

PROJECT REPORT

1.INTRODUCTION :

1.1 OVERVIEW

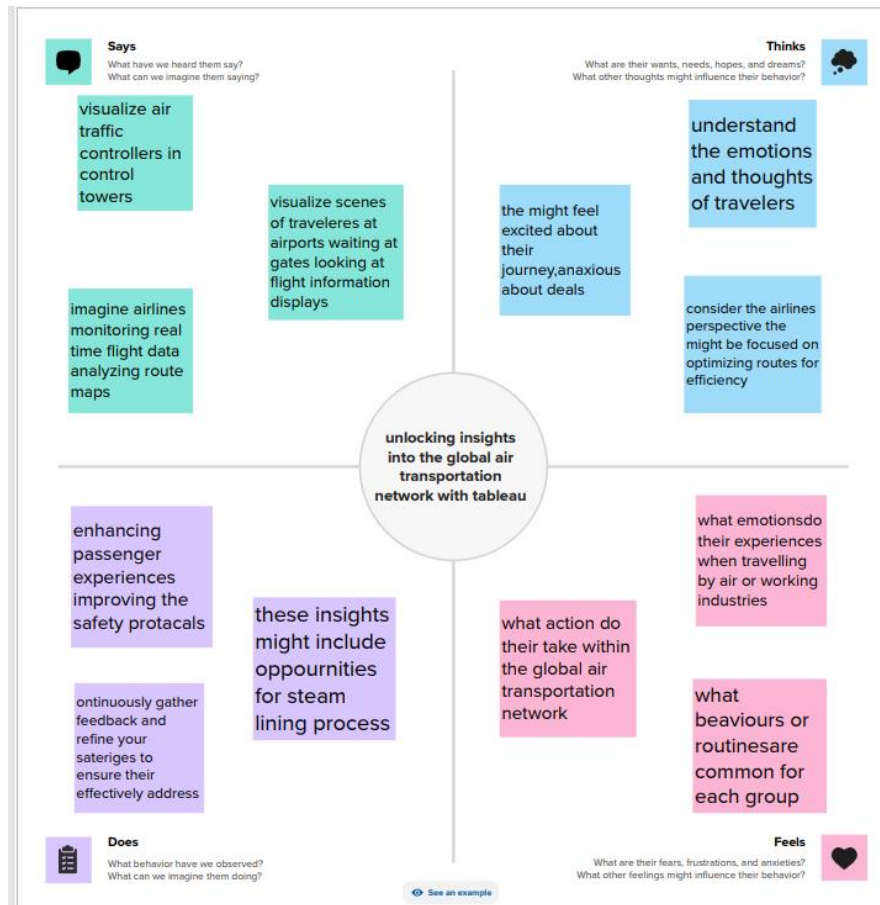
Unlocking insights into the global air transportation network with Tableau is a powerful tool for airlines, airports, government agencies, and other stakeholders. By integrating data from various sources, visualizing information, and applying data-driven analysis, Tableau empowers decision-makers to optimize operations, enhance customer experiences, and ensure the smooth functioning of this critical global network.

