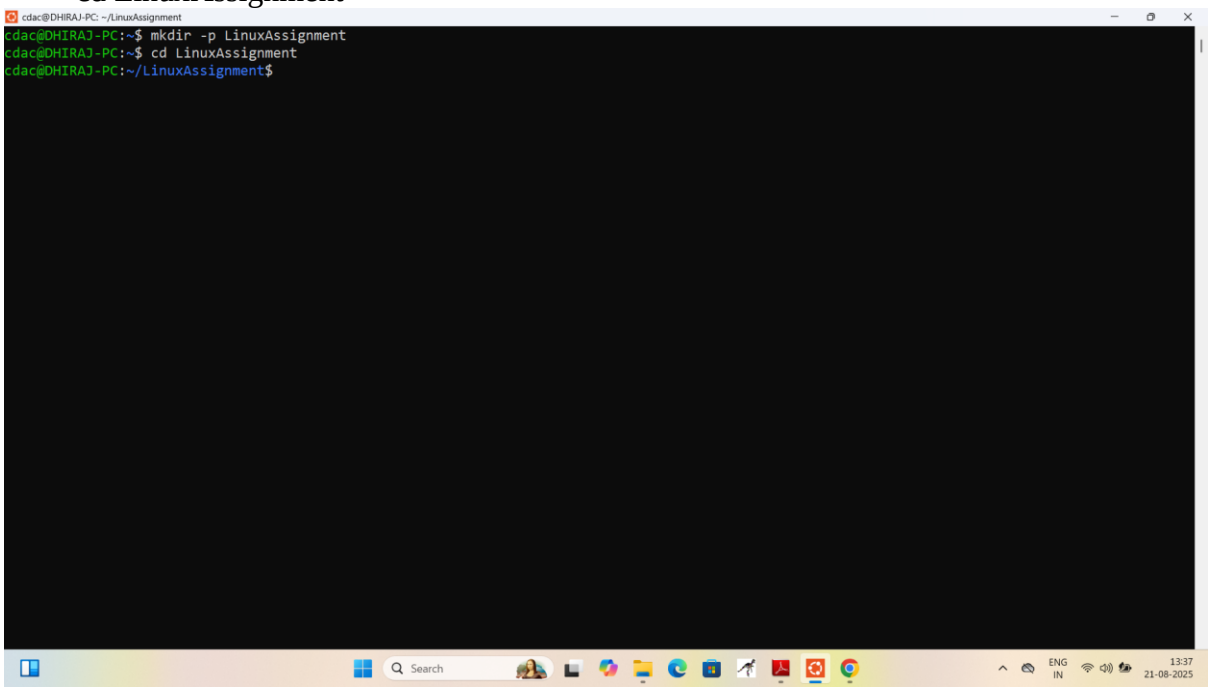
Problem 1: Read the instructions carefully and answer accordingly. If there is any need to insert some data then do that as well.

a) Navigate and List:

Start by navigating to your home directory and list its contents. Then, move into a directory named "LinuxAssignment" if it exists; otherwise, create it.

