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Project Report

TEAM ID	PNT2022TMID22629
PROJECT NAME	Retail Store Stock Inventory Analytics

1.INTRODUCTION

1.1 Project Overview:

The main objectives of this project are we propose a Due to this process Customer use this app to see how much of each product is sold and deducted. You can use sales reports to see information about your customer orders. The main problem found in our existing system as, currently, Sales man is needed to recognize the amount of the products and to know the sold products deducted manually. This is stressful especially to people who aren't so smart in calculations. So, this project is developed to replace human power to recognize the amount of the deduction.

1.2 Purpose:

Customers using this app to see how much of each product is sold and deducted. You can use sales reports to see information about your customers orders based on criteria such as sales over time, by product, or by channel. Once a particular stock comes below the predefined minimum stock level as automatic SMS alert is triggered to the respective supplier who supplied that particular stock in order to process a new stock supply to the supermarket.

2. LITERATURE SURVEY:

2.1 Existing problem:

The problem faced by the company is they do not have any systematic system to record and keep their inventory data. It is difficult for the admin to record the inventory data quickly and safely because they only keep it in the logbook and not properly organized. Lack of visibility and disconnected store items. Solving your out of stock problem once and for all.

2.2 References:

PAPER 1:

TITLE: Retailing and Retailing Research
AUTHOR NAME: Marnik G. Dekimpe
PUBLICATION YEAR: 2019
DESCRIPTION:

Big data analytics in retail not only has the retail industry, big data analytics helps in the age of big data analytics potential to improve the operating margins of companies by 60% but revolutionize all areas of retail.

PAPER 2:

TITLE: Concept and Objective Retail
AUTHOR NAME: Siddharth sai
PUBLICATION YEAR: 2020
DESCRIPTION:

Lack of visibility and Disconnected store teams. In consistence, Warehouse efficiency etc.

PAPER 3:

TITLE: Data, and Inventory Balance
AUTHOR NAME: Rodrigo Arcentales Carrion University of Cuenca
PUBLICATION YEAR: 2021
DESCRIPTION:

The problem faced by the company is they do not have any systematic system to record and keep their inventory data. It is difficult for the admin to record the inventory data quickly and safely because they only keep it in the logbook and not properly organized.

PAPER 4:

TITLE: Content Analysis
AUTHOR NAME: Rodrigo Arcentales Carrion Research Group
PUBLICATION YEAR: 2022
DESCRIPTION:

Solving Out-of-Stock problem once and for all.Can be extreme;y time consuming. Is subject to increased error, particularly when relational analysis.

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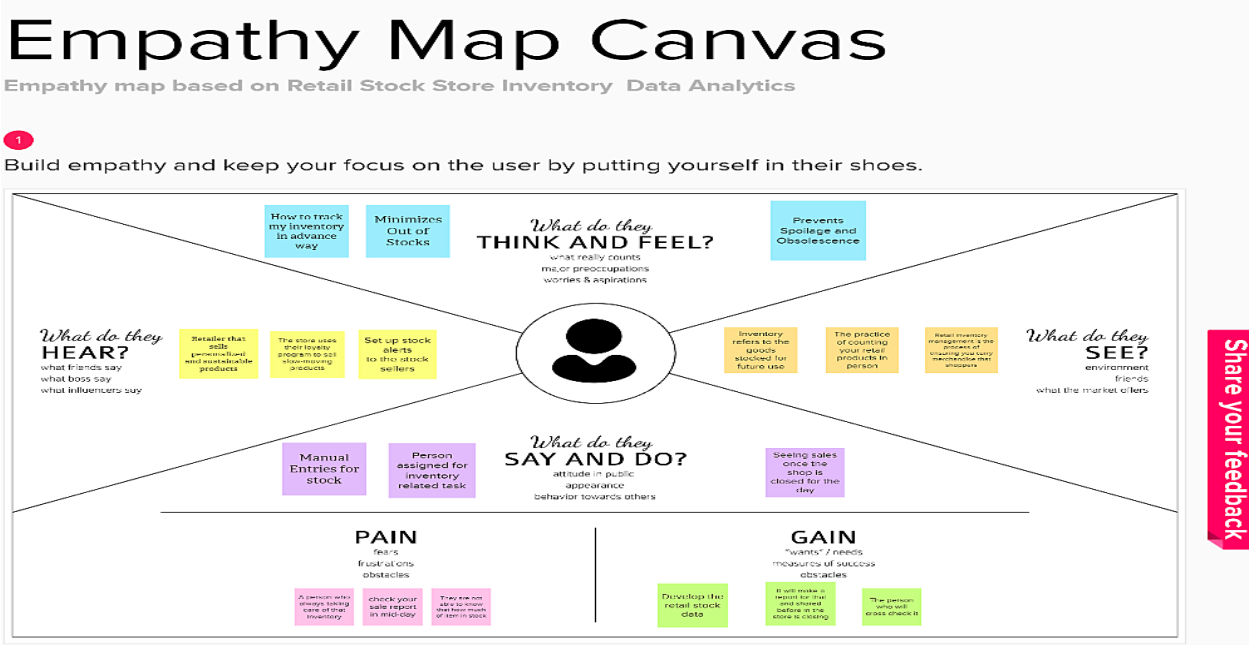
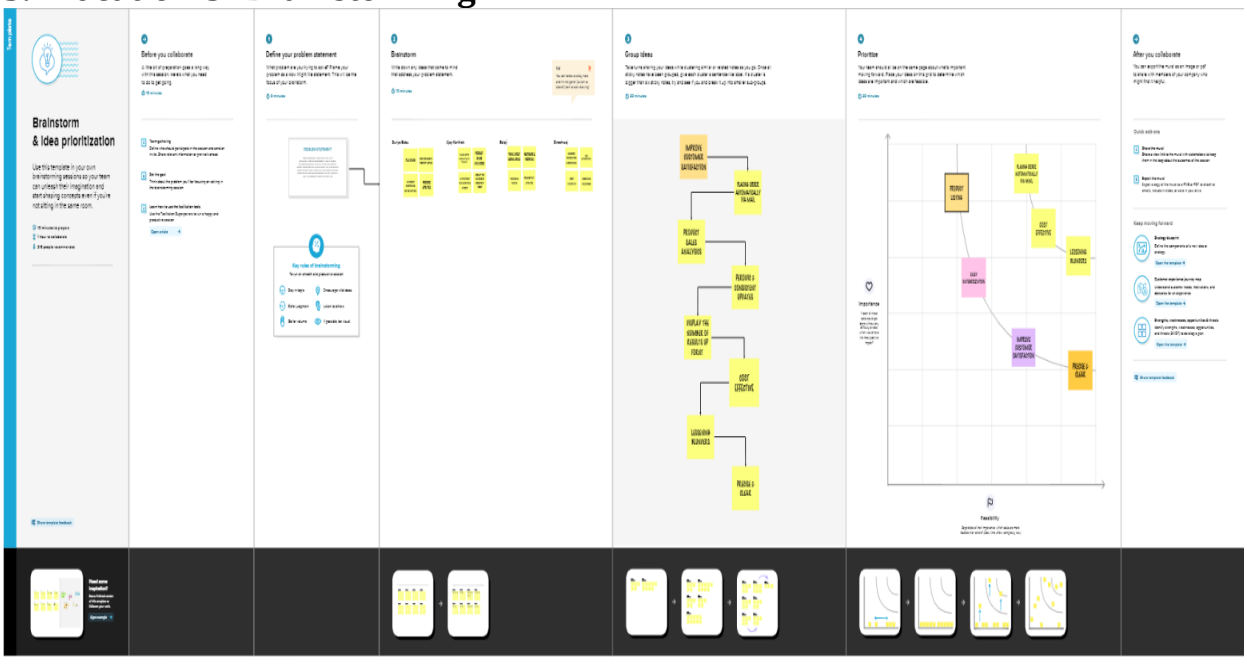
3. IDEATION & PROPOSED SOLUTION

