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PROJECT REPORT

on

“CONNECTIZO - THE CHATTING APP”

Submitted in partial fulfilment of the requirements for the IV Semester
Android App Development (UE18CS257B)

Bachelor of Engineering

IN

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CERTIFICATE

Certified that the project work entitled **“CONNECTIZO - THE CHATTING APP”** is a Bonafede work carried out by **SUPREET RONAD** bearing USN: **PES2201800705**, student of **PES University EC CAMPUS** in partial fulfilment for the award of **Bachelor of Engineering in Computer Science and Engineering** of the **PES University, Bangalore** during the year 2019-2020.

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Declaration

I hereby declare that the project entitled “**CONNECTIZO - THE CHATTING APP**” submitted for Bachelor of Engineering in Computer Science and Engineering of Pes University, Bangalore is my original work and the project has not formed the basis of the awards of any degree, associate ship, fellowship or any other similar titles.

Signature of the Student:

Place:

Date:

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ABSTRACT

The Project Entitled “**Connectizo - The Chatting App**” is a mobile application that is used to chat free of cost using the internet only. This app is developed to run on any android device with the android version above 4.0.0. The app makes use of **Google’s Firebase** for storing and delivering messages or chats from one device to another. The chats here are protected as each user using it will have to log in using his credentials to chat with other users. If the user is new, he can register using either Email or Phone number to Register. Once the user logs in, he will be able to chat with anyone using the app, but have to send a message request to them first. The app helps others to identify you using your profile pic or status one uploads. The messages sent will be delivered within no time at the other end. This app can also be used to discuss among all the users using the app. The groups can be named based on the topic discussed so that other users can get an idea about what's going on. Making the distance between the developer and client shorter so that the developer can understand the needs of the client. Messages one user sends to the other are safe and protected as each user is provided a unique user id to identify his data, which in turn makes it easy for the app to deliver messages from one user to the other.

1. INTRODUCTION

Conversations are key to language development, the exchange of thoughts and ideas and listening to each other. People learn by hearing each other's thoughts while observing facial and body expressions that show emotions.

Online chat is a dynamic medium used to promote sales and offer information in real time ranging from technical to product to service. The skilled chat representatives can provide customers with relevant responses and correct information while driving them along a sales path.

Another important aspect is when you opt for a global research, you will be surprised to note that instant messaging apps like WhatsApp have already crossed more than 5 billion users followed by others such as Facebook Messenger, Snapchat, Viber, Instagram, Skype, Google Hangout etc. So, obviously you don't want to fall short in this tough race. According to the recent market survey, the audience will be demanding more for such apps in the near future.

The communication process has undergone a drastic change over the years. It has travelled quite a long distance right from the era of sending handwritten letters to the present age of instant messaging. Today business is encountering a fierce competition in the market and so the need for real-time communication has augmented. Just a decade ago, the SMS was the order of the day, but with the evolution of time, the popular chat-based apps have substituted its place. And to be clear-cut, one must thank the emergence of the Smartphones which have played a dominant role in bringing these apps to the forefront. Therefore, when you think of this indispensable feature, the first thing that crosses your mind is providing a Chat option to the esteemed customers.

1.1 PROJECT DESCRIPTION

The Project entitled “**CONNECTIZO - The Chatting App**” is a mobile application that is used for **Private chat** which allows private conversation with another person or a group. **Public and group chat** features allow users to communicate with multiple people at a time. In order to use the app, the users have to login, if the user is new, he/she needs to register either using email and password or using their phone number. Using email, a user needs to enter his email-id and a new password easy to remember every time he logs out and logs in. Using a phone number, a user just needs to enter his /her mobile number and click on send verification code and wait for the verification code to be sent to your entered phone number. Once the verification code is received, if the message is received on the current device in which the user is logging in, then the number is automatically verified, if not then the user needs to manually enter the verification code received to verify phone number. Once the user is authenticated, he needs to enter a username, status and profile pic (Optional). The application relies on Google’s Firebase for all online functions like logging in, registering, phone number verification, sending or receiving messages, storing user information and requests. Once the user logs in, he/she needs to find someone to chat with which can be done by selecting find friends and searching for someone you know to chat with by sending them a message request in the beginning. If the other user accepts your request, then his/her contact is saved in your contacts list to chat. Users can also set a profile pic for his/her account, which helps other users to easily identify them. Status and username also help them to identify you. The app provides each user a unique user-id which is used by the app to store any data related to the respective user.

