# PROJECT REPORT

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|---|---|
| Team ID | PNT2022TMID41225 |
| Project Name | Global Sales Data Analytics |


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# 1. INTRODUCTION

## 1.1 Project Overview

Shopping online is currently the need of the hour. Because of this COVID, it is not easy to walk in a store randomly and buy anything you want. So, try to understand a few things like, Customer Analysis and Product Analysis of this Global Super Store. Global Sales covers all activities involved in selling a product or service to a consumer or business. It is important for sales and marketing teams to review their strategies and performance in order to make improvements. Understanding performance with sales data analytics helps sales and marketing teams to review their strategies and performance in order to make improvements. Sales analytics provides valuable information like Customer Analysis and Product Analysis to improve sales methodologies. Users create multiple analytical graphs/charts/Visualizations. One way to measure performance is with sales analytics.

## 1.2 Purpose

Global Sales covers all activities involved in selling a product or service to a consumer or business. It is important for sales and marketing teams to review their strategies and performance in order to make improvements. One way to measure performance is with sales analytics. Sales data analytics refers to the use of technology to collect and use sales data to identify actionable insights. It is used to identify, optimize, and increase sales. An efficient sales model that generates higher revenue for the business.

## 2. LITERATURE SURVEY

| Title & Author(s) | Year | Technique | Findings |
|---|---|---|---|
| Big Data Analytics and Deep Learning Based Sentiment Analysis System for Sales Prediction - Khatiwada, Aamod and Kadariya, Pradeep and Agrahari, Sandip and Dhakal, Rabin. | 2019 | Big data analytics (BDA) applications in e-commerce. | Merits: Used to understand complex datasets in a matter of time with beautiful visual representations.<br>Demerits: Lack of security since large data processed simultaneously |
| COVID-19 pandemic in the new era of big data analytics: Methodological innovations and future research directions - Sheng, Jie and Amankwah-Amoah, Joseph and Khan, Zaheer and Wang, Xiaojun | 2021 | Descriptive and diagnostic analytics, Predictive analytics | Merits: By comparing with machine learning models, we find that the proposed model is superior to others. Demerits: The experiment only considers the features of the product and does not consider external influences, such as the impact of regulations on sales. It uses only small dataset. |
| Sales Forecasting Based on CatBoost - Jingyi Ding, Ziqing Chen. | 2020 | CatBoost algorithm. | Merits: The search stops when no improvements over the current best solution have been found in 300 iterations. Demerits: Dataset is limited |
| Developing and Implementing Big Data Analytics in Marketing - Dina Darwish | 2020 | Big data analytics, R tool. | Merits: The proposed method is based on similarity measurement without complex training so that forecast can be completed in a short time, and performs well in small- |

| | | | |
|---|---|---|---|
| | | | scale data Demerits: The experiment only considers the features of the product and does not consider external influences, such as the impact of regulations on sales. It uses only small dataset. |
| Social media big data analytics for demand forecasting: development and case implementation of an innovative framework-Iftikhar, Rehan and Khan, Mohammad Saud | 2020 | Definitional aspects of big data analytics (BDA) in e-commerce | Merits: Captured linearity and non linearity better than ARIMA and ARNN gave the best result of 565 RMSE. Demerits: Hybrid Technique can fail if nonlinear model fails to capture residue patterns |

**2.1 Existing problem**

1. Lack of security since large data processed simultaneously
2. Hybrid Technique can fail if nonlinear model fails to capture residue patterns
3. The experiment only considers the features of the product and does not consider external influences, such as the impact of regulations on sales. It uses only small dataset.
4. Dataset is limited
5. The experiment only considers the features of the product and does not consider external influences, such as the impact of regulations on sales. It uses only small dataset.

## 2.2 References


1. Big Data Analytics and Deep Learning Based Sentiment Analysis System for Sales Prediction - Khatiwada, Aamod and Kadariya, Pradeep and Agrahari, Sandip and Dhakal, Rabin.
2. COVID-19 pandemic in the new era of big data analytics: Methodological innovations and future research directions - Sheng, Jie and Amankwah-Amoah, Joseph and Khan, Zaheer and Wang, Xiaojun
3. Sales Forecasting Based on CatBoost - Jingyi Ding, Ziqing Chen.
4. 2020 2nd International Conference on Broadband Communications, Wireless Sensors and Powering (BCWSP)-Wisesa, Oryza and Adriansyah, Andi and Khalaf, Osamah Ibrahim.
5. Developing and Implementing Big Data Analytics in Marketing - Dina Darwish
6. Social media big data analytics for demand forecasting: development and case implementation of an innovative framework-Iftikhar, Rehan and Khan, Mohammad Saud

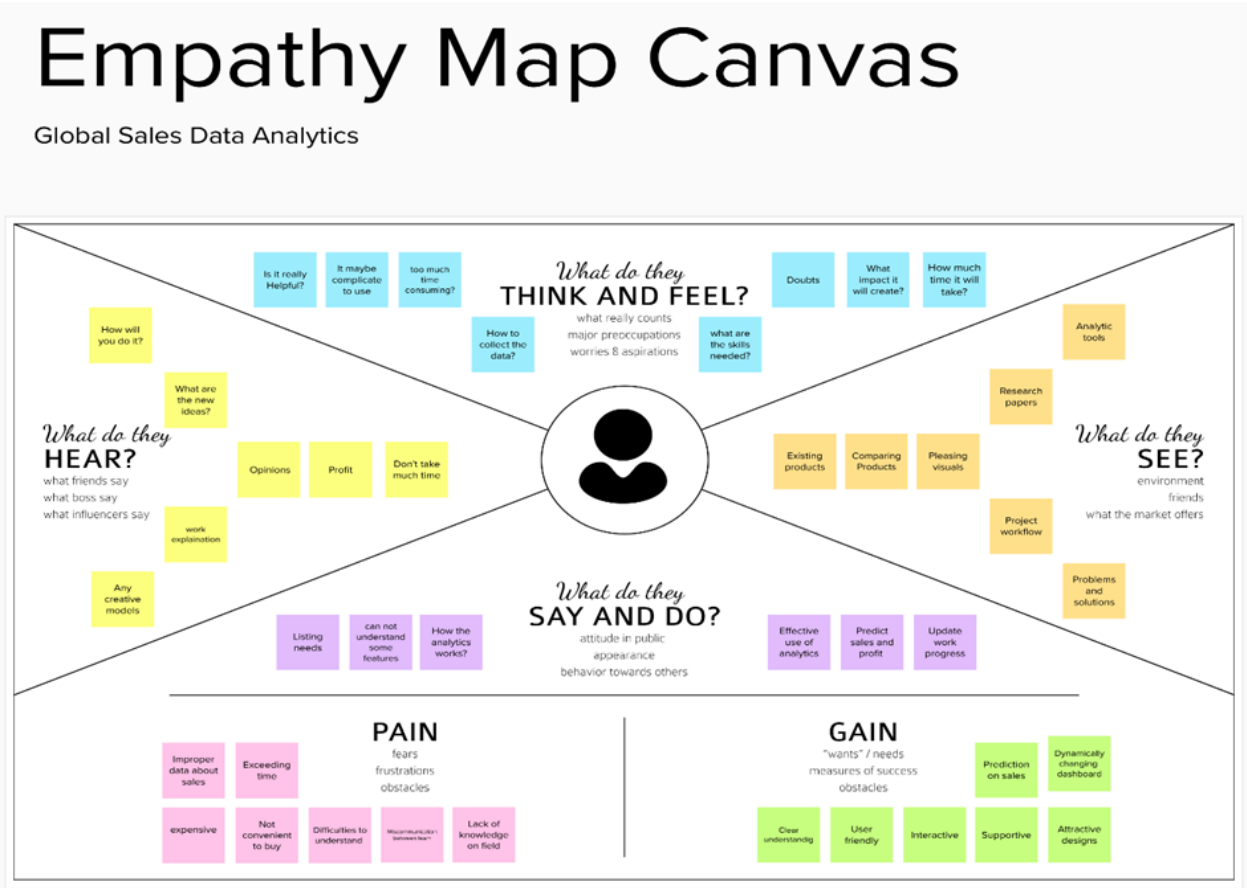

## 2.3 Problem Statement Definition

1. Structured data focuses on demographic data including name, age, gender, date of birth, address, and preferences, unstructured data includes clicks, likes, links, tweets, voices, etc.
2. The methodological innovations in studying big data analytics and. We provide insights on methods in descriptive/diagnostic, predictive and prescriptive analytics, and how they can be leveraged to study ‘black swan’ events such as the COVID-19-related global crisis.
3. It proposed a sales forecasting system based on CatBoosting. The algorithm is trained on the Walmart sales dataset, by far the largest dataset in this field. We performed effective feature engineering to boost prediction accuracy and speed.
4. The results of this analysis are expected to generate reliable, accurate and effective forecasting data, a valuable resource for sales predictions. It shows good accuracy in forecasting.
5. Companies take informative business decisions in different fields, such as, health care, banking, manufacturing, media and entertainment, education and transportation and many others.
6. Social media big data offers insights that can be used to make predictions of products' future demand and add value to the supply chain performance

## 3. IDEATION & PROPOSED SOLUTION

### 3.1 Empathy Map Canvas

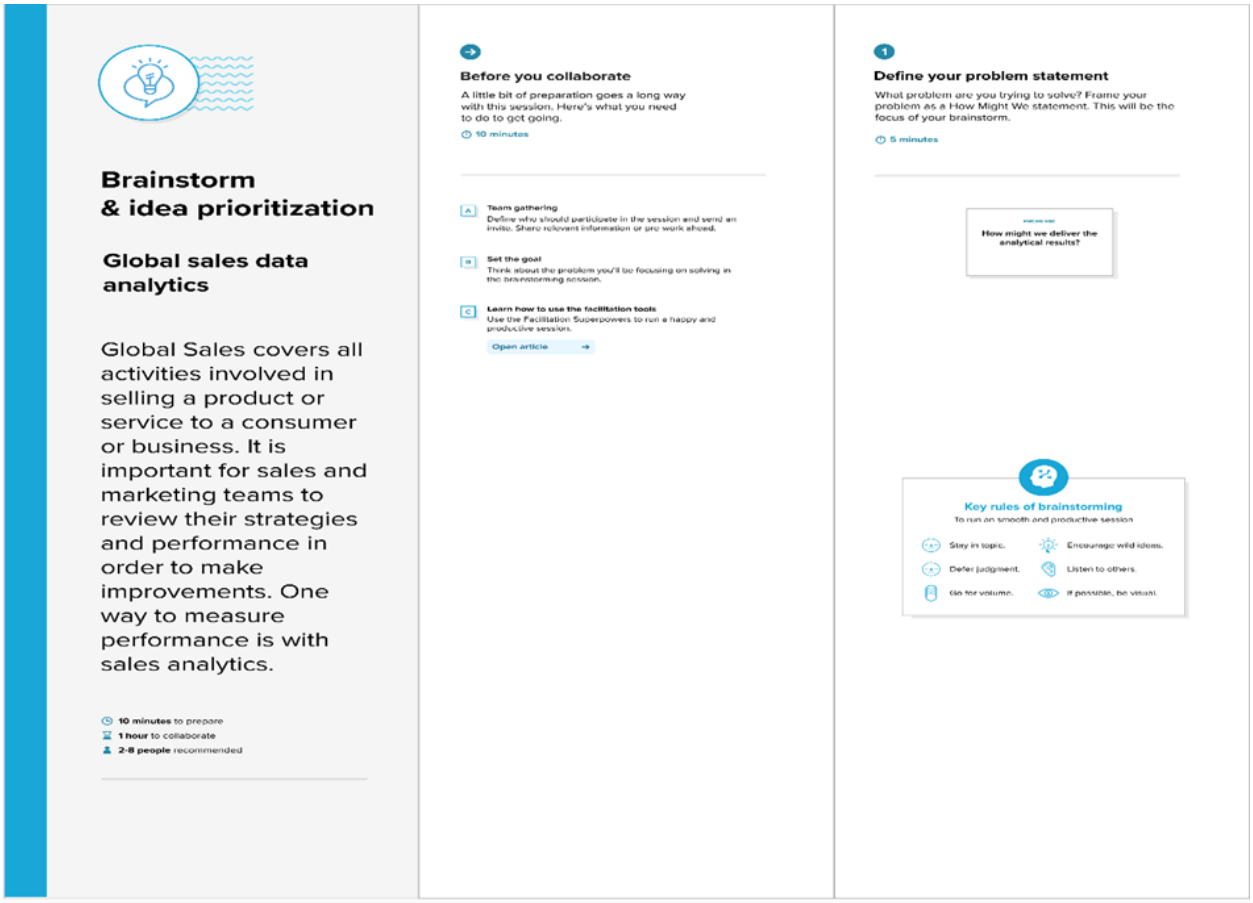
An empathy map is a simple, easy-to-digest visual that captures knowledge about a user's behaviors and attitudes. It is a useful tool to help teams better understand their users. Creating an effective solution requires understanding the true problem and the person who is experiencing it. The exercise of creating the map helps participants consider things from the user's perspective along with his or her goals and challenges.



