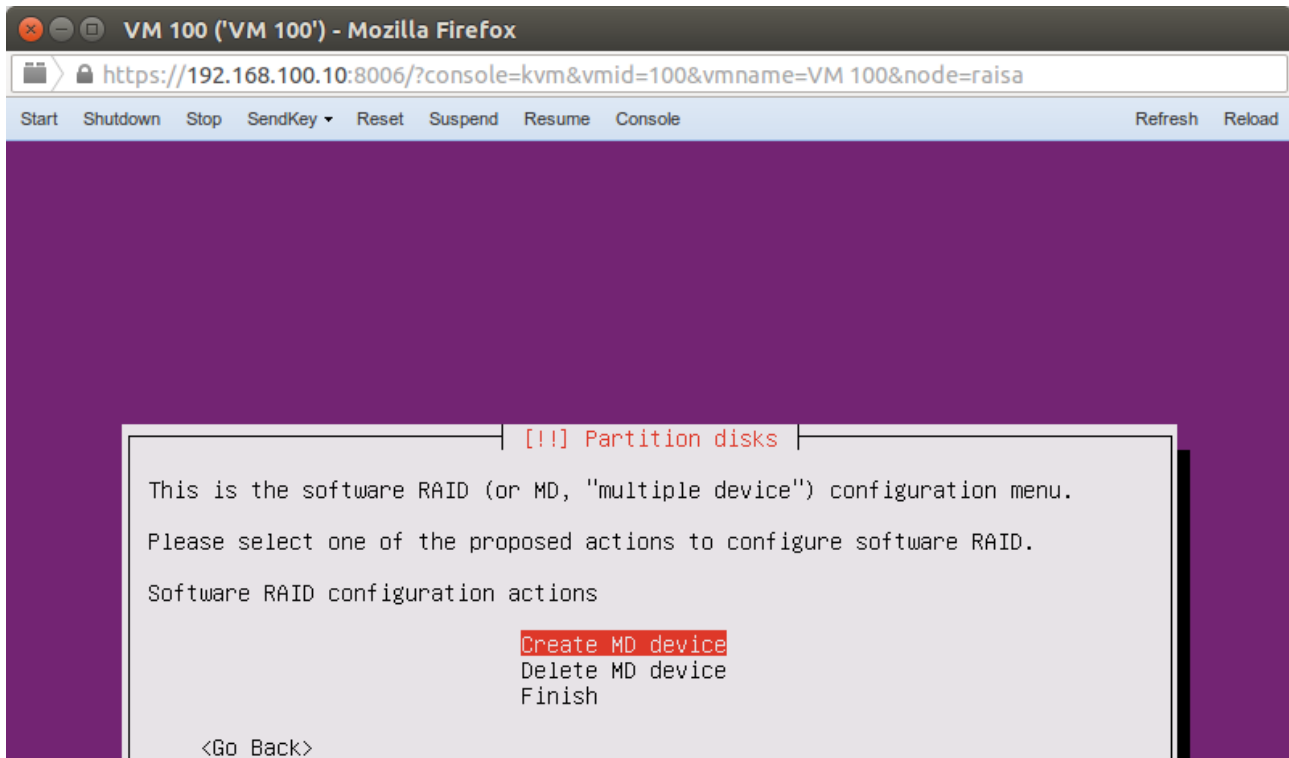
21. set 0.



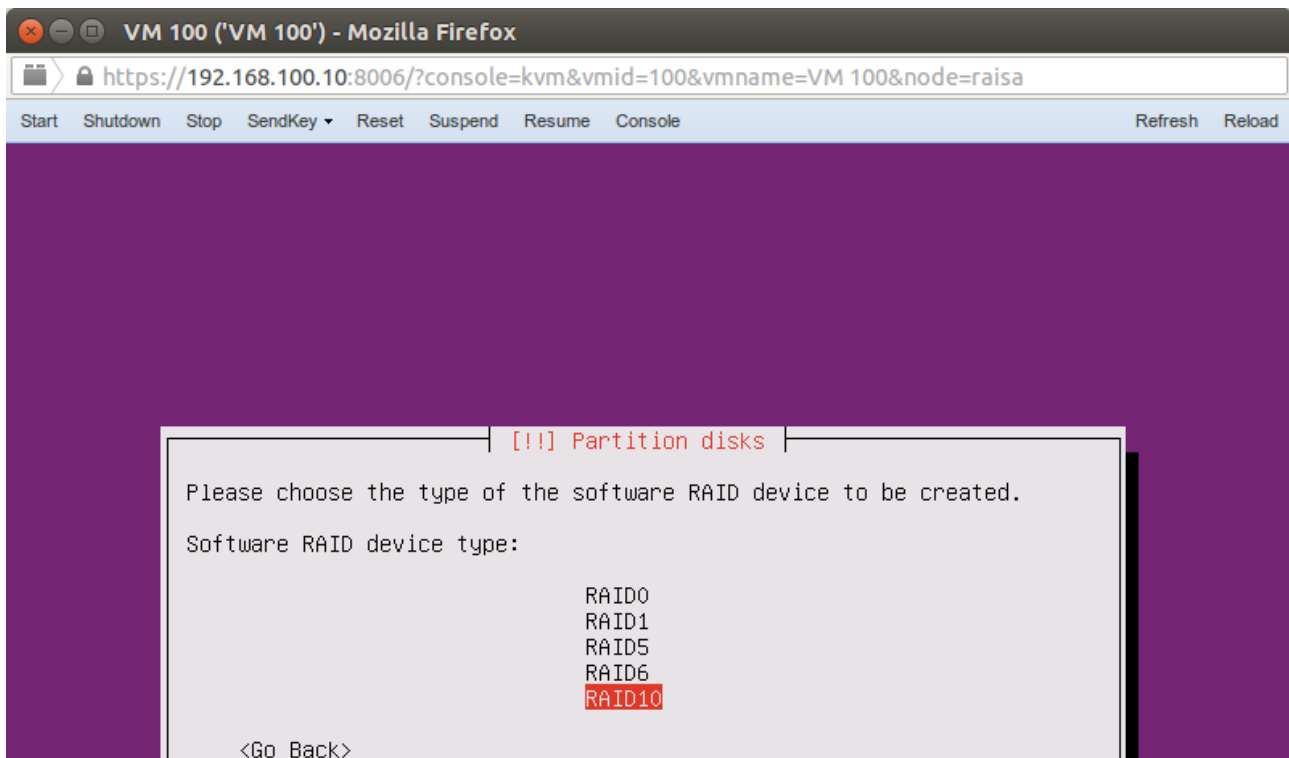
22. set seperti gambar.



