National Textile University

Department of Computer Science

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SEMESTER:

5th

Submitted To:

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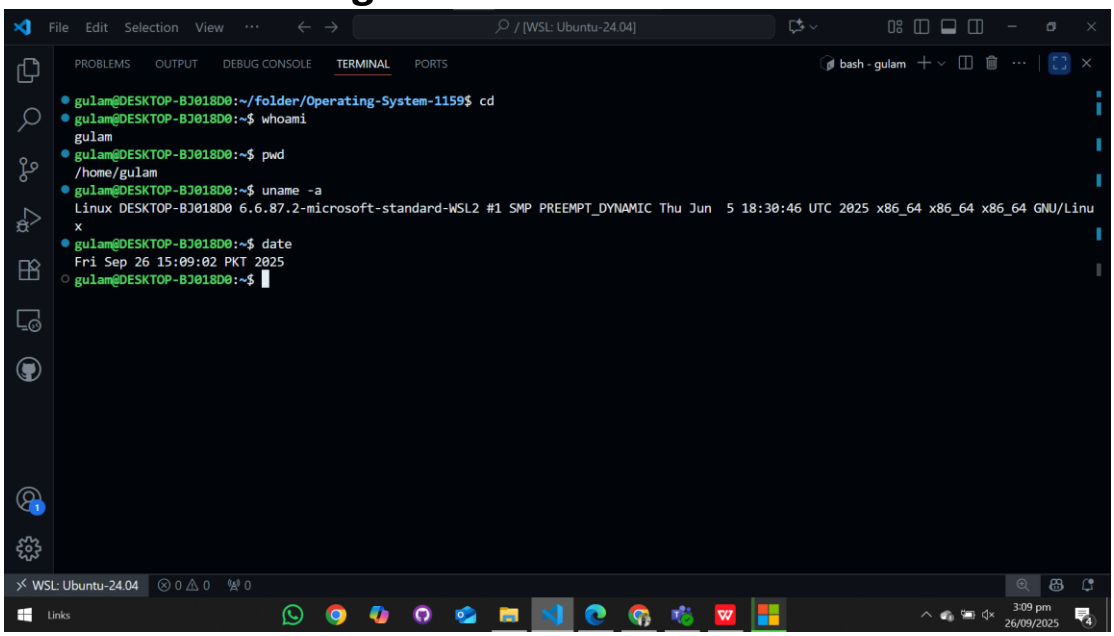
Lab No:

2

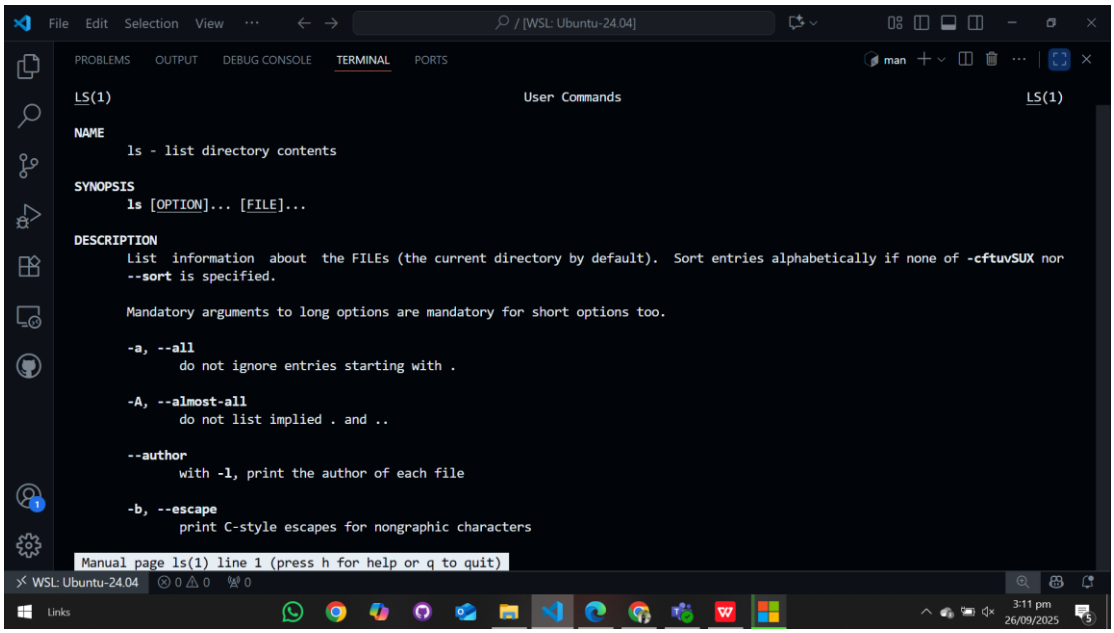
LAB : 02

1.1 Understanding the Linux Environment:

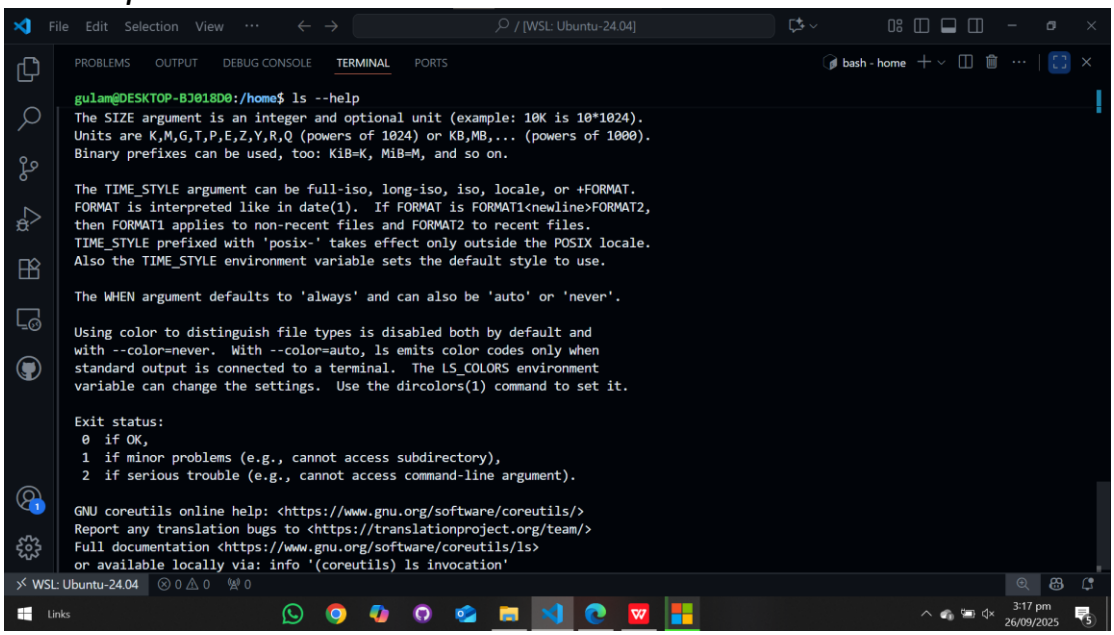


1.2 Getting Help in Linux

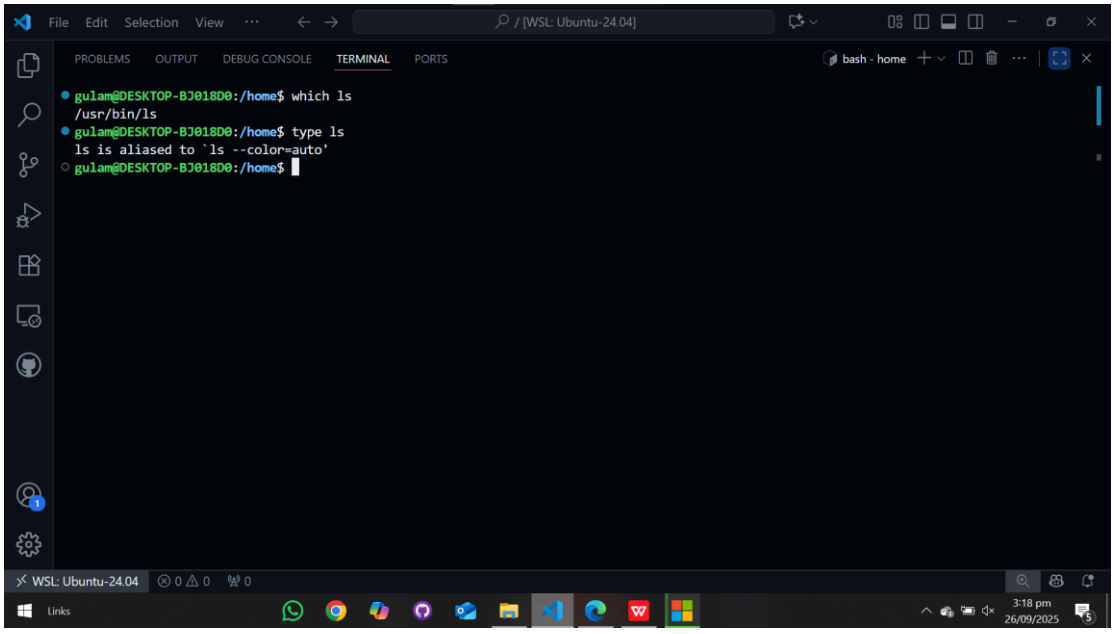
man Ls:



Ls --help

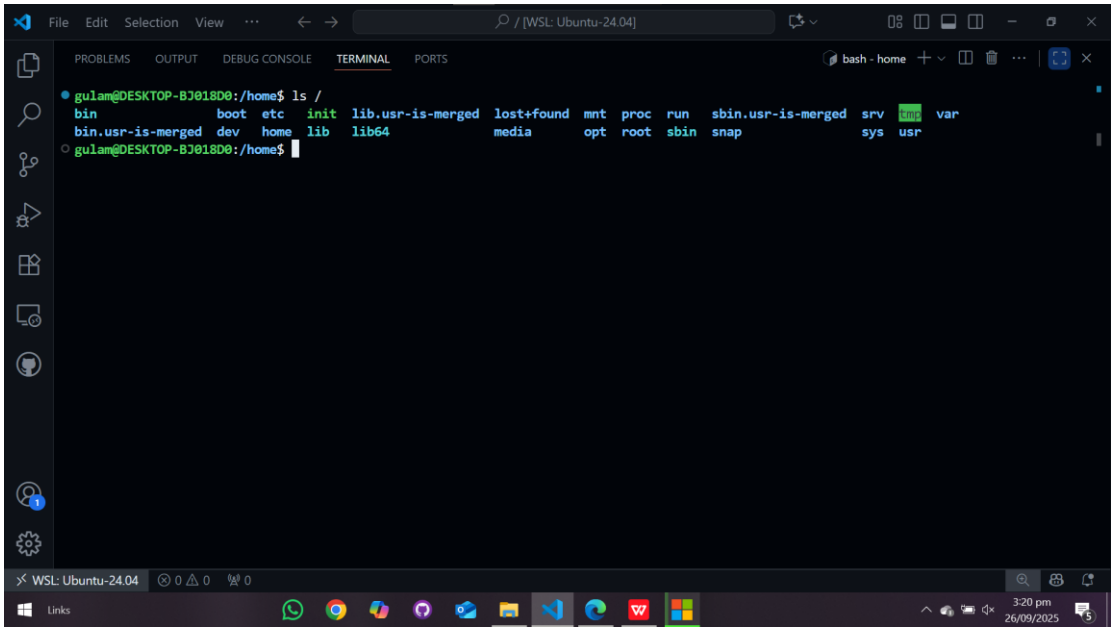


Which ls
Type ls

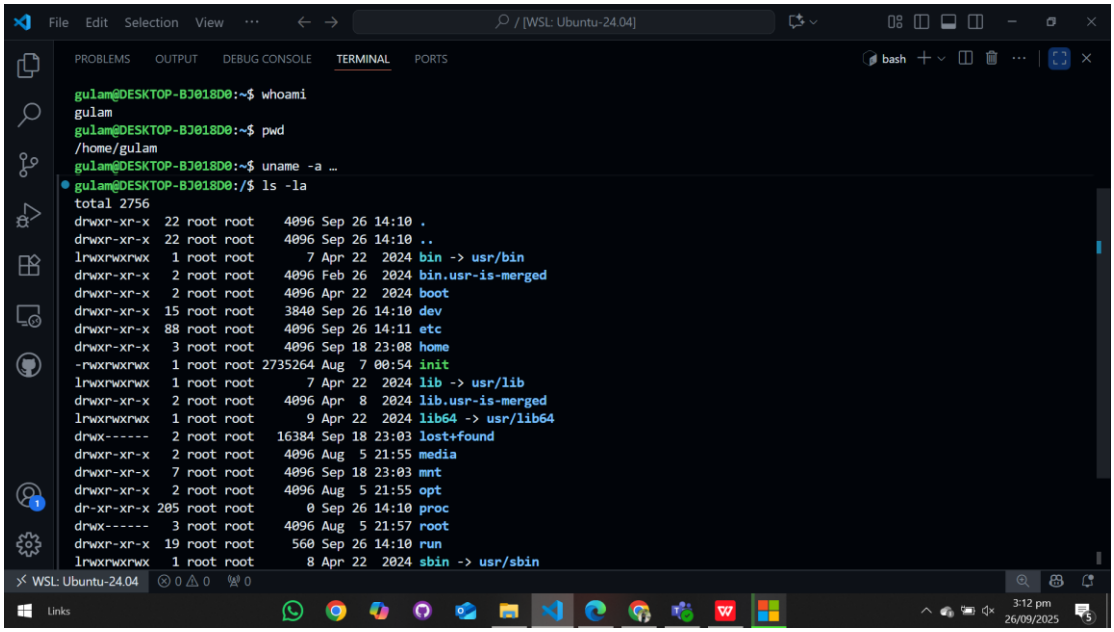


2.1 Understanding Linux Directory Structure

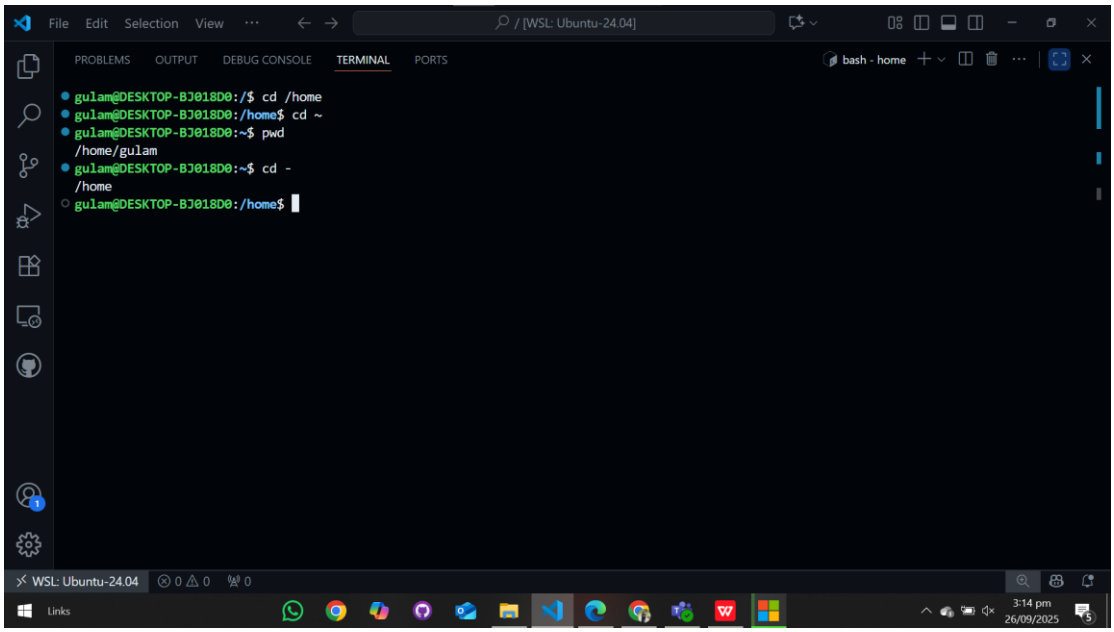
Ls /


File Edit Selection View
/ [WSL: Ubuntu-24.04]
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
bash - home
gulam@DESKTOP-BJ018D0:/home$ ls /
bin boot etc init lib.usr-is-merged lost+found mnt proc run sbin.usr-is-merged srv tmp var
bin.usr-is-merged dev home lib lib64 media opt root sbin snap sys usr
gulam@DESKTOP-BJ018D0:/home$
WSL: Ubuntu-24.04
Links
3:20 pm
26/09/2025

Ls - la


File Edit Selection View
/ [WSL: Ubuntu-24.04]
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
bash
gulam@DESKTOP-BJ018D0:~$ whoami
gulam
gulam@DESKTOP-BJ018D0:~$ pwd
/home/gulam
gulam@DESKTOP-BJ018D0:~$ uname -a …
gulam@DESKTOP-BJ018D0:/$ ls -la
total 2756
drwxr-xr-x 22 root root 4096 Sep 26 14:10 .
drwxr-xr-x 22 root root 4096 Sep 26 14:10 ..
lrwxrwxrwx 1 root root 7 Apr 22 2024 bin -> usr/bin
drwxr-xr-x 2 root root 4096 Feb 26 2024 bin.usr-is-merged
drwxr-xr-x 2 root root 4096 Apr 22 2024 boot
