## **GLOBAL SALES DATA ANALYTICS**

**TEAM ID: PNT2022TMID51031** 

## PROJECT REPORT

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## PARTIAL FULFILLMENT OF THE AWARD OF THE DEGREE OF

#### **BACHELOR OF ENGINEERING**

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#### INTRODUCTION

#### **PROJECT OVERVIEW:**

The main idea of this design is to make a deal pattern analysis and client analysis which would be leading to more accurate soothsaying and proportions. The deals pattern analysis focuses on changing trends within deals data, which can help you understand your product demand. The thing about client analytics is to produce a single, accurate view of an association's client base, which can inform opinions about how to stylishly acquire and retain unborn guests. It can also identify high-value guests and suggest visionary ways to interact with them.

The epidemic has accelerated the shift towards a further digital world and touched off changes in online shopping actions that are likely to have lasting goods. An intriguing side effect was how snappily brand fidelity fell by the wayside. In fact, 40 of consumers said they switched brands during the epidemic, according to McKinsey & Company exploration.

So, it's important to allow business owners to decide value from data and make informed opinions. Data analytics in e-commerce not only helps company possessors understand their guests but also reads consumer test patterns and increases profit.

#### **PURPOSE:**

Regular data analysis provides an understanding of the products that your customers are buying and helps you dissect why they are behaving in a certain way. You can also find patterns in your lead conversions and drop offs. All of these aspects enable you to optimize your sales process. With an intelligent sales CRM like Close, you get actionable reports to keep a close eye on essential sales KPIs. Such a continuous sales analysis helps in iterating your sales strategy so that you can continue growing your business sustainably. Data Trend Analysis is the type of sales analysis is about finding patterns in sales data (whether they are going up or down) over a specific timeframe. A micro trend might last for a week for a specific product, while a macro trend might last for a quarter over a range of products. Sales Performance Analysis is gauging the effectiveness of your sales strategy and how your sales team is performing, a sales performance analysis can come in handy. It can involve conducting a strictly financial analysis based on the sales revenue generated and how it's meeting your sales targets.

Product Sales Analysis is the company offers many products, then you need to conduct regular product sales analysis to find out the items that are overcrowding your product lining. You can use KPIs and revenue bar charts to look at the product sales overall or in a specific time frame. Sales growth shows how much your revenue increases (or decreases) over a specific period. This metric provides a view of sales and how your team is performing.

To determine sales growth, take the sales total for the current period and subtract the sales total from the previous period. Divide that result by sales from the previous period, then multiply by 100 to get your growth percentage. Sales management reports are important to monitor the effectiveness of your sales reps and help them identify selling opportunities in customer interactions. Essentially these reports are about crunching meaningful patterns in your data and actionable insights to improve the sales performance of your team. With sales management software like Close, you can trust that your sales reps will stay organized and efficient, and spend time on deals that positively affect your bottom line. Our dashboards will let you identify the traits of your top performers so that you can shape your sales training. You can even share feedback with your reps for filling the gaps in sales skills and improve their effectiveness.

#### LITERATURE SURVEY

#### **EXISTING PROBLEM:**

In the last few instalment in our data analytics series, we focused primarily on the game changing, transformative, disruptive power of Data analytics. The flip side to the massive potential of Data analytics is that many challenges come into the mix. A recent report from Dun revealed that businesses have the most trouble with the following three areas: protecting data privacy (34%), ensuring data accuracy (26%), and processing & analysing data (24%). Of course, these are far from the only Data challenges companies face. In another report, this time from the Journal of Data, researchers reported on a whole range of issues related to Data's inherent uncertainty alone. Additionally, Data and the analytic platforms, security solutions, and tools dedicated to managing this ecosystem present security risks, integration issues, and perhaps most importantly, the massive challenge of developing the culture that makes all of this stuff work. In these next few sections, we'll discuss some of the biggest hurdles organizations face in developing a Data strategy that delivers the results promised in the most optimistic industry reports. As with any complex business strategy, it's hard to know what tools to buy or where to focus your efforts without a strategy that includes a very specific set of milestones, goals, and problems to be solved. According to IDC, an estimated 35% of organizations have fully-deployed analytic systems in place, making it difficult for employees to put insights into action. So before you do anything, what do you hope to accomplish with this initiative? Make sure internal stakeholders and potential vendors understand the broader business goals you hope to achieve. Data scientists and IT teams must work with their C-suite, sales, and marketing colleagues to develop a systematic process for finding, integrating, and interpreting insights.

#### **REFERENCES:**

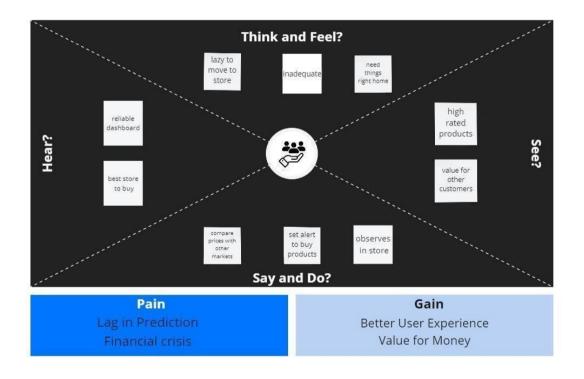
- 1. https://www.3pillarglobal.com/insights/current-issues-and-challenges-in-big-data-analytics
- 2. https://www.pipedrive.com/en/blog/sales-data
- 3. https://www.mural.co/templates/empathy-map-canvas
- 4. https://corporatefinanceinstitute.com/resources/management/ideation
- 5. https://courses.lumenlearning.com/suny-esc-

communication for professionals/chapter/possible proposed-solutions/

#### **IDEATION & PROPOSED SOLUTION:**

#### **EMPATHY MAP CANVAS:**

An empathy map canvas is a more in-depth version of the original empathy map, which helps identify and describe the user's needs and pain points. And this is valuable information for improving the user experience. Teams rely on user insights to map out what is important to their target audience, what influences them, and how they present themselves. This information is then used to create personas that help teams visualize users and empathize with them as individuals, rather than just as a vague marketing demographic or account number. Agile teams in a variety of departments use empathy map canvases to better understand how to meet their customers' needs. Design teams use them to help understand the various reasons why a user might interact with the product so they can design a user-friendly experience.

