AIRLINES DATA ANALYTICS IN AVIATION INDUSTRY

NALAIYA THIRAN PROJECT BASED LEARNING ON PROFESSIONAL READLINESS FOR INNOVATION, EMPLOYNMENT AND ENTERPRENEURSHIP

A PROJECT REPORT

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TABLE OF CONTENTS

AIRLINE DATA ANALYTICS FOR AVAITION INDUSTRY

1.INTRODUCTION

1.1Project Overview :

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

1.2 PURPOSE

To provide better Airline and Airport services and to avoid delays in Air Travel across diffident locations at Municipality level. The aim is to provide airports, airlines, and the travelling public with a neutral, third-party view of which airlines are delivering on their promise to get passengers from Point A to Point B on-time.

2.LITERATURE SURVEY :

2.1 Existing problem :

The airport codes may refer to either the IATA airport code, a three-letter code that is used in passenger reservation, ticketing and baggage-handling systems, or the ICAO airport code which is a four-letter code used by ATC systems and for airports that do not have an IATA airport code.

2.2 References :

1.Data Science And Analytics In Aviation(2020): Authors:Sai-Ho-Chung,Hoi-Lam-ma

2.Data Analytics for Air Travel Data(2021): Authors:Haiman Tian,Yudong Tao

3. Topological Data Analysis For Aviation Applications(2018): Authors: Max Z. Li,Megan S. Ryerson and Hamsa Balakrishnan

4. Operational efficiency Versus Financial Mobility In The Global Airline Industry(2015):Author:Hoi-Lam-ma

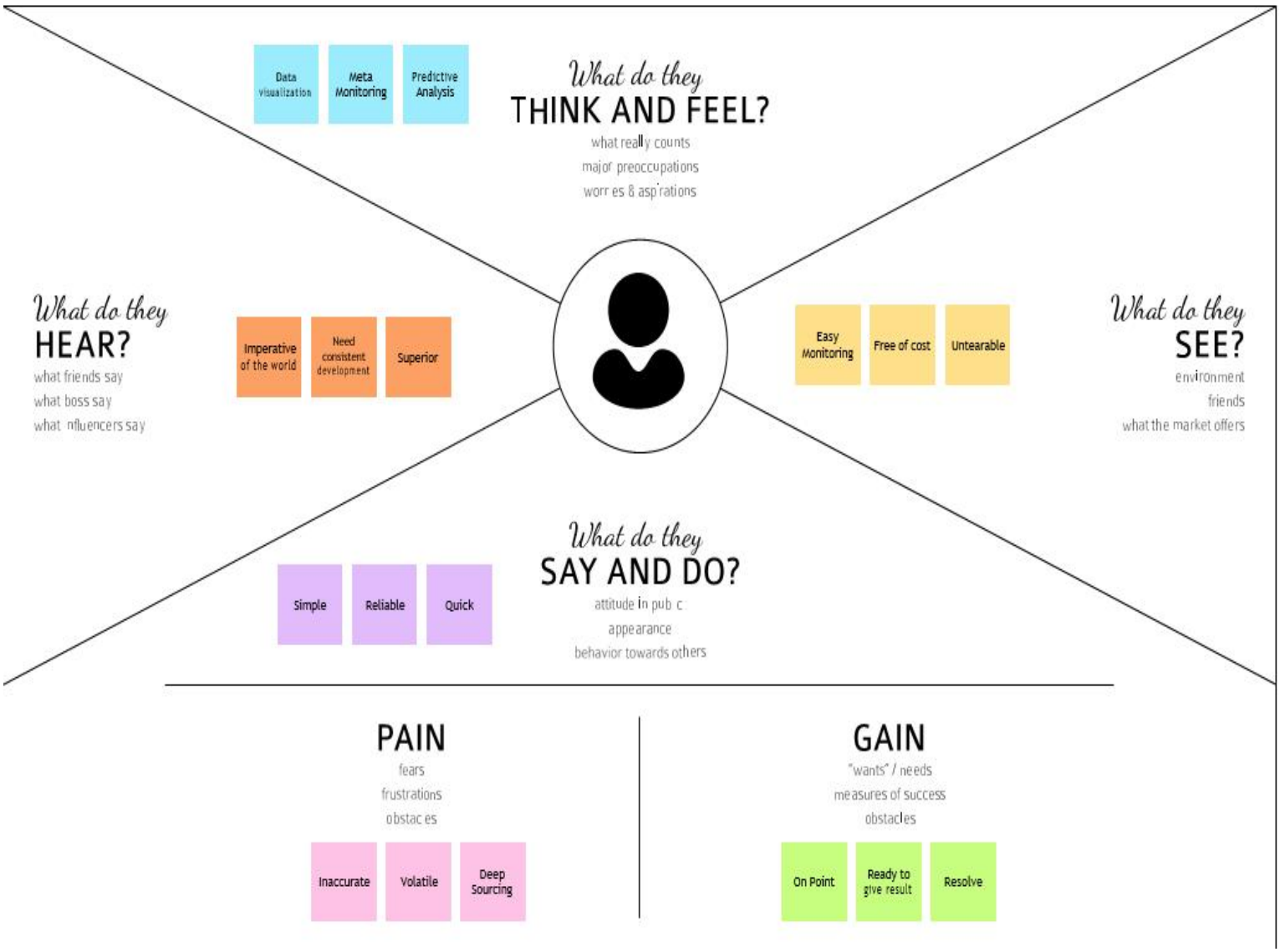
5. An Evaluation Of The Operational Performance And Profitability Of The U.S.Airlines(2021): Author:Emilio Collar

2.3 Problem Statement Definition :

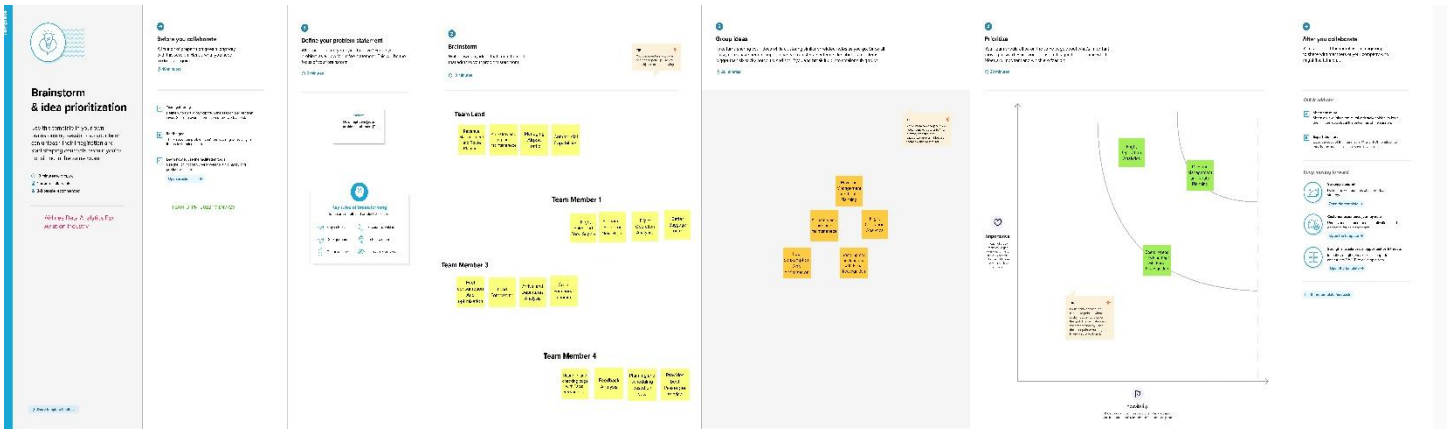
To identify and manage many people traveling this summer, they are noticing first –hand that airlines are facing major challenges, including numerous flight cancellations and delays.

3.IDEATION & PROPOSED SOLUTION :

3.1Empathy Map Canvas:


Data visualization
Meta Monitoring
Predictive Analysis
What do they
THINK AND FEEL?
what really counts
major preoccupations
worries & aspirations
What do they
HEAR?
what friends say
what boss say
what influencers say
Imperative of the world
Need consistent development
Superior
Easy Monitoring
Free of cost
Untearable
What do they
SEE?
environment
friends
what the market offers
Simple
Reliable
Quick
What do they
SAY AND DO?
attitude in public
appearance
behavior towards others
PAIN
fears
frustrations
obstacles
Inaccurate
Volatile
Deep Sourcing
GAIN
"wants" / needs
measures of success
obstacles
On Point
Ready to give result
Resolve

3.1 Brainstorming



3.2 Problem Statement

- Analyze passenger traffic and analyze their travelling

- Analyze and help in maintaining the services of the aeroplane

- Provides broad opportunities for airspace management, enhancing flexibility in dealing with each passenger, boostingproblem solving, supporting decision, providing safe flights.

