ABSTRACT

DHL Express is the largest big service company which is it can shoot whatever you want to deliver to anyone and can shoot across the nation. The headquarters of this company is in Bonn, Germany which is formerly innovated in 1969 with Larry Hillblom. This company formerly have a large of pious client who's using its service to deliver anything to anyone. Although DHL is a big company now, it must keep the client to use the service. And to keep that they must have a good relationship between DHL and the client. So they must have a good operation of client Relationship operation which is can know the client wants and is the client satisfied with DHL service. DHL Express applicate and develop client relationship operation which is can integrate business processes and enabling technologies in support of a harmonious entry, operation and use of client- related information across and between channels of deals and service. So they make a website in which is the content is to describe the product, history, vision and charge and also a client service of DHL contact and give a help menu to help the client use the website or to make a delivery order.

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LIST OF ABBREVIATIONS

DHL -Dalsey Hillblom Lynn

DHFL - Dewan Housing Development Finance Ltd.

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1.INTRODUCTION

1.1 Project Overview

DHL International is the world's largest and largest provider of domestic and domestic services. International freight and e-commerce pickup, delivery and return solutions for individuals business customers around the world. DHL was founded in the USA and is still involved With Detached Post DHL, a German logistics company. Our service is first and specialize in sea and air mail, especially international parcel, courier and express delivery services Split. DHL's operating system including a well-coordinated supply chain process contributed to the company's success. However, strategies should be put in place to combat this Increased competition and at the same time encourages entry into new markets

DHL mission and strategy. DHL's mission is to connect people and businesses. Improve your life and business. The company's mission is "Excellence. Easy delivery" (DHL). that is The mission statement suggests that the organization "intends to be a logistics company world" (DHL). If you think there is an important link between trade and the world Developing in the global market, DHL has become a benchmark for smart business. Practice method exercises. In particular, DHL provides logistics solutions to more than 220 countries worldwide (Capon330). After all, the company's vision and mission are part of its international strategy. control and growth. DHL's main goal is to provide excellent service to its ever-growing number of customers. World wide. For example, the company now states that all materials are Also, throughout the mining cycle, goods are moved according to time and budget. in the Four In addition, the company offers on-site storage solutions while providing expertise. in stock. The shipping process begins with sorting and scanning the materials to be shipped It will be delivered to his DHL hubs in the country and other regional service centers before shipment. those items It is then placed for last mile delivery by DHL Express Courier. the company handles it Safe delivery process with all documents signed and received Destination on time. DHL uses several business techniques including leverage for growth and entry into new markets Mergers and Acquisitions. Its main strategy is Focus, Connect and Grow (DHL). German Post DHL Group, the parent company of the organizational operation, The world's leading postal and logistics

service provider.

1.2 Purpose:

- Users create multiple analytical graphs/charts/Visualizations.
- Using the Analytical Visualizations, build the required Dashboard(s).
- Saving and visualizing the final dashboard in the IBM Cog nos Analytics.

To accomplish this, we have to complete all the activities and tasks listed below:

- IBM Cloud Account
- Login to Cog nos Analytics
- Working with the Dataset
    - Understanding the Dataset
    - Loading the Dataset
- Data Visualization Charts
    - Build the following visualizations
        - City-wise No of Pickups made?
        - City-wise No of Objects serviced?
        - State-wise No of Cities, where DHFL Services are provided?
        - Total Number of Objects IDs Serviced by DHFL - Summary Card
        - Zip Code wise Number of Objects Serviced?
        - Location Type Filters
        - Placement Filters
        - Mach Status Filters
        - Location Ty Filters
        - Location Th Filters
        - Top Contributor Countries / Cities? - Geo Map display

2.LITERATURE SURVEY

2.1 Existing problem

The main purpose of this DHL shipping services to improve service delivery, procurement processes and organization operation. Search is introduced for this purpose.

General research process:

The general research process follows a systematic approach Make sure all aspects related to DHL International are covered in this survey. Start Using , researchers identify issues that DHL should analyze in this case. Operational and supply chain processes to focus on areas that may need further work improvement. After all the necessary information has been collected, further analysis is carried out.

In addition, project analysts seek ethical approval from relevant authorities to ensure this. Do not violate the rules during the research process. The investigative process requires considerable effort Amount and time allotted for grant application and tracking On Furthermore, the process of data collection starts after selection methodology. Finally, the collected data is analyzed to derive the most important details for support research. Valid answers to research questions. Importance of research context.

The main purpose of this research method is to: Prove relevant theories, contribute to developing research, and shape behavior. Basic, Research produces knowledge that can be initiated in real situations (Williams 99). As Researchers can work as a team to find the best way to solve problems I have dealt with it. Then DHL International investigation will be done Not only essential for growth, but always available for other services The company that makes sure the world is always connected.

2.2 REFERENCES :

[1].Capon, Noel, and Frank Go. Frameworks for Market Strategy: European Edition. Taylor & Francis, 2016.

[2].Cheng, Willie, and Sharifah Mohamed. The World that Changes the World: How Philanthropy, Innovation, and Entrepreneurship are Transforming the Social Ecosystem. John Wiley & Sons, 2010

[3]Birnbaum, Z. W. and Saunders, S. C. (1958), A Statistical Model for Life-Length of Materials, Journal of the American Statistical Association, 53(281), pp. 151-160.

[4]Bloomfield, Peter (1976), Fourier Analysis of Time Series, John Wiley and Sons.

[5] Alberto. J, Abareshi. A, Sriratanaviriyakul, N. Nkhoma, M.Pittayachawan, S.Ulhaq, I.Wandt.

2.3 Problem Statement Definition

[1] The principal objective of this paper is to break down the tasks and production network techniques of DHL conveyance administrations to further develop administration conveyance, acquisition strategies, and authoritative tasks. For this reason, an examination is presented. General Course of Exploration: The general examination interaction will follow a precise method to guarantee that all angles relating to DHL Worldwide are covered inside this review. To begin with, the analyst will recognize the issue explanation, which for this situation is to dissect DHL activities and store network process, to zero in on regions that might require further enhancements. In the wake of gathering all the important data, further examination will be applied. In addition, the venture examiners will look for moral endorsement from the significant specialists to guarantee that rules are not disregarded during the examination interaction. The exploration interaction will require all in all an measure of cash, and consequently some time will be separate for subsidizing application and follow up (Williams 67). Besides, the method involved with gathering information will start off following the chose philosophy.

[2] At long last, the gathered information will be investigated to infer the main subtleties to help the research. Here, the most proper strategies for examination will be applied, to recognize the substantial solutions for the examination questions. Significance of Exploration Setting. The principal reason for following this strategy for examination will be to demonstrate the connected hypotheses, add to the creating study, and structure activities. Fundamentally, research makes information that can be started in a genuine circumstance (Williams 99). As scientists fill in

collectively, they can distinguish the most effective ways of how issues can be tended to. Following this, subsequently, the exploration that will be directed on DHL Worldwide won't just be fundamental for its development, yet it can continuously likewise be utilized by other assistance conveyance organizations to guarantee that the world stays associated.

[3] In this paper, the concept of Big Data and Big Data Analytics in Supply Chain is reviewed. The scale of Big Data is considered as the main reason for adopting it with Supply Chain. After studying the sources of Big Data generation in Supply Chain processes and activities, valuable insights regarding the potential of Big Data Analytics were uncovered. It was observed that combination of the complex data from supply chain activities and the scope of Big Data in terms of Volume, Variety, Velocity, Veracity and Value have practical applications that can solve some of the most prevailing challenges faced by supply chain even the recent years. Considering the adoption of Big Data Analytics, a relatively new phenomenon, it was found that the pace of creating infrastructure to sustain the increasing data needs to increase. It was found that the unavailability of professionals with appropriate skillsets can hinder the potential of Big Data Analytics in Supply Chain.

