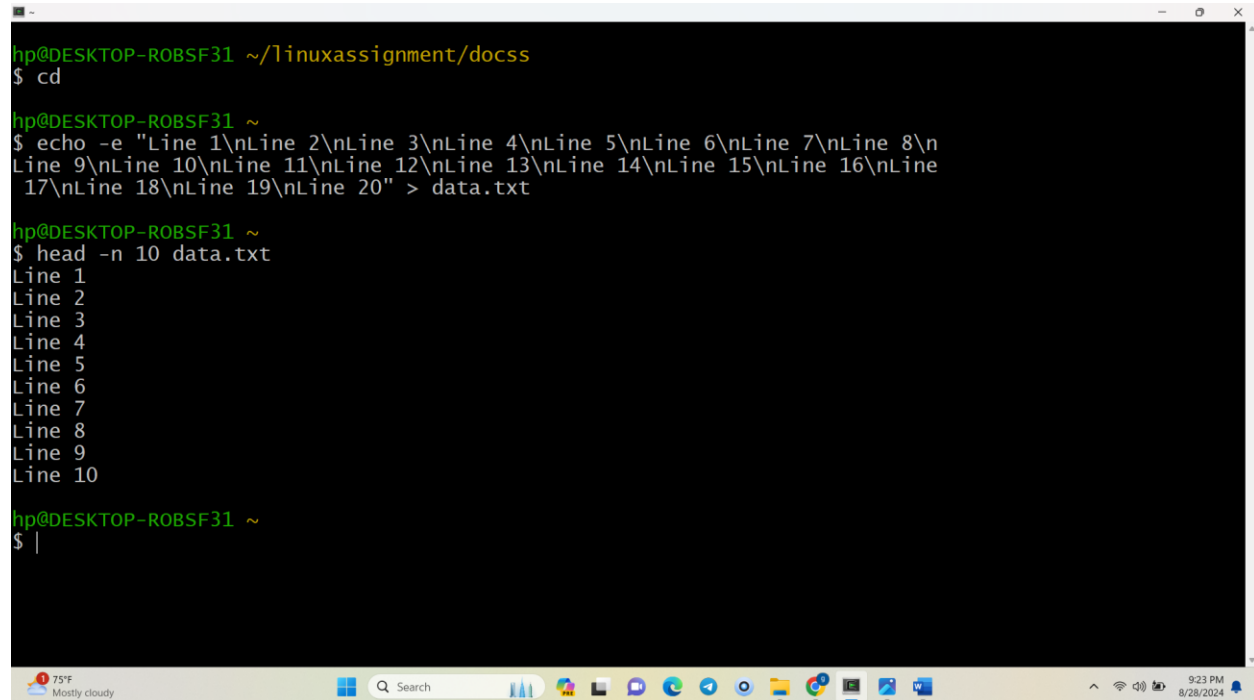


## Problem 2:

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.

A screenshot of a Windows terminal window with a black background and green text. The prompt is 'hp@DESKTOP-ROBSF31 ~/linuxassignment/docss'. The user enters '\$ cd' and then '\$ echo -e "Line 1\nLine 2\nLine 3\nLine 4\nLine 5\nLine 6\nLine 7\nLine 8\nLine 9\nLine 10\nLine 11\nLine 12\nLine 13\nLine 14\nLine 15\nLine 16\nLine 17\nLine 18\nLine 19\nLine 20" > data.txt'. The prompt changes to 'hp@DESKTOP-ROBSF31 ~'. The user then enters '\$ head -n 10 data.txt', and the output shows 'Line 1' through 'Line 10'. The prompt returns to 'hp@DESKTOP-ROBSF31 ~' with a cursor on the next line. The Windows taskbar is visible at the bottom, showing the date and time as 9:23 PM on 8/28/2024.

```
hp@DESKTOP-ROBSF31 ~/linuxassignment/docss
$ cd

hp@DESKTOP-ROBSF31 ~
$ echo -e "Line 1\nLine 2\nLine 3\nLine 4\nLine 5\nLine 6\nLine 7\nLine 8\nLine 9\nLine 10\nLine 11\nLine 12\nLine 13\nLine 14\nLine 15\nLine 16\nLine 17\nLine 18\nLine 19\nLine 20" > data.txt

hp@DESKTOP-ROBSF31 ~
$ head -n 10 data.txt
Line 1
Line 2
Line 3
Line 4
Line 5
Line 6
Line 7
Line 8
Line 9
Line 10

hp@DESKTOP-ROBSF31 ~
$ |
```

