



Senior Project, 2024, Summer

OTPGen

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PROBLEM

With so many technologies, brands, and companies having the option to opt for a two-factor system. There is no centralized place to keep and store these passwords. A system that can do both of these while simultaneously being easy to use would be instrumental in saving users time and worry.

CURRENT SYSTEM

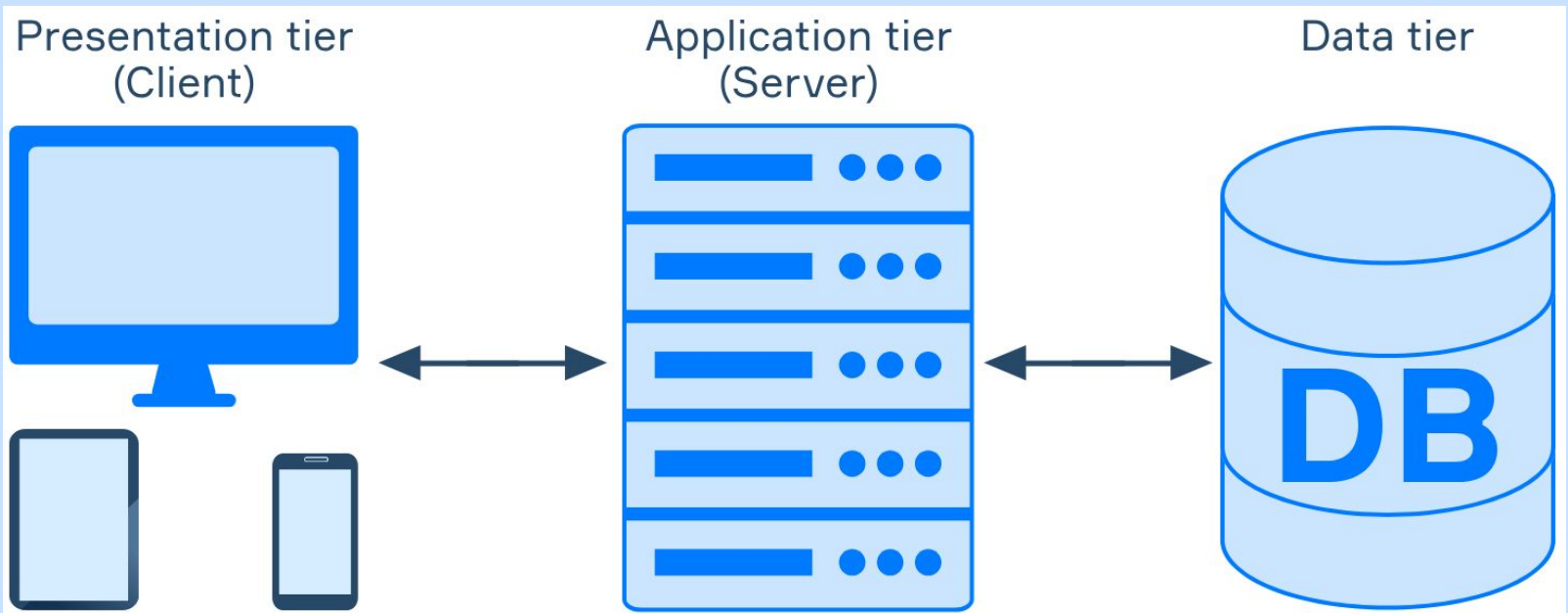
Currently in the OTPGen application, there have been various features implemented into our system. Those include being able to register for our service with an email. Add and remove otps (one time passwords) seamlessly, as well as the ability to scan and read QR Codes.

REQUIREMENTS

One of the main requirements was to make this application as convenient as possible for users so we had to work with mobile application technology. We predict that most users that would utilize our service will have a cellular device which this could run on. Furthering the need and requirement to of the mobile application implementation