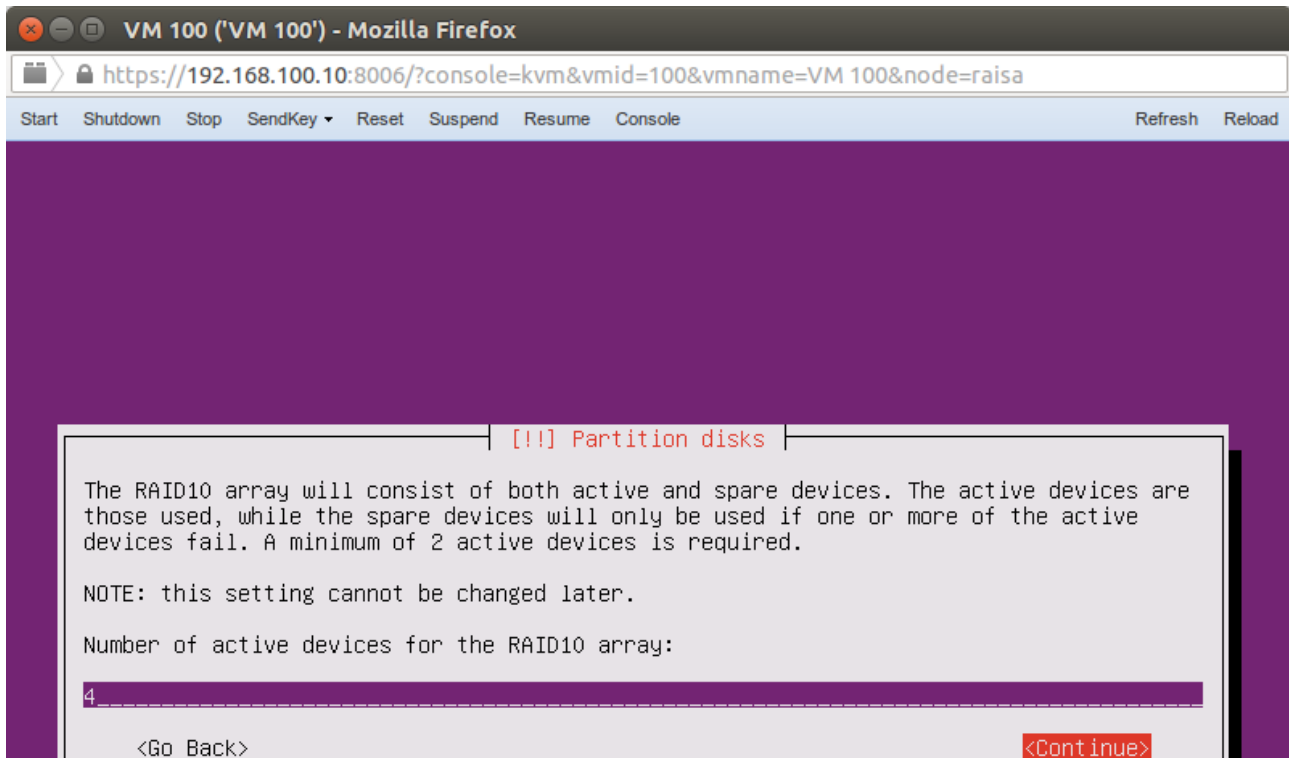
23. buat md lagi.



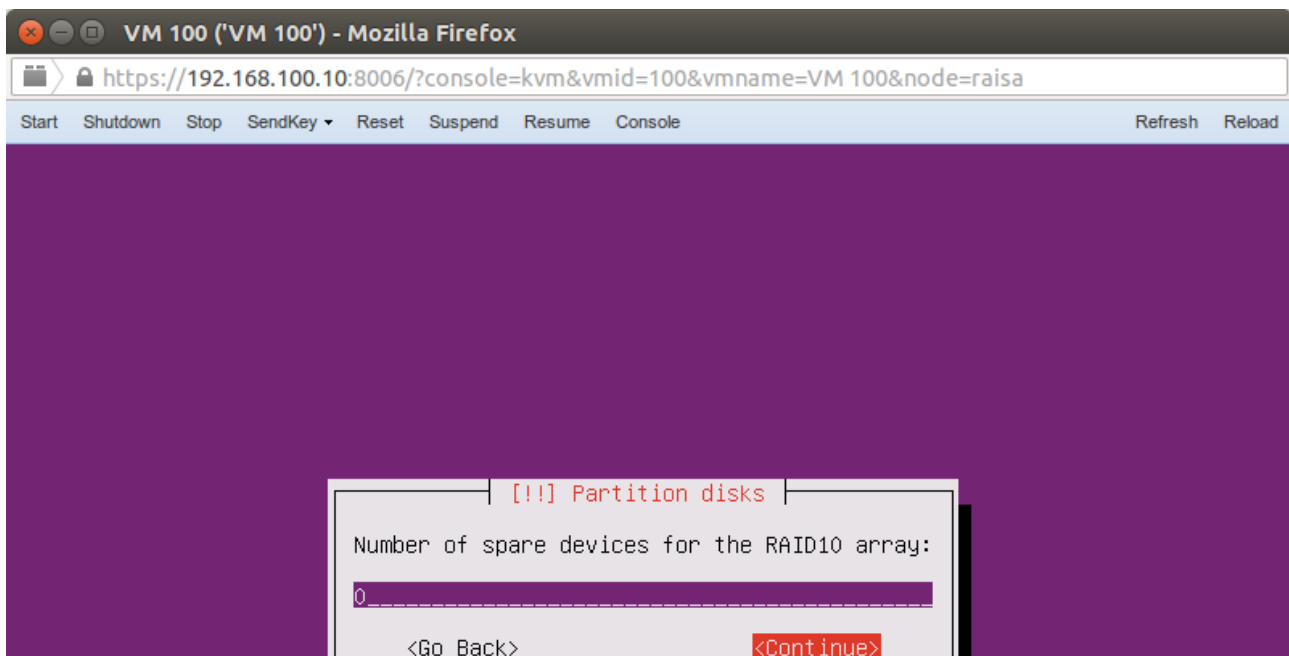
24. set raid10 lagi.



