Budget Bites

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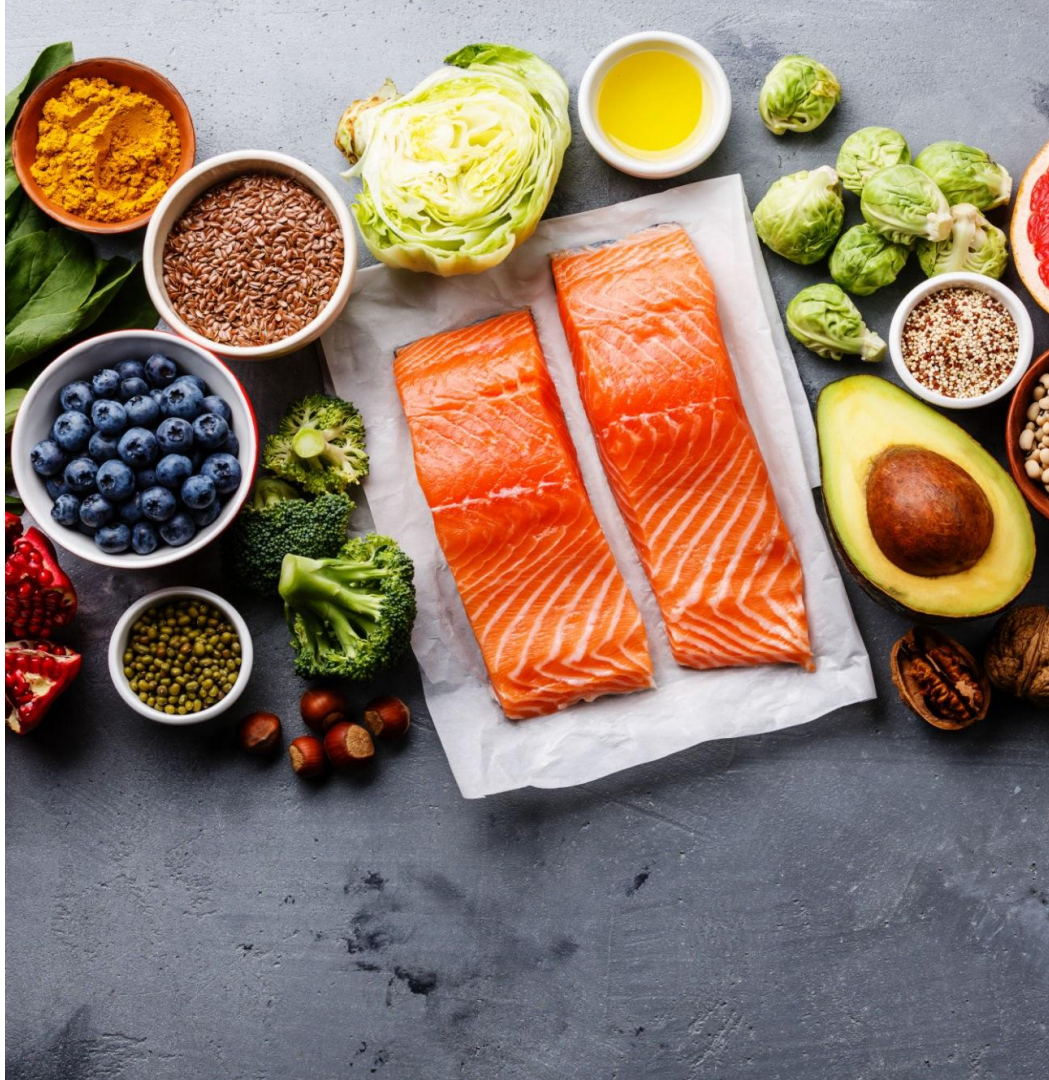


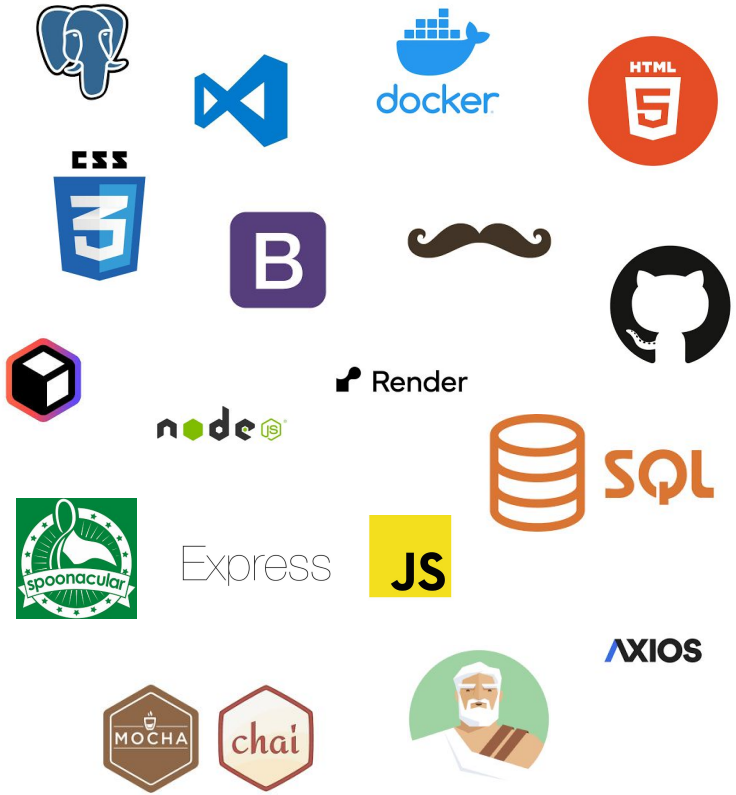
What is Budget Bites?

