RETAIL STORE STOCK INVENTORY ANALYTICS

PROJECT BASED LEARNING (NALAIYA THIRAN)

on

PROFESSIONAL READINESS FOR INNOVATION, EMPLOYABILITY AND ENTREPRENEURSHIP

Submitted by

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IN

INFORMATION TECHNOLOGY

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BONAFIDE CERTIFICATE

Certified that this project report **"RETAIL STORE STOCK INVENTORY ANALYTICS"** is the bonafide work of **R.ATCHAYA(420419205002), S.SARANYA(420419205014)S.SNEGA(420419205303)K.BHUVANESHWARI (420419205302) S.SAKTHI MAHESWARI (420419205013), ,** who carried out the project work under my supervision.

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Submitted for the Project Work and Viva -voce examination held on…….

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CHAPTER 1

INTRODUCTION

Analytics is the discovery and communication of meaningful patterns in data. As a topic, analytics has found its way from being discussed at the side lines of industry and technology conferences, to the top of the corporate agenda. Data analytics is a process of analysing raw datasets in order to derive a conclusion regarding the information they hold. Data analytics processes and techniques may use applications operating on machine learning algorithms, simulation, and automated systems.They help organizations understand their clients better, analyse their promotional campaigns,create content strategies, and develop products. Big Data is all about the non-traditional ways of dealing with the modern digital data. We exist in an ocean of digital data. It includes data stored in piles of well-structured databases residing with organisations, streams of data generated from the dynamic social networks, various understandable and intangible signals generated by all kinds of digital equipment all over the place.

1.1 PROJECT OVERVIEW

This project aims to know Retail Store Stock Inventory analytics which is used to supply the stocks for shops based on their needs .By managing inventory, retailers meet customer demand without running out of stock or carrying excess supply.

And also we Gain a broad understanding of plotting different visualization to provide suitable solution for retailers so that they can manage their stocks correctly without overstocking or understocking and Able to create meaningful Visualization and Dashboard(s).

1.2 PURPOSE

Purpose of retail store stock analysis is to find the necessary stock required for to supply customer when there are in need of , the shop holder view the stock,price and sale in form dashboard ,report and story in webpage which helps them to track regularly the status of their stock availability.

It helps in managing the current stock levels, ordered items and products as well as ones already sold. It provides a constant supply of products to fulfill customer demand. It allows customer retention. Customers convert into loyal customers by handling stock levels.

CHAPTER 2

LITERATURE SURVEY

INTRODUCTION		SURVEY/BODY OF REVIEW					CONCLUSION		
Year	Title	Keywords	Problem Definition	Methodology (Algorith Protocol…Etc)	Input Parameters	Result	Advantages	Disadvantages/ Drawbacks	Research Gap/Research Question
1.2022	A smart shelf design for retail store real time inventory Management automation	Real time inventory management smart shelf load cell.	This study is one of very few studies which have investigated a shelf design with load cells	1.Radio-frequency identification (RFID) 2.automatic identification and data capture (AIDC) 3.point of sale (POS)	A case study to identify the impact of RFID on improving supply chain performance at two giant retail is present	The test bed shelf and the bottom part as the rigid layer are made from an aluminum sigma profile with built-in rail	The improvement in merchandise availability influenced sales performance by 15%–20%	1.High marketing cost 2.Very high competition	Digital converter and has a serial interface as the output for the converted data.
2.2022	Empirical evaluation of IRI mitigation strategies in retail stores	1.Inventory record inaccuracy 2.Inventory audit 3. retail store	This study evaluates the effectiveness of mitigation strategies currently employed by retailers to manage operational issues related to inventory record inaccuracy (IRI) in retail stores	1.National retail security survey (NRSS) 2.Inventory record inaccuracy (IRI)	1.DCs 2.Misplaced SKUs 3.Unrecorded damaged products	Indicate that inventory errors degrade store performance much faster than previously	1.An improved in-stock position of items sold in retail stores 2.Need of routine physical in ventory audits.	It is important to note that different IRI mitigation strategies may require firms to re-design or reorganise their business processes.	However, a successful execution of this operational strategy requires that retailers accurately.
3.2022	Case study of Inventory Management using ERP system	1.Inventory management 2.Track sales 3.Sales clearance 4.Time Saving 5.Warehouse 6.Stock outs.	1. To maintain accurate stock status avail at any time and any type of goods 2. To follow the scientific production 3. Able to check the performance of inventory system with the basis of on demand 4. Based on customer requirement the inventory system suggests material requirement plan	1.ERP software 2.ERP software identified SAP, Oracle Microsoft	1.Standardized item descriptions 2. Quantity Of material,	Inventory management powered by ERP improves supply chain efficiency as well. It can reduce double-handling of commodities and automate daily chores like reordering as a centralized system.	1.satisfy expected demands 2.avoid running out of stocks 3.To allow operations	1.Proper item list doesn't exit 2.There is lake of consistency 3.There is shortage of product	1. Implementation of ERP cost is high and it has more time delay so we implement AI to reduce cost and time delay

4.2022	Using Lean to Improve Operational Performance in a Retail Store and E-Commerce Service: A Portuguese Case Study	1. E-Commerce; 2.lean management 3. order fulfilment rate 4. out-of-stock 5. value stream mapping	Involved two Lean initiatives, which together have contributed to a significantly reduction in the number of out-of-stock events incurred by a retail store and an increase in the order fulfilment rate accomplished by the online commerce service	1.Value stream management (VSM) 2.Lean tool 3.First in first out(FIFO)	1.Fast-moving consumer goods (FMCG) 2.Areas of a food retail store 3.Fresh food markets	Shows how Lean methods and tools can be applied to improve the operational performance in a retail environment	More efficient and faster replenishment process.	1.lost sales and decreased consumer loyalty 2.Poor in-store replenishment 3. It was only conducted in one store.	Extend the application of the described methodology to the other food markets
5.2021	Inventory record inaccuracy and store-level performance	1.Inventory record inaccuracy 2.Retail 3.Supply chain 4.Network data envelopment analysis 5.Store performance	Evaluate the effects of IRI on retail store inventory and sales management performance	1.Network data envelopment analysis (NDEA) 2.Data envelopment analysis (DEA) 3.Radio Frequency Identification (RFID)	1.Backroom Staff(FTEs) 2.Backroom size (m^2) 3.#SKUs Items received	1.Demonstrate that IRI improvement is small for near efficient stores and large for highly inefficient stores. 2.They conclude that they do not affect retailers operational performance	1. Helps retailers to identify shop level inventory and sales management process. 2..Identify stores that are lagging behind in sales	1. Increased inventory costs. 2.loses sales 3. poor service deliveries	1. It is not considered for High-volume Stock Keeping Units. 2.Not able apply data warehousing and it is only limited with store level performance 3. Dynamic performance measurement is not considered in this work.
6.2021	Simulation of inventory management systems in retail stores: A case study	1.Inventory management 2.Retail store 3.Simulation 4. Arena	Focuses on a retail store and explores a solution for an inventory-related problem experienced by the firm and Ensure a continuous supply of materials, spares and finished goods such that production is not disrupted and the customer's demand is met in a timely manner	ABC Analysis with prioritization technique in ARENA simulator	1.Customer arrival time, 2. The number of customer demand. 3.Purchase amount distributions.	The inventory level is further reduced by 73% compared to the existing system. Store managers in various organizations may utilize the proposed methodology for improving their inventory management system	Optimize various costs associated with inventories like purchase cost, carrying a cost, storage cost, etc.	Focused only on a single merchandise that was found to be the most crucial as per the ABC analysis	1. To improve the existing performance of the store, a new optimal inventory management system 2. The store has to incorporate the reorder level and the ordering quantity as proposed with the model in order to obtain better results 3. The present study only focused on single merchandise that was found to be the most crucial as per the ABC analysis.

7.2021	Pack size effects on retail store inventory and storage space needs	1.Backroom 2.logistics 3.stock-out 4.cycle service level 5.order size;	Systematically Investigates the effect of pack size constraints on in-store inventory and storage space needs.	Simulation Model SKUs complex optimization models.	1.Order Packet size(OPS) 2. mean 3. standard deviation of the demand and the desired Cycle Service Level(CSL)	Increasing pack sizes increases service levels.	Reduces handling costs	Orders will be placed less often and therefore new merchandise will arrive less frequently at the store	1.Not considered Self life 2.Here the analyses should be not generalized to additional demand distributions for stochastic demand and additional inventory replenishment policies 3.It is not having efficient management inventory system.
8. 2021	Emerging Market Retail: Transitioning from a Product-Centric to a Customer-Centric Approach	1.Retail Analytics 2.Performance Metrics 3.Organized and Unorganized Retailers 4.Strategic Matrix 5.Retail value Chain 6.Emerging Markets	Provide EM brick-and-mortar retailers with guidance on applying analytics at upstream and downstream stages in the value chain when shifting from a product-centric approach to a customer-centric approach	1. Artificial intelligence 2. Agile 3. ERP 4. Spreadsheets 5. Manual logbook ledger	gross domestic products	Presenting an organizing framework and a strategic matrix that can resolve EM retailers' concerns based on exploratory research, without empirical examination	Organized retailers can gain localized competitive advantage and leverage their scale in EMs. Adopting a forward-looking customer-centric approach will enable EM retailers to manage the transformational shifts in the business environment.	Retailers make marketing decisions based on past customer profitability but fail to account for customers future profitability And also they cannot predict customers' future buying pattern.	Research is regarding innovation's role in aiding the adoption of analytics in EMs by encouraging technology acceptance and readiness among EM customers (RQ9) and technology leapfrogging in various product categories (RQ10)

2.1 EXISTING PROBLEM

The existing problem is an item is not moving, you are paying for it to take up space. As those items sit, they depreciate, which means you are actively losing potential profits as an overstock drags on. Some items may even become obsolete. One of the biggest consequences with understock is customer dissatisfaction. Using accurate, up-to-date data to predict inventory levels is key to understanding supply and demand. On top of tracking historic sales and market conditions, you should also be aware of trends and shifts that can make your products obsolete or unwanted. Clear those out before they become overstock.

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2.2 REFERENCES

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[7] Lita Das,Andre L Carrel & Chris Caplice 2021 Pack size effects on retail store inventory and storage space needs.

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2.3 PROBLEM STATEMENT DEFINITION

The inventory process involves multiple intricate aspects that drive accurate product delivery. Even a single error in the process can have expensive and long-term consequences. This will eventually affect the company's growth and reputation. Inventory analysts are in charge of managing inventory items, performing inventory analysis, and controlling day-today inventory operations. They determine and direct where the inventory needs to go and use statistics to determine which products are selling and which are under-performing. The inventory process involves multiple intricate aspects that drive accurate product delivery. Even a single error in the process can have expensive and long-term consequences. This will eventually affect the company's growth and reputation.I am a inventory analysts ,I am trying to manage the inventory item and daily inventory operation of an organization But there is an overflow of stock Because of the misjudgment in customer demand Which makes me feel to regulate the investment cost and optimize the storage space.

Fig 2.1 PROBLEM STATEMENT

CHAPTER 3

IDEATION AND PROPOSED SOLUTION

3.1 EMPATHY MAP

An empathy map is a collaborative visualization used to articulate what we know about a particular type of user. It externalizes knowledge about users in order to create a shared understanding of user needs, and aid in decision making.

