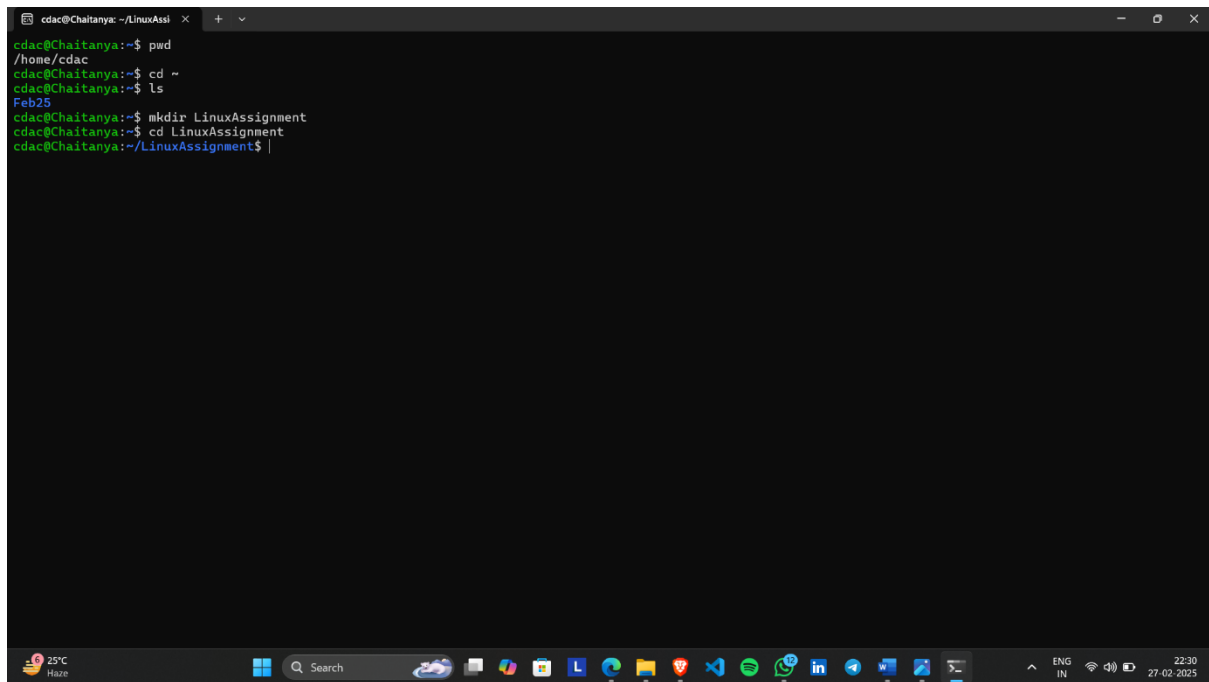


Problem 1: Read the instructions carefully and answer accordingly. If there is any need to insert some data then do that as well.

a) Navigate and List:

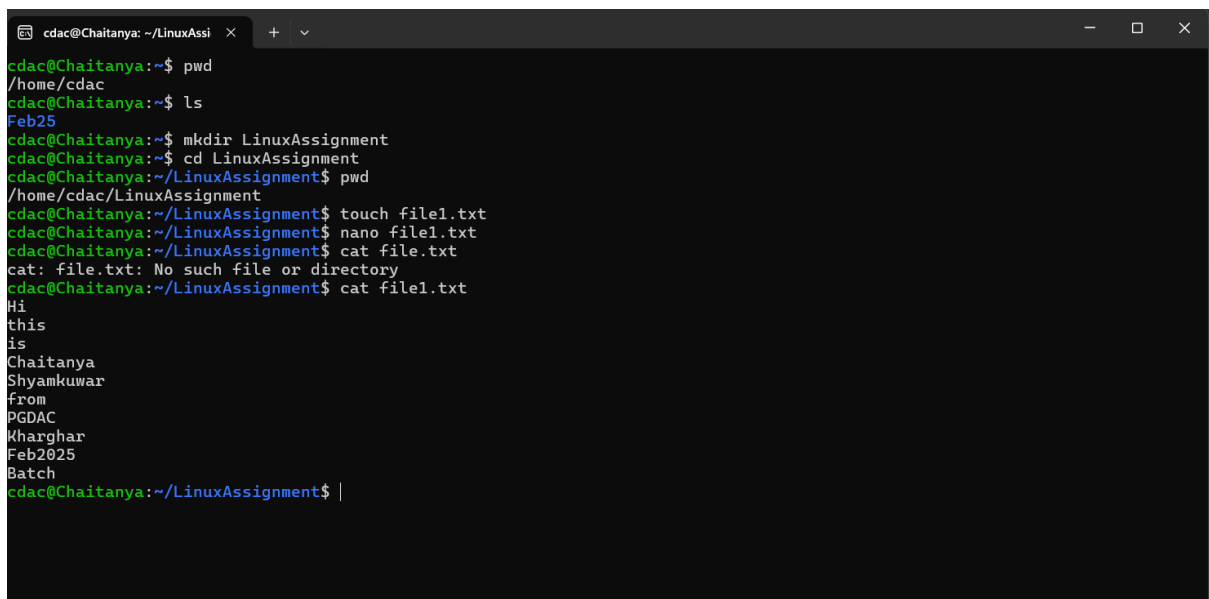
a. Start by navigating to your home directory and list its contents. Then, move into a directory named "LinuxAssignment" if it exists; otherwise, create it.

A terminal window titled 'cdac@Chaitanya: ~/LinuxAssi' with a dark background. The user performs the following commands: 'pwd' (returns '/home/cdac'), 'cd ~' (changes to home), 'ls' (lists contents, showing 'Feb25'), 'mkdir LinuxAssignment' (creates the directory), 'cd LinuxAssignment' (moves into the directory), and 'ls' (lists contents, showing an empty directory). The Windows taskbar is visible at the bottom with a date of 27-02-2025.

```
cdac@Chaitanya: ~/LinuxAssi
cdac@Chaitanya:~$ pwd
/home/cdac
cdac@Chaitanya:~$ cd ~
cdac@Chaitanya:~$ ls
Feb25
cdac@Chaitanya:~$ mkdir LinuxAssignment
cdac@Chaitanya:~$ cd LinuxAssignment
cdac@Chaitanya:~/LinuxAssignment$ |
```

b) File Management:

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

A terminal window titled 'cdac@Chaitanya: ~/LinuxAssi' with a dark background. The user performs the following commands: 'pwd' (returns '/home/cdac'), 'ls' (lists contents, showing 'Feb25'), 'mkdir LinuxAssignment' (creates the directory), 'cd LinuxAssignment' (moves into the directory), 'pwd' (returns '/home/cdac/LinuxAssignment'), 'touch file1.txt' (creates the file), 'nano file1.txt' (opens the file in nano editor), 'cat file.txt' (fails with 'No such file or directory'), and 'cat file1.txt' (displays the file contents). The file contents are: 'Hi', 'this', 'is', 'Chaitanya', 'Shyamkuwar', 'from', 'PGDAC', 'Kharghar', 'Feb2025', 'Batch'. The Windows taskbar is visible at the bottom with a date of 27-02-2025.

```
cdac@Chaitanya:~/LinuxAssignment$ pwd
/home/cdac/LinuxAssignment
cdac@Chaitanya:~/LinuxAssignment$ touch file1.txt
cdac@Chaitanya:~/LinuxAssignment$ nano file1.txt
cdac@Chaitanya:~/LinuxAssignment$ cat file.txt
cat: file.txt: No such file or directory
cdac@Chaitanya:~/LinuxAssignment$ cat file1.txt
Hi
this
is
Chaitanya
Shyamkuwar
from
PGDAC
Kharghar
Feb2025
Batch
cdac@Chaitanya:~/LinuxAssignment$ |
```

c) Directory Management:

