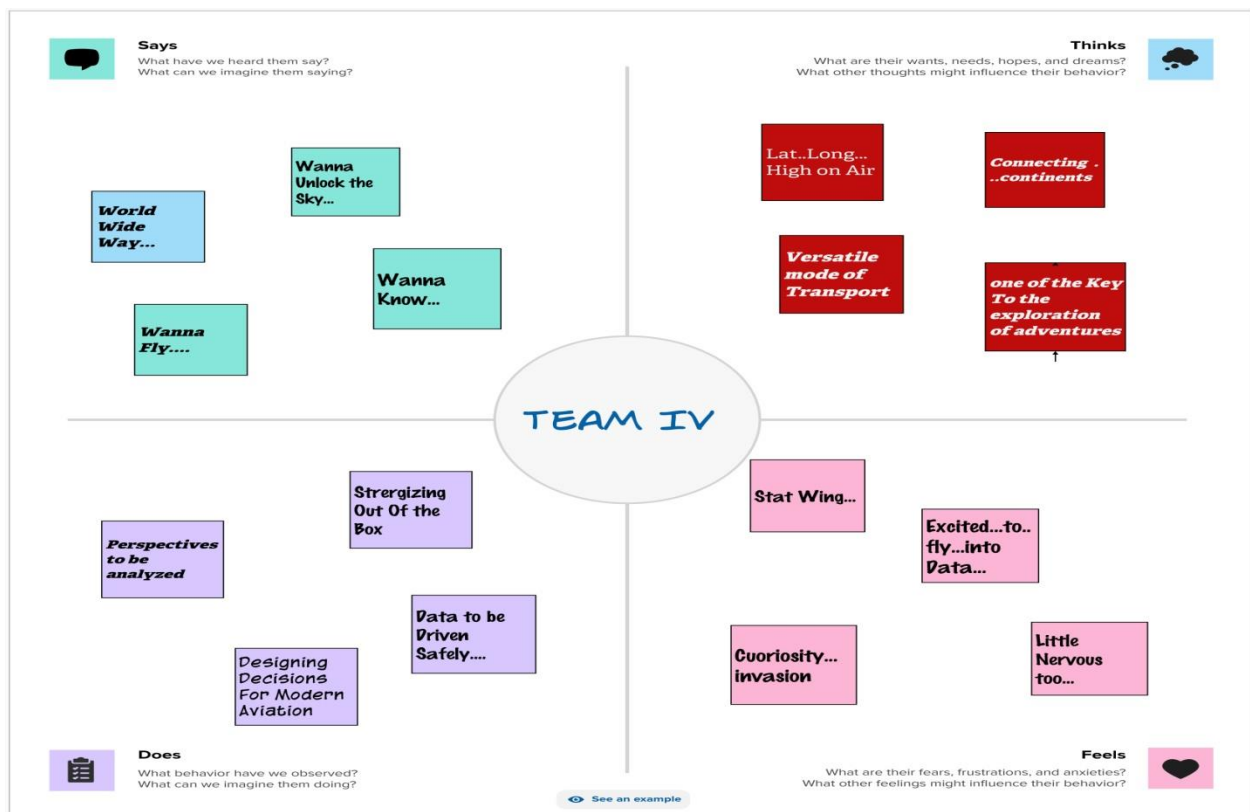


# Global Air Transportation Network

## Introduction

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. Additionally, this includes information about airlines including their IDs, name aliases, IATA and ICAO codes, callsigns country of origin and active/inactive status. Similarly, it also covers route details such as airline sources to destination airports along with essential details like codeshare stakeholder if any stops required during this journey along with the type of aircraft being used for that particular journey. This dataset has been compiled through meticulous labor by researchers all over the world to give you a comprehensive detail into air transportation networks from around the globe.

