**Project Design Phase-I**

**Proposed Solution Template**

| Date | 01 October 2022 |
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| Team ID | PNT2022TMID03918 |
| Project Name | Project - Ai-Powered Nutrition Analyzer For Fitness Enthusiasts |
| Maximum Marks | 2 Marks |

**Proposed Solution Template:**

Project team shall fill the following information in proposed solution template.

| **S.No.** | **Parameter** | **Description** |
| --- | --- | --- |
|  | **Problem Statement (Problem to be solved)** | **Statement:-** To create a food nutrition system that can analyse the composition of a food based on a sample image provided.  **Description:-** To design a system that accepts sample food images from the user and compares it with the provided dataset.To identify the kind of food present in the provided sample and display their names along with their nutritional content. |
|  | **Idea / Solution description** | We are upto to implementing an user-friendly interface which provides the nutritional contents and calories content in the food which the user intakes. |
|  | **Novelty / Uniqueness** | 1. We will be using Nanonet API as a back-end tool to train and build our image classification model using the deep learning approach. We will be using the YOLO( You Only Look Once) algorithm for object localization.  2.Yolo algorithm is found to be more accurate than R-CNN, FAST R-CNN and FASTER R-CNN. |
|  | **Social Impact / Customer Satisfaction** | 1.Nutrition Analyser is a web-app that was created using Artificial Intelligence.  2.The main aim of the project is to build a model which is used for classifying the fruit depending on the different characteristics like colour, shape, texture etc. Here the user can capture the images of different fruits and then the image will be sent to the trained model. The model analyses the image and detects the nutrition based on the fruits like (Sugar, Fibre, Protein, Calories, etc.). |
| 5. | **Business Model (Revenue Model)** | With widespread advancements in data gathering and manipulation, as well as machine learning becoming widely used and low cost, AI is one of today's most heralded technologies. For AI technologies to be profitable, the correct revenue models still need to be chosen. Using these standards, recurring income prospects that are subscription-, service-, and usage-based. |
| 6. | **Scalability of the Solution** | Using AI algorithms the nutritional analysis of the food is predicted and analysed in a better way. All the nutritional facts and calorie contents are calculated properly. |