

Ideation Phase

Define the Problem Statements

Date	17 September 2022
Project Name	DemandEst - AI powered Food Demand Forecaster
Maximum Marks	2 Marks

Problem Statement:

The success of a restaurant not only depends on taste, ambience but also on service. The most important part among the services is serving fresh food. In order to provide this, the restaurants need to prepare food daily, this requires buying some of fresh self life food products every day. The major task that one would face in this will be predicting the quantity of products to be bought and prepared. It is very difficult to predict the number of orders in a given restaurant on a given day. A wrong prediction may end up purchasing and preparing less amount of food which will cause shortage or purchasing and preparing more which will lead to wastage of food. So, predicting the exact demand is a challenge because of uncertainty and fluctuations in consumer demand . These variations ad fluctuations in demand may be because of price change, promotions, change in customer's preferences and weather changes. All these factors imply that some dishes are sold mostly during limited period of time. Although we know that some regular seasonal pattern is expected, the features that predict these seasons are not directly observed. Thus, drops and rises in orders because of these seasonal changes are difficult to predict. In order to solve such problems, we are researching how to predict the demand . Here we are researching food demand forecasting methods using internal data such as number of orders.

Problem Statement (PS)	I am	I'm trying to	But	Because	Which makes me feel
PS-1	A Food Vendor	Purchase raw ingredients	I purchased excess raw materials	I don't know how many food orders will be placed	Worried about wasting live ingredients
PS-2	A customer	Buy dish of my choice	The dish was sold out	The vendor provided less amount of food	Hungry and bad impression about the restaurant

PS-3	An inspector	Inspect food quality of the restaurant	I found that the food was not fresh	The ingredients used was not fresh	angry
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