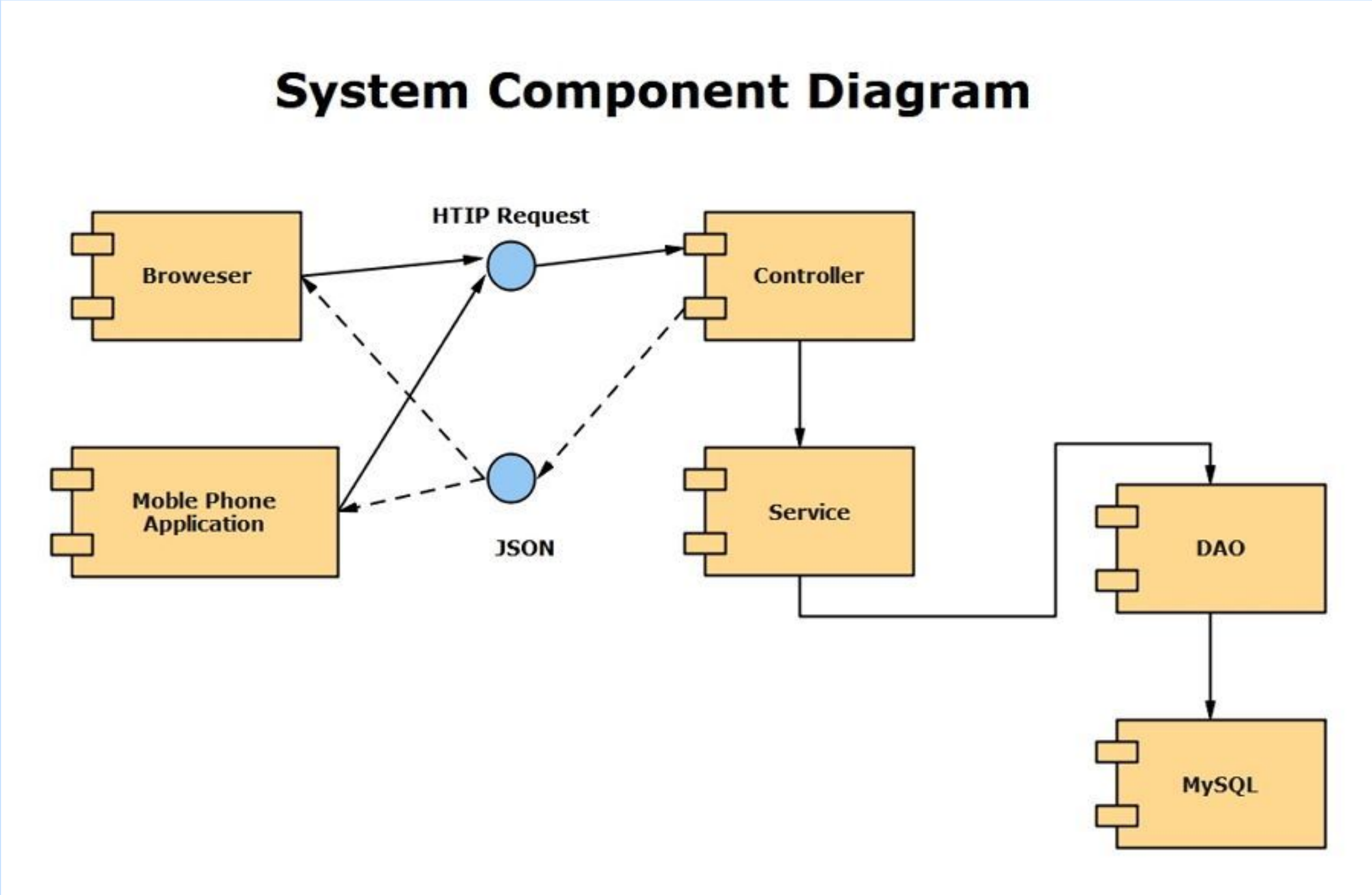
SYSTEM DESIGN

Our system uses a three-tier architecture. Our presentation layer was built with React Native, providing a user-friendly interface. The application layer, written in JavaScript with jsotp integration, handles the core logic, including OTP generation and user management. The data layer is PostgreSQL, keeping a secure record of users and their information.



