PROJECT REPORT

CHATCONNECT

A Real-Time Chat and Communication App

INTRODUCTION

1.1 Overview

ChatConnect is a sample project built using the Android Compose UI toolkit. It demonstrates how to create a simple chat app using the Compose libraries. The app allows users to send and receive text messages. The project showcases the use of Compose's declarative UI and state management capabilities. It also includes examples of how to handle input and navigation using composable functions and how to use data from a firebase to populate the UI.

1.2 Purpose

The purpose of ChatConnect, a simple chat app, is to provide a convenient platform for people to communicate with each other in real-time. The app allows users to create an account and start chatting with individuals or groups. ChatConnect can be used for a variety of purposes, including staying in touch with friends and family, collaborating with colleagues, or meeting new people with similar interests. The app can be accessed from a desktop or mobile device, making it easy to stay connected on the go. Overall, ChatConnect aims to facilitate seamless and enjoyable communication between people.

PROBLEM DEFINITION & DESIGN THINKING

2.1 Empathy Map

Empathy Map https://github.com/karthikeyan9952/chatconnect/documentations
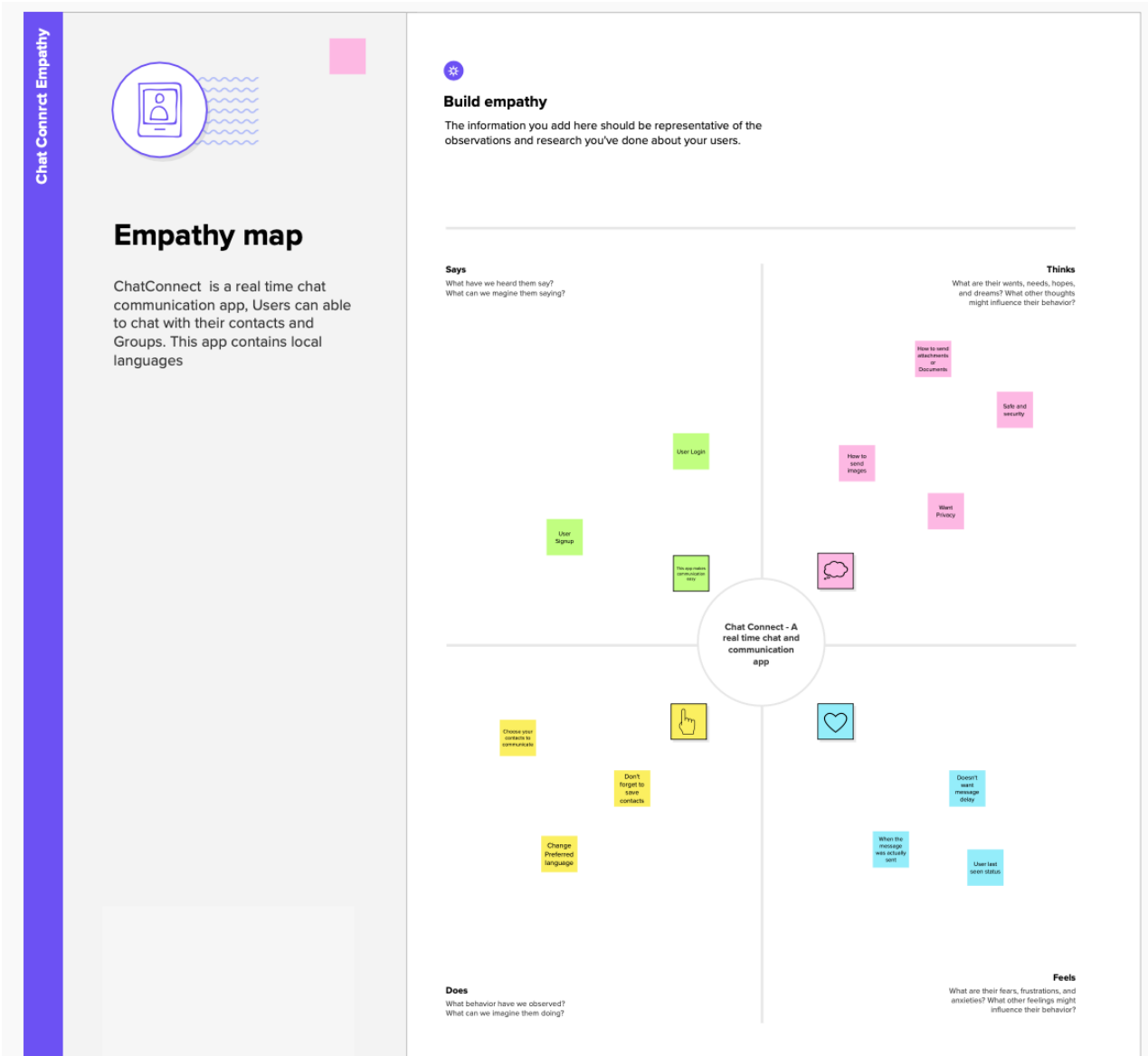
2.2 Ideation & Brainstorming Map

