WIPRO NGA Program – Datacenter Batch5

Capstone Project Presentation – 06 April 2024

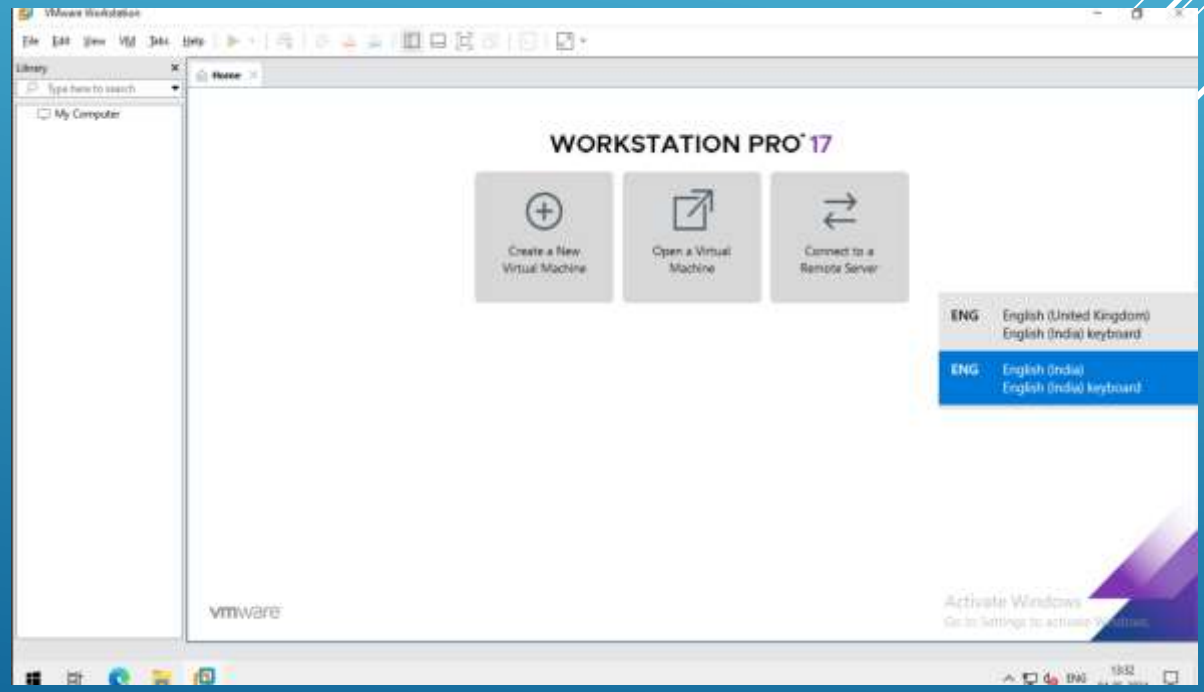
Project Title Here – Installation of centOS-7 & LVM configuration

Presented by - Kishor Chandra Sahoo

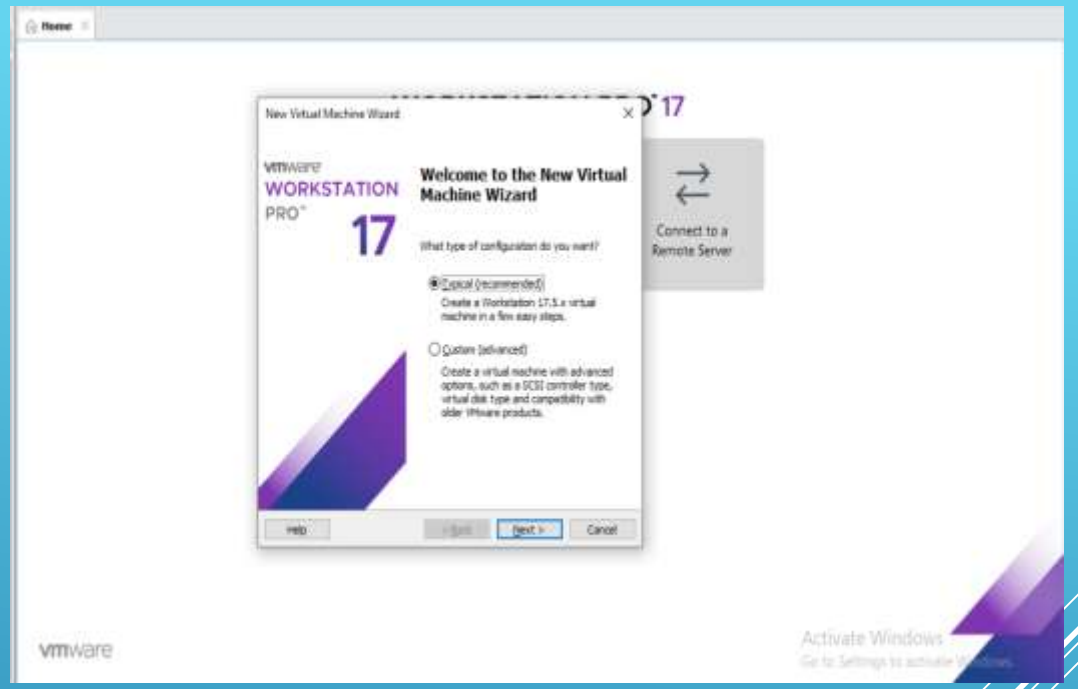
Slide Title

- Here is the first page of cloud Environment.

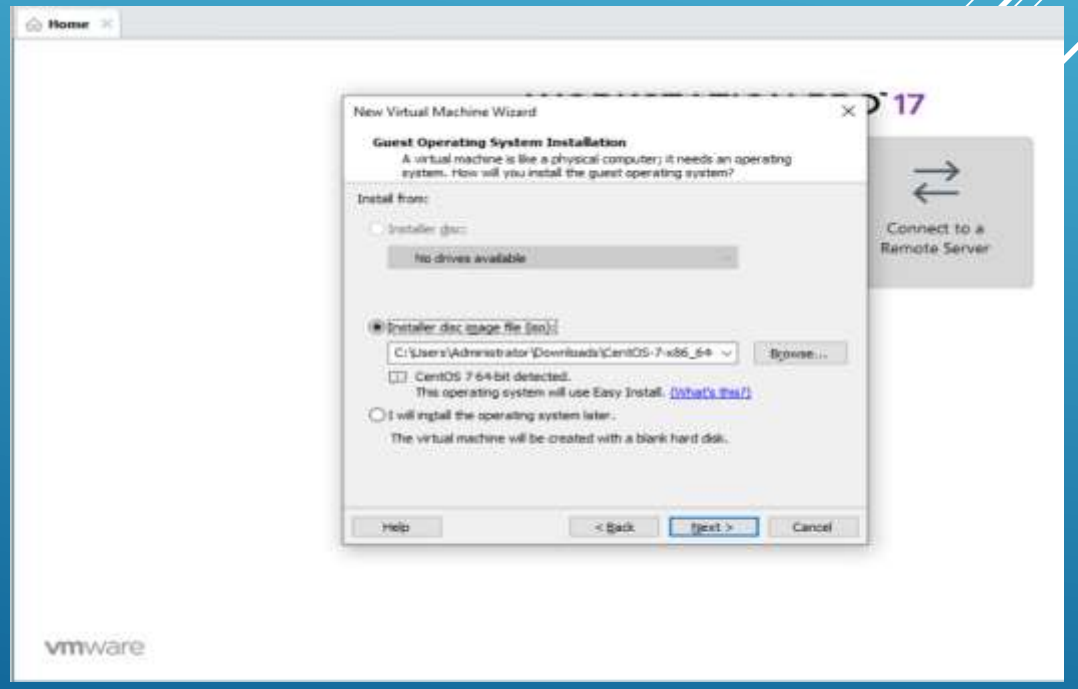
- Here is the first step of installation and open view of vmware.



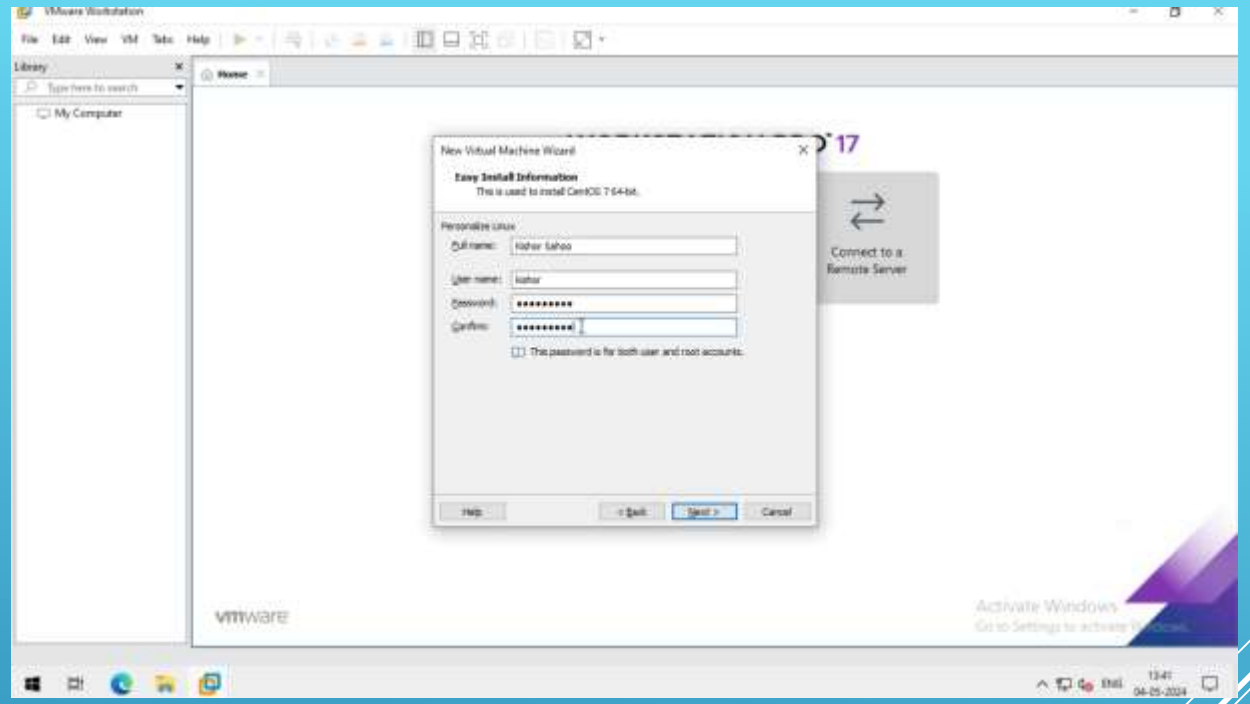
- After clicking Create a new virtual machine ,Then we have this interface.
- In this step choose typical.



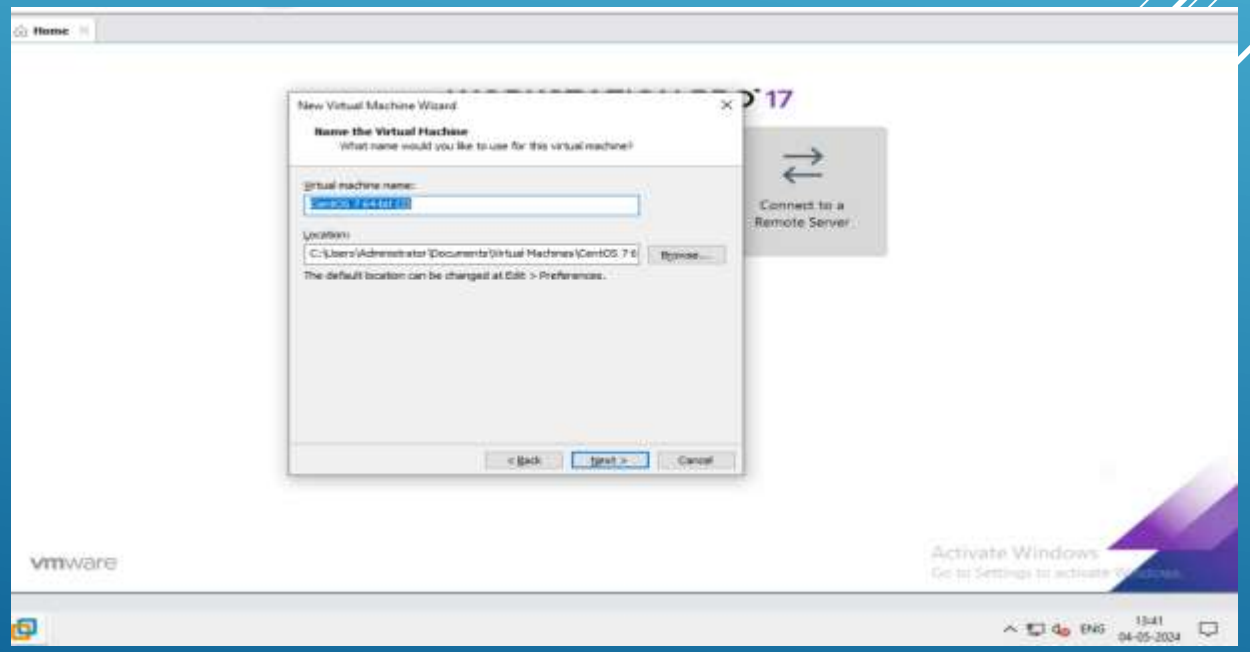
- After Clicking Typical this is the next step , In here we browse CentOS7 -7 Click Next.



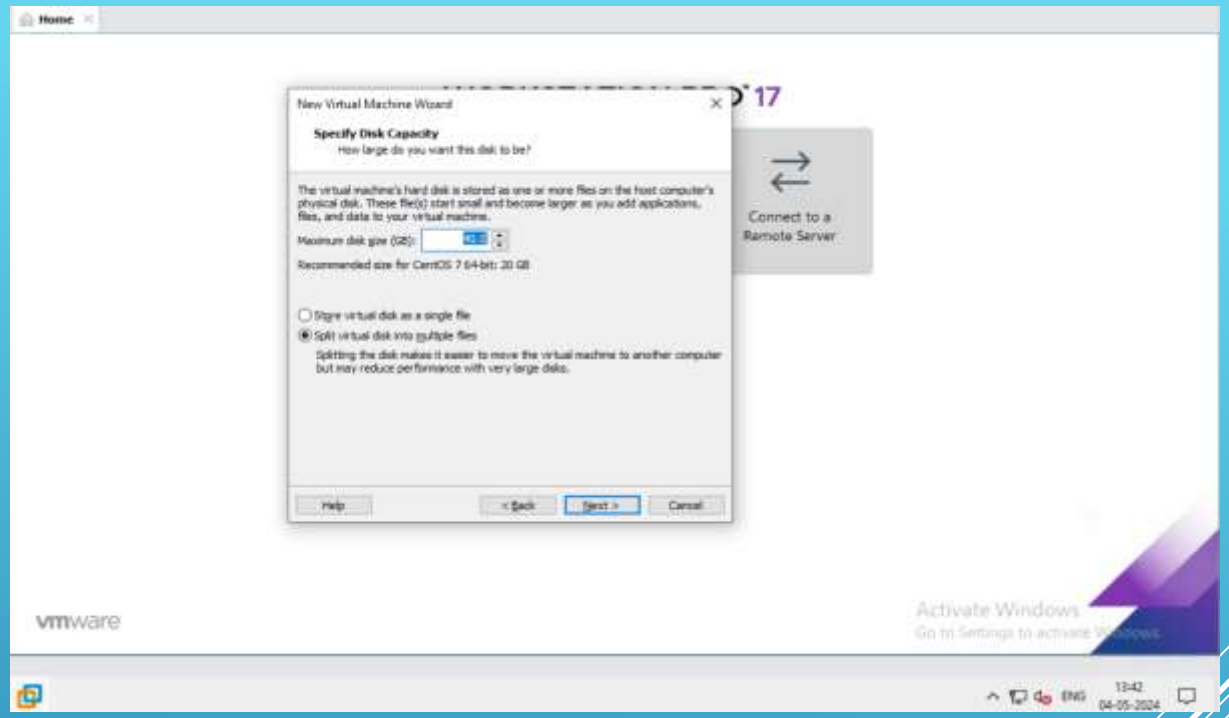
- After browse next step is assign full name, user name & password.
- Then click next.