OBJECT DESIGN

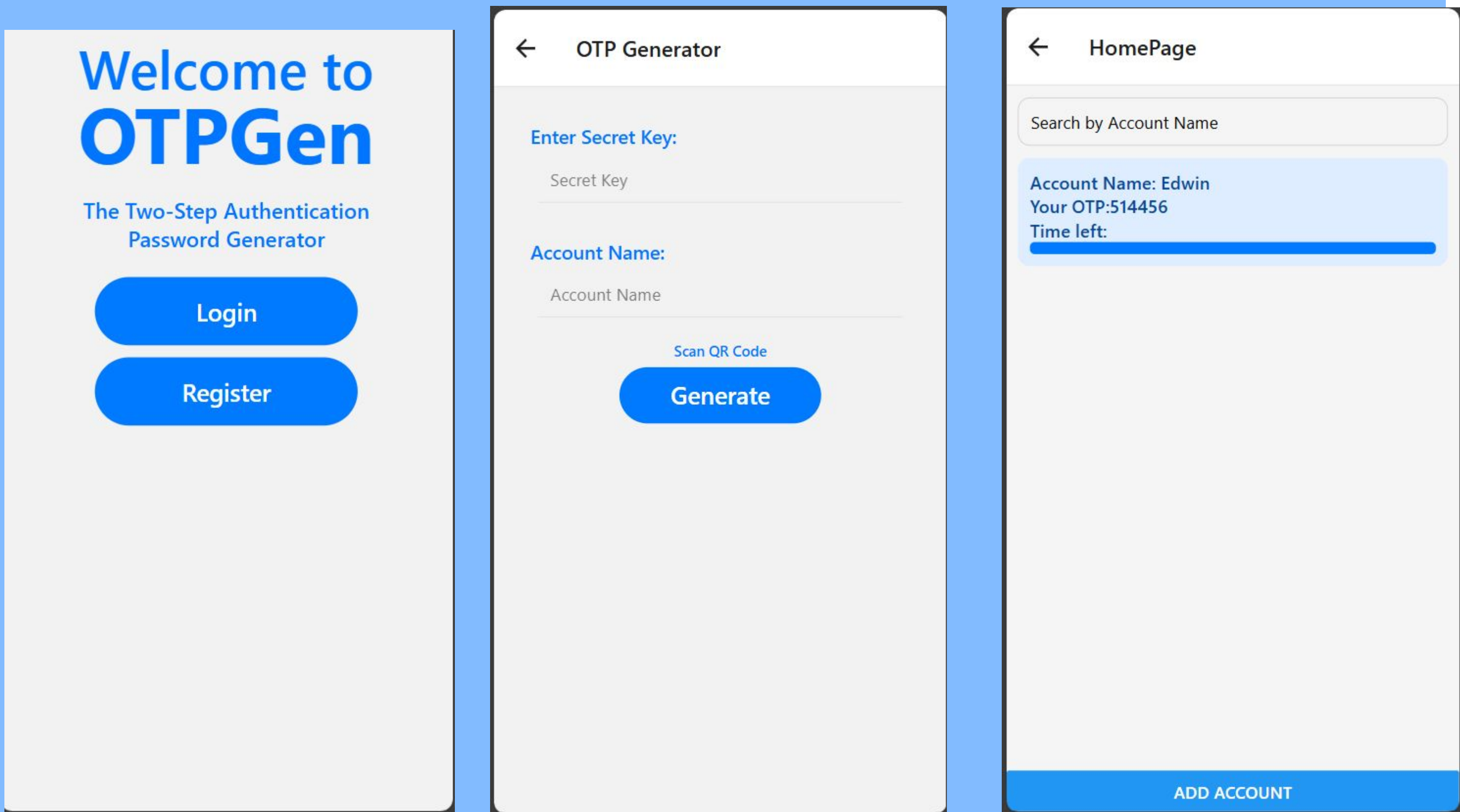
This project works on a modular object-oriented design, which helps fragment the project into more manageable parts. Parts such as user management or OTP generation, are done within the confines of their own specific objects with their particular tasks.



IMPLEMENTATION

- o HTML5, CSS
- o React Native which is the framework utilized to implement applications for Android and iOS
- o jsotp libraries utilized for creation of otps if necessary

USER INTERFACE



VERIFICATION

This project was verified and approved at the beginning of the semester by Professor Sadjadi

SUMMARY

Otogen is a multi-tiered application implemented in React Native with the purpose of providing users with a secure and friendly management system around OTP-based authentication. The service allows for users to store their passwords when needed, as well, delete and alter however necessary. This application ensures uses a straightforward and effective form of security

ACKNOWLEDGEMENT

The The material presented in this poster is based upon the work supported by Professor Masoud Sadjadi.
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