RETAIL STORE STOCK INVENTORY ANALYTICS

PROJECT REPORT

Submitted by

Team ID	PNT2022TMID43133

SRINIVASAN S

PRINCY J

SHALINI V

SOWMIYA P

SURYA PRAKASH A

1. INTRODUCTION

The manual inventory gives an uphill task to the inventory manager, who has to reconcile every receipt and the physical stock. A computerized point of a sale information system that updates the inventory once there is a sale simplifies the inventory management. This may involve installing bar code scanners at the point of sale scanners to mark up every item sold. The inventory should also evaluate how each product as well as other competitor retails. The inventory systems should also have security measures to keep the inventory away from unauthorized persons**.**

1.1 Project Overview

The retail industry has gone through tremendous technological changes in the past few decades. The advent of e-commerce and online retail websites has pushed retail companies to embrace technology. However, few companies still employ traditional business methods. Eventually, only those companies which adopt technology can optimize their business growth. Paper-based processes can curb the growth of your retail business. Especially, inventory Management without the use of technology can be cumbersome. Inventory is a vital aspect of any retail enterprise. If it is not managed efficiently, it could have a ripple effect on other retail in-store processes. The retail inventory management software would help you handle complex inventory processes easily. The retail world involves constant competition, to get consumers' attention, and ultimately convince them to make a purchase. This is why you need retail inventory software that makes life behind the scenes easier and more automated. With automation in production, simplified stock tracking, and integrations for sales, accounting, and shipping. It's ideal for owners who want a wider view of their business, and more time to focus on long-term growth. Paper-based retail inventory management can take a lot of time and effort.

The retail inventory management software can cut short your in-store inventory process cycles through automation. Automation would give you time to focus on other productive business tasks. Retailers are witnessing a historic shift in the way consumers shop. Today's consumers can easily compare prices, research products, and make purchasing decisions that align with their lifestyle. Whether online or instore, retail customers have come to expect shopping experiences to be personalized to their unique needs and preferences, order fulfilment and returns that are hassle-free, and responsive customer service available via multiple channels. Analytics for retailers enables a data-driven approach to meet these expectations. Online retail inventory management Empty digital store shelves represent lost sales opportunities and can cause customers to migrate to competitors who are able to consistently keep desired products in stock. With potentially hundreds or thousands of items for sale, traditional threshold based models of inventory management are not sufficient. Modern retail analytics programs are capable of analyzing past purchasing and stock data as well as data from third-party and public sources such as weather data and point-of-sale data to more accurately predict demand for individual items.

1.2 Purpose

Saves Time Paper-based retail inventory management can take a lot of time and effort. The retail inventory management software can cut short your in-store inventory process cycles through automation. Automation would give you time to focus on other productive business tasks.

Eliminates Errors

Traditional retail inventory processes can be vulnerable to errors. Inventory process errors in retail would not only increase your expenses but would also impact your business reputation. The retail inventory software would make sure to minimize human intervention in the process. Thus, it would reduce errors considerably.

Improves Transparency

In the retail industry, the visibility of the real-time status of the various items in the inventory is very critical. It would impact many other retail processes and important business decisions. It is challenging to keep track of multiple items in the inventory round the clock through a paper-based process. A retail inventory management system can give you 360-degree item information anytime.

Efficient Stock Counting

If done manually, stock counting is a tedious and error-prone process. The retail inventory management software can automatically count the items in your warehouse with better accuracy. Hence, it can provide you with updated inventory reports.

Process Efficiency

Inventory management is one of the crucial retail processes. Thus, any discrepancy in the inventory control would impact all other operations in your company. The retail inventory software can streamline the inventory processes, which would, in turn, improve the efficiency of your entire business.

Cost-Effective

Manual inventory control would increase your labour and process costs. The software would not only help you save time, but it would also help you reduce costs. As a result, the profitability of your business would improve. Also, you can invest the excess funds in activities that promote your business growth.

2. LITERATURE SURVEY

2.1 Existing problem

Retail stores are facing problems like discrepancies, damages, pilferages and delay time in the inventory storage in all the sectors of store owing to lack of proper stacking. This paper is mainly emphasis to improve productivity of inventory management in toy section in retail stores. And the paper also recommends strategy for both productivity and profitability in toys section. This can be solved and prevented in the future by recommended changes in the SOP. The wastage and loss can be eliminated by this process.

Inventory refers to the goods stocked for future use. Every retail chain has its own warehouse to stock the merchandise to be used when the existing stock replenishes. The retailer keeps a track of the stocked goods and makes sure there is surplus inventory to avoid being "out of stock". Such a process is called as inventory management. A day has gone when clients had restricted alternatives for shopping. In the present situation, if a customer does not locate the sought stock at one retail shop, he has a second brand to depend on. A retailer can't stand to free even a solitary customer. It is truly essential for the retailer to hold his current customer and in addition pull in potential purchasers. The retailer must guarantee that each customer leaves his store with a grin. Inaccessibility of stock, void racks leave a negative impact on the clients and they are hesitant to visit the store in not so distant future. Inventory management prevents such situations. This paper is to show the discrepancies, damages and pilferages happening in the products and its operations and to recommend possible ways to overcome it.

The toys section is taken as an example for this paper and the research is carried out in Central Mall Bangalore, India. The objective of the paper is to increase the profitability of toys category by means of reduction in shrinkage rate from vendor to customer. The damage and pilferage contribution in a retail store in general is 15% of shrinkage and thus reduction of shrinkage is of paramount importance to improve profitability. This paper is limited to toys only and the warehouse management is not covered. The pilferages could not be tracked and solved. The storage and handling procedures in the vendor warehouse is not analyzed. There was a time constraint in studying the benchmarking processes and competitive studies.

2.2 References

[1] Coleman, B. Determining the Correct Service Level Target. Production and Inventory Management Journal, 41(1):169-176, 2000.

[2] Jay, H., & Barry, R., Principles of Operations Management. 6th Edition. New Jersey; Pearson Prentice Hall, Edcuation Inc, 2006.

[3] Miller, R, Inventors Control: Theory and Practice. New Jersey: Prentice Hall, 2000.

[4] Kotler, P., Marketing Management. 2nd Edition. New Delhi: Prentice Hill, 2002.

[5] Howard Hao-Chun Chuang and Rogelio Oliva Inventory record inaccuracy: Causes and labor effects, Journal of Operations Management, available at http://www.researchgate.net/publication/280614462_Inventory_record_inaccuracy_Causes_and_ labor effects, 2015.

[6] K¨ok, A.G., Shang K. Inspection and replenishment policies for systems with inventory record inaccuracy. Manufacturing Service Oper. Management. 9(2) 185-205, 2007.

[7] Hardgrave, Bill C., Goyal, Sandeep, Aloysiu, John Improving inventory management in the retail store: The effectiveness of RFID tagging across product categories, Operation Management Research, 4(1), 6-13 available at www.researchgate.net/publication/225735580_Improving_inventory_management_in_the_retail _store_The_effectiveness_of_RFID_tagging_across_product_categories, 2011.

2.3 Problem Statement Definition

"Inventory" means physical stock of goods, which is kept in hands for smooth and efficient running of future affairs of an organization at the minimum cost of funds blocked in inventories. The fundamental reason for carrying inventory is that it is physically impossible and economically impractical for each stock item to arrive exactly where it is needed, exactly when it is needed. Inventory management is the integrated functioning of an organization dealing with supply of materials and allied activities in order to achieve the maximum co-ordination and optimum expenditure on materials. Inventory control is the most important function of inventory management and it forms the nerve center in any inventory management organization. An Inventory Management System is an essential element in an organization. It is comprised of a series of processes, which provide an assessment of the organization's inventory.

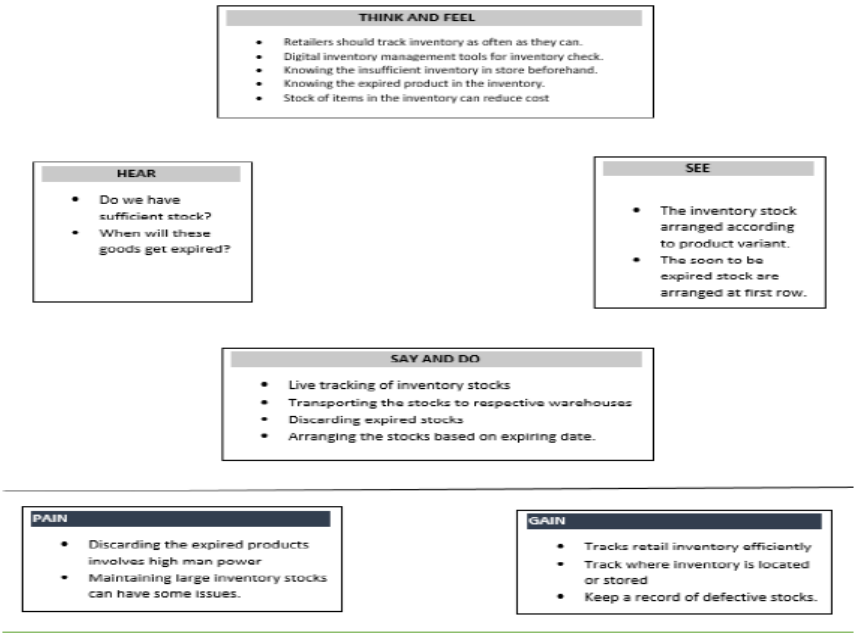
Inventory management is defined as a science based art of ensuring that just enough inventory stock is held by an organization to meet demand [1], [2]. Inventory management refers to all the activities involved in developing and managing the inventory levels of raw materials, semifinished materials (working-progress) and finished good so that adequate supplies are available and the costs of over or under stocks are low [4]. Inventory record inaccuracy refers to the discrepancy between physical and recorded inventory levels, and is a pervasive problem in retailing and it causes loss to the company [5]. Inventory record inaccuracy can be attributed to shrinkage (e.g., spoilage and theft), transaction errors, and misplacement. Because it is difficult to fully eliminate these execution errors, IRI becomes a norm rather than an anomaly in the retail sector [6]. Inventory control is vitally important to almost every type of business, whether product or service oriented. Inventory control touches almost every facet of operations. A proper balance must be struck to maintain proper inventory with the minimum financial impact on the customer. Inventory control is the activities that maintain stock keeping items at desired levels. In manufacturing since the focus is on physical product, inventory control focus on material control. Inventory control is the supervision of the storage, supply and accessibility of items to ensure an adequate supply without excessive oversupply [3].