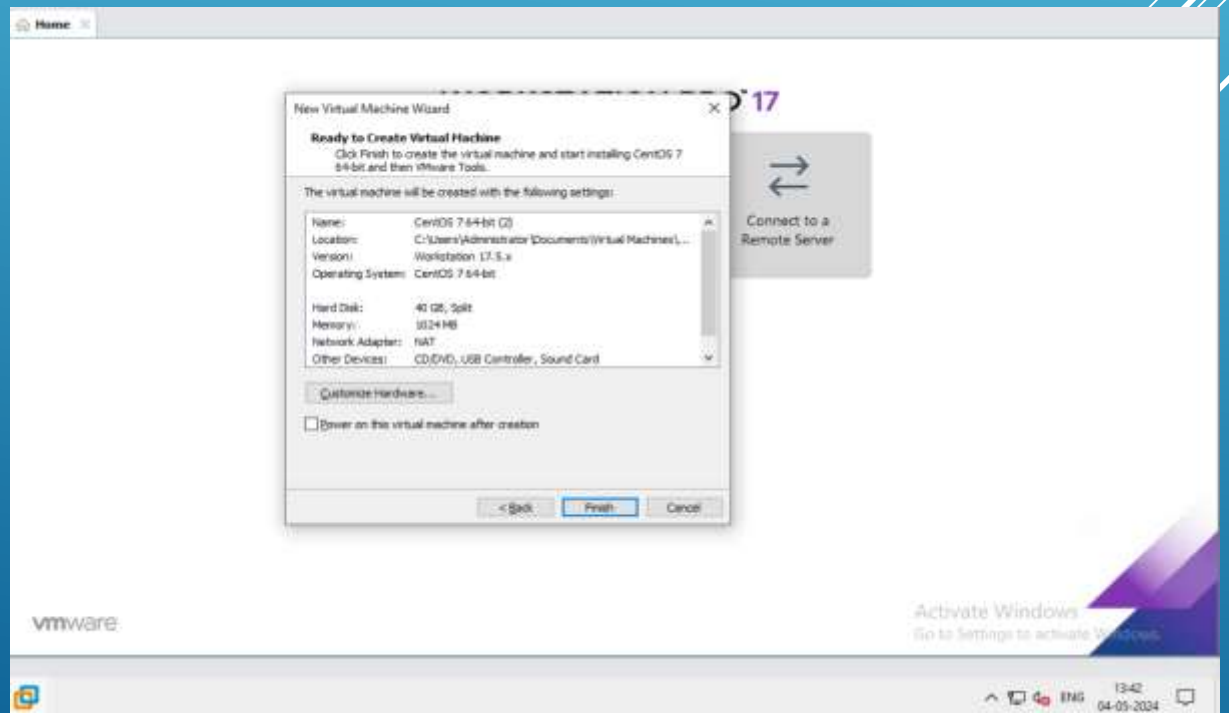
- After that give the name of the virtual machine.



- After that here we give Disk size of the machine.
- Click Next.

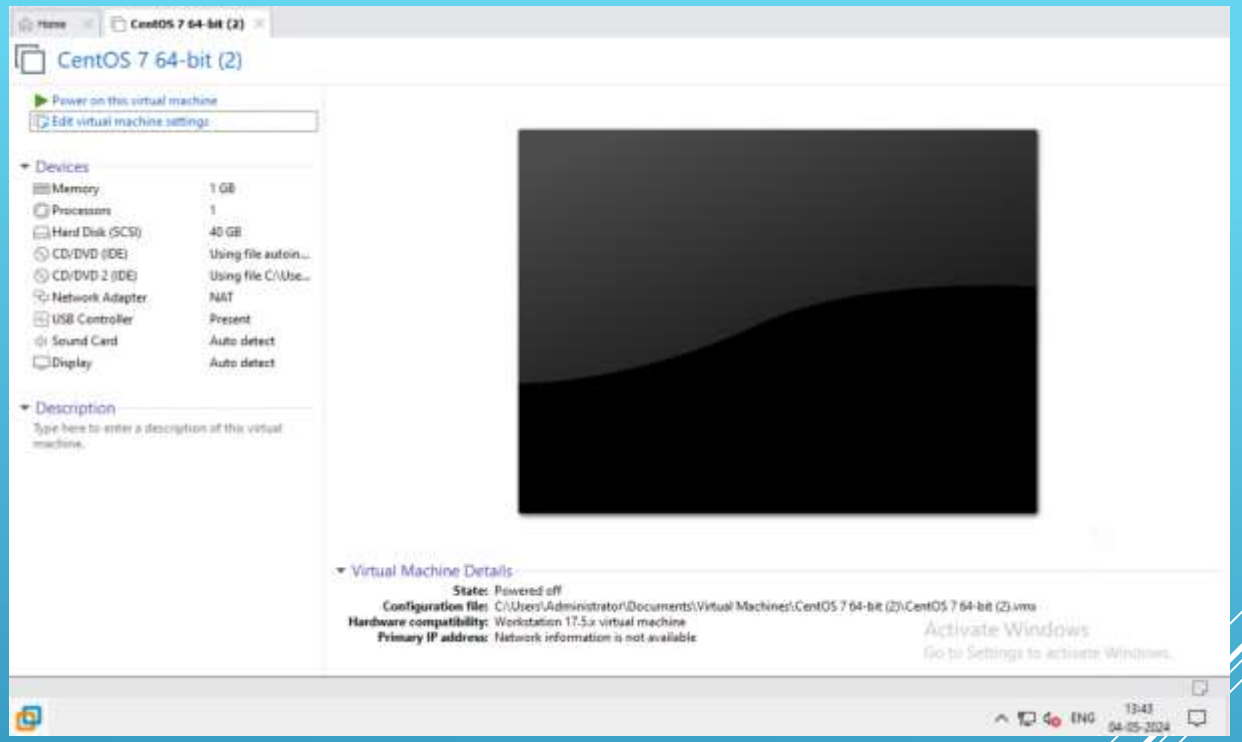


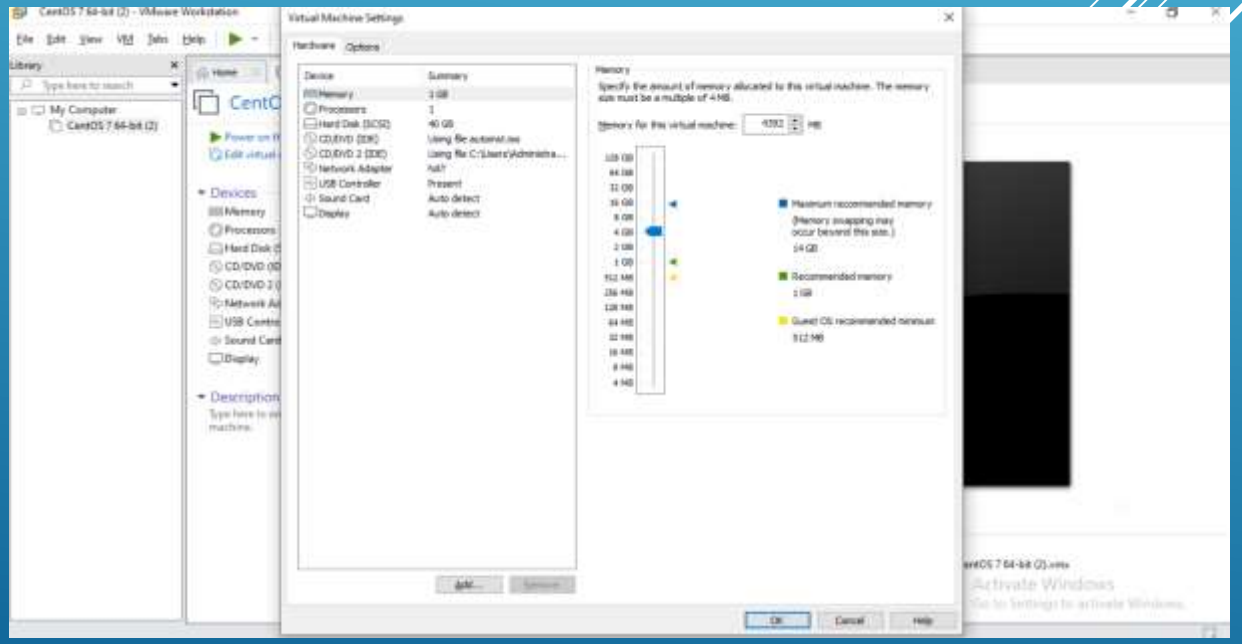
- In this step ,our CentOS-7 Virtual machine ready to create.
- Then click Next.



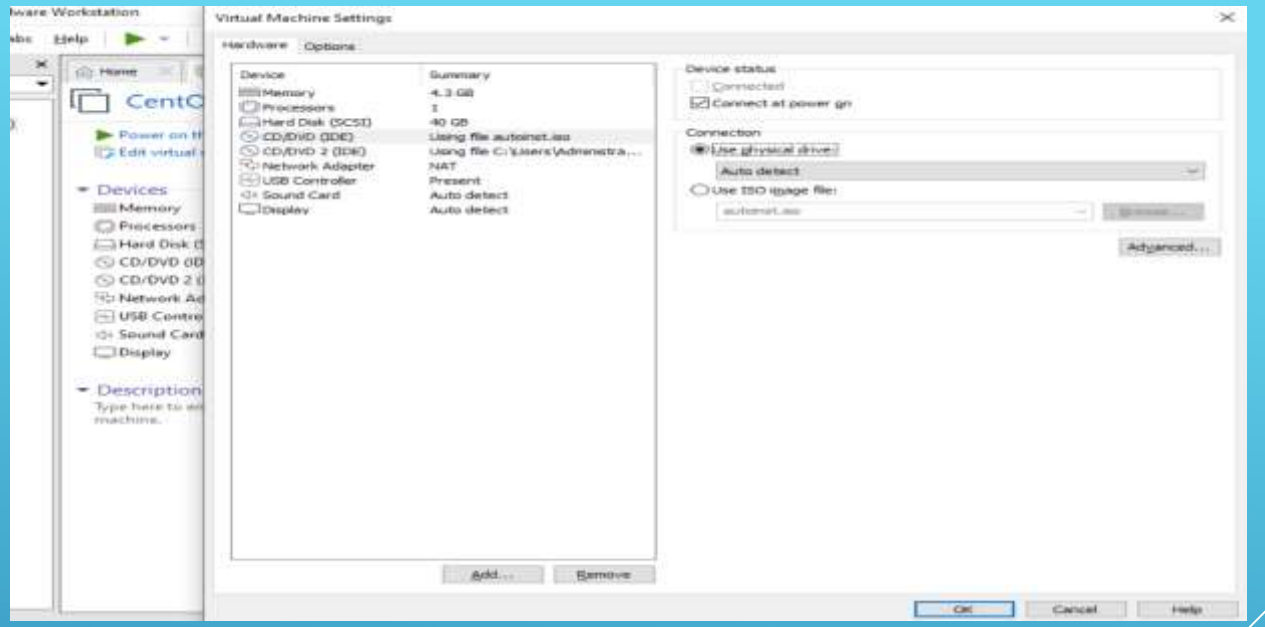
- Here is the first step after finished or first look of centOS-7.

- After that edit the virtual machine setting.
- Here is the first look.

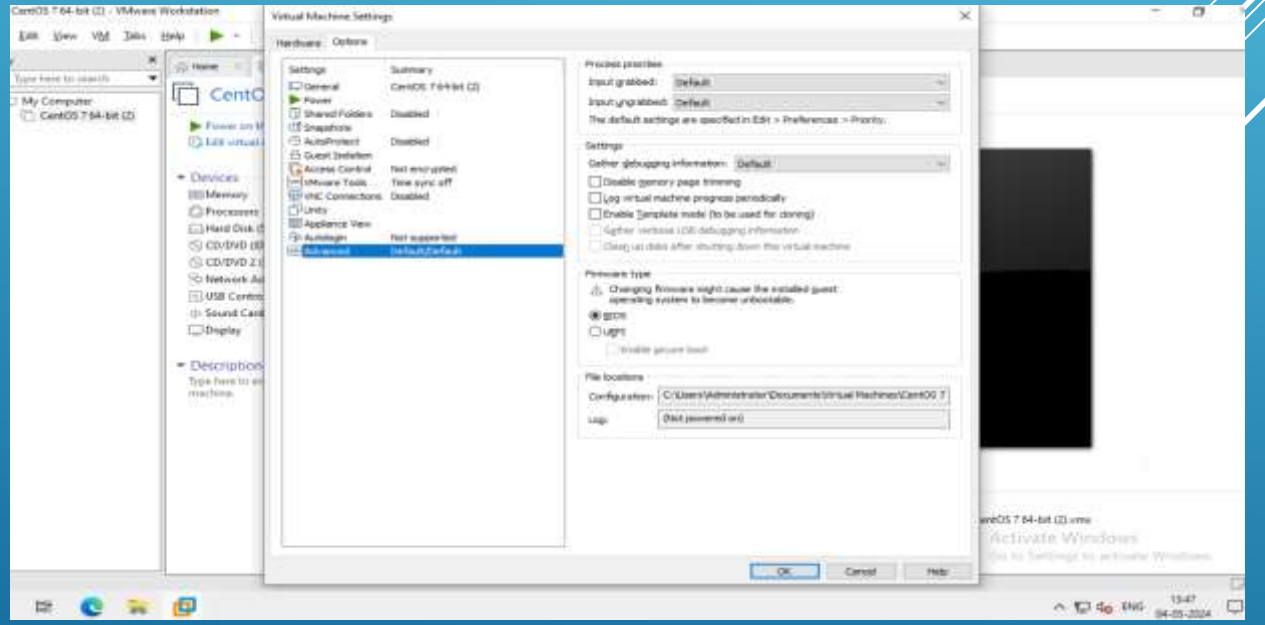




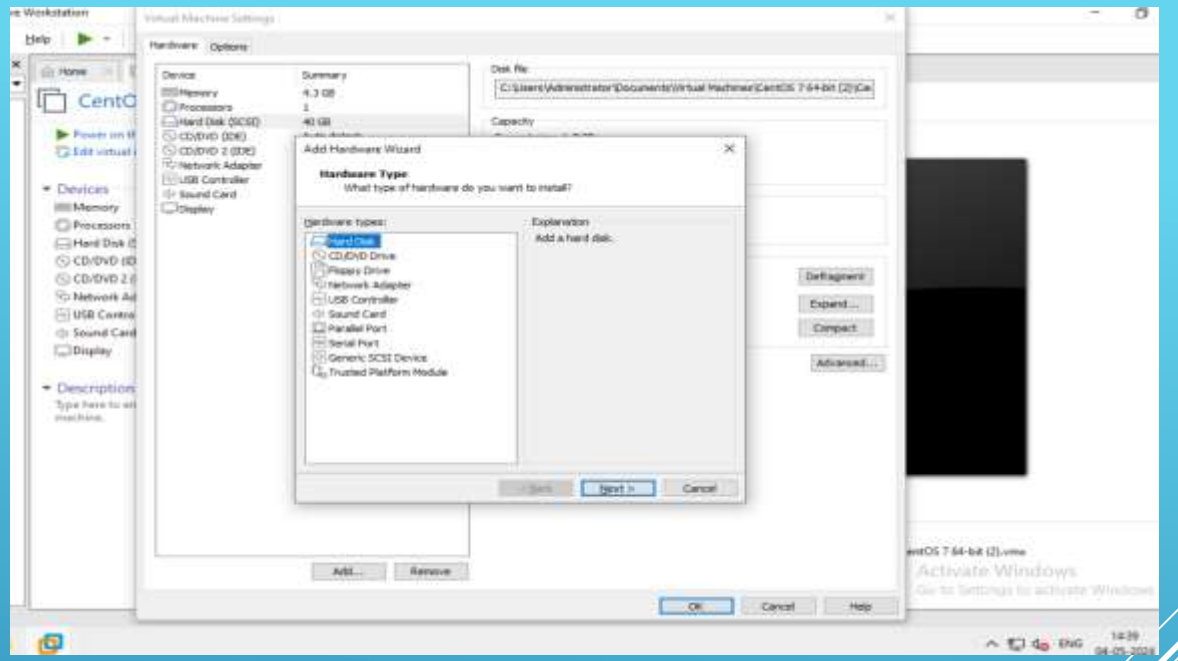
- ❑ Now go to the CD/DVD Choose physical drive.
- ❑ Click ok.



