

<School of Computing & Information Sciences>

Summer 2024 Capstone II Project

<Blog Post>

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PROBLEM

To support large scale communications across a myriad of users, it is necessary that users are able to utilize multiple methodologies to access the application. In addition to the application needing to be scalable to support a widespread userbase, the application needs to support user interactivity across multiple platforms to provide the best experience for users. To meet the demands of users across the intricates of their livelihoods, the application should be accessible on multiple types of devices.

Across each platform, users should have a similar experience, thus promoting the development of a consistent interface and similar functionalities across each platform. The application should be able to fit to the accommodations and specifications that each platform demands. The creation of a uniform experience across all users would allow ease in transitioning across different platforms and minimize the time needed to accommodate to a new platform.

SYSTEM DESIGN

React Native was utilized to design the front end across multiple sections, enabling the connection between the various facets of the application. React Native was also utilized to support cross-platform functionality and design.

Supabase was utilized to manage communication components across the primary user interface the database, ensuring that across each platform users were accommodated.

APP DESIGN

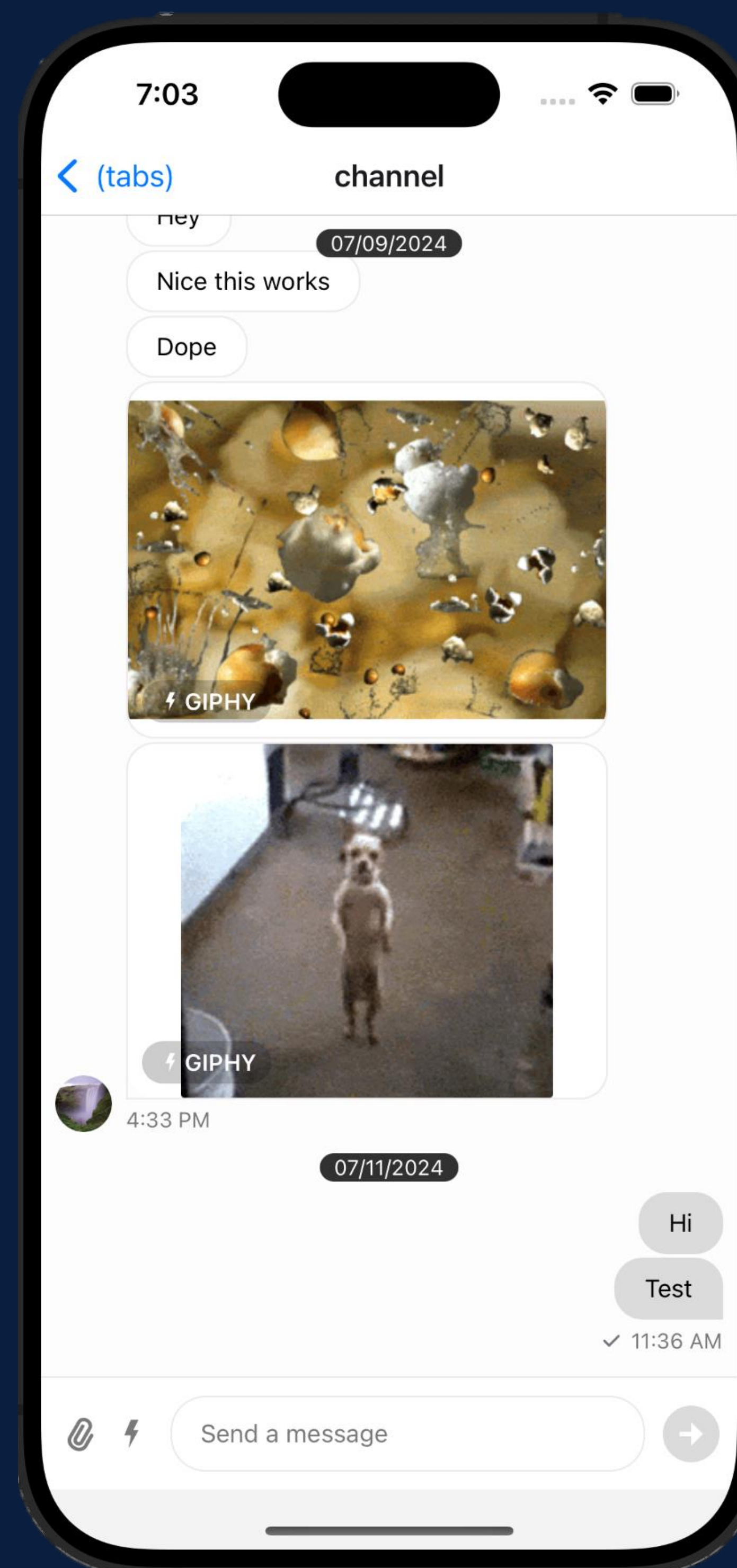


Figure 1: Application running on iOS emulator.

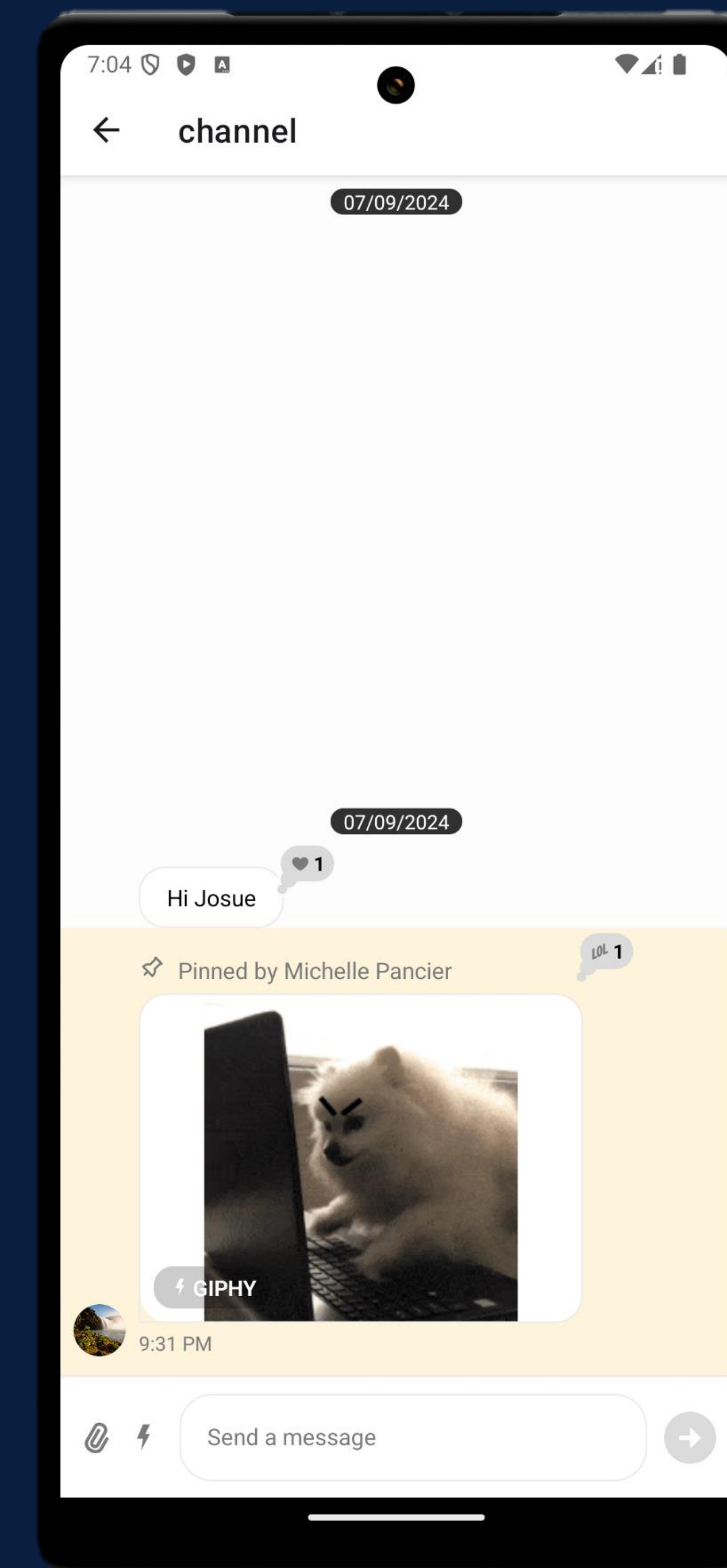


Figure 2: Application running on Android emulator.

