2021-11-12 Meeting Agenda

Topics:

- Part 01: Achieved milestones & Design Changes
- Part 02: Difficulties encountered

Part01:

Achieved milestones: project pitch, team contract, conceptual sketch & rough plan

- A quick recap of our concept:
    - Our project, Blue Pin, serves as software that aims to enhance the BlueBikes experience for its users to promote sustainable behaviors.
    - Our project aims to make BlueBikes' impact more tangible, engaging, and personal so more people will opt for this sustainable alternative.
    - Key features include:
        - Share personal Trips with generative art with personal messages as Posts and chances of upvotes from other users
        - Achievements of users for set goals
        - Challenges with friends based on shared goals
        - Records of users for cumulative contributions

- Based on the feedback, we will be focusing on one concept for the moment.
    - One key concept we will develop is a visualization card for posts to serve the purpose of gamification since the cards can be collected and shared.
        - We plan to document people's experience with BlueBike based on user-generated data, coupled with other data such as carbon saved.
        - The data will be visualized in a generative art form and will show up on the app's map.
        - People can post and choose to leave a message and others can like the posts.

- Estimation of future work (**We would like to know if this is feasible and how to design the workflow**)
    - 1. UX design
        - user journey map
        - function definitions

- data visualization design mockup
- wireframe and style guide
- 2. Plan to make both ends meet
    - what CRUD actions are needed?
    - based on the current design, which internal APIs are needed?

- 3. Frontend framework setup
    - which framework to use? (based on the app's primary platform and current skillsets). If not a mobile-focused framework such as React-native, how should we make it responsive?
    - Implement styling with dummy data?
- 4. Backend data setup
    - which database to use?
    - how to keep track of internal data? access outside's APIs?
- 5. Data visualization
    - how to transform user single action data to the visualized form, say a card?
    - how to track users' overall data, say a dashboard?

Part02:

Difficulties encountered:
- We need advice on the priority of the concept development. Considering we included Challenge, Post, Trip, and Profile four concepts which are all expensive to implement, we want to prioritize concepts that are more unique and important while leaving the rest as "nice to have" features. Currently what we have in mind is
    - Must: Trip, Profile(Records), Post
    - Nice to have: Challenge, Achievements

- We have limited experience in mobile app development and need suggestions on framework choice and tutorial recommendations.
    - For the front end, we decided to use React-native.
    - For the back end, we decided to use Node.js.

- For the database, we would choose one from MongoDB, SQLite, and MySQL. We are especially not sure which one matches our project best since we have limited knowledge of the pros & cons.
- For the data visualization, we would like to choose one from P5.js, D3.js, or Three.js.
- For the location tracking, we might consider using BlueBike's open API (only including starting point & endpoint) or require the user to give permission on location sharing (including the route).

- We need to go over our data model design to make sure that our implementation plan is feasible.
  https://www.figma.com/file/0P5QxNOmxs0nIqZTlEjjFV/final-concept-diagram?node-id=0%3A1