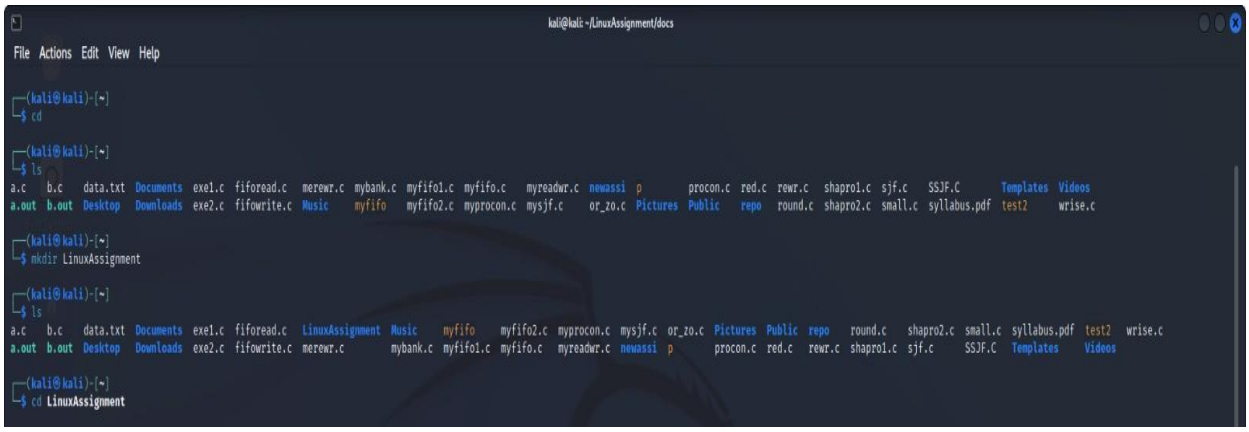
Problem –1:

Ans - a ->
1> Use the **cd** command. This will redirect you to the home directory.

2> Use **ls** to list all directories present in the home directory.

3> Create a new directory named "assignment" using: **mkdir LinuxAssignment.**

4> Use the **cd** command to enter the newly created directory.

