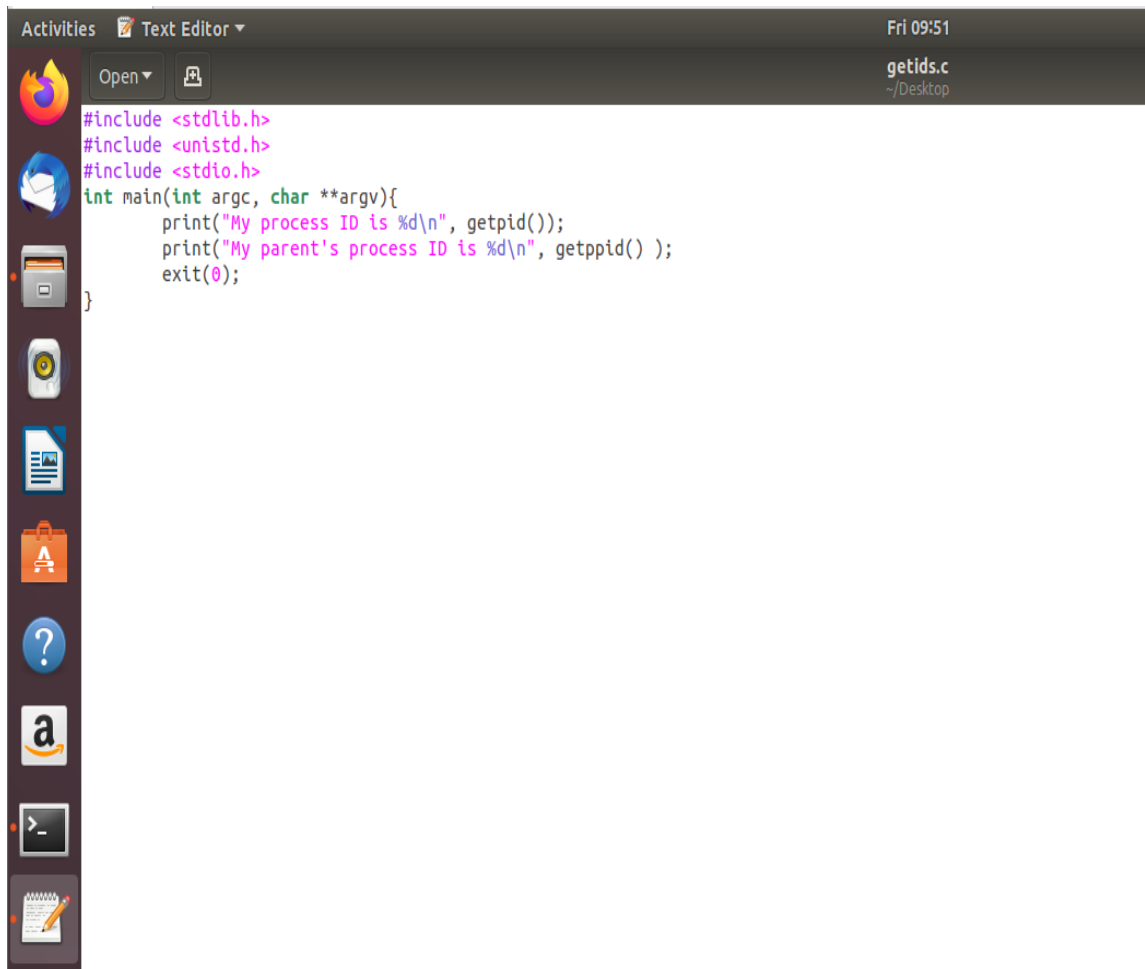# Operating System

Name: Basharat Hussain

Roll No: P17-6102

Section: B

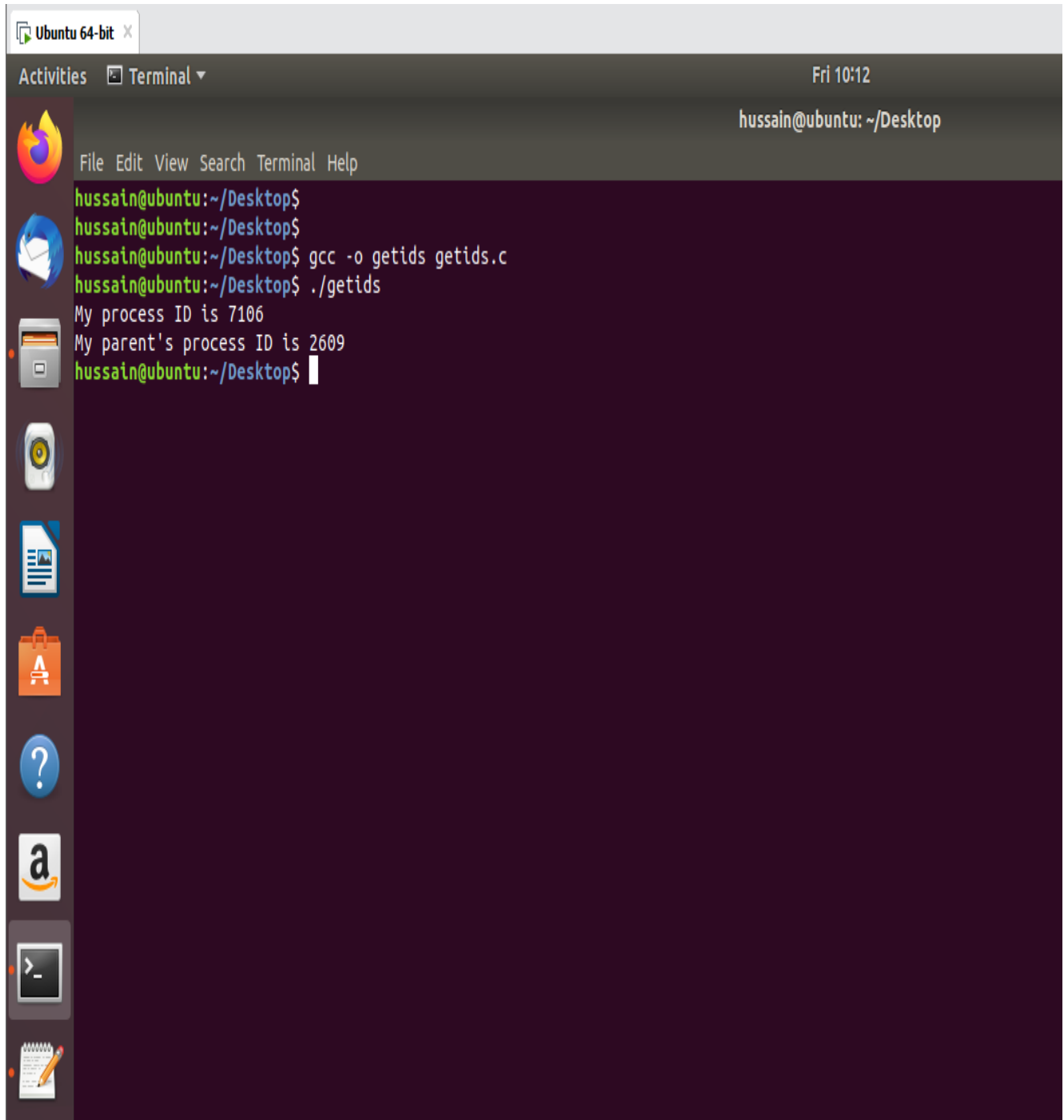**Assignment: 02**

1. I have written the given code by replacing the contents of squared bracket with these function calls getpid() and getppid().

