Bi-Weekly Report (2/24/21~3/8/21)

Accomplishments

Hui (Henry) Chen:

1. Researched how to utilize Json Web Token (JWT) with RESTful API so that our API is authenticated and secured.
2. Found the correct and secure way to store the JWT on the client side through SecureStore API.
3. Troubleshot the team members' code (front-end).
4. Finalized the workflow of how the authentication system is intergrating with React Native.

Jungi Park:

1. Implemented the first login screen User Interface (UI) component and pushed on our github repository.
2. Researched a way to navigate sign-up component and sign-in component from the first login screen.
3. Tried to integrate the UI components that have a drawer navigation into our ongoing project with zack.

Michael Trzaskoma:

1. Found multiple possible websites for college information such as:
    a. https://www.cappex.com/colleges
    b. https://www.princetonreview.com/college-search
    c. https://www.niche.com/colleges/search/all-colleges/
2. Settled on niche however due to the fact that they contained as much information as other websites but even more. Two of the key ones is the most abundant degree that people graduate with from that college, and the ranking system they have, following this criteria: https://www.niche.com/about/methodology/best-colleges/
3. Compared the list of general majors that both niche.com and scholarships.com have to create a single list of majors that can be used in recommendation algorithms for both scholarship, college, and major.

Zakaria Khan:

1. Created layouts for major recommendation quiz page, major result page, and college detail page.

2. Researched navigation library for react native, attempted to implement tab navigation and drawer navigation.
3. Implemented correct icons and labels for navigation bar

Gregory Salvesen:

1. Researching REST and JWT to get a better understanding of the core concepts of communication between our backend and frontend.
2. Working on implementing a RESTful connection between the frontend and the backend using JWT's.

Upcoming Goal

Hui (Henry) Chen:

1. Collaborate with Grag on the JWT part.
2. Start to program the web scraping for the college data.

Jungi Park:

1. Try to complete Front-End development by the end of the upcoming week.
2. Acquire fundamental knowledge on react-native and javascript concepts.
3. Regrouping UI components in a way that will be applicable to other mobile OS platforms.

Michael Trzaskoma:

1. Due to unsuccess with finding a central hub for major information, locating sites that contain statistics or information on individual majors, based on the list of general majors created based on scholarships.com and niche.com.
2. Start working on the scholarship recommendation algorithm tuning to allow for at least one recommendation algorithm to full functioning and implemented into the application.

Zakaria Khan:

1. Continue and if possible finish UI implementation (re-organizing component structure and implementing navigation from all base screens)
2. Log-in Implementation (connection between front end and backend for JWT)

Gregory Salvesen:

1. Complete the implementation of connection between the front end and backend.

2. Begin setting up the connection in all the necessary places on the front end.

Issue & Barriers

Hui (Henry) Chen:

1. Unable to enable password for the SQLite on the client side. However, I managed to get the feedback from the Expo project author, who suggested using SecureStore API.
2. Discussed with Zak and Jungi about the front-end authentication workflow. Then finalized that for this project, we are going to create a web page to let the user sign up for an account rather than on the app itself. This lets us verify the user's email address easier when they sign up for an account.

Jungi Park:

1. Since our project is the continuation of a project from another course that henry and michael took, we start to implement front-end development with some inherited data flow from pre-existing projects, which were hard to integrate our UI component into the ongoing project.

2. Since I don't really have a good deep understanding of fundamental knowledge on react native and javascript, when I need to pass the navigation proposition to navigate between different UI hierarchies, I have been stuck on some simple UI component development.

Michael Trzaskoma:

1. Unable to find a central hub of information for majors, certain sites contain simply a two sentence description, while others require a paywall method such as https://www.collegemajors101.com/.
2. Scholarship recommendation testing was not done due to priority of finding resources for college and major information
3. While not being able to find a website with major information, https://www.bestcolleges.com/resources/choosing-a-major/ provided an initial idea of how to tackle recommending a major. As a group we decided to do a results based approach, containing information such as desired salary and debt willing to be taken to pursue a major. Still seeking if this is the best plan of action however for major

Zakaria Khan:

1. Implementing the UI was difficult due to React Native's navigation library system. React native's navigation library uses three different types of navigation, stack, tab, and drawer. For our UI we needed to use both a stack navigation for the login and sign up screens and then a tab navigation for traversing between the main activity screens. Most existing examples in the documentation only show using one type of navigation within the app however our app requires two. The closest example for a setup for two navigation methods was found in the authentication data flow documentation for the react navigation library. This example makes use of a login component that is just a simple function within the main app.js file and the page it navigates to post login is also a simple function and it seems to use stack navigation only. However our login and sign up screens, along with all of our other screens, are entirely separate components with their own child components and still require at least two methods of navigation. Component hierarchy and file structure needed to be re-organized to accommodate navigation and data flow.

Gregory Salvesen:

1. Was running into issues navigating through the app and had to spend a bit of time debugging instead of implementing.
2. The concept of RESTful APIs was new to me and so I had to spend a good amount of time researching them.