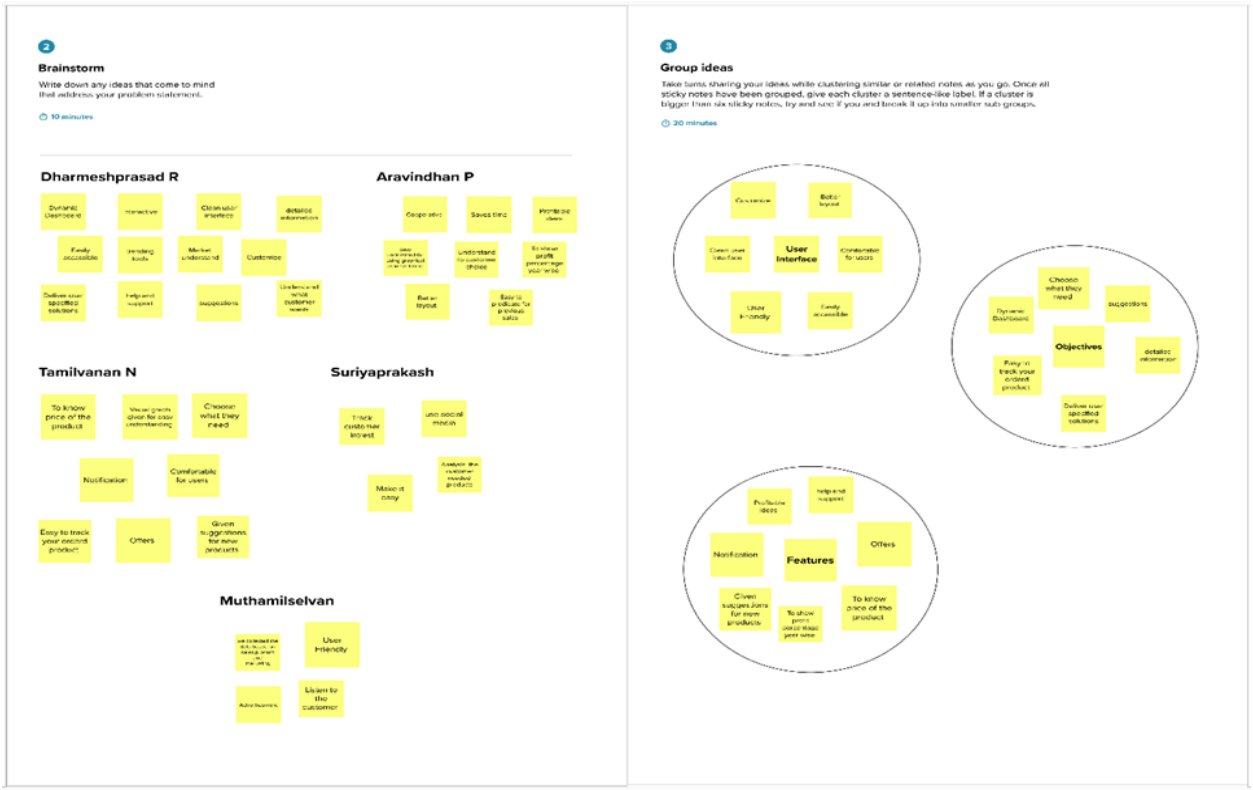
### 3.2 Ideation & Brainstorming

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.

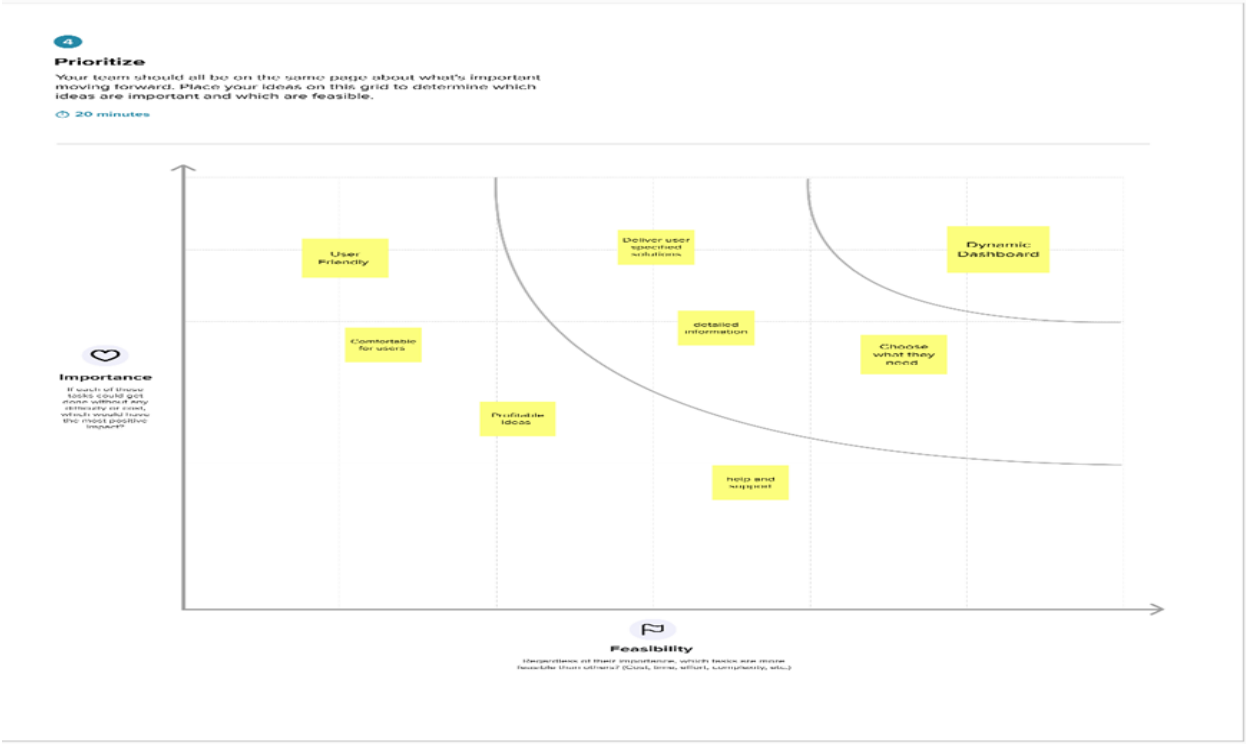
**Step-1: Team Gathering, Collaboration and Select the Problem Statement**



## Step-2: Brainstorm, Idea Listing and Grouping




## Step-3: Idea Prioritization



### 3.3 Proposed Solution

| S.No. | Parameter | Description |
|---|---|---|
| 01 | Problem Statement (Problem to be solved) | Global Sales covers all activities involved in selling a product or service to a consumer or business. It is important for sales and marketing teams to review their strategies and performance in order to make improvements. One way to measure performance is with sales analytics. Sales data analytics refers to the use of technology to collect and use sales data to identify actionable insights. It is used to identify, optimize, and increase sales. An efficient sales model that generates higher revenue for the business. |
| 02 | Idea / Solution description | Use the technology to collect and use sales data to derive actionable insights. It is used to identify, optimize, and forecast sales. It uses sales data to plan an efficient sales model that generates higher revenue for the business. Users can create multiple Analytical Visualizations and can build the required Dashboards. |
| 03 | Novelty / Uniqueness | Understanding performance with sales data analytics helps sales and marketing teams to review their strategies and performance in order to make improvements. Sales analytics provides valuable information like Customer Analysis and Product Analysis to improve sales methodologies. Users create multiple analytical graphs/charts/Visualizations. |
| 04 | Social Impact / Customer Satisfaction | Analyzing sales helps businesses in understanding their most profitable products and the ones that are not moving, most profitable customers, and potential sales opportunities thereby providing sales which match customer needs and meets their satisfaction. It helps in the perception of profit about particular product and perception of sales in different locations and times. |

| | | |
|---|---|---|
| 05 | Business Model (Revenue Model) | Global sales analytics can use the sales data and provide actionable insights for selling a product or service to a consumer or business. Improve the decision-making process oriented at analyzing scales trends, reducing costs and increasing business revenue. |
| 06 | Scalability of the Solution | This solution can be used from small stores to multinational companies. This solution can be processed with less memory and quickly. The solution can be used as user specified so it is easy to customer. |

### 3.4 Problem Solution Fit

The 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. It helps to identify behavioral patterns and recognize on sales.

**Purpose:**

- Solve complex problems in a way that fits the state of your customers.
- Succeed faster and increase your solution adoption by tapping into existing mediums and channels of behavior.
- Sharpen your communication and marketing strategy with the right triggers and messaging.
- Increase touch-points with your company by finding the right problem-behavior fit and building trust by solving frequent annoyances, or urgent or costly problems.
- Understand the existing situation in order to improve it for your target group.

**Solution fit:**

## 4. REQUIREMENT ANALYSIS

### 4.1 Functional Requirements

| FR No. | Functional Requirement (Epic) | Sub Requirement (Story / Sub-Task) |
|---|---|---|
| FR-1 | User Registration | Registration through Website<br>Registration through Gmail |
| FR-2 | User Confirmation | Confirmation via Email |
| FR-3 | User Login | Login via Gmail and Password |
| FR-4 | Generating Report | User can view the product details |

### 4.2 Non-functional Requirements

| FR No. | Non-Functional Requirement | Description |
|---|---|---|
| NFR-1 | Usability | This service will have a simple and user-friendly graphical interface. Users will be able to understand and use all the features easily. |
| NFR-2 | Security | The main security concern is for users login information is end to end encryption should be used to avoid hacking. |
| NFR-3 | Reliability | It has high reliability because when the system is disconnected or internet connection lost, it should save all the process of the users made. |

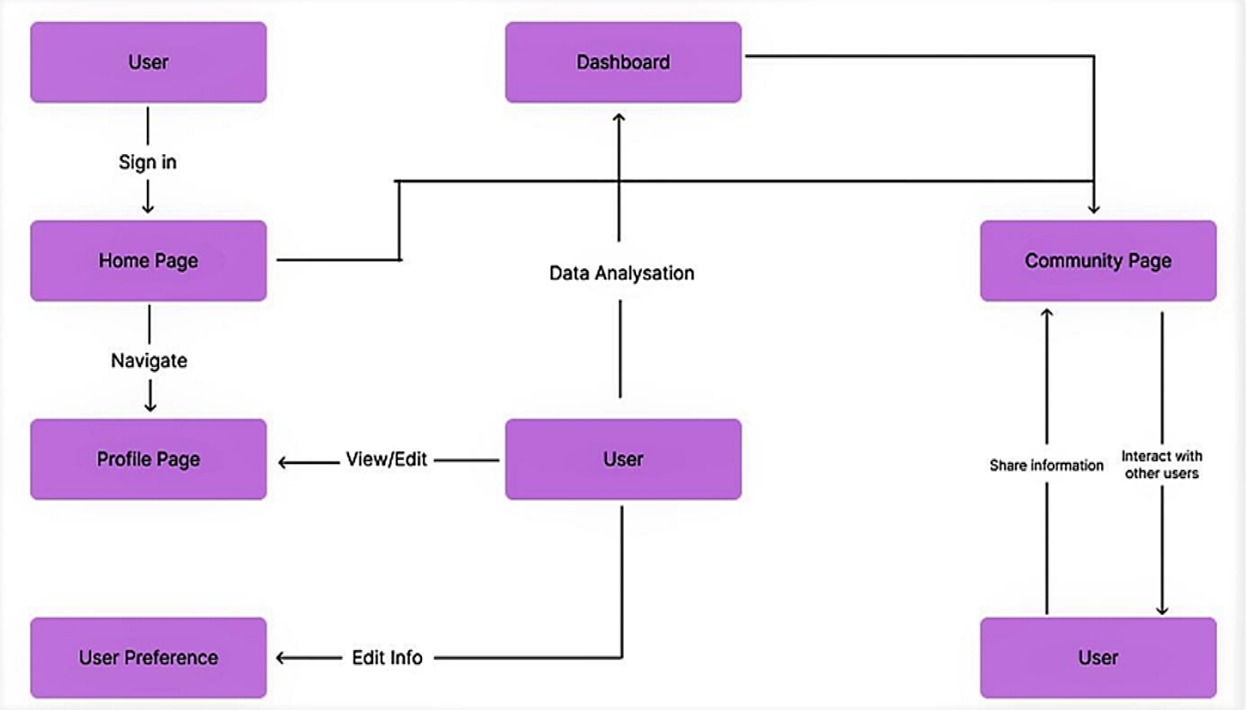
| | | |
|---|---|---|
| NFR-4 | Performance | A good internet speed while browsing the product it had high performance with efficiency. |
| NFR-5 | Availability | It will be available 24 hours a day and seven days a week. User access anywhere at any time . |
| NFR-6 | Scalability | A Many users can access the website simultaneously. |

