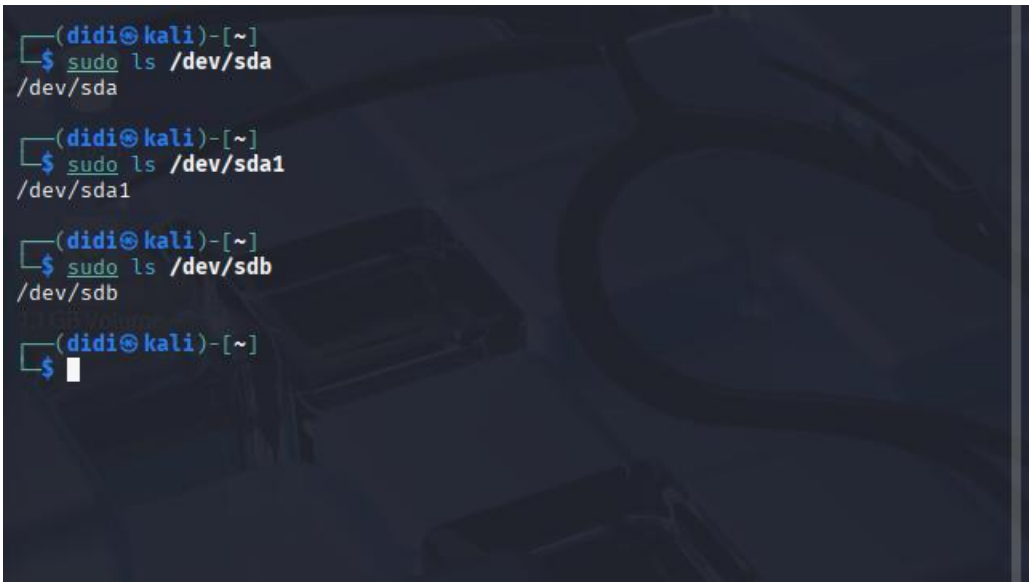
Indhira Caceres
CYSE270
10/25/2025

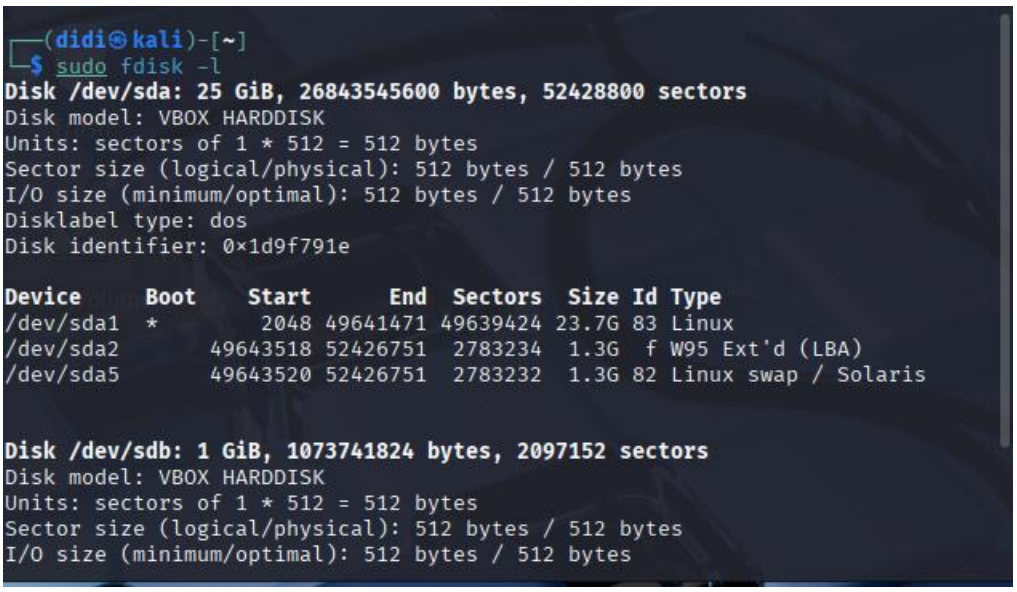
Lab 7 – Manage Local Storage

Part I– Check your file system (30 points).