An empathy map helps to map what a design team knows about the potential audience. This tool helps to understand the reason behind some actions a user takes deeply.This tool helps build Empathy towards users and helps design teams shift focus from the product to the users who are going to use the product.

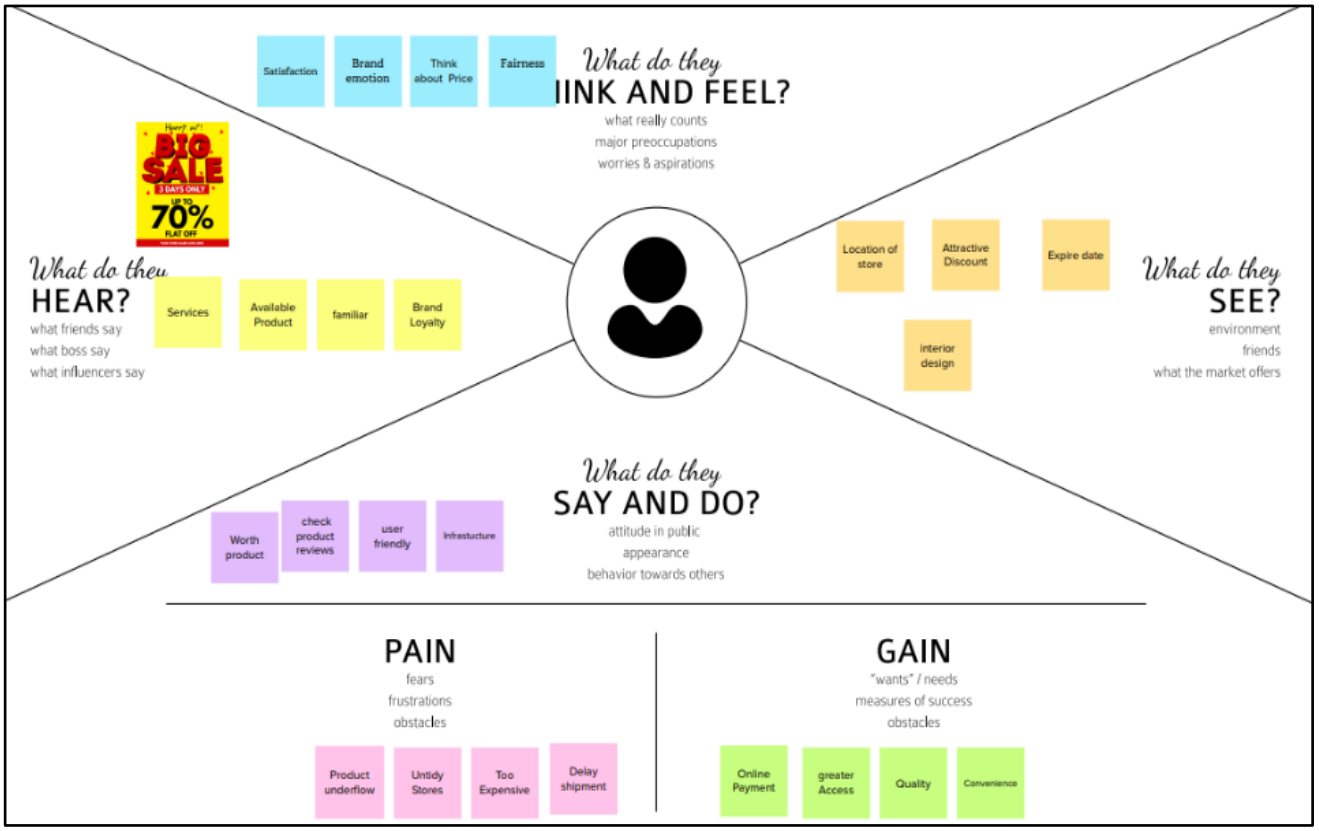


Fig 3.1 EMPATHY MAP

3.2 BRAINSTORMING

Initially we have collected ideas based on our problem definition from our teammates and we grouped ideas after that we had voting session where our teammates voted and finally we got our problem solution.