Ans:-mkdir LinuxAssignment

cd LinuxAssignment

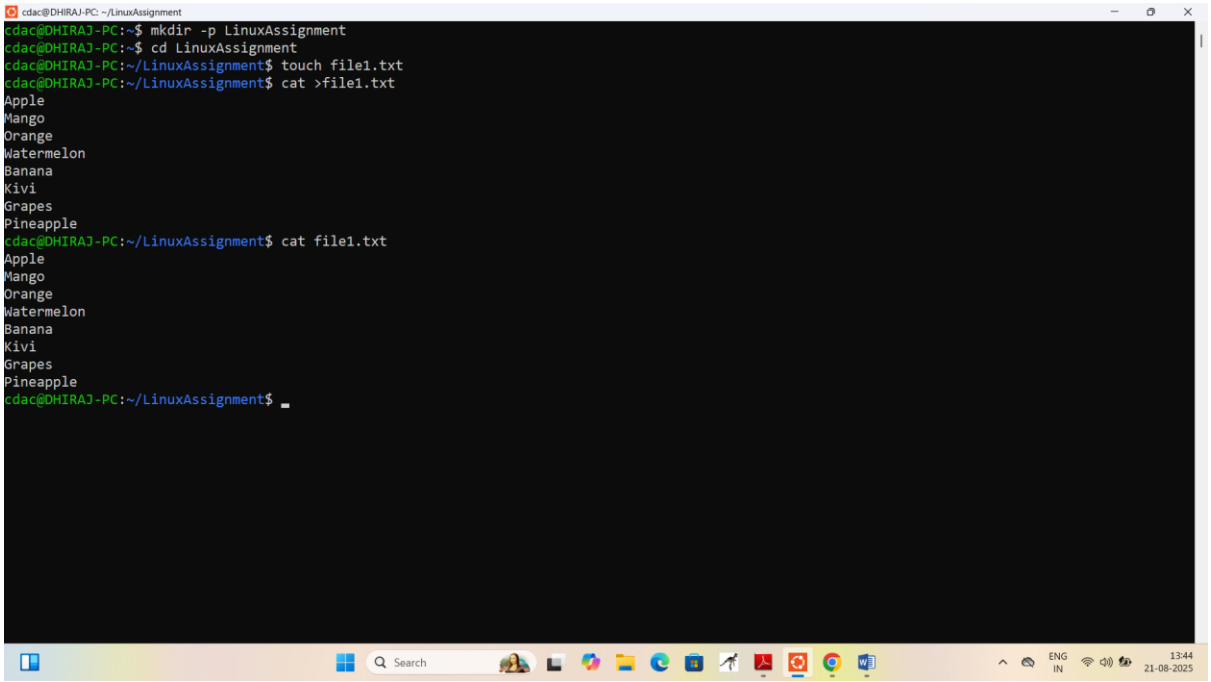


b) File Management:

a. Inside the " LinuxAssignment " directory, create a new file named "file1.txt". Display its contents.

Ans:- touch file1.txt

Cat file1.txt

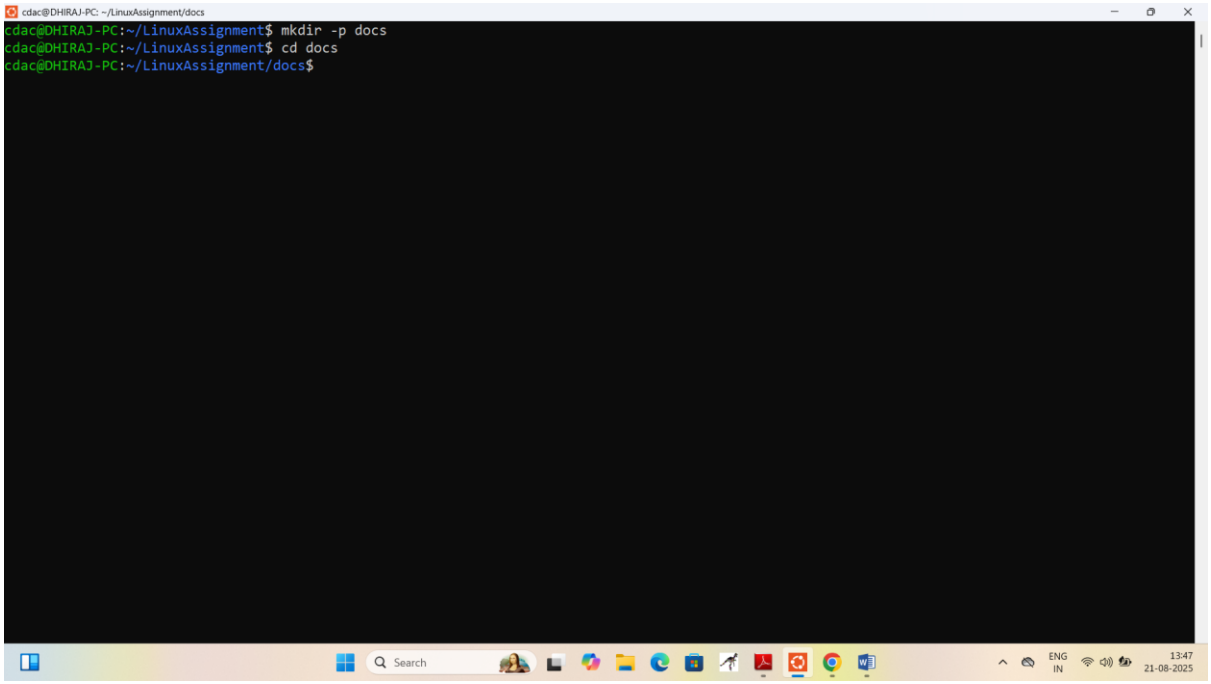


c) Directory Management:

Create a new directory named "docs" inside the "LinuxAssignment" directory.

