



**Knight Foundation
School of Computing
and Information Sciences**

Knight Foundation School of Computing and Informational Sciences

Spring 2023 Capstone II Project

NuMom (Keeping Moms & Infants Healthy)



Student: Miguel Sablan

Mentors: Jean Hannan, Product Owner & Eduardo Morales, NuMom Veteran
Instructor/Faculty: Dr. Masoud Sadjadi, Florida International University

PROBLEM

Research by Dr. Hannan has shown that low-income minority mothers have reduced access to healthcare resources for themselves and their newborns. The goal of the smartphone-based app NuMom is to bridge the gap in this disparity and provide adequate information about infants, milestones, sexual health, and much more in an easy-to-understand format.

CURRENT SYSTEM

The current version of the NuMom app provides users with the following functionalities:

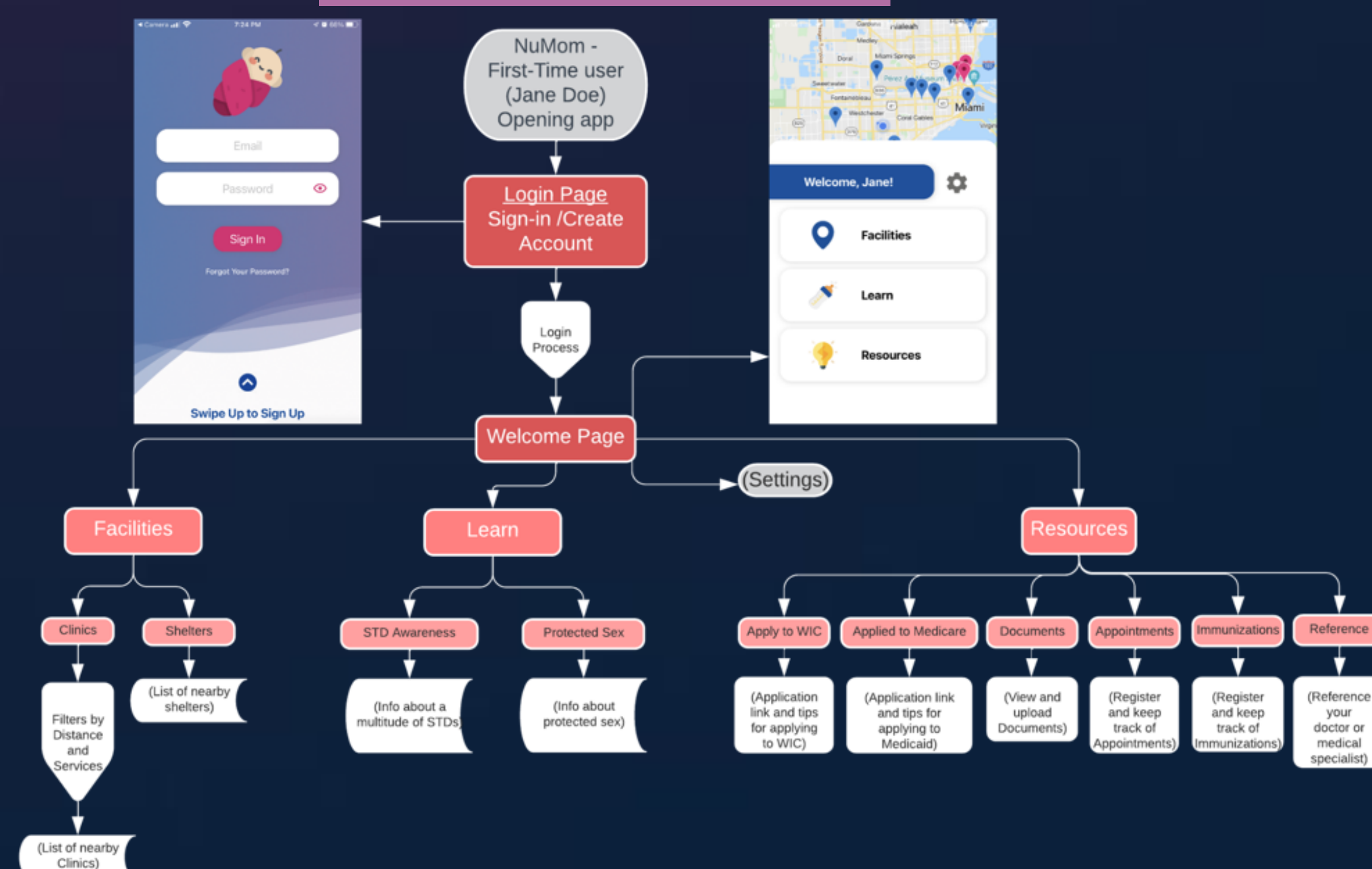
- Location search for clinics and shelters nearby.
- Provides important information about safe sex practices, STDs, and child development milestones for feeding and immunizations.
- Providing information and resources to aid in applying for WIC and Medicaid.
- Recording immunizations, documents, appointments, etc.
- Offered in three languages: English, Spanish, & Haitian Creole.