[4] As the complexity of the Supply Chain Networks around the globe increases, the Supply Chain industry along with the Data Analytics industry should work on developing new and effective models and techniques. Given the high infrastructure costs for Big Data Analytics, a dedicated research on making Big Data Analytics more cost effective is possible by reducing the infrastructure costs for storing Big Data. To increase the volume and accuracy of the data generated from various processes such as manufacturing and logistics, improving the sensor accuracy in physical systems along with enhancements in the data integration technology amongst various business processes is necessary and can be a potential field of study for further research.

[5] Through the case of DHL’s Ecommerce Vietnam, LMD has demonstrated a very important roles in the supply chain network. Not only stopping at improving the overall efficiency and responsiveness, the activities are able to represent DHL’s key competitive advantages. In general,

Parcel Metro Service is the key competitive advantage of DHL Ecommerce while good compensation policies for insurance package can be considered as short-term competitive advantage. As such, insurance package may potentially become a critical aspect for the company to develop strategic plans in order to make it become a unique sustainable strength soon. Additionally, Tracking System, Next-day Cash Remittance and Service Point are features that define the foundation of any ecommerce service providers nowadays in Vietnam. In this case, DHL Ecommerce has well- established a foundation that is as good as their competitors. Open Box service does not generate good returns for the company, however, DHL's LMD practices will level down without this feature .

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 helps teams better understand their users. Creating an effective solution requires understanding the true problem and the person who is experiencing it.

The exercise of creating the map helps participants consider things from the user's perspective along with his or her goals and challenges.

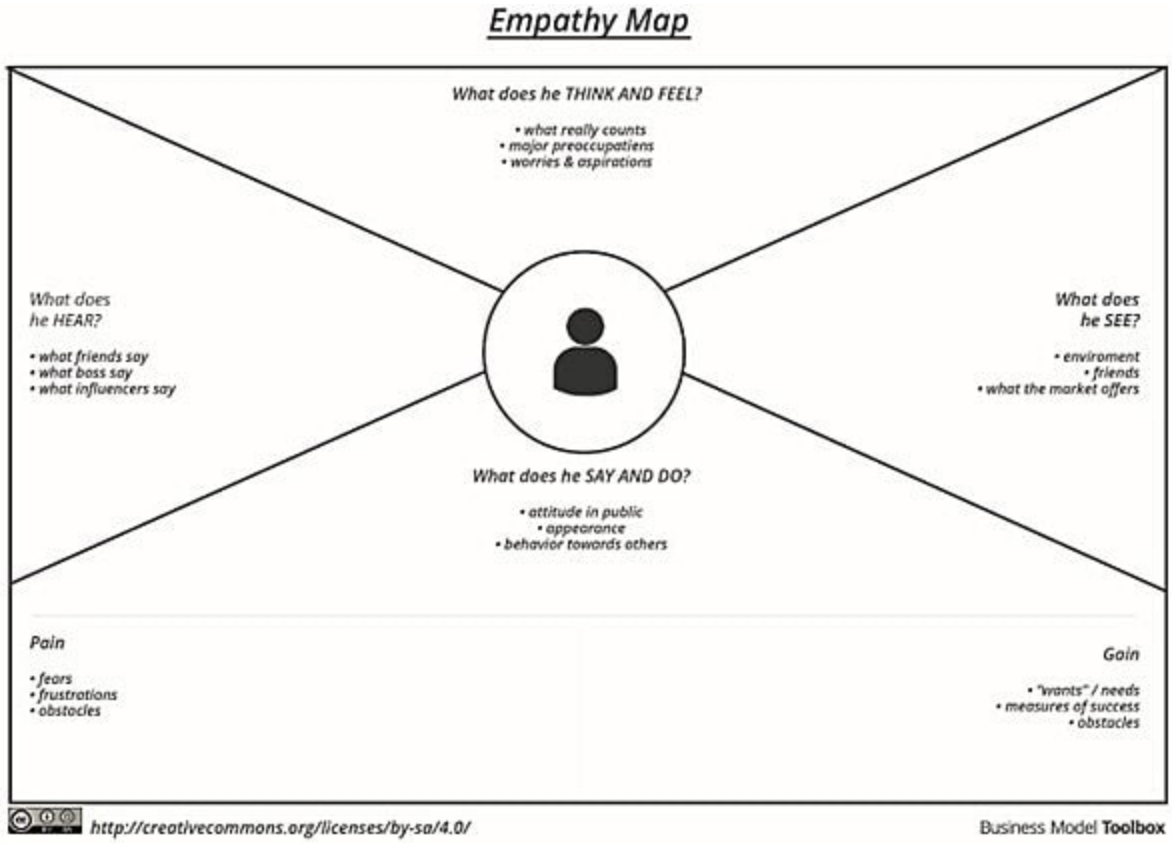

Figure3.1.1 Empathy Map Canvas

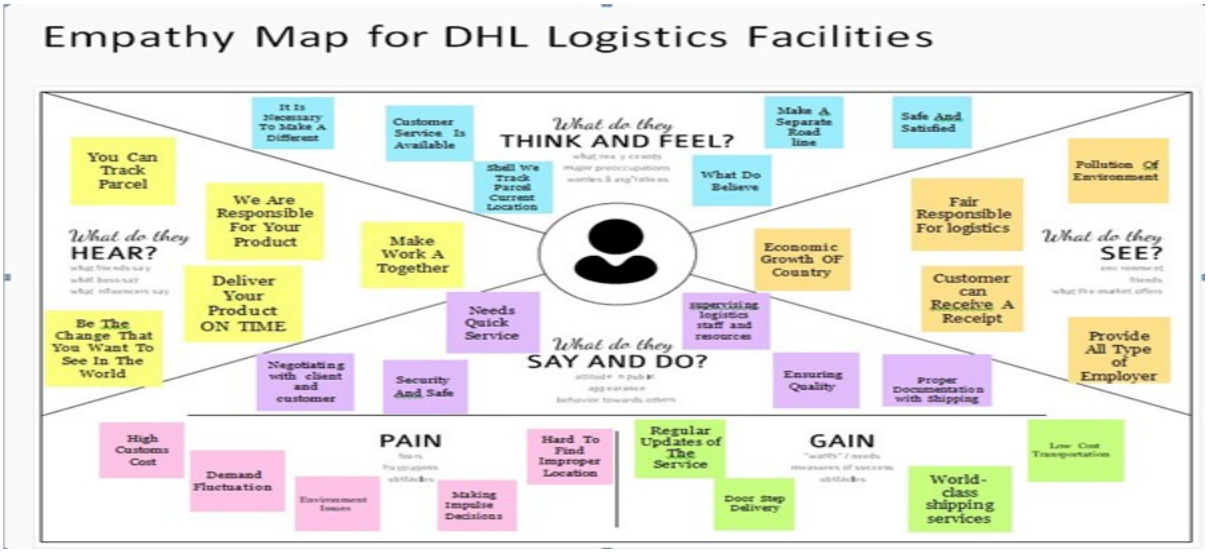

Figure 3.1.2 For DHL LogisticsFacilities

3.2.IDEATION &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 amount of creative solutions.

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

Figure 3.2.1 Team Gathering, Collaboration and Select the Problem Statement

Step-2: Brainstorm, Idea Listing and Grouping:

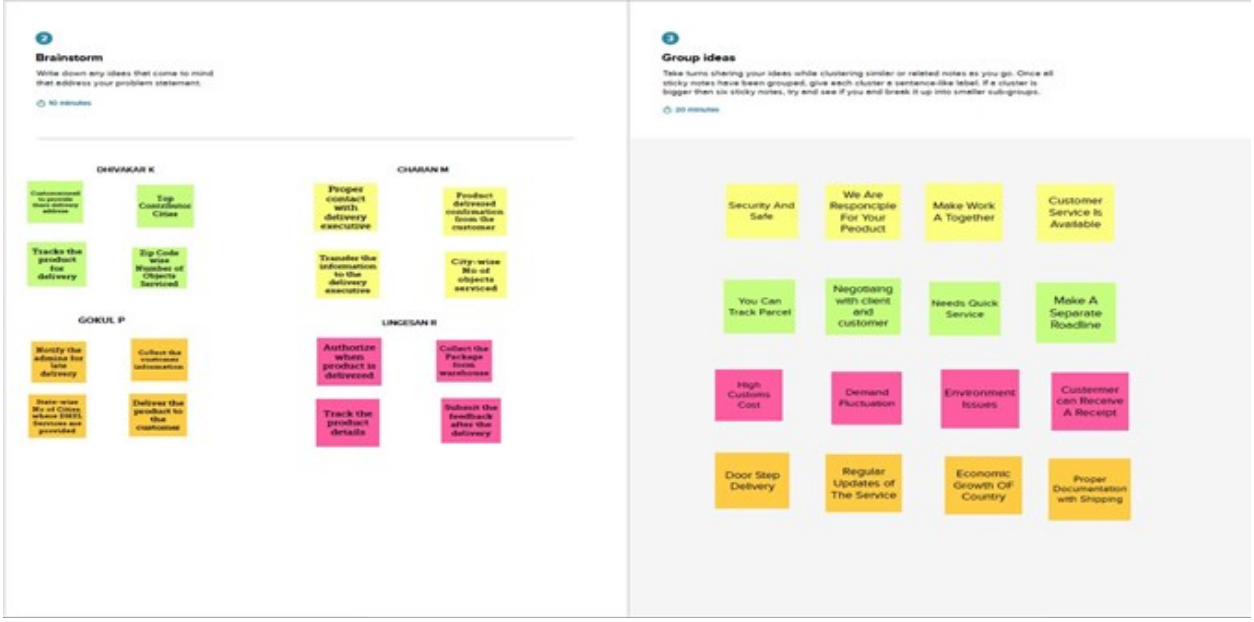

Figure 3.2.2 Brainstorm, Idea Listing and Grouping

Step 3: Idea Prioritization

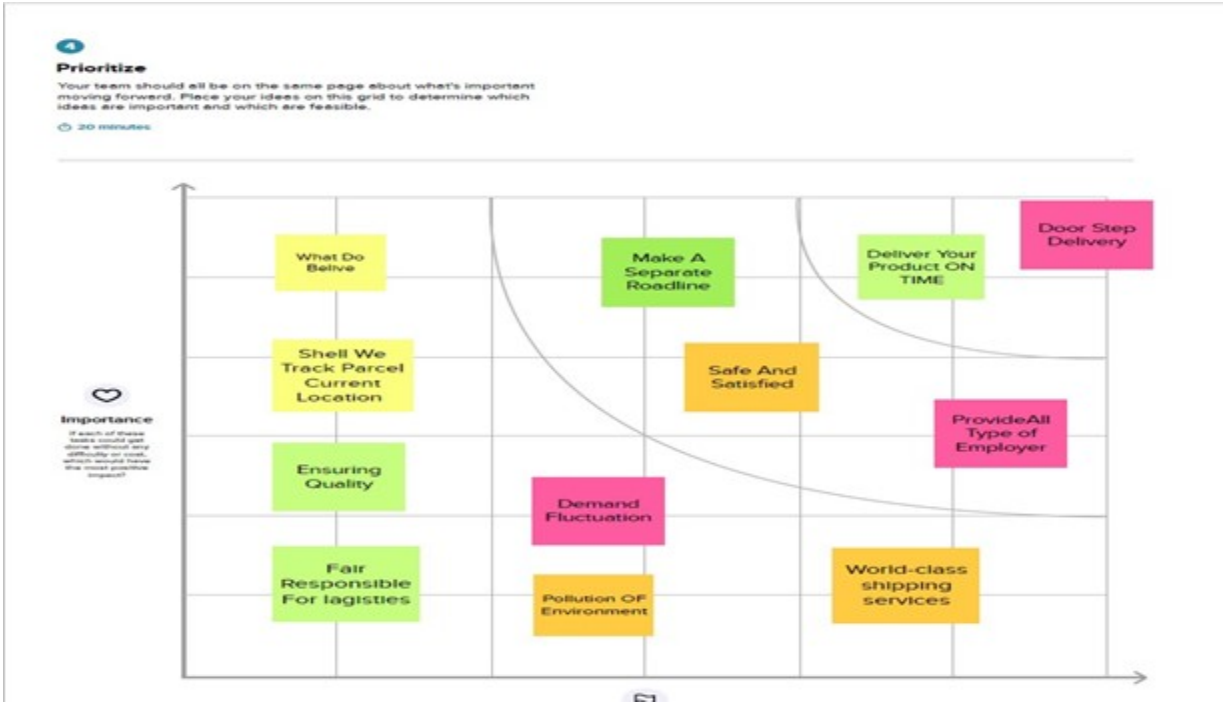

Figure3.2.3 Idea Prioritization

3.3 PROPOSED SOLUTION:

Project team shall fill the following information in proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Never before has logistics been as complicated as it is now. A company's profitability may be severely impacted by continually shifting dynamics brought about by the global nature of the supply chain. The enormous burden that the COVID pandemic placed on logistics made this clear. As a result, manufacturers, shippers, and retailers are using data analytics to better understand their processes and optimism them in order to be more prepared for unforeseen events. Data-driven businesses are growing their profit margins and customer

		satisfaction levels as a result.
2.	Idea / Solution description	New technology plays a vital part in improving operations, removing costs and improving customer service. With DHL you like technology advances and investments as we constantly review, evaluate and adopt new technological solutions. Augmented Reality , for instance, is already getting used to optimize warehouse processes, while a spread of automated guided vehicles and robots are being tested and assessed for future deployment.

3.	Novelty / Uniqueness	The specialist knowledge of your team has been the foundation for your company's success. By entrusting DHL with your logistics, you can concentrate on your core business rather than being side tracked by the requirements and complications of the global supply chain. DHL offers a wide range of ready-to-use solutions, technologies, and assets that would otherwise take a lot of time and money to implement, freeing up your cash to expand your business in other ways. Furthermore, outsourcing your logistics allows you the freedom to quickly scale up and down in response to new opportunities or issues with the least amount of risk.
4.	Social Impact / Customer Satisfaction	Customers want to understand when their items are delivered and whether a package's expected arrival date are later than expected. Customers are often happier as they get more knowledgeable. Real-time or nearly real-time status updates are now possible, and businesses that make it simple for purchasers to urge these logistics updates will enjoy higher customer satisfaction. Additionally, data can improve customer satisfaction in ways aside from just shipping monitoring.

5.	Business Model (Revenue Model)	1 – Broker model This is the most common way 3PL works, and the one most organizations are probably familiar with. In the broker model, a 3PL buys cargo space in bulk from carriers and resells the space to its own customers at a premium. Oversized, his 3PL can afford to purchase large amounts of cargo space without delay, and can take advantage of economies of scale to significantly reduce costs. Even with a premium, they're still dealing with less than most sole proprietors could die for outright. 2 – Profit sharing With a profit-sharing model , 3PL works directly with customers to reduce costs. 3– Fee model In the commission model , the 3PL "works" for the carrier and acts as an intermediary between the carrier and the buyer. From there, it works like some standard commission-based system.

