

Project Design Phase-I Proposed Solution Template

Date	29 October 2022
Team ID	PNT2022TMID42656
Project Name	Inventory Management System for Retailers
Maximum Marks	2 Marks

Proposed Solution Template:

S.No.	Parameter	Description
•	Problem Statement (Problem to be solved)	In the real time scenario, the retailers without knowing the demand for products, they bought excess stock which is not a popular one among the customers. Retail inventory management system is the process of ensuring you carry merchandise that shoppers want, with neither too little nor too much on hand. By managing inventory, retailers meet customer demand without running out of stock or carrying excess supply. Smart inventory management system is a project which will satisfy the retail shop business men.

•	Idea / Solution description	<p>The key research objectives are as follows:</p> <ul style="list-style-type: none"> • Either QR code or sensors or rfid tags will be fixed in the inventory shelves. This will help to analyze the product sales where we can find out the highest selling product and the demand of other products. • The software application will have the normal login procedure where the user has to login with their email. In case the stock is going to be completed, immediately it will alert the user. • Also the mail will be sent related to the highest selling product. Once the user knows that the product is not available in the inventory, the user can directly book through the app at that time itself.
•	Novelty / Uniqueness	<p>As we have the sales data, we can able to predict the most purchased stocks so that the retailers can restock up on that prior. The data can be obtained by previous sales data within our application. We can also able to maintain and develop easily by containerizing via Docker application. Additionally we use RFID tags for automating the calculation of movement of products whenever it increases or decreases.</p>
•	Social Impact / Customer Satisfaction	<p>Helps the retailer to avoid buying the least selling product make them focus on highest selling product which gives them profit and avoid wastage of product after expiry date for sale.</p> <p>Helps the customer by analysing their need, always the product availability will be maintained by ensuring stock count automatically.</p>

•	Business Model (Revenue Model)	Customers or retailers can use this software to generate revenue with a high profit by avoiding the purchase of non selling products. The prediction will help the customer to get the information about product availability as soon as possible which helps to avoid the delay in purchase. By using this profitable income can be earned by customer
•	Scalability of the Solution	<p>The cloud makes it easy to add users, functionality, warehouses and suppliers—without the large-scale cost and effort required to implement a new on-premise system.</p> <p>Using kubernetes we can automate the deployment, scheduling and operation of application containers on clusters of machines.</p>