The lean principles and techniques can be successfully applied in the retail sector. In the retail sector, lean approach improves operational flows. The concept of lean retailing is to give quick response to fluctuations in demand rather than holding large stocks. Lean retail enables faster movement of goods from suppliers to sales locations. The application of lean principles, Radio Frequency Identifier (RFID) technology and inventory management at the level of individual items significantly contributes to creating value for customers and retailers [7]. The foremost objective of inventory management and control is to inform managers how much of a good to re-order, when to reorder the good, how frequently orders should be placed and what the appropriate safety stock is, for minimizing stock-outs. The EOQ (Economic Order Quantity) has been previously defined as the ordering quantities which minimizes the balance of cost between inventory holding costs and re-order costs.

3. IDEATION & PROPOSED SOLUTION

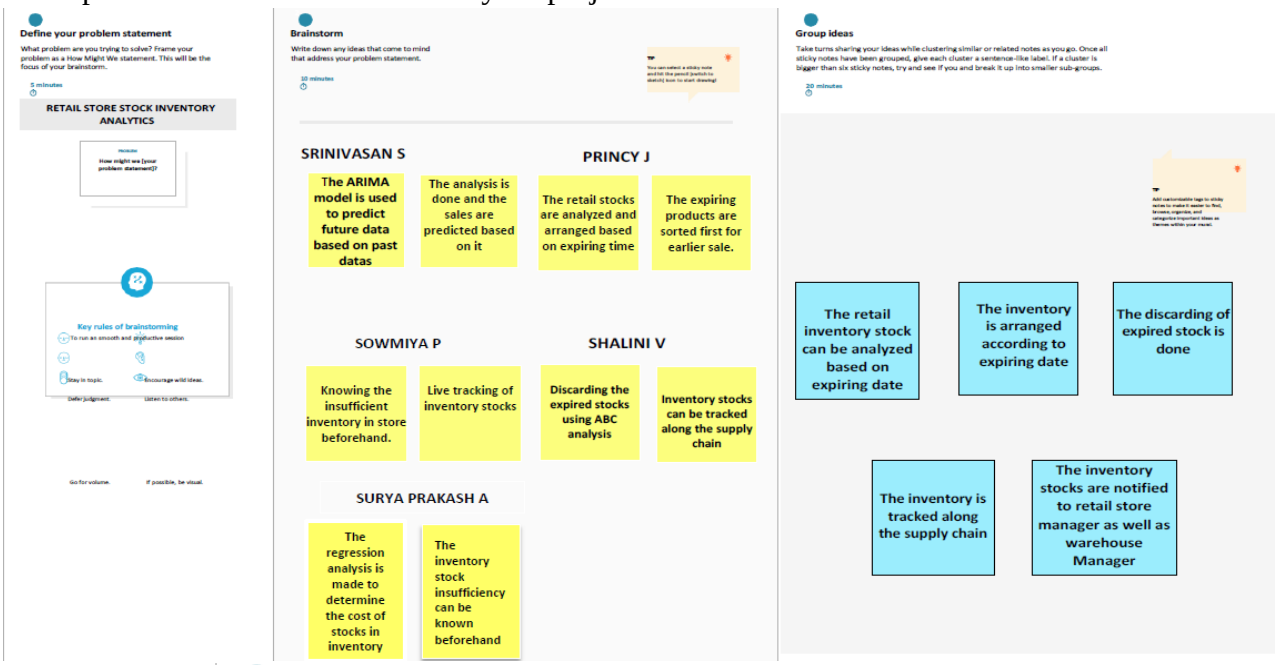
3.1 Empathy Map Canvas

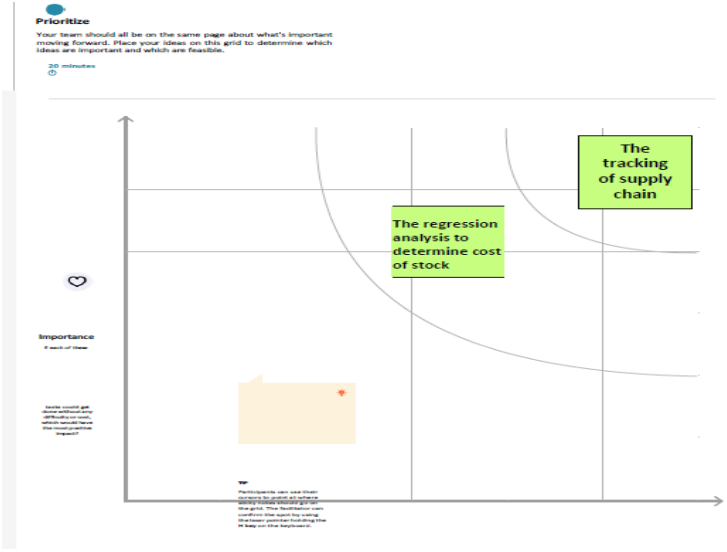
When ideation is used internally, businesses seek to gather ideas from their employees, who work on and develop the products and services. Internal ideation often consists of group activities such as brainstorming sessions and prototyping (depending on the industry).When ideation is used externally, businesses usually target their pool of existing customers since who knows their product better than those who actually use it!? Customers have the knowledge to provide businesses with ideas on product/service improvements, so most external ideation efforts are directed this way.



3.2 Ideation & Brainstorming

Brainstorming is the most frequently practiced form of ideation. We recommend that you use it along with Brainwriting, Brain walking, and Brain Dumping. Here, you'll learn the best practices from the very best experts from d-school and IDEO as well of the father of the Brainstorming technique, Alex Osborn. Brainstorming is a great way to generate a lot of ideas that you would not be able to generate by just sitting down with a pen and paper. The intention of brainstorming is to leverage the collective thinking of the group, by engaging with each other, listening, and building on other ideas. Conducting a brainstorm also creates a distinct segment of time when you intentionally turn up the generative part of your brain and turn down the evaluative part. You can use brainstorming throughout any design or work process, of course, to generate ideas for design solutions, but also any time you are trying to generate ideas, such as planning where to do empathy work, or thinking about product and services related to your project.





3.3 Proposed Solution

1. Problem Statement
   Developing a retail store stock inventory management system.

2. Idea / Solution description
   Retail stocks are analyzed and arranged based on expiring date.

3. Novelty / Uniqueness
   Regression analysis is done to determine the stock cost ratio.

4. Social Impact / Customer Satisfaction
   The inventory stock is tracked along the supply chain.

5. Business Model (Revenue Model)
   The analysis is done on retail store stock inventory.

6. Scalability of the Solution
   ABC analysis is done to sort and arrange stocks.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Developing a retail store stock inventory management system.
2.	Idea / Solution description	Retail stocks are analyzed and arranged based on expiring date
3.	Novelty / Uniqueness	Regression analysis is done to determine the stock cost ratio
4.	Social Impact / Customer Satisfaction	The inventory stock is tracked along the supply chain
5.	Business Model (Revenue Model)	The analysis is done on retail store stock inventory
6.	Scalability of the Solution	ABC analysis is done to sort and arrange stocks.

3.4 Problem Solution fit

1. Customer segment
   - Retail store manager.
   - Warehouse manager.

2. Jobs-to-be-done/problems
   - Discarding expired stocks.
   - Arranging and sorting inventory stock based on product variant.

3. Triggers
   Checking out the amount of stocks available before ordering and selling.

4. Emotions: Before/After
   - Before - Tired, sometimes stressed.
   - After – Relaxed.

5. Available solutions
   - Predicting the soon to be expired stocks.
   - Creating the model with high efficient analysis model.
   - Notifying about the expiring stocks.

6. Customer constraints
   - The whole inventory cannot be checked manually.
   - Manual maintenance causes high man power and cost.

7. Behaviour
   - Expiration of stocks updated by workers.
   - Customer dissatisfaction due to poor maintenance of product.

