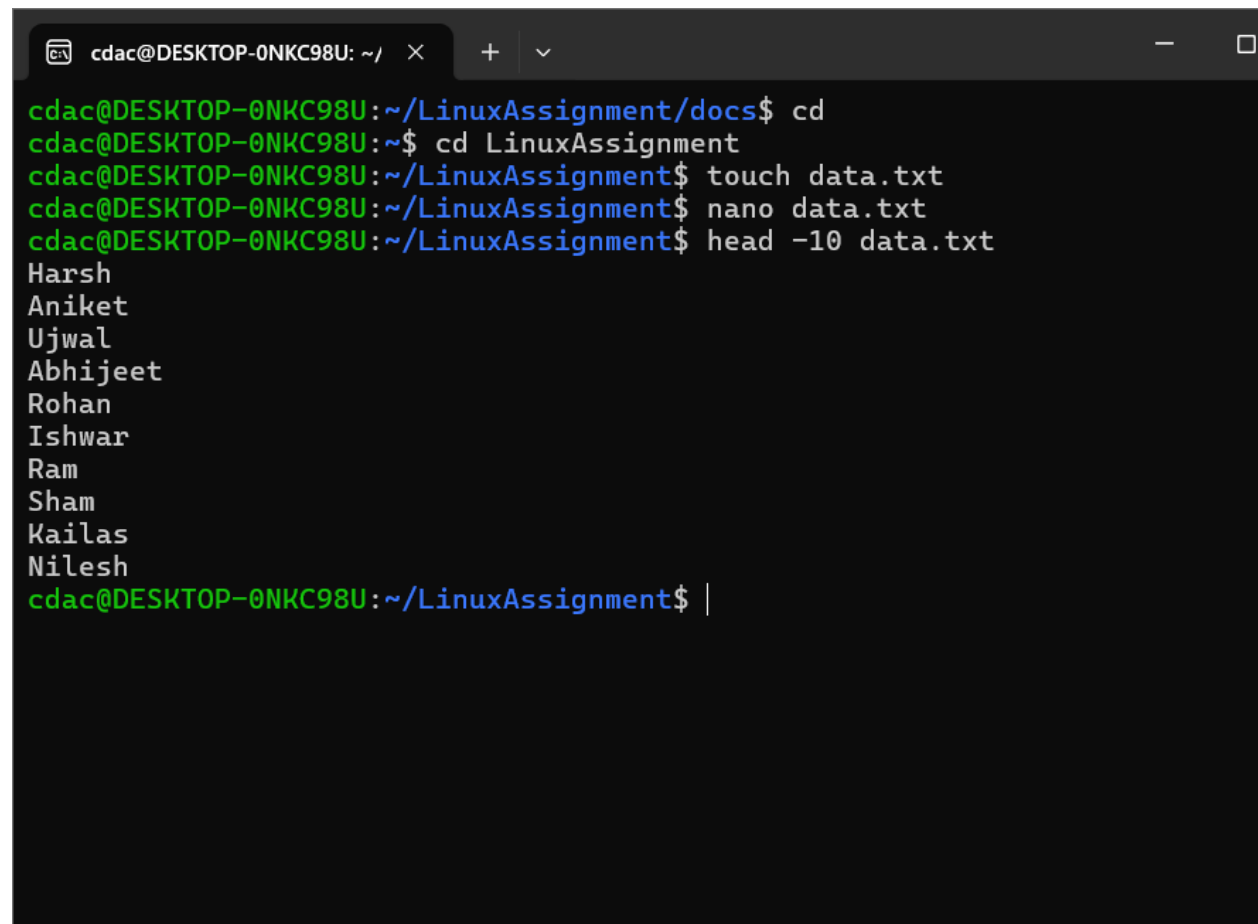


**Problem 2: Read the instructions carefully and answer accordingly. If there is any need to insert some data then do that as well.**

**a. Suppose you have a file named "data.txt" containing important information. Display the first 10 lines of this file to quickly glance at its contents using a command.**