## Empathy Map



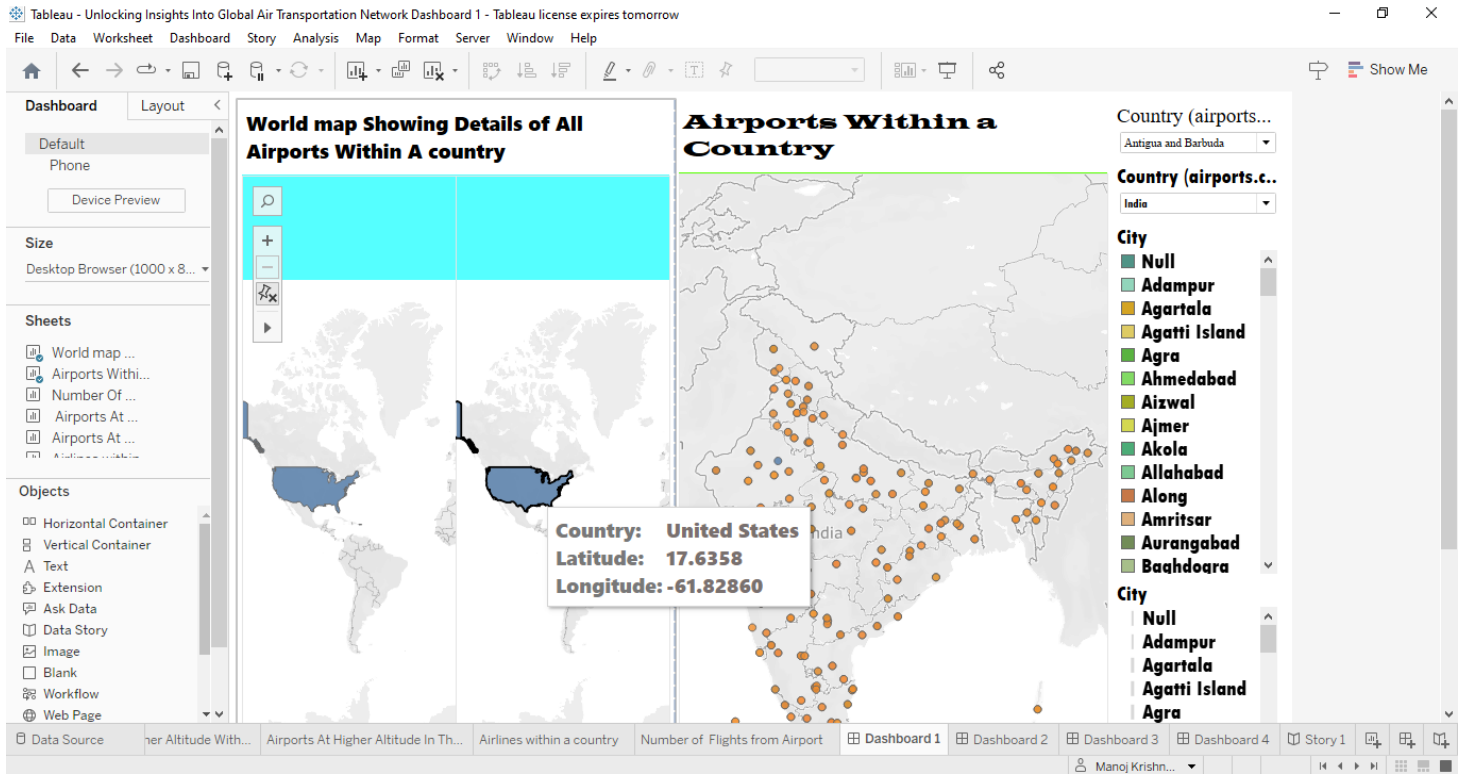
The image displays a collection of eight templates designed for brainstorming and idea prioritization, arranged in a grid. Each template is numbered 1 through 8 and includes a title, a brief description of its purpose, and a visual representation of the template's layout.

- 1. Brainstorm:** A template for generating ideas. It includes a section for "Before you collaborate" and a "Brainstorm" section with a grid for listing ideas.
- 2. Define your problem statement:** A template for defining the problem. It includes a "PROBLEM" section with a grid for listing problem statements.
- 3. Group ideas:** A template for grouping ideas. It includes a "Group ideas" section with a grid for listing grouped ideas.
- 4. Prioritize:** A template for prioritizing ideas. It includes a "Prioritize" section with a grid for listing prioritized ideas.
- 5. After you collaborate:** A template for reflecting on the collaboration. It includes a "After you collaborate" section with a grid for listing reflections.
- 6. Brainstorm:** A template for generating ideas. It includes a "Brainstorm" section with a grid for listing ideas.
- 7. Define your problem statement:** A template for defining the problem. It includes a "PROBLEM" section with a grid for listing problem statements.
- 8. Group ideas:** A template for grouping ideas. It includes a "Group ideas" section with a grid for listing grouped ideas.

Each template is designed to be used in a collaborative setting, with sections for "Before you collaborate", "During the session", and "After you collaborate". The templates are presented in a clean, modern style with a color palette of blue, green, and yellow.