1.2 PURPOSE

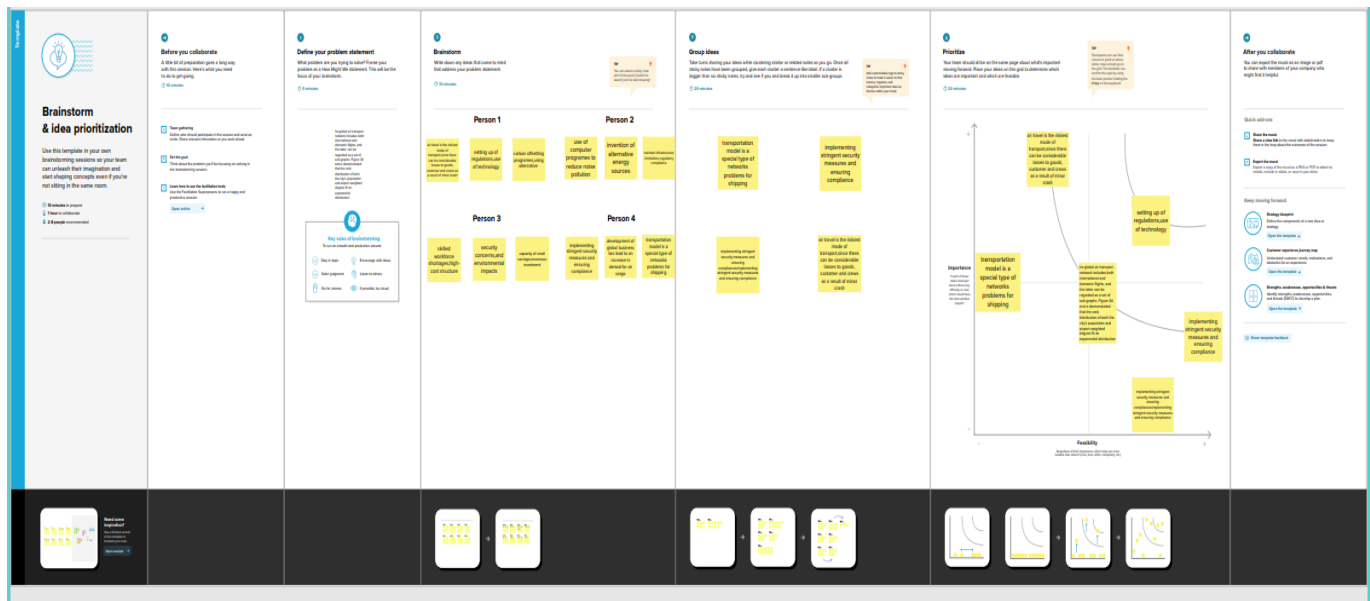
This Global Air Transportation Network dataset is a comprehensive collection of information on airports, airlines and their routes. It contains information such as names, cities, countries, codes (IATA and ICAO) longitudes, latitudes and altitudes of airports across the world with detailed time zone and daylight saving time data.

2.Problem Definition & Design Thinking :