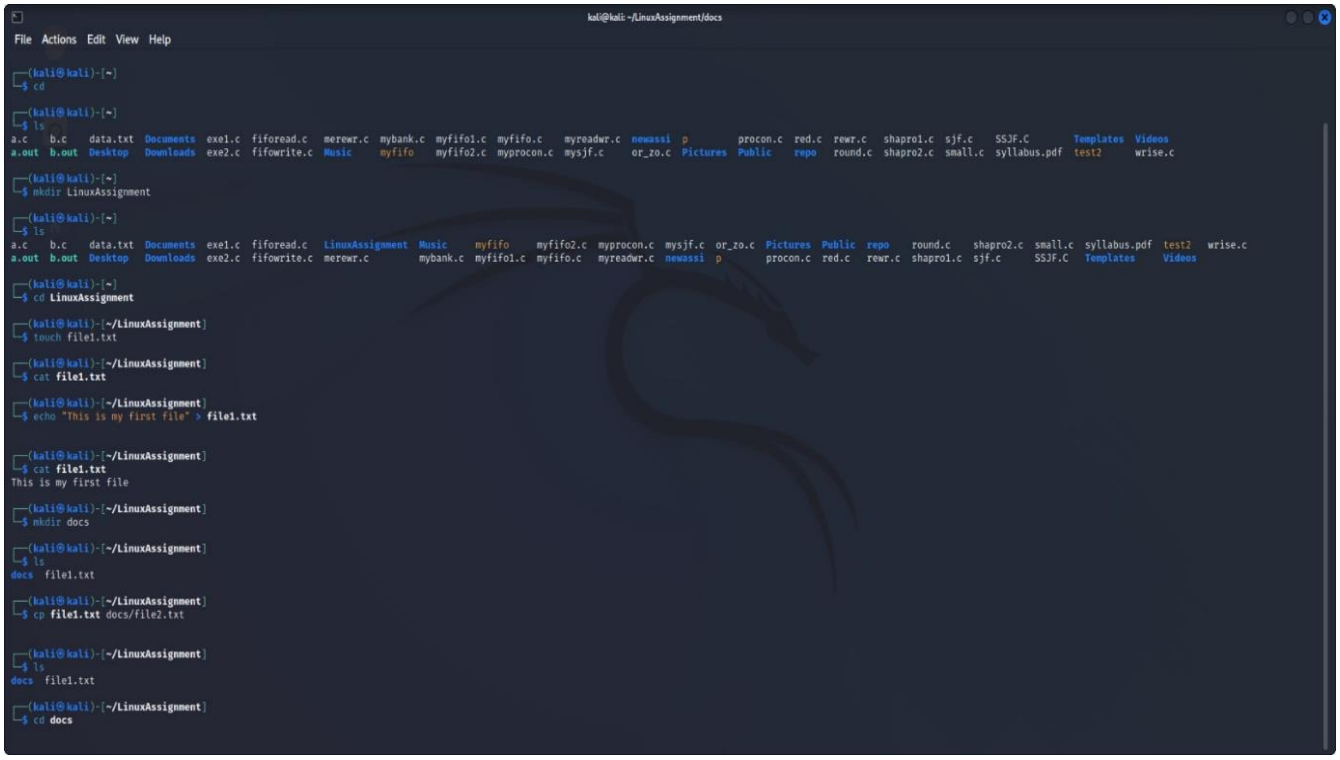


Ans - b ->
1> Moved to the LinuxAssignment directory using cd **LinuxAssignment.**

2> Created a new file in the LinuxAssignment directory using touch **file1.txt.**

3> Used the **cat** command to display the content of the file. After creating the file, added content using the echo command: **echo "This is my first file" > file1.txt.**

Ans - c ->
1> Created a new directory inside the LinuxAssignment directory using mkdir docs.



Ans - D ->

1>Copied and moved the file to the docs directory from the LinuxAssignment directory using cp file1.txt docs/file2.txt.

cp → Command to copy files.

file1.txt → Source file.

docs/file2.txt → Destination (inside docs with a new name).

Ans - E ->
1>Used the **chmod** command to set the permissions of file2.txt :**chmod 744 docs/file2.txt**

7 → Owner (rwx: read, write, execute).

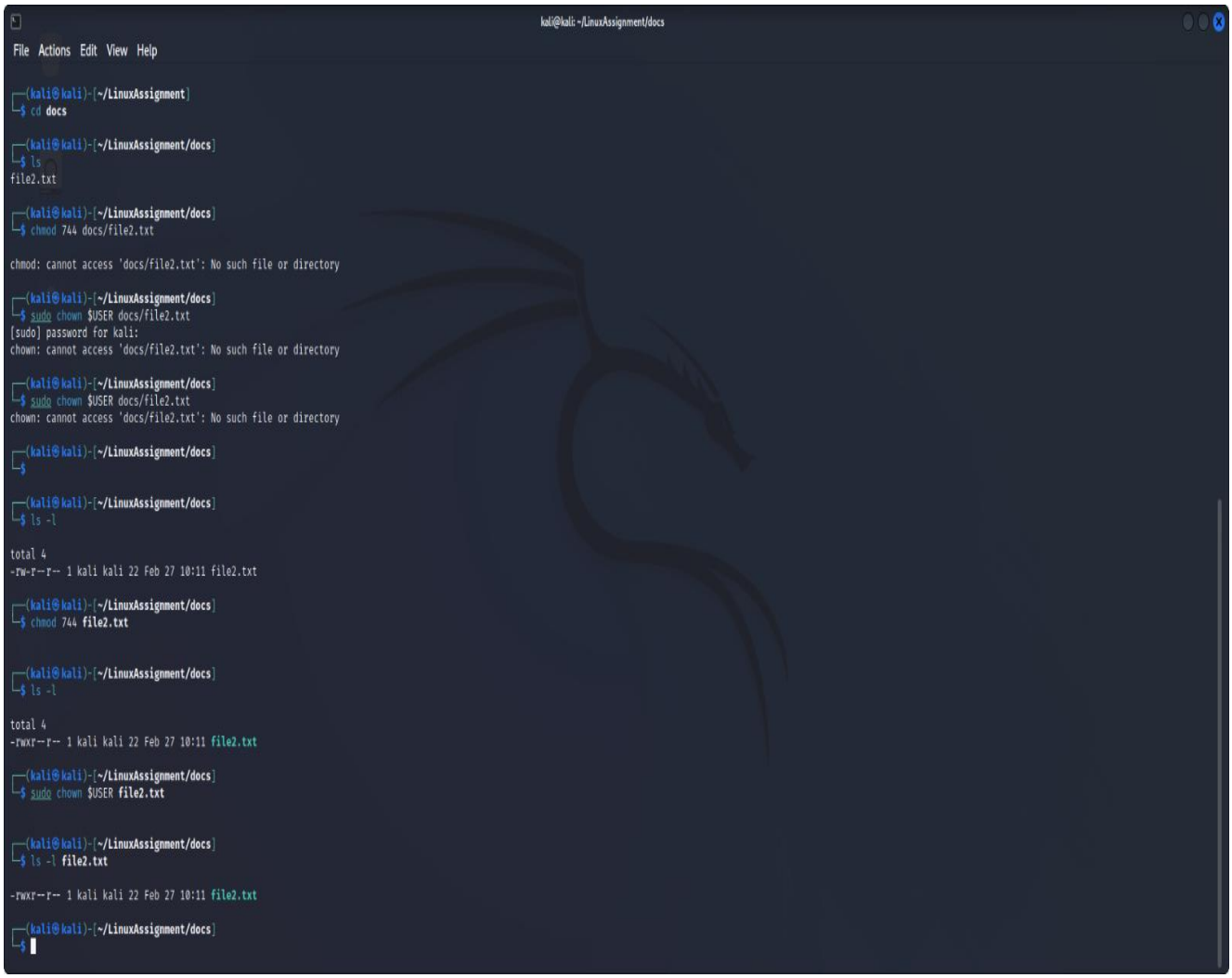
4 → Group (r--: read only).