8. Channels of behaviour
   ONLINE: Checking out for amount of stocks in the inventory.
   OFFLINE: Manual counting of the specific stock in the inventory.

9. Problem root cause
   - Due to large amount of stocks sorting and discarding them when it is expired is difficult.
   - Common high manpower for maintenance.
   - The supply chain cannot be tracked.

10. Your solution

- Sorting the stocks based on their expiring date.
- Notifying when the stocks gets expired and discarding them.
- Tracking the supply chain of stock from the inventory to real consumer.

4. REQUIREMENT ANALYSIS

4.1 Functional requirement

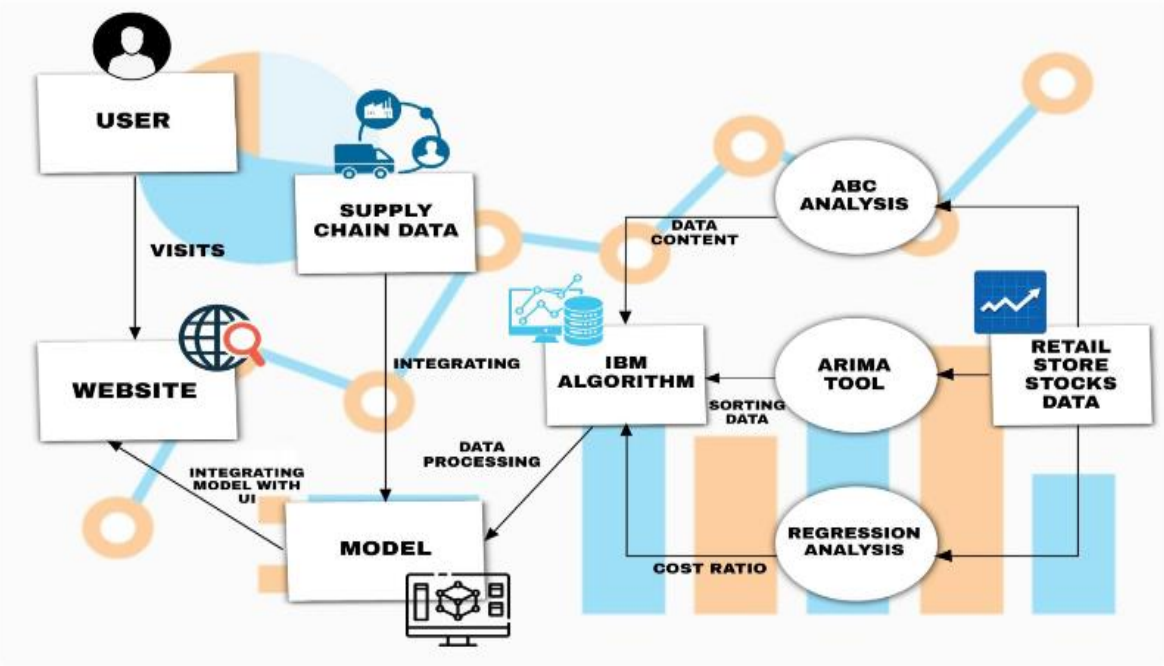
FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Visiting website	• Visiting website to check amount of stock available in the inventory. • Visiting website to see the order of stocks to be arranged.
FR-2	Checking	• Checking of the stocks needed to be discarded. • Checking of the expiring date of the stocks in the inventory.
FR-3	Tracking	• Tracking the supply chain from retail store to end users.

4.2 Non-Functional requirements

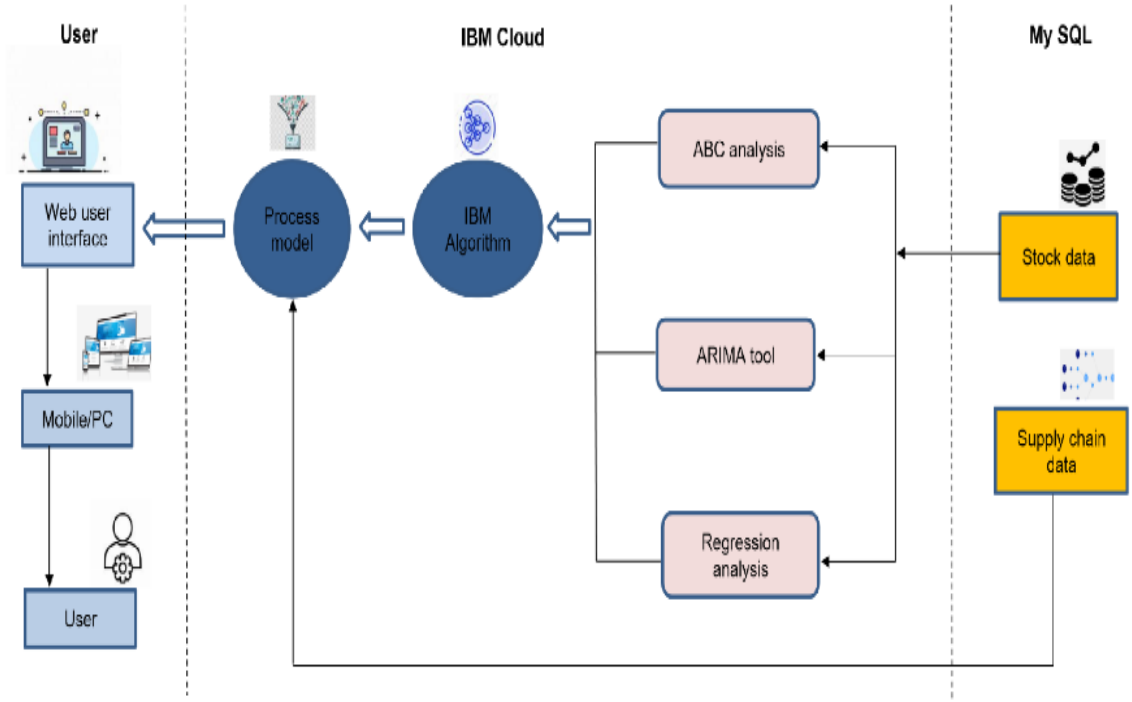
FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	The UI should be simple enough for everyone to understand.
NFR-2	**Security**	The website must be secure enough to trust by the users.
NFR-3	**Reliability**	The UI should be able to withstand any errors in the data.
NFR-4	**Performance**	The UI shows the sorting order and availability of the stocks.
NFR-5	**Availability**	The UI should respond to the users within 2 seconds.
NFR-6	**Scalability**	The ABC analysis is used to sort and arrange the stocks in the inventory.

5. PROJECT DESIGN

5.1 Data Flow Diagrams



5.2 Solution & Technical Architecture



5.3 User Stories

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Retail store Manager	Visiting Website	USN-1	As a user, I can use several data visualization of stocks.	I can access the website dashboard.	High	Sprint-1
	Visiting Website	USN-2	As a user, I can check the availability of stocks.	I can access the website dashboard.	High	Sprint-1
	Visiting Website	USN-3	As a user, I can track the supply chain of stocks.	I can access the map of supply chain.	High	Sprint-1
Warehouse Manager	Visiting Website	USN-4	As a user, I can check the sorting order of stocks.	I can access the website.	High	Sprint-2
	Visiting Website	USN-5	As a user, I can discard the expired stocks.	I can access the website.	High	Sprint-2

6. PROJECT PLANNING & SCHEDULING

The planning process requires a thorough look into the Retail Store motives to determine what strategies to implement. While it may be time-consuming, drafting a detailed plan is essential for successful execution.
Retailers can begin by following seven general steps-

Set Goals

Businesses need to set specific short and long-term goals. Instead of setting a general objective to increase sales, management should set benchmarks regarding which product performances need to improve, specific revenue goals, and ideal profit margins for each item. Retail Store can further break down their goals into two categories.

Internal Objectives

Retail management should pull reports and set practical sales and revenue goals based on product performance. Organizations can set clear monthly, quarterly, and annual targets to motivate employees and keep them focused on boosting sales.

External Objectives

External goals refer to a retailer's overall performance according to customers and their experience. This can include customer service, retention, loyalty, and product pricing. Retail stores should aim to create a personalized experience that attracts and generates returning customers.

Analyze the Market

Once the company's objectives are clearly defined, it is time to analyze the current market. Research can expose competitors' strategies, performance, and weaknesses, as well as consumer expectations. This allows companies to develop a plan of action that fulfils customer needs and stands apart from the competition. Research can also define any risks and opportunities the Retail Store may be exposed to and how to respond. Retailers can anticipate upcoming events through risk management and planning, so they are not caught off-guard. Through this process, businesses can analyze their own strengths and weaknesses, allowing them to improve the necessary areas. This may include financial planning, resource allocation, and staffing.

Analyze Customer Behaviour

If a Retail Store does not understand their target audience, they cannot correctly launch and promote products to attract customers. Therefore, retailers need to understand what consumers expect from products and brands. First, Retail stores must understand what types of demographics are in the market for their products. Then they can innovate customised experiences and brand images to attract audiences. However, retailers should continuously monitor customer feedback and preference to avoid becoming irrelevant or

stagnant. Retail planning is vital for defining business objectives and maintaining a foothold in a competitive market. Without a detailed plan, retailers can exhaust time and resources on ineffective marketing tactics. A comprehensive retail plan ensures that employees are working in unison to provide the best service, products, and experience, boosting company revenue.