Step 1. Execute the ls /dev/sd* command to see the current hard disk devices. [use sudo]



Step 2. Execute the fdisk -l command to list the current hard disk partitions. [use sudo]



Step 3. Execute the parted -l command to list the current hard disk partition table. [use sudo]

Indhira Caceres
CYSE270
10/25/2025

```
┌──(didi㉿kali)-[~]
└─$ 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: 1074MB
Sector size (logical/physical): 512B/512B
Partition Table: msdos
Disk Flags:

Number  Start   End     Size    Type     File system  Flags
 1      1049kB  1074MB  1073MB  primary  ext4
```

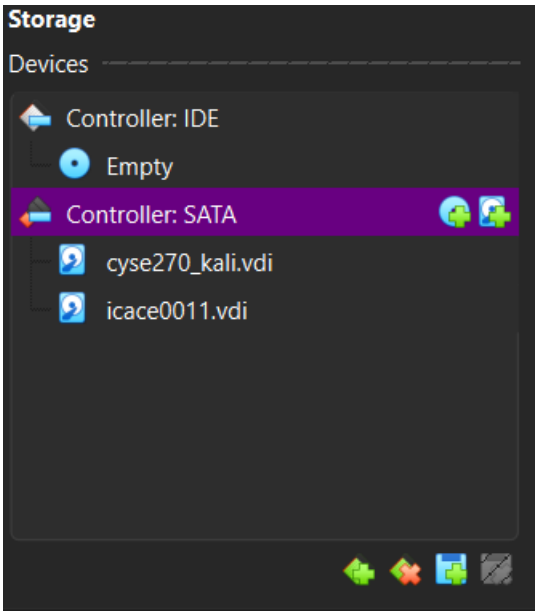
Part II– Create a new virtual disk (30 points)

Step 1. In the VM setting, attach a new virtual hard disk with the size of 200 MB to our current Linux VM. Name it as “your_midas.vdi” [HINT: Please refer to the slides and discussion during the class for week 7]

Name	Virtual Size	Actual Size
Attached		
cyse270_kali.vdi	25.00 GB	15.91 GB
icace001.vdi	1.00 GB	1.00 GB
Not Attached		
icace0011.vdi	200.00 MB	202.00 MB

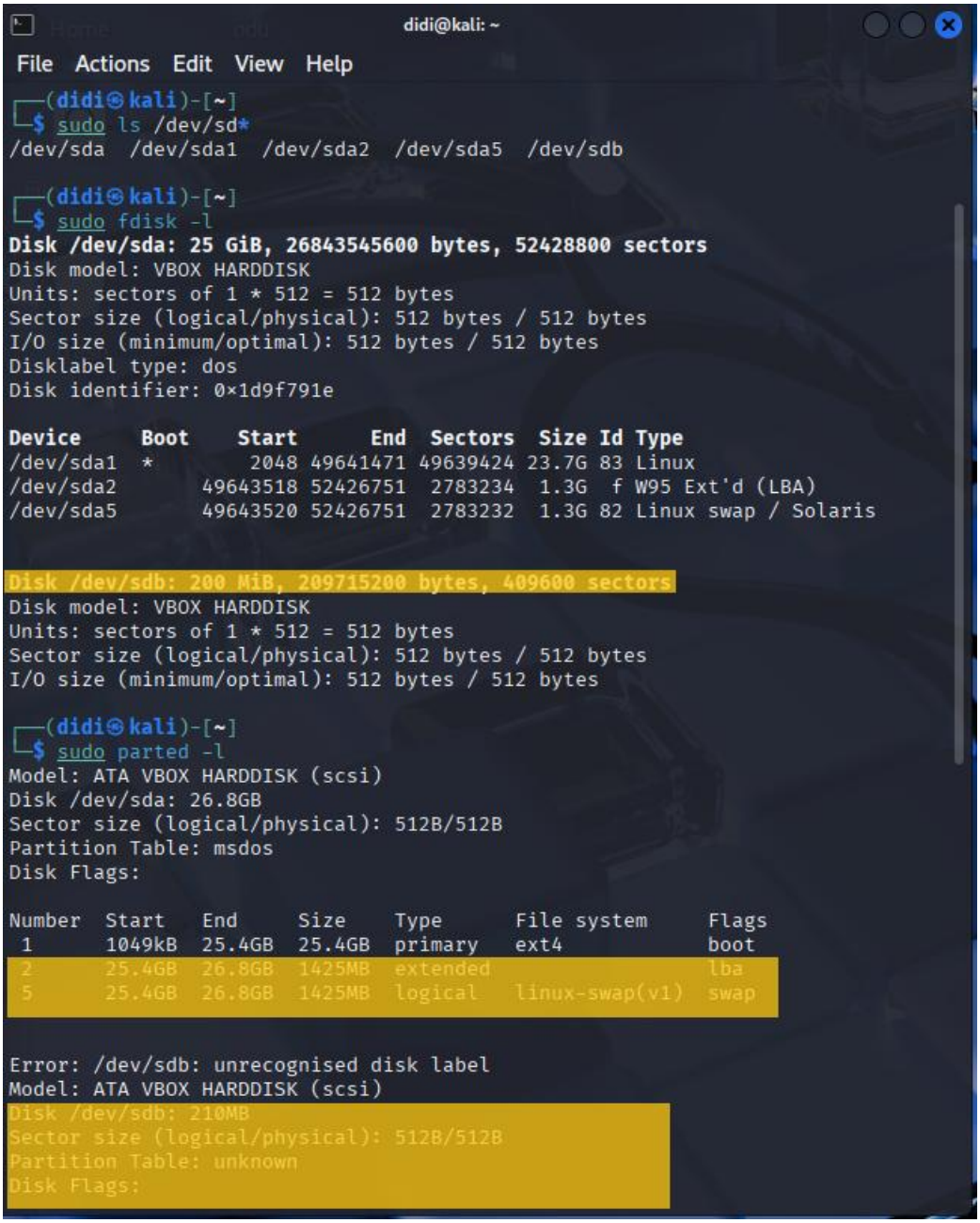
Step 2. Load this virtual hard disk to your virtual machine.