4 → Others (r--: read only).

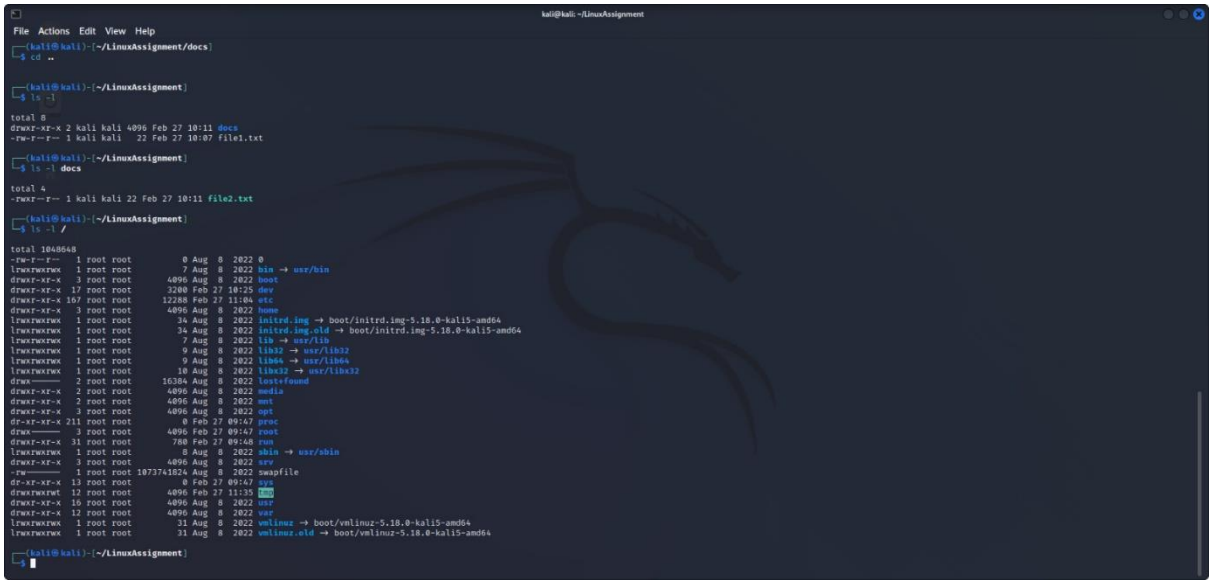
-read, write, and execute permissions for

-the owner and only read permissions for others.

To verify the permissions, run: ls -l docs/file2.txt



Ans - F ->
1>List the contents of the **LinuxAssignment** directory :**cd ..**
2>To list the contest : **ls**



Ans - G ->
1>Use **find . -type f -name "*.txt"** to Search for all .txt files in the current directory and its subdirectories.

find → Command to search for files.

. → Represents the current directory.

-type f → Searches for files (not directories).

-name "*.txt" → Looks for files ending with .txt.

2>Search for lines containing a specific word in a file**:grep "This" file.txt**

Ans - H ->
1>To display the current system date and time: **date**

Ans - i ->
1>Display the IP address of the system use **ip a**

2>Ping a remote server to check connectivity use :**ping -c 4 google.com**

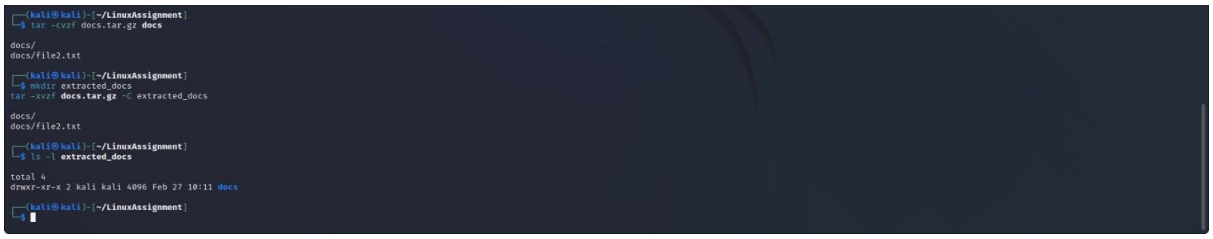
Ans - j ->
1>Compress the **docs** directory into a zip file: **tar -cvzf NameofArchive.tar.gz directory**

2>Extracted the contents of the zip file into a new directory :**mkdir extracted_docs**

unzip docs.zip -d extracted_docs

mkdir extracted_docs → Creates a new directory named extracted_docs.

unzip docs.zip -d extracted_docs → Extracts the docs.zip file into the extracted_docs directory.

