

Unlocking Insights into the Global Air Transportation Network with Tableau

By,

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Solaipriya.M

Suganthi.V

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Introduction:

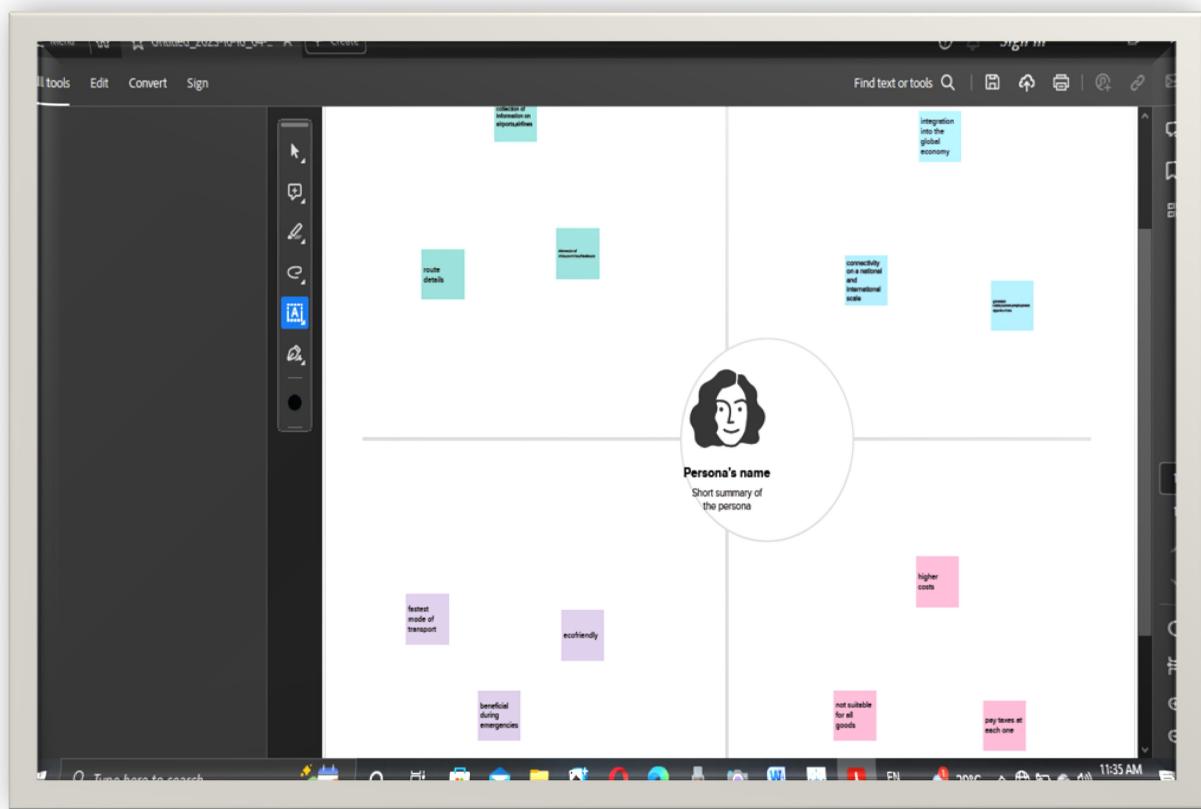
Air transport networks can be defined worldwide as well as for one region or for one airline company; the scale of the network can be global or domestic.

*A complex network which has the properties of smallworld networks and scale-free networks.

*The air transport system generally includes airports, ATC(air traffic control) system and airlines.

*Business and leisure travel, the delivery of time – sensitive goods, and emergency response and rescue missions.

*Air transport in india started with a 10 – km air mail operation between Allahabad and naini in 1911.



