RETAIL STORE STOCK INVENTORY ANALYTICS

NALAIYA THIRAN PROJECT REPORT

IBM-Project-15021-1659593378

TEAM ID : PNT2022TMID46684

Submitted by

Bhavatharani .T	**821119104012**
Deepika .P	**821119104013**
Gomathi .A	**821119104020**
Karkuzhali .N	**821119104025**
Priyadharshini .E	**821119104032**

in partial fulfillment for the award of the degree

of

BACHELOR OF ENGINEERING

in

COMPUTER SCIENCE AND ENGINEERING

KINGS COLLEGE OF ENGINEERING ,PUNALKULAM

ANNA UNIVERSITY : CHENNAI 600 025

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1. INTRODUCTION

Project Overview:

Project is based on Retail Store Stock Inventory analytic 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.

Inventory management is vital for retailers because the practice helps them increase profits. They are more likely to have enough inventory to capture every possible sale while avoiding overstock and minimizing expenses.

Purpose:

Purpose of retail store stock analysis is to find the necessary stock required supply customer when there are in need of , the shop holder view the stock,price and sale in form dashboard,report and story in web page 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.

2. LITERATURE SURVEY

Existing problem:

Existing system consist of methods using ABC Analysis and Min-Max Analysis. In the Data Mart, the search for goods classes per sub category is carried out using the ABC Analysis calculation method. Furthermore, in the Data Mart, the search for maximum and minimum stock values is based on the Min-Max Analysis calculation method. The resulting maximum and minimum grade and stock values are then implemented into the goods data table in the retail management information system database. The last stage is to arrange the order amount that is allowed in the order module in the retail management information system. Rules that are made based on the class of goods along with the minimum and maximum stock values.

References:

The following are the references used:

[1] H S Sugiarto and H T Saksono 2016 Scheduling System on Goods Order At PTXYZ Using Economic Order Quantity Method The Third International Conference on Entrepreneurship.

[2] K E Fu and P Apichotwasurat 2013 Application of Economic Order Quantity on Production Scheduling and Control System for a Small Company. Proceedings of the Institute of Industrial Engineers Asian Conference 2013.

[3] M Rusănescu 2014 Abc Analysis , Model for Classifying Inventory HIDRAULICA.

[4] D Dhoka and Y L Choudary 2013 ABC Classification for Inventory Optimization IOSR J Bus Manage.

[5] Funaki, K.., "Strategies safety stock placement in supply chain design with due-date based demand," International Journal of Production Economics, vol. 135, pp 4-13, 2012. [6] Grewal, CS, Enns, ST, and Rogers, P., "Dynamic reorder point replenishment strategies for a capacitated supply chain with seasonal demand," Computer, and industrial engineering, vol. 80, pp 97-110, 2015.

[7] Indrajit, RE, and Djokopranoto, R., "General merchandise and inventory management of spare parts for maintenance, repair and operation", Yogyakarta: Grasindo, 2014.

[8] Mebarki, N. and Shahzad, A., "Correlation among tardiness based measures for priority scheduling using dispatching rules" Month, pp 1- 14, 2012.

Problem Statement Definition:

The digital revolution may be upon us, but vast numbers of companies large and small still sell (and, in many cases, manufacture) physical products. These products, and the materials used to produce them, create the need for one of the most complex and challenging areas of potential value creation and loss for any business: inventory management. Theft, fraud, human error, and other problems make preventing lost value as important as gaining it through revenue.

Fortunately, technology, paired with strategic thinking, make it easier for both small businesses and large corporations to stop the bleeding and protect their profitability and productivity while meeting the needs of their customers.

Problem Statement (PS Customer)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
PS-1	Customer 1	Communicate clearly	Unclear communication	Miscommunication can cause irreversible damage to efficiency	Automation can me streamline my communication flow across the departments
PS-2	Customer 2	Sell products	Overselling	Selling more than I can deliver could stain my business's reputation for a long time	Not able to meet customer demand
PS-3	Customer 3	Sell a product as shopkeeper	Over and under stacking of product occurs	Varied customer needs	Frustrated

Problem statements:

3.IDEATION & PROPOSED SOLUTION

Empathy Map Canvas:

An empathy map is a simple, easy-to-digest visual that captures knowledge about a user's behaviors and attitudes.