Answer:-

to implement this first i have created a directory called info using mkdir info command then i have created a empty file in info directory using touch data.txt and written some names in it and saved it and to display 1st 10 line i have used head -10 data.txt command

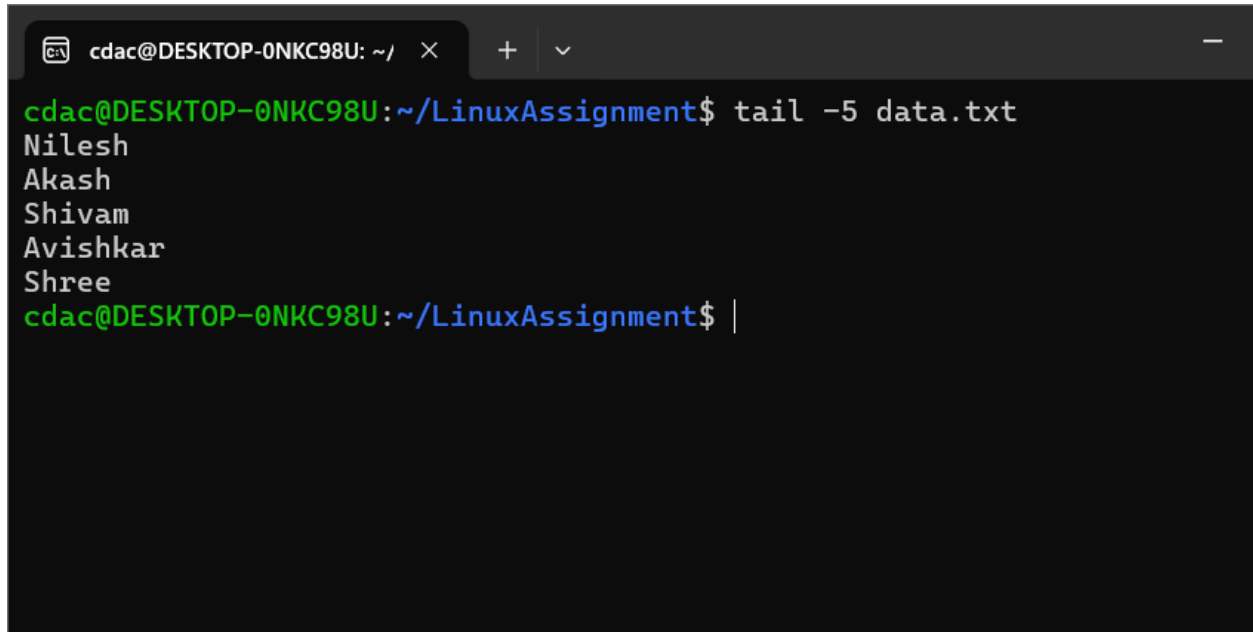
A terminal window with a dark background and light green text. The window title bar shows 'cdac@DESKTOP-0NKC98U: ~/LinuxAssignment/docs'. The terminal shows a sequence of commands and their outputs: 'cd' to move to the current directory, 'cd LinuxAssignment' to move to the LinuxAssignment directory, 'touch data.txt' to create a new file, 'nano data.txt' to open the file in the nano editor, and 'head -10 data.txt' to display the first 10 lines of the file. The output of the head command lists ten names: Harsh, Aniket, Ujwal, Abhijeet, Rohan, Ishwar, Ram, Sham, Kailas, and Nilesch. The prompt returns to the LinuxAssignment directory.

```
cdac@DESKTOP-0NKC98U: ~/LinuxAssignment/docs$ cd
cdac@DESKTOP-0NKC98U: ~$ cd LinuxAssignment
cdac@DESKTOP-0NKC98U: ~/LinuxAssignment$ touch data.txt
cdac@DESKTOP-0NKC98U: ~/LinuxAssignment$ nano data.txt
cdac@DESKTOP-0NKC98U: ~/LinuxAssignment$ head -10 data.txt
Harsh
Aniket
Ujwal
Abhijeet
Rohan
Ishwar
Ram
Sham
Kailas
Nilesch
cdac@DESKTOP-0NKC98U: ~/LinuxAssignment$ |
```