3.4 PROBLEM – SOLUTION FIT :

The Problem-Solution Fit simply means that you have found a problem with your customer and thatthe solution you have realized for it actually solves the customer’s problem. It helps entrepreneurs, marketers and corporate innovators identify behavioral patterns and recognize what would work and why.

PURPOSE:

a. Solve complex problems in a way that fits the state of your customers.

b. Succeed faster and increase your solution adoption by tapping into existing mediums andchannels of behavior.

c. Sharpen your communication and marketing strategy with the right triggers and messaging.

d. Increase touch-points with your company by finding the right problem-behavior fit andbuilding trust by solving frequent annoyances, or urgent or costly problems.

e. Understand the existing situation in order to improve-it for your target group.

TEMPLATE:

Project Title: Data Analytics for DHL Logistics Facilities **Project Design Phase-I - Solution Fit Template**

Team ID: PNT2022TMID 01276

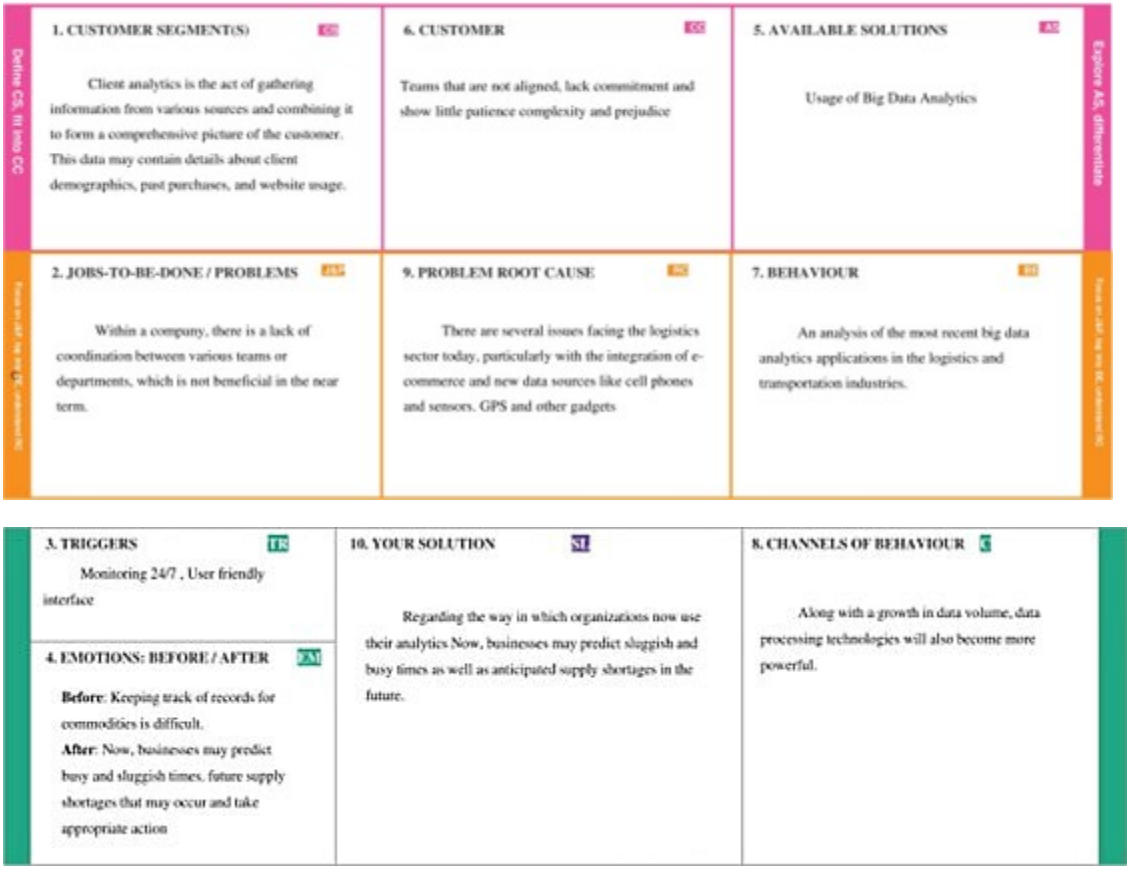

Figure 3.4.1 Problem Solution fit

4. REQUIREMENT ANALYSIS

4.1 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 any google account or social media accounts.
FR-2	**User Confirmation**	Confirmation via Email Confirmation via OTP
FR-3	**Dashboard**	The collected data are found in visualized format and the prior data are analyzed.
FR-4	**Dataset**	The DHL_Facilities record are collected andconsolidated as dataset
FR-5	**Report Generator**	The periodic reports of Logistics are reported
FR-6	**Exploration**	The data exploration on available dataset

4.2 NON-FUNCTIONAL REQUIREMENTS:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	No prior experience required to use the dashboard. People with basic understanding can use the system.
NFR-2	**Security**	Only registered user can use this application.
NFR-3	**Reliability**	The Analytics system ensures the reliability
NFR-4	**Performance**	Gets updated regularly to improve the performance of the application.
NFR-5	**Availability**	The availability of dataset must be constrained for accurate data
NFR-6	**Scalability**	Any kind of data can be explored and the system is quiet expandable

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.