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

```
cdac@Chaitanya:~/LinuxAssignment$ pwd
/home/cdac/LinuxAssignment
cdac@Chaitanya:~/LinuxAssignment$ mkdir docs
cdac@Chaitanya:~/LinuxAssignment$ pwd
/home/cdac/LinuxAssignment
cdac@Chaitanya:~/LinuxAssignment$ ls
docs  file1.txt
cdac@Chaitanya:~/LinuxAssignment$ cd docs
cdac@Chaitanya:~/LinuxAssignment/docs$ pwd
/home/cdac/LinuxAssignment/docs
```

d) Copy and Move Files:

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

```
cdac@Chaitanya: ~/LinuxAssi  x  +  v
Kharghar
Feb2025
Batch
cdac@Chaitanya:~/LinuxAssignment$ pwd
/home/cdac/LinuxAssignment
cdac@Chaitanya:~/LinuxAssignment$ mkdir docs
cdac@Chaitanya:~/LinuxAssignment$ pwd
/home/cdac/LinuxAssignment
cdac@Chaitanya:~/LinuxAssignment$ ls
docs  file1.txt
cdac@Chaitanya:~/LinuxAssignment$ cd docs
cdac@Chaitanya:~/LinuxAssignment/docs$ pwd
/home/cdac/LinuxAssignment/docs
cdac@Chaitanya:~/LinuxAssignment/docs$ cd ..
cdac@Chaitanya:~/LinuxAssignment$ cp file1.txt docs/file2.txt
cdac@Chaitanya:~/LinuxAssignment$ cd docs
cdac@Chaitanya:~/LinuxAssignment/docs$ ls
file2.txt
cdac@Chaitanya:~/LinuxAssignment/docs$ cat file2.txt
Hi
this
is
Chaitanya
Shyamkuwar
from
PGDAC
Kharghar
Feb2025
Batch
cdac@Chaitanya:~/LinuxAssignment/docs$
```

e) Permissions and Ownership:

a. Change the permissions of "file2.txt" to allow read, write, and execute permissions for the owner and only read permissions for others. Then, change the owner of "file2.txt" to the current user.

```
cdac@Chaitanya:~/LinuxAssignment/docs$ chmod 744 file2.txt
cdac@Chaitanya:~/LinuxAssignment/docs$ whoami
cdac
cdac@Chaitanya:~/LinuxAssignment/docs$ sudo chown cdac file2.txt
[sudo] password for cdac:
cdac@Chaitanya:~/LinuxAssignment/docs$ sudo chown cdac:cdac file2.txt
cdac@Chaitanya:~/LinuxAssignment/docs$ ls file2.txt
file2.txt
cdac@Chaitanya:~/LinuxAssignment/docs$ ls -l file2.txt
-rwxr--r-- 1 cdac cdac 68 Feb 26 18:33 file2.txt
cdac@Chaitanya:~/LinuxAssignment/docs$
```

f) Final Checklist:

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

```
cdac@Chaitanya: ~/LinuxAssi x + v
cdac@Chaitanya:~/LinuxAssignment/docs$ ls file2.txt
file2.txt
cdac@Chaitanya:~/LinuxAssignment/docs$ ls -l file2.txt
-rwxr-xr-x 1 cdac cdac 68 Feb 26 18:33 file2.txt
cdac@Chaitanya:~/LinuxAssignment/docs$ ls -l ~/LinuxAssignment
total 8
drwxr-xr-x 2 cdac cdac 4096 Feb 26 18:33 docs
-rw-r--r-- 1 cdac cdac 68 Feb 26 18:30 file1.txt
cdac@Chaitanya:~/LinuxAssignment/docs$ ls -l /
total 2448
lrwxrwxrwx 1 root root 7 Apr 22 2024 bin -> usr/bin
drwxr-xr-x 2 root root 4096 Feb 26 2024 bin.usr-is-merged
drwxr-xr-x 2 root root 4096 Apr 22 2024 boot
drwxr-xr-x 16 root root 3580 Feb 26 17:49 dev
drwxr-xr-x 87 root root 4096 Feb 26 18:07 etc
drwxr-xr-x 3 root root 4096 Feb 24 12:05 home
-rwxrwxrwx 1 root root 2424984 Feb 12 00:59 init
lrwxrwxrwx 1 root root 7 Apr 22 2024 lib -> usr/lib
drwxr-xr-x 2 root root 4096 Apr 8 2024 lib.usr-is-merged
lrwxrwxrwx 1 root root 9 Apr 22 2024 lib64 -> usr/lib64
drwx----- 2 root root 16384 Feb 24 12:04 lost+found
drwxr-xr-x 2 root root 4096 Jan 6 20:13 media
drwxr-xr-x 5 root root 4096 Feb 24 12:04 mnt
drwxr-xr-x 2 root root 4096 Jan 6 20:13 opt
dr-xr-xr-x 229 root root 0 Feb 26 17:49 proc
drwx----- 4 root root 4096 Feb 24 12:04 root
drwxr-xr-x 19 root root 580 Feb 26 18:34 run
lrwxrwxrwx 1 root root 8 Apr 22 2024 sbin -> usr/sbin
drwxr-xr-x 2 root root 4096 Mar 31 2024 sbin.usr-is-merged
drwxr-xr-x 2 root root 4096 Feb 26 10:58 snap
drwxr-xr-x 2 root root 4096 Jan 6 20:13 srv
dr-xr-xr-x 11 root root 0 Feb 26 17:49 sys
drwxrwxrwt 12 root root 4096 Feb 26 18:33 tmp
drwxr-xr-x 12 root root 4096 Jan 6 20:13 usr
drwxr-xr-x 13 root root 4096 Feb 24 12:04 var
cdac@Chaitanya:~/LinuxAssignment/docs$ ls -l ~/LinuxAssignment/docs
total 4
-rwxr-xr-x 1 cdac cdac 68 Feb 26 18:33 file2.txt
cdac@Chaitanya:~/LinuxAssignment/docs$ ls -l ~/LinuxAssignment/docs/file2.txt
-rwxr-xr-x 1 cdac cdac 68 Feb 26 18:33 /home/cdac/LinuxAssignment/docs/file2.txt
cdac@Chaitanya:~/LinuxAssignment/docs$
```

g) File Searching:

a. Search for all files with the extension ".txt" in the current directory and its subdirectories.

```
cdac@Chaitanya: ~/LinuxAssi x + v
drwxr-xr-x 5 root root 4096 Feb 24 12:04 mnt
drwxr-xr-x 2 root root 4096 Jan 6 20:13 opt
dr-xr-xr-x 227 root root 0 Feb 27 16:51 proc
drwx----- 4 root root 4096 Feb 24 12:04 root
drwxr-xr-x 18 root root 540 Feb 27 16:51 run
lrwxrwxrwx 1 root root 8 Apr 22 2024 sbin -> usr/sbin
drwxr-xr-x 2 root root 4096 Mar 31 2024 sbin.usr-is-merged
drwxr-xr-x 2 root root 4096 Feb 26 10:58 snap
drwxr-xr-x 2 root root 4096 Jan 6 20:13 srv
dr-xr-xr-x 11 root root 0 Feb 27 16:51 sys
drwxrwxrwt 11 root root 4096 Feb 27 16:51 tmp
drwxr-xr-x 12 root root 4096 Jan 6 20:13 usr
drwxr-xr-x 13 root root 4096 Feb 24 12:04 var
drwx----- 2 root root 4096 Feb 27 09:33 wslMFWDio
drwx----- 2 root root 4096 Feb 27 09:33 wslMajjho
drwx----- 2 root root 4096 Feb 27 09:33 wslMmGJio
drwx----- 2 root root 4096 Feb 27 09:33 wslBLbeo
drwx----- 2 root root 4096 Feb 27 09:33 wsljboeo
cdac@Chaitanya:~/LinuxAssignment$ find . -type f -name "*.txt"
./file1.txt
./docs/file2.txt
cdac@Chaitanya:~/LinuxAssignment$ nano file1.txt
cdac@Chaitanya:~/LinuxAssignment$ cat file1.txt
Hi
this
is
Chaitanya
Shyamkuwar
from
PGDac
Kharghar
Mumbai
Feb2025
Batch
Hi
this
is
Samruddhi
cdac@Chaitanya:~/LinuxAssignment$ grep "Chaitanya" file1.txt
Chaitanya
cdac@Chaitanya:~/LinuxAssignment$
```