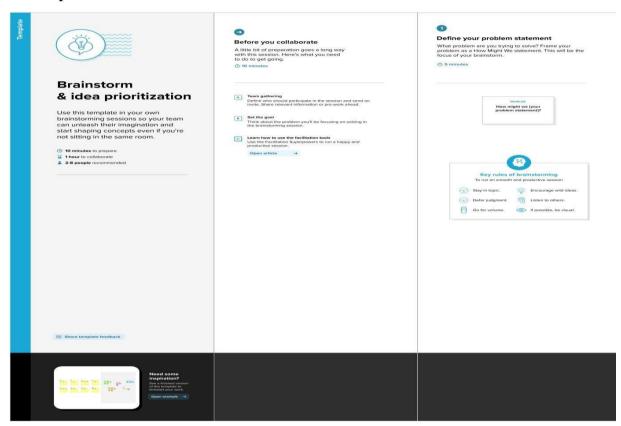


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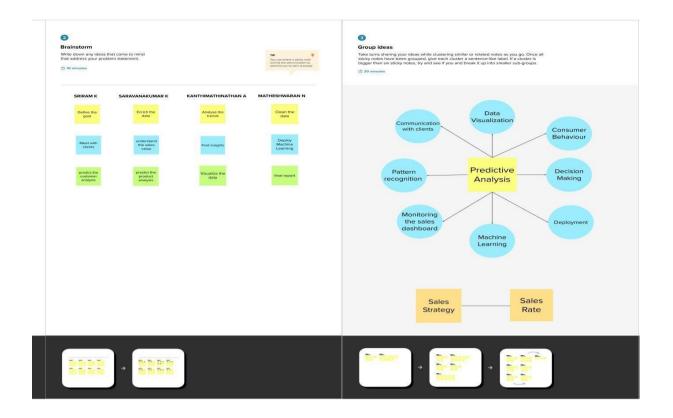
## 1.1 Empathy Map

#### **IDEATION AND BRAINSTROMING**

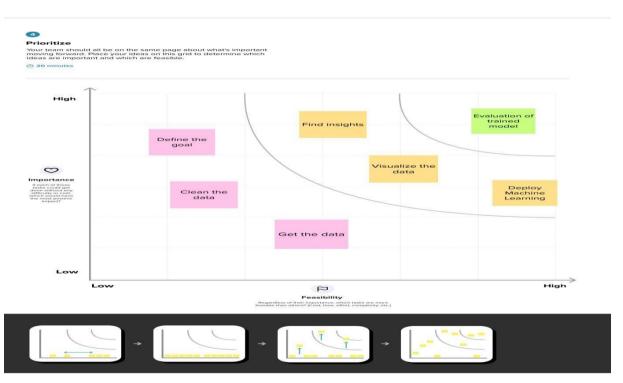
Brainstorming provides a free and open environment that encourages everyone within a team to participate in the creative thinking process that leads to problem solving. Prioritizing volume over value, out-of-the-box ideas are welcome and built upon, and all participants are encouraged to collaborate,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



 ${\bf 3.2.1\ Team\ Gathering, Collaboration\ and\ Select\ the\ Problem\ Statement}$ 



## 3.2.2 Brainstorm, Idea Listing and Grouping



3.2.3 Idea Prioritization

#### PROPOSED SOLUTION:

Identifying possible solutions is part of logical problem-solving and, as such, is an important strategy in proposal writing. Remember that the one solution you're proposing may not seem obvious or feasible to the decision-makers to whom the proposal is addressed, so it's good strategy on your part to show that you've considered many possibilities before choosing one. Your proposed solution section should offer your solution specifically, with enough detail so that your reader understands exactly what you're proposing. Indicate how your proposed solution will solve the problem and provide tangible benefits. Specifically, explain how it will meet the objectives and abide by the constrains outlined in the problem definition. Give concrete examples. Show the specific differences between "how things are now" and "how they could be." Be as logical as possible. Emphasize the results, benefits, and feasibility of your proposed idea. Also use your criteria, developed as you considered possible solutions, to analyse your proposed solution against the other possible solutions.

This is where your pros and cons come in – you can use your brainstorming and idea development to create the evidence to back up your particular solution and prove that it's better than the others. Show that your proposed solution is more cost effective, easier to implement, etc. than other proposed solutions. Make sure, in the proposed solution section, to focus on "what" your solution is and "why" it is the best.

S. No	Parameter	Description				
1.	Problem Statement (Problem to be solved)	Sales include all the actions involved in the product sale, consumer service and business service. For the sales and marketing team to review their performance data visualization techniques called sales analytics is used. In sales analytics, technology is used to collect and use the sales data to produce productive results and they are in turn used to identify and optimize the sales. Various attributes are used to plan an efficient sales model which will benefit both customers and business.				
2.	Idea / Solution description	The sales data is studied which will give knowledge about the trends in sales. Based on the understanding, the processed data is analyzed.				
3.	Novelty / Uniqueness	<ul> <li>Improve Value Propositions and Price Points</li> <li>Narrow and Refine Product Offerings</li> <li>Accurate Sales</li> <li>Forecasting</li> </ul>				
4.	Social Impact / Customer Satisfaction	An insight about the profit of the product is gained. An insight about the sales in different locations and time is gained.				
5.	Business Model (Revenue Model)	<ul> <li>Dashboard will be created to view trends of sales.</li> <li>Better decision will be madeby company.</li> </ul>				
6.	Scalability of the Solution	Analyzing the data continuously to improve the efficiency of the products.				

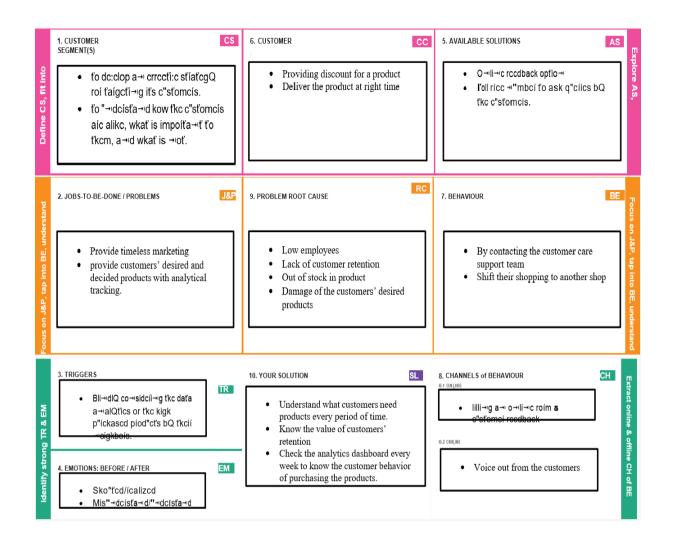
#### PROBLEM SOLUTION FIT:

The Problem-Solution Fit canvas is based on the principles of Lean Start-up, LUM (Lazy User Model) and User Experience design. It helps entrepreneurs, marketers and corporate innovators identify behavioural patterns and recognize what would work and why. It is a template to help identify solutions with higher chances of solution adoption, reduce time spent on testing and get a better overview of the current situation.

My goal was to create a tool that translates a problem into a solution, taking into account customer behaviour and the context around it. of the existing canvases or frameworks were giving me an overview and insight into the real customer situation during his/her decision-making process. With this template you will be able to take important information into consideration at an earlier stage and look at problem solving in depth. It increases your chances of finding problem-solution and product-market fit.

#### It helps you to:

- 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 behaviour
- Sharpen your communication and marketing strategy with the right triggers and messaging.
- Increase touch-points with your company by finding the right problem behaviour 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.



**3.4 Proposed Solution Fit** 

## REQUIREMENT ANALYSIS

## FUNCTIONAL REQUIREMENTS:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through Gmail or Google Business
FR-2	User Confirmation	Confirmation via Email and OTP
FR-3	User Input	Data uploaded must be of proper format
FR-4	Data Verification and Validation	Data is cleaned and checked for duplicates and outliers
FR-5	Data Visualization	A certain collection of data is chosen and shown with the appropriate graphs and charts
FR-6	Updating	Sales Report should be generated for every 24 hours
FR-7	Analysis	Analyze the data according to the set of past data of the multiple users
FR-8	Useful insight Dashboard	UI shows useful Insights to improve the sales Dashboard for Store includes Sale-products, Customer Interest, category wise sales, and Useful insight to improve sales.

