Lab Assignment - 5
(Operating Systems Practice)

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1 & 2)

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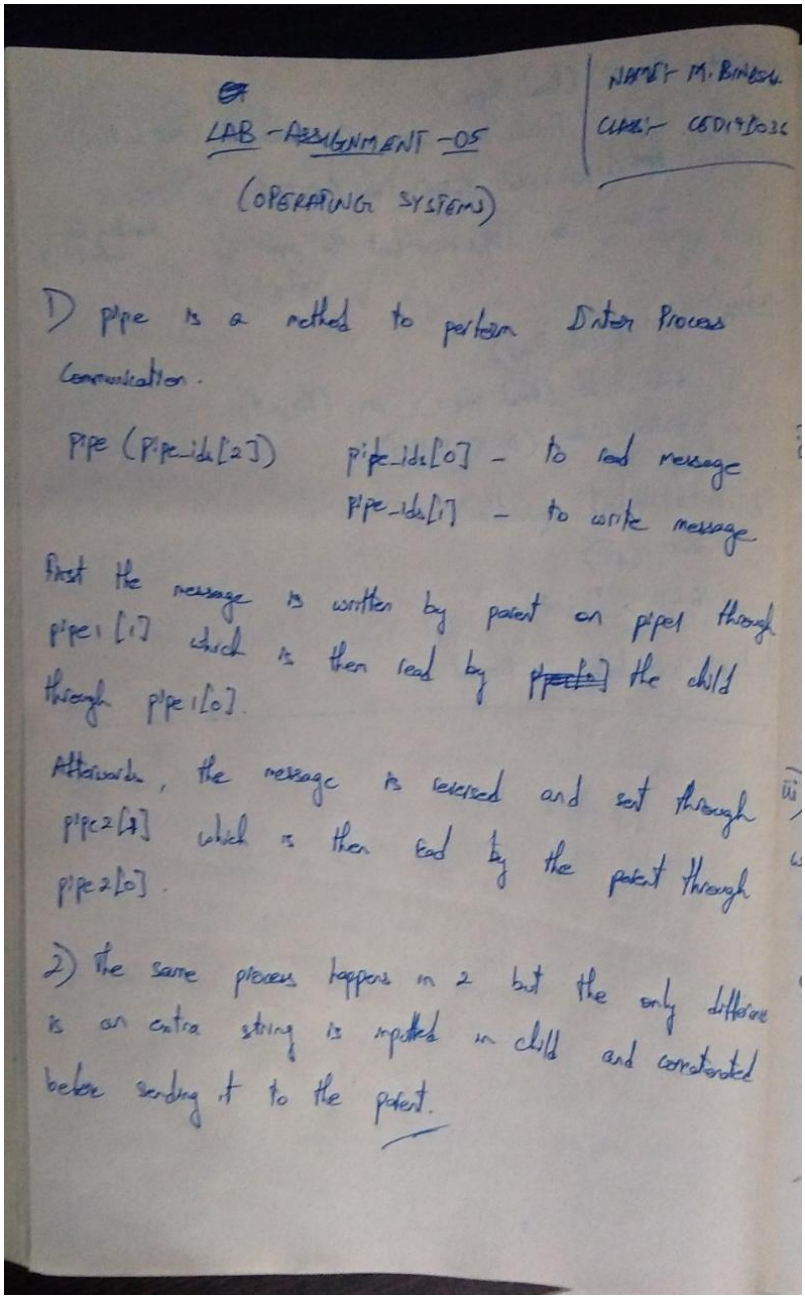


LAB - ASSIGNMENT - 05

(OPERATING SYSTEMS)

1) pipe is a method to perform Inter Process Communication.

pipe (pipe_ids[2]) pipe_ids[0] - to read message
pipe_ids[1] - to write message

First the message is written by parent on pipe1 through pipe1[1] which is then read by ~~pipe[0]~~ the child through pipe1[0].

Afterwards, the message is reversed and sent through pipe2[1] which is then read by the parent through pipe2[0].

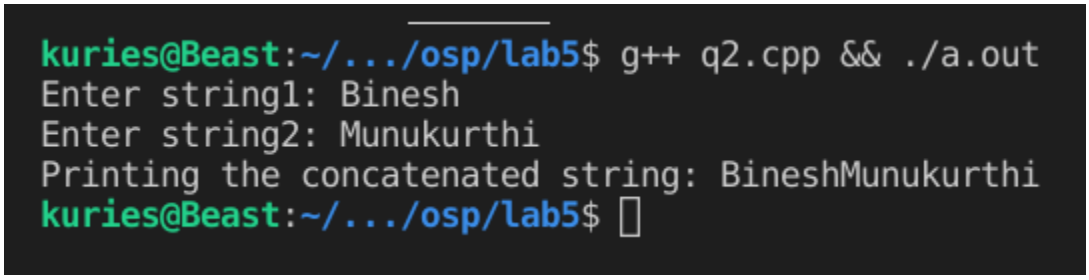
2) The same process happens in 2 but the only difference is an extra string is inputted in child and concatenated before sending it to the parent.

