# **Local Messaging System Report**

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#### **Project Programming Language and Framework**

Java, Spring Boot, POSTGRESQL, WEB APP

#### Introduction

Our Local Messaging System is a web application developed with Java, Spring Boot, and PostgreSQL. It allows users to send and receive messages with other users within their local network. The system supports one-to-one and group messaging, and offers a user-friendly interface for composing and managing messages. It is designed to be robust, secure, and scalable, providing a cutting-edge solution for local network communication.

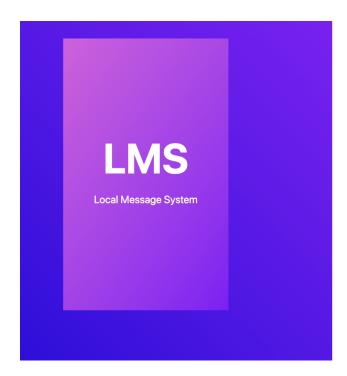
#### **Project Plan**

- 1. Setup Project + SQL database **Shuming**
- 2. UI Shijie
- 3. User Authentication Module: This module handles the user authentication process, including user registration, login, and password reset functionality. You will need to implement secure password storage and use libraries such as Spring Security to prevent unauthorized access to the application. **Shuming + Shijie (Mar, 22)**
- 4. User Management Module: Duc + Lei (Mar, 24)
  - a. Edit user profiles (Lei)
  - b. Change user avatar image (**Duc**)
- 5. Chat Room Management Module: This module manages chat rooms and their associated data. It includes features such as creating and joining chat rooms, displaying active chat rooms, and listing the chat room participants. **Shuming + Shijie** (Mar, 27)
- Messaging Module: This module handles real-time messaging between users in a chat room. It includes features such as sending and receiving messages, displaying message history, and implementing real-time notifications for new messages. **Duc + Lei** (Mar, 27)
- 7. Testing.

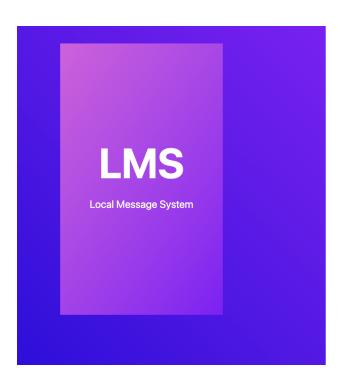
## Challenges

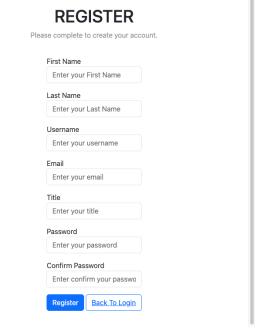
- 1. Learn a new framework.
- 2. Understand configuration of the application.
- 3. Build a web application from scratch.
- 4. Communication gap, and the team does not collaborate effectively.

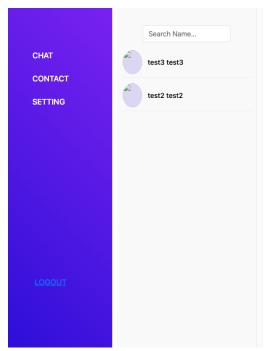
## **Project Screenshots**



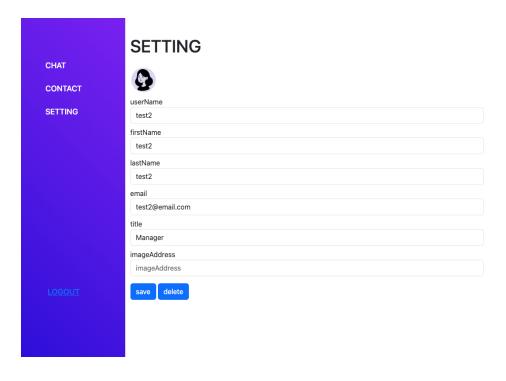


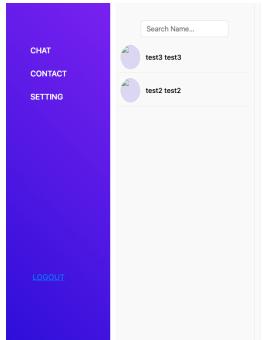


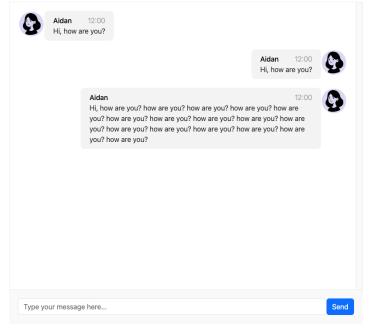












### Conclution

Building a Local Messaging System is a challenging task. Despite the challenges, we successfully built a Local Messaging System that provides an efficient and user-friendly platform for communication within a local network. Through collaboration, determination, and

perseverance, we overcame technical obstacles and delivered this application that meets the needs of our users.