3.1 Empathy Map Canvas



3.2 Ideation & Brainstorming



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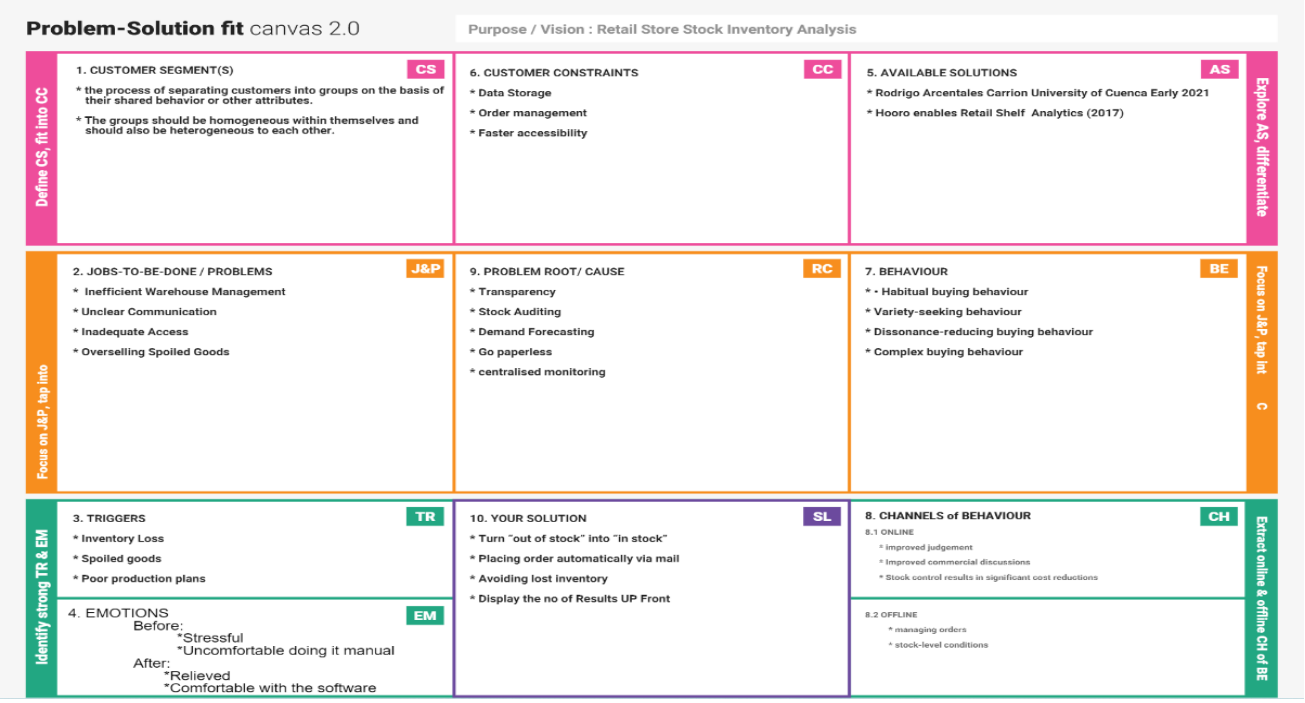
3.3 Proposed Solution:

S.No	Parameter	Description
1	Problem statement	The problem was faced by many shopkeepers. They have to check the data about the products. It is difficult to store and maintains the stock.
2	Idea/Solution description	It helps to track the level of stocks. Once the quantity of the goods comes under the threshold it automatically places the order by contacting supplier.
3	Novelty/Uniqueness	Where the existing system using weight sensors to maintain the stock where we are using only programs that can be accessing in webpage without any physical parameters.
4	Social impact/Customer satisfaction	Products are available at any moment for customers so that they can arrive to the store without any kind of doubts of the product's quantity.
5	Business Model (Revenue model)	Demands of the shopkeeper can satisfied easily by the supplier.
6	Scalability of the solution	• Maintenance of inventory stock levels. • Auto placing orders.

3.4 Problem Solution Fit:



4.REQUIREMENT ANALYSIS

4.1 Functional requirement

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 using mail id, store name and password.
FR-2	User Confirmation	Confirmation via Email OTP.
FR-3	User Login	Login at user front end web page.
FR-4	Profile update	Update the user credentials. Update the store details. Update the Contact details.
FR-5	Uploading Data	Collect the product details. Upload the product details and enters the customer purchased product details and track the product.
FR-6	Ratings and Reviews	The user retailer of any shop can give their ratings and view of this models.
FR-7	Add multiple accounts	The user creates multiple accounts to add another branch of store.
FR-8	Delete Accounts	The user can remove the branches unwanted account.
FR-9	Track a product	If the product stock reaches the low level it is intimates to the retailer.

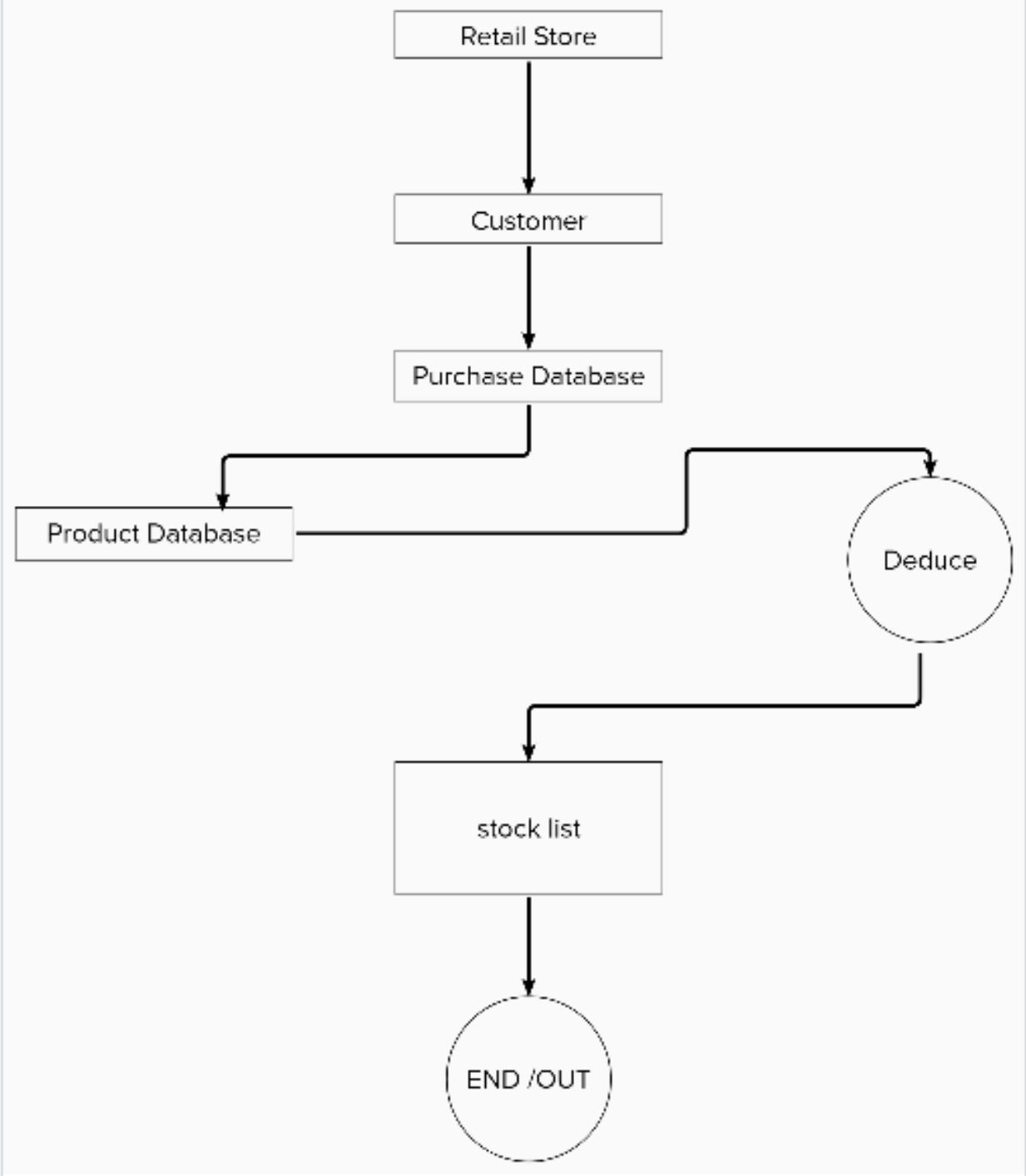
4.2 Non-Functional requirements

Following are the non-functional requirements of the proposed solution.

