

COS ASSIGNMENT- 1

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.

```
root@DESKTOP-5IEFJIH: ~  
root@DESKTOP-5IEFJIH:~# ls  
LinuxAssignment  
root@DESKTOP-5IEFJIH:~# touch file1.txt  
root@DESKTOP-5IEFJIH:~# ls  
LinuxAssignment file1.txt  
root@DESKTOP-5IEFJIH:~# |
```

b) File Management:

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

```
root@DESKTOP-5IEFJIH: ~  
root@DESKTOP-5IEFJIH:~# nano file1.txt  
root@DESKTOP-5IEFJIH:~# ls  
LinuxAssignment file1.txt  
root@DESKTOP-5IEFJIH:~# cat file1.txt  
names of cdac students:  
anjali  
sonali  
shubham  
gauri  
ravi  
root@DESKTOP-5IEFJIH:~# |
```

c) Directory Management:

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

```
root@DESKTOP-5IEFJIH: ~  
root@DESKTOP-5IEFJIH:~# mkdir docs  
root@DESKTOP-5IEFJIH:~# ls  
LinuxAssignment docs file1.txt  
root@DESKTOP-5IEFJIH:~# |
```

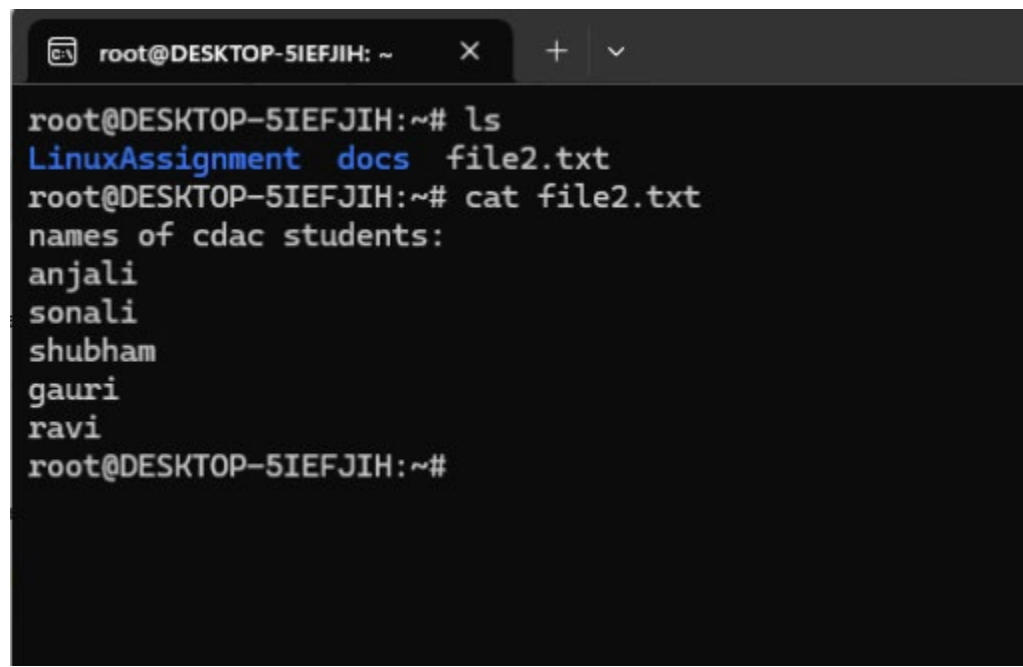
d) Copy and Move Files:

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

```
root@DESKTOP-5IEFJIH: ~  
root@DESKTOP-5IEFJIH:~# mv file1.txt  
mv: missing destination file operand after 'file1.txt'  
Try 'mv --help' for more information.  
root@DESKTOP-5IEFJIH:~# mv file1.txt > file2.txt  
mv: missing destination file operand after 'file1.txt'  
Try 'mv --help' for more information.  
root@DESKTOP-5IEFJIH:~# mv file1.txt file2.txt  
root@DESKTOP-5IEFJIH:~# ls  
LinuxAssignment docs file2.txt  
root@DESKTOP-5IEFJIH:~# |
```

f) Final Checklist:

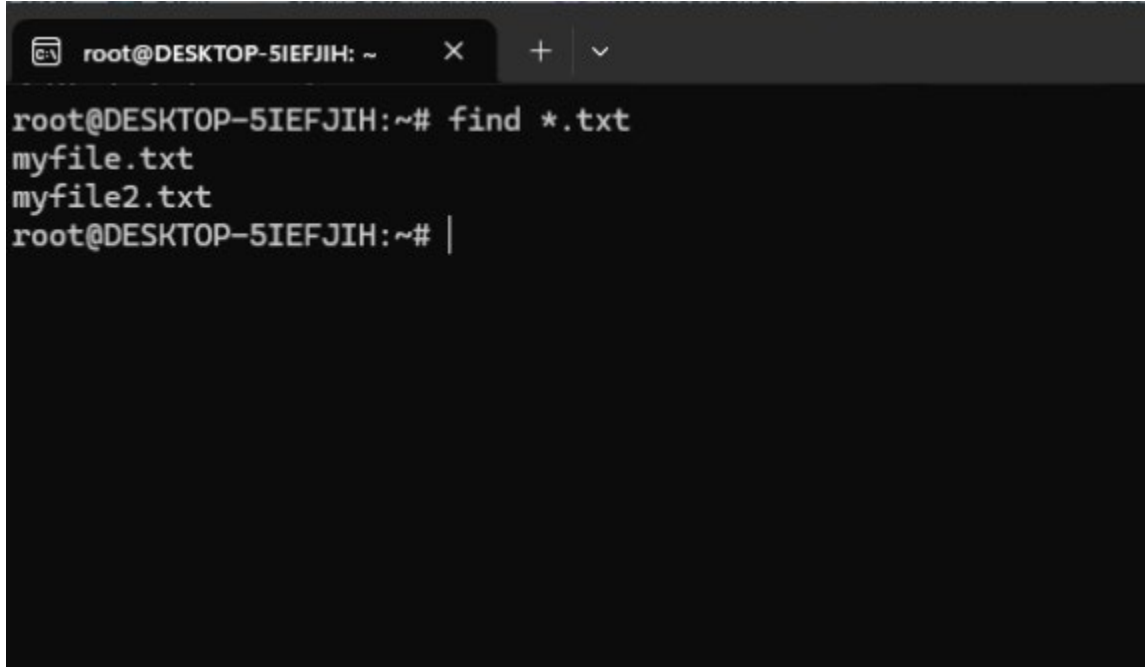
a. Finally, list the contents of the "LinuxAssignment" directory and the root directory to ensure that all operations were performed correctly.

A terminal window with a dark background and light text. The window title bar shows 'root@DESKTOP-5IEFJIH: ~' and standard window controls. The terminal content shows the execution of 'ls' and 'cat' commands. The 'ls' command lists 'LinuxAssignment', 'docs', and 'file2.txt'. The 'cat' command displays the contents of 'file2.txt', which are the names of five students: anjali, sonali, shubham, gauri, and ravi.

```
root@DESKTOP-5IEFJIH:~# ls
LinuxAssignment docs file2.txt
root@DESKTOP-5IEFJIH:~# cat file2.txt
names of cdac students:
anjali
sonali
shubham
gauri
ravi
root@DESKTOP-5IEFJIH:~#
```

g) File Searching:

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

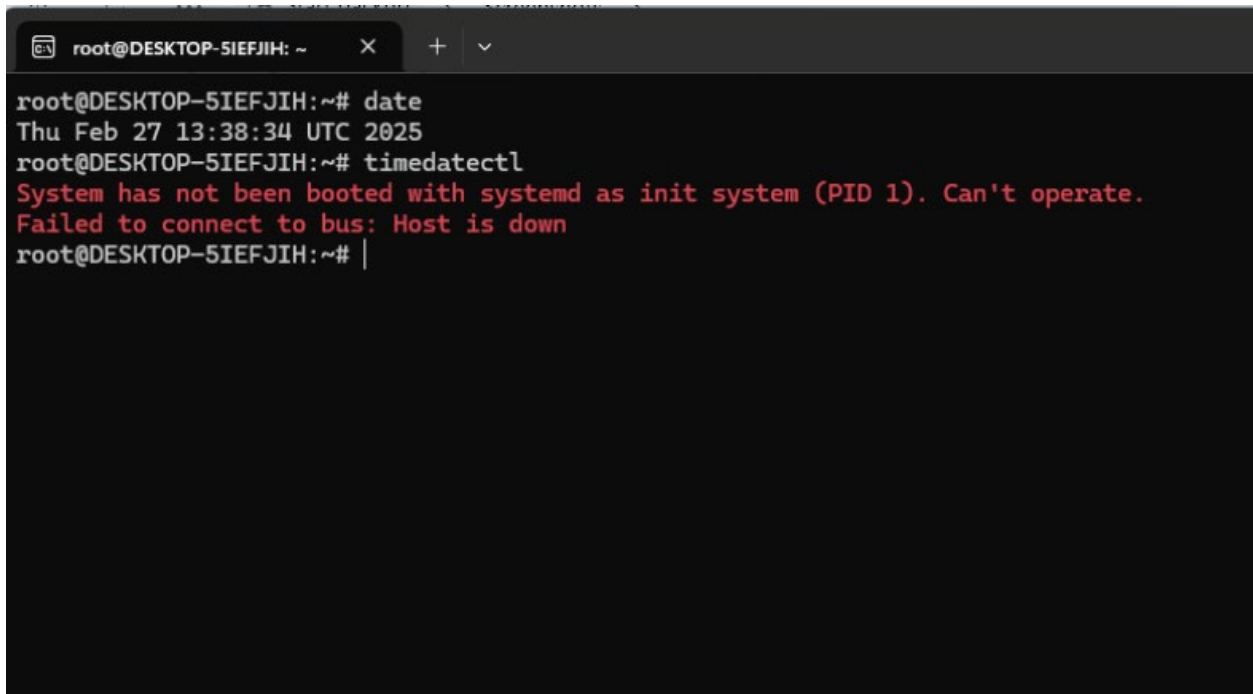
A terminal window with a dark background and light gray text. The window title bar shows 'root@DESKTOP-5IEFJIH: ~' and standard window controls. The terminal content shows the command 'find *.txt' being executed, resulting in two lines of output: 'myfile.txt' and 'myfile2.txt'. The prompt 'root@DESKTOP-5IEFJIH:~#' is visible at the bottom of the output.

```
root@DESKTOP-5IEFJIH:~# find *.txt
myfile.txt
myfile2.txt
root@DESKTOP-5IEFJIH:~# |
```

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

h) System Information:

a. Display the current system date and time.

A terminal window with a dark background and light text. The window title bar shows 'root@DESKTOP-5IEFJIH: ~' with standard window controls. The terminal content shows the execution of the 'date' command, which outputs the current date and time in UTC. Following this, the 'timedatectl' command is entered, but its output is not visible, suggesting it may have failed or the output was truncated.

```
root@DESKTOP-5IEFJIH:~# date
Thu Feb 27 13:38:34 UTC 2025
root@DESKTOP-5IEFJIH:~# timedatectl
System has not been booted with systemd as init system (PID 1). Can't operate.
Failed to connect to bus: Host is down
root@DESKTOP-5IEFJIH:~# |
```