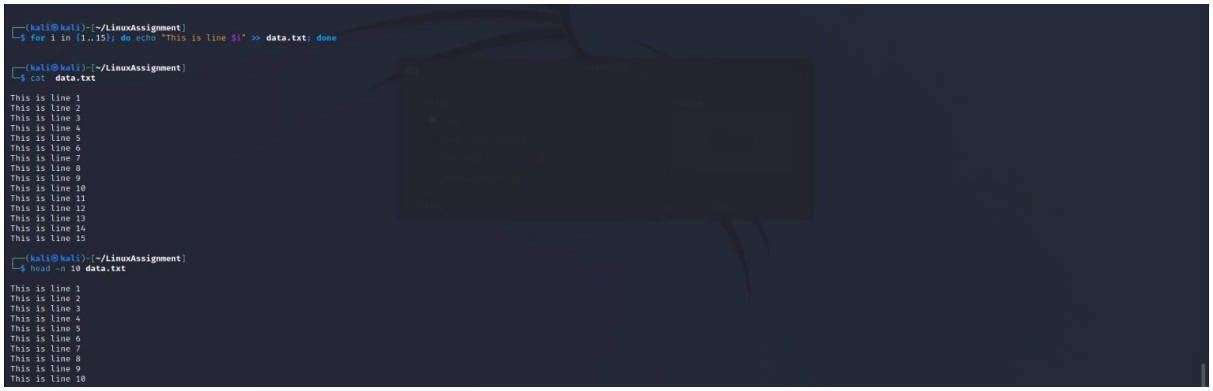


Ans - k ->
1>Use **sed** command to replace a specific word in **file1.txt :sed -i 's/first/new/g' file1.txt**

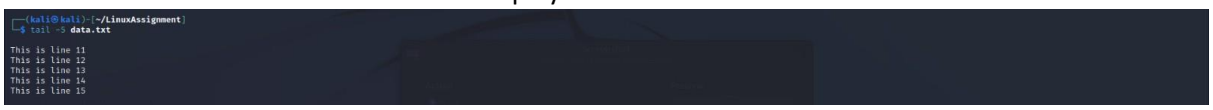
Problem2:

Ans - A->
1> use echo and >> (append operator) or seq and tee to quickly add 15 lines:
for i in {1..15}; do echo "This is line $i" >> data.txt; done

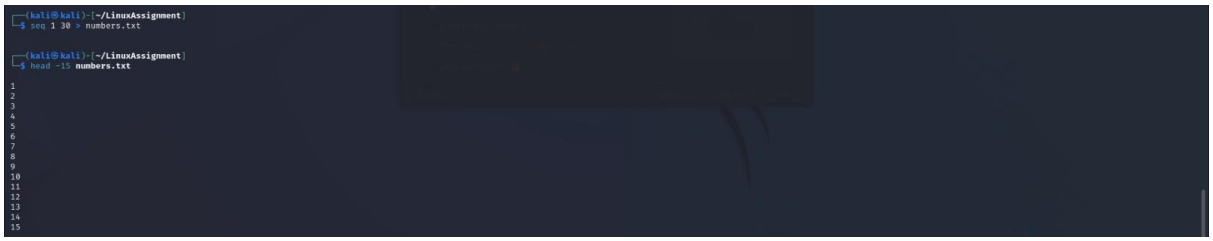
2> Display the first 10 lines of data.txt →Use the head command: head -n 10 data.txt



Ans - B->
1> use “tail -n 5 data.txt “ command to display the last 5 lines of data.txt



Ans - C->
1> Create the file and add numbers: seq 1 30 > numbers.txt
2> Display the first 15 lines of the file: head -15 numbers.txt



Ans - D->
1> To display the last 3 lines of numbers.txt, use: tail -3 numbers.txt

Ans - E->
1> Create a file named input.txt and add content
2> Convert lowercase to uppercase and save in output.txt

Ans – F ->

1> Create duplicate.txt with some duplicate lines
2> Display only unique lines

Ans – G->

1> Create fruit.txt with repeated fruit names
2> Display each unique fruit along with its count