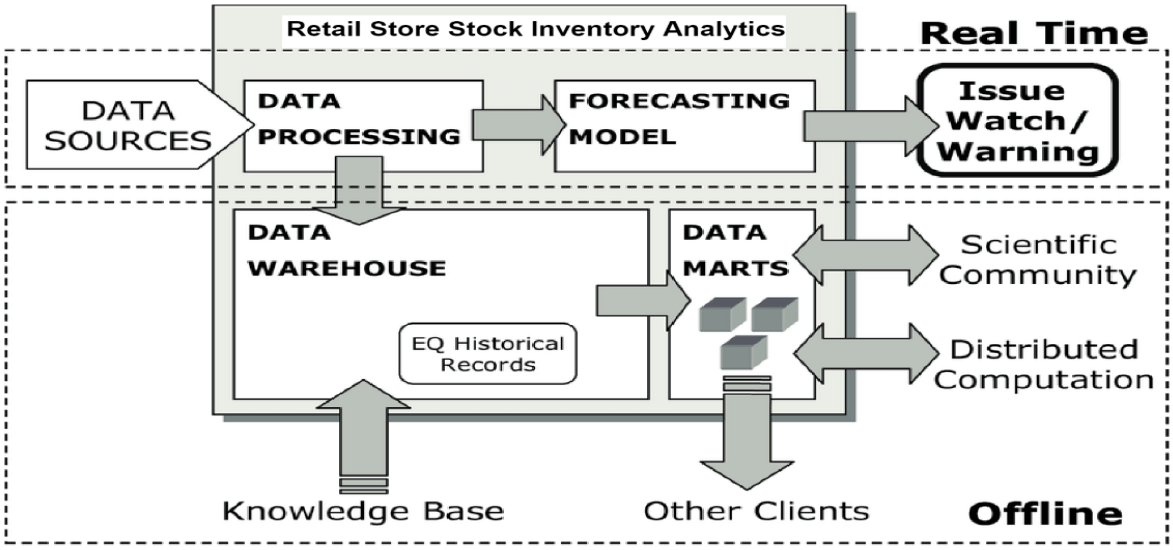
FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	They are more likely to have the right amount of inventory to take advantage of every potential sale while avoiding overstocking and cutting costs. Both desktop and mobile browsers can handle these pages
NFR-2	[illegible]	[illegible]
NFR-3	**Reliability**	Avoid over or under stocking Ensure accurate inventory valuation The user can prevent stock level is low.
NFR-4	**Performance**	In a departmental store, the billing technique is digitalize d. From this, the model can predict the dead stocks and highly profitable stocks.
NFR-5	**Availability**	The user can access in devices phone, computer, tabs and laptop.
NFR-6	**Scalability**	Many users can access a product detail simultaneously without any glitch.

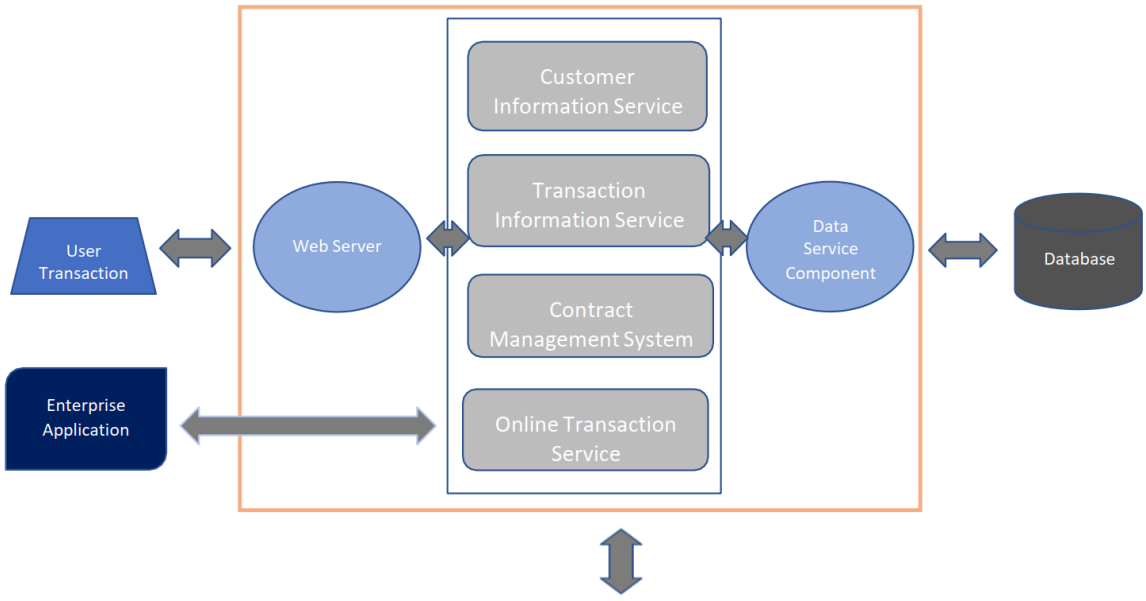
5.PROJECT DESIGN

5.1Data Flow Diagrams



5.2 Solution & Technical Architecture:





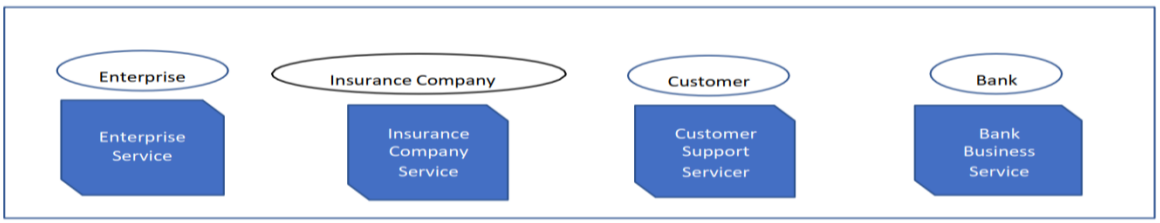


Table-1: Components &Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, etc.	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	Standardization Of Product Prices	Creating sort list based on the rate, features, distance, color	Smart Search.
3.	Enabling M-Commerce.	By enabling M-commerce even the consumer can become as a prosumer's	Recommendation systems
4.	Warehousing fulfillment and shipping	Ensuring the availability of product by their warehouse detail and its shipping information is stored in cloud	Cloud computing
5.	Reliable and Trusted Customer Support.	24/7 customer support will provide a customer satisfaction on their product and resolve in their problems	Indicator analysis tools
6.	Ensuring Security.	Creating a security wall for accessing the user, with their own identity to be safe without any fraudulent	Encryption, Hash, Authentication, Firewall

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	One-Step Registration.	Providing a authentication step for verifying the user whether he/she or not?	Fingerprints
2.	Super-fast checkout.	Clearing the orders as soon as possible will make the customer satisfaction.	RFID scanner gates
3.	Detailed Product Information.	Making a detailed information about the product could clear the customer doubts and fulfil the expected information.	Artificial intelligence (AI)
4.	Availability	Knowing the availability of product will show the availability of the product based on the customer location	Location - based marketing

5.3 User Stories

Use the below template to list all the user stories for the product

TITLE	DESCRIPTION	DATE
Literature Survey & Information Gathering	Literature survey on selected project and gathering information by referring the project's related technical papers, research publications, etc	**10 SEPTEMBER 2022**
Prepare Empathy Map	Prepare empathy map canvas to capture the user's pains & gains and prepare the list of problem statements.	**20 SEPTEMBER 2022**
Ideation	To list by the organizing brainstorm sessions and prioritize the top three ideas based on the feasibility and importance.	**22 SEPTEMBER 2022**
Proposed Solution	To prepare the proposed solution documents, which includes the novelty, feasibility of ideas, business model, social impact, scalability of the solution, etc.	**26 SEPTEMBER 2022**
Problem Solution Fit	Includes customer segments and customer constraints, the problem root cause and jobs to be done.	**05 OCTOBER 2022**
Solution Architecture	From data collection to digit recognition by the web application are represented in architectural diagrams	**05 OCTOBER 2022**

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Customer Journey	Prepare the customers journey map help the customers understand the user interaction and experiences with the application from the beginning to the end.	**10 OCTOBER 2022**
Functional Requirement	Prepare the functional requirement document.	**18 OCTOBER 2022**
Data Flow Diagrams	Data flow diagrams and user stories are prepared and four sprint phases are described. .	**18 OCTOBER 2022**
Technology Architecture	Technical flow graphs are created and the functions of technical stacks are defined.	**19 OCTOBER 2022**
Prepare Milestone & Activity List	Prepare the milestones and activity of the project.	**22 OCTOBER 2022**
Sprint Delivery Plan	To develop a template for sprint planning.	**22 OCTOBER 2022**
Project Development – Delivery of Sprint-1, 2, 3 & 4	Develop and submit the developed code by testing it and having no errors.	**24 OCTOBER 2022 - 19 NOVEMBER 2022**

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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	Suriya Babu D, Ajay Karthick S
Sprint-2	Registration through Facebook	USN-2	As a user, I can register for the application through Facebook	2	Low	Suriya Babu D, Ajay Karthick S
Sprint-1	Registration through Gmail	USN-3	As a user, I can register for the application through Gmail	2	Medium	Suriya Babu D, Ajay Karthick S
Sprint-1	Login	USN-4	As a user, I can log into the application by entering email & password	1	High	Suriya Babu D, Ajay Karthick S
Sprint-2	Dashboard	USN-5	As a user, I can view my dashboard and can perform stock prediction and analysis	3	High	Suriya Babu D, Ajay Karthick S, Balaji K
Sprint-2	View list of stocks	USN-6	As a user I can view the list of categorized products and their details	4	High	Suriya Babu D, Siveshraaj P
Sprint-2	Search products	USN-7	As a user I can search through the product using barcode	2	Medium	Ajay Karthick S, Balaji K
Sprint-3	Report generation	USN-8	As a user I can generate reports based on product sales	5	High	Siveshraaj P, Balaji K

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Sprint-3	Stock Prediction	USN-9	As a user I can predict out of stock and less stock for a product	5	High	Siveshraaj P, Balaji K
Sprint-4	Notification system	USN-10	As a user I can view notification for expired and out of stock products	4	High	Ajay Karthick S, Balaji K
Sprint-4	Re-Ordering stock	USN-11	As a user I can reorder stocks based on predictions and notification	3	High	Suriya Babu D, Siveshraaj P
Sprint-2	Updating stock	USN-12	As a user I can add/delete products	5	High	Siveshraaj P, Balaji K Suriya Babu D
Sprint-4	Invoice generation	USN-13	As a user I can generate invoice calculating taxes, discount and calculate credits	4	High	Ajay Karthick S, Balaji K
Sprint-4	Discount system	USN-14	As a user I can provide discount based on credit points	3	Medium	Suriya Babu D Ajay Karthick S

6.2. Sprint Delivery Schedule:

Project Tracker, Velocity & Burndown Chart: (4 Marks)

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1	6	6 Days	24 Oct 2022	29 Oct 2022	6	29 Oct 2022
Sprint-2	16	6 Days	31 Oct 2022	05 Nov 2022	16	05 Nov 2022
Sprint-3	10	6 Days	07 Nov 2022	12 Nov 2022	10	12 Nov 2022
Sprint-4	14	6 Days	14 Nov 2022	19 Nov 2022	14	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).