Hhb

MODIFY PAGE

ADD CONTENT

- Text
- Image
- Header and footer
- Watermark
- Link

OTHER OPTIONS

- Combine files
- Redact a PDF
- Prepare a form

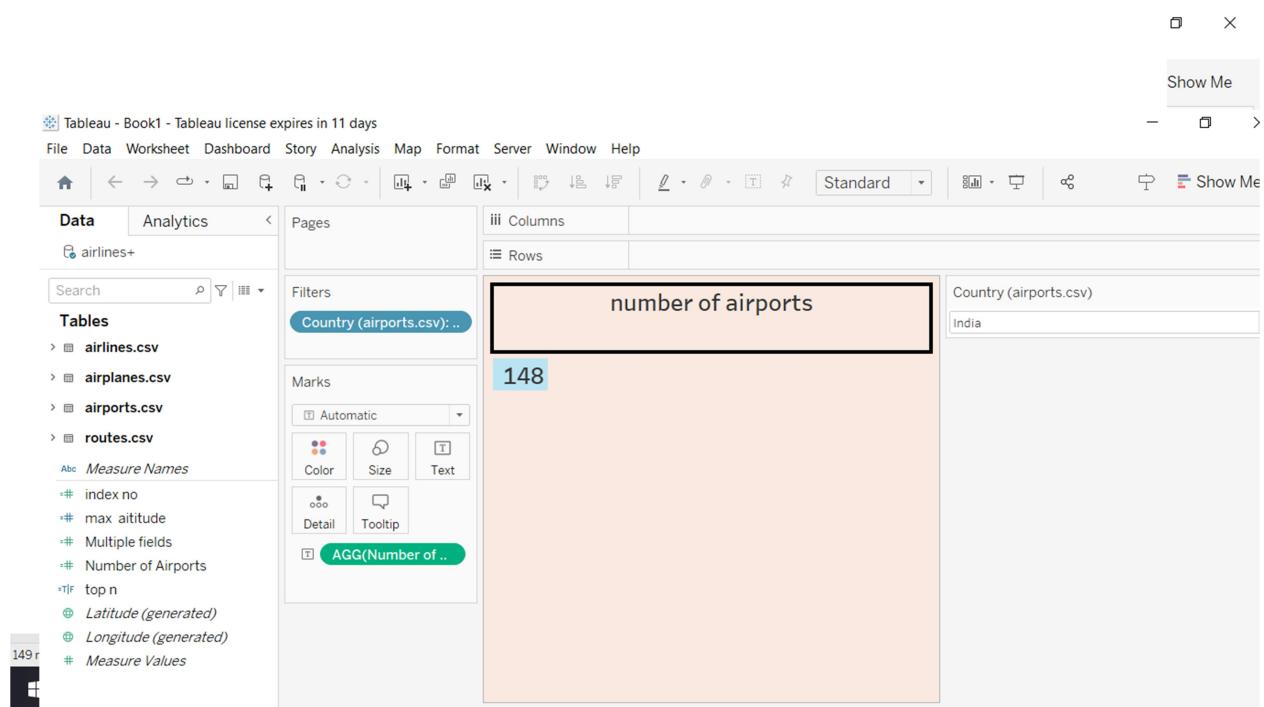
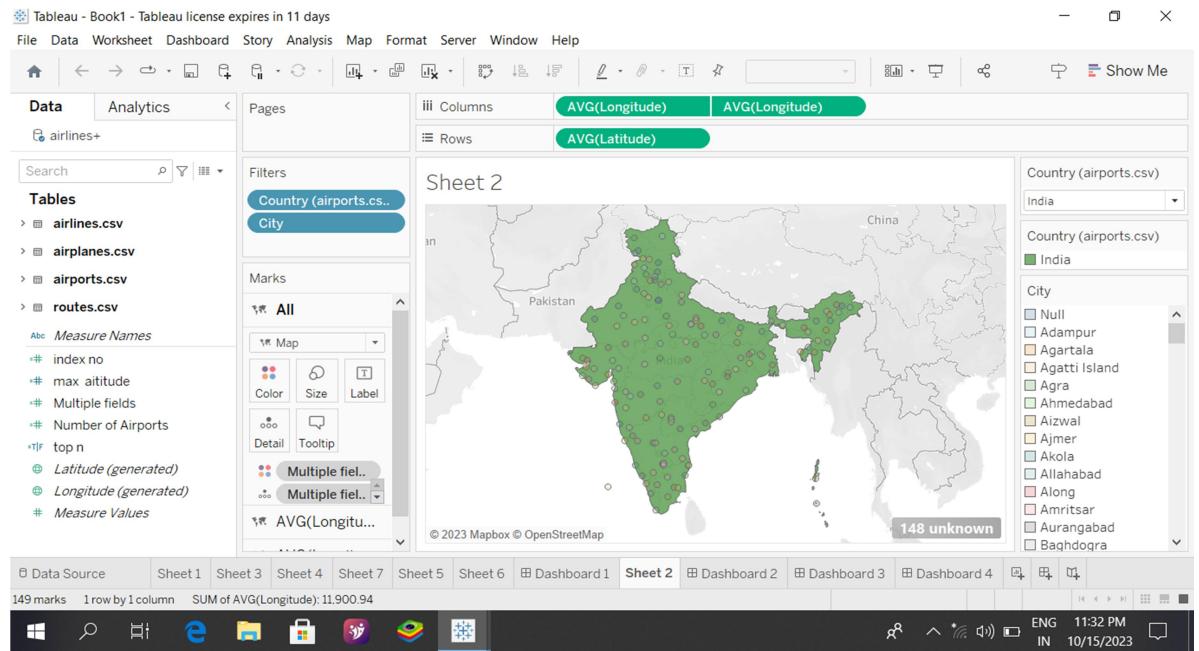