## Result

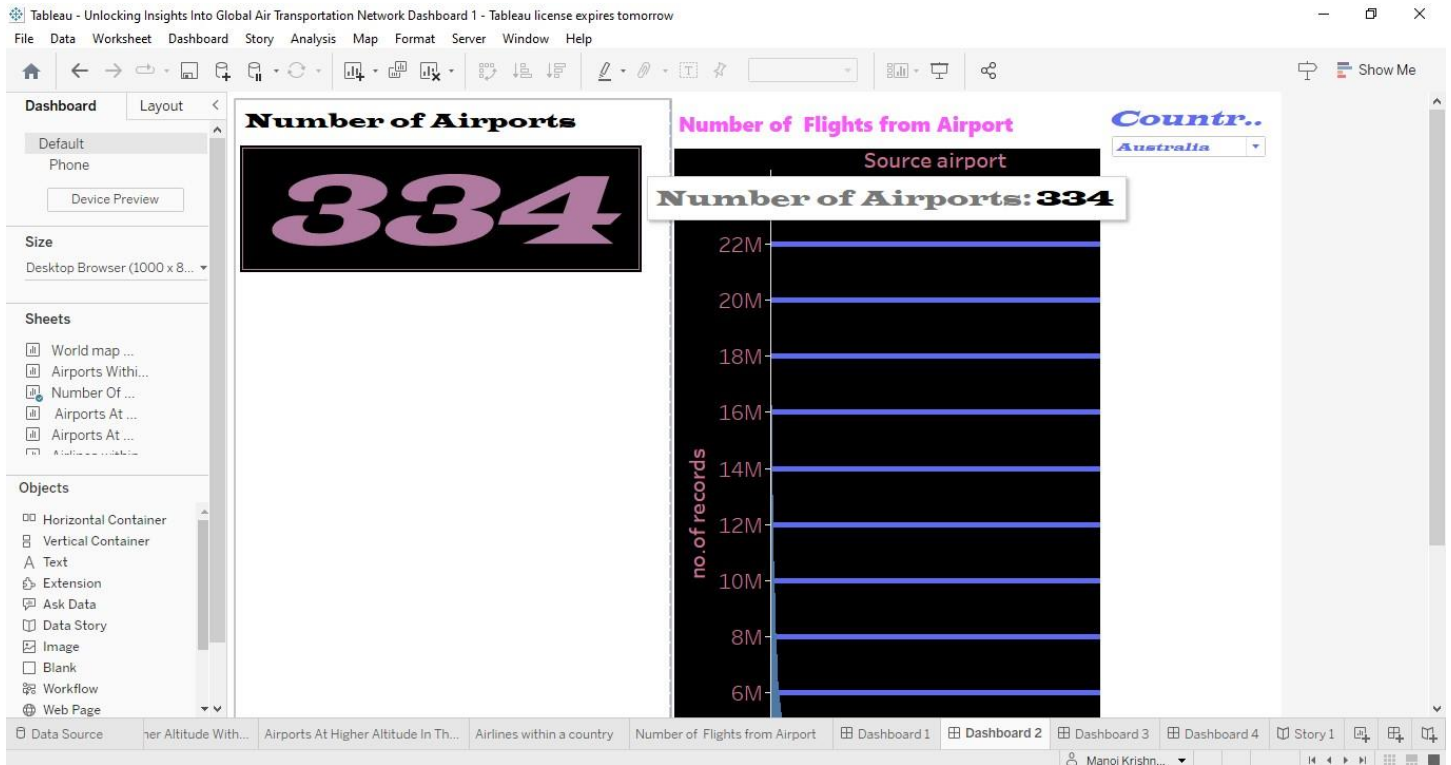
## Dashboard1



Dashboard 1

[https://public.tableau.com/views/UnlockingInsightsIntoGlobalAirTransportationNetworkDashboard1/Dashboard1?:lang=en-US&:display\\_count=n&:origin=viz\\_share\\_link](https://public.tableau.com/views/UnlockingInsightsIntoGlobalAirTransportationNetworkDashboard1/Dashboard1?:lang=en-US&:display_count=n&:origin=viz_share_link)