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

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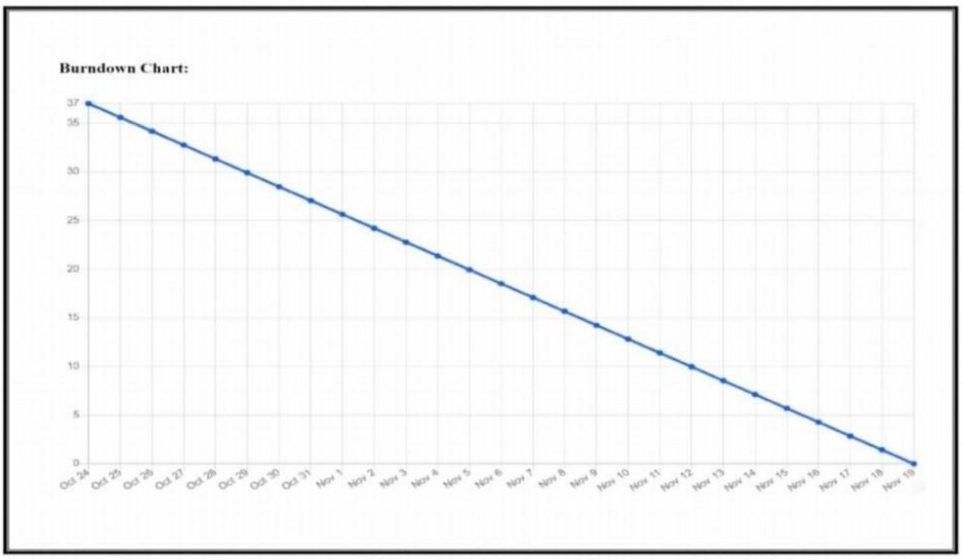
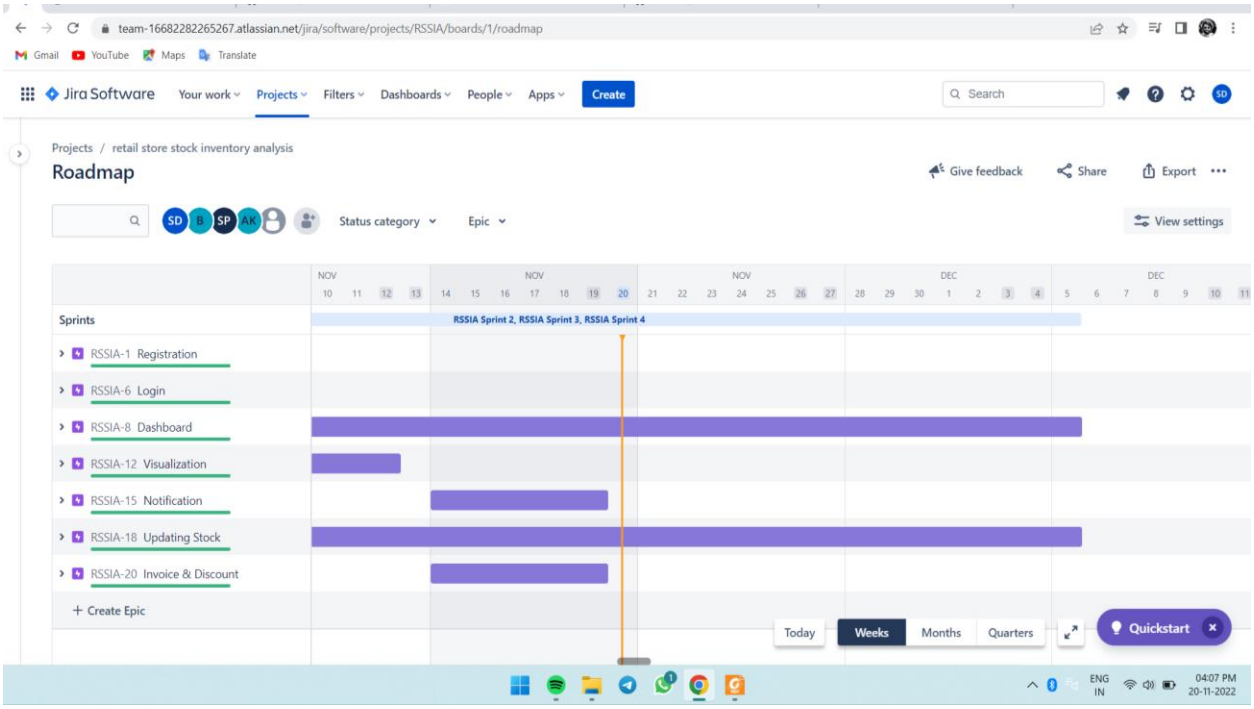
6.3 Reports from JIRA:

Burndown Chart:

A burn down chart is a graphical representation of work left to do versus time. It is often used in agile software development methodologies such as Scrum. However, burn down charts can be applied to any project containing measurable progress over time.





