Implementing a Mobile Application for Fraternity and Sorority Life

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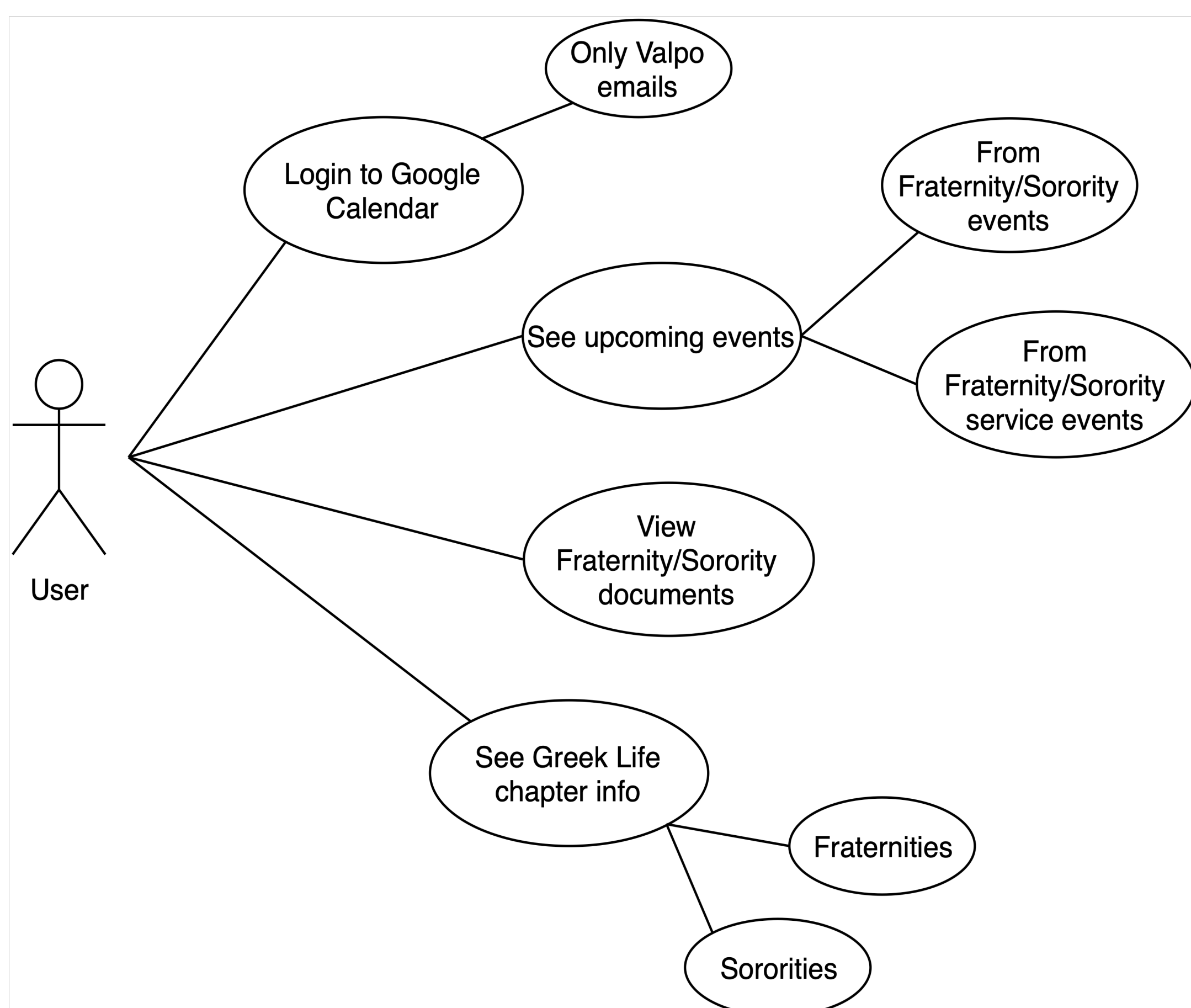Dept. of Computing and Information Sciences, Valparaiso University

Abstract

The goal of this project is to implement and deploy a mobile application for Valparaiso University's Fraternity and Sorority life. Several frameworks were considered for the project, including Xamarin, React Native, and Ionic. Ultimately, Ionic was chosen for its similarity to previous programming languages such as Ruby on Rails. The application is built on the Ionic platform using a combination of implemented HTML and JavaScript, alongside an extension to Firebase services and Google calendar API. The Google calendar API has been implemented to allow only Valparaiso University emails to view personal and organizational calendars. Other features include a message board alert system, event notifications, and application tabs for ease of navigation through the application's menus. A major request, and basis for the project was for an ease of use and convenient localization for documents related to Fraternity and Sorority life, which have been organized into a table sorted by category. By inclusion of the former mentioned functions, the consumer's requests are met.

Use Case UML Diagram

Challenges

Throughout the process of building an app that is suited for Fraternities and Sororities to use on their mobile devices, there were several obstacles to overcome. Some of these were:

- Finding the best software to fit the needs of creating a user-friendly app for Fraternity and Sorority users (the development started using the Xamarin App with Visual Studio software but then changed to the use of the Ionic Cross-Platform Mobile App Development realizing that this would be better for the long run).

- Understanding and learning how to code in Ionic since all members were relatively new to the platform.

- Working around Google Calendar restrictions.

- Making the ability for Valpo users to sign in and view upcoming Fraternity and Sorority events and announcements.

- Communicating between members and seeing what worked best with everyone's different types of schedules, abilities, and styles of coding (there were differences in ideas and the way people wanted to design the product as well).

- Loose guidelines on the project as a whole, therefore forcing structure and discipline as a team.
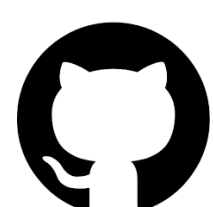
Future Challenges

Although the development of a fully functional app will serve many purposes to Fraternities and Sororities, there still will be some ongoing challenges to face in the future. Some of these challenges will include:

- Keeping the information on the app up to date
- Keeping the software up to date
- Managing future bugs and errors

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