

## PROJECT REPORT

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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

<b>Title &amp; Author(s)</b>	<b>Year</b>	<b>Technique</b>	<b>Findings</b>
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.  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

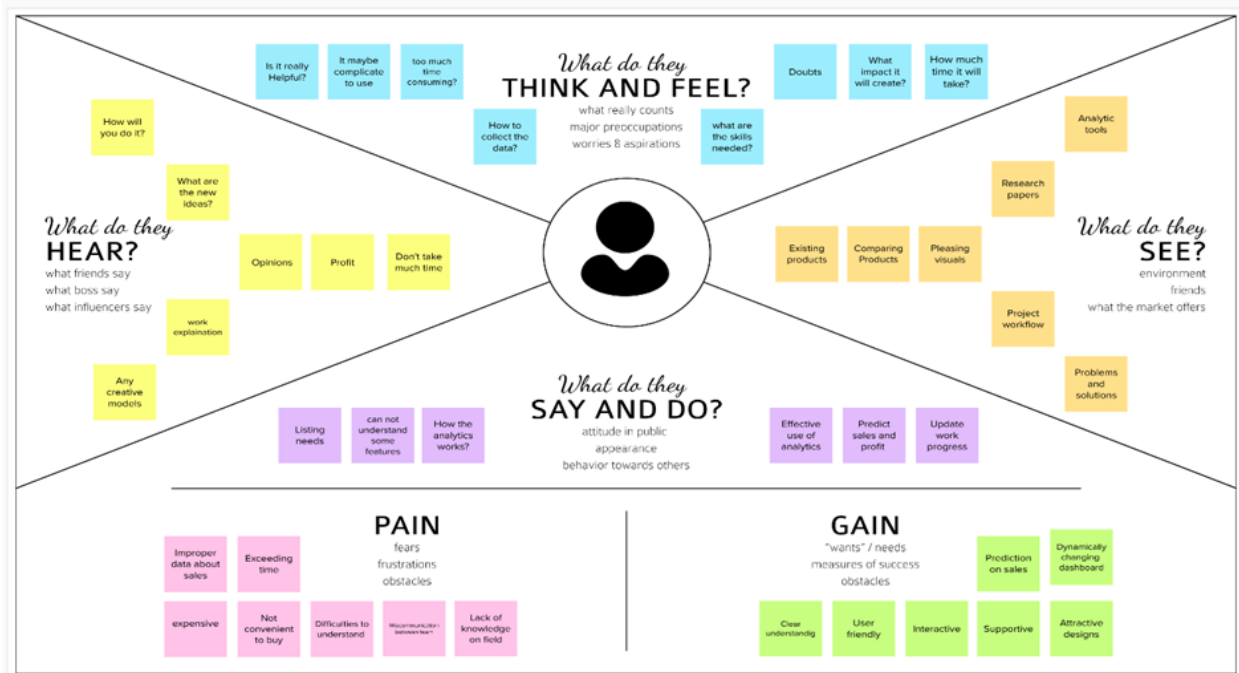
### 3. IDEATION & PROPOSED SOLUTION

#### 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.

## Empathy Map Canvas


Global Sales Data Analytics



## 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



## Brainstorm & idea prioritization

### Global sales data analytics

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.

⌚ 10 minutes to prepare  
⌚ 1 hour to collaborate  
👤 2-8 people recommended

**Before you collaborate**

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

⌚ 10 minutes

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**A Team gathering**  
Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.

**B Set the goal**  
Think about the problem you'll be focusing on solving in the brainstorming session.

**C Learn how to use the facilitation tools**  
Use the Facilitation Superpowers to run a happy and productive session.

[Open article](#) →

**1 Define your problem statement**

What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.

⌚ 5 minutes

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Facilitation

How might we deliver the analytical results?

**Key rules of brainstorming**

To run a smooth and productive session

- Stay in topic.
- Defier judgment.
- Go for volume.
- Encourage wild ideas.
- Listen to others.
- If possible, be visual.



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

### 2 Brainstorm

Write down any ideas that come to mind that address your problem statement.

⌚ 10 minutes

**TIP**  
 You can select a sticky note and hit the pencil (switch to sketch) icon to start drawing!

#### Inzamam-Ul-Haq

Interactive dashboard

Infographics instead of just numbers

Dynamic and real-time

AI based predictions and demand forecasting

Simple UI

#### Kavin

Give a meter on reliability of predictions

Customer insights

Accelerate revenue with AI

Easy navigation and experience with tool

Individualize selling at scale.

#### Kishore Kumar

Provide them a list of viable options

Long term and short term solutions shown

Graphic view comparison with competitors

Easily accessible helpline and support

Headline followed by detailed analysis

#### Rasheen Farook

Custom layout for each endpoint

All variables and strength of connections shown graphically in a plot

Coach sellers with behavioral insights

Effective Marketing Tools

Quality assurance and supply chain efficiency

### 3 Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. In the last 10 minutes, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you can break it up into smaller sub-groups.

⌚ 20 minutes

**TIP**  
 Add customizable tags to sticky notes to make it easier to find, browse, organize, and categorize important ideas as themes within your mind.

#### Interface

- Interactive dashboard
- Dynamic and real-time
- Customer insights
- Simple UI
- Headline followed by detailed analysis
- Easy navigation and experience with tool
- All variables and strength of connections shown graphically in a plot

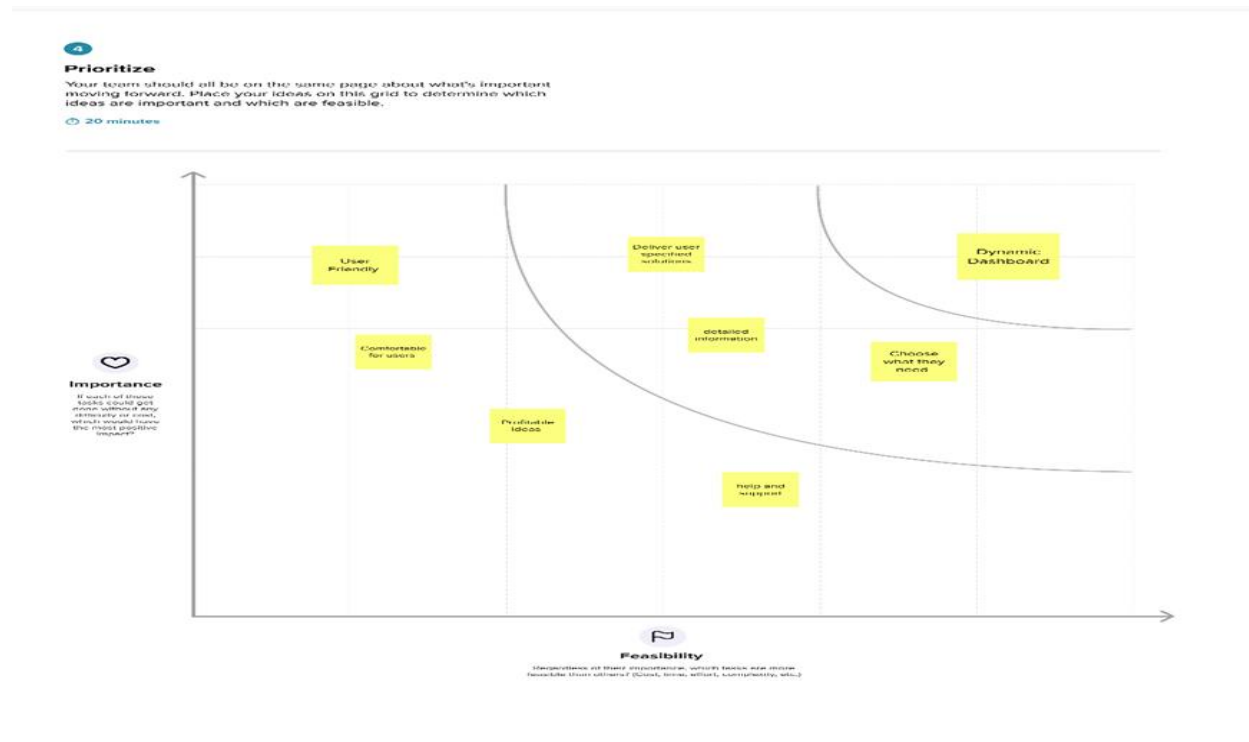
#### Primary Features

- Give a meter on reliability of predictions
- Individualize selling at scale.
- Easily accessible helpline and support
- AI based predictions and demand forecasting
- Long term and short term solutions shown
- Provide them a list of viable options