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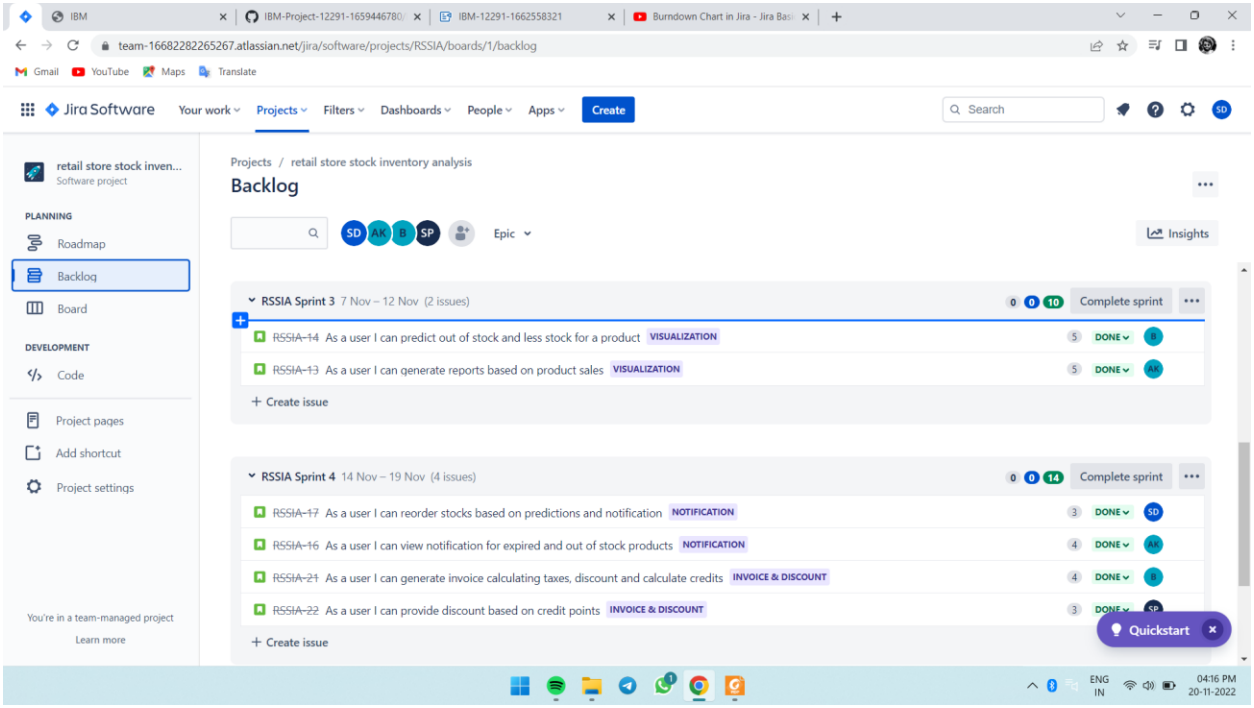
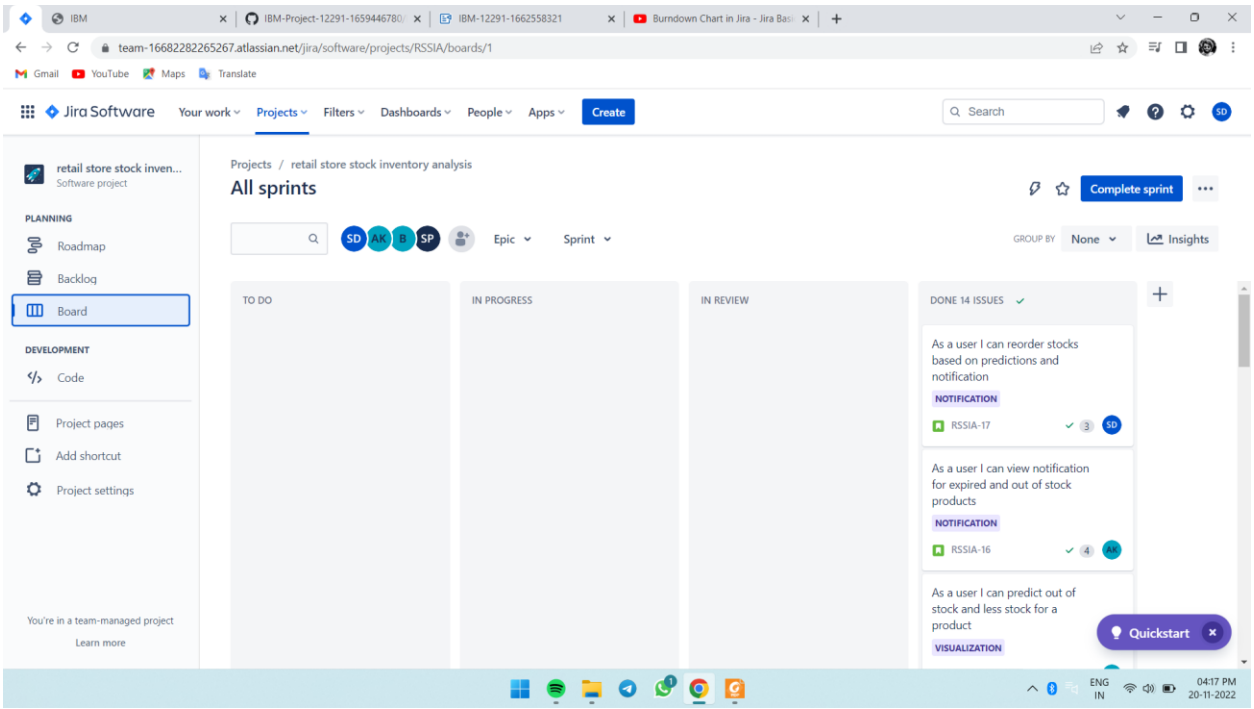
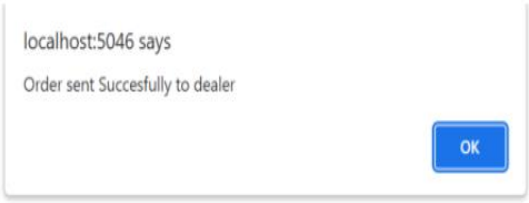




7. CODING & SOLUTIONING (Explain the features added in the project along with code)

7.1 Feature 1- ALERT MESSAGE



8. TESTING

8.1 Test Cases

In this section, we discuss the computational issues related to the size and complexity of the data files used in each dataset. These considerations include how we solved challenges related to data scale and the variety of files, as well as an assessment of the strengths and weaknesses of our modeling choices.

Computational Considerations and Demands

We have already discussed aggregation strategies for dealing with large files (primarily the http files in both datasets). These strategies certainly helped to address computational challenges for dealing with these large files. In addition, we were able to make use of the ARC resources in order to more quickly perform computations on the large data files and our aggregate global datasets. These resources provided a substantial boost in speed over our personal computers. One difficulty related to using ARC resources was the challenge of remote access to these clusters. Connecting via a VPN from the other side of the planet presented substantial latency issues, nearly to the point of un usability. Designing multi-threaded code further provided a speed increase, especially when running code in the ARC environment. Despite the additional complications and debugging involved in ensuring that the code was correct, the performance increase was worthwhile when processing large files. For example, we first worked to aggregate the content of the DTAA http info file by date and user in a single thread. After getting a sense for how long that aggregation would take to execute, we pre processed that http info file, separating it into one file for each of the 1,000 employees. Then, we updated the code to aggregate keywords for each employee in a separate thread, allowing us to make use of multi-core desktops and ARC clusters. Using Gephi for network graphs was also quite useful, as this software package contains utilities such as filtering, timeline preview, and categorization by label. It also performed efficiently, despite the 1,000 node and 1,300,000 edged graph of email communication that we supplied.

Computational Modeling Choices

Since our ideas about the stories themselves were finalized shortly before the deadline, the amount of time available to us to run and refine models was greatly reduced. Rather than fitting a more complicated model before downsizing the data or fitting an over-fitted model that may not predict well, we used approaches that are reliable such as a logistic LASSO and CART. The datasets that we ran models on were aggregated by employees in the company

8.2 User Acceptance Testing

Despite working on these datasets for more than two months, nearly all of our best ideas and findings came in the last two days while writing this report, some even in the final 10 hours. This resulted in a massive rewrite of this document in the final hours before the deadline. In addition to demonstrating the benefits of last-minute, this shows that moments of inspiration can occur at any time when exploring the data, even at the last moment.

Lastly, it is important to have items setup even when not all the pieces are finished. When group members have varying schedules and other deadlines to meet, it can be hard to have all the pieces needed in order to analyze something. Having the code ready to go when those pieces are in place would have saved some time.

9. RESULTS

9.1 Performance Metrics

Retailing is at the platform for more data-driven disruption because the quality of data available from internet purchases, social-network conversations, and recently, location-specific smart phone interactions have emerged into a new entity for digital based transactions. Improved performance, better risk management, and the ability to unearth insights that would otherwise remain hidden, are the benefits organizations reap through utilization of big data management. Retailers can benefit immensely form a structured analytics-driven approach that will help them understand how their customers are using their products and services, how their operations and supply chain are performing, how to manage their workforce and how to identify key risks - insights that they then can then act upon. The pace and the dexterity with which micro data is collected, gives the retailers immediate insights on the shopping trends. This analysis on the move allows them to adjust their prices and add to the lure by announcing on the spot discounts on the sales floor based on their current and previous shopping patterns. This data, often collected through interactive mobile devices in stores, provides the retailer an understanding of the buyers needs and give insights into making smarter decisions about product placement in the store. Data capture and analytics usage certainly have come a long way in the last ten years, and it is interesting to look back on how trends in data analytics have affected the marketplace. As the Internet of Things expands further and our world becomes even more connected, this space will continue to evolve

10. ADVANTAGES & DISADVANTAGES

Advantages:

- **Data analytics helps an organization make better decision**

Lot of times decisions within organizations are made more on gut feel rather than facts and data. One of the reasons for this could be lack of access to quality data that can help with better decision making. Analytics can help with transforming the data that is available into valuable information for executives so that better decisions can be made. This can be a source of competitive advantage if fewer poor decisions are made since poor decisions can have a negative impact on a number of areas including company growth and profitability.

- **Increase the efficiency of the work**

Analytics can help analyze large amounts of data quickly and display it in a formulated manner to help achieve specific organizational goals. It encourages a culture of efficiency and teamwork by allowing the managers to share the insights from the analytics results to the employees. The gaps and improvement areas within a company become evident and actions can be taken to increase the overall efficiency of the workplace thereby increasing productivity.

- **Personalization of products and services**

Gone are the days where a company could sell a standard set of products and services to customers. Customers crave products and services that can meet their individual needs. Analytics can help companies keep track of what kind of service, product, or content is preferred by the customer and then show the recommendations based on their preferences. For example, in social media, we usually see what we like to see, all of this is made possible due to the data collection and analytics that companies do. Data analytics can help provide targeted services to customers based on their individual requirements.

- **Improving quality of products and service**

Data analytics can help with enhancing the user experience by detecting and correcting errors or avoiding non-value-added tasks. For example, self-learning systems can use data to understand the way customers are interacting with the tools and make appropriate changes to improve user experience. In addition, data analytics can help with automated data cleansing and improving the quality of data and consecutively benefiting both customers and organizations.

DISADVANTAGES

- **Lack of alignment within teams**

There is a lack of alignment between different teams or departments within an organization. Data analytics may be done by a select set of team members and the analysis done may be shared with a limited set of executives. However, the insights generated by these teams are either of not much value or are having limited impact on organizational metrics. This could be due to a “silos” way of working with each team only using their existing processes disconnected from other departments. The analytics team should be focused on answering the right questions for the business and the results generated by data analytics teams needs to be properly communicated to the right employees to drive the right set of actions and behaviors so that it can have an positive impact on the organization.