b. Display lines containing a specific word in a file (provide a file name and the specific word to search).

```
Hi
this
is
Samruddhi
cdac@Chaitanya:~/LinuxAssignment$ grep "Chaitanya" file1.txt
Chaitanya
cdac@Chaitanya:~/LinuxAssignment$
```

h) System Information:

a. Display the current system date and time.

```
cdac@Chaitanya: ~/LinuxAssi
drwxr-xr-x 227 root root      0 Feb 27 16:51 proc
drwx----- 4 root root    4096 Feb 24 12:04 root
drwxr-xr-x 18 root root    540 Feb 27 16:51 run
lrwxrwxrwx 1 root root      8 Apr 22 2024 sbin -> usr/sbin
drwxr-xr-x 2 root root    4096 Mar 31 2024 sbin.usr-is-merged
drwxr-xr-x 2 root root    4096 Feb 26 10:58 snap
drwxr-xr-x 2 root root    4096 Jan 6 20:13 srv
dr-xr-xr-x 11 root root      0 Feb 27 16:51 sys
drwxrwxrwt 11 root root    4096 Feb 27 16:51 tmp
drwxr-xr-x 12 root root    4096 Jan 6 20:13 usr
drwxr-xr-x 13 root root    4096 Feb 24 12:04 var
drwx----- 2 root root    4096 Feb 27 09:33 wslMFMDio
drwx----- 2 root root    4096 Feb 27 09:33 wslMajjho
drwx----- 2 root root    4096 Feb 27 09:33 wslMmGJio
drwx----- 2 root root    4096 Feb 27 09:33 wslaBLbeo
drwx----- 2 root root    4096 Feb 27 09:33 wsljboeo
cdac@Chaitanya:~/LinuxAssignment$ find . -type f -name "*.txt"
./file1.txt
./docs/file2.txt
cdac@Chaitanya:~/LinuxAssignment$ nano file1.txt
cdac@Chaitanya:~/LinuxAssignment$ cat file1.txt
Hi
this
is
Chaitanya
Shyamkuwar
from
PGDAC
Kharghar
Mumbai
Feb2025
Batch
Hi
this
is
Samruddhi
cdac@Chaitanya:~/LinuxAssignment$ grep "Chaitanya" file1.txt
Chaitanya
cdac@Chaitanya:~/LinuxAssignment$ date
Thu Feb 27 17:24:18 UTC 2025
cdac@Chaitanya:~/LinuxAssignment$ |
```

i) Networking:

a. Display the IP address of the system.

```
cdac@Chaitanya: ~/LinuxAssi
drwxr-xr-x 18 root root    540 Feb 27 16:51 run
lrwxrwxrwx 1 root root      8 Apr 22 2024 sbin -> usr/sbin
drwxr-xr-x 2 root root    4096 Mar 31 2024 sbin.usr-is-merged
drwxr-xr-x 2 root root    4096 Feb 26 10:58 snap
drwxr-xr-x 2 root root    4096 Jan 6 20:13 srv
dr-xr-xr-x 11 root root      0 Feb 27 16:51 sys
drwxrwxrwt 11 root root    4096 Feb 27 16:51 tmp
drwxr-xr-x 12 root root    4096 Jan 6 20:13 usr
drwxr-xr-x 13 root root    4096 Feb 24 12:04 var
drwx----- 2 root root    4096 Feb 27 09:33 wslMFMDio
drwx----- 2 root root    4096 Feb 27 09:33 wslMajjho
drwx----- 2 root root    4096 Feb 27 09:33 wslMmGJio
drwx----- 2 root root    4096 Feb 27 09:33 wslaBLbeo
drwx----- 2 root root    4096 Feb 27 09:33 wsljboeo
cdac@Chaitanya:~/LinuxAssignment$ find . -type f -name "*.txt"
./file1.txt
./docs/file2.txt
cdac@Chaitanya:~/LinuxAssignment$ nano file1.txt
cdac@Chaitanya:~/LinuxAssignment$ cat file1.txt
Hi
this
is
Chaitanya
Shyamkuwar
from
PGDAC
Kharghar
Mumbai
Feb2025
Batch
Hi
this
is
Samruddhi
cdac@Chaitanya:~/LinuxAssignment$ grep "Chaitanya" file1.txt
Chaitanya
cdac@Chaitanya:~/LinuxAssignment$ date
Thu Feb 27 17:24:18 UTC 2025
cdac@Chaitanya:~/LinuxAssignment$ hostname -I
172.29.20.231
cdac@Chaitanya:~/LinuxAssignment$ |
```