2. PROPOSED SYSTEM

2.1 MODULE DESCRIPTION

- Register Activity
- Login Activity
- Find Friends
- Chat Activity
- Group Chat Activity
- Settings Activity
- Contacts Activity
- Requests Activity
- Drop-down Menu

1. **Register Activity** - This module is for the new users where they can register themselves into our app using email and password, if the user is already registered, he/she can go to login activity to login.

2. **Login Activity** - This module is for the users who are already registered and must login using email and password with which they have registered or there is another option for the user to login using phone number, the user must enter their phone number with their country code and the code will be sent to their mobile number, upon successful verification or login, user for the first time will be sent to Settings Activity for their username, profile image and about.

3. **Find Friends** - User can find friends in the find friends drop-down menu, he can select his friends and send them a request or if he wants to unsend the request, the user can cancel the chat request which he has sent to his friend.

4. Chat Activity - This module basically is for the private chat section where users can chat with only the people in their contacts. Here users can view all the previous chats and also an edit text will be provided where the user has to enter their message and click on the send button to send the message.

5. Group Chat Activity - This module is mainly for the groups to be created and where all the contacts can see the groups and chat freely. There are no restrictions as admin and stuff but you have access to all the groups and chat.

6. Settings Activity - This module basically deals with updating or changing user information like Profile picture, Status and Username. This activity is called at two instances, once when the user logs in into the app for the first time and second when the user clicks on settings in the menu. The difference is the user can change the username only once, so username edit-text appears only at the first instance second time this is hidden.

7. Contacts Activity - In this activity all the contacts or users with whom you are friends with will be displayed. And also, the online status of the contacts will be displayed via green dot in front of their contact name. If the user wants to remove or unfriend an already existing contact then he can do this here. By clicking on the contact and selecting remove contact.

8. Requests Activity - User can find sent and received requests from his friends, so he can accept or decline the received request, and he can cancel his sent request.

9. Drop-Down Menu - User can find this dropdown menu in the main app bar on top-right corner, on Click - four Options will be dropped down,

- **Find Friends** - On clicking, users will be directed to find friends activity.
- **Create New Group** - For creating new groups with any name.
- **Settings** - Directed to Settings Activity.
- **LogOut** - User can Logout from his account and will be directed to the login screen.

2.2 HARDWARE AND SOFTWARE REQUIREMENTS

2.21 HARDWARE REQUIREMENTS:

Developing Environment

- Ram 4GB
- Processor Intel Core i5
- Hard disk(space) 10GB for developer

Client Environment

- Hard disk(space) 10GB or above
- Ram 512MB
- Processor Pentium IV or above.
- Monitor 15 VGA Colour.
- Internet Connection Required

2.22 SOFTWARE REQUIREMENTS:

Developing Environment

- Operating system Windows 7
- Coding Language JAVA and XML.
- Tools Android Studio.

