**SDS Group 7 Final Project - <[TBC] App Name>**

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**Project Coach: Prashant Arya**

**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.

**Page 1: Create Cheap Grocery List (Zarif)**

User Input: Users can enter grocery items, quantities, and preferences for budget and nutrition.

Database Interaction: You can use a database to store commonly used grocery items, their prices, and nutritional information.

Gen AI API: Utilize a natural language processing (NLP) API for generating dynamic and user-friendly text inputs. Use an image recognition API to allow users to scan or upload images of grocery receipts, automatically populating their list.

Output: A grocery list tailored to the specifications provided by the user. Goal is to stay on budget while returning the healthiest list possible.

**Page 2: Healthier Alternatives (Noah)**

User Input: Users can upload or manually input their existing grocery list.

Database Interaction: Retrieve nutritional information and healthier alternatives from the database.

Gen AI API: Utilize a text-based NLP API to analyze the user's input and suggest healthier alternatives. Optionally, use an image recognition API to analyze images of the existing grocery list.

Output: A healthier version of the inputted list as well as comparative information regarding cost and nutrition. Goal is to optimize health.

**Page 3: Meal Planning (Nowshin)**

User Input: Users can upload a list of ingredients to work with/ can drag and drop/ click on items they want from the cheap grocery list of the healthier version they received to plan their meals for the week. Optionally, culinary preferences could be taken into account.

Database Interaction: Retrieve nutrition information of all ingredients from the database

Gen AI API: Feed the information to a text-based NLP API to provide recipe suggestions. Sift through the recipes and determine healthiest as well as best suited to the user’s preferences.

Output: So ultimately, we’ll get healthy meal plans or recipes. Yay fitness!

**Page 4: Workout Suggestions to Complement Grocery & Diet Choices (Obafemi)**

User Input: Users can input their fitness goals, dietary preferences, and any existing workout routines they follow

Database Interaction: Utilize a database containing a variety of workout routines categorized by fitness goals, such as muscle building, weight loss, or cardiovascular health. Access nutritional information from the grocery list database to suggest workouts that align with the user's dietary choices.

Gen AI API: Utilize a natural language processing (NLP) API to understand user input regarding fitness goals and preferences. Generate personalized workout suggestions based on the user's input and existing workout routines. Incorporate user feedback to continually refine and improve the workout suggestions over time.  
  
Output: Personalized workout suggestions for exercises that complement the nutritional content of the user's diet and preferences.Detailed descriptions of each suggested workout routine, including exercise instructions, sets, reps, and rest periods. Links to additional resources, such as workout videos to help users perform the recommended exercises effectively.