Project Design Phase-I

Date	02 October 2022
Team ID	PNT2022TMID13551
Project Name	AI-powered Nutrition Analyzer for Fitness Enthusiasts
Maximum Marks	2 Marks

Proposed Solution Template:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Food is vital to human existence and has been a topic of discussion at several medical meetings. These days, additional chances exist to assist people in understanding their daily eating habits, examining nutrition patterns, and maintaining a balanced diet thanks to new dietary evaluation and nutrition analysis technologies. The technique of figuring out a food's nutritional makeup is called nutritional analysis. It is an essential component of analytical chemistry that offers details on the chemical make-up, processing, quality assurance, and contamination of food. Building a model that can be used to categorize fruits according to their many attributes, such as color, shape, and texture, is the project's major goal. Here, users may take pictures of various fruits, and the pictures will subsequently be transmitted to a trained model. The model examines the image and determines the nutrients based on fruits such as (Sugar, Fiber, Protein, Calories, etc.)
2.	Idea / Solution description	The project's primary goal is to develop a model that uses visual processing to recognize fruit based on several properties including color, shape, and texture. Here, the user may take pictures of various fruits, which will later be analyzed by a trained algorithm. The model analyses the image and enumerates the elements, such as sugar, vitamins, minerals, and protein, that are present in the fruit.

3.	Novelty / Uniqueness	The software contains a number of distinctive characteristics. The biggest benefit is that the user may follow a fit and nutritious diet without having to go see or contact a nutritionist or dietician. This software has the capability to scan fruits and vegetables and analyze their whole nutritional makeup. For people with a restricted range of food choices, it offers a tailored dietary need.
4.	Social Impact / Customer Satisfaction	This will teach you about nutrition and provide you information about it. No one now adheres to the diet regimen. By giving them this knowledge, kids are able to learn about the nutrients included in each food item. It is used to plan a diet by capturing a photograph of a food item, and if we transmit it, we may learn about the nutrition of each food item, including the amount of carbs, fat, proteins, vitamins, and minerals. Others' health and fitness will benefit from this.
5.	Business Model (Revenue Model)	The greatest approach to get the word out about our application is through social media, and we can draw in regular people by working with influencers. using nearby gyms to group and target the exercise enthusiasts. The way we make money is by allowing nutritional product merchants (third parties) to advertise their items on our app. It is much better if the goods are marketed through ads.
6.	Scalability of the Solution	Artificial intelligence (AI) may be used to swiftly and accurately anticipate the results of investments, as well as to develop plans or set long-term objectives. In order to best meet the demands of the current scenario, scalable AI refers to how data models, infrastructures, and algorithms may change their complexity, speed, or size at scale. AI models may be constructed with billions of parameters as data storage and processing capacity continue to advance. The goal of scaling up nutrition is to enhance maternal and child nutrition as well as numerous health issues.