2.1 Empathy map

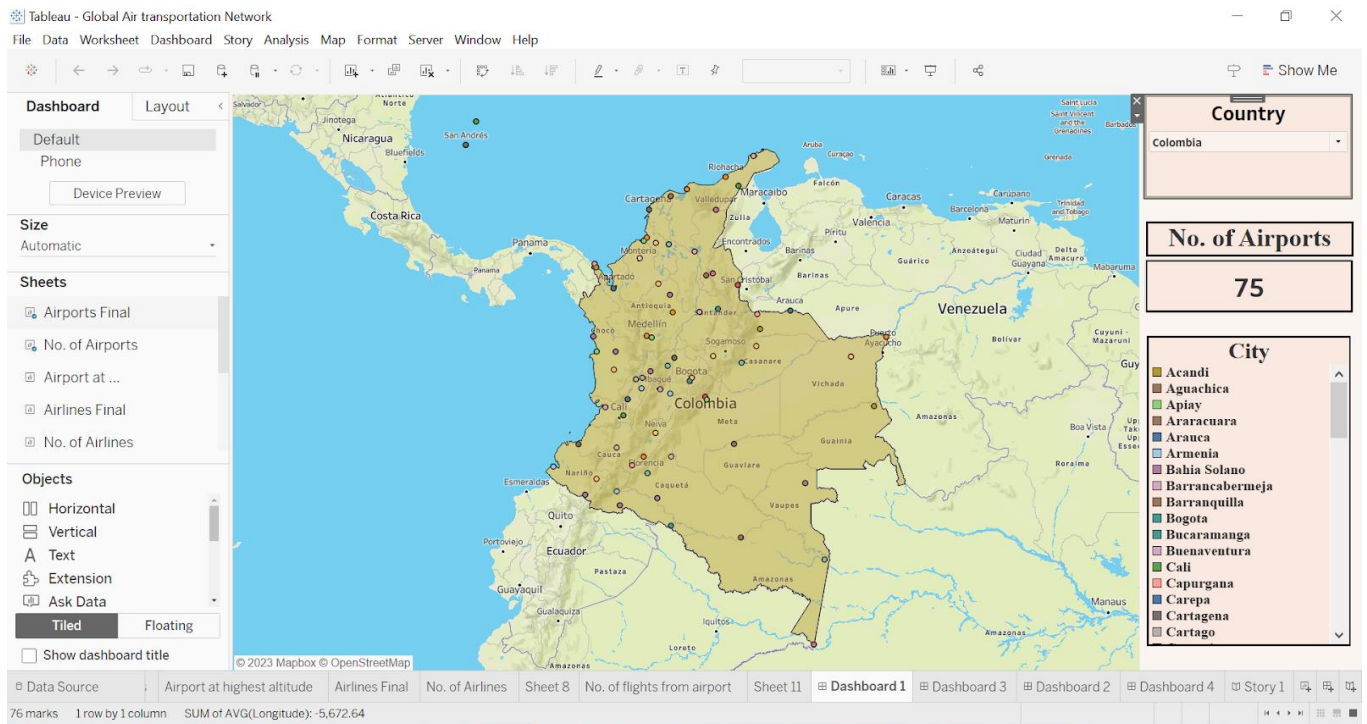


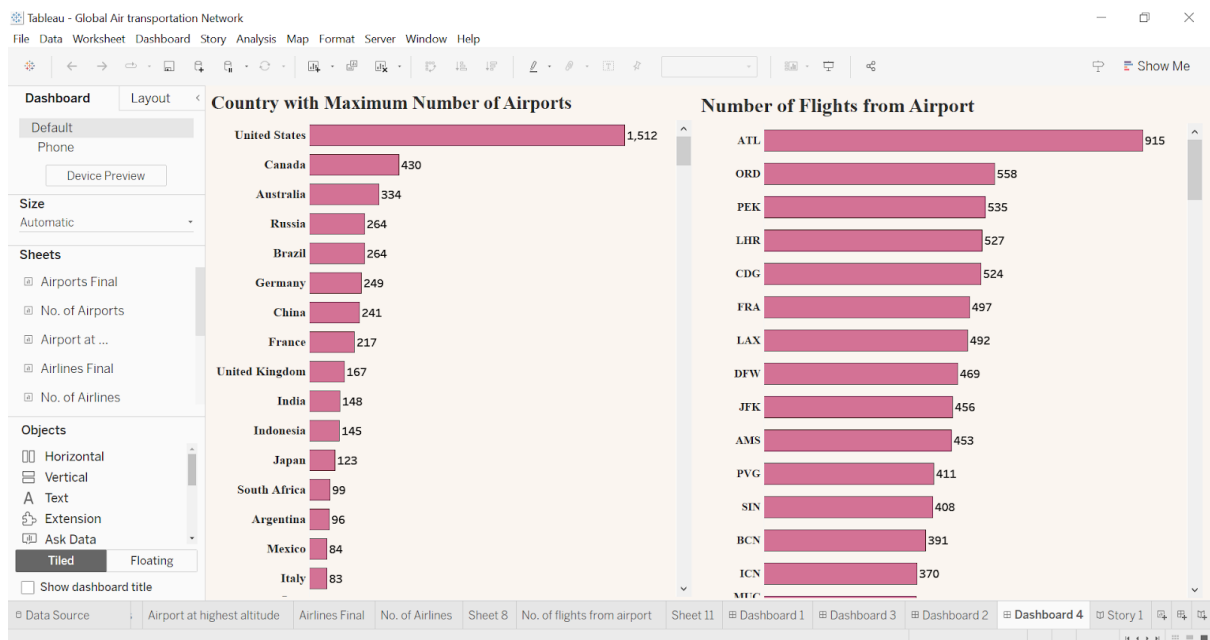
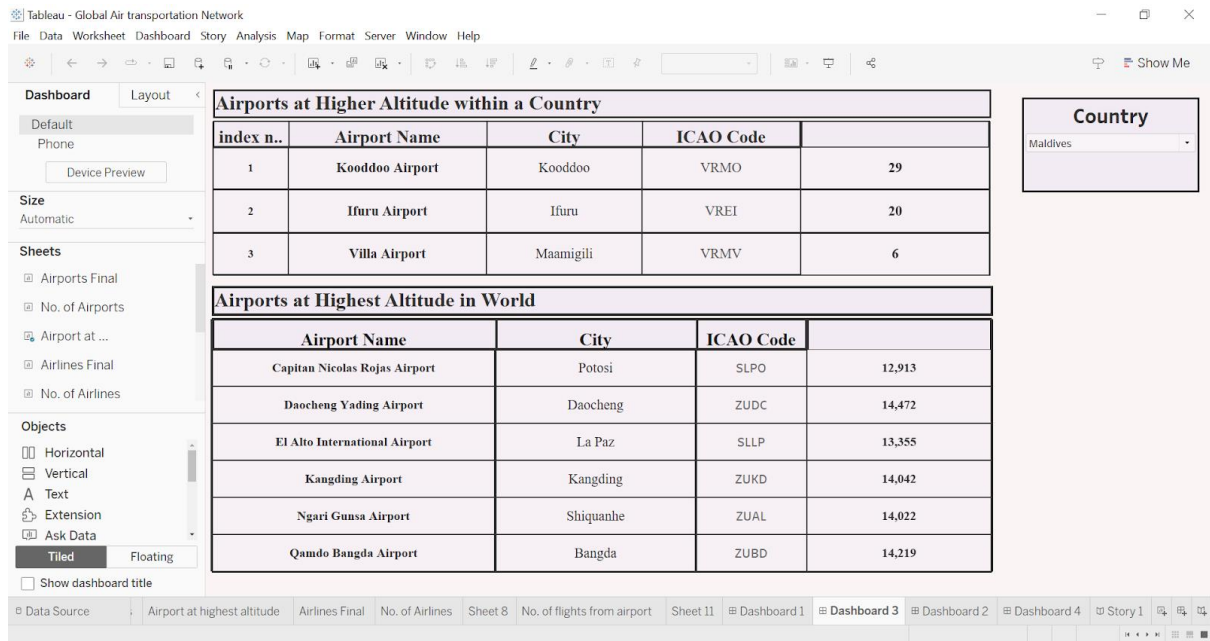
2.2 IDEATION AND BRAINSTORMING MAP