Client Environment

- Internet Required with min. speed of 128Kbps
- Browser Chrome for Firebase

3. SCREENSHOTS

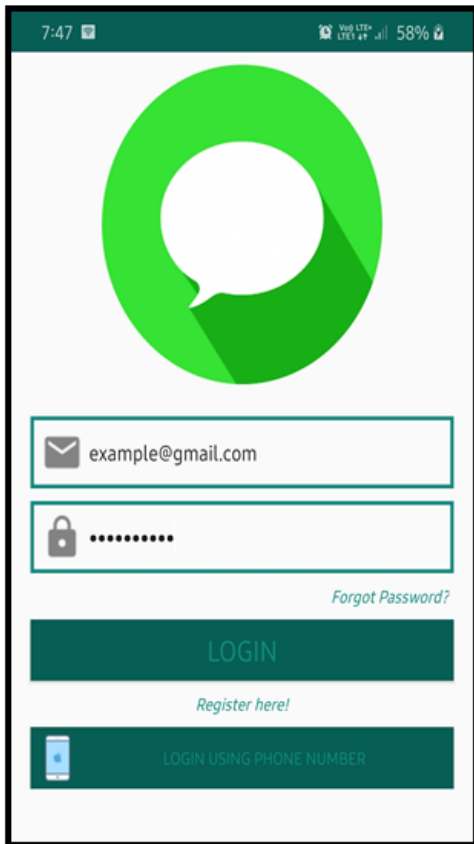


Fig. 3.1 Login



Fig. 3.2 Register