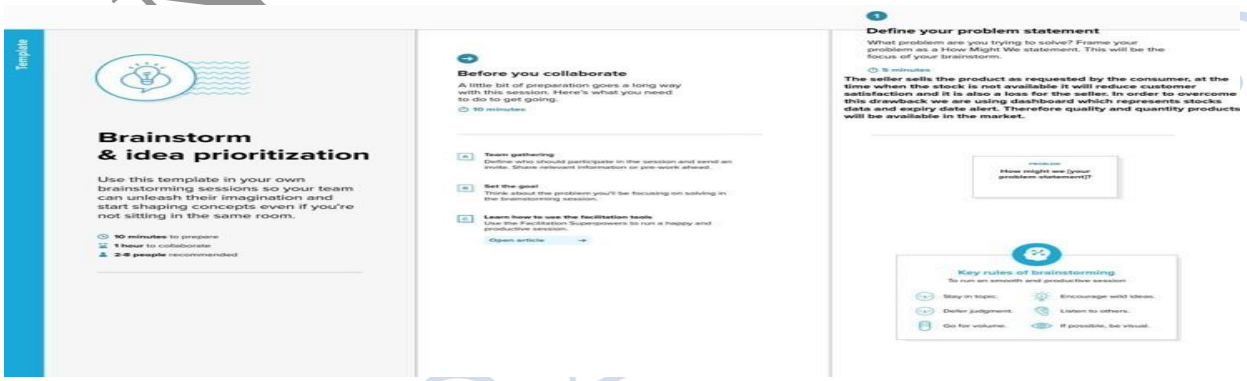
It is a useful tool to helps teams better understand their users.
Creating an effective solution requires understanding the true problem and the person who is experiencing it. The exercise of creating the map helps

participants consider things from the user's perspective along with his or her goals and challenges.

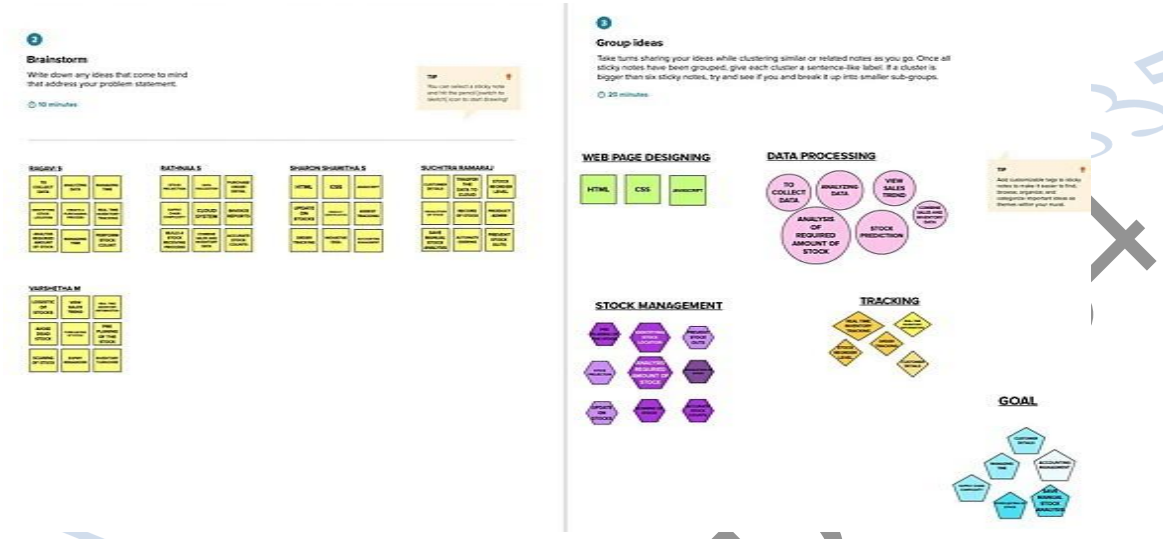
Ideation & Brainstorming:

Brainstorming provides a free and open environment that encourages everyone within a team to participate in the creative thinking process that leads to problem solving. Prioritizing volume over value, out-of-the-box ideas are welcome and built upon, and all participants are encouraged to collaborate, helping each other develop a rich amount of creative solutions.

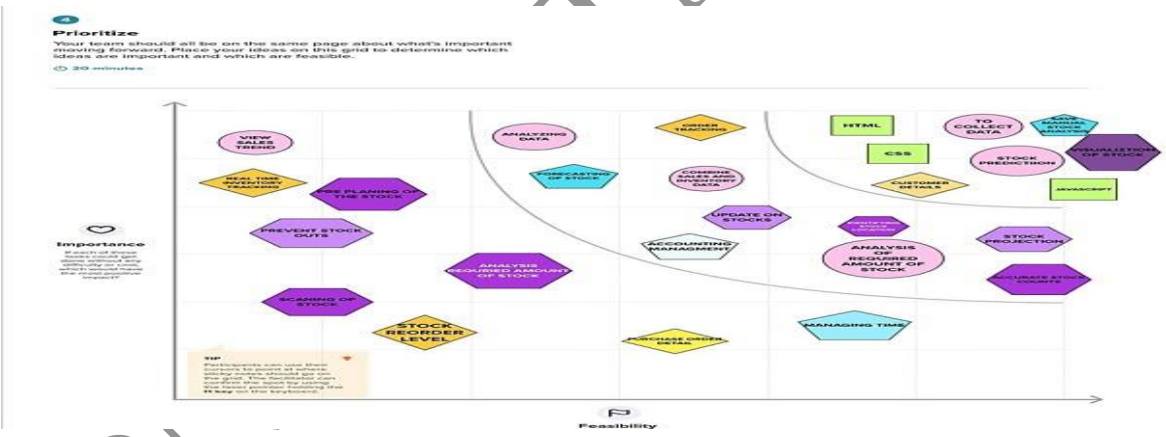
Step-1: Team Gathering, Collaboration and Select the Problem Statement