REQUIREMENTS

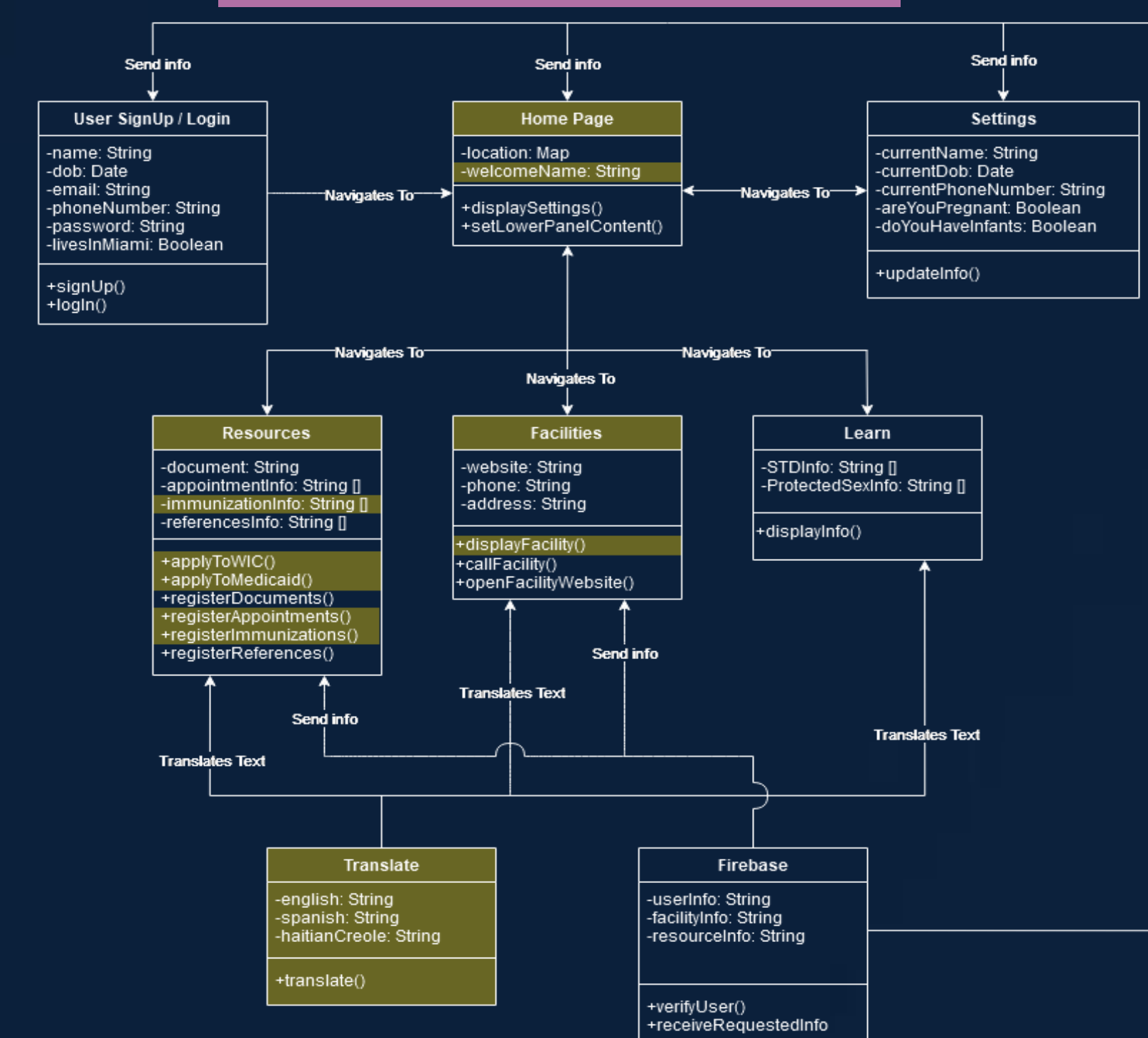
This semester, we were given the task to focus on bug fixes as well as some feature additions. My personal contributions were:

- Added formatting for phone numbers (Ex: 1234567890 became 123-456-7890)
- Upgrading Expo version from 45 to 48.
- Upgrading Firebase version from 8 to 9.
- Ensuring the app functioned properly after upgrading the Expo and Firebase versions, updating any files that became deprecated.