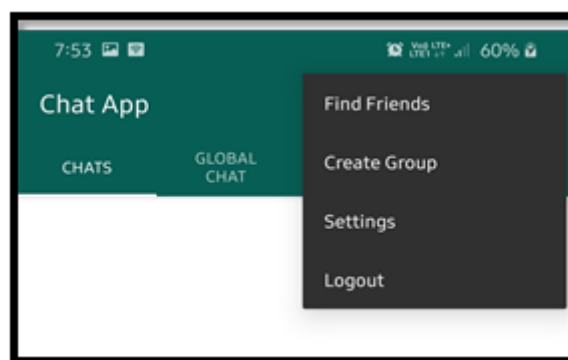
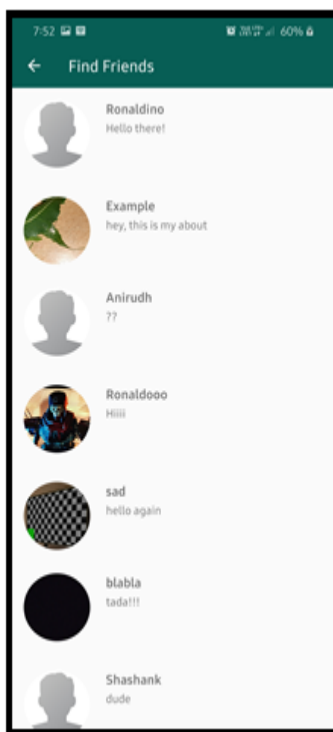
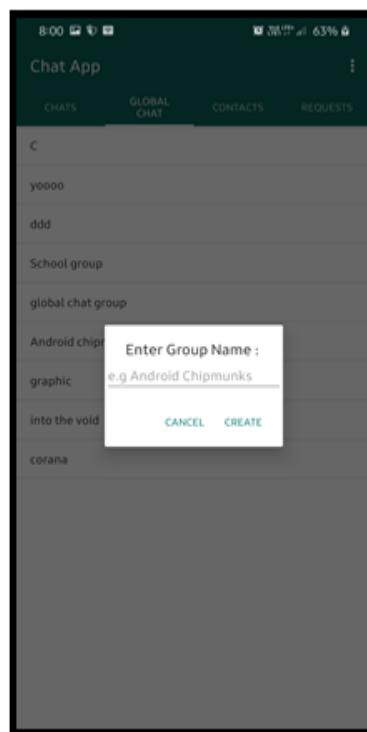
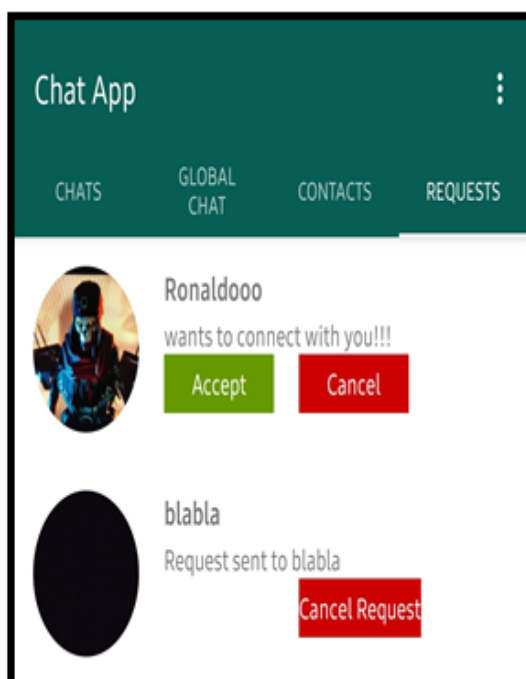
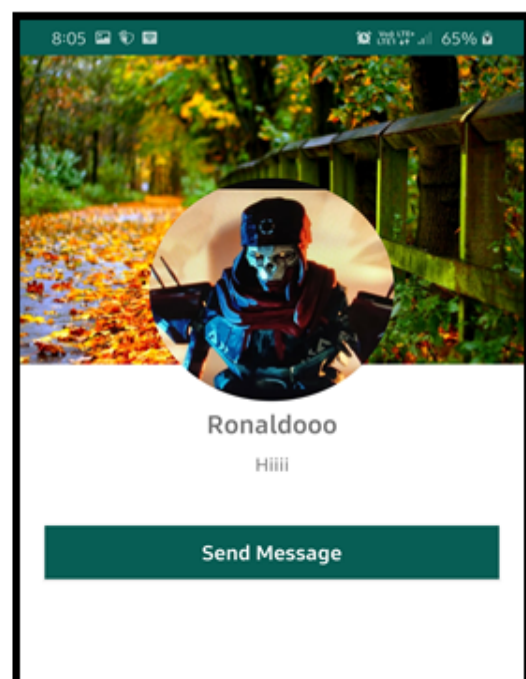