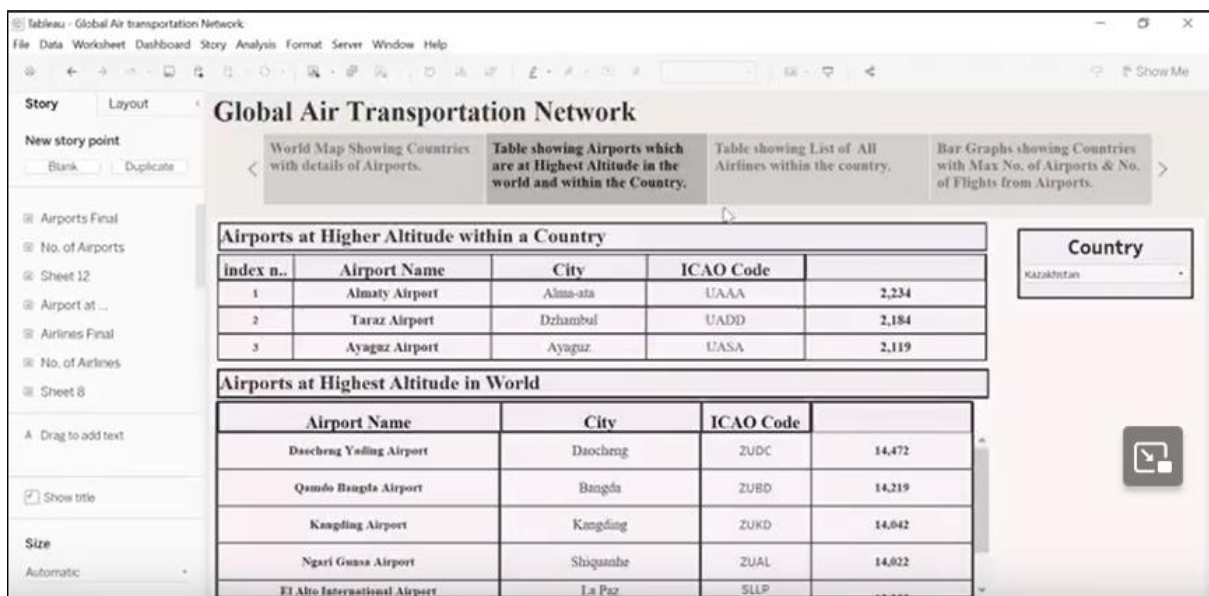
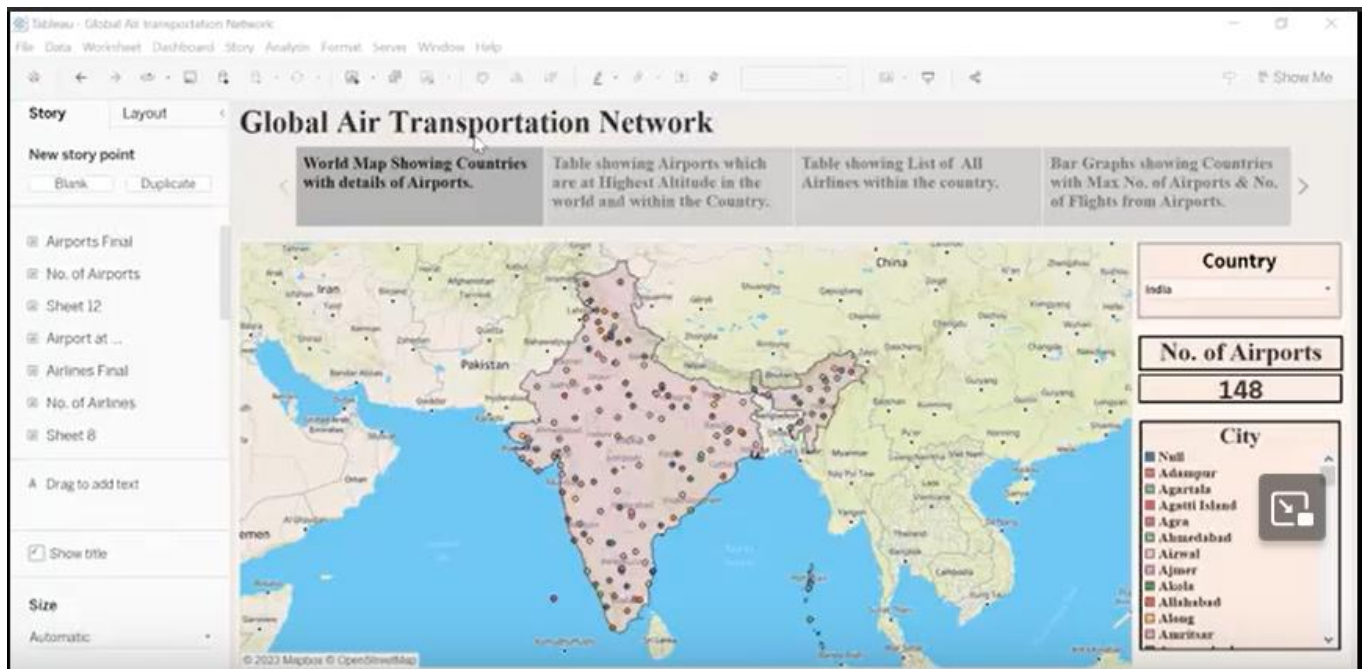
3.RESULTS

