



Assignment 2

Multi-user chat system



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2018406



About

There are 2 files, server.c & client.c & a Makefile.

Server.c -

It contains the code to start a server & receive message from all the clients & then decide whether to send it all or any particular. It allocates a new socket & also traverse a file list.txt whenever a client joins the chat & searches it name & socket in that, & keeps it updated. It also delete the file when the program closes. It creates a thread which keeps listening for message & another to send the messages.

About

Client.c-

It contains the code to create a new client. It also adds the entry of new client in list.txt & appends it. Then it creates a thread to receive the message & a while loop to take messages from the user.

Usage :

Send message to all:

ALL msg

Send PM:

Name msg

Description

To compile the program run Makefile by : `$make all`

Then start the server by: `$./server`

Then add clients by: `$./client name1`

Then add clients by: `$./client name2`

Then add clients by: `$./client name3`

To send messages to all: `$ ALL msg`

To send PM: `$ name msg`

To exit client: `$ exit`

To exit server: `$ ^C`



Error Handling

Errors are given -

- 1) In client.c code gives error if the connection to server fails.
- 2) It also gives error if the user tries to exit by pressing ^C.
- 3) In server.c it gives binding if the server fails to bind.
- 4) It also gives the error if the sending of messages fails.
- 5) It also gives the error if servers fails to accept the connection from client socket.