Step-2: Brainstorm, Idea Listing and Grouping



Step-3: Idea Prioritization



Proposed Solution:

Proposed Solution means the technical solution to be provided by the Implementation agency in response to the requirements and the objectives of the Project.

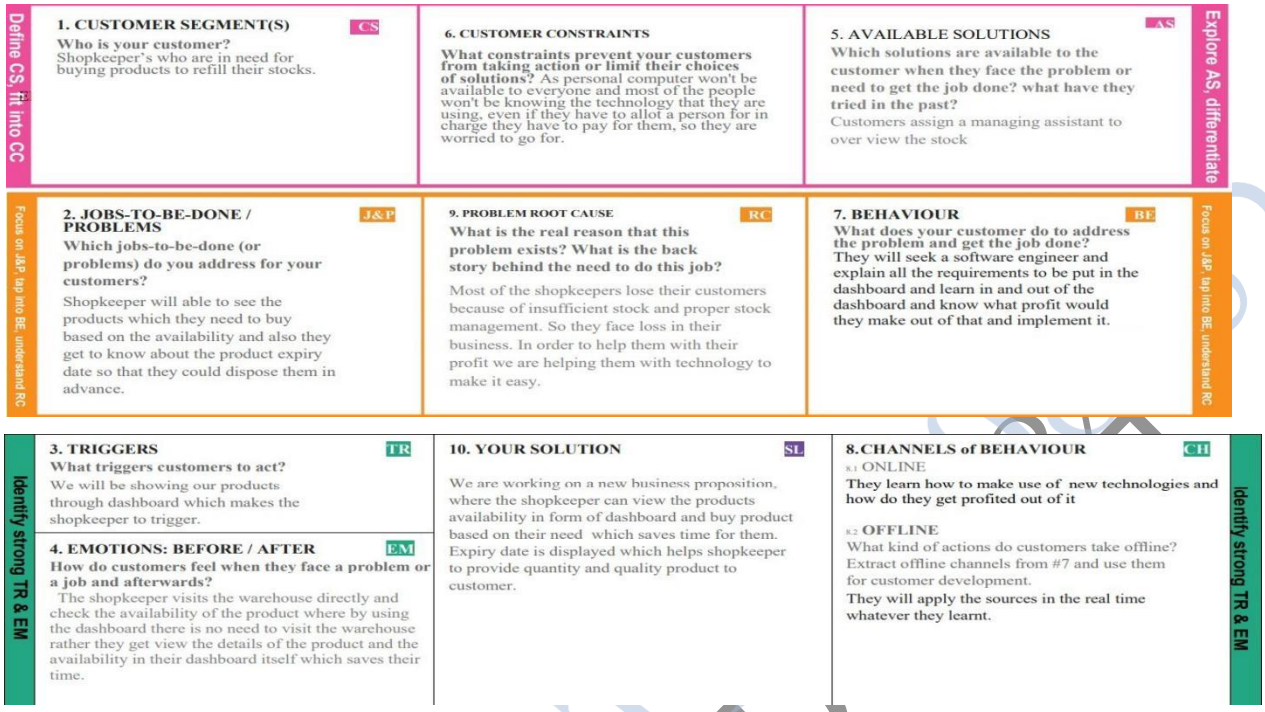
The main goal of presenting a business proposal is to provide solution to a problem faced by a potential buyer. This section should be as comprehensive as possible, and able to address all the needs that you have pointed in the first section.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	when the store does not meets the satisfaction level of them.
2.	Idea / Solution description	Using dashboard it would become easy for the store to keep a track on their stock, so that they can meet customer's satisfaction level.
3.	Novelty / Uniqueness	Expiry alert of the product will be given.
4.	Social Impact / Customer Satisfaction	Quality and Quantity of the product can maintained to the best, and customer's will have a heart full feeling while leaving the store
5.	Business Model (Revenue Model)	Using this method the company will have reputed customers and stocks will be delivered on time, so there is no need of last minute hassle.
6.	Scalability of the Solution	When your inventory is hard to identify or locate in the warehouse, it leads to incomplete, inaccurate or delayed shipments.Receiving and finding the right stock is vital to efficient warehouse operations and provides a positive customer experiences.

