OLD DOMINION UNIVERSITY

CYSE 270 LINUX SYSTEM FOR CYBERSECURITY

Assignment #7 Manage Local Storage

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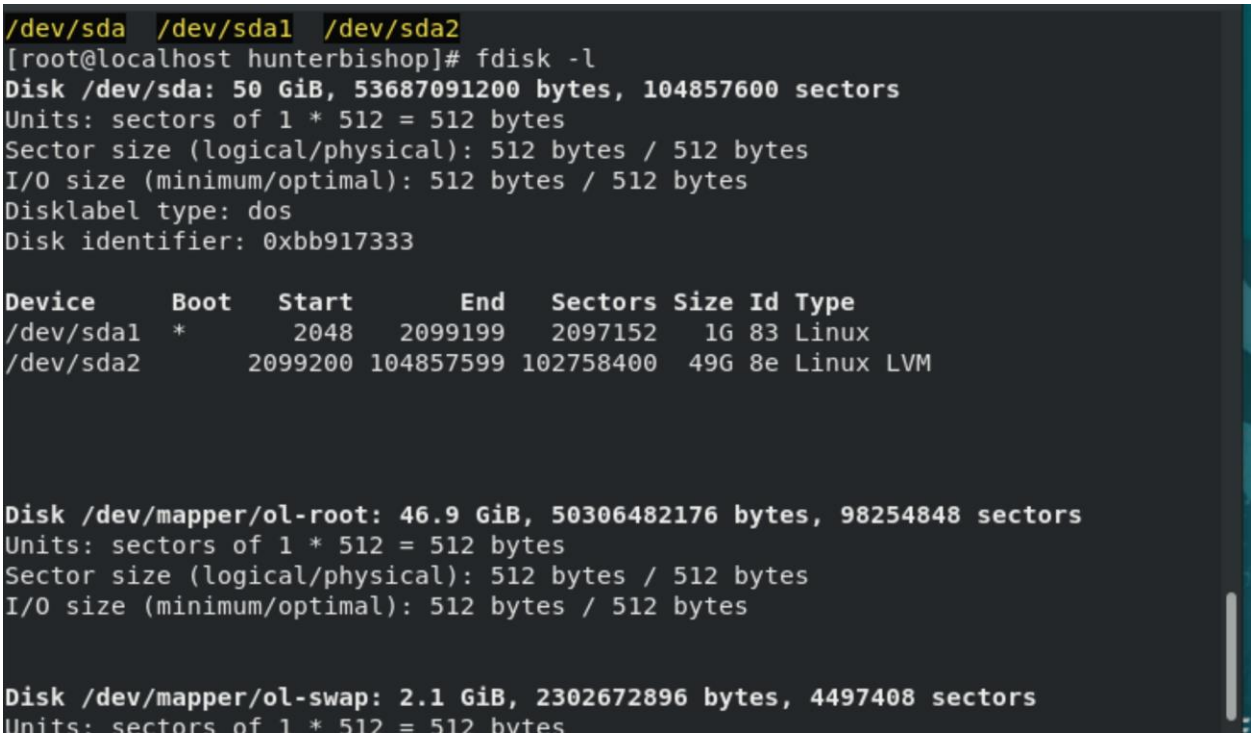
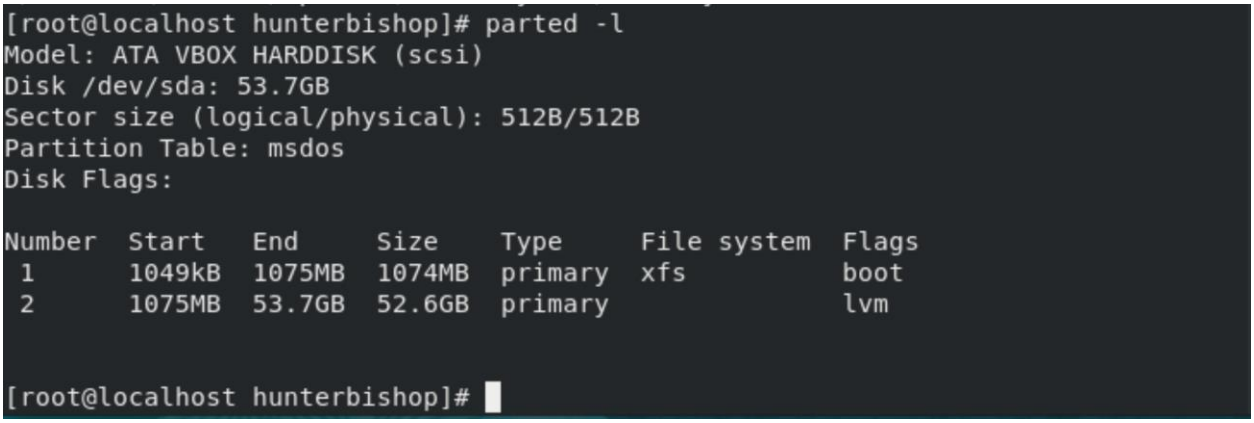
Part I

Steps 1-2. Executed ls /dev/sd and fdisk -l commands.