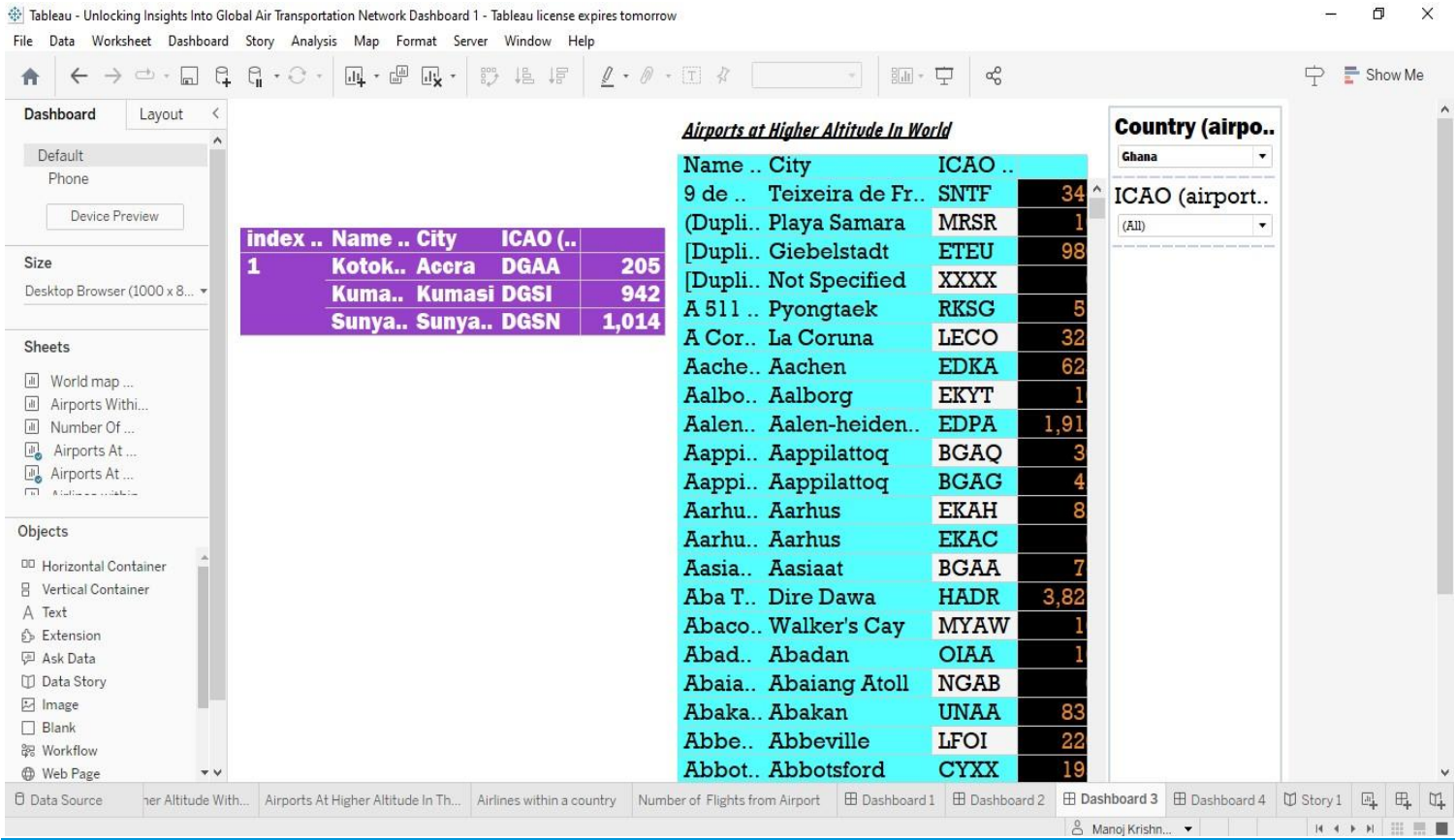
## Dashboard 2



Dashboard 2

[https://public.tableau.com/views/UnlockingInsightsIntoGlobalAirTransportationNetworkDashboard2/Dashboard2?:language=en-US&:display\\_count=n&:origin=viz\\_share\\_link](https://public.tableau.com/views/UnlockingInsightsIntoGlobalAirTransportationNetworkDashboard2/Dashboard2?:language=en-US&:display_count=n&:origin=viz_share_link)

### Dashboard 3



Dashboard 3

[https://public.tableau.com/views/UnlockingInsightsIntoGlobalAirTransportationNetworkDashboard3/Dashboard3?:language=en-US&:display\\_count=n&:origin=viz\\_share\\_link](https://public.tableau.com/views/UnlockingInsightsIntoGlobalAirTransportationNetworkDashboard3/Dashboard3?:language=en-US&:display_count=n&:origin=viz_share_link)

### Dashboard 4

Dashboard 4

[https://public.tableau.com/views/UnlockingInsightsIntoGlobalAirTransportationNetworkDashboard4/Dashboard4?:language=en-US&:display\\_count=n&:origin=viz\\_share\\_link](https://public.tableau.com/views/UnlockingInsightsIntoGlobalAirTransportationNetworkDashboard4/Dashboard4?:language=en-US&:display_count=n&:origin=viz_share_link)

Tableau - Unlocking Insights Into Global Air Transportation Network Dashboard 1 - Tableau license expires tomorrow

File Data Worksheet Dashboard Story Analysis Map Format Server Window Help

Dashboard Layout

Default  
Phone  
Device Preview

Size  
Desktop Browser (1000 x 800)

Sheets

- World map ...
- Airports Within ...
- Number Of ...
- Airports At ...
- Airports At ...

Objects

- Horizontal Container
- Vertical Container
- Text
- Extension
- Ask Data
- Data Story
- Image
- Blank
- Workflow
- Web Page

**Airlines within a country**

Airline..	Name	Icao	Callsign
218	Air India Limit..	AIC	AIRINDIA
241	Air Sahara	RSH	SAHARA
569	Air India Expre..	AXB	EXPRESS INDIA
1026	Alliance Air	LLR	ALLIED
1370	Blue Dart Avia..	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 Internati..	IIL	INDIA INTER
2852	Indian Air Force	IFC	INDIAN AIRFO..
2853	Indian Airlines	IAC	INDAIR
3000	Jet Airways	JAI	JET AIRWAYS
3142	Kingfisher Airli..	KFR	KINGFISHER
3907	Paramount Air..	PMW	PARAWAY
3918	Pawan Hans	PHE	PAWAN HANS
4375	Spicejet	SEJ	SPICEJET
13105	Air India Regio..	\N	ALLIED
13106	MDLR Airlines	\N	MDLR
13107	Jagson Airlines	JGN	JAGSON
13905	Skyline nepc	\N	Null
16327	Indya Airline G..	IG1	Indya1
16362	OCEAN AIR CA..	IXO	Null
16738	NEPC Airlines	\N	Null
16901	12 North	N12	12N
19451	Air Costa	\N	Null