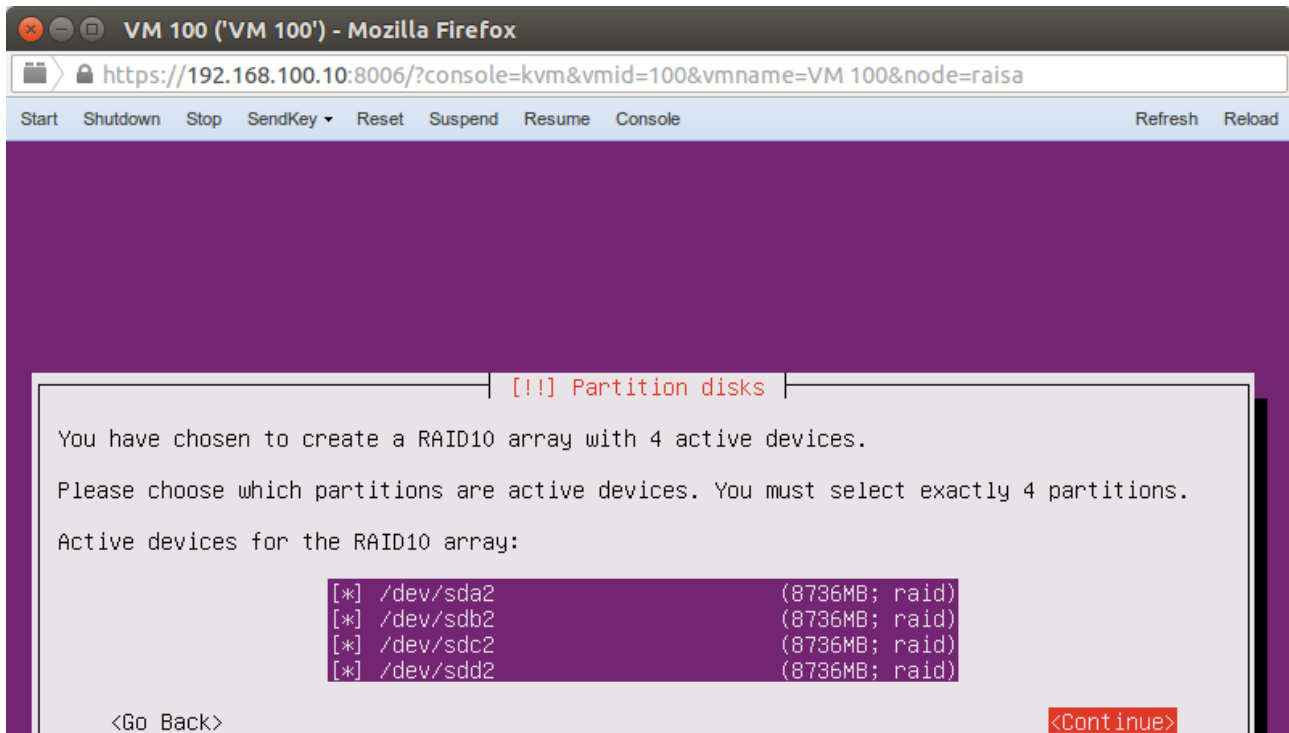
25. set 4.



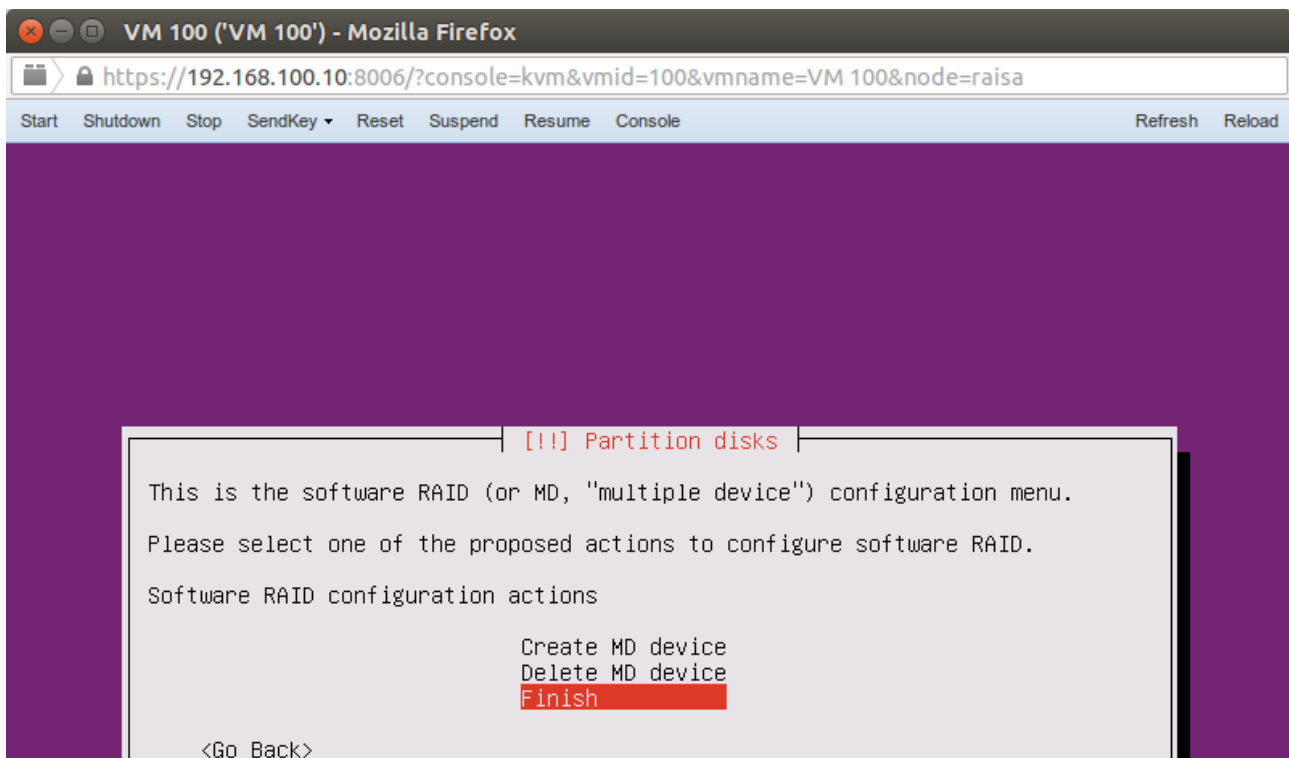
26. set 0.