**b. Now, to check the end of the file for any recent additions, display the last 5 lines of "data.txt" using another command.**

Answer:-

to implement this first i have created a directory called info using mkdir info command then i have created a empty file in info directory using touch data.txt and written some names in it and saved it and to display last 5 line i have used tail -n 5 data.txt command

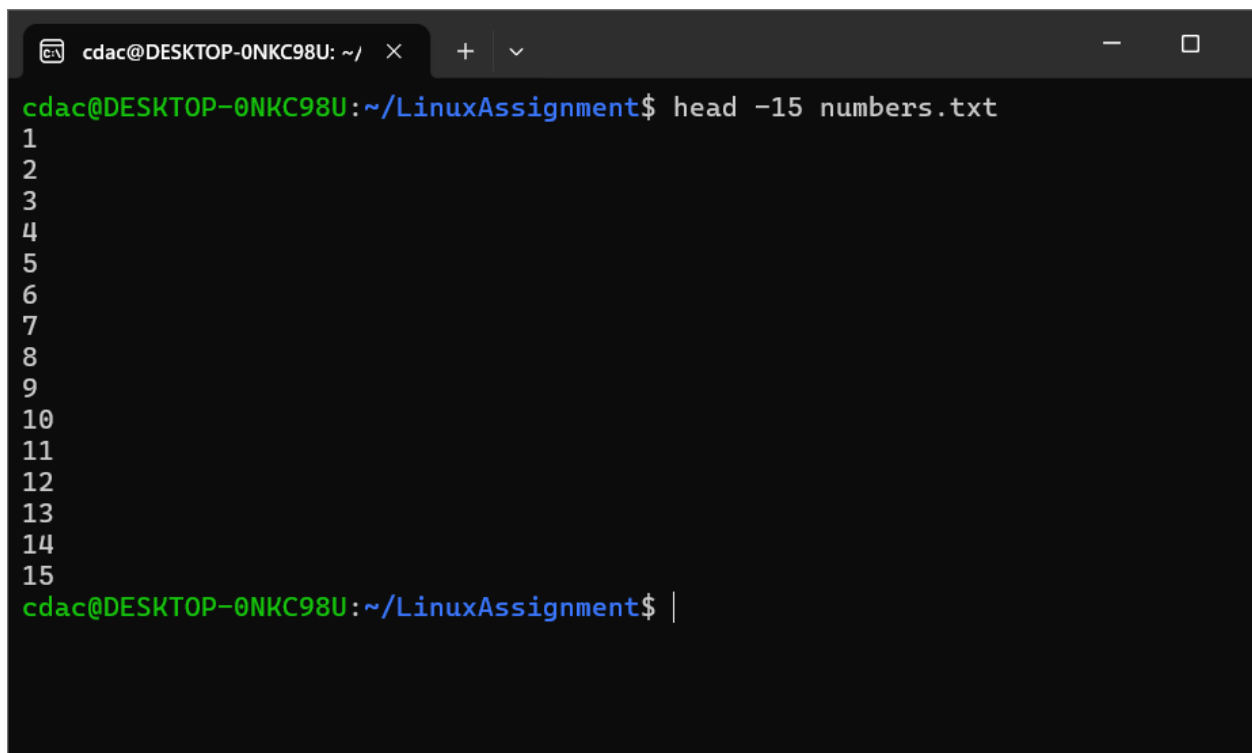
A terminal window with a dark background. The title bar shows 'cdac@DESKTOP-0NKC98U: ~/LinuxAssignment'. The prompt is 'cdac@DESKTOP-0NKC98U:~/LinuxAssignment\$'. The command 'tail -5 data.txt' has been entered. The output shows five names: 'Nilesh', 'Akash', 'Shivam', 'Avishkar', and 'Shree'. The prompt is now 'cdac@DESKTOP-0NKC98U:~/LinuxAssignment\$ |' with a cursor at the end.

```
cdac@DESKTOP-0NKC98U:~/LinuxAssignment$ tail -5 data.txt
Nilesh
Akash
Shivam
Avishkar
Shree
cdac@DESKTOP-0NKC98U:~/LinuxAssignment$ |
```

