PROJECT REPORT TEMPLATE

Unlocking insights into Global Air Transportation

INTRODUCTION:

Overview:

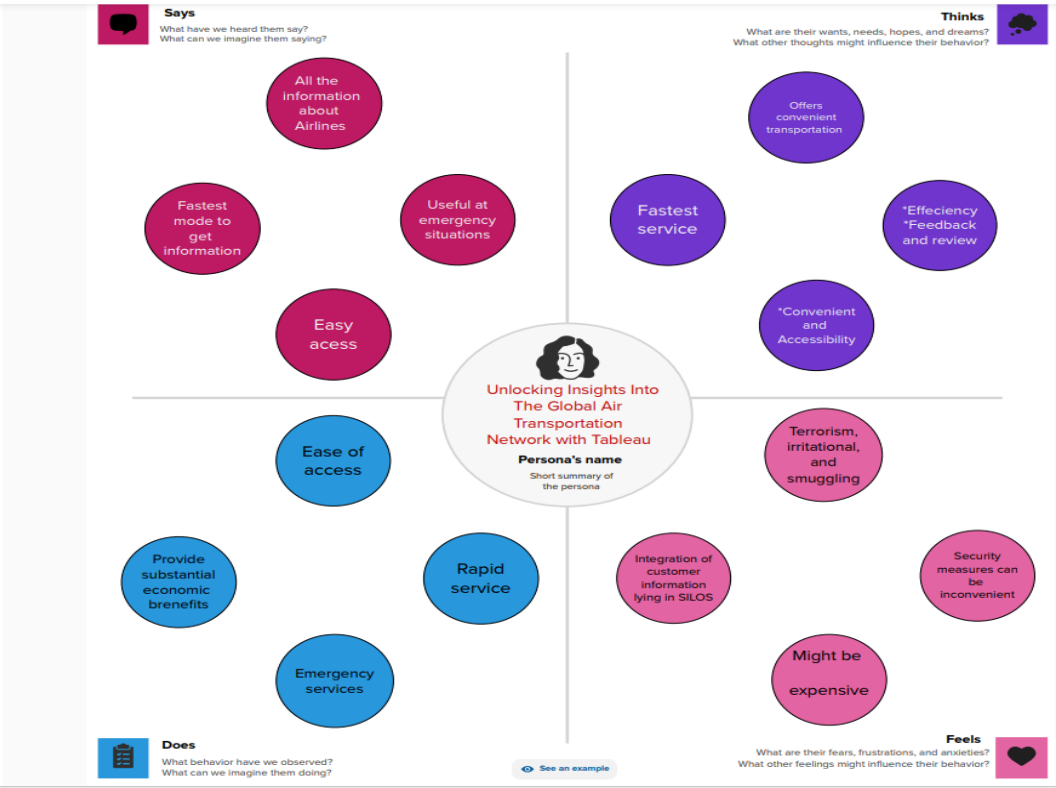
Global Air transportation is a complex and interconnected system that plays a vital role in global economy and society. It is a comprehensive collection of information on airports, airlines and their routes. It connects people, business and culture across the world and it is essential for trade, tourism and development. It contains information such as names, cities, countries, codes, latitude, and altitude of airports with detailed time zone saving time.

Purpose:

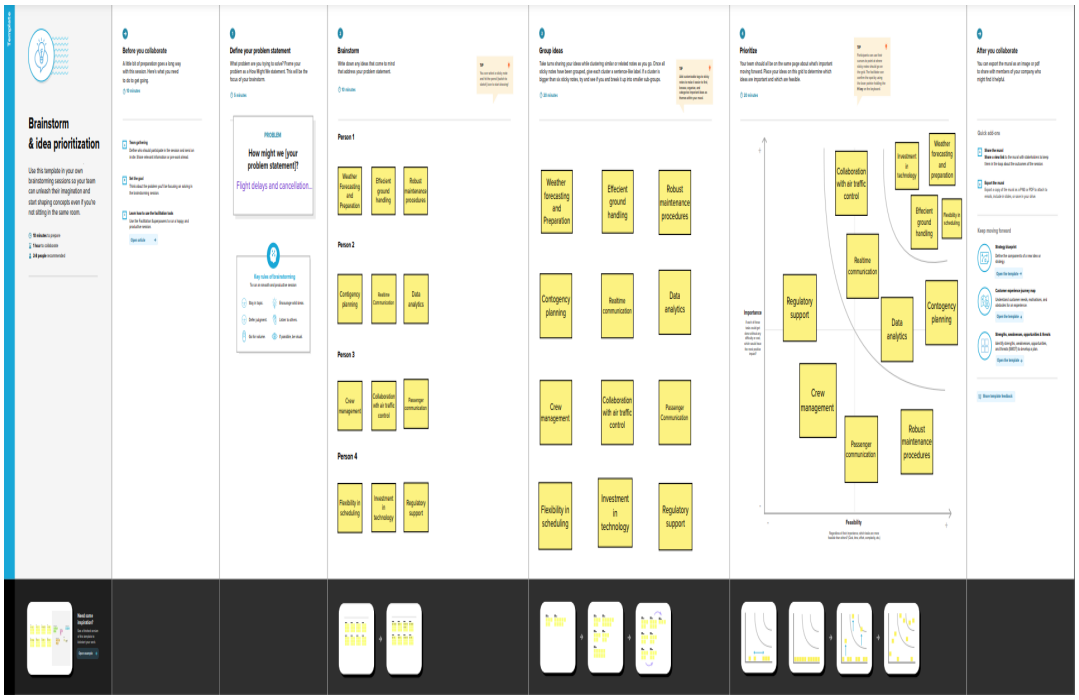
This analysis can help us to understand the industries trends and challenges and opportunities. This knowledge can be used to improve the efficiency, safety and sustainability of air travel and to make it more accessible and affordable for everyone.

