



National Institute of Technology, Rourkela

CS3071: Operating Systems Laboratory

Autumn 2021

Assignment 7: IPC (FIFO Pipe)

Due: November 08, 2021, 15:40 hours

1. Write two program in C that use the same FIFO and perform the following task:

- a. Server.c – It writes first, then reads.
- b. Client.c – It reads first, then writes.

Server will send one sentence to Client. In return Client will send the statistics of the sentence i.e. number of character, number of words, number of special characters, number of vowels, number of uppercase, number of lowercase and number of digit. They both keep doing it until terminated.

Example

Server.c

I am in OS lab CS3071 !!!

Client : c-25,w-7,sc-3,v-5,uc-2,lc-7,d-4

Client.c

Server : I am in OS lab CS3071 !!!

2. Write two program in C that use the same FIFO and perform the following task:

- a. Server.c – It writes first, then reads.
- b. Client.c – It reads first, then writes.

Server will start the conversation by sending greeting message to client. Then client will send the roll number of a student. Server will search the roll number in a file called “Studentdetails.txt” and sends the student’s name to client if roll number present otherwise it will send the error message to client. They both keep doing it until terminated.

Example

Server.c

Hello welcome to Student name search!!

Client: Name asked for roll number - 24

Client.c

Server: Hello welcome to Student name search!!

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Server: Name – Sumanto Dutta