

Assignment-2

(multi-user-Chat-application)

Implementation:

We implemented it using pthreads and shared memory IPC in a single c program called chat_user.c, I used a multi-threaded function called listener to always listen from the recv shared memory for incoming message, and print it when the message is meant for that particular client this was, it has checked by the character of first index which will be 1,2,3 and so on, if it is 1 the message is meant for the user 1, if it is 2 the message is meant for the user 2 and A is used to sent message to all. One shared was used to send message to the other user it keep on reading the input from the user.

Testing:

Compiling: make all

For clearing the binary: make remove

For creating user : ./chat_user user_number, for example = ./chat_user 1
for creating user number 1

Chatting : suppose you want to send message from chat_user 2 to 3, just type in the terminal of user 2, "2 message body" and hit return, suppose chat_user 1 want to send message to all user, just type in the terminal of user 1 "A message body" , to create another user open another terminal in the directory and ./chat_user 2

If a user want exit just type in terminal "exit" and everyone would be able to know who has exited the chat

Input and Output:

Suppose user 1 want to send message to 2

Type in the terminal of user1: 2 message body

On the terminal of user 2: 2 message body : from 1

The line means the message is meant for 2 and it is sent from user 1

Error handled:

When user doesn,t mention he gets error or he simply types in terminal
./chat_user