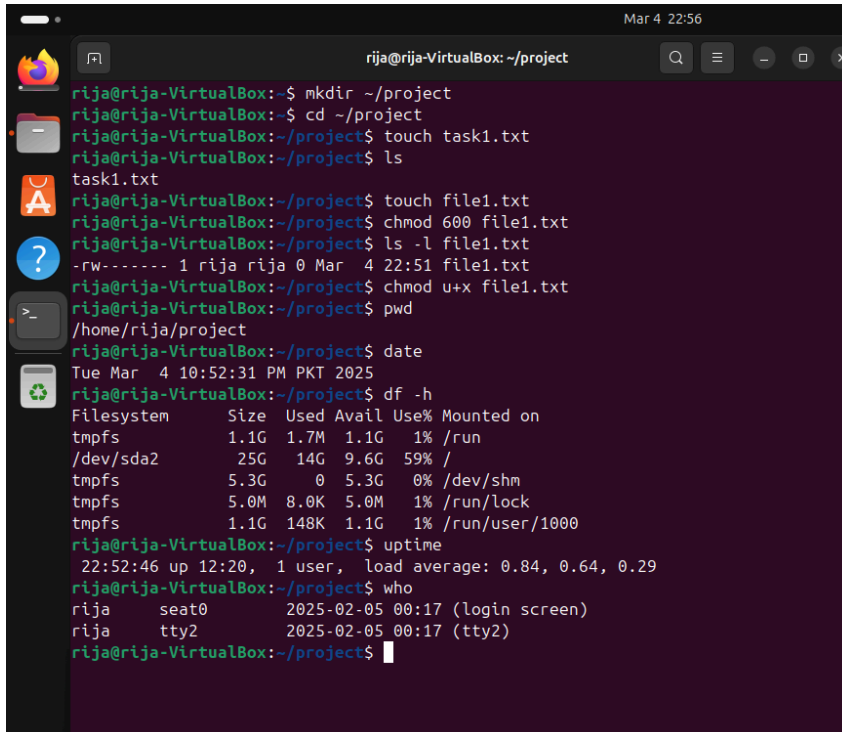


LAB 5 (REVISION TASKS)

RIJA ALI (23K-0057)

Q1-12)



```
rija@rija-VirtualBox: ~/project
rija@rija-VirtualBox:~$ mkdir ~/project
rija@rija-VirtualBox:~$ cd ~/project
rija@rija-VirtualBox:~/project$ touch task1.txt
rija@rija-VirtualBox:~/project$ ls
task1.txt
rija@rija-VirtualBox:~/project$ touch file1.txt
rija@rija-VirtualBox:~/project$ chmod 600 file1.txt
rija@rija-VirtualBox:~/project$ ls -l file1.txt
-rw----- 1 rija rija 0 Mar  4 22:51 file1.txt
rija@rija-VirtualBox:~/project$ chmod u+x file1.txt
rija@rija-VirtualBox:~/project$ pwd
/home/rija/project
rija@rija-VirtualBox:~/project$ date
Tue Mar  4 10:52:31 PM PKT 2025
rija@rija-VirtualBox:~/project$ df -h
Filesystem      Size  Used Avail Use% Mounted on
tmpfs           1.1G  1.7M  1.1G   1% /run
/dev/sda2       25G   14G   9.6G  59% /
tmpfs           5.3G   0    5.3G   0% /dev/shm
tmpfs           5.0M  8.0K  5.0M   1% /run/lock
tmpfs           1.1G 148K  1.1G   1% /run/user/1000
rija@rija-VirtualBox:~/project$ uptime
 22:52:46 up 12:20,  1 user,  load average: 0.84, 0.64, 0.29
rija@rija-VirtualBox:~/project$ who
rija    seat0        2025-02-05 00:17 (login screen)
rija    tty2         2025-02-05 00:17 (tty2)
rija@rija-VirtualBox:~/project$
```

Q13-14)

```
#!/bin/bash
if [ $# -eq 0 ]; then
    echo -e "file not provided... TRY AGAIN"
    exit 1
fi

filename="$1"

if [ ! -f "$filename" ]; then
    echo "Error.. \"$filename\" not found"
    exit 1
fi

echo "content of \"$filename\":"
cat "$filename"

count=$(wc -l < "$filename")
echo "The \"$filename\" contains $count lines"
```

Mar 4 23:11

rija@rija-VirtualBox: ~/project

```
/dev/sda2      25G   14G   9.6G   59% /
tmpfs          5.3G    0   5.3G    0% /dev/shm
tmpfs          5.0M   8.0K   5.0M    1% /run/lock
tmpfs          1.1G  148K   1.1G    1% /run/user/1000
rija@rija-VirtualBox:~/project$ uptime
 22:52:46 up 12:20,  1 user,  load average: 0.84, 0.64, 0.29
rija@rija-VirtualBox:~/project$ who
rija    seat0      2025-02-05 00:17 (login screen)
rija    tty2       2025-02-05 00:17 (tty2)
rija@rija-VirtualBox:~/project$ gedit q13_14.sh
rija@rija-VirtualBox:~/project$ chmod +x q13_14.sh
rija@rija-VirtualBox:~/project$ ./q13_14
bash: ./q13_14: No such file or directory
rija@rija-VirtualBox:~/project$ ./q13_14.sh
file not provided... TRY AGAIN
rija@rija-VirtualBox:~/project$ gedit q13_14.sh
rija@rija-VirtualBox:~/project$ ./q13_14.sh file1.txt
content of file1.txt:
The file1.txt contains 0 lines
rija@rija-VirtualBox:~/project$ nano file1.txt
rija@rija-VirtualBox:~/project$
rija@rija-VirtualBox:~/project$
rija@rija-VirtualBox:~/project$
rija@rija-VirtualBox:~/project$ chmod +x q13_14.sh
rija@rija-VirtualBox:~/project$ ./q13_14.sh file1.txt
content of file1.txt:
hi my name is riya.
I am currently enrolled in 4th sem.
The file1.txt contains 2 lines
rija@rija-VirtualBox:~/project$
```

Q15)

```
Mar 4 23:37
rija@rija-VirtualBox: ~/project
rija@rija-VirtualBox:~/project$ nano q15.c
rija@rija-VirtualBox:~/project$ gcc q15.c -o q15
rija@rija-VirtualBox:~/project$ ./q15
Processed by child process
parent done
rija@rija-VirtualBox:~/project$
```

```
GNU nano 7.2 q15.c
#include <stdio.h>
#include <stdlib.h>
#include <unistd.h>
#include <fcntl.h>
#include <sys/wait.h>

int main(){
    int fd=open("input.txt" , O_RDONLY);
    if(fd<0){
        perror("open");
        return 1;
    }

    char buffer[100];
    int bytes=read(fd,buffer,sizeof(buffer)-1);
    close(fd);

    if(bytes<0){
        perror("read");
        return 1;
    }
    buffer[bytes]='\0';

    pid_t pid = fork();
```

```
GNU nano 7.2 q15.c
if(pid<0){
    perror("fork");
    return 1;
}

if(pid==0){
    fd=open("input.txt",O_WRONLY|O_TRUNC);
    if(fd<0){
        perror("open");
        return 1;
    }
    lseek(fd,0,SEEK_END);
    write(fd,"Processed by child process\n",27);
    close(fd);

    execlp("cat","cat","input.txt",NULL);
    perror("execlp");
    return 1;
}else{
    wait(NULL);
    printf("parent done");
}

return 0;
}
```