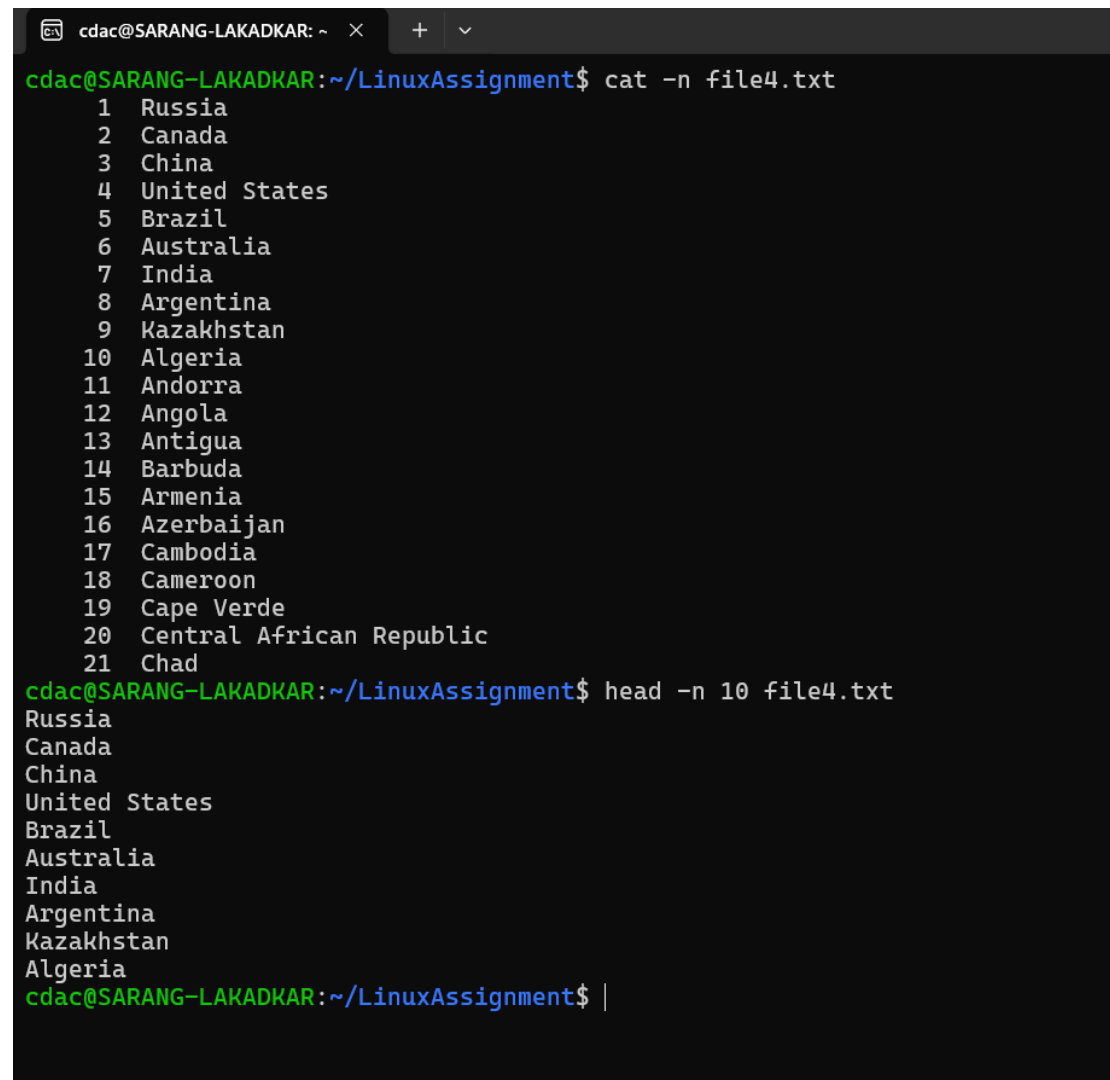


Problem 2:

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 terminal window with a dark background and light green text. The window title bar shows 'cdac@SARANG-LAKADKAR: ~' and standard window controls. The prompt is 'cdac@SARANG-LAKADKAR:~/LinuxAssignment\$'. The first command is 'cat -n file4.txt', which outputs a numbered list of 21 countries. The second command is 'head -n 10 file4.txt', which outputs the first 10 countries from the list. The prompt returns after the second command.

```
cdac@SARANG-LAKADKAR:~/LinuxAssignment$ cat -n file4.txt
 1 Russia
 2 Canada
 3 China
 4 United States
 5 Brazil
 6 Australia
 7 India
 8 Argentina
 9 Kazakhstan
10 Algeria
11 Andorra
12 Angola
13 Antigua
14 Barbuda
15 Armenia
16 Azerbaijan
17 Cambodia
18 Cameroon
19 Cape Verde
20 Central African Republic
21 Chad
cdac@SARANG-LAKADKAR:~/LinuxAssignment$ head -n 10 file4.txt
Russia
Canada
China
United States
Brazil
Australia
India
Argentina
Kazakhstan
Algeria
cdac@SARANG-LAKADKAR:~/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

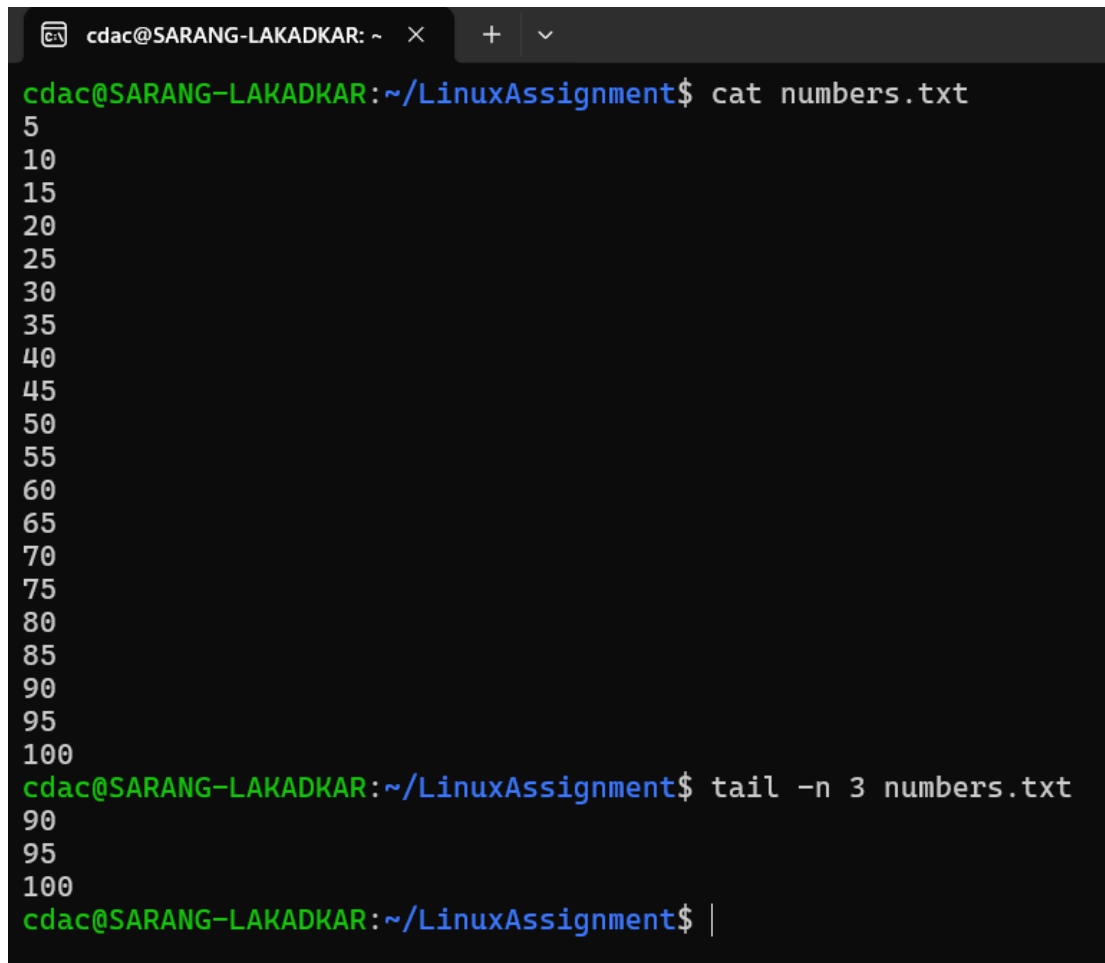
```
cdac@SARANG-LAKADKAR: ~ × + v
cdac@SARANG-LAKADKAR:~/LinuxAssignment$ cat file4.txt
Russia
Canada
China
United States
Brazil
Australia
India
Argentina
Kazakhstan
Algeria
Andorra
Angola
Antigua
Barbuda
Armenia
Azerbaijan
Cambodia
Cameroon
Cape Verde
Central African Republic
Chad
cdac@SARANG-LAKADKAR:~/LinuxAssignment$ tail -n 5 file4.txt
Cambodia
Cameroon
Cape Verde
Central African Republic
Chad
cdac@SARANG-LAKADKAR:~/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

```
cdac@SARANG-LAKADKAR: ~ × + v
cdac@SARANG-LAKADKAR:~/LinuxAssignment$ cat numbers.txt
5
10
15
20
25
30
35
40
45
50
55
60
65
70
75
80
85
90
95
100

cdac@SARANG-LAKADKAR:~/LinuxAssignment$ head -n 10 numbers.txt
5
10
15
20
25
30
35
40
45
50
cdac@SARANG-LAKADKAR:~/LinuxAssignment$ |
```

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

A terminal window with a dark background and light green text. The window title bar shows 'cdac@SARANG-LAKADKAR: ~' and standard window controls. The terminal shows the command 'cat numbers.txt' being executed, which outputs a list of numbers from 5 to 100 in increments of 5. Then, the command 'tail -n 3 numbers.txt' is executed, which outputs the last three numbers: 90, 95, and 100. The prompt is currently at the end of the third line of output.

```
cdac@SARANG-LAKADKAR: ~/LinuxAssignment$ cat numbers.txt
5
10
15
20
25
30
35
40
45
50
55
60
65
70
75
80
85
90
95
100
cdac@SARANG-LAKADKAR:~/LinuxAssignment$ tail -n 3 numbers.txt
90
95
100
cdac@SARANG-LAKADKAR:~/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".

```
cdac@SARANG-LAKADKAR: ~ × + v
cdac@SARANG-LAKADKAR:~/LinuxAssignment$ cat input.txt
hellooo
hiiii
sarang lakadkar
cdac mumbai
cdac@SARANG-LAKADKAR:~/LinuxAssignment$ cat input.txt | tr 'a-z' 'A-Z' > output.txt
cdac@SARANG-LAKADKAR:~/LinuxAssignment$ cat output.txt
HELLOOO
HIIII
SARANG LAKADKAR
CDAC MUMBAI
cdac@SARANG-LAKADKAR:~/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."

```
cdac@SARANG-LAKADKAR: ~ × + v
cdac@SARANG-LAKADKAR:~/LinuxAssignment$ nano duplicate.txt
cdac@SARANG-LAKADKAR:~/LinuxAssignment$ nano d
docs/ docs.zip duplicate.txt
cdac@SARANG-LAKADKAR:~/LinuxAssignment$ nano duplicate.txt
cdac@SARANG-LAKADKAR:~/LinuxAssignment$ cat duplicate.txt
Russia
Canada
China
United States
Brazil
Australia
India
Argentina
Kazakhstan
Algeria
Russia
Canada
United States
Brazil
cdac@SARANG-LAKADKAR:~/LinuxAssignment$ cat duplicate.txt | sort | uniq
Algeria
Argentina
Australia
Brazil
Canada
China
India
Kazakhstan
Russia
United States
cdac@SARANG-LAKADKAR:~/LinuxAssignment$ |
```

6) 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."

```
cdac@SARANG-LAKADKAR: ~ × + v
Avocado
Pineapple
Watermelon
Mango
Kiwi
Orange
Berry
Blueberry
Cherry
Lemon
Apricot
Figs
Plum
Papaya
Grapefruit
Watermelon
Mango
Kiwi
Orange
Berry
Blueberry
cdac@SARANG-LAKADKAR:~/LinuxAssignment$ sort fruit.txt |uniq
Apple
Apricot
Avocado
Banana
Berry
Blueberry
Cherry
Figs
Grapefruit
Kiwi
Lemon
Mango
Orange
Papaya
Pineapple
Plum
Strawberry
Watermelon
cdac@SARANG-LAKADKAR:~/LinuxAssignment$ |
```