☐ Backend

- ☑ ~~Create Springboot project~~
  - ☑ ~~Add dependencies (maven, springboot dependencies, cucumber and rest assured for testing)~~
  - ☑ ~~Set up application profile (h2 database details, port number,~~
  - ☐ Probably comment out these lines once application is finished spring.datasource.username=sa , spring.datasource.password= , spring.h2.console.enabled=true
- ☑ ~~Set up Project~~
  - ☑ ~~Testing~~
    - ☑ ~~Auth Controller endpoints~~
    - ☑ ~~User Controller endpoints~~
    - ☑ ~~Services~~
  - ☑ ~~Create Models~~
    - ☑ ~~User~~
    - ☑ ~~Room~~
    - ☑ ~~Chat~~
    - ☑ ~~Login Response~~
    - ☑ ~~Login Request~~
  - ☑ ~~Create Exceptions~~
    - ☑ ~~AlreadyExist~~
    - ☑ ~~NotFound~~
  - ☑ ~~Create Controllers~~
    - ☑ ~~Auth Controller~~
      - ☑ ~~Endpoints~~
        - ☑ ~~Register~~
        - ☑ ~~Login~~
    - ☑ ~~User Controller~~
      - ☑ ~~Endpoints~~
        - ☑ ~~Create Room~~
        - ☑ ~~Get all Chats for this Room~~
        - ☑ ~~CRUD for Chats~~
          - ☐ Get all chats for this User
  - ☑ ~~Create Services~~
    - ☑ ~~User Service~~
      - ☑ ~~Create Room~~
      - ☐ Get all Chats for this Room
      - ☑ ~~CRUD for Chats~~
        - ☐ Get all chats for this User

- [x] ~~Create Repositories~~
  - [x] ~~User Repository~~
    - [x] ~~findByID~~
  - [x] ~~Room Repository~~
  - [x] ~~Chat Repository~~
    - [x] ~~findById,UserId,RoomId~~
- [x] ~~Security~~
  - [x] ~~JWTRequestFilter~~
  - [x] ~~JWTUtils~~
  - [x] ~~MyUserDetails~~
  - [x] ~~MyUserDetailsService~~
  - [x] ~~SecurityConfiguration~~

☐ Frontend

- [x] ~~Create Angular project~~
- [x] ~~Set up HTML and CSS for each page~~
  - [x] ~~Landing Page~~
    - [x] ~~Welcome message~~
    - [x] ~~Username input field~~
    - [x] ~~Password input field~~
    - [x] ~~Sign In Button~~
    - [x] ~~Guest Button~~
    - [x] ~~Sign up Button~~
  - [x] ~~Main page~~
    - [x] ~~Join room message~~
    - [x] ~~Buttons for each room~~
      - [x] ~~Max 10 per page~~
    - [x] ~~More rooms message~~
    - [x] ~~Pagination buttons~~
    - [x] ~~Sign out button~~
    - [x] ~~Create room button~~
  - [x] ~~Room page~~
    - [x] ~~Div for each message~~
      - [x] ~~Name of sender~~
      - [x] ~~Max 20 per page~~
    - [x] ~~Home button~~
    - [x] ~~Edit button~~

- ☑ ~~Delete button~~
- ☑ ~~Input field~~
    - ☐ Starts small, expands if clicked
    - ☑ ~~Submit button~~
- ☐ Link to backend
    - ☐ Landing page
        - ☑ ~~When sign in button is clicked~~
            - ☑ ~~Checks if both input fields not empty~~
            - ☑ ~~Send post request to backend to validate login~~
        - ☑ ~~When guest button is clicked~~
            - ☐ Send post request to backend, create new User - guestXXX
            - ☑ ~~Send post request to backend, login guest user~~
        - ☑ ~~When sign up button is clicked~~
            - ☑ ~~Checks if both input fields not empty~~
            - ☑ ~~Send post request to backend to validate User creation~~
        - ☑ ~~Upon successful completion of any button action, re-reoute to Main page~~
    - ☐ Main page
        - ☑ ~~Function that runs on timer (3 secs?): pings backend with get request for all rooms in database (change detection to only re-render on new info?)~~
        - ☑ ~~When a room is clicked, reroute to Room page with that Room's id~~
        - ☑ ~~More rooms~~
            - ☑ ~~Re renders room list with next page from backend~~
                - ☑ ~~Buttons for forward 1 page, back 1 page~~
                    - ☑ ~~Greyed out and not clickable if on 1st page or last page of results~~
                - ☑ ~~Page numbers buttons~~
                    - ☑ ~~Re-renders specified page~~
        - ☑ ~~Sign out~~
            - ☑ ~~Redirects to Landing Page~~
                - ☑ ~~Backend clears out MyUserDetails ?~~
        - ☑ ~~Create room button~~
            - ☐ onclick should change into an input field for the room's name, and submit button, when submit button is clicked, send request to backend
    - ☐ Room Page
        - ☑ ~~Function that runs on timer (3 secs?): pings backend with get request for all Chats in this room in database (change detection to only re-render on new info?)~~

- [x] ~~Dynamically loads in chats for this room by getting roomId from url, sending request to database for information from room with specific roomId, then loading~~
- [ ] Make div that appears if edit button is clicked
    - [ ] New input field, starts with original message
    - [x] ~~Submit button~~
        - [x] ~~Sends update request to backend~~
        - [x] ~~Re-renders message~~
- [x] ~~Delete button~~
    - [x] ~~Sends delete request to backend~~
    - [x] ~~Re renders without message~~
- [x] ~~Input field~~
    - [x] ~~Submit button~~
        - [x] ~~Sends post request to backend~~
        - [x] ~~Re-renders with new message~~
- [ ] Bonus feature: scrollable window for displaying Chats
- [ ] Bonus feature: Hover message
    - [ ] Display sent time
    - [ ] If edited, display edited time message