#### Secondary Features

- Graphic view comparison with competitors
- Infographics instead of just numbers
- Accelerate revenue with AI
- Coach sellers with behavioral insights
- Give a meter on reliability of predictions
- Custom layout for each endpoint

### 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:

<p><b>1. CUSTOMER SEGMENT(S)</b> <span>CS</span></p> <p>A Business organization, online store or seller who would like to understand more about sales in global scale.</p>	<p><b>6. CUSTOMER CONSTRAINTS</b> <span>CC</span></p> <p>Check input file structure before uploading a file.</p> <p>Not enable of easy payment.</p>	<p><b>5. AVAILABLE SOLUTIONS</b> <span>AS</span></p> <p>The competition perform analytics and display dashboard with dynamic insights.</p> <p>End product provides facility to add manual or dynamic to the dashboard</p>
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<p><b>2. JOBS-TO-BE-DONE / PROBLEMS</b></p> <p>Determination input file structure</p> <p>What analysis to perform to be useful?</p>	<p><b>9. PROBLEM ROOT CAUSE</b> <span>RC</span></p> <p>Unpredictable sales</p> <p>Market down</p> <p>Big amount of data</p>	<p><b>7. BEHAVIOUR</b> <span>BE</span></p> <p>Collecting sales data</p> <p>Utilize the data in efficient way.</p>
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<b>3. TRIGGERS</b> Have you ever felt that you are unaware of how your business is performing? <b>TR</b>	<b>10. YOUR SOLUTION</b> <b>SL</b> Easy payments Responsive design Creating an interactive dashboard. User specified design.	<b>8. CHANNELS of BEHAVIOUR</b> <b>CH</b> <b>ONLINE</b> Using third party software or services with automation insights and subscriptions based services to analyze data. <b>OFFLINE</b> Offline software to analyze complex data in un-intuitive way.
<b>4. EMOTIONS: BEFORE / AFTER</b> <b>EM</b> Before: Misunderstanding, unpredictable, decision fatigue. After: clear mind, better understanding		

## 4. REQUIREMENT ANALYSIS

### 4.1 Functional Requirements

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through Website 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

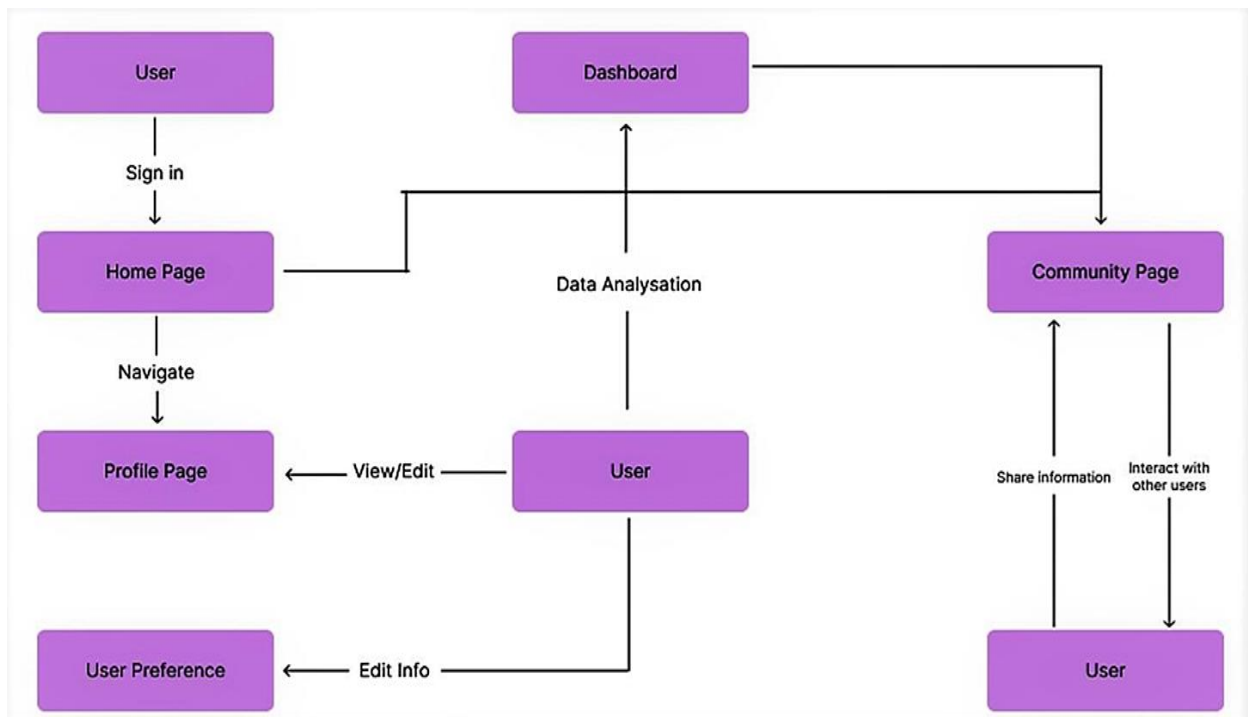
FR No.	Non-Functional Requirement	Description
NFR-1	Usability	This service will have a simple and user-friendly graphical interface. Users will be able to understand and use all the features easily.
NFR-2	Security	The main security concern is for users login information is end to end encryption should 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