## NON-FUNCTIONAL REQUIREMENTS:

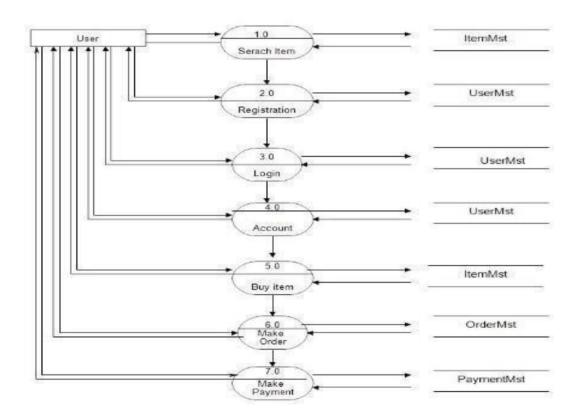
Following are the Non-functional requirements of the proposed solution.

FR No:	Non-Functional Requirement	Description
NFR-1	Usability	The programmed must be simple to use. The user must be able to quickly and conveniently upload and filter their sales data into our system
NFR-2	Security	Don't utilize user sales data improperly. The user must use a secure login
NFR-3	Reliability	Data and visualizations provided by the user must remain in the system without crashing. The system's dependability must be assured by conserving accurate copies of the data and its outputs, together with the right visualizations
NFR-4	Performance	The system needs to provide visualizations and handle heavy data loads. It ought to offer simultaneous access to data by many team members. The website needs to be adaptable to many sorts of data
NFR-5	Availability	The uploaded data must always be accessible and fault tolerant
NFR-6	Scalability	The methodology is quite adaptable and may easily raise the estimation for various users, making it possible to apply the suggested solution

#### **PROJECT DESIGN:**

#### **DATA FLOW DIAGRAMS:**

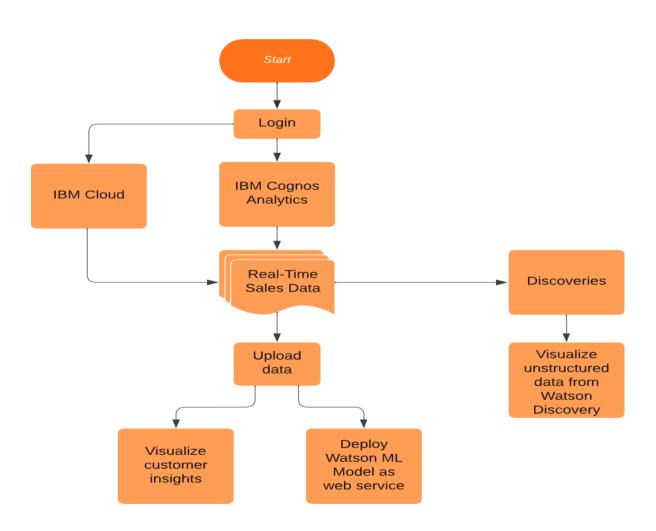
A Data Flow Diagram (DFD) is a graphical representation of the flow of data in a business information system. It describes the processes that are involved in a system to transfer data from the input to the file storage and reports generation. It shows how data enters and leaves the system, what changes the information, and where data is stored.



5.1 DATA FLOW DIAGRAM FOR GLOBAL SALES DATA ANALYTICS

#### SOLUTION AND TECHNICAL ARCHITECTURE:

Solution architecture is the building block for an overall enterprise software solution that addresses specific problems and requirements. As the project size increases, the team becomes distributed globally. It is required to have a solution architecture in place for long-term sustainability and a solid foundation. Solution architecture addresses various solution needs, keeping the business context intact. It specifies and documents technology platforms, application components, data requirements, resource requirements, and many important non-functional requirements such as scalability, reliability, performance, throughput, availability, security, and maintainability. Solution architecture is vital for any industry and its solution. In the absence of solution architecture, there is a chance that software development could fail; projects can get delayed, get over budget, and not deliver enough functionalities.



#### 5.2 SOLUTION AND TECHNICAL ARCHITECTURE

## **USER STORIES:**

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Mobile user)	Registration	USN-1	As a user, I can register to an application by entering email id and password	I can access my account / dashboard	High	Sprint-1
		USN-2	As a user, I will receive confirmation email once I have registered for the application	I can receive confirmation email & click confirm	High	Sprint-1
		USN-3	As a user, I can register for the application through Facebook	I can register & access the dashboard with Facebook Login	Low	Sprint-2
		USN-4	As a user, I can register for the application by entering mobile number	I can receive the OTP and enters the application	High	Sprint-1
	Login	USN-5	As a user, I can log into the application by entering Gmail, phone number or Facebook	By right credentials with registered storage, I can enter into an application	High	Sprint-2
	Dashboard	USN-6	As a user, I can access the dashboard by entering user credentials data	I can access the dashboard and insights	Medium	Sprint-2
Customer (Web user)	Registration	USN-7	As a user, I can login to an application via any browsers	I can visualize an web view of an application	Medium	Sprint-2
Customer Care Executive	Login	USN-8	As a user, I can access the customer care support after login to an application	I can understand the better customer support using Chabot	Low	Sprint-3
Administrator	Login	USN-9	As an admin, I can initially login to an application in secure	I can access the admin page	High	Sprint-1
	Registration Confirm	USN-10	As an admin, I can authenticate and accept the registered user	I can validate the user accounts and ensure security	High	Sprint-3
	Data Collection	USN-11	As an admin, I can manage the storage of the user's data	I can access the cloud platform	Low	Sprint-3
	Insights	USN-12	As an admin, I can view the sales and product insights to increase the productivity	I can access the dashboard	Medium	Sprint-4

#### PROJECT PLANNING AND SCHEDULING:

#### SPRINT PLANNING AND ESTIMATION:

Sprint planning is an event in scrum that kicks off the sprint. The purpose of sprint planning is to define what can be delivered in the sprint and how that work will be achieved. Sprint planning is done in collaboration with the whole scrum team. In scrum, the sprint is a set period of time where all the work is done. However, before you can leap into action you have to set up the sprint. You need to decide on how long the time box is going to be, the sprint goal, and where you're going to start. The sprint planning session kicks off the sprint by setting the agenda and focus. If done correctly, it also creates an environment where the team is motivated, challenged, and can be successful. Bad sprint plans can derail the team by setting unrealistic expectations.

During sprint planning it is easy to get 'bogged down' in the work focusing on which task should come first, who should do it, and how long will it take. For complex work, the level of information you know at the start can be low, and much of it is based on assumptions. Scrum is an empirical process, meaning that you can't plan upfront, but rather learn by doing, and then feed that information back into the process.

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint -1	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	2	High	Sriram K, Saravanakumar K, Kanthimathinathan A, Matheshwaran N
Sprint -1	Login	USN-2	As a user, I need valid credentials to login to my account.	1	High	Sriram K, Saravanakumar K, KanthimathinathanA
Sprint -2	Data collection	USN-3	As a user, I need to gather the data in the form of CSV/XLS and clean the data.	2	High	Saravanakumar K, Sriram K
Sprint -2	Upload dataset	USN-4	As a user, I can view the data of the products.	1	Low	Kanthimathinathan A, Matheshwaran N
Sprint -2	Data preparation	USN-5	As a user, I need to prepare the data for Data visualization.	3	High	Sriram K, Saravanakumar K, Matheshwaran N
Sprint -2	Data visualization	USN-6	As a user, I need to visualize the data for Data visualization.	4	Medium	Saravanakumar K, Matheswaran N, Kanthimathinath an A.