## 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.

**DFD level 0**

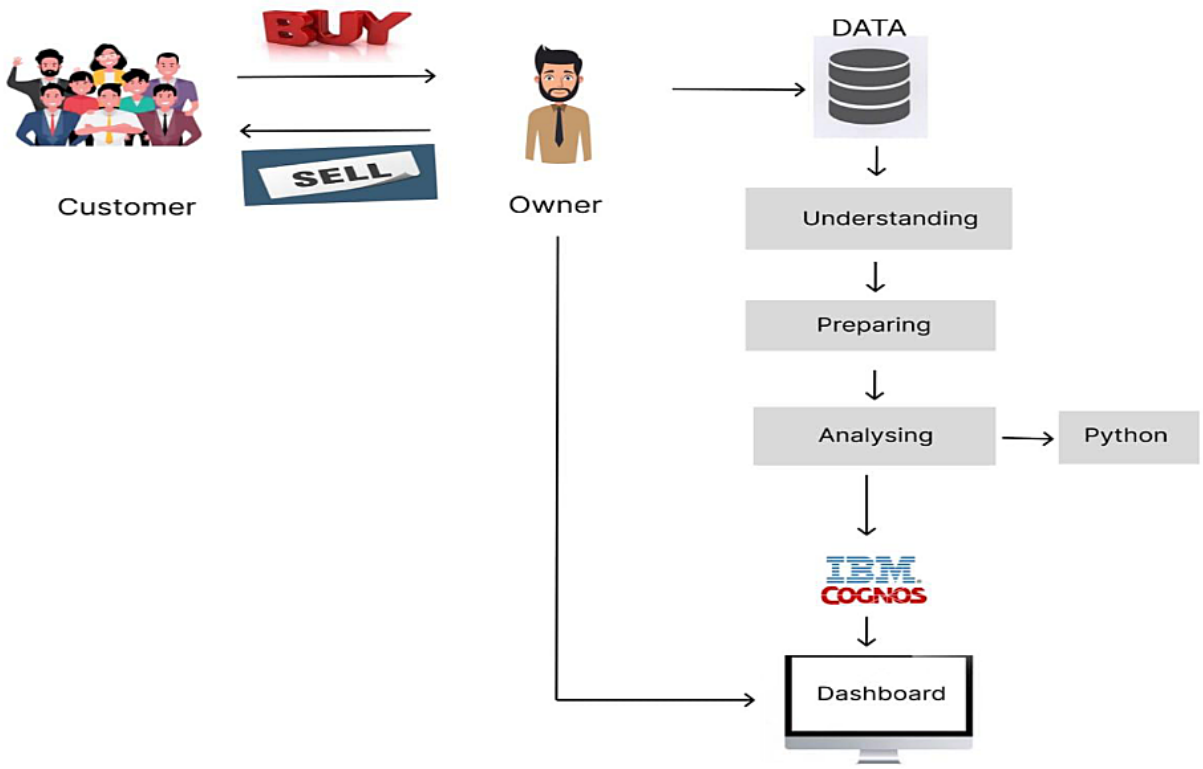


### 5.2 Solution & Technical Architecture

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

- 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.

**Solution Architecture Diagram:**



### 5.3 User Stories

| User Type | Functional Requirement (Epic) | User Story Number | User Story / Task | Acceptance criteria | Priority | Release |
|---|---|---|---|---|---|---|
| | Collecting dataset | USN-1 | As a user, I need to gather the data in the form of CSV/XLS and clean the data. | | low | Sprint-1 |
| | Data preparation | USN-2 | As a user, I need to filter it for Data visualization. | | Medium | Sprint-1 |
| | Data visualization | USN-3 | As a user, I need to filter it for Data visualization. | | Medium | Sprint-1 |
| | Dashboard | USN-4 | Access dashboard in website | Dashboard | medium | Sprint-2 |
| | Report and story | USN-5 | As a user, I can view the list of categorized products and their details as a report and story. | Report and Story | | Sprint-2 |
| Customer (web user) | Registration | USN-6 | As a user, I can register for the application by entering my email, password, and confirming my password. | I can access my account / dashboard | High | Sprint-3 |
| | Login | USN-7 | As a user, I need valid credentials to log to my application. | I can receive confirmation email and click confirm. | High | Sprint-3 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | USN-8 | As a user, I can register for the application through Gmail | I can register and access the dashboard with Login | Low | Sprint-3 |
| | | USN-9 | As a user, I can log into the application by entering email and password | | High | Sprint-4 |
| Administrator | | USN-10 | It can be easily accessible and responsible. | I can access it easily through application. | High | Sprint-4 |

## 6. PROJECT PLANNING & SCHEDULING

### 6.1 Sprint Planning & 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. | 5 | High | Dharmeshprasad R, Surya Prakash G, Tamilvanan N, Mutamilselvan S, Aravindhan |
| Sprint -1 | Login | USN-2 | As a user, I need valid credentials to log to my application. | 5 | High | Dharmeshprasad R, Surya Prakash G, Tamilvanan N |
| Sprint -1 | Data collection | USN-3 | As a user, I need to gather the data in the form of CSV/XLS and clean the data. | 5 | High | Dharmeshprasad R, Surya Prakash G, Tamilvanan N |
| Sprint -1 | Upload dataset | USN-4 | As a user, I can view the data of the products. | 5 | High | Muthamilselvan S Aravindhan |
| Sprint -2 | Data preparation | USN-5 | As a user, I need to filter it for Data visualization. | 5 | High | Dharmeshprasad R, Tamilvanan N |
| Sprint -2 | Data visualization | USN-6 | As a user, I need to filter it for Data visualization. | 5 | | Dharmeshprasad R, Surya Prakash G, Tamilvanan N |

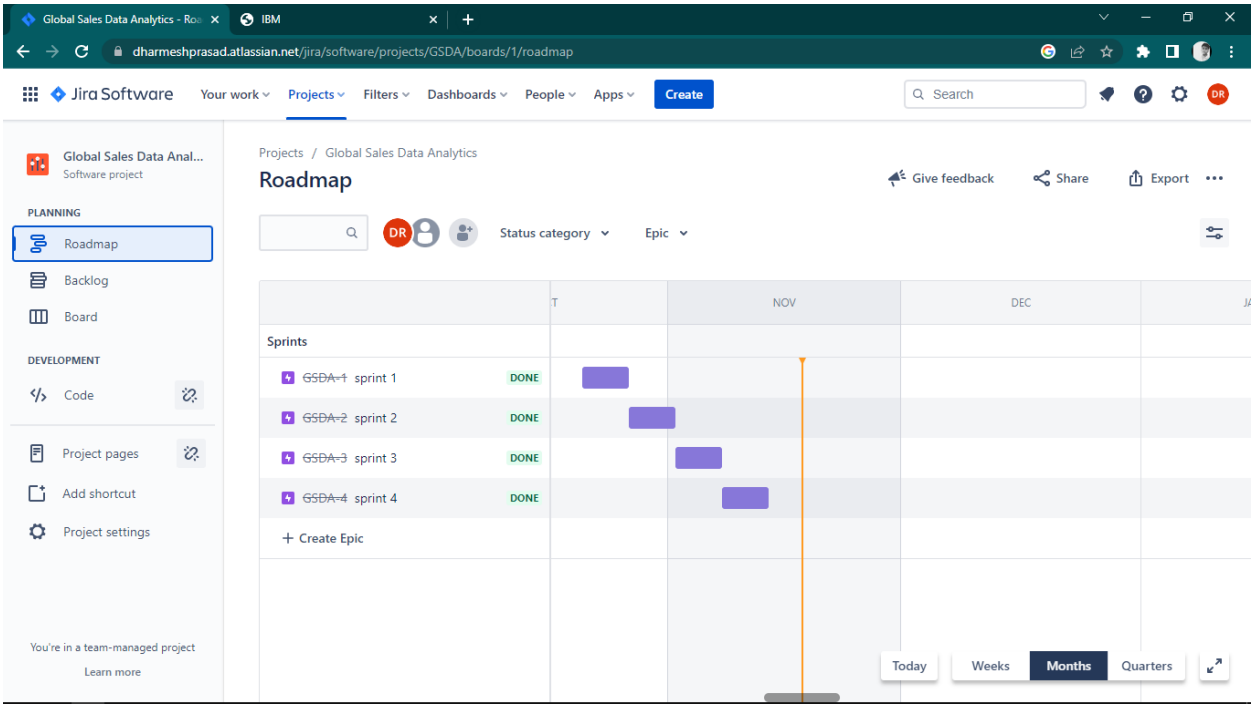
| | | | | | | |
|---|---|---|---|---|---|---|
| Sprint -2 | Dashboard | USN-7 | As a user, I need to filter it for Data visualization. | 10 | High | Surya Prakash G, Tamilvanan N |
| Sprint -3 | Dashboard | USN-8 | As a user, I must plan visualizations in a way that I'm able to gain insights regarding the sales based upon the category of sales and the respective region. | 4 | High | Dharmeshprasad R, Surya Prakash G, Tamilvanan N , Muthamilselvan MS |
| Sprint -3 | Dashboard | USN-9 | As a user, I must be able to gain insights from the charts/graphs through a variety of relationships established on the dashboard. | 10 | Medium | Dharmeshprasad R, Surya Prakash G, Tamilvanan N |
| Sprint -4 | Prediction | USN-10 | As a user, I see the prediction of the specific product's future sales expectation. | 10 | Medium | Dharmeshprasad R, Surya Prakash G, Tamilvanan N |
| Sprint -4 | Report | USN-11 | As a user, I can view the list of categorized products and their details as a report. | 10 | High | Surya Prakash G, Tamilvanan N, Dharmeshprasad R, Aravindhan |

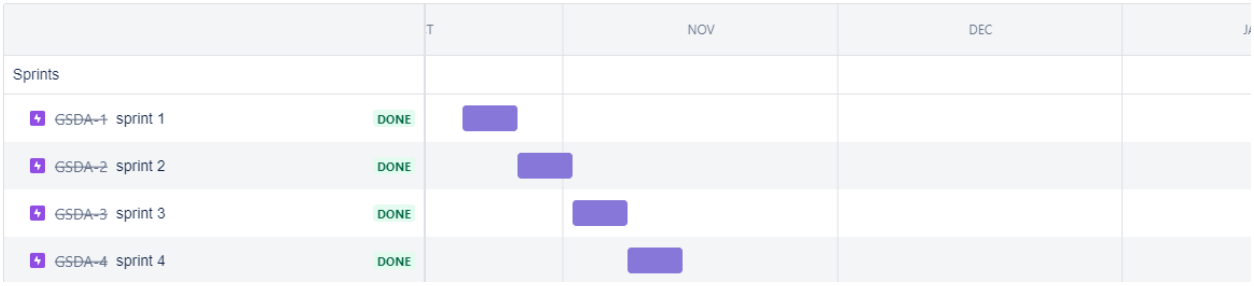
| | | | | | | |
|---|---|---|---|---|---|---|
| Sprint -4 | Story | USN-12 | As a user, I can view the product and customer description and more additional information as a story. | 10 | High | Dharmeshprasad R, Surya Prakash G, Tamilvanan N |

