Project Design Phase-I
Proposed Solution Template

Date	20 September 2022
Team ID	PNT2022TMID24005
Project Name	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)	The problem to be solved is to make an application for retailers to track their inventory stocks to manage the purchases, sales, stocks, etc.
2.	Idea / Solution description	The idea to solve this is by developing an application to track and manage stocks related to their own products. The retailers create their accounts by proving their details and entering the stocks/inventory of their products. Once done, they can login to the application and view their stocks, sales, update their stocks when restocking, etc. They can see which stocks are fast moving and when in case of running out, they get notification and they can restock their fast-moving stocks.
3.	Novelty / Uniqueness	As we have data of the sales per stocks, we can include a prediction of stocks to guess which will be the most purchased stocks so that the retailers can restock up on that prior. The data can be obtained by regression and previous sales data within our application. We can also make maintenance and development easier by containerizing via Docker application.
4.	Social Impact / Customer Satisfaction	By using our application, we can see which stocks are being sold and which are not much as expected, so by using that data we can purchase and restock only the required stocks and thus reducing excess stocks in the inventory which might be a wastage of products. Since we will know which products are needed in bulk, we can request vendors and suppliers the required number of stocks and negotiate better deals with them beforehand.
5.	Business Model (Revenue Model)	Retailers can order the fast-moving products and the right number of stocks from suppliers

		and vendors by analysing the predicted products which has higher chance of being purchased in large amounts, and thus eliminating unnecessary redundant products which might be excess when not ordered in the right amount.
6.	Scalability of the Solution	Scalable cloud architecture is made possible through virtualization... Unlike physical machines whose resources and performances are set by their physical hardware, processors and memory. Virtual Machines that we use in IBM Cloud are highly flexible and scalable. Kubernetes allows the users to scale the containers based on the application requirements which may vary over time. It's easy to change the number via command lines.