Indhira Caceres
CYSE270
10/25/2025



Step 3. Repeat the steps in Part I and highlight the differences after adding the new virtual hard disk.

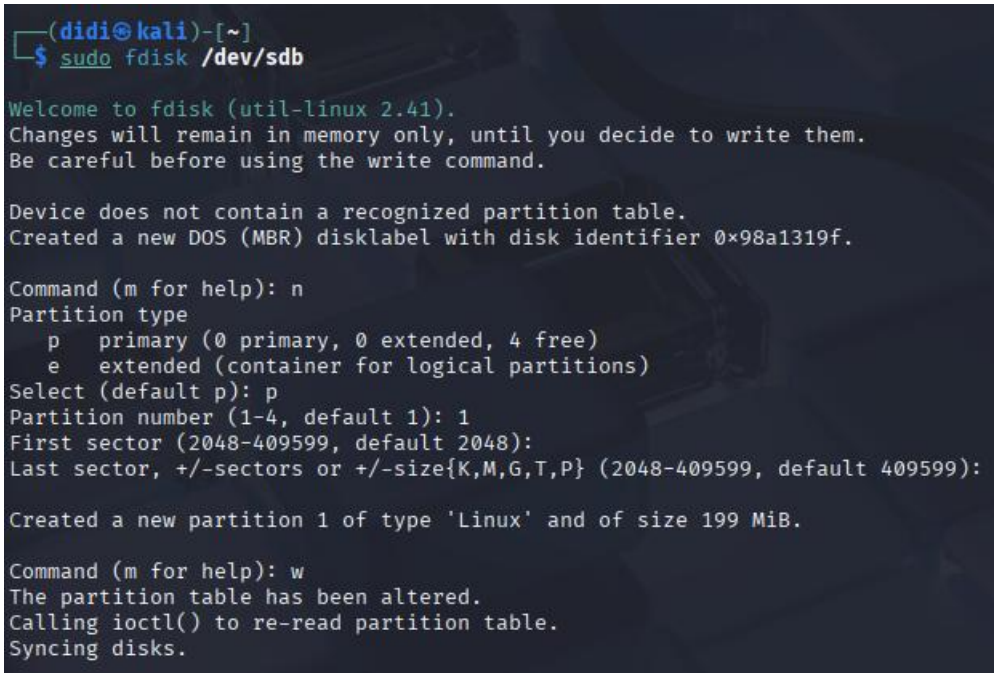
Indhira Caceres
CYSE270
10/25/2025



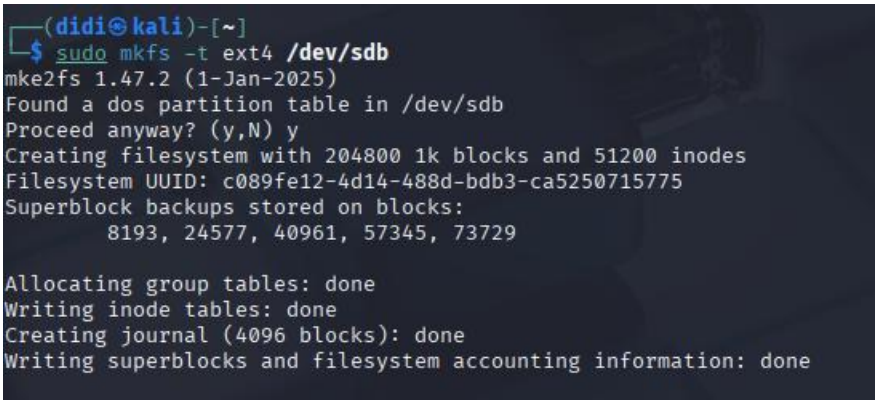
Indhira Caceres
CYSE270
10/25/2025

Part III– Creating Partitions and Filesystems (60 points)

Step 1. Use the fdisk command to create a new primary partition on the new virtual hard disk attached in Part II.

