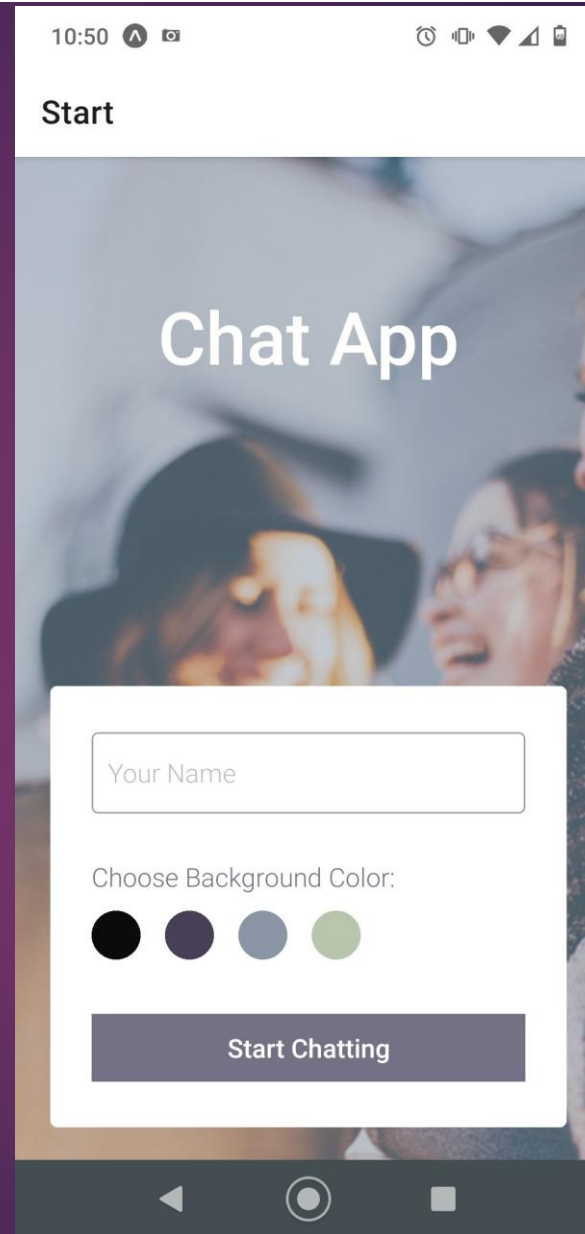


Chat App

A CASE STUDY BY CHALLIS REGAN, LEAD DEVELOPER

TUTOR: DAVI MORAIS FERREIRA

MENTOR: AKUNNA NWOSU



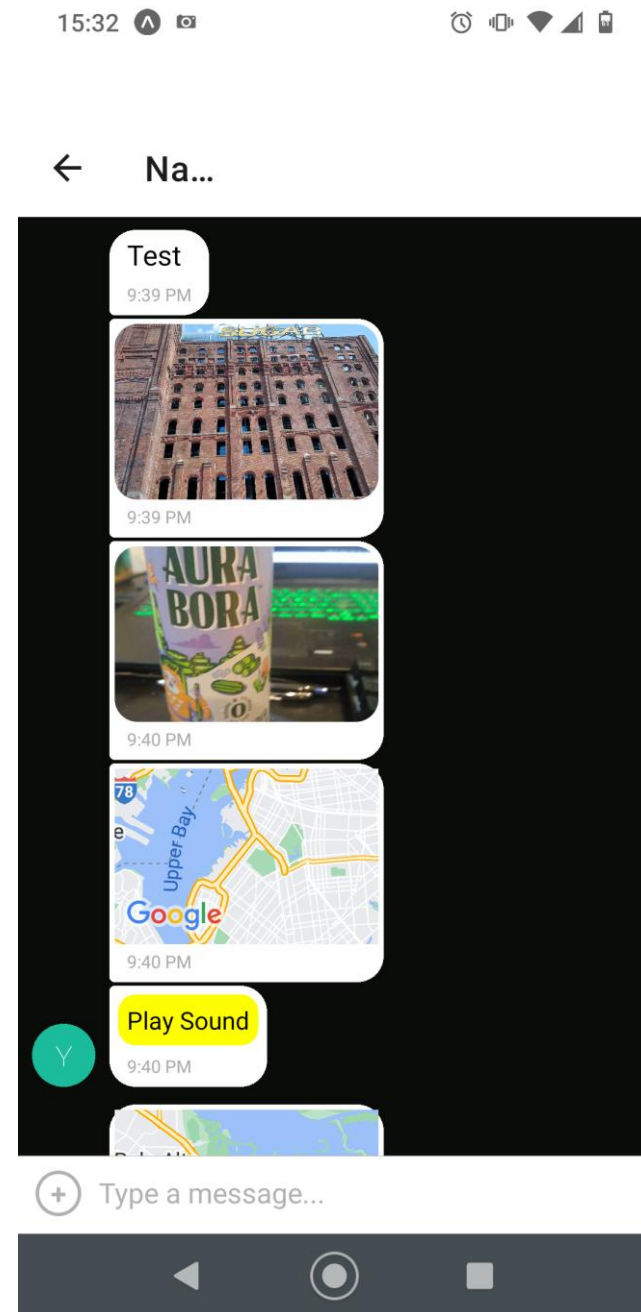
Overview

- ▶ Chat App is a native chat app, built with React Native, Expo, and Google Firestore Database. It is optimized for both Android and iOS devices.
- ▶ The user can enter their name and choose a background color for the chat screen before joining the chat. A page displaying the conversation, as well as an input field and submit button. The chat provides users with two additional communication features: sending images and location data. Data gets stored online and offline.
- ▶ It is a demo project I built for my web development course at CareerFoundry. I finished this project in July 2024.

Technical Stack

- ▶ React Native
- ▶ Expo
- ▶ Expo ImagePicker
- ▶ Expo Location
- ▶ Google Firestore/Firebase
- ▶ Gifted Chat Library
- ▶ Android Studio
- ▶ Node.js

Chat App demo



User stories

- ▶ As a new user, I want to be able to easily enter a chat room so I can quickly start talking to my friends and family.
- ▶ As a user, I want to be able to send messages to my friends and family members to exchange the latest news.
- ▶ As a user, I want to send images to my friends to show them what I'm currently doing.
- ▶ As a user, I want to share my location with my friends to show them where I am.
- ▶ As a user, I want to be able to read my messages offline so I can reread conversations at any time.
- ▶ As a user with a visual impairment, I want to use a chat app that is compatible with a screen reader so that I can engage with a chat interface.

Code sample from Start.js

```
1  //imports
2  import { useState } from "react";
3  import {
4    StyleSheet,
5    View,
6    Text,
7    TextInput,
8    ImageBackground,
9    TouchableOpacity,
10   Platform,
11   KeyboardAvoidingView,
12   Alert