Brainstorm & idea prioritization

Chat Connect - A real time chat and Communication app, Chat with friends privately

- **10 minutes** to prepare
- **1 hour** to collaborate
- **2-8 people** recommended

Share template feedback

→ Before you collaborate

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

⏱ 10 minutes

A **Team gathering**
Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.

B **Set the goal**
Think about the problem you'll be focusing on solving in the brainstorming session.

C **Learn how to use the facilitation tools**
Use the Facilitation Superpowers to run a happy and productive session.

Open article →

❶ Define your problem statement

What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.

⏱ 5 minutes

PROBLEM
How might we [your problem statement]?

Key rules of brainstorming
To run an smooth and productive session

- Stay in topic.
- Encourage wild ideas.
- Defer judgment.
- Listen to others.
- Go for volume.
- If possible, be visual.

2

Brainstorm

Write down any ideas that come to mind that address your problem statement.

🕐 **10 minutes**

Karthikeyan

User Signup	Navigation	Handling HTTP Requests
Localization	User Last seen status	Handling Project Folder Structure
Publishing App		

Monika

User login	Handling Navigation Graph	JSON Decoding
Change Prefered Language	User Security	Marketing

Vignesh

Contact List	State management	JSON to Objects
Sending Files	Data Privacy	Advertising

Shanmuganathan

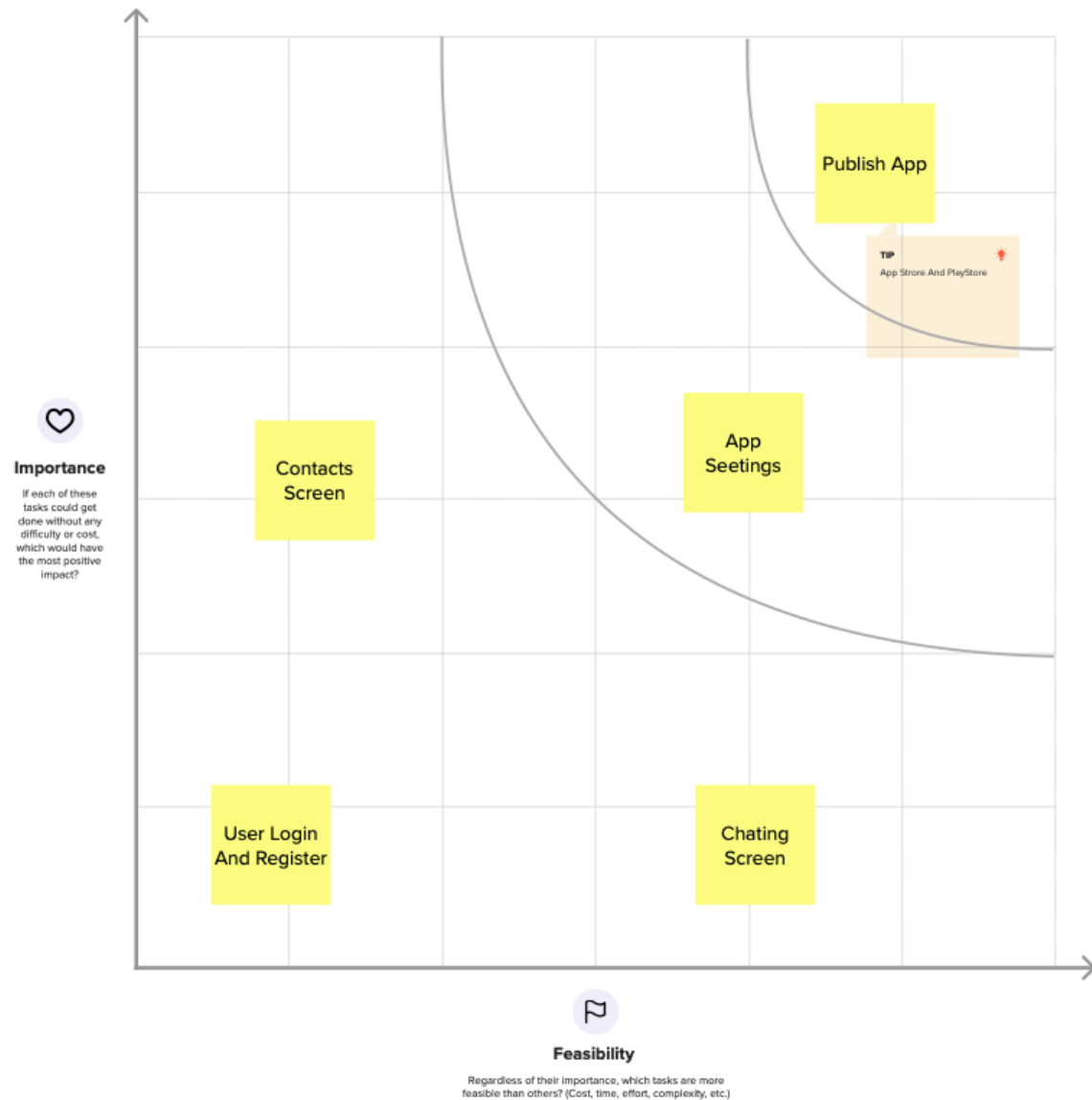|		
Contact Details	Persisting Data Between Screens	Passing Data to Compose View
Attachments	Sending UNICODE chers	User Data Saving