Budget Bites is a meal-planning web app designed specifically for college students who want to eat well without draining their wallet.

The app helps users generate weekly meal plans and grocery lists that prioritize low-cost ingredients, simple recipes, and minimal cooking equipment for dorm kitchens or shared student apartments. Users can input dietary restrictions, food preferences, cook time preferences, a weekly budget, etc., and Budget Bites will match them with affordable recipes and meal plans optimized for cost and convenience.

Instead of relying on random Tik Tok recipes or expensive delivery apps, Budget Bites provides structure, predictability, and real savings. It takes the stress out of figuring out what to eat, helps users avoid impulsive takeout spending, and encourages healthier and cheaper eating habits over time.

Tools We Used:



Database

- PostgreSQL (5)
- pg-promise (5)
- SQL Scripts (5)
- Docker (for PostgreSQL) (5)

UI Tools

- HTML (5)
- CSS (5)
  Bootstrap (3)
- Handlebars (3)
- Relume.io (wireframing) (3)

Application Server

- Node.js (5)
- Express.js (4)

Deployment Environment

- Docker (5)
- Render (5)

VCS repository

- GitHub (5)
- Git (5)

External APIs

- Spoonacular Food API (3)
- Additional food database using Kaggle (5)
- Axios (5)

Testing Tools

- Mocha (4)
- Chai (4)

Framework

- Express.js (4)

Programming Languages

- JavaScript (5)
- SQL (5)

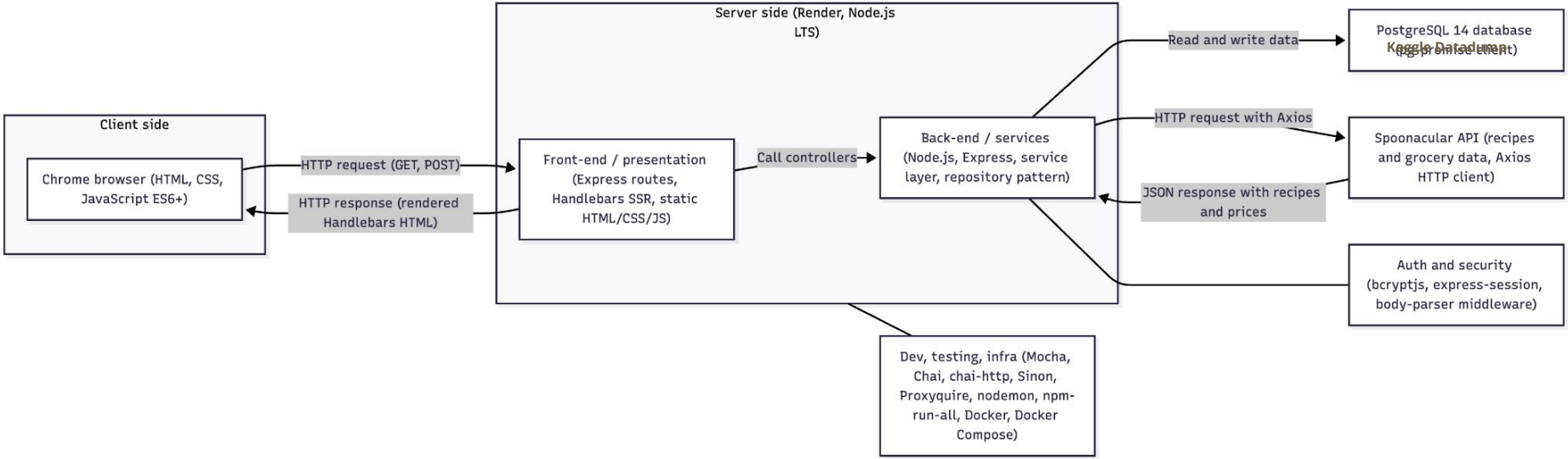
Security & Auth

- Regex (Login check) (5)
- bcryptjs (login secure) (5)

Methodologies

- Agile Methodology (3) - BiWeekly quick standups with weekly sprints
- Github projects(4)
- Iterative (4)
- Peer code review (5)

Architecture Diagram:



Challenges:

- Organizing as a team
  - We overcame this challenge by having scheduled zoom calls and in-person meetings worked around our schedules.
  - This affected our project plans because it became more time consuming than we originally intended.
- Finding a Good API that was Free
  - We had to do extensive research and make a decision as a group but found a older free food API.
  - This altered our project plan because it took much longer than expected to find an API that was free and also had all the information that we needed.
- API Rate Limiting
  - We data dumped our recipes from Kaggle
  - This altered our project plan by having to create a new backend abstraction that saves data and drastically reduces the amount of API requests

Future Scope / Enhancements:

- Consistently adding/removing recipes to keep them up to date, allowing users to not get bored with the same selection.
- Recommendation algorithms that personalize the users recommended recipes
- A weekly planner feature that helps you plan out all the meals for the week which will make the service more useful and applicable to users lives
- Increasing the overall scope of the app with other features like yearly or monthly estimates on cost
- A feature to connect with food delivery apps to buy and deliver food from the grocery list
- Obtaining a better API to better reflect prices of ingredients and recipes (we could also connect with popular grocery stores to get live price data)

Project Demo:

https://budgetbites-9erp.onrender.com/