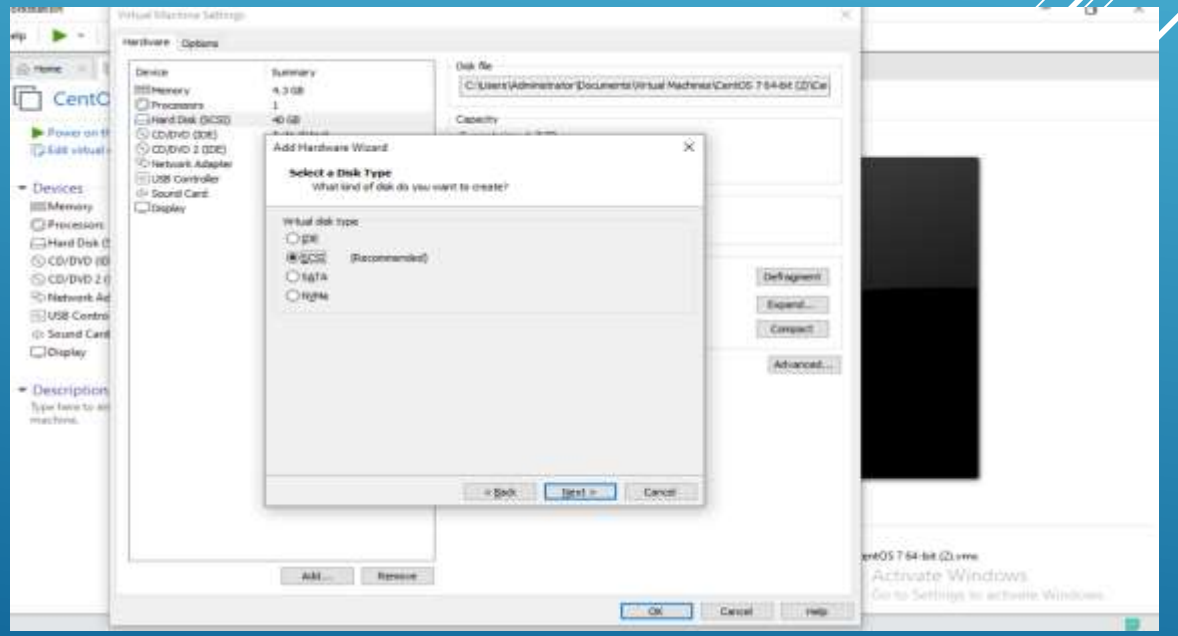
- ❑ Now go to the advance choose BIOS.
- ❑ Click ok.



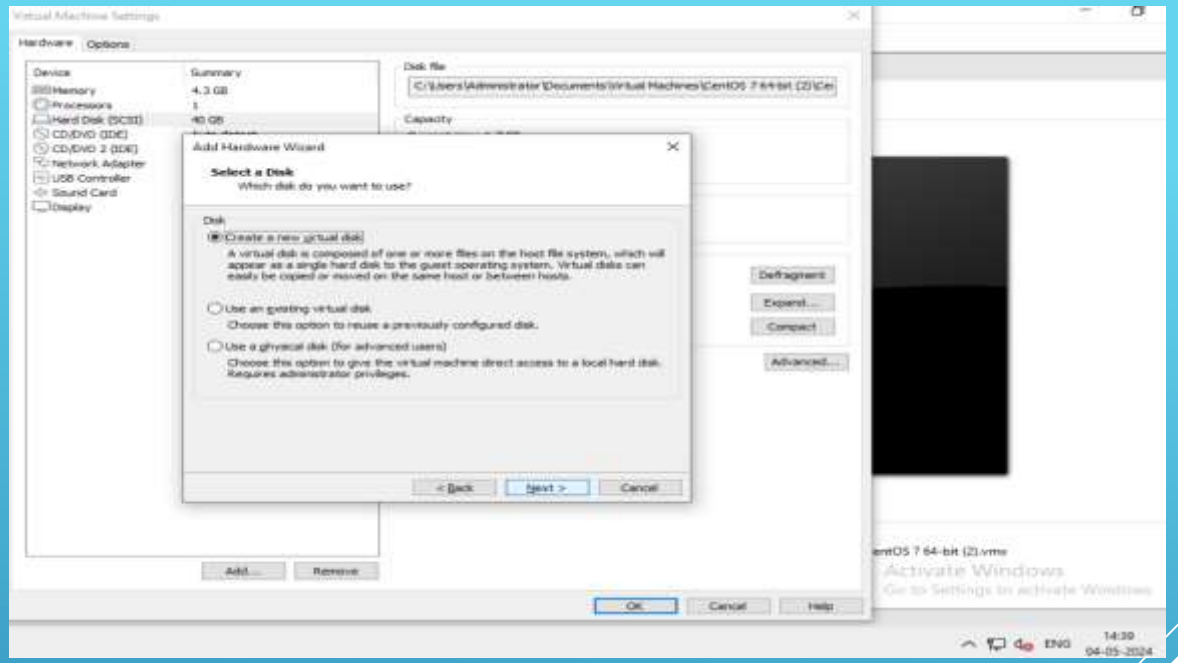
- This is 3 hard disk partition , so we add 3 hard disk.
- Here is the first look of the hard disk add.



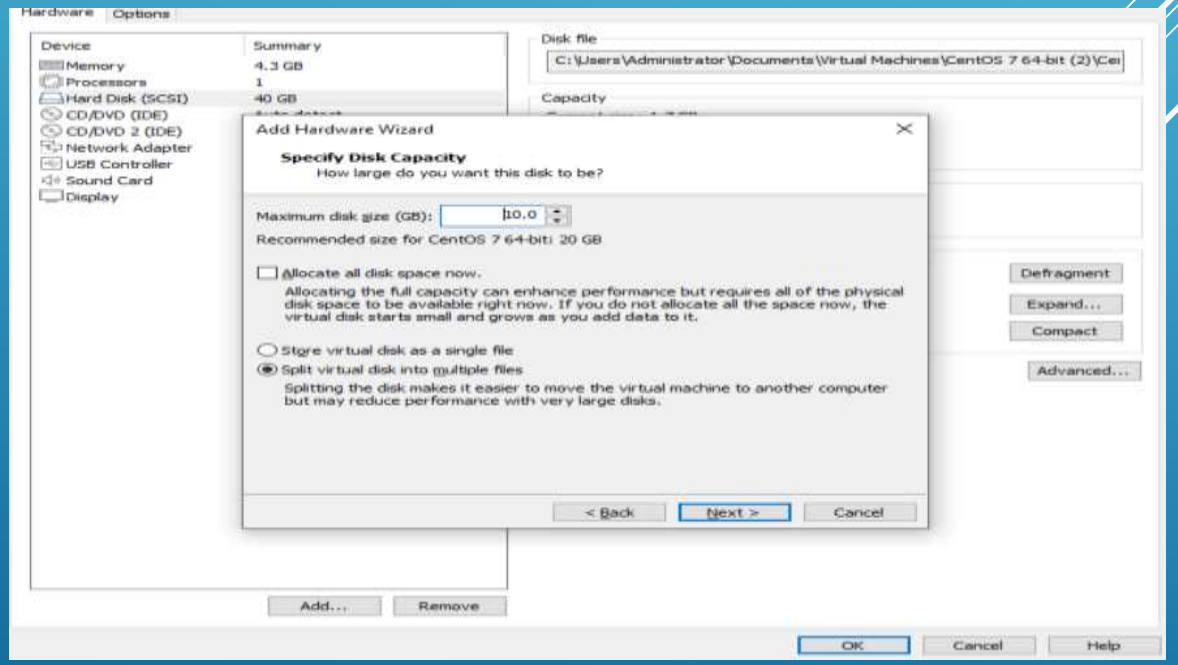
- Now I choose default disk type that is SCSI.
- Click next



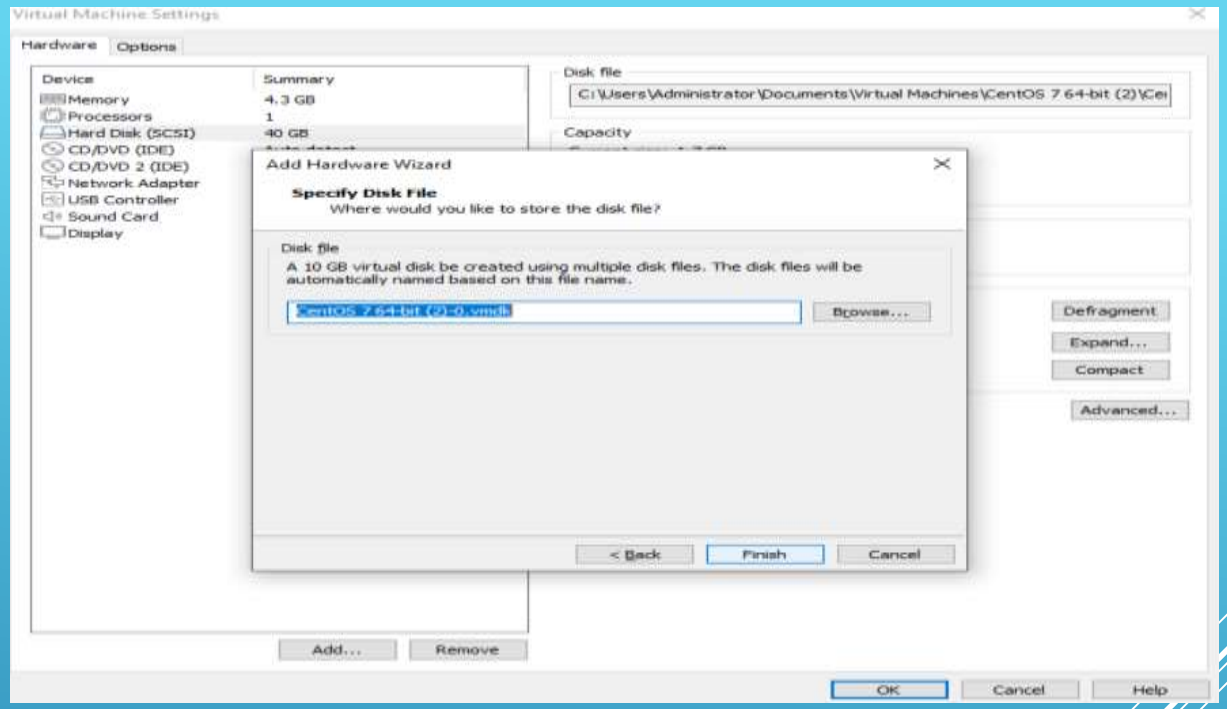
- Here we add Disk type ,choose default disk.
- Click next.



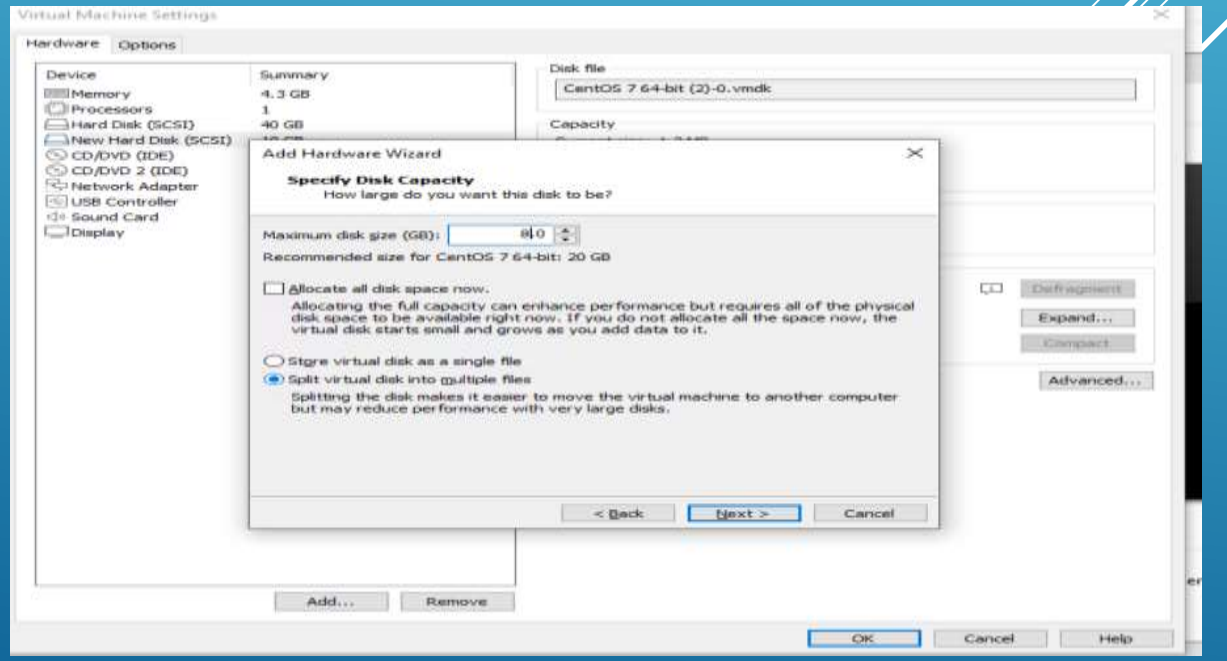
- Here we give the capacity of the disk .
- Then Click next.



- Here we specify the disk file.
- Then click on finished.

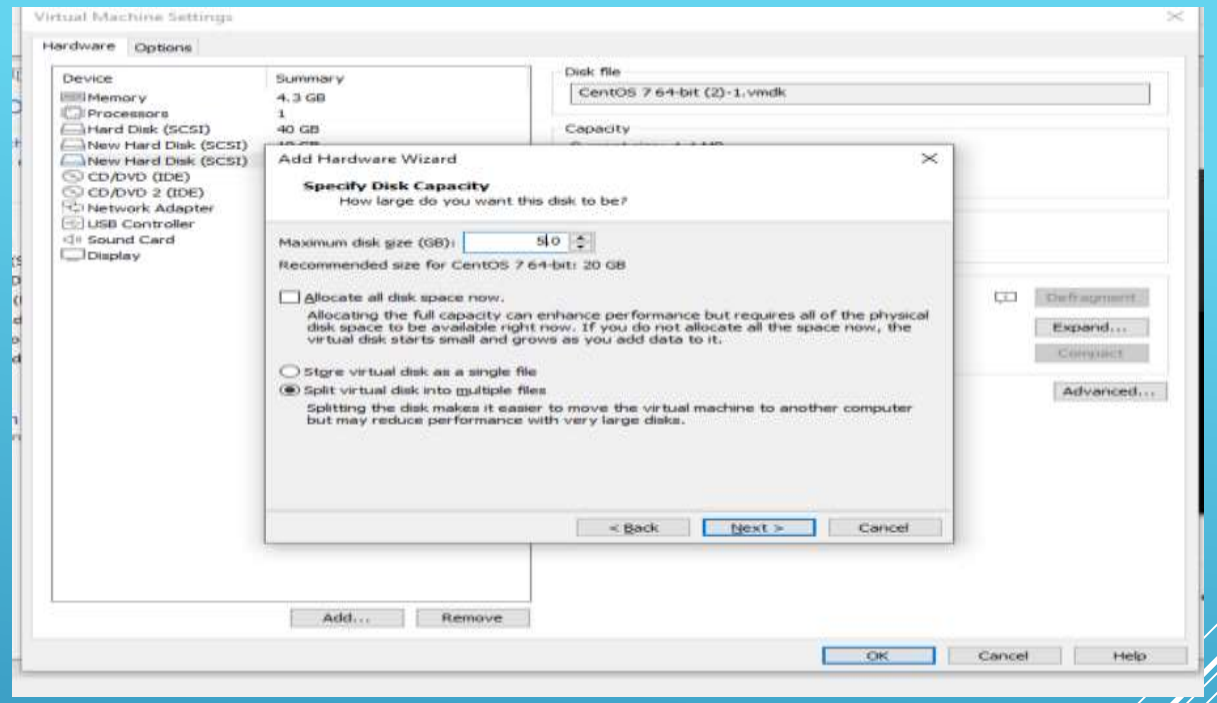


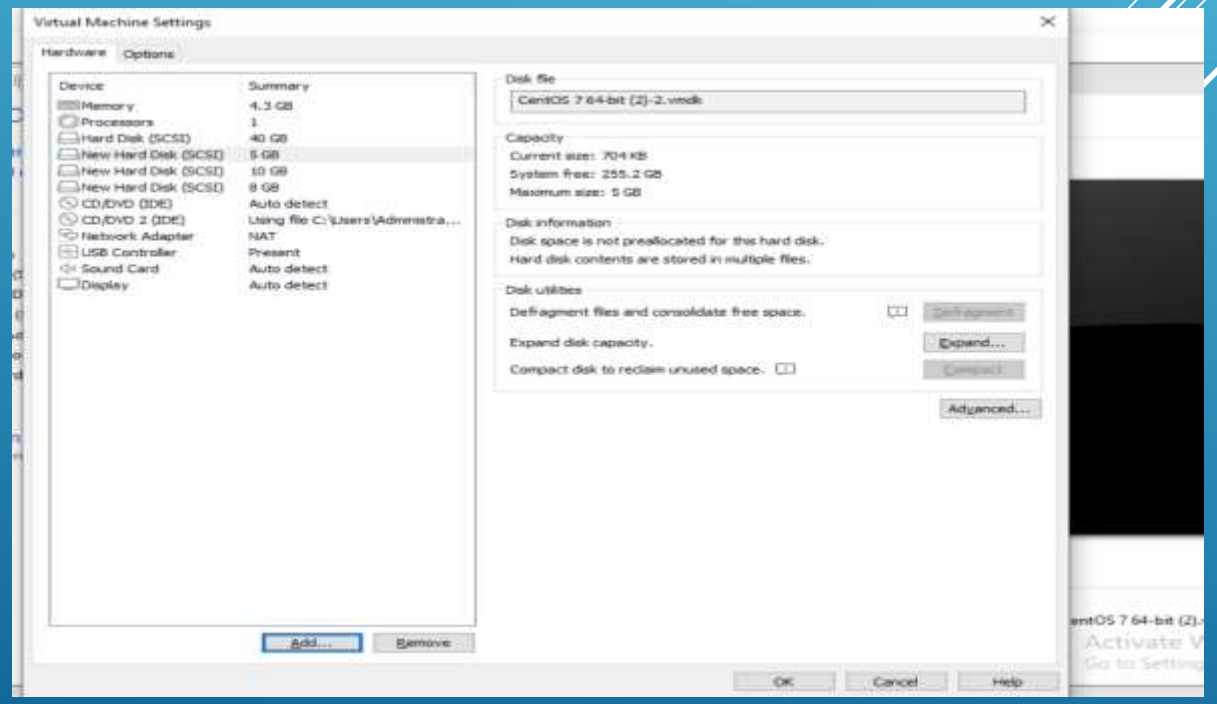
- Now, create another 2 disk ,This is the 2nd disk of size 8GB.
- Here we specify disk capacity.