drwxr-xr-x 15 root root 3840 Sep 26 14:10 dev
drwxr-xr-x 88 root root 4096 Sep 26 14:11 etc
drwxr-xr-x 3 root root 4096 Sep 18 23:08 home
-rwxrwxrwx 1 root root 2735264 Aug 7 00:54 init
lrwxrwxrwx 1 root root 7 Apr 22 2024 lib -> usr/lib
drwxr-xr-x 2 root root 4096 Apr 8 2024 lib.usr-is-merged
lrwxrwxrwx 1 root root 9 Apr 22 2024 lib64 -> usr/lib64
drwx------ 2 root root 16384 Sep 18 23:03 lost+found
drwxr-xr-x 2 root root 4096 Aug 5 21:55 media
drwxr-xr-x 7 root root 4096 Sep 18 23:03 mnt
drwxr-xr-x 2 root root 4096 Aug 5 21:55 opt
dr-xr-xr-x 205 root root 0 Sep 26 14:10 proc
drwx------ 3 root root 4096 Aug 5 21:57 root
drwxr-xr-x 19 root root 560 Sep 26 14:10 run
lrwxrwxrwx 1 root root 8 Apr 22 2024 sbin -> usr/sbin
WSL: Ubuntu-24.04
Links
3:12 pm
26/09/2025

Ls /home
Cd ~
Cd -


File Edit Selection View
/ [WSL: Ubuntu-24.04]
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
bash - home
gulam@DESKTOP-BJ018D0:/$ cd /home
gulam@DESKTOP-BJ018D0:/home$ cd ~
gulam@DESKTOP-BJ018D0:~$ pwd
/home/gulam
gulam@DESKTOP-BJ018D0:~$ cd -
/home
gulam@DESKTOP-BJ018D0:/home$
WSL: Ubuntu-24.04
Links
3:14 pm
26/09/2025