- Flight delay for a specific period of time caused due to climate, security, carrier, NAS, Arrival and Departure can be over comed

1. PROJECT DESIGN PHASE 1

4.1 Proposed Solution

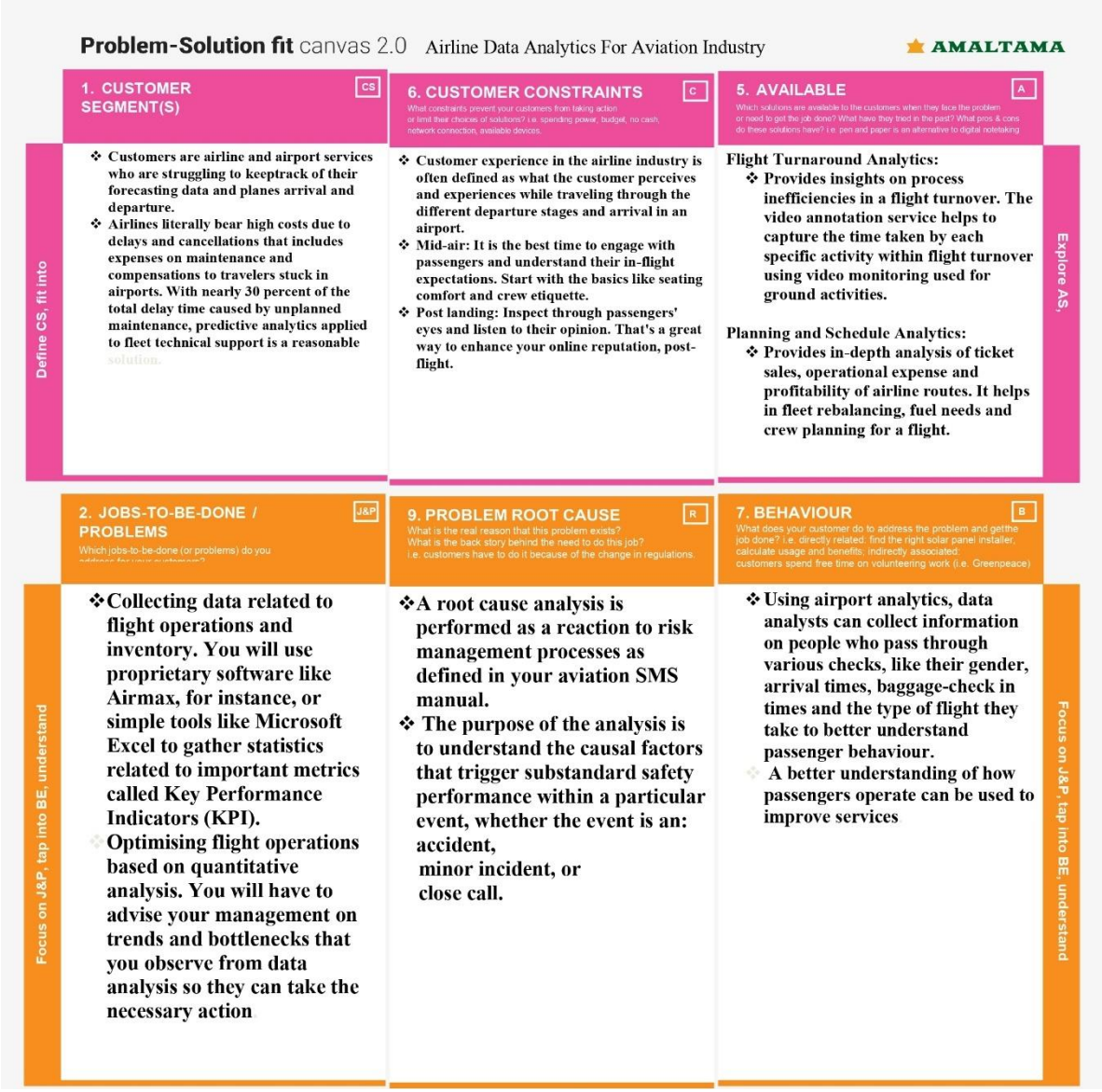
Proposed Solution Template:

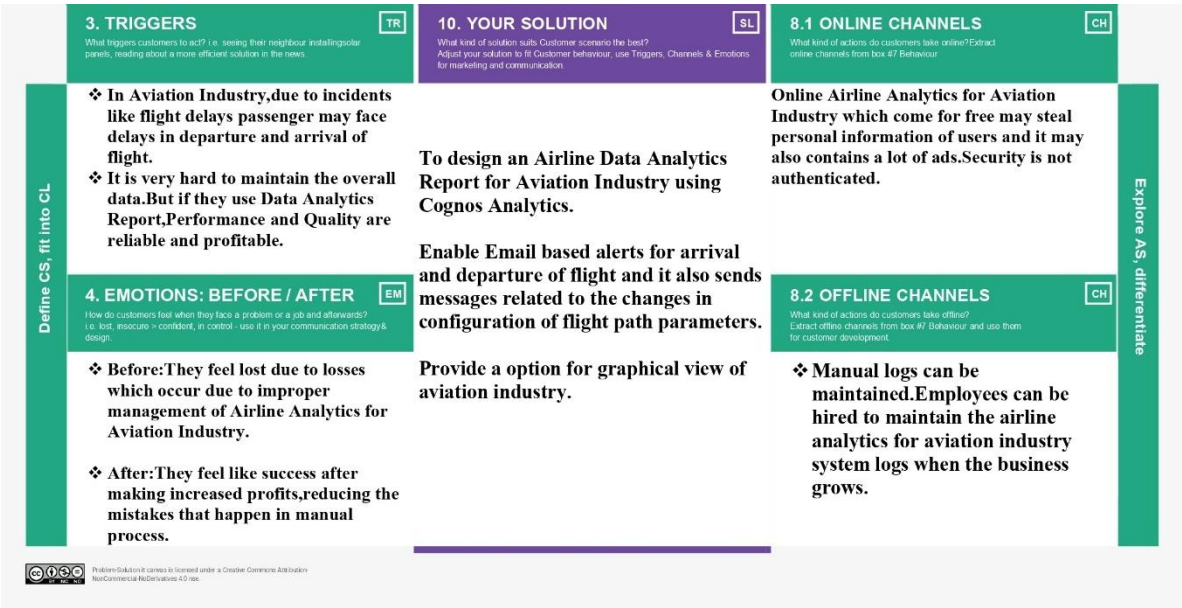
Project team shall fill the following information in proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	With the growing demand for air transportation and the limited ability to increase capacity at some key points in the air transportation system, there are concerns that in the future the system will not scale to meet demand. This situation will result in the generation and the propagation of delays throughout the system, impacting passengers' quality of travel and more broadly the economy.
2.	Idea / Solution description	• Understanding traveler demand for specific city pairs and pricing flights can be done using data analytics project. • Airlines use this biometric technology as a boarding option. The equipment scans travelers' faces and matches with photos stored in border control agency databases. These can be handled with the aforementioned project.
3.	Novelty / Uniqueness	• The ultimate benefits of big data analytics include timely responses to current and future market demands, improved planning and strategically aligned decision making, as well as crystal clear comprehension and monitoring of all main performance drivers relevant to the airline

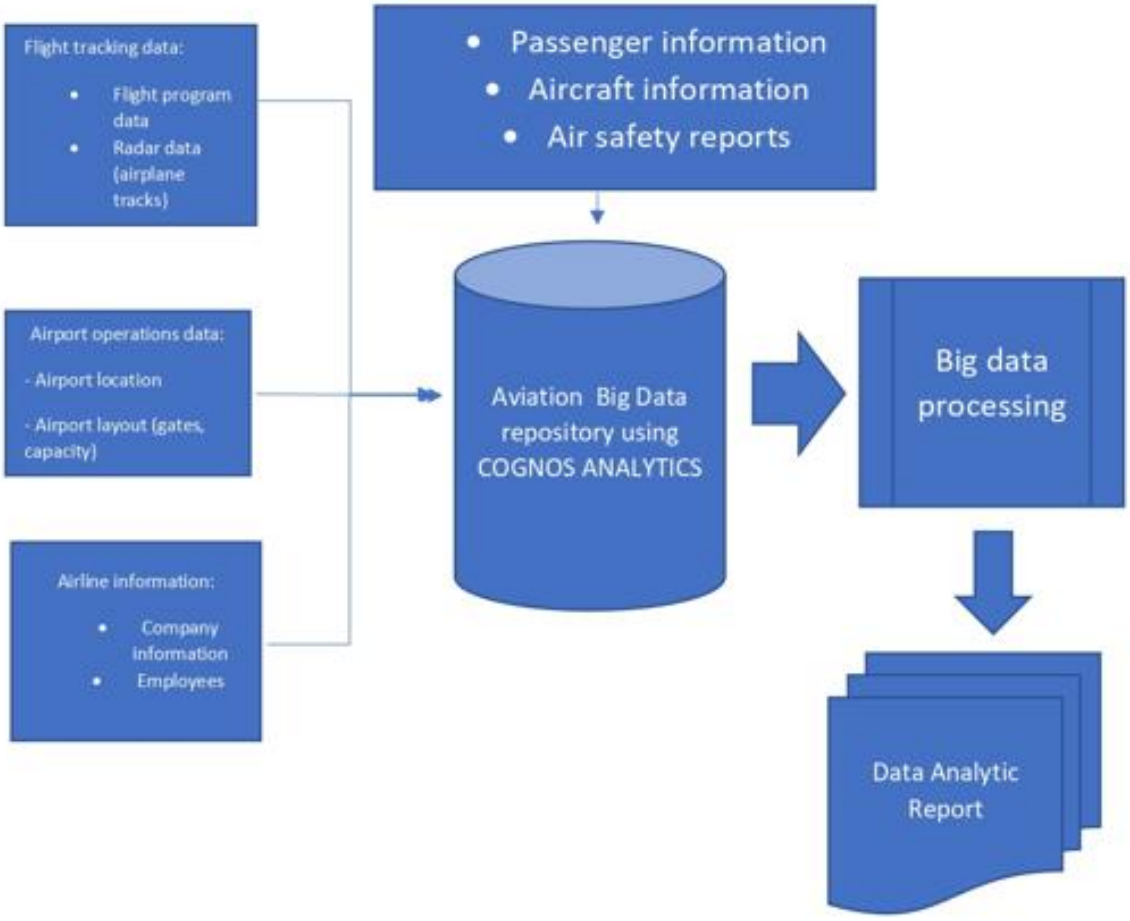
		industry. • Due to the use of smartdata analytics, passengers will avoid many issues with baggage tracking. While radio- frequency identification prevents mishandling the baggage, predictive analysis assists in improving the predictability of fleet reliability
5.	Business Model (Revenue Model)	• Business models innovation in airlines can contribute to the creation of value, competitive advantage and profitabilitywith new possibilities of action. • A revenue model is a blueprint that shows how a startup business will earn revenue or gross income from its standard business operations, and how it will pay for operating costs and expenses.
6.	Scalability of the Solution	• The Cloud Cognos Analytics is not only for particular organization/governments. • Aviation industryacting under international, domestic or private are also getting satisfied with the aviation