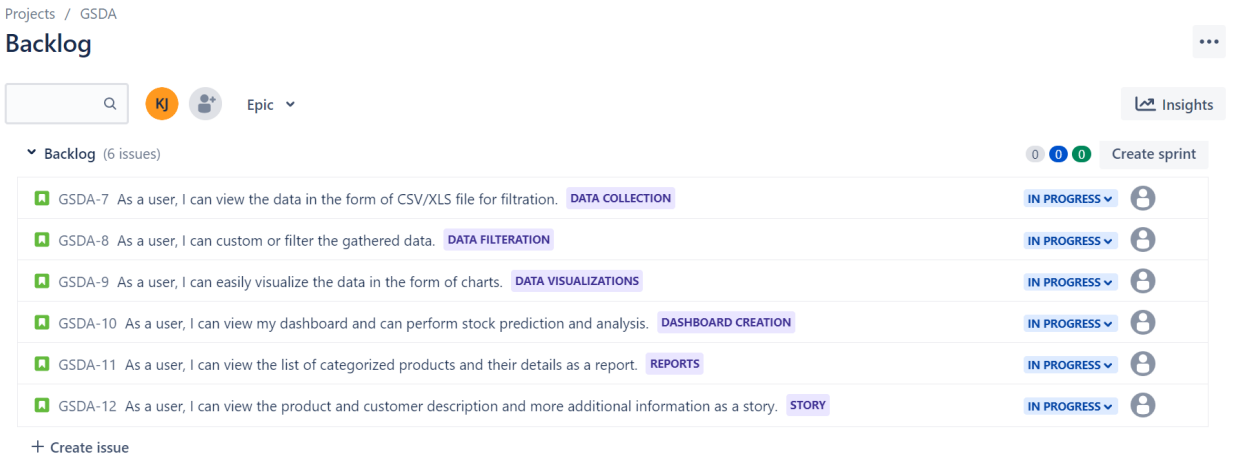
**6.2 Sprint Delivery Schedule**

| **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 | 20 | 6 Days | 24 Oct 2022 | 29 Oct 2022 | 20 | 29 Oct 2022 |
| Sprint-2 | 20 | 6 Days | 31 Oct 2022 | 05 Nov 2022 | 20 | 05 Nov 2022 |
| Sprint-3 | 20 | 6 Days | 07 Nov 2022 | 12 Nov 2022 | 20 | 12 Nov 2022 |
| Sprint-4 | 20 | 6 Days | 14 Nov 2022 | 19 Nov 2022 | 20 | 19 Nov 2022 |

## 6.3 Reports From JIRA



## 7.CODING & SOLUTION

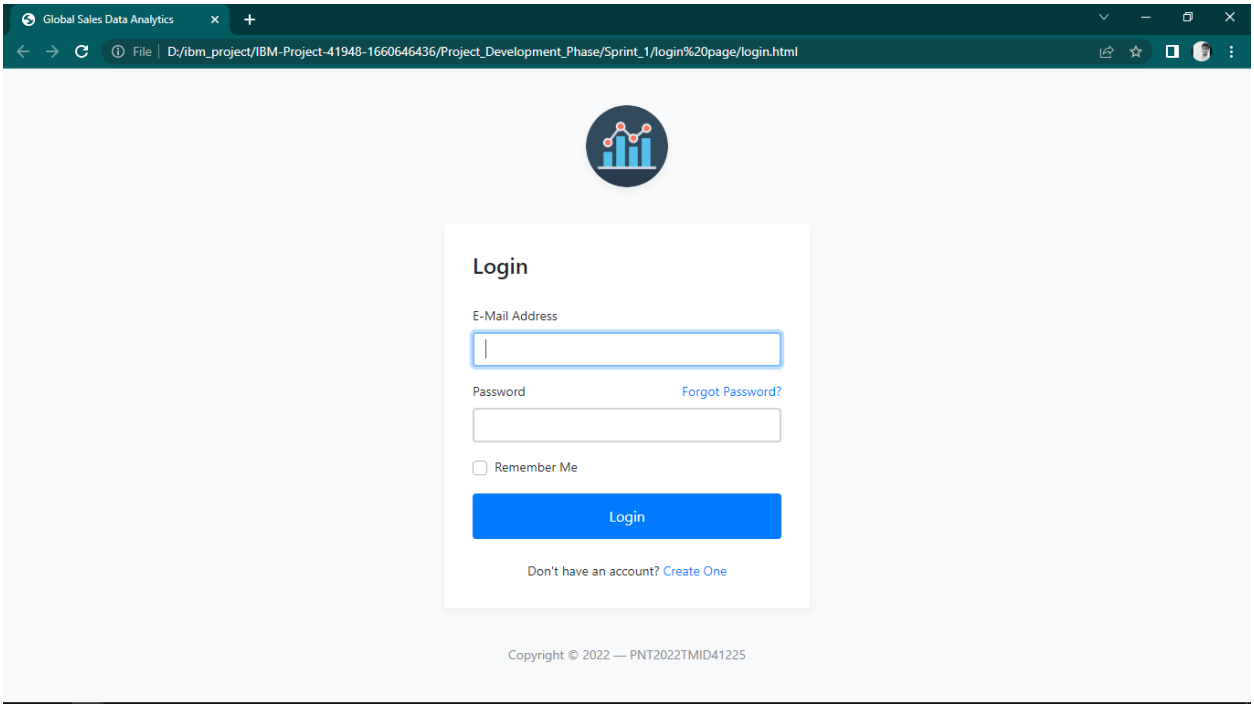
### Feature 1 - Login page:

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="utf-8" />
    <meta name="author" content="Kodinger" />
    <meta name="viewport" content="width=device-width,initial-scale=1" />
    <title>Global Sales Data Analytics</title>
    <link rel="stylesheet" type="text/css" href="assets/css/my-login.css" />
  </head>
  <body class="my-login-page">
    <section class="h-100">
      <div class="container h-100">
        <div class="row justify-content-md-center h-100">
          <div class="card-wrapper">
            <div class="brand">
              <img src="assets/img/logo123.png" alt="logo" />
            </div>
            <div class="card fat">
              <div class="card-body">
                <h4 class="card-title">Login</h4>
                <form method="POST" class="my-login-validation" novalidate="">
                  <div class="form-group">
                    <label for="email">E-Mail Address</label>
                    <input
                      id="email"
                      type="email"
                      class="form-control"
```

```
                      name="email"
                      value=""
                      required
                      autofocus
                    />
                    <div class="invalid-feedback">Email is
  invalid</div>
                  </div>

                  <div class="form-group">
                    <label for="password"
                      >Password
                      <a href="forgot.html" class="float-
  right">
                        Forgot Password?
                      </a>
                    </label>
                    <input
                      id="password"
                      type="password"
                      class="form-control"
                      name="password"
                      required
                      data-eye
                    />
                    <div class="invalid-feedback">Password
  is required</div>
                  </div>

                  <div class="form-group">
                    <div class="custom-checkbox custom-
  control">
                      <input
                        type="checkbox"
                        name="remember"
                        id="remember"
```

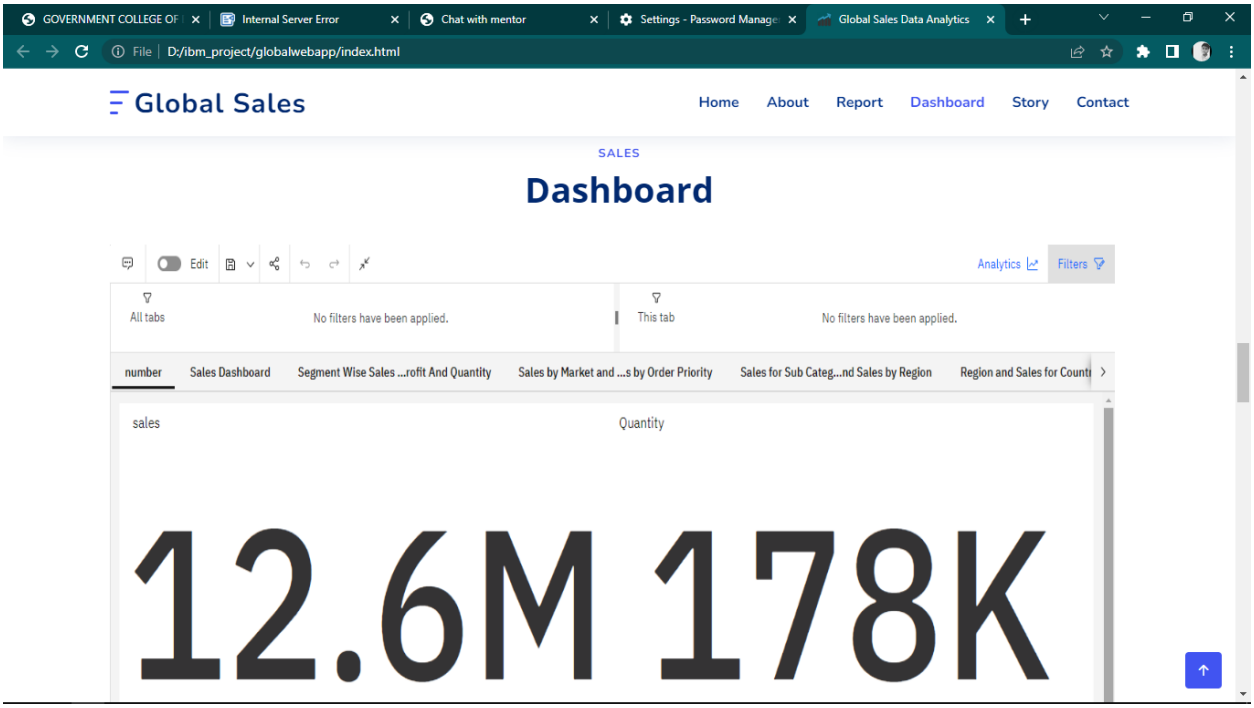
```
                        class="custom-control-input"
                      />
                      <label for="remember" class="custom-
control-label"
                        >Remember Me</label
                      >
                    </div>
                  </div>

                  <div class="form-group m-0">
                    <button
                      type="submit"
                      id="mybutton"
                      class="btn btn-primary btn-block"
                    >
                      Login
                    </button>
                  </div>
                  <div class="mt-4 text-center">
                    Don't have an account?
                    <a href="register.html">Create One</a>
                  </div>
                </form>
              </div>
            </div>
            <div class="footer">
              Copyright &copy; 2022 &mdash;
PNT2022TMID41225
            </div>
          </div>
        </div>
      </div>
    </section>

  <script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.7/umd/popper.min.js"
integrity="sha384-
UO2eT0CpHqdSJQ6hJty5KVphtPhzWj9WO1clHTMGa3JDZwrnQq4sF86dIHNDz0W
```

```
    1" crossorigin="anonymous"></script>
93    <script src="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/js/bootstrap.min.js"
    integrity="sha384-
    JjSmVgyd0p3pXB1rRibZUAYoIIy6OrQ6VrjIEaFf/nJGzIxFDsf4x0xIM+B07jRM"
    crossorigin="anonymous"></script> -->
94      <script src="assets/js/my-login.js"></script>
95    </body>
96 </html>
```



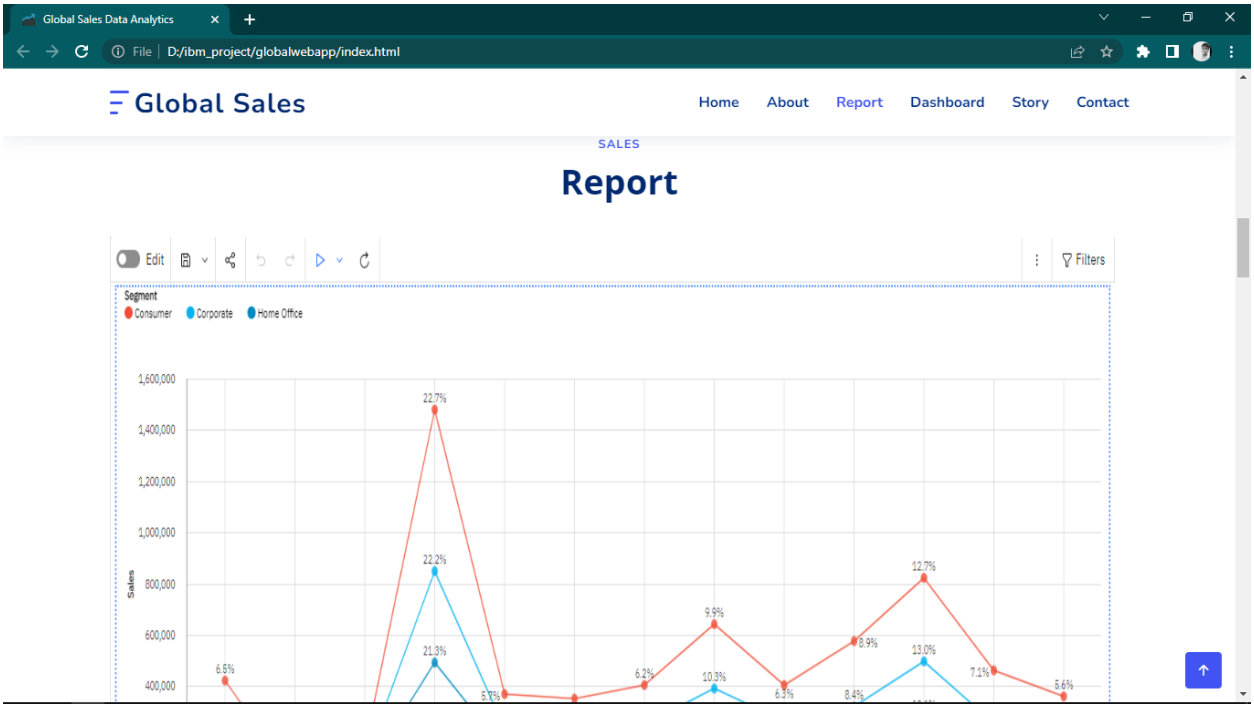
**Feature 2 - Embedding dashboard to web app:**

