

CHAT CONNECT

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1. INTRODUCTION

Today Developers around the world are making efforts to enhance user experience of using Today Engineers around the world are making efforts to improve the user experience of the application and to improve the workflow of the developer to design applications to deliver projects and applications for the release of releases under a strict timeline. Stacks can be used to build web applications in a very short time. Stacks used in web development are basically a software developer response to current needs. Embrace existing frameworks (including JavaScript) to make their lives easier. Although there are many, MEAN and MERN are just two of the most popular stacks that came out of JavaScript.

Both stacks are made with open source components and provide an end-to-end framework for building comprehensive web applications that enable browsers to interact with the site. The common theme between the two is JavaScript and this is also a major advantage of using any stack. One can avoid any syntax errors and any confusion by encoding in one programming language, JavaScript. Another benefit of building web projects with MERN is the fact that one can benefit from its improved flexibility. To understand the MERN stack, we need to understand the four components that make up the MERN stack, namely MongoDB, Express.js, React and Node.js.

1.1 Overview

Chat supports team collaboration by providing:

- Direct messages between users.
- Threaded conversations within spaces.
- Chat spaces that let you dedicate discussion space on a per-project, per-team, or other basis.
- Chat apps that can participate in spaces or respond to direct messages.

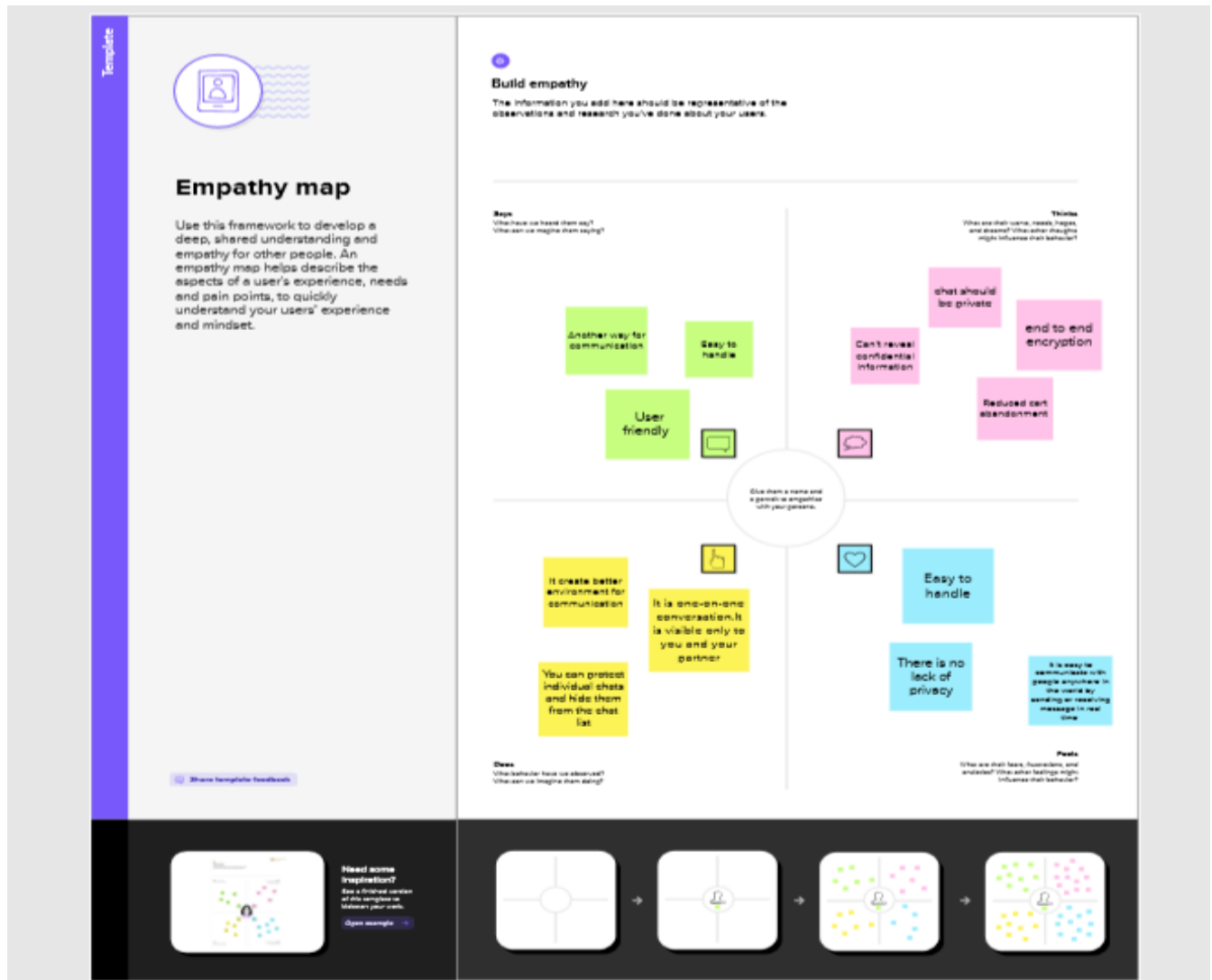
Interactions between Chat and apps take place using *messages* in the context of particular *spaces*. For example, an app may send some simple text (a type of message) into a specific chat space (a type of space).

