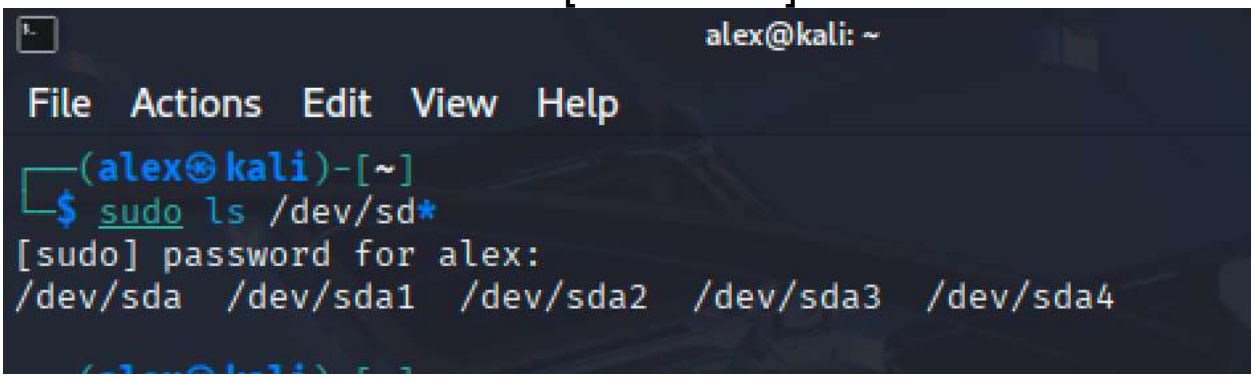
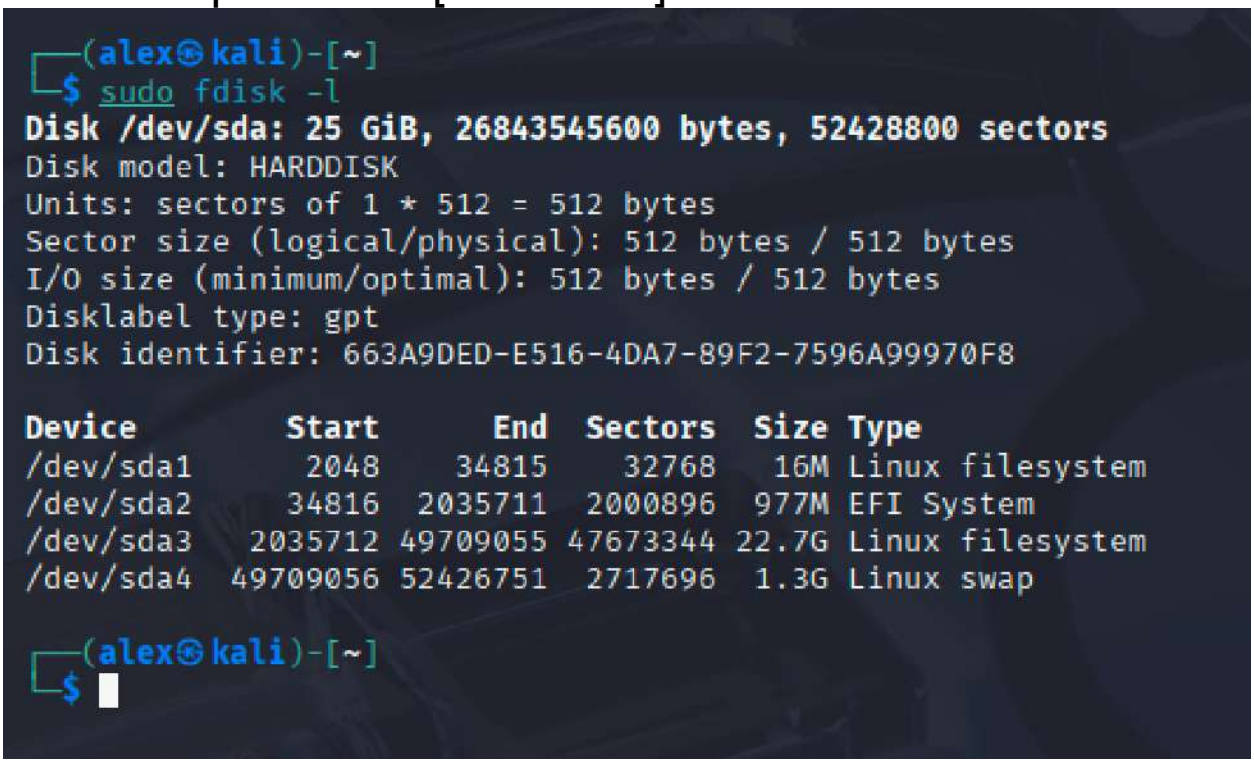
Part I– Check your file system (30 points).