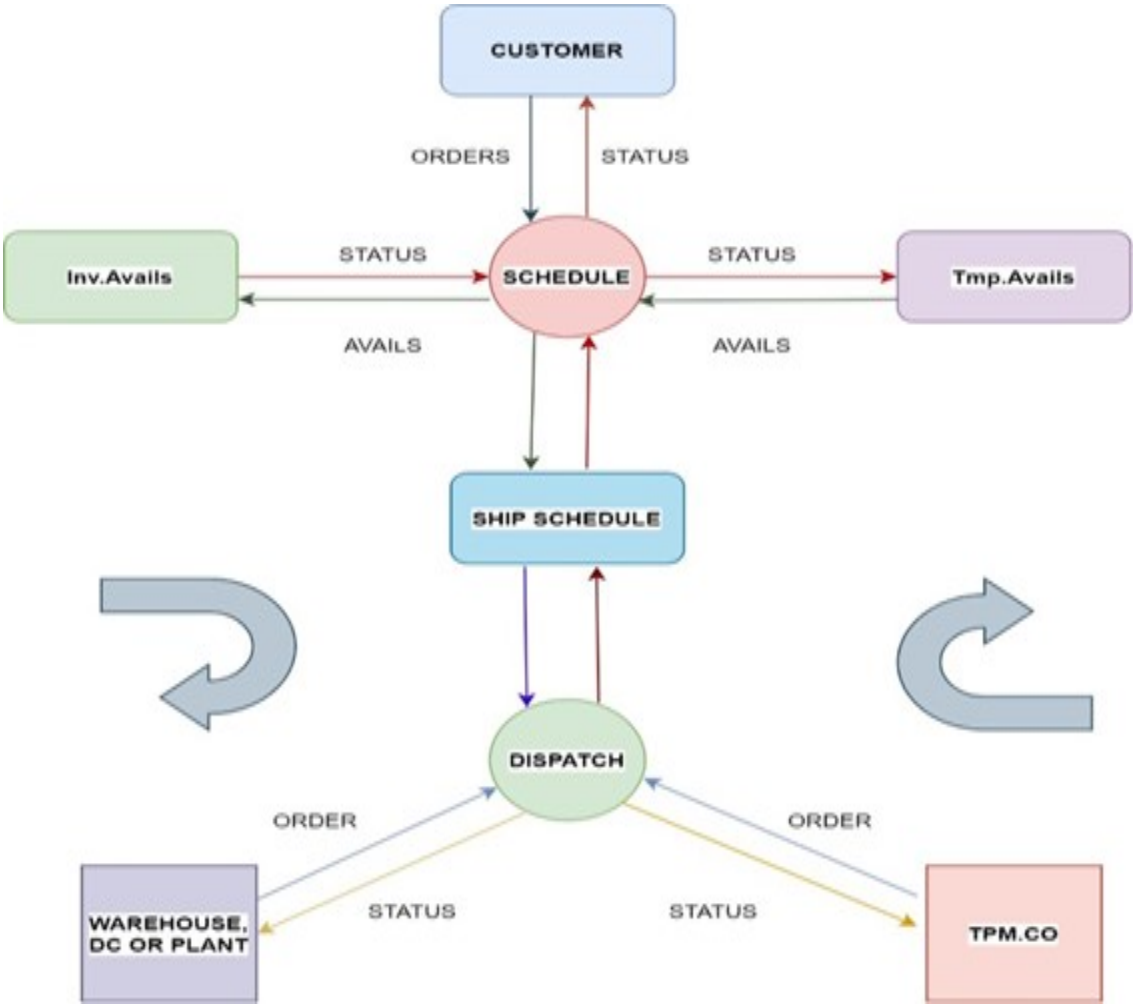

Figure 5.1.1 Data Flow Diagrams

5.2 SOLUTION & TECHNICAL ARCHITECTURE:

Solution architecture is a complex process – with many sub-processes – that bridgesthe 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 thesoftware to project stakeholders.
- Define features, development phases, and solution requirements.
- Provide specifications according to which the solution is defined, managed,and delivered.

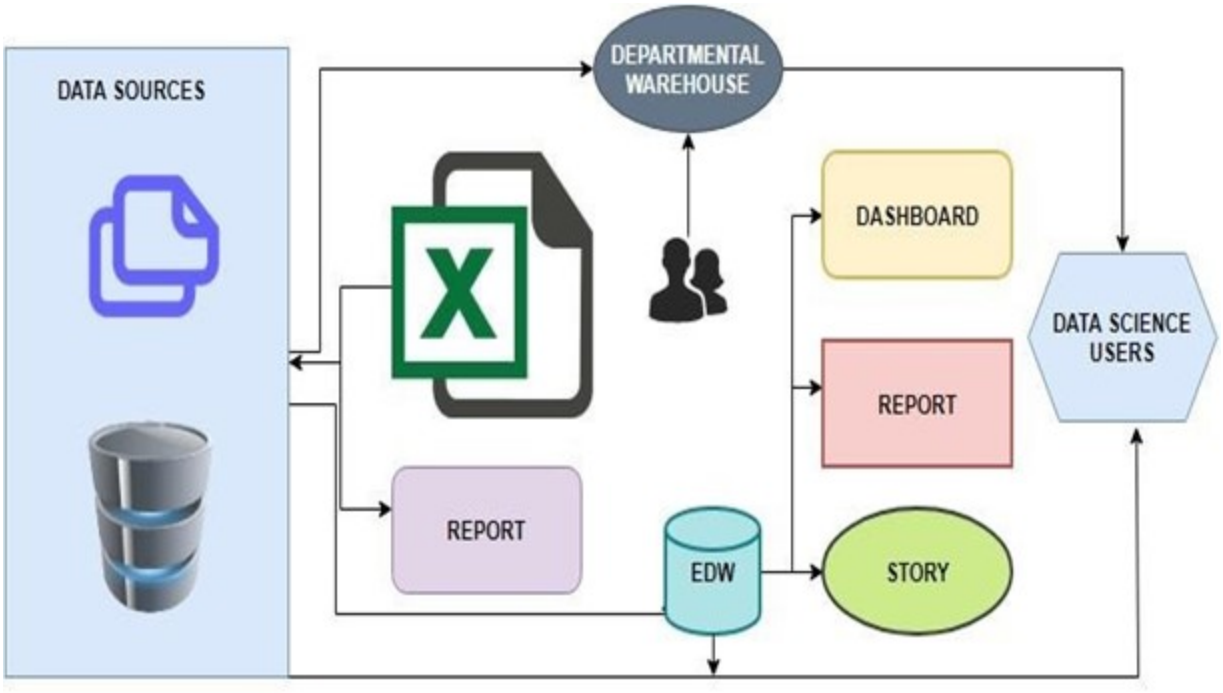

Figure 5.2.1 Solution Architecture

TECHNICAL ARCHITECTURE:

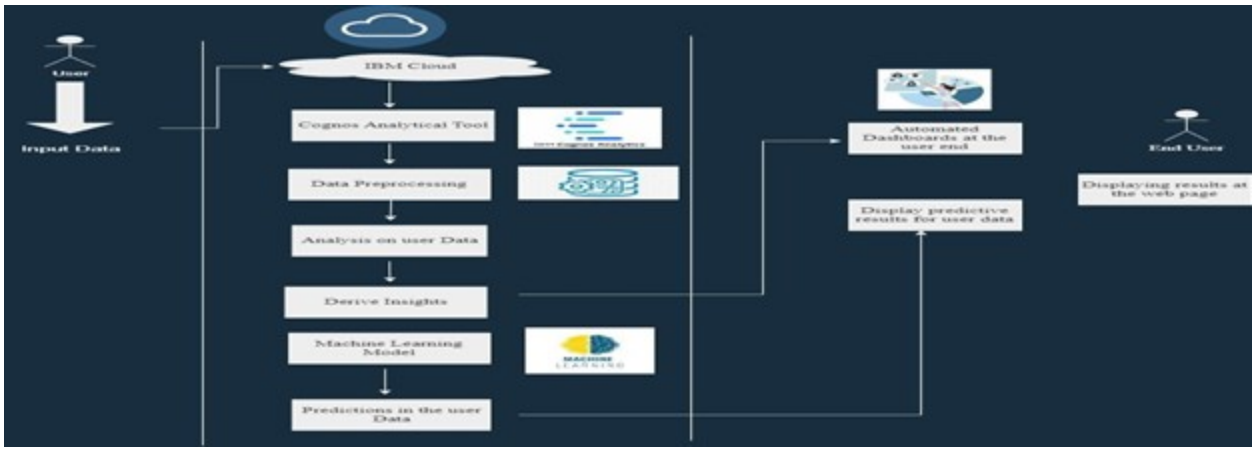

Figure 5.2.2 Technical Architecture

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS,JavaScript
2.	Application Logic-1	Logic for a process in the application	IBM Cloud
3.	Application Logic-2	Logic for a process in the application	IBM Diagnostically tool
4.	Application Logic-3	Logic for a process in the application	IBM Diagnostically tool
5.	Database	Data Type, Configurations etc.	MySQL
6.	Cloud Database	Database Service on Cloud	IBM DB2,IBM Cloud etc.
7.	File Storage	File storage requirements	IBM Block Storage or Other StorageService or Local File system
8.	External API-1	Purpose of External API used in the application	IBM Cognoscente.
9.	External API-2	Purpose of External API used in the application	Jupyter Notebook
10.	Machine Learning Model	Purpose of Machine Learning Model	Predictive analysis Model, etc.