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File Data Worksheet Dashboard Story Analysis Map Format Server Window Help

Home Back Forward Refresh Stop Fit Height Show Me

Data Analytics < Pages Columns Rows Name (airports.csv) City ICAO (airports.csv)

Tables ICAO (airports.csv)

- airlines.csv
- airplanes.csv
- airports.csv
- routes.csv

Measure Names

- index no
- max altitude
- Multiple fields
- Number of Airports
- top n
- Latitude (generated)
- Longitude (generated)
- Measure Values

149 r

Airports at Highest altitude in World

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

DATA WORKSHEET ANALYTICS EXPIRES IN 11 DAYS

Data Worksheet Dashboard Story Analysis Map Format Server Window Help

Analytics < Pages Columns

Rows Airline ID Name Icao Callsign

Airlines+ Filters Country: Colombia Active: Y

Tables Airplanes.csv Airports.csv Routes.csv Measure Names

index no max altitude Multiple fields Number of Airports top n Latitude (generated) Longitude (generated) Measure Values

Airlines within a Country

Airline ID	Name	Icao	Callsign
110	ACES Colombia	AES	ACES
1224	AeroRep	RPB	AEROREPUBLICA
4691	SATENA	NSE	SATENA
5020	TAMPA	TPA	TAMPA
11765	EasyFly	EFY	EASYFLY
16151	CCML Airlines	CCC	Null
16262	Fly Colombia (Interl..	3FF	Null
18946	VivaColombia	VVC	Null
19813	All Colombia	7KK	Null
20073	All America CO	7ZC	Null

Country Colombia

Active (All) n N Y

Active Y

Data Source Sheet1 Sheet3 Sheet4 Sheet7 Sheet5 Sheet6 Dashboard1 Sheet2 Dashboard2 Dashboard3 Dashboard4

Marks 10 rows by 1 column

ENG 11:36 PM IN 10/15/2023

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File Data Worksheet Dashboard Story Analysis Map Format Server Window Help

Dashboard Layout < ^

Default Phone Device Preview

Size Desktop Browser (1000 x 800) ▾

Sheets

- Sheet 1
- Sheet 3
- Sheet 4
- Sheet 7

Objects

- Horizontal Container
- Vertical Container
- Text
- Extension

airports at higher altitude within a country

index no	Name (airports.csv)	City	ICAO (air..)	
1	Zhezkazgan Airport	Zhezkazgan	UAKD	1,250
	Yubileyniy Airfield	Baikonur	UAON	328
	Ust-Kamenogorsk ..	Ust Kamenogorsk	UASK	939