Ans:- mkdir docs

cd docs

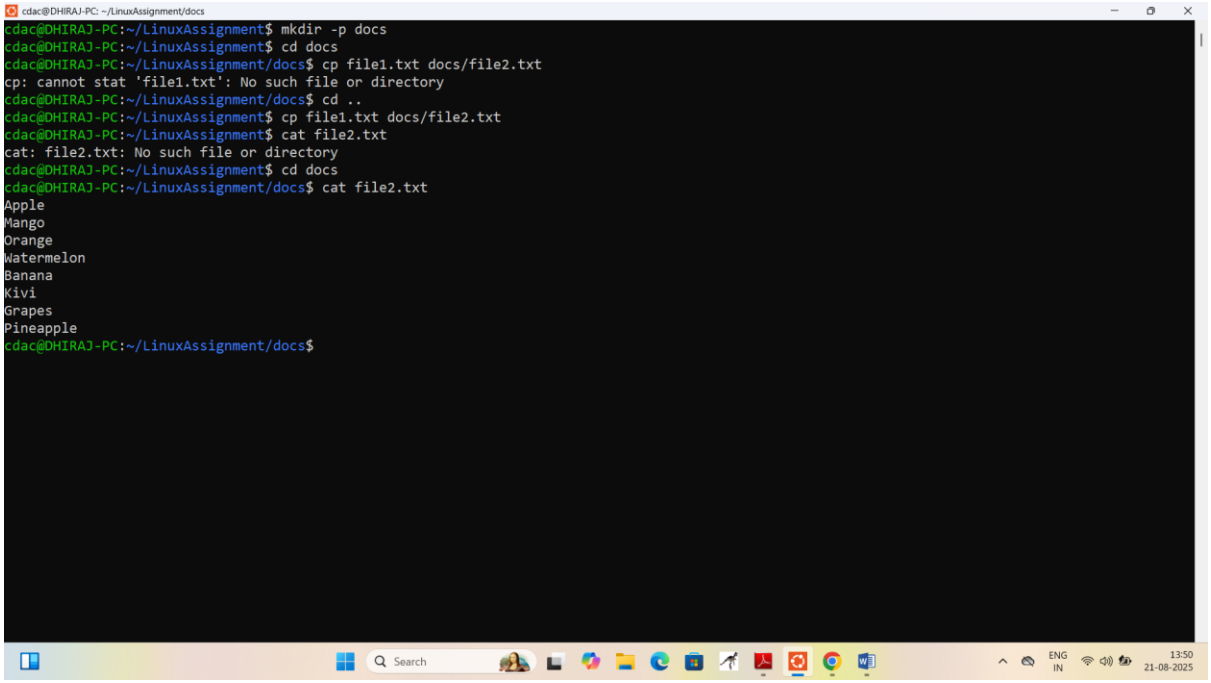


d) Copy and Move Files:

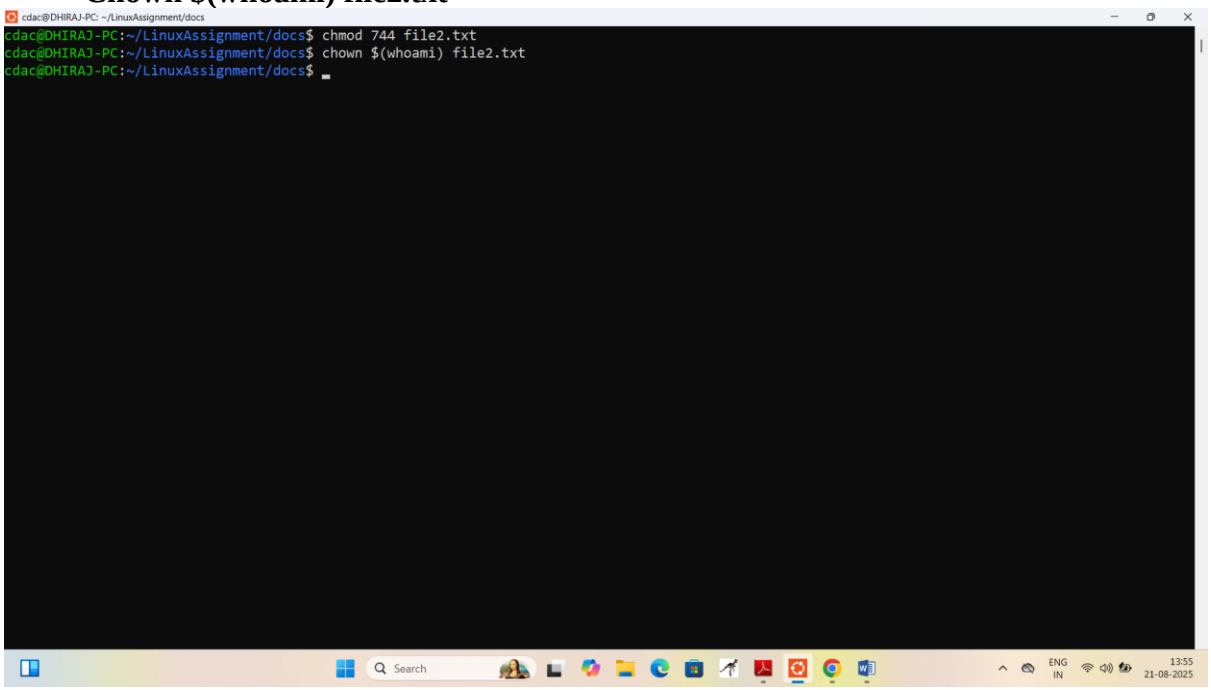
Copy the "file1.txt" file into the "docs" directory and rename it to "file2.txt".