11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / CloudLocalServer Configuration: Cloud Server Configuration :	Local, CloudFoundry

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Google
2.	Security Implementations	List all the security / access controls implemented,use of firewalls etc.	256-bit AES algorithm
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier,Micro-services)	IBM Cloud
4.	Availability	Justify the availability of application (e.g. use ofload balancers, distributed servers etc.)	IBM Cloud
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	IBM Cloud,Cog nos analytical tool

5.3 USER STORIES:

User Type	Functional Requirement (Epic)	User StoryNumber	User Story / Task	Acceptance criteria	Priority	Release
Customer	Registration	USN-1	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-1
		USN-2	As a user, I will receive confirmation email onceI 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 thedashboard withFacebook Login	Low	Sprint-2
		USN-4	As a user, I can register for the application through Gmail	I can register & access the dashboard with GmailLogin	Medium	Sprint-1
	Login	USN-5	As a user, I can log into the application by entering email & password	I can login into the application with Gmaillogin	High	Sprint-1
	Dashboard	USN-6	As a user I can use the methods provided in the Dashboard.	I can access the dashboard with various methods	High	Sprint-2
Customer Care Executive	Login	USN-7	As a Customer Care Executive, I can log into the application by entering my Executive email Id & password	I can login with my credentials	Medium	Sprint-1
	Service	USN-8	As a Customer Care Executive, I can answeruser's queries	I can give the solutions tothe user's queries	High	Sprint-3
Administrator	Login	USN-9	As an Administration, I can log into the application by entering my Administer emailId & password	I can login with my credentials	High	Sprint-1
	Access	USN-10	As an admin, I can make changes to the interface according the needs	I have a full access to the application	High	Sprint-3
Customer tools	Tools	USN-11	I can perform analysis by tools(Cognos andwith ML)	I have an ease of Accessing tools.	High	Sprint 1

6. PROJECT PLANNING & SCHEDULING

6.1 SPRINT PLANNING ,SCHEDULING & ESTIMATION:

Sprint	Functional Requirement(Epic)	User Story Number	User Story /Task	StoryPoints	Priority	Team Members
Sprint-1	Retrieve Data	USN-1	As a user , I should get clearer DHL logistics data report	10	High	Dhivakar K
Sprint-1	Visualize the data	USN-2	As a user , I need nicely to visualized dashboard of number of vehicles travelling to the same location in a week.	20	High	Dhivakar K
Sprint-2	Track of logistics	USN-3	Tracking a vehicle care over years of visit and Screening of data they have in logistics	10	Medium	Charon M
Sprint-3	Dashboard	USN-4	As a user, I want the interactive dashboardto analyze the data. Have the data in terms of graph.	20	Medium	Angelina R

Sprint-3	Detailed Logisticsreport of vehicles	USN-5	Provided greater details in the vehicles distance report of individual vehicles with clear idea of what to do.	10	High	Angelina R
Sprint-3	Story Creation	USN-6	As a user , I need the story animation of data set with insights.	20	Medium	Angelina R
Sprint-4	Predict Efficiency ofTransportation	USN-7	As a user , I want the flawless system to predict the distance travelled by each vehicle	20	High	Gokul P
Sprint-4	Using ML algorithmfor prediction	USN-8	As a user , I need prior knowledge of transportation efficiency to aid in logistics such faster delivery and safer transportation with minimum span of time.	20	High	Gokul P

6.3 REPORTS FROM JIRA:

Sprint	**Total Story Points**	**Duration**	**Sprint Start Date**	**Sprint End Date(Planned)**	**Story Points Completed (as on Planned EndDate)**	**Sprint Release Date (Actual)**
Sprint-1	20	7 Days	22 Oct 2022	28 Oct 2022	20	
Sprint-2	20	8 Days	29 Oct 2022	05 Nov 2022	20	
Sprint-3	20	3 Days	06 Nov 2022	08 Nov 2022	20	
Sprint-4	20	4 Days	09 Nov 2022	12 Nov 2022	20	

Burndown Chart:

AV = Sprint duration/ Velocity = 20/10 =2

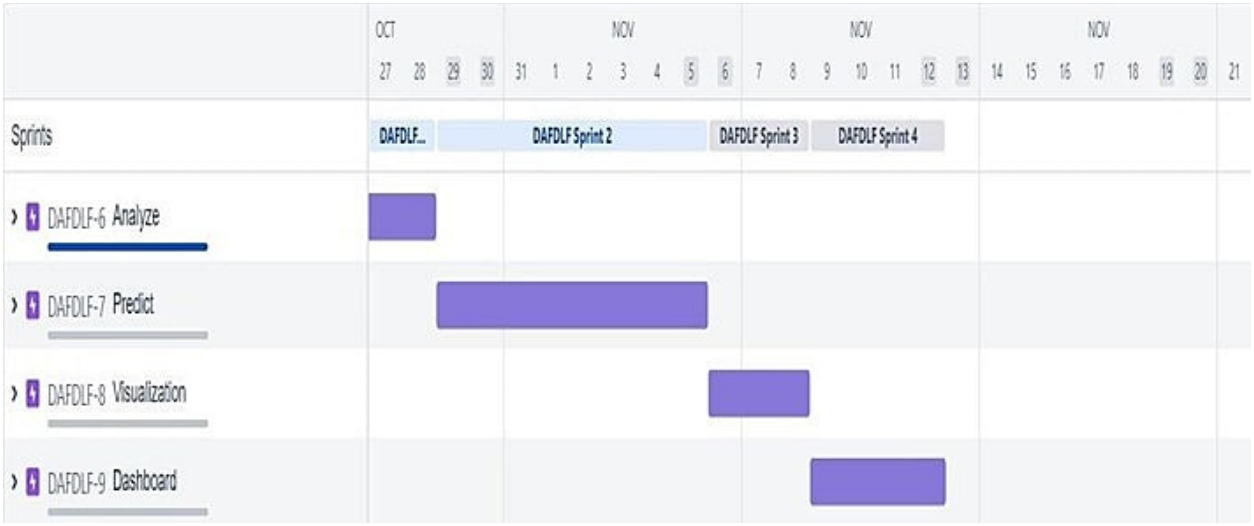

Figure 6.3.1 BurnDownChart

7. CODING & SOLUTIONING

7.1 FEATURE 1:

Web page.html:

```
<html>
<head>
<title>Data Analytics for DHL Logistics Facilities
</title>
<style>
body {
  background-image: url("./dhl1.jpeg");
  background-size: cover;
}

.mainContainer{
  display: flex;
  justify-content: center;
  align-items: center;
  flex-direction: column;
}
.images{
  display: flex;
  justify-content: space-around;
 position: relative;
 top: 50px;
```

```
}
.by{
  color: #ffff;
  font-size: 30px;
  display: flex;
  justify-content: space-around;
  position: relative;
  top: 140px;
}
.team_members {
  color: rgb(255, 255, 0);
  font-size: 30px;
  display: flex;
  justify-content: space-around;
  position: relative;
  top: 130px;
}

.team_members p{
  text-transform: uppercase;
  letter-spacing: 0.2px;
}
.laptop_text{
  display: none;
}
```

```
@media screen and (max-width:1023px) {
  .body{
   display: none;
  }
  .laptop_text{
    display: block;
    font-size: 75px;
    position: absolute;
    top: 50%;
    color: #ffff;
  }
}
</style>
</head>
<body>
  <div class="body">
  <div class="mainContainer">
    <b><h1 style="font-size:30px;color: white;">WELCOME TO</h1></b>
    <b><h1 style="font-size:45px;color:white">DATA ANALYTICS FOR DHL LOGISTICS FACILITIES</h1></b>
  </div>
  <div class="images">
  <a href="./routing/dashboard.html" target="_blank"><img src="./dashboard.jpeg" width="200px" height="200px"></a>
  <a href="./routing/report.html" target="_blank"><img src="./report.jpg" width="200px" height="200px"></a>
  <a href="./routing/story.html" target="_blank"><img src="./story.jpeg" width="200px"
```

```
height="200px"></a>
</div>
<p class="by">BY</p>
<div class="team_members">
  <p>K . Dhivakar</p>
  <p>M . Charan</p>
  <p>P . Gokul</p>
  <p>R . Lingesan</p>
</div>
</div>
    <p class="laptop_text">The Content is only visible on laptop</p>
</body>
</html>
```