6.1 Sprint Planning & Estimation

Sprint planning is an event in scrum that defines what can be delivered in the upcoming sprint and how that work will be achieved. The sprint is a set period of time where all the work is done. However, before you can leap into action you have to set up the sprint. You need to decide on how long the time box is going to be, the sprint goal, and where you're going to start. The sprint planning session kicks off the sprint by setting the agenda and focus. If done correctly, it also creates an environment where the team is motivated, challenged, and can be successful. Bad sprint plans can derail the team by setting unrealistic expectations.

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	User login and retailer observation	USN-1	As a user, I can register for the application by entering name and locality	2	Medium	Srinivasan S, Princy J
Sprint-1		USN-2	As a user I can add my query to the US super store consideration	2	Medium	Srinivasan S, Sowmiya P
Sprint-1		USN-3	As a user I can suggest some remedy measure	2	Medium	Shalini V, Surya Prakash A
Sprint-1		USN-4	As a retailer I can look into the query of the customer/user and start taking action	2	Medium	Srinivasan S, Surya Prakash A

Sprint-1		USN-5	As a retailer I can take my data base and clean it before analyzing	3	High	Princy J, Shalini V
Sprint-1		USN-6	I should fill in the missing values in case of any dataset available	2	Low	Sowmiya P, Shalini V
Sprint-2	Data pre-processing and exploratory analysis	USN-7	Remove the unwanted data and add necessary columns for processing	2	Low	Shalini V, Surya Prakash A
Sprint-2		USN-8	Masking of private or sensitive data	3	High	Srinivasan S, Princy J
sprint 2		USN-9	Create new columns in case of needed to split up the dataset to work	3	Medium	Princy J, Sowmiya P
Sprint 2		USN-10	Remove nil entry data and make sure to maintain them properly in future	3	Low	Sowmiya P, Surya Prakash A
Sprint 2		USN-11	Format data to standardized pattern	3	Low	Princy J, Surya Prakash A
Sprint 3	Interactive Dashboard	USN-12	Analyzing basic metrices	3	Low	Srinivasan S, Princy J
Sprint 3		USN-13	Learning IBM Cognos functionalities	2	Low	Shalini V, Surya Prakash A
Sprint 3		USN-14	Data visualization basics	3	Medium	Sowmiya P, Shalini V
Sprint 3		USN-15	Correlation between variables	3	Medium	Princy J, Shalini V
Sprint 3		USN-16	Year wise profit using line graph	2	Low	Srinivasan S, Sowmiya P
Sprint 3		USN-17	Year wise quantity of utilities using line graph	2	Low	Sowmiya P, Surya Prakash A

Sprint 3		USN-18	Top 10 sales by year using line graph	2	Low	Srinivasan S, Princy J
Sprint 3		USN-19	Monthly sales using Tree Map	2	Low	Sowmiya P, Shalini V
Sprint 3		USN-20	Monthly profit by pie chart	2	Low	Sowmiya P, Shalini V
Sprint 4	Story creation and solution	USN-21	Dashboard creation	5	High	Srinivasan S, Princy J
Sprint 4		USN-22	Summary cards of total profit, sales, sub categories and localities	5	Medium	Srinivasan S, Surya Prakash A
Sprint 4		USN-23	Understanding the demand of the customer correlated with analyzed data set	5	High	Srinivasan S, Princy J
Sprint 4		USN-24	Generate remedy measures for the customer's query based on available solution	5	High	Sowmiya P, Shalini V
Sprint 4		USN-25	Generate a final report for future use, for both retailers and the customer's access.	5	High	Srinivasan S, Princy J

6.2 Sprint Delivery Schedule

In Agile product development, a sprint is a set period of time during which specific work has to be completed and made ready for review. Each sprint begins with a planning meeting. During the meeting, the product owner (the person requesting the work) and the development team agree upon exactly what work will be accomplished during the sprint. The development team has the final say when it comes to determining how much work can realistically be accomplished during the sprint, and the product owner has the final say on what criteria need to be met for the work to be approved and accepted. The duration of a sprint is determined by the scrum master, the team's facilitator and manager of the Scrum framework. Once the team reaches a consensus for how many days a sprint should last, all future sprints should be the same. Traditionally, a sprint lasts 30 days. After a sprint begins, the product owner must step back and let the team do their work. During the sprint, the team holds daily stand-up meetings to discuss progress and brainstorm solutions to challenges. The project owner may attend these meetings as an observer but is not allowed to participate unless it is to answer questions. (See pigs and chickens). The project owner may not make requests for changes during a sprint and only the scrum master or project manager has the power to interrupt or stop the sprint. At the end of the sprint, the team presents its completed work to the project owner and the project owner uses the criteria established at the sprint planning meeting to either accept or reject the work.

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1	13	4 Days	28 Oct 2022	31 Oct 2022	13	31 Oct 2022
Sprint-2	14	4 Days	01 Nov 2022	04 Nov 2022	14	04 Nov 2022
Sprint-3	21	5 Days	05 Nov 2022	10 Nov 2022	21	10 Nov 2022
Sprint-4	25	5 Days	10 Nov 2022	15 Nov 2022	25	15 Nov 2022

Velocity:

Sprint 1:

$$AV = \frac{Sprint\ duration}{velocity} = \frac{13}{4} = 3.25$$

Sprint 2:

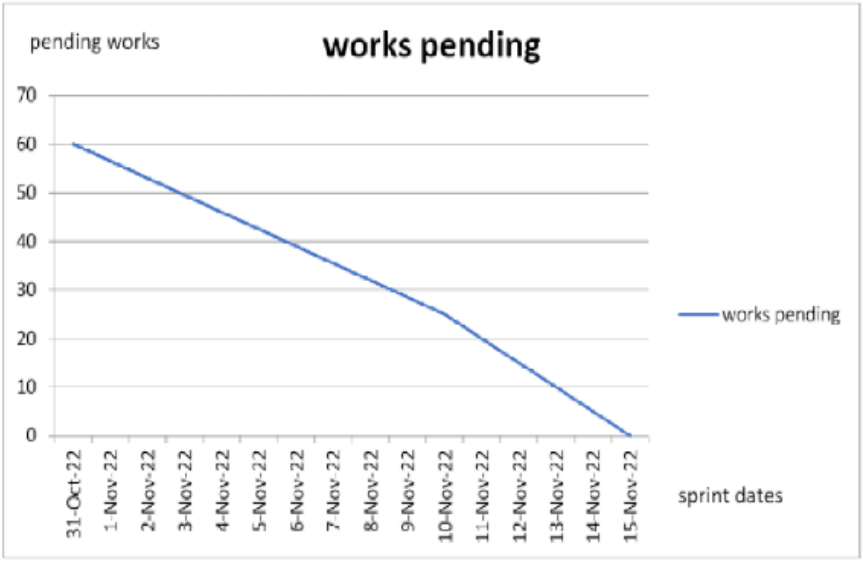
$$AV = \frac{Sprint\ duration}{velocity} = \frac{14}{4} = 3.50$$

Sprint 3:

$$AV = \frac{Sprint\ duration}{velocity} = \frac{21}{5} = 4.2$$

Sprint 4:

$$AV = \frac{Sprint\ duration}{velocity} = \frac{25}{5} = 5.0$$



6.3 Reports from JIRA

The JIRA is very useful for creating milestones which shows the project sprint timelines clearly; the sprints are planned and completed within the given time limit.

7. CODING & SOLUTIONING

index.html

```
    <!DOCTYPE html>

<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>RETAIL STORE STOCK INVENTORY ANALYTICS</title>

    <link rel="stylesheet" href="style.css">
    <script src="valid.js"></script>

</head>
<body>
    <div class="center">
        <h1>RETAIL STORE STOCK INVENTORY ANALYTICS</h1>
    </div>
    <div class="form">
        <h1>LOGIN HERE</h1>
```

```
        <p>Username :</p>
        <input type="text" name="" placeholder="Name Here">
        <p>Password :</p>
        <input type="password" name="" placeholder="Password Here" id="pass">
        <input type="checkbox" onclick="myfunction()">
        <input type="submit" name="" value="LOGIN" onclick="validate()">
    </div>

    <div>
        <p id="length"></p>
    </div>

</body>
</html>
```