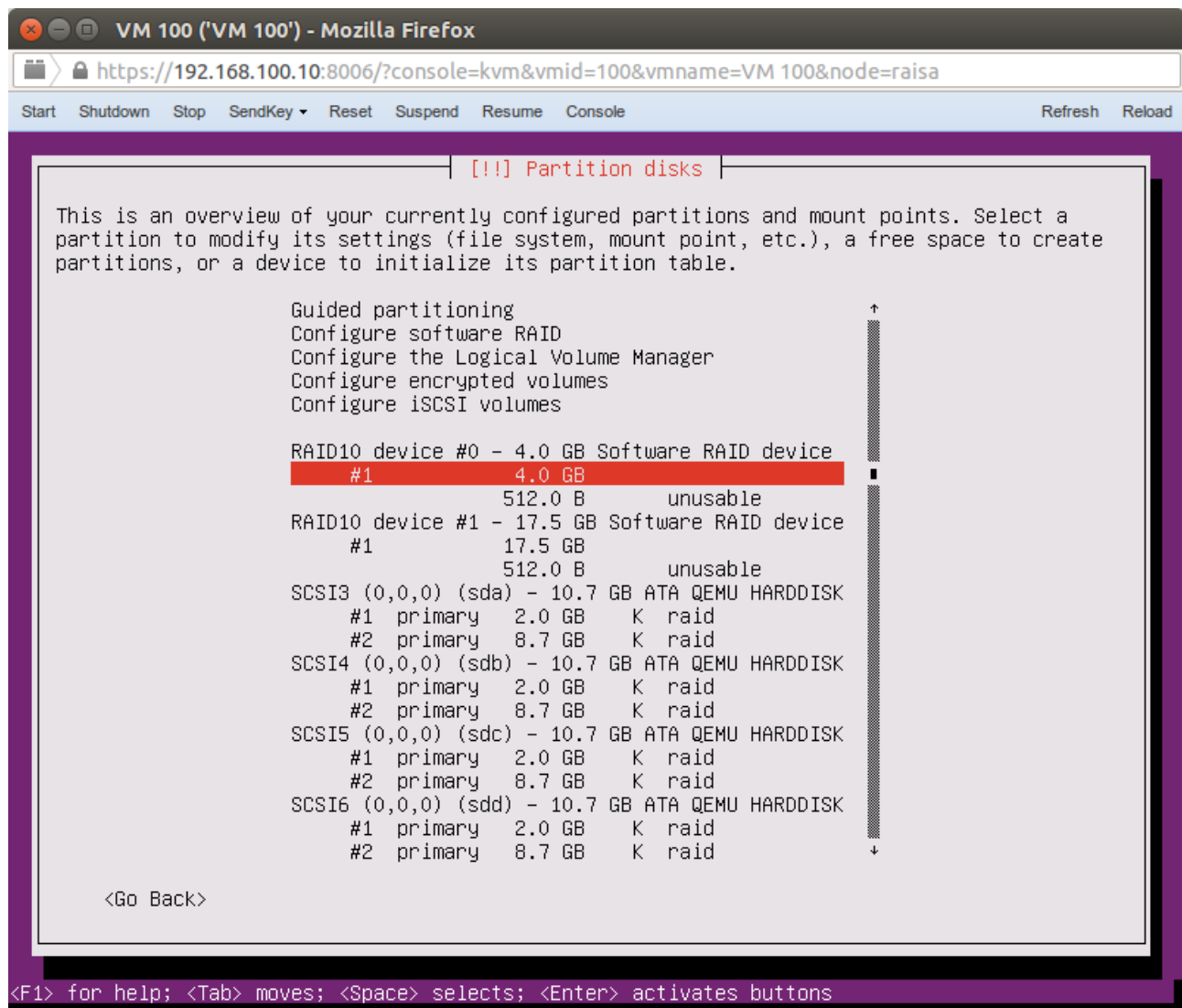
27. set seperti gambar.



28. finish.

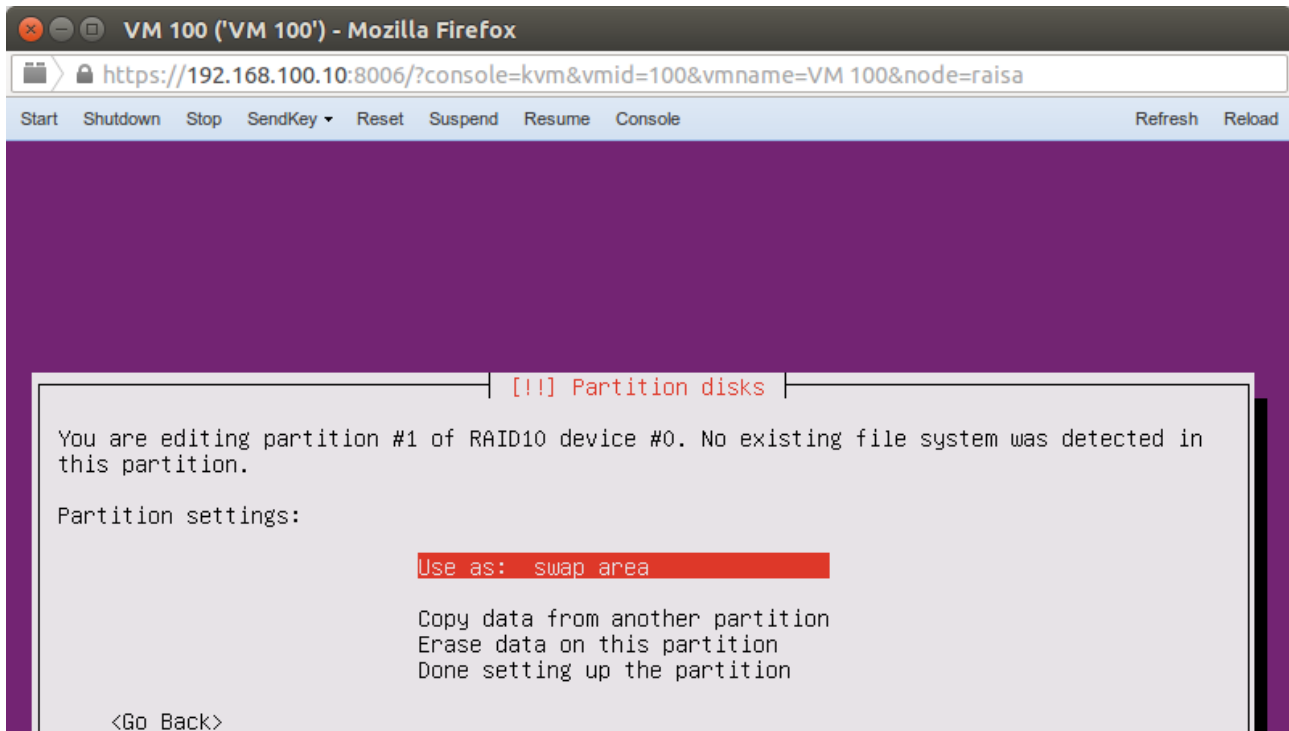


29. pada space 2 GB.