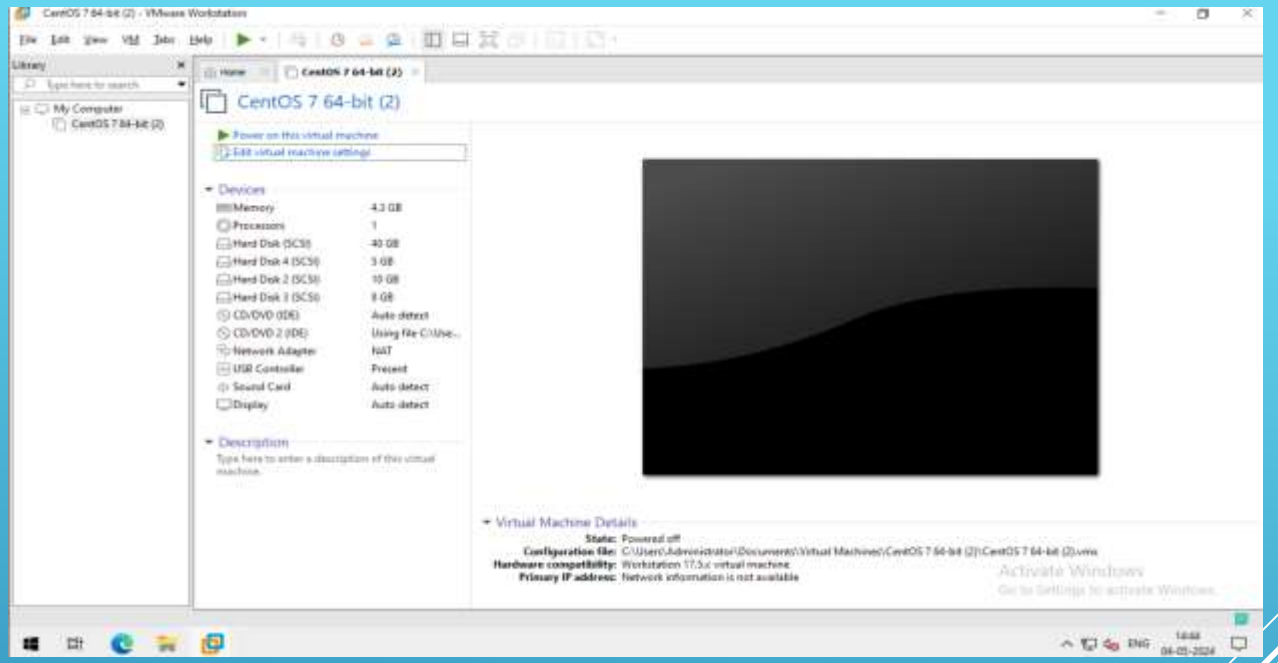
- Here we another disk of size 5GB.

- Here the first look after doing all edit work in setting .
- Then click ok.

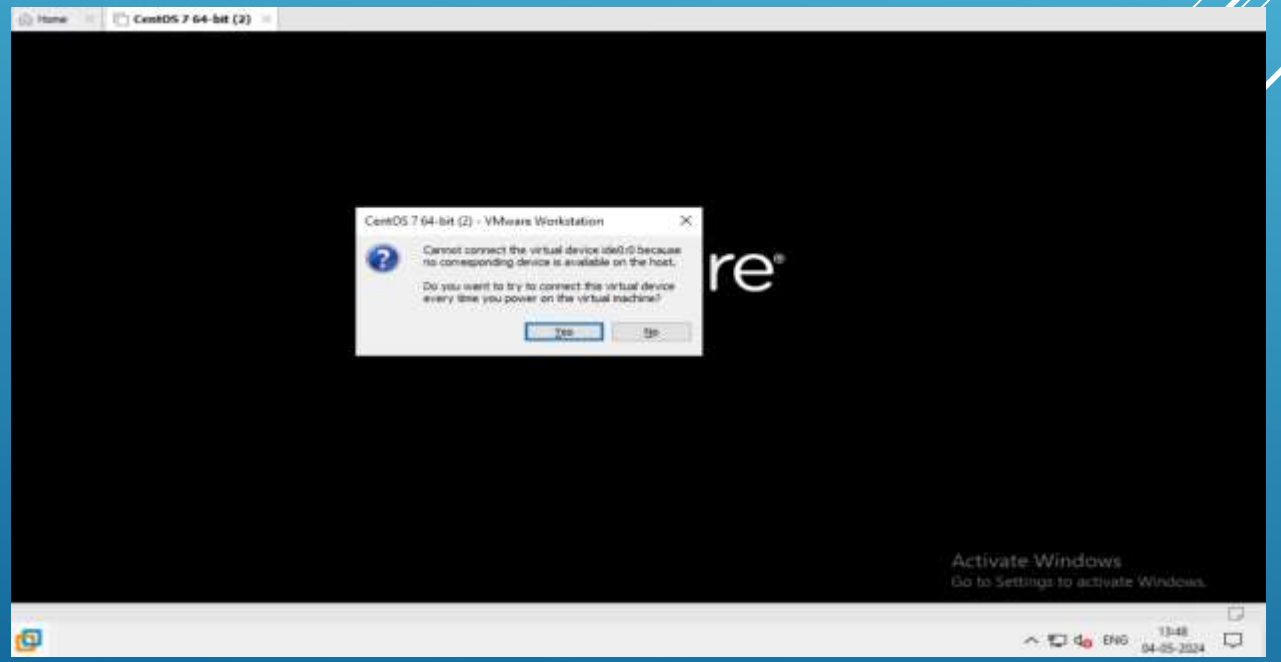




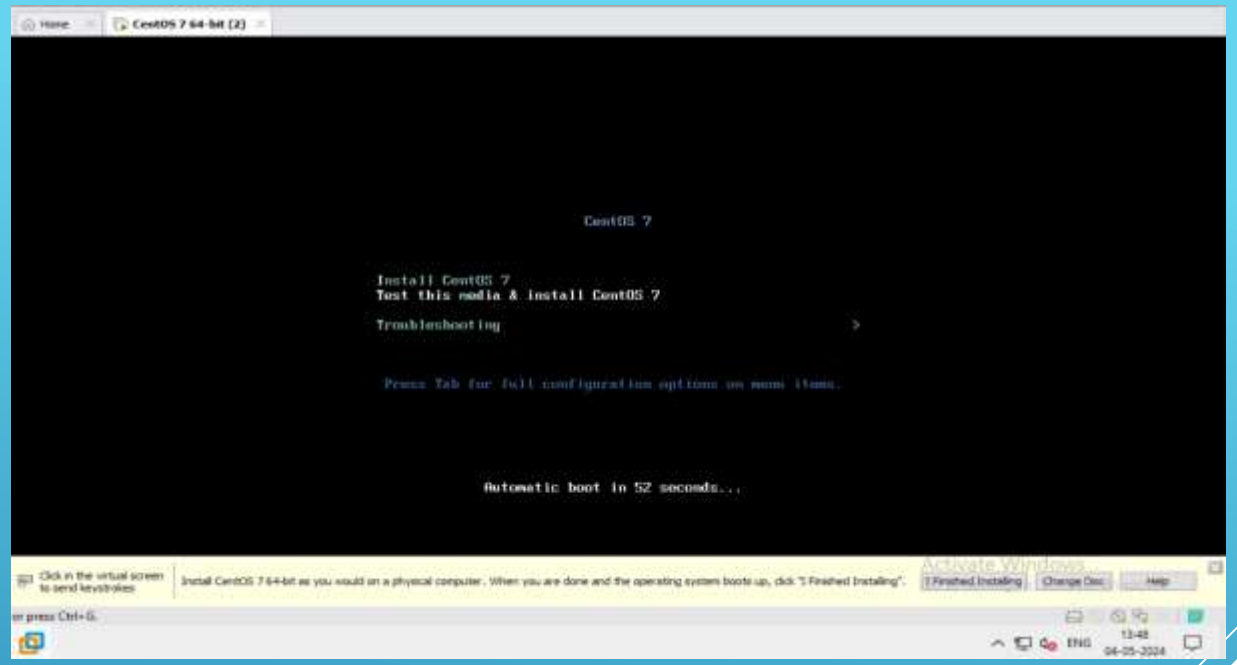
- Here is the first look of vm after edit setting.



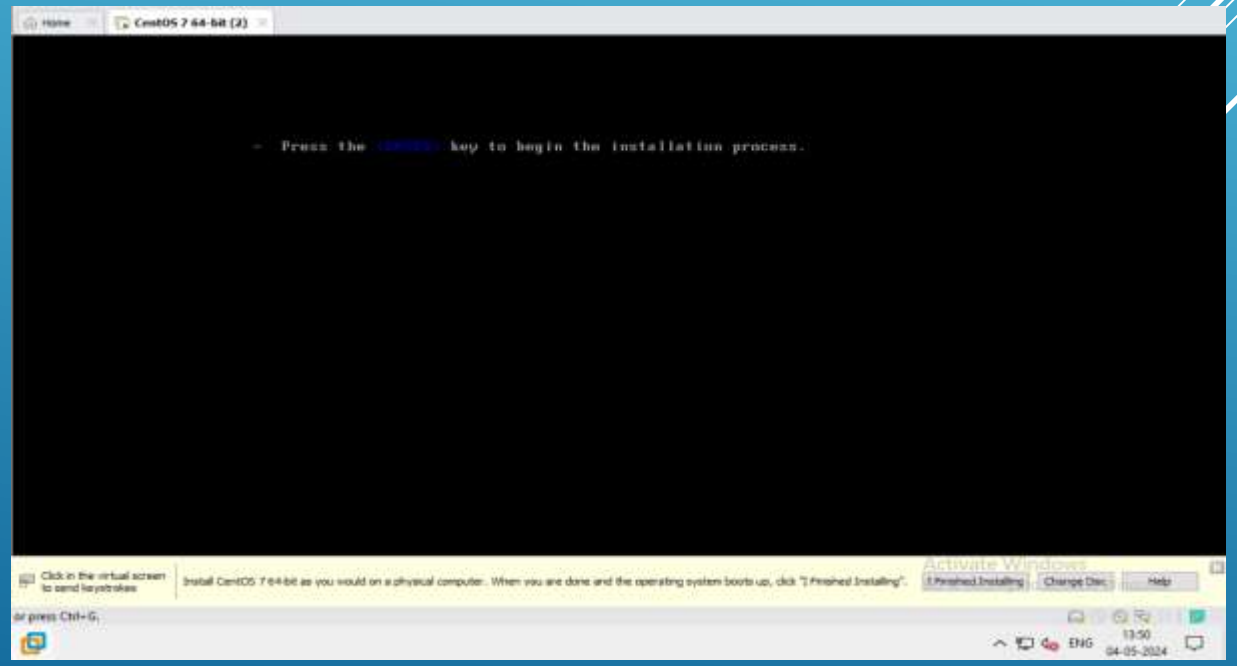
- Now we start the virtual machine and click on yes.



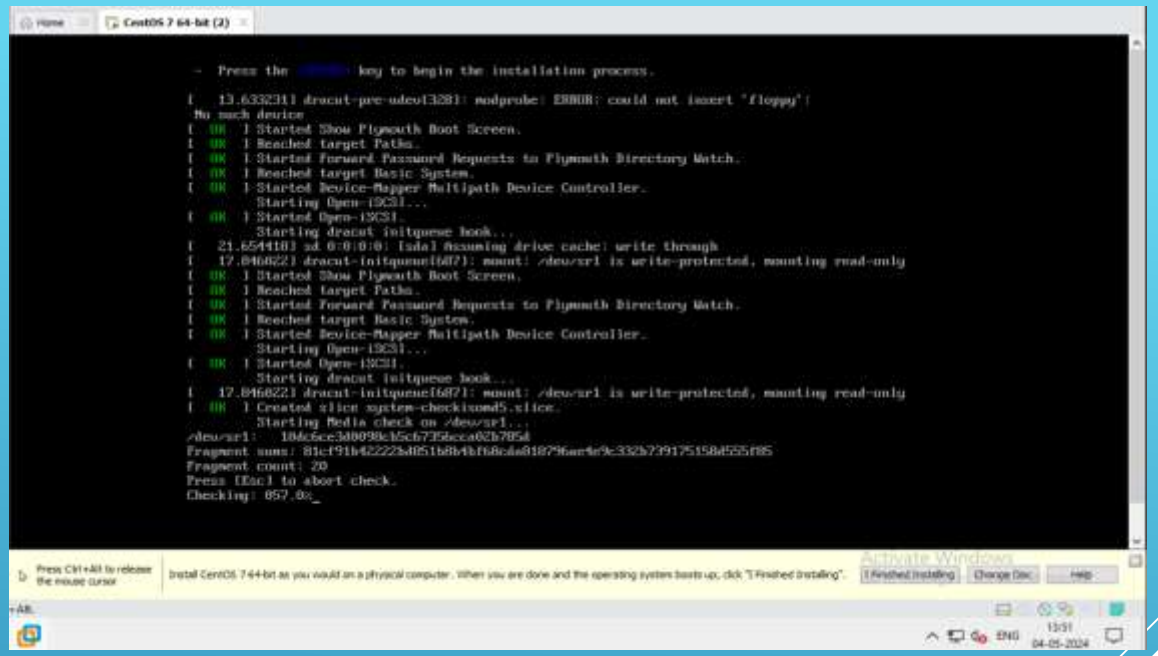
- Now I choose the first option centOS 7.
- It take time for next step.



- Now we press on enter to start the configuration.