Airports at Highest altitude in World

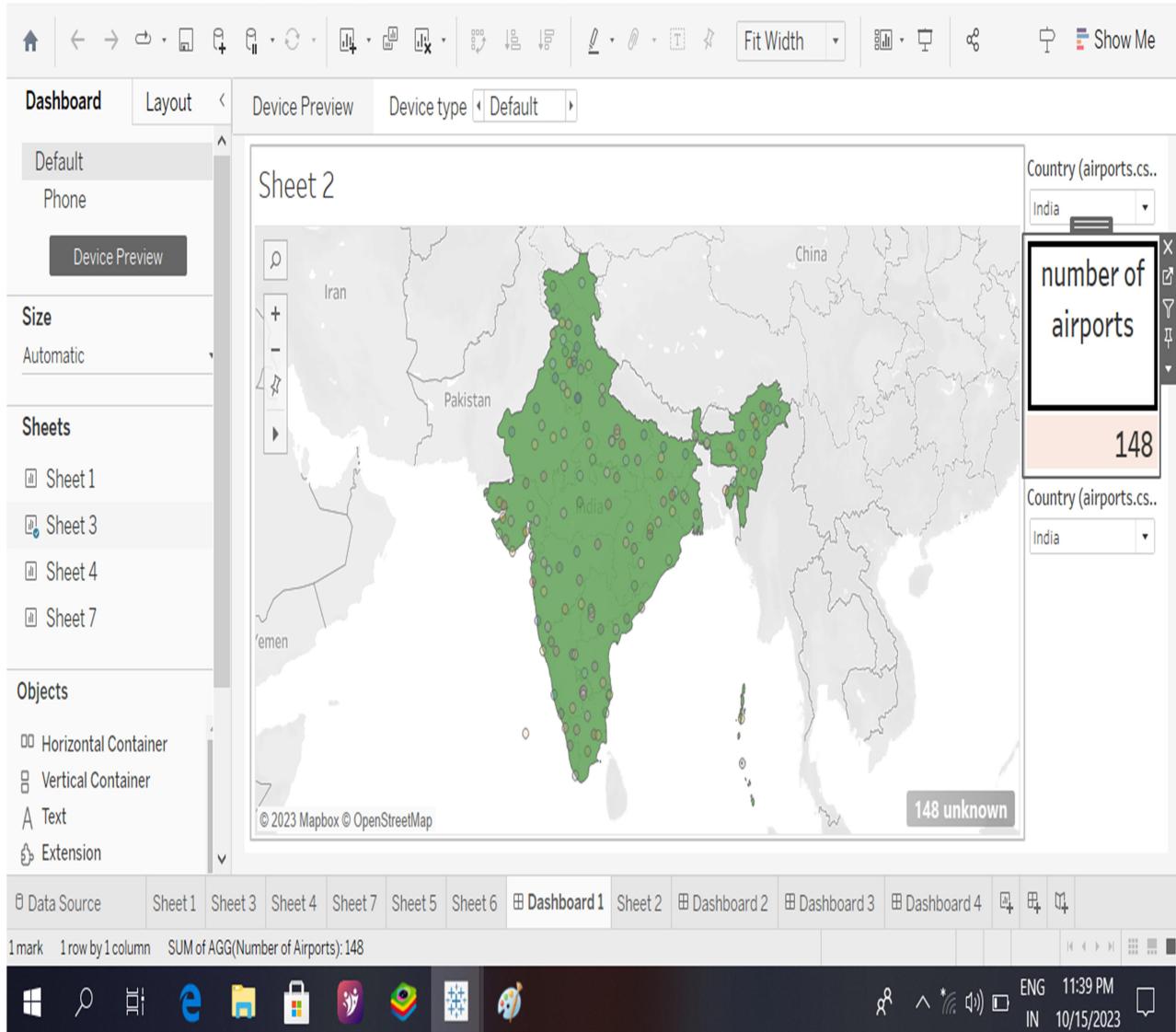
Name (airports.csv)	City	ICAO (air..)	
Capitan Nicolas Rojas Airport	Potosi	SLPO	
Copacabana Airport	Copacabana	SLCC	
Daocheng Yading Airport	Daocheng	ZUDC	
EI Alto International Airport	La Paz	SLLP	
Golog Maqin Airport	Golog	ZLGL	
Inca Manco Capac			

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File Data Worksheet Dashboard Story Analysis Map Format Server Window Help

The screenshot shows the Tableau desktop application interface. On the left, there is a sidebar with several sections: 'Dashboard' (selected), 'Layout', 'Default', 'Phone', 'Device Preview', 'Size' (set to 'Desktop Browser (1000 x 800)'), 'Sheets' (listing 'Sheet 1', 'Sheet 3', 'Sheet 4', and 'Sheet 7'), and 'Objects' (listing 'Horizontal Container', 'Vertical Container', 'Text', and 'Extension'). At the bottom of the sidebar, there are tabs for 'Data Source', 'Sheet 1', 'Sheet 3', 'Sheet 4', 'Sheet 7', 'Sheet 5', 'Sheet 6', 'Dashboard 1', 'Sheet 2', and 'Dashboard 2'. The main workspace on the right is titled 'Airlines within a Country' and contains a table with the following data:

Airline ID	Name	Icao	Callsign
110	ACES Colombia	AES	ACES
1224	AeroRep	RPB	AEROREPUBLICA
4691	SATENA	NSE	SATENA
5020	TAMPA	TPA	TAMPA
11765	EasyFly	EFY	EASYFLY
16151	CCML Airlines	CCC	Null
16262	Fly Colombia (Interl..	3FF	Null
18946	VivaColombia	VVC	Null
19813	All Colombia	7KK	Null
20073	All America CO	7ZC	Null



Analytics

airlines+

Search

Tables

- airlines.csv
- airplanes.csv
- airports.csv
- routes.csv

Measure Names

- # index no
- # max altitude
- # Multiple fields
- # Number of Airports
- # top n
- # Latitude (generated)
- # Longitude (generated)
- # Measure Values

Pages

Columns

Rows

index no

Name (airports.csv)

City

ICAO (airports.csv)

airports at higher altitude within a country

index.no	Name (airports.csv)	City	ICAO (air..)	
1	Zhezkazgan Airport	Zhezkazgan	UAKD	1,250
	Yubileyniy Airfield	Baikonur	UAON	328
	Ust-Kamenogorsk...	Ust Kamenogorsk	UASK	939

Country (airports.csv)

Kazakhstan

Data Source

Sheet 1

Sheet 3

Sheet 4

Sheet 7

Sheet 5

Sheet 6

Dashboard 1

Sheet 2

Dashboard 2

Dashboard 3

Dashboard 4

3 marks 3 rows by 1 column SUM(Altitude): 2,517

11:38 PM
IN 10/15/2023

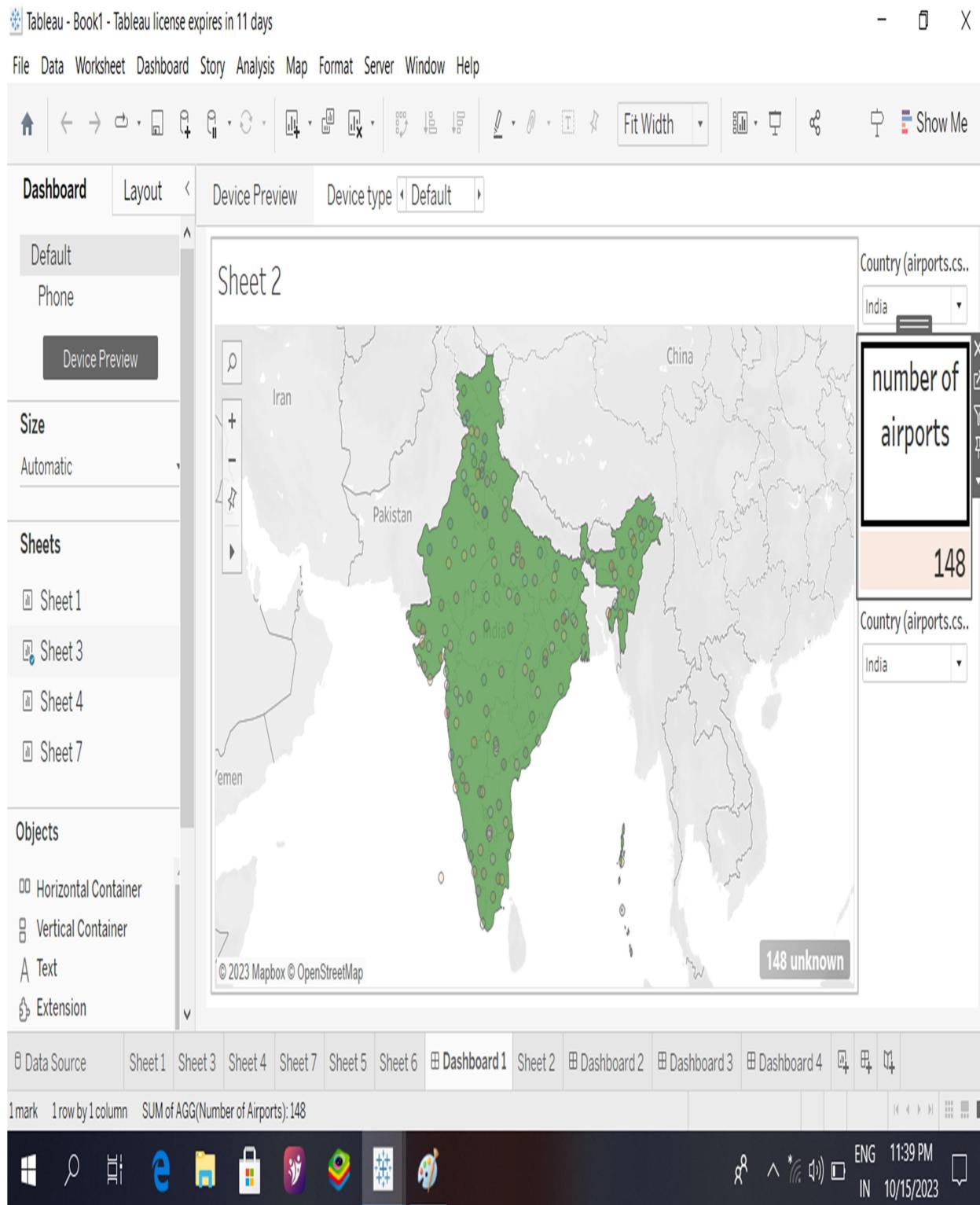


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File Data Worksheet Dashboard Story Analysis Map Format Server Window Help

Dashboard Layout

Default Phone Device Preview

Size Desktop Browser (1000 x 800) •

Sheets Sheet 1 Sheet 3 Sheet 4 Sheet 7 Sheet 5 Sheet 6 Dashboard 1 Sheet 2 Dashboard 2 Dashboard 3 Dashboard 4

Objects Horizontal Container Vertical Container Text Extension

Airlines within a Country

Airline ID	Name	Icao	Callsign	Active
110	ACES Colombia	AES	ACES	<input checked="" type="checkbox"/>
