

UNLOCKING INSIGHTS INTO THE GLOBAL AIR TRANSPORTATION NETWORK

Submitted by

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NM2023TMID06888

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SRI MEENAKSHI GOVERNMENT ARTS COLLEGE FOR WOMEN (A)

PROJECT REPORT TEMPLATE

1. INTRODUCTION :

1.1 Overview :

The air transport system generally includes airports, ATC (air traffic control) system and airlines. The airport represent the ground part of the system's infrastructure handling the aircraft operated by different airline transporting passengers and freight/cargo shipments. The worldwide air transportation network is a critical infrastructure with high impact on mobility, and economic.

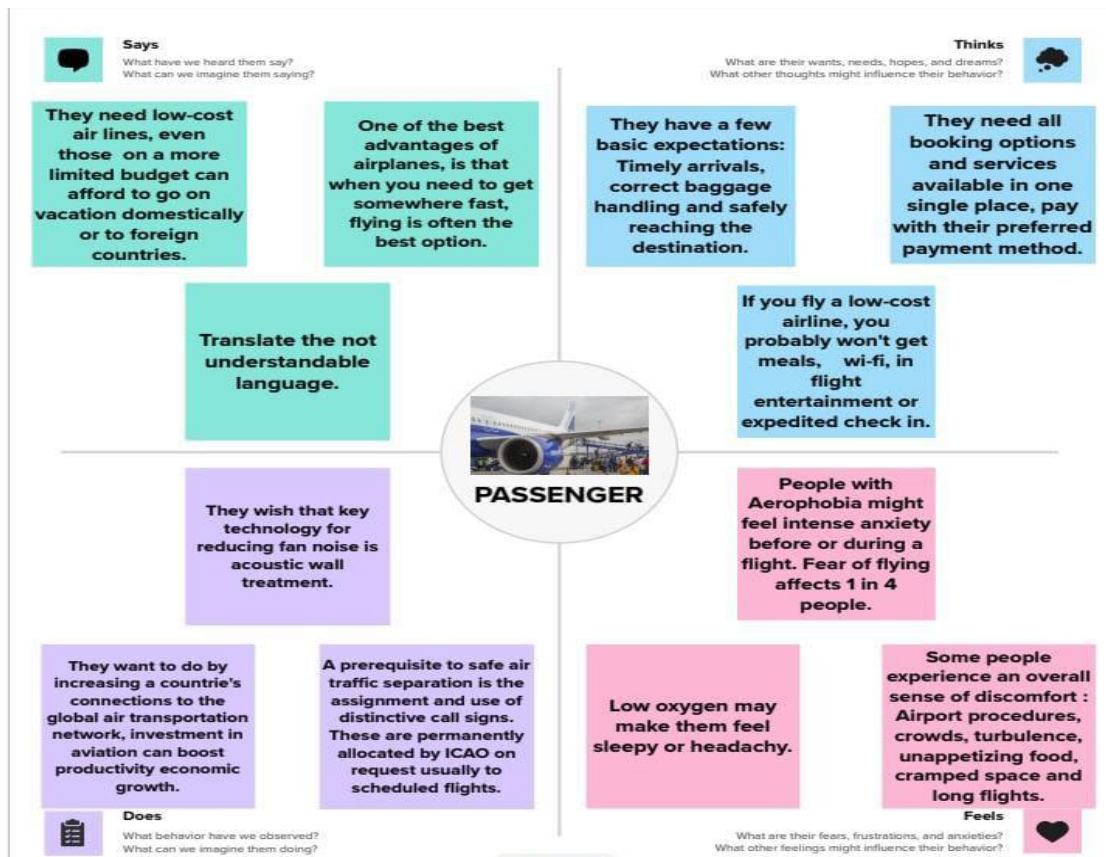
1.2 Purpose :

Use : Air transport allows people from different countries to cross international boundaries and travel other countries for personal, business, medical, and tourism purposes.

Achievements by using this : Air transportation indicates the significant economic impact of aviation on the world economy, which is also demonstrated by the fact that aviation represents 3.5 percent of the gross domestic product (GDP) worldwide (2.7 trillion US dollars) and has created 65 million jobs globally.


2. Problem Definition & Design Thinking :

2.1 Empathy Map :




2.2 Ideation & Brainstorming Map


Template





Brainstorm & idea prioritization

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

 10 minutes to prepare


 1 hour to collaborate


 2-8 people recommended




Before you collaborate

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.