Active: ☒ (All)  
☒ N  
☒ Y

Country: India

Active: ☒ N  
☒ Y

Active: N  
 Airline ID: 2851  
 Callsign: INDIA INTER  
 Icao: IIL  
 Name: India International Airways

Data Source: Air Altitude With... Airports At Higher Altitude In Th... Airlines within a country Number of Flights from Airport Dashboard 1 Dashboard 2 Dashboard 3 Dashboard 4 Story 1

Manoj Krishn...

## Story

Tableau - Unlocking Insights Into Global Air Transportation Network Dashboard 1 - Tableau license expires tomorrow

File Data Worksheet Dashboard Story Analysis Format Server Window Help

Story Layout

New story point  
Blank Duplicate

World map ...  
Airports Within ...  
Number Of ...  
Airports At ...  
Airports At ...  
Airlines within a ...  
Number of ...  
Dashboard 1  
Dashboard 2  
Dashboard 3  
Dashboard 4

Drag to add text

Show title

Size  
Automatic

**Global Air Transportation Network**

World Map showing details of all Airports  
Airports Within A Country  
Number Of Airports in a Country  
Airports At Higher Altitude in The World  
Airlines Within A Country  
Number of Flights From Airport

Country (airports...  
Antigua and Barbuda

Country: Norway  
Latitude: 17.1367  
Longitude: -61.79270

© 2023 Mapbox © OpenStreetMap

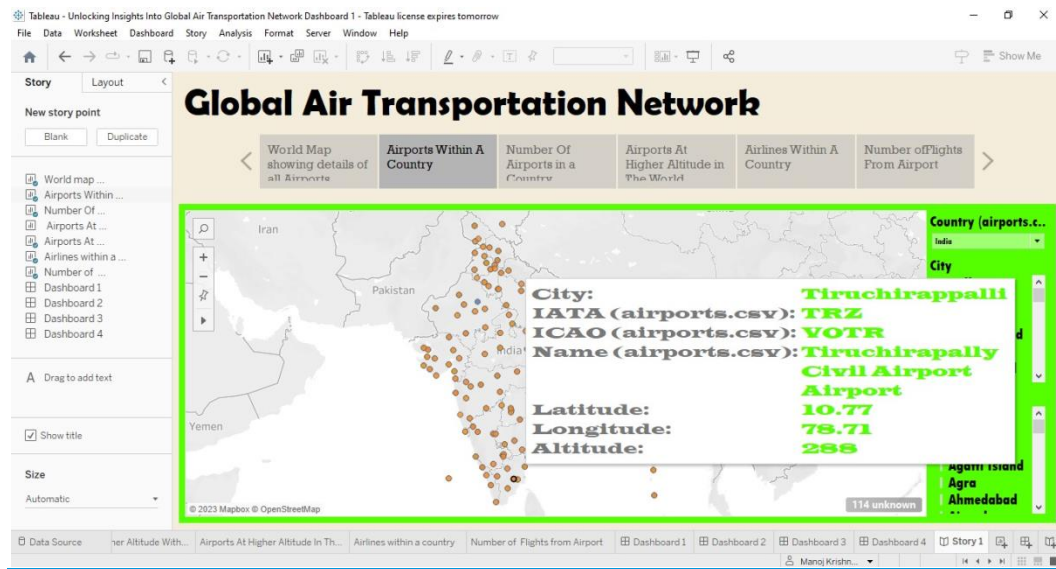
Data Source: Air Altitude With... Airports At Higher Altitude In Th... Airlines within a country Number of Flights from Airport Dashboard 1 Dashboard 2 Dashboard 3 Dashboard 4 Story 1