1.2 Purpose

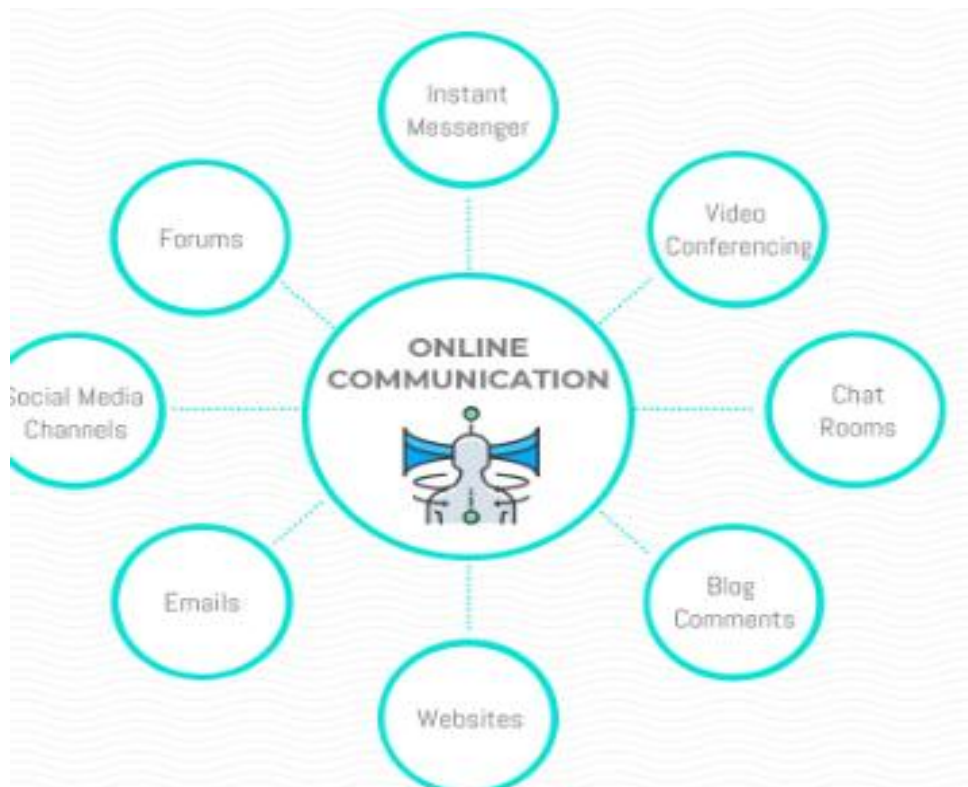
- Direct conversations between two users.
- Group conversations between three or more users.
- Conversations linked to records.
- Comments and work notes appear in conversations in real time and users can update the record directly from the conversation.
- Drag-and-drop sharing of links, files, and records.