Sprint -3	Dashboard	USN-7	As a user, I need to create the product and customer analysis dashboard.	2	Medium	Sriram K, Saravanakumar K,
Sprint -3	Dashboard	USN-8	As a user, I must plan visualizations in a waythat I'm able to gain insights regarding the sales based upon the category of sales and the respective region for the product and customer.	4	High	Sriram K, Saravanakumar K, Kanthimathinatha nA, Matheshwaran N

Sprint -3	Dashboard	USN-9	As a user, I need to analyze the priority of thecustomer and the products that they buy and to create the charts accordingly.	4 Medium		Sriram K, Kanthimathinathan A, Matheshwaran N
Sprint -	Prediction	USN-10	As a user, I need to produce the predictive analysis of the customer's satisfied product and the product which is on high priority to the customer.	4	Medium	Sriram K, Saravanakumar K, Kanthimathinathan A, Matheshwaran N
Sprint -4	Report	USN-11	As a user, I can view the final sales analysis report of the customer and their purchased products.	5	High	Sriram K, Saravanakumar K, Kanthimathinathan A, Matheshwaran N
Sprint -4	Story	USN-12	As a user, I can view the product and customer description and more additional information as a story.	5	High	Sriram K, Saravanakumar K, KanthimathinathanA, Matheshwaran N

#### **ESTIMATION:**

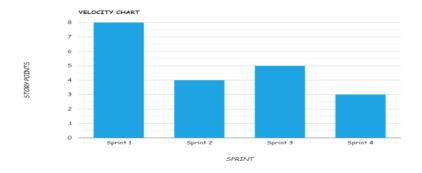
Estimation is a process to forecast these variables to develop or maintain software based on the information specified by the client. There are three main challenges faced during estimation i.e., Uncertainty, Self-knowledge, and Consistency of Method used for Estimation. Usage of standardized and scientific estimation methods for estimating size, effort, and schedule, helps towards maintaining minimal variance between the planned estimates and actual values thereby achieving maximum estimation accuracy. This provides a better client experience. All estimation needs for a project cannot be determined by a single method. It is important to have different methods of estimation for different stages.

Planning and Estimation in Agile projects bring a lot of focus on preparation and forecasting. Both these activities are done keeping business context in mind and measurable value delivery is committed to the client. Therefore, it is recommended to have required planning and estimation in Agile from the start of the project, in order to ensure better risk coverage and higher predictability.

#### **VELOCITY:**

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

#### VELOCITY CHART:-



#### **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	25 Oct 2022	30 Oct 2022	20	30 Oct 2022
Sprint-2	20	6 Days	31 Oct 2022	05 Nov 2022	20	05 Nov 2022
Sprint-3	20	6 Days	06 Nov 2022	12 Nov 2022	20	12 Nov 2022
Sprint-4	20	6 Days	13 Nov 2022	19 Nov 2022	20	19 Nov 2022

#### **REPORTS FROM JIRA:**

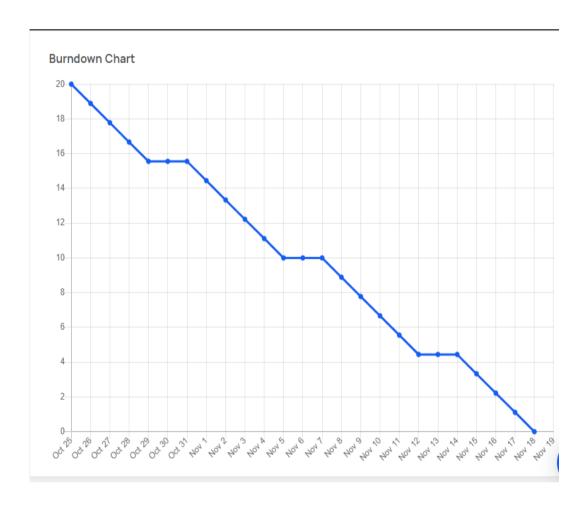
Agile JIRA Reports deliver value to customers faster with real-time insights at your fingertips. Jira Software enables teams to make data- driven decisions with agile reports, dashboards, and more.

Velocity Chart is how a scrum team measures the amount of work they can complete in a typical sprint. Velocity is measured historically, from one sprint to the next. By tracking the number of story points the team can complete according to their own definition of done, they can build up a reliable and predictable sense of how long it will take them to complete new stories basedon their relative point value.

A Burndown Chart shows the team's progress toward completing all of the points they agreed to complete within a single sprint. This chart starts with the total number of points the team has taken on for the sprint, and tracks on a day-to-day basis how many of those points have been completed and is ready for the sprint demo.