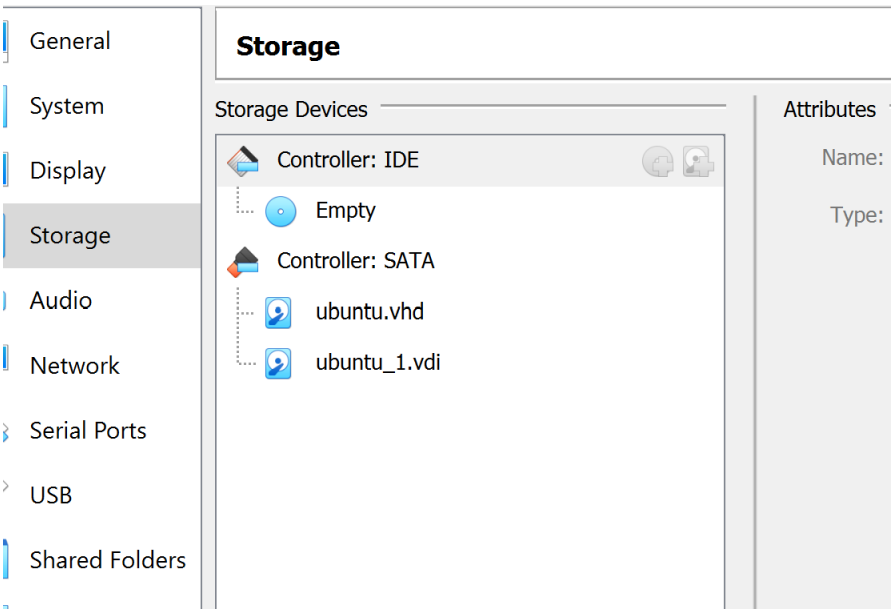


Step 3. Parted -l command



Part II

Steps 1-3




```
[hunterbishop@hbish001 ~]$ ls /dev/sd*
/dev/sda  /dev/sda1  /dev/sda2  /dev/sdb
[hunterbishop@hbish001 ~]$ fdisk -l
Disk /dev/sda: 50 GiB, 53687091200 bytes, 104857600 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
Disklabel type: dos
Disk identifier: 0xbb917333

Device     Boot   Start       End   Sectors Size Id Type
/dev/sda1  *       2048   2099199   2097152   1G 83 Linux
/dev/sda2       2099200 104857599 102758400  49G 8e Linux LVM


Disk /dev/sdb: 1 GiB, 1073741824 bytes, 2097152 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
```

```
[hunterbishop@hbish001 ~]$ parted -l
/dev/mapper/control: open failed: Permission denied
Failure to communicate with kernel device-mapper driver.
Incompatible libdevmapper 1.02.177-RHEL8 (2021-05-19) and kernel driver (unknown
 version).
Model: ATA VBOX HARDDISK (scsi)
Disk /dev/sda: 53.7GB
Sector size (logical/physical): 512B/512B
Partition Table: msdos
Disk Flags:

Number  Start   End     Size    Type     File system  Flags
 1      1049kB  1075MB  1074MB  primary  xfs          boot
 2      1075MB  53.7GB  52.6GB  primary               lvm


Error: /dev/sdb: unrecognised disk label
Model: ATA VBOX HARDDISK (scsi)
Disk /dev/sdb: 1074MB
Sector size (logical/physical): 512B/512B
Partition Table: unknown
Disk Flags:

[hunterbishop@hbish001 ~]$
```

Part III

Created partition

```
[root@hbish001 hunterbishop]# fdisk /dev/sdb

Welcome to fdisk (util-linux 2.32.1).
Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.

Device does not contain a recognized partition table.
Created a new DOS disklabel with disk identifier 0x4e76ad48.

Command (m for help): n
Partition type
   p   primary (0 primary, 0 extended, 4 free)
   e   extended (container for logical partitions)
Select (default p): p
Partition number (1-4, default 1): 1
First sector (2048-2097151, default 2048):
Last sector, +sectors or +size{K,M,G,T,P} (2048-2097151, default 2097151):

Created a new partition 1 of type 'Linux' and of size 1023 MiB.

Command (m for help):
```

Created ext4 file system

```
[root@hbish001 hunterbishop]# mkfs -t ext4 /dev/sdb
mke2fs 1.45.6 (20-Mar-2020)
Creating filesystem with 262144 4k blocks and 65536 inodes
Filesystem UUID: 7f82774f-024d-45a7-b73b-1c5ecabc99ea
Superblock backups stored on blocks:
        32768, 98304, 163840, 229376

Allocating group tables: done
Writing inode tables: done
Creating journal (8192 blocks): done
Writing superblocks and filesystem accounting information: done

[root@hbish001 hunterbishop]#
```

Created new directory and mounted partition to it. Created new text file and edited to put my name. Then I checked the mount status and unmounted the partition and the file was not there any longer afterward.

```
[root@hbish001 hunterbishop]# mkdir /cyse
[root@hbish001 hunterbishop]# mount /dev/sdb1 /cyse
mount: /cyse: special device /dev/sdb1 does not exist.
[root@hbish001 hunterbishop]# mount /dev/sdb /cyse
[root@hbish001 hunterbishop]# df /dev/sdb
Filesystem     1K-blocks  Used Available Use% Mounted on
/dev/sdb          999320  2564    927944   1% /cyse
[root@hbish001 hunterbishop]# cd /cyse
[root@hbish001 cyse]# touch hbish.txt
[root@hbish001 cyse]# vi hbish.txt
[root@hbish001 cyse]# unmount /dev/sdb
bash: unmount: command not found...
Failed to search for file: cannot update repo 'ol8_baseos_latest': Cannot downlo
ad repomd.xml: Cannot download repodata/repomd.xml: All mirrors were tried; Last
 error: Curl error (6): Couldn't resolve host name for https://yum.oracle.com/re
po/OracleLinux/OL8/baseos/latest/x86_64/repodata/repomd.xml [Could not resolve h
ost: yum.oracle.com]
[root@hbish001 cyse]# umount /dev/sdb
umount: /cyse: target is busy.
[root@hbish001 cyse]# cd
[root@hbish001 ~]# umount /dev/sdb
[root@hbish001 ~]# cd /cyse
[root@hbish001 cyse]# cat hbish.txt
cat: hbish.txt: No such file or directory
[root@hbish001 cyse]#
```