2.PROBLEM DEFINITION & DESIGN THINKING

2.1 Empathy map:



2.2 Ideation & Brainstorming Map:

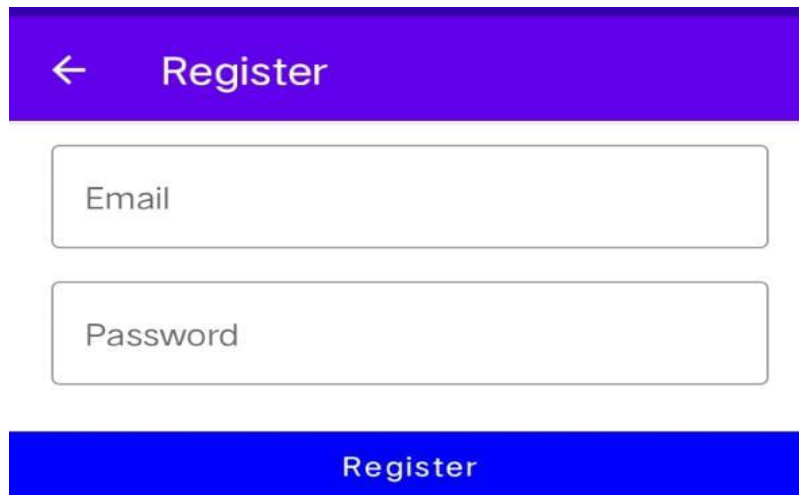


3. RESULT



Register

Login



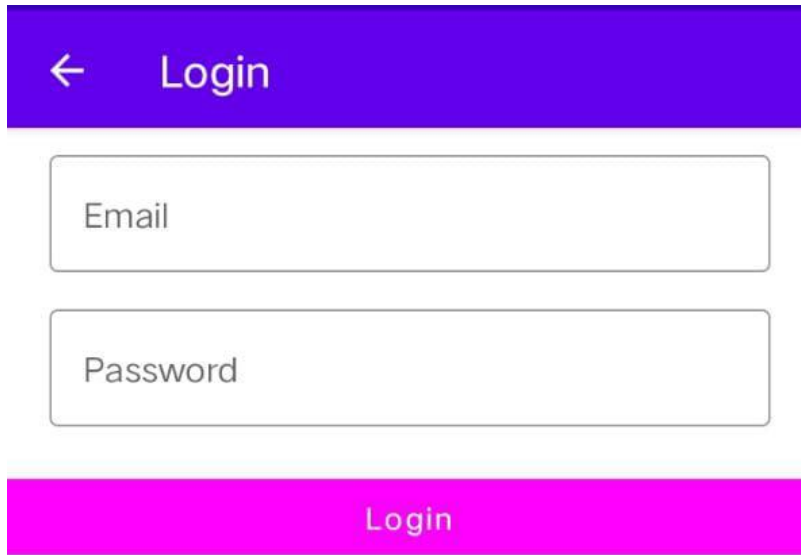
The image shows a mobile application interface for a registration screen. At the top is a purple header bar with a white left-pointing arrow and the text 'Register'. Below the header are two white input fields with rounded corners and thin grey borders. The first field is labeled 'Email' and the second is labeled 'Password'. At the bottom of the form is a solid blue button with the text 'Register' in white.

← Register

Email

Password

Register



A login form with a purple header bar containing a back arrow and the text 'Login'. Below the header are two white input fields with rounded corners, labeled 'Email' and 'Password'. At the bottom is a bright pink button labeled 'Login'.

← Login

Email

Password

Login

4.ADVANTAGES & DISADVANTAGES

Advantages

- Faster support

Obviously chat is easy to reach for your customers, but what's more is that the average resolution time is significantly lower than with traditional service channels. It takes less than a minute to resolve a customer issue using live chat.

- **Real-time text preview**

One of the handy advantages of live chat is the option to see a real-time preview of what the customer is typing before she hits enter. It gives your chat agent the chance to think about a solution, research and impress users with prompt, customized answers

- **Instant customer feedback**

Feedback is easily collectable. Users can rate your chat service right after their interaction with you. This is a benefit for your service agents too because they get instant feedback on their performance. This makes it easy for them to connect the dots.

Disadvantages

- **Identity verification**

In some cases like online banking, access to personal data is only possible by secure identity check. This might require telephone contact.

- **Online Trolls**

Because you can chat quite anonymously, internet trolls are a phenomenon. That's why Userlike offers features like blocking and ignoring. To protect the privacy of operators, it is possible to use operator aliases.

- **Peak hours**

Although the pressure of being available is less than with phone, you will still need to staff during peak hours.

5. APPLICATION

Instant messaging has proven to be similar to personal computers, email, and the , in that its adoption for use as a business communications medium was driven primarily by individual employees using consumer software at work, rather than by formal mandate or provisioning by corporate information technology departments. Tens of millions of the consumer IM accounts in use are being used for business purposes by employees of companies and response to the demand for business-grade IM and the need to ensure security and legal compliance, a new type of instant messaging, called "Enterprise Instant Messaging" ("EIM") was created when Lotus Software launched IBM Lotus Same time in 1998. Microsoft followed suit shortly thereafter with Microsoft Exchange Instant Messaging, later created a new platform called Microsoft Office .The adoption of IM across corporate networks outside of the control of IM is increasingly becoming a feature of en rather than a stand-alone application.

6. CONCLUSION

The main objective of the project is to develop a Secure Chat Application. I had taken a wide range of literature review in order to achieve all the tasks, where I came to know about some of the products that are existing in the market. I made a detailed research in that path to cover the loop holes that existing systems are facing and to eradicate them in our application. In the process of research I came to know about the latest technologies and different algorithms. I analyzed various encryption algorithms (DES, AES, IDEA...), Integrity algorithms (MD5, SHA), key-exchange algorithms, authentication and I had implemented those functionalities in my application. I had done a detailed research on Certificate Authority and key tool for the generation of certificates.

7. FUTURE SCOPE

With the knowledge I have gained by developing this application, I am confident that in the future I can make the application more effectively by adding this services.

- Extending this application by providing Authorisation service.
- Creating Database and maintaining users.
- Increasing the effectiveness of the application by providing Voice Chat.
- Extending it to Web Support.

8.APPENDIX

A.Source Code

```

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    <shared>
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```

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```



```

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