4.2 Problem Solution Fit





4.3 Solution Architecture


Flight tracking data:
Flight program data
Radar data (airplane tracks)
Airport operations data:
- Airport location
- Airport layout (gates, capacity)
Airline information:
Company information
Employees
Passenger information
Aircraft information
Air safety reports
Aviation Big Data repository using COGNOS ANALYTICS
Big data processing
Data Analytic Report

2. PROJECT DESIGN PHASE 2

5.1 Customer Journey Map

Customer journey mapping is ‘’the process of tracking and describing all the experiences customers have as they encounter a service or set of services, taking into account not only what happens to them, but also their responses to these experiences’’ (Dent, 2015). As stated in Eva Manrique’s blog: (2016) ‘’when airlines adopt the customer journey mapping strategy, it helps them to clarify what each individual customer expects at each touchpoint and which fitting service or product the airline could provide in order to fulfil these expectations.’’

The customer journey map is divided into various phases as the customer has various different options in regards to approaching the airline, these phases include the three communication arena’s: physical, digital and social.

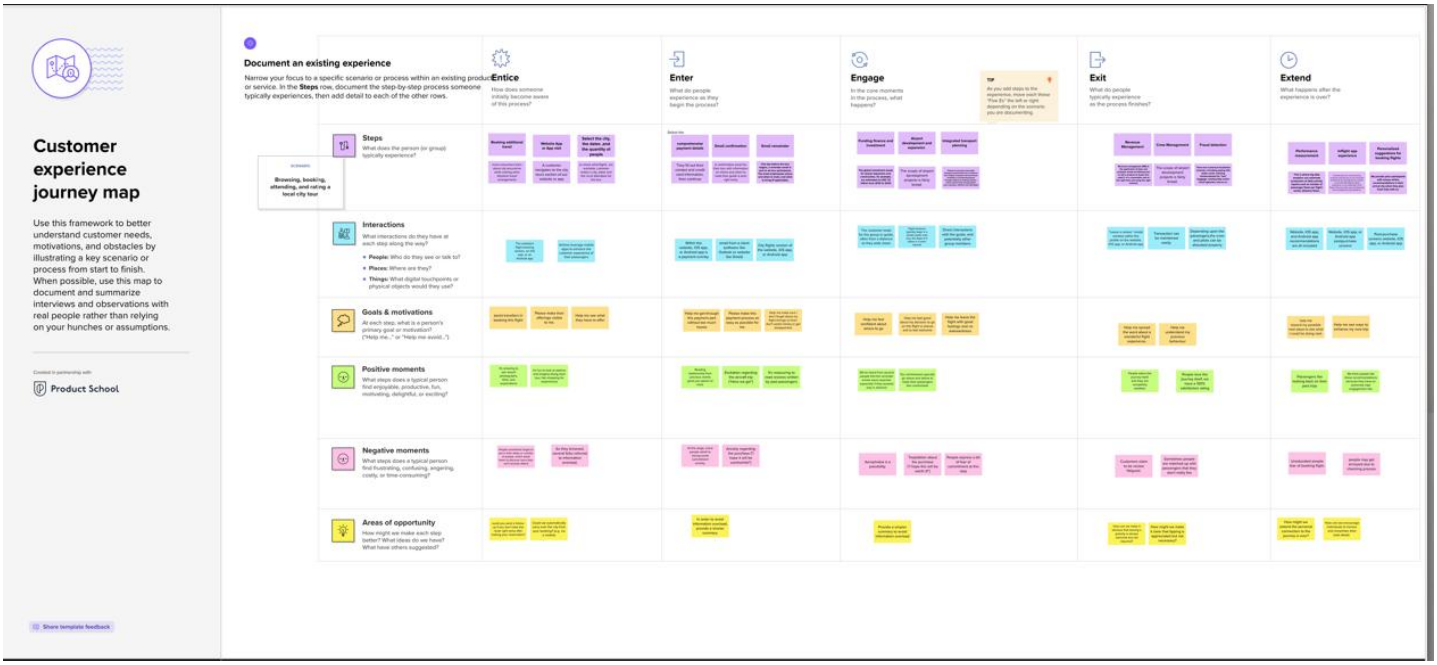
• Phase 1: attract: the customer recognizes the airline for (potentially) the first time, via tools such as social media but also through discount offers posted on the website or social media. So, this stage takes place in both the digital as the social arena.

• Phase 2: decide: the customer decides whether or not to purchase the flight ticket on digitally or via the phone with a call-centre employee / through a physical store that offers the airline's tickets. Furthermore, the customer is getting familiar with the airline by purchasing the ticket, which leads to an increase of flows to the social media accounts of the airline.

• Phase 3: use: happens when the customer will actually experience the flight that was purchased with the airline. As the customer receives the boarding pass through email communication, the flight information as well as maps will be provided to the customer in order to prepare for the trip, which can be saved in a digital wallet. Other additionalresources, such as gate information and travel guides are provided to the customer either through email, social media or actual mail.

• Phase 4: support, as it is crucial for an airline to maintain contact with the customer before, during as well as after the flight. It is inevitable that things could go wrong during the flight which is why it is important that airlines show their support to the customer through either the digital and/or social arena.

• Phase 5: retain: airlines need to be able to retain customers, especially frequent flyers. Airlines can implement this by letting customers manage their own bookings on the website as well as offering discounts to returning customers as this makes the customer feel valued, which broadens the chances of customers repurchasing with the airline



5.2 Solution Requirements

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	Customers can register using their Gmail account
FR-2	User Confirmation	The consumer will receive mail confirmation followingregistration
FR-3	Visualization of data	Using IBM cognos Analytics, a user can see the regulartrends in flight delay.
FR-4	Generation of report	Viewing the flight delay report is possible

Non-functional Requirements:

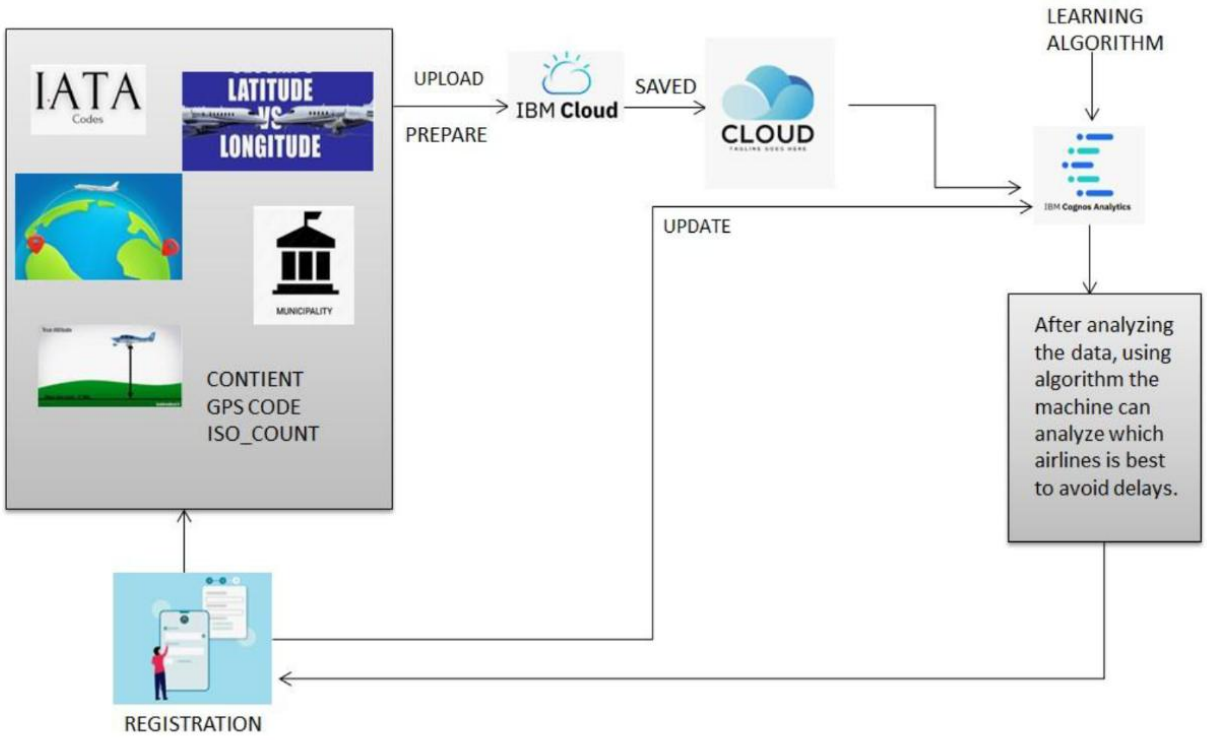
Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	The programme will have an easy-to-use graphical user interface. All the elements of the application would be simple for users to comprehend and utilize. Any activity must be carried out in a matter of clicks.
NFR-2	**Security**	Since user accounts are the main target of securityconcerns, adequate login procedures should be followed to prevent hacking. The system should not make public user personal information or other organization information.