Problem solution fit:

Problem-Solution Fit simply means that you have found a problem with your customer and that the solution you have realized for it actually solves the customer's problem.The Problem-Solution Fit is an important step towards the Product-Market Fit, but often an underestimated one.

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.



4.REQUIREMENT ANALYSIS

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 nonfunctional requirements drive the technical architecture of a system.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	• Registration through Form • Registration through G mail
FR-2	User Confirmation	• Confirmation via Email
FR-3	User Login	• Login with form and G mail
FR-4	Profile update	• Update the user credentials

		• Update the Contact details
FR-5	Uploading Data	• Collect the customer details as well as • product details • Upload the product details • This model predicts the best sold • products and also it analysis the • available stocks
FR-6	Recommendation	• User will request for Item • Get the Item recommendations
FR-7	Ratings and Reviews	• The user i.e retailer of any shop can • give their ratings and view of this • models

Non-Functional requirements

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 nonfunctional requirements.

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	• They are more likely to have the right amount of inventory to take advantage of every potential sale while avoiding overstocking and cutting costs. Both desktop and mobile

		browsers can handle this architecture.
NFR-2	Security	• This can be used only by the users who have their proper login credentials
NFR-3	Reliability	• Avoid over or under stocking • Ensure accurate inventory valuation • Prevent order delays • Reduce dead stock
NFR-4	Performance	• In a departmental store, the billing technique is digitalize. The database of the customer that is the name of the customer, mobile number, address and the purchase details of the customer are included in the data set. From this, the model can predict the dead stocks and highly profitable stocks. The accuracy of this model will be ensured by checking multiple times.
NFR-5	Availability	• Accessible on all devices • Run efficiently at the bare minimum specifications
NFR-6	Scalability	• Many users can access simultaneously without any glitch • Data can be imported and exported as j son files

5.PROJECT DESIGN

Data Flow Diagram:

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.

FIRST LEVEL DATA FLOW DIAGRAM

Solution & Technical Architecture:

Solution architecture is a complex process – with many sub-processes – that bridges the gap between business problems and technology solutions.

- Find 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.

User Stories:

			while adding)			
	Delete product	USN-4	As a Retailer, I can able to delete the product as it is no longer needed by entering the product id(product id- Known by clicking view product button,Generated by the system while adding)	I can delete the product from the system.	low	Sprint-2
	View products	USN-5	As a Retailer I am able to view the list of products by clicking the view product button in the stocks tab.	I can view the list of products.	High	Sprint-2
	Add category	USN- 6	As a Retailer I am able to add category by entering category details (Category name)	I can create a new category.	High	Sprint-1
User Type	**Functional Requirement (Epic)**	**User Story Number**	**User Story / Task**	**Acceptance criteria**	**Priority**	**Release**
Retailer (Web user)	Login	USN-1	As a Retailer, I can log into the application by entering email & password (provided by developer)	I can access my account / dashboard	High	Sprint-1
	Add Product	USN-2	As a Retailer, I will be able to add the product by entering their details(product name,price and category).	I can view the added products by clicking the view products button.	High	Sprint-2
	Update product	USN-3	As a Retailer, I can able to update the product details by entering the product id(product id- Known by clicking view product button,Generated by the system	I can update the product details.	low	Sprint-2
	Update category	USN-7	As a Retailer, I am able to update the category details by selecting the category name.	I can update the category details.	Low	Sprint-1

User Type	**Functional Requirement (Epic)**	**User Story Number**	**User Story / Task**	**Acceptance criteria**	**Priority**	**Release**
	Delete category	USN-8	As a Retailer, I am able to delete the category details by selecting the category name as it is no longer needed.	I can delete the category if it is no longer needed.	Low	Sprint-1
	Order product	USN-9	As a Retailer I am able to order the products by entering customer details,product id and quantity.	I can forecast the stocks needed by pre-ordering.	High	Sprint-2
	View Summary	USN-10	As a Retailer I can view the summary of the inventory such as total orders,stock details and sales details.	I can view the Total inventory details.	High	Sprint-2
	View Bills	USN-11	As a Retailer I can view bills based on the amount,date and customer.	I can view the Bills.	Medium	Sprint-2
	Add Employee	USN-12	As a Retailer I can add employees by Entering their details.	I can generate employee login credentials.	High	Sprint-3
	Update Employee	USN-13	As a Retailer I can Update the employee details by entering their id.	I can access the Employee details.	Low	Sprint-3
	Delete Employee	USN-14	As a Retailer I can Delete the employee as it is no longer needed.	I can delete the employee details .	Low	Sprint-3
	View profile	USN-15	As a Retailer I can View list of employees and their details by clicking the view profile button.	I can view the employees profile.	Medium	Sprint-3
	Notify on critical stock	USN-16	As a Retailer I can view the notification (due to understock and overstock) via mobile phone and dashboard(Home page).	I am aware of understock and overstock.	High	Sprint-3
	Add daily purchase.	USN-17	As a Retailer I can add the daily purchase by Entering the product Id and quantity.	I can keep track of stocks.	High	Sprint-3
Employee(We	Login	USN-18	As a Employee I can log into the	I can access the system	High	Sprint-1