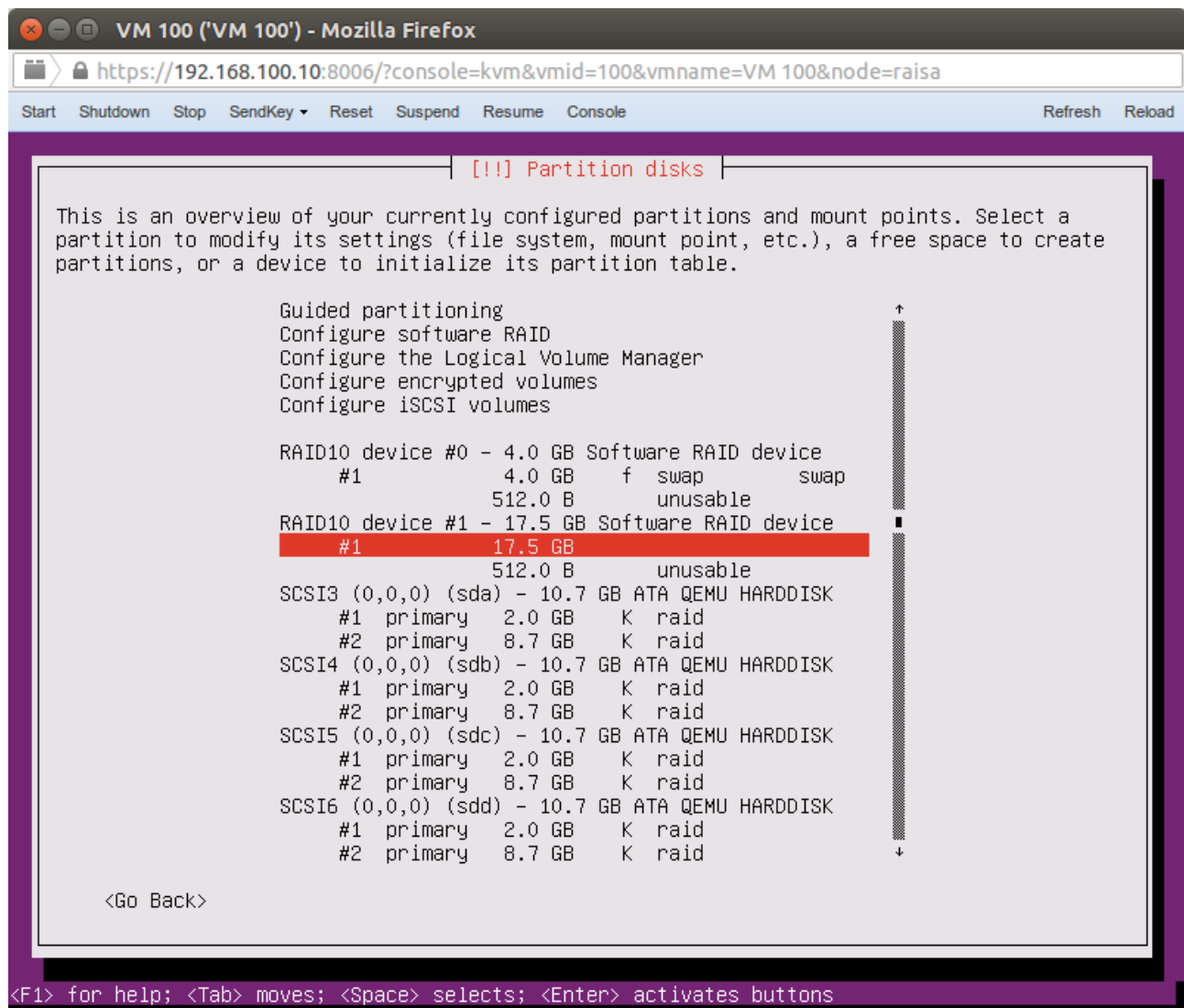




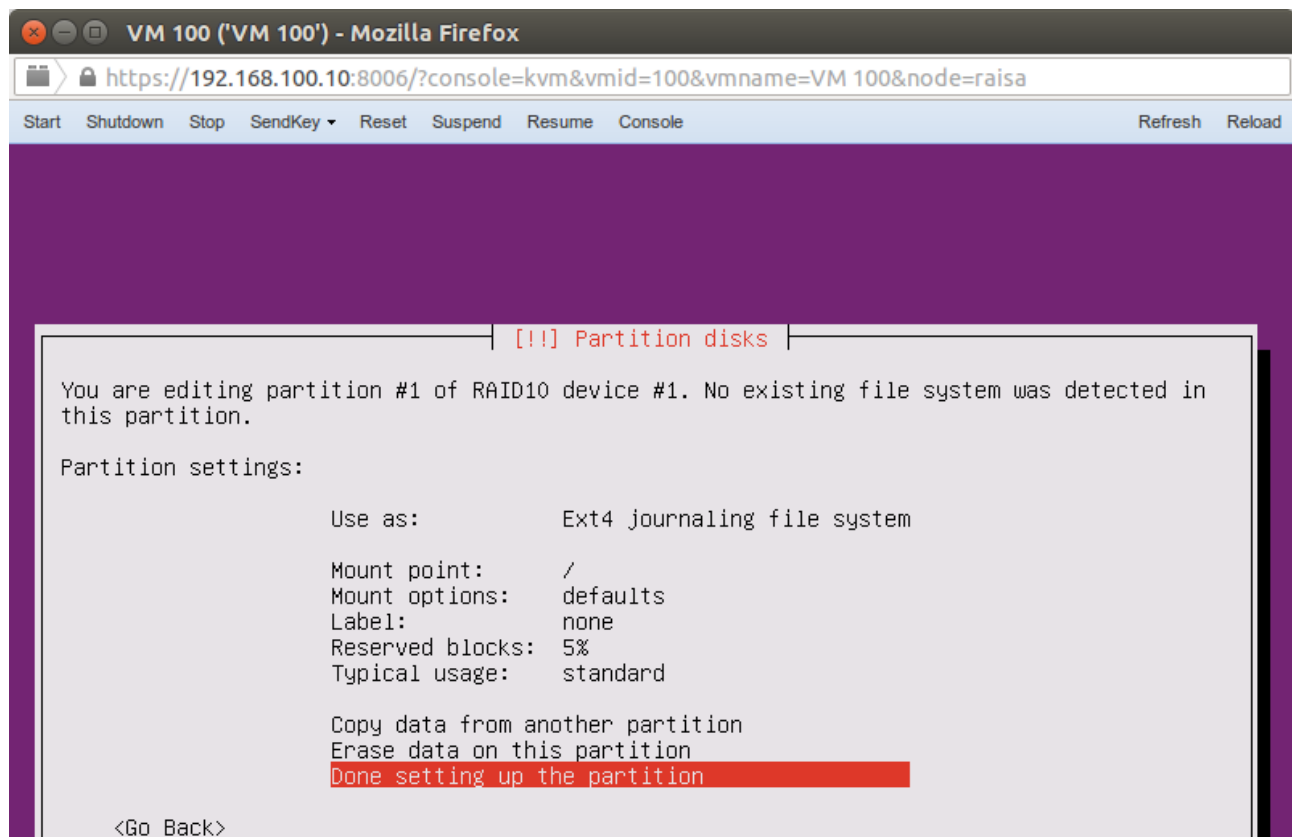
### 30. set swap.



