DailyApple
Vision Document

Version 1.0

Revision History

Date	Version	Description	Author
28/10/2023	1.0	Initial Vision Document for the Project	

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Vision (Small Project)

1. Introduction

Our vision is to create a mobile application that helps users manage their eating habits and achieve a healthy daily routine. This application will provide users with calorie tracking, nutritional information of various kinds of food, remind the user to drink water at the right time, and a friendly interface. We aim to make healthy eating more accessible and convenient for everyone, regardless of their lifestyle or budget. DailyApple acts as a personal tracking tool that provides a friendly environment where users can keep a healthy diet, monitor their health, and support them on their journey towards better health. Also, the user can customize a list of food based on their preferences.

The remainder of this document is structured as follows. Section 2 describes the problem statement and product position statement. Section 3 presents stakeholders and user descriptions. Section 4 indicates an overview of this project. Section 5 describes all features of the application. Finally, section 6 includes non-functional requirements.

1.1 References

https://www.bachhoaxanh.com/kinh-nghiem-hay/bang-tong-hop-calo-cua-tat-ca-cac-loai-thuc-an-1142599

2. Positioning

2.1 Problem Statement

The problem of	an increasing number of people are having unhealthy lifestyles such as consuming too much fast food, drinking lack of water every day,.. etc. This results in some illnesses.
affects	people who want to improve their health.
the impact of which is	- They may become overweight and have a high risk of having obesity. - Lower speed of the nutrition transition process in the body,, which leads to high blood pressure and accumulates a large amount of fat.
a successful solution would be	- Keeping track of sleeping/ eating/ exercising time. - Measuring the amount of every kind of nutrition such as fat, carb, protein, …etc. in every dish to create an ideal meal. - Keeping track of the amount of water drunk every day.

2.2 Product Position Statement

For	Mobile user
Who	has a willing to follow a healthy daily routine
The DailyApple	is a healthcare application
That	has a friendly interface, easy to used, provide various features like reminding users to drink water on time, lifestyle tracking, calculate the calories of meals
Unlike	others healthcare app that have many features but not in-depth

Our product	concerning diet and nutrition, which is the most important thing in nurturing a healthy body.

3. Stakeholder and User Descriptions

3.1 Stakeholder Summary

Name	Description	Responsibilities
Students	People who are leaning in the course CS300	- Doing assignments - Creating an app for the course
Lecturers and teaching assistants	People who are teaching in the course CS300	- Giving assignments for students - Supervising the developing process of students' apps

3.2 User Summary

Name	Description	Responsibilities	Stakeholder
End Users	Individuals who utilize the app to support their overall well-being.	Inputting meal details. Tracking caloric intake. Monitoring hydration and water intake. Defining and adhering to daily health tasks. Making informed dietary choices.	End users directly represent the primary user base of the app.
Healthcare Providers	Healthcare providers, including dietitians, nutritionists, doctors, and nurses, use the app to monitor and counsel their patients' dietary intake and hydration as well as exercising for health improvement.	Accessing and analyzing nutrition, hydration data. Providing expert guidance and recommendations. Encouraging patients and clients to use the app.	Healthcare providers represent the interests of their patients and clients as secondary stakeholders.

3.3 User Environment

At present, our product focuses on personal usage, which means there will be no, or little cooperation between users to complete their tasks. In the future, when the product is stable enough, we will consider adding such features later.

The main activity that our users need to complete is providing information about their daily dietary information and workout routines, which is quite challenging and ineffective when using traditional note methods, so we would lower the time needed for the action, down to no more than 2 minutes for each input cycle, as well as providing an easy-to-use and friendly input experience.

About the platform, we target the mobile applications market, because of its flexibility and high population amongst all the electrical devices users. Firstly, we will develop a prototype for Android users, and then later we will consider expanding to iOS users. Except for the mobile constraint, there should be no other constraints required for the users to fulfill.

As our product has the tasks schedule and water drinking reminder features, we might need to call the notification system of the phone and maybe the alarm app of the phone also. This might need some effort to integrate those applications to work smoothly with our product.