b. Ping a remote server to check connectivity (provide a remote server address to ping).

```
cdac@Chaitanya: ~/LinuxAssi
drwx----- 2 root root 4096 Feb 27 09:33 wslMajjho
drwx----- 2 root root 4096 Feb 27 09:33 wslMmGJio
drwx----- 2 root root 4096 Feb 27 09:33 wslBllbeo
drwx----- 2 root root 4096 Feb 27 09:33 wsljboeo
cdac@Chaitanya:~/LinuxAssignment$ find . -type f -name "*.txt"
./file1.txt
./docs/file2.txt
cdac@Chaitanya:~/LinuxAssignment$ nano file1.txt
cdac@Chaitanya:~/LinuxAssignment$ cat file1.txt
Hi
this
is
Chaitanya
Shyamkuwar
from
PGDAC
Kharghar
Mumbai
Feb2025
Batch
Hi
this
is
Samruddhi
cdac@Chaitanya:~/LinuxAssignment$ grep "Chaitanya" file1.txt
Chaitanya
cdac@Chaitanya:~/LinuxAssignment$ date
Thu Feb 27 17:24:18 UTC 2025
cdac@Chaitanya:~/LinuxAssignment$ hostname -I
172.29.20.231
cdac@Chaitanya:~/LinuxAssignment$ ping -c 4 google.com
PING google.com (142.250.193.206) 56(84) bytes of data:
64 bytes from dell1s17-in-f14.1e100.net (142.250.193.206): icmp_seq=1 ttl=111 time=473 ms
64 bytes from dell1s17-in-f14.1e100.net (142.250.193.206): icmp_seq=2 ttl=111 time=652 ms
64 bytes from dell1s17-in-f14.1e100.net (142.250.193.206): icmp_seq=3 ttl=111 time=601 ms
64 bytes from dell1s17-in-f14.1e100.net (142.250.193.206): icmp_seq=4 ttl=111 time=304 ms

--- google.com ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3000ms
rtt min/avg/max/mdev = 304.200/507.480/652.114/134.269 ms
cdac@Chaitanya:~/LinuxAssignment$
```

j) File Compression:

a. Compress the "docs" directory into a zip file.

```
cdac@Chaitanya:~/LinuxAssi
cdac@Chaitanya:~/LinuxAssignment$ zip -r docs.zip docs
Command 'zip' not found, but can be installed with:
sudo apt install zip
cdac@Chaitanya:~/LinuxAssignment$ sudo apt install zip
[sudo] password for cdac:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
unzip
The following NEW packages will be installed:
unzip zip
0 upgraded, 2 newly installed, 0 to remove and 79 not upgraded.
Need to get 350 kB of archives.
After this operation, 933 kB of additional disk space will be used.
Do you want to continue? [Y/n] Y
Get:1 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 unzip amd64 6.0-28ubuntu4.1 [174 kB]
Get:2 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 zip amd64 3.0-13ubuntu0.2 [176 kB]
Fetched 350 kB in 15s (23.9 kB/s)
Selecting previously unselected package unzip.
(Reading database ... 40799 files and directories currently installed.)
Preparing to unpack .../unzip_6.0-28ubuntu4.1_amd64.deb ...
Unpacking unzip (6.0-28ubuntu4.1) ...
Selecting previously unselected package zip.
Preparing to unpack .../zip_3.0-13ubuntu0.2_amd64.deb ...
Unpacking zip (3.0-13ubuntu0.2) ...
Setting up unzip (6.0-28ubuntu4.1) ...
Setting up zip (3.0-13ubuntu0.2) ...
Processing triggers for man-db (2.12.0-4build2) ...
cdac@Chaitanya:~/LinuxAssignment$ zip -r docs.zip docs
  adding: docs/ (stored 0%)
  adding: docs/file2.txt (stored 0%)
cdac@Chaitanya:~/LinuxAssignment$
```

