

Project Design Phase-I

Solution Architecture

Date	19 September 2022
Team ID	PNT2022TMID22680
Project Name	Project – Demand Estimation – AI powered Food Demand Forecasting
Maximum Marks	4 Marks

Solution Architecture:

Solution architecture is a complex process with many sub-processes that bridges the gap between business problems and technology solutions. Its goals are to:

- Find the best tech solution to solve existing business problems.
- Describe the structure, characteristics, behaviour, and other aspects of the software to project stakeholders.
- Define features, development phases, and solution requirements.
- Provide specifications according to which the solution is defined, managed, and delivered.

Project Solution Architecture:

- Using statistical methods is a reliable and often cost-effective method of demand forecasting. Machine Learning (ML) models, a subset of AI, can perform much better than traditional forecasting methods here.
- The AI model is trained using the dataset which are already used for demand forecasting purpose. Then this application is access these datasets to predict the demand in particular area. It can be viewed by the users for predicting the food demand.
- To avoid forecasting demand too early, aim for as short of a time period in your forecast as possible. The data which are collected in the process are stored in the IBM cloud for further predictions in future. These can be achieved by using Supply Chain Manager and Statistical analysis.
- Demand forecasting allows manufacturing companies to gain insight into what their consumer needs through a variety of forecasting methods. These methods include: predictive analysis, conjoint analysis, client intent surveys, and the Delphi Method of forecasting.

Solution Architecture Diagram:

