

Assignment -1
Operating System
Due Date: 12-03-2024

Questions No 01

8 marks

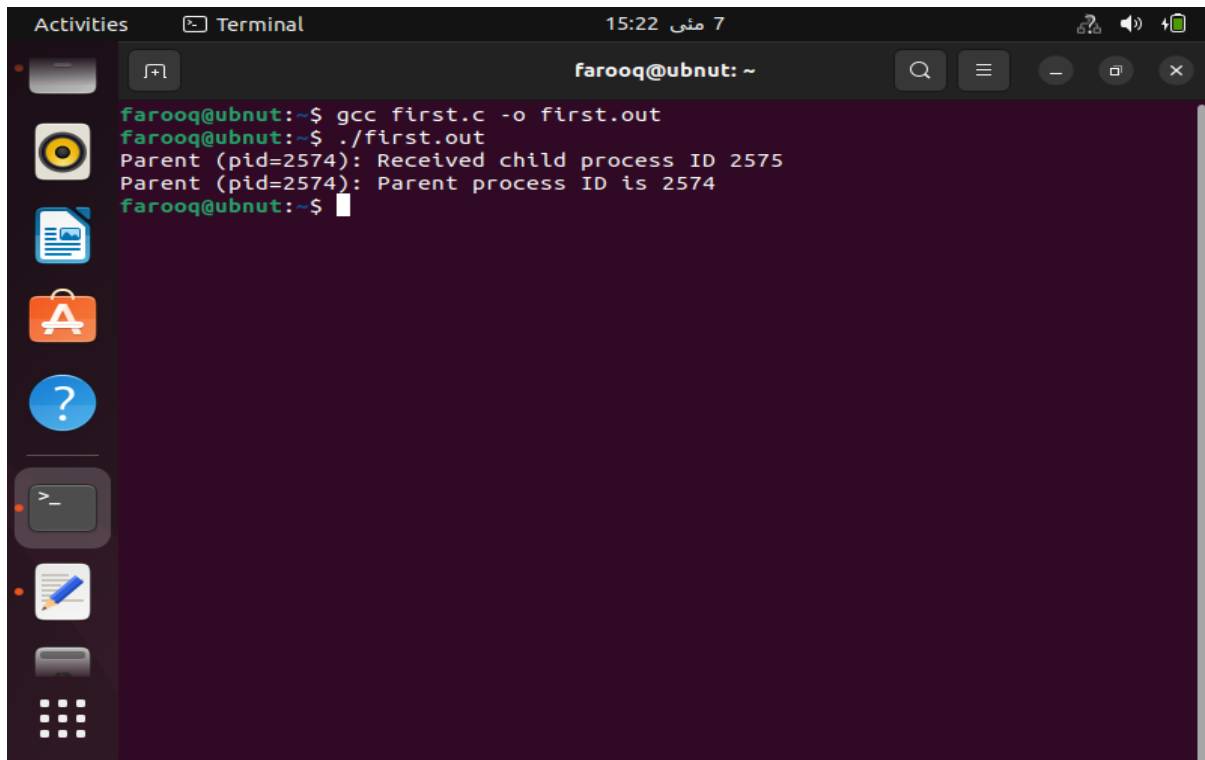
You are required to create the C program for Inter-process Communication between the parent and child process. Following are the functionalities to be carried out by your C program.

- Firstly, parent process creates the pipe through pipe() system call and then creates the child process through fork() system call.
- In the child code it gets its own process id through getpid() system call and then write it to pipe through write() system call.
- In the parent code:
 - a) The parent process read the process Id of child through read() system call and then parent process prints the process id of child.
 - b) Finally, parent process gets and prints its own process id through getpid() system call and printf() function.

The following should be the flow of your program.

- Firstly, compile your C program through command line.
- Run your program.