STEP 1

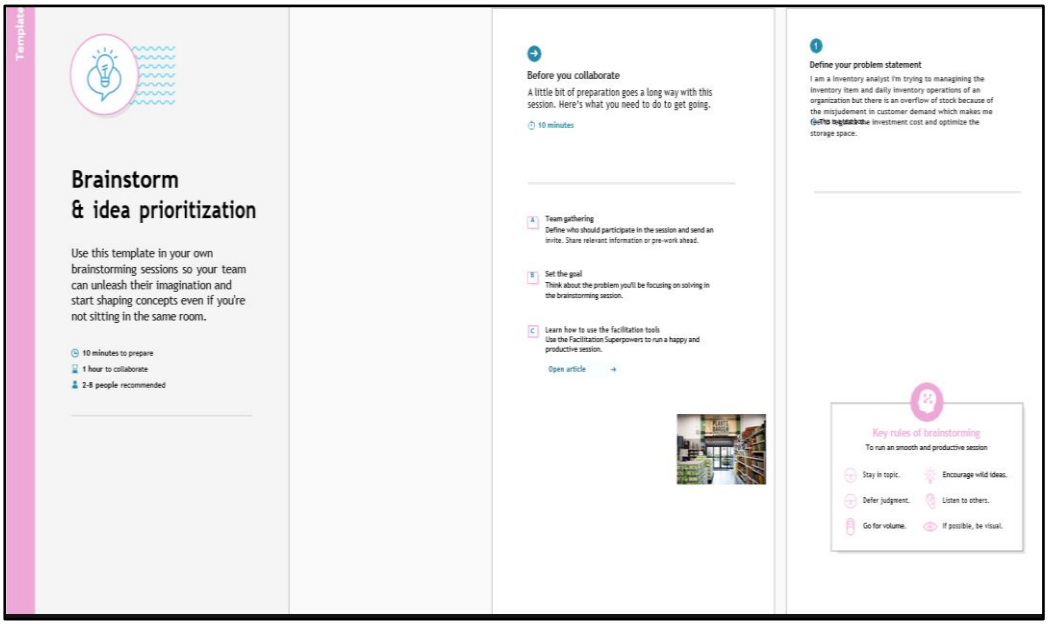


Fig 3.2 DEFINING PROBLEM STATEMENT

STEP 2

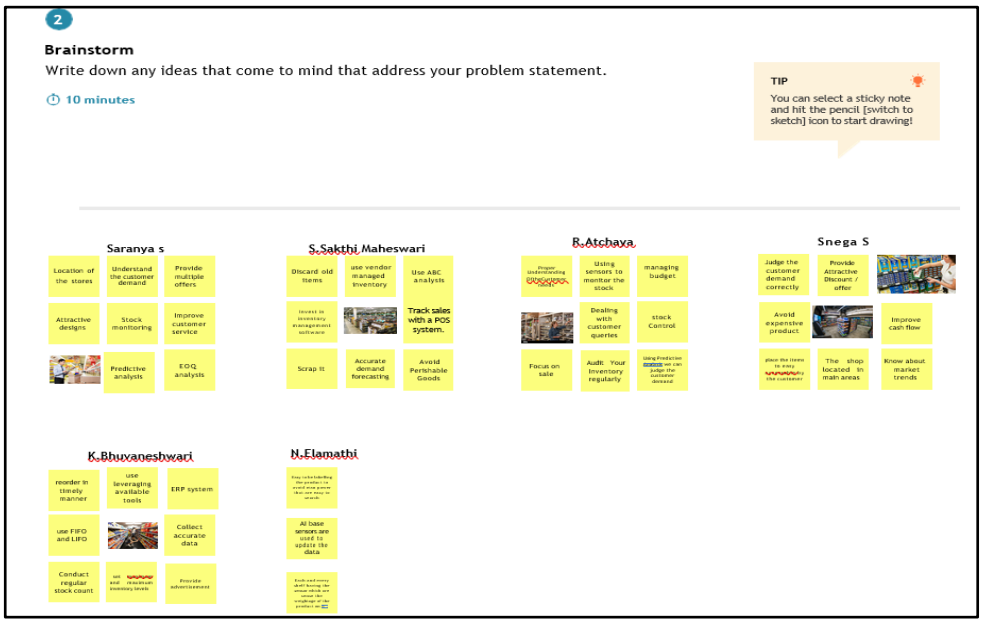


Fig 3.3 IDEAS THAT ADDRESS PROBLEM STATEMENT

STEP 3

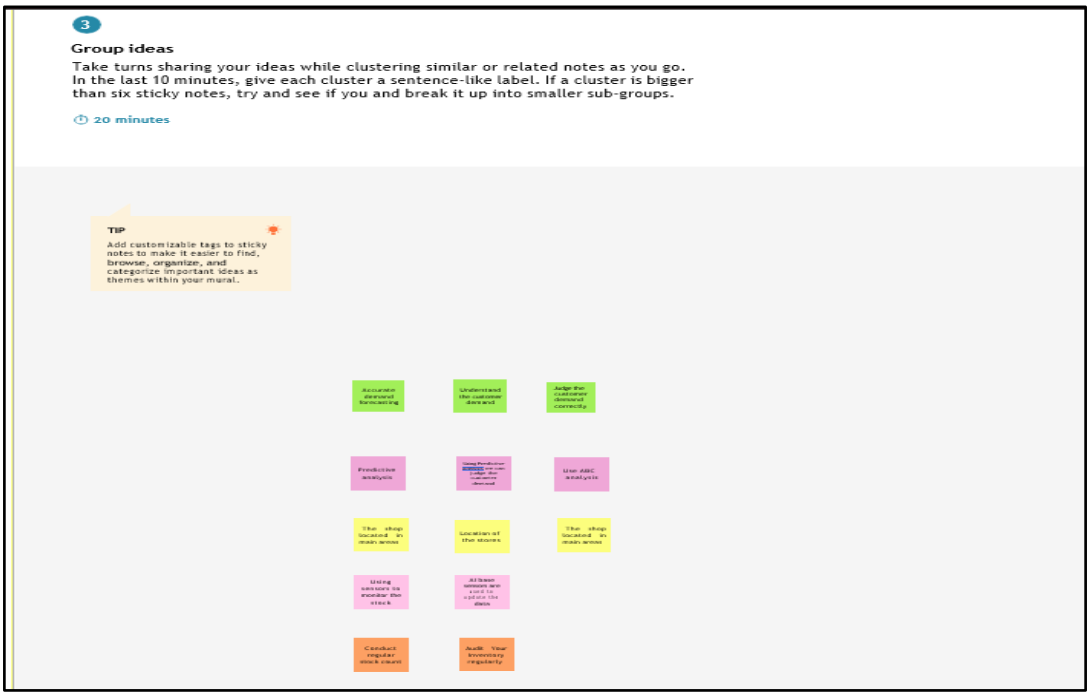


Fig 3.4 GROUP IDEAS

STEP 4

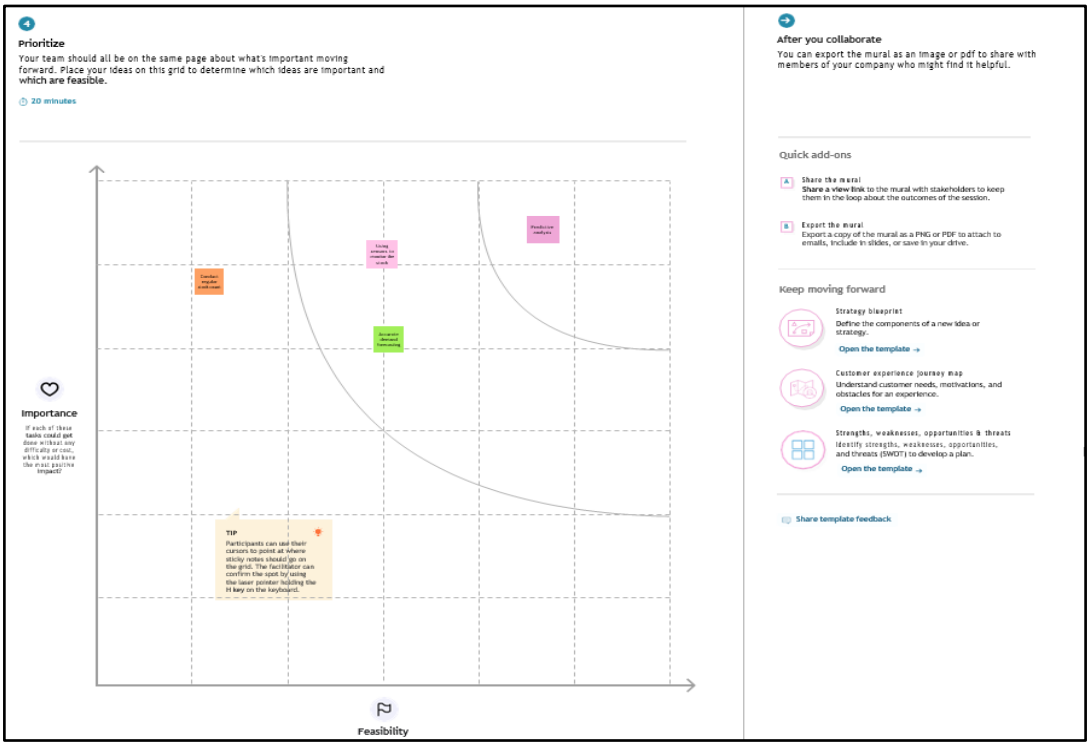


Fig 3.5 PRIORITIZE THE IDEAS

3.3 PROPOSED SOLUTION

1. Problem Statement

I am a inventory analyst I am trying to manage the inventory item and daily inventory operations of an organization But there is an overflow of stocks Because of the misjudgment in customer demand Which makes me feel to regulate the investment cost and optimize the storage space.

2. Idea / Solution description

Predictive analytics enables the retailer to consider data like weather forecasting, real-time sales data, inventory levels, purchase history, product movement, and much more to arrive at an ideal price.

3. Novelty / Uniqueness

Prediction Improves your delivery by managing stock- outs and meeting customer expectation

4. Social Impact / Customer Satisfaction

It determines how happy customers are with a company's products, services, and capabilities. Customer satisfaction information, including surveys and ratings, can help a company determine how to best improve or changes its products and service.

5. Business Model (Revenue Model)

In Stock inventory analytics we optimize the stock availability that meets demand while keeping storage cost minimum.

6. Scalability of the Solution

It minimize the storage cost, stock overflow, stock underflow.also it increase the company growth .

3.4 PROBLEM SOLUTION FIT

The goal is to help you understand your target group, their limitations and their available solutions, against which you are going to compete and also to help you filter out the noise and identify the most urgent and frequent problems, and understand the real reasons behind them and the behavior that supports them. Problem-Solution canvas is a tool for entrepreneurs, marketers and corporate innovators, which helps them identify solutions with higher chances for solution adoption, reduce time spent on solution testing and get a better overview of current situation

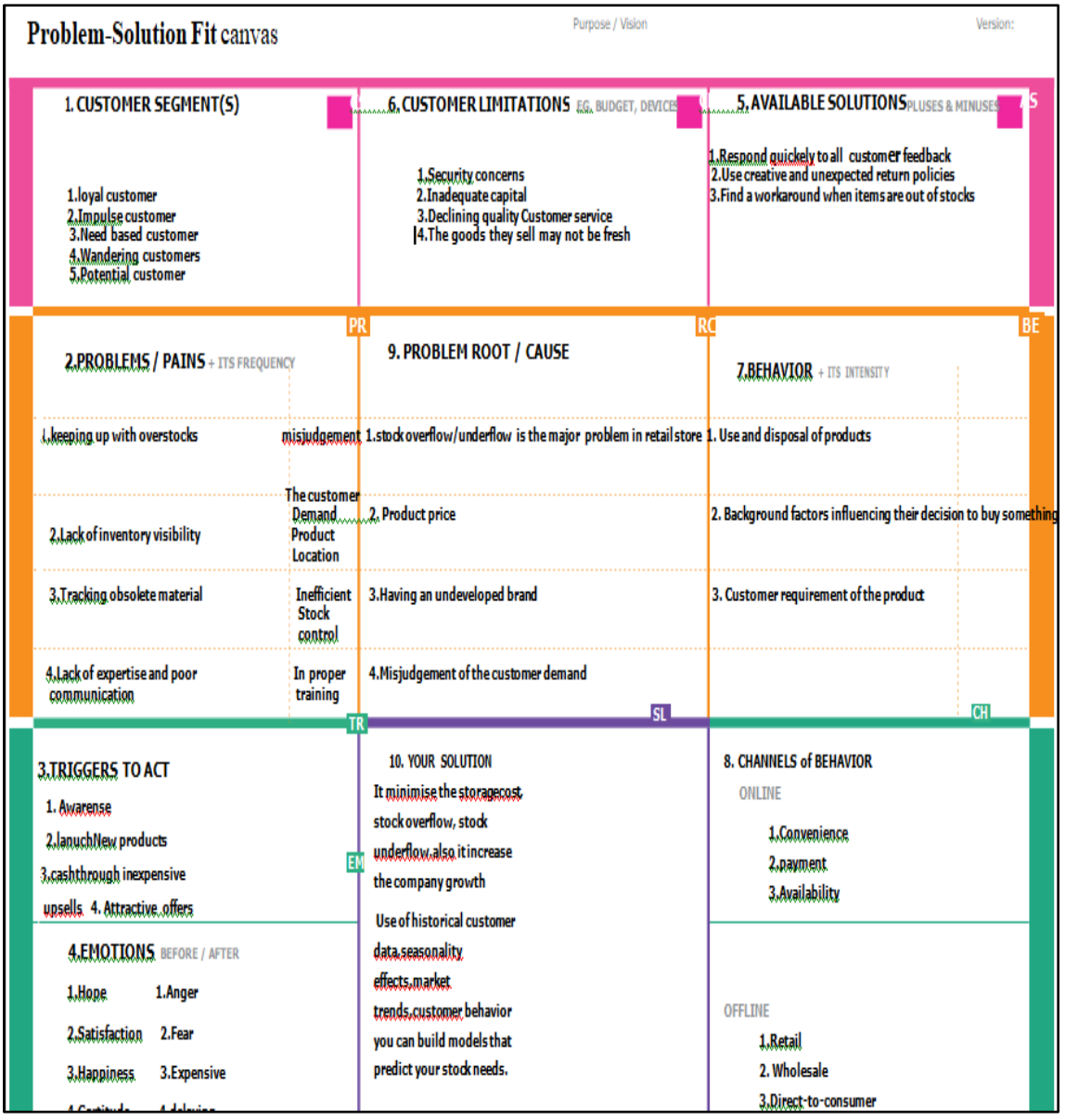


Fig 3.6 PROBLEM SOLUTION FIT

CHAPTER 4

REQUIREMENT ANALYSIS

4.1 FUNCTIONAL REQUIREMENT

Functional requirements may involve calculations, technical details, data manipulation and processing, and other specific functionality that define what a system is supposed to accomplish. Behavioral requirements describe all the cases where the system uses the functional requirements, these are captured in use cases.Functional requirements drive the application architecture of a system, while non-functional requirements drive the technical architecture of a system.

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through Form Registration through Gmail Registration through LinkedIN
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	Inventory Tracking	Product Tracking Advanced Inventory tagging Audio Trail
FR-4	Purchasing	Purchase Order Back Orderin g Supplier Management
FR-5	Shipping	Labeling Multiple Shipment Orders
FR-6	Demand Forecasting	Sales Control Finance Arrangement

4.2 NON FUNCTIONAL REQUIREMENT

Non-functional requirements are often mistakenly called the "quality attributes" of a system, however there is a distinction between the two. Non-functional requirements are the criteria for evaluating how a software system should perform and a software system must have certain quality attributes in order to meet non-functional requirements.

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	Usability refers to the ability to use a particular product including elements such as Navigation, Purpose of feature, and Quality of performance.
NFR-2	Security	Security is a process by which a retail business is going to ensure that its goods are being sold to the shoppers in a safe and secure manner.
NFR-3	Reliability	The probability that a product will operate properly over a Specified period of time under stated conditions of use.
NFR-4	Performance	This shows how many visitors a retailer turns into a **Non-functional Requirements** yet It's easy to calculate if you already know your retail customer traffic
NFR-5	Availability	Availability of products for sale to a consumer, in the place they expect it to be and at the time they want to buy it.
NFR-6	Scalability	Scalability describes an institution's ability to handle increased market demands.

CHAPTER 5

PROJECT DESIGN

5.1 DATA FLOW DIAGRAMS

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored. A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored

ZERO LEVEL DATA FLOW DAIGRAM

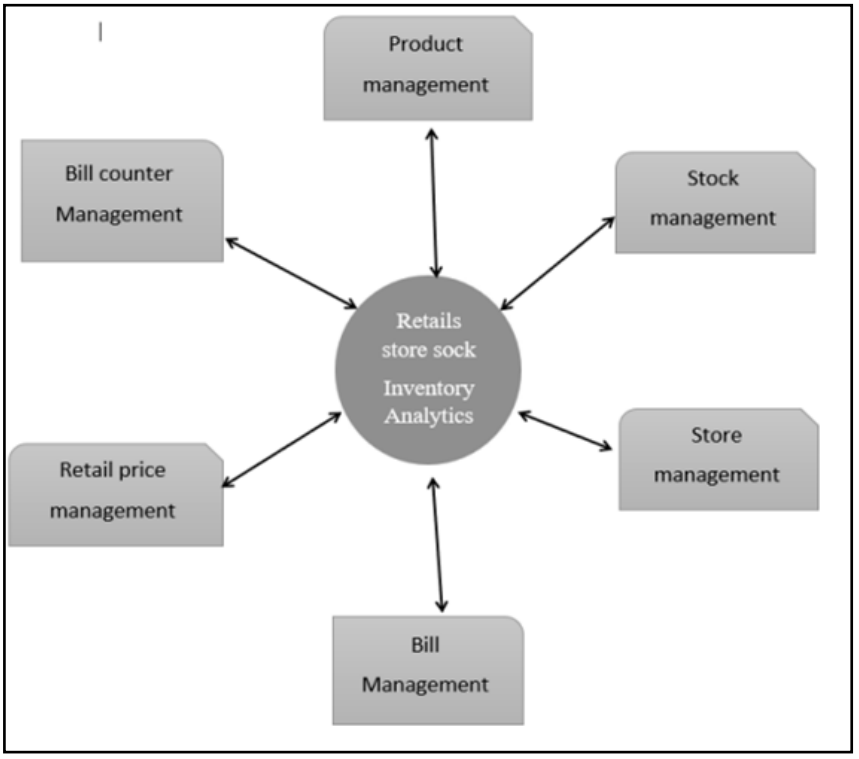


Fig 5.1 ZERO LEVEL DATA FLOW DAIGRAM

FIRST LEVEL DATA FLOW DIAGRAM

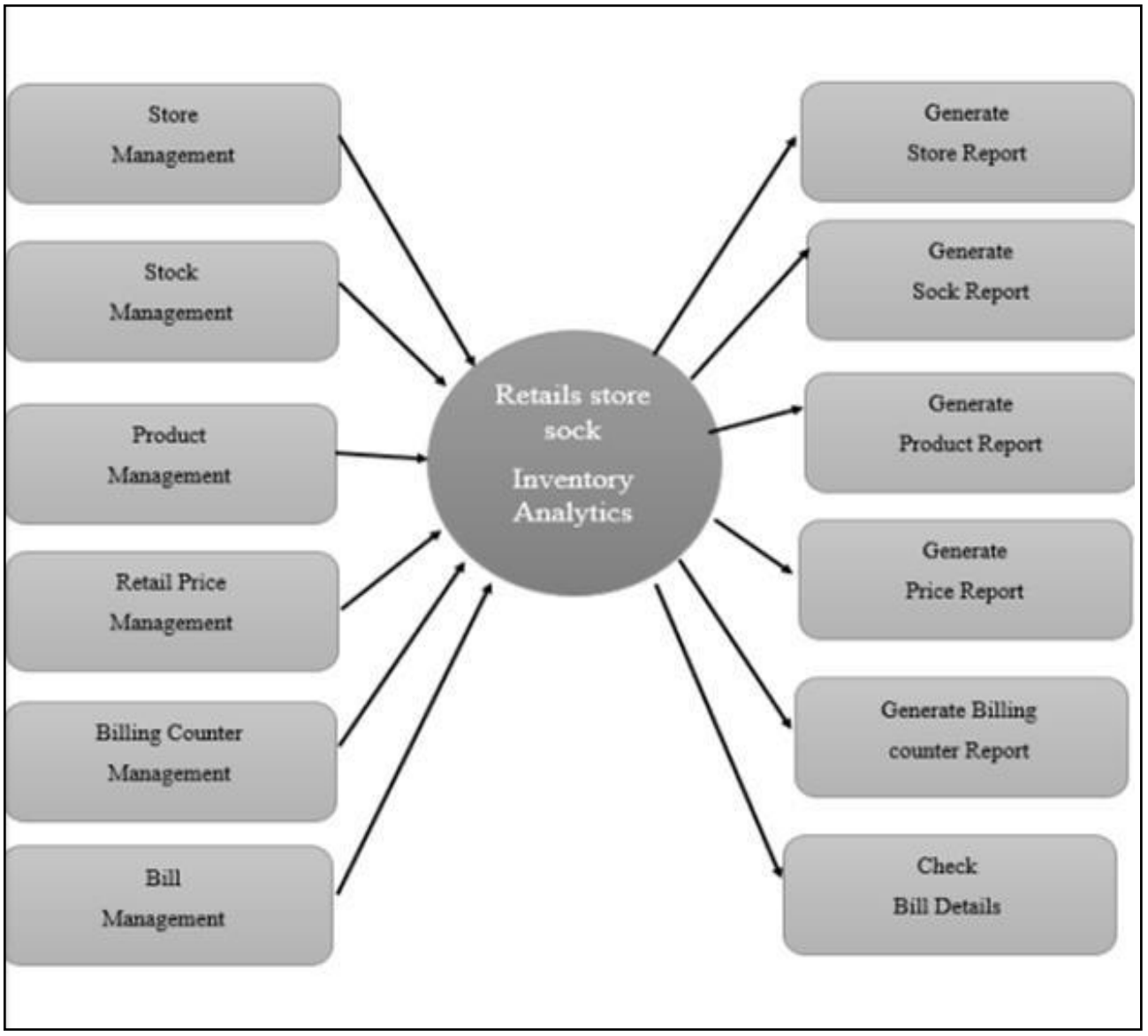


Fig 5.2 FIRST LEVEL DATA FLOW DIAGRAM

5.2 TECHNOLOGY ARCHITECTURE

Technical Architecture finds the best tech solution to solve existing business problems, Describe the structure, characteristics, behavior, and other aspects of the software to project stakeholders, Define features, development phases, and solution requirements, Provide specifications according to which the solution is defined, managed, and delivered.

Technical Architecture (TA) is a form of IT architecture that is used to design computer systems. It involves the development of a technical blueprint with regard to the arrangement, interaction, and interdependence of all elements so that system-relevant requirements are met.

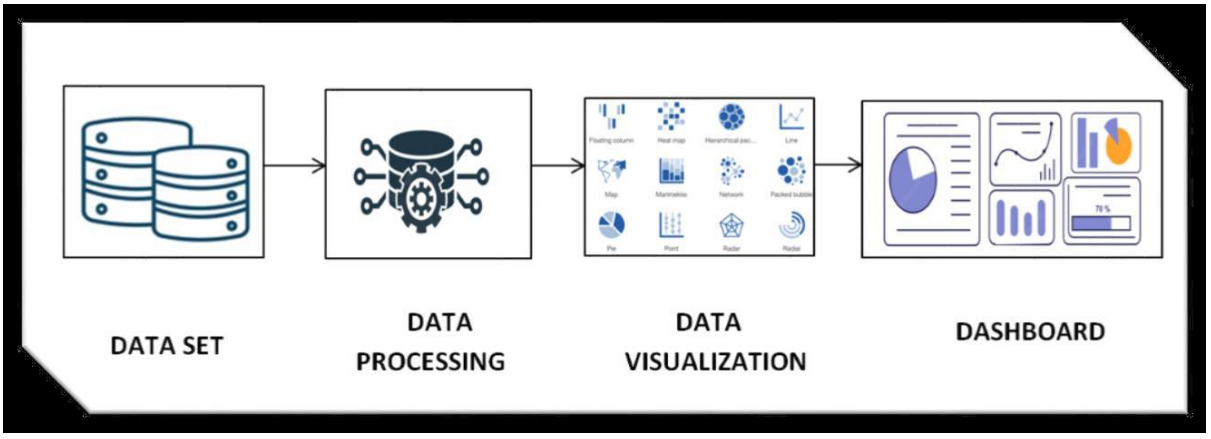


Fig 5.3 TECHNICAL ARCHITECTURE

5.3 USER STORIES

A user story is an informal, general explanation of a software feature written from the perspective of the end user or customer. The purpose of a user story is to articulate how a piece of work will deliver a particular value back to the customer. In software development and product management, a user story is an informal, natural language description of features of a software system.

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Mobile user)	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming mypassword.	I can access my account / dashboard	High	Sprint-1
		USN-2	As a user, after completing the registration I will receive confirmation email once I have registeredfor the web application	I can receive confirmationemail & click confirm	High	Sprint-1

		USN-3	As a user, I can register for the application through Facebook	I can register & access the dashboard with Facebook Login	Low	Sprint-2
		USN-4	As a user, I can register for the application throughGmail	I can register & access the dashboard with Gmail login	Medium	Sprint-1
	Login	USN-5	As a user, I can log into the application by enteringemail & password after installing the web application.	I can access the dashboard bylogin into the application	High	Sprint-1
	Dashboard	USN-6	As a user, I can view the charts and graphs representation of the dataset and the information shown in the dashboard.	I can analyse the stocks inmy retail store.	High	Sprint-1
Customer (Webuser)		USN-1	As a user, I can register for the web application entering my email, password and confirming mypassword.	I can access my account dashboard	High	Sprint-1
		USN-2	As a user, after completing the registration I will receive confirmation email once I have registeredfor the web application	I can receive confirmationemail & click confirm	High	Sprint-1
Administrator		USN-3	As a user, I can register for the application through Facebook	I can register & access the dashboard with Facebook Login	Low	Sprint-2
		USN-4	As a user, I can register for the application throughGmail	I can register & access the dashboard with Gmail login	Medium	Sprint-1
	Login	USN-5	As a user, I can log into the application by enteringemail & password after installing the web application.	I can access the dashboard bylogin into the application	High	Sprint-1
	Dashboard	USN-6	As a user, I can view the charts and graphs representation of the dataset and the information shown in the dashboard.	I can analyse the stocks inmy retail store	High	Sprint-1
Customer Care Executiv e		CCE-1	As a customer care executive, I will always be available for the interaction with the customer toclarify the queries.	An executive will analyse thecustomer complaints and rectify their problems.	High	Sprint-2
Administrator		ADMIN-1	As an administrator, I will manage backup and recovery, data modelling and design, distributed computing, database system, and a data security	Administrator can evaluate, design, review and implementing a data and theyare also responsible for updating and maintaining thedata	HIgh	Sprint-2

CHAPTER 6

PROJECT PLANNING AND SCHEDULING

6.1 SPRINT PLANNING AND ESTIMATION

Estimation is done by the entire team during Sprint Planning Meeting. The objective of the Estimation would be to consider theUser Stories for the Sprint by Priority and by the Ability of the team to deliver during the Time Box of the Sprint**.**

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Data Collection	USN-1	The dataset is collected and the understanding of dataset is done to presentthe analytics to the user	2	High	S.Sakthi Maheswari S.Saranya R.Atchaya K.Bhuvaneshwari S.Snega
Sprint-1	Data Preparation	USN-2	As a user, I can view the accurate analytics of data by prepared data. The data preparation is done to restructure and clean the data.	3	High	S.Sakthi Maheswari S.Saranya R.Atchaya K.Bhuvaneshwari S.Snega
Sprint-2	Data Exploration	USN-3	As a user, I can view the visualized data to get the better understanding about the sales,stock, revenue and price.	8	High	S.Sakthi Maheswari S.Saranya R.Atchaya K.Bhuvaneshwari S.Snega
Sprint-3	Dashboard Creation	USN-4	As a user, I can view the different visualization in the dashboard about thesales, stock, revenue and price.	8	High	S.Sakthi Maheswari S.Saranya R.Atchaya K.Bhuvaneshwari S.Snega
Sprint-4	Report creation	USN-5	As a user, I can view the detailed report of the sales, stock, revenue and price. The usercan get the report of the particular data.	8	High	S.Sakthi Maheswari S.Saranya R.Atchaya K.Bhuvaneshwari S.Snega
Sprint-4	Story creation	USN-6	As a user, I can view the story to get the better understanding of the sales, stock, revenue and price. The user can make decisions based on the story.	8	High	S.Sakthi Maheswari S.Saranya R.Atchaya K.Bhuvaneshwari S.Snega

