

Assignment 2

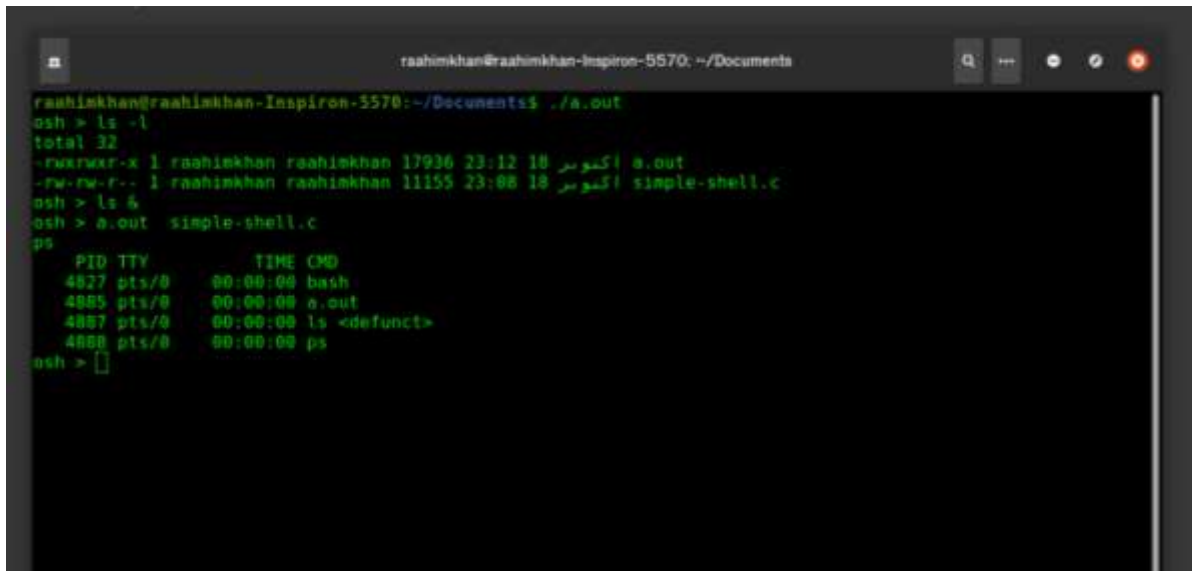
CS-370 (Operating Systems)

Roll No: 21100157

Project 1 —UNIX Shell:

Part II:

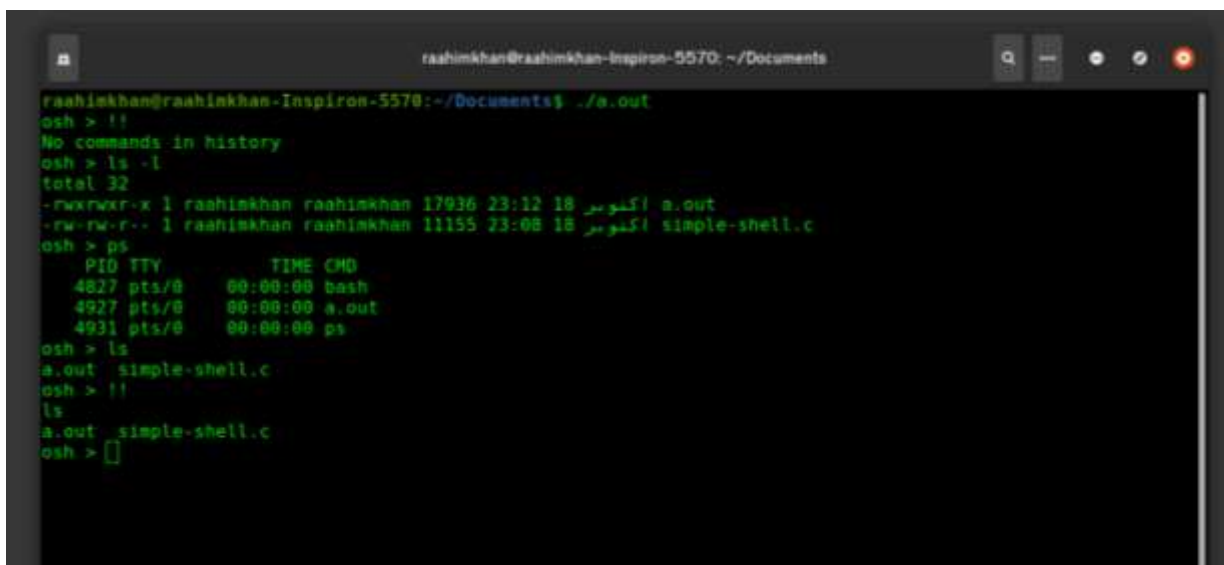
[screenshot]



```
raahimkhan@raahimkhan-Inspiron-5570: ~/Documents
raahimkhan@raahimkhan-Inspiron-5570:~/Documents$ ./a.out
osh > ls -l
total 32
-rwxrwxr-x 1 raahimkhan raahimkhan 17936 23:12 18 اکتوبر a.out
-rw-rw-r-- 1 raahimkhan raahimkhan 11155 23:08 18 اکتوبر simple-shell.c
osh > ls &
osh > a.out simple-shell.c
ps
  PID TTY          TIME CMD
  4827 pts/0        00:00:00 bash
  4885 pts/0        00:00:00 a.out
  4887 pts/0        00:00:00 ls <defunct>
  4888 pts/0        00:00:00 ps
osh >
```