#### **BURNDOWN CHART:**

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



# CHAPTER 7 CODING AND SOLUTIONING

## Register.html:

```
<!DOCTYPE html>
<head>
  <title>GLOBAL SALES DATA ANALYTICS</title>
  <script>
    function validateForm(){
       let x1=document.forms["myform"]["name"].value;
       if (x1==""") {
         alert("Name must be filled out");
         return false;
       }
       let x2=document.forms["myform"]["email"].value;
       if(x2.index('@')==-1){
         alert("Email id is not valid");
         return false;
       }
       let x3=document.forms["myform"]["pass"].value;
       let x4=document.forms["myform"]["Cpass"].value;
       if(x3.length <= 8){
         alert("password should be atleast 8 letters");
         return false;
       }
       if(x3!=x4){
         alert("password does not match");
         return false;
       }
```

```
</script>
<style>
  .register{
    margin-left: 35%;
    width: 400PX;
    height: 69%;
    margin-top:0%;
    outline-style: solid;
    outline-width: 1px;
    outline-color: black;
    border-radius: 30px;
    text-align: center;
    position: absolute;
    background-image:url("./images.jfif");
    opacity: 700%;
    background-size: cover;
    background-size:fill;
    box-shadow: 20px 20px 2000px black;
  input[type=text]{
    width: 80%;
    border-style: solid;
    border-width: 0px;
    border-radius: px;
    box-sizing: border-box;
    padding: 8px;
    background-color: #FADFFE;
    outline: transparent;
  }
```

```
input[type=password]{
  width: 80%;
  border-style: solid;
  border-width: 0px;
  border-radius: px;
  box-sizing: border-box;
  padding: 8px;
  border-color:#B433C8;
  background-color: #FADFFE;
  outline: transparent;
.button1{
color: white;
padding: 10px;
background-color: #FE2DF7;
border: 0px;
border-radius: 5px;
width:80%;
cursor: pointer;
.button 2\{\\
color: white;
padding: 10px;
background-color:#FE2DF7;
border: 0px;
border-radius: 5px;
width: 50%;
cursor: pointer;
}
```

```
.body{
    background-size: cover;
    background-repeat: no-repeat;
    background-size: cover;
</style>
</head>
<body background="./download.jfif">
  <center><img src="./3696437.png" alt="logo"width="250"</pre>
height="200"></center>
  <div CLASS="register">
    <b><h1 style="font-family:Century Gothic;">REGISTER</h1></b>
    <div class="ATRI">
       <div class ="j">
         <form name="myform"onsubmit="return validateForm()"</pre>
method="post" action="./home.html">
           <P style="font-family:Century Gothic;"><B>Name:</B></P>
           <input id="name" type="text" name="name" placeholder="enter</pre>
Name"value=""required autofocus>
            <P style="font-family:Century Gothic;"><B>Email Id:</B></P>
           <input id="email" type="text" name="email" placeholder="enter</pre>
email id"required>
            \langle BR \rangle
           <P style="font-family:Century Gothic;"><B>password</B></P>
            <input id="Pass" type="password" name="pass"placeholder="enter</pre>
password" required><br>
           <P style="font-family:Century Gothic ;"><B>Confirm
password</B></P>
           <input id="Cpass" type="password"</pre>
name="Cpass"placeholder="enter password" required><br><br>
            <div class="button">
```

```
<button class="submit button1">REGISTER</ahref></button>
             </div><br>
               Already have an account? <a href="log.html"><b>Sign
up</b></a>
             </div>
             <div class="footer">
               <b>Copyright &copy; 2022 &mdash;
PNT2022TMID51031</b>
              </div>
           </body>
         </html>
Login.html:
<!DOCTYPE html>
<head>
  <title>GLOBAL SALES DATA ANALYTICS</title>
  <script>
    function validateForm(){
      let x2=document.forms["myform"]["Email"].value;
      if(x2=="""){
         alert("filed must be filled out");
         return false;
       }
  </script>
<style>
  .LOGIN{
    margin-left: 35%;
    width: 400PX;
```

```
height: 55%;
  margin-top: 5%;
  outline-style: solid;
  outline-width: 1px;
  outline-color: black;
  border-radius: 30px;
  text-align: center;
  position: absolute;
  background-image:url("./images.jfif");
  opacity: 700%;
  background-size: cover;
  background-size:fill;
  box-shadow: 20px 20px 2000px black;
input[type=text]{
  width: 80%;
  border-style: solid;
  border-width: 0px;
  border-radius: px;
  box-sizing: border-box;
  padding: 8px;
  background-color: #FADFFE;
  outline: transparent;
input[type=password]{
  width: 80%;
  border-style: solid;
  border-width: 0px;
  border-radius: px;
```

```
box-sizing: border-box;
    padding: 8px;
    border-color:#B433C8;
    background-color: #FADFFE;
    outline: transparent;
  .button 1 \{\\
  color: white;
  padding: 10px;
  background-color: #FE2DF7;
  border: 0px;
  border-radius: 5px;
  width:80%;
  cursor: pointer;
  .button2{
  color: white;
  padding: 10px;
  background-color:#FE2DF7;
  border: 0px;
  border-radius: 5px;
  width: 50%;
  cursor: pointer;
  .body{
    background-size: cover;
    background-repeat: no-repeat;
</style>
```

```
</head>
<body background="./download.jfif">
  <center><img src="./3696437.png" alt="logo"width="250"</pre>
height="200"></center>
  <div CLASS="LOGIN">
    <h1 style="font-family:Century Gothic;">LOGIN</h1>
    <div class="ATRI">
       <div class ="j">
           <form name="myform"onsubmit="return validateForm()"</pre>
method="post" action="./home.html">
           <P style="font-family:Century Gothic;"><B>Email Id:</B></P>
           <input id="Email" type="TEXT" name="Email"</pre>
placeholder="enter email id" value="" required autofocus>
           \langle BR \rangle
           <P style="font-family:Century Gothic;"><B>password:</B></P>
           <input id="password" type="password"</pre>
name="password"placeholder="enter password" required><br><br><br>
           <div class="button">
              <button class="submit button1">LOGIN</button><br><br>
              </div><br>
                Don't have an account?<a href="./reg.html"><b>Create
One</b></a>
              </div>
              <div class="footer">
                <b>Copyright &copy; 2022 &mdash;
PNT2022TMID51031</b>
              </div>
            </body>
         </html>
```

```
Home.html:
```

```
<!DOCTYPE html>
<html lang="en" dir="ltr">
 <head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title> GLOBAL SALES DATA ANALYTICS</title>
  <link rel="stylesheet" href="home.css">
  <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-</pre>
awesome/5.15.2/css/all.min.css"/>
 </head>
<body
background="https://media.istockphoto.com/id/1144573725/photo/financial-
business-charts-graphs-and-diagrams-3d-illustration-
render.jpg?b=1&s=170667a&w=0&k=20&c=2ZC34lZtMKtgSmBQh8Tl1dDN
5vETr8qRpnDOElSvUPs="
 <nav>
  <div class="menu">
   <div class="logo">
    <a href="#">Global Sales Data Analytics</a>
   </div>
   <u1>
    <a href="./about.html">About</a>
    <a href="./dashboard.html">Dashboard</a>
   </div>
 </nav>
 <div class="img"></div>
 <div class="center">
  <div class="title">Welcome to our Website</div>
```

```
<div class="sub_title">SuperStore</div>
 </div>
</body>
</html>
About.html:
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <title>About</title>
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <link rel="stylesheet" href="about.css">
    <script src="https://kit.fontawesome.com/dbed6b6114.js"</pre>
crossorigin="anonymous"></script>
  </head>
  <body>
    <section>
      <div class = "image">
        <img
src="https://media.istockphoto.com/id/1333810802/photo/businessman-draws-
increase-arrow-graph-corporate-future-growth-year-2021-to-2022-
development.jpg?b=1&s=170667a&w=0&k=20&c=XUIHXwEgMaLE31mcd3
gTqFtqY0eqV2R2foVO5pIpHNE=" width="500" height="270">
      </div>
      <div class = "content">
         <h2>About Us</h2>
         <span><!-- line here --></span>
```

#### Global Sales Data Analytics

Shopping online is currently the need of the hour. Because of this COVID, it's not easy to walk in a store randomly and buy anything you want. So, we visualized few things like, Customer Analysis and Product Analysis of this Global Super Store.

```
ul class = "links">
           <a href = "#">work</a>
           <div class = "vertical-line"></div>
           <a href = "#">service</a>
           <div class = "vertical-line"></div>
           <a href = "#">contact</a>
        <1i>>
             <i class = "fa fa-twitter"></i>
           \langle li \rangle
             <i class = "fa fa-facebook"></i>
           \langle li \rangle
             <i class = "fa fa-github"></i>
           >
             <i class = "fa fa-pinterest"></i>
           </div>
    </section><br><br>
    <div class="credit"> By <span</pre>
style="color:white"><b>PNT2022TMID51031</b></span></div>
```

```
</body>
</html>
```