6.2 SPRINT DELIVERY SCHEDULE

Sprint delivery schedule is used to estimate when sprint has started and delivery date of the sprint. Due to estimation of the sprint delivery schedule it helps the developer to complete their project

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as onPlanned End Date)	Sprint Release Date (Actual)
Sprint-1	5	5 Days	29 Oct 2022	04 Nov 2022	5	04 Nov 2022
Sprint-2	8	5 Days	05 Nov 2022	10 Nov 2022	8	10 Nov 2022
Sprint-3	8	3 Days	11 Nov 2022	14 Nov 2022	8	14 Nov 2022
Sprint-4	16	3 Days	14 Nov 2022	19 Nov 2022	16	19 Nov 2022

Velocity

Imagine we have a 10-day sprint duration, and the velocity of the team is 20 (points per sprint). Let's calculate the team's average velocity (AV) per iteration unit (story points per day)

$$AV = \frac{sprint\ duration}{velocity} = \frac{20}{10} = 2$$

Sprint	Story points	Duration	Average velocity
Sprint-1	5	6	0.83
Sprint-2	8	6	1.33
Sprint-3	8	6	1.33
Sprint-4	16	6	2.66
Total	37	24	1.54

6.3 REPORT FROM JIRA

1.ASSIGN THE SPRINT

Here we have allocated Sprints to our Teammates that are currently inprogress which after completion moves to the complete phase and finally we will obtain Roadmap

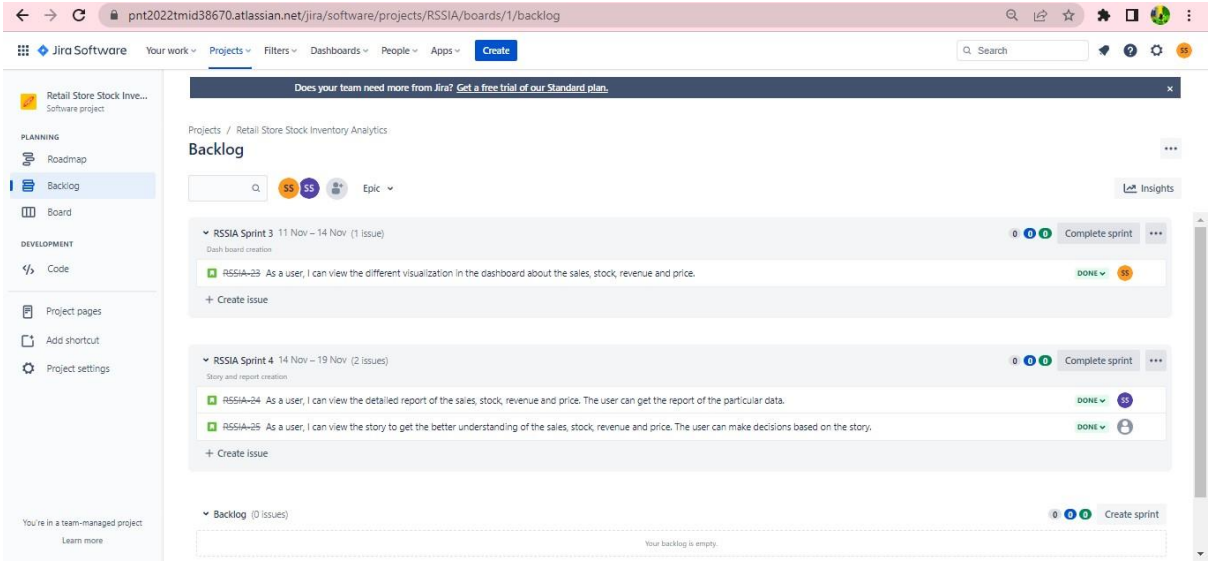


Fig 6.1 ASSIGN THE SPRINT

2.Jira Project Planning

ROADMAP

Roadmaps in Jira Software are team-level roadmaps useful for planning large pieces of work several months in advance at the Epic level within a single project.

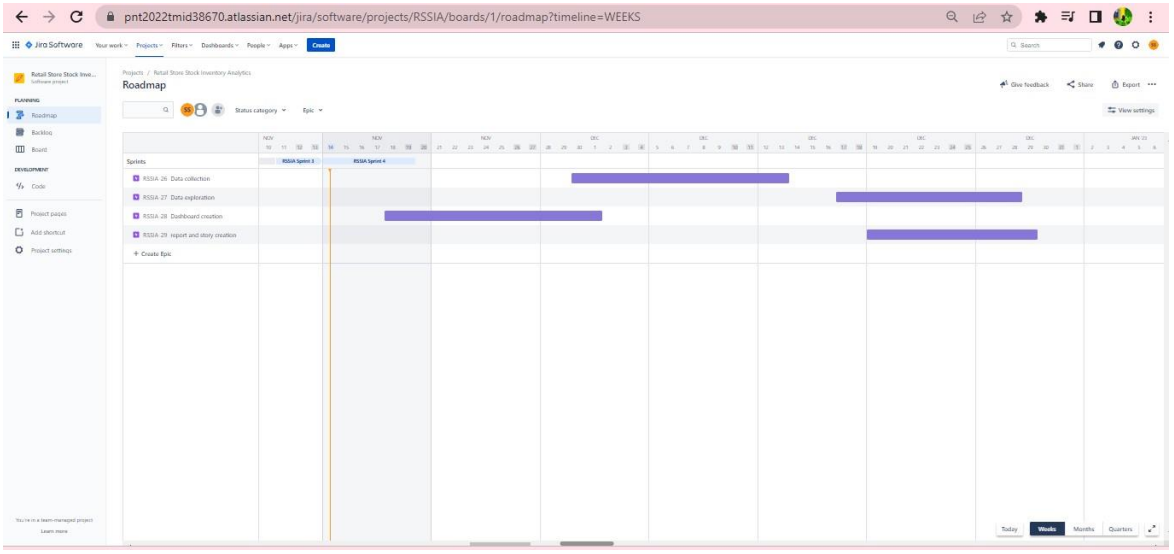


Fig 6.2 ROAD MAP

CHAPTER 7

CODING AND SOLUTIONING

7.1 FEATURE

LOGIN

```
<!DOCTYPE html>
<html>
<style>
   /*set border to the form*/

   form {
      border: 3px solid #f1f1f1;
   }
   /*assign full width inputs*/

   input[type=text],
   input[type=password] {
      width: 100%;
      padding: 12px 20px;
      margin: 8px 0;
      display: inline-block;
      border: 1px solid #ccc;
      box-sizing: border-box;
   }
   /*set a style for the buttons*/

   button {
```

```
    background-color: #4CAF50;
    color: white;
    padding: 14px 20px;
    margin: 8px 0;
    border: none;
    cursor: pointer;
    width: 100%;
}
/* set a hover effect for the button*/

button:hover {
    opacity: 0.8;
}
/*set extra style for the cancel button*/

.cancelbtn {
    width: auto;
    padding: 10px 18px;
    background-color: #f44336;
}
/*centre the display image inside the container*/

.imgcontainer {
    text-align: center;
    margin: 24px 0 12px 0;
}
/*set image properties*/
```

```
    img.avatar {
        width: 90%;
        border-radius: 200%;
    }
    /*set padding to the container*/

    .container {
        padding: 16px;
    }
    /*set the forgot password text*/

    span.psw {
        float: right;
        padding-top: 16px;
    }
    /*set styles for span and cancel button on small screens*/

    @media screen and (max-width: 300px) {
        span.psw {
            display: block;
            float: none;
        }
        .cancelbtn {
            width: 100%;
        }
    }
</style>
 <body>
```

```
<body style="background-color:blue;">
   <h2>Login Form</h2>
   <!--Step 1 : Adding HTML-->
   <form action="/action_page.php">
      <div class="imgcontainer">

      </div>

      <div class="container">

         <label><b>Username</b></label>
         <input type="text" placeholder="Enter Username" name="uname" required>

         <label><b>Password</b></label>
         <input type="password" placeholder="Enter Password" name="psw" required>
         <input type="checkbox" checked="checked"> Remember me
      </div>
   <div class="container" style="background-color:#f1f1f1">
   <span class="psw">Forgot <a href="#">password?</a></span>
 <ul>
<li><a  href="index.html">LOGIN</a></li>
<button type="button" class="Cancel">cancel</button>
</div>
</form>
</ul>
</body>
</html>
```

REPORT ,STORY,DASHBOARD

```
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="utf-8">
  <meta content="width=device-width, initial-scale=1.0" name="viewport">

  <title>RSSIA Template</title>
  <meta content="" name="description">
  <meta content="" name="keywords">

  <!-- Favicons -->
  <link href="assets/img/favicon.png" rel="icon">
  <link href="assets/img/apple-touch-icon.png" rel="apple-touch-icon">

  <!-- Google Fonts -->
  <link rel="preconnect" href="https://fonts.googleapis.com">
  <link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
  <link
href="https://fonts.googleapis.com/css2?family=Open+Sans:ital,wght@0,300;0,400;0,500;0,600;0,700;1,300;1,400;1,600;1,700&family=Poppins:ital,wght@0,300;0,400;0,500;0,600;0,700;1,300;1,400;1,500;1,600;1,700&family=Inter:ital,wght@0,300;0,400;0,500;0,600;0,700;1,300;1,400;1,500;1,600;1,700&display=swap" rel="stylesheet">

  <!-- Vendor CSS Files -->
  <link href="assets/vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">
  <link href="assets/vendor/bootstrap-icons/bootstrap-icons.css" rel="stylesheet">
  <link href="assets/vendor/fontawesome-free/css/all.min.css" rel="stylesheet">
  <link href="assets/vendor/glightbox/css/glightbox.min.css" rel="stylesheet">
  <link href="assets/vendor/swiper/swiper-bundle.min.css" rel="stylesheet">
  <link href="assets/vendor/aos/aos.css" rel="stylesheet">

  <!-- Template Main CSS File -->
  <link href="assets/css/main.css" rel="stylesheet">

  <!-- =======================================================
  * Template Name: Logis - v1.2.1
  * Template URL: https://bootstrapmade.com/logis-bootstrap-logistics-website-template/
  * Author: BootstrapMade.com
  * License: https://bootstrapmade.com/license/
  ======================================================== -->
</head>

<body>
```

```
<!-- ======= Header ======= -->
<header id="header" class="header d-flex align-items-center fixed-top">
  <div class="container-fluid container-xl d-flex align-items-center justify-content-between">

    <a href="index.html" class="logo d-flex align-items-center">
      <!-- Uncomment the line below if you also wish to use an image logo -->
      <!-- <img src="assets/img/logo.png" alt=""> -->
      <h1>Retail Store Stock Inventory Analytics</h1>
    </a>

    <i class="mobile-nav-toggle mobile-nav-show bi bi-list"></i>
    <i class="mobile-nav-toggle mobile-nav-hide d-none bi bi-x"></i>
    <nav id="navbar" class="navbar">
      <ul>
        <li><a href="index.html" class="active">Home</a></li>
        <li><a href="about.html">About</a></li>
        <li><a href="services.html">Services</a></li>

      </ul>
    </nav><!-- .navbar -->

  </div>
</header><!-- End Header -->
<!-- End Header -->

<!-- ======= Hero Section ======= -->
<section id="hero" class="hero d-flex align-items-center">
  <div class="container">
    <div class="row gy-4 d-flex justify-content-between">
      <div class="col-lg-6 order-2 order-lg-1 d-flex flex-column justify-content-center">
        <h2 data-aos="fade-up">Better Analysis Of Your Retail Inventory </h2>



      </div>
      </div>

      <div class="col-lg-5 order-1 order-lg-2 hero-img" data-aos="zoom-out">
        <img src="assets/img/hero-img.svg" class="img-fluid mb-3 mb-lg-0" alt="">
      </div>

    </div>
  </div>
</section><!-- End Hero Section -->
```

```
<main id="main">

  <!-- ======= Featured Services Section ======= -->
  <section id="featured-services" class="featured-services">
    <div class="container">

      <div class="row gy-4">

        <div class="col-lg-4 col-md-6 service-item d-flex" data-aos="fade-up">
          <div class="icon flex-shrink-0"><i class="fa-solid fa-cart-flatbed"></i></div>

        </div>
        <!-- End Service Item -->

        <div class="col-lg-4 col-md-6 service-item d-flex" data-aos="fade-up" data-aos-delay="100">
          <div class="icon flex-shrink-0"><i class="fa-solid fa-truck"></i></div>

        </div><!-- End Service Item -->

        <div class="col-lg-4 col-md-6 service-item d-flex" data-aos="fade-up" data-aos-delay="200">
          <div class="icon flex-shrink-0"><i class="fa-solid fa-truck-ramp-box"></i></div>

        </div><!-- End Service Item -->

      </div>

    </div>
  </section><!-- End Featured Services Section -->

  <!-- ======= About Us Section ======= -->
  <section id="about" class="about pt-0">
    <div class="container" data-aos="fade-up">

      <div class="row gy-4">
        <div class="col-lg-6 position-relative align-self-start order-lg-last order-first">
          <img src="assets/img/about.jpg" class="img-fluid" alt="">

        </div>
        <div class="col-lg-6 content order-last  order-lg-first">
          <h3>About Us</h3>
          <p>
          Here you can find the Sales,Stock,Year and Price of the Products you handle and can Analytics their Sales
          </p>
          <ul>
```