```
<iframe
src="https://us1.ca.analytics.ibm.com/bi/?perspective=dashboard&amp;pathRef=.my_folders%2Fglobalsale%2FGlobalsales_Dashboard&amp;closeWindowOnLastView=true&amp;ui_appbar=false&amp;ui_navbar=false&amp;shareMode=embedded&amp;action=view&amp;mode=dashboard&amp;subView=model000001847746ca80_00000000" width="1200" height="1000" frameborder="0"
gesture="media" allow="encrypted-media"
allowfullscreen=""></iframe>
```



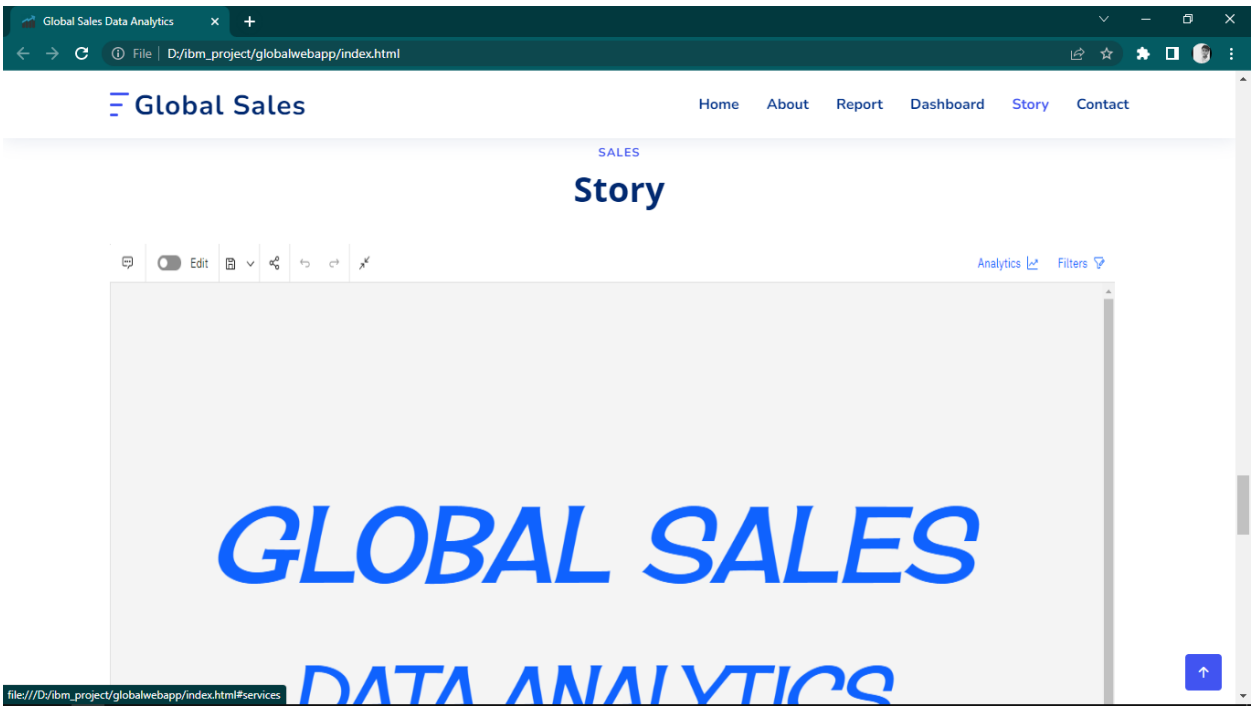
**Feature 3 - Embedding report to web app:**

```
<iframe
src="https://us1.ca.analytics.ibm.com/bi/?pathRef=.my_folders%2Fglobalsale%2FGlobalsales_Report&amp;closeWindowOnLastView=true&amp;ui_appbar=false&amp;ui_navbar=false&amp;shareMode=embedded&amp;action=edit" width="1300" height="1000" frameborder="0" gesture="media" allow="encrypted-media" allowfullscreen=""></iframe>
```



**Feature 4 - Embedding story to web app:**