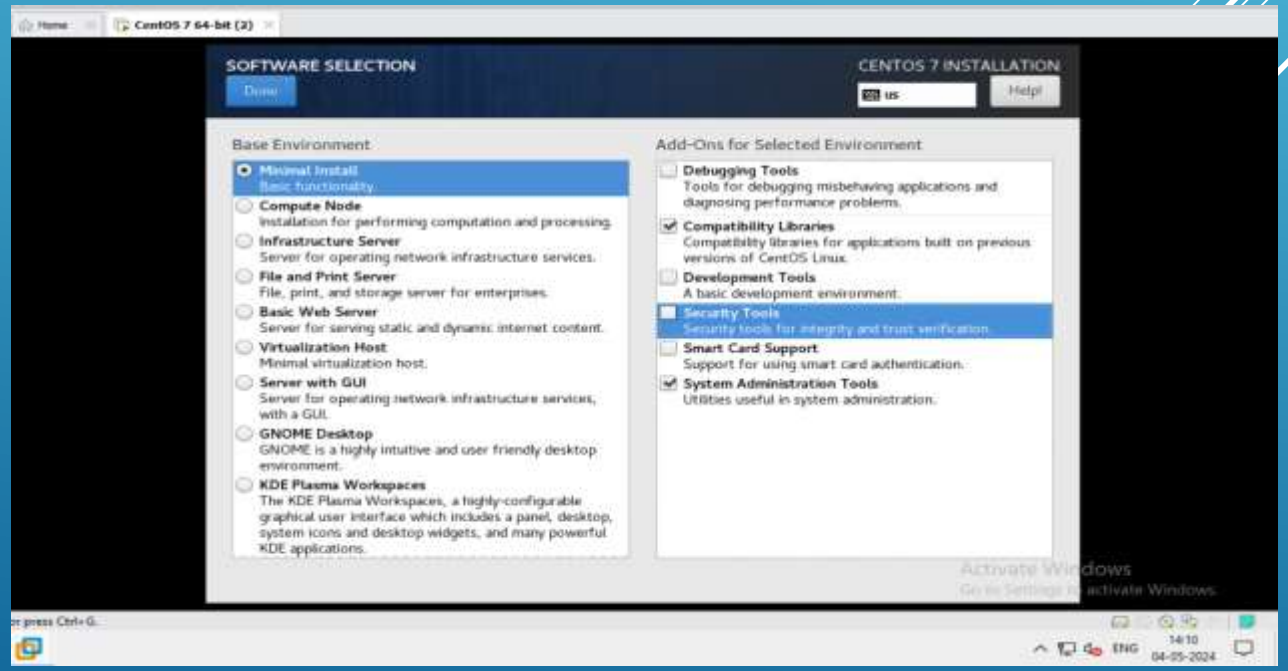
- This is the configuration page.



- Now we choose the language and choose English.
- Click on next

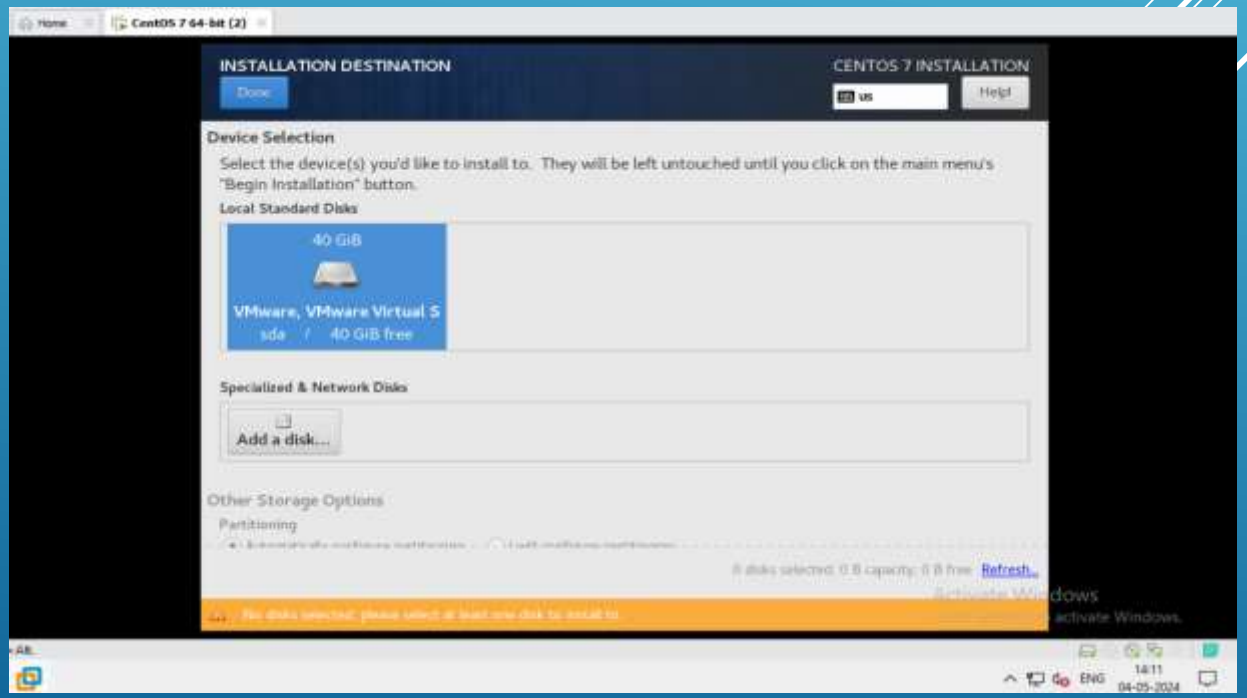
- Now Software selection of minimal install.
- Click on software selection.

- Now choose minimal install and Right hand side choose compatibility libraries and system administration tool.
- Click on done.

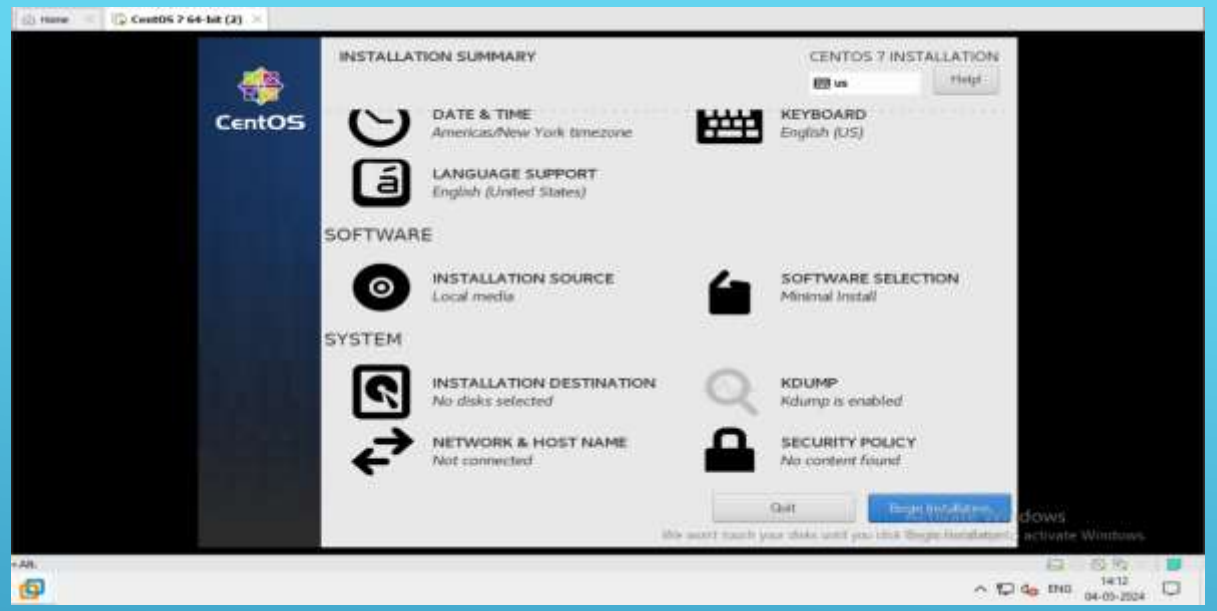


- Now click on Installation Destination.

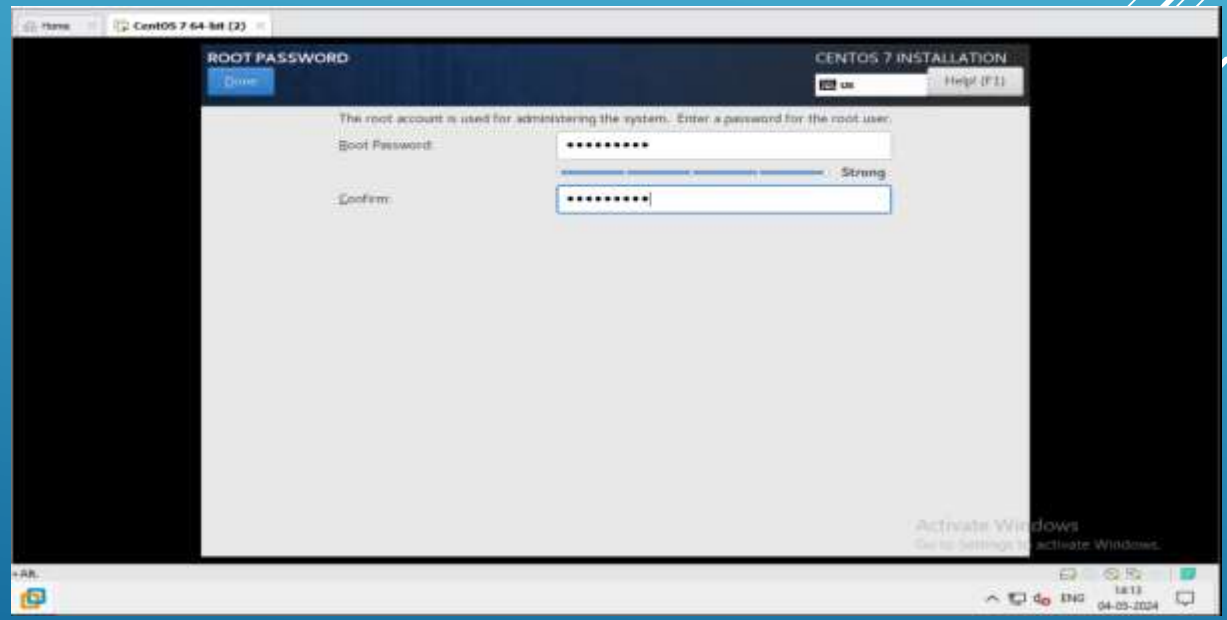
- Now click on local standard disk.
- Click on done.



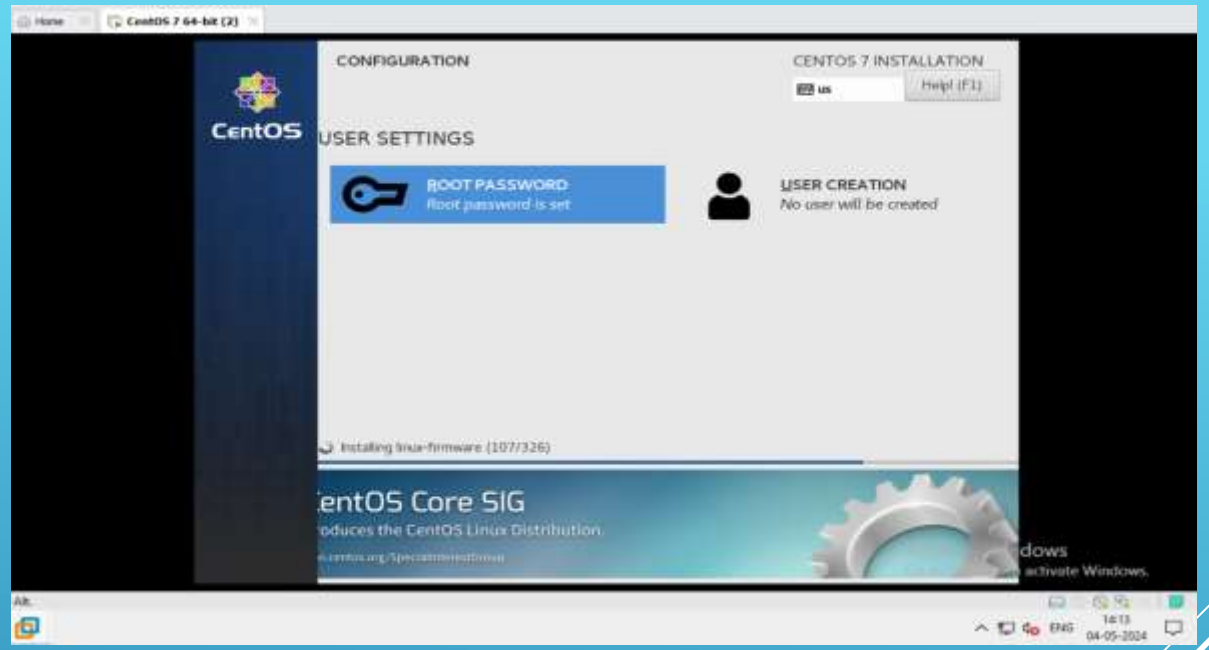
- Now system is ready to begin install.
- Click on begin install.



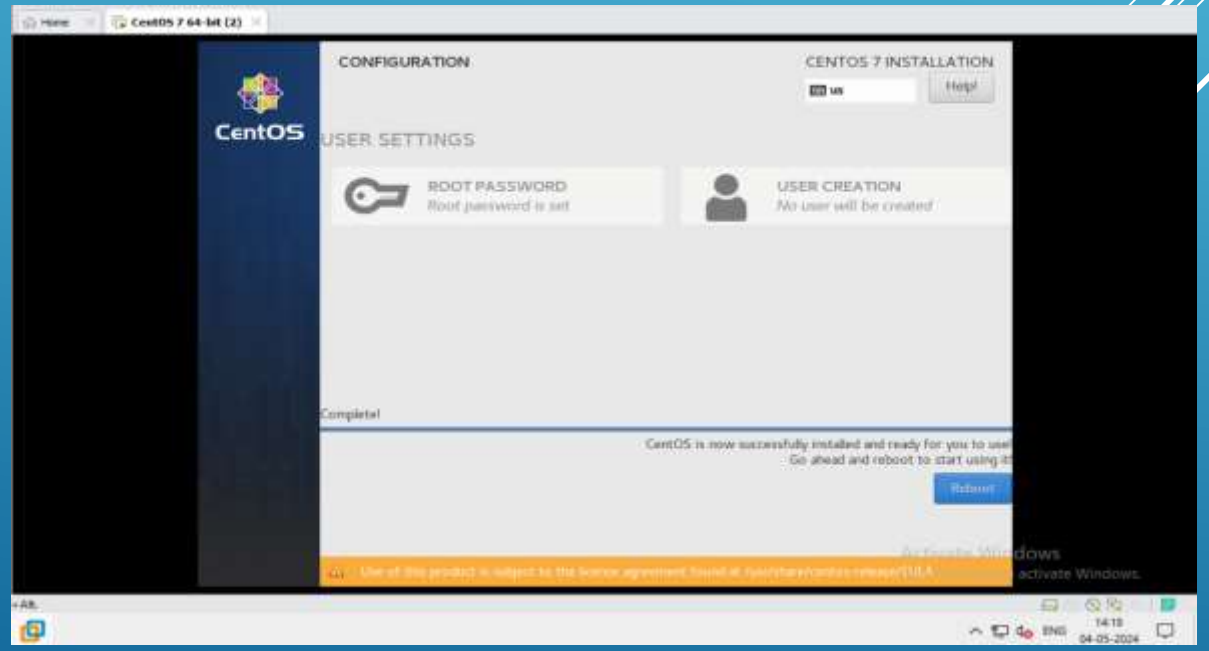
- Now set the root password.



