Design Document
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Overview

The project idea revolves around a comprehensive health and wellness app designed to assist users in making informed decisions about their grocery shopping, meal planning, and fitness routines. The app is divided into four main components, each addressing a critical aspect of health and wellness. The components are interconnected, providing a seamless user experience that promotes a balanced, healthy lifestyle. By leveraging AI through NLP and image recognition APIs, it personalizes the experience, making healthy living accessible and tailored to individual needs and preferences.

Healthier Alternatives Page

Objective

The purpose of the Healthier Alternatives page is to take in the user's existing shopping list by manually inputting it or uploading it via Google Sheets or a similar method. The program will then query the database to check for any healthier alternatives that potentially better align with the user's diet goals. The output of this will be suggestions and the ability to upgrade the original shopping list with these new items.

Requirements

- The Healthier Alternatives page input must be either manually inputted or read in from a Google Sheet with the items listed vertically.
- The output must suggest better aligning grocery store items with the user's given diet if any are found.
- This page must be easy to use.

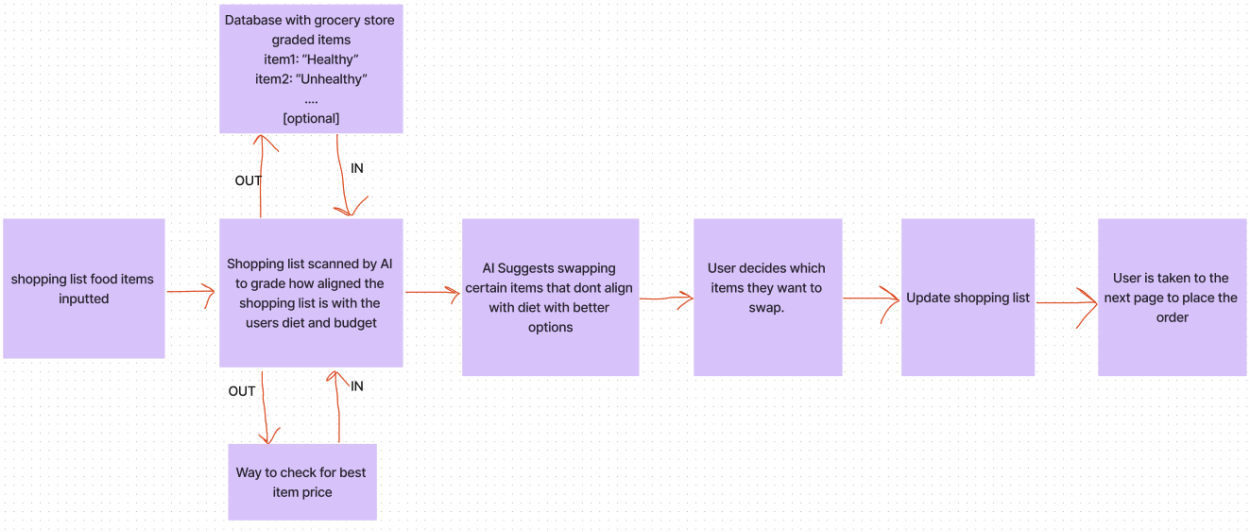
Background

We are creating this page as a way to help the user better align their existing shopping list with items that will get them closer to their inputted dietary goals. By offering the user alternative items, we are creating a better user experience and solving the challenge of lacking meal imagination (thinking of new meals to create).

Design Ideas

Steps:

1. User inputs existing shopping list.
2. Shopping list is scanned by the program/AI to compare against alternative food items that might better align with the user's diet and budget and potentially replace existing items.
3. Suggests are pulled from Instacart API price tracker.
4. Users can select which suggestions they want to keep (trading their current item for the new one).
5. The list is updated with the new items, if accepted.



Alternatives Considered

- We limit how the user can input their existing shopping list.
    - *Pro:* Easier development.
    - *Con:* Not as user-friendly and will take the user more time, equalling a poor UX.

- To determine if the shopping list is aligned with the user's diet, we can assign binary 'Healthy' or 'Unhealthy' labels to a database of grocery store items.
- Then when a shopping list is inputted, we can count the healthy vs unhealthy and see if it meets our diet healthy item count vs unhealthy item count threshold.
    - *Pro:* Easier logic/code.
    - *Pro:* Not reliant on potentially unreliable grocery store price trackers

    - *Con:* Could take a long time for a database to be created and accurate
    - *Con:* Could cause errors if item not in database

- Preset suggestions for items from a database.
    - *Pro:* Easier development.
    - *Con:* New information about food items is coming out constantly. Thus, having a fixed database could be less accurate. A modern AI would be more accurate and have a broader application.

General Notes

- *Grocery store price comparison sites:*
- Flipp (Focuses on the best deals), PriceBook app