Ans:- cp file1.txt docs/file2.txt

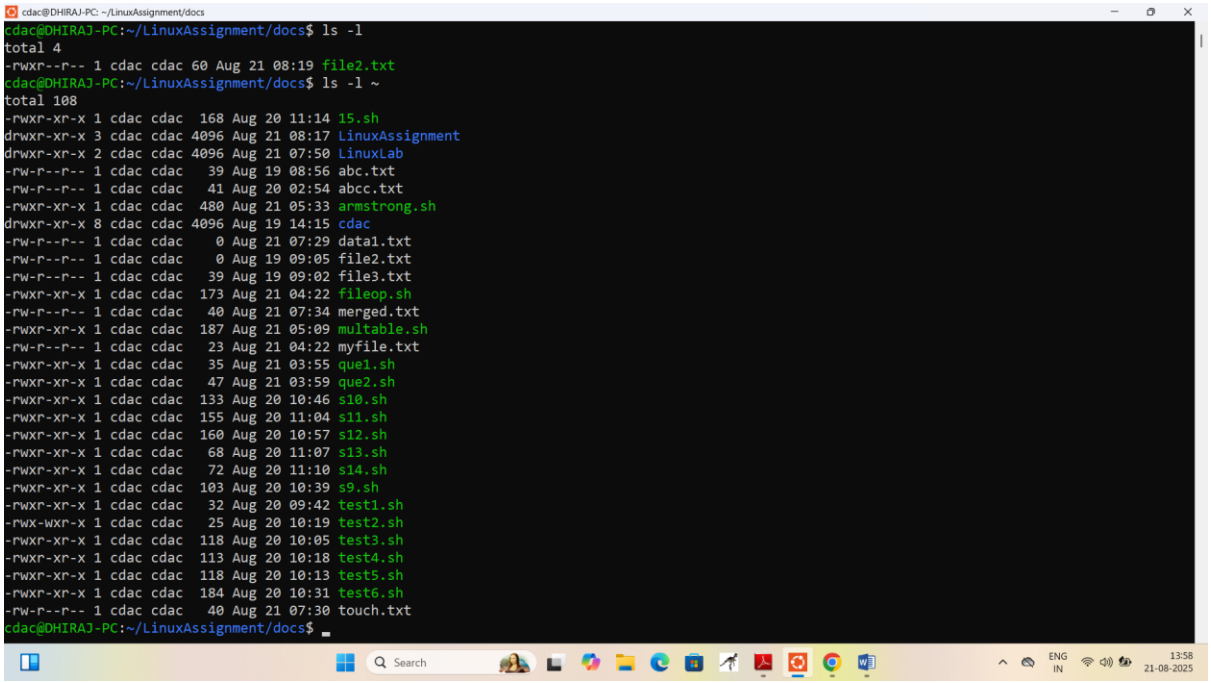
Cat file2.txt



e) Permissions and Ownership:
Change the permissions of "file2.txt" to allow read, write, and execute permissions for the owner and only read permissions for others. Then, change the owner of "file2.txt" to the current user.
Ans:- chmod 744 file2.txt
Chown $(whoami) file2.txt



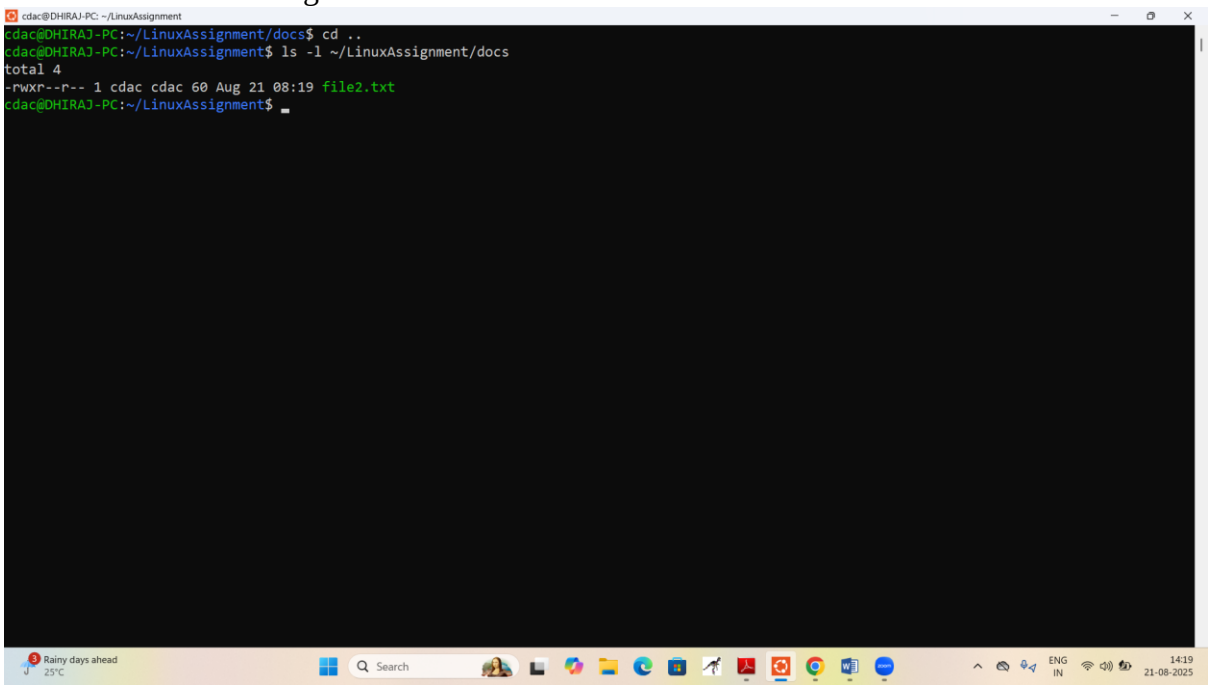
f) Final Checklist:
Finally, list the contents of the "LinuxAssignment" directory and the root directory to ensure that all operations were performed correctly.
Ans:- ls –l ~



f) Final Checklist:

Finally, list the contents of the "LinuxAssignment" directory and the root directory to ensure that all operations were performed correctly.