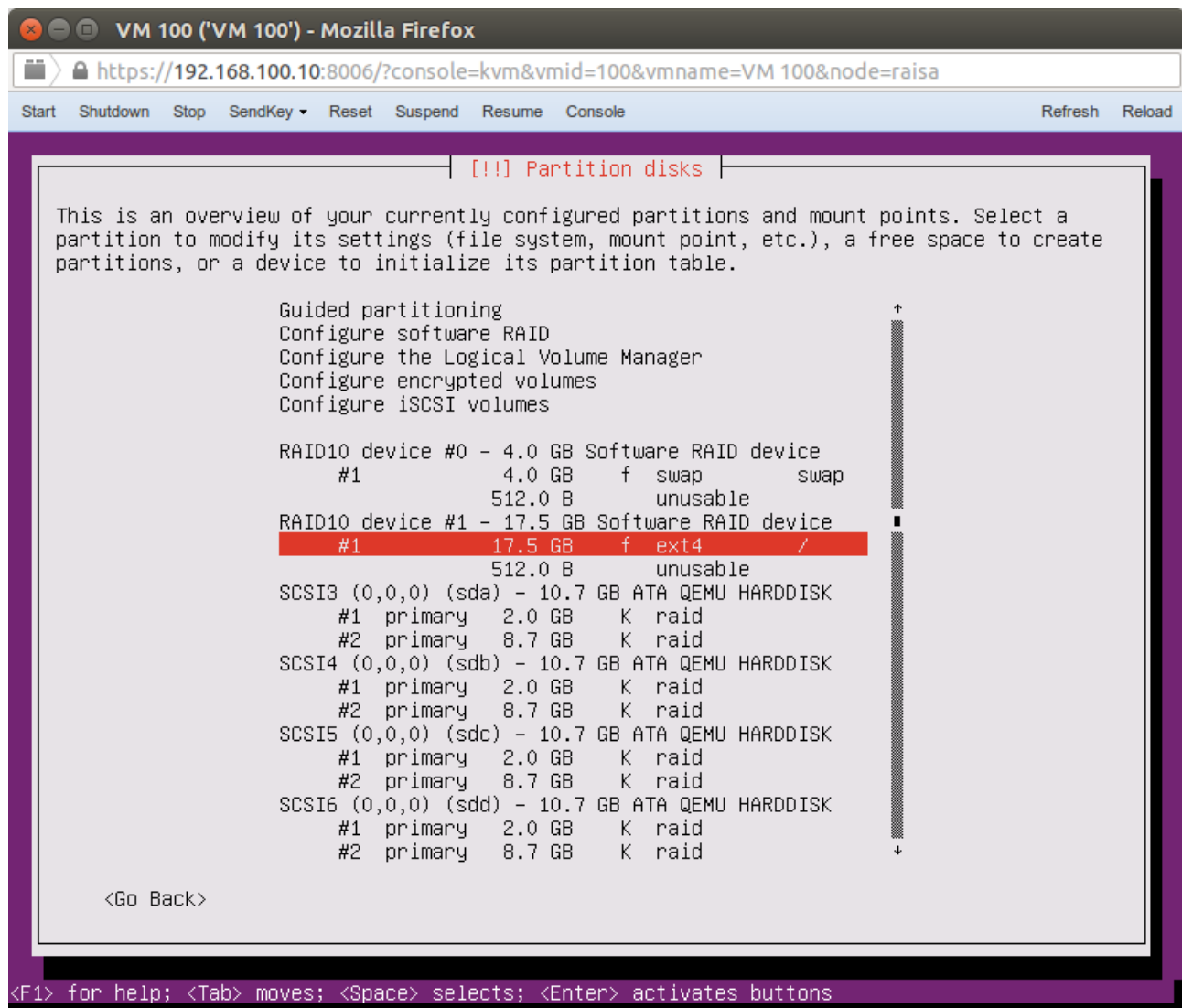
31. pada space berikutnya.



