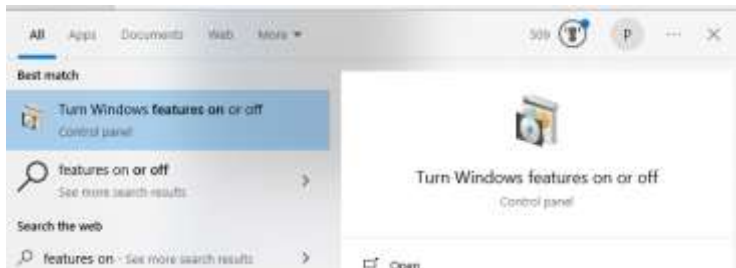


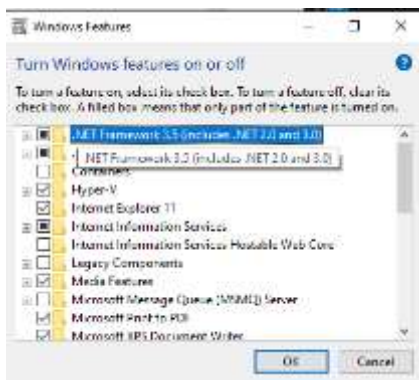
Practical No 7

Aim: Implement Windows Hyper V virtualization

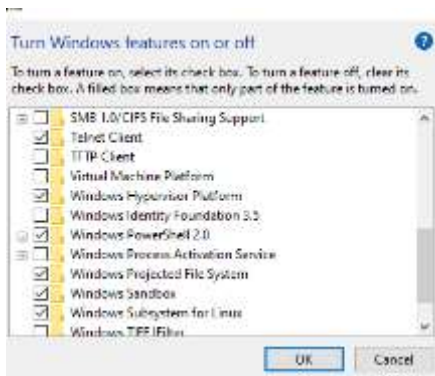
Step 1: Search for windows features on or off in search bar and open it.



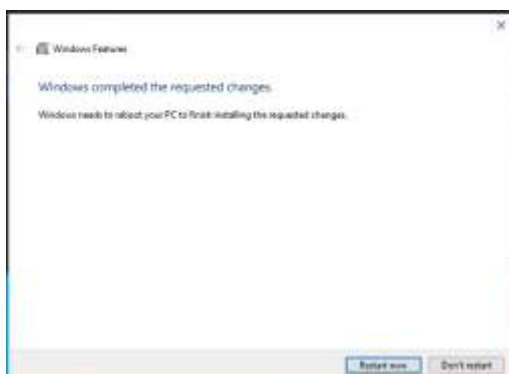
Step 2: Now scroll down click on Hyper-v ("Don't Click ok go to step no 3").



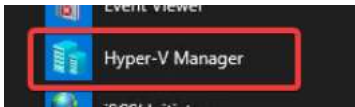
Step 3: Now scroll down click on Windows Sandbox and then click on ok



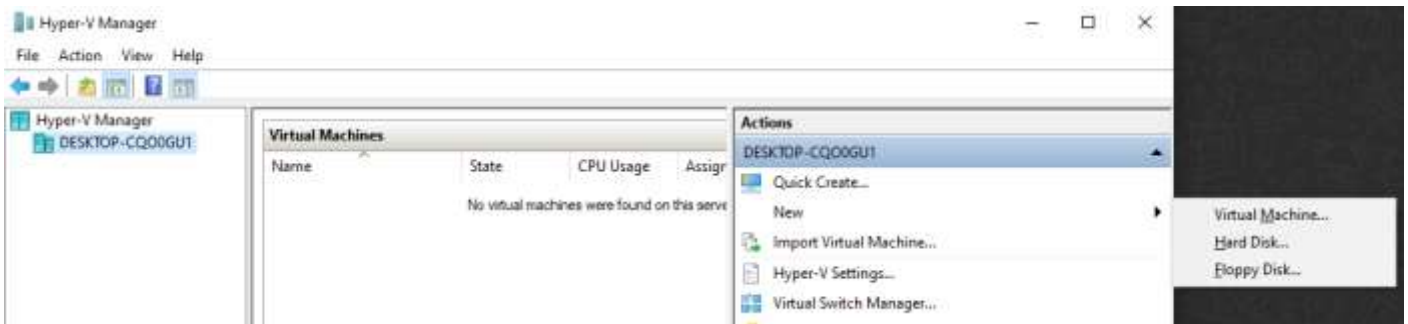
Step 4: Now Click on Restart Now (Pc will restart automatically and it will take few minutes for the setup.)