NFR-3	**Reliability**	The system should save all user processes made upto the point of abnormal occurrences when it disconnects or freezes as a result of excessive simultaneous access.
NFR-4	**Performance**	The system need to require some speed, especially when navigating the catalogue.
NFR-5	**Availability**	The system must be accessible every day of the week,24 hours a day. Access is available at any time.

5.3 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.



Use Case:

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	3	High	SHIYAMGANESH M

			entering my email, password, and confirming my password.			
Sprint-1	Registration	USN-2	As a user, I will receive confirmation email once I have registered for the application	3	High	MOHAMED FARHAN S
Sprint-1	Login	USN-3	As a user, I can log into the application by entering email & password	1	Low	MOHAMED MUSHARAF M
Sprint-1	Accessing the datasets	USN-4	I can access the datasets and choose the different types of exploration can be done is analyzed as a user.	5	Medium	MOHAMED SAKKEEL R
Sprint-2	Exploration	USN-5	I can explore the given datasets through IBM Cognos Analytics with Watson	6	High	MOHAMED FARHAN S
Sprint-2	Visualization	USN-6	I will use Cognos as a visualization tool for the provided dataset into a dashboard	6	High	SHIYAMGANESH M
Sprint-3	Dashboard	USN-7	I can create the dashboard that is visualized as a user	6	High	MOHAMED SAKKEEL R
Sprint-3	Ease of Access	USN-8	I can simply access and use the dashboard as a user	5	Medium	MOHAMED MUSHARAF M

Sprint-4	Generation of Report	USN-9	I can generate the report with the help of my visualization	6	High	MOHAMED SAKKEEL R
Sprint-4	Dashboard Establishment	USN-10	As a developer I can Established the dashboard into a website and submit the website	6	High	SHIYAMGANESH M

5.4 Technology Stack

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

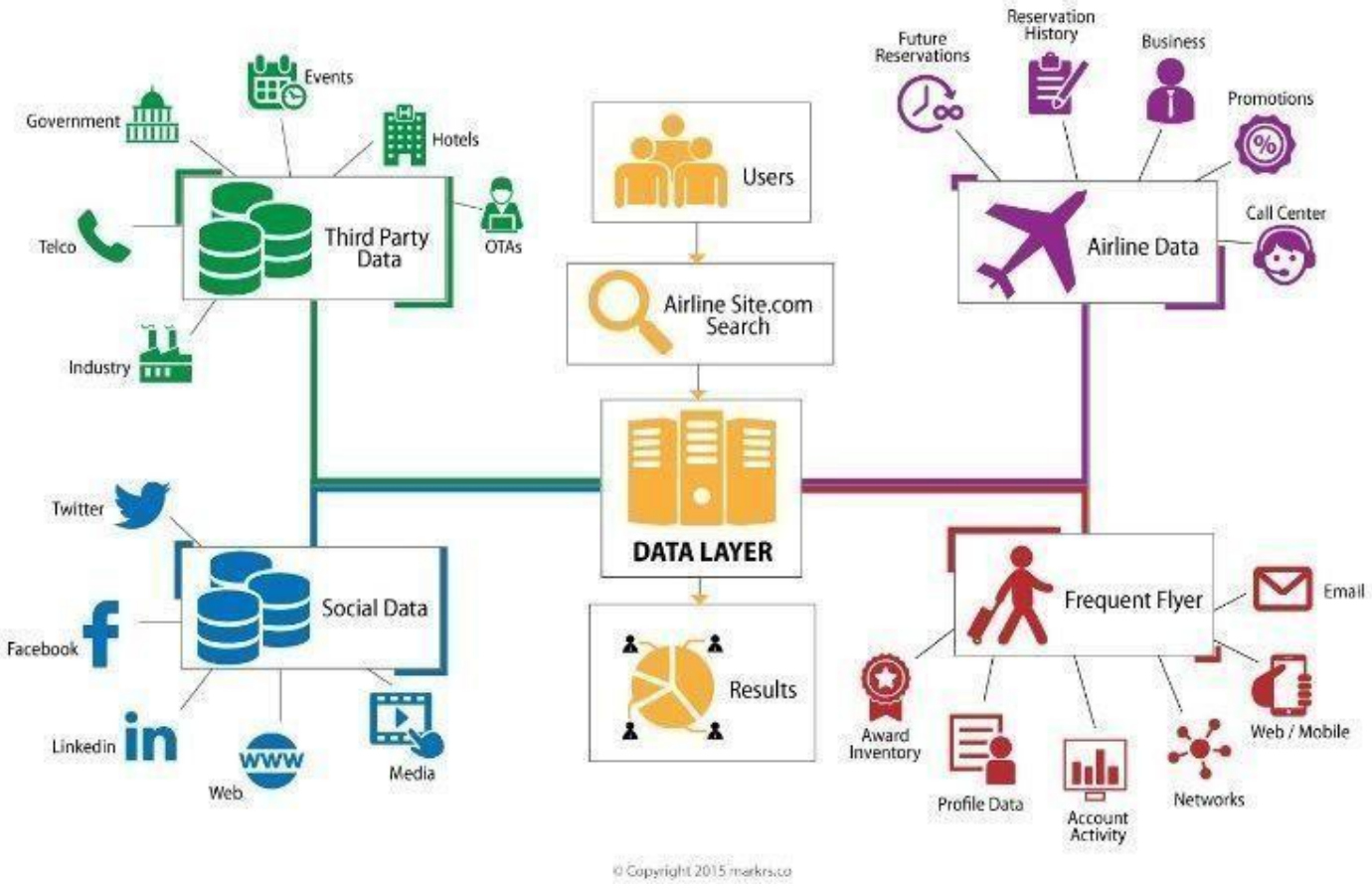


Table-1: Components & Technologies:

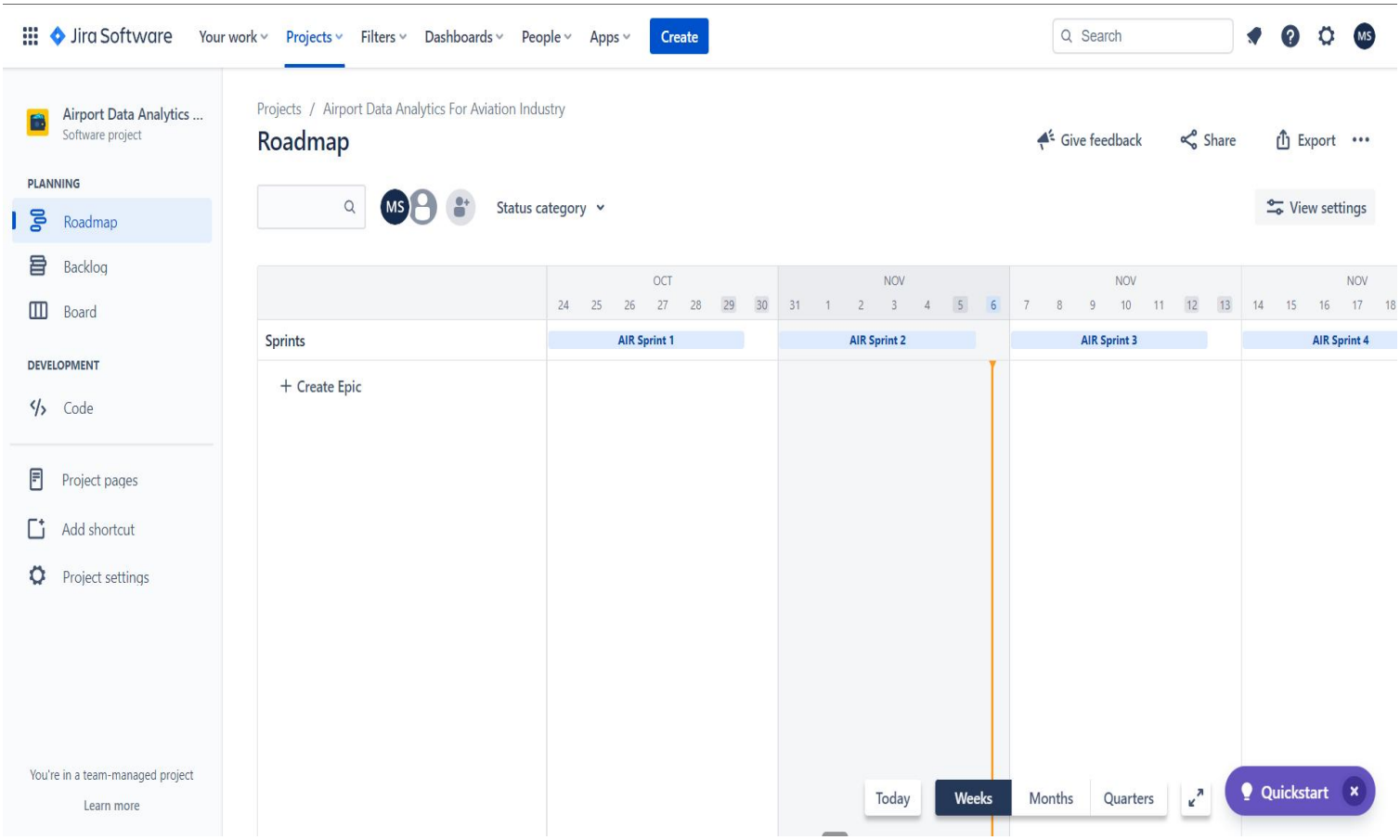
S.No	Components	Description	Technology
1.	User Interface	How user interacts with application. Example: Mobile App	HTML, CSS, Java Script,Excel
2.	Application Logic-1	Logic for a process in theapplication	IBM Watson STTservice, Python
3.	Application Logic-2	Logic for a process in theapplication	IBM Watson Assistant
4.	Database	Data Type, Configurations	MySQL, NSQL
5.	Cloud Database	Database service on cloud	IBM DB2, IBM Cloudant
6.	File Storage	File Storage requirements	IBM Blocks Storage orother storage serviceor Local File system
7.	External API-1	Purpose of External APIused in the application	IBM Weather API
8.	External API-1	Purpose of External APIused in the application	Aadhar API
9.	Infrastructure (Server/Cloud)	Application Deploymenton Local System/Cloud Local Server Configuration: Cloud Server Configuration	Local, Cloud Foundry