db.css

```
* {
    margin: 0;
    padding: 0;
    box-sizing: border-box;
    font-family: 'Poppins', sans-serif;
}

body {
    min-height: 100vh;
}

a {
    text-decoration: none;
}

li {
    list-style: none;
}

h1,
h2 {
    color: #444;
}

h3 {
    color: #999;
```

```
}

.btn {
    background: #ff7200;
    color: white;
    padding: 5px 10px;
    text-align: center;
}

.btn:hover {
    color: #ff7200;
    background: white;
    padding: 3px 8px;
    border: 2px solid #ff7200;
}

.title {
    display: flex;
    align-items: center;
    justify-content: space-around;
    padding: 15px 10px;
    border-bottom: 2px solid #999;
}

table {
    padding: 10px;
}

th,
td {
    text-align: left;
    padding: 8px;
}

.side-menu {
    position: fixed;
    background: #ff7200;
    width: 20vw;
    min-height: 100vh;
    display: flex;
    flex-direction: column;
}

.side-menu .brand-name {
    height: 10vh;
```

```
    display: flex;
    align-items: center;
    justify-content: center;
}

.side-menu li {
    font-size: 24px;
    padding: 10px 40px;
    color: white;
    display: flex;
    align-items: center;
}

.side-menu li:hover {
    background: white;
    color: #ff7200;
}

.container {
    position: absolute;
    right: 0;
    width: 80vw;
    height: 100vh;
    background: #f1f1f1;
}

.container .header {
    position: fixed;
    top: 0;
    right: 0;
    width: 80vw;
    height: 10vh;
    background: white;
    display: flex;
    align-items: center;
    justify-content: center;
    box-shadow: 0 4px 8px 0 rgba(0, 0, 0, 0.2);
    z-index: 1;
}

.container .header .nav {
    width: 90%;
    display: flex;
    align-items: center;
}
```

```css
.container .header .nav .search {
    flex: 3;
    display: flex;
    justify-content: center;
}

.container .header .nav .search input[type=text] {
    border: none;
    background: #f1f1f1;
    padding: 10px;
    width: 50%;
}

.container .header .nav .search button {
    width: 40px;
    height: 40px;
    border: none;
    display: flex;
    align-items: center;
    justify-content: center;
}

.container .header .nav .search button img {
    width: 30px;
    height: 30px;
}

.container .header .nav .user {
    flex: 1;
    display: flex;
    justify-content: space-between;
    align-items: center;
}

.container .header .nav .user img {
    width: 40px;
    height: 40px;
}

.container .header .nav .user .img-case {
    position: relative;
    width: 50px;
    height: 50px;
}
```

```css
.container .header .nav .user .img-case img {
    position: absolute;
    top: 0;
    left: 0;
    width: 100%;
    height: 100%;
}

.container .content {
    position: relative;
    margin-top: 10vh;
    min-height: 90vh;
    background: #f1f1f1;
}

.container .content .cards {
    padding: 20px 15px;
    display: flex;
    align-items: center;
    justify-content: space-between;
    flex-wrap: wrap;
}

.container .content .cards .card {
    width: 250px;
    height: 150px;
    background: white;
    margin: 20px 10px;
    display: flex;
    align-items: center;
    justify-content: space-around;
    box-shadow: 0 4px 8px 0 rgba(0, 0, 0, 0.2), 0 6px 20px 0 rgba(0, 0, 0, 0.19);
}

.container .content .content-2 {
    min-height: 60vh;
    display: flex;
    justify-content: space-around;
    align-items: flex-start;
    flex-wrap: wrap;
}

.container .content .content-2 .recent-payments {
    min-height: 50vh;
```

```
    flex: 5;
    background: white;
    margin: 0 25px 25px 25px;
    box-shadow: 0 4px 8px 0 rgba(0, 0, 0, 0.2), 0 6px 20px 0 rgba(0, 0, 0, 0.19);
    display: flex;
    flex-direction: column;
}

.container .content .content-2 .new-students {
    flex: 2;
    background: white;
    min-height: 50vh;
    margin: 0 25px;
    box-shadow: 0 4px 8px 0 rgba(0, 0, 0, 0.2), 0 6px 20px 0 rgba(0, 0, 0, 0.19);
    display: flex;
    flex-direction: column;
}

.container .content .content-2 .new-students table td:nth-child(1) img {
    height: 40px;
    width: 40px;
}

@media screen and (max-width: 1050px) {
    .side-menu li {
        font-size: 18px;
    }
}

@media screen and (max-width: 940px) {
    .side-menu li span {
        display: none;
    }
    .side-menu {
        align-items: center;
    }
    .side-menu li img {
        width: 40px;
        height: 40px;
    }
    .side-menu li:hover {
        background: #ff7200;
        padding: 8px 38px;
        border: 2px solid white;
    }
```

```
}

@media screen and (max-width:536px) {
    .brand-name h1 {
        font-size: 16px;
    }
    .container .content .cards {
        justify-content: center;
    }
    .side-menu li img {
        width: 30px;
        height: 30px;
    }
    .container .content .content-2 .recent-payments table th:nth-child(2),
    .container .content .content-2 .recent-payments table td:nth-child(2) {
        display: none;
    }
}
```

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8" />
  <title>RSSIA Dashboard</title>
  <link rel="stylesheet" href="data.css" />
  <!-- Font Awesome Cdn Link -->
  <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-
awesome/5.15.4/css/all.min.css"/>
</head>
<body>
  <div class="container">
    <nav>
      <ul>
        <li><a href="#" class="logo">
          <img src="store-png.png">
          <span class="nav-item">Store</span>
        </a></li>
        <li><a href="#">
          <i class="fas fa-menorah"></i>
          <span class="nav-item">Dashboard</span>
        </a></li>

        <li>
          <a href="loc.html">
```

```
        <i class="fas fa-database"></i>
        <span class="nav-item">Location</span>
      </a>
    </a></li>
      <li><a href="#">
        <i class="fas fa-cog"></i>
        <span class="nav-item">Setting</span>
      </a></li>

      <li><a href="#" class="logout">
        <i class="fas fa-sign-out-alt"></i>
        <span class="nav-item">Log out</span>
      </a></li>
    </ul>
  </nav>


  <section class="main">
    <div class="main-top">
      <h1>Stock Detail</h1>
      <i class="fas fa-user-cog"></i>
    </div>
    <div class="users">
      <div class="card">
        <img src="jack.jpg">
        <h4>Jacket</h4>
        <p>Apparel</p>
        <div class="per">
          <table>
            <tr>
              <td><span>20%</span></td>
              <td><span>80%</span></td>
            </tr>
            <tr>
              <td>Sold</td>
              <td>Remaining</td>
            </tr>
          </table>
        </div>
        <a href="Abt1.html">
        <button>About</button>
      </a>
      </div>
      <div class="card">
        <img src="thermal.jpg">
```

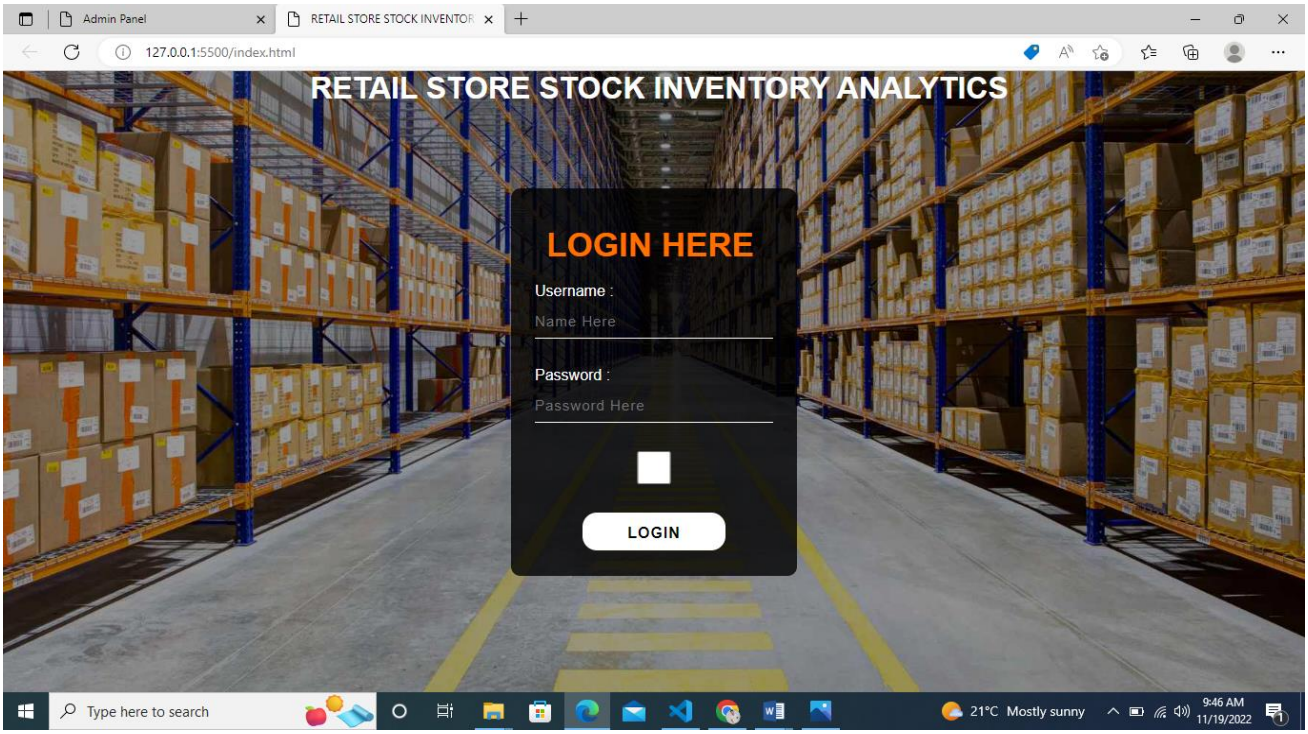
```
    <h4>Thermal wear</h4>
    <p>Apparel</p>
    <div class="per">
      <table>
        <tr>
          <td><span>15%</span></td>
          <td><span>85%</span></td>
        </tr>
        <tr>
          <td>Sold</td>
          <td>Remaining</td>
        </tr>
      </table>
    </div>
    <a href="Abt2.html">
    <button>About</button>
  </a>

