The messages exchanged between client and server should be documented in a table, listing each message sent, the purpose of the message, and the data contained in the message.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | client | | | server | | |
| Message sent | Purpose | Data contained | Message sent | Purpose | Data contained |
| Send user’s name to server | name | Tell the client’s name to server | User’s name: name. | “valid” | Tell the client that the name given can be used | User name is valid: valid |
| “invalid” | Tell the client that the name given has been used by other people and can’t be used | User name is invalid: invalid |
| “full” | The server reaches the limitation and can’t take client any more | Server full message: full |
| Choice 1 of menu | “1” | Tell the server to display the names of all known users | Choice: 1. | name + “\n” + … + name + “\n” | Send all known users’ names back to client | All users’ names: name |
| “stop” |  |  |
| Choice 2 of menu | “2” | Tell the server to display the names of all currently connected users | Choice: 2. | name + “\n” + … + name + “\n” | Send all currently connected users’ names back to client | All currently connected users’ names: name |
| “stop” |  |  |
| Choice 3 of menu | “3” + “\n” + name + “\n” + message | Tell the server to send a text message to a particular user. Give the name of the particular user to server and the message he wants to send. | Choice: 3.  Name of a particular user: name.  Message sent: message. | “full” | Tell the client that server is full and the particular user he wants to talk to cannot be added to server user list. So the client can’t talk to this particular user. | Server full message: full |
| “Message posted to ” + name | Tell the client that the message has been successfully posted to the particular user |  |
| name + “’s message is full and can’t be saved” |  |  |
| “stop” |  |  |
| Choice 4 of menu | “4” + “\n” + message | Tell the server to send a text message to all currently connected users. And tell the server what message to send. | Choice: 4.  Message sent: message. |  |  |  |
| Choice 5 of menu | “5” + “\n” + message | Tell the server to send a text message to all known users. And tell the server what message to send. | Choice: 5.  Message sent: message. |  |  |  |
| Choice 6 of menu | “6” | Tell the server to get his messages | Choice: 6. |  |  |  |
| Choice 7 of menu | “7” | Tell the server he will exit | Choice: 7. |  |  |  |
|  |  |  |  |  |  |  |