MohanaPrasanth

Select Contact	Data models	Language
Sending Documents	Location Sharing	Save States

4

Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.
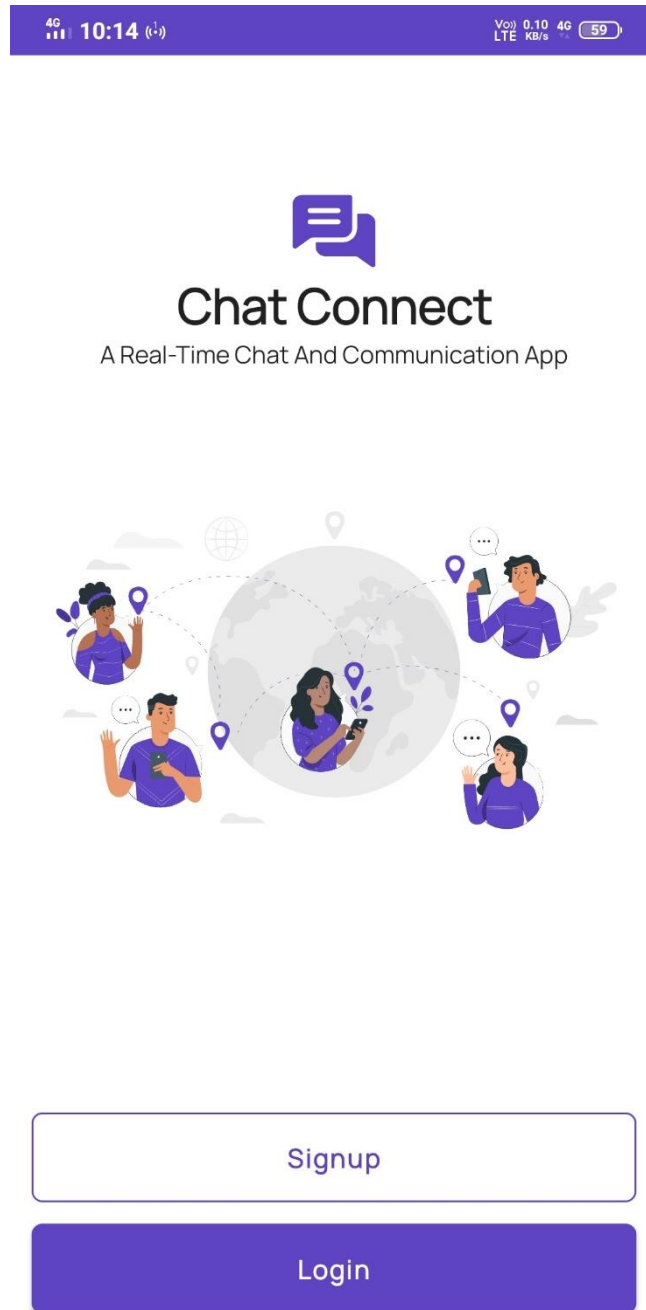
🕐 **20 minutes**

Importance

If each of these tasks could get done without any difficulty or cost, which would have the most positive impact?

Publish App

TIP

App Strore And PlayStore

App Seetings

Contacts Screen

User Login And Register

Chating Screen

Feasibility

Regardless of their importance, which tasks are more feasible than others? (Cost, time, effort, complexity, etc.)

