Spark! Bytes Group One

By: Victoria Mulugeta, Anthony Xie, Khadija Ali, Collin Barber

Meet The Team

Victoria

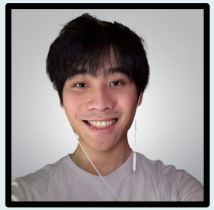
Frontend Development

Collin

Nerd

Khadija

Frontend Development



Anthony

Backend Development

Requirements

- User Login
- User Authentication
- Home page
- Dashboard
- Profile Page
- Food post board
- Map of food locations
- Item upload feature
- Database
- Allergy/Dietary Restrictions included
- User has ability to delete and edit item
- User Authentication

Communication

Jira

- Documenting features and requirements
- Splitting work and delegation

IMessage

- Weekly meetups
- Fast communication
- Alerts, changes, issues, and teamwork

GitHub

- Documented PRs
- Reviewing each other's work

Tech Stack

Frontend

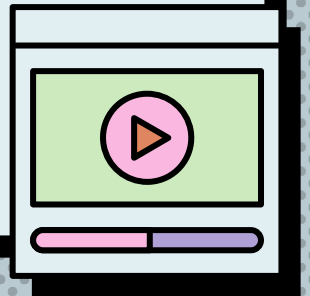
- Next.js
- Typescript
- Tailwind CSS
- Google Maps

Backend

- FastAPI Server
- SQLAlchemy
- Google Auth

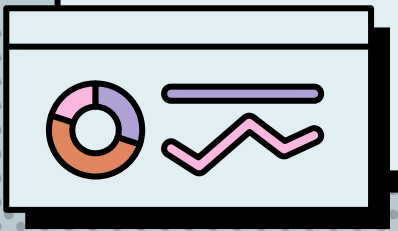
Front End

- Next.js
  - **Dynamic Routing:** Simplified navigation with pages like /map and /profile.
  - **API Integration:** Used useEffect for client-side data fetching
- Typescript
  - Ensures type safety and improves collaboration by defining clear interfaces for events, users, and preferences.
- Tailwind CSS
  - Allowed us to build responsive UI components quickly
- Google Maps
  - Displayed events dynamically with custom markers



Back End

- FastAPI (python) backend
- Runs a SQLite database locally (connected through SQLAlchemy)
- Automatically generates endpoints based on the SQL table



Demo :)

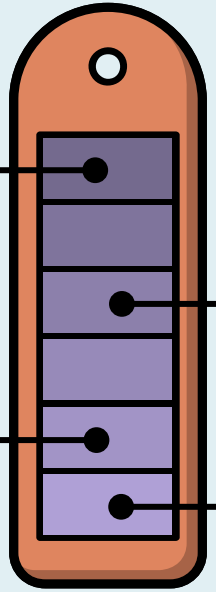
Improvements

Food Waste Tracker

Track how much food is saved from waste over time and display data to users

Notifications

Integrate notification methods like SMS or email so users can be reminded of events they would like to go to



Sight Impaired Friendly

Add text resize options and ability to change color palettes for all types of color blindness

Real-Time Inventory

Show how much food is left in real-time to reduce disappointment when users arrive late.

Takeaways

Collaborative Development

Gained a full understanding of the AGILE process and how it supports iterative development and team collaboration.

Version Control

Now have a better understanding of Git/Github and how to handle merge conflicts.

Frontend Development

Learned to build responsive and user-friendly web interfaces using Next.js, TypeScript, and Tailwind CSS.

Backend Development

Learned backend systems with SQL, managing databases, creating APIs for data integration real-time communication with the frontend.

Thanks!

Does anyone have any questions?