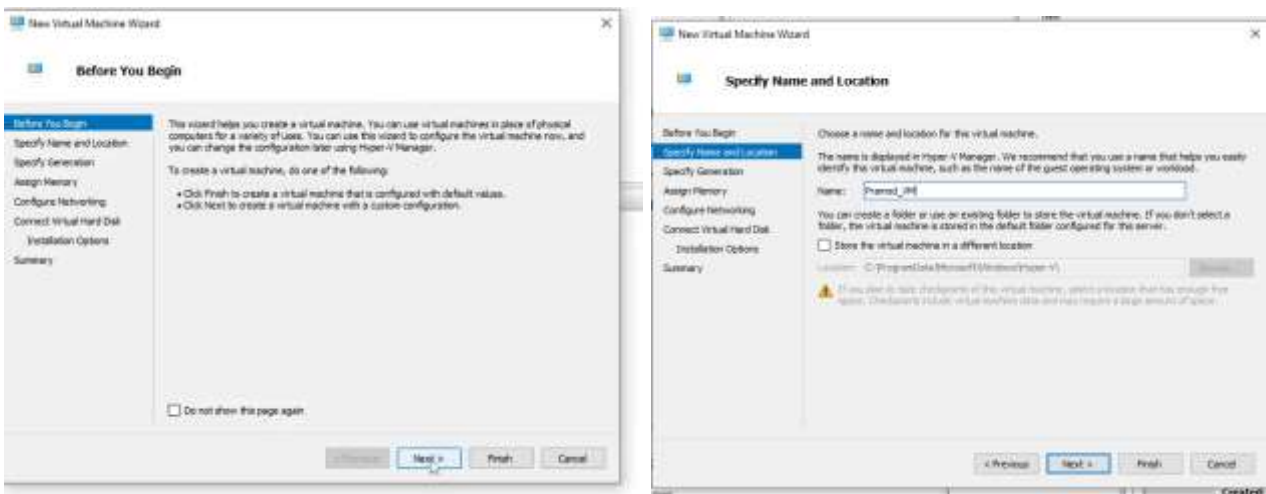
Step 5 : Now in Start Search for Hyper V-manager and open it.



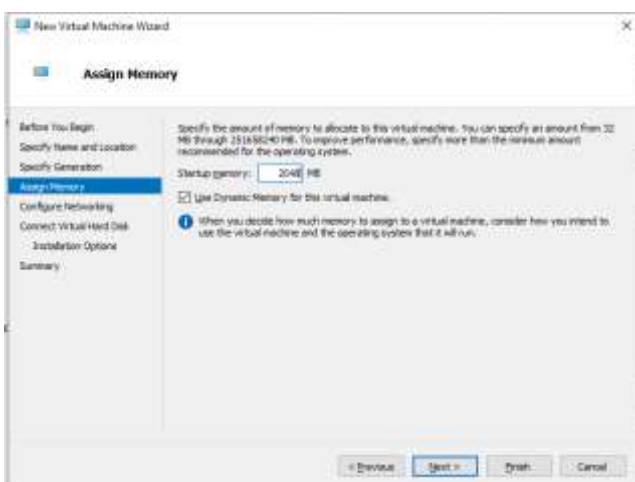
Step 6 : Now click on the new-> Virtual Machine (Located on the right hand side of the tab) to create a virtual machine.



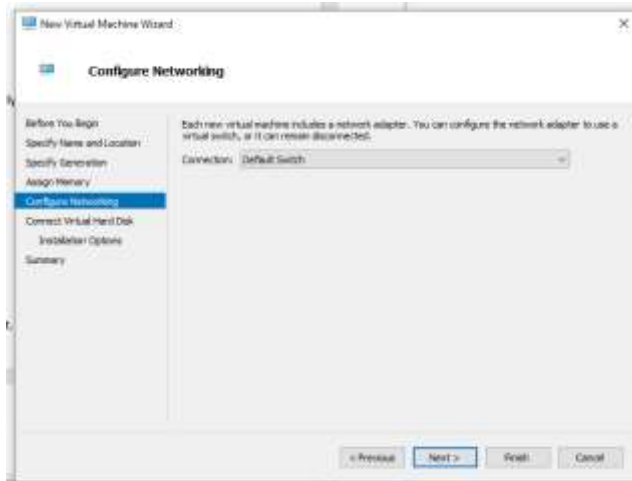
Step 7 : Press next and then assign the name for virtual machine and click on next.