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
	Order product	USN-19	As an Employee I am able to order the products by entering customer details,product id and quantity.	I can enter the pre - order details.	High	Sprint-4
	View summary	USN-20	As an Employee I can view the summary of the inventory such as total orders,stock details and sales details.	I can view the Total inventory details .	High	Sprint-4
	View Bills	USN-21	As an Employee I can view bills based on the amount,date and customer.	I can view the Bills.	Medium	Sprint-4
	Add daily purchase	USN-22	As an Employee I can add the daily purchase by Entering the product Id and quantity.	I am aware of stock availability.	High	Sprint-4

6.PROJECT PLANNING & SCHEDULING

Product Backlog, Sprint Schedule, and Estimation

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	**2**	**High**	Bhavatharani.T Karkuzhali.N Deepika.P Priyadharshini.E Gomathi.A
Sprint-1	Registration	USN-2	As a user, I will receive confirmation email once I have registered for the application	**1**	**High**	Bhavatharani.T Karkuzhali.N Deepika.P Priyadharshini.E Gomathi.A
Sprint-2	Registration	USN-3	As a user, I can register for the application through google account or the one provided by the service provider.	**2**	**Low**	Bhavatharani.T Karkuzhali.N Deepika.P Priyadharshini.E Gomathi.A

Sprint-1	Registration	USN-4	Asa user, I can register using the collaborated Gmail ID as well.	**2**	**medium**	Bhavatharani.T Karkuzhali.N Deepika.P Priyadharshini.E Gomathi.A
Sprint-1	Login	USN-5	As a user, I can log into the application by entering email & password	**1**	**High**	Bhavatharani.T Karkuzhali.N Deepika.P Priyadharshini.E Gomathi.A
Sprint-2	Login	USN-6	As a user, for more secure protection 2 step authenticatio n will be used.	**1**	**High**	Bhavatharani.T Karkuzhali.N Deepika.P Priyadharshini.E Gomathi.A
Sprint-2	Login	USN-7	As a user, it will be redirected to the dashboard interface.	**2**	**Medium**	Bhavatharani.T Karkuzhali.N Deepika.P Priyadharshini.E Gomathi.A
Sprint-3	Dashboard	USN-8	As a user, The dashboard will provide suitable information for us the user to decide on the next move for the retail inventory.	**2**	**High**	Bhavatharani.T Karkuzhali.N Deepika.P Priyadharshini.E Gomathi.A
Sprint-4	Server & Data Analysis	USN-10	As a user, The data will be entered using a Barcode scanner or through analysis the items will be then processed and analysis will be done with the given data and a	**2**	**High**	Bhavatharani.T Karkuzhali.N Deepika.P Priyadharshini.E Gomathi.A

			suitable output will be given.			
Sprint-4	Server & Data Analysis	USN-11	As a user, The server will itself place the most suitable order and analyse if the stock will sale as soon as possible.	2	**High**	Bhavatharani.T Karkuzhali.N Deepika.P Priyadharshini.E Gomathi.A

Project Tracker, Velocity & Burn down Chart:

Sprint	Total Story Points	Duration	Sprint Start Date Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1	20	6 Days	24 Oct 2022	29 Oct 2022	10	29 Oct 2022
Sprint-2	20	6 Days	31 Oct 2022	05 Nov 2022	10	05 Nov 2022
Sprint-3	20	6 Days	07 Nov 2022	12 Nov 2022	10	12 Nov 2022
Sprint-4	20	6 Days	14 Nov 2022	19 Nov 2022	10	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)

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

7.CODING & SCREENSHOTS

Code:

Style.css

```
body, html {
                                    height:100%;
                                     background: #1c1e21;
    overflow-x: hidden;
   font-family: 'Dosis', sans-serif;
}

btn {
   border-radius: 0



}
.btn:focus, .btn:active, .btn.active, .btn:active:focus {

   outline: 0;
 border-radius: 0
}



.btn-larger {
   padding: 15px 40px !important;
   border:2px solid #F7CA18 !important;;
   border-radius: 0px !important;;
   text-transform: uppercase;
   font-family: 'Dosis', sans-serif;
   font-size: 18px;
   font-weight: 300;
   color: #F7CA18;
```

```
    background-color: transparent;
    -webkit-transition: all .6s;
    -moz-transition: all .6s;
    transition: all .6s;



}
.btn-larger:hover, .btn-larger:focus, .btn-larger:active, .btn-larger.active, .open .dropdown-toggle.btn-larger {



    border-color: #F7CA18;
    color: #fff;
    background-color: #F7CA18;
  border-radius: 0
}
.btn-larger:active, .btn-larger.active, .open .dropdown-toggle.btn-larger {


    background-image: none;
}
 .btn-larger.disabled, .btn-larger[disabled], fieldset[disabled] .btn-larger, .btn-larger.disabled:hover, .btn-
larger[disabled]:hover, fieldset[disabled] .btn-larger:hover, .btn-larger.disabled:focus, .btn-larger[disabled]:focus, fieldset[disabled]
.btn-larger:focus, .btn-larger.disabled:active, .btn-larger[disabled]:active, fieldset[disabled] .btn-larger:active, .btn-
larger.disabled.active, .btn-larger[disabled].active, fieldset[disabled] .btn-larger.active
{
        border-color: #AEA8D3;
        background-color: #AEA8D3;
    }
    .btn-larger .badge {
        color: #AEA8D3;
        background-color: #fff;
    }

    div#form {
        color: #fff;
        background-attachment: scroll;
        background: #1c1e21 url(https://static.pexels.com/photos/8819/warsaw.jpg);
        background-position: center center;
        background-repeat: none;
        -webkit-background-size: cover;
        -moz-background-size: cover;
        background-size: cover;
```

```
    -o-background-size: cover;
   min-height:100%;

  }

  #userform p {
    font-size: 14px;
    margin-bottom: 5px;
  }
  #userform ul {
    list-style-type: none;
    padding: 0;
    margin-bottom: 0px;
  }
  #userform {
    background: rgba(0,0,0,0.8);
    margin: 20px 0 20px 0
  }
   @media (min-width: 768px) {
  #userform {
    background: rgba(0,0,0,0.8);
    margin: 50px 0 20px 0
  }
  }
  #userform .nav-tabs.nav-justified > li > a {
    text-transform: uppercase;
    font-size: 20px;
    color: #F7CA18;
    background-color: rgba(90,90,90,0.5);
  }
  #userform .nav-tabs.nav-justified > .active > a, #userform .nav-tabs.nav-justified > .active > a:hover, #userform .nav-tabs.nav-
justified > .active > a:focus {
    border: 0;
    background: #F7CA18;
    color: white;
    border-radius: 0;
  }
  #userform .nav-justified > li > a {
    margin-bottom: 0;
    -webkit-transition: all .6s;
    -moz-transition: all .6s;
    transition: all .6s;
  }
  #userform .nav-justified > li > a:hover {
    background: #AEA8D3;
    color: #FFF;
  }
```

```
#userform .nav-tabs > li > a {
    border: 0px solid transparent;
    border-radius: 0
}
#userform .nav-tabs.nav-justified > li > a:hover {
    background: #F7CA18;
    color: #FFF;
    border-radius: 0;
    border: 0;
    -webkit-transition: all .6s;
    -moz-transition: all .6s;
    transition: all .6s;
}
#userform .nav-tabs > li.active > a, #userform .nav-tabs > li.active > a:hover, #userform .nav-tabs > li.active > a:focus {
    color: #F7CA18;
    cursor: default;
    background-color: transparent;
    border: 0;
    -webkit-transition: all .6s;
    -moz-transition: all .6s;
    transition: all .6s;
}
 @media (min-width: 768px) {
#userform .nav-tabs.nav-justified > li > a {
    border: 0;
    -webkit-transition: all .6s;
    -moz-transition: all .6s;
    transition: all .6s;
}
#userform .nav-tabs.nav-justified > li > a:hover {
    background-color: #F7CA18;
    border-color: transparent;
    border: 0;
    -webkit-transition: all .6s;
    -moz-transition: all .6s;
    transition: all .6s;
}
}
 @media (max-width: 768px) {
.nav-justified > li {
    display: table-cell !important;
    width: 1% !important;
}
}
#userform .nav-tabs {
    border-bottom: 0px solid #ddd;
```