2. The output of above code after compilation and execution is:
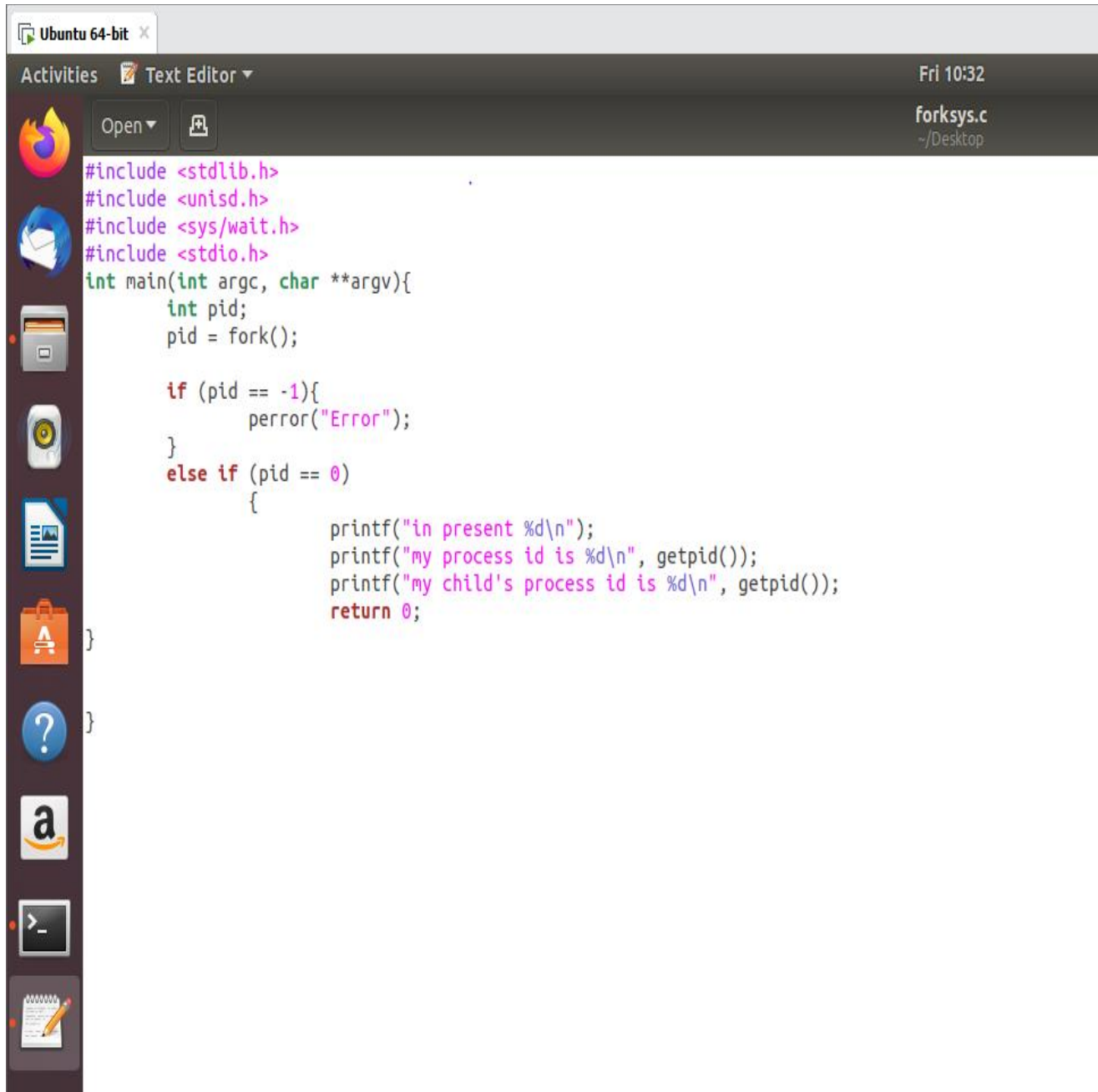