Submit the screenshot for All the three steps.

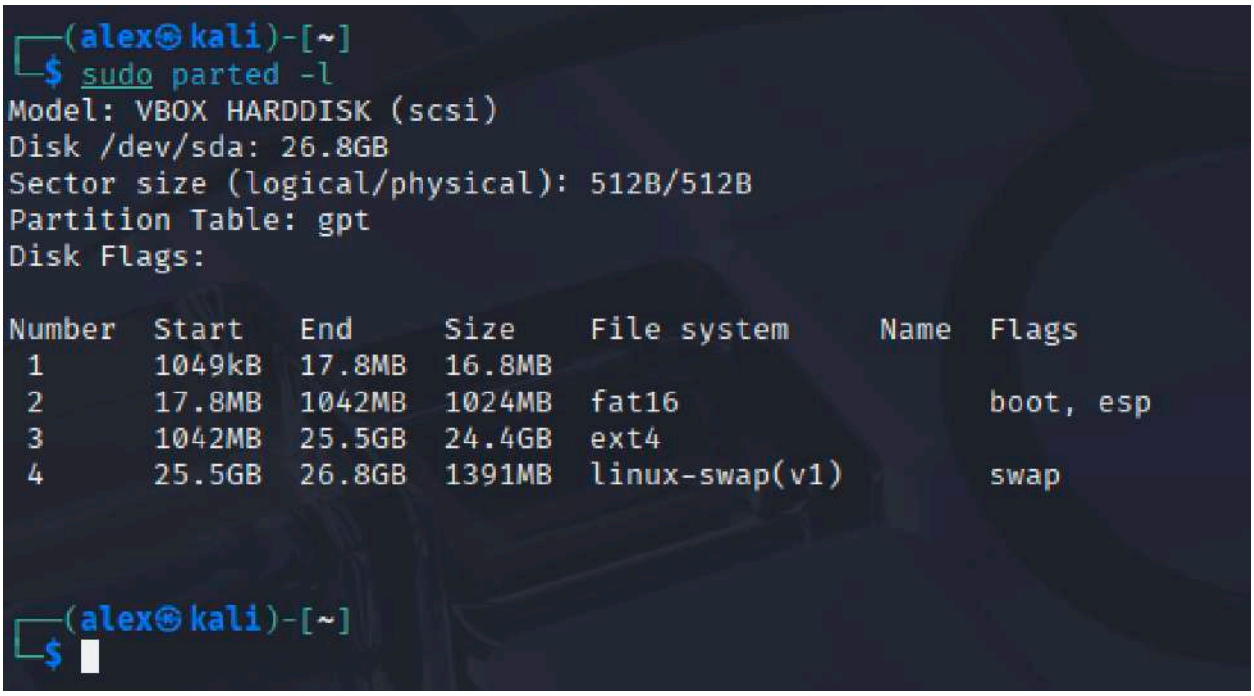
Step 1. Execute the ls /dev/sd* command to see the current hard disk devices. [use sudo]