Brainstorming Map https://github.com/karthikeyan9952/chatconnect/documentations

RESULT

3.1 Screenshots

Chat Connect

A Real-Time Chat And Communication App

Signup

Login

Onboarding Screen

Signup

Email

Password

Confirm Password

Signup

Already have an account? Login

Signup Screen

Login Screen

ChatConnect ⋮

How are you?

Yesterday 1:07 PM

I'm fine

Yesterday 1:08 PM

Working fine?

Yesterday 1:09 PM

Perfect 👍

Yesterday 2:12 PM

Even it supports emojis...🎉😍💕

Yesterday 2:13 PM

Awesome 😎

Yesterday 2:23 PM

UI also very nice

Today 11:40 AM

Hello

Today 2:31 PM

Hii...

Type Your Message ➤
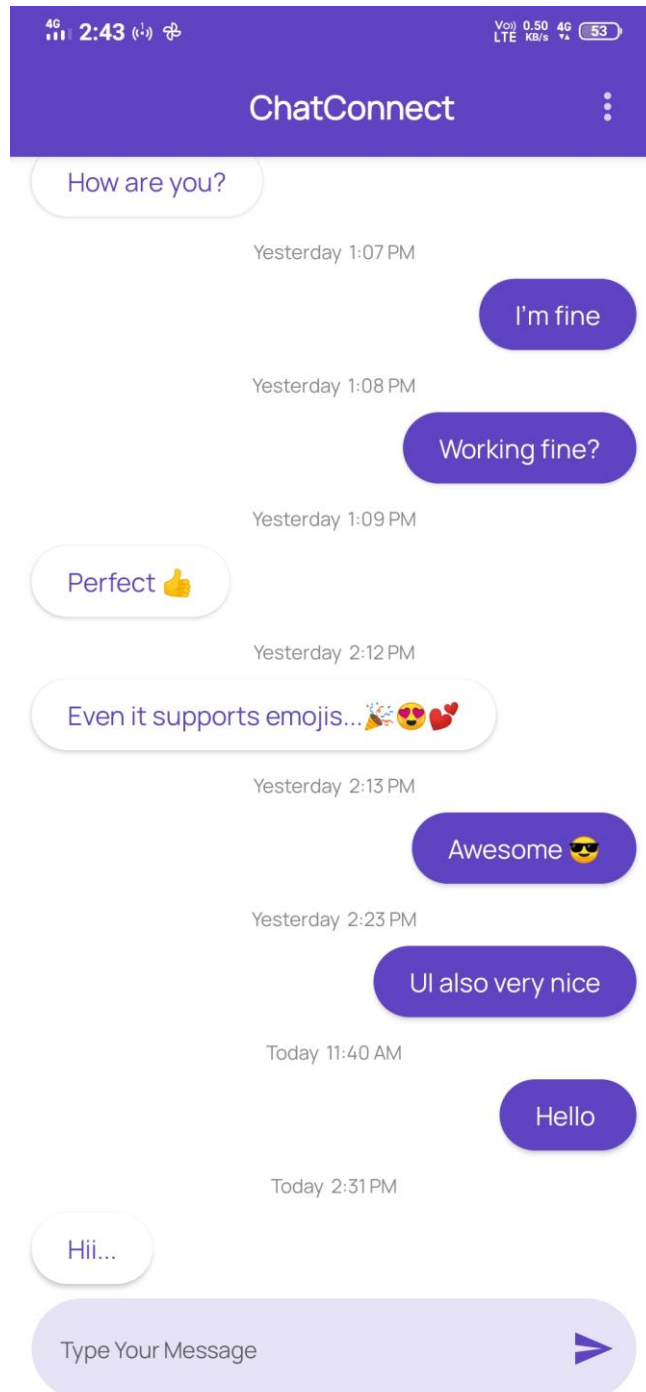
Chat Screen
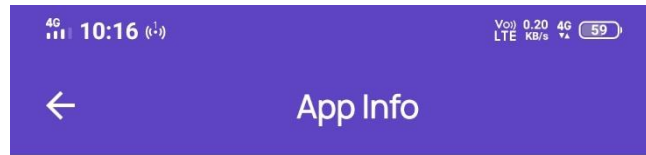
Chat Connect

A Real-Time Chat And Communication App

Team ID : NM2023TMID11706

Team Leader : KARTHIKEYAN G

Team Members

MONIKA K
VIGNESH K
SHANMUGANATHAN P

Version 1.1

App Info Screen

ADVANTAGES & DISADVANTAGES

4.1 Advantages

- Ease of communication: ChatConnect allows users to communicate with their contacts in real-time, making it easier for them to stay connected with friends, family, or colleagues.

