

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

Date	15 OCT 2022
Team ID	PNT2022TMID06088
Project Name	Retail Store Stock Inventory Analytics
Maximum Marks	2 Marks

**Proposed Solution Template:**

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

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	To predict the out of stock products and overstocking products.
2.	Idea / Solution description	<ul style="list-style-type: none"><li>• The overstocking and stock out can be predicted using Linear Regression or Logistic Regression and Random Forest Algorithm.</li><li>• 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.</li><li>• IBM Cognos is used for analytics purposes.</li></ul>
3.	Novelty / Uniqueness	<ul style="list-style-type: none"><li>• Frequent updates on the stock sold, stockout, and accurate prediction of the profit/losses.</li><li>• Gives the status of Best-selling product and Slow selling product too.</li></ul>
4.	Social Impact / Customer Satisfaction	<ul style="list-style-type: none"><li>• Proper planning of selling the product based on which they can calculate the profit &amp; losses.</li><li>• Improve purchasing with accurate demand forecasting.</li><li>• Reduction of business losses.</li><li>• Individual product profits.</li></ul>
5.	Business Model (Revenue Model)	<ul style="list-style-type: none"><li>• This system can be used by any kind of retailer which helps them to increase profit.</li><li>• Activities – Stockout and overstocking prediction.</li><li>• Key Resource – Previous inventory data.</li></ul>
6.	Scalability of the Solution	This model will predict the best selling product and slow Selling product to optimize buying which avoids overstock and stockout.