Working Prototype Known Problems

Product name: Client Server Instant Messenger
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List of functions not working correctly:
1. Login tokens expire after a set amount of time (1 hour). This is for security reasons. However, once this token expires, the frontend should require you to re-enter login credentials so you can get a new login token, but this is not implemented yet.
    This results in errors appearing when you use the chat app for more than 1 hour because the backend will respond with 401 Unauthorized errors, but everything will start working if you log out and log back in.
    This could be fixed by requiring the user to re-enter login credentials if they ever receive a 401 response from the backend.
2. Various minor synchronization issues. For example:
    a. If a user opens the chat creation menu, then another user creates an account, that new account will not be listed in the chat members dropdown list (it appears when you refresh the page though)
    b. If User 1 opens the chat page, then User 2 creates a chat with User 1 as a member, then User 1's chat page will not display that new chat until User 1 refreshes the page.
    To fix problem (a), the chat members dropdown list would need to make a request more frequently instead of being cached upon opening the chat creation menu.
    To fix problem (b), new chat creations would need to be emitted from the backend on the web socket connection, and the frontend would need a listener for those events. Then, each time it receives an event, it would put the new chat room in the chat list sidebar.
3. Very quickly spamming messages in a chat room will cause some of the messages to not render correctly on the spammer's screen (only some of the text bubbles will be visible). However, all the messages will still be sent to the backend, recorded in the database, and displayed on other users' screens correctly.