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Slack Clone Chat Application Using React Redux and Firebase

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ABSTRACT

In the real world, we can observe that sharing documents and data is quite tough, requiring a significant amount of time for communication in order to efficiently run a study or business. As we all know, much of the communication is dependent on the study logistics and platform on which it takes place.The Slack clone chat software is a team collaboration tool that allows for direct and indirect communication, as well as group building using Google Docs. The app is available for both Android and Windows users.As a result, we would like to demolish our proposal for our group members to integrate communication technologies into academic purposes.Slack may simply be included into the Workflow and is domiciled by users with great efficiency for satisfying purpose communication needs at businesses, colleges, and health centres.

Keywords▪sharing document,integrated communication technology.

1.Introduction

Slack stands for (searchable log of all conversation and knowledge) and is a messaging platform where we may communicate with others for the information they require. It brings people together to work in a linked, flexible manner that communicates and transforms an organisation. It's the most convenient approach to communicate with anyone inside or outside the company.Slackhas a lot of advantages over other messaging apps on the market. We may use the Slack chat app to build # intro channels where we can advertise for new hires in the organisation. It implies we can send messages to generals or channels, and they will assist us in uploading an avatar and directing us to a profile. channels can offer us the opportunity to read about our company's profile and get to know you.The project is built on an advanced level of react redox idea and a foundation of basic firebase understanding. The tech-stack is a language that is both simple to use and quick to execute.This project makes use of intermediate-advanced React-Redux concepts as well as foundational Firebase database knowledge. The reason for using this technology stack is that these languages are simple to use and fast in terms of execution time.

2.Literature survey-

[1] AvinashBamane, ParikshitBhoyar, Ashish Dugar&LineeshAntony , Pune University.They've tried a variety of chat applications.on the internet-based all of the applications these conversations applications text to back up messages to be delivered emailed between the participants in the with the blink of an eye.Enter the keyAs a result, they form a application for chatting making use of figures as well as diagrams. [2] Polytechnic School's Gerard Rovira Sánchez University of California, BerkeleyA Final in Lleida.Project for a Degree exhibited for the level of Computer Engineering.Thegoal of this project is to construct a real-time texting that works a request for by developers utilising current technology web technologies.Unlike the majority of people,chat applications obtainable from this market one will concentrate on the designers as well as make an attempt to increase their productivity. [3]Shaleem John, vaasanammattikorkeakoulu university of applied sciences Department of Information Technology.The goal of this thesis was to create Chat.React-based app Firebase and JS.in order to converse in the company of friends colleagues,family and friends.Moreover, teachers are the source of inspiration of this dissertation.The goal of the initiative was to create and Create a Chat.An application for the company On-line solution that makes use of it demonstration to university students in high schools in a growing situation country. [4]R. Gayathri, C. Kalieswari, Electronics and Communication Engineering, National Engineering College Kovilpatti, Tamilnadu.Static Socket is a type of connector. Designed,Server instantiation socket n Particularly hosted,after starting to the server. Accept requests from customers,shares resources. [5]Er. Kavindra Singh, Christ University, Bengaluru, Karnataka.This system was primarily created to supply a discussion forum for all types of education by offering them a platform on which to converse and solve the problem related queries. [6]In Randall's(1997) opinion, however, the purpose of those who use the chat is to socialize. However, he emphasized that this type of socializing differs from that in the real world in that the former only

involves the exchange of words with other users, whereas the latter involves face-to-face interaction with others.While the trend of using chat is growing, Randall believes that children and youths will be discouraged from traditional social contact in favor of cyberspace contact. However, despite the fact that the likelihood of this phenomenon occurring is quite high, Randall believes it is neither right nor wrong. [7]According to Hauben's (1997) writing, once the impact or influence of first impressions is removed, users are free to communicate through chat without fear, limits, or apprehension. This statement actually identifies the primary reason for the increased use of chat.However, one advantage does not appear to be sufficient to entice such a large number of users to use the chat, so it appears that there may be another benefit. [8]As a result, Licklider (1997) asserted that people can communicate online with others who share similar goals and interests, enriching their lives and making communication more productive and enjoyable. Although Licklider is the Net's prophet, it appears that the chat has this advantage.

[9]In fact, chat is a type of Internet technology that allows for human-to-human communication. One of the most recent chat programs is ICQ.With the advancement of technology over the last two years, there has been an increase in the use of ICQ for communication. Users of ICQ can chat, send messages, files, and URLs, and play games with other users in real time. Because of the widespread use of chat services such as ICQ, studies have primarily focused on its impact on our society.