3.4 Summary of Key Stakeholder or User Needs

[List the key problems with existing solutions as perceived by the stakeholder or user. Clarify the following issues for each problem:

- *What are the reasons for this problem?*
- *How is it solved now?*
- *What solutions does the stakeholder or user want?]*

*[It is important to understand the **relative** importance the stakeholder or user places on solving each problem. Ranking and cumulative voting techniques indicate problems that **must** be solved versus issues they would like addressed.*

Fill in the following table—if using Rational RequisitePro to capture the Needs, this could be an extract or report from that tool.]

Need	Priority	Concerns	Current Solution	Proposed Solutions
Broadcast messages				

3.5 Alternatives and Competition

Calorie, Carb & Fat Counter - Apps on Google Play

Calories: Eat Clean Diet Track - Apps on Google Play

BodyFast: Intermittent Fasting - Apps on Google Play

4. Product Overview

This product is a comprehensive healthcare and wellness application designed to support users in managing their daily health and fitness routines. The product is intended to cater to a diverse user base, ranging from health-conscious individuals to healthcare providers and wellness coaches.

4.1 Product Perspective

+ Scope and Boundaries: The app provides a user-friendly platform for users to manage their dietary intake, hydration, and daily health tasks. It covers functionalities related to calorie tracking, water intake management, and health task scheduling.
+ Interfaces and Integrations: The app interfaces with external food databases to enable calorie calculations, provides reminders for water intake.
+ Competitors: In the market, this app competes with other health and calorie tracking applications. It distinguishes itself by offering an integrated solution for meal tracking, hydration management, and daily health task scheduling.
+ Alignment with Objectives: The product aligns with the goal of helping individuals maintain and improve their overall health and well-being. It complies with relevant healthcare regulations and standards, prioritizing user privacy and data security.

4.2 Assumptions and Dependencies

+ User Engagement: The product assumes that users will actively engage with the app, including inputting meal data, adhering to hydration reminders, and scheduling and completing daily health tasks.
+ Data Sources: The app depends on reliable data sources for meal information, nutritional data, and water intake guidelines. These data sources need to be accurate and regularly updated.

+ Regulatory Compliance: The app is developed under the assumption that it will adhere to healthcare and data privacy regulations, ensuring user data is treated with the utmost care and compliance.
+ Platform Compatibility: It is assumed that the app will be developed to work on Android and will remain compatible with future updates of this operating system.

5. Product Features

1. Calculate the Calories of the Meal:

+ Description: This feature allows users to input meal details, and the app calculates the calories and nutritional content of the meal. Users can track their caloric intake and make informed dietary decisions.
+ Usability Consideration: The user interface for entering meal details should be intuitive and user-friendly, ensuring that users can easily input the required information.

2. Drinking Water Reminder:

+ Description: The app provides reminders and tracking for users to manage their daily water intake. Users receive alerts and notifications to stay adequately hydrated throughout the day.
+ Usability Consideration: The reminders should be customizable to accommodate different user preferences and schedules, and notifications should be clear and non-intrusive.

3. Daily Tasks to Keep Good Health:

+ Description: This feature enables users to schedule and track daily health-related tasks such as exercise, meditation, medication, or other health routines. Users can set and complete tasks to support their physical and mental well-being.
+ Usability Consideration: The task scheduling should be easy to use and allow for flexibility in setting reminders for different activities.

4. User Profile and Personalization:

+ Description: Users can create and manage their profiles within the app. They can personalize their settings, including dietary preferences, health goals, and reminder preferences.
+ Usability Consideration: The profile management should be straightforward and allow users to easily update their information and preferences.

5. Data Visualization and Progress Tracking:

+ Description: The app provides visual representations of users' data, including caloric intake, hydration levels, and task completion. Users can track their progress over time through charts and graphs.
+ Usability Consideration: Data visualization should be clear and easy to interpret, helping users understand their trends and make adjustments to their routines.

6. Data Backup and Synchronization:

+ Description: Users can back up their app data and synchronize it across multiple devices. This feature ensures data integrity and accessibility from different platforms.
+ Usability Consideration: Data synchronization should be seamless and secure, allowing users to switch between devices without losing their data.