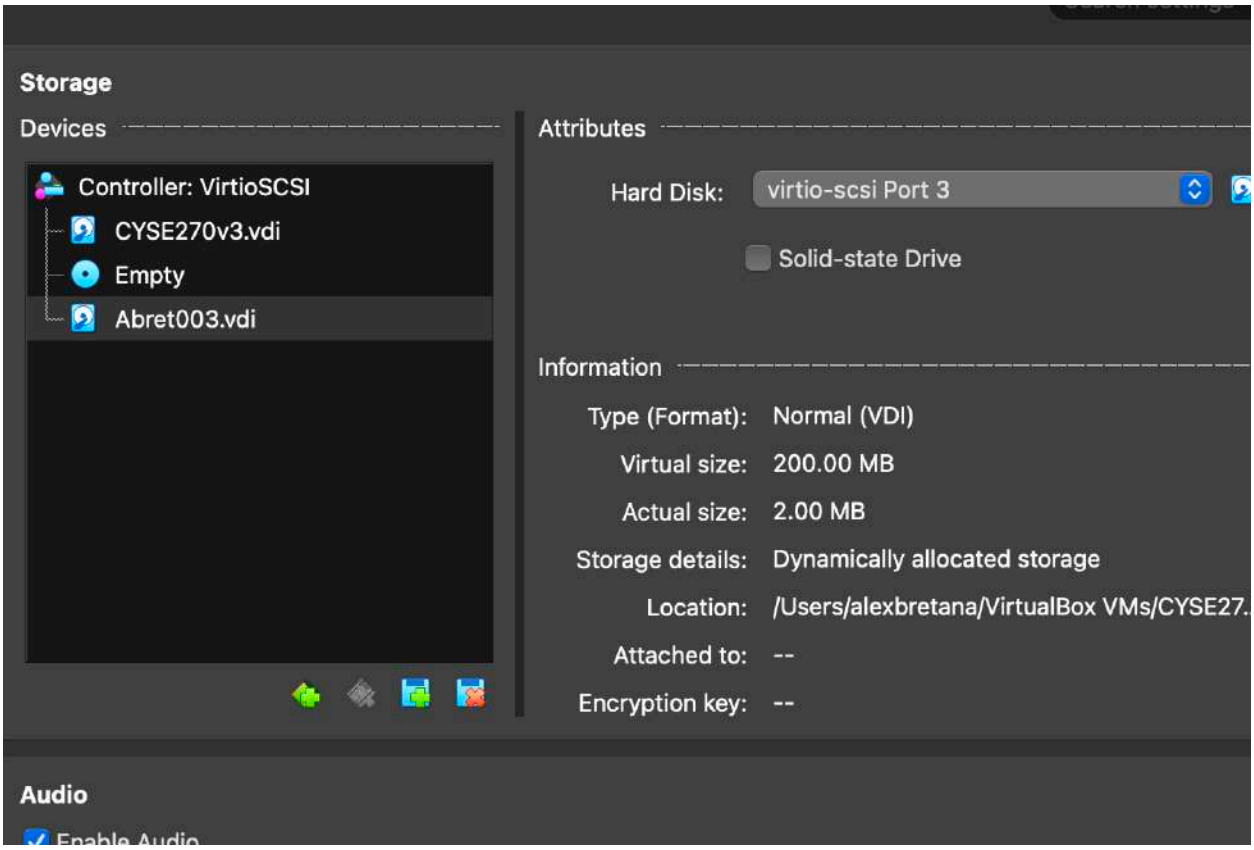
Step 2. Execute the fdisk -l command to list the current hard disk partitions. [use sudo]



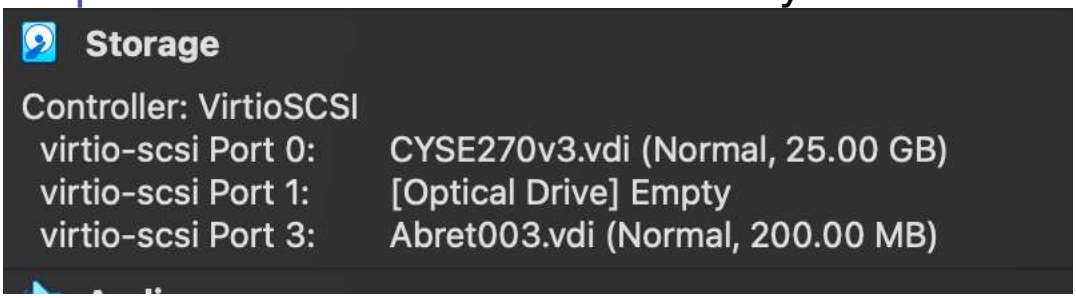
Step 3. Execute the parted -l command to list the current hard disk partition table. [use sudo]