```
hussain@ubuntu:~/Desktop$
hussain@ubuntu:~/Desktop$
hussain@ubuntu:~/Desktop$ gcc -o getids getids.c
hussain@ubuntu:~/Desktop$ ./getids
My process ID is 7106
My parent's process ID is 2609
hussain@ubuntu:~/Desktop$
```
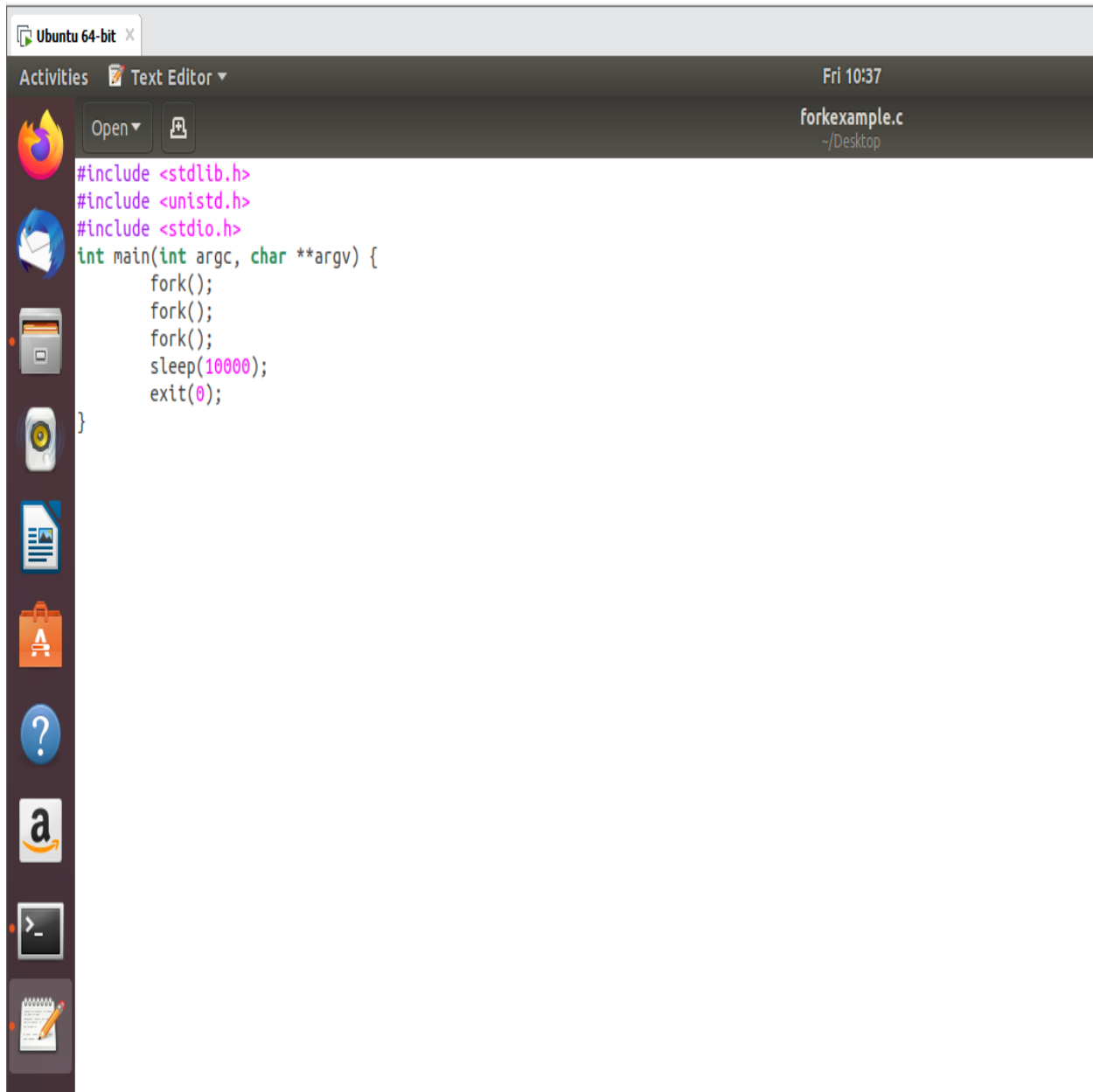
3. Below is the screenshot of complete code for both parent and child processes.

```c
#include <stdlib.h>
#include <unisd.h>
#include <sys/wait.h>
#include <stdio.h>
int main(int argc, char **argv){
        int pid;
        pid = fork();

        if (pid == -1){
                perror("Error");
        }
        else if (pid == 0)
                {
                        printf("in present %d\n");
                        printf("my process id is %d\n", getpid());
                        printf("my child's process id is %d\n", getpid());
                        return 0;
}

