

# OS LAB MANUAL (CS23431)

Roll No:230701234

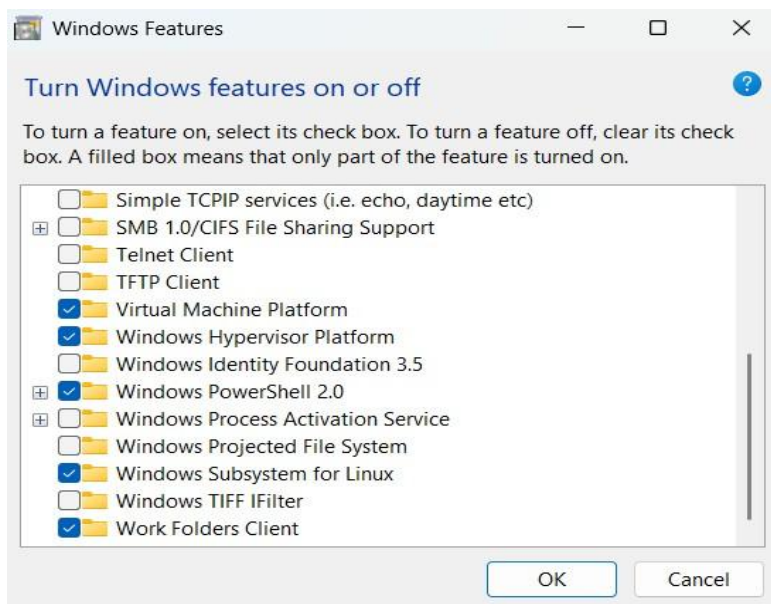
EX.NO:1(A,B)

1A)

## INSTALLATION AND CONFIGURATION OF LINUX

Aim: To install and configure Linux operating system in a Virtual Machine.

Step 1): Turn on the Linux Subsystem And Virtual Machine Platform



Step 2) Restart the System after Step1

Step 3): Open the Bash And download linux:

```
nate@DESKTOP-290H00S: $ wget https://raw.githubusercontent.com/iamjava/zork-py/master/zork.py
--2017-02-07 09:20:11-- https://raw.githubusercontent.com/iamjava/zork-py/master/zork.py
Resolving raw.githubusercontent.com (raw.githubusercontent.com)... 151.101.112.133
Connecting to raw.githubusercontent.com (raw.githubusercontent.com)|151.101.112.133|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 8074 (7.9K) [text/plain]
Saving to: 'zork.py'

zork.py                  100%[=====>]  7.88K  --.-KB/s  in 0.004s
```

#### Step 4)Open the Ubuntu

```
pranav@Pranav: ~  
Welcome to Ubuntu 24.04.1 LTS (GNU/Linux 5.15.167.4-microsoft-standard-WSL2 x86_64)  
  
* Documentation:  https://help.ubuntu.com  
* Management:    https://landscape.canonical.com  
* Support:       https://ubuntu.com/pro  
  
System information as of Sun Apr 20 14:43:51 UTC 2025  
  
System load:  0.68           Processes:            71  
Usage of /:   0.2% of 1006.85GB Users logged in:       0  
Memory usage: 5%           IPv4 address for eth0: 172.23.123.206  
Swap usage:   0%  
  
* Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s  
  just raised the bar for easy, resilient and secure K8s cluster deployment.  
  
https://ubuntu.com/engage/secure-kubernetes-at-the-edge  
  
This message is shown once a day. To disable it please create the  
/home/pranav/.hushlogin file.  
pranav@Pranav:~$
```

#### 1B)

#### -GENERAL PURPOSE COMMANDS:

```
pranav@Pranav:~$ date  
Sun Apr 20 14:45:22 UTC 2025  
pranav@Pranav:~$ echo "hello world"  
hello world  
pranav@Pranav:~$ who am i  
pranav@Pranav:~$ id  
uid=1000(pranav) gid=1000(pranav) groups=1000(pranav),4(adm),20(dialout),24(cdrom),25(floppy),27(sudo),29(audio),30(dip),44(video),46(plugdev),100(users),107(netdev)  
pranav@Pranav:~$ tty  
/dev/pts/0  
pranav@Pranav:~$ ps  
PID TTY          TIME CMD  
326 pts/0        00:00:00 bash  
495 pts/0        00:00:00 ps
```

#### -DIRECTORY COMMANDS:

```
pranav@Pranav:~$ pwd  
/home/pranav  
pranav@Pranav:~$ mkdir pranavram  
pranav@Pranav:~$ cd pranavram  
pranav@Pranav:~/pranavram$ cd  
pranav@Pranav:~$ rmdir pranavram  
pranav@Pranav:~$ ls  
234      elevena.c  empavgpay.c  nine.c       sixd.c       twelveb.c  
NINE.c   elevena.py  five.c       sevenreceiver.c  tena.c       two.c  
TENB.c   elevenb.c  foura.c      sevensender.c  tenb.c       two.sh  
a.out    elevenc.c  kk.c         sixa.c        threeA.sh    twotwo.sh  
eight    emp.awk    marks.awk    sixb.c        threeB.sh  
eight.c  emp.dat    marks.dat    sixc.c        twelvea.c  
pranav@Pranav:~$
```

#### -FILE HANDLING COMMANDS:

```
pranav@Pranav:~$ cat>oldfile
hello world
^C
pranav@Pranav:~$ cat oldfile
hello world
pranav@Pranav:~$ cat newfile
cat: newfile: No such file or directory
pranav@Pranav:~$ cat>newfile
hello earth
^C
pranav@Pranav:~$ cp oldfile newfile
pranav@Pranav:~$ cat newfile
hello world
pranav@Pranav:~$ rm oldfile
pranav@Pranav:~$ wc newfile
 2  2 13 newfile
pranav@Pranav:~$ ls>newfile
pranav@Pranav:~$ who | wc -l
1
pranav@Pranav:~$ who | tee sample | wc -l
1
```

#### -GROUPING COMMANDS:

```
pranav@Pranav:~$ who;date
pranav pts/1 2025-04-20 14:43
Sun Apr 20 14:54:26 UTC 2025
pranav@Pranav:~$ who && date
pranav pts/1 2025-04-20 14:43
Sun Apr 20 14:54:34 UTC 2025
pranav@Pranav:~$ who || date
pranav pts/1 2025-04-20 14:43
```

#### 5) FILTERS:

```
pranav@Pranav:~$ ls
234      elevena.c      empavgpay.c      newfile          sixb.c          threeB.sh
NINE.c   elevena.py      five.c           nine.c           sixc.c          twelvea.c
TENB.c   elevenb.c      foura.c          sample           sixd.c          twelveb.c
a.out    elevenc.c      kk.c             sevenreceiver.c  tena.c          two.c
eight    emp.awk        marks.awk        sevensender.c   tenb.c          two.sh
eight.c  emp.dat        marks.dat        sixa.c           threeA.sh       twotwo.sh
pranav@Pranav:~$ head -5 newfile Display the top five lines.
==> newfile <==
234
NINE.c
TENB.c
a.out
eight
head: cannot open 'Display' for reading: No such file or directory
head: cannot open 'the' for reading: No such file or directory
head: cannot open 'top' for reading: No such file or directory
head: cannot open 'five' for reading: No such file or directory
head: cannot open 'lines.' for reading: No such file or directory
pranav@Pranav:~$ tail newfile
sixd.c
tena.c
tenb.c
threeA.sh
threeB.sh
twelvea.c
twelveb.c
two.c
two.sh
twotwo.sh
```