Macro Tracker

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What will we learn in this topic?

**1** Introduction
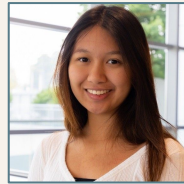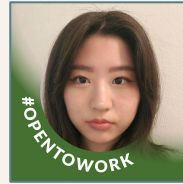
2 Users

3 Expected Features

4 ER Diagram

Goal

The Calorie Tracker Application aims to provide users with a tool for tracking and managing their daily caloric intake. Users will be able to create personalized calorie goals, track their food intake, plan meals, and gain insights into their nutritional habits. The program will prioritize simplicity and usability, making it accessible to those with various understandings of nutrition and dieting.

Stakeholders
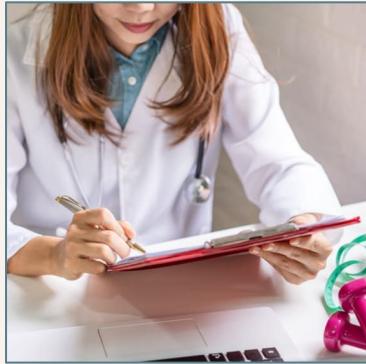
Nutritionists
Dietitians
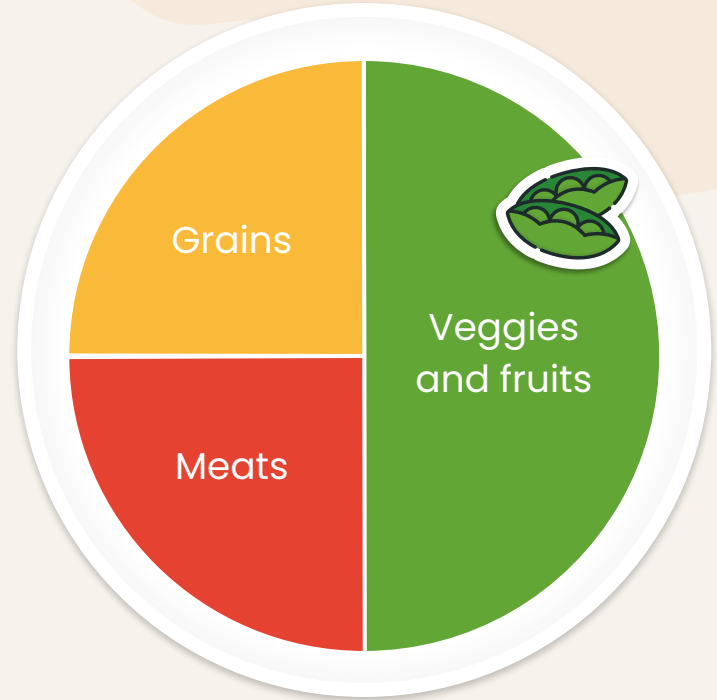
Developers

Average
Users

Expected Features

|	
1	Calorie Tracking
2	Nutritional Analysis
3	Meal Planning
4	Goal Setting

Grains

Veggies and fruits

Meats

Functionalities

- Health Enthusiast
  - Set daily calorie goals based on personal metrics.
  - Input caloric intake regarding food items
  - Receive real-time feedback on nutritional goals.
  - Keep track of progress bar for goals
  - Information about dietary needs/deficiencies relating to health issues

- Fitness Novice
  - Access a database of pre-logged common foods for easy tracking.
  - Receive personalized recommendations for meal plans.
  - Get educational content on nutrition and healthy eating.
  - Monitor the food logs of clients for remote guidance.
  - Set specific nutritional targets for self with exercise in mind.
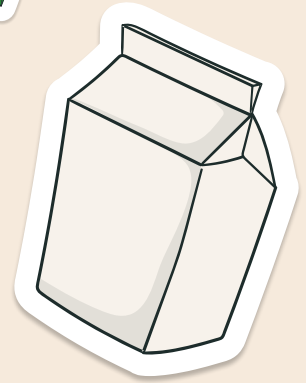
Users

Average User	View/Edit nutrition plan, food intake, calorie goals
Admin	View/Edit nutrition plan, food intake, calorie goals, user data, app features

Entities

User	These are the main users of the database. They are the ones able to view and edit their nutrition plan, food intake, and other data.
Admin	These are the administrators/developers that can view and edit user data and app features.
Food Items	Represents the different food items on the app such as fruits like strawberries and apples, and vegetables like broccoli and spinach. It'll hold information such as the calories as well.
Meal Plans	These represent a series of meals that users can assign to certain days. The meal plans will use meal IDs to identify which meals belong in the meal plan.
Goals	Represents users nutritional goals and holds the title, description, and goal average caloric intake.
Dietary Restriction	Represents any dietary limitations or requirements that a user might have.

