

SPRINT 2 PROJECT JR12

TEAM :D

PROJECT TITLE: React based Whatsapp clone

PROJECT ABSTRACT:

AIM

"There is no better way to understand a framework, library and its features, than by making projects." You will be making the following features :

- WhatsApp Web UI
- Create rooms or groups
- Sign in with Google account
- Last seen for groups
- Messaging boxes [green for own and white for the replies of others]
- Send message in group with timestamp

Learning Scope

This project will give you a hands on experience with the React library. Fullstack development currently has many different stacks and technologies to learn. It is very easy to get overwhelmed and get distracted. React is one of the most popularly used Frontend libraries used by companies such as Facebook, Pinterest, Uber, Instagram and many more. Beginner tutorials and mini projects are good for beginning but a full-fledged project can make you understand concepts with real-world applications. You will learn not just about UI designing but also integrating it with the backend. You will be learning about :

- Basics of React
 - Functional Components

- useState
- useEffect
- Props
- Context API
- Material- UI (Design)
- Firebase
 - Authentication (using **Sign In With Google**)
 - Firestore(DB)

Project Stages

We can break down the project in the following stages:

1. Front-end
 - Sidebar Component
 - Chat Component
2. Back-end
 - Authentication
 - Database(Firestore)



High-Level Approach

- Identify the UI components and segregate them into smaller components

- Start with building individual components with static data which will be replaced by real time data later
- CSS styling and Material-UI icons implementation
- Setup project on Firebase
- Configure and install Firebase in your React project
- Design the database for your requirement
- Authentication - Add authentication in your project to access the chat section only after authenticating with google account.
- Integration of data with UI

Applications

- Building an efficient and real time text based communication solution for the web

(1) SOFTWARE, HARDWARE OR METHODS/ALGORITHMS SPECIFICATIONS:

-Development Environment is Javascript IDE

- JS libraries,mostly React

-OS is Windows 7 or above

-HARDWARE REQUIREMENTS

Windows computer with 4 gb ram or above

App Components

- Sidebar Component
 - Sidebar header [with account avatar and icons]

- Sidebar Search
- Sidebar Chat List
- Chat section Component
 - Chat header
 - Chat Body
 - Chat Footer

Bonus

The material-UI icons used for this WhatsApp clone are

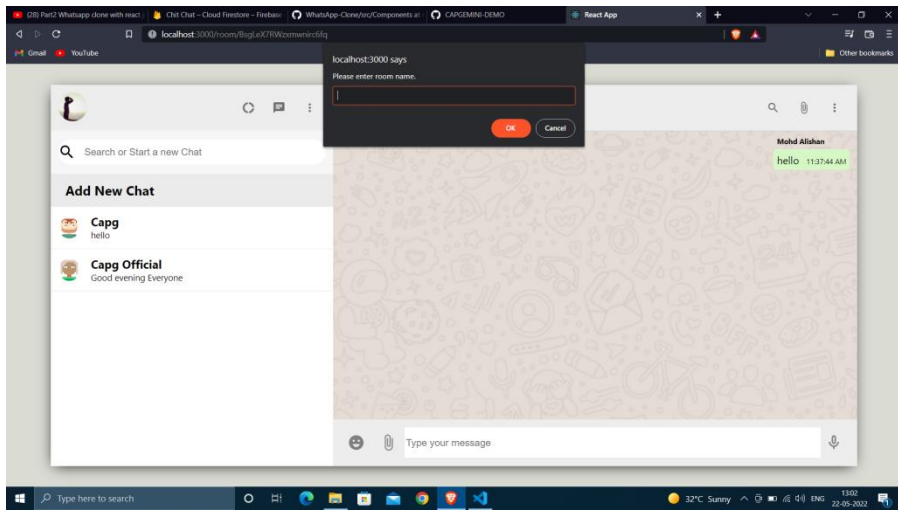
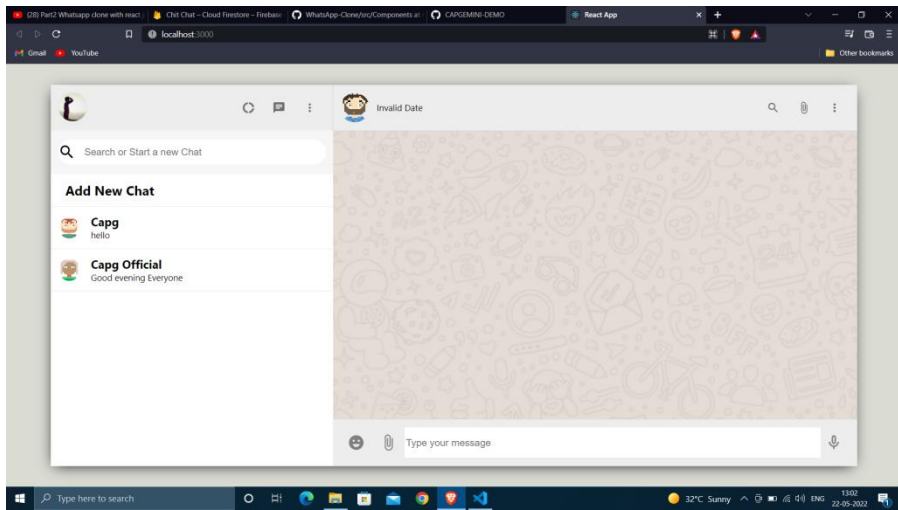
- SearchIcon
- MoreVertIcon
- AttachFileIcon
- MicIcon
- InsertEmoticonIcon
- DonutLargeIcon
- ChatIcon

Firebase

Firebase is a cloud platform provided by Google to enable mobile and web application development. We will be using Firebase for Google authentication and Firebase Firestore for NoSQL database for our chat application.

Requirements

- Lets create a Firebase project for our application.
- Lets create a Firestore database.
- Lets find a method to ensure that your Firestore is connected to your React app once the configuration file `firebase.js` is in place.



(2) NAME, REG. NO AND SIGNATURE OF GROUP MEMBERS:

1) Bagothula Sahari (leader)

2) Aman Barik

3) Mohd Alishan

4) Anshul Chouhan