2 PROBLEM DEFINITION AND DESIGN THINKING:

2.1 Empathy map



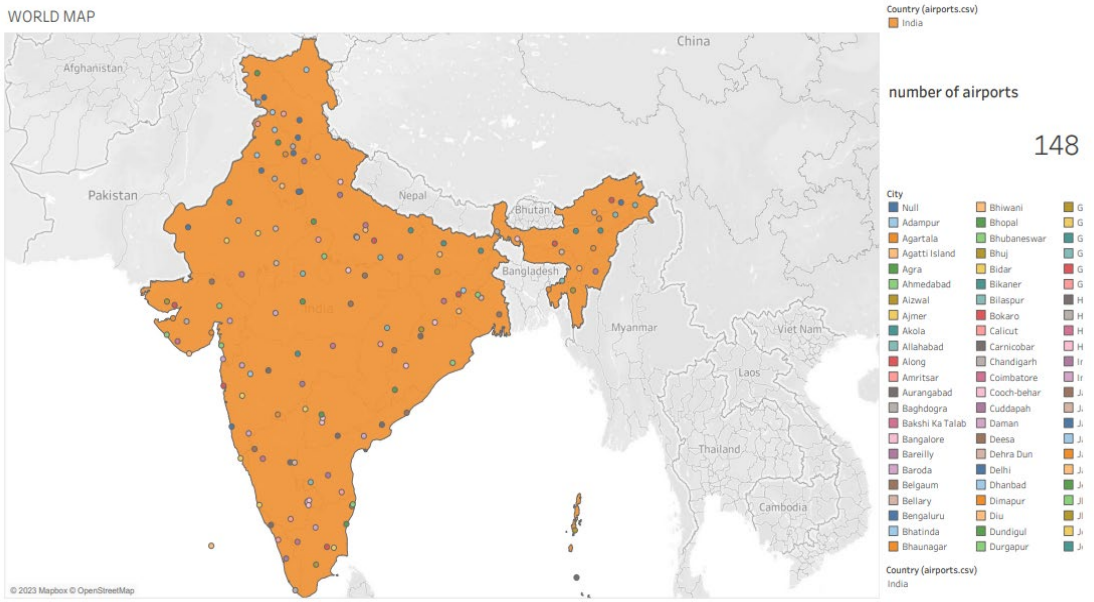
2.2 Ideation and Brainstorming



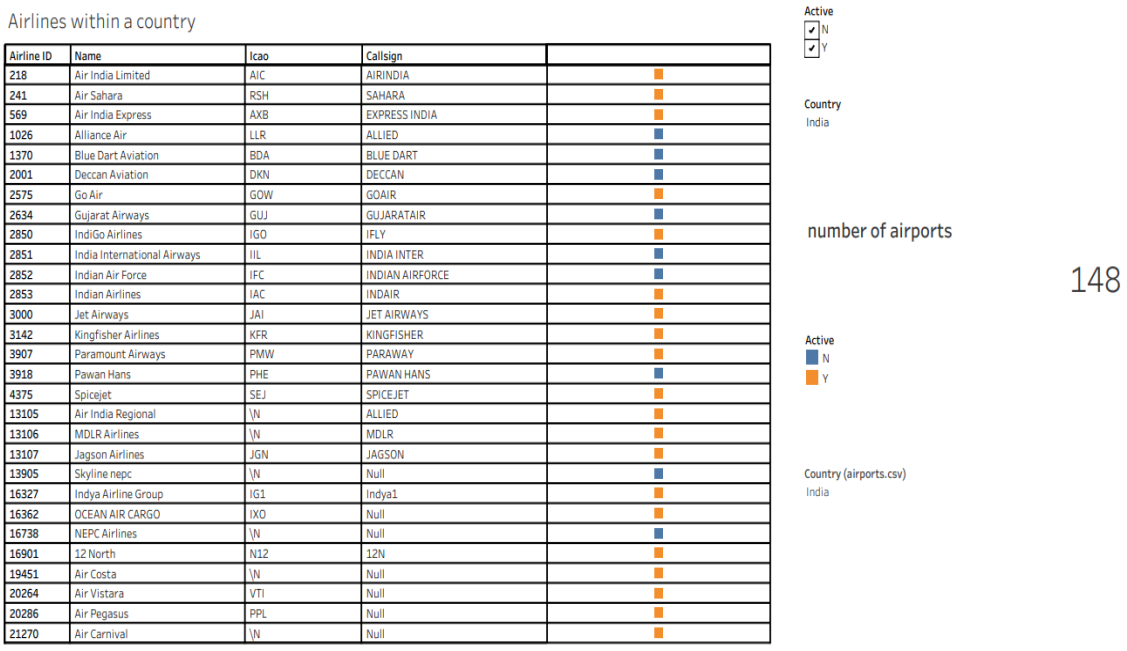
3 RESULT:

We created the data visualization such as dashboard and story using the dataset provided

DASHBOARD 1:



DASHBOARD 2:



Airline ID	Name	Icao	Callsign	
218	Air India Limited	AIC	AIRINDIA	
241	Air Sahara	RSH	SAHARA	
569	Air India Express	AXB	EXPRESS INDIA	
1026	Alliance Air	LLR	ALLIED	
1370	Blue Dart Aviation	BDA	BLUE DART	
2001	Deccan Aviation	DKN	DECCAN	
2575	Go Air	GOW	GOAIR	
2634	Gujarat Airways	GUJ	GUJARATAIR	
2850	IndiGo Airlines	IGO	IFLY	
2851	India International Airways	IIL	INDIA INTER	
2852	Indian Air Force	IFC	INDIAN AIRFORCE	
2853	Indian Airlines	IAC	INDAIR	
3000	Jet Airways	JAI	JET AIRWAYS	
3142	Kingfisher Airlines	KFR	KINGFISHER	
3907	Paramount Airways	PMW	PARAWAY	
3918	Pawan Hans	PHE	PAWAN HANS	
4375	Spicejet	SEJ	SPICEJET	
13105	Air India Regional	\N	ALLIED	
13106	MDLR Airlines	\N	MDLR	
13107	Jagson Airlines	JGN	JAGSON	
13905	Skyline nepc	\N	Null	
16327	Indya Airline Group	IG1	Indya1	
16362	OCEAN AIR CARGO	IXO	Null	
16738	NEPC Airlines	\N	Null	
16901	12 North	N12	12N	
19451	Air Costa	\N	Null	
20264	Air Vistara	VTI	Null	
20286	Air Pegasus	PPL	Null	
21270	Air Carnival	\N	Null	

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DASHBOARD 3:

airports at higher altitude within a country

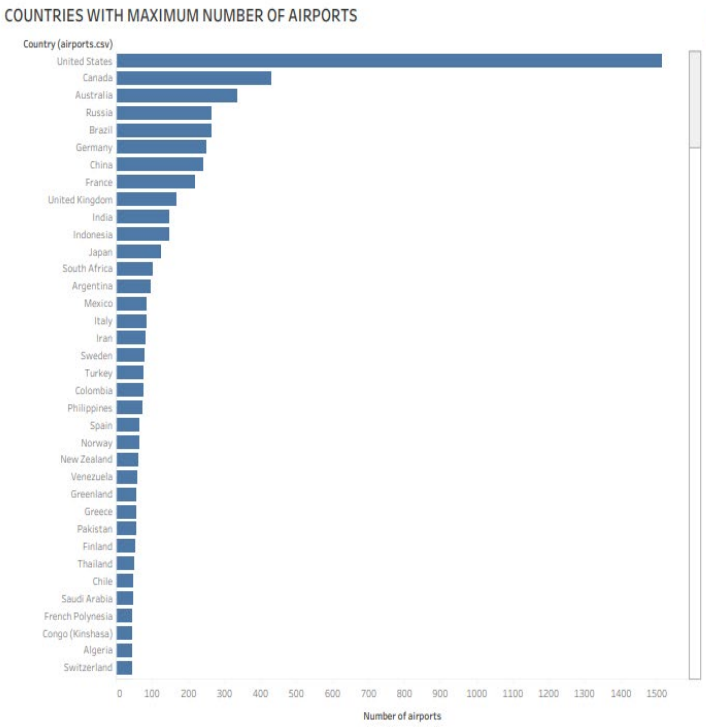
index no	Name (airport..	City	ICAO (airports.csv)	
1	Adampur Airport	Adampur	VIAX	775
	Agartala Airport	Agartala	VEAT	46
	Agatti Airport	Agatti Island	VOAT	14