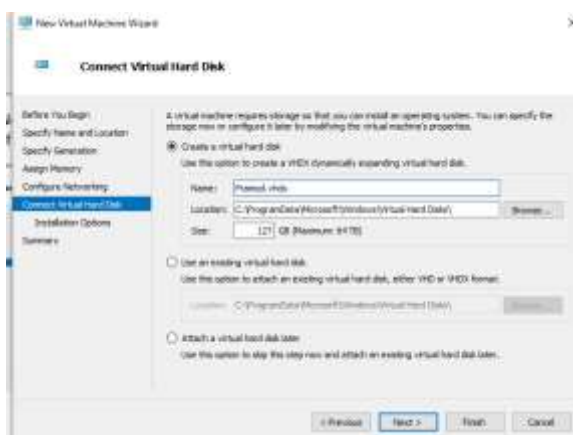
Step 8 : Now in the next assign memory(RAM) 2048 or 4096 MB and click on next



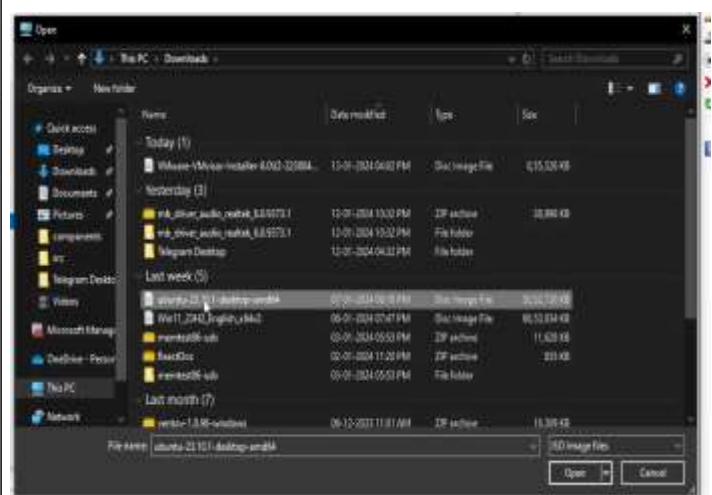
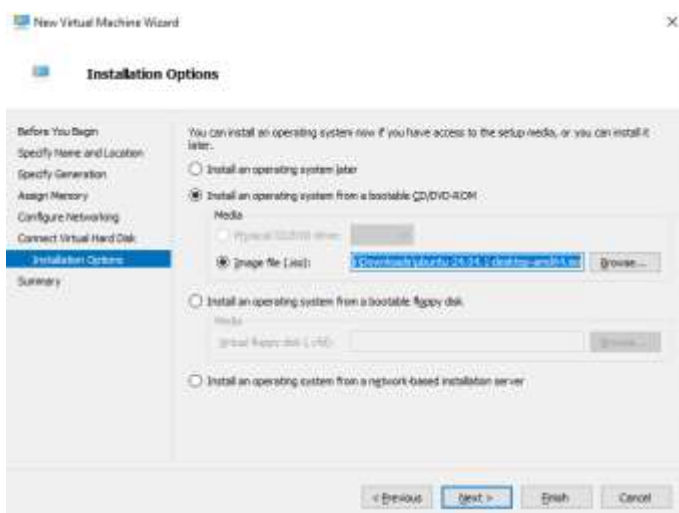
Step 9 : Now in the Configure networking section select Default switch and click on next.



Step 10 : Now in Connect Virtual Hard Disk Section select the location where you want to save the VM file And now increase of memory to 140GB and click on next (Note:select the drive which have atleast 140 GB free .)