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Technology of open-source framework
2.	Security Implementations	List all the security/access controls implemented,use of firewalls.	Example: SHA-256, Encryption, IAM Controls,OWASP
3.	Scalable Architecture	Justify the scalability ofarchitecture	Cognos Used
4.	Availability	Justify the availability of application (e.g: use of load balancers, distributed servers)	AWS Used
5.	Performance	Design consideration for the performance of the application (number of requests per second, use of Cache, use of CDN's)	Dashboard, Reports, Stories

6. PROJECT PLANNING PHASE

6.1 Prepare Milestone and Activity List



6.2 Sprint Delivery Plan

Product Backlog, Sprint Schedule, and Estimation (4 Marks)

Use the below template to create product backlog and sprint schedule

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.	3	High	SHIYAMGANESH M
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Project Tracker, Velocity & Burndown Chart: (4 Marks)

Sprint	**Total Story Points**	**Duration**	**Sprint Start Date**	**Sprint End Date (Planned)**	**Story Points Completed (as on Planned End Date)**	**Sprint Re lease Date (Actual)**
Sprint-1	20	6 Days	24 Oct 2022	29 Oct 2022	15	29 Oct 2022
Sprint-2	20	6 Days	31 Oct 2022	05 Nov 2022	15	05 Nov 2022
Sprint-3	20	6 Days	07 Nov 2022	12 Nov 2022	15	12 Nov 2022
Sprint-4	20	6 Days	14 Nov 2022	19 Nov 2022	15	19 Nov 2022

Velocity:

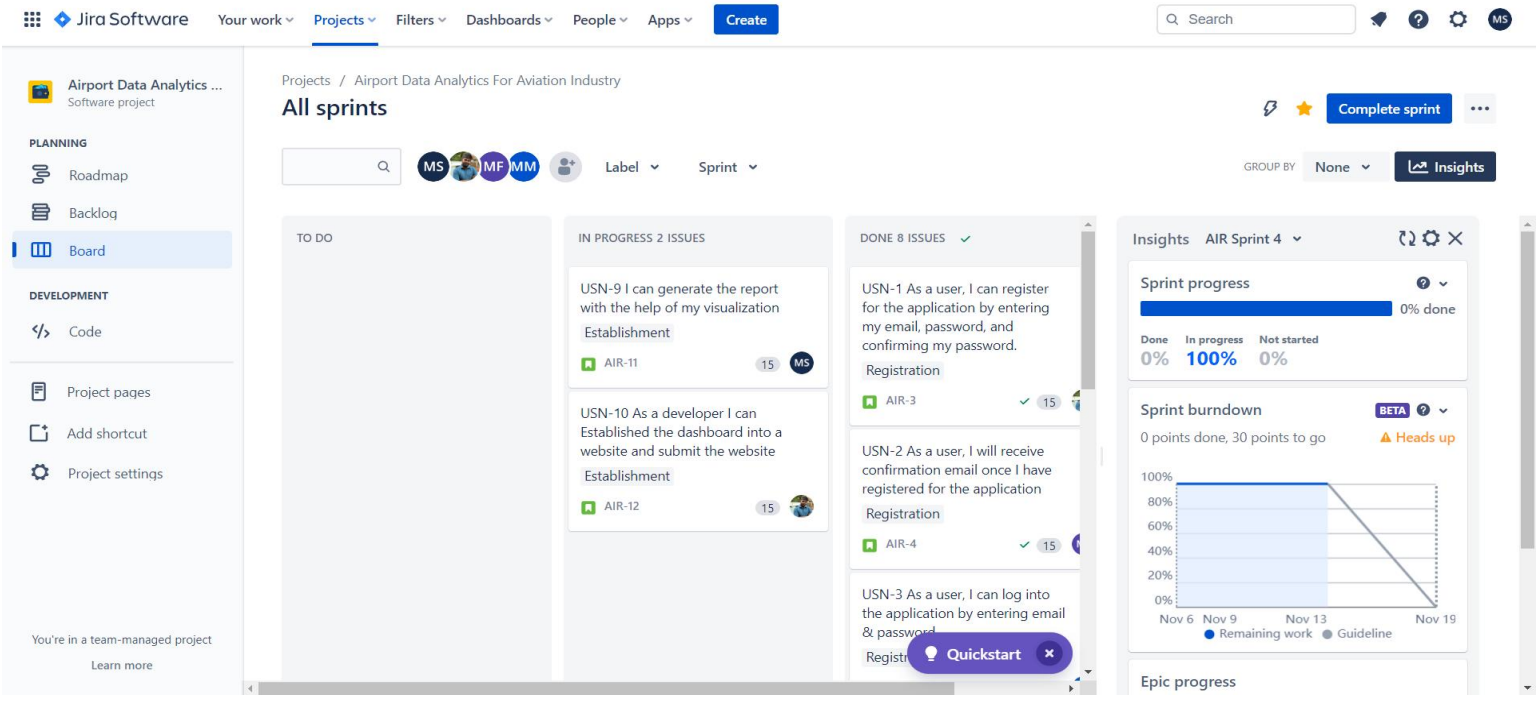
Imagine we have a 10-day sprint duration, and the velocity of the team is 20 (points per sprint). Let'scalculate the team's average velocity (AV) per iteration unit (story points per day)

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

Average velocity=Sprint duration / velocity=15/6=2.5

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 anyproject containing measurable progress over time.



Data Visualization :

Using the given datasets, we plan to create various graphs and charts to highlight the insights and visualizations.

Representation Of Flight Count By Categories :

Representation of Flight Count by Categories.

1. Pie Chart - Continent-wise No. of Flights.
2. Packed Bubble Chart - Continent wise No. of Flights by Type - Colored with Type.
3. Continent List - Filter.
4. Top 10 Countries by Flights