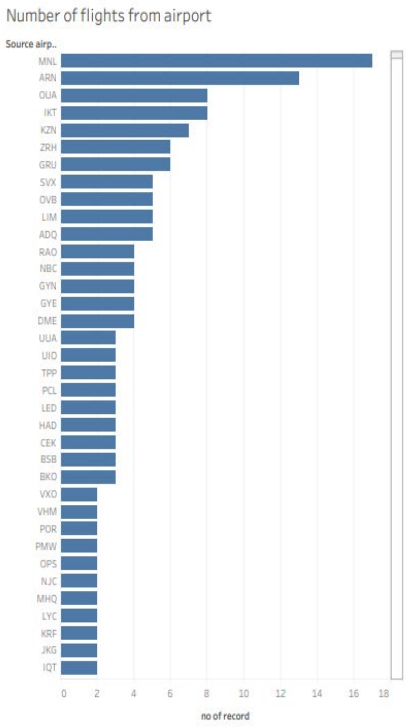
Country (airports.csv)
India

Airports at higher altitude in the world

Name (airports.csv)	City	ICAO (airports.csv)	
Daocheng Yading Air..	Daocheng	ZUDC	14,472
Qamdo Bangda Airpo..	Bangda	ZUBD	14,219
Kangding Airport	Kangding	ZUKD	14,042
Ngari Gunsa Airport	Shiquanhe	ZUAL	14,022
El Alto International ..	La Paz	SLLP	13,355
Capitan Nicolas Roja..	Potosi	SLPO	12,913
Yushu Batang Airport	Yushu	ZYLS	12,816
Copacabana Airport	Copacabana	SLCC	12,591
Inca Manco Capac Int..	Juliaca	SPJL	12,552
Golog Maqin Airport	Golog	ZLGL	12,426

DASHBOARD 4:





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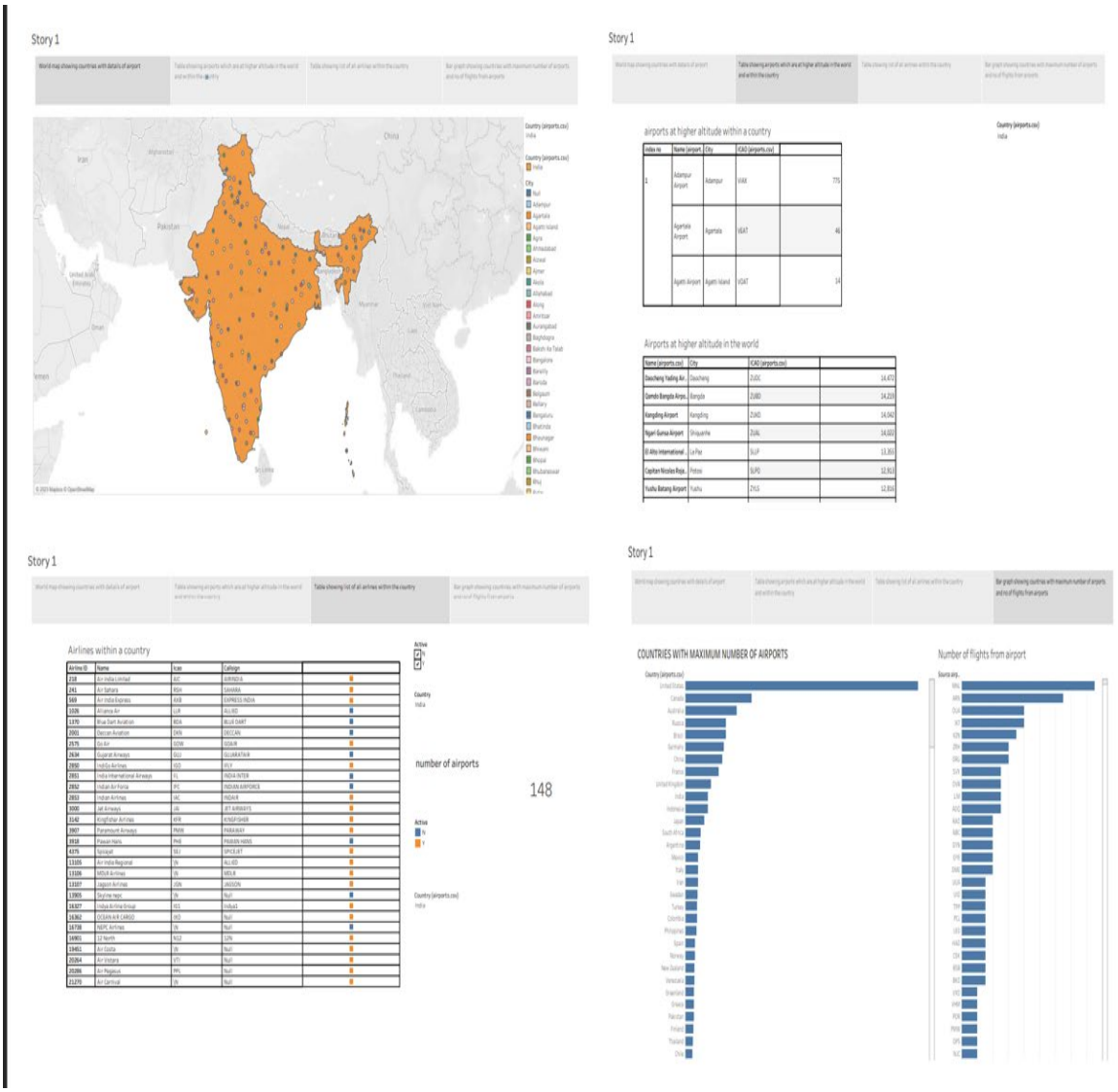
STORY:



4 ADVANTAGES AND DISADVANTAGES:

ADVANTAGES:

- The most congested airports : This information can be used to improve aiport operation and infrastructure and to reduce delays and cancellations.
- Air traffic control : It can be used to detect and avoid conflicts between aircraft and to optimize flight paths.
- The most popular air routes : It can be used to improve planning and prcing and to develop new routes to meet the need of travellers.
- Enhanced safety : By detecting hazards and developing statergies , we can enhance the safety of aircrafts. It helps us to prevent accidents and save lives.

DISADVANTAGES:

- Misuse of Data : The data can be misused for malicious purpose such as to target individuals or groups for terrorism and other crimes.
- Complexity : The global air transportation system is complex and dynamic. This can make it difficult to collect and analyze data accurately and to interpret the results.
- Privacy concerns : The collection and analysis of air transportation data raises privacy concern.
- Cost : Unlocking insights into global air transportation

5 APPLICATIONS :

The following Applications provide valuable insights into Global air transportation network :

- Airlines can use the data to optimize theier flight schedules; reduce cost and improve customer service .
- For example : To identify the most profitable routes , flight schedules and price tickets competitively.
- It can also be used to improve our safety and efficiency.
- For example : To detect potential conflicts between aircrafts.
- Government can use data to identify areas where new infrastructure is needed.
- To develop new polices that reduce the environmental impact of air travel.
- Airlines can data to better understand their customers and provide them wih more oersonalized and relevant services.

6 CONCLUSION :

Define Problem / Problem Understanding

- Specify the business problem
- Business requirements
- Literature Survey

Data Collection & Extraction

- Connect dataset with Tableau
- Collect the dataset

Data Preparation

- Prepare the data for visualizations

Data Visualizations

- No of unique visualizations

Dashboard

- Responsive and design of dashboard

Story

- No of scenes of Story

Performance Testing

- Utilization of Data Filters
- No of Visualizations/ Graphs

Project Demonstration & Documentation

- Record explanation Video for project end to end solution .

By this we conclude our project.

7 FUTURE SCOPE :

Airlines , Airports and Air traffic control organizaions can work together to develop and implement standards for data collection and sharing. This will ensure that data is collected and shared in a consistent and eficient manner . Governments can also play a role by funding and supporting data collection initiatives . Airlines can invest in developing and using advance data analysis techniques .They can also partner with universities and research institutions to develop and implement new data analysis algorithms and tools. Airlines can also establish forums and working groups to collaborate on data collection , analysis , and sharing.