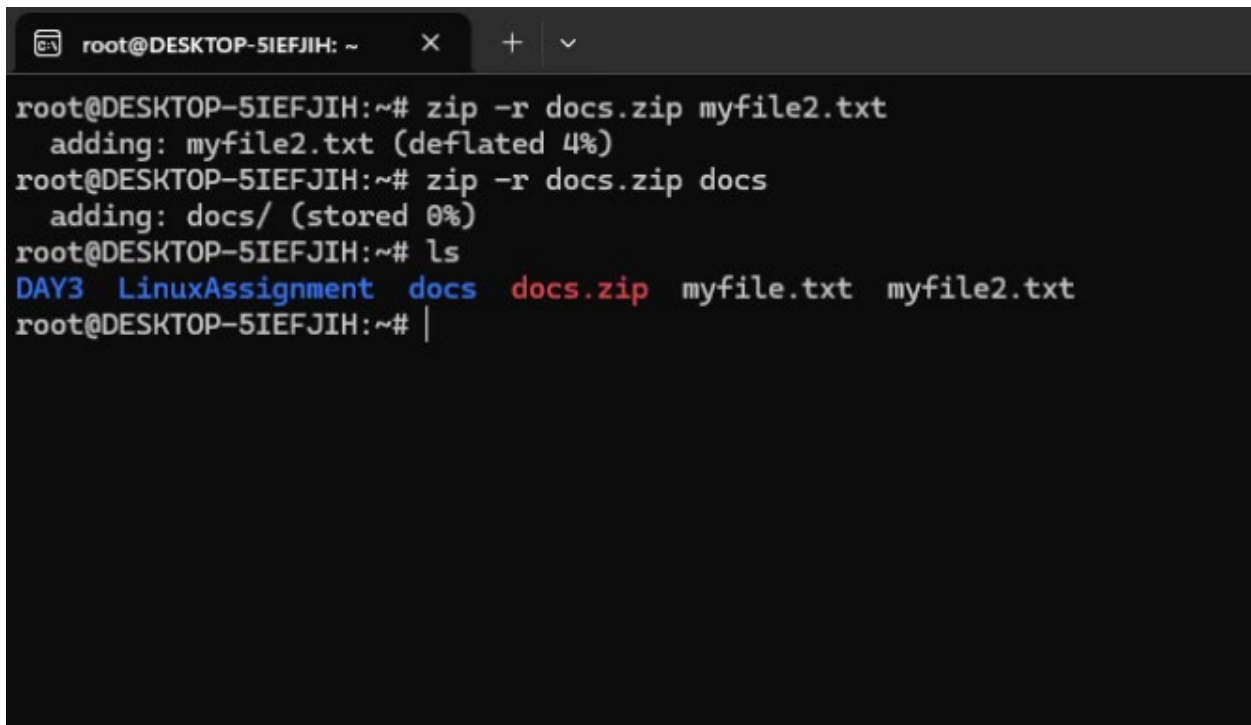
i) Networking:

a. Display the IP address of the system.

```
root@DESKTOP-5IEFJIH: ~  
root@DESKTOP-5IEFJIH:~# ip addr  
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000  
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00  
    inet 127.0.0.1/8 scope host lo  
        valid_lft forever preferred_lft forever  
    inet6 ::1/128 scope host  
        valid_lft forever preferred_lft forever  
2: bond0: <BROADCAST,MULTICAST,MASTER> mtu 1500 qdisc noop state DOWN group default qlen 1000  
    link/ether ae:ae:24:83:bd:9f brd ff:ff:ff:ff:ff:ff  
3: dummy0: <BROADCAST,NOARP> mtu 1500 qdisc noop state DOWN group default qlen 1000  
    link/ether de:77:c3:ec:c4:2a brd ff:ff:ff:ff:ff:ff  
4: tunl0@NONE: <NOARP> mtu 1480 qdisc noop state DOWN group default qlen 1000  
    link/ipip 0.0.0.0 brd 0.0.0.0  
5: sit0@NONE: <NOARP> mtu 1480 qdisc noop state DOWN group default qlen 1000  
    link/sit 0.0.0.0 brd 0.0.0.0  
6: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc mq state UP group default qlen 1000  
    link/ether 00:15:5d:ec:a7:2b brd ff:ff:ff:ff:ff:ff  
    inet 172.18.77.76/20 brd 172.18.79.255 scope global eth0  
        valid_lft forever preferred_lft forever  
    inet6 fe80::215:5dff:feec:a72b/64 scope link  
        valid_lft forever preferred_lft forever  
root@DESKTOP-5IEFJIH:~# |
```

j) File Compression:

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

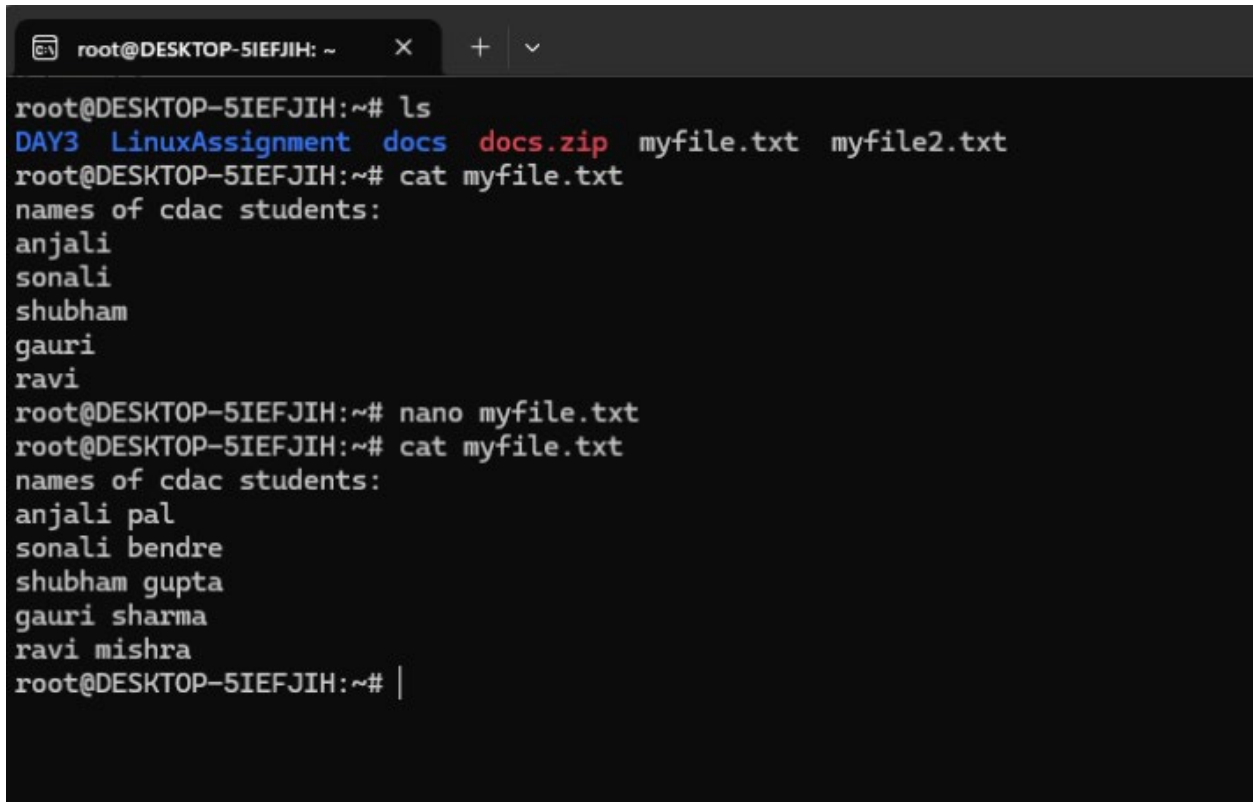
A terminal window with a dark background and light-colored text. The window title bar shows 'root@DESKTOP-5IEFJIH: ~' and standard window controls. The terminal displays the following commands and output:

```
root@DESKTOP-5IEFJIH:~# zip -r docs.zip myfile2.txt
  adding: myfile2.txt (deflated 4%)
root@DESKTOP-5IEFJIH:~# zip -r docs.zip docs
  adding: docs/ (stored 0%)
root@DESKTOP-5IEFJIH:~# ls
DAY3  LinuxAssignment  docs  docs.zip  myfile.txt  myfile2.txt
root@DESKTOP-5IEFJIH:~# |
```

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

k) File Editing:

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

A terminal window with a dark background and light-colored text. The window title bar shows 'root@DESKTOP-5IEFJIH: ~' and standard window controls. The terminal output shows a sequence of commands and their results. First, 'ls' is run, listing files including 'DAY3', 'LinuxAssignment', 'docs', 'docs.zip', 'myfile.txt', and 'myfile2.txt'. Then, 'cat myfile.txt' is run, displaying a list of names: 'names of cdac students:', 'anjali', 'sonali', 'shubham', 'gauri', and 'ravi'. Next, 'nano myfile.txt' is run. Finally, 'cat myfile.txt' is run again, showing the updated content: 'names of cdac students:', 'anjali pal', 'sonali bendre', 'shubham gupta', 'gauri sharma', and 'ravi mishra'. The prompt 'root@DESKTOP-5IEFJIH:~# |' is visible at the bottom, indicating the user is ready for the next command.

```
root@DESKTOP-5IEFJIH:~# ls
DAY3 LinuxAssignment docs docs.zip myfile.txt myfile2.txt
root@DESKTOP-5IEFJIH:~# cat myfile.txt
names of cdac students:
anjali
sonali
shubham
gauri
ravi
root@DESKTOP-5IEFJIH:~# nano myfile.txt
root@DESKTOP-5IEFJIH:~# cat myfile.txt
names of cdac students:
anjali pal
sonali bendre
shubham gupta
gauri sharma
ravi mishra
root@DESKTOP-5IEFJIH:~# |
```

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