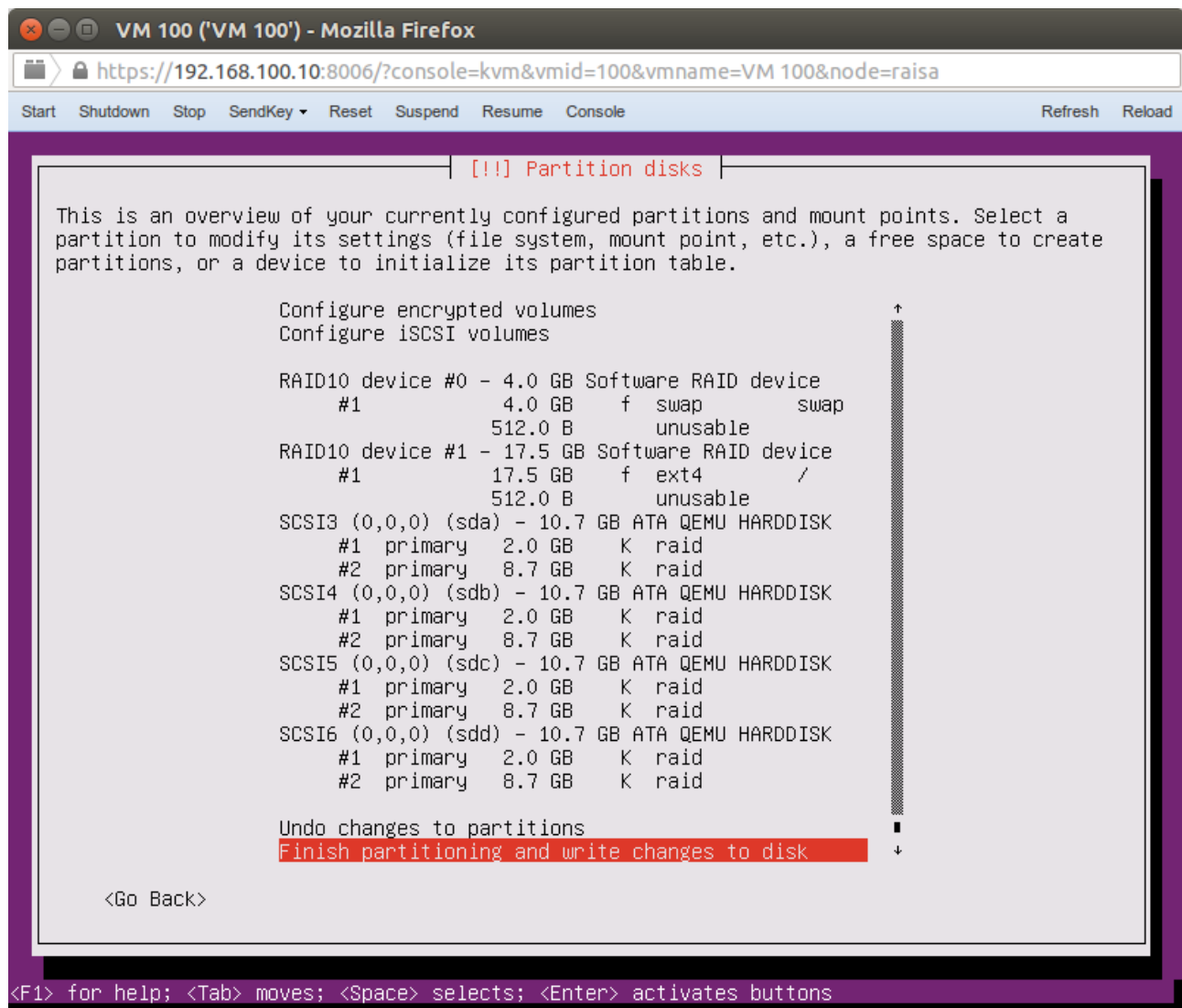
### 32. set ext4 & mount point /.



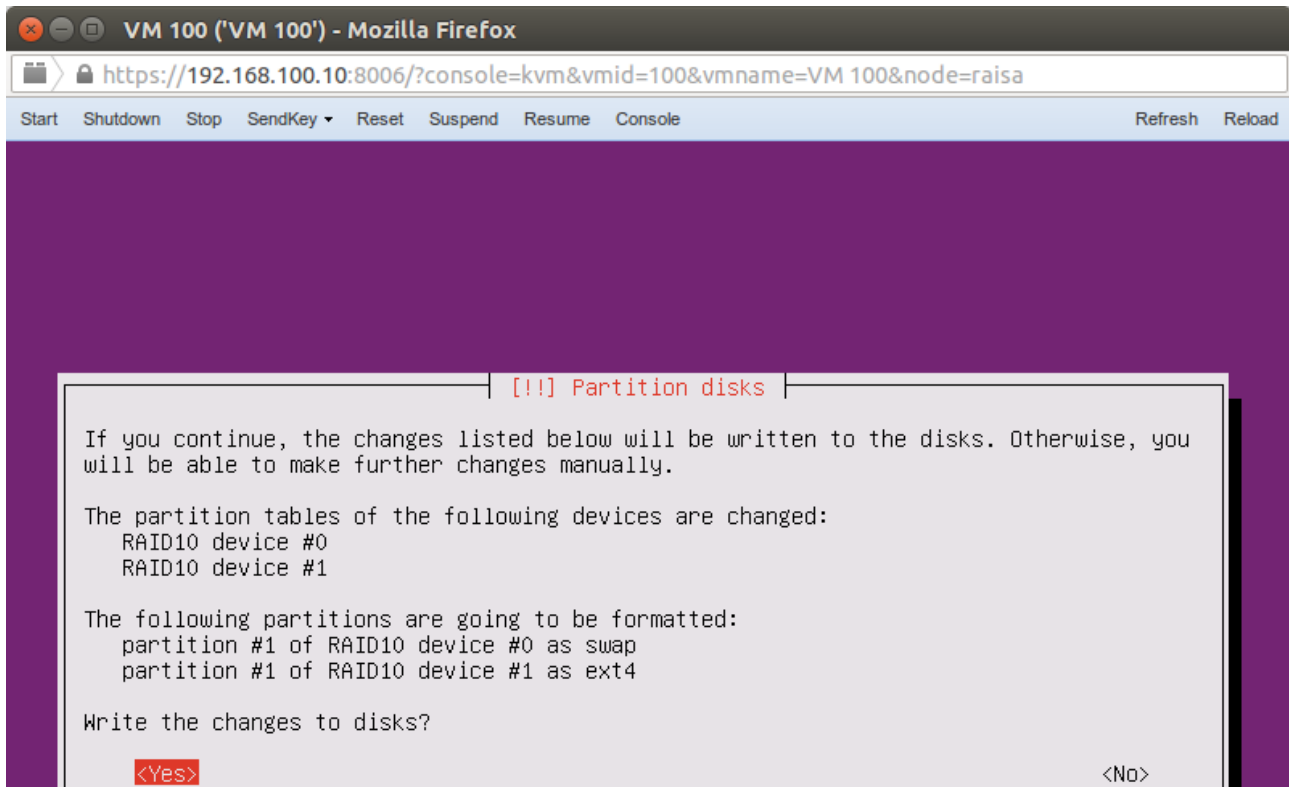
### 33. sehingga seperti gambar.