  </div>
  <div class="card">
    <img src="shoe.jpg">
    <h4>Shoes</h4>
    <p>Footwear</p>
    <div class="per">
      <table>
        <tr>
          <td><span>40%</span></td>
          <td><span>60%</span></td>
        </tr>
        <tr>
          <td>Sold</td>
          <td>Remaining</td>
        </tr>
      </table>
    </div>
    <a href="Abt3.html">
    <button>About</button>
  </a>
  </div>
  <div class="card">
    <img src="wall decor.jpg">
    <h4>Wall decors</h4>
    <p>Decor items</p>
    <div class="per">
      <table>
```

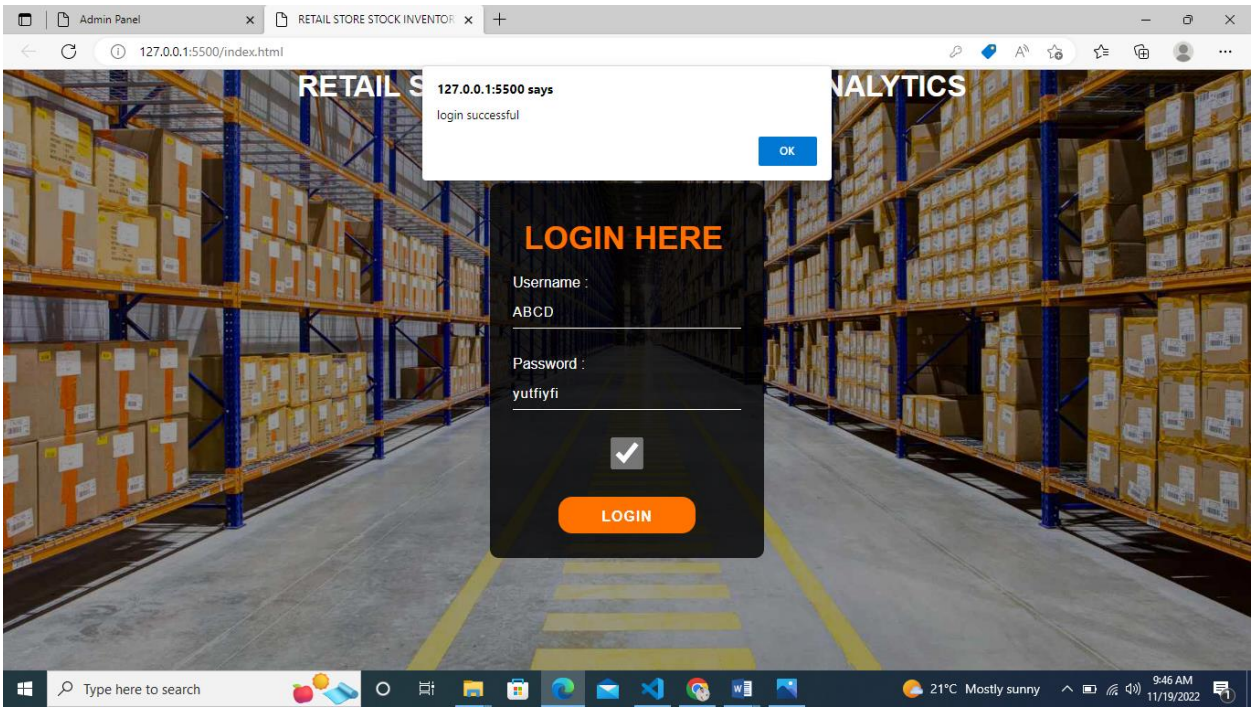
```
            <tr>
              <td><span>30%</span></td>
              <td><span>70%</span></td>
            </tr>
            <tr>
              <td>Sold</td>
              <td>Remaining</td>
            </tr>
          </table>
        </div>
        <a href="Abt4.html">
        <button>About</button>
        </a>

      </div>
    </div>

    <section class="Stock">
      <div class="Stock-list">
        <h1>Stock List</h1>
        <table class="table">
          <thead>
            <tr>
              <th>ID</th>
              <th>Name</th>
              <th>Category</th>
              <th>Order Date</th>
              <th>Ship Date</th>
              <th>Ship Model</th>
              <th>Details</th>
            </tr>
          </thead>
          <tbody>
            <tr>
              <td>JA-ch01</td>
              <td>Jacket</td>
              <td>Apparel</td>
              <td>03-02-22</td>
              <td>07-02-22</td>
              <td>Standard</td>
              <td>
                <a href="supchain.html">
                <button>View</button></a></td>
            </tr>
            <tr class="active">
```

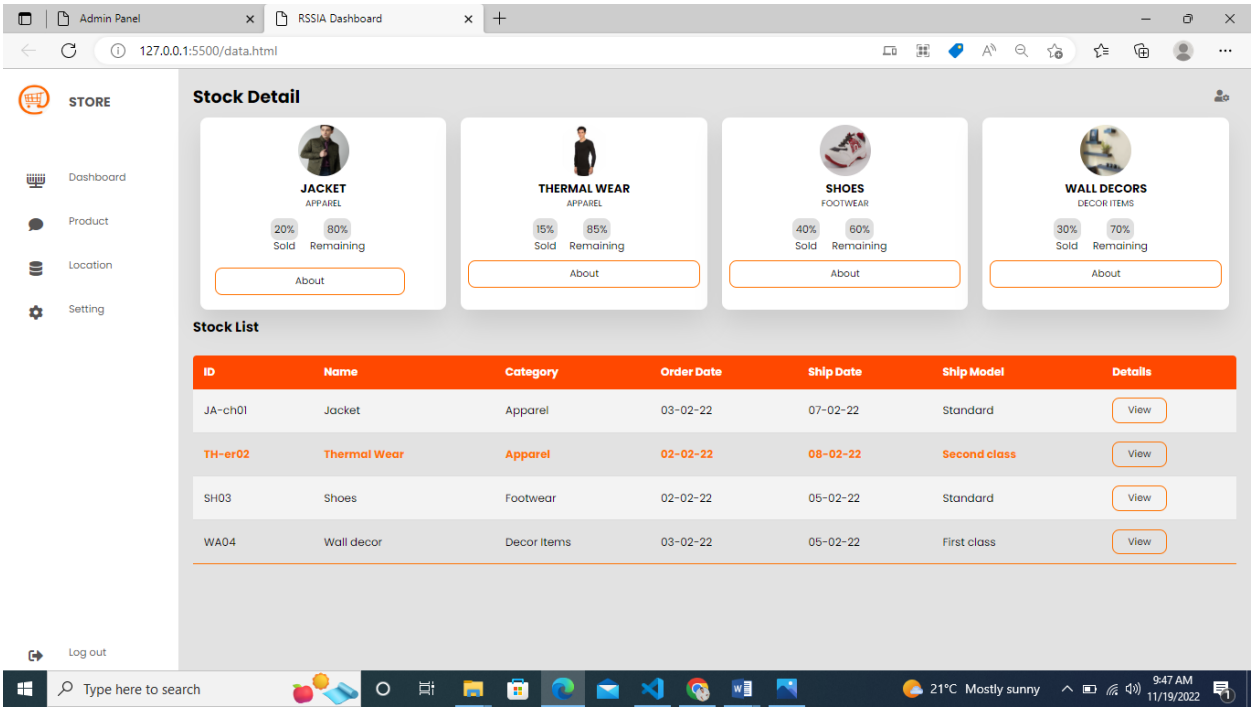
```
            <td>TH-er02</td>
            <td>Thermal Wear</td>
            <td>Apparel</td>
            <td>02-02-22</td>
            <td>08-02-22</td>
            <td>Second class</td>
            <td><button>View</button></td>
          </tr>
          <tr>
            <td>SH03</td>
            <td>Shoes</td>
            <td>Footwear</td>
            <td>02-02-22</td>
            <td>05-02-22</td>
            <td>Standard</td>
            <td><button>View</button></td>
          </tr>
          <tr>
            <td>WA04</td>
            <td>Wall decor</td>
            <td>Decor Items</td>
            <td>03-02-22</td>
            <td>05-02-22</td>
            <td>First class</td>
            <td><button>View</button></td>
          </tr>
          <!-- <tr >
            <td>05</td>
            <td>Salina</td>
            <td>Coding</td>
            <td>03-24-22</td>
            <td>9:00AM</td>
            <td>4:00PM</td>
            <td><button>View</button></td>
          </tr>
          <tr >
            <td>06</td>
            <td>Tara Smith</td>
            <td>Testing</td>
            <td>03-24-22</td>
            <td>9:00AM</td>
            <td>4:00PM</td>
            <td><button>View</button></td>
          </tr> -->
        </tbody>
```