Part III:

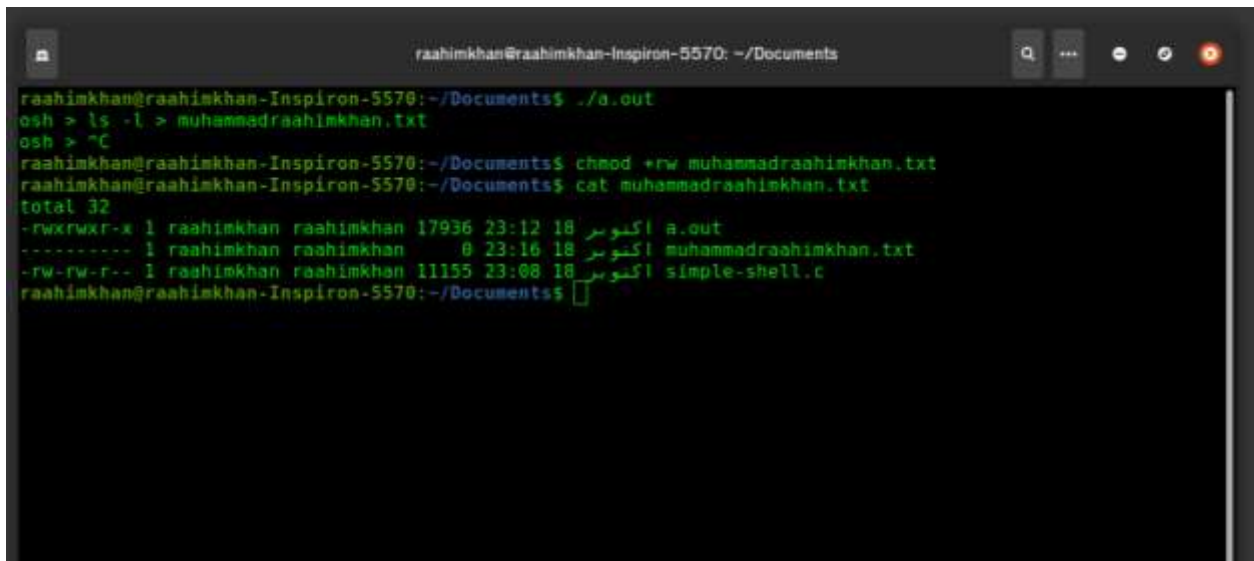
[screenshot]



```
raahimkhan@raahimkhan-Inspiron-5570: ~/Documents
raahimkhan@raahimkhan-Inspiron-5570:~/Documents$ ./a.out
osh > !!
No commands in history
osh > ls -l
total 32
-rwxrwxr-x 1 raahimkhan raahimkhan 17936 23:12 18 اکتوبر a.out
-rw-rw-r-- 1 raahimkhan raahimkhan 11155 23:08 18 اکتوبر simple-shell.c
osh > ps
  PID TTY          TIME CMD
  4827 pts/0        00:00:00 bash
  4927 pts/0        00:00:00 a.out
  4931 pts/0        00:00:00 ps
osh > ls
a.out simple-shell.c
osh > !!
ls
a.out simple-shell.c
osh >
```

