

**Project Design Phase-I**  
**Problem Statement**

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|---------------|---|
| Date          | 21 September 2022                                   |
| Team ID       | PNT2022TMID31796                                    |
| Project Name  | Project – Inventory Management system for retailers |
| Maximum Marks | 2 Marks   |

**Problem Statement:**

- The retailers generally facing issues in recording the stocks and its threshold limit available.
- The retailers doesn't know which product is getting expired and when it is being expired.
- The retailers couldn't track the availability of all the stocks up-to date.
- The customers are not satisfied with the retailers store since it doesn't have

enough supplements and the deliveries were not made on time.

| S.No. | Parameter                                | Description  |
|-------|--|--|
| †     | Problem Statement (Problem to be solved) | <ul style="list-style-type: none"><li>• The retailers generally facing issues in recording the stocks and its threshold limit available.</li><li>• The retailers doesn't know which product is getting expired and when it is being expired.</li><li>• The retailers couldn't track the availability of all the stocks up-to date.</li><li>• The customers are not satisfied with the retailers store since it doesn't have enough supplements and the deliveries were not made on time.</li></ul> |

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| ✚ | Idea / Solution description | <ul style="list-style-type: none"> <li>• This proposed system will have a daily update system whenever a product is sold or it is renewed more.</li> <li>• The system will have an alert triggered to indicate both the expired product and soon going to expire products.</li> <li>• The product availability is tracked daily and an alert system is again kept on to indicate those products which fall below the threshold limit.</li> <li>• All the customers can register their accounts after which they will be given a login credential which they can use whenever they feel like buying the stocks.</li> <li>• The application allows the customers to know all the present time available stocks and also when the new stock will be available on the store for them to buy.</li> <li>• Tracking the order has become easy with this application for both the retailers and the customers.</li> </ul> |
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| ✚ | Novelty / Uniqueness                  | <ul style="list-style-type: none"> <li>• Certain machine learning algorithms are used to predict the seasonal high selling products which can be made available during that time.</li> <li>• Prediction of the best selling brand of all certain products based on their popularity, price and customer trust and satisfaction will be implemented.</li> <li>• Notifications will be sent to the retailers if any product that the customers have been looking for is not available so that the product can be stocked up soon.</li> <li>• Notification will be sent to the customers who buy any certain products regularly when the new arrivals are stocked up.</li> <li>• Exclusive discounts and offers are given for regular customers to keep them engaged with the store regularly.</li> </ul> |
| ✚ | Social Impact / Customer Satisfaction | <ul style="list-style-type: none"> <li>• The customers will be highly satisfied since the wasting of time while searching for an unavailable product is reduced.</li> </ul>  |

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|   |                                | <ul style="list-style-type: none"> <li>• The work load of the retailers will be minimized if the system is automated every day and during every purchase.</li> <li>• The customer satisfaction will be improved for getting appropriate response from the retailers and that too immediately.</li> </ul>  |
| ✚ | Business Model (Revenue Model) | <ul style="list-style-type: none"> <li>• Hereby we can provide a robust and most reliable inventory management system by using: <ol style="list-style-type: none"> <li>1. ML algorithms for all the prediction purposes using all the past dataset since datasets are undoubtedly available in huge amounts.</li> <li>2. Can deploy the most appropriate business advertising models.</li> <li>3. To establish a loss preventing strategy.</li> <li>4. And to ensure the all time, any where availability of products system.</li> <li>5. Usage of freebies business strategy for dragging the customer's attention.</li> </ol> </li> </ul> |
| ✚ | Scalability of the Solution    | <ul style="list-style-type: none"> <li>• This system can even work more efficiently with large volume of data.</li> <li>• Implementation of anyone and anywhere using system can be helpful for even a commoner to buy the products.</li> <li>• Daily and Each time purchase updation of the stock for preventing inventory shrinkage.</li> <li>• Direct chat system with the retailers and the customers for providing best customer service.</li> </ul>   |