

Project Design Phase-I
Proposed Solution Template

Date	19 September 2022
Team ID	PNT2022TMID05742
Project Name	Project - Retail Store Stock Inventory Analytics
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)	<p>The goal of our project is to design and implement (Retail Store Stock Inventory Analytics) in the following ways:</p> <p>Manual processing is error-prone, especially in complicated processes like inventory management. Retail inventory management software can ease the pain of the process. It also improves overall accuracy and business productivity. Specific inventory management software for retail can streamline your core activities. As a result, this software would promote customer satisfaction and business growth. To Increase Anywhere for Retail can help you shorten the process cycles of tedious inventory processes. As our software can efficiently handle critical aspects of your inventory, it can be an asset to your inventory management.</p>
2.	Idea / Solution description	<p>1. Stock Auditing:</p> <p>Frequent stock auditing processes, like daily cycle counting, reduce human error and provide more accurate, up-to-date inventory data for <u>managing cash flow</u>. Organize audits by category and <u>cycle count smaller inventory samples</u> on a predictable schedule for more accurate financial data.</p> <p>2. Plan Demand:</p> <p>Use an inventory management system with advanced demand forecasting and reporting features to prioritize your top inventory. Take into account the availability of the top 20% of inventory that generates 80% of</p>

		<p>your customer demand. To learn more about inventory planning and demand forecasting, read our essential guide to inventory planning.</p> <p>3. Update Platforms:</p> <p>Upgrading to a cloud-based inventory management platform doesn't just give all the latest features. You get to take advantage of the vendor's expertise and training while it's being implemented.</p>
3.	Novelty / Uniqueness	<p>1. Analyze supplier performance.</p> <p>An unreliable supplier can cause problems for your inventory. If you have a supplier that is habitually late with deliveries or frequently shorts an order, it's time to take action. Discuss the issues with your supplier and find out what the problem is. Be prepared to switch partners, or deal with uncertain stock levels and the possibility of running out of inventory as a result.</p> <p>2. Practice the 80/20 inventory rule.</p> <p>As a general rule, 80% of your profits come from 20% of your stock. Prioritize inventory management of this 20% of items. You should understand the complete sales lifecycle of these items, including how many you sell in a week or a month, and closely monitor them. These are the items that make you the most money; don't fall short in managing them.</p> <p>3. Track sales.</p> <p>Again, this seems like a no-brainer, but it goes beyond simply adding up sales at the end of the day. You should understand, on a daily basis, what items you sold and how many, and update your inventory totals. But beyond that, you'll need to analyze this data. Do you know when certain items sell faster or drop off? Is it seasonal? Is there a specific day of the week when you sell certain items? Do some items almost always sell together? Understanding not just your sales totals but the broader picture of how items sell is important to keeping your inventory under control.</p>

4.	Social Impact / Customer Satisfaction	<p data-bbox="406 448 486 481">reputa</p> <p data-bbox="486 179 758 212">1. Time to Fulfillment</p> <p data-bbox="486 257 1500 560">Good inventory control means that your time to fulfill orders stays low. If you use your inventory management system to analyze product sales, you can have your popular items in stock and ready to instantly fulfill any customer's order. You also know which special orders sell on occasion and have those products available in a limited quantity to keep your inventory costs down and to develop a positive tion for quickly filling special orders.</p> <p data-bbox="486 582 614 616">2. Returns</p> <p data-bbox="486 638 1500 873">Inventory management helps you maintain customer satisfaction when it comes to product returns. When product is returned because it is damaged or dead on arrival, and it is still under warranty, you can arrange with the manufacturer to do an instant swap of the product to keep the customer happy. If you are the manufacturer, then you should maintain extra inventory levels that mirror your return rates to help maintain customer satisfaction.</p> <p data-bbox="486 963 606 996">3. Pricing</p> <p data-bbox="486 1064 1500 1265">When you have a well-designed inventory management system, you are able to reduce the amount of time that products sit on your shelves. When you don't carry extra inventory for extended periods of time, your inventory costs decrease. This is a savings that you can pass on to clients in the form of lower pricing.</p> <p data-bbox="486 1288 622 1321">4. In Stock</p> <p data-bbox="406 1556 1596 1713">A good inventory management system means that you have an up to date inventory count and customer service is giving accurate information even if the customer does not plan on making a purchase. To give clients accurate inventory information, you improve the image of your company and add customer retention.</p>
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5.	Business Model (Revenue Model)	<div data-bbox="507 208 1177 253"> <h3>Retail Business Model In A Nutshell</h3> </div> <div data-bbox="507 253 1401 371"> <p>A retail business model follows a direct-to-consumer approach, also called B2C, where the company sells directly to final customers a processed/finished product. This implies a business model that is mostly local-based, it carries higher margins, but also higher costs and distribution risks.</p> </div> <div data-bbox="507 427 1473 864"> <pre> graph LR Wholesaler[Wholesaler] -- "Selling to retailers" --> Retailer[Retailer] Retailer -- "Selling to local consumers" --> Consumers[Consumers] </pre> <p>The diagram illustrates the retail business model flow and associated risks and margins. The flow starts with a Wholesaler (represented by a factory and truck icon) selling to a Retailer (represented by a store icon). The Retailer then sells to local consumers (represented by a person icon). Below the flow, two Venn diagrams are shown. The first Venn diagram, labeled 'Distribution risks', has three overlapping circles: 'Raw Product Prices swings', 'Local Competition', and 'Local Distribution'. The second Venn diagram, labeled 'Higher Margins', has three overlapping circles: 'Direct to consumers', 'Local Distribution', and 'Higher Margins'.</p> </div>
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6.	Scalability of the Solution	<p>1. Prediction of needs</p> <p>One of the key elements of big data in the retail space is its predictive analytics for inventory optimization feature. Predicting the changes in how customers behave can go a long way in making inventory management efficient.</p> <p>2. Replenishment optimization</p> <p>Having a lot of slow-moving items or unavailability of an in-trend item can harm both customer satisfaction and profits.</p> <p>3. Prevent stockouts</p> <p>An extension of replenishment optimization is prevention of stockouts. It is a big challenge for retailers as the shopper would quickly turn to other retail houses if they are not able to find the product they need.</p> <p>4. Speed up order fulfillment</p> <p>The retail business data holds the power to better the order fulfillment speed. While it is common for orders to get assigned to the closest warehouse to reduce the shipping cost and speed up delivery, data analytics for inventory optimization can do a lot more.</p>
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		<p>5. Fast recalls</p> <p>Although unfortunate, recalls of items are not isolated events. They happen very frequently. While these events are not just costly, they even tend to tarnish a brand's image if not handled promptly.</p> <p>6. Increased customer satisfaction</p> <p>Data analytics-powered inventory management solutions play a massive role in bettering the buying experience by keeping track of the product return reasons and keeping the logistics side of the retail journey streamlined.</p> <p>7. Reduced costs</p> <p>There are very few retailers who understand the cost impact of inventory management. A majority of them tend to ignore the financial impact of carrying excessive or incorrect items. While it is important to stock what is in demand, it is equally important to find a balance so that you don't waste the warehouse space in an unplanned manner.</p>
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