```
          </table>
        </div>
      </section>
    </section>
  </div>

</body>
</html>
```

Output:




Admin Panel
RETAIL STORE STOCK INVENTOR
127.0.0.1:5500/index.html
RETAIL S
NALYTICS
127.0.0.1:5500 says
login successful
OK
LOGIN HERE
Username :
ABCD
Password :
yutfiyfi
LOGIN
Type here to search
21°C Mostly sunny
9:46 AM
11/19/2022


Admin Panel
RSSIA Dashboard
127.0.0.1:5500/data.html
STORE
Dashboard
Product
Location
Setting
Log out
Stock Detail
JACKET
APPAREL
20% Sold
80% Remaining
About
THERMAL WEAR
APPAREL
15% Sold
85% Remaining
About
SHOES
FOOTWEAR
40% Sold
60% Remaining
About
WALL DECORS
DECOR ITEMS
30% Sold
70% Remaining
About
Stock List
ID
Name
Category
Order Date
Ship Date
Ship Model
Details
JA-ch01
Jacket
Apparel
03-02-22
07-02-22
Standard
View
TH-er02
Thermal Wear
Apparel
02-02-22
08-02-22
Second class
View
SH03
Shoes
Footwear
02-02-22
05-02-22
Standard
View
WA04
Wall decor
Decor Items
03-02-22
05-02-22
First class
View
Type here to search
21°C Mostly sunny
9:47 AM
11/19/2022

7.1 Feature 1

Dataset from External API are uploaded and DB is created using IBM cloud. Then Dashboard, Story, Report is created using the external API imported dataset and the IBMDB2 cloud database is used to create the dashboard, story, report.

7.2 Feature 2

Embedded Dashboard, Story, Report is created using the external API imported dataset and the IBMDB2 cloud database is used to create the embedded dashboard, story, report.

7.3 Database Schema

The database schema is for retailDB2 connection of the data server.

8. TESTING

8.1 Test Cases

The test case is to download the dataset from an external API and connect DB2 connectivity. Create a dashboard, report and story. Embed the dashboard, report and story to a simple html. Create a web app and embed the dashboard, report and story which you have created.

8.2 User Acceptance Testing

Section	Test cases	Not Tested	Fail	Pass
Dataset	5	0	0	5
Dashboard	8	0	0	8
Report	2	0	0	2
Story	5	0	0	5
Embed dashboard, report and story in simple.html file	15	0	0	15
Embed dashboard, report and story in web app	25	0	0	25

9. RESULTS

9.1 Performance Metrics

The Performance testing consists of dashboard design, data responsiveness, amount of data to be rendered from the utilization of data filters, effective user story and descriptive report.

S.No :	Parameter	Screenshot / Values
1.	Dashboard design	No of Visualizations / Graphs : Colab source – 9 Cognos source – 15
2.	Data Responsiveness	Great and High
3.	Amount Data to Rendered (DB2 Metrics)	9994 rows × 23 columns 9994 entries of data being used
4.	Utilization of Data Filters	• Null values removed • Discretization of certain fields Splitting the data into multiple columns for easier access and analysis.
5.	Effective User Story	No of Scene Added – 4
6.	Descriptive Reports	No of Visualizations / Graphs – 24

10. ADVANTAGES & DISADVANTAGES

Advantages

Easy access to market - in many ways the access to market for entrepreneurs has never been easier. Online marketplaces such as eBay and Amazon allow anyone to set up a simple online shop and sell products within minutes. See selling through online marketplaces. Reduced overheads - selling online can remove the need for expensive retail premises and customerfacing staff, allowing you to invest in better marketing and customer experience on your e-commerce site.

Potential for rapid growth - selling on the internet means traditional constraints to retail growth - eg finding and paying for larger - are not major factors. With a good digital marketing strategy and a plan to scale up order fulfilment systems, you can respond and boost growing sales. See planning for ecommerce. Widen your market / export - one major advantage over premises-based retailers is the ability to expand your market beyond local customers very quickly. You may discover a strong demand for your products in other countries which you can respond to by targeted marketing, offering your website in a different language, or perhaps partnering with an overseas company. See basics of exporting.

Customer intelligence - ability to use online marketing tools to target new customers and website analysis tools to gain insight into your customers' needs. For advice on improving your customer's on-site experience, read how to measure your online marketing.

Website costs – planning, designing, creating, hosting, securing and maintaining a professional e-commerce website isn't cheap, especially if you expect large and growing sales volumes. See common e-commerce pitfalls.

Infrastructure costs – even if you aren't paying the cost of customer-facing premises, you'll need to think about the costs of physical space for order fulfilment, warehousing goods, dealing with returns and staffing for these tasks. See fulfilling online orders.

Security and fraud – the growth of online retail market has attracted the attention of sophisticated criminal elements. The reputation of your business could be fatally damaged if you don't invest in the latest security systems to protect your website and transaction processes. See e-commerce pitfalls – security weaknesses.

Disadvantages

Legal issues – getting to grips with e-commerce and the law can be a challenge and you'll need to be aware of, and plan to cope with, the additional customer rights which are attached to online sales. See the law and selling online.

Advertising costs – while online marketing can be a very efficient way of getting the right customers to your products, it demands a generous budget. This is especially true if you are competing in a crowded sector or for popular keywords. See pay-per-click and paid search advertising.

Customer trust – it can be difficult to establish a trusted brand name, especially without a physical business with a track record and face-to-face interaction between customers and sales staff. You need to consider the costs of setting up a good customer service system as part of your online offering. See manage your customer service.

11. CONCLUSION

For the success of the program, the managers of the retail stores must formulate a modern way of managing the inventory by instituting electronic systems to take care of the resources of the company. This ensures that they can be accounted for and there are proper records

available all the time for reference to be made when the need arises. Besides, the retail management system is necessary for ensuring that there is accountability in the way the company handles its stock. It helps in saving time. Retail companies have acquired significant importance within several countries due to their high economic contribution. Therefore, the need to analyze their KPIs becomes highly significant, as well as their different systems, methodologies, and tools used within inventory management and optimization. From the aspects mentioned above, the main trends in inventory management.

12. FUTURE SCOPE

The enhanced version of the web application is created using the updated dashboard, report and story using the updated dataset and with better DB connectivity.

13. APPENDIX

Source Code

Index.html

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>RETAIL STORE STOCK INVENTORY ANALYTICS</title>

    <link rel="stylesheet" href="style.css">
    <script src="valid.js"></script>

</head>
<body>
    <div class="center">
        <h1>RETAIL STORE STOCK INVENTORY ANALYTICS</h1>
    </div>
    <div class="form">
        <h1>LOGIN HERE</h1>
        <p>Username :</p>
        <input type="text" name="" placeholder="Name Here">
        <p>Password :</p>
        <input type="password" name="" placeholder="Password Here" id="pass">
        <input type="checkbox" onclick="myfunction()">
```

```
        <input type="submit" name="" value="LOGIN" onclick="validate()">
    </div>

    <div>
        <p id="length"></p>
    </div>

</body>
</html>
```

