Product Backlog

COSC540 - Advanced Software Engineering

Team - Crack Those Macros

Github Repo - Link

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Product Backlog

General Overview

- Develop a web application that assists users in achieving their nutritional goals by identifying food options at local restaurants and supermarkets that align with their specified macronutrient targets. While empowering the users to track and manage their dietary intake in one convenient location.

Goals

Improve general user health and convenience by creating an application where they can easily track and discover options that align with their goals.

Benefit travelers or people new to the area to get quick and tailored meal suggestions

- Provide educational benefit by improving the users' awareness of daily nutritional intake

Prioritized Features

1. Weight Loss
    a. Many users aim to reduce weight, often motivated by upcoming personal events or general health concerns.
2. Muscle Gain
    a. There is a strong interest in building muscle mass, with users seeking high-protein meal plans and macronutrient tracking.
3. Diet Variety
    a. Users desire diverse meal suggestions to avoid repetitive diets, particularly those centered around common fitness foods like chicken and rice.
4. Convenience and Automation
    a. There is a significant need for automated tracking and integration with other fitness tools and meal delivery services.
5. Comprehensive Nutritional Tracking
    a. Users prefer apps that go beyond calorie counting to include detailed macronutrient tracking.
6. Quick and Easy Meal Prep

    a. Busy professionals seek quick meal ideas that are easy to prepare and fit into their dietary goals.
7. Holistic Health Management
    a. Users want a centralized platform that combines dietary guidance with exercise and hydration tracking.

Product Backlog Implementation List

A. CJ: Create a login user account functionality

B. CJ: Implement an algorithm to calculate suggested caloric intake for a given weight loss goal

C. CJ: Implement an algorithm to calculate suggested protein intake for muscle gain

A. ND: Find restaurants near user location that align with fitness goals (Weight loss/gain)

B. ND: Provide recipes for meals and adjust portions based on number of meals

C. ND: Generate weekly or monthly reports of the user's diet

A. CD: Implement goal-setting functionality for weight loss based on personal events/habits

B. CD: Integrate exercise/hydration tracking

C. CD: Create a dashboard/location on the application that consolidates dietary/exercise/hydration data etc., showing an overview of the user's health tracking

A. AP: Create database of food names, nutritional values (calories, protein, fats, carbs, fiber, sodium), and price of items available in Knoxville, TN via web scraping.

B. AP: Create user interface that allows users to put in their custom goals for calories, protein, fats, carbs, fiber, sodium. Allows filtering to specific restaurants/grocery store.
C. AP: Create a display showing the weekly meal plan, allowing the user to regenerate a new plan if there is not enough diet variety.

A. DB: Develop a notification system to remind users about meal times, hydration, and exercise based on specified user preferences.
B. DB: Implement a feature allowing users to provide feedback on recommended recipes or restaurants provided by the app.
C. DB: implement a feature that filters out meal recommendations based on a user's religious or dietary preferences.