7.2 FEATURE 2:

Dashboard.html:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Dashboard</title>
</head>
<style>
```

```
body {
  background-image: url("../dhl1.jpeg");
  background-size: cover;
}

.mainContainer{
  display: flex;
  justify-content: center;
  align-items: center;
  flex-direction: column;
}

.dashboard{
    display: flex;
    justify-content: center;
    align-items: center;
    position: relative;
    top: 50px;
</style>
</head>
<body>
  <div class="mainContainer">
    <b><h1 style="font-size:40px;color:white">DASHBOARD</h1></b>
</div>
```

```
    <div class="dashboard">
      <iframe
src="https://us3.ca.analytics.ibm.com/bi/?perspective=dashboard&amp;pathRef=.my_folders%2FProject%2BDashboard&amp;closeWindowOnLastView=true&amp;ui_appbar=false&amp;ui_navbar=false&amp;shareMode=embedded&amp;action=view&amp;mode=dashboard"
width="900" height="500" frameborder="0" gesture="media" allow="encrypted-media"
allowfullscreen=""></iframe>
    </div>
  </body>
</html>
```

Report.html:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Report</title>
</head>
<style>
  body {
    background-image: url("../dhl1.jpeg");
    background-size: cover;
  }

  .mainContainer{
```

```
    display: flex;
    justify-content: center;
    align-items: center;
    flex-direction: column;
  }

  .report{
     display: flex;
     justify-content: center;
     align-items: center;
     position: relative;
     top: 50px;
     flex-wrap: wrap;
     flex-direction: column;

  }
  </style>
  </head>
  <body>
    <div class="mainContainer">
      <b><h1 style="font-size:40px;color:white">REPORT</h1></b>
  </div>

    <div class="report">
      <iframe
src="https://us3.ca.analytics.ibm.com/bi/?pathRef=.my_folders%2Freport%2Bproj1&amp;close
```

WindowOnLastView=true&ui_appbar=false&ui_navbar=false&shareMode=embedded" width="900" height="550" frameborder="0" gesture="media" allow="encrypted-media" allowfullscreen=""></iframe>

<iframe src="https://us3.ca.analytics.ibm.com/bi/?pathRef=.my_folders%2FReport2&closeWindowOnLastView=true&ui_appbar=false&ui_navbar=false&shareMode=embedded" width="900" height="550" frameborder="0" gesture="media" allow="encrypted-media" allowfullscreen=""></iframe>

<iframe src="https://us3.ca.analytics.ibm.com/bi/?pathRef=.my_folders%2FReport3&closeWindowOnLastView=true&ui_appbar=false&ui_navbar=false&shareMode=embedded" width="900" height="550" frameborder="0" gesture="media" allow="encrypted-media" allowfullscreen=""></iframe>

<iframe src="https://us3.ca.analytics.ibm.com/bi/?pathRef=.my_folders%2FReport4&closeWindowOnLastView=true&ui_appbar=false&ui_navbar=false&shareMode=embedded" width="900" height="550" frameborder="0" gesture="media" allow="encrypted-media" allowfullscreen=""></iframe>

</body>

</html>

STORY.HTML:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
```

```
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Story</title>
</head>
<style>
    body {
      background-image: url("../dhl1.jpeg");
      background-size: cover;
    }

    .mainContainer{
      display: flex;
      justify-content: center;
      align-items: center;
      flex-direction: column;
    }

    .story{
        display: flex;
        justify-content: center;
        align-items: center;
        position: relative;
        top: 50px;
    }
```

```
</style>
</head>
<body>
  <div class="mainContainer">
    <b><h1 style="font-size:40px;color:white">STORY</h1></b>
</div>

  <div class="story">
    <iframe
src="https://us3.ca.analytics.ibm.com/bi/?perspective=story&amp;pathRef=.my_folders%2FFinal%2BProject%2BStory&amp;closeWindowOnLastView=true&amp;ui_appbar=false&amp;ui_navbar=false&amp;shareMode=embedded&amp;action=view&amp;mode=dashboard"
width="900" height="500" frameborder="0" gesture="media" allow="encrypted-media"
allowfullscreen=""></iframe>
</div>

</body>
</html>
```

8. TESTING

8.1 UNIT TESTING:

It is the process of splitting up the entire program into sub-modules and test the sub-modules individually to check whether it is working or not.

The HTML file for the web app has been tested and it is working without any complications.

```
<html>

<head>

<title>Data Analytics for DHL Logistics Facilities

</title>

<style>

body {

  background-image: url("./dhl1.jpeg");

  background-size: cover;

}

 .mainContainer{

      display: flex;

      justify-content: center;

      align-items: center;

      flex-direction: column;

