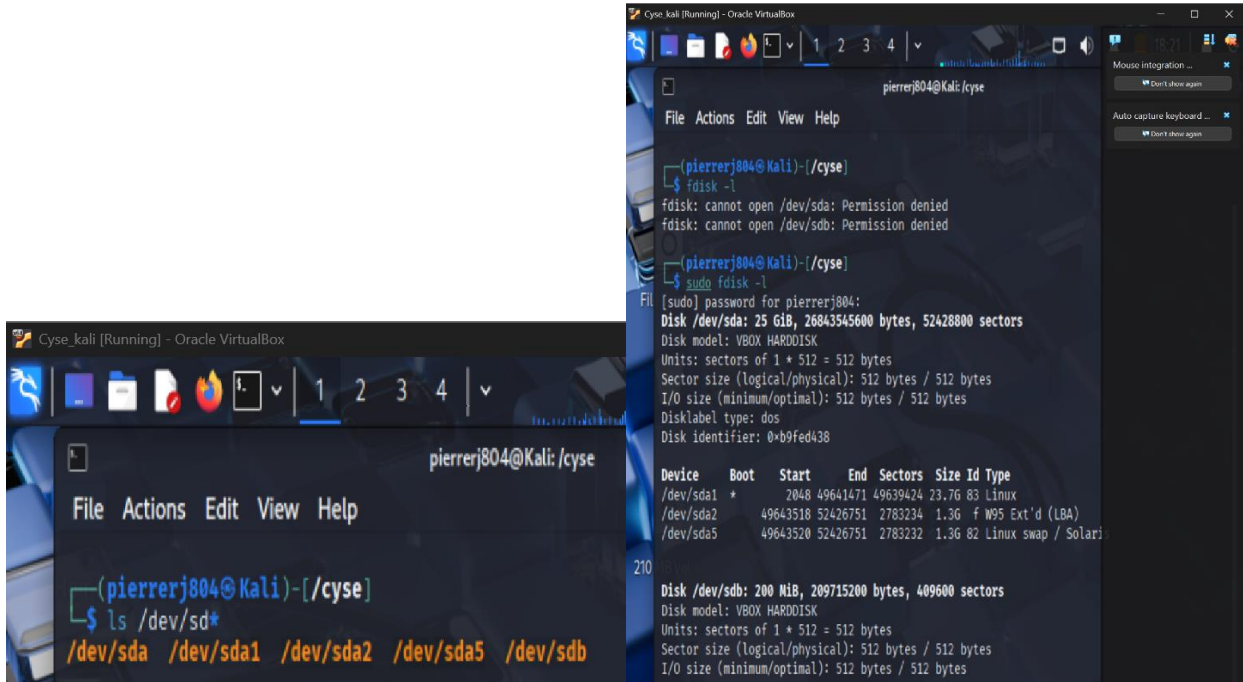


CYSE 270: Linux System for Cybersecurity

Part 1: Could not take screenshots of the before of all of these commands, being that I completed them with Brandon, but here are the ones from after adding the Virtual disk.



```
(pierrerj804@Kali)-[~/cyse]
└─$ fdisk -l
fdisk: cannot open /dev/sda: Permission denied
fdisk: cannot open /dev/sdb: Permission denied

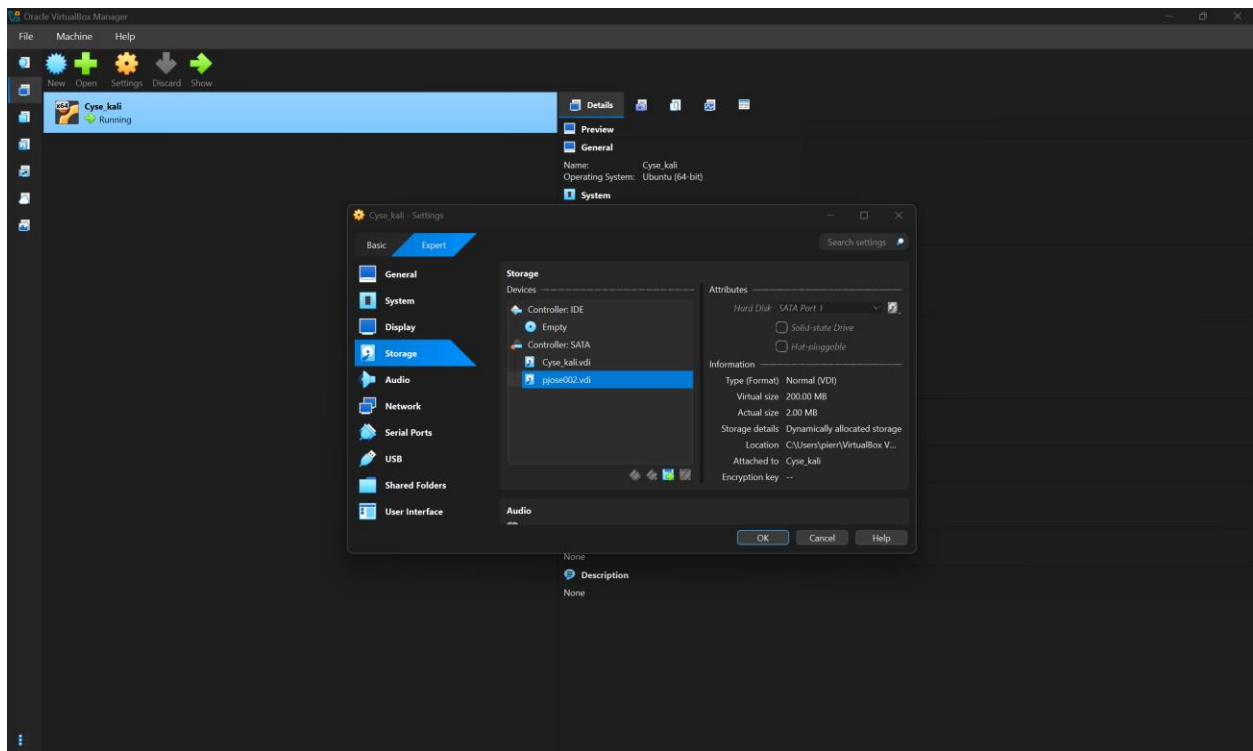
(pierrerj804@Kali)-[~/cyse]
└─$ sudo fdisk -l
[sudo] password for pierrerj804:
Disk /dev/sda: 25 GiB, 26843545600 bytes, 52428800 sectors
Disk model: VBox HardDisk
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: dos
Disk identifier: 0x09fed438

Device Boot Start End Sectors Size Id Type
/dev/sda1 * 2048 49641471 49639424 23.7G 83 Linux
/dev/sda2 49643518 52426751 2783234 1.3G f W95 Ext'd (LBA)
/dev/sda5 49643520 52426751 2783232 1.3G 82 Linux swap / Solaris

210
Disk /dev/sdb: 200 MiB, 209715200 bytes, 409600 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
```

The difference between the before and the after is that we added an extra hard drive that the system recognizes that can now virtually store files on, which is shown as /dev/sdb.

Part 2:



Installation of virtual box

Part 3:

```
pierrerj804@Kali:~/cyse
File Actions Edit View Help

(pierrerj804@Kali)~$ sudo fdisk /dev/sdb

Welcome to fdisk (util-linux 2.41).
Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.

File Device does not contain a recognized partition table.
Created a new DOS (MBR) disklabel with disk identifier 0x461cfbe3.

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 (2048-409599, default 2048): 2048
Last sector, +/-sectors or +/-size{K,M,G,T,P} (2048-409599, default 409599):

Created a new partition 1 of type 'Linux' and of size 199 MiB.

210 Command (m for help):
All unwritten changes will be lost, do you really want to quit? (y/n)n

Command (m for help): w
The partition table has been altered.
Calling ioctl() to re-read partition table.
Syncing disks.
```

```
pierrerj804@Kali:~/cyse
File Actions Edit View Help

(pierrerj804@Kali)~$ sudo mkfs -t ext4 /dev/sdb
mkfs2fs 1.47.2 (1-Jan-2025)
Found a dos partition table in /dev/sdb
Proceed anyway? (y,N) y
Creating filesystem with 204800 1k blocks and 51200 inodes
Filesystem UUID: 348ebc8e-a893-4b51-bc1c-407d27d1d8a1
File Superblock backups stored on blocks:
    8193, 24577, 40961, 57345, 73729

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

(pierrerj804@Kali)~$ sudo parted -l
Model: ATA VBOX HARDDISK (scsi)
Disk /dev/sda: 26.8GB
Sector size (logical/physical): 512B/512B
210 Partition Table: msdos
Disk Flags:

Number  Start  End    Size  Type   File system  Flags
  1      1049kB 25.4GB 25.4GB primary ext4         boot
  2      25.4GB 26.8GB 1425MB extended lba
  5      25.4GB 26.8GB 1425MB logical  linux-swap(v1) swap
```

```
Cyse, kali [Running] - Oracle VM VirtualBox
pierrerrj804@kali: /cyse
File Actions Edit View Help
└─$ sudo parted -l
Model: ATA VBOX HARDDISK (scsi)
Disk /dev/sda: 26.8GB
Sector size (logical/physical): 512B/512B
Partition Table: msdos
Disk Flags:

Number  Start  End    Size  Type   File system  Flags
1       1049KB 25.4GB 25.4GB primary ext4         boot
2       25.4GB 26.8GB 1425MB extended lba
5       25.4GB 26.8GB 1425MB logical  linux-swap(v1) swap

Model: ATA VBOX HARDDISK (scsi)
Disk /dev/sdb: 210MB
Sector size (logical/physical): 512B/512B
Partition Table: loop
Disk Flags:

Number  Start  End    Size  File system  Flags
1       0.00B 210MB 210MB ext4

210

(pierrerrj804@kali)~$
└─$ sudo mkdir /cyse

(pierrerrj804@kali)~$
└─$ cd /cyse

(pierrerrj804@kali)~/cyse$
```

```
Cyse, kali [Running] - Oracle VM VirtualBox
pierrerrj804@kali: /cyse
File Actions Edit View Help
(pierrerrj804@kali)~$
└─$ sudo mkdir /cyse

(pierrerrj804@kali)~$
└─$ cd /cyse

(pierrerrj804@kali)~/cyse$
└─$ sudo nano testfile1

(pierrerrj804@kali)~/cyse$
└─$ cat testfile1
Pierre Joseph

(pierrerrj804@kali)~/cyse$
└─$ sudo mount /dev/sdb /cyse

(pierrerrj804@kali)~/cyse$
└─$ sudo df
Filesystem      1K-blocks    Used Available Use% Mounted on
udev             942832         0   942832   0% /dev
tmpfs            202136         996   201140   1% /run
/dev/sda1       24253528 15246252  7749908   67% /
tmpfs            1010664         4   1010660   1% /dev/shm
tmpfs            5120           0    5120    0% /run/lock
tmpfs            1024           0    1024    0% /run/credentials/systemd-journald.service
tmpfs            1010668         80   1010588   1% /tmp
tmpfs            1024           0    1024    0% /run/credentials/getty@tty1.service
tmpfs            202132         116   202016   1% /run/user/1000
/dev/sdb         186299         64   171899   1% /cyse

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(pierrerrj804@kali)~/cyse$
```

```
Cyse_Kali (Running) - Oracle VM VirtualBox
Minimize all open windows and show the desktop
File Actions Edit View Help
pierrerrj804@Kali: /cyse

(pierrerrj804@Kali)~/cyse
└─$ sudo df
Filesystem      1K-blocks    Used Available Use% Mounted on
udev            942832         0   942832   0% /dev
tmpfs           202136         996   201140   1% /run
/dev/sda1      24253528 15246752  7749908  67% /
tmpfs          1010664         4   1010660   1% /dev/shm
tmpfs           5120         0     5120   0% /run/lock
tmpfs           1024         0     1024   0% /run/credentials/systemd-journald.service
tmpfs          1010668        80   1010588   1% /tmp
tmpfs           1024         0     1024   0% /run/credentials/getty@tty1.service
tmpfs          202132        116   202016   1% /run/user/1000
/dev/sdb       186299         64   171899   1% /cyse

(pierrerrj804@Kali)~/cyse
└─$ ls
testfile1

(pierrerrj804@Kali)~/cyse
└─$ sudo nano testfile2

210 (pierrerrj804@Kali)~/cyse
└─$ ls
pjose002 testfile1

(pierrerrj804@Kali)~/cyse
└─$ sudo umount /dev/sdb

(pierrerrj804@Kali)~/cyse
└─$ ls
```