Key Attributes

| User | Key Attribute - UserID. Users are the primary entities that input and track their dietary habits. |

| FoodItem | Key Attribute - FoodID. This entity represents individual food items with attributes such as name, calories, proteins, fats, and carbohydrates. |

| MealPlan | Key Attribute - MealPlanID. This organizes meals for Users on specific days, including total nutritional values. |

| Admin | Key Attribute - AdminID. Admins manage application features and maintain user data security. |

Relationships

| Manages | An admin: maintaining app features and users/user data |

| Protecting | An admin: protecting user data |

| View/Edit | Users/admins: view/edit |

Relationships With Cardinality
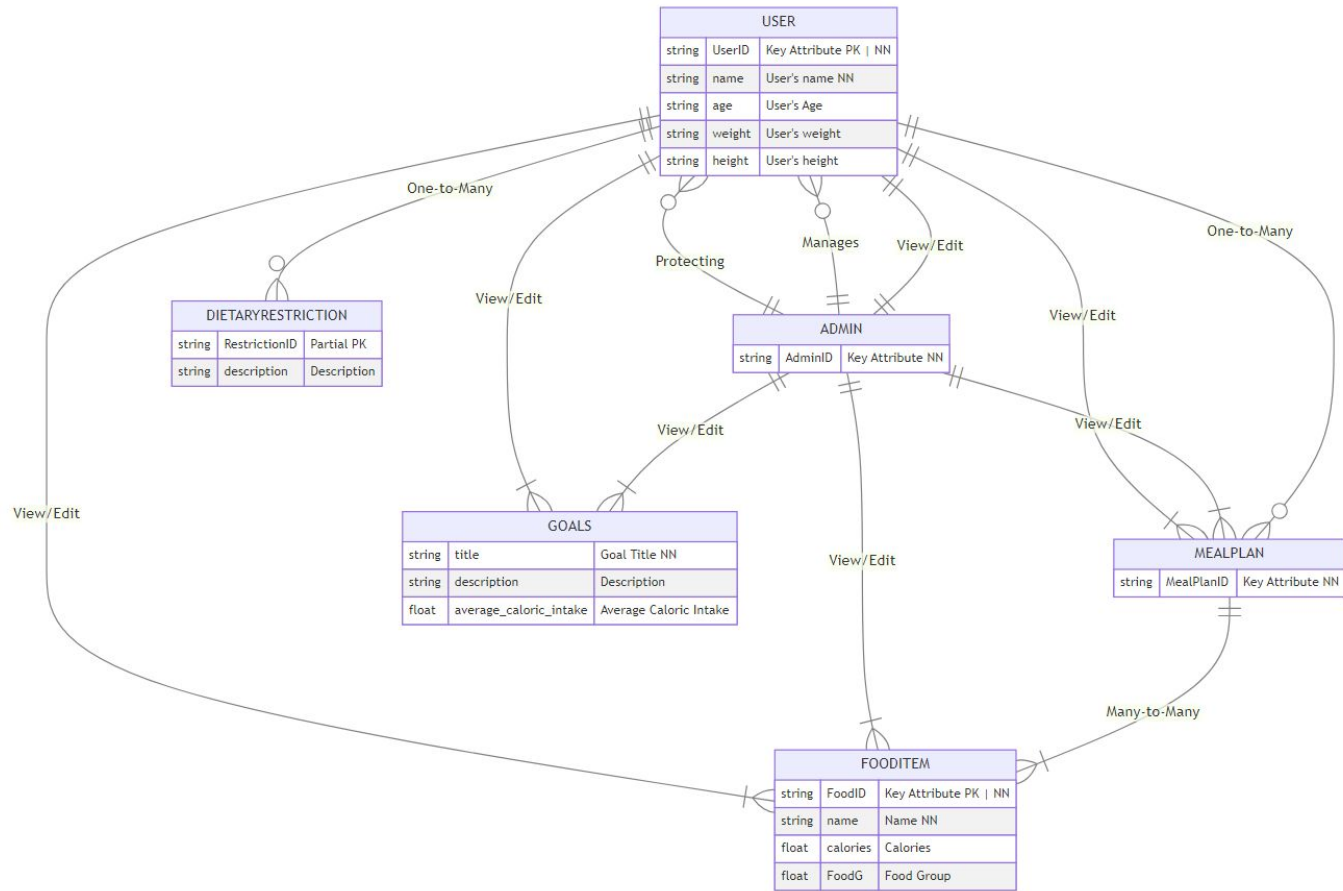
User to MealPlan	One-to-Many. Participation of User is mandatory, MealPlan is optional
MealPlan to FoodItem	Many-to-Many. Participation of both entities is mandatory
Admin to User	One-to-Many. Participation of Admin is mandatory, User is optional

USER

string	UserID	Key Attribute PK | NN
string	name	User's name NN
string	age	User's Age
string	weight	User's weight
string	height	User's height

DIETARYRESTRICTION

string	RestrictionID	Partial PK
string	description	Description

ADMIN

string	AdminID	Key Attribute NN

GOALS

string	title	Goal Title NN
string	description	Description
float	average_caloric_intake	Average Caloric Intake

MEALPLAN

string	MealPlanID	Key Attribute NN

FOODITEM

string	FoodID	Key Attribute PK | NN
string	name	Name NN
float	calories	Calories
float	FoodG	Food Group

One-to-Many

Protecting

Manages

View/Edit

One-to-Many

View/Edit

View/Edit

View/Edit

View/Edit

View/Edit

View/Edit

Many-to-Many

Questions?