

User Manual

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Intro

This is a chat application created in Linux. The calls are handled in C. The chat application features several functionalities such as user that can input their username, a timestamp to display time of message sent, and for user to save their conversation of message in their folder. The server is an application that will be required to start first for the clients to connect. Multiple clients can be connected at any time of which the server will track these clients, sending information back and forth.

Server

To begin the application we will first need to compile and run the server.

1. Launch terminal
2. Navigate to directory of project (Server)
3. Type in “make”
4. After a successful compile, type in ./server
5. User can type in a port after the server, ./server <port>. If no port # is typed in, default port of 7000 will be used.
6. From then on, user can use the compiled version in the directory by simply typing ./server

Client

To begin the client side application, compile and run the client

1. Launch the terminal
2. Navigate to the root directory of the client
3. Type in the following command: “make”
4. After a successful compile, type in ./client
5. User can type in ./client with the following parameters
 - a. The first parameter indicates the server IP to connect to. Typing in 127.0.0.1 or localhost will look to connect to your own local server
 - b. The second parameter indicates the port number to connect to. No parameter here indicates as default port of 7000
 - c. The third parameter indicates the username that will be seen by other client when message is received. No parameter will use the IP as the username.
 - d. The fourth and final parameter if used, indicates the name of the file to save the conversation to.

Using the Application

Upon connecting to the client with the server running, a message will be displayed to the client that there was a successful connection to the server.

```
yaoping@ubuntu:~/Downloads/4981_Assign_3-master/Client$ ./client 127.0.0.1
Connected:      Server Name: 127.0.0.1
                IP Address: 127.0.0.1
```

To talk to other users of the application, simply type in some words and press enter.

```
yaoping@ubuntu:~/Downloads/4981_Assign_3-master/Client$ ./client 127.0.0.1
Connected:      Server Name: 127.0.0.1
                IP Address: 127.0.0.1
hey testing!
this is a test!

yaoping@ubuntu: ~/Downloads/4981_Assign_3-master/Client
yaoping@ubuntu:~$ cd Downloads/4981_Assign_3-master/
yaoping@ubuntu:~/Downloads/4981_Assign_3-master$ cd Client
yaoping@ubuntu:~/Downloads/4981_Assign_3-master/Client$ ./client 127.0.0.1
Connected:      Server Name: 127.0.0.1
                IP Address: 127.0.0.1
hey
[127.0.0.1 2017-03-20 20:18:52]: hey
[127.0.0.1 2017-03-20 20:20:04]: hey
[127.0.0.1 2017-03-20 20:20:04]: hey
Server closed connection
yaoping@ubuntu:~/Downloads/4981_Assign_3-master/Client$ ./client 127.0.0.1
Connected:      Server Name: 127.0.0.1
                IP Address: 127.0.0.1
[127.0.0.1 2017-03-20 20:31:54]: this is a test!
```