#### Dashboard.html:

```
<!DOCTYPE html>
 <head>
  <title> Dashboard </title>-->
  <link rel="stylesheet" href="dashboard.css">
  k href='https://unpkg.com/boxicons@2.0.7/css/boxicons.min.css'
rel='stylesheet'>
 </head>
<body>
 <div class="background">
 </div>
 <div class="sidebar">
  <div class="logo-details">
   <i class='bx bxl-c-plus-plus'></i>
   <span class="logo_name">SuperStore</span>
  </div>
   \langle 1i \rangle
     <a href="#" class="active">
      <i class='bx bx-grid-alt' ></i>
      <span class="links_name">Dashboard</span>
     </a>
    <1i>>
     <a href="./log.html">
```

```
<i class='bx bx-log-out' ></i>
      <span class="links_name">Log Out</span>
     </a>
    </u1>
 </div>
 <section class="home-section">
  <nav>
   <div class="sidebar-button">
    <i class='bx bx-menu sidebarBtn'></i>
    <span class="dashboard">Dashboard</span>
   </div>
   <div class="container">
    <div class="center">
    </div>
    </div>
</body>
</html>
Home.css:
@import
url('https://fonts.googleapis.com/css2?family=Poppins:wght@200;300;400;500;
600;700&display=swap');
*{
 margin: 0;
 padding: 0;
 box-sizing: border-box;
 font-family: 'Poppins', sans-serif;
}
```

```
::selection{
 color: #000;
 background: white;
nav{
 position: fixed;
 background: white;
 width: 100%;
 padding: 10px 0;
 z-index: 12;
nav .menu{
 max-width: 1250px;
 margin: auto;
 display: flex;
 align-items: center;
 justify-content: space-between;
 padding: 0 20px;
.menu .logo a{
 text-decoration: none;
 color: black;
 font-size: 35px;
 font-weight: 600;
.menu ul{
 display: inline-flex;
.menu ul li{
```

```
list-style: none;
 margin-left: 7px;
.menu ul li:first-child{
 margin-left: 0px;
.menu ul li a{
 text-decoration: none;
 color: black;
 font-size: 18px;
 font-weight: 500;
 padding: 8px 15px;
 border-radius: 5px;
 transition: all 0.3s ease;
}
.menu ul li a:hover{
 background: blanchedalmond;
 color: black;
}
.img{
 background: url('img3.jpg')no-repeat;
 width: 100%;
 height: 100vh;
 background-size: cover;
 background-position: center;
 position: relative;
.img::before{
 content: ";
```

```
position: absolute;
 height: 100%;
 width: 100%;
 background: rgba(0, 0, 0, 0.4);
.center{
 position: absolute;
 top: 52%;
 left: 50%;
 transform: translate(-50%, -50%);
 width: 100%;
 padding: 0 20px;
 text-align: center;
.center .title{
 color: #fff;
 font-size: 55px;
 font-weight: 600;
.center .sub_title{
 color: #fff;
 font-size: 52px;
 font-weight: 600;
.center .btns{
margin-top: 20px;
.center .btns button{
height: 55px;
```

```
width: 170px;
 border-radius: 5px;
 border: none;
 margin: 0 10px;
 border: 2px solid white;
 font-size: 20px;
 font-weight: 500;
 padding: 0 10px;
cursor: pointer;
 outline: none;
 transition: all 0.3s ease;
.center .btns button:first-child{
 color: black;
 background: whi;
}
.btns button:first-child:hover{
 background: black;
 color: white;
.center .btns button:last-child{
 background: black;
 color: white;
```