**c. In a file named "numbers.txt," there are a series of numbers. Display the first 15 lines of this file to analyze the initial data set.**

Answer:-

to implement this first i have created a directory called info using mkdir info command then i have created a empty file in info directory using touch numbers.txt and written numbers from 1 to 20 in it and saved it and to display first 15 line i have used head -15 numbers.txt command

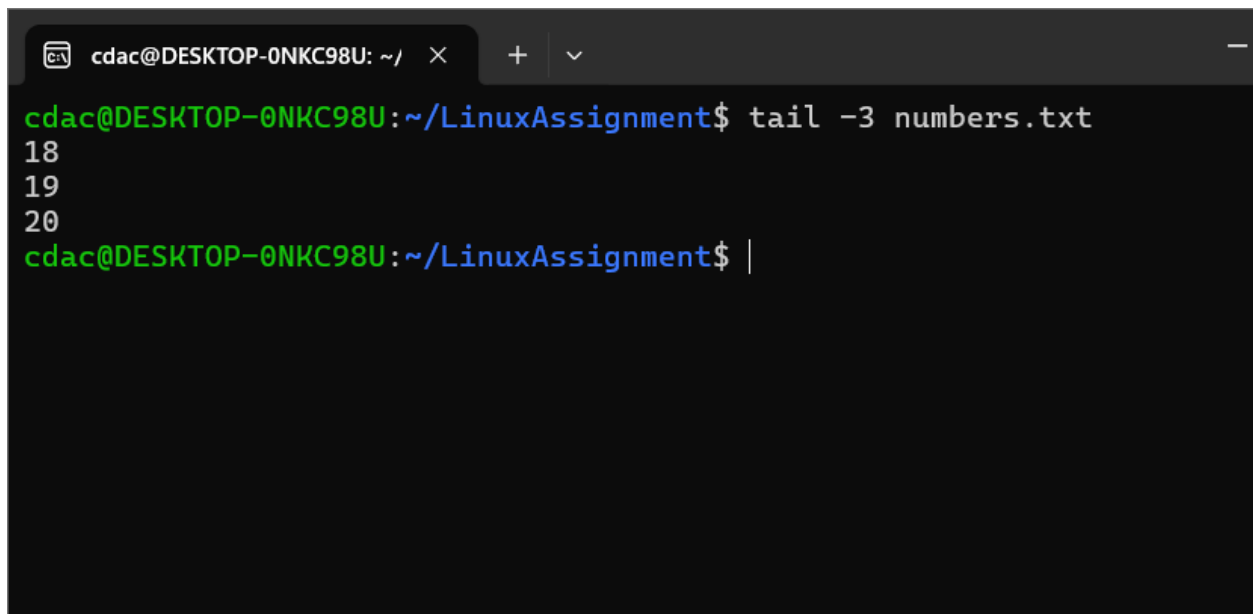
A terminal window with a dark background. The title bar shows 'cdac@DESKTOP-0NKC98U: ~/LinuxAssignment'. The prompt is 'cdac@DESKTOP-0NKC98U:~/LinuxAssignment\$'. The command 'head -15 numbers.txt' has been entered. The output shows the numbers 1 through 15, each on a new line. The prompt is now 'cdac@DESKTOP-0NKC98U:~/LinuxAssignment\$ |' with a cursor.

```
cdac@DESKTOP-0NKC98U:~/LinuxAssignment$ head -15 numbers.txt
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
cdac@DESKTOP-0NKC98U:~/LinuxAssignment$ |
```