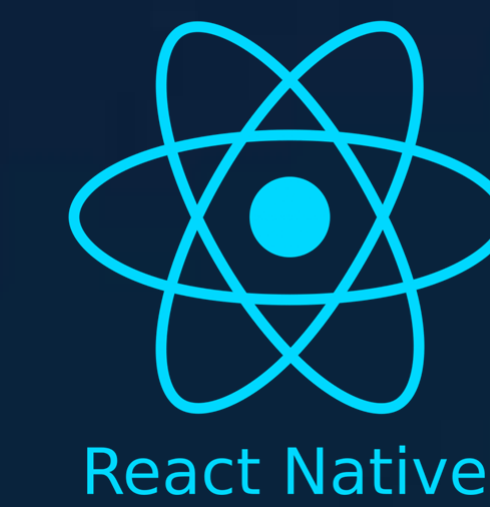
SYSTEM DESIGN



OBJECT DESIGN



IMPLEMENTATION



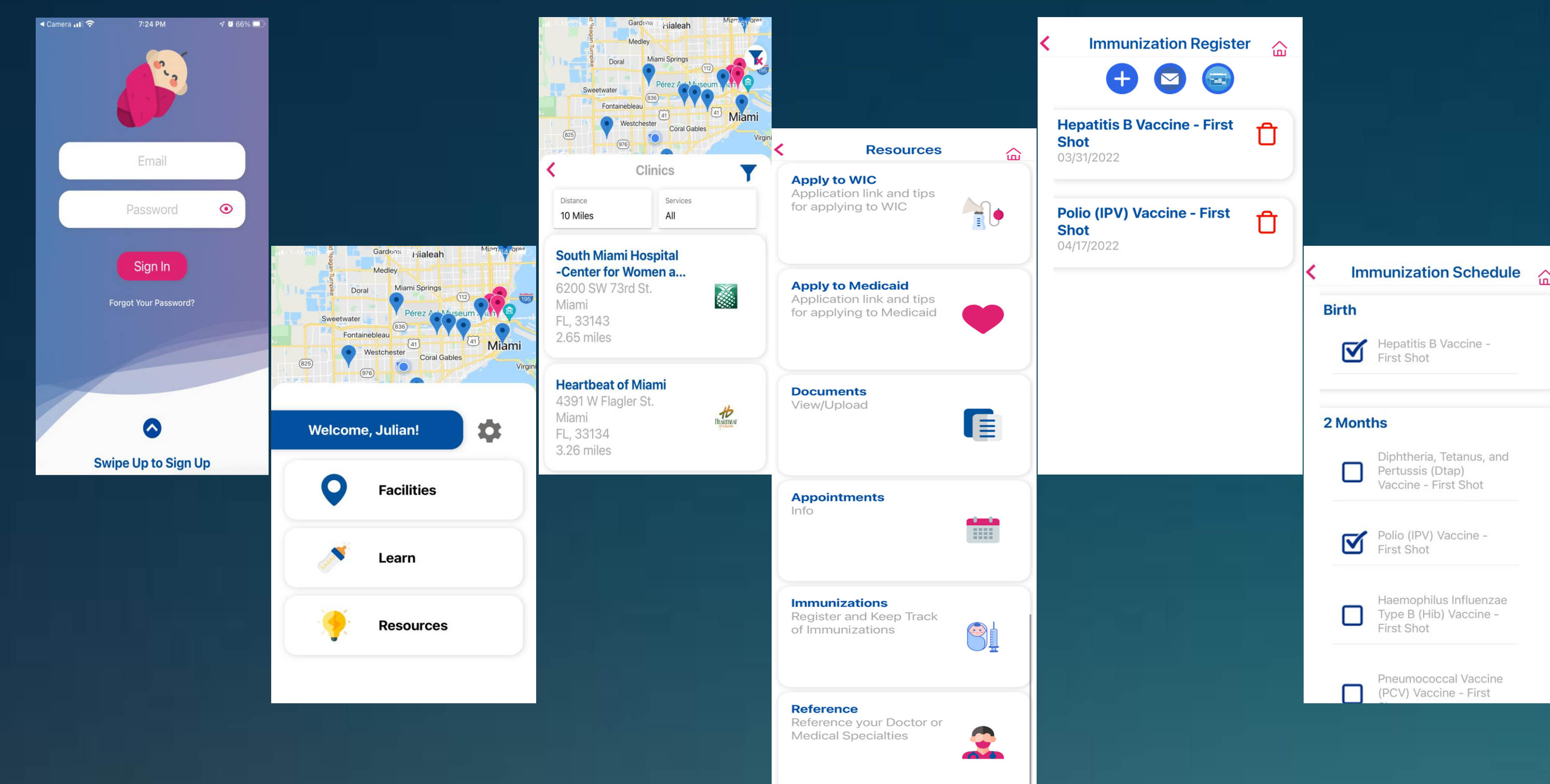
VERIFICATION

Verification of our work was done through a collaborative effort, each of our pull requests required reviews from two other team members to be considered ready. When reviewing, we would run the app locally using expo on our own devices and ensure the issue was completed correctly. Issues were reported if necessary, and we always made sure to check on both Android and iOS.

SUMMARY

The goal for this semester was to keep the app up-to-date. The expo version of the app had become too outdated to where the app stopped functioning completely on our phones. This was foreseen to happen semesters ago so fixing this issue was a high priority to work this semester. Now that we've successfully updated the project, next semester's team can continue working on the project without trouble.

SCREENSHOTS



ACKNOWLEDGEMENT

The material presented in this poster is based upon the work supported by Jean Hannan. I thank Jean Hannan for her assistance and mentorship that I received throughout the Capstone II project.