REQUIREMENTS

For the application to run the following programs are needed:

- VS Code + Node.js + React Native With Expo Go
- Android or iOS emulators/Physical iOS or Android device with latest updates
- Brew + Watchman

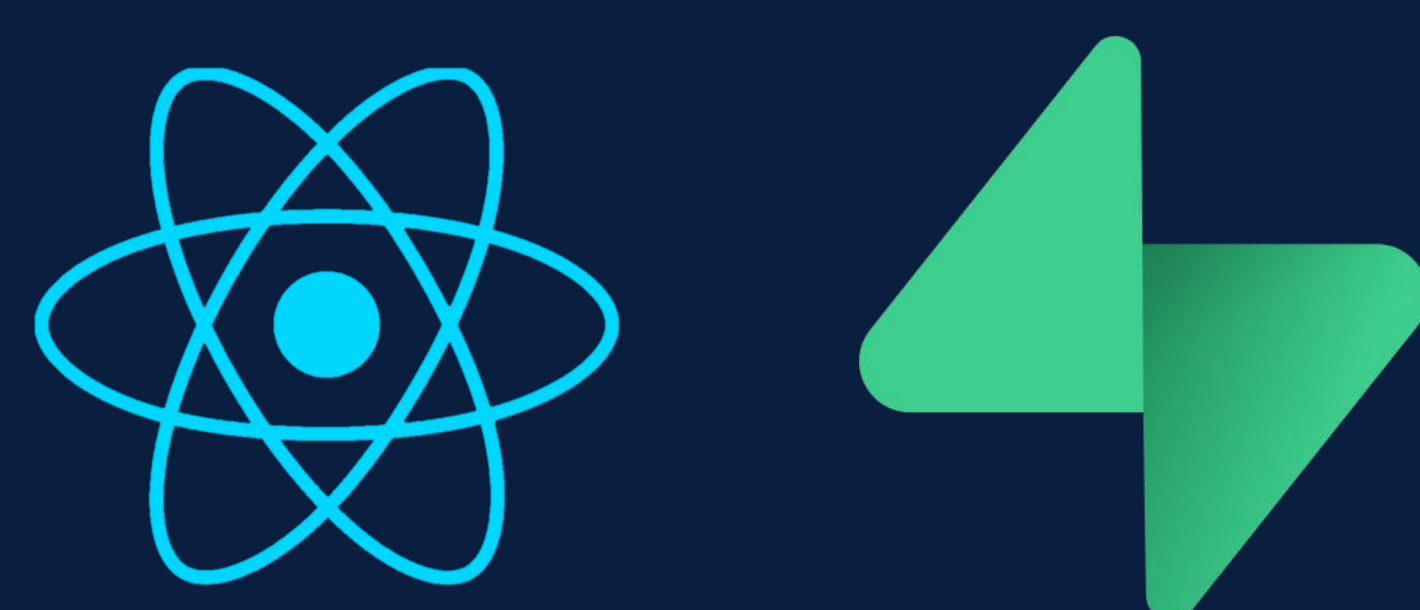
IMPLEMENTATION

- Implemented cross platform support for the application across iOS and Android through React Native
- Assisted in development of the user experience across multiple platforms to ensure it is consistent and intuitive to use
- Supported in developing method for creating users for the application via Supabase.

SUMMARY

The underlying motivation towards developing this application is to effortlessly connect users to foster their communication. User communication as a foundation has highlighted the necessity of support across multiple platforms. The creation of a user base to test and sustain the application is vital for its longevity.

Supplemental development could involve the extension of cross platform support to include web-based applications or computer installable applications. Limitations of the application include the slightly undeveloped systems to allow users to connect more easily with one another, but further development can rectify the issue.



ACKNOWLEDGEMENT

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