1)

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

```
kuries@Beast:~/.../osp/lab5$ g++ q1.cpp && ./a.out
Enter the input string: hello!!
Printing the reversed string: !!olleh
kuries@Beast:~/.../osp/lab5$
```

2)


kuries@Beast:~/.../osp/lab5$ g++ q2.cpp && ./a.out
Enter string1: Binesh
Enter string2: Munukurthi
Printing the concatenated string: BineshMunukurthi
kuries@Beast:~/.../osp/lab5$

3) i) Opendir - opens a directory and returns a pointer pointing to that directory. Takes the name of the directory as a parameter.

Readdir :- reads the pointer and accesses all the files in that directory.

ii) Open - opens a file. It has different modes
- → read
- → write
- → read - write
- → append

write :- writes to a file. [file descriptor, message and message length]

iii) read() - reads a file, takes in a file descriptor, with a character pointer along with the number of bytes to read.

close :- closes the file (takes file descriptor).

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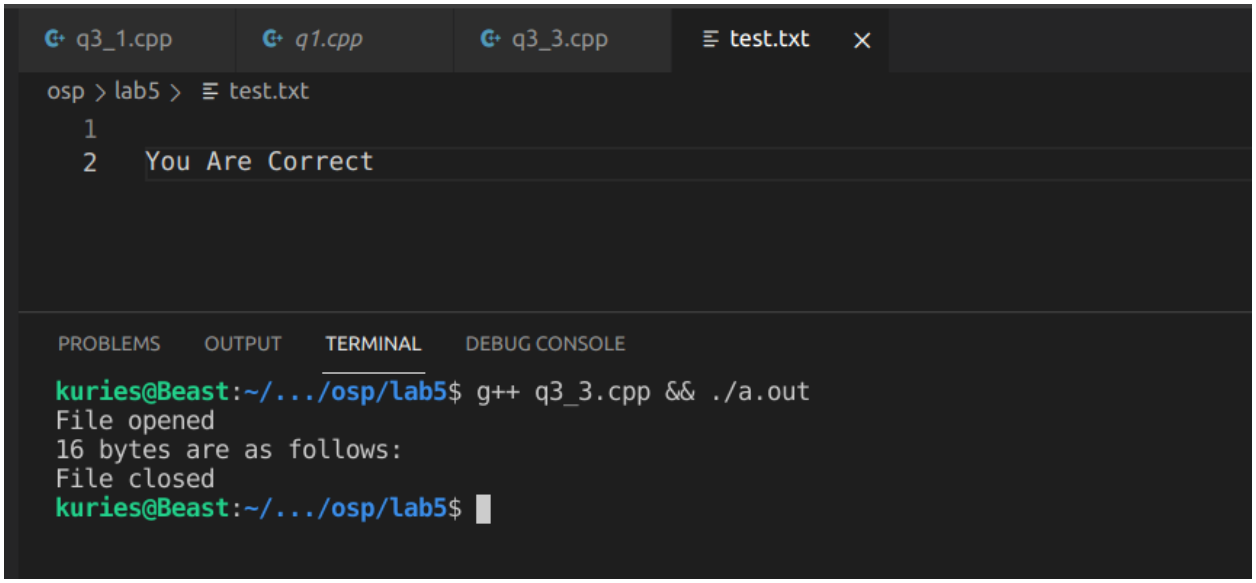
3) a)

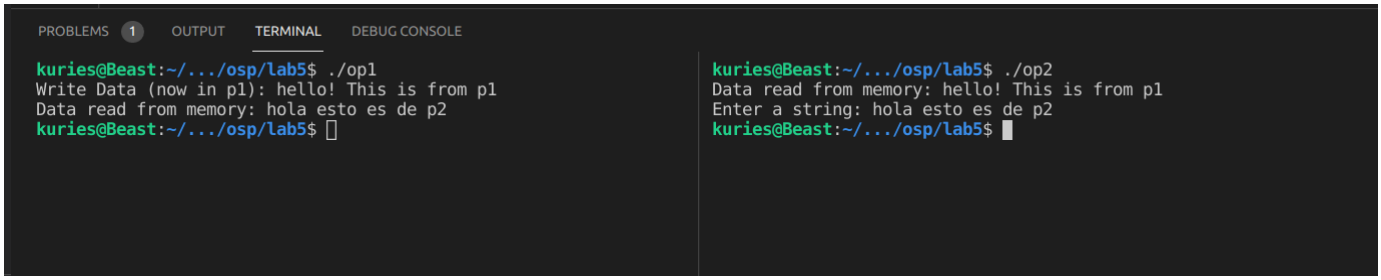
```
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE

kuries@Beast:~/.../osp/lab5$ g++ q3_1.cpp && ./a.out
Current Directory openedp1.cpp
q3_1.cpp
p2.cpp
op2
..
op1
q3_3.c
q1.cpp
a.out
q2.cpp
.
Current Directory Closed
kuries@Beast:~/.../osp/lab5$
```

c)



4)


PROBLEMS 1
OUTPUT
TERMINAL
DEBUG CONSOLE
kuries@Beast:~/.../osp/lab5$ ./op1
Write Data (now in p1): hello! This is from p1
Data read from memory: hola esto es de p2
kuries@Beast:~/.../osp/lab5$
kuries@Beast:~/.../osp/lab5$ ./op2
Data read from memory: hello! This is from p1
Enter a string: hola esto es de p2
kuries@Beast:~/.../osp/lab5$