# Bauhaus-Universität Weimar

Digital Engineering Program

# SOFTWARE ENGINEERING

Project Handover 1

# HOLLA

Group Q


Group Members:

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## About the Application

For the second assignment of the software engineering course, we were contracted by group R to implement a chat application “Holla”. It is intended to facilitate seamless communication within a closed group or team environment, ensuring confidentiality and privacy of conversations. It is a java-based chat application where users are able to chat with each other in real time. The objectives of the project provided by the former team are:

- Ensure secure and private messaging between users
- Enable users to create accounts and log in securely
- Implement a user-friendly messaging interface for sending and receiving text messages in real time.
- Store messages and user data securely and persistently in a database, ensuring data integrity and availability.

On the launching page of the application, users will encounter the application's title prominently displayed two distinct options: one facilitating login and the other enabling user registration. To access the application's full functionality, first-time users will need to register for an account. During registration, users will be prompted to provide their full name, email address, username, and a secure password. Upon successful registration, users can proceed to login. Registered users can access the application by logging in with their credentials. This involves entering their username and password. The system verifies the entered credentials against those stored securely in the database. A successful login will grant access to the application's home page. The home page displays a list of your contacts. Clicking on a specific contact will initiate a chat session with that user. Messages are transmitted in real-time, ensuring updates on both the sender's and recipient's chat interfaces within two seconds.

Apart from text messages, improve the message interface with features such as message formatting, emojis and file attachments. Furthermore, group chat feature needs to be enabled in the application. Advanced features like message search, offline messaging and notifications are mentioned in the shared report.

## ImplementedTasks:

- Created a welcome page for the application with sign up and login buttons.
- Designed an user interface with two buttons for sign up and login
- Signup page for new user
- Creating and connecting database for storing and retrieving data of the user and chat
- Login page for registered users
- Home page containing the names of all registered users
- Search functionality framework (only frontend) is implemented to search receivers.
- Chat window for real time chatting between the user and the receiver

## FutureFeaturesandImprovements:

- Profile management feature needs to be implemented so that the user can change his basic details given during the registration time.
- Group chat functionality
- Improve messaging interface with emojis and file attachments
- User experience can be enhanced by implementing additional features like message search, offline messaging and notifications.
- The search functionality feature in “afterlogin” page needs to be implemented.
- Optimize the message handling methods such as StoreMessage , FetchMessage by reducing the chat history displayed.
- Optimize and enhance the message storing tables.

Please review the initial description file of the project for additional future features and improvements.