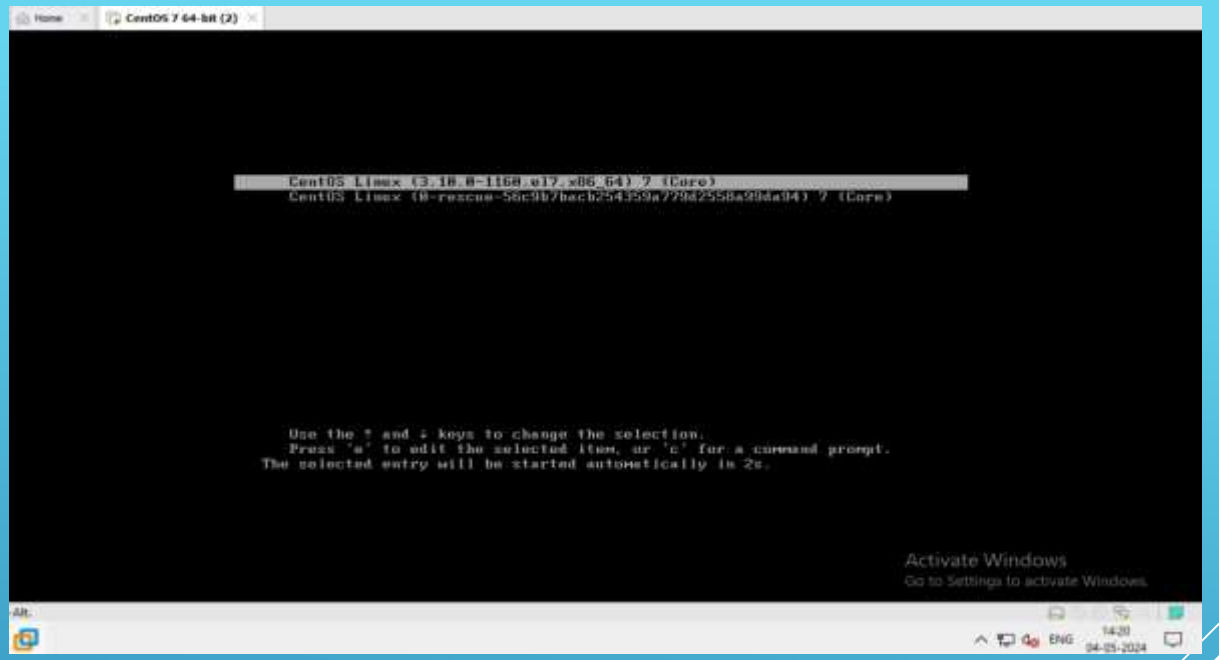
- Now installing linux-firmware.
- It's take time.



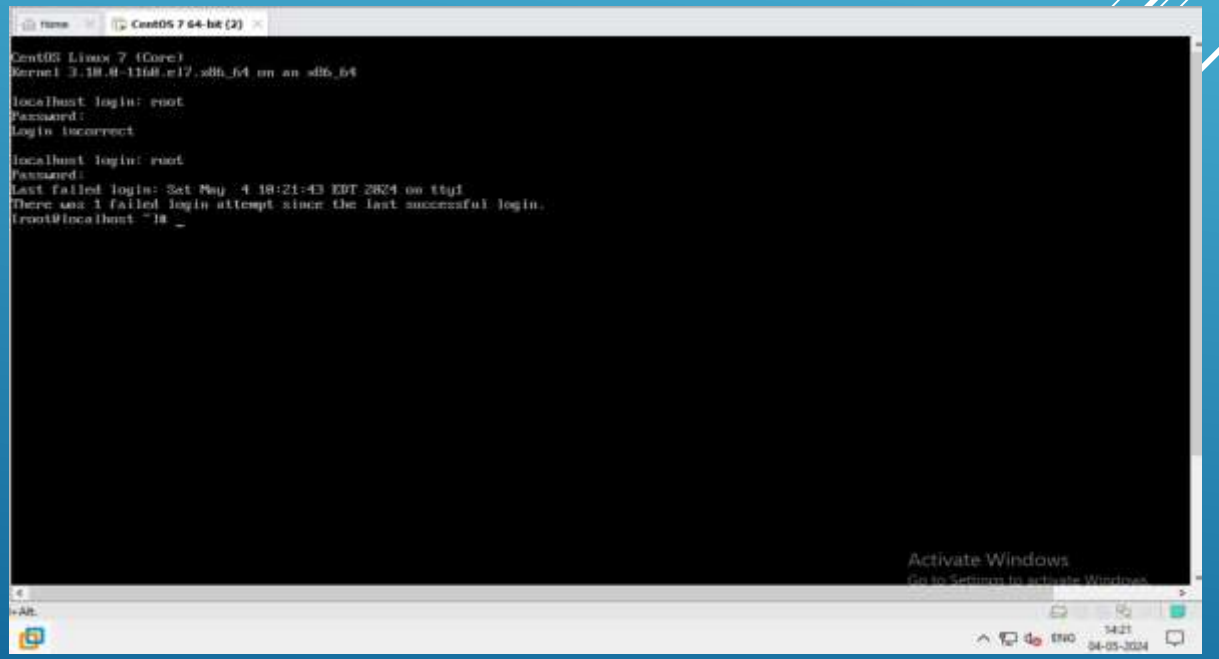
- Now we reboot the system.



- First step after installation.



- Now we login with root.
- And give the root password.



❑ Here is the step of LVM configuration.

1. Partition physical storage

2.Create a physical volume(PV).
And PV are used to register underlying physical devices for use in volume groups.

3.Create a volume group(VM).
VM are storage pools made up of one or more physical volume.
One pv can only be allocated to single Vg.

4.Create a logical volume(VM).
Logical volume are created from physical extends in a vg.

5.Make mount point.
6.Make file system.
7.mount.

➢ Create partition:

fdisk /dev/sdb
n
Change Linux partition to LVM. 8e HEX code(press t).

W
Partprobe /dev/sdb
Fdisk –l

2. Create a physical volume.
 pvcreate /dev/sdb1
 pvdisplay

3.Create a volume group.
   vgcreate name /dev/sdb1
   vgdisplay

4.Create logical volume.
  lvcreate –n part1 –L +500M name
  lvcreate –n part2 –L +250M name
 lvdisplay

5.Make mount point.
  mkdir /forpart1 /forpart2

6. Make file system.
mkfs –t /dev/name/part1
mkfs –t /dev/name/part2

7. Mount /dev/name/part1 /forpart1
mount /dev/name/part2 /forpart2

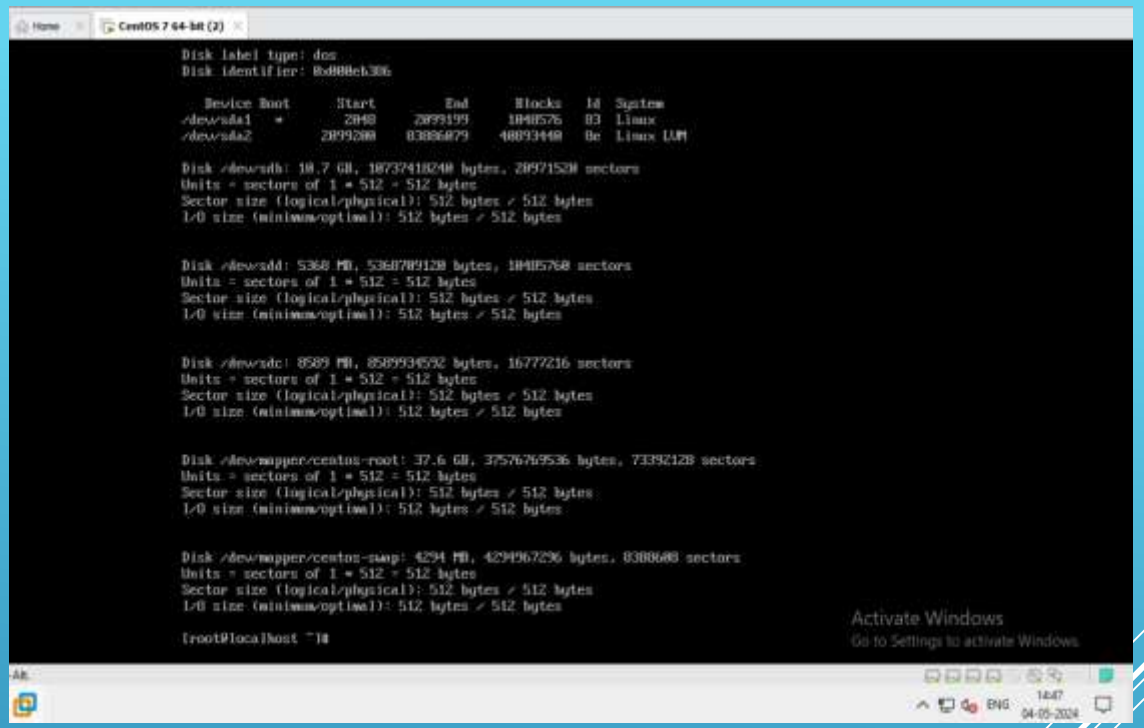
8.Put enteries in /etc/fstab file for mounting permanently.

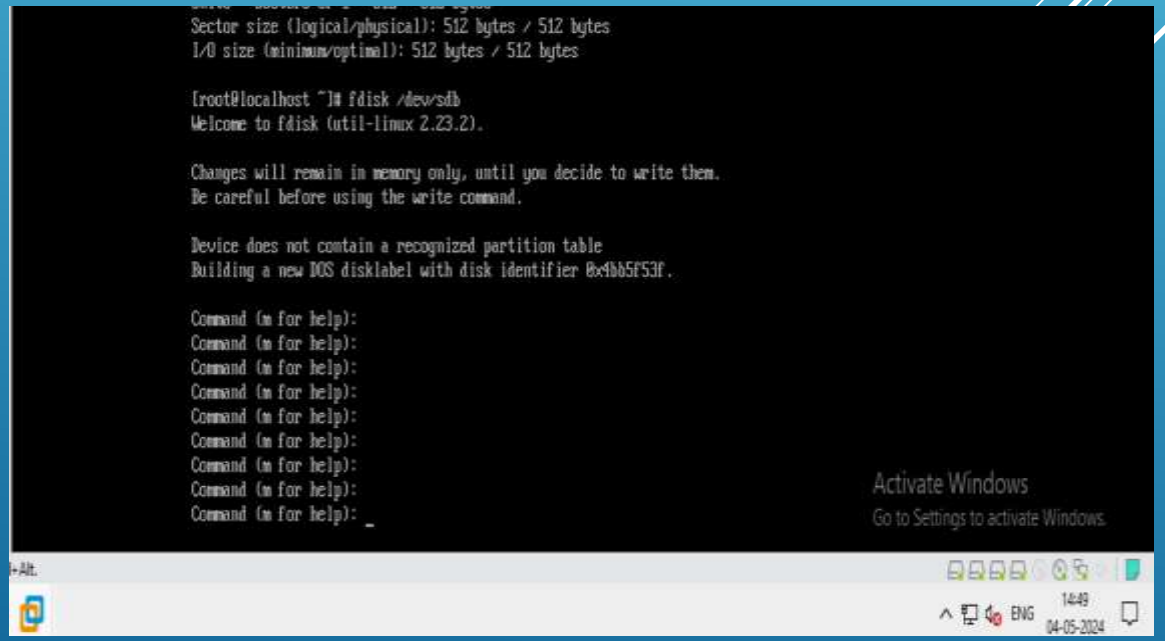
9. Mount –a will show all mount point.
df -h

10. Extend LVM:
lvextend –L +50M /dev/name/part1
removing LVM:
unmount forpart1
Or
For remove
lvremove /dev/name/part1
vgremov name
pvremove /dev/sdb1
Now I insert my code.

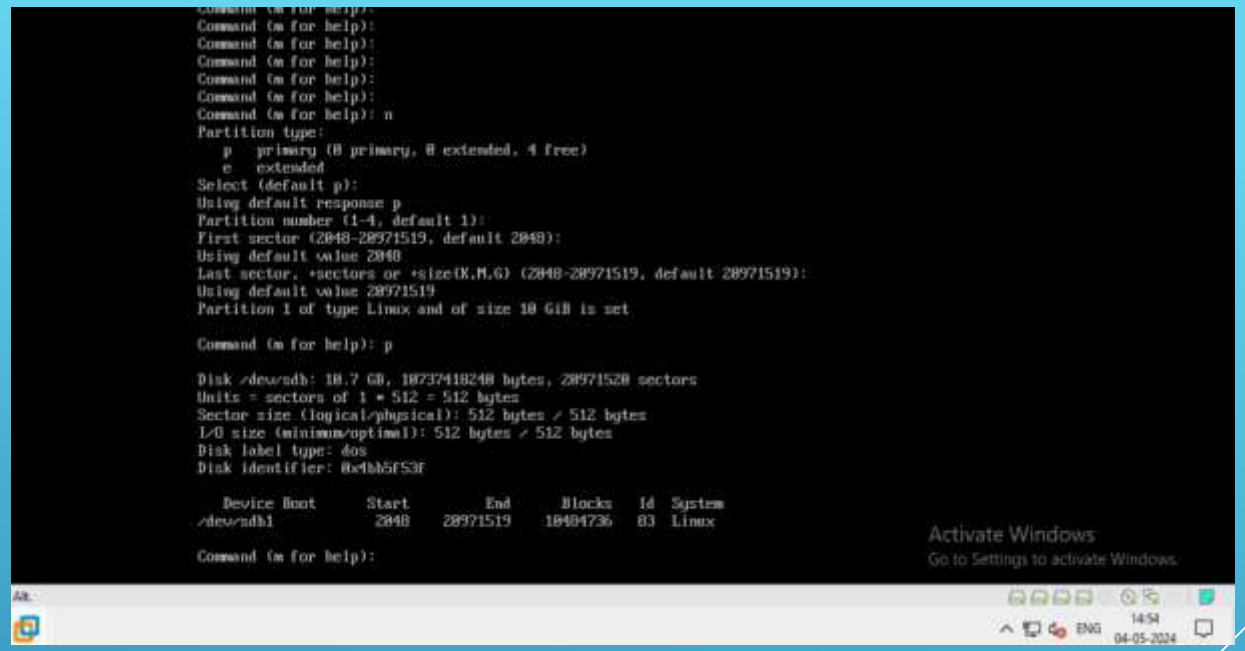
- Here we create partition.

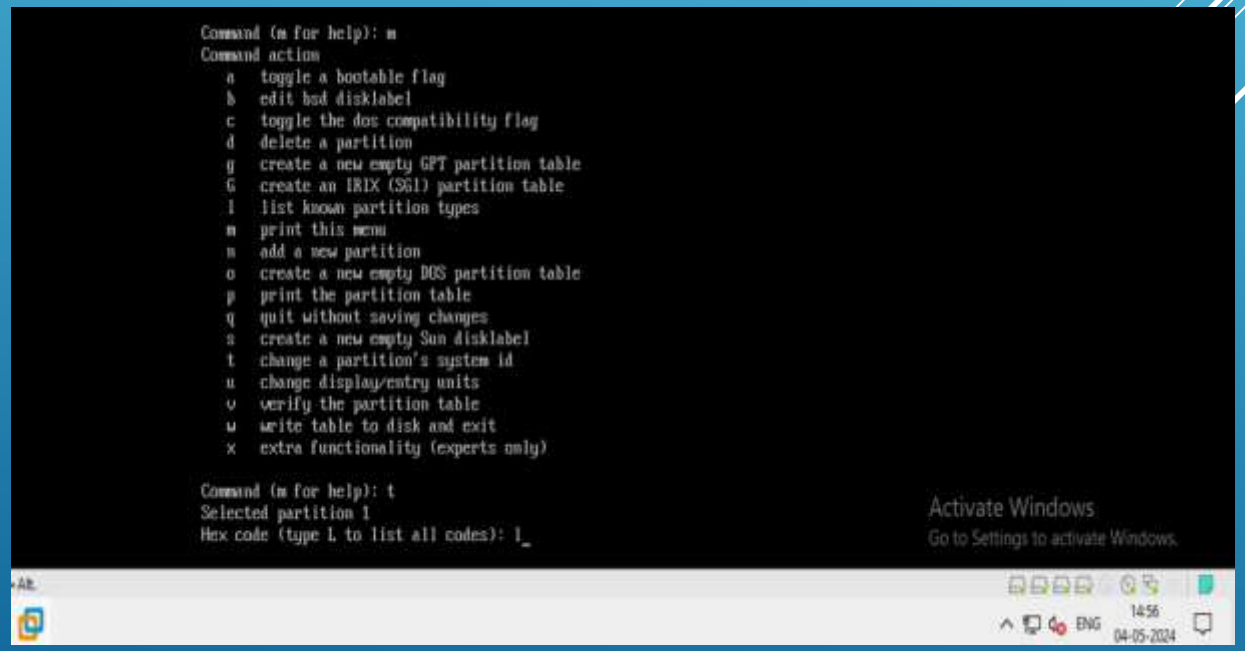
- Here command for help m is show for helping partition.



