

**Project Design Phase-I**  
**Proposed Solution**

Date	24 September 2022
Team ID	PNT2022TMID35969
Project Name	Project - AI-Powered Nutrition Analyzer For Fitness Enthusiasts
Maximum Marks	2 Marks

**Proposed Solution**

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	To develop a system that identifies edible products and discerns their nutritional information for the benefit of fitness enthusiasts
2.	Idea / Solution description	<p>The system developed is an application that scans the surroundings to capture images. The image is analyzed to identify the fruits present in the image using machine learning models. Once the raw food items have been identified, their corresponding nutritional values are fetched from a database where the relevant details are stored.</p> <p>The application allows for a user to keep track of the amount of calories they consume in a day versus the total recommended amount for their dietary needs.</p> <p>The data of frequently consumed fruits is stored locally in the database.</p>
3.	Novelty / Uniqueness	<p>The proposed system maintains a personal nutrition calendar for the user and notifies them when they do not meet the requirements of their diet. Further, the app is inbuilt with features that suggest alternative foods, construct a food chart, develop a workout schedule, and recommend recipes that suit the caloric needs of the user.</p> <p>The system also integrates capabilities of identifying spoilt food items and whether fruits have ripened.</p>
4.	Social Impact / Customer Satisfaction	The proposed application is useful for fitness enthusiasts to keep track of their calorie intake and thus maintain their physical state. Even those who are not conscious about their physique may use this application to lead a healthier lifestyle as it helps to keep track of what they eat, suggests healthy alternatives and recipes, as well as workout plans.

5.	Business Model (Revenue Model)	The application can be deployed for access by the general public. The application would draw the attention of several users who are determined to lead a healthy lifestyle and wish to undergo a physical transformation. The application could be built in such a way that features are progressively unlocked based on the subscription amount paid by the user starting from the generic nutrition analyzer feature to charting out personal plans for users.
6.	Scalability of the Solution	The proposed application has several features. It can be further enhanced to integrate more features based on feedback from users and ratings.