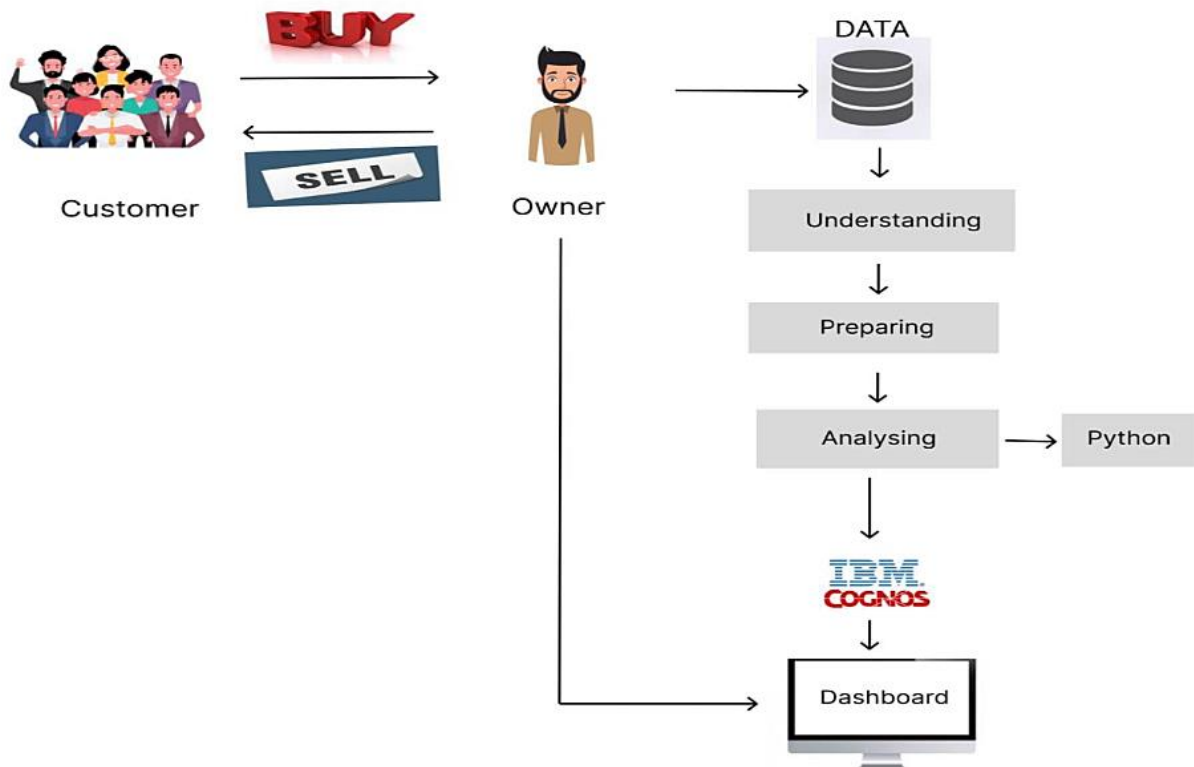


### 5.2 Solution & Technical Architecture

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		High	Sprint-4

			entering email and password			
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

<b>Sprint</b>	<b>Functional Requirement (Epic)</b>	<b>User Story Number</b>	<b>User Story / Task</b>	<b>Story Points</b>	<b>Priority</b>	<b>Team Members</b>
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	InzamamUlHaq S S, Kavim B, KishoreKumar B, RasheenFarook A
Sprint -1	Login	USN-2	As a user, I need valid credentials to log to my application.	5	High	InzamamUlHaq S S, Kavim B, KishoreKumar B, RasheenFarook A
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	InzamamUlHaq S S, Kavim B, KishoreKumar B, RasheenFarook A
Sprint -1	Upload dataset	USN-4	As a user, I can view the data of the products.	5	High	InzamamUlHaq S S, Kavim B, KishoreKumar B, RasheenFarook A
Sprint -2	Data preparation	USN-5	As a user, I need to filter it for Data visualization.	5	High	InzamamUlHaq S S, Kavim B, KishoreKumar B, RasheenFarook A
Sprint -2	Data visualization	USN-6	As a user, I need to filter it for Data visualization.	5		InzamamUlHaq S S, Kavim B, KishoreKumar B, RasheenFarook A

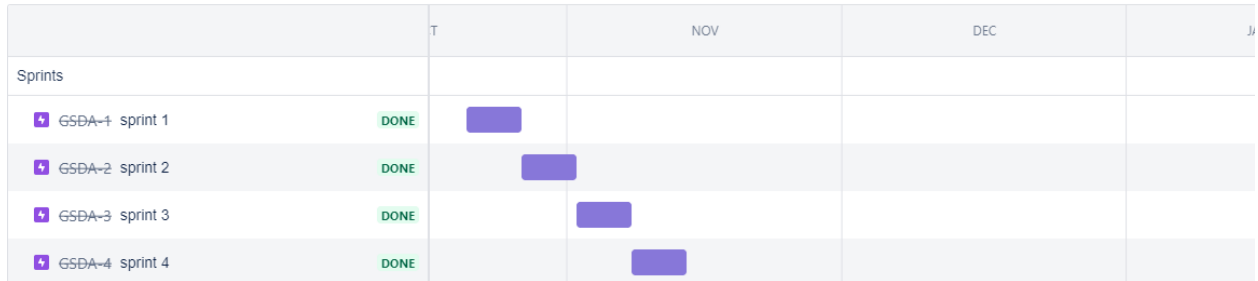
Sprint -2	Dashboard	USN-7	As a user, I need to filter it for Data visualization.	10	High	InzamamUlHaq S S, Kavın B, KishoreKumar B, RasheenFarook A
Sprint -3	Dashboard	USN-8	As a user, I must plan visualizations in a way that I'm able to gain insights regarding the sales based upon the category of sales and the respective region.	4	High	InzamamUlHaq S S, Kavın B, KishoreKumar B, RasheenFarook A
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	InzamamUlHaq S S, Kavın B, KishoreKumar B, RasheenFarook A
Sprint -4	Prediction	USN-10	As a user, I see the prediction of the specific product's future sales expectation.	10	Medium	InzamamUlHaq S S, Kavın B, KishoreKumar B, RasheenFarook A
Sprint -4	Report	USN-11	As a user, I can view the list of categorized products and	10	High	InzamamUlHaq S S, Kavın B, KishoreKumar B, RasheenFarook A

			their details as a report.			
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	InzamamUlHaq S S, Kavın B, KishoreKumar B, RasheenFarook A

## 6.2 Sprint Delivery Schedule

<b>Sprint</b>	<b>Total Story Points</b>	<b>Duration</b>	<b>Sprint Start Date</b>	<b>Sprint End Date (Planned)</b>	<b>Story Points Completed (as on Planned End Date)</b>	<b>Sprint Release Date (Actual)</b>
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



Projects / GSDA

### Backlog

Search:  KJ Epic

Insights

▼ Backlog (6 issues) 0 0 0 Create sprint

GSDA-7 As a user, I can view the data in the form of CSV/XLS file for filtration.	DATA COLLECTION	IN PROGRESS	
GSDA-8 As a user, I can custom or filter the gathered data.	DATA FILTERATION	IN PROGRESS	
GSDA-9 As a user, I can easily visualize the data in the form of charts.	DATA VISUALIZATIONS	IN PROGRESS	
GSDA-10 As a user, I can view my dashboard and can perform stock prediction and analysis.	DASHBOARD CREATION	IN PROGRESS	
GSDA-11 As a user, I can view the list of categorized products and their details as a report.	REPORTS	IN PROGRESS	
GSDA-12 As a user, I can view the product and customer description and more additional information as a story.	STORY	IN PROGRESS	

+ Create issue

## 7.CODING & SOLUTION

### Feature 1 - Login page:

```
1 <!DOCTYPE html>
2 <html lang="en">
3   <head>
4     <meta charset="utf-8" />
5     <meta name="author" content="Kodinger" />
6     <meta name="viewport" content="width=device-
width,initial-scale=1" />
7     <title>Global Sales Data Analytics</title>
8     <link rel="stylesheet" type="text/css"
href="assets/css/my-login.css" />
```

```

9    </head>
10   <body class="my-login-page">
11     <section class="h-100">
12       <div class="container h-100">
13         <div class="row justify-content-md-center h-100">
14           <div class="card-wrapper">
15             <div class="brand">
16               
18             </div>
19             <div class="card fat">
20               <div class="card-body">
21                 <h4 class="card-title">Login</h4>
22                 <form method="POST" class="my-login-
validation" novalidate="">
23                   <div class="form-group">
24                     <label for="email">E-Mail
Address</label>
25                     <input
26                       id="email"
27                       type="email"
28                       class="form-control"
29                       name="email"
30                       value=""
31                       required
32                       autofocus
33                     />
34                     <div class="invalid-feedback">Email is
invalid</div>
35                   </div>
36                   <div class="form-group">
37                     <label for="password"
38                     >Password