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

```
hp@DESKTOP-ROBSF31 ~  
$ echo -e "Line 1\nLine 2\nLine 3\nLine 4\nLine 5\nLine 6\nLine 7\nLine 8\nLine 9\nLine 10\nLine 11\nLine 12\nLine 13\nLine 14\nLine 15\nLine 16\nLine 17\nLine 18\nLine 19\nLine 20" > data.txt  
  
hp@DESKTOP-ROBSF31 ~  
$ head -n 10 data.txt  
Line 1  
Line 2  
Line 3  
Line 4  
Line 5  
Line 6  
Line 7  
Line 8  
Line 9  
Line 10  
  
hp@DESKTOP-ROBSF31 ~  
$ tail -n 5 data.txt  
Line 16  
Line 17  
Line 18  
Line 19  
Line 20  
  
hp@DESKTOP-ROBSF31 ~  
$
```

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.

```
hp@DESKTOP-ROBSF31 ~  
$ echo -e "1\n2\n3\n4\n5\n6\n7\n8\n9\n10\n11\n12\n13\n14\n15\n16\n17\n18\n19\n20" > numbers.txt  
  
hp@DESKTOP-ROBSF31 ~  
$ head -n 15 numbers.txt  
1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
  
hp@DESKTOP-ROBSF31 ~  
$
```

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

```
hp@DESKTOP-ROBSF31 ~  
$ echo -e "1\n2\n3\n4\n5\n6\n7\n8\n9\n10\n11\n12\n13\n14\n15\n16\n17\n18\n19\n20" > numbers.txt  
hp@DESKTOP-ROBSF31 ~  
$ head -n 15 numbers.txt  
1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
hp@DESKTOP-ROBSF31 ~  
$ tail -n 3 numbers.txt  
18  
19  
20  
hp@DESKTOP-ROBSF31 ~  
$ |
```

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."

```
hp@DESKTOP-ROBSF31 ~  
$ echo -e "1\n2\n3\n4\n5\n6\n7\n8\n9\n10\n11\n12\n13\n14\n15\n16\n17\n18\n19\n20" > numbers.txt  
hp@DESKTOP-ROBSF31 ~  
$ head -n 15 numbers.txt  
1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
hp@DESKTOP-ROBSF31 ~  
$ tail -n 3 numbers.txt  
18  
19  
20  
hp@DESKTOP-ROBSF31 ~  
$ echo -e "hello\nworld\nthis\nis\nan\nexample\nof\ninput\ntext\nfile" > input.txt  
hp@DESKTOP-ROBSF31 ~  
$ |
```

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."

```
hp@DESKTOP-ROBSF31 ~  
$ echo -e "apple\nbanana\napple\norange\nbanana\npear" > duplicate.txt  
  
hp@DESKTOP-ROBSF31 ~  
$ sort duplicate.txt | uniq  
apple  
banana  
orange  
pear  
  
hp@DESKTOP-ROBSF31 ~  
$ |
```

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."

```
hp@DESKTOP-ROBSF31 ~  
$ echo -e "apple\nbanana\napple\norange\nbanana\npear\nbanana" > fruit.txt  
  
hp@DESKTOP-ROBSF31 ~  
$ sort fruit.txt | uniq -c  
  2 apple  
  3 banana  
  1 orange  
  1 pear  
  
hp@DESKTOP-ROBSF31 ~  
$
```