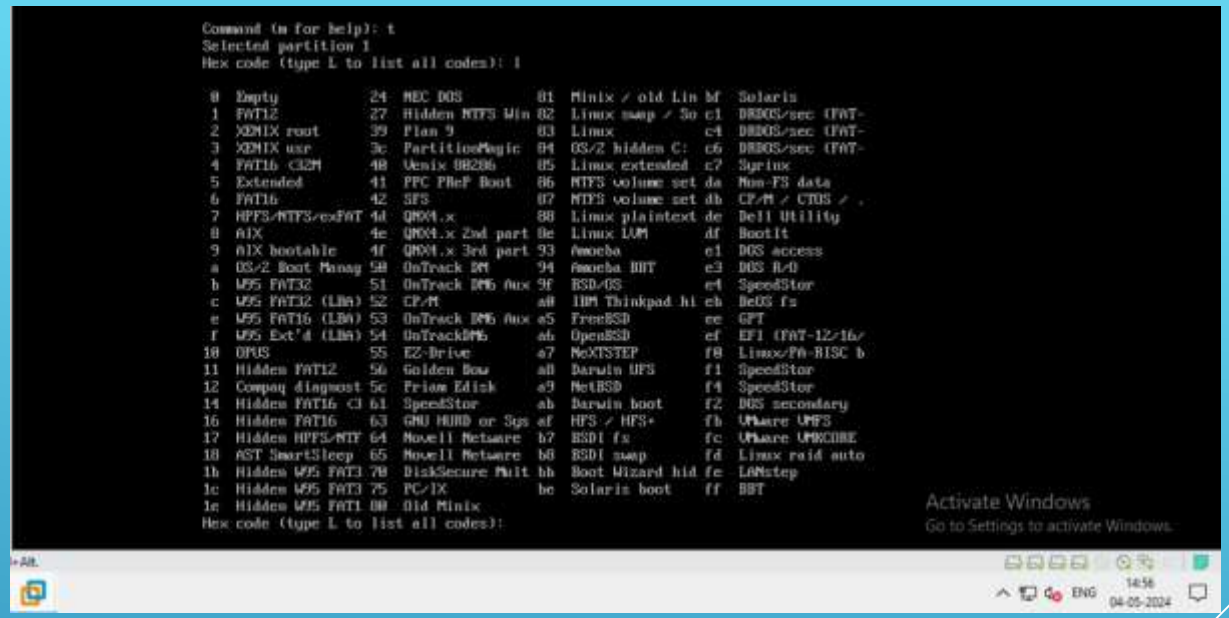


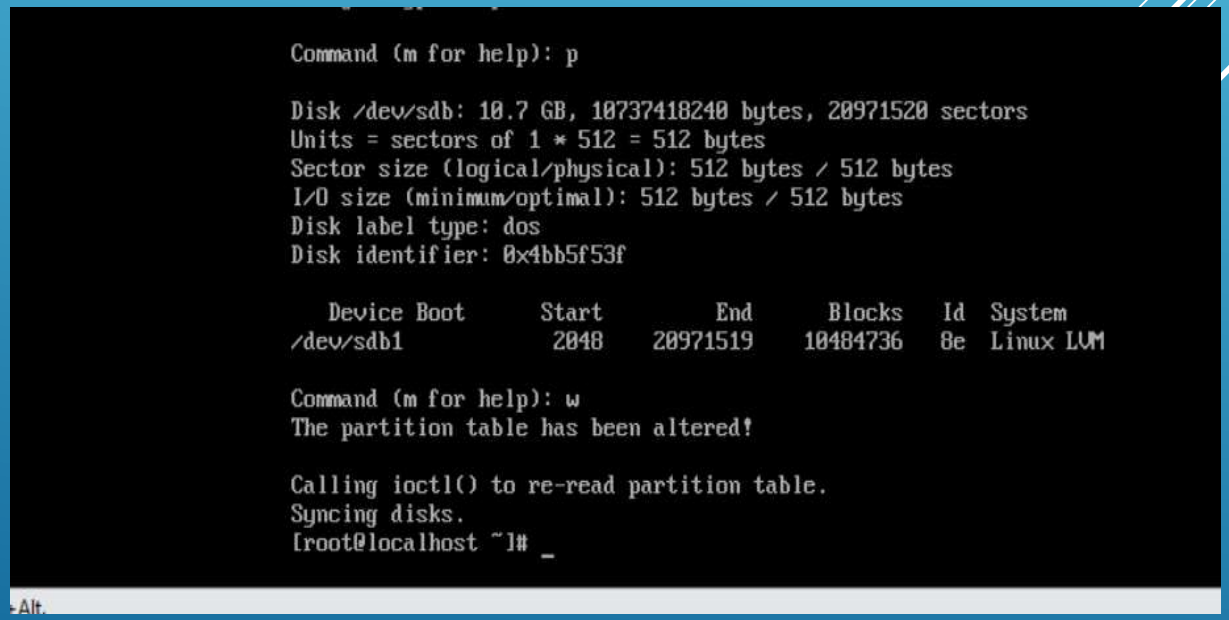
- Here we press n for showing partition type and for assign hex code we press t.
- It's showing all hex code and in here we see our hex code.



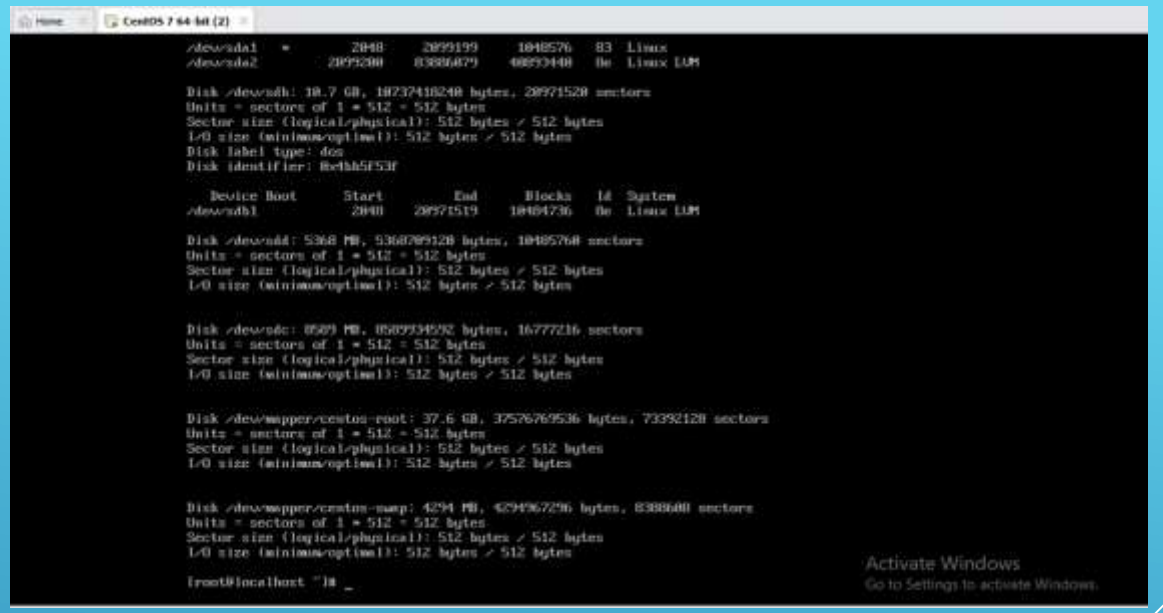


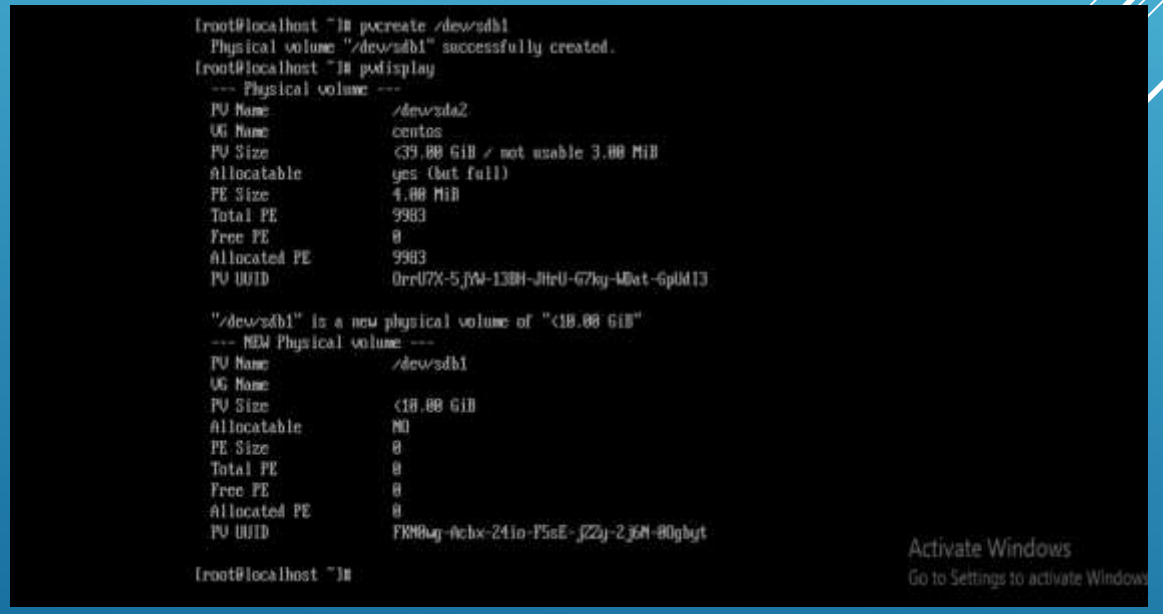
- Here we see the all hex code and apply hex code to convert system linux to linux LVM.
- Then we press w for save the partition.



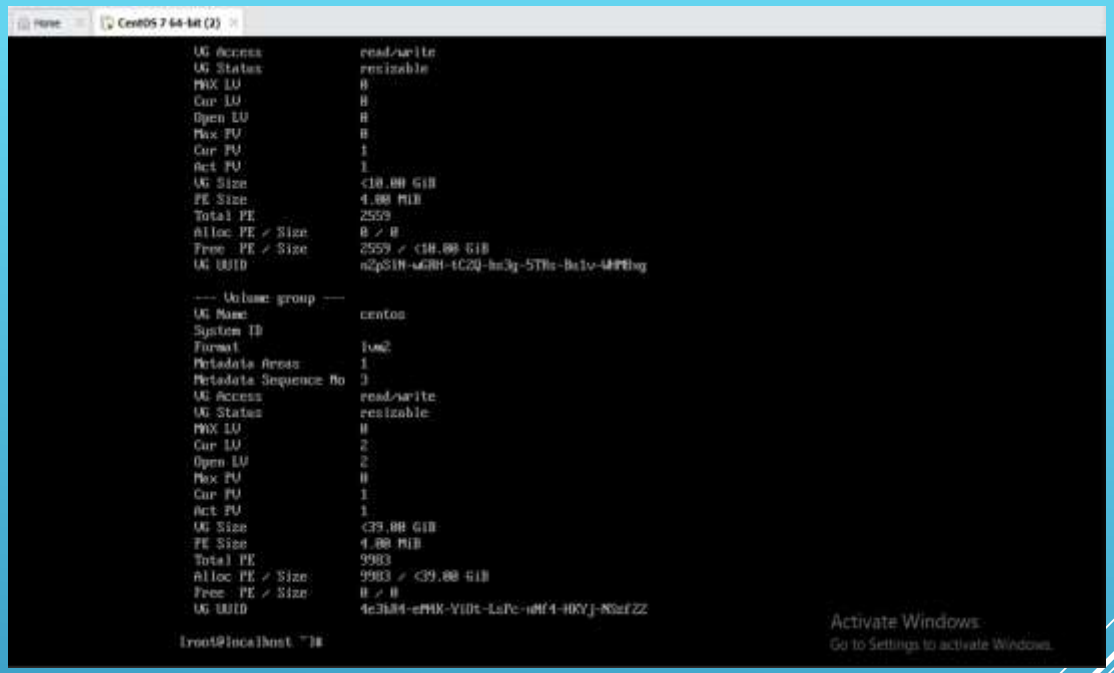


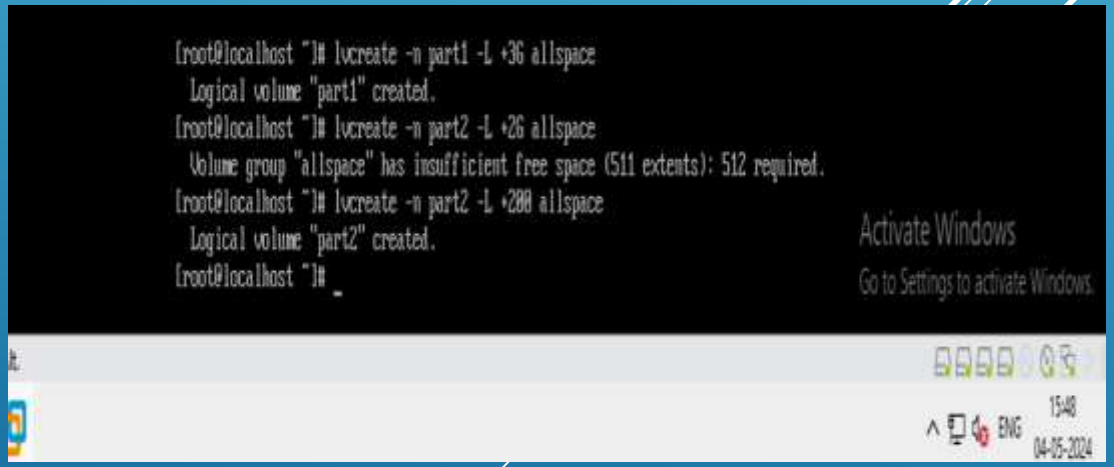
- Here we create physical volume.
- Display the volume by the help of pvdisplay.



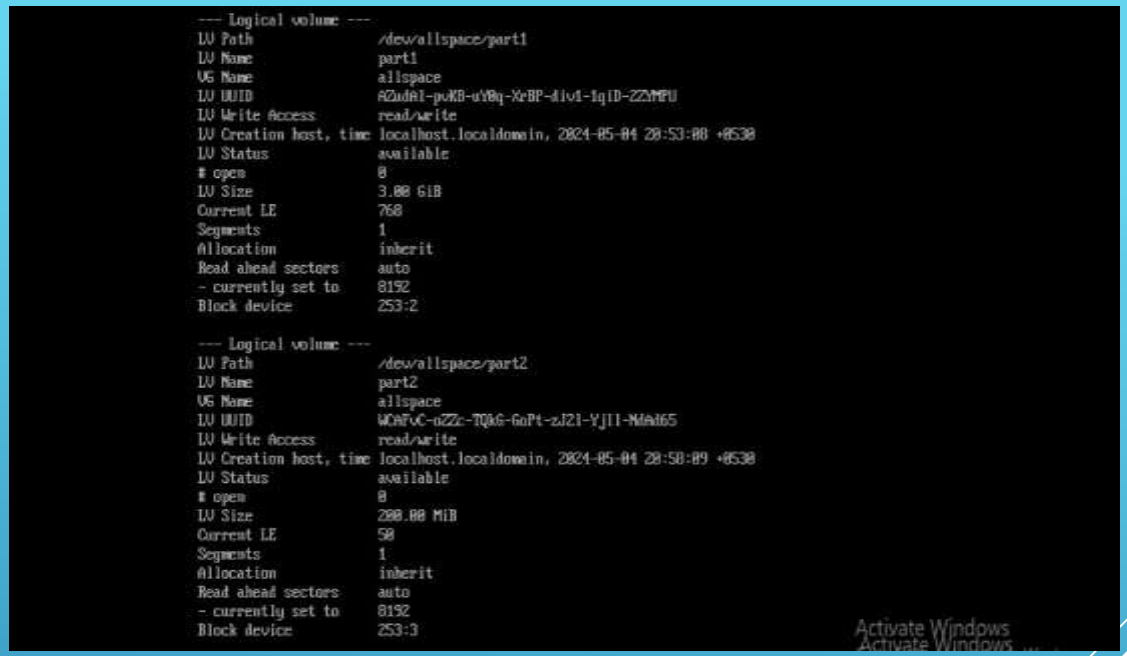


- Here we create logical volume by the help of lv create and assign name part1 & part2.
- The creation in 2nd slide.