b. Extract the contents of the zip file into a new directory.

```
cdac@Chaitanya: ~/LinuxAssi x + v
cdac@Chaitanya:~$ pwd
/home/cdac
cdac@Chaitanya:~$ ls
Feb25 LinuxAssignment
cdac@Chaitanya:~$ cd LinuxAssignment/
cdac@Chaitanya:~/LinuxAssignment$ ls
docs docs.zip file1.txt
cdac@Chaitanya:~/LinuxAssignment$ mkdir extracted_docs
cdac@Chaitanya:~/LinuxAssignment$ ls
docs docs.zip extracted_docs file1.txt
cdac@Chaitanya:~/LinuxAssignment$ unzip docs.zip -d extracted_docs
Archive: docs.zip
  creating: extracted_docs/docs/
    extracting: extracted_docs/docs/file2.txt
cdac@Chaitanya:~/LinuxAssignment$ ls
docs docs.zip extracted_docs file1.txt
cdac@Chaitanya:~/LinuxAssignment$ cd extracted_docs/
cdac@Chaitanya:~/LinuxAssignment/extracted_docs$ ls
docs
cdac@Chaitanya:~/LinuxAssignment/extracted_docs$ cat docs/
cat: docs/: Is a directory
cdac@Chaitanya:~/LinuxAssignment/extracted_docs$
```

k) File Editing:

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

```
cdac@Chaitanya: ~/LinuxAssi x + v
cdac@Chaitanya:~$ pwd
/home/cdac
cdac@Chaitanya:~$ ls
Feb25 LinuxAssignment
cdac@Chaitanya:~$ cd LinuxAssignment/
cdac@Chaitanya:~/LinuxAssignment$ ls
docs docs.zip file1.txt
cdac@Chaitanya:~/LinuxAssignment$ mkdir extracted_docs
cdac@Chaitanya:~/LinuxAssignment$ ls
docs docs.zip extracted_docs file1.txt
cdac@Chaitanya:~/LinuxAssignment$ unzip docs.zip -d extracted_docs
Archive: docs.zip
  creating: extracted_docs/docs/
    extracting: extracted_docs/docs/file2.txt
cdac@Chaitanya:~/LinuxAssignment$ ls
docs docs.zip extracted_docs file1.txt
cdac@Chaitanya:~/LinuxAssignment$ cd extracted_docs/
cdac@Chaitanya:~/LinuxAssignment/extracted_docs$ ls
docs
cdac@Chaitanya:~/LinuxAssignment/extracted_docs$ cat docs/
cat: docs/: Is a directory
cdac@Chaitanya:~/LinuxAssignment/extracted_docs$ cd ..
cdac@Chaitanya:~/LinuxAssignment$ nano file1.txt
cdac@Chaitanya:~/LinuxAssignment$ cat file1.txt
Hi
this
is
Chaitanya
Shyamkuwar
from
PGDAC
Kharghar
Mumbai
Feb2025
Batch
Hi
this
is
Samruddhi
cdac@Chaitanya:~/LinuxAssignment$ |
```

```
GNU nano 7.2 file1.txt
Hi
this
is
Chaitanya
Shyamkuwar
from
PGDAC
Kharghar
Mumbai
Feb2025
Batch
Hi
this
is
Samruddhi
```