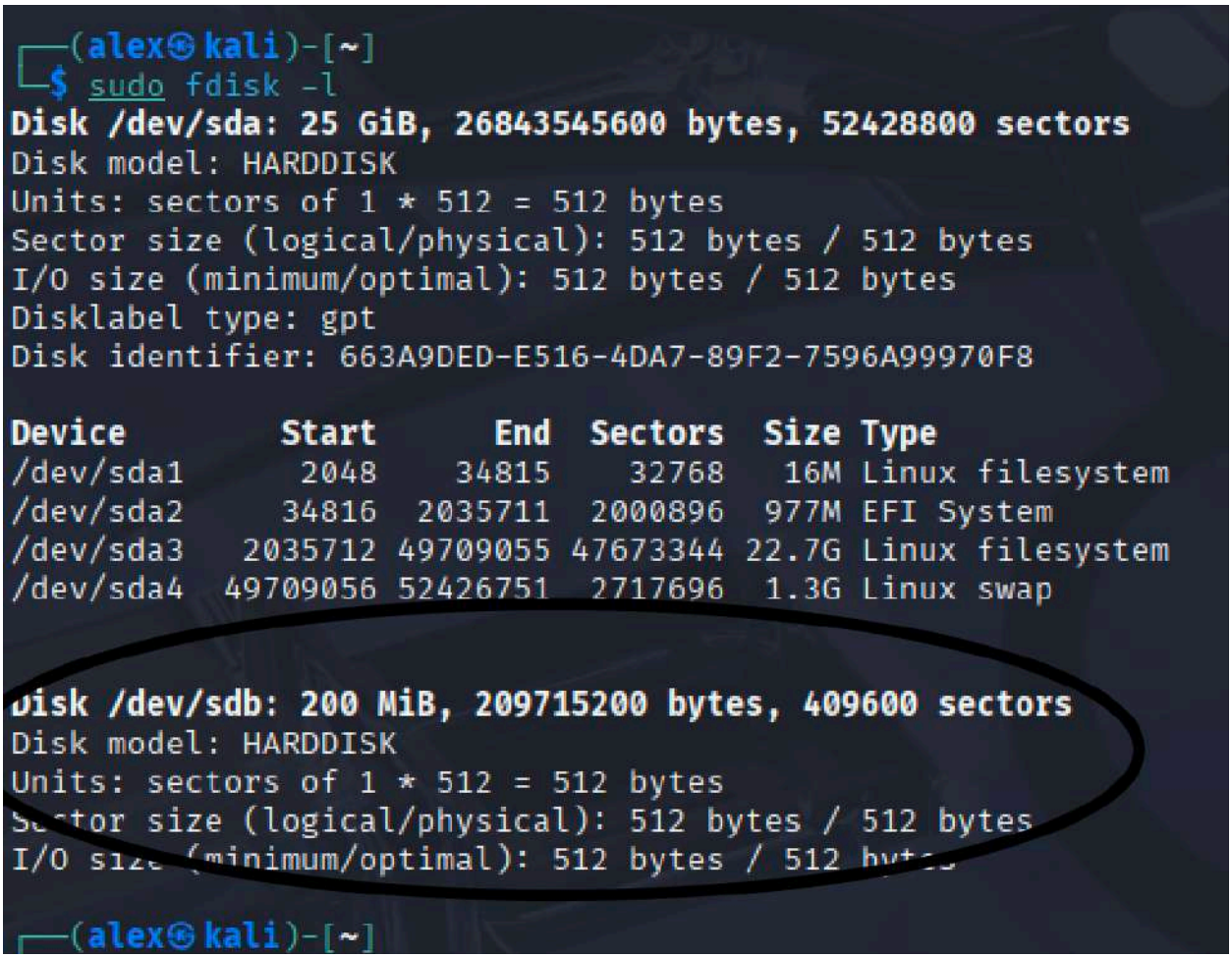
Part II– Create a new virtual disk (30 points)
Submit the screenshot for All the three steps.
Step 1. In the VM setting, attach a new virtual hard disk with the size of 200 MB to our current Linux VM. Name it as “your_midas.vdi” [HINT: Please refer to the slides and discussion during the class for week 7]