Ans:- ls -l ~/LinuxAssignment/docs



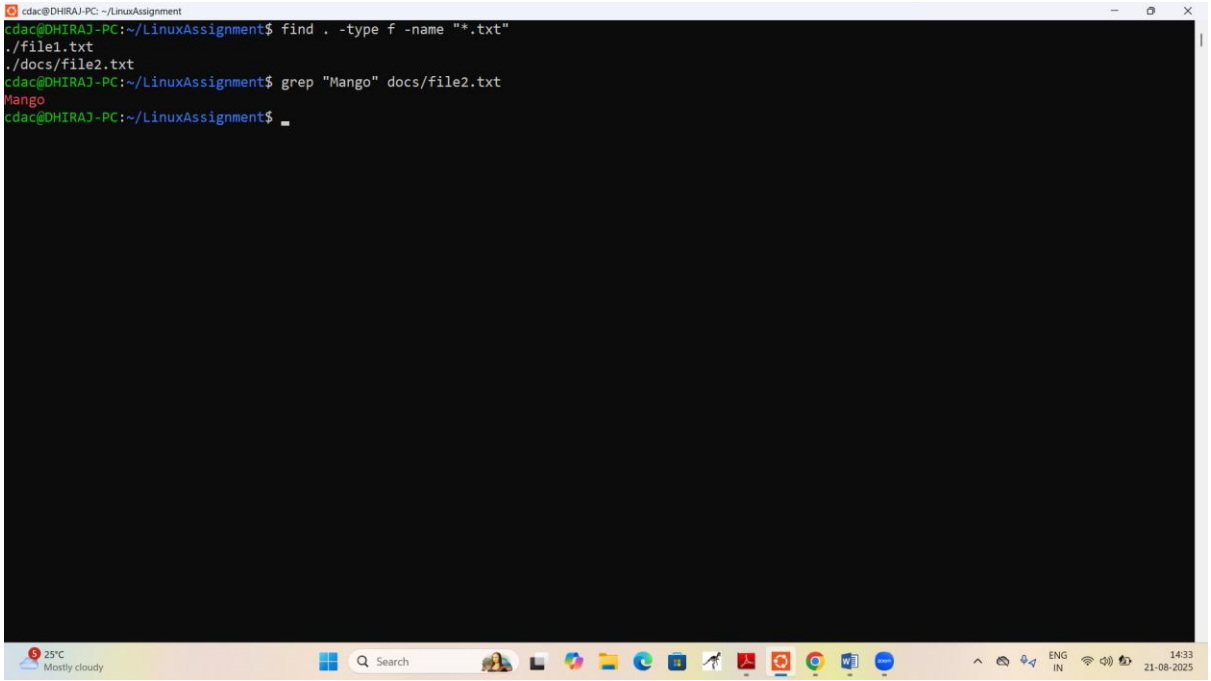
g) File Searching:

a. Search for all files with the extension ".txt" in the current directory and its subdirectories.

b. Display lines containing a specific word in a file (provide a file name and the specific word to search).

Ans:- find . –type f –name “*.txt”

