



School of Computing & Information Sciences

Spring 2024 Capstone II Project

Stress & Anxiety Management App

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

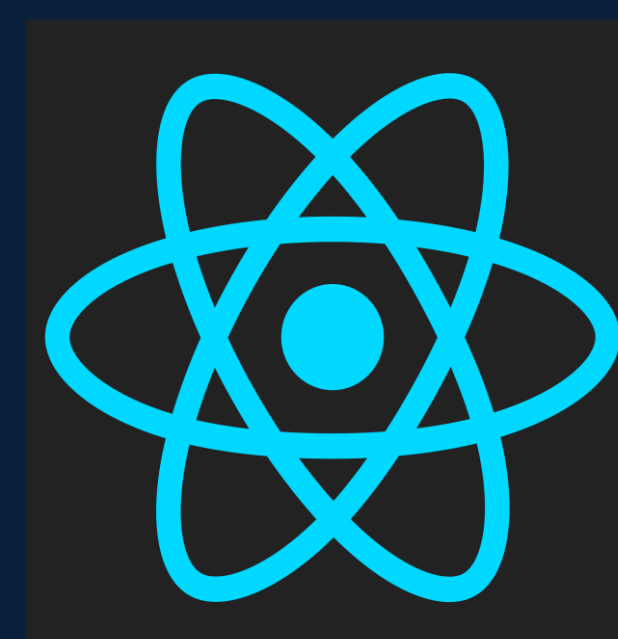
PROBLEM

Mental health has taken a backseat to traditional health in recent years. HOWRU.life is a mobile app and website for all ages focused on mental health, well-being, and self-awareness. With a focus on self-reflection and care routines, HOWRU.life seeks to ameliorate the mental health epidemic across the globe.