```
<iframe
src="https://us1.ca.analytics.ibm.com/bi/?perspective=story
&amp;pathRef=.my_folders%2Fglobalsale%2FNew%2Bstory&amp;clo
seWindowOnLastView=true&amp;ui_appbar=false&amp;ui_navbar=f
alse&amp;shareMode=embedded&amp;action=view&amp;sceneId=mod
el000001847a103dc5_00000000&amp;sceneTime=600" width="1300"
height="1000" frameborder="0" gesture="media"
allow="encrypted-media" allowfullscreen=""></iframe>
```



## 8. TESTING

### 8.1 Test Cases

**Test Scenarios**

- Verify user able to see login page
- Verify user able to login to application or not?
- Verify user able to navigate to create your account page?
- Verify user able to recovery password
- Verify login page elements

**Access visualizations**

- User able to see dashboard
- User able to see report
- User able to see stories

### 8.2 User Acceptance Testing

**Defect Analysis:**

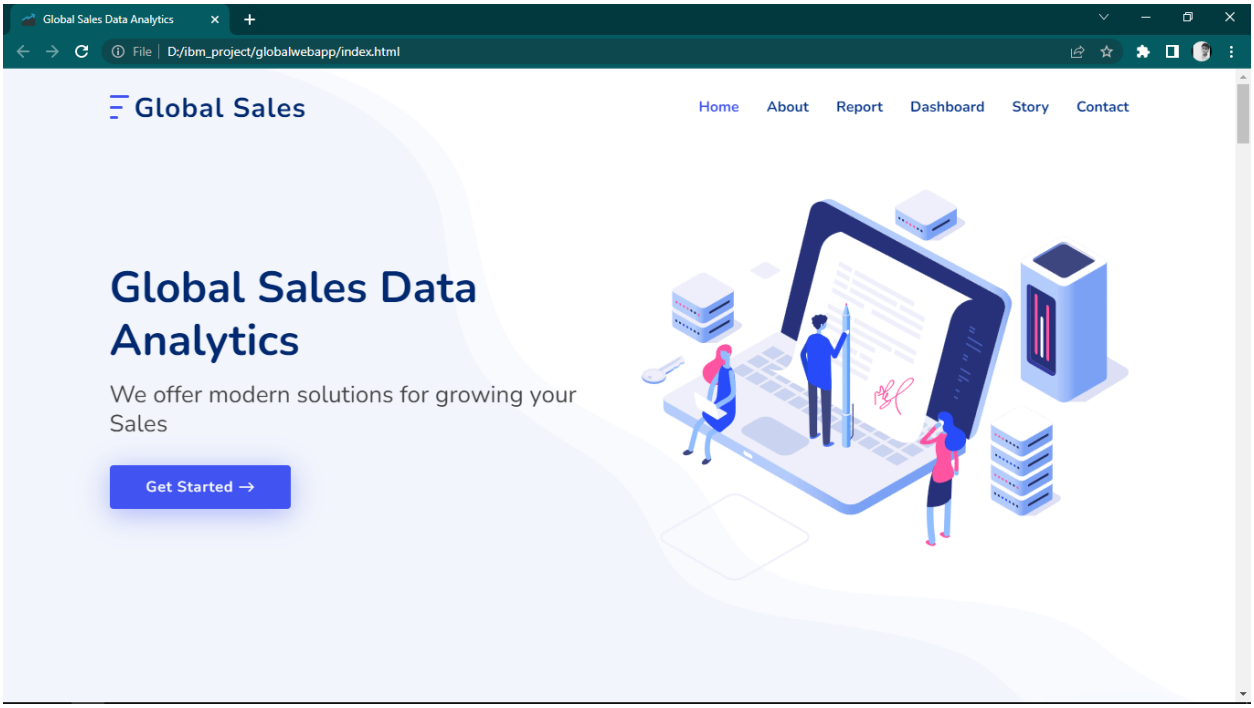
| Resolution | Severity 1 | Severity 2 | Severity 3 | Severity 4 | Subtotal |
|---|---|---|---|---|---|
| By Design | 5 | 2 | 1 | 1 | 9 |
| Duplicate | 0 | 0 | 0 | 0 | 0 |
| External | 2 | 3 | 0 | 1 | 6 |
| Fixed | 4 | 1 | 2 | 2 | 9 |
| Not Reproduced | 0 | 0 | 0 | 0 | 0 |
| Skipped | 0 | 0 | 0 | 0 | 0 |
| Won't Fix | 0 | 0 | 0 | 0 | 0 |
| Totals | 11 | 6 | 3 | 4 | 24 |

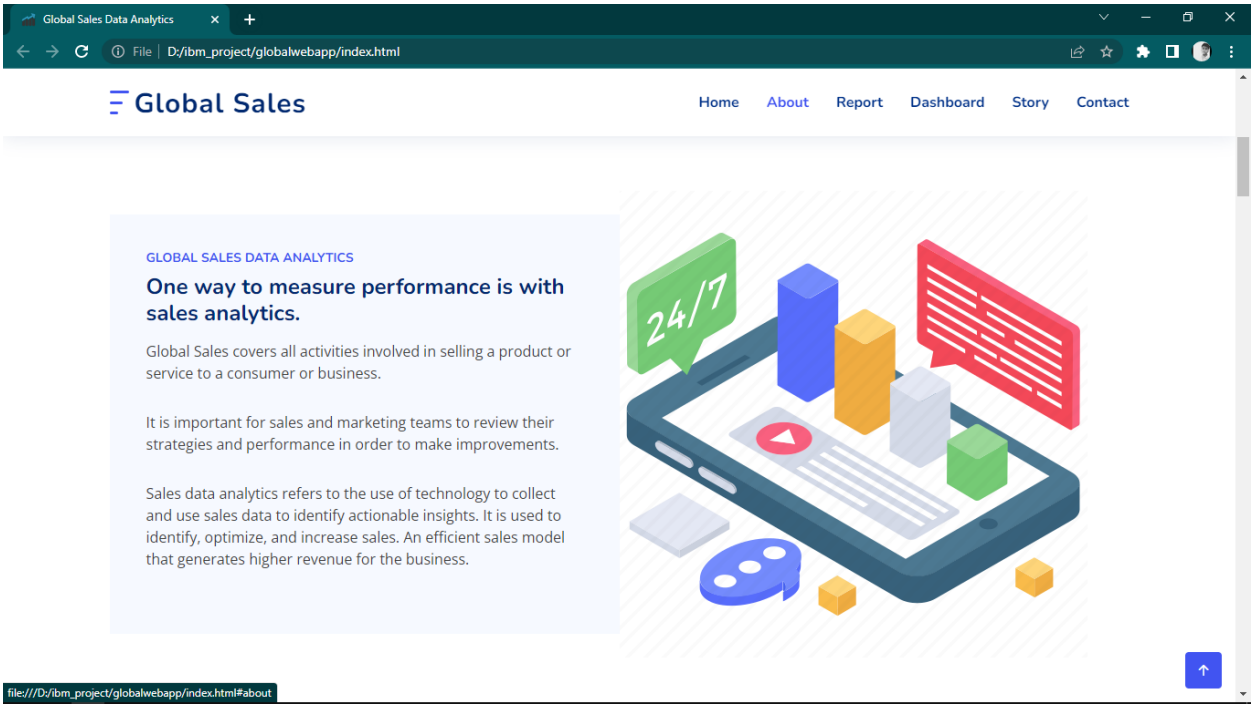
**Test Case Analysis:**

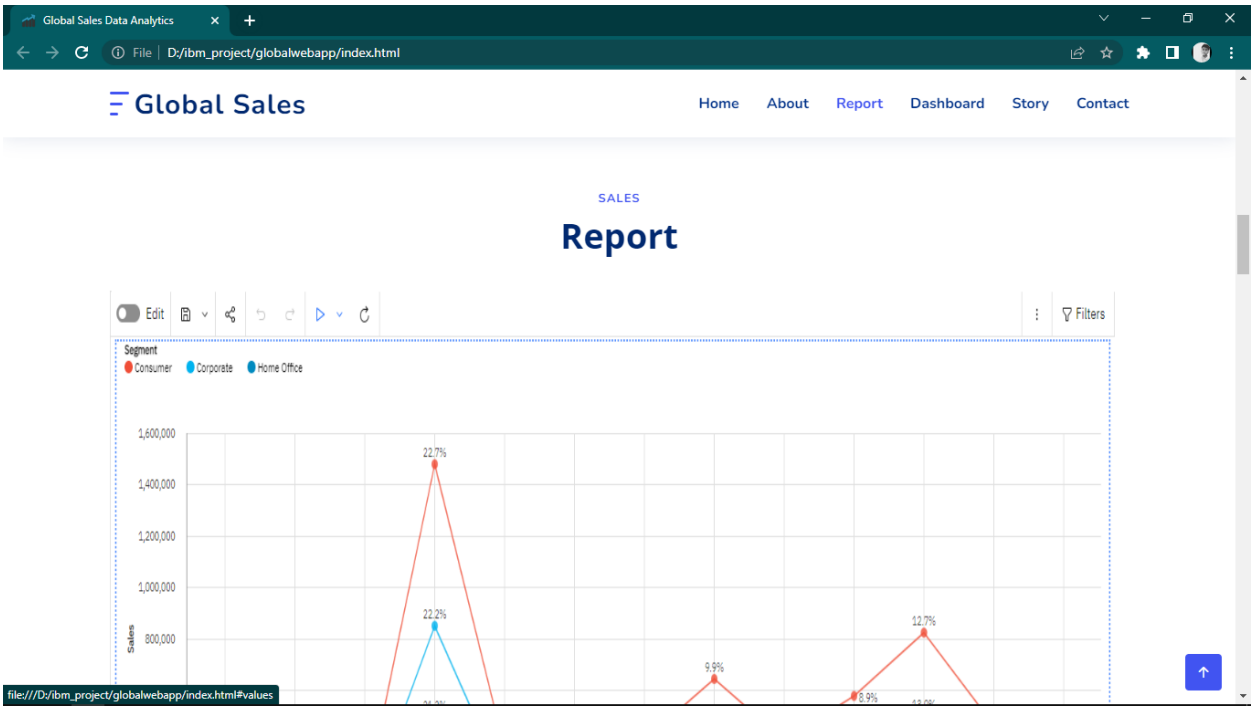
| Section | Total Cases | Not Tested | Fail | Pass |
|---|---|---|---|---|
| Print Engine | 0 | 0 | 0 | 0 |
| Client Application | 6 | 0 | 0 | 6 |
| Security | 0 | 0 | 0 | 0 |
| Outsource Shipping | 0 | 0 | 0 | 0 |
| Exception Reporting | 7 | 0 | 0 | 7 |
| Final ReportOutput | 0 | 0 | 0 | 0 |
| Version Control | 0 | 0 | 0 | 0 |

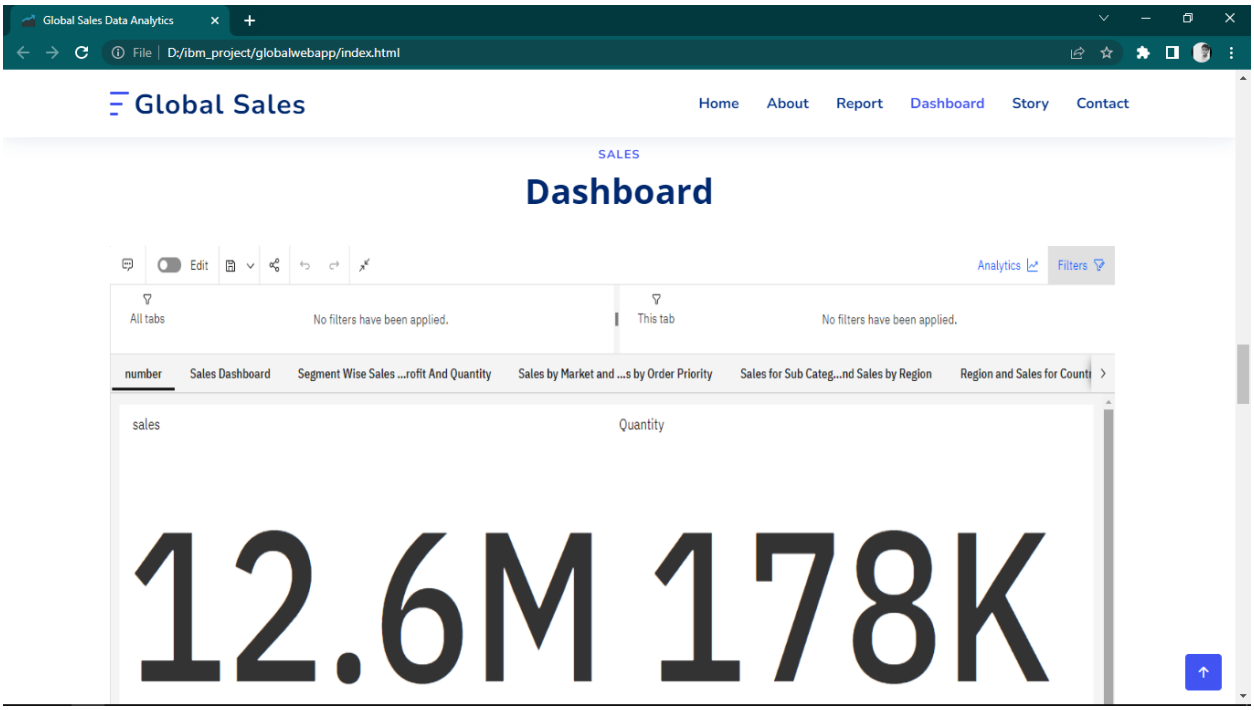
## 9. RESULTS

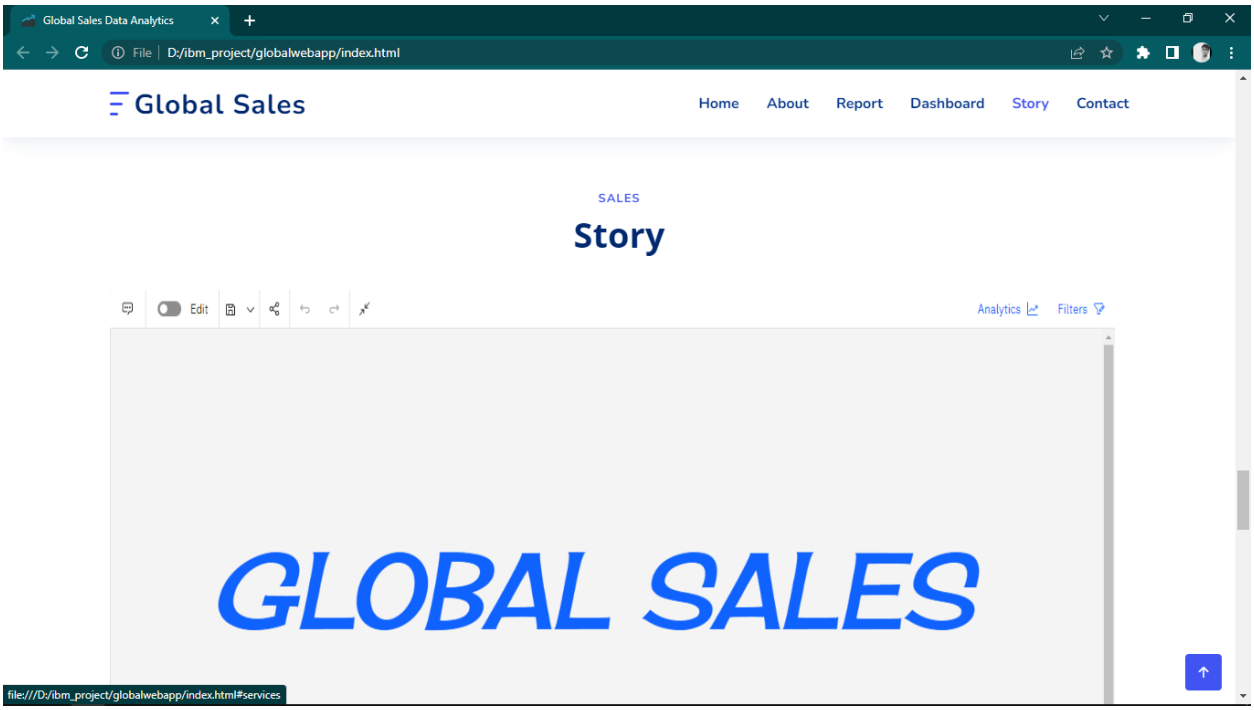
### Screenshots of web application:

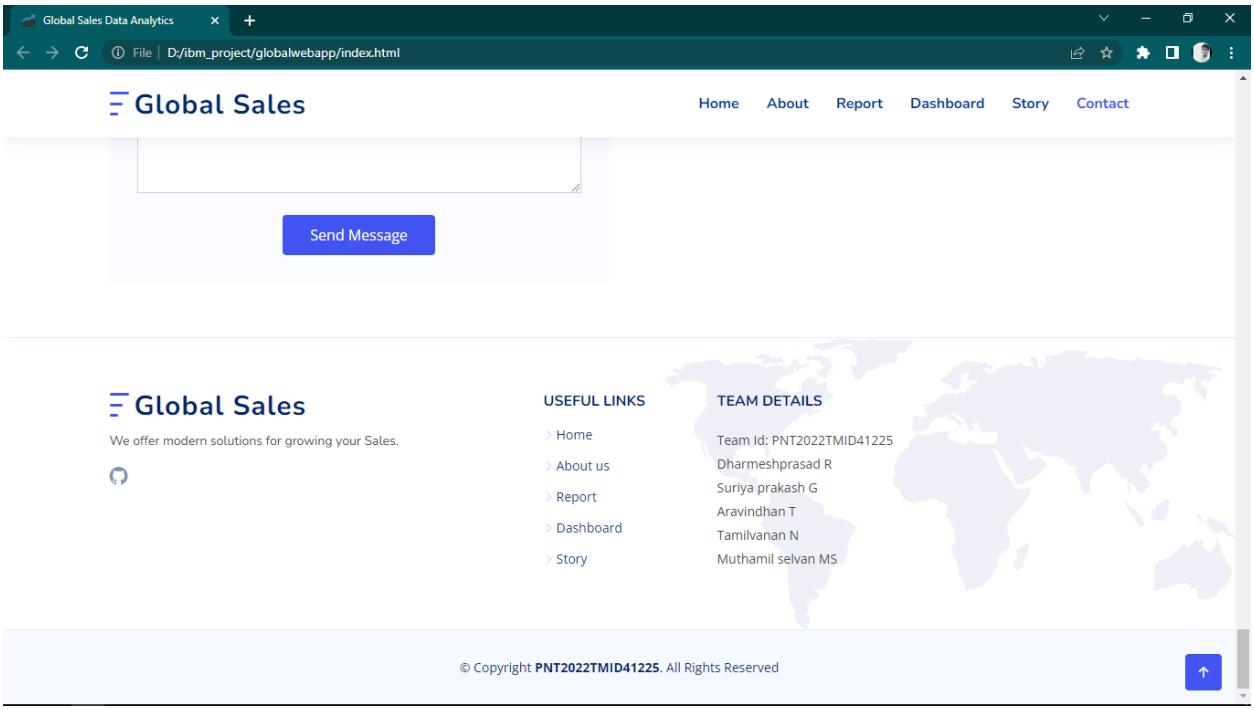



Global Sales Data Analytics
File | D:/ibm_project/globalwebapp/index.html
Global Sales
Home
About
Report
Dashboard
Story
Contact
SALES
Report
Edit
Filters
Segment
Consumer
Corporate
Home Office
1,600,000
1,400,000
1,200,000
1,000,000
800,000
Sales
22.7%
22.2%
9.9%
12.7%
8.9%
file:///D:/ibm_project/globalwebapp/index.html#values


Global Sales Data Analytics
File | D:/ibm_project/globalwebapp/index.html
Global Sales
Home
About
Report
Dashboard
Story
Contact
SALES
Dashboard
Edit
Analytics
Filters
All tabs
No filters have been applied.
This tab
No filters have been applied.
number
Sales Dashboard
Segment Wise Sales ...rofit And Quantity
Sales by Market and ...s by Order Priority
Sales for Sub Categ...nd Sales by Region
Region and Sales for Countr
sales
Quantity
12.6M
178K


Global Sales Data Analytics
File | D:/ibm_project/globalwebapp/index.html
Global Sales
Home
About
Report
Dashboard
Story
Contact
SALES
Story
Edit
Analytics
Filters
GLOBAL SALES
file:///D:/ibm_project/globalwebapp/index.html#services


Global Sales Data Analytics
File | D:/ibm_project/globalwebapp/index.html
Global Sales
Home
About
Report
Dashboard
Story
Contact
Send Message
Global Sales
We offer modern solutions for growing your Sales.
USEFUL LINKS
Home
About us
Report
Dashboard
Story
TEAM DETAILS
Team Id: PNT2022TMID41225
Dharmeshprasad R
Suriya prakash G
Aravindhan T
Tamilvanan N
Muthamil selvan MS
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## 10. ADVANTAGES & DISADVANTAGES

**Advantages:**

- It is used to identify, optimize, and forecast sales.
- Sales data will help a company to take a future decision in terms of inventory management, marketing activities, schemes or offers to be rolled and changes in manufacturing processes if applicable.
- An efficient sales model that generates higher revenue for the business.
- Better prediction, Profit function performance.
- Helps to review their strategies and performance in order to make improvements.

**Disadvantages:**

- Sales pattern can be changed
- insufficient data may lead to wrong path.
- data may have been collected for historical reasons may not be suitable to answer the questions that we ask today.
- business users do not see results immediately

## 11. CONCLUTION

Analyzing sales helps businesses in understanding their most profitable products and the ones that are not moving, most profitable customers, and potential sales opportunities thereby providing sales which match customer needs and meets their satisfaction. An efficient sales model that generates higher revenue for the business. It helps in the perception of profit about particular product and perception of sales in different locations and times.

## 12. FUTURE SCOPE

Use the technology to collect and use sales data to derive actionable insights. It is used to identify, optimize, and forecast sales. An efficient sales model that generates higher revenue for the business. An efficient sales model that generates higher revenue for the business.

## 13. APPENDIX

### 13.1 Source Code

**kaggle api to gather the dataset**

