

Project Design Phase - I

Proposed Solution

Ms. Akalya Devi C¹, Harisudhan T², Jeevanantham V K³, Jhanani J⁴, Kavi Varshini S⁵

¹Assistant Professor, Department of Information Technology, PSG College of Technology,

^{2,3,4,5}Final Year B.Tech Information Technology, PSG College of Technology

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Project Name	Inventory Management system for Retailers

Proposed Solution :

S.No	Parameter	Description
1.	Problem Statement (Problem to be solved)	<ul style="list-style-type: none">• Proper tracking of inlet and outlet of products pertaining to an organization becomes tedious and inefficient when the firm expands.• Create an Online Inventory Management system that manages retailers' inventory such that they meet customer demand without running out of stock or carrying excess supply.• This can ensure timely service (high availability of products) that improves customer satisfaction.• Additionally, cuts off unwanted capital loss for retailers due to excessive dead products (FIFO technique). Thus, resulting in increased annual turnover of an organization.
2.	Idea / Solution description	<ul style="list-style-type: none">• Develop algorithms that analyse where sales tend to spike and drop at a particular point in a year, and analyse sales pattern using historical data.• Apply EOQ technique that determines the best amount of inventory to order each time to maintain balance between minimal ordering and carrying cost, while satisfying demands.• Develop a system that will automatically send an email alert to the retailers if there is no stock found in their accounts. So that they can order new stock.
3.	Novelty / Uniqueness	<ul style="list-style-type: none">• Send Grid is used to send email notifications to the corresponding retailer, if his inventory is running out of stock (below/above a certain threshold range).• Product top selling categories can be identified.

4.		<ul style="list-style-type: none"> • Developing algorithms that analyse where sales tend to spike and drop at a particular point in a year, and analyse sales pattern using historical data. • IBM Cognos Analytics can be used to maintain dashboard, which provides a toolset for reporting, analytics and monitoring of events and metrics.
	Social Impact / Customer Satisfaction	<ul style="list-style-type: none"> • By ensuring the availability of right products at right time, customer needs are satisfied duly (Promoters and Passive customers are retained). • The manual workload for retailers is reduced. • Retailer's capital investment to wastage is reduced (increased profit). • Retail inventory management tools and methods give retailers more information on which to run their businesses for increasing their profit. • Organized processing of warehouse stocks ensures no sales opportunity are missed.
	5. Business Model (Revenue Model)	<ul style="list-style-type: none"> • Identify how much discount should be offered to a product to increase sales. • Manage the details of the customers and their purchasing trend for personalizing deals if required. • Improve decision making process that aims at reducing costs and increasing revenue. • Deploying the system as a Cloud Application, which can be accessed from any device at any time (handy usage for customers) that increases profit. • Cuts off unwanted cost for retailers • Can be deployed for usage under Basic Pack subscription, which will satisfy minimum requirements. Retailers can update their account to Premier Pack subscription to customize and expand their processing and storage capabilities.
6.	Scalability of the Solution	<ul style="list-style-type: none"> • This application suits to serve the needs of all firms (small retailers to large firms). • Since storage and processing resources are Cloud hosted, scaling up can be done as per the requirement. • Wide range (volumes) of historical data can be used to observe the sales pattern.