



Title: Final Project: Introduction and Business Analysis

Date: 05/26/2024

Course #: ITC6000: Database Management Systems

Student Name: Ayswarya Sundararaman

Prof's Name: Na Yu

Introduction

NutriPantry is an innovative mobile application designed to help users maintain a healthy lifestyle by providing personalized meal recipes based on the ingredients available in their pantry or fridge without the need to do extensive meal planning and grocery shopping. This app addresses the common challenge of balancing a busy lifestyle with the desire to eat healthily. NutriPantry helps individuals who aim to improve their diet, reduce food waste, and simplify meal planning.

The app operates on a freemium model, offering basic features such as pantry inventory management, ingredient tracking, and a limited number of recipes for free. Users can subscribe to a premium plan to get access to advanced features like personalized meal plans, integration with wearable devices, detailed nutritional tracking, and exclusive recipes curated by nutritionists.

As someone who is passionate about health, I often struggle to find the time to plan and prepare nutritious meals due to my busy schedule. This app can solve my problem by providing easy access to a variety of healthy recipes tailored to the ingredients I already have in my fridge and pantry. It simplifies meal planning and ensures I always have fresh, nutritious options at my fingertips, helping me stay on track with my health goals even when time is limited.

Business Analysis

Primary User Information and Use Cases

Busy Professionals

Aged 20-40, working full-time with demanding schedules can find quick, healthy recipes using available ingredients, save time, and reduce meal planning stress by entering pantry inventory, receiving recipe suggestions, and creating shopping lists in the app.

Health Enthusiasts

Individuals following specific dietary plans (e.g., keto, vegan) can track nutritional intake, align meals with health goals using personalized meal plans, and detailed nutritional tracking.

Families

Parents aged 30-50 managing household meals can plan healthy meals for various dietary preferences, manage groceries, and reduce food waste.

Nutritionists and Coaches

Professionals can provide dietary guidance and meal plans by creating personalized meal plans, track client progress using the app to manage client meal plans and update the recipe database.

Business Rules and Logic

1. **User Registration & Profile Management:** Users create and manage profiles with personal and dietary information, stored securely in a user table for personalized app features.
2. **Pantry Management:** Users add, update, and track pantry items with quantities and expiration dates, stored in a pantry inventory table for recipe suggestions and alerts.
3. **Recipe Database & Suggestions:** App maintains a recipe table of meal recipes with nutritional info and preparation instructions and app dynamically generates recipe suggestions using user pantry data and dietary preferences.
4. **Shopping Lists & Expiration alerts:** Users create and manage shopping lists manually or automatically from recipes, with lists stored in a database and updated based on user actions. Additionally, app alerts users about ingredients that are near expiration using push notifications to reduce food wastage.

5. **Nutritional Tracking:** Users log meals and track nutritional intake, with data stored in a table linked to user profiles to provide detailed dietary reports.