4 marks 1 row by 2 columns SUM of AVG(Longitude): -123.62130

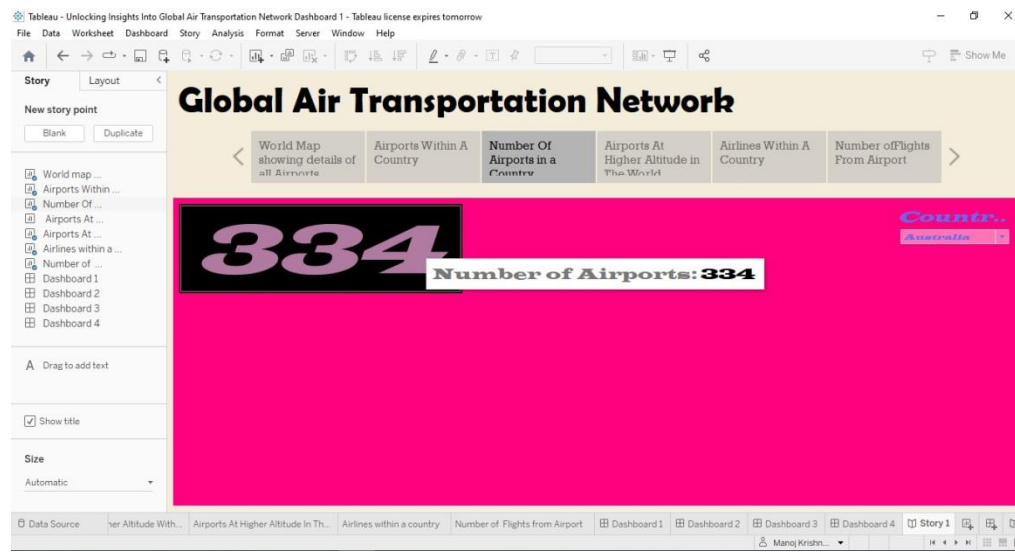
Manoj Krishn...

