

INTER PROCESS COMMUNICATION

1. FIFO

In fifo I used `rand` function to generate a random array , then `mkfifo` function to first initialise the fifo operators. After that I opened any file and sent 5 strings to the other program. The second program received the strings and thereby sent back the highest index among the strings. The highest index was then processed and an another batch of 5 strings were sent.

The character to integer conversion was done using the `atoi()` and also the code was exited if the value.

Also the program was exited if the max value got above 50.

Both the program made use of fifo and file functions like `mkfifo`, `open`, `O_RDONLY`, `read`, `write` etc.

2. SHARED MEMORY

In shared memory I used firstly a `rand` function to generate a random array of strings , then I declared a structure to store type of the message and its content. To first initialise the memory I declared a key and then used `ftok()` method to get its memory space.

Afterwards, I wrote the contents to a file using the `open` , `read`, `write` `O_RDONLY` functions and attributes. Afterwards the strings were copied and then sent to the second program where it had the same initialisation and methods and got the 5 strings, It process the strings and then returned the Highest ID which was sent back to the first program which then processed it and sent 5 strings again. I the index got out of 50 then the program completed and it exited.

Functions and methods used were - `ftok()`, `msgrcv()`,`msgctl()`,`msgsnd()`,`msgget()`.