13 } from "react-native";
14 import { getAuth, signInAnonymously } from "firebase/auth";
15
16 // Define the Start component
17 ✓ const Start = ({ navigation }) => {
18   // State to hold the name input value
19   const [name, setName] = useState("");
20   // State to hold the chosen background color
21   const [background, setBackground] = useState("");
22   const auth = getAuth()
23
24   ✓ const signInUser = () => {
25     signInAnonymously(auth)
26       .then(result => {
27         navigation.navigate('Chat', { userID: result.user.uid, name: name, background: background });
28         Alert.alert("Signed in Successfully!");
29       })
30       .catch((error) => {
31         Alert.alert("Unable to sign in, try later again.");
32       })
33   }
34 }
```

Building Process

- ▶ The design of the app was pre-determined, similar to collaborating with the UI/UX department at a company. I was given specifications, and I coded everything to match precisely.
- ▶ I then built the chat screen and the chat functionality with the Gifted Chat library.
- ▶ Next, I authenticated users anonymously and stored conversations in the Firestore Database.
- ▶ I then worked on storing data on the client-side by saving chats locally offline and syncing the chats to Firestore when online.
- ▶ Finally, I created more features for the user like taking and sending pictures, recording audio, sharing location and finalizing accessibility features.

Retrospective

- ▶ I prioritized adding all the accessibility features and I did the bonus task of adding the audio recording feature because I wanted my app to be inclusive of as many users as possible.
- ▶ I wish I would have been able to experiment with my own UI and app design. Perhaps in the future I will re-build a chat app with my own personal flair.

Thank you! Feel
free to connect
with me. 😊

Challis.regan1@gmail.com

[GitHub](#)

[Portfolio](#)

