

Ideation Phase

Problem Statement

Date	20 September 2022
Team ID	PNT2022TMID46718
Project Name	AI-powered Nutrition Analyzer for Fitness Enthusiasts
Maximum Marks	2 Marks

Current Problem Statement Template :

High-Calorie food intake can be harmful and result in obesity, which is a preventable medical condition that causes abnormal accumulation of fat in the body. It can result in numerous diseases such as obesity, diabetes, cholesterol, heart attacks, blood pressure, and other diet-related ailments. In order to deal with such problems, people are inclined towards making a difference in their diet plans by paying more attention to what type of food they are consuming. Diet management is a key concern among individuals belonging to different age groups. However, one major challenge in diet management is maintaining a balance between what one eats and how one monitors his/her food consumption. The immense increase in ailments such as high cholesterol, blood pressure, strokes, etc. demands nutritional and diet management for which people resort to expensive nutrition therapies.

1. Who does the problem affect?

- Fitness enthusiasts who are not taking sufficient nutrition intake.

2. What is the issue?

- The issue is fitness freaks work more but do not get proper nutrients which leads to bad metabolism and causes health-related issues.

3. What is the impact of this issue?

- Lack of nutrition.
- Weaker immune system.
- Stress, tiredness, illness.

4. What would happen if we didn't solve the problem?

If we don't fix this issue it may cause various health related issues that include weight loss, lack of nutrition, and vitamin and mineral deficiency. These issues lead to low BMI levels. On the other hand, untreated obesity leads to high blood pressure, and excess cholesterol ultimately leads to heart diseases.

5.What would happen when it is fixed?

- Higher immunity level.
- Normal blood pressure.
- Rich metabolism levels.

6.Why is it important that we fix this problem?

Our body requires enough calories, nutrients, and minerals as much as it has burned during work, so when the person fails to take sufficient nutrients their metabolism will not be proper which may lead to many health issues, so it is important to fix this problem which leads a healthy life.

Solution :

The aim of this project is to create a fitness tracker which motivates users to track their diet and follow their diet without the eventual abatement. The classification of fruits is planned to be based on Convolutional Neural Network. Primarily, the model is trained using a training data set of several fruits to be able to accurately measure the calories, sugar, fibre and proteins present in a particular fruit. Furthermore, based on the image taken by the user, real time processing is done and uploaded to a custom-made website.