Fig. 3.3 Drop-down Menu

Fig. 3.4 Find FriendsFig. 3.5 Create GroupFig. 3.6 SettingsFig. 3.7 Send RequestFig. 3.8 Requests

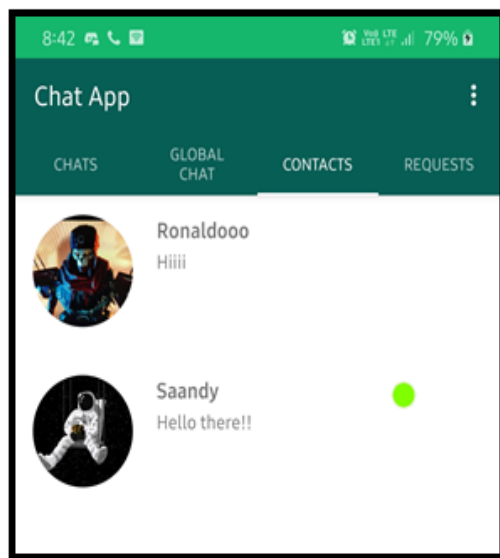


Fig. 3.9 Contacts

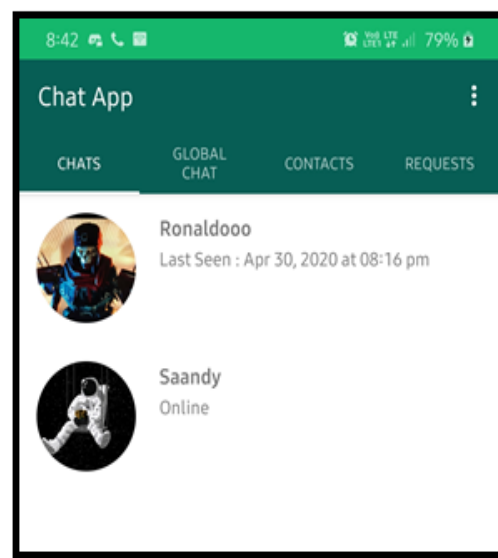


Fig. 3.10 Recent-Chats

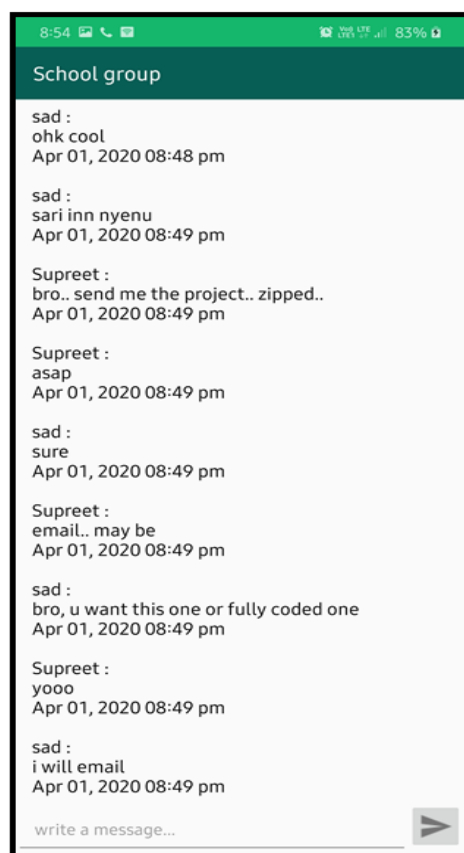


Fig. 3.11 Global Chat

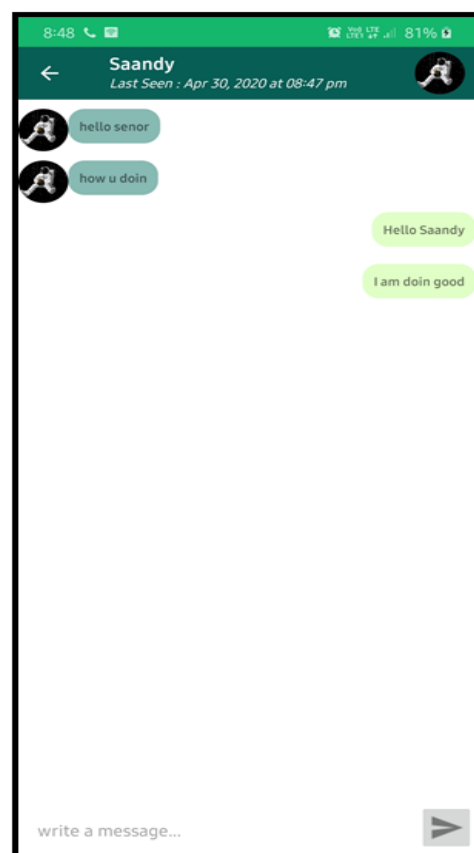


Fig. 3.12 Personal Chat

4.CONCLUSION

The main objective of the project is to develop a Secure Chat Application. We had taken a wide range of literature review in order to achieve all the tasks, where we came to know about some of the products that are existing in the market. We made detailed research in that path to cover the loopholes that existing systems are facing and to eradicate them in our application. In the process of research, we came to know about the latest technologies and different algorithms. We have implemented some functionalities in our application.

The portability of the application has been achieved by using some of the latest JSSE technologies. We implemented these functionalities using JSSE API. We had gone through core and security concepts of java (JSSE, JCA) packages and for developing GUI we had implemented java swings.

As a result, the product has been successfully developed in terms of extendibility, portability, and maintainability and tested in order to meet all requirements that are,

- Authentication
- Integrity
- Confidentiality

Which are specified as the four basic concepts for a secure communication over a network.

4.1 Future Scope:

With the knowledge we have gained by developing this application, we are confident that in the future we can make the application more effective by adding this service.

- Extending this application by adding Notifications support
- Creating groups only for selected users.
- Increasing the effectiveness of the application by providing Voice Chat.
- Not only texts but also files like images, text files, videos.
- Location sharing.
- Extending it to Web Support.
- A small gaming platform among friends.
- Video calling/ voice calling.
- Digital payment or money transfer system.
- Multimedia sharing (Audio, video, files etc.).

5. BIBLIOGRAPHY

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