- User-friendly interface: The user-friendly interface of ChatConnect makes it easy for users to navigate the app and find the features they need.

- Secure communication: The app uses Firebase backend for user authentication, which provides a secure way for users to log in and protect their account information.

- Personalization: The user profile feature in ChatConnect allows users to personalize their profile picture, status, and other personal information to make the app more personalized and engaging.

- Real-time messaging: With Firebase Realtime Database, ChatConnect provides real-time messaging, ensuring that users receive messages as soon as they are sent, which can enhance communication and collaboration.

- Accessibility: ChatConnect is an Android-native app, which means it is accessible to a wide range of users who own an Android device.

- Customization: As the developer, you can customize ChatConnect to suit your user's needs and preferences, adding new features or functionality as needed.

4.2 Disadvantages

- Ease Limited functionality: ChatConnect has limited functionality and is only designed for basic communication and messaging features. Users may prefer to use other apps for more advanced features.

- Network connectivity: ChatConnect requires a stable internet connection to function correctly. Poor network connectivity can result in slow message delivery or lost messages.

- Dependency on Firebase: ChatConnect's backend is dependent on Firebase. If Firebase experiences downtime or other issues, the app may not function correctly.

- Limited platform support: ChatConnect is an Android-native app, which means it is not available on other platforms like iOS or Windows, potentially limiting the user base.

- Security risks: As with any messaging app, there is a risk of users sharing sensitive or personal information, leading to security risks. It is essential to have measures in place to protect user data and privacy.

- User adoption: With so many messaging apps available, it may be challenging to attract and retain users to use ChatConnect as their primary messaging app.

- Maintenance and updates: As the developer, you will need to ensure that the app is maintained and updated regularly to fix bugs, add new features and stay current with platform changes.

APPLICATIONS

- Personal communication: ChatConnect can be used by individuals for personal communication with friends and family, allowing them to stay in touch in real-time.

- Business communication: ChatConnect can be used by businesses for internal communication, allowing employees to collaborate and share information in real-time.

- Education: ChatConnect can be used in educational settings for teacher-student communication, enabling teachers to provide students with timely feedback and support.

- Customer support: ChatConnect can be used by businesses to provide customer support, allowing customers to communicate with support representatives in real-time.

- Social networking: ChatConnect can be used as a social networking platform, enabling users to connect with new people and make friends.

- Group communication: ChatConnect can be used for group communication, allowing users to create groups for different interests and topics, and communicate with multiple people at once.

- Community-building: ChatConnect can be used to build online communities around specific interests, hobbies, or causes, enabling users to connect with like-minded people and share ideas and experiences.

CONCLUSION

ChatConnect is a chatting application developed for Android using Kotlin and Firebase backend. It is designed to enable real-time communication between users, allowing them to chat and exchange messages in a secure and user-friendly manner. ChatConnect provides features such as user authentication, real-time messaging, user profile, and a simple messaging interface.

While ChatConnect has several potential advantages, such as ease of communication, personalization, and real-time messaging, it also has a few potential disadvantages, including limited functionality, network connectivity dependency, and limited platform support.

Overall, ChatConnect can be used for a variety of applications, including personal communication, business communication, education, customer support, social networking, group communication, and community-building. With ongoing maintenance and updates, ChatConnect has the potential to be a useful tool for facilitating communication and collaboration among its users.

FUTURE SCOPE

1. Location sharing: By adding location sharing features, users can share their location with friends or family members, making it easier to meet up or find each other in real-time.

2. File sharing: The ability to share files through ChatConnect can be useful for businesses or individuals who need to share documents or images quickly and easily.

3. Group messaging: Group messaging allows users to communicate with multiple people at once, which can be useful for collaboration, event planning, or socializing.

4. Voice and video calling: By adding voice and video calling features, ChatConnect can compete with other popular messaging apps and offer users more ways to communicate with their contacts.

5. Advanced security features: With the increasing concerns over online privacy and security, adding advanced security features such as end-to-end encryption, two-factor authentication, or self-destructing messages can attract more users and enhance the app's reputation.

6. Integration with other services: Integrating ChatConnect with other services such as social media platforms or productivity tools can make it more useful for users and increase engagement.

7. Artificial Intelligence: Implementing AI in the ChatConnect app can add more personalization features such as intelligent chatbots, predictive text, or personalized recommendations.

By adding these features, ChatConnect can become a more comprehensive and

competitive messaging app, attracting more users and increasing user engagement.