Dashboard :





Story :



4.ADVANTAGES AND DISADVANTAGES :

Advantages :

- Airlines can use Tableau to analyze historical flight data and optimize routes, leading to improved operational efficiency, reduced fuel consumption, and lower operating costs.

- Tableau provides real-time data analysis and visualization, which is invaluable for handling emergency situations, such as weather-related disruptions or security incidents. It allows for quick response and resolution.
- Airports can monitor their performance using Tableau, enabling data-driven decisions to enhance passenger experience and operational efficiency. This can lead to better infrastructure planning and resource allocation.

DISADVANTAGES :

While Tableau offers numerous advantages for unlocking insights into the global air transportation network, it's important to consider potential disadvantages and challenges associated with its use in this context. Implementing and maintaining a Tableau-based system can be expensive, particularly for smaller airlines, airports, or organizations with limited budgets. Licensing, hardware, and training costs can add up.

5. APPLICATIONS :

- Unlocking insights into the global air transportation network with Tableau has a wide range of applications across various aspects of the aviation industry.
- Airlines can use Tableau to analyze historical flight data and passenger demand to optimize routes, reduce operational costs, and improve fuel efficiency.
- Airlines can use Tableau for pricing and revenue management by analyzing fare structures, demand patterns, and market dynamics
- Airlines and airports can analyze passenger data to personalize services, improve in-flight experiences, and enhance customer satisfaction.
- Tableau can provide real-time insights during emergencies, allowing airlines and airports to respond quickly to situations such as natural disasters or security threats.
- Airlines can use Tableau to study market trends, competitive landscapes, and passenger preferences to make informed business decisions.

These applications demonstrate the versatility and value of Tableau in the aviation industry, enabling organizations to make data-driven decisions, improve efficiency, enhance customer experiences, and adapt to dynamic market conditions.

6. CONCLUSION :

Unlocking insights into the global air transportation network with Tableau is a transformative endeavour that empowers airlines, airports, government agencies, and other stakeholders to harness the power of data-driven decision-making in the aviation industry. Tableau offers a versatile set of tools and capabilities that can be applied across various facets

of the air transportation network, from route optimization and safety compliance to passenger experience enhancement and crisis management.

7. FUTURE SCOPE :

Tableau is expected to incorporate more advanced analytics capabilities, enabling predictive and prescriptive analytics to support airlines and airports in making proactive decisions. Machine learning and artificial intelligence integration will facilitate more accurate demand forecasting and performance optimization. The future scope for unlocking insights into the global air transportation network with Tableau is promising and aligns with the evolving trends and challenges in the aviation industry.