

NUTRITION ASSISTANT APPLICATION:

TEAM ID : PNT2022TMID23530

KAMINENI YASWANTH BABU : 113219041044

YAKASIRI NITHEESH : 113219041133

A HARISH : 113219041039

MJ PARTHASARATHY : 113219041079

KS HITESH : 113219041040

**BACHELOR OF ENGINEERING IN ELECTRONICS
AND COMMUNICATION ENGINEERING**

PROJECT DESIGN PHASE II

FUNCTIONAL REQUIREMENTS

Date	20 October 2022
Team ID	PNT2022TMID23530
Project Name	Nutrition Assistant Application.

Project description:

This project is aimed at developing a desktop-based application named Nutrition Assistant Application for estimates food attributes such as ingredients and nutritional value by classifying the input images of food. The Nutrition Assistant Application refers to the system and processes to help the user to analyse the intake of food with the involvement of a Technology system. This system can be used to store the details of the user's health, calculating the BMI, Classifying the food image to know the nutritional value, update the status of their health condition based on the information provided, and generate health reports weekly or monthly based. This project is categorizing individual health condition of the user. The Nutrition Assistant Application is important to control their daily calorie intake by eating healthier foods, which is the most basic method to avoid obesity. Without proper diet control, and this is reflective of the risks to people's health. A good Nutrition Assistant Application will alert the users when it is time to avoid. This project aims at building a web App that automatically estimates food attributes such as ingredients and nutritional value by classifying the input image of food. **Scope:**

- └ **Maintains good health:** The application can help in guiding them on how to remain healthy and how to take good nutrition. The application will help them without personally going to the doctor. Promote better nutrition in the community by educating about better diet and nutrition.
- └ **Functional limitation:** The user to be specific can't access the web or admin module, whereas the administrator has all the rights to modify and manage the contents such as news, tips, etc
- └ **Improve Usability:** In the part of user's just the internet connection is enough in order to access the news, updates and other contents provided by the admin regarding their health condition.
- └ **Health conscious:** This will provide convenience to persons/users who wants to learn about nutrition and other related health topics by just using the Nutrition Assistant Application

Purpose:

The users continue to demand to know the nutritional value that is in their food. The users learn about the effect of different foods on human health. Evidently, the ultimate aim of this application is to provide the ways in which one can lead a healthy life by maintaining his/her diet. The user can access the nutritional information by taking a photo of the food, uploading a photo from the gallery, or by entering manually.

Nutrition is more than just obtaining nutrients and calories from food. It's more than just eating the healthy stuff. It's more than just following the most recent fad diet. Nutrition, the food we eat and the way we eat it, is an integral part of life. Nutrition is an experience. It evokes memories, helps us celebrate good times, and is there for us in times of grief. I believe the purpose of nutrition is to nourish the body and soul.

The Nutrition Assistant Application helps the users to eat nutritional rich food which yield to lead a healthy life.

IDENTIFIER	REQUIREMENTS
1. Add health information	This application will allow to add health related information of the user.
2. Delete health information	This application will allow to delete the unwanted details about their health.
3. Categories of nutritional food	The categories of food.
4. View of Dashboard	Application will allow user to view the dashboard containing nutrition details.
5. Mail Notification	This application will allow to send mail notification to user when there are any issues regarding their health
6. Tracking System	The health can be tracked with this application.
7. Graph analysis	This application will demonstrate health condition by means of nutritional content
8. Identifying the high calorie food	The high calorie ingredients will be shown via this application.
9. Identifying the low calorie food	The high calorie ingredients will be shown via this application.
10. Passcode	This application has the option to set a passcode to keep their medical reports safe.
12. Add multiple accounts	This application has the option of creating multiple accounts for the users.
13. Selection of health report duration	This application has the ability to select the duration for displaying the health report as weekly or monthly.
14. Update account	This application will allow the user to update their profile.

15. Add account	This application will allow the user to add their profile.
16. Delete account	This application will allow the user to delete their profile.
17. PDF report	This application will generate the pdf report of medical analysis.
18. Pupation of nutritional trends	This application will allow constant review of nutritional trends and pupation.

SOLUTION REQUIREMENTS (FUNCTIONAL & NON-FUNCTIONAL)

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Hd camera	To capture the images of food for detecting calories
FR-2	Beacons	To broadcast the data.
FR-3	opencv	To provide a opensource for running image processing algorithms.
FR-4	Alarm	To alert the foodies about intaking calories is exceeded.
FR-5	Mobile App	To alert the. Users about the health issues if intake is more.
FR-6	Cloud Storage	To store and access the data.

Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	Availability of user-friendly devices.
NFR-2	Security	It will be safe for the workers by installing the devices in the industry.
NFR-3	Reliability	Data are saved in the secured server so they don't provide any loopholes for the hackers.
NFR-4	Performance	No server crash or server down.
NFR-5	Availability	Information is available through wearable devices and mobile application.
NFR-6	Scalability	Easily accessible with high reliability.