[10]MahaSabriAltemam proposed their research paper on Voice Chat Application Using Socket Programming. In this research paper, he used socket programming to record their voice and later send it to their communication partner. In this research paper, he used text-based chatting to ensure that if the voice communication system went down, text-based chatting could be used.

3. Observational study-

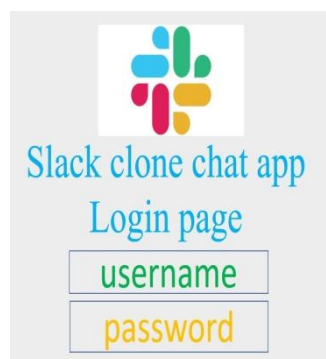To build this application we have used react,redux and firebase.

Fig 1.:*For new users, there is a login page.*

You can login in to all of your Slack workspaces with the same email address, whether you're a member of one or many. Continue reading to find out how to sign into Slack using your email address, android Id, or Google account.

Using React to create login and signup forms With complete user validation and registration via email/password via Firebase authentication.
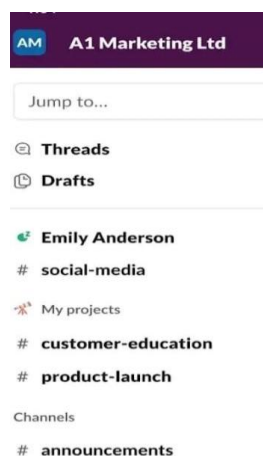

Fig 2: *After you've entered the app* When you open the Slack chat app, you will see a number of buttons from which you can connect with new people.
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Fig 3 :*Our channels*

We had to think about how messages should flow across workspaces because we were using shared channels. We had to figure out how to distribute and store messages so that members from both workspaces could join the channel, send messages, and use Slack normally**.**
We have three buttons for the implementation procedure.
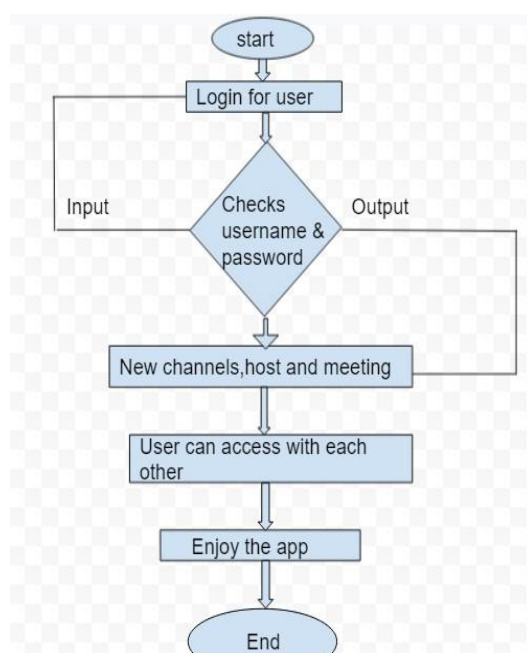Host on a global, social, and private scale.

Fig 4.Proposed methodology

*Using React, create login and signup forms With complete user validation and registration via email/password via Firebase authentication.
*Making user data available in the global state, followed by the development of app components such as the side panel, metadata panel, and, finally, the message section. *Scaffold the message components and build the messaging section.
*Adding direct and private messaging features to users
* Improve the application by incorporating some new cool features.
*Installing and configuring the app.
*Stream it live.

4.Implementation of the Algorithm*:*

As an input, our algorithm will accept the following.
Import firebase from 'firebase/app'; import 'firebase/firestore'; and import 'firebase/auth'. firebaseConfig from './app.config' import
firebaseAppconst = firebase.initializeApp
(firebaseConfig) db = firebaseApp.firestoreconst () auth = firebaseApp.authconst ()
newfirebase.auth.GoogleAuthProviderconst provider = new firebase.auth.GoogleAuthProvider () export authentication, provider export the default database**.**

5.Conclusion and future improvements

The idea behind the project title is to create a Slack Chat App that schedules and manages events as well as provides social interaction through messaging and sending images, emoji, and so on. This is a collection of useful features that will aid you in your planning. Organizing and managing your work and personal information.It is extremely beneficial in terms of obtaining the appropriate amount of knowledge and information. We probably spend the majority of our time on the chat app!