6. Non-Functional Requirements

User Requirement:

Calculate the Calories of the Meal:

- The app should provide a user-friendly interface to input details about a meal, including food items, portion sizes, and any additional ingredients or condiments.

- Users should be able to easily customize and add new food items to the predefined database of foods.

- The app should allow users to specify the number of servings and portion sizes for each food item.

- Users should have the option to track meals over the course of the day, enabling them to calculate and monitor their daily caloric intake.

- The app should have the capability to save and recall past meals for convenience and tracking purposes.

Drinking Water Reminder:

- Users should be able to set personalized daily water intake goals based on their body weight, activity level, and other factors.

- The app should provide a visual representation of the user's progress towards their daily water intake goal.

- Users should receive customizable reminders at regular intervals to drink water.

- The app should allow users to log the amount of water they've consumed, either in ounces, milliliters, or other relevant units.

- Users should be able to adjust their daily water intake goals as needed, with recommendations based on factors like temperature and physical activity.

- The app should track and display daily, weekly, and monthly water consumption statistics, including trends and insights.

System Requirements:

Calculate the Calories of the Meal:

- Database: The app must have a comprehensive and up-to-date food database with nutritional information.

- Calculation Engine: An efficient algorithm for calculating calories and macronutrients based on user input.

- User Profiles: User registration and profile management capabilities for saving and tracking meals.

- Data Storage: Secure storage for user meal history and preferences.

- Offline Capability: The app should be functional offline, with the ability to sync data when the user is online.

Drinking Water Reminder:

- User Profile Integration: Integration with user profiles to set and adjust daily water intake goals.

- Real-time Tracking: A mechanism to track and display water consumption in real-time.

- Reminder System: A notification system for sending reminders at user-defined intervals.

- Data Analytics: Capability to analyze and visualize water consumption data over time.

- Customization: Options for users to customize reminder schedules and goal settings.

System Goal for the Features:

Calculate the Calories of the Meal:

The goal is to provide users with a convenient and accurate way to calculate and track the calories and nutritional content of their meals, helping them make informed dietary choices to support their health and fitness goals.

Drinking Water Reminder:

The goal is to assist users in maintaining proper hydration by providing timely reminders and visual tracking of their water consumption, ultimately contributing to improved health and well-being.

Verifiable Non-Functional Requirements:

Calculate the Calories of the Meal:

- Performance:

    - Response Time: The system must calculate and display meal calories within 3 seconds of user input.

    - Scalability: The app should handle a database of at least 10,000 food items without a significant drop in performance.

- Accuracy:

    - Nutritional Data Accuracy: The nutritional information for each food item must be accurate and consistent with recognized sources.

    - Calculation Precision: Calorie calculations must have an accuracy rate of at least 95% compared to manual calculations.

- Usability:

    - User Interface Efficiency: Users should be able to complete a meal entry in no more than 5 minutes.

    - Accessibility: The app should meet WCAG accessibility standards, ensuring it is usable by individuals with disabilities.

- Security:

    - Data Privacy: User meal data must be securely stored and encrypted to protect sensitive information.

- User Authentication: Users must be required to log in or use biometric authentication to access their meal history.

Drinking Water Reminder:

- Reliability:
  - Reminder Delivery: Reminders must be delivered consistently and on time (within a 5-minute window of the scheduled time).
  - Uptime: The reminder service should have at least 99.9% uptime.
- Customization:
  - Reminder Flexibility: Users must be able to set and adjust reminder intervals to suit their preferences.
  - Personalization: Users should be able to customize their daily water intake goals based on individual factors.
- Data Management:
  - Data Synchronization: The app should sync water consumption data across devices in real-time when an internet connection is available.
  - Data Backup: User water consumption data should be regularly backed up to prevent data loss.
- User Experience:
  - User Interface Responsiveness: The app should respond to user interactions without noticeable delays.
  - Visual Design: The user interface should be intuitive and aesthetically pleasing to encourage regular use.