- **Lack of commitment and patience**

Analytics solutions are not difficult to implement, however, they are costly, and the ROI is not immediate. Especially, if existing data is not available, it may take time to put processes and procedures in place to start collecting the data. By nature, the analytics models improve accuracy over time and require dedication to implement the solution. Since the business users do not see results immediately, they sometimes lose interest which results in loss of trust and the models fail. When an organization decides to implement data analytics methods, there needs to be a feedback loop and mechanism in place to understand what is working and what is not, and corrective actions are required to fix things that are broken. Without this closed loop system, senior management may decide that analytics is not working or much valuable and may abandon the entire exercise.

- **Low quality of data**

One of the biggest limitations of data analytics is lack of access to quality data. It is possible that companies already have access to a lot of data, but the question is do they have the right data that they need? A top down approach is required where the business questions that need to be answered need to be known first and what data is required to answer these questions can then be determined. In some cases, data may have been collected for historical reasons may not be suitable to answer the questions that we ask today. At other times, even though we have the right metrics that we are collecting data on, the quality of the data collection may be poor. There can be instances where adequate data is not available or is missing for proper analytics to be done. As they say, garbage-in garbage-out. If the data quality is poor, the decision made by using this data is also going to be poor. Hence, actions must be taken to fix the quality of the data before it can be effectively used within organizations.

11. CONCLUSION

- Finally, we have proposed a Businesses that utilize data mining are able to have a competitive advantage, better understanding of their customers, good oversight of business operations, improved customer acquisition, and new business opportunities.

- Retailers can benefit immensely form a structured analytics-driven approach that will help them understand how their customers are using their products and services, how their operations and supply chain are performing, how to manage their workforce and how to identify key risks - insights that they then can then act upon.

- The pace and the dexterity with which micro data is collected, gives the retailers immediate insights on the shopping trends. This analysis on the move allows them to adjust their prices and add to the lure by announcing on the spot discounts on the sales floor based on their current and previous shopping patterns. This data, often collected through interactive mobile devices in stores, provides the retailer an understanding of the buyers needs and give insights into making smarter decisions about product placement in the store.

- Data capture and analytics usage certainly have come a long way in the last ten years, and it is interesting to look back on how trends in data analytics have affected the marketplace. As the Internet of Things expands further and our world becomes even more connected, this space will continue to evolve.

12. FUTURE SCOPE

After which the customers buy's the products from supermarket. Most of the supermarkets maintains stock levels for all the products, for each product minimum stock level and reorder level is maintained. Once a particular stock comes below the predefined minimum stock level as automatic SMS alert is triggered to the respective supplier who supplied that particular stock in order to process a new stock supply to the supermarket.Customers using this app to see how much of each product is sold and deducted. You can use sales reports to see information about your customers orders based on criteria such as sales over time, by product, or by channel.

In the case of DTAA, we aggregated some information within the individual files before combining them into a single master file. For example, we aggregated the keywords listed in each individual record in http info, computing a frequency for each keyword by date and employee. Seeing that this file was still quite large, we filtered to only the top 10 keywords aggregated for each date and employee. This more manageable information was then included in the master file. In both datasets, we combined the provided monthly employee files into a single aggregated employee record, tracking the number of months that each user was employed by the company and the month that they left the company (if applicable)

13 APPENDIX

Admin Login:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
publicpartialclassAdmin : System.Web.UI.Page
{
protectedvoid Page_Load(object sender, EventArgs e)
{ }
protectedvoid Button1_Click(object sender, EventArgs e)
{
if (TextBox1.Text == "Admin"&& TextBox2.Text == "Admin")
{
Response.Redirect("AdminPage.aspx");
}
else
{
Response.Write("<Script>alert('Login Failed')</Script>");
}
}
}
```

Add Product Details:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Data.SqlClient;
publicpartialclassAddProductDetails : System.Web.UI.Page
{
protectedvoid Page_Load(object sender, EventArgs e)
{ }
protectedvoid Button1_Click(object sender, EventArgs e)
{
SqlConnection con = newSqlConnection(@"Data Source=ROJA-PC\SQL;Initial
Catalog=Crusz;Integrated Security=True");
try
{
string query;
query = "Insert into AddProductItems Values('" + TextBox6.Text + "','" +
TextBox1.Text + "','" + TextBox2.Text + "','" + TextBox5.Text + "','" + TextBox4.Text
+ "','" + TextBox7.Text + "','" + TextBox8.Text + "','" + TextBox3.Text + "')";
SqlCommand cmd = newSqlCommand(query, con);
```

```
con.Open();
cmd.ExecuteNonQuery();
con.Close();
Response.Write("<Script>alert('Product Details Added
Successfully')</Script>");
TextBox6.Text = " ";
TextBox1.Text = " ";
TextBox2.Text = " ";
TextBox4.Text = " ";
TextBox3.Text = " ";
TextBox6.Focus();
}
catch (Exception)
{
Response.Write("<Script>alert('Product Details Not Added')</Script>" );
}
}
}
```

Register for User:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Data;
using System.Data.SqlClient;
publicpartialclassSecurityCodeRequest : System.Web.UI.Page
{
protectedvoid Page_Load(object sender, EventArgs e)
{ }
protectedvoid Button1_Click(object sender, EventArgs e)
{
SqlConnection con = newSqlConnection(@"Data Source=ROJA-PC\SQL;Initial
Catalog=Performance;Integrated Security=True");
try
{
SqlCommand cmd = newSqlCommand("Insert into SecurityRequest values('" + TextBox1.Text
+ "','" + TextBox2.Text + "','" + TextBox3.Text + "','" + TextBox5.Text + "')", con);
con.Open();
cmd.ExecuteNonQuery();
con.Close();
Response.Write("<Script>alert('Request Successfull')</Script>");
Clear();
}
catch(Exception)
{
Response.Write("<Script>alert('Request Failed')</Script>");
} }
publicvoid Clear()
```

```
{
TextBox1.Text = " ";
TextBox2.Text = " ";
TextBox3.Text = " ";
//TextBox4.Text = " ";
TextBox5.Text = " ";
TextBox1.Focus();
} }
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Data.SqlClient;
publicpartialclassRegister : System.Web.UI.Page
{
protectedvoid Page_Load(object sender, EventArgs e)
{ }
protectedvoid Button1_Click(object sender, EventArgs e)
{
SqlConnection con = newSqlConnection(@"Data Source=ROJA-PC\SQL;Initial
Catalog=Crusz;Integrated Security=True");
try
{
string query;
query = "Insert into Register Values('" + TextBox6.Text + "','" +
TextBox1.Text + "','" + TextBox2.Text + "','" + TextBox3.Text + "','" + TextBox4.Text
+ "','" + TextBox5.Text + "','" + TextBox7.Text + "')";
SqlCommand cmd = newSqlCommand(query, con);
con.Open();
cmd.ExecuteNonQuery();
con.Close();
Response.Write("<Script>alert('Registered Successfully')</Script>");
Response.Redirect("UserLogin.aspx");
}
catch (Exception)
{
Response.Write("<Script>alert('Registeration Failed')</Script>");
}
}
}
```

Remaining Balance Details:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
```

```
using System.Data.SqlClient;
using System.Data;
publicpartialclassRemainingBalanceDetails : System.Web.UI.Page
{
protectedvoid Page_Load(object sender, EventArgs e)
{
SqlConnection con = newSqlConnection(@"Data Source=ROJA-PC\SQL;Initial
Catalog=Crusz;Integrated Security=True");
SqlDataAdapter da = newSqlDataAdapter("select
UserName,ProductId,ProductName,BrandName,CostforOneItem,TotalProduct,ProductsTaken,Ba
l
anceProducts from UserPurchaseDetails ", con);
DataSet ds = newDataSet("Crusz");
da.Fill(ds, "UserPurchaseDetails");
GridView1.DataSource = ds.Tables[0];
GridView1.DataBind();
} }
```

Search:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Data.SqlClient;
using System.Net.Mail;
using System.Net;
public partial class Search : System.Web.UI.Page
{
protected void Page_Load(object sender, EventArgs e)
{
if (!string.IsNullOrEmpty((string)Session["UN"]))
{
Label9.Text = (string)Session["UN"];
}
else
{
Label9.Text = "No Data Provided or Could not be read";
}
}
protected void Button1_Click(object sender, EventArgs e)
{
SqlConnection con = new SqlConnection(@"Data Source=LAPTOP-
3F42EV98\SQLEXPRESS;Initial Catalog=Crusz;Integrated Security=True");
SqlCommand cmd = new SqlCommand("select * from AddProductItems where
Productname = '" + TextBox1.Text + "'", con);
try
{
con.Open();
SqlDataReader dr = cmd.ExecuteReader();
dr.Read();
```

