Dietary Compass: Personalized Food Choice Navigator

BAX 422 Data Design and Representation: Project 2
Team: Via Lin, Mahnoor Shahid, Jiyeon (Jenna) Woo, Kaylyn Nguyen

Extension Proposal

Wiki Page : Reference Daily Intake

Why: To provide additional nutritional data and enhance the application's educational content.

What: Scrape and integrate data from Wikipedia's nutritional tables.

How: Use web scraping techniques to extract and process data from Wikipedia pages.

Additional Webpage : Nutrition Facts Label

Why: To expand the data sources and improve the accuracy of nutritional information.

What: Scrape and integrate data from additional reliable nutrition websites.

How: Implement web scraping scripts to fetch and process data from these websites.

Nutrient	DV[2]
Total fat	78 g
Saturated fatty acids	20 g
Cholesterol	300 mg
Sodium	2300 mg
Potassium	4700 mg
Total carbohydrate	275 g
Added sugars	50 g
Dietary fiber	28 g[a]
Protein	50 g[b]

Extension Outcome

Wiki Page : Reference Daily Intake

Results: Successfully integrated Wikipedia's nutritional data into the application.

Benefits/Improvements: Enhanced the application's nutritional database, providing users with more comprehensive information.
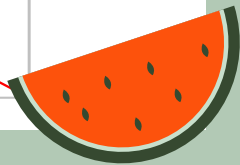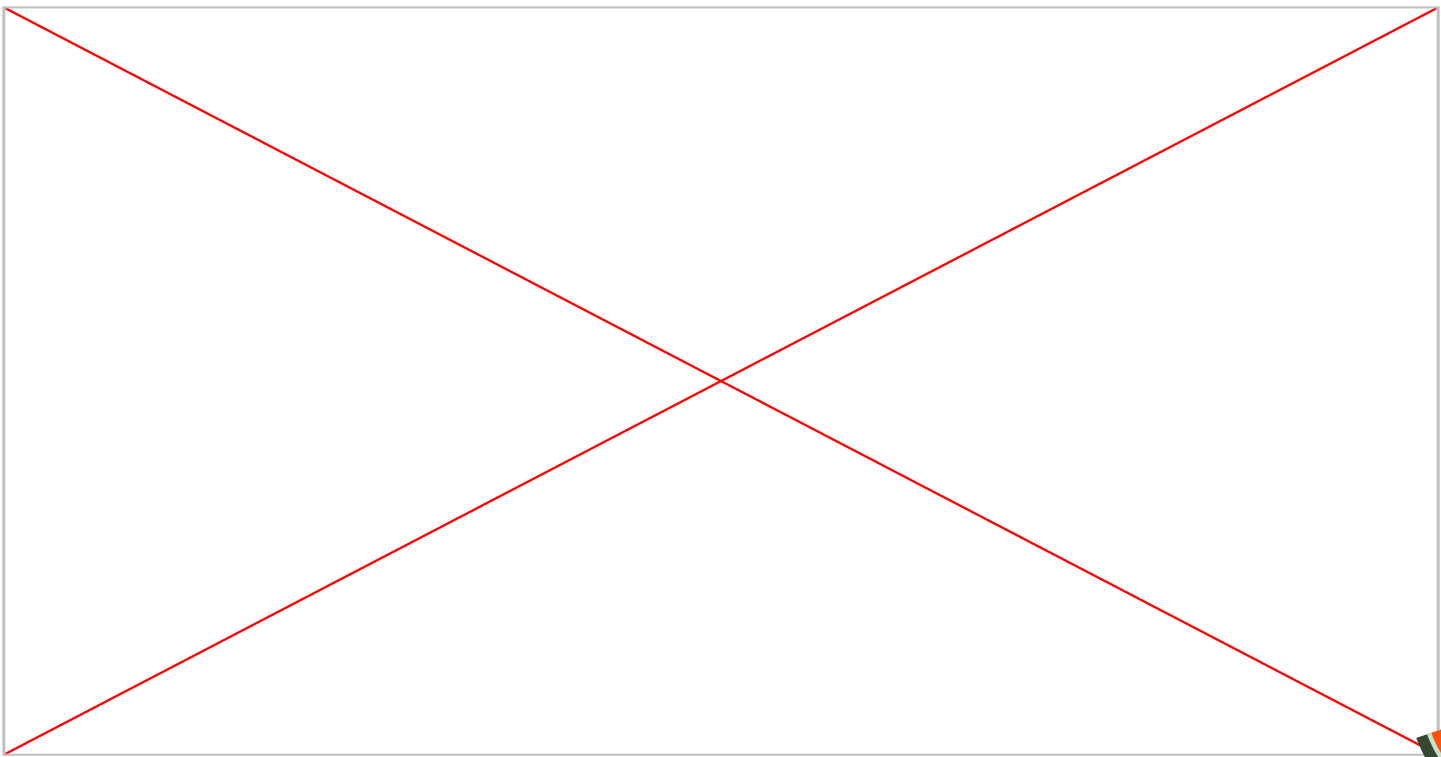
Additional Webpage : Nutrition Facts Label

Results: Added data from additional web pages, enriching the application's nutritional content.

Benefits/Improvements: Improved the accuracy and reliability of the nutritional information provided to users.

Extension Outcome

Challenges

- **Data Consistency:** Ensuring data consistency across different sources.
- **Web Scraping Limitations:** Handling dynamic content and changes in web page structures.
- **API Rate Limits:** Managing API request limits to avoid overwhelming servers.
- **User Interface:** Enhancing the user interface for better navigation and readability.

Future Work

- **Expand Data Sources:** Incorporate more reliable and diverse data sources.
- **Improve Data Processing:** Enhance data cleaning and processing techniques.
- **Mobile Application:** Develop a mobile version for broader accessibility.
- **Machine Learning:** Implement machine learning algorithms for personalized recommendations.