Chat System Approach

How to run:

- First run the docker to start the database: docker compose up -d
- Run the server using: npm run dev
- Run the client using: npm run dev

User flow:

- User starts with the login/signup page when entering the application
- User enters credentials (username and password)
  - Correct credentials -> enters the chats-main page
  - Else -> wrong credentials
- User can sign up
  - If username is taken -> refuse request
  - Else -> accept the new user and store then in the data base
- User can choose to login or sign up from same page
- In chats-main:
  - User can see all users and chat with any one of them
  - User send message and start life chat with any user

Features:

- **Implement user authentication: registration and login (JWT or OAuth).**
- **Allow users to start one-to-one real-time conversations.**
- **Enable sending and receiving text messages and images (image upload & storage).**
- **Inbox page: show active conversations and timestamps.**
- **Store users, conversations, and messages in the database.**

Future enhancements:

- Separate login and sign up and add more user information to sign up
- Make user able to start multiple communication with multiusers
- Allow user notification

Database structure:

User:

- Id
- Username
- Pass

Chat:

- Id
- User1
- User2
- Messages:
    - Sender_name
    - Time
    - Message
    - Message_type: text or image

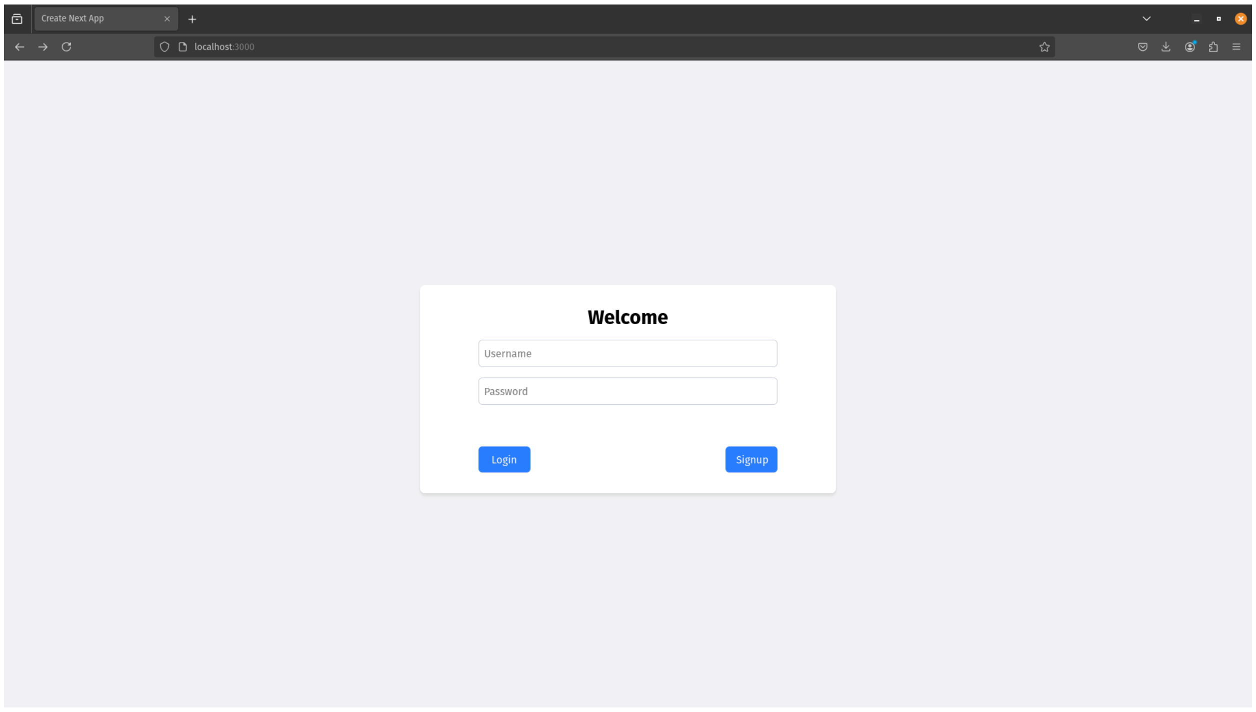
Docker config:

- These configurations are set to adjust the database where we will save our *mysql* data

```
version: "3.9"
services:
  mysql:
    image: mysql:8.0
    container_name: mysql_db
    restart: always
    environment:
      MYSQL_ROOT_PASSWORD: mysql_root_password
      MYSQL_DATABASE: mysql_db
      MYSQL_USER: chat_system
      MYSQL_PASSWORD: chat_system_password
    ports:
      - "3306:3306"
    volumes:
      - mysql_data:/var/lib/mysql

volumes:
  Mysql_data:
```

Screenshots:



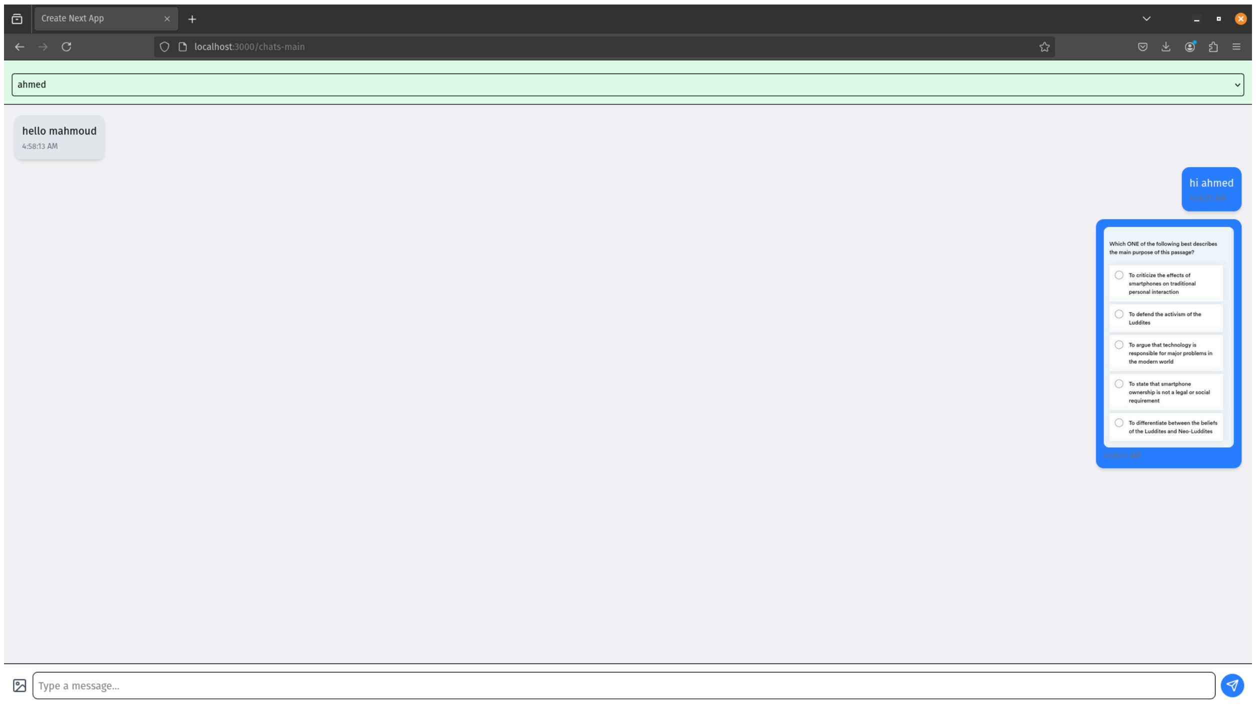
Welcome

Username

Password

Login

Signup



hello mahmoud
4:58:13 AM

hi ahmed
4:58:21 AM

Which ONE of the following best describes the main purpose of this passage?

- ○ To criticize the effects of smartphones on traditional personal interaction
- ○ To defend the activism of the Luddites
- ○ To argue that technology is responsible for major problems in the modern world
- ○ To state that smartphone ownership is not a legal or social requirement
- ○ To differentiate between the beliefs of the Luddites and Neo-Luddites

4:58:33 AM

Type a message...