```

```

39             <a href="forgot.html" class="float-
right">
40                 Forgot Password?
41             </a>
42         </label>
43         <input
44             id="password"
45             type="password"
46             class="form-control"
47             name="password"
48             required
49             data-eye
50         />
51         <div class="invalid-feedback">Password
is required</div>
52     </div>
53
54     <div class="form-group">
55         <div class="custom-checkbox custom-
control">
56             <input
57                 type="checkbox"
58                 name="remember"
59                 id="remember"
60                 class="custom-control-input"
61             />
62             <label for="remember" class="custom-
control-label"
63                 >Remember Me</label
64             >
65         </div>
66     </div>
67
68     <div class="form-group m-0">
69         <button

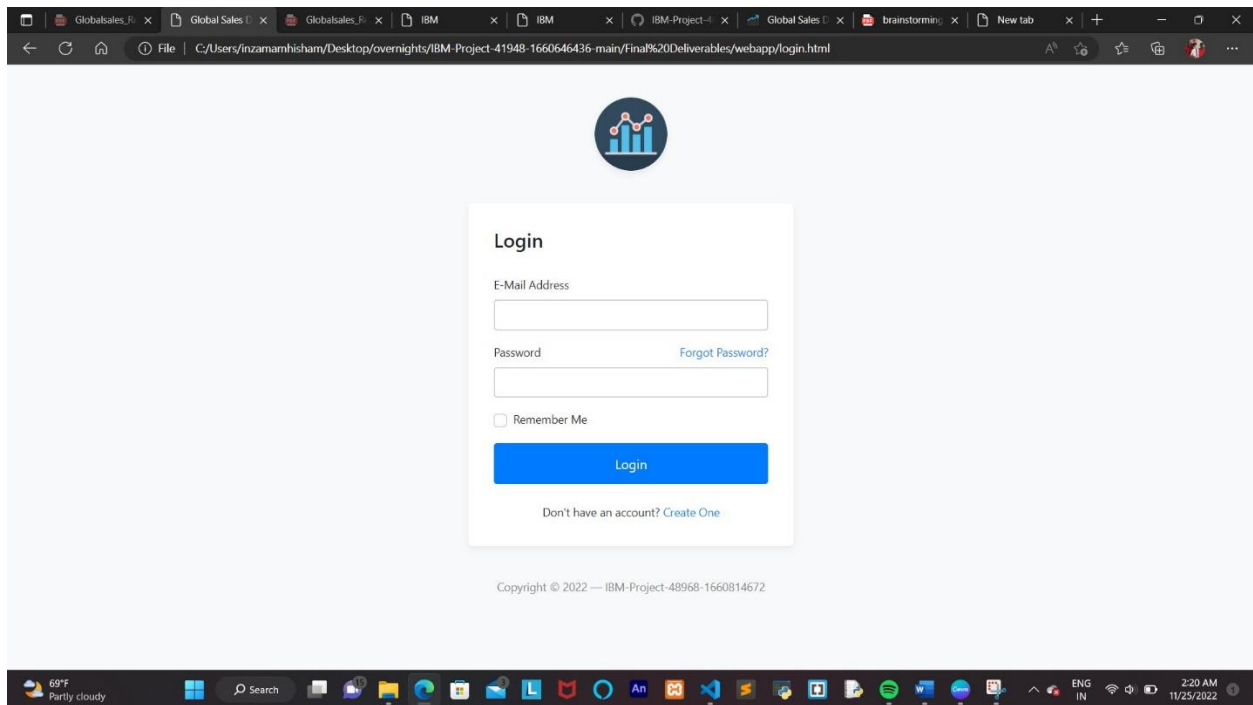
```



```

70         type="submit"
71         id="mybutton"
72         class="btn btn-primary btn-block"
73     >
74         Login
75     </button>
76 </div>
77 <div class="mt-4 text-center">
78     Don't have an account?
79     <a href="register.html">Create One</a>
80 </div>
81 </form>
82 </div>
83 </div>
84 <div class="footer">
85     Copyright &copy; 2022 &mdash; PNT2022TMID41225
86 </div>
87 </div>
88 </div>
89 </div>
90 </section>
91
92 <script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.7/umd/popper.min.js"
    integrity="sha384-
    UO2eT0CpHqdsSJQ6hJty5KVphtPhzWj9WO1clHTMGa3JDZwrnQq4sF86dIHNDz0W1
    " 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>

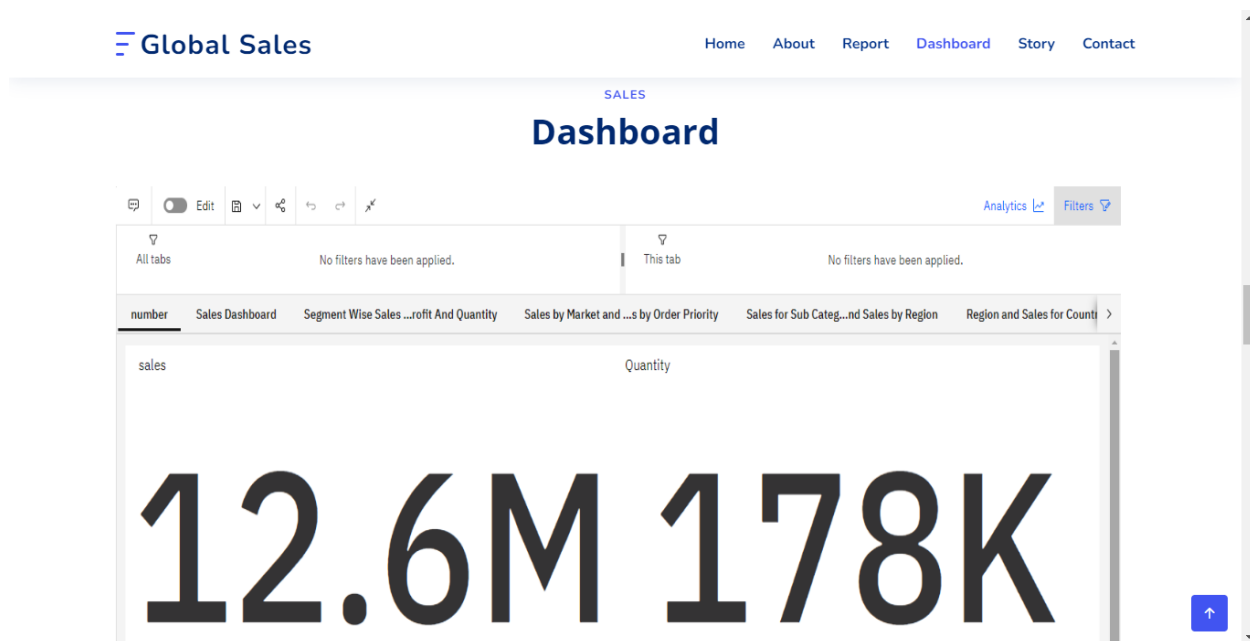
```