1224	AeroRep	RPB	AEROREPUBLICA	<input checked="" type="checkbox"/>
4691	SATENA	NSE	SATENA	<input checked="" type="checkbox"/>
5020	TAMPA	TPA	TAMPA	<input checked="" type="checkbox"/>
11765	EasyFly	EFY	EASYFLY	<input checked="" type="checkbox"/>
16151	CCML Airlines	CCC	Null	<input checked="" type="checkbox"/>
16262	Fly Colombia (Interl..	3FF	Null	<input checked="" type="checkbox"/>
18946	VivaColombia	VVC	Null	<input checked="" type="checkbox"/>
19813	All Colombia	7KK	Null	<input checked="" type="checkbox"/>
20073	All America CO	7ZC	Null	<input checked="" type="checkbox"/>

Country Colombia Active (All) n N Y Y

Dashboard Layout

Default Phone Device Preview

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Objects Horizontal Container Vertical Container Text Extension

Airlines within a Country

Airline ID	Name	Icao	Callsign	Active
110	ACES Colombia	AES	ACES	<input checked="" type="checkbox"/>
1224	AeroRep	RPB	AEROREPUBLICA	<input checked="" type="checkbox"/>
4691	SATENA	NSE	SATENA	<input checked="" type="checkbox"/>
5020	TAMPA	TPA	TAMPA	<input checked="" type="checkbox"/>
11765	EasyFly	EFY	EASYFLY	<input checked="" type="checkbox"/>
16151	CCML Airlines	CCC	Null	<input checked="" type="checkbox"/>
16262	Fly Colombia (Interl..	3FF	Null	<input checked="" type="checkbox"/>
18946	VivaColombia	VVC	Null	<input checked="" type="checkbox"/>
19813	All Colombia	7KK	Null	<input checked="" type="checkbox"/>
20073	All America CO	7ZC	Null	<input checked="" type="checkbox"/>

Country Colombia Active (All) n N Y Y

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File Data Worksheet Dashboard Story Analysis Map Format Server Window Help