```
!pip install -q kaggle
!mkdir ~/.kaggle
!cp kaggle.json ~/.kaggle/
!kaggle datasets download -d mrhatrider/glabalsales
!unzip /content/glabalsales.zip
```

**index.html**

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="utf-8" />
      <meta content="width=device-width, initial-scale=1.0" name="viewport" />

    <title>Global Sales Data Analytics</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

href="https://fonts.googleapis.com/css?family=Open+Sans:300,300i,400,400i,600,600i,700,700i|Nunito:300,300i,400,400i,600,600i,700,700i|Poppins:300,300i,400,400i,500,500i,600,600
```

```
i,700,700i"
      rel="stylesheet"
    />

    <!-- Vendor CSS Files -->
     <link href="assets/vendor/aos/aos.css" rel="stylesheet"
/>
    <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/glightbox/css/glightbox.min.css"
      rel="stylesheet"
    />
         <link  href="assets/vendor/remixicon/remixicon.css"
rel="stylesheet" />
     <link href="assets/vendor/swiper/swiper-bundle.min.css"
rel="stylesheet" />

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

  <body>
    <!-- ======= Header ======= -->
    <header id="header" class="header 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">
50          <img src="assets/img/logo.png" alt="" />
51          <span>Global Sales</span>
52        </a>
53
54        <nav id="navbar" class="navbar">
55          <ul>
56                    <li><a class="nav-link scrollto active"
  href="#hero">Home</a></li>
57                          <li><a class="nav-link scrollto"
  href="#about">About</a></li>
58                          <li><a class="nav-link scrollto"
  href="#values">Report</a></li>
59                          <li><a class="nav-link scrollto"
  href="#features">Dashboard</a></li>
60                          <li><a class="nav-link scrollto"
  href="#services">Story</a></li>
61                          <li><a class="nav-link scrollto"
  href="#contact">Contact</a></li>
62          </ul>
63          <i class="bi bi-list mobile-nav-toggle"></i>
64        </nav>
65        <!-- .navbar -->
66      </div>
67    </header>
68    <!-- End Header -->
69
70    <!-- ======= Hero Section ======= -->
71       <section id="hero" class="hero d-flex align-items-
  center">
72      <div class="container">
73        <div class="row">
74           <div class="col-lg-6 d-flex flex-column justify-
  content-center">
75                   <h1 data-aos="fade-up">Global Sales Data
  Analytics</h1>
76            <h2 data-aos="fade-up" data-aos-delay="400">
```

```
77                 We offer modern solutions for growing your
  Sales
78             </h2>
79             <div data-aos="fade-up" data-aos-delay="600">
80               <div class="text-center text-lg-start">
81                 <a
82                   href="#about"
83                    class="btn-get-started scrollto d-inline-
  flex  align-items-center  justify-content-center  align-self-
  center"
84                 >
85                   <span>Get Started</span>
86                   <i class="bi bi-arrow-right"></i>
87                 </a>
88               </div>
89             </div>
90           </div>
91           <div
92             class="col-lg-6 hero-img"
93             data-aos="zoom-out"
94             data-aos-delay="200"
95           >
96               <img src="assets/img/hero-img.png" class="img-
  fluid" alt="" />
97           </div>
98         </div>
99       </div>
100     </section>
101     <!-- End Hero -->
102
103     <main id="main">
104       <!-- ======= About Section ======= -->
105       <section id="about" class="about">
106         <div class="container" data-aos="fade-up">
107           <div class="row gx-0">
108             <div
109                 class="col-lg-6 d-flex flex-column justify-
```

```
  content-center"
110               data-aos="fade-up"
111               data-aos-delay="200"
112             >
113               <div class="content">
114                 <h3>Global Sales Data Analytics</h3>
115                  <h2>One way to measure performance is with
  sales analytics.</h2>
116                 <p>
117                         Global Sales covers all activities
  involved in selling a
118                       product or service to a consumer or
  business.
119                 </p>
120                 <p>
121                    It is important for sales and marketing
  teams to review their
122                     strategies and performance in order to
  make improvements.
123                 </p>
124                 <p>
125                     Sales data analytics refers to the use
  of technology to
126                     collect and use sales data to identify
  actionable insights. It
127                        is used to identify, optimize, and
  increase sales. An
128                      efficient sales model that generates
  higher revenue for the
129                   business.
130                 </p>
131               </div>
132             </div>
133
134             <div
135               class="col-lg-6 d-flex align-items-center"
136               data-aos="zoom-out"
```

```
137                 data-aos-delay="200"
138               >
139                               <img  src="assets/img/32-512.webp"
  class="img-fluid" alt="" />
140               </div>
141             </div>
142           </div>
143         </section>
144         <!-- End About Section -->
145
146         <!-- ======= Counts Section ======= -->
147         <section id="counts" class="counts">
148           <div class="container" data-aos="fade-up">
149             <div class="row gy-4">
150               <div class="col-lg-3 col-md-6">
151                 <div class="count-box">
152                   <i class="bi bi-star-fill"></i>
153                   <div>
154                     <span
155                       data-purecounter-start="0"
156                       data-purecounter-end="12.6"
157                       data-purecounter-duration="1"
158                       class="purecounter"
159                     ></span>
160                     <p>Sales(millions)</p>
161                   </div>
162                 </div>
163               </div>
164
165               <div class="col-lg-3 col-md-6">
166                 <div class="count-box">
167                   <i class="bi bi-star-fill"></i>
168                   <div>
169                     <span
170                       data-purecounter-start="0"
171                       data-purecounter-end="1.6"
```

```
                    data-purecounter-duration="1"
                    class="purecounter"
                  ></span>
                  <p>Profit (millions)</p>
                </div>
              </div>
            </div>

            <div class="col-lg-3 col-md-6">
              <div class="count-box">
                <i class="bi bi-star-fill"></i>
                <div>
                  <span
                    data-purecounter-start="0"
                    data-purecounter-end="17.86"
                    data-purecounter-duration="1"
                    class="purecounter"
                  ></span>
                  <p>Quantity (millions)</p>
                </div>
              </div>
            </div>

            <div class="col-lg-3 col-md-6">
              <div class="count-box">
                <i class="bi bi-star-fill"></i>
                <div>
                  <span
                    data-purecounter-start="0"
                    data-purecounter-end="1.6"
                    data-purecounter-duration="1"
                    class="purecounter"
                  ></span>
                  <p>Sales cost (millions)</p>
                </div>
              </div>
```

```
208             </div>
209           </div>
210         </div>
211       </section>
212       <!-- End Counts Section -->
213
214       <!-- ======= Values Section ======= -->
215       <section id="values" class="values">
216         <div class="container" data-aos="fade-up">
217           <header class="section-header">
218             <h2>Sales</h2>
219             <p>Report</p>
220           </header>
221           <iframe
222
  src="https://us1.ca.analytics.ibm.com/bi/?pathRef=.my_folde
  rs%2Fglobalsale%2FGlobalsales_Report&amp;closeWindowOnLastV
  iew=true&amp;ui_appbar=false&amp;ui_navbar=false&amp;shareM
  ode=embedded&amp;action=edit"
223             width="1300"
224             height="1000"
225             frameborder="0"
226             gesture="media"
227             allow="encrypted-media"
228             allowfullscreen=""
229           ></iframe>
230
231           <div class="row">
232              <div class="col-lg-4" data-aos="fade-up" data-
  aos-delay="200">
233               <div class="box">
234                           <img  src="assets/img/values-1.png"
  class="img-fluid" alt="" />
235                 <h3>Report</h3>
236                 <p>
237                     sorting and organization of data, while
  analytics derive
```

```
238                         insights from that data and often
  influence business
239                   decisions.
240                 </p>
241               </div>
242             </div>
243
244             <div
245               class="col-lg-4 mt-4 mt-lg-0"
246               data-aos="fade-up"
247               data-aos-delay="400"
248             >
249               <div class="box">
250                           <img src="assets/img/values-2.png"
  class="img-fluid" alt="" />
251                 <h3>Stroy</h3>
252                 <p>
253                             a methodology for communicating
  information, tailored to a
254                         specific audience, with a compelling
  narrative.
255                 </p>
256               </div>
257             </div>
258
259             <div
260               class="col-lg-4 mt-4 mt-lg-0"
261               data-aos="fade-up"
262               data-aos-delay="600"
263             >
264               <div class="box">
265                           <img src="assets/img/values-3.png"
  class="img-fluid" alt="" />
266                 <h3>Dashboard</h3>
267                 <p>
268                         a tool used to multi-task, organize,
  visualize, analyze, and
```

```
                    track data.View automatically updated data with interactive
                  charts, graphs and tables.
                </p>
              </div>
            </div>
          </div>
        </div>
      </section>
      <!-- End Values Section -->

      <!-- ======= Features Section ======= -->
      <section id="features" class="features">
        <div class="container" data-aos="fade-up">
          <header class="section-header">
            <h2>Sales</h2>
            <p>Dashboard</p>
          </header>
          <iframe
src="https://us1.ca.analytics.ibm.com/bi/?perspective=dashboard&amp;pathRef=.my_folders%2Fglobalsale%2FGlobalsales_Dashboard&amp;closeWindowOnLastView=true&amp;ui_appbar=false&amp;ui_navbar=false&amp;shareMode=embedded&amp;action=view&amp;mode=dashboard&amp;subView=model000001847746ca80_00000000"
            width="1200"
            height="1000"
            frameborder="0"
            gesture="media"
            allow="encrypted-media"
            allowfullscreen=""
          ></iframe>

          <div class="row">
            <div class="col-lg-6 mt-5 mt-lg-0 d-flex">
```

```
298                <div class="row align-self-center gy-4">
299                    <div class="col-md-6" data-aos="zoom-out"
  data-aos-delay="200">
300                        <div class="feature-box d-flex align-
  items-center">
301                      <i class="bi bi-check"></i>
302                         <h3>Segment Wise Sales , Profit And
  Quantity</h3>
303                    </div>
304                  </div>
305
306                    <div class="col-md-6" data-aos="zoom-out"
  data-aos-delay="300">
307                        <div class="feature-box d-flex align-
  items-center">
308                      <i class="bi bi-check"></i>
309                      <h3>Sales By Market</h3>
310                    </div>
311                  </div>
312
313                    <div class="col-md-6" data-aos="zoom-out"
  data-aos-delay="400">
314                        <div class="feature-box d-flex align-
  items-center">
315                      <i class="bi bi-check"></i>
316                       <h3>Sales By Sub Category And Sales By
  Region</h3>
317                    </div>
318                  </div>
319
320                    <div class="col-md-6" data-aos="zoom-out"
  data-aos-delay="500">
321                        <div class="feature-box d-flex align-
  items-center">
322                      <i class="bi bi-check"></i>
323                           <h3>Country Wise Sales Using Map
  Points</h3>
```

```
                    </div>
                </div>

                <div class="col-md-6" data-aos="zoom-out"
  data-aos-delay="600">
                    <div class="feature-box d-flex align-
  items-center">
                    <i class="bi bi-check"></i>
                    <h3>
                        Sub Category Wise Sales And Profits
  Using Line And Bar
                     Chart
                    </h3>
                </div>
                </div>

                <div class="col-md-6" data-aos="zoom-out"
  data-aos-delay="700">
                    <div class="feature-box d-flex align-
  items-center">
                    <i class="bi bi-check"></i>
                    <h3>
                         Sales Vs Profit Scatter Plot With
  Sub Categories And
                     Regions
                    </h3>
                </div>
                </div>
                <div class="col-md-6" data-aos="zoom-out"
  data-aos-delay="700">
                    <div class="feature-box d-flex align-
  items-center">
                    <i class="bi bi-check"></i>
                    <h3>Sales Dashboard</h3>
                </div>
                </div>
```

```
352                 </div>
353             </div>
354
355             <div class="col-lg-6 mt-5 mt-lg-0 d-flex">
356               <div class="row align-self-center gy-4">
357                   <div class="col-md-6" data-aos="zoom-out"
  data-aos-delay="200">
358                       <div class="feature-box d-flex align-
  items-center">
359                     <i class="bi bi-check"></i>
360                             <h3>Regional Sales And Profit
  Forecast</h3>
361                   </div>
362                 </div>
363
364                   <div class="col-md-6" data-aos="zoom-out"
  data-aos-delay="300">
365                       <div class="feature-box d-flex align-
  items-center">
366                     <i class="bi bi-check"></i>
367                               <h3>Sales Forecast By Order
  Priority</h3>
368                   </div>
369                 </div>
370
371                   <div class="col-md-6" data-aos="zoom-out"
  data-aos-delay="400">
372                       <div class="feature-box d-flex align-
  items-center">
373                     <i class="bi bi-check"></i>
374                                 <h3>Sales By Sub Category
  Analytics</h3>
375                   </div>
376                 </div>
377
378                   <div class="col-md-6" data-aos="zoom-out"
  data-aos-delay="500">
```

```