2.2 Basic Navigation Commands

Pwd

Ls

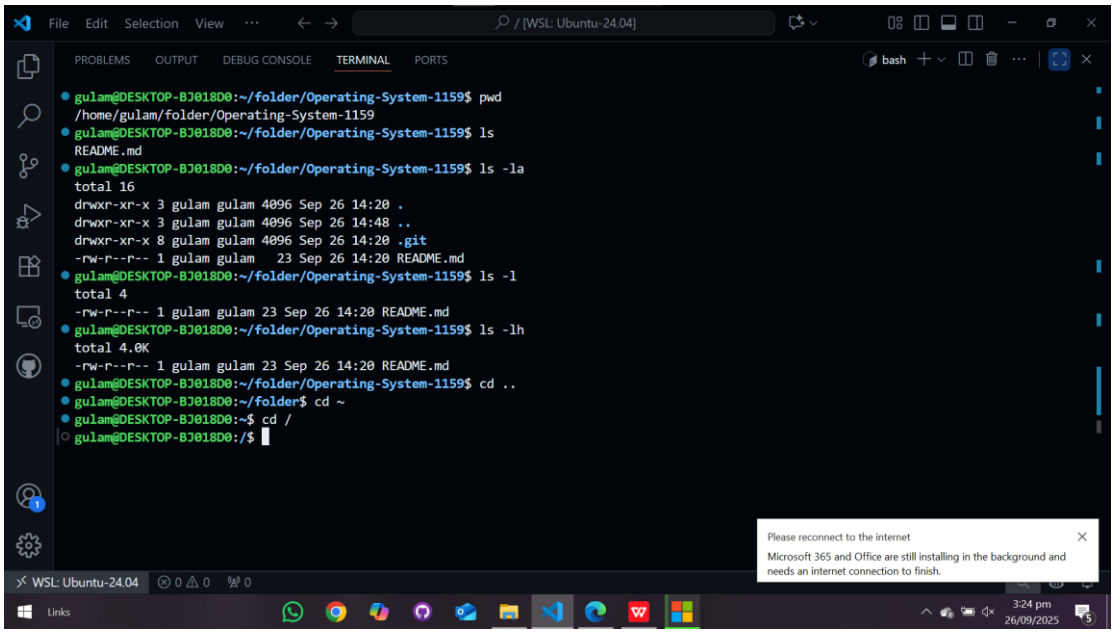
Ls -l

Ls -la

Ls -lh

Cd ..

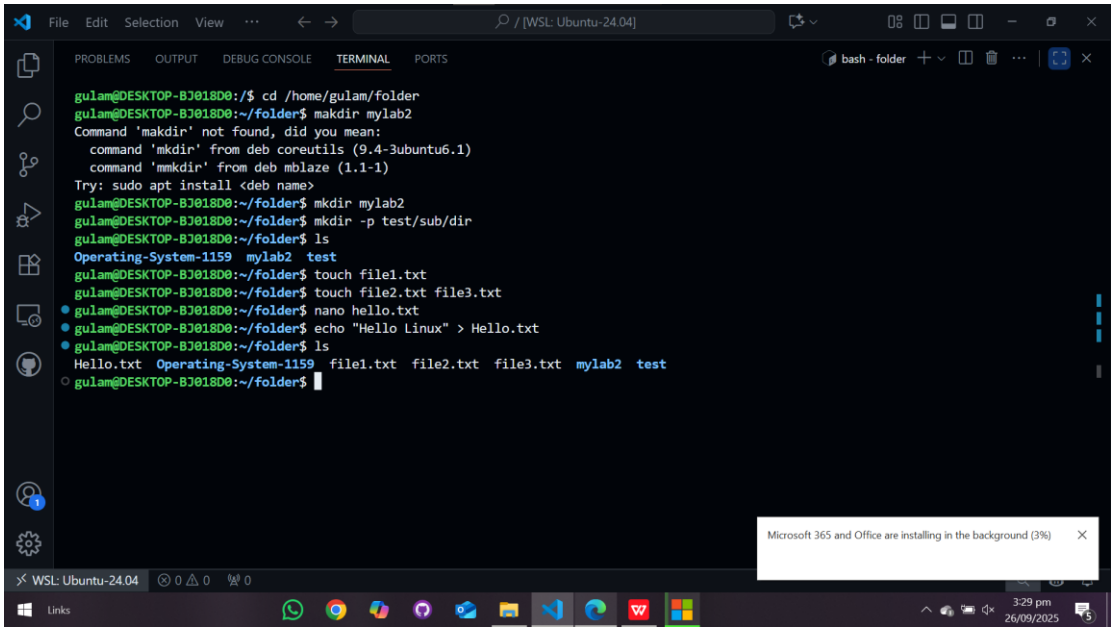
Cd ~



Part 3: File and Directory Options

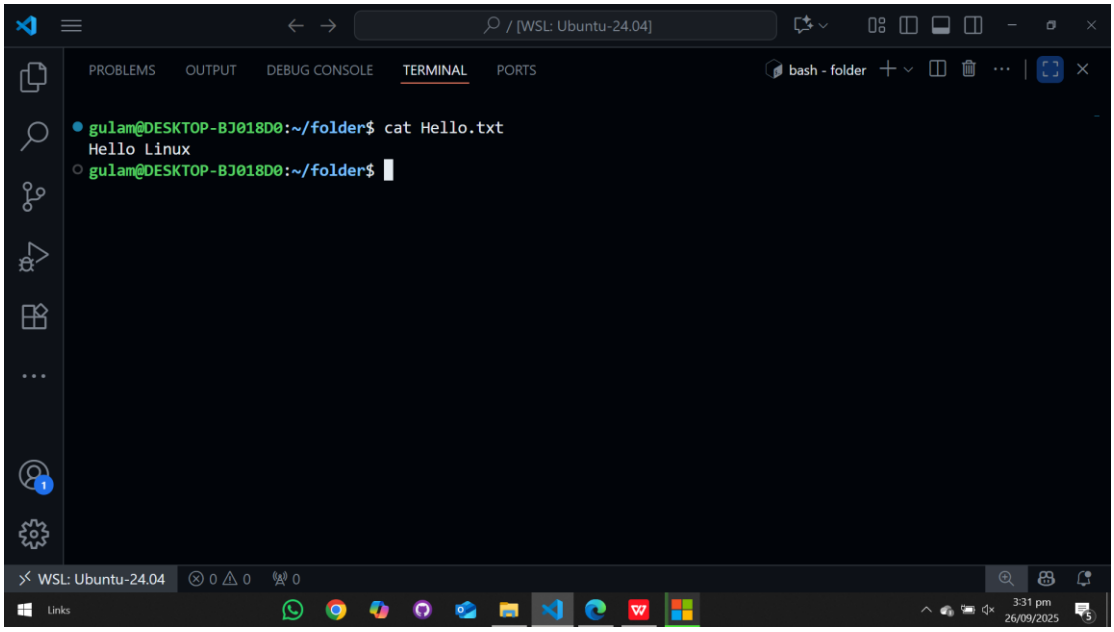
3.1 Creating and Managing File Directories

