MERN Stack Chat Application

Submitted in partial fulfillment of the requirements for the award of degree of

BACHELOR OF ENGINEERING
IN
COMPUTER SCIENCE & ENGINEERING

Submitted to: **Submitted By:**
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- ## **Introduction**

  Chat refers to the process of communicating, interacting and/or exchanging messages over the Internet. It involves two or more individuals that communicate through a chat-enabled service or software.

  Chat is also known as chatting, online chat or Internet chat.

  Software which enables user to chat is called Chat Application.

  ### Purpose and Scope

  The purpose of the chat application is to allow users be able to the chat with each other, like a normal chat application. The users will be able to chat with each other, most likely only from user to user, no group chatting will be developed, unless there is time to do so.
  The chat application will be written in java, but due to the lack of experience in java, while developing the application, practicing techniques with java and working on it as much as possible will help hone some java skills and be more ready to develop the application.

  For the scope of the project, the project will be tested as the program is being developed.
  A database for the users registered will be developed and tested, a menu will be developed and tested, a client/server interface will be developed and tested, and GUI's will be developed and tested, for the users' benefits. When the chat application is near completion, more testing will be done in order to make it less buggy or more user Friendly.

- ## **Scope Of Project**

  The functionality of the chat application is to give the ability to chat with whoever is online on the application. The users and stakeholders will be a small group for now, The use cases will be what is available to the user, and the functional/nonfunctional requirements will be covered, as well as the milestones of the chat application.

  ### **Main Menu**

  When the client runs the chat application, the client will see the main menu, which will welcome them, At the main menu, the client will have the choice to register for the chat application, login to the chat application, or exit it.

Register/Login/Logout

The user must register in order to login, the user must login in order to send messages to those who are online, and must be able to logout if the user wants to logout.

Online menu

After the client is logged in, the client can choose to send a message, only if another client is online, check who is online, and be able to logout when the client wants to, which will be by logging out by hitting the logout button or by hitting the exit button.

Users Online

When the client wants to see who is online, the client clicks the "who is online" button in the online menu, and the client can choose who to message, by double clicking the name. Message

When the client wants to message the user, the client clicks on the name, the user can send a message to another online user. Some character limitations for typing might be put into place, only if it is necessary.

Chat history

When the client wants to see the chat history, the user will be able to do so. The user will be able to clear the history if the user wants to**.**

- ## <u>Software User</u>

Frontend

- HTML
- *CSS*
- Javascript
- React
- Socket.io-client
- Sass
- Framer-motion
- Redux