Part IV:

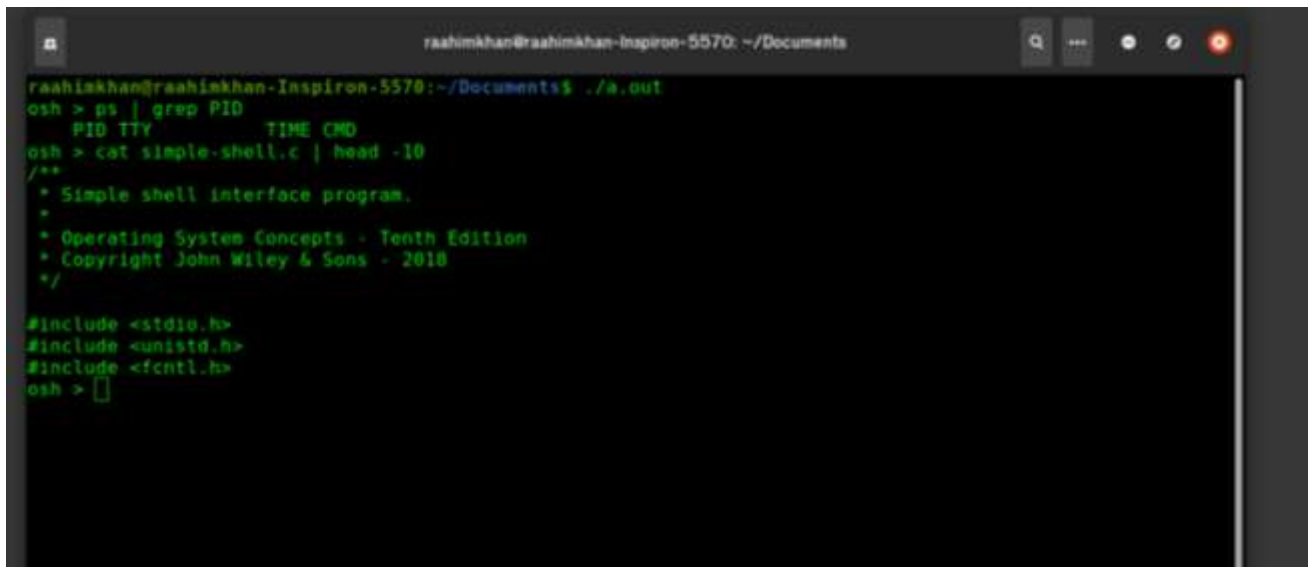
[screenshot]



```
raahimkhan@raahimkhan-Inspiron-5570: ~/Documents
raahimkhan@raahimkhan-Inspiron-5570:~/Documents$ ./a.out
osh > ls -l > muhammadraahimkhan.txt
osh > ^C
raahimkhan@raahimkhan-Inspiron-5570:~/Documents$ chmod +rw muhammadraahimkhan.txt
raahimkhan@raahimkhan-Inspiron-5570:~/Documents$ cat muhammadraahimkhan.txt
total 32
-rwxrwxr-x 1 raahimkhan raahimkhan 17936 23:12 18 اكتوبر a.out
----- 1 raahimkhan raahimkhan      0 23:16 18 اكتوبر muhammadraahimkhan.txt
-rw-rw-r-- 1 raahimkhan raahimkhan 11155 23:08 18 اكتوبر simple-shell.c
raahimkhan@raahimkhan-Inspiron-5570:~/Documents$
```

Part V:

[screenshot]



```
raahimkhan@raahimkhan-Inspiron-5570: ~/Documents
raahimkhan@raahimkhan-Inspiron-5570:~/Documents$ ./a.out
osh > ps | grep PID
PID TTY      TIME CMD
osh > cat simple-shell.c | head -10
/**
 * Simple shell interface program.
 *
 * Operating System Concepts - Tenth Edition
 * Copyright John Wiley & Sons - 2010
 */

#include <stdio.h>
#include <unistd.h>
#include <fcntl.h>
osh >
```