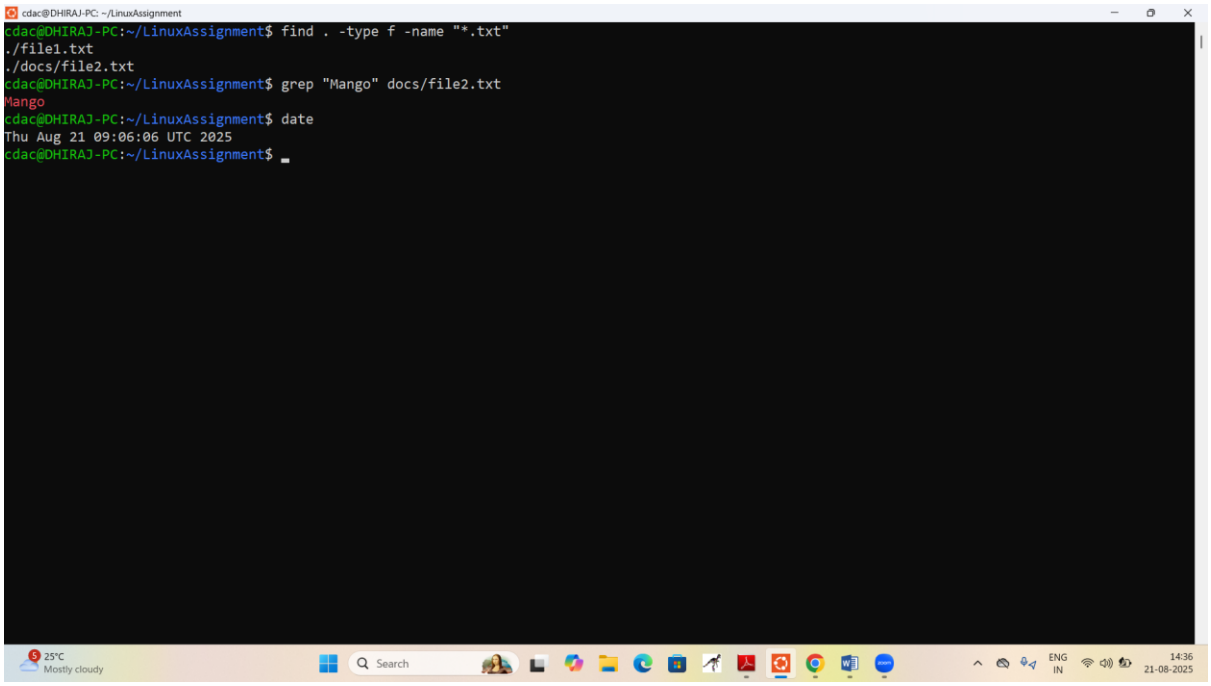
Grep “Mango” docs/file2.txt



h) System Information:

Display the current system date and time.

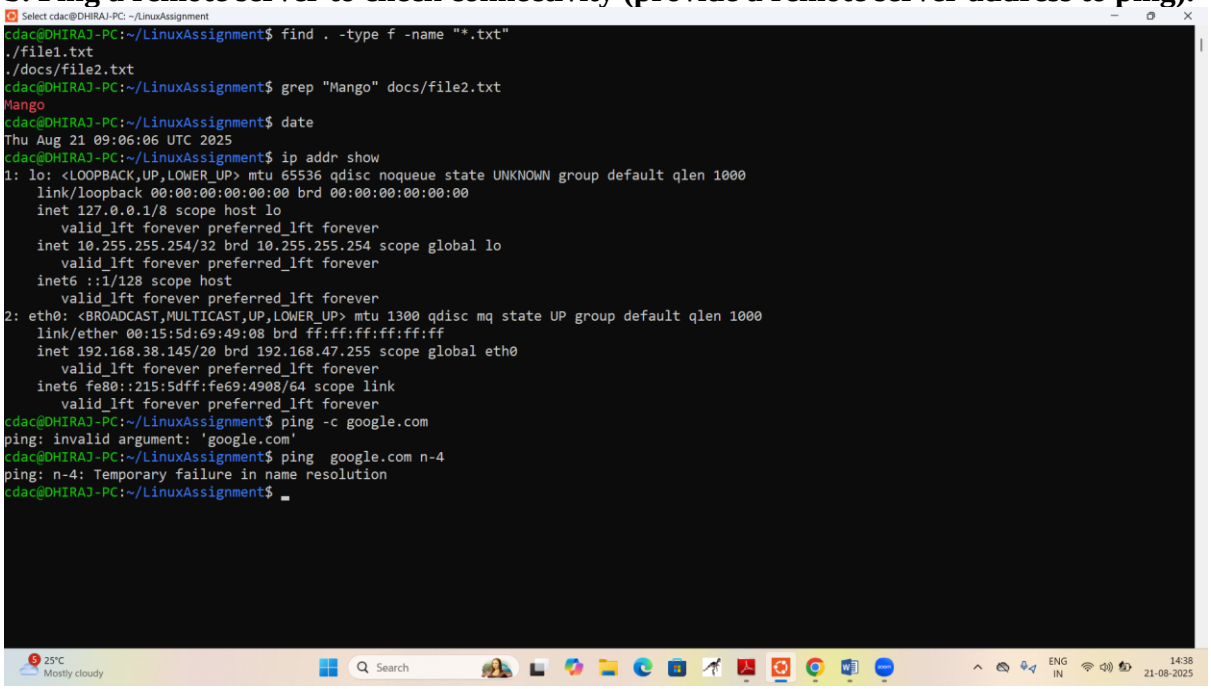
Ans:- date



i) Networking:

a. Display the IP address of the system.

b. Ping a remote server to check connectivity (provide a remote server address to ping).



j) File Compression:
a. Compress the "docs" directory into a zip file.
b. Extract the contents of the zip file into a new directory.
Ans:- zip –r docs.zip docs
mkdir docs_extracted
unzip docs.zip –d docs_extracted