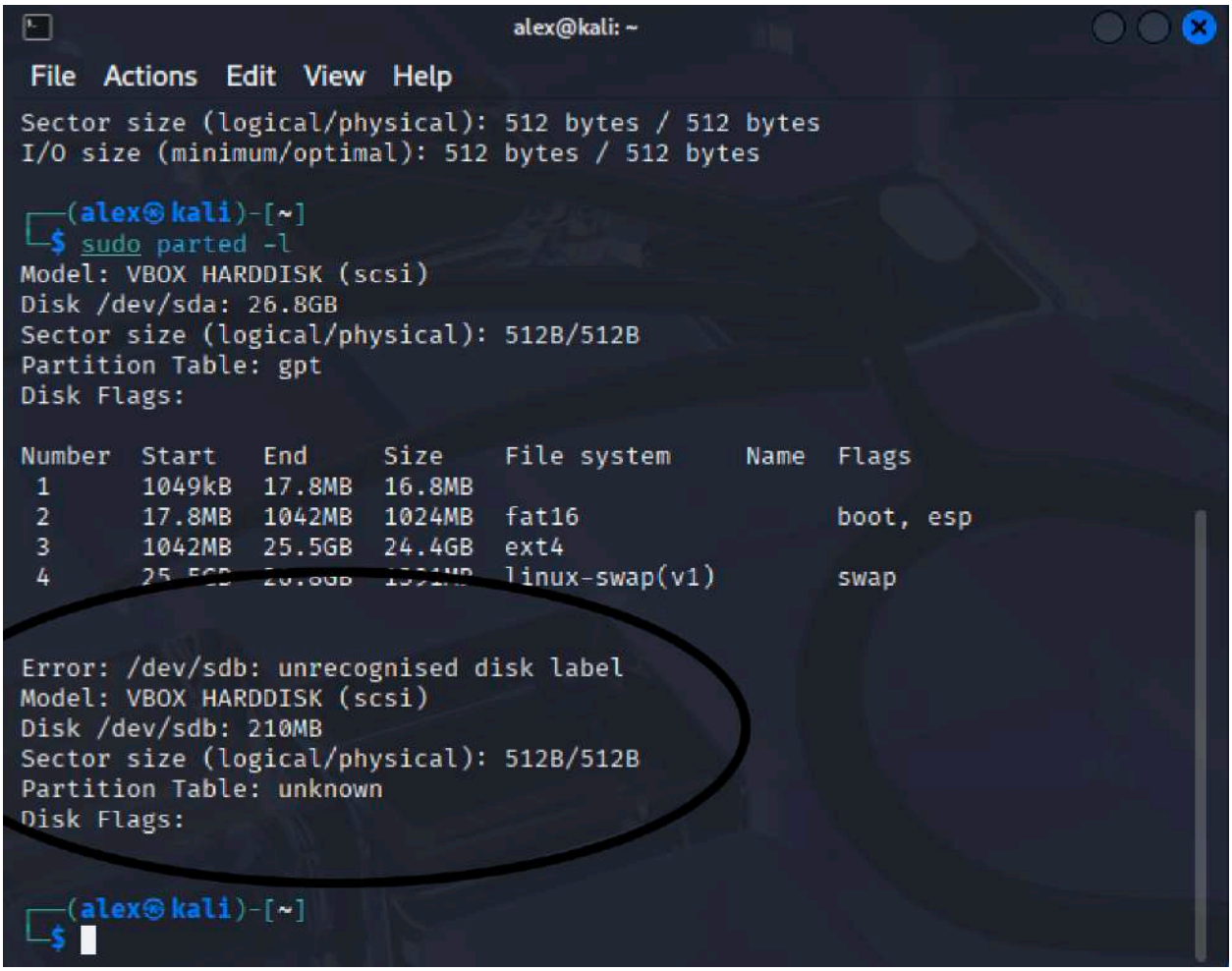


Step 2. Load this virtual hard disk to your virtual machine.