Commands to Demonstrate:

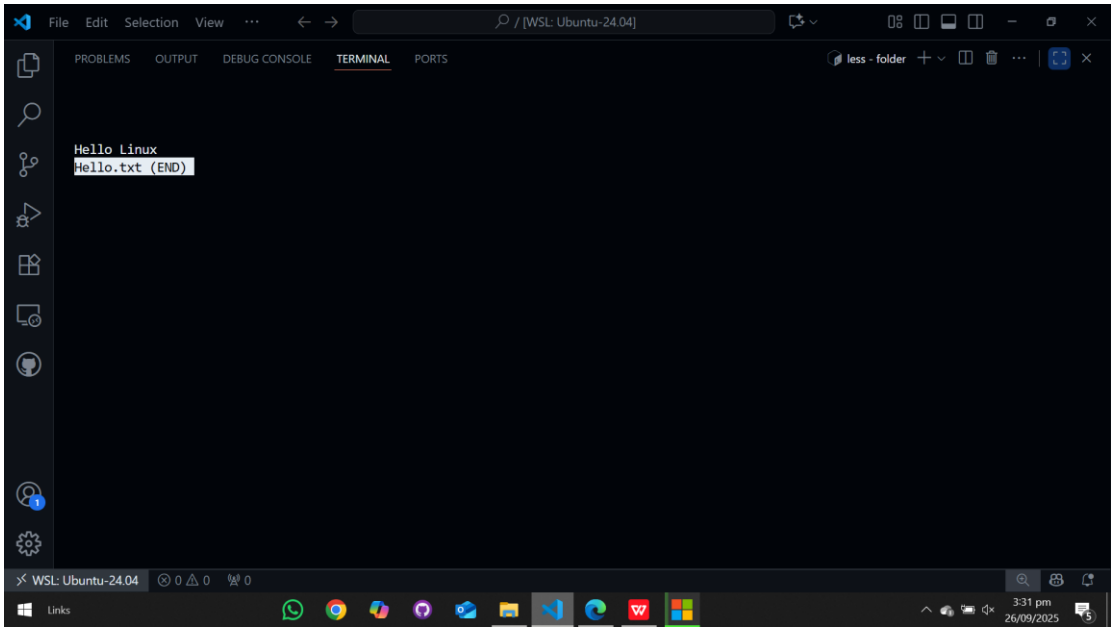


File Viewing Commands:

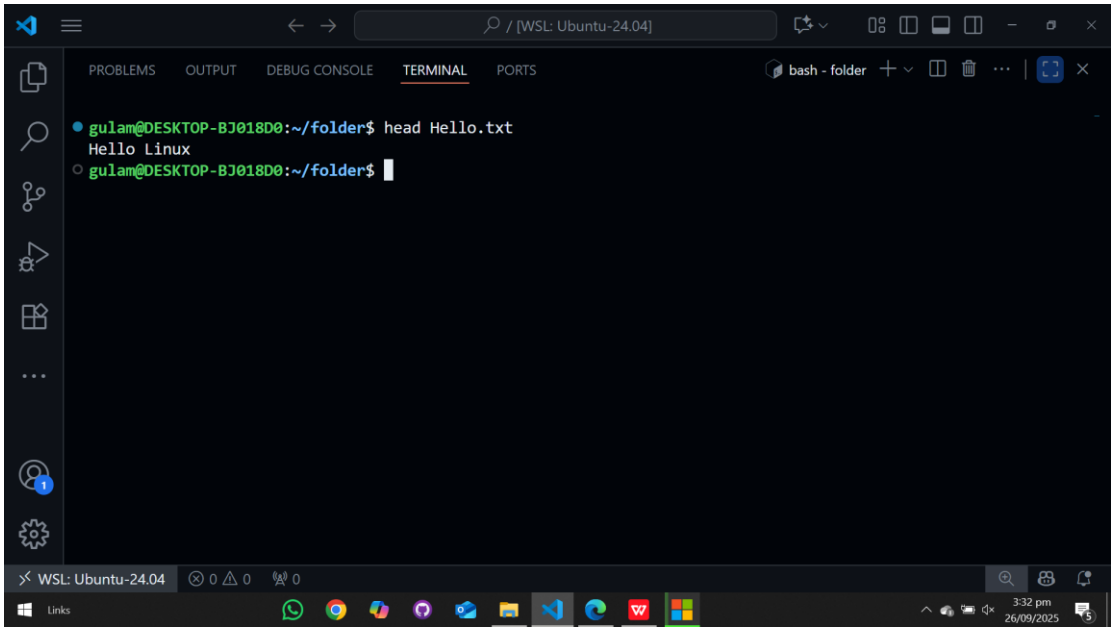
Cat Hello.txt



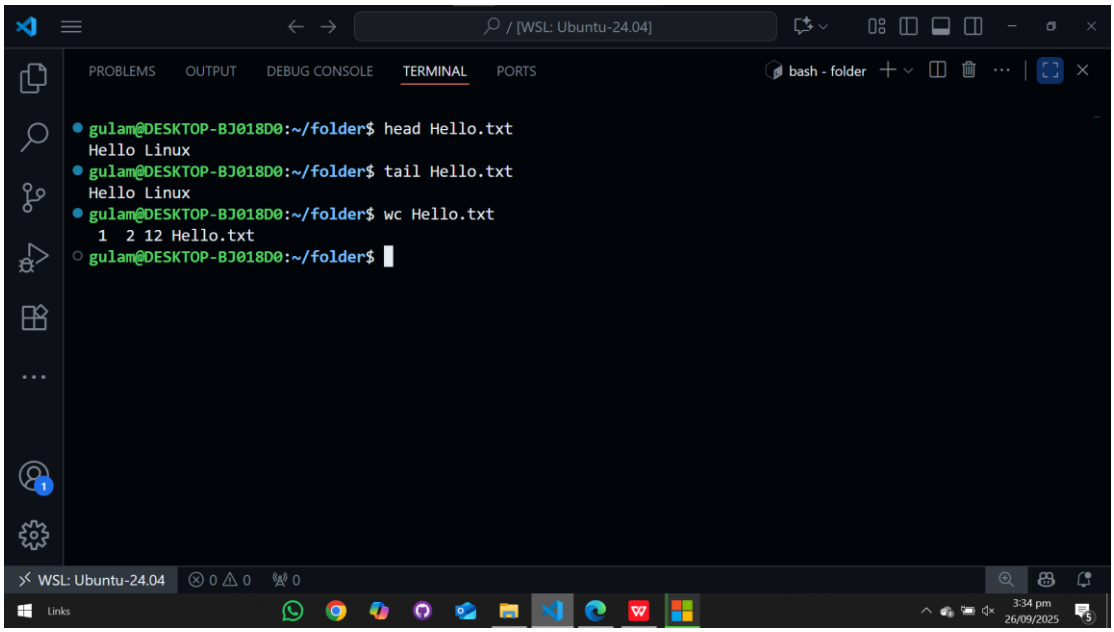
Less Hello.txt



Head Hello.txt

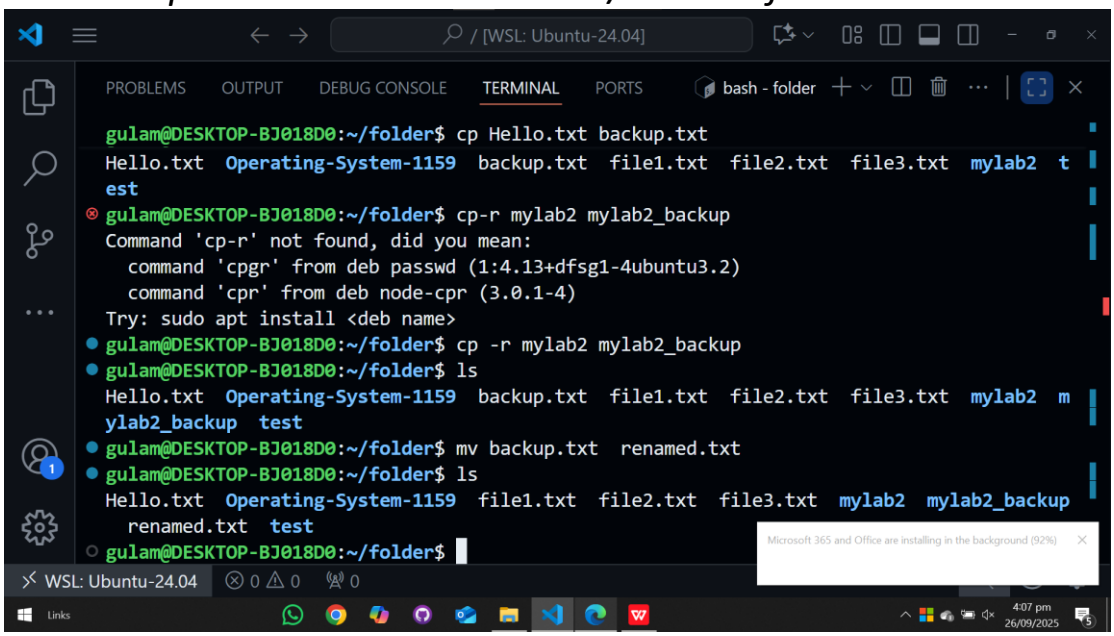


Tail Hello.txt
Wc Hello.txt

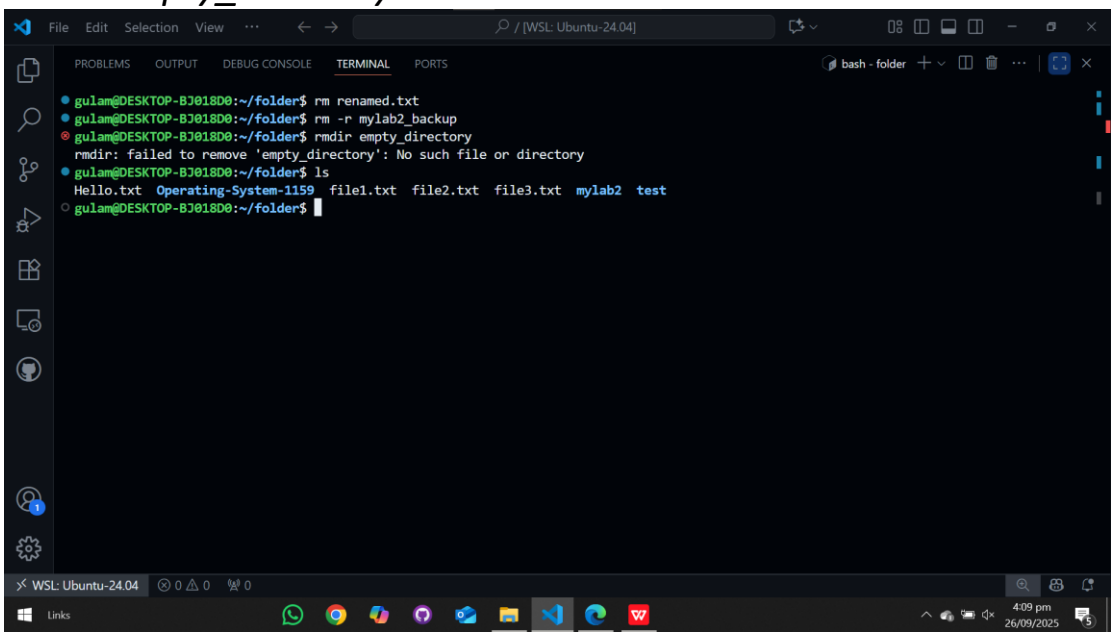
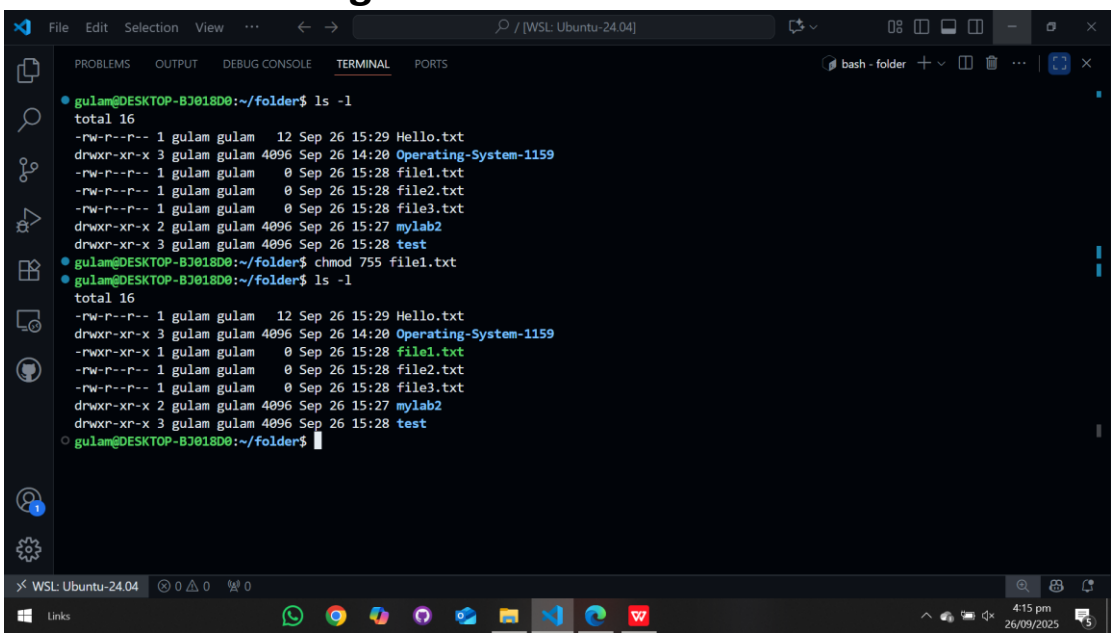


3.2 Copying Moving & Deleting

cp hello.txt backup.txt # Copy file
cp-r mylab2 mylab2_backup # Copy directory recursively
mv backup.txt renamed.txt # Move/rename file



rm renamed.txt
rm-r mylab2_backup # Remove directory
rmdir empty_directory



Part 4: File Permission and Ownership:
4.1 Understanding File Permission