

Q1) Start by navigating to your home directory and list its contents. Then, move into a directory named "LinuxAssignment" if it exists; otherwise, create it.

```
shrutib@DESKTOP-PALEV1C: ~/LinuxAssignment
shrutib@DESKTOP-PALEV1C:~$ cd LinuxAssignment
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ ls -ltr
total 0
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ touch file.txt
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ ls -ltr
total 0
-rw-r--r-- 1 shrutib shrutib 0 Aug 29 22:58 file.txt
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ vi file.txt
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ vi file.txt
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ ls -ltr
total 4
-rw-r--r-- 1 shrutib shrutib 67 Aug 29 23:02 file.txt
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ cat file.txt
Days
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday
Sunday
```

Q2. Inside the "LinuxAssignment" directory, create a new file named "file1.txt". Display its contents.

```
shrutib@DESKTOP-PALEV1C: ~/LinuxAssignment
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ touch file1.txt
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ ls -ltr
total 4
-rw-r--r-- 1 shrutib shrutib 67 Aug 29 23:02 file.txt
-rw-r--r-- 1 shrutib shrutib 0 Aug 29 23:18 file1.txt
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ vi file1.txt
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ ls -ltr
total 8
-rw-r--r-- 1 shrutib shrutib 67 Aug 29 23:02 file.txt
-rw-r--r-- 1 shrutib shrutib 33 Aug 29 23:22 file1.txt
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ cat file1.txt

Hello

Welcome to CDAC Mumbai

shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$
```

Q3) Create a new directory named "docs" inside the "LinuxAssignment" directory.

```
shrutib@DESKTOP-PALEV1C: ~/LinuxAssignment
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ mkdir docs
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ ls -ltr
total 12
-rw-r--r-- 1 shrutib shrutib  67 Aug 29 23:02 file.txt
-rw-r--r-- 1 shrutib shrutib  33 Aug 29 23:22 file1.txt
drwxr-xr-x 2 shrutib shrutib 4096 Aug 29 23:28 docs
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$
```

Q4) Copy the "file1.txt" file into the "docs" directory and rename it to "file2.txt".

```
shrutib@DESKTOP-PALEV1C: ~/LinuxAssignment/docs
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ mkdir docs
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ cp file1.txt docs
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ cd docs
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment/docs$ ls -ltr
total 4
-rw-r--r-- 1 shrutib shrutib 33 Aug 30 00:01 file1.txt
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment/docs$ mv file1.txt file2.txt
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment/docs$ ls -lts
total 4
4 -rw-r--r-- 1 shrutib shrutib 33 Aug 30 00:01 file2.txt
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment/docs$
```

Q5) Finally, list the contents of the "LinuxAssignment" directory and the root directory to ensure that all operations were performed correctly.

```
shrutib@DESKTOP-PALEV1C: ~/LinuxAssignment
shrutib@DESKTOP-PALEV1C:~$ cd LinuxAssignment
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ ls -lts
total 12
4 drwxr-xr-x 2 shrutib shrutib 4096 Aug 30 00:05 docs
4 -rw-r--r-- 1 shrutib shrutib  33 Aug 29 23:22 file1.txt
4 -rw-r--r-- 1 shrutib shrutib  67 Aug 29 23:02 file.txt
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$
```

Q6) Display the current system date and time.

```
shrutib@DESKTOP-PALEV1C: ~/LinuxAssignment
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ date
Fri Aug 30 15:06:55 IST 2024
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ date "+%T"
15:07:40
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$
```

Q7) Display the IP address of the system.

```
shrutib@DESKTOP-PALEV1C: ~
shrutib@DESKTOP-PALEV1C:~$ hostname -I
172.17.87.189
shrutib@DESKTOP-PALEV1C:~$
```

Q8) Open the "file1.txt" file in a text editor and add some text to it.

```
shrutib@DESKTOP-PALEV1C: ~/LinuxAssignment
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ touch file1.txt
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ vi file1.txt
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ cat file1.txt
student list
1. shruti
2. siddhi
3. samruddhi
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$
```

Q9) 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.

```
shrutib@DESKTOP-PALEV1C: ~/LinuxAssignment
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ cat data.txt
Fruits
1.Apple
2.Orange
3.Banana
4.Mango
5.Strawberry
6.Grapes
7.Pineapple
8.Kiwi
9.Cherry
10.Blueberry
11.Watermelon
12.Orange
13.Papaya
14.Pear
15.Guava
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ head -10 data.txt
Fruits
1.Apple
2.Orange
3.Banana
4.Mango
5.Strawberry
6.Grapes
7.Pineapple
8.Kiwi
9.Cherry
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$
```

Q10) Now, to check the end of the file for any recent additions, display the last 5 lines of "data.txt" using another command.

```
shrutib@DESKTOP-PALEV1C: ~/LinuxAssignment
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ cat data.txt
Fruits
1.Apple
2.Orange
3.Banana
4.Mango
5.Strawberry
6.Grapes
7.Pineapple
8.Kiwi
9.Cherry
10.Blueberry
11.Watermelon
12.Orange
13.Papaya
14.Pear
15.Guava
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ tail -5 data.txt
11.Watermelon
12.Orange
13.Papaya
14.Pear
15.Guava
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$
```

Q11) 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.

```
shrutib@DESKTOP-PALEV1C: ~/LinuxAssignment
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ touch numbers.txt
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ vi numbers.txt
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ cat numbers.txt
145
256
567
976
478
568
096
406
100
492
400
493
567
055
649
93
747
544
654
67
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ head -15 numbers.txt
145
256
567
976
478
568
096
406
100
492
400
493
567
055
649
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$
```


Q12) To focus on the last few numbers of the dataset, display the last 3 lines of "numbers.txt".

```
shrutib@DESKTOP-PALEV1C: ~/LinuxAssignment
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ cat numbers.txt
145
256
567
976
478
568
096
406
100
492
400
493
567
055
649
93
747
544
654
67
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ tail -3 numbers.txt
544
654
67
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$
```

Q13) 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."

```
Select shrutib@DESKTOP-PALEV1C: ~/LinuxAssignment
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ touch input.txt
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ nano input.txt
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ cat input.txt
Cities
1. Mumbai
2. Pune
3. Banglore
4. Kolkata
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ cat input.txt | tr '[:lower:]' '[:upper:]'
CITIES
1. MUMBAI
2. PUNE
3. BANGLORE
4. KOLKATA
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ touch output.txt
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ cat input.txt > output.txt
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ cat output.txt
Cities
1. Mumbai
2. Pune
3. Banglore
4. Kolkata
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$
```

Q14) 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."

```
shrutib@DESKTOP-PALEV1C: ~/LinuxAssignment
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ touch duplicate.txt
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ nano duplicate.txt
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ cat duplicate.txt
My name is Shruti
My name is Shruti
I am Student of CDAC Mumbai
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ uniq duplicate.txt
My name is Shruti
I am Student of CDAC Mumbai
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$
```

Q15) 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."

```
shrutib@DESKTOP-PALEV1C: ~/LinuxAssignment
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ touch fruit.txt
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ nano fruit.txt
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ cat fruit.txt
Fruits
Mango
Mango
Mango
Apple
Orange
Orange
Banana
Pear
Kiwi
Kiwi
Papaya
Papaya
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$ uniq -c fruit.txt
  1 Fruits
  3 Mango
  1 Apple
  2 Orange
  1 Banana
  1 Pear
  2 Kiwi
  2 Papaya
shrutib@DESKTOP-PALEV1C:~/LinuxAssignment$
```