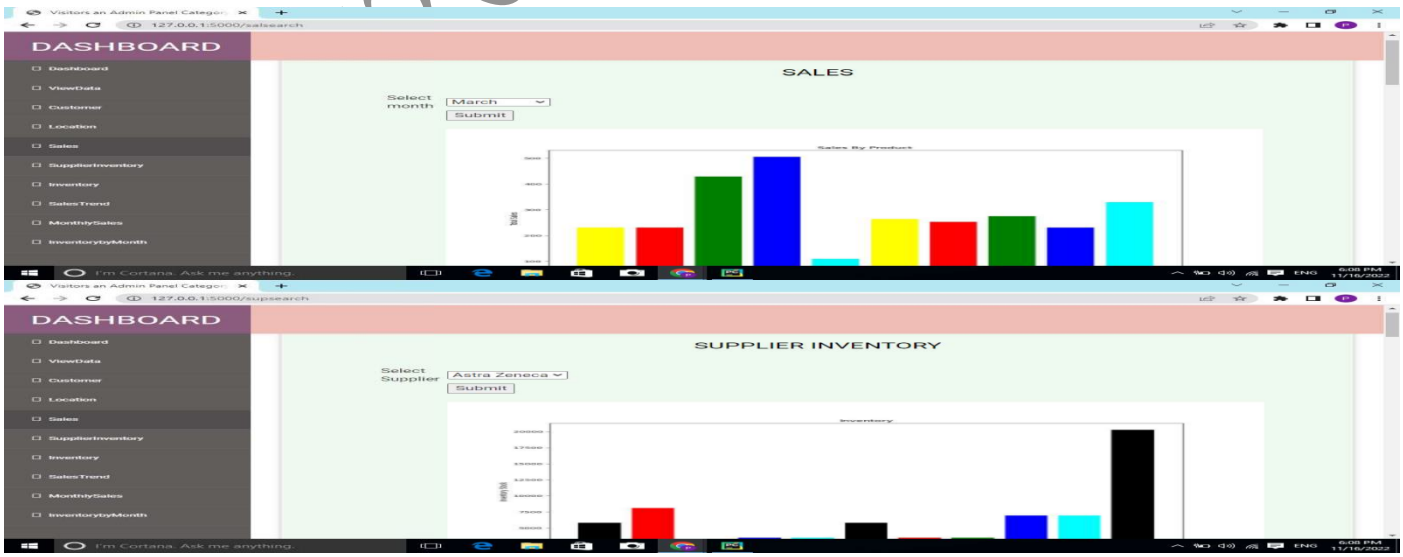
```
}
#userform .tab-pane h2 {
    margin: 10px 0;
    color: #FFF;
}
#userform .tab-pane p.lead {
    margin-top: 20px;
}
#userform .tab-content {
    padding: 20px
}
#userform .form-group {
    margin-bottom: 0px;
    color: #FFF;
}
#userform .form-group input, #userform .form-group textarea {
    padding: 10px;
}
#userform .form-group input.form-control {
    height: auto;
    background-color: rgba(237, 235, 250, 0.1);
    color: #FFF;
}
#userform .form-control {
    border-radius: 0;
    border: 1px solid #fff;
}
#userform .form-control:focus {
    border-color: #F7CA18;
    box-shadow: none;
}
 #userform::-webkit-input-placeholder {
 text-transform: uppercase;
font-family: 'Dosis', sans-serif;
font-weight: 700;
 color: #bbb;
}
#userform #signup .form-group label {
    position: relative;
    -webkit-transform: translateY(35px);
    -ms-transform: translateY(35px);
    transform: translateY(35px);
    left: 10px;
    top: 0px;
    color: rgba(255, 255, 255, 0.5);
    -webkit-transition: all 0.25s ease;
```

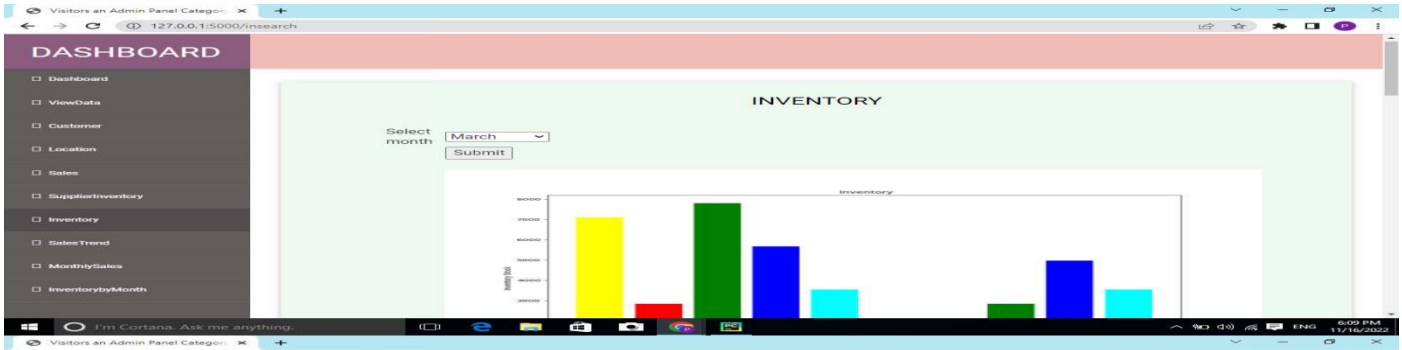
```
    transition: all 0.25s ease;
    -webkit-backface-visibility: hidden;
    pointer-events: none;
    font-size: 12px;
    font-weight: 300
}
#userform #signup .form-group label .req {
    margin: 2px;
    color: #F7CA18;
}
#userform #signup .form-group label.active {
    -webkit-transform: translateY(0px);
    -ms-transform: translateY(0px);
    transform: translateY(0px);
    left: 2px;
    font-size: 12px;
}
#userform #signup .form-group label.active .req {
    opacity: 0;
}
#userform label.highlight {
    color: #ffffff;
}
#userform #login .form-group label {
    position: relative;
    -webkit-transform: translateY(35px);
    -ms-transform: translateY(35px);
    transform: translateY(35px);
    left: 10px;
    top: 0px;
    color: rgba(255, 255, 255, 0.5);
    -webkit-transition: all 0.25s ease;
    transition: all 0.25s ease;
    -webkit-backface-visibility: hidden;
    pointer-events: none;
    font-size: 12px;
    font-weight: 300
}
#userform #login .form-group label .req {
    margin: 2px;
    color: #F7CA18;
}
#userform #login .form-group label.active {
    -webkit-transform: translateY(0px);
    -ms-transform: translateY(0px);
    transform: translateY(0px);
```