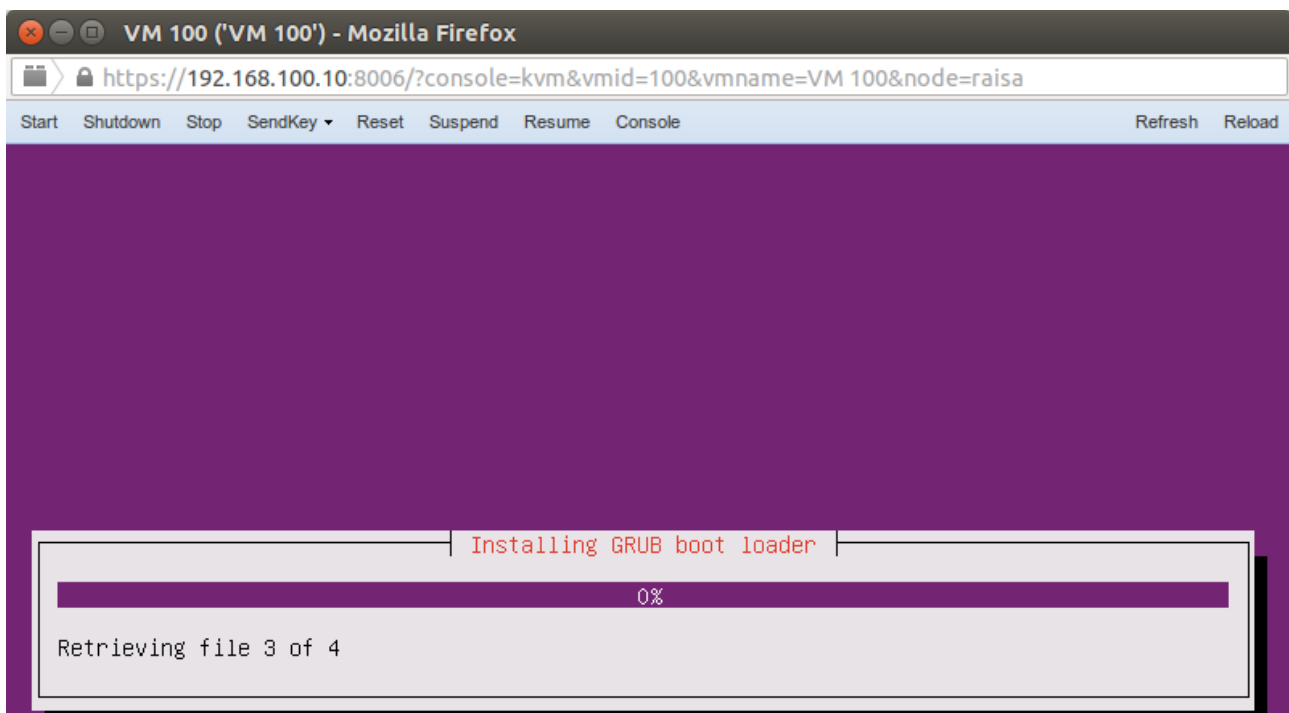
### 34. finish.



35. set yes.



36. proses installasi.



### 37. boot vm & cek.

```
VM 100 ('VM 100') - Mozilla Firefox
https://192.168.100.10:8006/?console=kvm&vmid=100&vmname=VM 100&node=raisa

Start Shutdown Stop SendKey ▾ Reset Suspend Resume Console Refresh Reload

padli@ubuntu:~$ free -m
              total        used        free      shared    buffers      cached
Mem:           3953         188         3764          0          10         109
-/+ buffers/cache:          69         3884
Swap:          3808           0         3808

padli@ubuntu:~$ df -h
Filesystem      Size  Used Avail Use% Mounted on
/dev/md1        16G   1.2G   14G   8% /
none            4.0K   0    4.0K   0% /sys/fs/cgroup
udev            2.0G   4.0K   2.0G   1% /dev
tmpfs           396M  416K  395M   1% /run
none            5.0M   0    5.0M   0% /run/lock
none            2.0G   0    2.0G   0% /run/shm
none            100M   0    100M   0% /run/user

padli@ubuntu:~$
```

```
VM 100 ('VM 100') - Mozilla Firefox
https://192.168.100.10:8006/?console=kvm&vmid=100&vmname=VM 100&node=raisa

Start Shutdown Stop SendKey ▾ Reset Suspend Resume Console Refresh Reload

padli@ubuntu:~$ more /proc/mdstat
Personalities : [linear] [multipath] [raid0] [raid1] [raid6] [raid5] [raid4] [raid10]
md1 : active raid10 sdc2[2] sdd2[3] sda2[0] sdb2[1]
      17046528 blocks super 1.2 512K chunks 2 near-copies [4/4] [UUUU]

md0 : active raid10 sdb1[1] sdd1[3] sdc1[2] sda1[0]
      3900416 blocks super 1.2 512K chunks 2 near-copies [4/4] [UUUU]

unused devices: <none>

padli@ubuntu:~$
```

```
VM 100 ('VM 100') - Mozilla Firefox
https://192.168.100.10:8006/?console=kvm&vmid=100&vmname=VM 100&node=raisa

Start Shutdown Stop SendKey ▾ Reset Suspend Resume Console Refresh Reload

padli@ubuntu:~$ sudo mdadm --query --detail /dev/md0
[sudo] password for padli:
/dev/md0:
   Version : 1.2
  Creation Time : Fri Jul 10 09:27:54 2015
    Raid Level : raid10
    Array Size : 3900416 (3.72 GiB 3.99 GB)
  Used Dev Size : 1950208 (1904.82 MiB 1997.01 MB)
    Raid Devices : 4
   Total Devices : 4
 Persistence : Superblock is persistent

   Update Time : Fri Jul 10 09:31:19 2015
     State : clean
Active Devices : 4
Working Devices : 4
Failed Devices : 0
Spare Devices : 0

   Layout : near=2
  Chunk Size : 512K

   Name : ubuntu:0 (local to host ubuntu)
  UUID : 678be054:4a0812a0:23ede38b:d404bad7
  Events : 17

   Number Major Minor RaidDevice State
    0         8        1        0 active sync /dev/sda1
    1         8       17        1 active sync /dev/sdb1
    2         8       33        2 active sync /dev/sdc1
    3         8       49        3 active sync /dev/sdd1

padli@ubuntu:~$
```