## Feature 2 - Embedding dashboard to web app:

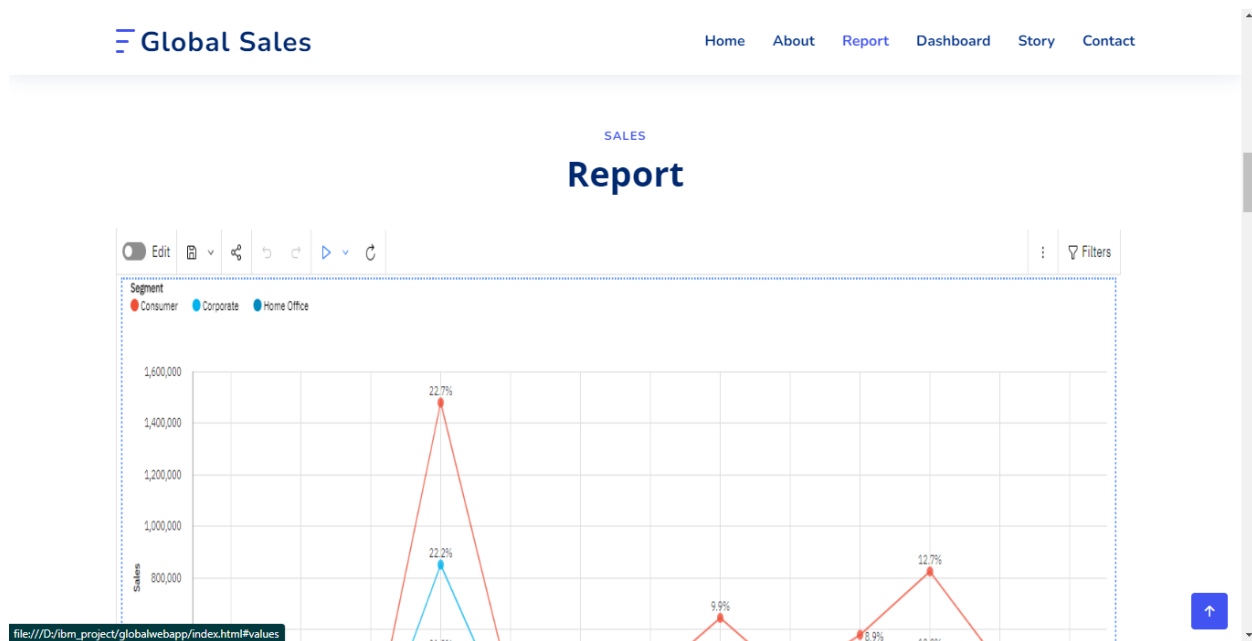
```
1 <iframe
  src="https://us1.ca.analytics.ibm.com/bi/?perspective=dashbo
  ard&pathRef=.my_folders%2Fglobalsale%2FGlobalsales_Dashb
  oard&closeWindowOnLastView=true&ui_appbar=false&
  ui_navbar=false&shareMode=embedded&action=view&m
  ode=dashboard&subView=model000001847746ca80_00000000"
```

```
width="1200" height="1000" frameborder="0" gesture="media"
allow="encrypted-media" allowfullscreen=""></iframe>
```



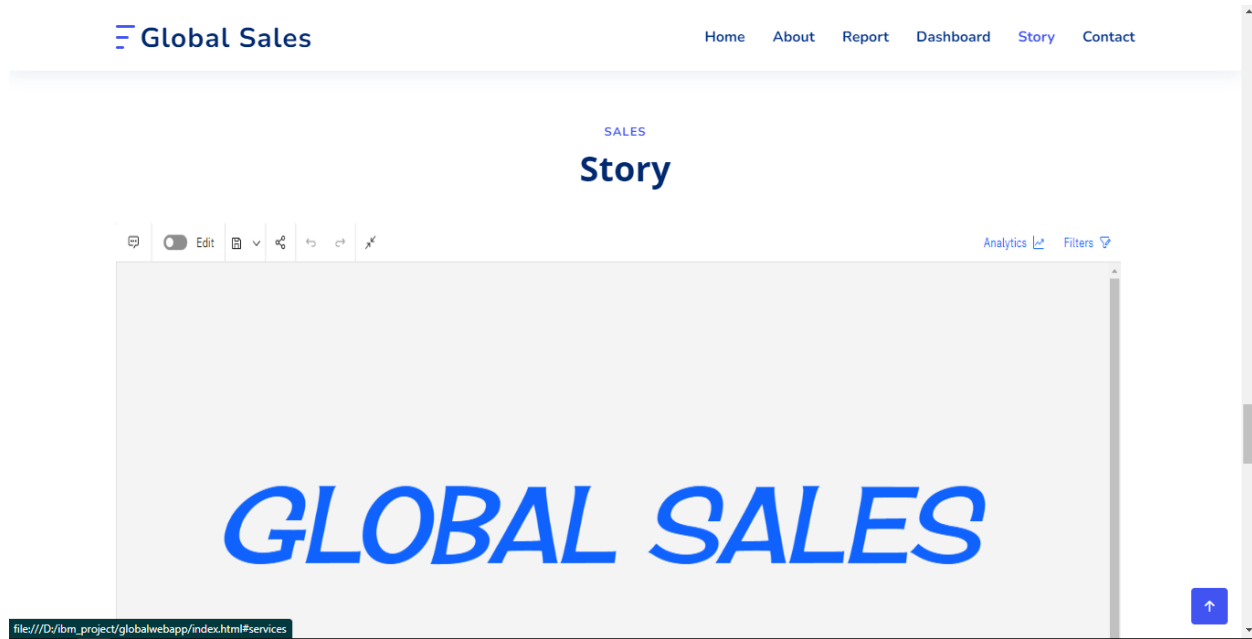
### Feature 3 - Embedding report to web app:

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



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

```
1 <iframe
  src="https://us1.ca.analytics.ibm.com/bi/?perspective=story&
  amp;pathRef=.my_folders%2Fglobalsale%2FNew%2Bstory&close
  WindowOnLastView=true&ui_appbar=false&ui_navbar=false&
  shareMode=embedded&action=view&sceneId=model00
  0001847a103dc5_00000000&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:

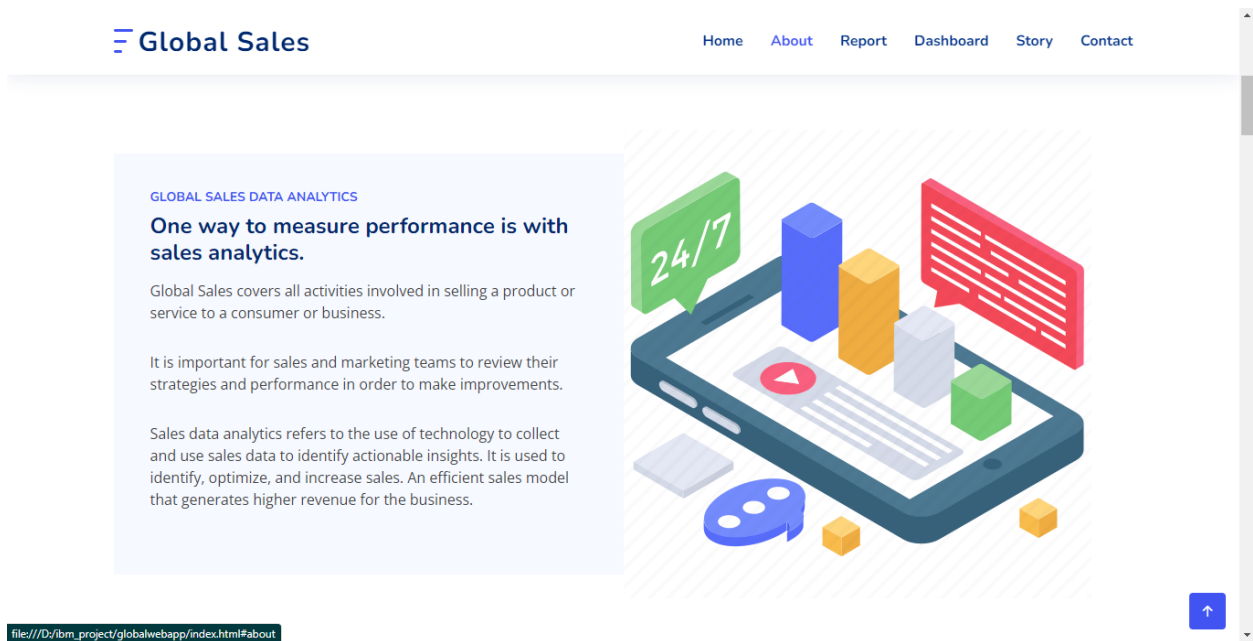
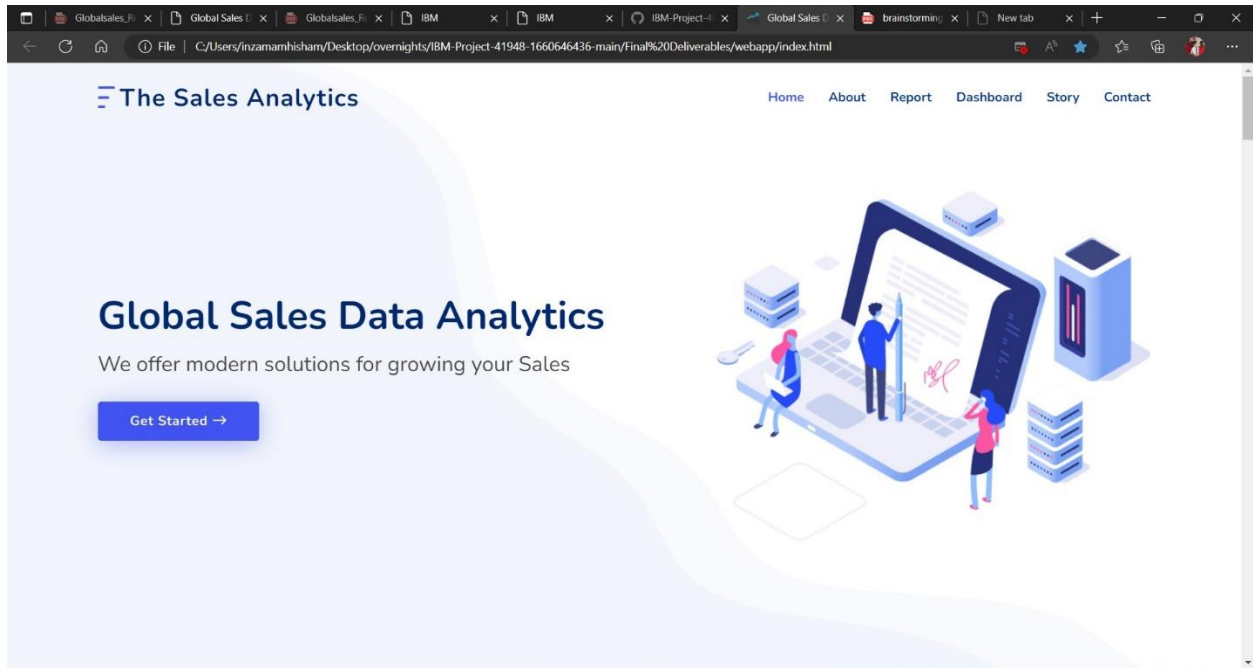
Resolution	Severity 1	Severity 2	Severity 3	Severity 4	Subtotal
By Design	5	2	1	1	9
Duplicate	0	0	0	0	0
External	2	3	0	1	6
Fixed	4	1	2	2	9
Not Reproduced	0	0	0	0	0
Skipped	0	0	0	0	0
Won't Fix	0	0	0	0	0
Totals	11	6	3	4	24

### 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

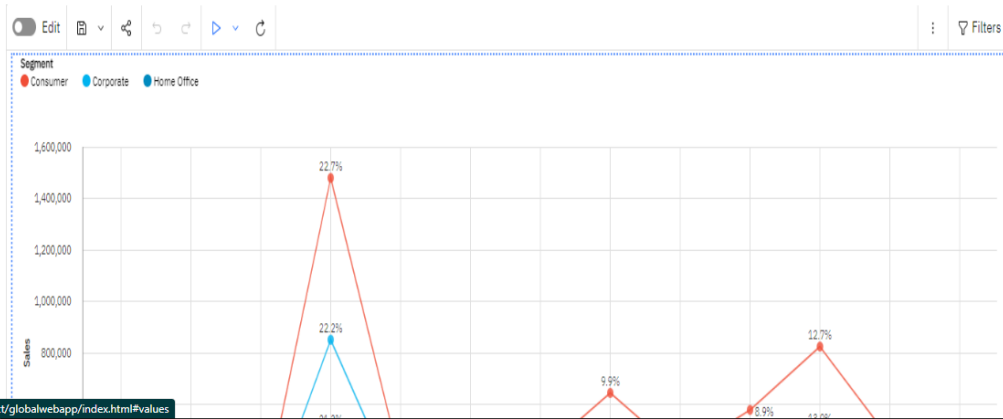
## 9. RESULTS

### Screenshots of web application:



SALES

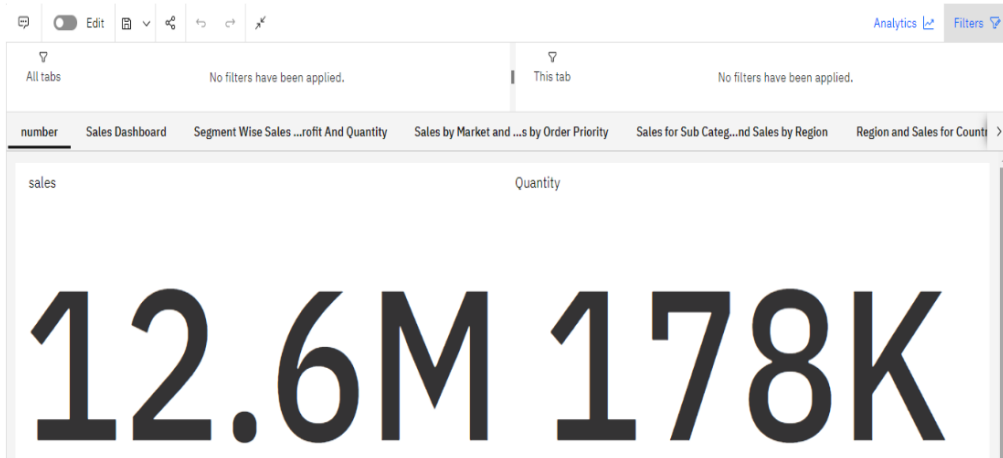
## Report



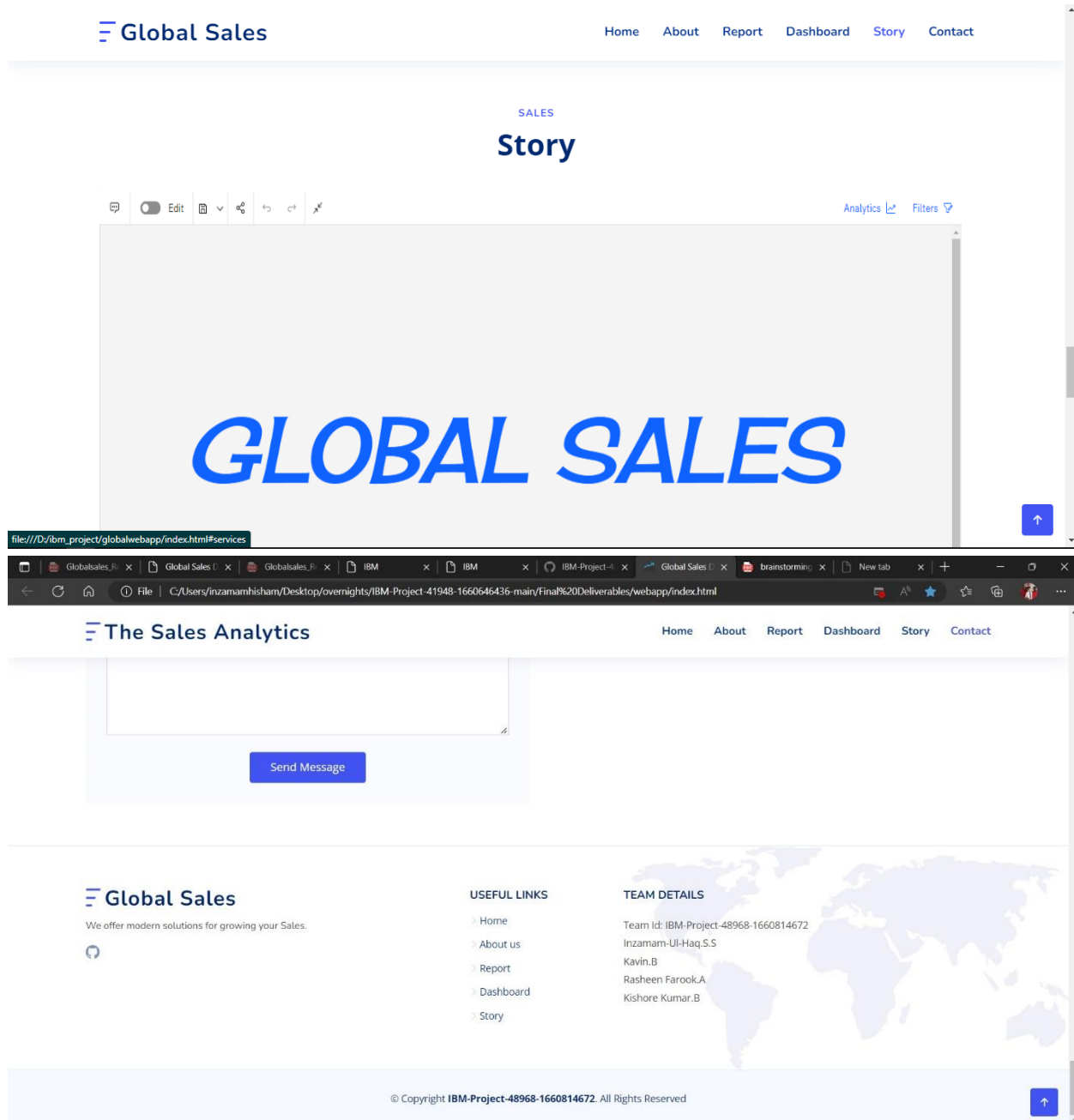
file:///D:/ibm\_project/globalwebapp/index.html#values

SALES

## Dashboard







## **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. CONCLUSION**

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