Backend

- Javascript
- Node.js
- Express.js
- Socket.io

- Peer.js
- Express-File-Upload
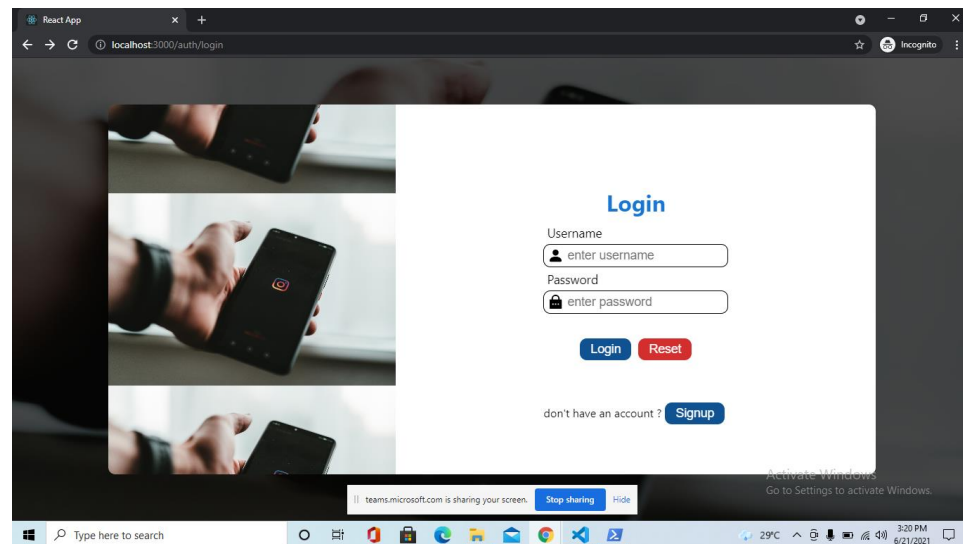- Bcrypt
- Cors
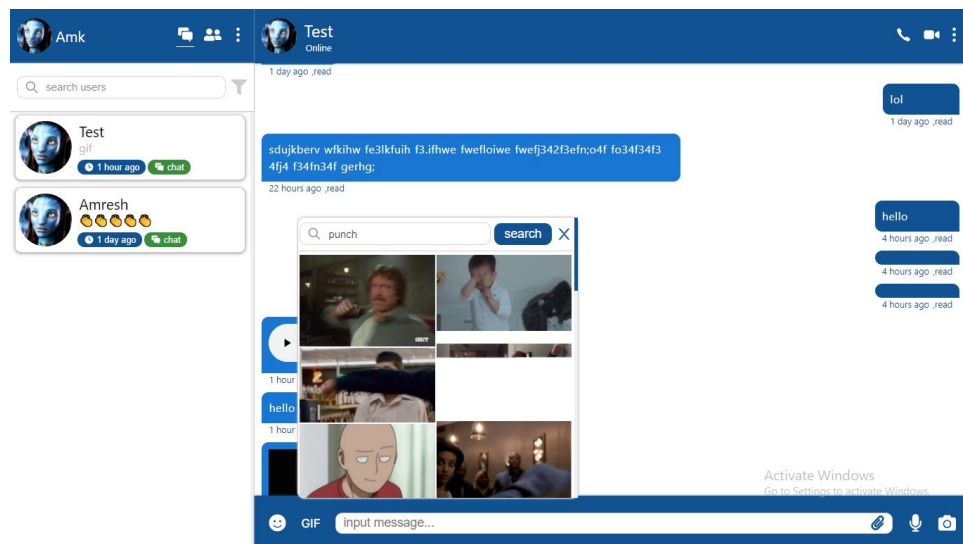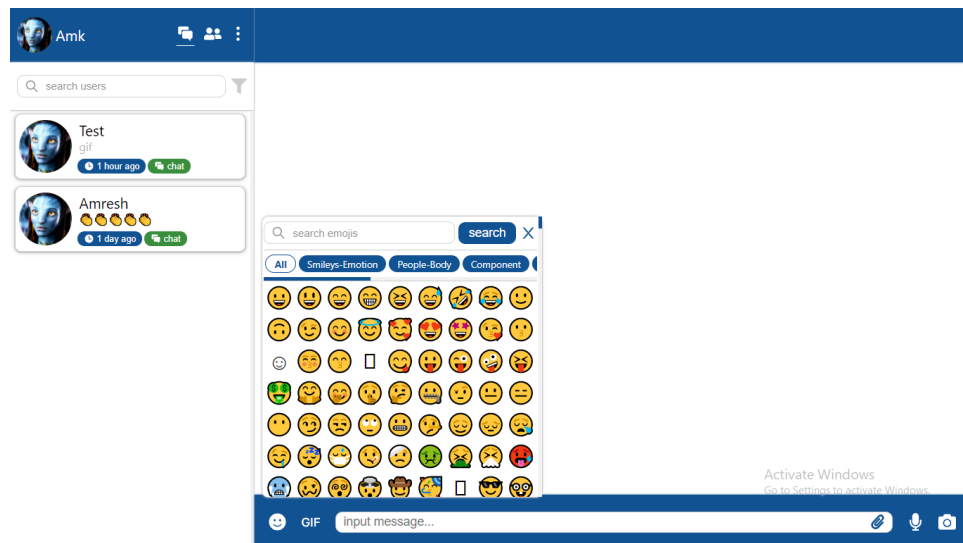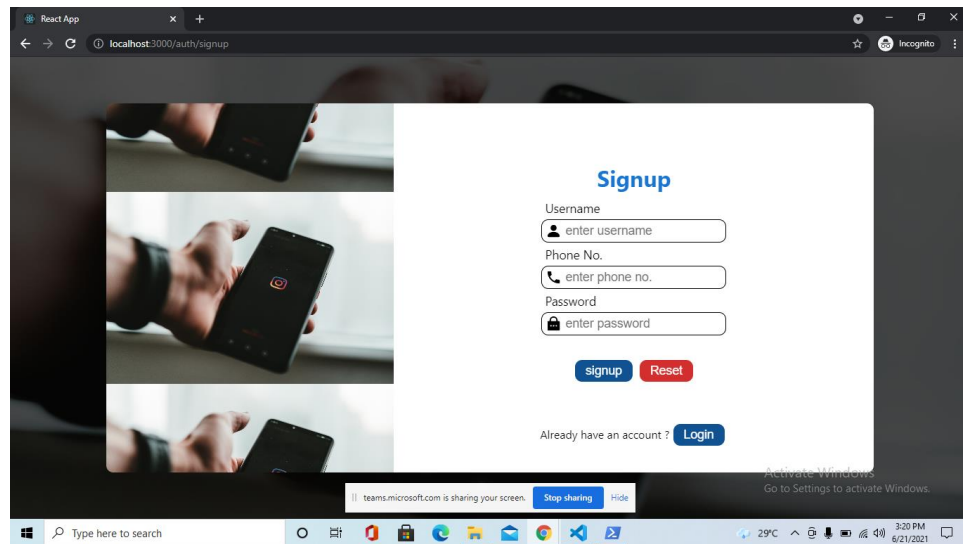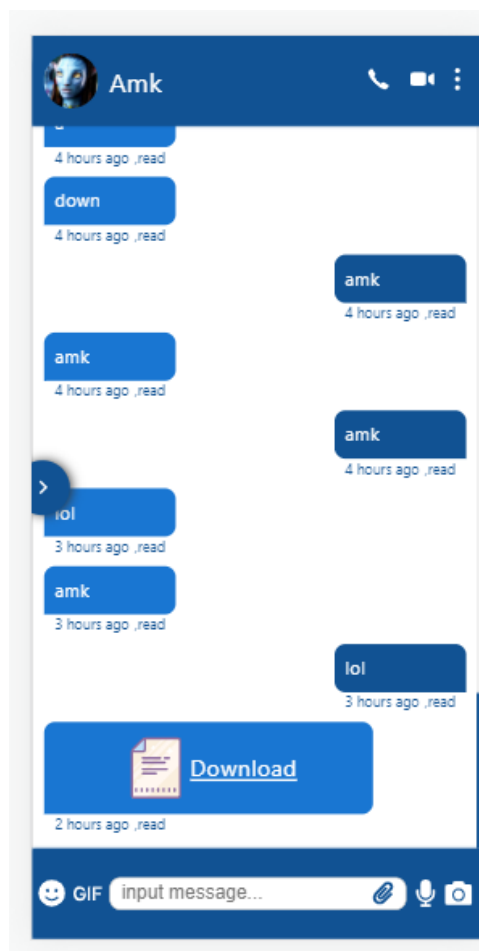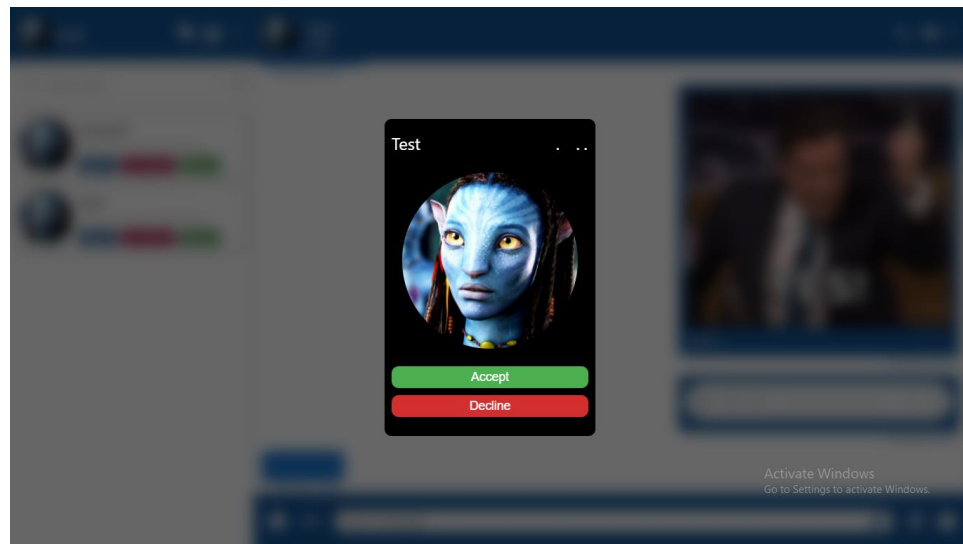- Json Web Tokens
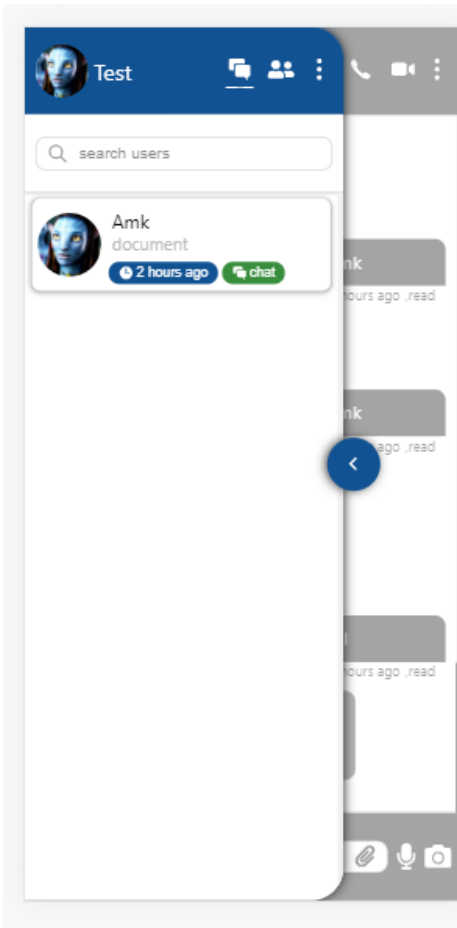- Mongoose

Database

- MongoDB

• <u>Limitations</u>

- The Software is still in Beta Phase.
- No Gropu Chat Functionality Added.
- Software Bugs sometimes cause Glitches

• <u>Screen shots</u>

Test

search users

Amk
document
🕐 2 hours ago   💬 chat

Setting

👤 Profile Setting ⌄

Username
👤 test

Phone No.
📞 22334455

Status
✏️ Hey! drop me a message.

👤 Update   ↻ Reset

👤 contactSetting ⌄

Test

Are you sure you want to logout?

Logout　　　Cancel