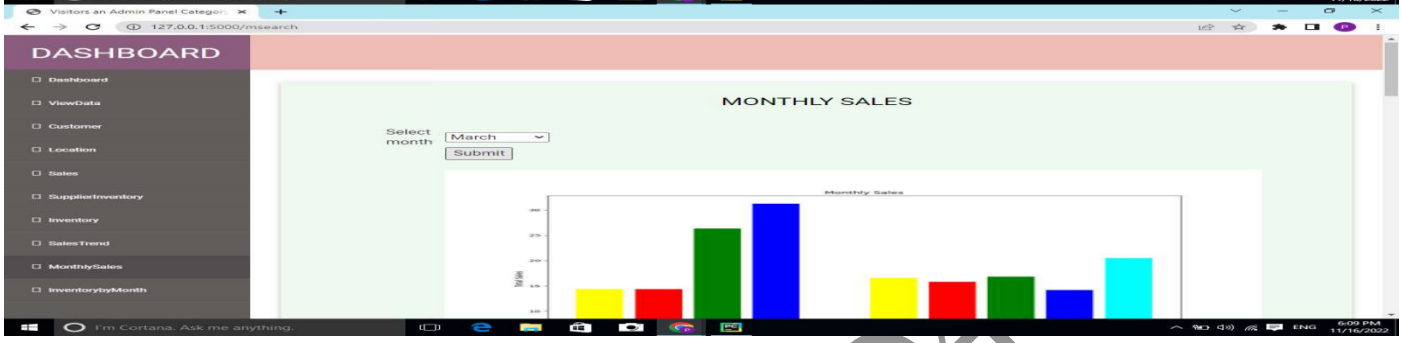
```
    left: 2px;
    font-size: 12px;
}
#userform #login .form-group label.active .req {
    opacity: 0;
}

.mrgn-30-top {
    margin-top: 30px
}
```

```
border-color: #AEA8D3;
```





8.TESTING

Test Case:

User Acceptance Testing:

The purpose of this 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 how they were resolved.

Resolution	Severity 1	Severity 2	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
Total	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

9.RESULTS

Performance Metrics:

Performance metrics are defined as figures and data representative of an organization's actions, abilities, and overall quality.

S.No	Parameter	Screenshot/ Values
1.	Dashboard design	Dashboard consist of 8graph in 8 different tabs.
2.	Data Responsiveness	Data was responsive for creating dashboard, story and report.
3.	Amount Data to Rendered (DB2 Metrics)	Inventory management dataset which consist of 938 datas in it.
4.	Utilization of Data Filters	Data filters was used to find the top most of the data in form of visualization.
5.	Effective User Story	Story consist of 4 scenes and 5 graphs.
6.	Descriptive Reports	Created 2 reports with 7 graphs.

10.ADVANTAGES & DISADVANTAGES:

Advantage:

- An advantage of the retail inventory method 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.

Disadvantage:

- 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

11.CONCLUSION

Hence in Retail store stock analysis it helps shop holder to manage stock, sale and price and maintain the necessary stock without reaching to demand,by maintaining the stock it gains the trust for the customer to buy product on a regular basis which also provide gain to to shop holder by increasing the profit.

12. FURUTE SCOPE

Inventory management systems have become more real-time, giving retailers more data about demographics, spending habits, shopping preferences, etc.. Stock control for omni channel retailing. Stores doing omni channel retailing are at the top of their game; they attract the 90% of consumers who switch between at least three applications per day to complete specific tasks.Inventories that power experiential retail.

13. APPENDIX

GitHub Link : https://github.com/IBM-EPBL/IBM-Project-44428-1660724653