```
1 !pip install -q kaggle
2 !mkdir ~/.kaggle
3 !cp kaggle.json ~/.kaggle/
4 !kaggle datasets download -d mrhattrider/global-sales
5 !unzip /content/global-sales.zip
```

index.html

```
1 <!DOCTYPE html>
2 <html lang="en">
3   <head>
4     <meta charset="utf-8" />
5     <meta content="width=device-width, initial-scale=1.0"
      name="viewport" />
6
7     <title>Global Sales Data Analytics</title>
8     <meta content="" name="description" />
9
10    <meta content="" name="keywords" />
11
12    <!-- Favicons -->
13    <link href="assets/img/favicon.png" rel="icon" />
14    <link href="assets/img/apple-touch-icon.png" rel="apple-
      touch-icon" />
15
16    <!-- Google Fonts -->
17    <link
18      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,600,600i,7
00,700i"
19     rel="stylesheet"
20     />
21
22     <!-- Vendor CSS Files -->
23     <link href="assets/vendor/aos/aos.css" rel="stylesheet"
    />
24     <link
25         href="assets/vendor/bootstrap/css/bootstrap.min.css"
26         rel="stylesheet"
27     />
28     <link
29         href="assets/vendor/bootstrap-icons/bootstrap-
    icons.css"
30         rel="stylesheet"
31     />
32     <link
33         href="assets/vendor/glightbox/css/glightbox.min.css"
34         rel="stylesheet"
35     />
36     <link href="assets/vendor/remixicon/remixicon.css"
    rel="stylesheet" />
37     <link href="assets/vendor/swiper/swiper-bundle.min.css"
    rel="stylesheet" />
38
39     <!-- Main CSS File -->
40     <link href="assets/css/style.css" rel="stylesheet" />
41 </head>
42
43 <body>
44     <!-- ===== Header ===== -->
45     <header id="header" class="header fixed-top">
46         <div

```

```

47         class="container-fluid container-xl d-flex align-
items-center justify-content-between"
48     >
49         <a href="index.html" class="logo d-flex align-items-
center">
50             
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                 
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-
110                             content-center"
111                         data-aos="fade-up"
112                         data-aos-delay="200"
113                     >
114                         <div class="content">
115                             <h3>Global Sales Data Analytics</h3>
116                             <h2>One way to measure performance is with
117                             sales analytics.</h2>
118                             <p>
119                                 Global Sales covers all activities
120                                 involved in selling a
121                                 product or service to a consumer or
122                                 business.
123                             </p>
124                             <p>
125                                 It is important for sales and marketing
126                                 teams to review their
127                                 strategies and performance in order to
128                                 make improvements.
129                             </p>
130                             <p>
131                                 Sales data analytics refers to the use of
132                                 technology to
133                                 collect and use sales data to identify
134                                 actionable insights. It
135                                 is used to identify, optimize, and
136                                 increase sales. An

```

```

128             efficient sales model that generates
129             higher revenue for the
130             business.
131         </p>
132     </div>
133 </div>
134 <div
135     class="col-lg-6 d-flex align-items-center"
136     data-aos="zoom-out"
137     data-aos-delay="200"
138     >
139     
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"
172                 data-purecounter-duration="1"
173                 class="purecounter"
174             ></span>
175             <p>Profit (millions)</p>
176         </div>
177     </div>
178 </div>
179
180 <div class="col-lg-3 col-md-6">
181     <div class="count-box">
182         <i class="bi bi-star-fill"></i>
183         <div>
184             <span
185                 data-purecounter-start="0"
186                 data-purecounter-end="17.86"
187                 data-purecounter-duration="1"
188                 class="purecounter"
189             ></span>
190             <p>Quantity (millions)</p>
191         </div>
192     </div>
193 </div>
194
195 <div class="col-lg-3 col-md-6">

```

