

**Project Design Phase-I**  
**Proposed Solution**

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|---------------|---|
| Date          | 19 September 2022                                       |
| Team ID       | PNT2022TMID03401  |
| Project Name  | Project – DemandEst – AI Powered Food Demand Forecaster |
| Maximum Marks | 2 Marks   |

**Proposed Solution:**

| S.No. | Parameter                                | Description  |
|-------|--|--|
| 1.    | Problem Statement (Problem to be solved) | 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 next ten weeks.   |
| 3.    | Novelty / Uniqueness                     | Accurately estimating the demand for the next 10 weeks will help the client to maintain perishable raw materials. Secondly staffing of the centers is also one area wherein accurate demand forecasts are really helpful.  |
| 4.    | Social Impact / Customer Satisfaction    | 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. So these problems of the food delivery service centers will be solved by our model.       |
| 5.    | Business Model (Revenue Model)           | This project will help the food delivery service centers to accurately predict the number of orders for the next 10 weeks which will help them to make necessary arrangements such as perishable raw materials, staffing in centers to avoid any type of losses. |
| 6.    | Scalability of the Solution              | The project focuses in applying methods to forecast the demand for products of a food industry, which directs its sales to the food service market, in order to base the short to medium term production planning.   |