db.css

```
* {
    margin: 0;
    padding: 0;
    box-sizing: border-box;
    font-family: 'Poppins', sans-serif;
}

body {
    min-height: 100vh;
}

a {
    text-decoration: none;
}

li {
    list-style: none;
}

h1,
h2 {
    color: #444;
}

h3 {
    color: #999;
}

.btn {
    background: #ff7200;
    color: white;
```

```
    padding: 5px 10px;
    text-align: center;
}

.btn:hover {
    color: #ff7200;
    background: white;
    padding: 3px 8px;
    border: 2px solid #ff7200;
}

.title {
    display: flex;
    align-items: center;
    justify-content: space-around;
    padding: 15px 10px;
    border-bottom: 2px solid #999;
}

table {
    padding: 10px;
}

th,
td {
    text-align: left;
    padding: 8px;
}

.side-menu {
    position: fixed;
    background: #ff7200;
    width: 20vw;
    min-height: 100vh;
    display: flex;
    flex-direction: column;
}

.side-menu .brand-name {
    height: 10vh;
    display: flex;
    align-items: center;
    justify-content: center;
}
```

```css
.side-menu li {
    font-size: 24px;
    padding: 10px 40px;
    color: white;
    display: flex;
    align-items: center;
}

.side-menu li:hover {
    background: white;
    color: #ff7200;
}

.container {
    position: absolute;
    right: 0;
    width: 80vw;
    height: 100vh;
    background: #f1f1f1;
}

.container .header {
    position: fixed;
    top: 0;
    right: 0;
    width: 80vw;
    height: 10vh;
    background: white;
    display: flex;
    align-items: center;
    justify-content: center;
    box-shadow: 0 4px 8px 0 rgba(0, 0, 0, 0.2);
    z-index: 1;
}

.container .header .nav {
    width: 90%;
    display: flex;
    align-items: center;
}

.container .header .nav .search {
    flex: 3;
    display: flex;
    justify-content: center;
```

```css
}

.container .header .nav .search input[type=text] {
    border: none;
    background: #f1f1f1;
    padding: 10px;
    width: 50%;
}

.container .header .nav .search button {
    width: 40px;
    height: 40px;
    border: none;
    display: flex;
    align-items: center;
    justify-content: center;
}

.container .header .nav .search button img {
    width: 30px;
    height: 30px;
}

.container .header .nav .user {
    flex: 1;
    display: flex;
    justify-content: space-between;
    align-items: center;
}

.container .header .nav .user img {
    width: 40px;
    height: 40px;
}

.container .header .nav .user .img-case {
    position: relative;
    width: 50px;
    height: 50px;
}

.container .header .nav .user .img-case img {
    position: absolute;
    top: 0;
    left: 0;
```

```
    width: 100%;
    height: 100%;
}

.container .content {
    position: relative;
    margin-top: 10vh;
    min-height: 90vh;
    background: #f1f1f1;
}

.container .content .cards {
    padding: 20px 15px;
    display: flex;
    align-items: center;
    justify-content: space-between;
    flex-wrap: wrap;
}

.container .content .cards .card {
    width: 250px;
    height: 150px;
    background: white;
    margin: 20px 10px;
    display: flex;
    align-items: center;
    justify-content: space-around;
    box-shadow: 0 4px 8px 0 rgba(0, 0, 0, 0.2), 0 6px 20px 0 rgba(0, 0, 0, 0.19);
}

.container .content .content-2 {
    min-height: 60vh;
    display: flex;
    justify-content: space-around;
    align-items: flex-start;
    flex-wrap: wrap;
}

.container .content .content-2 .recent-payments {
    min-height: 50vh;
    flex: 5;
    background: white;
    margin: 0 25px 25px 25px;
    box-shadow: 0 4px 8px 0 rgba(0, 0, 0, 0.2), 0 6px 20px 0 rgba(0, 0, 0, 0.19);
    display: flex;
```

```
    flex-direction: column;
}

.container .content .content-2 .new-students {
    flex: 2;
    background: white;
    min-height: 50vh;
    margin: 0 25px;
    box-shadow: 0 4px 8px 0 rgba(0, 0, 0, 0.2), 0 6px 20px 0 rgba(0, 0, 0, 0.19);
    display: flex;
    flex-direction: column;
}

.container .content .content-2 .new-students table td:nth-child(1) img {
    height: 40px;
    width: 40px;
}

@media screen and (max-width: 1050px) {
    .side-menu li {
        font-size: 18px;
    }
}

@media screen and (max-width: 940px) {
    .side-menu li span {
        display: none;
    }
    .side-menu {
        align-items: center;
    }
    .side-menu li img {
        width: 40px;
        height: 40px;
    }
    .side-menu li:hover {
        background: #ff7200;
        padding: 8px 38px;
        border: 2px solid white;
    }
}

@media screen and (max-width:536px) {
    .brand-name h1 {
        font-size: 16px;
```

```
    }
    .container .content .cards {
        justify-content: center;
    }
    .side-menu li img {
        width: 30px;
        height: 30px;
    }
    .container .content .content-2 .recent-payments table th:nth-child(2),
    .container .content .content-2 .recent-payments table td:nth-child(2) {
        display: none;
    }
}
```

Data.html

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8" />
  <title>RSSIA Dashboard</title>
  <link rel="stylesheet" href="data.css" />
  <!-- Font Awesome Cdn Link -->
  <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-
awesome/5.15.4/css/all.min.css"/>
</head>
<body>
  <div class="container">
    <nav>
      <ul>
        <li><a href="#" class="logo">
          <img src="store-png.png">
          <span class="nav-item">Store</span>
        </a></li>
        <li><a href="#">
          <i class="fas fa-menorah"></i>
          <span class="nav-item">Dashboard</span>
        </a></li>

        <li>
          <a href="loc.html">
          <i class="fas fa-database"></i>
          <span class="nav-item">Location</span>
        </a>
```

```
    </a></li>
      <li><a href="#">
        <i class="fas fa-cog"></i>
        <span class="nav-item">Setting</span>
      </a></li>

      <li><a href="#" class="logout">
        <i class="fas fa-sign-out-alt"></i>
        <span class="nav-item">Log out</span>
      </a></li>
    </ul>
  </nav>


  <section class="main">
    <div class="main-top">
      <h1>Stock Detail</h1>
      <i class="fas fa-user-cog"></i>
    </div>
    <div class="users">
      <div class="card">
        <img src="jack.jpg">
        <h4>Jacket</h4>
        <p>Apparel</p>
        <div class="per">
          <table>
            <tr>
              <td><span>20%</span></td>
              <td><span>80%</span></td>
            </tr>
            <tr>
              <td>Sold</td>
              <td>Remaining</td>
            </tr>
          </table>
        </div>
        <a href="Abt1.html">
        <button>About</button>
      </a>
      </div>
      <div class="card">
        <img src="thermal.jpg">
        <h4>Thermal wear</h4>
        <p>Apparel</p>
        <div class="per">
```

```
        <table>
          <tr>
            <td><span>15%</span></td>
            <td><span>85%</span></td>
          </tr>
          <tr>
            <td>Sold</td>
            <td>Remaining</td>
          </tr>
        </table>
      </div>
      <a href="Abt2.html">
      <button>About</button>
    </a>

    </div>
    <div class="card">
      <img src="shoe.jpg">
      <h4>Shoes</h4>
      <p>Footwear</p>
      <div class="per">
        <table>
          <tr>
            <td><span>40%</span></td>
            <td><span>60%</span></td>
          </tr>
          <tr>
            <td>Sold</td>
            <td>Remaining</td>
          </tr>
        </table>
      </div>
      <a href="Abt3.html">
      <button>About</button>
    </a>
    </div>
    <div class="card">
      <img src="wall decor.jpg">
      <h4>Wall decors</h4>
      <p>Decor items</p>
      <div class="per">
        <table>
          <tr>
            <td><span>30%</span></td>
            <td><span>70%</span></td>
```

```
            </tr>
            <tr>
              <td>Sold</td>
              <td>Remaining</td>
            </tr>
          </table>
        </div>
        <a href="Abt4.html">
        <button>About</button>
        </a>

      </div>
    </div>

    <section class="Stock">
      <div class="Stock-list">
        <h1>Stock List</h1>
        <table class="table">
          <thead>
            <tr>
              <th>ID</th>
              <th>Name</th>
              <th>Category</th>
              <th>Order Date</th>
              <th>Ship Date</th>
              <th>Ship Model</th>
              <th>Details</th>
            </tr>
          </thead>
          <tbody>
            <tr>
              <td>JA-ch01</td>
              <td>Jacket</td>
              <td>Apparel</td>
              <td>03-02-22</td>
              <td>07-02-22</td>
              <td>Standard</td>
              <td>
                <a href="supchain.html">
                <button>View</button></a></td>
            </tr>
            <tr class="active">
              <td>TH-er02</td>
              <td>Thermal Wear</td>
              <td>Apparel</td>
```

```
            <td>02-02-22</td>
            <td>08-02-22</td>
            <td>Second class</td>
            <td><button>View</button></td>
          </tr>
          <tr>
            <td>SH03</td>
            <td>Shoes</td>
            <td>Footwear</td>
            <td>02-02-22</td>
            <td>05-02-22</td>
            <td>Standard</td>
            <td><button>View</button></td>
          </tr>
          <tr>
            <td>WA04</td>
            <td>Wall decor</td>
            <td>Decor Items</td>
            <td>03-02-22</td>
            <td>05-02-22</td>
            <td>First class</td>
            <td><button>View</button></td>
          </tr>
          <!-- <tr >
            <td>05</td>
            <td>Salina</td>
            <td>Coding</td>
            <td>03-24-22</td>
            <td>9:00AM</td>
            <td>4:00PM</td>
            <td><button>View</button></td>
          </tr>
          <tr >
            <td>06</td>
            <td>Tara Smith</td>
            <td>Testing</td>
            <td>03-24-22</td>
            <td>9:00AM</td>
            <td>4:00PM</td>
            <td><button>View</button></td>
          </tr> -->
        </tbody>
      </table>
    </div>
  </section>
```

```
    </section>
  </div>

</body>
</html>
```

Supchain.js

```
const one = document.querySelector(".one");
const two = document.querySelector(".two");
const three = document.querySelector(".three");
const four = document.querySelector(".four");
const five = document.querySelector(".five");

one.onclick = function() {
    one.classList.add("active");
    two.classList.remove("active");
    three.classList.remove("active");
    four.classList.remove("active");
    five.classList.remove("active");
}

two.onclick = function() {
    one.classList.add("active");
    two.classList.add("active");
    three.classList.remove("active");
    four.classList.remove("active");
    five.classList.remove("active");
}
three.onclick = function() {
    one.classList.add("active");
    two.classList.add("active");
    three.classList.add("active");
    four.classList.remove("active");
    five.classList.remove("active");
}
four.onclick = function() {
    one.classList.add("active");
    two.classList.add("active");
    three.classList.add("active");
    four.classList.add("active");
    five.classList.remove("active");
}
five.onclick = function() {
```

```
    one.classList.add("active");
    two.classList.add("active");
    three.classList.add("active");
    four.classList.add("active");
    five.classList.add("active");
}
```

GitHub & Project Demo Link

GitHub Link:

https://github.com/IBM-EPBL/IBM-Project-38009-1660367588

Project Demo Link:

https://drive.google.com/file/d/1xIP9LUCFQhuzzNPKzY4VWJM1d5FhtBmr/view?usp=sharing