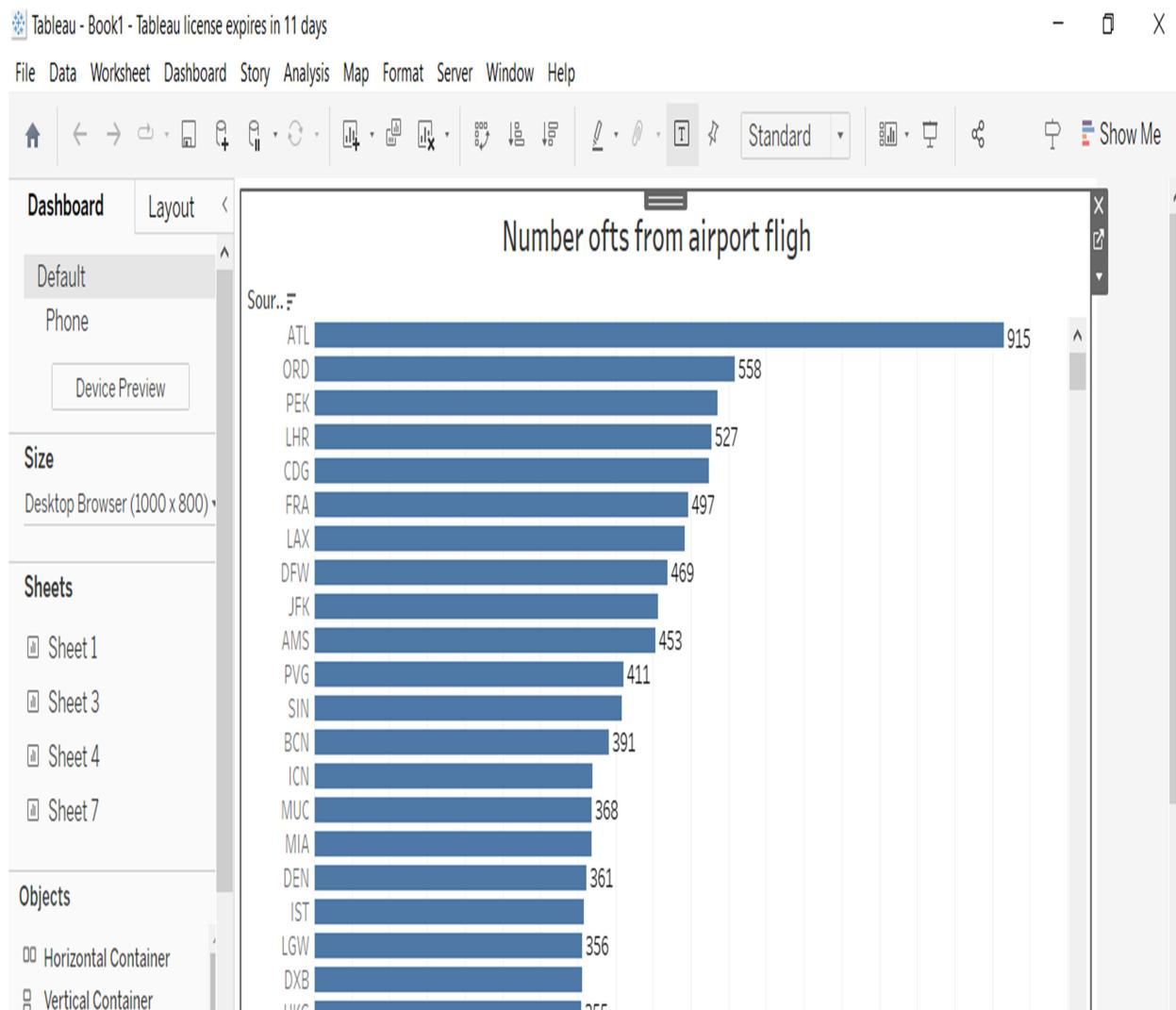
Dashboard Layout < Standard Show Me

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Golog Maqin Airport	Golog	ZLGL
Inca Manco Capac		
		12,913
		12,591
		14,472
		13,355
		12,426



Advantages

- Fast service.
- Send almost everywhere your freight .
- High standard of security .
- Natural route.
- There is less need for heavy packaging.

DISADVANTAGES

- Cost.
- Some product limitation.

- Capacity for small carriage.
- Enormous investment.

APPLICATION

Tableau software is a versatile data visualization and analytical tool with applications in various industries and scenarios. Here are some common applications where Tableau can be used:

1. Business Intelligence(BI)
2. Sales and Marketing Analytics

3. Financial Analytics

Conclusion

The International Air Transport Association has been instrumental in developing and improving the air transport industry.

Future scope

Constantly evolving, and Tableau courses can be enhanced to keep pace with these changes. Here

are some potential enhancements that could be made in future Tableau courses.