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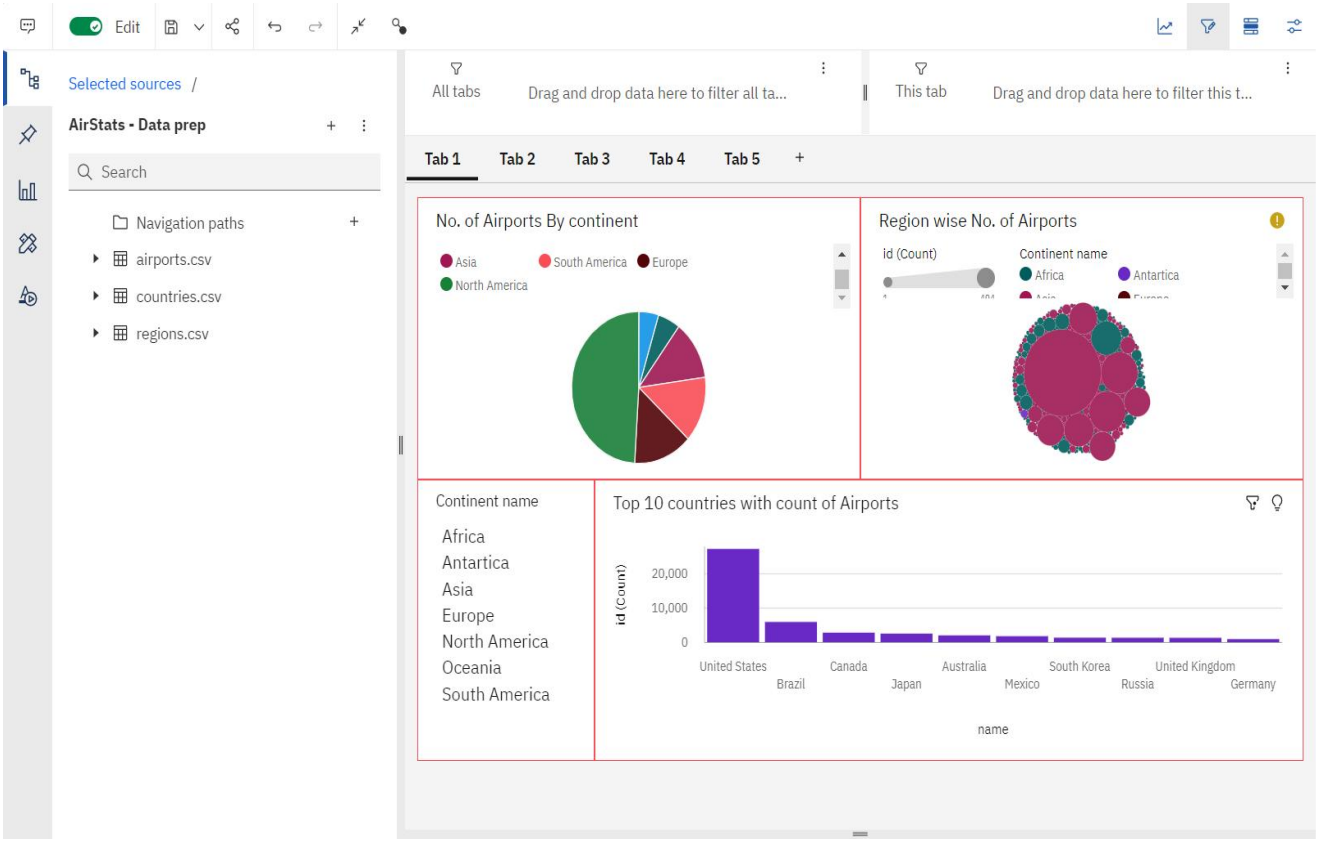
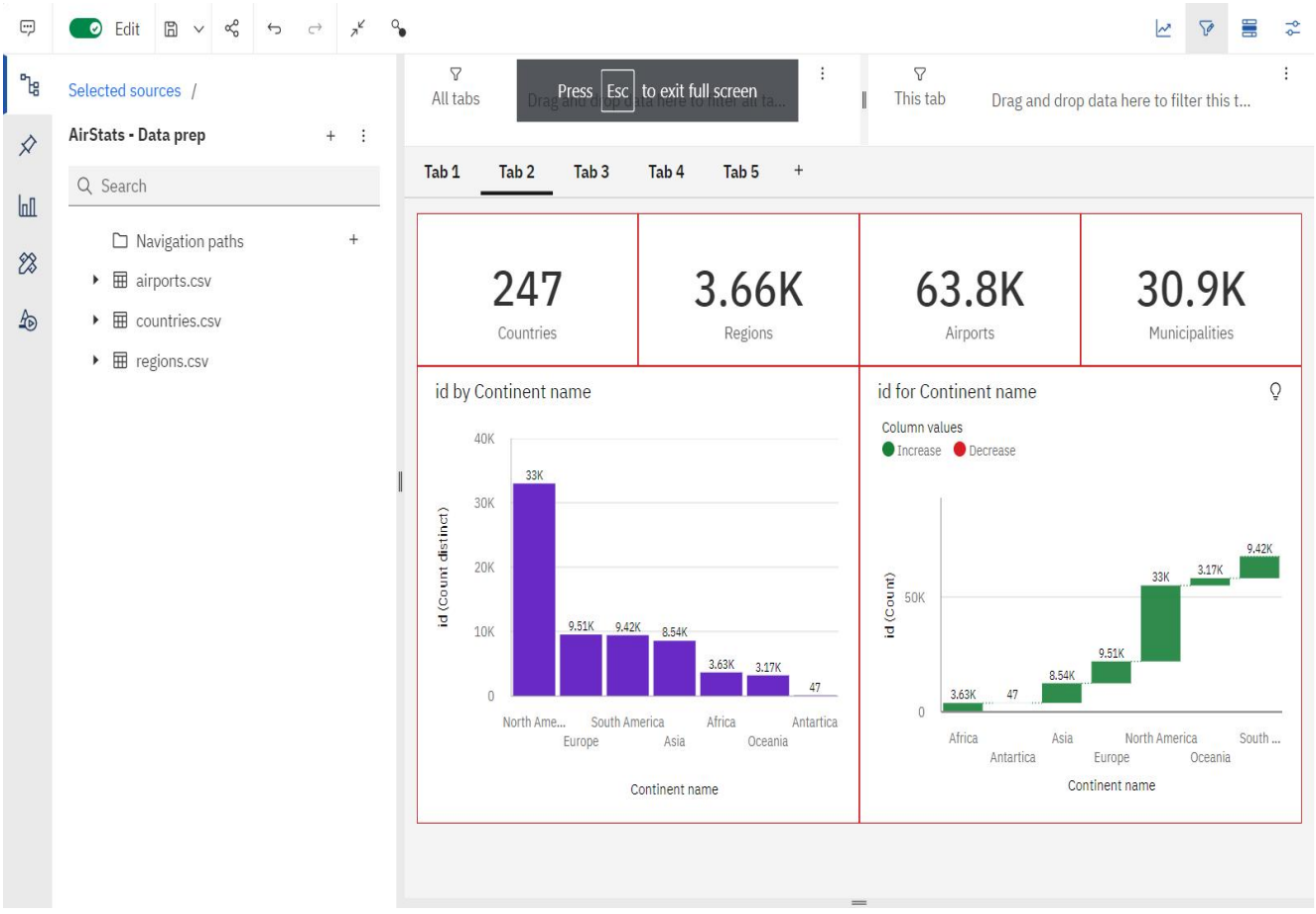


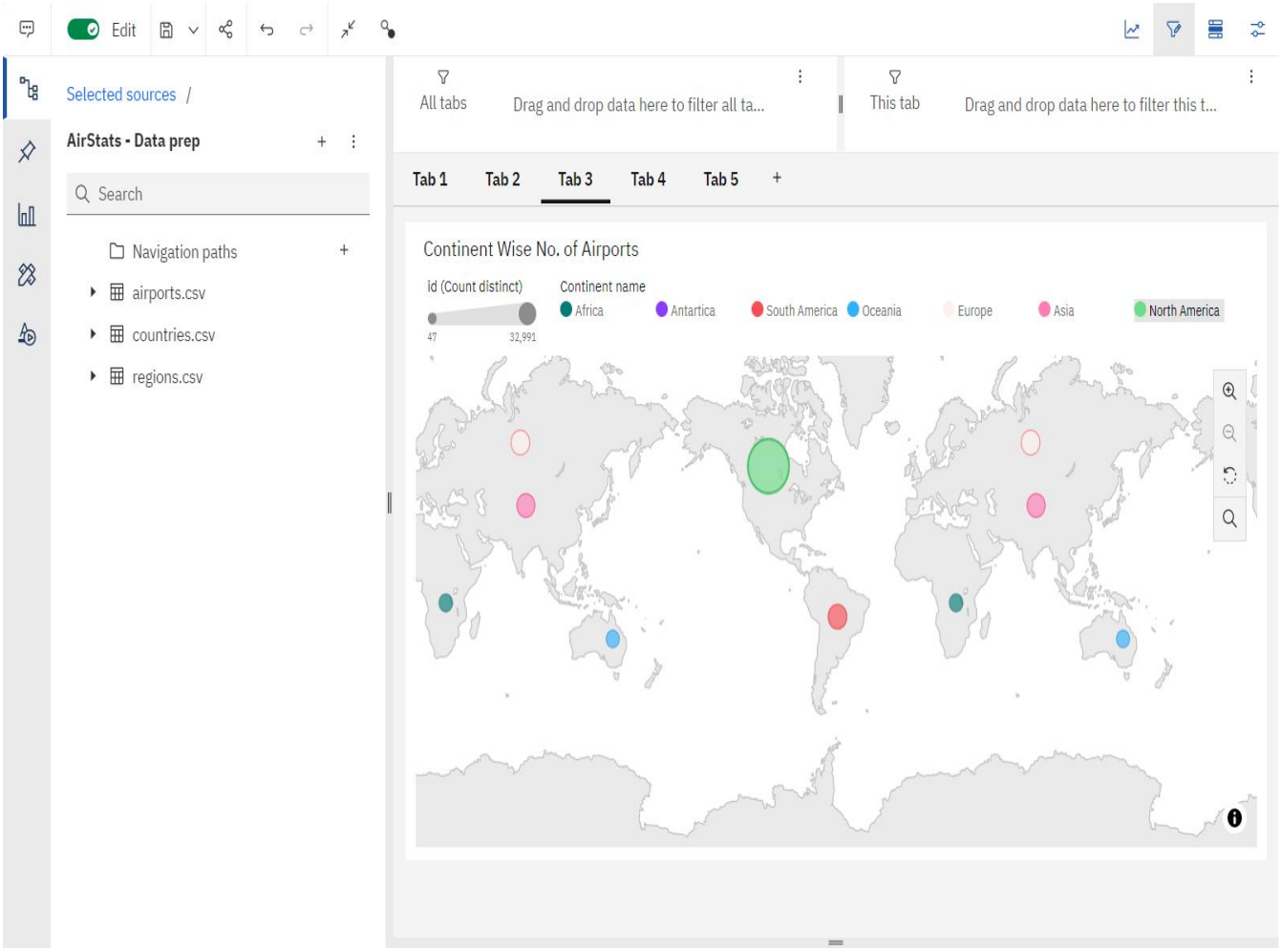
No Of Flights By Countries , Regions And Airports :

1) Build the Summary Cards showing the
   - Number of Countries, Number of distinct Regions, Number of Airports and Number of Municipalities
2) Build the number of Airports by Countries using a Column Chart
3) Build a Waterfall-Chart showing the number of Airports by Continents.



