

# Assignment – 1

## COS

Problem 1:

a) Navigate and List:


Input – cd

ls

mkdir LinuxAssignment

cd LinuxAssignment

Output -

 cdac@LAPTOP-BFJCJVNG: ~/LinuxAssignment

```
cdac@LAPTOP-BFJCJVNG:~$ cd
cdac@LAPTOP-BFJCJVNG:~$ ls
cdac@LAPTOP-BFJCJVNG:~$ mkdir LinuxAssignment
cdac@LAPTOP-BFJCJVNG:~$ cd LinuxAssignment
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment$
```

b) File Management:

Input – touch file1.txt

ls

nano file1.txt

cat file.txt

Output -

```
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment$ touch file1.txt
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment$ ls
file1.txt
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment$ nano file1.txt
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment$ cat file1.txt
Hello CDAC Mumbai Kharghar
Hello Malkeet sir
Hello Aditya sir
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment$
```

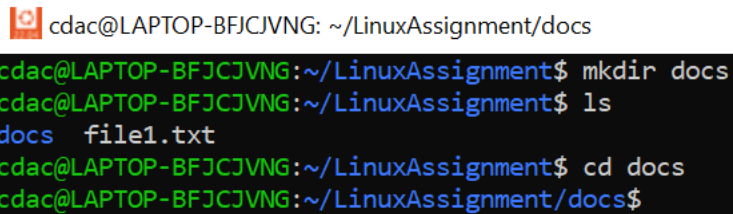
c) Directory Management:

Input – mkdir docs

ls

cd docs

Output –



```
cdac@LAPTOP-BFJCJVNG: ~/LinuxAssignment/docs
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment$ mkdir docs
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment$ ls
docs  file1.txt
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment$ cd docs
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment/docs$
```

d) Copy and Move Files:

Input – nano file1.txt

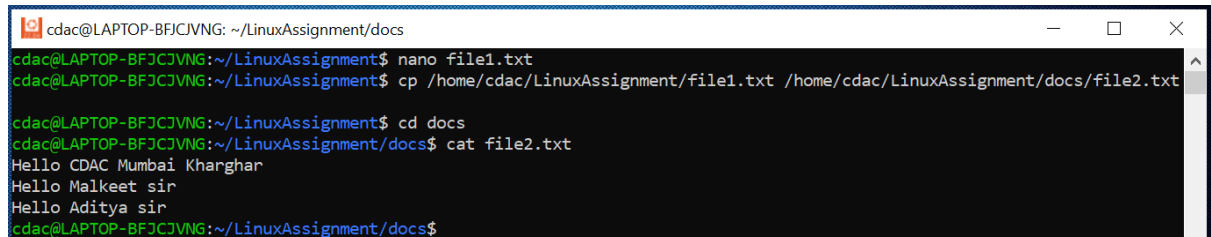
cp /home/cdac/LinuxAssignment/file1.txt

/home/cdac/LinuxAssignment/docs/file2.txt

cd docs

cat file2.txt

Output –



```
cdac@LAPTOP-BFJCJVNG: ~/LinuxAssignment/docs
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment$ nano file1.txt
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment$ cp /home/cdac/LinuxAssignment/file1.txt /home/cdac/LinuxAssignment/docs/file2.txt


cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment$ cd docs
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment/docs$ cat file2.txt
Hello CDAC Mumbai Kharghar
Hello Malkeet sir
Hello Aditya sir
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment/docs$
```

e) Permission and Ownership:

Input – chmod 744 file2.txt

ls -l

### Output –


 cdac@LAPTOP-BFJCJVNG: ~/LinuxAssignment/docs

```
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment/docs$ chmod 744 file2.txt
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment/docs$ ls -l
total 0
-rwxr--r-- 1 cdac cdac 62 Feb 28 18:25 file2.txt
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment/docs$
```

### f) Final Checklist:

Input – ls -l

### Output –

 cdac@LAPTOP-BFJCJVNG: ~/LinuxAssignment

```
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment$ ls -l
total 0
drwxr-xr-x 1 cdac cdac 4096 Feb 28 08:55 docs
-rw-r--r-- 1 cdac cdac 62 Feb 28 18:24 file1.txt
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment$
```

### g) System Information:

Input – date

### Output-

 cdac@LAPTOP-BFJCJVNG: ~/LinuxAssignment

```
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment$ date
Fri Feb 28 19:09:08 IST 2025
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment$
```

h) Networking:

Input – a) ip addr

b) ping google.com

Output –

```
cdac@LAPTOP-BFJCJVNG: ~/LinuxAssignment
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment$ ip addr
9: eth0: <> mtu 1500 group default qlen 1
    link/ether ec:8e:b5:5a:8b:97
    inet 169.254.177.87/16 brd 169.254.255.255 scope global dynamic
        valid_lft forever preferred_lft forever
    inet6 fe80::7fa2:c118:917e:855b/64 scope link dynamic
        valid_lft forever preferred_lft forever
1: lo: <LOOPBACK,UP> mtu 1500 group default qlen 1
    link/loopback 00:00:00:00:00:00
    inet 127.0.0.1/8 brd 127.255.255.255 scope global dynamic
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host dynamic
        valid_lft forever preferred_lft forever
10: wifi0: <BROADCAST,MULTICAST,UP> mtu 1500 group default qlen 1
    link/ieee802.11 30:e3:7a:0d:bc:b3
    inet 192.168.1.36/24 brd 192.168.1.255 scope global dynamic
        valid_lft 85294sec preferred_lft 85294sec
    inet6 fe80::4ea:9bdf:b3f5:9392/64 scope link dynamic
        valid_lft forever preferred_lft forever
15: wifi1: <> mtu 1500 group default qlen 1
    link/ieee802.11 30:e3:7a:0d:bc:b4
    inet 169.254.177.199/16 brd 169.254.255.255 scope global dynamic
        valid_lft forever preferred_lft forever
    inet6 fe80::7b04:9c76:fec5:4ee2/64 scope link dynamic
        valid_lft forever preferred_lft forever
14: wifi2: <> mtu 1500 group default qlen 1
    link/ieee802.11 32:e3:7a:0d:bc:b3
    inet 169.254.50.252/16 brd 169.254.255.255 scope global dynamic
        valid_lft forever preferred_lft forever
    inet6 fe80::44fb:5e03:e844:49e6/64 scope link dynamic
        valid_lft forever preferred_lft forever
a) cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment$
```

```
cdac@LAPTOP-BFJCJVNG: ~/LinuxAssignment
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment$ ping google.com
PING google.com (142.250.194.238) 56(84) bytes of data:
64 bytes from del12s08-in-f14.1e100.net (142.250.194.238): icmp_seq=1 ttl=119 time=4.60 ms
64 bytes from del12s08-in-f14.1e100.net (142.250.194.238): icmp_seq=2 ttl=119 time=4.87 ms
64 bytes from del12s08-in-f14.1e100.net (142.250.194.238): icmp_seq=3 ttl=119 time=89.8 ms
64 bytes from del12s08-in-f14.1e100.net (142.250.194.238): icmp_seq=4 ttl=119 time=4.55 ms
64 bytes from del12s08-in-f14.1e100.net (142.250.194.238): icmp_seq=5 ttl=119 time=35.0 ms
64 bytes from del12s08-in-f14.1e100.net (142.250.194.238): icmp_seq=6 ttl=119 time=5.93 ms
64 bytes from del12s08-in-f14.1e100.net (142.250.194.238): icmp_seq=7 ttl=119 time=4.69 ms
64 bytes from del12s08-in-f14.1e100.net (142.250.194.238): icmp_seq=8 ttl=119 time=4.81 ms
64 bytes from del12s08-in-f14.1e100.net (142.250.194.238): icmp_seq=9 ttl=119 time=28.8 ms
64 bytes from del12s08-in-f14.1e100.net (142.250.194.238): icmp_seq=10 ttl=119 time=53.1 ms
b)
```

k) File searching :

Input – ls \*\*/\*.txt

### Output –

 cdac@LAPTOP-BFJCJVNG: ~/LinuxAssignment

```
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment$ ls **/*.txt
docs/file2.txt
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment$
```

### k) File Editing:

Input – nano file1.txt

### Output-

 cdac@LAPTOP-BFJCJVNG: ~/LinuxAssignment

```
cdac@LAPTOP-BFJCJVNG:~$ ls
LinuxAssignment
cdac@LAPTOP-BFJCJVNG:~$ cd LinuxAssignment
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment$ ls
docs  file1.txt
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment$ nano file1.txt
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment$ cat file1.txt
Hello CDAC Mumbai Kharghar
Hello Malkeet sir
Hello Aditya sir
Hello Ravi Yadav
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment$
```

## Problem 2:

a) Head

Input – touch data.txt

nano data.txt

head -10 data.txt

Output –

```
cdac@LAPTOP-BFJCJVNG: ~/LinuxAssignment
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment$ touch data.txt
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment$ nano data.txt
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment$ head -10 data.txt
1
2
3
4
5
6
7
8
9
10
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment$
```

b) Tail:

Input – tail -5 data.txt

Output –

```
cdac@LAPTOP-BFJCJVNG: ~/LinuxAssignment
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment$ tail -5 data.txt
8
9
10
11
12
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment$
```


c) Duplicate:

Input – touch duplicate.txt

Nano duplicate.txt

Sort duplicate.txt | uniq

### Output –

 cdac@LAPTOP-BFJCJVNG: ~/LinuxAssignment

```
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment$ touch duplicate.txt
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment$ nano duplicate.txt
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment$ sort duplicate.txt | uniq
Bangladesh
Bhutan
India
Myanmar
Pakistan
Sri Lanka
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment$ cat duplicate.txt
India
Pakistan
Bangladesh
Myanmar
Bhutan
Sri Lanka
India
Bhutan
Myanmar
cdac@LAPTOP-BFJCJVNG:~/LinuxAssignment$
```