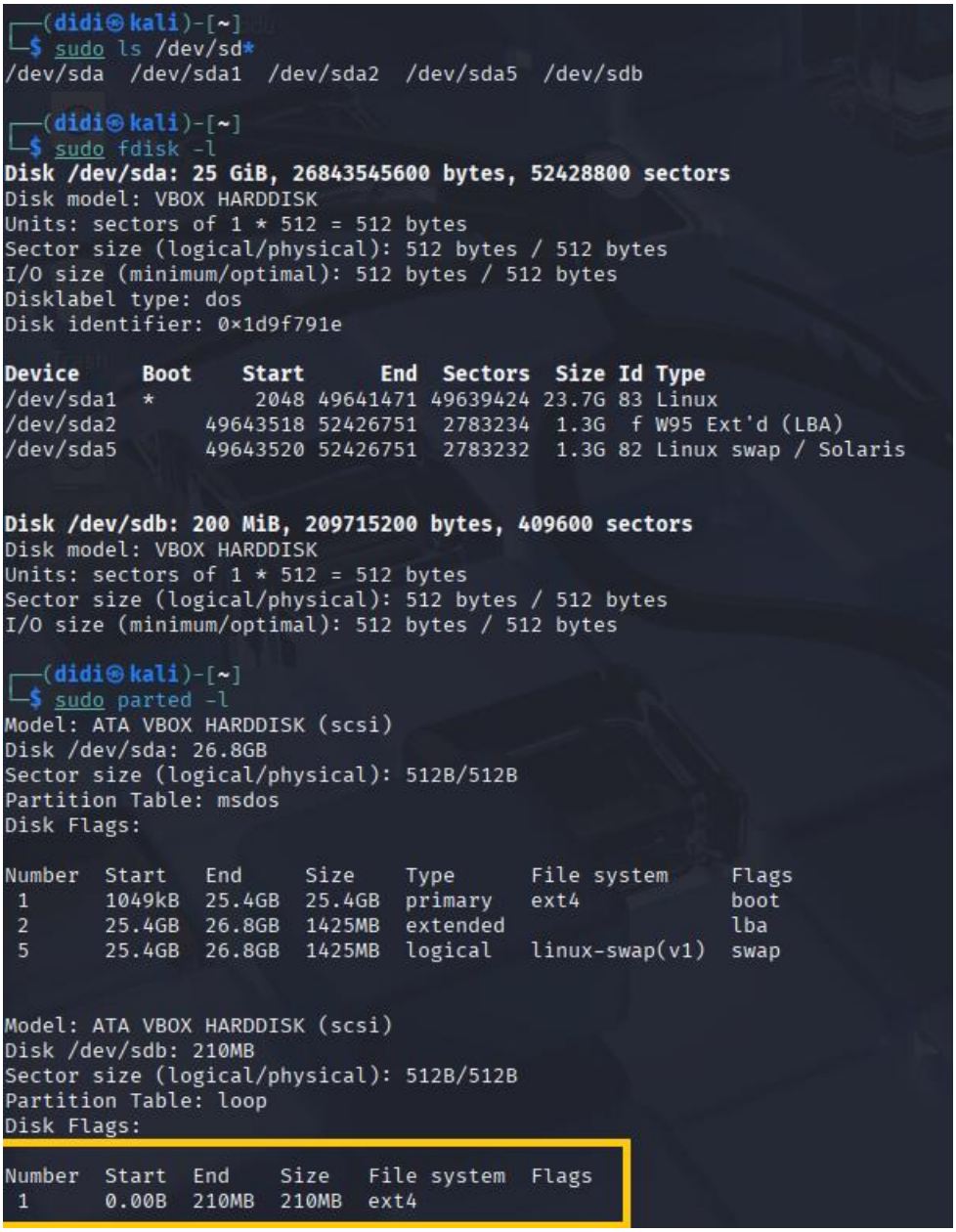


Step 2. Use the correct command to create an ext4 filesystem on the new partition.

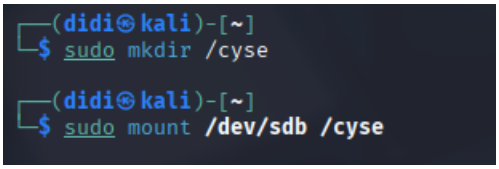


Indhira Caceres
CYSE270
10/25/2025

Step 3. Repeat the steps in Part I and highlight the differences.

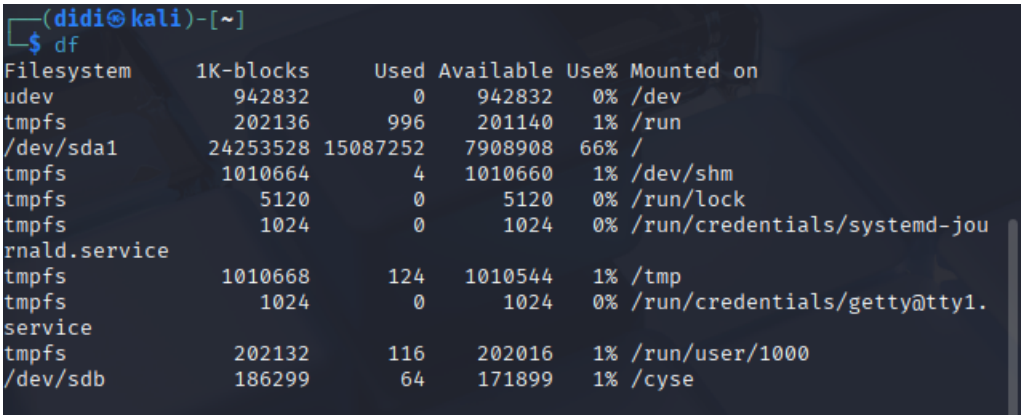


Step 4. Make a new directory named /cyse. And mount the new partition under this directory.

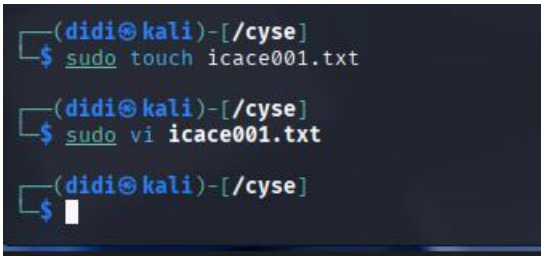


Indhira Caceres
CYSE270
10/25/2025

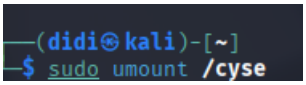
Step 5. Use the df command to check the mounting point of the new partition.



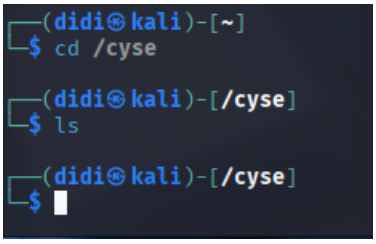
Step 6. Create a new file named for YourMIDAS.txt (replace YourMIDAS with your MIDAS ID) in the directory /cyse and put your name in that file.



Step 7. Unmount /cyse directory.



Step 8. Check the contents in /cyse directory. What do you find?



It was empty