**d. To focus on the last few numbers of the dataset, display the last 3 lines of "numbers.txt".**

Answer:-

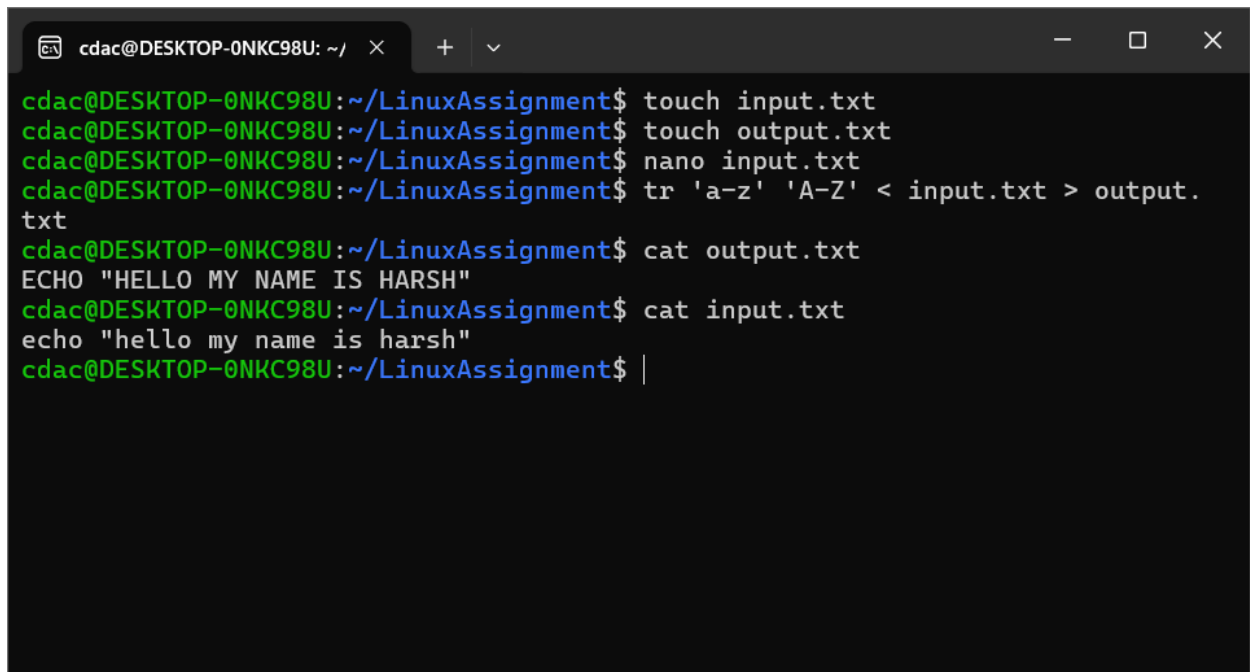
to implement this first i have created a directory called info using mkdir info command then i have created a empty file in info directory using touch numbers.txt and written numbers from 1 to 20 in it and saved it and to display last 3 line i have used tail -3 numbers.txt command

A screenshot of a Linux terminal window. The window has a title bar with a single tab labeled 'cdac@DESKTOP-0NKC98U: ~/'. The terminal shows a command prompt 'cdac@DESKTOP-0NKC98U:~/LinuxAssignment\$' followed by the command 'tail -3 numbers.txt'. The output of the command is displayed on the next three lines: '18', '19', and '20'. The prompt is then shown again with a cursor: 'cdac@DESKTOP-0NKC98U:~/LinuxAssignment\$ |'.

e. Imagine you have a file named "input.txt" with text content. Use a command to translate all lowercase letters to uppercase in "input.txt" and save the modified text in a new file named "output.txt."