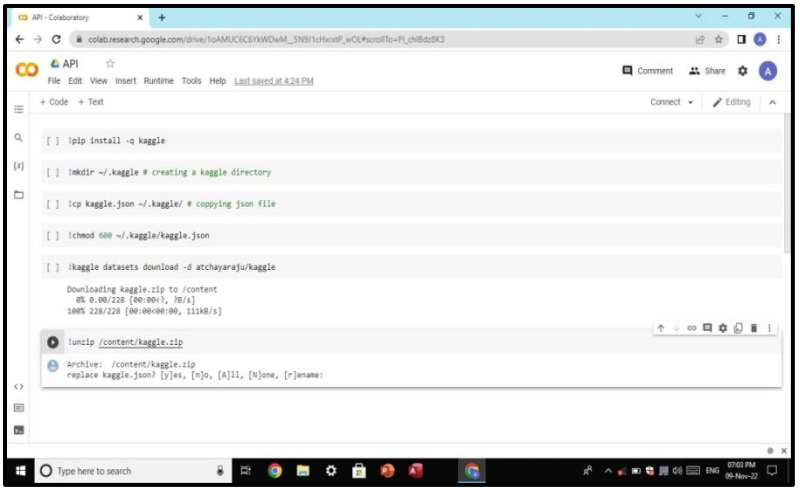
```
            <li data-aos="fade-up" data-aos-delay="100">
              <i class="bi bi-diagram-3"></i>
              <div>
                <h5>Dashboard</h5>
                <p>The Interactive Dashboard shows the overall Sales and Stock.It show the Sales Region and Stock Sales prediction.</p>
              </div>
            </li>
            <li data-aos="fade-up" data-aos-delay="200">
              <i class="bi bi-fullscreen-exit"></i>
              <div>
                <h5>Report</h5>
                <p> The Report show the Stock Analysis,Sales Analysis,Yearwise and monthwise sales.  </p>
              </div>
            </li>
            <li data-aos="fade-up" data-aos-delay="300">
              <i class="bi bi-broadcast"></i>
              <div>
                <h5>Story</h5>
                <p>The Story show the overall stock,sales,price in the animation format. </p>
              </div>
            </li>
          </ul>
        </div>
      </div>

    </div>
  </section><!-- End About Us Section -->

  <!-- ======= Services Section ======= -->
  <section id="service" class="services pt-0">
    <div class="container" data-aos="fade-up">

      <div class="section-header">
        <span>Dashboard For Sales Analysis</span>
        <h2>Dashboard</h2>

      </div>

      <iframe
src="https://eu2.ca.analytics.ibm.com/bi/?perspective=dashboard&amp;pathRef=.my_folders%2FMock%2BDashboard&amp;closeWindowOnLastView=true&amp;ui_appbar=false&amp;ui_navbar=false&amp;shareMode=embedded&amp;action=view&amp;mode=dashboard&amp;subView=model00000184622eb17b_00000000" width="1000" height="1500" frameborder="0" gesture="media"
```

```
allow="encrypted-media" allowfullscreen=""></iframe>
      <div class="section-header">
        <span>Report For Sales Analysis</span>
        <h2>Report</h2>

      </div>
      <iframe
src="https://eu2.ca.analytics.ibm.com/bi/?pathRef=.my_folders%2Fmock%2Breport&amp;closeWindowOnLastView=true&amp;ui_appbar=false&amp;ui_navbar=false&amp;shareMode=embedded&amp;action=run&amp;format=HTML&amp;prompt=false" width="1000" height="1500"
frameborder="0" gesture="media" allow="encrypted-media" allowfullscreen=""></iframe>
      <div class="section-header">
        <span>Story For Sales Analysis</span>
        <h2>Story</h2>

      </div>
     <iframe
src="https://eu2.ca.analytics.ibm.com/bi/?perspective=story&amp;pathRef=.my_folders%2FSTORY%2BFOR%2BRETAIL&amp;closeWindowOnLastView=true&amp;ui_appbar=false&amp;ui_navbar=false&amp;shareMode=embedded&amp;action=view&amp;sceneId=model0000018474edb106_00000000&amp;sceneTime=10000" width="1000" height="1500" frameborder="0" gesture="media"
allow="encrypted-media" allowfullscreen=""></iframe>


    </section><!-- End Services Section -->
  <!-- ======= Features Section ======= -->
  <section id="features" class="features">
    <div class="container">

      <div class="row gy-4 align-items-center features-item" data-aos="fade-up">

        <div class="col-md-5">
          <img src="assets/img/features-1.jpg" class="img-fluid" alt="">
        </div>
        <div class="col-md-7">
          <h3>Providing Attractive Gifts and Offers to the customers.</h3>
          <p class="fst-italic">
            Gift-giving has always been a popular method to express gratitude.Giving Gifts can transcend
your personal life into the workplace,too.
          </p>
          <ul>
            <li><i class="bi bi-check"></i> Affirms Gratitude and Showcases Creativity.</li>
            <li><i class="bi bi-check"></i> Strengthens Brand Recognition and Relationships.</li>
            <li><i class="bi bi-check"></i> Rewards Loyality and Tax Breaks.</li>
          </ul>
```

```
        </div>
      </div><!-- Features Item -->

      <div class="row gy-4 align-items-center features-item" data-aos="fade-up">
        <div class="col-md-5 order-1 order-md-2">
          <img src="assets/img/features-2.jpg" class="img-fluid" alt="">
        </div>
        <div class="col-md-7 order-2 order-md-1">
          <h3>Offering Free Shipping to the Customers</h3>
          <p class="fst-italic">
            Free shipping is attractive to customers who appreciate simple pricing structures,which in turn makes it a potential competitive advantage for online businesss.
          </p>
          <ul>
            <li><i class="bi bi-check"></i>Free Shipping May Increase Sales,Revenue.</li>
            <li><i class="bi bi-check"></i>Free Shipping Boosts Average Order Value .</li>
            <li><i class="bi bi-check"></i>Loyal Customers Love Free Shipping.</li>
          </ul>

        </div>
  </main><!-- End #main -->
  <a href="#" class="scroll-top d-flex align-items-center justify-content-center"><i class="bi bi-arrow-up-short"></i></a>
  <div id="preloader"></div>
  <!-- Vendor JS Files -->
  <script src="assets/vendor/bootstrap/js/bootstrap.bundle.min.js"></script>
  <script src="assets/vendor/purecounter/purecounter_vanilla.js"></script>
  <script src="assets/vendor/glightbox/js/glightbox.min.js"></script>
  <script src="assets/vendor/swiper/swiper-bundle.min.js"></script>
  <script src="assets/vendor/aos/aos.js"></script>
  <script src="assets/vendor/php-email-form/validate.js"></script>
  <!-- Template Main JS File -->
  <script src="assets/js/main.js"></script>
</body>
</html>
```

7.2 DATABASE SCHEMA

1.FETCH DATA FROM EXTERNAL API (KAGGLE API)



2. IBM DB2 SERVICE CREATION AND DB2 CONNECTIVITY WITH COGNOS

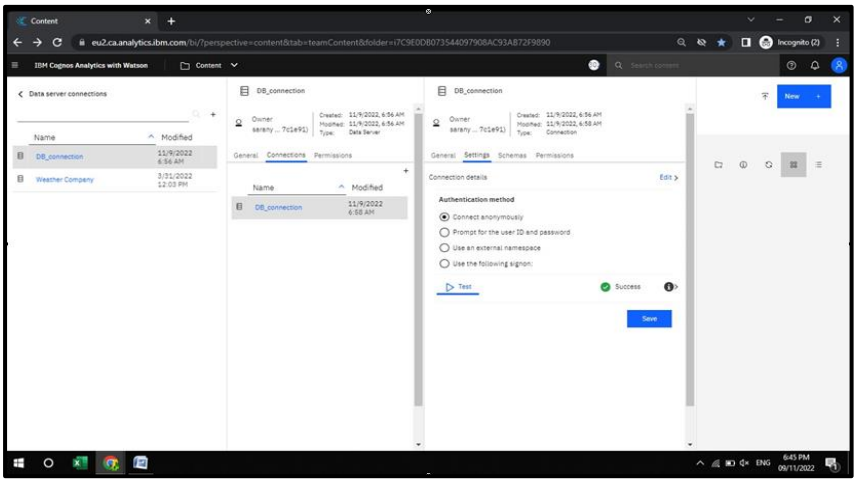


Fig 7.2 DB2 CONNECTIVITY

CHAPTER 8

TESTING

8.1 TEST CASES

Test case ID	Feature type	Component	Test scenario	Pre-requisite	Steps to execute	Test data	Expected result	Actual result	Status
Test case ID	Functional	Login page	Verifies whether the user login	Checks whether the login or not	1.Enter your username 2.Enter your password 3.Login	Enter your data	Homepage should display	Working as expected	Pass
Test case ID	UI	Home page	Verifies whether the dashboard is displayed	Checks whether all the tabs are working efficiently	1.Enter username, password to login. 2. After go to the (dashboard)		Dashboard should display and all taps should work	Working as expected	Pass
Test case ID	UI	Home page	Verifies whether the report is displayed	Checks whether all the tabs are working efficiently	1.Enter username, password to login. 2. After go to the (report)		Report should display	Working as expected	Pass
Test case ID	UI	Home page	Verifies whether the story is displayed	Checks whether all the tabs are working efficiently	1.Enter username, password to login. 2. After go to the (story)		Story should display	Working as expected	Pass

8.2 USER ACCEPTANCE TESTING

PURPOSE OF DOCUMENT

The purpose of this document is to briefly explain the test coverage and open issues of the retail store stock analytics project at the time of the release to User Acceptance Testing (UAT).

