

Project Design Phase-I
Proposed Solution Template

Date	15 October 2022
Team ID	PNT2022TMID06724
Project Name	Retail Store Stock Inventory Analytics
Maximum Marks	2 Marks

Proposed Solution Template:

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

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Due to poor inventory retailers are not able to provide right goods to consumer in right quantity at right place in right time. Through analysis and visualization of stock data user can meet customer demand without running out of stock or carrying excess supply
2.	Idea / Solution description	<ul style="list-style-type: none">• The overstocking and stockout can be predicted using Linear Regression or Logistic Regression and Random Forest Algorithm.• Along with the algorithm certain parameters like Past sales performance data, No.of stock to reorder, Cost of goods sold, Stock cards etc., used for prediction.• IBM Cognos is used for analytics purposes
3.	Novelty / Uniqueness	By using Cognos tool, The retailer can prioritize the customer needs and Visualize the sales of product by weekly, monthly using responsive "Dashboard". So the understanding of the inventory for the retailers are effective. Hence the profit percent of the Retailer is calculated Efficiently.
4.	Social Impact / Customer Satisfaction	<ul style="list-style-type: none">• Proper planning of selling the product based on which they can calculate the profit & losses.• Improve purchasing with accurate demand forecasting.• Decline of business losses.• Individual product profits.
5.	Business Model (Revenue Model)	<ul style="list-style-type: none">• This system can be used by any kind of retailer which helps them to increase profit.• Activities – Stockout and overstocking prediction.• Key Resource – Previous inventory data.

6.	Scalability of the Solution	Our main focus is small and medium level retail stores. So, everybody can account their sales and profit margin and it provide the solution for which the small retailers doesn't provide bills for the customers. The advantage in the system may attract more and more retailers to use the web application.
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