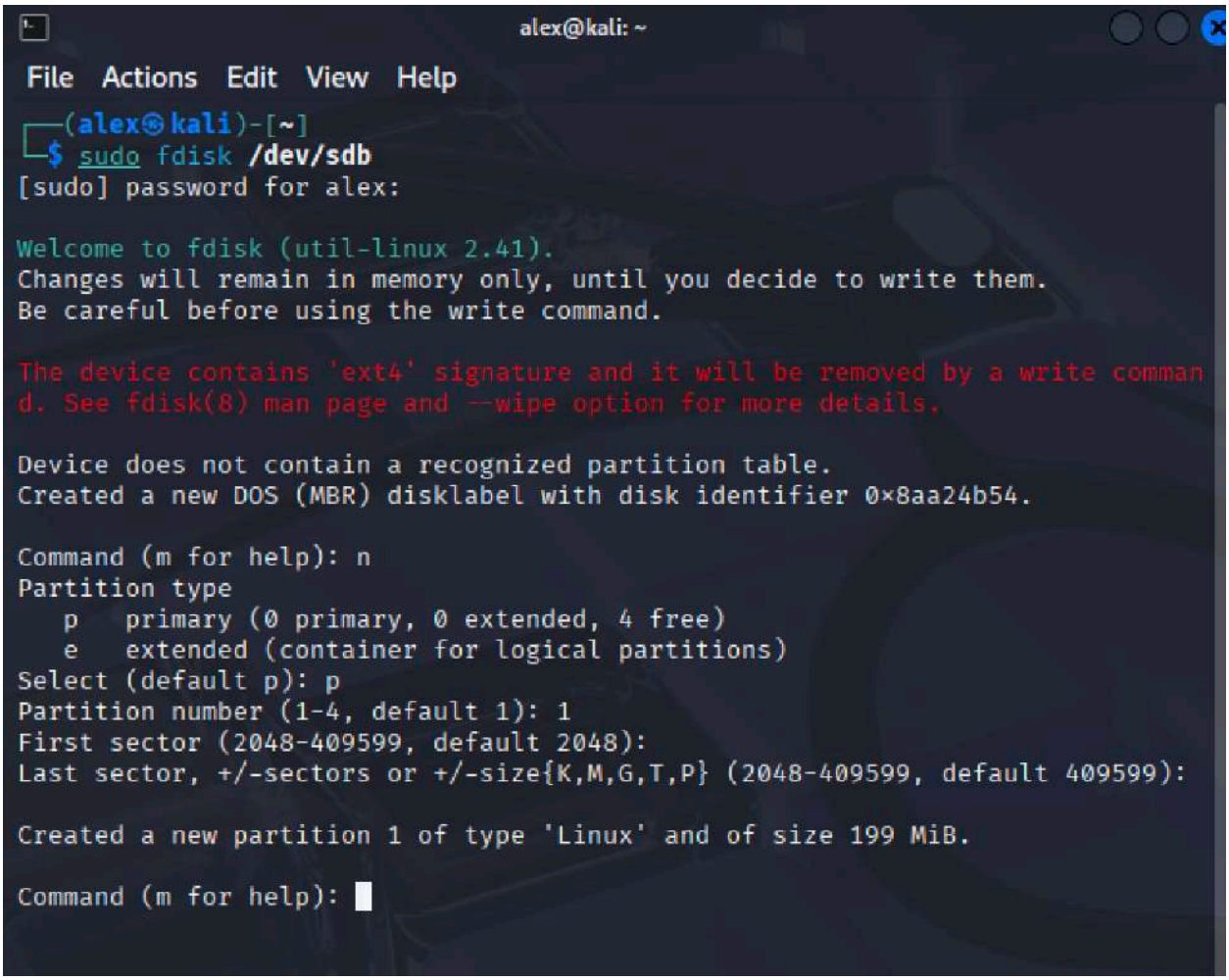


Step 3. Repeat the steps in Part I and highlight the differences after adding the new virtual hard disk.

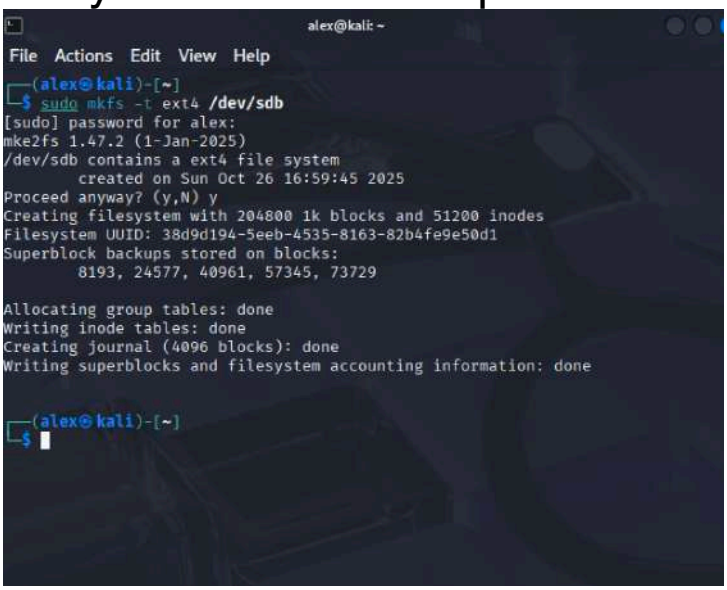

(alex㉿kali)-[~]
$ sudo fdisk -l
Disk /dev/sda: 25 GiB, 26843545600 bytes, 52428800 sectors
Disk model: HARDDISK
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: gpt
Disk identifier: 663A9DED-E516-4DA7-89F2-7596A99970F8
Device Start End Sectors Size Type
/dev/sda1 2048 34815 32768 16M Linux filesystem
/dev/sda2 34816 2035711 2000896 977M EFI System
/dev/sda3 2035712 49709055 47673344 22.7G Linux filesystem
/dev/sda4 49709056 52426751 2717696 1.3G Linux swap
Disk /dev/sdb: 200 MiB, 209715200 bytes, 409600 sectors
Disk model: 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
(alex㉿kali)-[~]



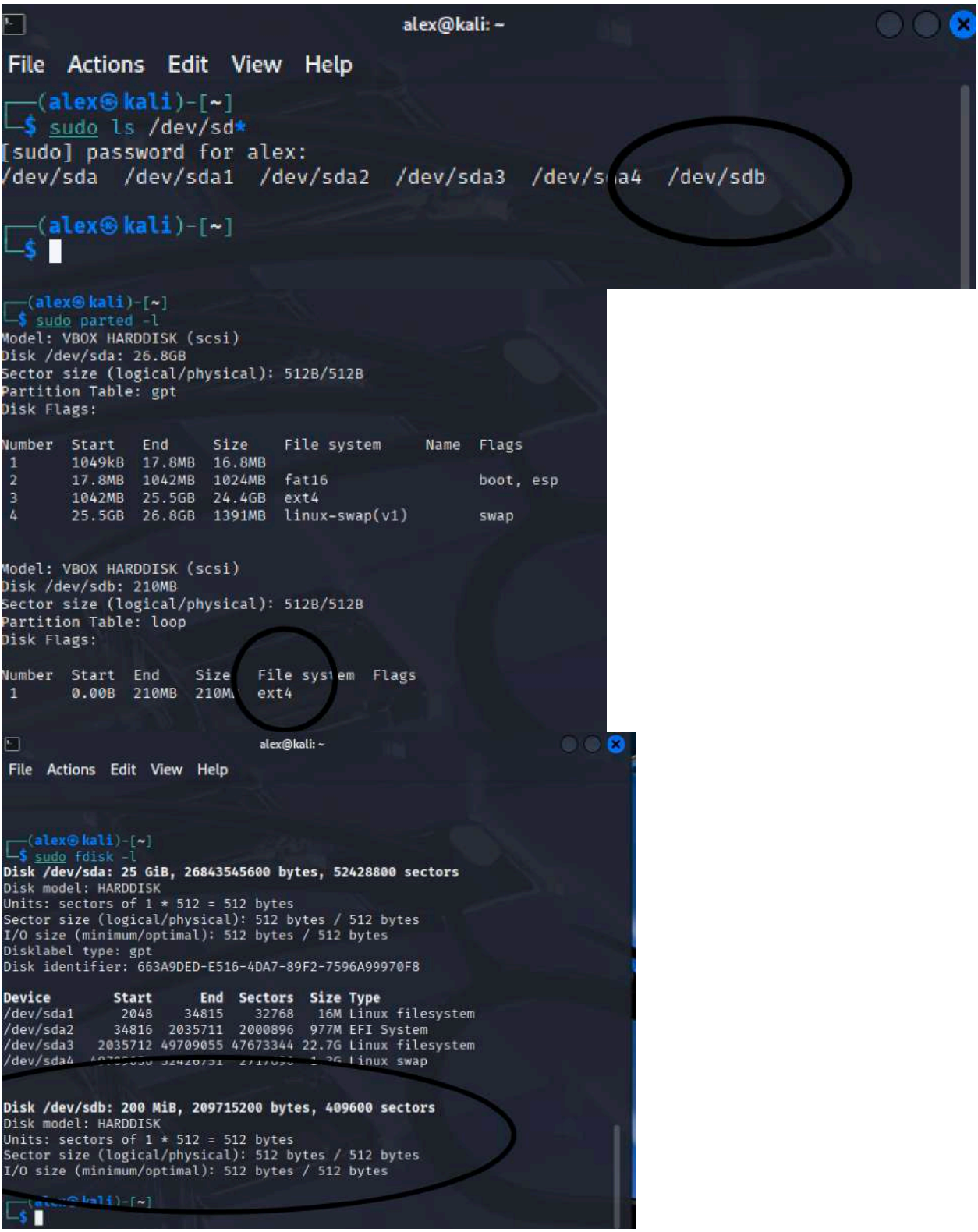
Part III– Creating Partitions and Filesystems (60 points)
Submit the screenshot for All the three eight steps.
Step 1. Use the fdisk command to create a new primary partition on the new virtual hard disk attached
in Part II.
(fdisk /dev/sdb)



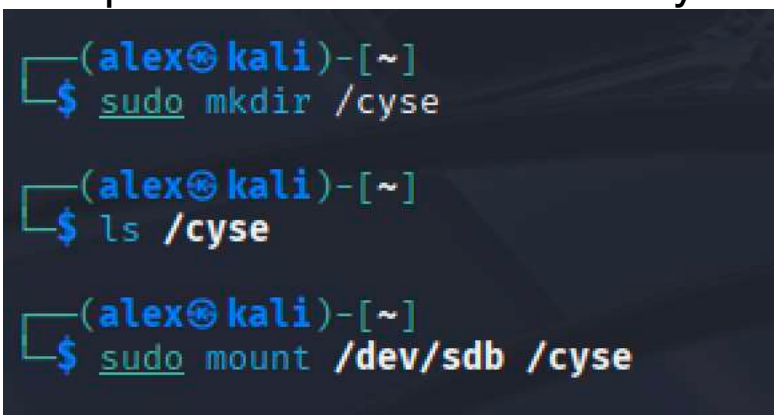
Step 2. Use the correct command to create an ext4 filesystem on the new partition.



