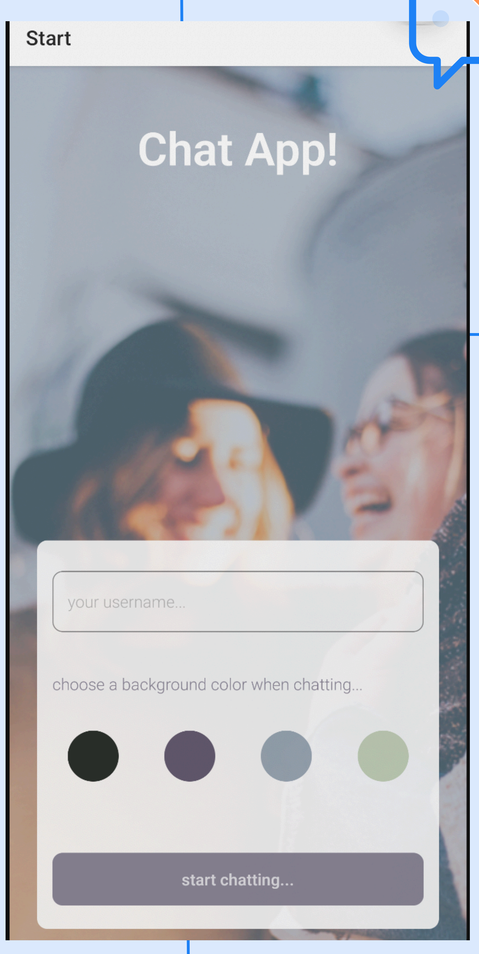
Chat App: a case study

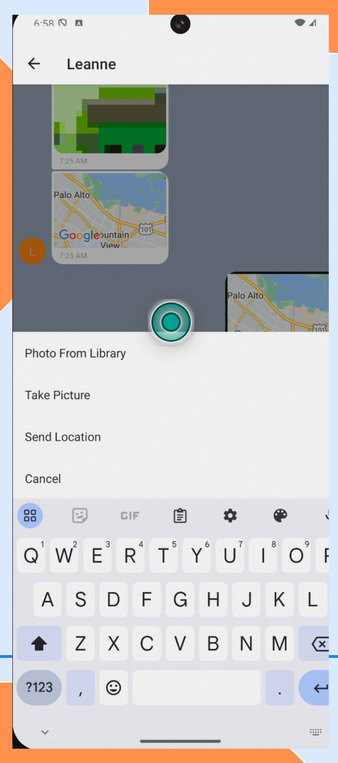
Planning	Development	Reflection

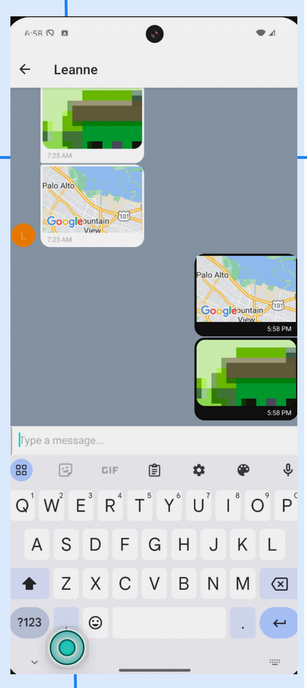
Objective:
As part of my CareerFoundry curriculum, I developed a React Native mobile app. This project marks my first mobile app, and continues my fluency in the React framework.

Structure:
In the interest of familiarity and efficiency, I initiated this project using ExpoGo because it supports both Android and iOS platforms using the same code. Throughout this project, I actually used the terminal for all GitHub commands, and did not use GitHub Desktop at all, marking another big step in terminal skills.

Deployment:
Finding the shareable link in Expo took some exploration of the dashboard. Once familiar with the platform, deployment was straightforward.

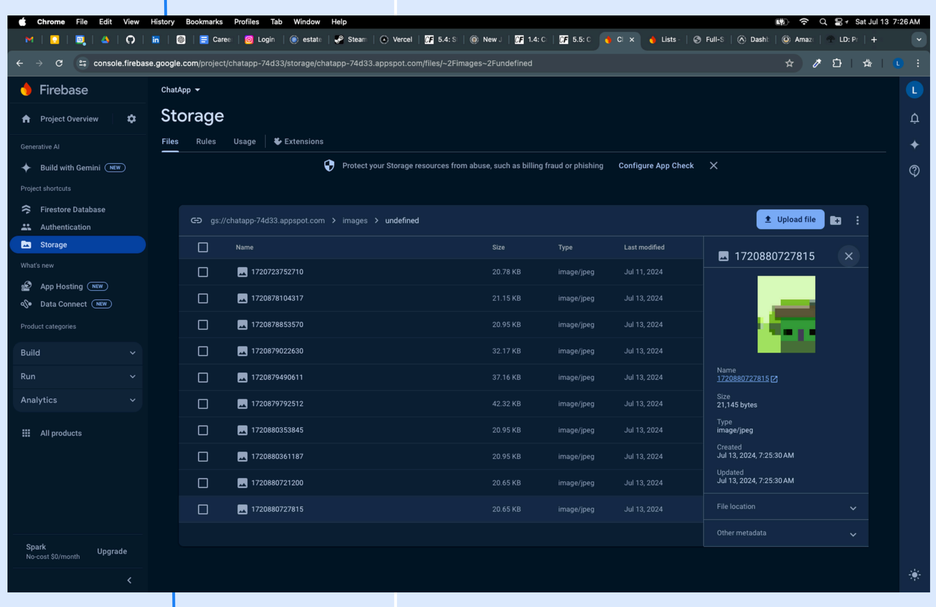






Design:
As a natural progression from my experience with React, I chose to build this app using React Native. Once again, the organization-based logic and the familiar component-based architecture of React made this build very smooth and straightforward. Following the wireframe and UI specifics made the design phase for this app particularly gratifying as I enjoyed the task of getting the app to look exactly like the wireframe using the given assets.

Conclusion:
Building this Chat App was a significant milestone in my development journey, marking my first time using React Native, Expo, Firebase, Firestore, geolocation, and device emulation. The project not only enhanced my technical skills but also strengthened my problem-solving abilities and comfort with using the terminal. The smooth development process and successful integration of various technologies made the project particularly gratifying. Firebase and Firestore were especially enjoyable to work with, and setting up geolocation, camera permissions, and media storage was a rewarding experience. Moving forward, I plan to enhance the app with message encryption for increased security and secure chat rooms where users can invite specific others to join, rather than having one chat room for the entire app.



Conceptualization:
This project began with a clear vision provided by a detailed wireframe and UI specifics from the project brief. The goal of this app is to have a semi-customizable chat app that supports real-time messaging, image sharing, and location sharing. It is to be integrated with Firebase/Firestore for data storage, is to have both offline and online functionality, and is designed to work on both Android and iOS platforms.

Permissions:
To enable camera and location features, I used Expo Image Picker, Expo Location, React Native Maps, AsyncStorage, and Expo Media Library. This step was particularly rewarding as it allowed the app to take and share photos, access and share location data, and store data locally for offline access. There was some initial troubleshooting required to realize that Expo Media Library was needed in addition to AsyncStorage to properly store and send photos taken in the app.

See this repo on Github: https://github.com/leanneduyck/chat.git or see the live site: https://expo.dev/preview/update?message=readme&updateRuntimeVersion=1.0.0&createdAt=2024-07-14T00%3A52%3A16.822Z&slug=exp&projectId=06dc17ba-4509-4950-90c4-203dcae4ee64&group=a0360ea5-cb19-48a2-9c71-07b2523ac535