379                     <div class="feature-box d-flex align-
  items-center">
380                   <i class="bi bi-check"></i>
381                       <h3>Regional Quantity using Radar
  Chart</h3>
382                 </div>
383               </div>
384
385                 <div class="col-md-6" data-aos="zoom-out"
  data-aos-delay="500">
386                     <div class="feature-box d-flex align-
  items-center">
387                   <i class="bi bi-check"></i>
388                           <h3>profit Forecast using Radar
  Chart</h3>
389                 </div>
390               </div>
391
392                 <div class="col-md-6" data-aos="zoom-out"
  data-aos-delay="600">
393                     <div class="feature-box d-flex align-
  items-center">
394                   <i class="bi bi-check"></i>
395                   <h3>Sales Vs Profit By Countries</h3>
396                 </div>
397               </div>
398
399                 <div class="col-md-6" data-aos="zoom-out"
  data-aos-delay="700">
400                     <div class="feature-box d-flex align-
  items-center">
401                   <i class="bi bi-check"></i>
402                    <h3>Country Wise Sales Vs Profit Using
  Word Cloud</h3>
403                 </div>
404               </div>
```

```
              </div>
            </div>
          </div>
          <!-- / row -->
        </div>
      </section>
      <!-- End Features Section -->

      <!-- ======= Services Section ======= -->
      <section id="services" class="services">
        <div class="container" data-aos="fade-up">
          <header class="section-header">
            <h2>Sales</h2>
            <p>Story</p>
          </header>
          <iframe
src="https://us1.ca.analytics.ibm.com/bi/?perspective=story&amp;pathRef=.my_folders%2Fglobalsale%2FNew%2Bstory&amp;closeWindowOnLastView=true&amp;ui_appbar=false&amp;ui_navbar=false&amp;shareMode=embedded&amp;action=view&amp;sceneId=model000001847a103dc5_00000000&amp;sceneTime=600"
            width="1300"
            height="1000"
            frameborder="0"
            gesture="media"
            allow="encrypted-media"
            allowfullscreen=""
          ></iframe>
        </div>
      </section>
      <!-- End Services Section -->

      <!-- ======= F.A.Q Section ======= -->
      <section id="faq" class="faq">
        <div class="container" data-aos="fade-up">
```

```
436           <header class="section-header">
437             <h2>F.A.Q</h2>
438             <p>Frequently Asked Questions</p>
439           </header>
440
441           <div class="row">
442             <div class="col-lg-6">
443               <!-- F.A.Q List 1-->
444                     <div class="accordion accordion-flush"
  id="faqlist1">
445                 <div class="accordion-item">
446                   <h2 class="accordion-header">
447                     <button
448                       class="accordion-button collapsed"
449                       type="button"
450                       data-bs-toggle="collapse"
451                       data-bs-target="#faq-content-1"
452                     >
453                       When does the issue occur?
454                     </button>
455                   </h2>
456                   <div
457                     id="faq-content-1"
458                     class="accordion-collapse collapse"
459                     data-bs-parent="#faqlist1"
460                   >
461                     <div class="accordion-body">
462                           Consumers shopping patterns have
  changed since the
463                         pandemic, with more emphasis on e-
  commerce and contactless
464                       payments.
465                     </div>
466                   </div>
467                 </div>
468
```

```
469                 <div class="accordion-item">
470                   <h2 class="accordion-header">
471                     <button
472                       class="accordion-button collapsed"
473                       type="button"
474                       data-bs-toggle="collapse"
475                       data-bs-target="#faq-content-2"
476                     >
477                       Where does the issue occur?
478                     </button>
479                   </h2>
480                   <div
481                     id="faq-content-2"
482                     class="accordion-collapse collapse"
483                     data-bs-parent="#faqlist1"
484                   >
485                     <div class="accordion-body">
486                       The issue occurs on online shopping.
487                     </div>
488                   </div>
489                 </div>
490
491                 <div class="accordion-item">
492                   <h2 class="accordion-header">
493                     <button
494                       class="accordion-button collapsed"
495                       type="button"
496                       data-bs-toggle="collapse"
497                       data-bs-target="#faq-content-3"
498                     >
499                         Why is it important that we fix the
  problem?
500                     </button>
501                   </h2>
502                   <div
503                     id="faq-content-3"
```

```
                    class="accordion-collapse collapse"
                    data-bs-parent="#faqlist1"
                  >
                    <div class="accordion-body">
                        Data-driven sales organizations now operate more like
                        scientists and strategists, and the results speak for
                      themselves.
                    </div>
                  </div>
                </div>
              </div>

              <div class="col-lg-6">
                <!-- F.A.Q List 2-->
                    <div class="accordion accordion-flush" id="faqlist2">
                  <div class="accordion-item">
                    <h2 class="accordion-header">
                      <button
                        class="accordion-button collapsed"
                        type="button"
                        data-bs-toggle="collapse"
                        data-bs-target="#faq2-content-1"
                      >
                        Who does the problem affect??
                      </button>
                    </h2>
                    <div
                      id="faq2-content-1"
                      class="accordion-collapse collapse"
                      data-bs-parent="#faqlist2"
                    >
                      <div class="accordion-body">
                         It will affect both the customer and
```

```
  the store.
                    </div>
                  </div>
                </div>

                <div class="accordion-item">
                  <h2 class="accordion-header">
                    <button
                      class="accordion-button collapsed"
                      type="button"
                      data-bs-toggle="collapse"
                      data-bs-target="#faq2-content-2"
                    >
                           What are the boundaries of the
  problem?
                    </button>
                  </h2>
                  <div
                    id="faq2-content-2"
                    class="accordion-collapse collapse"
                    data-bs-parent="#faqlist2"
                  >
                    <div class="accordion-body">
                          Low data proficiency among sales
  will greatly limits the
                          value of analytical insights and
  inhibits data-driven
                      decision making.
                    </div>
                  </div>
                </div>

                <div class="accordion-item">
                  <h2 class="accordion-header">
                    <button
                      class="accordion-button collapsed"
                      type="button"
```

```
                        data-bs-toggle="collapse"
                        data-bs-target="#faq2-content-3"
                      >
                        What is the issue?
                      </button>
                    </h2>
                    <div
                      id="faq2-content-3"
                      class="accordion-collapse collapse"
                      data-bs-parent="#faqlist2"
                    >
                      <div class="accordion-body">
                              Cannot identify most profitable products and the ones that
                               aren't moving, most profitable customers, and potential
                        sales opportunities.
                      </div>
                    </div>
                  </div>
                </div>
              </div>
            </div>
          </div>
        </section>
        <!-- End F.A.Q Section -->

        <!-- ======= Contact Section ======= -->
        <section id="contact" class="contact">
          <div class="container" data-aos="fade-up">
            <header class="section-header">
              <h2>Contact</h2>
              <p>Contact Us</p>
            </header>

            <div class="row gy-4">
```

```
605             <div class="col-lg-6">
606               <form
607                 action="forms/contact.php"
608                 method="post"
609                 class="php-email-form"
610               >
611                 <div class="row gy-4">
612                   <div class="col-md-6">
613                     <input
614                       type="text"
615                       name="name"
616                       class="form-control"
617                       placeholder="Your Name"
618                       required
619                     />
620                   </div>
621
622                   <div class="col-md-6">
623                     <input
624                       type="email"
625                       class="form-control"
626                       name="email"
627                       placeholder="Your Email"
628                       required
629                     />
630                   </div>
631
632                   <div class="col-md-12">
633                     <input
634                       type="text"
635                       class="form-control"
636                       name="subject"
637                       placeholder="Subject"
638                       required
639                     />
640                   </div>
```

```
641
642                   <div class="col-md-12">
643                     <textarea
644                       class="form-control"
645                       name="message"
646                       rows="6"
647                       placeholder="Message"
648                       required
649                     ></textarea>
650                   </div>
651
652                   <div class="col-md-12 text-center">
653                     <div class="loading">Loading</div>
654                     <div class="error-message"></div>
655                     <div class="sent-message">
656                           Your message has been sent. Thank
  you!
657                     </div>
658
659                                   <button  type="submit">Send
  Message</button>
660                   </div>
661                 </div>
662               </form>
663             </div>
664           </div>
665         </div>
666       </section>
667       <!-- End Contact Section -->
668     </main>
669     <!-- End #main -->
670
671     <!-- ======= Footer ======= -->
672     <footer id="footer" class="footer">
673       <div class="footer-top">
674         <div class="container">
```

```
675           <div class="row gy-4">
676             <div class="col-lg-5 col-md-12 footer-info">
677                    <a href="index.html" class="logo d-flex
  align-items-center">
678                 <img src="assets/img/logo.png" alt="" />
679                 <span>Global Sales</span>
680               </a>
681                  <p>We offer modern solutions for growing
  your Sales.</p>
682               <div class="social-links mt-3">
683                 <a
684                      href="https://github.com/IBM-EPBL/IBM-
  Project-41948-1660646436"
685                   class="github"
686                   ><i class="bi bi-github"></i
687                 ></a>
688               </div>
689             </div>
690
691             <div class="col-lg-2 col-6 footer-links">
692               <h4>Useful Links</h4>
693               <ul>
694                 <li>
695                      <i class="bi bi-chevron-right"></i> <a
  href="#home">Home</a>
696                 </li>
697                 <li>
698                   <i class="bi bi-chevron-right"></i>
699                   <a href="#about">About us</a>
700                 </li>
701                 <li>
702                   <i class="bi bi-chevron-right"></i>
703                   <a href="#values">Report</a>
704                 </li>
705                 <li>
706                   <i class="bi bi-chevron-right"></i>
```

```
                  <a href="#features">Dashboard</a>
                </li>
                <li>
                  <i class="bi bi-chevron-right"></i>
                  <a href="#services">Story</a>
                </li>
              </ul>
            </div>

            <div
                  class="col-lg-3 col-md-12 footer-contact
  text-center text-md-start"
            >
              <h4>Team Details</h4>
              <p>
                Team Id: PNT2022TMID41225 <br />
                Dharmeshprasad R<br />
                Suriya prakash G<br />
                Aravindhan T<br />
                Tamilvanan N<br />
                Muthamil selvan MS<br />
              </p>
            </div>
          </div>
        </div>
      </div>

      <div class="container">
        <div class="copyright">
                                          &copy;    Copyright
  <strong><span>PNT2022TMID41225</span></strong
          >. All Rights Reserved
        </div>
      </div>
    </footer>
    <!-- End Footer -->
```

```
741
742     <a
743       href="#"
744             class="back-to-top  d-flex  align-items-center
  justify-content-center"
745       ><i class="bi bi-arrow-up-short"></i
746     ></a>
747
748     <!-- Vendor JS Files -->
749                                                     <script
  src="assets/vendor/purecounter/purecounter_vanilla.js"></sc
  ript>
750     <script src="assets/vendor/aos/aos.js"></script>
751                                                     <script
  src="assets/vendor/bootstrap/js/bootstrap.bundle.min.js"></
  script>
752                                                     <script
  src="assets/vendor/glightbox/js/glightbox.min.js"></script>
753                       <script     src="assets/vendor/isotope-
  layout/isotope.pkgd.min.js"></script>
754                 <script    src="assets/vendor/swiper/swiper-
  bundle.min.js"></script>
755                     <script     src="assets/vendor/php-email-
  form/validate.js"></script>
756
757     <!-- Main JS File -->
758     <script src="assets/js/main.js"></script>
759   </body>
760 </html>
761
```

**13.2 Github & Project Demo Link:**

**GitHub:**

Link: https://github.com/IBM-EPBL/IBM-Project-41948-1660646436
Demo link: https://github.com/IBM-EPBL/IBM-Project-41948-1660646436