Project Design Phase-I
Proposed Solution Template

Date	1 October 2022
Team ID	PNT2022TMID27576
Project Name	DemandEst - AI powered Food Demand Forecaster
Maximum Marks	2 Marks

Proposed Solution:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	A food delivery service has to deal with a lot of perishable raw materials which makes it all, the most important factor for such a company is to accurately forecast daily and weekly demand. Too much inventory in the warehouse means more risk of wastage, and not enough could lead to out-of-stocks - and push customers to seek solutions from your competitors. The replenishment of majority of raw materials is done on weekly basis and since the raw material is perishable, the procurement planning is of utmost importance, the task is to predict the demand for the next 10 weeks.
2.	Idea / Solution description	The main aim of this project is to create an appropriate machine learning model to forecast the number of orders to gather raw materials for the next ten weeks. To achieve this, we should know the information about of fulfilment center like area, city etc., and meal information like category of food sub category of food price of the food or discount in particular week. By using this data, we can use any classification algorithm to forecast the quantity for 10 weeks. A web application is built which is integrated with the model built.
3.	Novelty / Uniqueness	The system keeps updating users information based on their interest and helps the management to prepare the on demand food to reduce unnecessary preparation of other foods.
4.	Social Impact / Customer Satisfaction	Food wastage will be reduced Increase in profit for the management Decrease the use of raw materials

5.	Business Model (Revenue Model)	It is highly profitable. After examining the food-related data for each location, it will determine which location was most in demand.
6.	Scalability of the Solution	It gives day to day prediction of the foods being sold which enables scalability by reducing the wastage of food.