    }

</style>

</head>

<body>

  <div class="body">

  <div class="mainContainer">

    <b><h1 style="font-size:30px;color: white;">WELCOME TO</h1></b>

    <b><h1 style="font-size:45px;color:white">DATA ANALYTICS FOR DHL LOGISTICS
```

FACILITIES</h1>

<img src="./dashboard.jpeg" width="200px" height="200px">

<img src="./report.jpg" width="200px" height="200px">

<img src="./story.jpeg" width="200px" height="200px">

Screenshots:

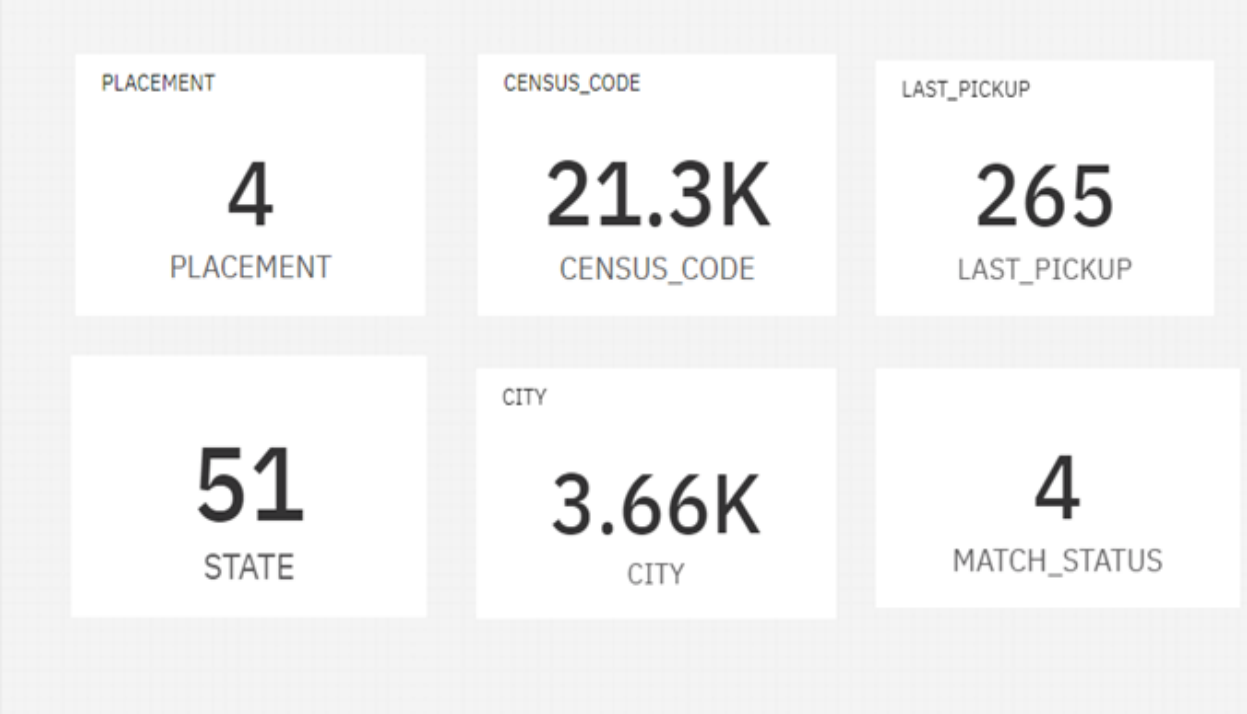

Figure 8.1.1 DashBoard Creation

8.2 INTEGRATION TESTING:

It is the process in which after integrating all the modules as a whole one and make sure that the connected modules are working properly without any errors.

Figure 8.1.2 Report Creation

Figure 8.1.3 Story Creation

9. RESULTS

9.1 PERFORMANCE METRICS:

DHL Delivery Services strives to provide tailor-made logistics solutions worldwide. segment. It consists of a complete perspective consistently shaped by the manufacturer For in-house retailers and consumers. In addition, it allows customers to reach Excellent operation at every step. The company has two main supply chains Company. The first business is contract logistics, including ground services. Management of warehousing, sales, etc. DHL Second Level Operations The supply chain includes ocean-going cargo management and forwarding. Apparently, The design of the delivery service is intended to provide advice and network systems. Formulation of a global procurement strategy: Formulation of global procurement strategy Another administrative process that takes place in shipping services. at this point, Firms should seek centres of excellence and Strategic management in legal and marketing matters. In addition, the activities at this stage are We aim not only to create added value for the company, but also to reduce costs. The DHL supply chain applies technological methods such as DHL's robotic automation processes. Internet of Things (IoT), a unique end-to-end visualization solution for service improvement shopping department. DHL hires bespectacled employees already equipped with scanners Save time sorting and processing your shipments.

Output :

Figure 9.1.1 Welcome Page

Figure9.1.2 DashBoard Page

Figure9.1.3 Report Creation

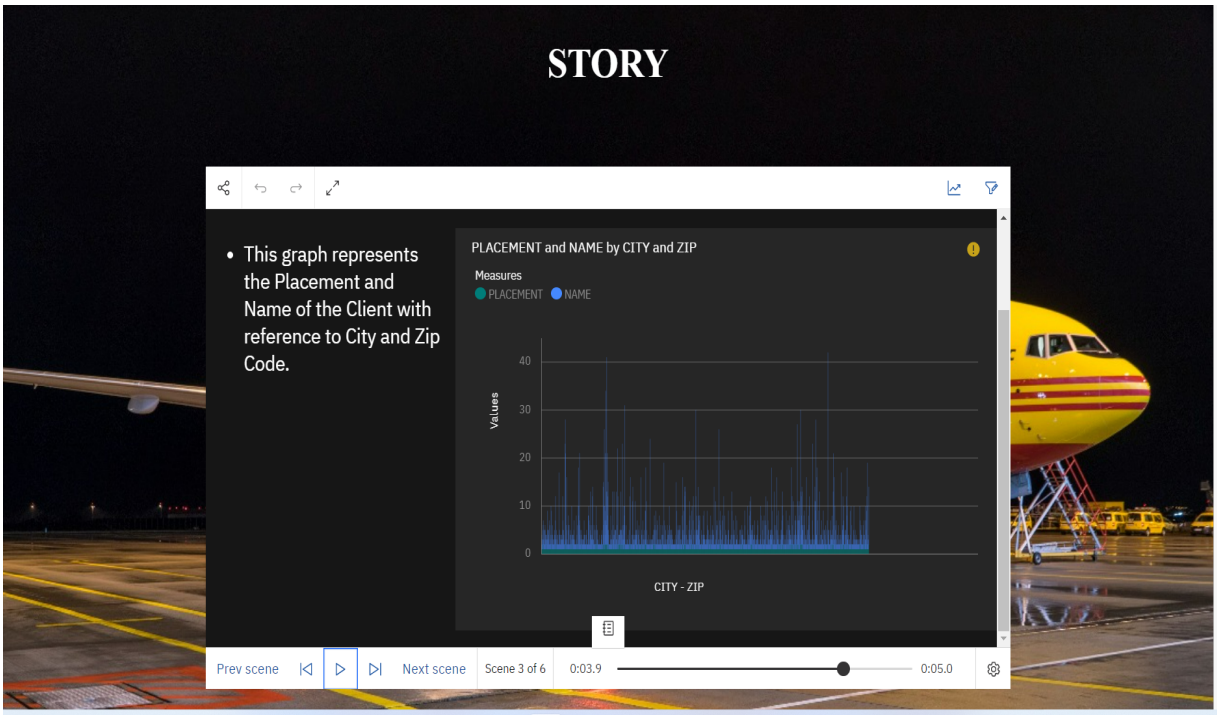

Figure 9.1.4 Story Creation

10. ADVANTAGES &DISADVANTAGE

ADVANTAGES:

- Strong Brand Name
- Good Freight Forwarding
- Strong Networking
- Good Time Manager

DISADVANTAGES:

- Their Valuation And Claim Process Is Vague And Not Properly Disclosed
- More Expensive
- Lack In High Technology

11. CONCLUSION

DHL provides end-to-end logistics solutions for individuals and small businesses Company. We have various strategic business units operating in the Freight and Utilities sector Chain solutions, warehousing and distribution services. The company's success deserves special mention attributed to its mission and ability to maintain strategy. The basic strategy you have Allowing DHL to expand across borders while gaining popularity Customers include the ability to provide superior service and multi-store applications Technique. Mergers and acquisitions are one of the company's go-to-market strategies. We have seen DHL grow from one stage of its global expansion to the next. To determine other techniques If it was used by DHL, further qualitative research should be done. Or The research follows a systematic process that includes the use of questionnaires and reviews of available literature. Some research shows that much of DHL's success stems from his one company. The result of a well-rehearsed team of employees. In addition, the business is offered in segments Customized service for customers. A global procurement strategy was also developed for this purpose Allowing the company to take on more mature roles. Despite its success, DHL International may take note of the customers’ unmet needs to realize further growth.

12. FUTURE SCOPE

The future scope of data analytics in India is high for several reasons. Careers in business analytics are rewarding and offer a wide range of personal and professional development opportunities. Understanding statistical approaches, math skills, business literacy, reasoning, and big data are just some of the innate talents needed to become a data analytics expert. The ability to analyze business situations and develop creative solutions is also required.

In India, the widespread use of big data will ensure high employment levels, better wages and increased demand in the future. Analytics has the potential to transform the current business landscape by gathering massive amounts of data, expanding business models, stimulating creative processes, and driving overall company growth and development. increase. It confirms why the future scope of data analytics in India is a great career opportunity.

13.APPENDIX

Github &project Demo Link

Github Link : https://github.com/IBM-EPBL/IBM-Project-7051-1658846246

Final Deliverables : https://github.com/IBM-EPBL/IBM-Project-7051-1658846246/tree/main/Final%20Deliverables/Final%20Code/project

Clipchamp Video Link : https://clipchamp.com/watch/OLCdvzgrLCw

Youtube Video Link : https://youtu.be/YYmvYPWXPKo

Project Drive Link :https://drive.google.com/drive/folders/17_hiy5t8v4aYHKa6OpFQYVep64tHmjpm