DEFECT ANALYSIS

This report shows the number of resolved or closed bugs at each severity level, and howthey were resolved

Resolution	Severity1	Severity2	Severity 3	Severity 4	Subtotal
By Design	8	4	2	1	15
Duplicate	0	0	0	0	0
External	3	2	0	1	6
Fixed	4	0	1	0	5
Not Reproduced	0	0	1	0	1
Skipped	0	0	0	1	1
Won't Fix	0	0	1	0	1
Totals	15	6	5	3	29

Test Case Analysis

This report shows the number of test cases that have passed, failed, and untested

Section	Total Cases	Not Tested	Fail	Pass
Print Engine	5	0	0	5
Client Application	30	0	0	30
Security	2	0	0	2
Outsource Shipping	4	0	0	4
Exception Reporting	8	0	0	8
Final Report Output	6	0	0	6
Version Control	2	0	0	2

CHAPTER 9

RESULTS

9.1 PERFORMANCE METRICS

S.No.	Parameter	Screenshot / Values
1.	Dashboard design	The Dashboard consists of 9 graphs in 3 different tabs
2.	Data Responsiveness	The Data was responsive for creating dash board, story and reports
3.	Amount Data to Rendered (DB2 Metrics)	Inventory Management system consits of 938 data in it
4.	Utilization of Data Filters	Data filters was used to find Top most and Bottom most of the data in form of visualization
5.	Effective User Story	The Story consists of 4 scenes and 6 graphs
6.	Descriptive Reports	Create 1 Report consists of 4 visualization

CHAPTER 10

ADVANTAGES AND DISADVANTAGES

ADVANTAGES

- The major advantage of the retail store stock inventory analytics is that it does not require a physical inventory.
- The retail inventory method only requires an organization to record the retail prices of inventory items.
- **Cost-Effective:**
  Manual inventory control would increase your labor and process costs.
- **Saves Time:**
  Paper-based retail inventory management can take a lot of time and effort.
- **Process Efficiency:**
  Inventory management is one of the crucial retail processes.

DISADVANTAGES

- Overstocking on products runs the risk of the product becoming obsolete.
- Higher storage and insurance costs.
- Certain goods might perish.
- Stock may become obsolete before it is used.
- Your capital is tied up

CHAPTER 11

CONCLUSION AND FUTURE WORK

CONCLUSION

Therefore Retail store stock analytics helps retailer to manage stock and sale, maintain the necessary stock without reaching to demand, and by maintaining the stock so that it gains the trust for the customer to buy the product and a regular basis which also provide gain to shop holder by increasing the profit.

FUTURE WORK

Inventory management systems have become more real time, giving retailers more data about demographics, spending habits, shopping preferences etc.In future these type of feature will be added that is the retailer will upload the present dataset and automatically the visualization is displayed that attract the 90% of retailers who can easily predict the under stock and overstock.

CHAPTER 12

APPENDIX

12.1 SOURCE CODE

LOGIN

```
<!DOCTYPE html>
<html>
<style>
  /*set border to the form*/

  form {
    border: 3px solid #f1f1f1;
  }
  /*assign full width inputs*/
```

```
input[type=text],
input[type=password] {
    width: 100%;
    padding: 12px 20px;
    margin: 8px 0;
    display: inline-block;
    border: 1px solid #ccc;
    box-sizing: border-box;
}
/*set a style for the buttons*/

button {
    background-color: #4CAF50;
    color: white;
    padding: 14px 20px;
    margin: 8px 0;
    border: none;
    cursor: pointer;
    width: 100%;
}
/* set a hover effect for the button*/

button:hover {
    opacity: 0.8;
}
/*set extra style for the cancel button*/
```

```
.cancelbtn {
    width: auto;
    padding: 10px 18px;
    background-color: #f44336;
}
/*centre the display image inside the container*/

.imgcontainer {
    text-align: center;
    margin: 24px 0 12px 0;
}
/*set image properties*/

img.avatar {
    width: 90%;
    border-radius: 200%;
}
/*set padding to the container*/

.container {
    padding: 16px;
}
/*set the forgot password text*/

span.psw {
    float: right;
    padding-top: 16px;
```

```
    }
    /*set styles for span and cancel button on small screens*/

    @media screen and (max-width: 300px) {
        span.psw {
            display: block;
            float: none;
        }
        .cancelbtn {
            width: 100%;
        }
    }
</style>
 <body>
<body style="background-color:blue;">
    <h2>Login Form</h2>
    <!--Step 1 : Adding HTML-->
    <form action="/action_page.php">
        <div class="imgcontainer">

        </div>

        <div class="container">

            <label><b>Username</b></label>
            <input type="text" placeholder="Enter Username" name="uname" required>
```

```
        <label><b>Password</b></label>
        <input type="password" placeholder="Enter Password" name="psw" required>
        <input type="checkbox" checked="checked"> Remember me
      </div>
   <div class="container" style="background-color:#f1f1f1">
   <span class="psw">Forgot <a href="#">password?</a></span>
 <ul>
<li><a  href="index.html">LOGIN</a></li>
<button type="button" class="Cancel">cancel</button>
</div>
</form>
</ul>
</body>
</html>
```

REPORT ,STORY,DASHBOARD

```
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="utf-8">
  <meta content="width=device-width, initial-scale=1.0" name="viewport">

  <title>RSSIA Template</title>
  <meta content="" name="description">
  <meta content="" name="keywords">

  <!-- Favicons -->
  <link href="assets/img/favicon.png" rel="icon">
  <link href="assets/img/apple-touch-icon.png" rel="apple-touch-icon">

  <!-- Google Fonts -->
  <link rel="preconnect" href="https://fonts.googleapis.com">
  <link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
  <link
href="https://fonts.googleapis.com/css2?family=Open+Sans:ital,wght@0,300;0,400;0,500;0,600;0,700
```

```
;1,300;1,400;1,600;1,700&family=Poppins:ital,wght@0,300;0,400;0,500;0,600;0,700;1,300;1,400;1,500;1,600;1,700&family=Inter:ital,wght@0,300;0,400;0,500;0,600;0,700;1,300;1,400;1,500;1,600;1,700&display=swap" rel="stylesheet">

  <!-- Vendor CSS Files -->
  <link href="assets/vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">
  <link href="assets/vendor/bootstrap-icons/bootstrap-icons.css" rel="stylesheet">
  <link href="assets/vendor/fontawesome-free/css/all.min.css" rel="stylesheet">
  <link href="assets/vendor/glightbox/css/glightbox.min.css" rel="stylesheet">
  <link href="assets/vendor/swiper/swiper-bundle.min.css" rel="stylesheet">
  <link href="assets/vendor/aos/aos.css" rel="stylesheet">

  <!-- Template Main CSS File -->
  <link href="assets/css/main.css" rel="stylesheet">

  <!-- =======================================================
  * Template Name: Logis - v1.2.1
  * Template URL: https://bootstrapmade.com/logis-bootstrap-logistics-website-template/
  * Author: BootstrapMade.com
  * License: https://bootstrapmade.com/license/
  ======================================================== -->
</head>

<body>

  <!-- ======= Header ======= -->
  <header id="header" class="header d-flex align-items-center fixed-top">
    <div class="container-fluid container-xl d-flex align-items-center justify-content-between">

      <a href="index.html" class="logo d-flex align-items-center">
        <!-- Uncomment the line below if you also wish to use an image logo -->
        <!-- <img src="assets/img/logo.png" alt=""> -->
        <h1>Retail Store Stock Inventory Analytics</h1>
      </a>

      <i class="mobile-nav-toggle mobile-nav-show bi bi-list"></i>
      <i class="mobile-nav-toggle mobile-nav-hide d-none bi bi-x"></i>
      <nav id="navbar" class="navbar">
        <ul>
          <li><a href="index.html" class="active">Home</a></li>
          <li><a href="about.html">About</a></li>
          <li><a href="services.html">Services</a></li>

        </ul>
```

```
    </nav><!-- .navbar -->

  </div>
</header><!-- End Header -->
<!-- End Header -->

<!-- ======= Hero Section ======= -->
<section id="hero" class="hero d-flex align-items-center">
  <div class="container">
    <div class="row gy-4 d-flex justify-content-between">
      <div class="col-lg-6 order-2 order-lg-1 d-flex flex-column justify-content-center">
        <h2 data-aos="fade-up">Better Analysis Of Your Retail Inventory </h2>



      </div>
      </div>

      <div class="col-lg-5 order-1 order-lg-2 hero-img" data-aos="zoom-out">
        <img src="assets/img/hero-img.svg" class="img-fluid mb-3 mb-lg-0" alt="">
      </div>

    </div>
  </div>
</section><!-- End Hero Section -->

<main id="main">

  <!-- ======= Featured Services Section ======= -->
  <section id="featured-services" class="featured-services">
    <div class="container">

      <div class="row gy-4">

        <div class="col-lg-4 col-md-6 service-item d-flex" data-aos="fade-up">
          <div class="icon flex-shrink-0"><i class="fa-solid fa-cart-flatbed"></i></div>

        </div>
        <!-- End Service Item -->

        <div class="col-lg-4 col-md-6 service-item d-flex" data-aos="fade-up" data-aos-delay="100">
          <div class="icon flex-shrink-0"><i class="fa-solid fa-truck"></i></div>

        </div><!-- End Service Item -->
```

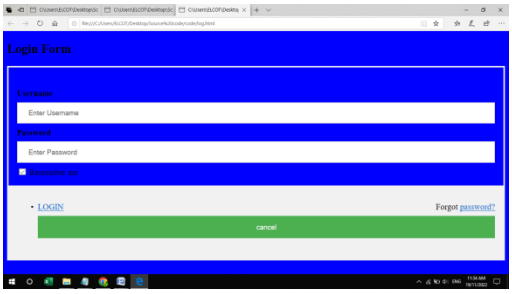
```
        <div class="col-lg-4 col-md-6 service-item d-flex" data-aos="fade-up" data-aos-delay="200">
          <div class="icon flex-shrink-0"><i class="fa-solid fa-truck-ramp-box"></i></div>

        </div><!-- End Service Item -->

       </div>

     </div>
   </section><!-- End Featured Services Section -->

   <!-- ======= About Us Section ======= -->
   <section id="about" class="about pt-0">
     <div class="container" data-aos="fade-up">

       <div class="row gy-4">
         <div class="col-lg-6 position-relative align-self-start order-lg-last order-first">
           <img src="assets/img/about.jpg" class="img-fluid" alt="">

         </div>
         <div class="col-lg-6 content order-last  order-lg-first">
           <h3>About Us</h3>
           <p>
           Here you can find the Sales,Stock,Year and Price of the Products you handle and can Analytics their Sales
           </p>
           <ul>
             <li data-aos="fade-up" data-aos-delay="100">
               <i class="bi bi-diagram-3"></i>
               <div>
                 <h5>Dashboard</h5>
                 <p>The Interactive Dashboard shows the overall Sales and Stock.It show the Sales Region and Stock Sales prediction.</p>
               </div>
             </li>
             <li data-aos="fade-up" data-aos-delay="200">
               <i class="bi bi-fullscreen-exit"></i>
               <div>
                 <h5>Report</h5>
                 <p> The Report show the Stock Analysis,Sales Analysis,Yearwise and monthwise sales.  </p>
               </div>
             </li>
             <li data-aos="fade-up" data-aos-delay="300">
```

