Chat Application

Test Results

Register Unit Test

Input	Expected Output	Actual Output	Result
Register user not stored in system	Registered.	Registered.	Pass
Register user who is in the system	Error Message	Error Message	Pass
Attempt to register with empty text fields	Error message	Error Message	Pass

Login Unit Test

Input	Expected Output	Actual Output	Result
Login with user (in system) with correct credentials	Login. Chat opens	Login. Chat opens	Pass
Login with user(in system) with incorrect credentials	Error Message	Error Message	Pass
Attempt to login with empty text fields	Error message	Error Message	Pass

Chat Unit Test

Input	Expected Output	Actual Output	Result
Send message from one client to others via group chat	Sends message to group chat (all other users)	Sends message to group chat (all other users)	Pass
Start chat with logged in user by double clicking name and send them a message	Opens new chat window, only sends message to the recipient	Sends message to group chat (all other users)	Pass

Attempt to send message to user not connected	Impossible. Can only chat with active users	Impossible. Can only chat with active users	Pass
Attempt to send message with empty text field	No action occurs	No action occurs	Pass

Chat History Unit Test

Input	Expected Output	Actual Output	Result
View history of user who has connected and disconnected at least once	Opens chat history	Opens chat history	Pass
View history of user who has not connecte to the system and disconnected at least once (first time logged in)	Opens blank history window	Opens blank history window	Pass

Multiple Clients Unit Test

Input	Expected Output	Actual Output	Result
Login with 3 or more users. Send messages to the group chat.	Successful connections. Messages sent to all client group chat areas	Successful connections. Messages sent to all client group chat areas	Pass

Integration Tests

Login Frame:
Communication between client, server, and the user data store.
Because the register and login cases pass above this test is a Pass, because successful connections and rejections from that unit test prove that the communication between these modules is working.

Main Chat Frame:
Communication between clients and the server.
Because the chat and chat history classes from the unit test are successful above, this test also passes. The user list from the main frame properly updates when a user logs in and logs out (thus showing which users are currently connected and therefore doesn't show those that aren't). Choosing the history button on this page will open the chat history frame.

Chat History:
History will be opened from the main chat frame and displayed in its own window. Because the unit test cases for this pass, this test also passes showing proper communication between the server and client. Choosing the history button will display a blank if the user has not logged in before and a populated window if they have.

Login Database:
The login database controls the text files that contain the username and passwords. Because the login and register unit test cases above pass, this test passes. We see proper communication between the client, server, and the user database.

One-to-one chat frame:
When a user is chosen from a client's primary window, a new chat window will open with a direct communication to that user. Because this feature was shown to be working in the chat unit test, this test also passes. Proper communication between a singular client and another is successful

Login/Logoff Messages:
This test wasn't shown in the unit tests. It demonstrates communication between the server and clients when one closes connection or opens. This was tested with multiple users and each time a user logged on or off, messages were displayed to the logged in users. This test passes.

List of Users Currently Connected:
This test wasn't shown in the unit tests. It further demonstrates communication between the server and clients when one closes connection or opens. When the user logs in, each client's user list will add their name and show it. When the user logs out, each client's user list will remove their name. This test was done while testing the multiple clients unit test and passes.