We're Witty Wombats :: Shreya Roy, Kosta Dubovskiy, Jeffrey Zou, Shafiul Haque
SoftDev
P04
2022-05-01
time spent: 04 hrs

Target ship date: 2022-05-30

Design V.0 for WEEATS

Goal:
Creating interactive maps of the US detailing the location of fast food restaurants, with filtering options available by chain.

Idea: we could include this ^ idea, and generalize it further by analyzing consumerism trends in the United States in multiple facets. For example, we could look at the ratio of how much Americans spend on fast food(or eating out in general) vs the agricultural production. Track prices of fast food over time compared to inflation(is the *real* price growing, or just keeping up with inflation).

APIs Utilized:
Map API:
https://github.com/stuy-softdev/notes-and-code/blob/main/api_kb/411_on_Google_Maps_Platform.md

Program Components:
- Database
  - Stores necessary information regarding fast food locations & nutrition, to be represented graphically.

- Frontend
  - Displays our website and the map visualization of data to our users
- Python + Flask + Javascript
  - Renders website pages
  - Database setup
  - API requests to populate database
- Bootstrap framework
  - Creates cool visualizations of data
  - Makes our website look more pretty
- APIs
  - Provides information for our database tables

JS

Frontend Framework Chosen: Bootstrap (+ TailwindCSS?)
- Why: Ease of use, aesthetics, and previous experience
- How: Import Bootstrap CSS/JS via link tag, install TailwindCSS if it becomes helpful for our purposes.

Backend:
- Flask/Python: required to create website framework
- D3.js: https://observablehq.com/@d3/gallery
- https://observablehq.com/@mbostock/walmarts-growth

Html Templates:
- Main landing page: has a logo of the website and a brief description
- Home page: users can choose maps they want to see
- Individual map page: users can interact with the map and click on locations
- Location page: users would learn more information about the location of the fast food restaurant,

such as address, the types of food available, and
hours of operation

Flask App:
- Helps display the html files through paths for
  certain linkages
- __init__.py: routes to connect to HTML files

SQLITE DB:
- MySQL database (db.py): large and efficient data
  storage
- Has functions that can be used to add/delete
  information in the database tables

FAST FOOD LOCATIONS

Chain Name	Latitude	Longitude	Address Text	Website Link

FAST FOOD CHAIN INFORMATION

Chain Name	Item Name	Calories	Total Fat	Chain Image (if available)

Dataset:
Fast Food Restaurant
https://www.kaggle.com/datasets/rishidamarla/fast-food
-restaurants-in-america
Fast Food Nutrition
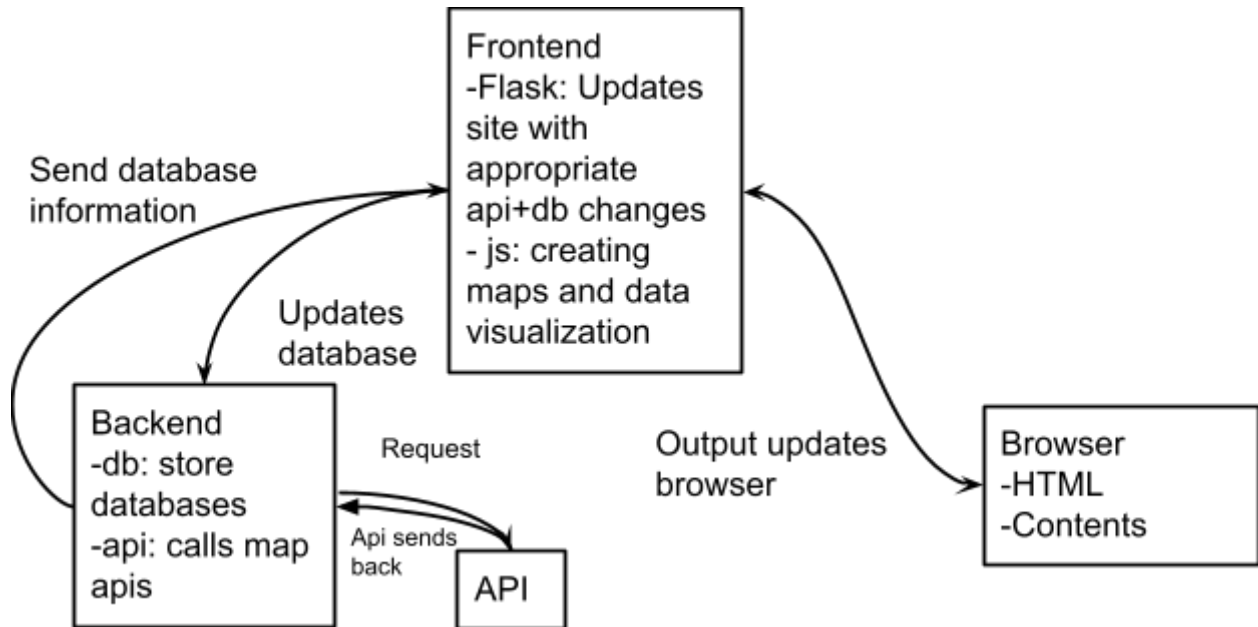https://www.kaggle.com/datasets/ulrikthygepedersen/fas
tfood-nutrition
Fast Food Store Images
https://www.kaggle.com/datasets/rohan0301/fast-food-st
ore-images-mcdkfcbksubwaysbucks

Component Map:

Frontend
-Flask: Updates site with appropriate api+db changes
- js: creating maps and data visualization

Send database information

Updates database

Backend
-db: store databases
-api: calls map apis

Request

Api sends back

API

Output updates browser

Browser
-HTML
-Contents

Database Organization:

Site Map:

Homepage

- Map
- Different data visualizations with filtering options

Detailed information regarding location, items, nutrition info
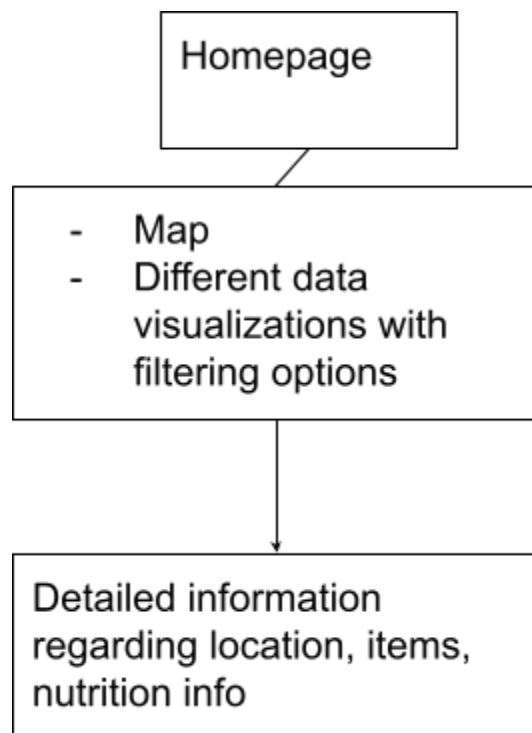
Breakdown of Tasks:

```
PM: Shreya
Frontend (flask, js, css):
 Flask: Jeffrey
 Js: Shreya & Kosta
 Html & Css: Shafiul
Backend (db & api):
 Db: Kosta & Shafiul
 Api: Jeffrey
```