Answer:-

I have create input.txt file and then opne it into editor using nano input.txt and written some small letter words in it and then using this command i have changed the small letters into capital once `tr 'a-z' 'A-Z' < input.txt > output.txt`

A terminal window with a dark background and light green text. The window title is 'cdac@DESKTOP-0NKC98U: ~/'. The terminal shows a series of commands and their outputs. The commands are: 'touch input.txt', 'touch output.txt', 'nano input.txt', 'tr 'a-z' 'A-Z' < input.txt > output.txt', 'cat output.txt', and 'cat input.txt'. The outputs are: 'ECHO "HELLO MY NAME IS HARSH"' and 'echo "hello my name is harsh"'. The terminal ends with a prompt 'cdac@DESKTOP-0NKC98U:~/LinuxAssignment\$ |' and a cursor.

```
cdac@DESKTOP-0NKC98U:~/LinuxAssignment$ touch input.txt
cdac@DESKTOP-0NKC98U:~/LinuxAssignment$ touch output.txt
cdac@DESKTOP-0NKC98U:~/LinuxAssignment$ nano input.txt
cdac@DESKTOP-0NKC98U:~/LinuxAssignment$ tr 'a-z' 'A-Z' < input.txt > output.
txt
cdac@DESKTOP-0NKC98U:~/LinuxAssignment$ cat output.txt
ECHO "HELLO MY NAME IS HARSH"
cdac@DESKTOP-0NKC98U:~/LinuxAssignment$ cat input.txt
echo "hello my name is harsh"
cdac@DESKTOP-0NKC98U:~/LinuxAssignment$ |
```

f. In a file named "duplicate.txt," there are several lines of text, some of which are duplicates. Use a command to display only the unique lines from "duplicate.txt."

Answer:-

First i have create duplicate.txt file using touch duplicate.txt the opened the editor using nano duplicate.txt and to remove duplicate i have used sort duplicate.txt | uniq this command so that all the duplicate texts got removed.

```
cdac@DESKTOP-0NKC98U: ~/LinuxAssignment$ touch duplicate.txt
cdac@DESKTOP-0NKC98U:~/LinuxAssignment$ nano duplicate.txt
cdac@DESKTOP-0NKC98U:~/LinuxAssignment$ uniq
^C
cdac@DESKTOP-0NKC98U:~/LinuxAssignment$ sort | duplicate.txt | uniq
duplicate.txt: command not found
nano duplicate.txt
^C
cdac@DESKTOP-0NKC98U:~/LinuxAssignment$ nano duplicate.txt
cdac@DESKTOP-0NKC98U:~/LinuxAssignment$ sort duplicate.txt | uniq

Harsh
Kedar
Mihir
Nitin
Shivam
cdac@DESKTOP-0NKC98U:~/LinuxAssignment$ |
```

g. In a file named "fruit.txt," there is a list of fruits, but some fruits are repeated. Use a command to display each unique fruit along with the count of its occurrences in "fruit.txt."

Answer:-

First i have created a file using touch fruits.txt then added some fruits in it and then for sorting i have used sort fruit.txt | uniq -c command for how much the count of fruits are there and to arrange it by sequence i.e sorting by number of times they occur i have used command called sort fruit.txt | uniq -c | sort -nr

```
cdac@DESKTOP-0NKC98U: ~/LinuxAssignment$ touch fruits.txt
cdac@DESKTOP-0NKC98U: ~/LinuxAssignment$ nano fruits.txt
cdac@DESKTOP-0NKC98U: ~/LinuxAssignment$ sort fruits.txt | uniq -c
uniq-c: command not found
cdac@DESKTOP-0NKC98U: ~/LinuxAssignment$ sort fruits.txt | uniq -c
  2 Banana
  2 Lichi
  2 Mango
  1 Orange
cdac@DESKTOP-0NKC98U: ~/LinuxAssignment$ sort fruits.txt | uniq -c | sort -nr
  2 Mango
  2 Lichi
  2 Banana
  1 Orange
cdac@DESKTOP-0NKC98U: ~/LinuxAssignment$ |
```