### **Dashboard.css**:

```
@import
url('https://fonts.googleapis.com/css2?family=Poppins:wght@200;300;400;500;
600;700&display=swap');
*{
 margin: 0;
 padding: 0;
 box-sizing: border-box;
 font-family: 'Poppins', sans-serif;
}
.sidebar{
 position: fixed;
 height: 100%;
 width: 240px;
 background: #0A2558;
 transition: all 0.5s ease;
.sidebar.active{
 width: 60px;
.sidebar .logo-details{
 height: 80px;
 display: flex;
 align-items: center;
.sidebar .logo-details i{
 font-size: 28px;
 font-weight: 500;
 color:whitesmoke;
```

```
min-width: 60px;
 text-align: center
.sidebar .logo-details .logo_name{
 color:goldenrod;
 font-size: 24px;
 font-weight: 500;
.sidebar .nav-links{
 margin-top: 10px;
.sidebar .nav-links li{
 position: relative;
 list-style: none;
 height: 50px;
.sidebar .nav-links li a{
 height: 100%;
 width: 100%;
 display: flex;
 align-items: center;
 text-decoration: none;
 transition: all 0.4s ease;
.sidebar .nav-links li a.active{
 background: #081D45;
.sidebar .nav-links li a:hover{
 background: #081D45;
```

```
.sidebar .nav-links li i{
 min-width: 60px;
 text-align: center;
 font-size: 18px;
 color:lightgreen;
.sidebar .nav-links li a .links_name{
 color: #fff;
font-size: 15px;
 font-weight: 400;
 white-space: nowrap;
.sidebar .nav-links .log_out{
 position: absolute;
 bottom: 0;
 width: 100%;
.home-section{
 position: relative;
 min-height: 100vh;
 width: calc(100% - 240px);
 left: 240px;
 transition: all 0.5s ease;
 background-image:url("./picture.PNG");
 background-size:cover;
 background-position-x: center;
 background-position-y: center;
 ima
```

```
.sidebar.active ~ .home-section{
 width: calc(100% - 60px);
 left: 60px;
.home-section nav{
 display: flex;
 justify-content: space-between;
 height: 80px;
 background:white;
 display:flex;
 align-items: center;
 position:fixed;
 width: calc(100% - 240px);
 left: 240px;
 z-index: 100;
 padding: 0 20px;
 box-shadow: 0 1px 1px rgba(0, 0, 0, 0.1);
 transition: all 0.5s ease;
.sidebar.active ~ .home-section nav{
 left: 60px;
 width: calc(100% - 60px);
.home-section nav .sidebar-button{
 display: flex;
 align-items: center;
 font-size: 24px;
 font-weight: 500;
```

```
}
nav .sidebar-button i{
 font-size: 35px;
 margin-right: 10px;
.home-section nav .search-box{
 position: relative;
 height: 50px;
 max-width: 550px;
 width: 100%;
 margin: 0 20px;
nav .search-box input{
 height: 100%;
 width: 100%;
 outline: none;
 background: #F5F6FA;
 border: 2px solid #EFEEF1;
 border-radius: 6px;
 font-size: 18px;
 padding: 0 15px;
nav .search-box .bx-search{
 position: absolute;
 height: 40px;
 width: 40px;
 background: #2697FF;
 right: 5px;
 top: 50%;
```

```
transform: translateY(-50%);
 border-radius: 4px;
 line-height: 40px;
 text-align: center;
 color: #fff;
 font-size: 22px;
 transition: all 0.4 ease;
.home-section nav .profile-details{
 display: flex;
 align-items: center;
 background: #F5F6FA;
border: 2px solid #EFEEF1;
 border-radius: 6px;
 height: 50px;
 min-width: 190px;
 padding: 0 15px 0 2px;
nav .profile-details img{
 height: 40px;
 width: 40px;
 border-radius: 6px;
 object-fit: cover;
nav .profile-details .admin_name{
 font-size: 15px;
 font-weight: 500;
 color: #333;
 margin: 0 10px;
```

```
white-space: nowrap;
nav .profile-details i{
 font-size: 25px;
 color: #333;
.home-section .home-content{
 position: relative;
 padding-top: 104px;
.home-content .overview-boxes{
 display: flex;
 align-items: center;
 justify-content: space-between;
 flex-wrap: wrap;
 padding: 0 20px;
 margin-bottom: 26px;
.overview-boxes .box{
 display: flex;
 align-items: center;
 justify-content: center;
 width: calc(100% / 4 - 15px);
 background: #fff;
 padding: 15px 14px;
 border-radius: 12px;
 box-shadow: 0 5px 10px rgba(0,0,0,0.1);
.overview-boxes .box-topic{
```

```
font-size: 20px;
 font-weight: 500;
.home-content .box .number{
 display: inline-block;
 font-size: 35px;
 margin-top: -6px;
 font-weight: 500;
.home-content .box .indicator{
 display: flex;
 align-items: center;
.home-content .box .indicator i{
 height: 20px;
 width: 20px;
 background: #8FDACB;
 line-height: 20px;
 text-align: center;
 border-radius: 50%;
 color: #fff;
 font-size: 20px;
 margin-right: 5px;
.box .indicator i.down{
 background: #e87d88;
.home-content .box .indicator .text{
 font-size: 12px;
```

```
.home-content .box .cart{
 display: inline-block;
 font-size: 32px;
 height: 50px;
 width: 50px;
 background: #cce5ff;
 line-height: 50px;
 text-align: center;
 color: #66b0ff;
 border-radius: 12px;
 margin: -15px 0 0 6px;
.home-content .box .cart.two{
 color: #2BD47D;
 background: #C0F2D8;
.home-content .box .cart.three{
 color: #ffc233;
 background: #ffe8b3;
.home-content .box .cart.four{
 color: #e05260;
 background: #f7d4d7;
.home-content .total-order{
 font-size: 20px;
 font-weight: 500;
}
```

```
.home-content .sales-boxes{
 display: flex;
justify-content: space-between;
 /* padding: 0 20px; */
/* left box */
.home-content .sales-boxes .recent-sales{
 width: 65%;
 background: #fff;
 padding: 20px 30px;
 margin: 0 20px;
 border-radius: 12px;
 box-shadow: 0 5px 10px rgba(0, 0, 0, 0.1);
.home-content .sales-boxes .sales-details{
 display: flex;
 align-items: center;
justify-content: space-between;
.sales-boxes .box .title{
 font-size: 24px;
 font-weight: 500;
 /* margin-bottom: 10px; */
.sales-boxes .sales-details li.topic{
 font-size: 20px;
 font-weight: 500;
}
```

```
.sales-boxes .sales-details li{
 list-style: none;
 margin: 8px 0;
.sales-boxes .sales-details li a{
 font-size: 18px;
 color: #333;
 font-size: 400;
 text-decoration: none;
}
.sales-boxes .box .button{
 width: 100%;
 display: flex;
justify-content: flex-end;
.sales-boxes .box .button a{
 color: #fff;
 background: #0A2558;
 padding: 4px 12px;
 font-size: 15px;
 font-weight: 400;
 border-radius: 4px;
 text-decoration: none;
 transition: all 0.3s ease;
.sales-boxes .box .button a:hover{
 background: #0d3073;
```

```
/* Right box */
.home-content .sales-boxes .top-sales{
 width: 35%;
 background: #fff;
 padding: 20px 30px;
 margin: 0 20px 0 0;
 border-radius: 12px;
 box-shadow: 0 5px 10px rgba(0, 0, 0, 0.1);
.sales-boxes .top-sales li{
 display: flex;
 align-items: center;
 justify-content: space-between;
 margin: 10px 0;
.sales-boxes .top-sales li a img{
 height: 40px;
 width: 40px;
 object-fit: cover;
 border-radius: 12px;
 margin-right: 10px;
 background: #333;
.sales-boxes .top-sales li a{
 display: flex;
 align-items: center;
 text-decoration: none;
.sales-boxes .top-sales li .product,
```

```
.price{
 font-size: 17px;
 font-weight: 400;
 color: #333;
/* Responsive Media Query */
@media (max-width: 1240px) {
 .sidebar{
  width: 60px;
 .sidebar.active{
  width: 220px;
 .home-section{
  width: calc(100% - 60px);
  left: 60px;
 .sidebar.active ~ .home-section{
  /* width: calc(100% - 220px); */
  overflow: hidden;
  left: 220px;
 .home-section nav{
  width: calc(100% - 60px);
  left: 60px;
 .sidebar.active ~ .home-section nav{
  width: calc(100% - 220px);
  left: 220px;
```

```
}
@media (max-width: 1150px) {
 .home-content .sales-boxes{
  flex-direction: column;
 .home-content .sales-boxes .box{
  width: 100%;
  overflow-x: scroll;
  margin-bottom: 30px;
 .home-content .sales-boxes .top-sales{
  margin: 0;
@media (max-width: 1000px) {
 .overview-boxes .box{
  width: calc(100\% / 2 - 15px);
  margin-bottom: 15px;
@media (max-width: 700px) {
 nav .sidebar-button .dashboard,
 nav .profile-details .admin_name,
 nav .profile-details i{
  display: none;
 .home-section nav .profile-details{
  height: 50px;
```

```
min-width: 40px;
 }
 .home-content .sales-boxes .sales-details{
  width: 560px;
@media (max-width: 550px) {
 .overview-boxes .box{
  width: 100%;
  margin-bottom: 15px;
 .sidebar.active ~ .home-section nav .profile-details{
  display: none;
 }
 @media (max-width: 400px) {
 .sidebar{
  width: 0;
 .sidebar.active{
  width: 60px;
 .home-section{
  width: 100%;
 left: 0;
 .sidebar.active ~ .home-section{
  left: 60px;
  width: calc(100% - 60px);
```

```
}
 .home-section nav{
  width: 100%;
  left: 0;
 .sidebar.active ~ .home-section nav{
  left: 60px;
  width: calc(100% - 60px);
.center {
  display: block;
  margin-left: auto;
  margin-right: auto;
  align-content: center;
  width: 50%;
 }
About.css:
@import
url('https://fonts.googleapis.com/css2?family=Playfair+Display:wght@400;500;
600;700&display=swap');
*{
  box-sizing: border-box;
  padding: 0;
  margin: 0;
}
body{
  font-family: 'Playfair Display', serif;
```

```
display: grid;
  background-color: #4158D0;
background-image: linear-gradient(43deg, #4158D0 0%, #C850C0 46%,
#FFCC70 100%);
  align-content: center;
  min-height: 100vh;
}
section{
  display: grid;
  grid-template-columns: 1fr 1fr;
  min-height: 70vh;
  width: 75vw;
  margin: 0 auto;
  box-shadow: 0 4px 8px 0 rgba(0, 0, 0, 0.2), 0 6px 20px 0 rgba(0, 0, 0, 0.19);
  border-radius: 12px
}
.image{
  background-color: #12192c;
  display: flex;
  border-radius: 12px 0 0 12px;
}
.image img{
height:50vh;
margin:50px auto
}
.content{
  background-color: #12192c;
  display: flex;
```