Step 11 : Now in Installation Option section Select “Install an operating system from cd/DVD-ROM” , Then Click on Image file -> Browse.. and select the Ubuntu Iso file and click on next.
(This file in the TYCS_CC_SOFTWARE folder check in Lab 1-1)

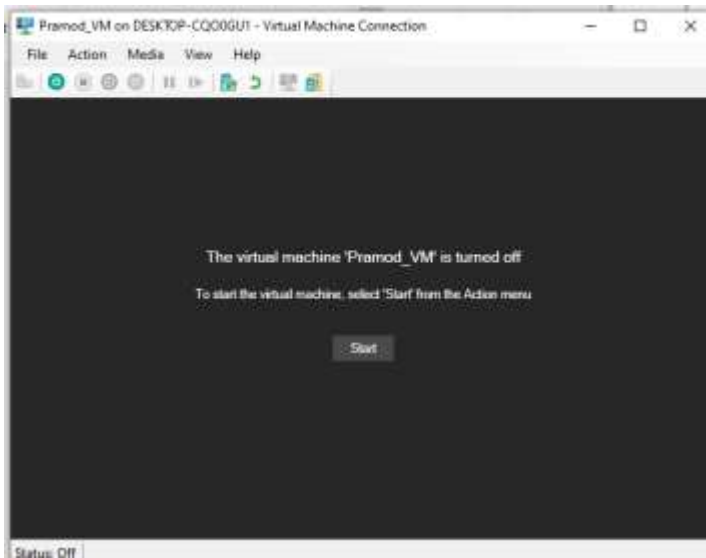


Step 12 : Now click on the finish Now the Vm is created

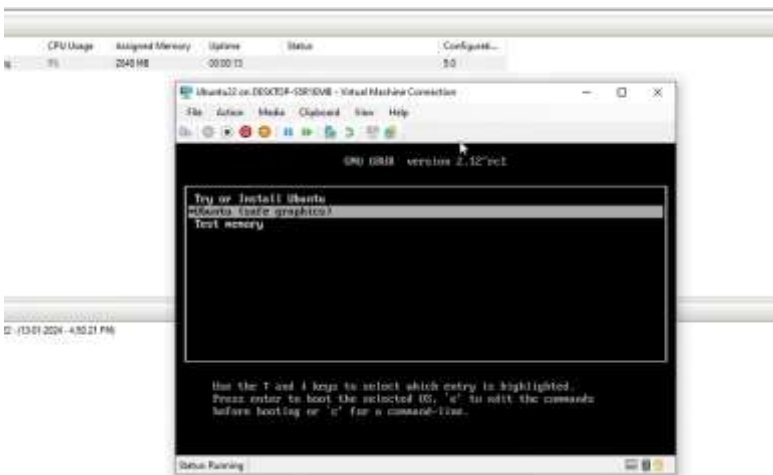
Step 13 : Now click on “Connect” located Right Handside in the Action (under the name of virtual machine which you have given.)



Step 14 : Now click on start.



Step 15 : Now use arrow keys and select the try or install ubuntu and press enter.



Step 16 : And now wait for the ubuntu to complete its installation.

Step 17 : Now open the terminal and execute the below commands in it.

Commands

Set 1:

- i) Display calendar of current year: `cal`
- ii) Display today's date: `date`
- iii) Display list of all users currently logged in: `who`
- iv) Display message "Hello World": `echo "Hello World"`
- v) Perform some calculation: `bc` (starts an interactive calculator)

```

ubuntu@ubuntu:~$ date
Mon Feb 17 08:09:56 AM UTC 2025
ubuntu@ubuntu:~$ cal
Command 'cal' not found, did you mean:
  command 'fcal' from snap fcal (2.7.3)
  command 'col' from deb bsdextrautils (2.37.2-4ubuntu3.4)
  command 'cat' from deb coreutils (8.32-4.1ubuntu1.2)
  command 'cxi' from deb ndctl (72.1-1)
See 'snap info <snapname>' for additional versions.
ubuntu@ubuntu:~$ ^C
ubuntu@ubuntu:~$ who
ubuntu  :0                2025-02-17 08:08 (:0)
ubuntu@ubuntu:~$ echo "Hello world"
Hello world
ubuntu@ubuntu:~$ bc
bc 1.07.1
Copyright 1991-1994, 1997, 1998, 2000, 2004, 2006, 2008, 2012-2017 Free Software
Foundation, Inc.
This is free software with ABSOLUTELY NO WARRANTY.
For details type 'warranty'.
2+3
5
3-7
-6

```

Set 2:

- i) Display present working directory: `pwd`
- ii) Display today's date and time in 2 different lines:
`bash`
`date +%D"`
`date +%T"`
- iii) Display your terminal address: `tty`
- iv) Display login name of user currently logged in: `whoami`
- v) Display all processes of the users: `ps aux`
- vi) Display all files and directories in current working directory: `ls -l`

```

ubuntu@ubuntu:~$ date +%D"
02/17/25
ubuntu@ubuntu:~$ pwd
/home/ubuntu
ubuntu@ubuntu:~$ date +%T"
08:18:50
ubuntu@ubuntu:~$ tty
/dev/pts/0
ubuntu@ubuntu:~$ whoami
ubuntu
ubuntu@ubuntu:~$ ps aux
USER          PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
root           1   0.1  0.3 167984 13380 ?        Ss   08:06   0:01 /sbin/init na
root           2   0.0  0.0      0     0 ?        S    08:06   0:00 [kthreadd]
root           3   0.0  0.0      0     0 ?        I<   08:06   0:00 [rcu_gp]
root           4   0.0  0.0      0     0 ?        I<   08:06   0:00 [rcu_par_gp]
root           5   0.0  0.0      0     0 ?        I<   08:06   0:00 [slub_flushwq]
root           6   0.0  0.0      0     0 ?        I<   08:06   0:00 [netns]
root           7   0.1  0.0      0     0 ?        I    08:06   0:01 [kworker/0:0-]
root          10   0.0  0.0      0     0 ?        I<   08:06   0:00 [mm_percpu_wq]
root          11   0.0  0.0      0     0 ?        I    08:06   0:00 [rcu_tasks_kt]
root          12   0.0  0.0      0     0 ?        I    08:06   0:00 [rcu_tasks_ru]
root          13   0.0  0.0      0     0 ?        I    08:06   0:00 [rcu_tasks_tr]

```

```

ubuntu@ubuntu:~$ ls -l
total 0
drwxr-xr-x 2 ubuntu ubuntu 60 Feb 17 08:06 Desktop
drwxr-xr-x 2 ubuntu ubuntu 40 Feb 17 08:08 Documents
drwxr-xr-x 2 ubuntu ubuntu 40 Feb 17 08:08 Downloads
drwxr-xr-x 2 ubuntu ubuntu 40 Feb 17 08:08 Music
drwxr-xr-x 2 ubuntu ubuntu 40 Feb 17 08:08 Pictures
drwxr-xr-x 2 ubuntu ubuntu 40 Feb 17 08:08 Public
drwx----- 3 ubuntu ubuntu 60 Feb 17 08:07 snap
drwxr-xr-x 2 ubuntu ubuntu 40 Feb 17 08:08 Templates
drwxr-xr-x 2 ubuntu ubuntu 40 Feb 17 08:08 Videos
ubuntu@ubuntu:~$

```

Set 3:

- i) Display content of file: cat filename
- ii) Copy the given file: cp filename destination
- iii) Rename the given file: mv oldname newname
- iv) Delete the given file: rm filename
- v) Exit: exit or press Ctrl+D

```
ubuntu@ubuntu: ~/Desktop
ubuntu@ubuntu:~/Desktop$ cat tycs
cat: tycs: No such file or directory
ubuntu@ubuntu:~/Desktop$ cat Tycs
hello TYCS Batch B
ubuntu@ubuntu:~/Desktop$
```

```
ubuntu@ubuntu:~/Desktop$ cat tycs
cat: tycs: No such file or directory
ubuntu@ubuntu:~/Desktop$ cat Tycs
hello TYCS Batch B
ubuntu@ubuntu:~/Desktop$ cp Tycs Tycs_Copy
ubuntu@ubuntu:~/Desktop$
```

```
ubuntu@ubuntu:~/Desktop$ cat tycs
cat: tycs: No such file or directory
ubuntu@ubuntu:~/Desktop$ cat Tycs
hello TYCS Batch B
ubuntu@ubuntu:~/Desktop$ cp Tycs Tycs_Copy
ubuntu@ubuntu:~/Desktop$ mv Tycs Tycs_new
ubuntu@ubuntu:~/Desktop$
```

```
ubuntu@ubuntu:~/Desktop$ cat tycs
cat: tycs: No such file or directory
ubuntu@ubuntu:~/Desktop$ cat Tycs
hello TYCS Batch B
ubuntu@ubuntu:~/Desktop$ cp Tycs Tycs_Copy
ubuntu@ubuntu:~/Desktop$ mv Tycs Tycs_new
ubuntu@ubuntu:~/Desktop$ rm Tycs
rm: cannot remove 'Tycs': No such file or directory
ubuntu@ubuntu:~/Desktop$ rm Tycs_new
ubuntu@ubuntu:~/Desktop$
```