```
TextBox6.Text = dr[0].ToString();
TextBox2.Text = dr.GetString(1);
TextBox3.Text = dr.GetString(2);
TextBox10.Text = dr[3].ToString();
TextBox4.Text = dr[4].ToString();
dr.Close();
}
catch(Exception err)
{
Response.Write("<Script>alert('Error')</Script>" + err.Message);
}
}
protected void Button3_Click(object sender, EventArgs e)
{
int a = int.Parse(TextBox4.Text);
int b = int.Parse(TextBox5.Text);
int c = a - b;
TextBox7.Text = c.ToString();
int d = int.Parse(TextBox10.Text);
int f = d * b;
TextBox11.Text = f.ToString();
}
protected void Button2_Click(object sender, EventArgs e)
{
SqlConnection con = new SqlConnection(@"Data Source=LAPTOP-
3F42EV98\SQLEXPRESS;Initial Catalog=Crusz;Integrated Security=True");
try
{
// string mid,uname,creditno,Product,takenproducts,Amount;
//mid = TextBox9.Text;
//var fromAddress = new MailAddress("rosetriplennn@gmail.com", "Payment
Confirmation from Bank");
//var toAddress = new MailAddress(mid, "Payment Confirmation from Bank");
//const string fromPassword = "triplen987";
//const string subject = "Payment Verification";
//uname = Label9.Text;
//creditno = TextBox8.Text;
//Product = TextBox2.Text;
//takenproducts = TextBox5.Text;
//Amount = TextBox11.Text;
//string body = "User Name: " + " " + uname + "<BR/>" + " " + "Credit Card
Number: " + " " + creditno + "<BR/>" + " " + "Product Name: " + " " + Product +
"<BR/>" + " " + "No of Products taken: " + " " + takenproducts + "<BR/>" + " " +
"Your
Amount: " + " " + Amount + " " + "Deposited Successfully" ;
//var smtp = new SmtpClient
//{
// Host = "smtp.gmail.com",
// Port = 587,
// EnableSsl = true,
// DeliveryMethod = SmtpDeliveryMethod.Network,
```

```
// UseDefaultCredentials = false,
// Credentials = new NetworkCredential(fromAddress.Address,
fromPassword)
//};
//using (var message = new MailMessage(fromAddress, toAddress)
//{
// Subject = subject,
// Body = body
//})
//{
// smtp.Send(message);
string query,query1;
query = "Insert into UserPurchaseDetails Values('" + Label9.Text +
"','" + TextBox6.Text + "','" + TextBox2.Text + "','" + TextBox3.Text + "','" +
TextBox10.Text + "','" + TextBox4.Text + "','" + TextBox5.Text + "','" +
TextBox7.Text
+ "','" + TextBox11.Text + "','" + TextBox8.Text + "','" + TextBox9.Text + "')";
query1 = "update AddProductItems set TotalProductItems = '" +
TextBox7.Text + "' where ProductName='" + TextBox1.Text + " ' ";
SqlCommand cmd = new SqlCommand(query, con);
SqlCommand cm = new SqlCommand(query1, con);
con.Open();
cmd.ExecuteNonQuery();
cm.ExecuteNonQuery();
con.Close();
int rem = int.Parse(TextBox7.Text.ToString());
if (rem < 100)
{
Response.Write("<Script>alert('Order sent Succesfully to
dealer')</Script>");
}
//Response.Write("<Script>alert('Your Amount Credited and updated
Successfully')</Script>");
TextBox6.Text = " ";
TextBox1.Text = " ";
TextBox2.Text = " ";
TextBox3.Text = " ";
TextBox6.Focus();
}
catch (Exception)
{
Response.Write("<Script>alert('Product Details Not Added')</Script>");
}
}
}
```

User Login:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
```

```
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Data.SqlClient;
using System.Net.Mail;
using System.Net;
publicpartialclassUserLogin : System.Web.UI.Page
{
protectedvoid Page_Load(object sender, EventArgs e)
{ }
protectedvoid LinkButton1_Click(object sender, EventArgs e)
{
Response.Redirect("Register.aspx");
}
protectedvoid Button1_Click(object sender, EventArgs e)
{
SqlConnection con = newSqlConnection(@"Data Source=ROJA-PC\SQL;Initial
Catalog=Crusz;Integrated Security=True");
SqlCommand cmd = newSqlCommand("select * from Register where UserName='" +
TextBox1.Text + "' and Password='" + TextBox2.Text + "'", con);
SqlDataReader dr;
con.Open();
dr = cmd.ExecuteReader();
Session["UN"] = TextBox1.Text.ToString();
dr.Read();
//Session["mail"] = dr[6].ToString();
if (dr.HasRows)
{
//mail();
Response.Redirect("UserPage.aspx");
}
else
{
Response.Write("<Script>alert('Wrong Details')</Script>");
}
dr.Close();
}
}
```

User Purchased Details:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Data.SqlClient;
using System.Data;
publicpartialclassUserPurchasedDetails : System.Web.UI.Page
{
protectedvoid Page_Load(object sender, EventArgs e)
{
```

```
SqlConnection con = newSqlConnection(@"Data Source=ROJA-PC\SQL;Initial
Catalog=Crusz;Integrated Security=True");
SqlDataAdapter da = newSqlDataAdapter("select * from UserPurchaseDetails ", con);
DataSet ds = newDataSet("Crusz");
da.Fill(ds, "UserPurchaseDetails");
GridView1.DataSource = ds.Tables[0];
GridView1.DataBind();
}
}
```

User View Purchased Items:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Data.SqlClient;
using System.Data;
publicpartialclassUserViewPurchaseItems : System.Web.UI.Page
{
protectedvoid Page_Load(object sender, EventArgs e)
{
if (!string.IsNullOrEmpty((string)Session["UN"]))
{
Label1.Text = (string)Session["UN"];
}
else
{
Label1.Text = "No Data Provided or Could not be read";
}
SqlConnection con = newSqlConnection(@"Data Source=ROJA-PC\SQL;Initial
Catalog=Crusz;Integrated Security=True");
SqlDataAdapter da = newSqlDataAdapter("select
UserName,ProductId,ProductName,BrandName,CostforOneItem,TotalProduct,ProductsTaken,To
t
alCostofItems,CreditCardNumber,EmailId,Country,CurrencySymbol,IndianRupees,Pay,TotalP
a
yment from UserPurchaseDetails where UserName = '" + Label1.Text + "' ", con);
DataSet ds = newDataSet("Crusz");
da.Fill(ds, "UserPurchaseDetails");
GridView1.DataSource = ds.Tables[0];
GridView1.DataBind();
}
}
```