Continent Wise Count Of Airports Using Geo Map :

Geo-Map - Continent-wise No. of flights.

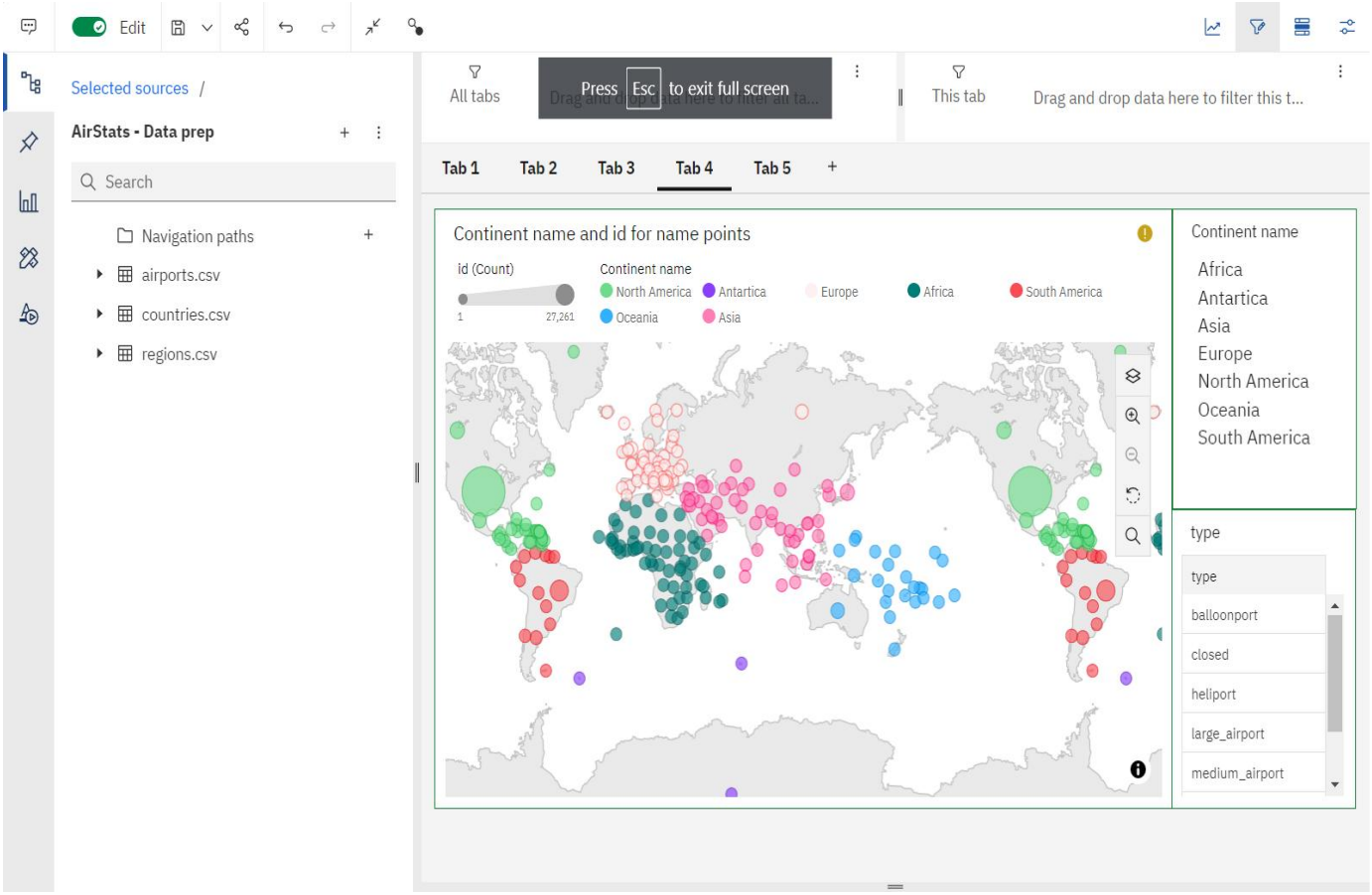


Country Wise Airports With Types :

1.Geo-Map - Country-wise No. of flights

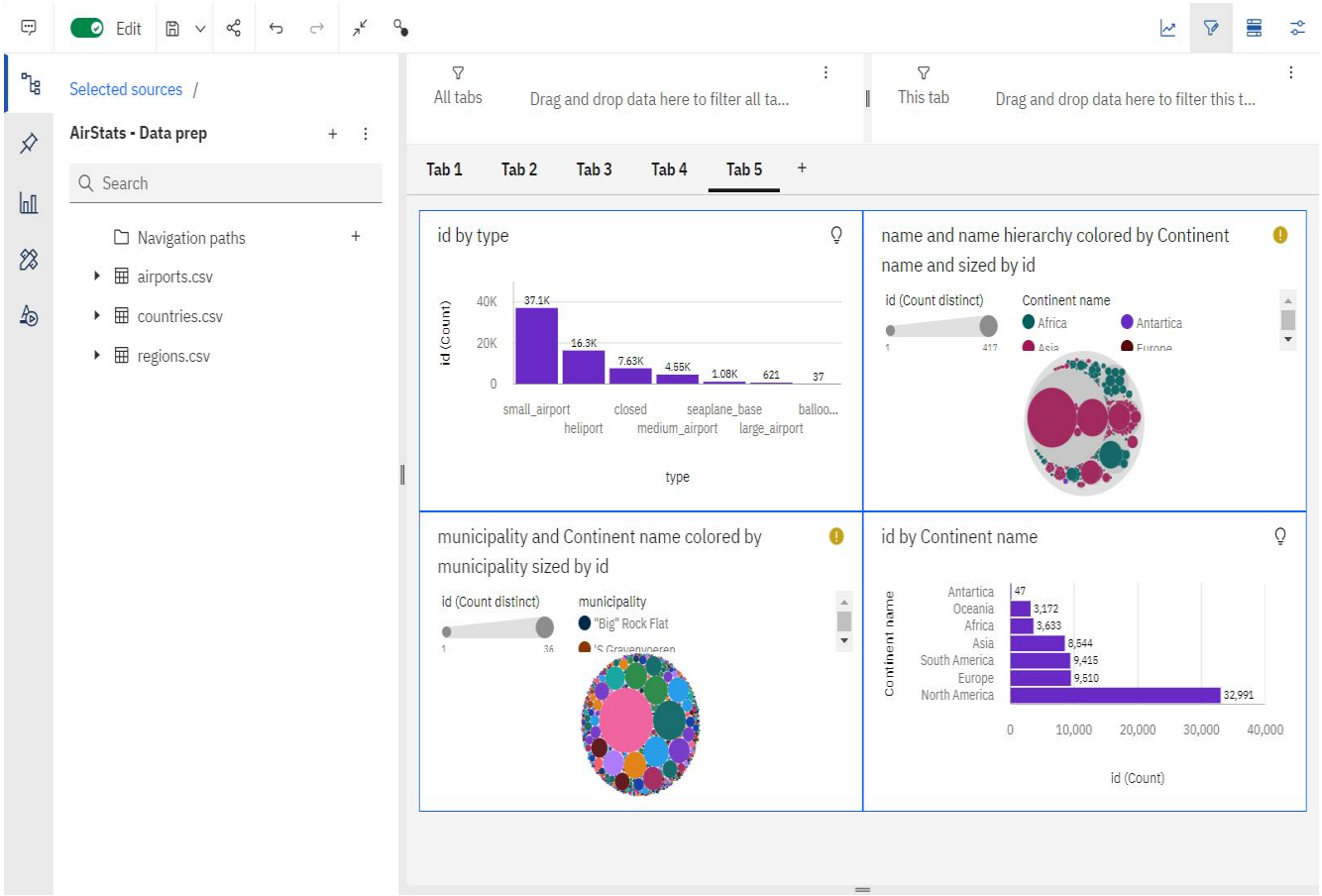
2.Continent Filter

3.Flight-Type filter



Dashboard showing count of flights by Types,Countries and Continents:

1. Column-Chart - No of Airports by Type
2. Hierarchy Bubble Chart - Region-wise Different Types of Airports
3. Packed bubble Chart - Municipality-wise No. of Airports
4. Bar Chart - Continent-wise No of Airports



8 .TESTING :

