AI-powered Nutrition Analyzer for Fitness Enthusiasts

Problem Statement 1

Domain: Artificial Intelligence
Title: AI-powered Nutrition Analyzer for Fitness Enthusiasts

1) Who does the problem affect?

Fitness enthusiasts who are not able to take sufficient Diet plans and Workout plans or who are not sure which would be a good choice for them.

2) What is the issue?

The issue is fitness freaks work more but do not get proper nutrition plans which leads to incomplete metabolism and causes lack of progress.

> **Tip**
>
> You always put fuel in the tank of your car. Without it, you can't go anywhere. Same with exercise. Fatigue or downright exhaustion could set in, ruining your workout if you don't top up your tank. Keep an array of healthy snacks on hand when eating a full meal before exercising is not an option.

3) What is the impact of this issue?

- Fatigue and Low Energy
- Not enough energy level for workouts
- Lack of progress
- Possibilities of opposite Reaction
- Outpacing the Body

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

- o Your body uses carbohydrates as a main fuel source for workouts says the American Dietetic Association, and if you do not have enough carbs stored in your body from the foods you eat, your body may burn some fat.

- o If you do not eat enough before exercising and do not replenish the carbs, fat and protein your body has used up during workouts, you are putting yourself at risk for nutritional deficiencies

5) What would happen when it is fixed?

- Expected results without outpacing the body
- Build Endurance Gradually
- 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.

Problem Statement 2

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.

Our 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 foods and diets is planned to be based on Convolutional Neural Network. Primarily, the model is trained using a training data set of several foods and workouts along with Diet plans and Workout Plans to be able to accurately measure the calories, sugar, fiber and proteins present in a particular Diet plan. Furthermore, based on the plans chosen by the user, real time processing is done, enabling the user to stick to the workout plans and the diet plan and making sure the user can get the best from the personized website.

Web Design Process