Spark Bytes Plan

Requirements

Goal: Spark Bytes will be a platform for Boston University students and faculty members to post events that provide food or snacks. The aim is to reduce food waste resulting from over-purchasing for events and at the same time, help students access free food.

Tech Stack

We plan on using a fairly standard tech stack, including the recommended next.js options. However, we will be including an additional “wrapper” for a backend instead of connecting directly to our database. This will allow us to avoid clutter in the front-end code.

- next.js
- Typescript
- Tailwind css
- Pdm python server
- Supabase

Plan

Here is what our file structure will look like in GitHub:

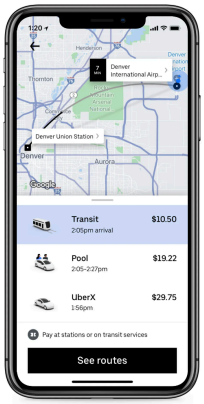
```
~/
├─ server/
│  ├─ src/
│  ├─ .gitignore
│  ├─ pdm.lock
├─ website/
│  ├─ public/
│  │  ├─ favicon.ico
│  │  ├─ index.html
│  │  ├─ robots.txt
│  ├─ src/
│  │  ├─ index.css
│  │  ├─ index.js
│  ├─ .gitignore
│  ├─ package.json
├─ README.md
```

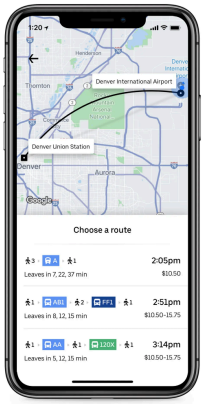
Step-by-step

1. Create the structure by running:
    a. `pdm init`
    b. `npm create-next-app`
2. Create a supabase org and create tables:
    a. `events`
    b. `accounts`
3. Create some resource manager in pdm that generates the fast api endpoints for us for each resource ++ type safety
4. Web pages:
    a. Login in the top right
        i. Google auth with `bu.edu`
        ii. Let users have preferences
    b. Mapping on the home page
        i. See all nearby events as pins on map
    c. List view of nearby events

Visuals

We plan on taking inspiration from Uber when designing this app… Since we want a mapping aspect and a list view, you can see how the Uber app includes most of that information in a clean way. Except we will handle everything for a horizontal view instead.





Delegation

- Collin will be focusing on backend tech stack, specifically the supabase-fastapi connection for managing resources with type safety
- Victoria will be focusing on the front-end tech stack. The supplier login page and creating the functionality to post and edit events.

- Khadija will be focusing on the front-end tech stack, specifically the student login and the ability to favorite and track events.
- Anthony will implement mapping functionality using google maps API

Communication

We'll be communicating over text for day-to-day operations. All project requirements and progress updates will be handled over GitHub issues and pull requests. This will allow GitHub's git history to show exact progress with linked documentation, streamlining the development process.

We will set up a weekly meeting that will be around 10 minutes to catch up on what has been completed and what we will be working on.

We will be using a Jira board to help with our task management. The link is below.

https://cs391project.atlassian.net/jira/software/projects/BYTE/boards/2