8.1 Test Cases :

Test case ID	Feature Type	Component	Test Scenario	Steps To Execute	Expected Result	Actual Result	Status
LoginPage_TC_OO1	Functional	Home Page	Verify user is able to see the Login/Sign up popup when user clicked on My account button	1.Enter URL and click go 2.Click on My Account dropdown button 3.Verify login/Sing up popup displayed or not	Login/Signup popup should display	Working as expected	Pass
LoginPage_TC_OO2	UI	dashboard page	verify user is able to see airport report in dashboard page	1.Airstat dashboard will be displayed. 2.Check if each tab can able to access. 3.Click on the required dataset. 4.OBtain the report	required visualisation will be displayed on the dashboard	working as expected	pass

8.2 User Acceptance Testing :

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 :

This report shows the number of test cases that have passed, failed, and untested

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

9.RESULTS :

9.1PerforMetrics

Model Performance Testing:

Project team shall fifill the following information in model performance testing template

S.No.	Parameter	Screenshot / Values
1.	Dashboard design	No of Visulizations / Graphs - 18
2.	Data Responsiveness	It shows the output when any of the dataset is selected.
3.	Utilization of Data Filters	Various filter methods were used to filter the dataset values like sort,top or bottom,format data etc..,
4.	Effective User Story	No of tabs Added - 5
5.	Descriptive Reports	No of Visulizations / Graphs -18

10.ADVANTAGES & DISADVANTAGES :

advantages :

- It improves the average turnaround time needed to cater to market trends
- Properly implemented data modules help flight operators bag more customers and profits
- Predictive analytics is the key to preparing for future crises and put a mitigation plan in Place
- It helps businesses make data-backed and more informed policy decisions

disadvantages :

- Air transport is a costly service. Its operational costs are too high. Middle class and poor people can not affect its cash.
- Air transport is prone to accidents. A small mistake can be very dangerous for passengers. Hijacking of planes is easily possible.
- For creating aviation facilities, huge investments are required. The cost of Aero planes, construction and maintenance of aerodromes and control mechanism needs a capital expenditure.

11. CONCLUSION :

Flight delays are a major problem in civil aviation. They incur direct and indirect costs, such as maintenance at the gate, extra fees for crew, food service, and lodging. They also affect passenger satisfaction. Flight delay is inevitable and it plays an important role in both profits and losses of the airlines. An accurate estimation of flight delay is critical for airlines because the results can be applied to increase customer satisfaction and the incomes of airline agencies. So, the prediction and analysis of flight delays are of great significant to airlines,passengers, and airports. Predicting delays will help an airport to adjust resource allocations, quickly analyse the causes, and take measures to reduce or eliminate delays. Therefore, It delivers a well-friendly graphical UI and gives a proper delay rate to the users.

12 FUTURE SCOPE :

To illustrate, airlines bear high costs due to delays and cancellations that include expenses on maintenance and compensations to travellers stuck in airports. With nearly 30 % of the total delay time caused by unplanned maintenance, predictive analytics applied to fleet technical support is a reasonable solution

13.APPENDIX :

Source Code:

Source code for Login Page:

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Login Form</title>
<link rel="stylesheet" href="style.css">
<link rel="stylesheet" href="C:\Users\PC\OneDrive\Desktop\style.css" />
</head>
<body>
<div class="wrapper">
<header>Login Form</header>
<form action="https://zesty-duckanoo-d543d0.netlify.app/">
<div class="field email">
<div class="input-area">
<input type="text" placeholder="Email Address">
<i class="icon fas fa-envelope"></i>
<i class="error error-icon fas fa-exclamation
circle"></i>
</div>
<div class="error error-txt">Email can't be blank</div>
</div>
```

```
<div class="field password">
<div class="input-area">
<input type="password" placeholder="Password">
<i class="icon fas fa-lock"></i>
<i class="error error-icon fas fa-exclamation
circle"></i>
</div>
<div class="error error-txt">Password can't be blank</div>
</div>
<div class="pass-txt"><a href="#">Forgot password?</a></div>
<input type="submit" value="Login">
</form>
<div class="sign-txt">Not yet member? <a href="#">Signup
now</a></div>
</div>
<script src="script.js"></script>
</body>
</html>
```

Source code for Dashboard page:

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="utf-8">
<meta content="width=device-width, initial-scale=1.0" name="viewport">
<title>AIRSTATS DASHBOARD</title>
<meta content="" name="description">
<meta content="" name="keywords">
<!-- Favicons -->
<link href="assets/img/favicon.png" rel="icon">
<link href="assets/img/apple-touch-icon.png" rel="apple-touch-icon">
<!-- Google Fonts -->
<link
href="https://fonts.googleapis.com/css?family=Open+Sans:300,300i,400,400i,600
,600i,700,700i|Montserrat:300,400,500,700" rel="stylesheet">
<!-- Vendor CSS Files -->
<link href="assets/vendor/aos/aos.css" rel="stylesheet">
<link href="assets/vendor/bootstrap/css/bootstrap.min.css"
rel="stylesheet">
<link href="assets/vendor/bootstrap-icons/bootstrap-icons.css"
rel="stylesheet">
<link href="assets/vendor/glightbox/css/glightbox.min.css"rel="stylesheet">
<link href="assets/vendor/swiper/swiper-bundle.min.css" rel="stylesheet">
<!-- Template Main CSS File -->
<link href="assets/css/style.css" rel="stylesheet">

<!-- =======================================================
* Template Name: NewBiz - v4.9.1
* Template URL: https://bootstrapmade.com/newbiz-bootstrap-business
template/
```

```
* Author: BootstrapMade.com
* License: https://bootstrapmade.com/license/
========================================================== -->
</head>
<body>
<!-- ======= Header ======= -->
<header id="header" class="fixed-top d-flex align-items-center">
<div class="container d-flex justify-content-between">
<div class="logo">
<!-- Uncomment below if you prefer to use an text logo -->
<h1><a href="index.html">Airlines Data Analytics for Avaition
Industry</a></h1>
</div>
<nav id="navbar" class="navbar">
<ul>
<li><a class="nav-link scrollto active" href="#hero">Home</a></li>
<li><a class="nav-link scrollto"
href="#services">Dashboard</a></li>
<li><a class="nav-link scrollto" href="#contact">Contact</a></li>
</ul>
<i class="bi bi-list mobile-nav-toggle"></i>
</nav><!-- .navbar -->
</div></header><!-- #header -->
<!-- ======= Hero Section ======= -->
<section id="hero" class="clearfix">
<div class="container" data-aos="fade-up">
<div class="hero-img" data-aos="zoom-out" data-aos-delay="200">
<img src="assets/img/hero-img.svg" alt="" class="img-fluid">
</div>
<div class="hero-info" data-aos="zoom-in" data-aos-delay="100">
<h2>AIRLINES<br><span>DATA ANALYTICS</span><br>FOR AVIATION
INDUSTRY</h2>
<div>
<a href="#services" class="btn-services scrollto">View Dashboard</a>
</div>
```

```
</div>
</div>
</section><!-- End Hero Section -->
<main id="main">
<!-- ======= Services Section ======= -->
<section id="services" class="section-bg">
<div class="container" data-aos="fade-up">
<header class="section-header">
<h3>AIRSTATS ANALYSIS DASHBOARD</h3>
<iframe
src="https://us3.ca.analytics.ibm.com/bi/?perspective=dashboard&pathRef=.my_folders%2FAirStats%2B-
%2BDashboard&action=view&mode=dashboard&subView=model0000018430a3e799_00000000" width="1300"
height="1000" frameborder="0" gesture="media" allow="encrypted-media"
allowfullscreen="">
</iframe>
</header>
</div>
</section><!-- End Services Section --><!-- ======= Contact Section ======= -->
<section id="contact">
<div class="container-fluid" data-aos="fade-up">
<div class="section-header">
<h3>Contact Us</h3>
</div>
<div class="row">
<div class="col-lg-6">
<div class="row">
<div class="col-md-5 info">
<i class="bi bi-geo-alt"></i>
<p>GCE TLY</p>
</div>
<div class="col-md-4 info">
<i class="bi bi-envelope"></i>
<p>https://github.com/capnpeace.com</p>
</div>
</div>
```

```
</div>
</div>
</section><!-- End Contact Section -->
</main>
<!-- End #main -->
<a href="#" class="back-to-top d-flex align-items-center justify-content
center"><i class="bi bi-arrow-up-short"></i></a>
<!-- Vendor JS Files -->
<script
src="assets/vendor/purecounter/purecounter_vanilla.js"></script>
<script src="assets/vendor/aos/aos.js"></script>
<script
src="assets/vendor/bootstrap/js/bootstrap.bundle.min.js"></script>
<script src="assets/vendor/glightbox/js/glightbox.min.js"></script>
<script
src="assets/vendor/isotope-layout/isotope.pkgd.min.js"></script>
<script src="assets/vendor/swiper/swiper-bundle.min.js"></script><script src="assets/vendor/php-
email-form/validate.js"></script>
<!-- Template Main JS File -->
<script src="assets/js/main.js"></script>
</body>
</html>
```

GitHub & Project Demo Link :

https://drive.google.com/drive/folders/1iA_PZEuhJS2PUF8hr9cEoP7840fZlM5R

GitHub repositories : https://github.com/IBM-EPBL/IBM-Project-10833-1659237089