}
```
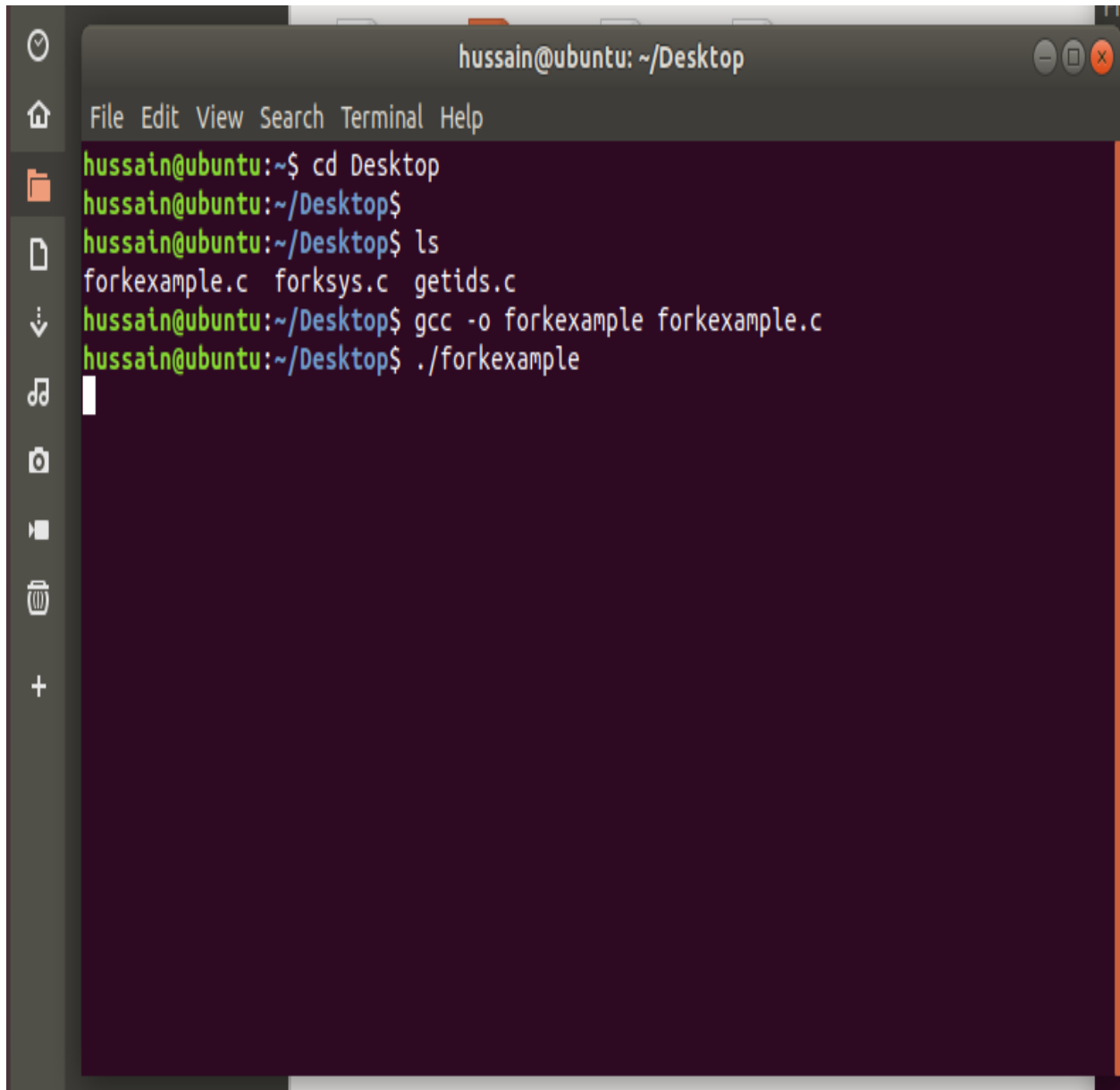
4. Below is the screenshot of code of forkexample.c .

forkexample.c
~/Desktop

Open ▾

```c
#include <stdlib.h>
#include <unistd.h>
#include <stdio.h>
int main(int argc, char **argv) {
        fork();
        fork();
        fork();
        sleep(10000);
        exit(0);
}
```
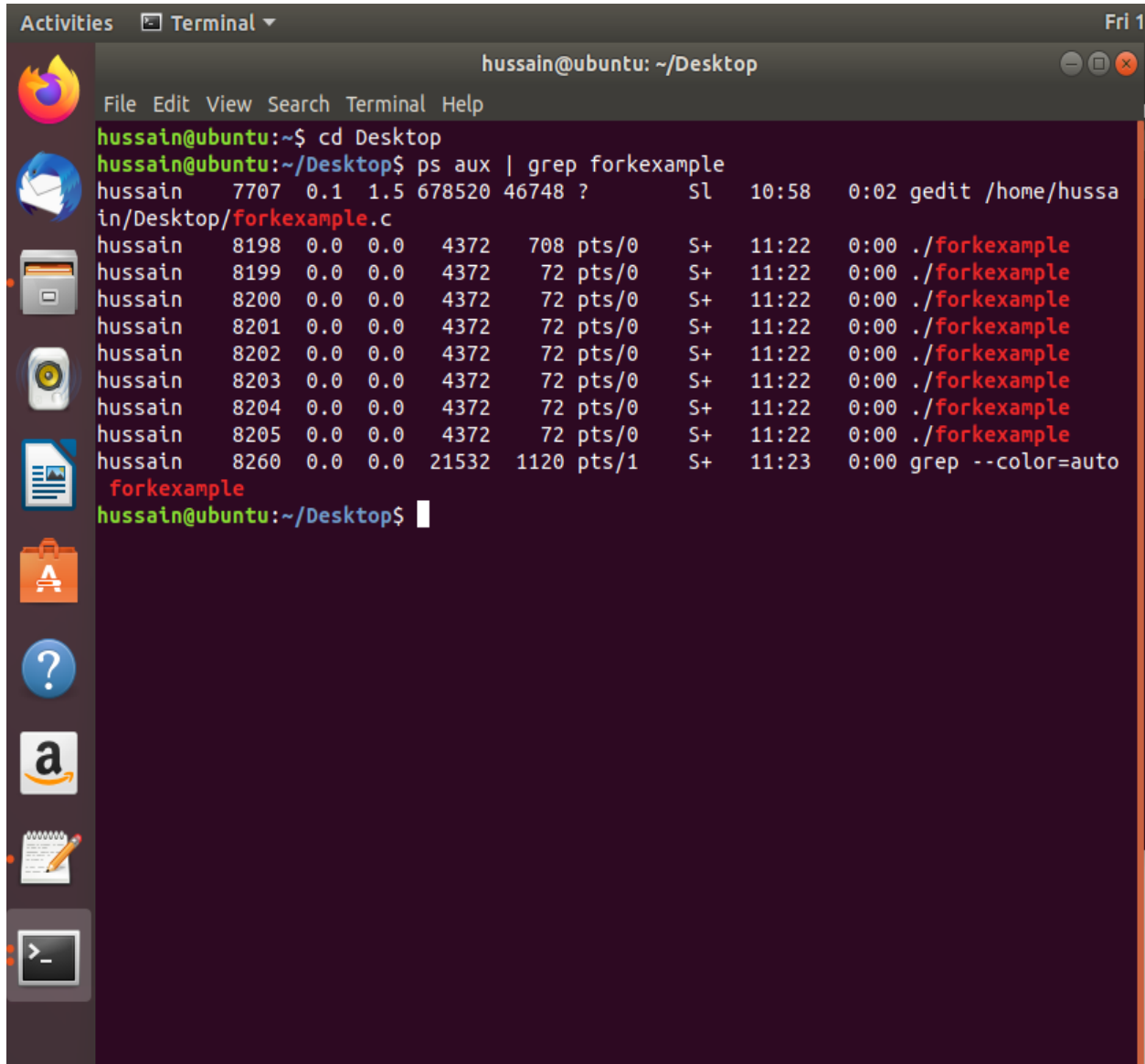
5. **This screenshot is the compilation and execution of forkexample.c**


```
hussain@ubuntu: ~/Desktop
File  Edit  View  Search  Terminal  Help
hussain@ubuntu:~$ cd Desktop
hussain@ubuntu:~/Desktop$
hussain@ubuntu:~/Desktop$ ls
forkexample.c  forksys.c  getids.c
hussain@ubuntu:~/Desktop$ gcc -o forkexample forkexample.c
hussain@ubuntu:~/Desktop$ ./forkexample
```

6. **This is the screenshot for given command which I have executed by opening another terminal.**

We can clearly see that currently there are eight processes are running as a result of three fork() system calls.