You are required to send the screenshot along with C Code.
Following is the sample screenshot:



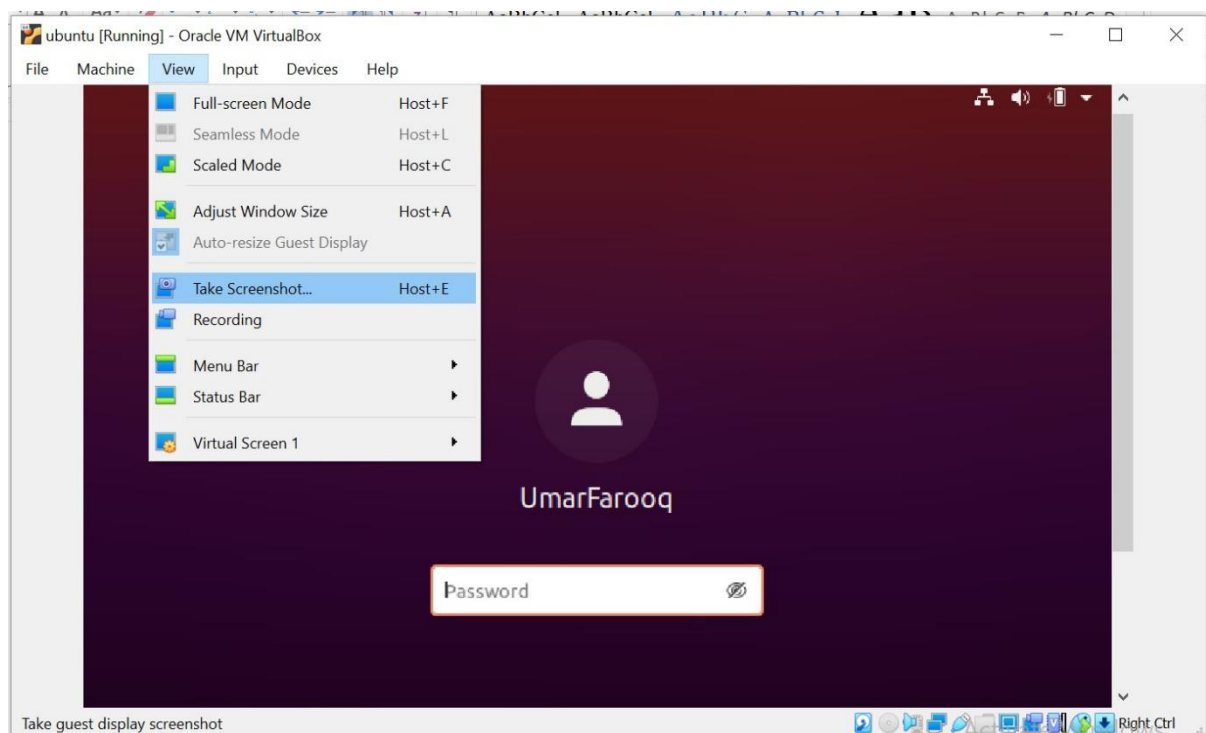
```
farooq@ubnut: ~  
farooq@ubnut:~$ gcc first.c -o first.out  
farooq@ubnut:~$ ./first.out  
Parent (pid=2574): Received child process ID 2575  
Parent (pid=2574): Parent process ID is 2574  
farooq@ubnut:~$
```

Questions No 02**2 marks**

In the following table write the Linux command for the given details.

Detail.	Linux Command
Command to list the contents of current working directory.	
Command to change the current working directory.	
Command used to search for a pattern in a file or files.	
Command is used to display the contents of a file. It can also be used to display the entire contents of a file or a portion of the contents, depending on the options used.	
Command is used to remove a file or directory.	

Note: in case you have installed the Virtual Box you can take the screenshot as follows. Go to the **view** menu and click on **Take Screenshot** as follow.



See the following link for the installation of Virtual Box and Ubuntu (Linux) on your system.

<https://www.youtube.com/watch?v=x5MhydiWmc>

See the following link installing gcc and compiling and running your first program in Linux.

<https://www.youtube.com/watch?v=oLjN6jAg-sY>

THE END