## World Map Showing Details of All Airports

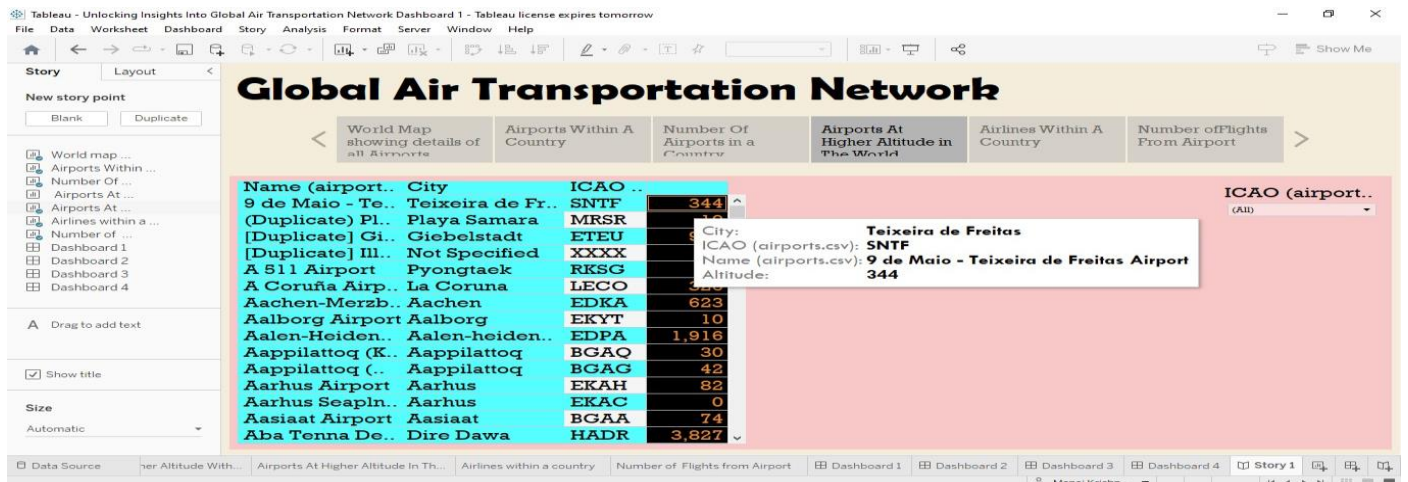




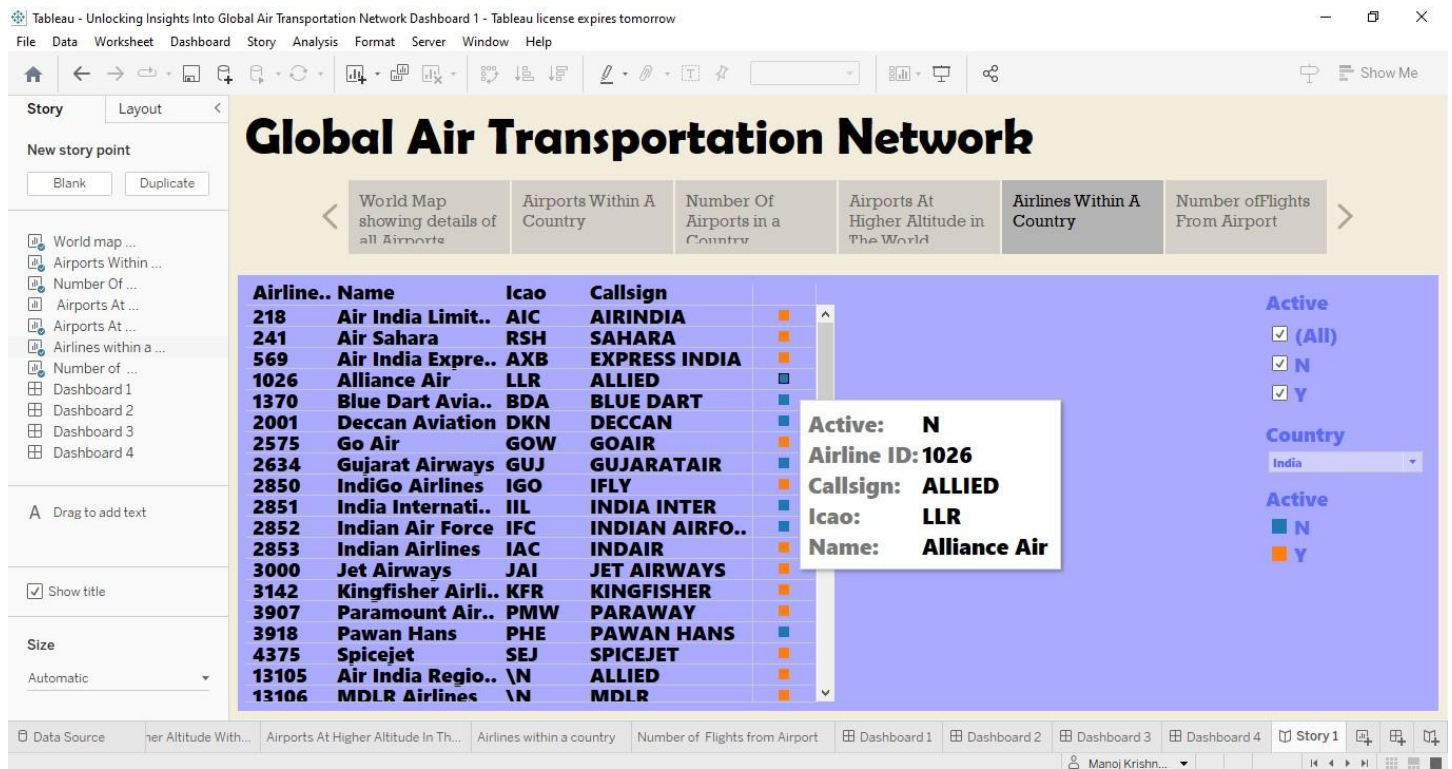
## *Airports Within A Country*



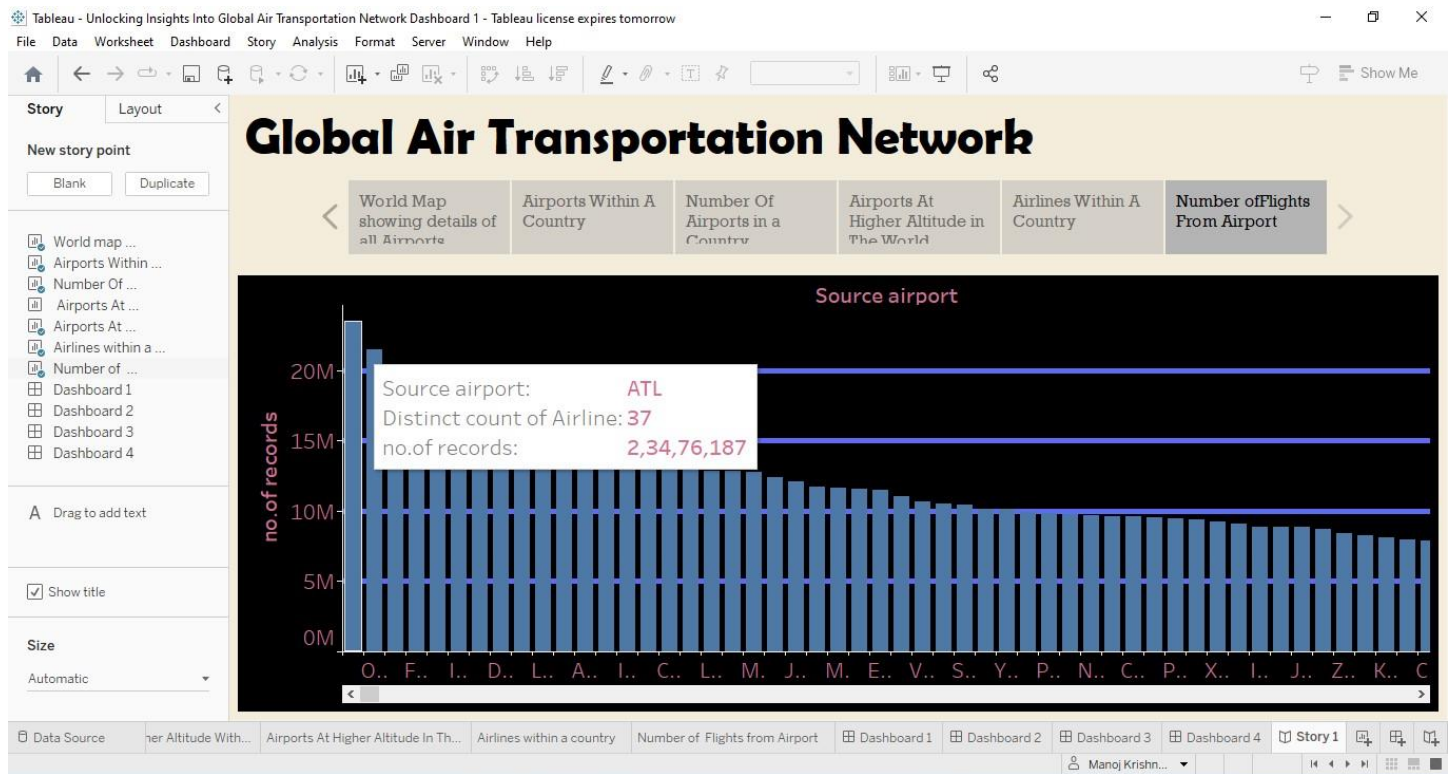
## *Number of Airports Within A Country*