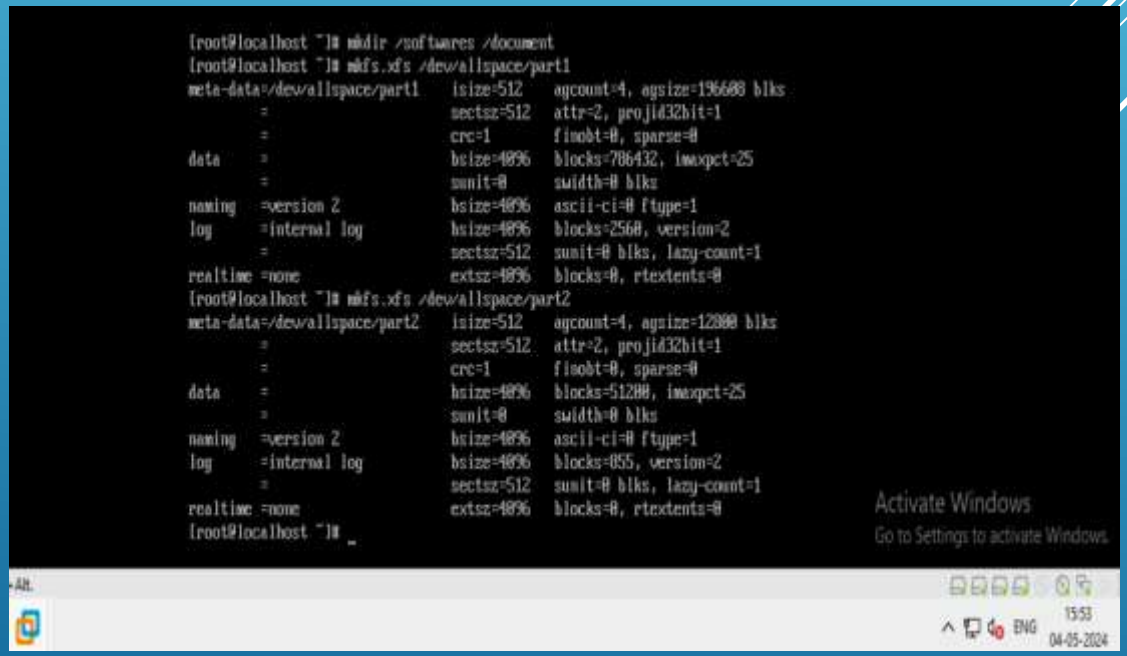




- In first slide we see our created **logical volume named by part1 and part2.**



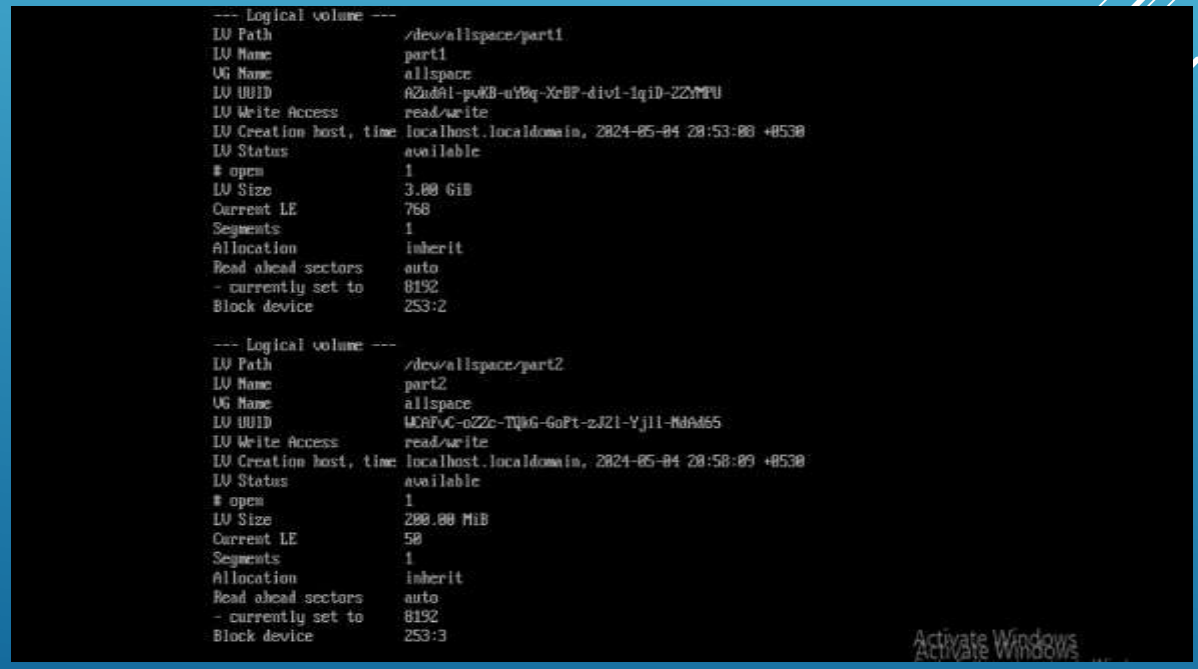
- **Here we create mount point by the help of mkdir command and also make file system.**



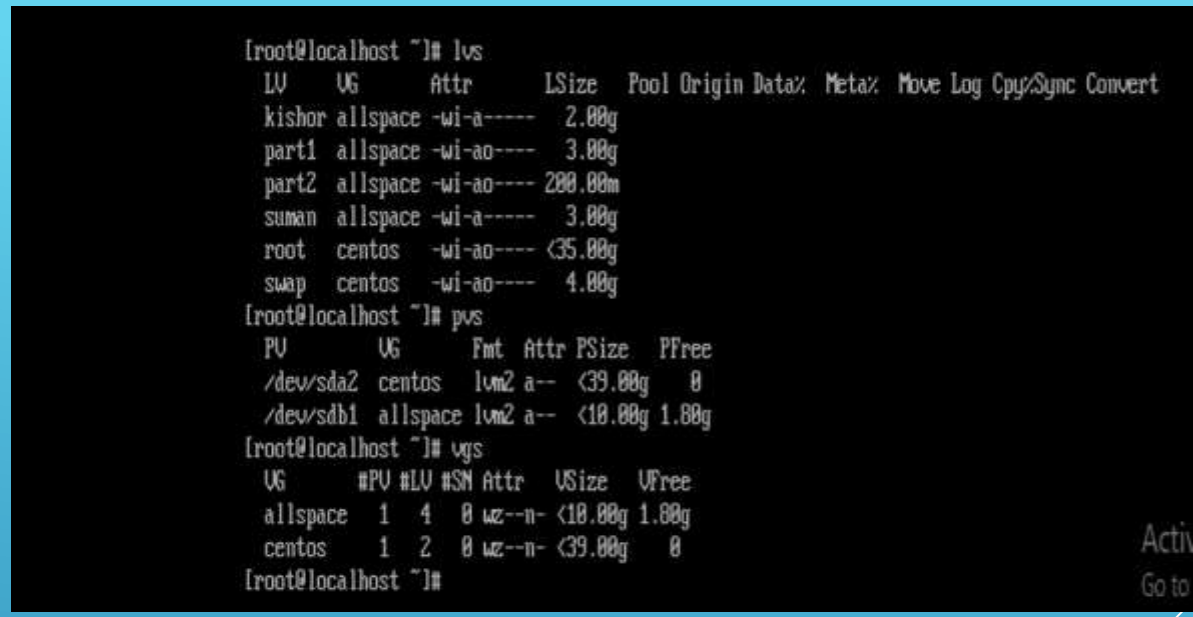
- Here we assign the mount value and

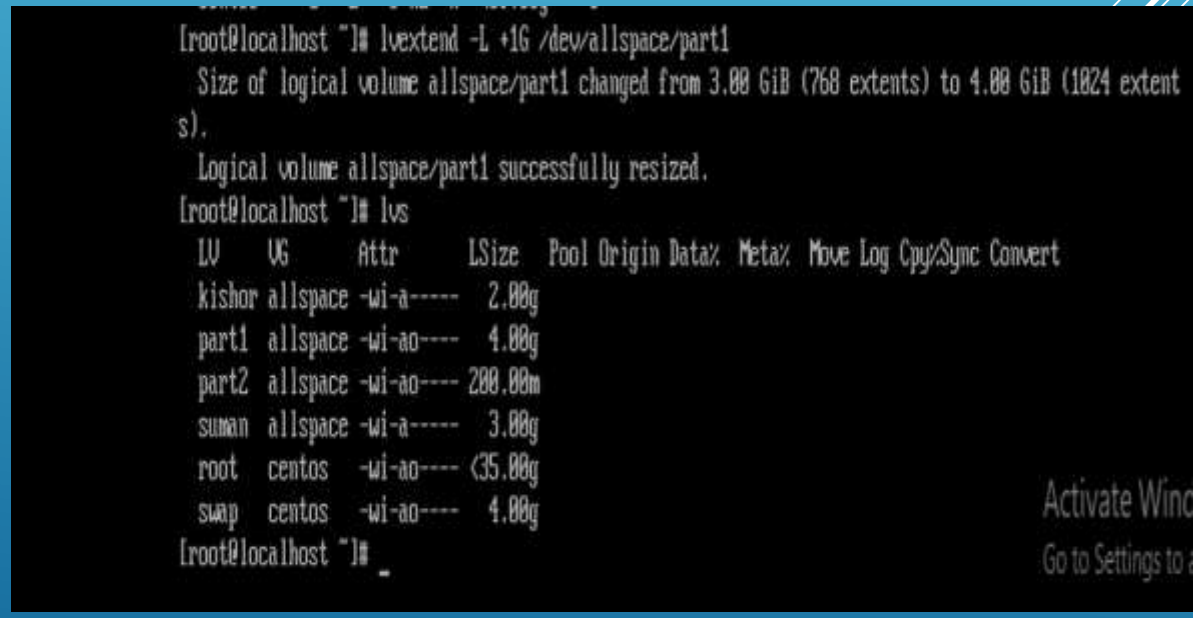
Display the logical volume.

- 2nd slide display the volume .

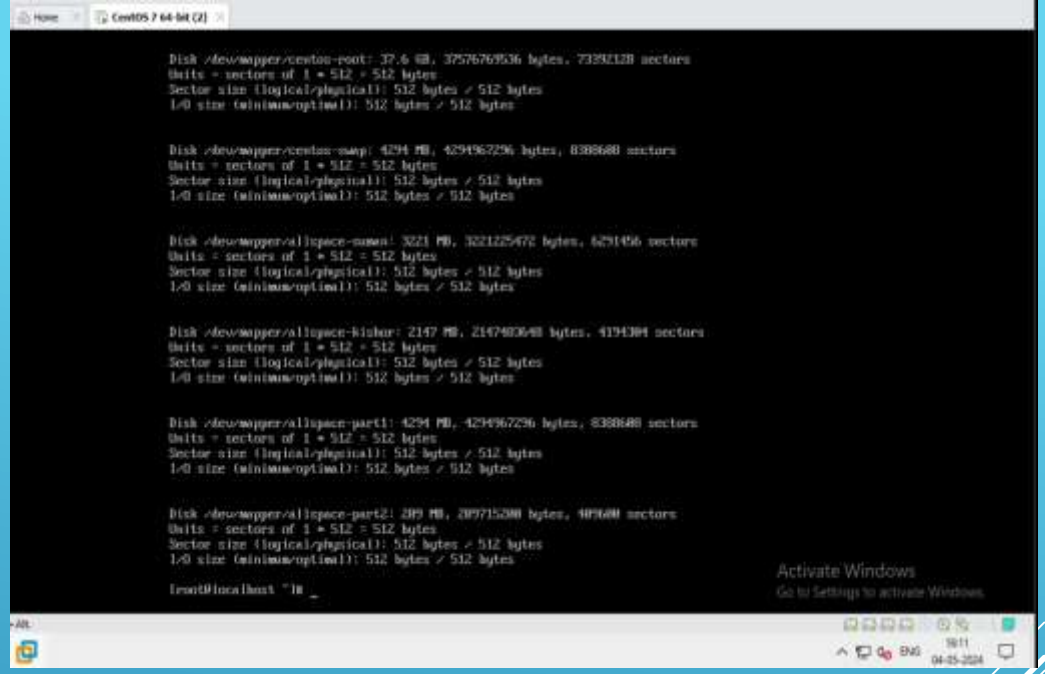


- Here show the logical volume
- And extend the logical volume.

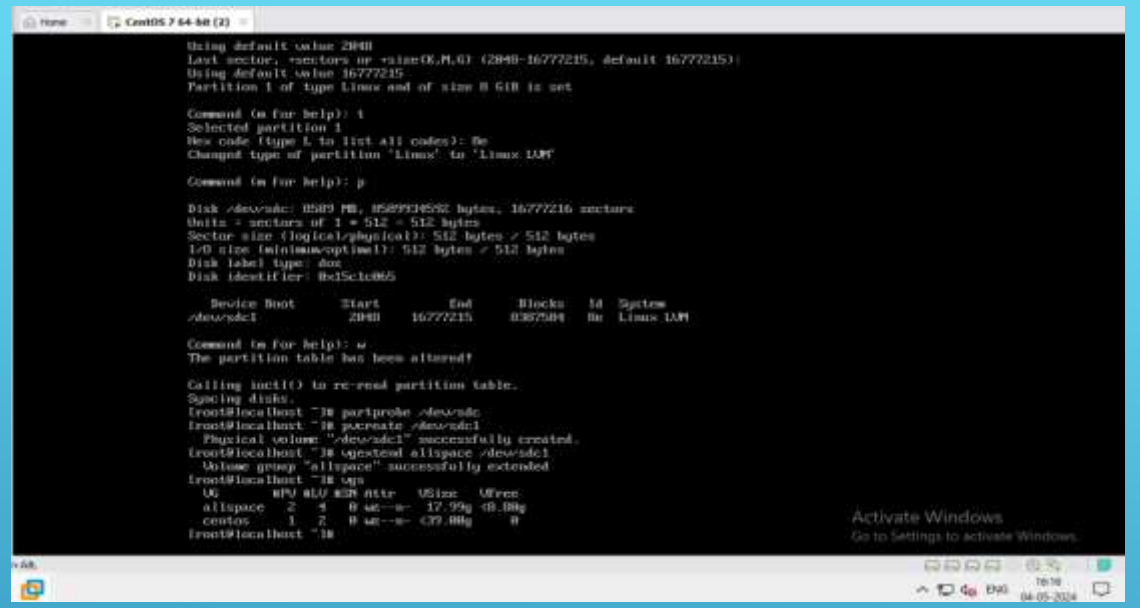


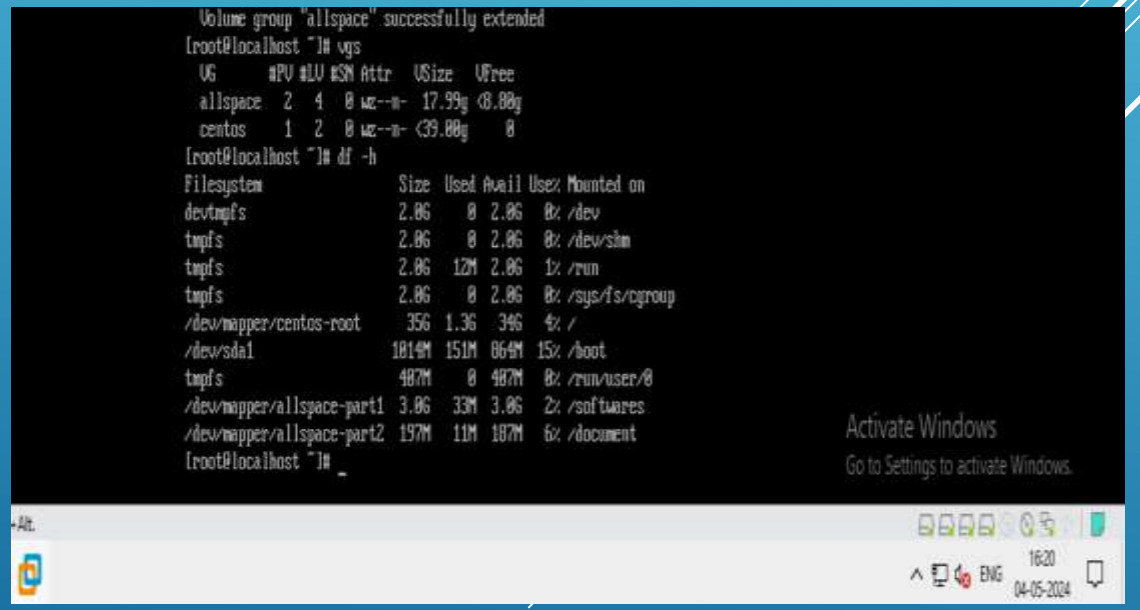


- Here we create another volume group first run fdisk
- Then for more option m is showing then we created.



- Here we run df –h for showing all mount point.
- In 2nd slide display the all mount point.





Thank you
Kishor Chandra sahoo