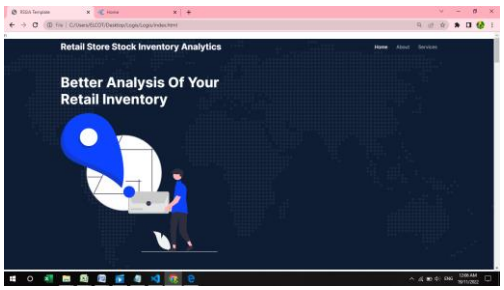
```
            <i class="bi bi-broadcast"></i>
            <div>
              <h5>Story</h5>
              <p>The Story show the overall stock,sales,price in the animation format. </p>
            </div>
          </li>
        </ul>
      </div>
    </div></div>
  </section><!-- End About Us Section -->

  <!-- ======= Services Section ======= -->
  <section id="service" class="services pt-0">
    <div class="container" data-aos="fade-up">

      <div class="section-header">
        <span>Dashboard For Sales Analysis</span>
        <h2>Dashboard</h2>
      </div>
      <iframe
src="https://eu2.ca.analytics.ibm.com/bi/?perspective=dashboard&amp;pathRef=.my_folders%2FMock%2BDashboard&amp;closeWindowOnLastView=true&amp;ui_appbar=false&amp;ui_navbar=false&amp;shareMode=embedded&amp;action=view&amp;mode=dashboard&amp;subView=model00000184622eb17b_00000000" width="1000" height="1500" frameborder="0" gesture="media"
allow="encrypted-media" allowfullscreen=""></iframe>
      <div class="section-header">
        <span>Report For Sales Analysis</span>
        <h2>Report</h2>
      </div>
      <iframe
src="https://eu2.ca.analytics.ibm.com/bi/?pathRef=.my_folders%2Fmock%2Breport&amp;closeWindowOnLastView=true&amp;ui_appbar=false&amp;ui_navbar=false&amp;shareMode=embedded&amp;action=run&amp;format=HTML&amp;prompt=false" width="1000" height="1500"
frameborder="0" gesture="media" allow="encrypted-media" allowfullscreen=""></iframe>
      <div class="section-header">
        <span>Story For Sales Analysis</span>
        <h2>Story</h2>

      </div>
     <iframe
src="https://eu2.ca.analytics.ibm.com/bi/?perspective=story&amp;pathRef=.my_folders%2FSTORY%2BFOR%2BRETAIL&amp;closeWindowOnLastView=true&amp;ui_appbar=false&amp;ui_navbar=false&amp;shareMode=embedded&amp;action=view&amp;sceneId=model0000018474edb106_00000000&amp;sceneTime=10000" width="1000" height="1500" frameborder="0" gesture="media"
```

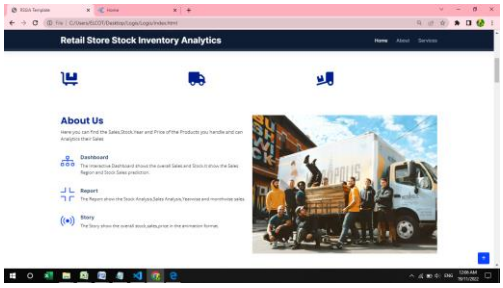
```
allow="encrypted-media" allowfullscreen=""></iframe>


    </section><!-- End Services Section -->
   <!-- ======= Features Section ======= -->
   <section id="features" class="features">
    <div class="container">

      <div class="row gy-4 align-items-center features-item" data-aos="fade-up">

       <div class="col-md-5">
        <img src="assets/img/features-1.jpg" class="img-fluid" alt="">
       </div>
       <div class="col-md-7">
        <h3>Providing Attractive Gifts and Offers to the customers.</h3>
        <p class="fst-italic">
         Gift-giving has always been a popular method to express gratitude.Giving Gifts can transcend your personal life into the workplace,too.
        </p>
        <ul>
         <li><i class="bi bi-check"></i> Affirms Gratitude and Showcases Creativity.</li>
         <li><i class="bi bi-check"></i> Strengthens Brand Recognition and Relationships.</li>
         <li><i class="bi bi-check"></i> Rewards Loyality and Tax Breaks.</li>
        </ul>
       </div>
      </div><!-- Features Item -->

      <div class="row gy-4 align-items-center features-item" data-aos="fade-up">
       <div class="col-md-5 order-1 order-md-2">
        <img src="assets/img/features-2.jpg" class="img-fluid" alt="">
       </div>
       <div class="col-md-7 order-2 order-md-1">
        <h3>Offering Free Shipping to the Customers</h3>
        <p class="fst-italic">
         Free shipping is attractive to customers who appreciate simple pricing structures,which in turn makes it a potential competitive advantage for online businesss.
        </p>
        <ul>
         <li><i class="bi bi-check"></i>Free Shipping May Increase Sales,Revenue.</li>
         <li><i class="bi bi-check"></i>Free Shipping Boosts Average Order Value .</li>
         <li><i class="bi bi-check"></i>Loyal Customers Love Free Shipping.</li>
        </ul>

       </div>
```

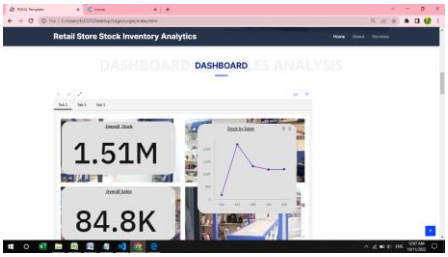
```
  </main><!-- End #main -->
  <a href="#" class="scroll-top d-flex align-items-center justify-content-center"><i class="bi bi-arrow-up-short"></i></a>
  <div id="preloader"></div>
  <!-- Vendor JS Files -->
  <script src="assets/vendor/bootstrap/js/bootstrap.bundle.min.js"></script>
  <script src="assets/vendor/purecounter/purecounter_vanilla.js"></script>
  <script src="assets/vendor/glightbox/js/glightbox.min.js"></script>
  <script src="assets/vendor/swiper/swiper-bundle.min.js"></script>
  <script src="assets/vendor/aos/aos.js"></script>
  <script src="assets/vendor/php-email-form/validate.js"></script>
  <!-- Template Main JS File -->
  <script src="assets/js/main.js"></script>
</body>
</html>
```

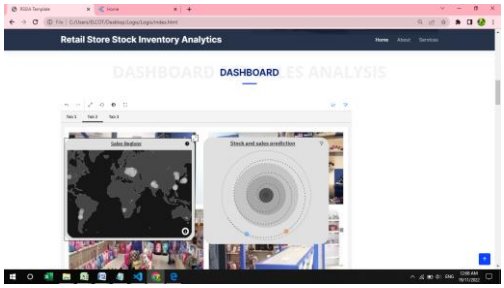
12.2 SCREENSHOTS

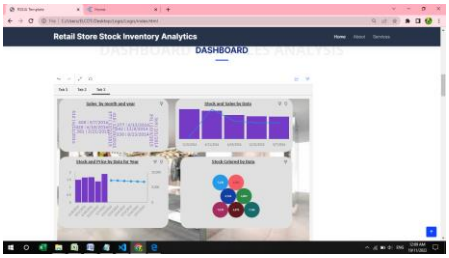


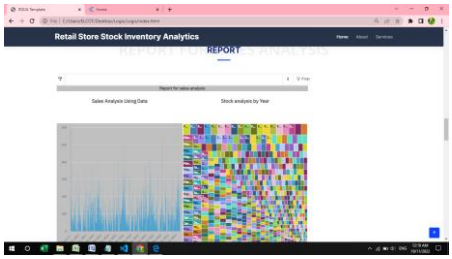


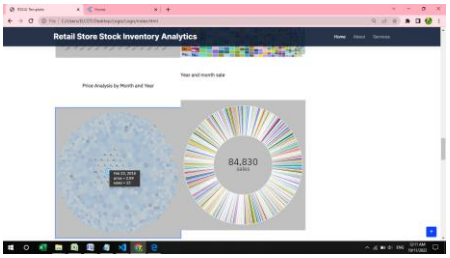


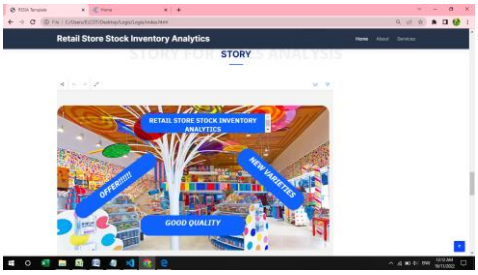


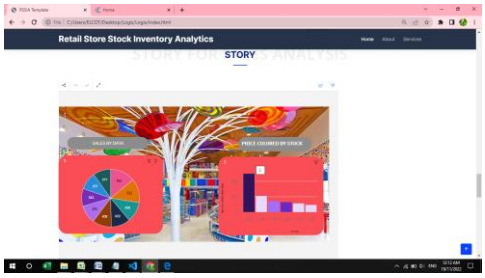


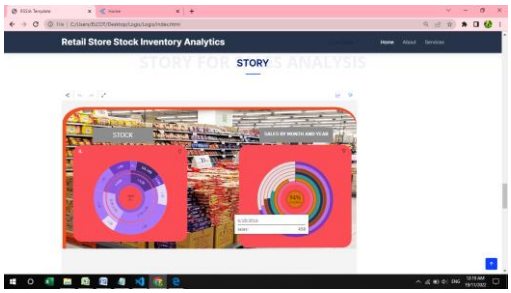


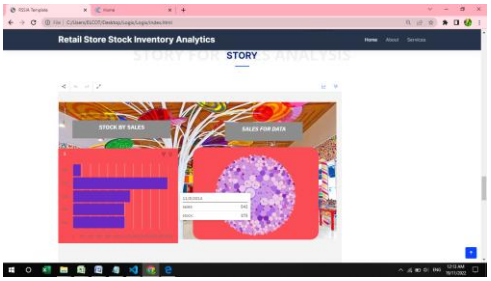


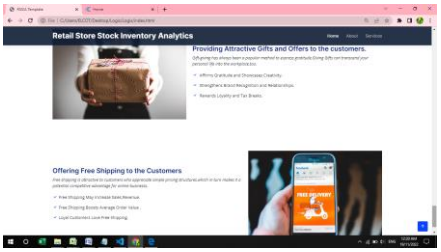












GITHUB AND PROJECT DEMO LINK

https://github.com/IBM-EPBL/IBM-Project-485-1658303653

PROJECT DEMO LINK

https://youtu.be/4TRkh456a1E