Project Design Phase-I
Proposed Solution

Date	23 September 2022
Team ID	PNT2022TMID17966
Project Name	Retail Store Stock Inventory analysis

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	To create a retail store stock inventory management system for retailers to meet customer demand without running out of stock or carrying excess supply.
2.	Idea / Solution description	Retail store stock inventory analytics is implemented to analyze the historical sales data of a retailer. By deeply understanding the dataset, identifying pattern, relationships and connection using python libraries like pandas and using IBM Cognos analytics to build visualizations of stock inventory and to create meaningful dashboards. The final dynamic dashboard helps retailers by providing detailed product listing, easy categorization, inventory reports satisfying customer needs and meet variation in product demand.
3.	Novelty / Uniqueness	This solution involves analyzing the sales ratio and determining the stock availability. It indicates the retailer of out-of-stock commodities and also determines the popular products among customers. Also, it involves usage of IBM Cognos analytics tool for visualization rather than using python libraries like matplotlib.
4.	Social Impact / Customer Satisfaction	Customers will get more varieties, high availability of the products.
5.	Business Model (Revenue Model)	1. Improve the decision-making process oriented at reducing costs and increasing revenues. 2. Retailers are able to understand the deepest customer needs and adjust their offering to meet shoppers' demands.

6.	Scalability of the Solution	This solution is applicable for small retail stores as well as large departmental stores. It can also analyze a wide range of datasets and different types of visualizations can be done.