b. Replace a specific word in the "file1.txt" file with another word (provide the original word and the word to replace it with).

```
cdac@Chaitanya:~/LinuxAssignment$ cd extracted_docs/
cdac@Chaitanya:~/LinuxAssignment/extracted_docs$ ls
docs
cdac@Chaitanya:~/LinuxAssignment/extracted_docs$ cat docs/
cat: docs/: Is a directory
cdac@Chaitanya:~/LinuxAssignment/extracted_docs$ cd ..
cdac@Chaitanya:~/LinuxAssignment$ nano file1.txt
cdac@Chaitanya:~/LinuxAssignment$ cat file1.txt
Hi
this
is
Chaitanya
Shyamkuwar
from
PGDAC
Kharghar
Mumbai
Feb2025
Batch
Hi
this
is
Samruddhi
cdac@Chaitanya:~/LinuxAssignment$ sed -i 's/Hi/Hello/g' file1.txt
cdac@Chaitanya:~/LinuxAssignment$ cat file1.txt
Hello
this
is
Chaitanya
Shyamkuwar
from
PGDAC
Kharghar
Mumbai
Feb2025
Batch
Hello
this
is
Samruddhi
cdac@Chaitanya:~/LinuxAssignment$
```

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.

```
cdac@Chaitanya: ~/LinuxAssi x + v
cdac@Chaitanya:~/LinuxAssignment$ touch data.txt
cdac@Chaitanya:~/LinuxAssignment$ nano data.txt
cdac@Chaitanya:~/LinuxAssignment$ cat data.txt
Chaitanya
Samruddhi
Visha
Shreya
Shanu
Shweta
Shahrukh
Salman
Aamir
Akshay
Ranbir
Vicky
Ayushman
Rajkumar

cdac@Chaitanya:~/LinuxAssignment$ head -10 data.txt
Chaitanya
Samruddhi
Visha
Shreya
Shanu
Shweta
Shahrukh
Salman
Aamir
Akshay
cdac@Chaitanya:~/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@Chaitanya: ~/LinuxAssi x + v
cdac@Chaitanya:~/LinuxAssignment$ cat data.txt
Chaitanya
Samruddhi
Visha
Shreya
Shanu
Shweta
Shahrukh
Salman
Aamir
Akshay
Ranbir
Vicky
Ayushman
Rajkumar

cdac@Chaitanya:~/LinuxAssignment$ tail -5 data.txt
Ranbir
Vicky
Ayushman
Rajkumar

cdac@Chaitanya:~/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@Chaitanya: ~  
cdac@Chaitanya:~$ cat numbers.txt  
47  
5  
23  
65  
85  
95  
75  
85  
945  
3  
9655  
58  
78921  
12  
83  
323  
45  
120  
30  
50  
80  
  
cdac@Chaitanya:~$ head -15 numbers.txt  
47  
5  
23  
65  
85  
95  
75  
85  
945  
3  
9655  
58  
78921  
12  
83  
cdac@Chaitanya:~$
```

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

```
cdac@Chaitanya: ~  
cdac@Chaitanya:~$ tail -3 numbers.txt  
30  
50  
80  
cdac@Chaitanya:~$
```

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@Chaitanya: ~  
cdac@Chaitanya:~$ cat input.txt  
this is lowercase  
  
THIS IS UPPERCASE  
cdac@Chaitanya:~$ tr '[:lower:]' '[:upper:]' < input.txt > output.txt  
cdac@Chaitanya:~$ cat output.txt  
THIS IS LOWERCASE  
  
THIS IS UPPERCASE  
cdac@Chaitanya:~$ |
```

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@Chaitanya: ~  
cdac@Chaitanya:~$ cat duplicate.txt  
apple  
banana  
grape  
mango  
grape  
strawberry  
apple  
orange  
kiwi  
chickoo  
pear  
pear  
pineapple  
mango  
  
cdac@Chaitanya:~$ cat duplicate.txt | sort | uniq  
  
apple  
banana  
chickoo  
grape  
kiwi  
mango  
orange  
pear  
pineapple  
strawberry  
cdac@Chaitanya:~$ |
```

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."

```
cdac@Chaitanya: ~  
cdac@Chaitanya:~$ cat duplicate.txt  
apple  
banana  
grape  
mango  
grape  
strawbery  
apple  
orange  
kiwi  
chickoo  
pear  
pear  
pineapple  
mango  
  
cdac@Chaitanya:~$ cat duplicate.txt | sort | uniq  
  
apple  
banana  
chickoo  
grape  
kiwi  
mango  
orange  
pear  
pineapple  
strawbery  
cdac@Chaitanya:~$ |
```