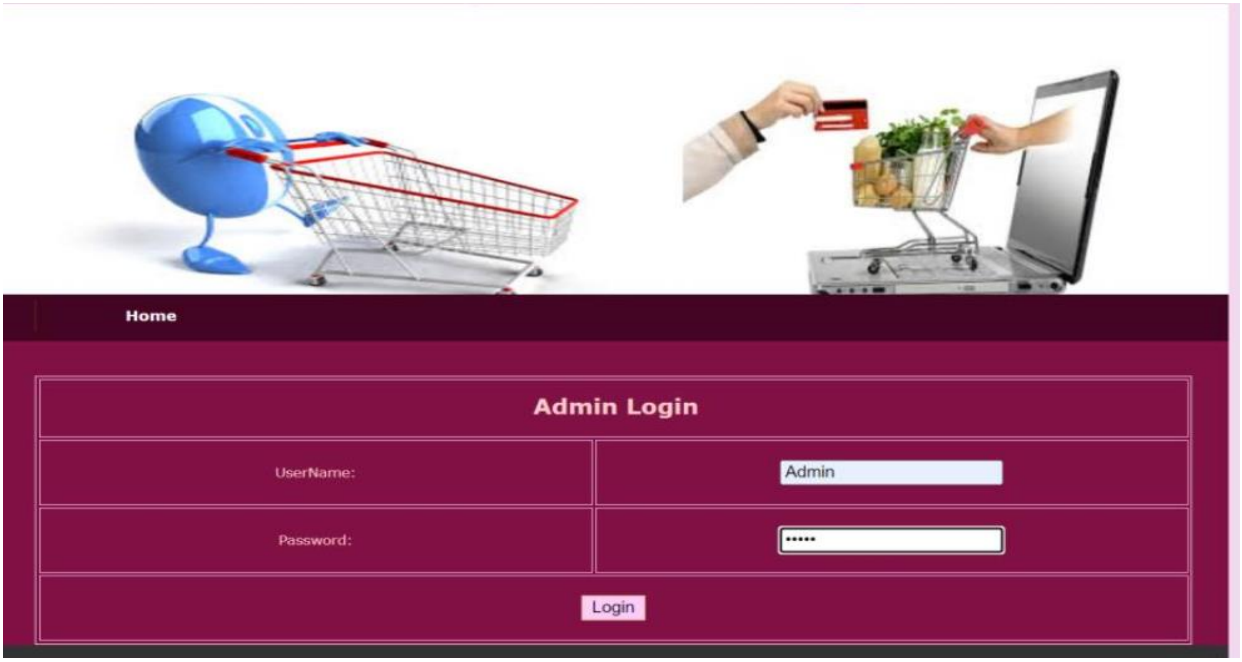
View User Details:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
```

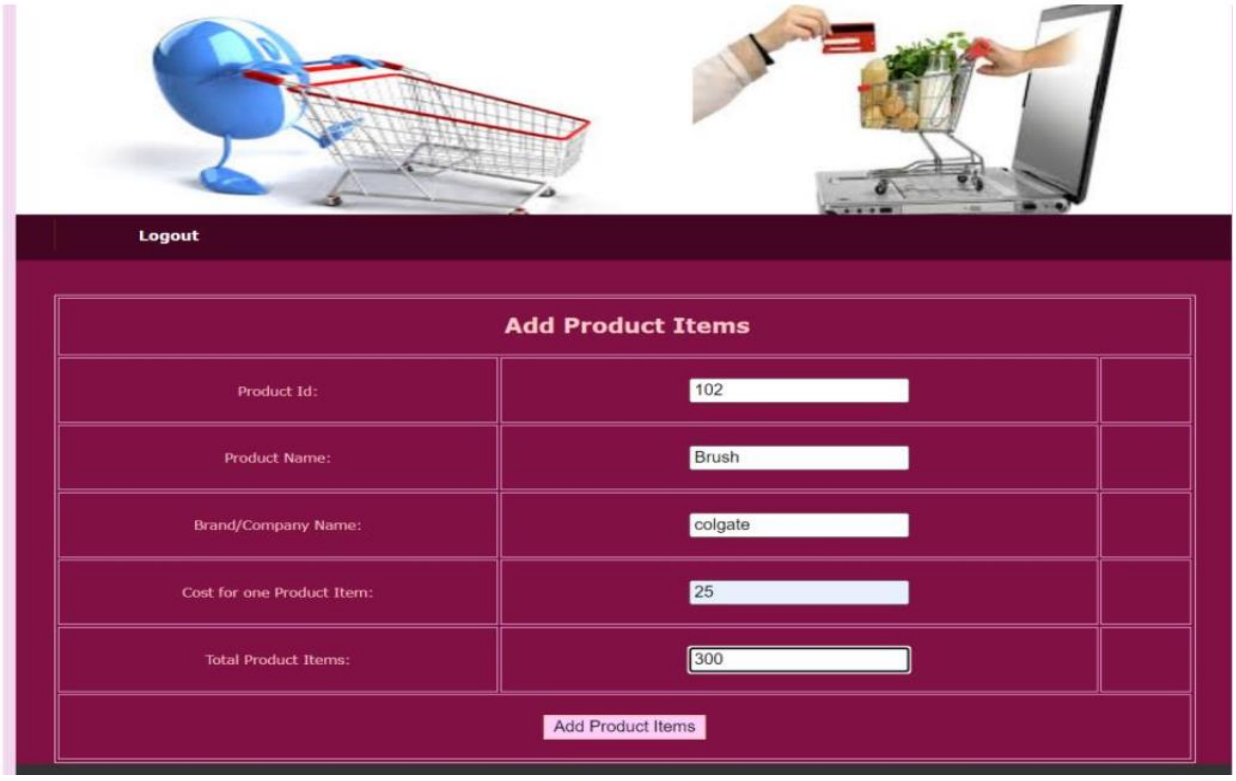
```
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Data.SqlClient;
using System.Data;
publicpartialclassViewUserDetails : System.Web.UI.Page
{
protectedvoid Page_Load(object sender, EventArgs e)
{
SqlConnection con = newSqlConnection(@"Data Source=ROJA-PC\SQL;Initial
Catalog=Crusz;Integrated Security=True");
SqlDataAdapter da = newSqlDataAdapter("select * from Register ", con);
DataSet ds = newDataSet("Crusz");
da.Fill(ds, "Register");
GridView1.DataSource = ds.Tables[0];
GridView1.DataBind();
}
}
```

13.2 OUTPUT PICTURE

PNT2022TMID22629

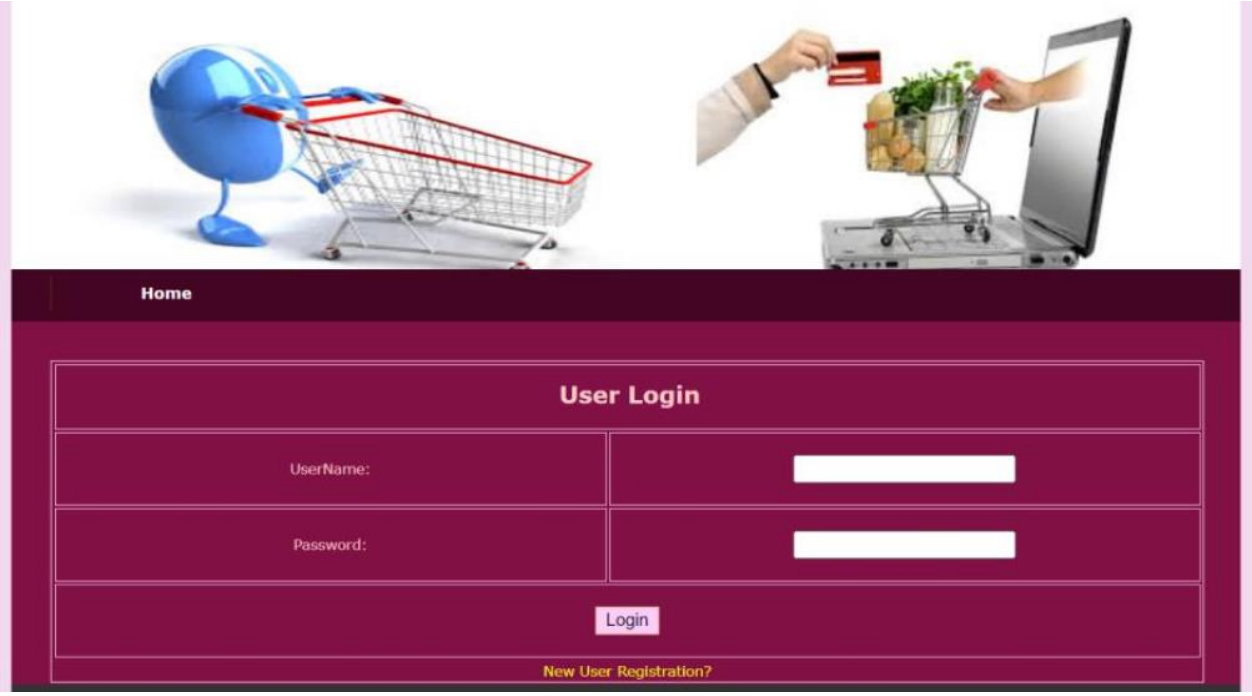


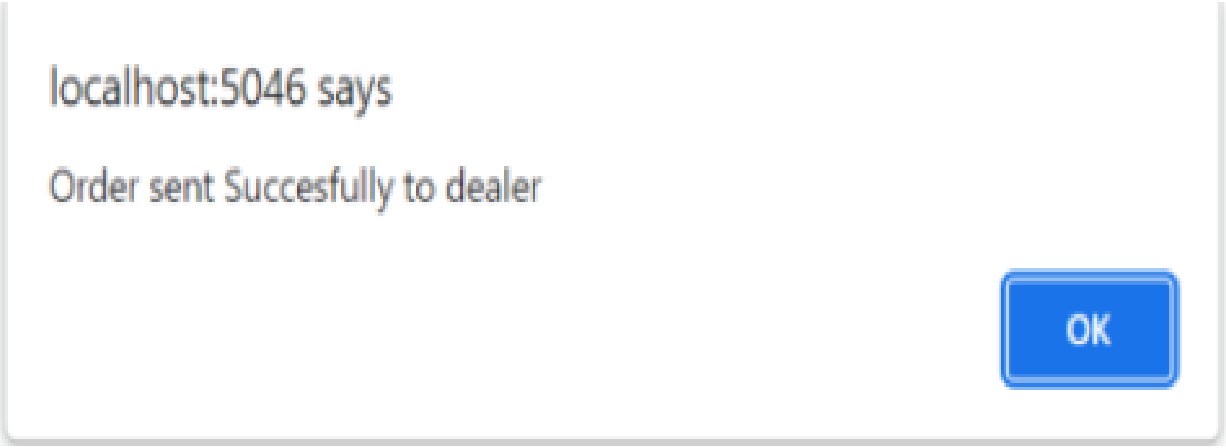
PNT2022TMID22629



PNT2022TMID22629

PNT2022TMID22629





13.3 LINKS

GitHub Link:
https://github.com/IBM-EPBL/IBM-Project-12291-1659446780

Video Demo Link:
https://youtu.be/V3wUPAfJza0