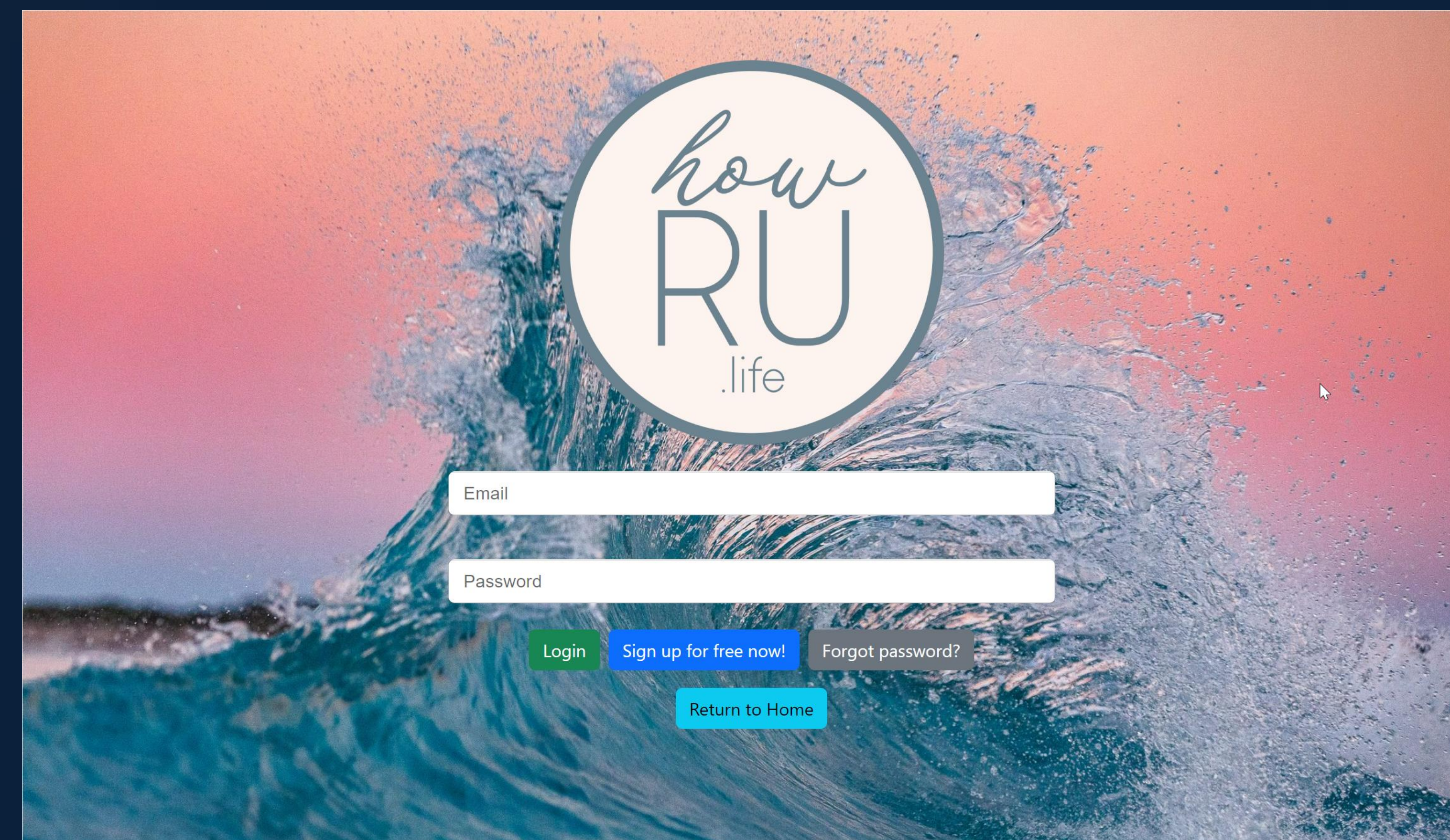
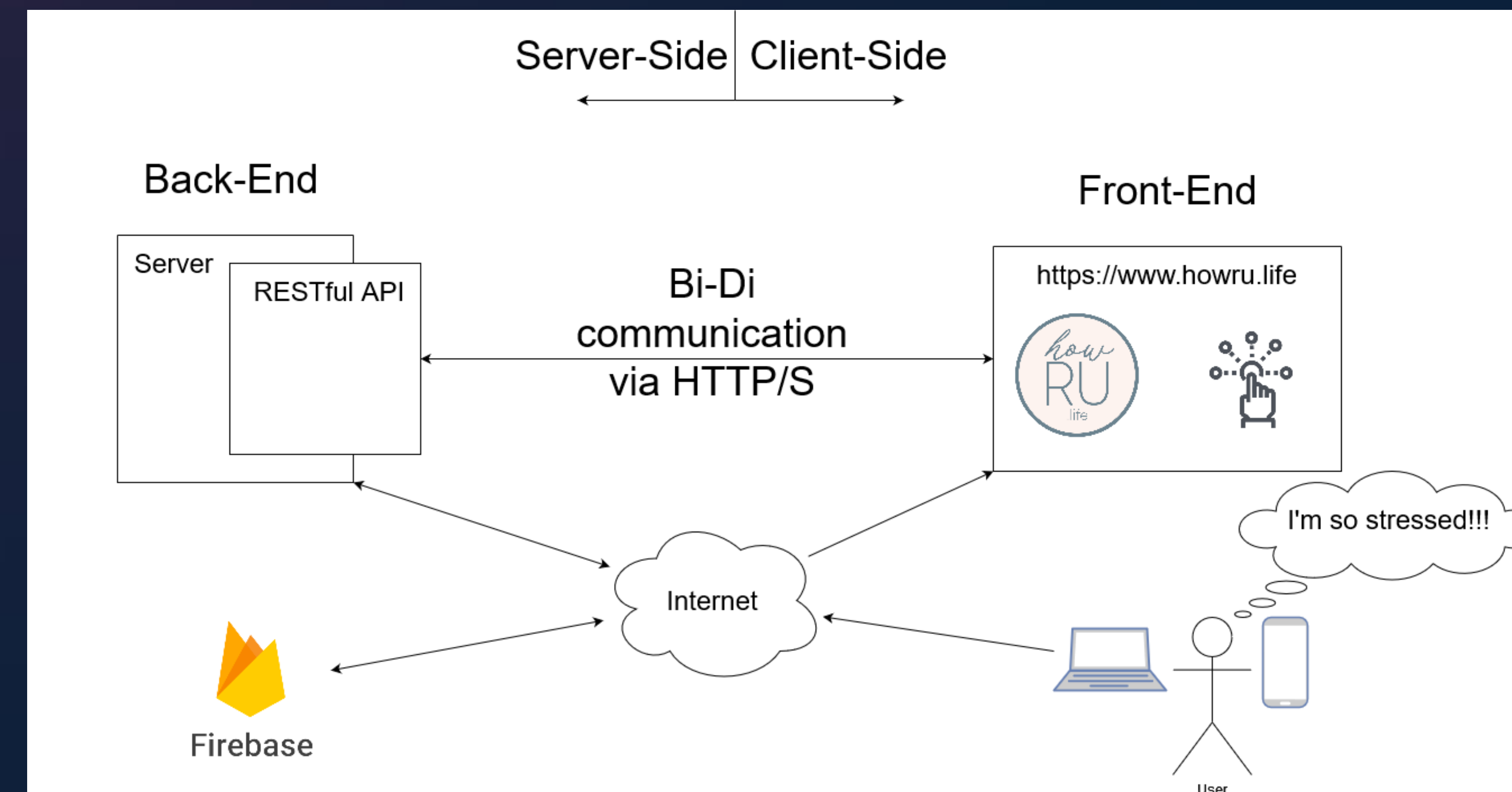
Our task this semester was to develop a brand new HOWRU.life website. From inception of the project, our work consisted of the following primary tasks:

- Advise & consult with the PO for feasible solutions
- Create a design & style guide consistent with the existing mobile app code base
- Consider a pathway to deploy the website to the WWW
- Implement the website via JS, CSS and Firebase
- Create RESTful API & modular backend/frontend
- Test & optimize the code for performance & safety
- Document methodologies, design choices & code base

TECHNOLOGIES



SYSTEM DESIGN



IMPLEMENTATION

This project is considered a full-stack development effort due to the necessity of a database for persistent storage. As such, several cohesive technologies were leveraged to bring this project to fruition.

- Frontend: React 18 framework and Vanilla JS
- Backend: Node.js 20 with Express framework
- Database: Google Firebase for authentication & persistent storage
- Styling: Bootstrap & custom CSS
- Collaboration: Figma for design, Git for version control

The architecture of choice was a server-client design to allow for separation of duties, modularity, and ease of future development by decoupling the principal technologies.

The work breakdown schedule progressed in accordance with Agile methodology broken into six sprints. Generally, once the front-end skeleton code was in place, the API was then created to handle requests from the client-side. This API is RESTful in nature, relying on the well-established HTTP/S protocol as its transfer layer. Once the API endpoints were created, the persistent database connection was established via the Google cloud. With the major technologies in place and operational, the remaining work consisted of feature implementation, styling, diagnostics/troubleshooting and security/safety considerations.

FUTURE WORK

There is plenty of work still left to be done by future groups.

- Deployment of the website for public access via the cloud, server/client clustering
- More advanced feature implementation
- Mobile app & website integration, connectivity
- Internationalization & accessibility features to broaden the application userbase



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ACKNOWLEDGEMENT

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