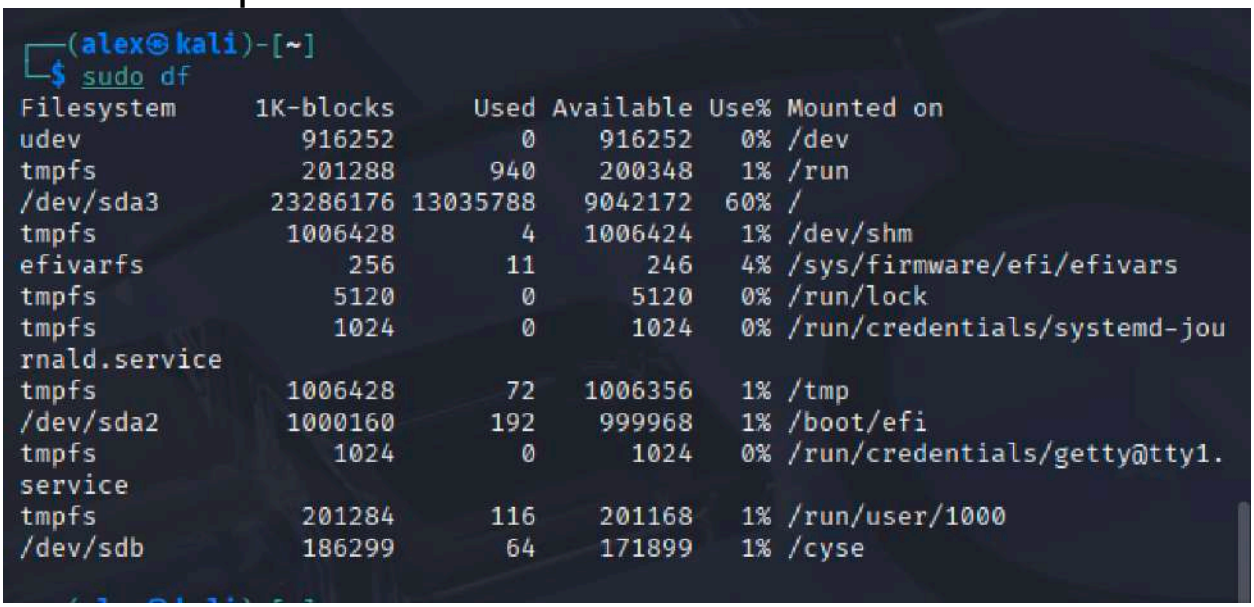
Step 3. Repeat the steps in Part I and highlight the differences.



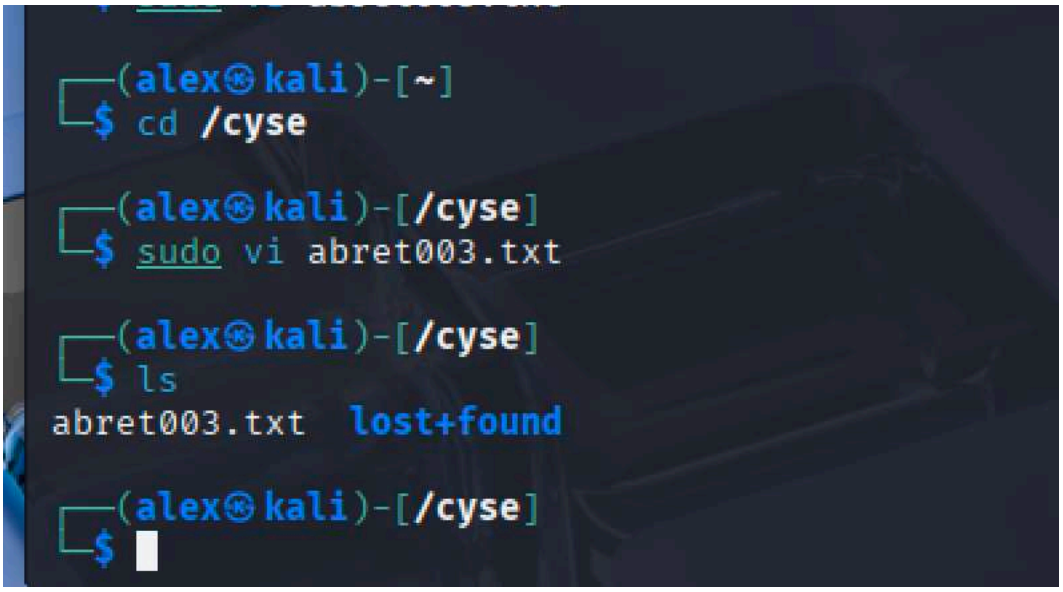
Step 4. Make a new directory named /cyse. And mount the new partition under this directory.



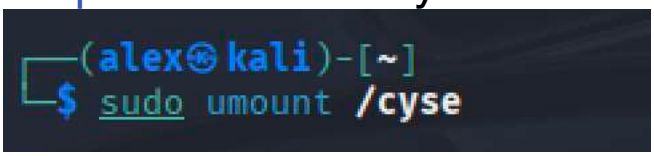
Step 5. Use the df command to check the mounting point of the new partition.



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?

Nothing, there is no cyse directory since it was unmounted.