## *Airports At Higher Altitude in The World*



## Airlines Within A Country



## Number Of Flights From Airports

Story

[https://public.tableau.com/views/UnlockingInsightsIntoGlobalAirTransportationNetworkStory/Story1?:language=en-US&:display\\_count=n&:origin=viz\\_share\\_link](https://public.tableau.com/views/UnlockingInsightsIntoGlobalAirTransportationNetworkStory/Story1?:language=en-US&:display_count=n&:origin=viz_share_link)

Vidio Explanation Link

[https://drive.google.com/file/d/1NyK3MpYoZp\\_-Z0fSQS-inDz7XVg\\_an7O/view?usp=drivesdk](https://drive.google.com/file/d/1NyK3MpYoZp_-Z0fSQS-inDz7XVg_an7O/view?usp=drivesdk)

Tableau can offer several advantages and disadvantages, as outlined below Unlocking insights into the global air transportation network using:

Advantages:

- 1. Data Visualization: Tableau is renowned for its powerful data visualization capabilities. It allows you to create interactive and informative dashboards that make complex data related to air transportation easy to understand. Visualizations can include route maps, passenger trends, and more.*
- 2. Real-time Analysis: Tableau can connect to various data sources, enabling real-time or near-real-time analysis of air transportation data. This is valuable for tracking live flights, delays, or disruptions.*
- 3. Customization: Tableau offers a high degree of customization, allowing you to tailor your visualizations to specific needs. You can create custom calculations, filters, and parameters to address unique questions about the air transportation network.*

Disadvantages:

- 1. Complexity: While Tableau is a powerful tool, it can be complex for beginners or those without a background in data analysis. Learning the tool may require training and expertise.*
- 2. Data Quality: The quality of the insights you obtain is highly dependent on the quality of the underlying data. Garbage in, garbage out. If the data is incomplete or inaccurate, the insights generated may be unreliable.*

APPLICATIONS

- ❖ *Flight Route Analysis*
- ❖ *Passenger Trends*
- ❖ *Flight Delays and Disruptions*



- ❖ *Airport Performance*
- ❖ *Capacity Planning*
- ❖ *Demand Forecasting*
- ❖ *Environmental Impact Analysis*
- ❖ *Market Research and Competitive Analysis*
- ❖ *Regulatory Compliance*
- ❖ *Customer Experience*
- ❖ *Emergency Response and Contingency Planning*
- ❖ *Cost Management*
- ❖ *Market Expansion*
- ❖ *Economic Impact Assessment*

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## CONCLUSION

*In conclusion, the Global Air Transportation Network dataset offers a comprehensive and meticulously compiled resource for analyzing the worldwide aviation industry. It encompasses extensive data on airports, airlines, and routes, including location details, codes, time zones, and aircraft information. This dataset is a valuable tool for researchers, analysts, and professionals to gain insights into global aviation trends, connectivity, and operational histories of airlines. It can aid in making informed decisions related to air transportation, route planning, and understanding the impact of time zones and daylight saving time on travel. This dataset reflects the collaborative effort of researchers worldwide, making it an essential resource for those studying and working in the field of aviation and transportation*

## Future Scope.

- ❖ ***Real-Time Data Integration***
- ❖ ***Expanded Aircraft Details***
- ❖ ***Environmental Impact Metrics***
- ❖ ***Historical Route Data***
- ❖ ***User-Friendly Interface***
- ❖ ***Mobile App Integration***
- ❖ ***Crowdsourcing for Updates***

## Appendix

[https://drive.google.com/drive/folders/1RJnbcGxvIVuIM3fkZH1Wz3\\_IbLDP2RjY?u](https://drive.google.com/drive/folders/1RJnbcGxvIVuIM3fkZH1Wz3_IbLDP2RjY?u)