```

196         <div class="count-box">
197             <i class="bi bi-star-fill"></i>
198             <div>
199                 <span
200                     data-purecounter-start="0"
201                     data-purecounter-end="1.6"
202                     data-purecounter-duration="1"
203                     class="purecounter"
204                 ></span>
205                 <p>Sales cost (millions)</p>
206             </div>
207         </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_folders%2Fglobalsale%2FGlobalsales_Report&closeWindowOnLastView=true&ui_appbar=false&ui_navbar=false&shareMode=embedded&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                 
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                 
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         
267         <h3>Dashboard</h3>
268         <p>
269             a tool used to multi-task, organize,
270             visualize, analyze, and
271             track data.View automatically updated
272             data with interactive
273             charts, graphs and tables.
274         </p>
275     </div>
276 </div>
277 </section>
278 <!-- End Values Section -->
279
280 <!-- ===== Features Section ===== -->
281 <section id="features" class="features">
282     <div class="container" data-aos="fade-up">
283         <header class="section-header">
284             <h2>Sales</h2>
285             <p>Dashboard</p>
286         </header>
287         <iframe

```

```

287     src="https://us1.ca.analytics.ibm.com/bi/?perspective=dashbo
ard&pathRef=.my_folders%2Fglobalsale%2FGlobalsales_Dashb
oard&closeWindowOnLastView=true&ui_appbar=false&
ui_navbar=false&shareMode=embedded&action=view&m
ode=dashboard&subView=model000001847746ca80_00000000"
288         width="1200"
289         height="1000"
290         frameborder="0"
291         gesture="media"
292         allow="encrypted-media"
293         allowfullscreen=""
294     ></iframe>
295
296     <div class="row">
297         <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>
324     </div>
325 </div>
326
327     <div class="col-md-6" data-aos="zoom-out"
      data-aos-delay="600">
328     <div class="feature-box d-flex align-
      items-center">
329         <i class="bi bi-check"></i>
330         <h3>
331             Sub Category Wise Sales And Profits
      Using Line And Bar
332             Chart
333         </h3>
334     </div>
335 </div>
336

```

```

337         <div class="col-md-6" data-aos="zoom-out"
data-aos-delay="700">
338         <div class="feature-box d-flex align-
items-center">
339             <i class="bi bi-check"></i>
340             <h3>
341                 Sales Vs Profit Scatter Plot With Sub
Categories And
342                 Regions
343             </h3>
344         </div>
345     </div>
346     <div class="col-md-6" data-aos="zoom-out"
data-aos-delay="700">
347     <div class="feature-box d-flex align-
items-center">
348         <i class="bi bi-check"></i>
349         <h3>Sales Dashboard</h3>
350     </div>
351 </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>
405     </div>
406 </div>
407 </div>
408 <!-- / row -->
409 </div>
410 </section>
411 <!-- End Features Section -->
412
413 <!-- ===== Services Section ===== -->
414 <section id="services" class="services">
415     <div class="container" data-aos="fade-up">
416         <header class="section-header">

```

```

417         <h2>Sales</h2>
418         <p>Story</p>
419     </header>
420     <iframe
421         src="https://us1.ca.analytics.ibm.com/bi/?perspective=story&
         amp;pathRef=.my_folders%2Fglobalsale%2FNew%2Bstory&close
         WindowOnLastView=true&ui_appbar=false&ui_navbar=false&
         e&shareMode=embedded&action=view&sceneId=model00
         0001847a103dc5_000000000&sceneTime=600"
422         width="1300"
423         height="1000"
424         frameborder="0"
425         gesture="media"
426         allow="encrypted-media"
427         allowfullscreen=""
428     ></iframe>
429 </div>
430 </section>
431 <!-- End Services Section -->
432
433 <!-- ===== F.A.Q Section ===== -->
434 <section id="faq" class="faq">
435     <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
463                 changed since the
464                 pandemic, with more emphasis on e-
465                 commerce and contactless
466                 payments.
467             </div>
468         </div>
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
500                 problem?
501             </button>
502         </h2>
503         <div
504             id="faq-content-3"
505             class="accordion-collapse collapse"
506             data-bs-parent="#faqlist1"
507         >
508             <div class="accordion-body">
509                 Data-driven sales organizations now
510                 operate more like
511                 scientists and strategists, and the
512                 results speak for
513                 themselves.

```

```

511         </div>
512     </div>
513 </div>
514 </div>
515 </div>
516
517 <div class="col-lg-6">
518     <!-- F.A.Q List 2-->
519     <div class="accordion accordion-flush"
520         id="faqlist2">
521         <div class="accordion-item">
522             <h2 class="accordion-header">
523                 <button
524                     class="accordion-button collapsed"
525                     type="button"
526                     data-bs-toggle="collapse"
527                     data-bs-target="#faq2-content-1"
528                 >
529                     Who does the problem affect??
530                 </button>
531             </h2>
532             <div
533                 id="faq2-content-1"
534                 class="accordion-collapse collapse"
535                 data-bs-parent="#faqlist2"
536             >
537                 <div class="accordion-body">
538                     It will affect both the customer and
539                     the store.
540                 </div>
541             </div>
542         </div>
543     </div>

```

```

544         <button
545             class="accordion-button collapsed"
546             type="button"
547             data-bs-toggle="collapse"
548             data-bs-target="#faq2-content-2"
549         >
550             What are the boundaries of the
551             problem?
552         </button>
553     </h2>
554     <div
555         id="faq2-content-2"
556         class="accordion-collapse collapse"
557         data-bs-parent="#faqlist2"
558     >
559         <div class="accordion-body">
560             Low data proficiency among sales will
561             greatly limits the
562             value of analytical insights and
563             inhibits data-driven
564             decision making.
565         </div>
566     </div>
567 </div>
568 <div class="accordion-item">
569     <h2 class="accordion-header">
570         <button
571             class="accordion-button collapsed"
572             type="button"
573             data-bs-toggle="collapse"
574             data-bs-target="#faq2-content-3"
575         >
576             What is the issue?
577         </button>

```

```

576         </h2>
577         <div
578             id="faq2-content-3"
579             class="accordion-collapse collapse"
580             data-bs-parent="#faqlist2"
581         >
582             <div class="accordion-body">
583                 Cannot identify most profitable
584                 products and the ones that
585                 aren't moving, most profitable
586                 customers, and potential
587                 sales opportunities.
588             </div>
589         </div>
590     </div>
591 </div>
592 </div>
593 </section>
594 <!-- End F.A.Q Section -->
595
596 <!-- ===== Contact Section ===== -->
597 <section id="contact" class="contact">
598     <div class="container" data-aos="fade-up">
599         <header class="section-header">
600             <h2>Contact</h2>
601             <p>Contact Us</p>
602         </header>
603
604         <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         
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>
707                 <a href="#features">Dashboard</a>

```

```

708             </li>
709             <li>
710                 <i class="bi bi-chevron-right"></i>
711                 <a href="#services">Story</a>
712             </li>
713         </ul>
714     </div>
715
716     <div
717         class="col-lg-3    col-md-12    footer-contact
718         text-center text-md-start"
719         >
720         <h4>Team Details</h4>
721         <p>
722             Team Id: IBM-Project-48968-1660814672 <br>
723             Inzamam-Ul-Haq.S.S<br>
724             Kavın.B<br>
725             Rasheen Farook.A<br>
726             Kishore Kumar.B<br>
727         </p>
728     </div>
729 </div>
730 </div>
731
732 <div class="container">
733     <div class="copyright">
734         &copy; Copyright <strong><span></span></strong>
735         >. All Rights Reserved
736     </div>
737 </div>
738 </footer>
739 <!-- End Footer -->
740
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"></scr
    ipt>
750 <script src="assets/vendor/aos/aos.js"></script>
751 <script
    src="assets/vendor/bootstrap/js/bootstrap.bundle.min.js"></s
    cript>
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

### GitHub:

Link: [IBM-EPBL/IBM-Project-48968-1660814672: Global Sales Data Analytics \(github.com\)](https://github.com/IBM-EPBL/IBM-Project-48968-1660814672)