

GROUP PROJECT 7: Chat Room

The University of Texas at Austin

EE 422C, Summer 2017

Git URL: <https://github.com/xxuil/Chat>

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DESCRIPTION

For this project, teams of up to two individuals were expected to use Socket programming in order to make a chat room application. The application itself must allow users to create private conversations with other users connected to the application, in addition to having chat rooms where multiple users can connect at once.

FILES BEING SUBMITTED

- README.pdf (includes UML Diagrams)
- team_plan.pdf
- ClientThread.jar
- ServerThread.jar
- ClientObserver.java
- ClientThread.java
- ServerThread.java

SERVER COMPONENT

The server component of our application handles all communications, instructions, and requests that needs to occur for users to start conversations. Listed below are the list of instructions the server receives from clients, and the resulting actions that take place.

CLIENT COMPONENT

The client holds information about the user, including their username, current conversations with friends, and all current clients connected to the server. Using the JavaFX UI we created, we know when a user wants to start a new conversation or join a chat room. When a user clicks a button or requests one of these to be done, we communicate with the server where/how the user wants to connect, and with whom. Listed below are the messages the client receives from the server, and the resulting actions that take place.

HIGH-LEVEL TESTING

In the preliminary testing of our system we ran the server on “local host” within our own machines to make sure that multiple users were receiving the same updates and messages, and also to check that the user interface was being updated correctly. In addition we used print statements to see whether the correct instructions were being sent to the server, and that the server was responding to those instructions accurately. Near the end of finishing the private chat feature chat, and the group chat feature, used a mobile device to check how our application performed over a network. We simply used one of our phones as a wifi hotspot, and

entered the phone's IP address for the instantiation of Sockets. This testing was done on the windows 10 operating system.

UML Diagrams