 10 minutes

 **Team gathering**


Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.

 **Set the goal**

Think about the problem you'll be focusing on solving in the brainstorming session.

 **Learn how to use the facilitation tools**

Use the Facilitation Superpowers to run a happy and productive session.

[Open article](#) 

1

Define your problem statement

What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.

 5 minutes

PROBLEM

People got very good passenger service in first class but they didn't get that service in third class when they returning by the same flight. To resolve this problem there are some ways to improve passenger service and solutions for their need in air transportation.



Key rules of brainstorming

To run an smooth and productive session



Stay in topic.



Encourage wild ideas.



Defer judgment.



Listen to others.



Go for volume.



If possible, be visual.

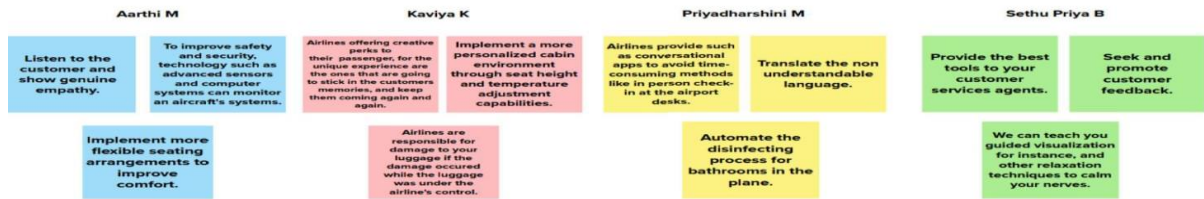
Brainstorm

Write down any ideas that come to mind that address your problem statement.

🕒 10 minutes

TIP

You can select a sticky note and hit the pencil (switch to sketch) icon to start drawing!



3

Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. Once all sticky notes have been grouped, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you can break it up into smaller sub-groups.

🕒 20 minutes

TIP

Add customizable tags to sticky notes to make it easier to find, browse, organize, and categorize important ideas as themes within your mural.



4

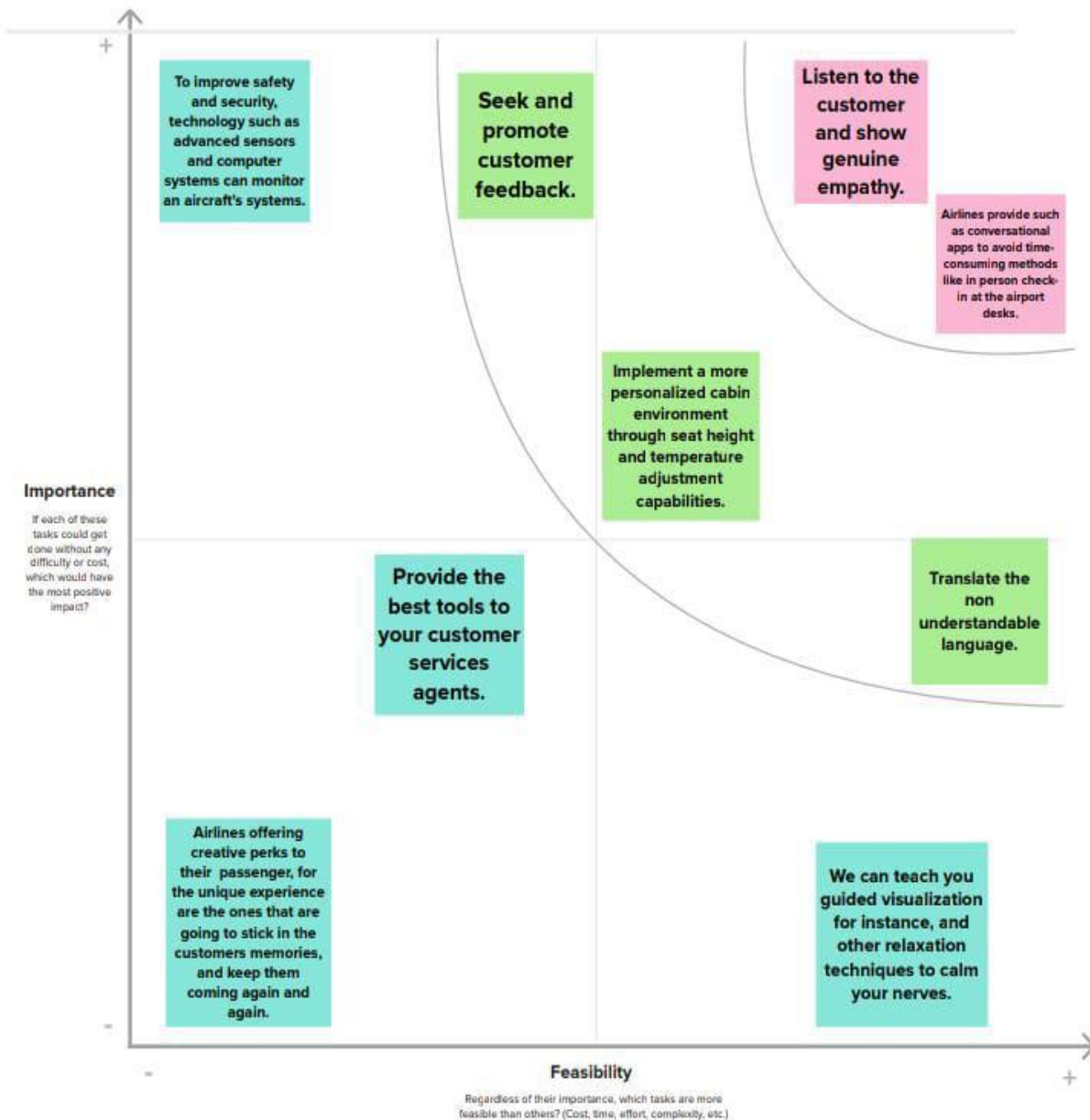
Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

