

Maintaining Long Term Adherence to BRIDGES Protocols

Summer Gautier, Computer Systems Engineering (Cybersecurity)

Mentor: Kevin Gary, Associate Professor

School of Computing, Informatics, and Decision Systems Engineering

Research Question

This project aims to support the BRIDGES protocol developed by the REACH Institute to aid at-risk youth in learning and practicing skills such as conflict resolution, goal planning, and healthy coping mechanisms.

By creating a mobile health application that catalogues and extends the interaction with BRIDGES core content, the long-term adherence to BRIDGES can be improved among the youth participants.

Stage I - Design

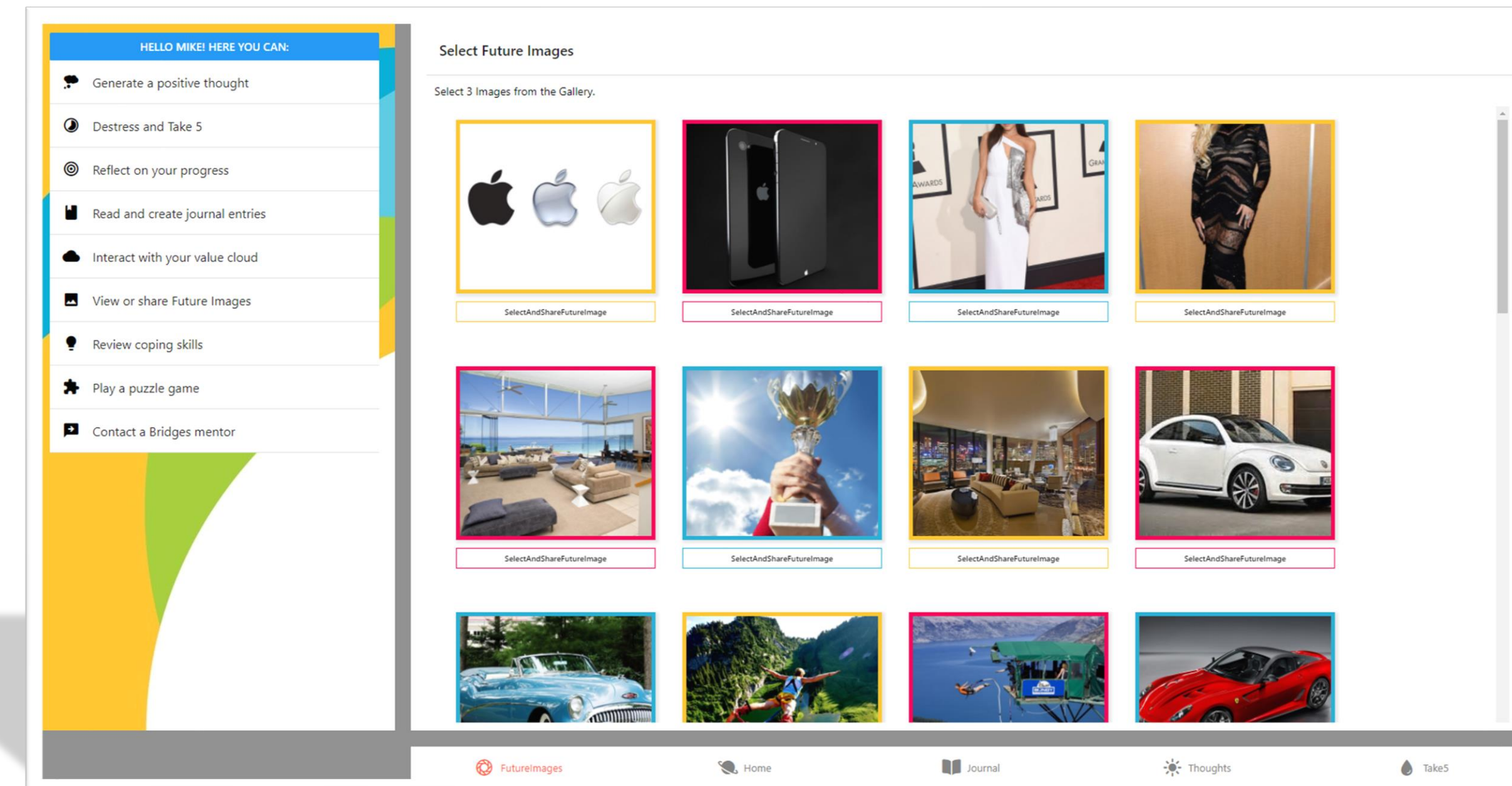
In the beginning stage of this project the team researched, designed, and refined wireframes using FIGMA.

React-Native-Web & Expo were chosen for their cross-platform ability within a single codebase.

This allowed the team to design a responsive web/mobile application using modern design standards.

Our designs took inspiration from IOS standards of design.

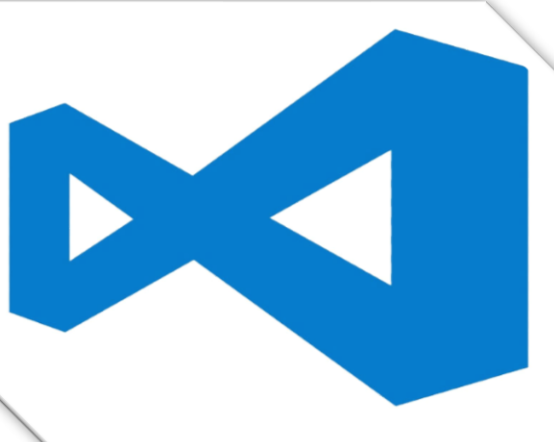
Stage II - Development



Impact

The potential impact of this project to improve the outcomes of teenagers is the fundamental motivation behind this development. The REACH institute has plans to roll out a scalable/more affordable version of BRIDGES and this application will be an augmentation to help a scaled down BRIDGES to maintain long-term efficacy in teens.

Set-Up & Materials



Credits & Future Work

Next steps on this project include continued development of BRIDGES protocols into activities in the frontend and backend. This will include utilization of native mobile-exclusive features like push notifications & camera usage.

Principal Investigator: Dr. Nancy Gonzalez

FURI Mentor: Dr. Kevin Gary

Faculty Advisor: Dr. Armando Pina

Research Students: Summer

Gautier, Paarth Bhanushali

Akhilesh Krishnan, Idhant Haldankar, Rahul Suresh

Future Images & Take5

Future Images (shown above) allows students to select / update 3+ images and categories that represent what they're aspiring towards. In this activity, they reflect on those aspirations in order to visual their "Future Self".

Take5 (shown directly left) is an activity visually inspired by the well-regarded Tactical Breather application. The activity itself is a breathing exercise from within BRIDGES to teach a calming/coping mechanism in stressful situations.

The team built a parameterized REST API in order to facilitate the transfer of storage between the React-Native-Web frontend & PostgreSQL database.