

Create a Chat web applications where users can login and start chatting with other users with the following requirements:

- App has a landing "auth" page where users login or create new accounts.
- App has another "chat" page where you can find all users that are registered to the application.
- On Clicking on one of the users, a chat box opens showing the messages between you and them.
- User can type a message in a field and click send for the message to appear in the chat and to the other user as well.
- Chat page should have a logout button.
- Backend app can use runtime memory (arrays) to save users and messages (Bonus: integrate DB with the app)
- App should be **Responsive** (works on all viewports from mobile to wide desktop).
- Use 3-layer backend architecture.
 - One to handle DB
 - One to handle Validations
 - One to handle routes

Bonus additions:

Overall

- Have a clear and consistent design
- Use git properly, Create branches for feature and use commits with consistent message naming convention.

Backend

- Add typescript to Backend
- Graceful error handling (Wrong credentials, hitting APIs without token, adding wrong user/message)
- Password are not saved directly in the Database.
- When two users are chatting (online) at the same times, messages should appear in both screens real time (without the need to refresh)
- Add possibility to create chats with multiple users.
- User object can save avatar as well

Frontend

- Graceful error handling (Backend errors, connection error, fields validation...)
- Don't overfetch data (that will not be used/shown) in the Frontend.

- Add typescript to Frontend
- logged in users can't see the login page (get redirected to Chat page)
- logged out users can't see the chat page (get redirected to Login page)
- Login has a "remember me" checkbox, if marked, user remains logged in in the browser, if not, user logs out once the session ends.
- Next to logout button, user could have his own Avatar, clicking on it either:
 - Opens modal to upload new Profile Picture
 - Opens `/profile` page that the user can change his details (including the avatar)