Project Design Phase-I
Proposed Solution Template

Date	19 September 2022
Team ID	PNT2022TMID26359
Project Name	Project – Inventory Management System for Retailers
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)	Making an application for retailers to maintain their inventory supplies and manage purchases, sales, stocks, etc. is the challenge that needs to be solved.
2.	Idea / Solution description	The solution is to create an application that tracks and manages stock levels for their own product lines. The retailers create their accounts by verifying their information and entering their product stock/inventory. When finished, they can log into the application to view their supplies, sales, and change their stocks when restocking, among other things. They can identify which stocks are in high demand, and when those stocks are in danger of running out, they are alerted so they can restock them.
3.	Novelty / Uniqueness	Since we have information on stock sales, we can estimate which stocks will be the most popular so that shops may refill up on those items first. Regression analysis and historical sales data within our application can be used to retrieve the data. By containerizing using a Docker application, maintenance and development can also be made simpler.
4.	Social Impact / Customer Satisfaction	Using the information from our application, we can buy and refill only the stocks that are needed, reducing excess stocks in the inventory that could result in product waste. We can also observe which goods are selling well and which are not doing as well as anticipated. We can request the necessary quantity of inventories from vendors and suppliers and initiate better arrangements with them as we will be aware of which products are required in large quantities.
5.	Business Model (Revenue Model)	By analysing the predicted products that have a higher likelihood of being purchased in large quantities and eliminating unnecessary redundant products that may be excess when not ordered in the right amount, retailers can

		order the fast-moving products and the appropriate number of stocks from suppliers and vendors.
6.	Scalability of the Solution	Through virtualization, scalable cloud architecture is made possible. Unlike actual machines, which have processors, memory, and other physical hardware that determines their resources and performance. The virtual machines we utilize on the IBM Cloud are very scalable and adaptable. Users of Kubernetes can scale the containers in accordance with changing application requirements. Via command lines, changing the number is simple.