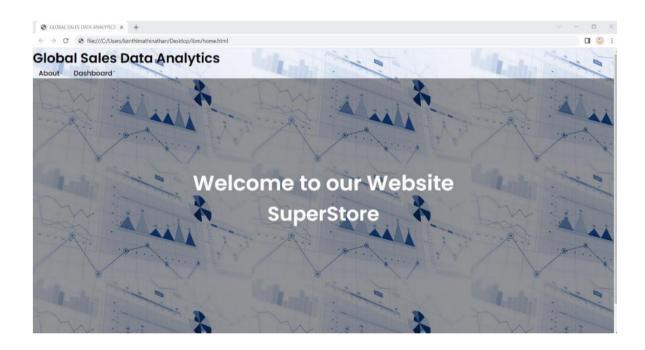
```
justify-content: center;
  flex-direction: column;
  align-items: center;
  border-radius: 0 12px 12px 0;
  color: #fff;
}
.content h2{
  text-transform: uppercase;
  font-size: 36px;
  letter-spacing: 6px;
  opacity: 0.9;
}
.content span{
  height: 0.5px;
  width: 80px;
  background: #777;
  margin: 30px 0;
}
.content p{
  padding-bottom: 15px;
  font-weight: 300;
  opacity: 0.7;
  width: 60%;
  text-align: center;
  margin: 0 auto;
  line-height: 1.7;
  color:#ffffff
}
.links{
```

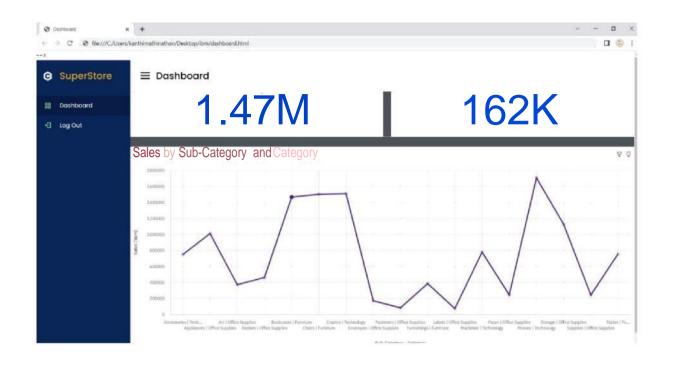
```
margin: 15px 0;
.links li{
  border: 2px solid #4158D0;
  list-style: none;
  border-radius: 5px;
  padding: 10px 15px;
  width: 160px;
  text-align: center;
}
.links li a{
  text-transform: uppercase;
  color: #fff;
  text-decoration: none;
}
.links li:hover{
  border-color: #C850C0;
}
.vertical-line{
  height: 30px;
  width: 3px;
  background: #C850C0;
  margin: 0 auto;
.icons{
  display: flex;
  padding: 15px 0;
}
```

```
.icons li{
  display: block;
  padding: 5px;
  margin: 5px;
.icons li i{
  font-size: 26px;
  opacity: 0.8;
.icons li i:hover{
  color: #C850C0;
  cursor: pointer;
}
/*******
@media(max-width: 900px){
  section{
    grid-template-columns: 1fr;
    width: 100%;
    border-radius: none;
  }
  .image{
    height: 100vh;
    border-radius: none;
  .content \{\\
    height: 100vh;
```

```
border-radius: none;
  }
  .content h2{
     font-size: 20px;
     margin-top: 50px;
  .content span{
    margin: 20px 0;
  .content\ p\{
     font-size: 14px;
  .links li a{
     font-size: 14px;
  }
  .links{
     margin: 5px 0;
  }
  .links li{
     padding: 6px 10px;
  .icons li i{
    font-size: 15px;
.credit{
  text-align: center;
  color: #000;
```

```
font-family: 'Trebuchet MS', 'Lucida Sans Unicode', 'Lucida Grande', 'Lucida Sans', Arial, sans-serif;
}
.credit a{
  text-decoration: none;
  color:#000;
  font-weight: bold;
}
```





### **TESTING**

# **PERFORMANCE TESTING:**

Parameter	Screenshot / Values
Dashboard design	No of Visualizations / Graphs - 10
Data Responsiveness	Good
Data to be rendered	Load Dataset in python Data cleaning using Cognos Analytics and Exploration
Utilization of Data Filters	Utilized to full effectiveness
Effective User Story	No of Scene Added - 8
Descriptive Reports	No of Visualizations / Graphs - 7
	Dashboard design  Data Responsiveness  Data to be rendered  Utilization of Data Filters  Effective User Story

### **ACCEPTANCE TESTING:**

### **PURPOSE OF TESTING:**

The purpose of this document is to briefly explain the test coverage and issues of the [Product Name] project at the time of the release to User Acceptance Testing (UAT).

### **DEFECT ANALYSIS:**

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

Resolution	Severity 1	Severity 2	Severity 3	Severity 4	Subtotal
By Design	10	4	2	3	20
Duplicate	1	0	3	0	4
External	2	3	0	1	6
Fixed	11	2	4	20	37
Not Reproduced	0	0	1	0	1
Skipped	0	0	1	1	2
Won't Fix	0	5	2	1	8
Totals	24	14	13	26	77

# **TEST CASE ANALYSIS:**

Section	Total Cases	Not Tested	Fail	Pass
Print Engine	7	0	0	7
Client Application	51	0	0	51
Security	2	0	0	2
Outsource Shipping	3	0	0	3
Exception Reporting	9	0	0	9
Final Report Output	4	0	0	4
Version Control	2	0	0	2

### **RESULTS:**

### **PERFORMANCE METRICS:**

Performance testing is a testing technique that determines the speed, scalability, and stability of an application under a given workload. It helps to ensure the quality of the software and makes the application ready to be released into the market.

- Speed The speed at which the application responds.
- Scalability The maximum user load that the application can handle.
- Stability The condition of the application under varying loads

# **ADVANTAGES:**

- Smooth User Interface
- Accuracy is achieved quickly
- Increase the efficiency of the work
- Improving quality of products and services
- Help the user to understand the marketing segments

# **DISADVANTAGES:**

- It is only based on a Dataset
- Lack of commitment and patience
- Low quality of data
- Complexity & Bias

### **CHAPTER 11:**

### **CONCLUSION:**

The availability of Data, low-cost commodity hardware, and new information management and analytic software have produced a unique moment in the history of data analysis. The convergence of these trends means that we have the capabilities required to analyse astonishing data sets quickly and cost-effectively for the first time in history. These capabilities are neither theoretical nor trivial. They represent a genuine leap forward and a clear opportunity to realize enormous gains in terms of efficiency, productivity, revenue, and profitability.

Sales analytics is an indispensable tool for businesses all over the globe. It keeps our business updated. This is the must-have element; our business won't last long in a highly competitive industry. Provides better insights via Data Visualization. Depending on the company we are managing, finding the right sales analytics software is crucial. With the benefits that sales analytics provides, making the most out of the tool will keep our business running efficiently and maintain superior productivity for years to come.

The Age of Global Sales Data is here, and these are truly revolutionary times if both business and technology professionals continue to work together and deliver on the promise.

### **FUTURE SCOPE:**

Global Sales Data Analytics eliminates guesswork and manual tasks. Be it choosing the right content, planning marketing campaigns, or developing products. Organizations can use the insights they gain from data analytics to make informed decisions. Thus, leading to better outcomes and customer satisfaction. By visualizing the data by bar chat, pie chart etc., we can easily identify the profit and loss for the company.

In Future we can identify when a customer purchases the next product and understand how long it took to deliver the product. we get a better insight into the kind of items a customer looks for, product returns, etc and will be able to predict the sales and profit for the next quarter

# **CHAPTER 13 APPENDIX: GITHUB:** GitHub Link: <a href="https://github.com/IBM-EPBL/IBM-Project-19288-">https://github.com/IBM-EPBL/IBM-Project-19288-</a> 1659695449.git