🕒 20 minutes

TIP

Participants can use their cursors to point at where sticky notes should go on the grid. The facilitator can confirm the spot by using the laser pointer holding the H key on the keyboard.



3.RESULT:

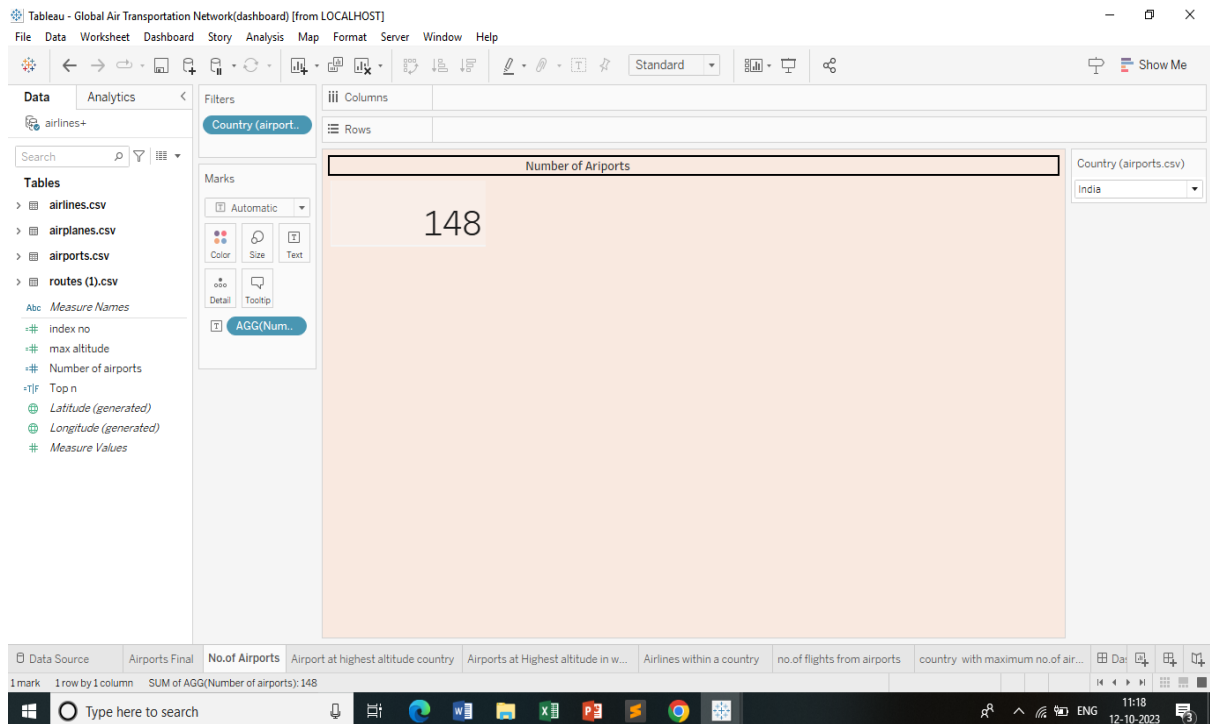
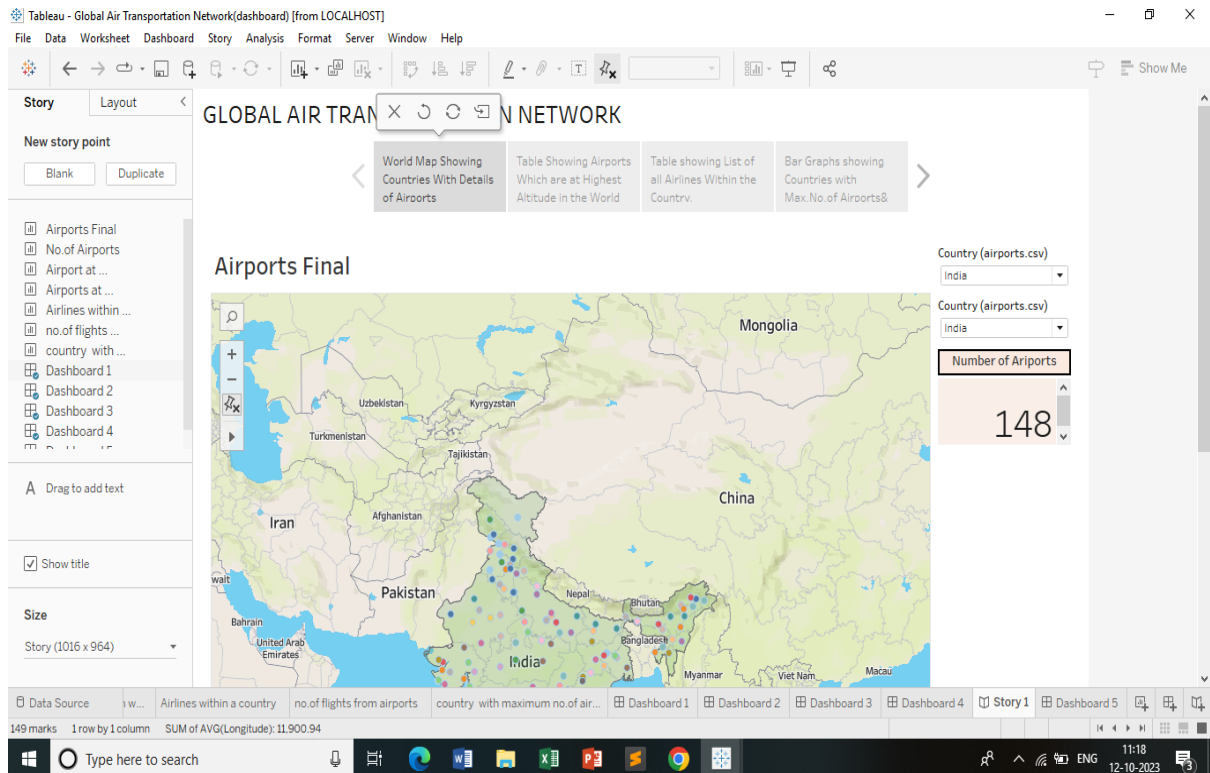


Tableau - Global Air Transportation Network(dashboard) [from LOCALHOST]

File Data Worksheet Dashboard Story Analysis Map Format Server Window Help

Data Analytics

airlines+

Search

Tables

- airlines.csv
- airplanes.csv
- airports.csv
- routes (1).csv

Measure Names

- index no
- max altitude
- Number of airports
- Top n
- Latitude (generated)
- Longitude (generated)
- Measure Values

Marks

Automatic

Color Size Text

Detail Tooltip

SUM(Altitude)

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 (airports.csv)	
1	Ziro Airport	Zero	VEZO	5,403
	Yelahanka Air Force Station	Bangalore	VOYK	3,045
	Vishakhapatnam Airport	Vishakhapatnam	VEVZ	15

Country (airports.csv)

India

Data Source Airports Final No. of Airports Airport at highest altitude cou... Airports at Highest altitude in w... Airlines within a country no. of flights from airports country with maximum no. of air...

3 marks 3 rows by 1 column SUM(Altitude): 8,463

Type here to search

Tableau - Global Air Transportation Network(dashboard) [from LOCALHOST]

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Filters

ICAO (airports.csv)

Columns

Rows

Name (airports.csv) City ICAO (airports.csv)

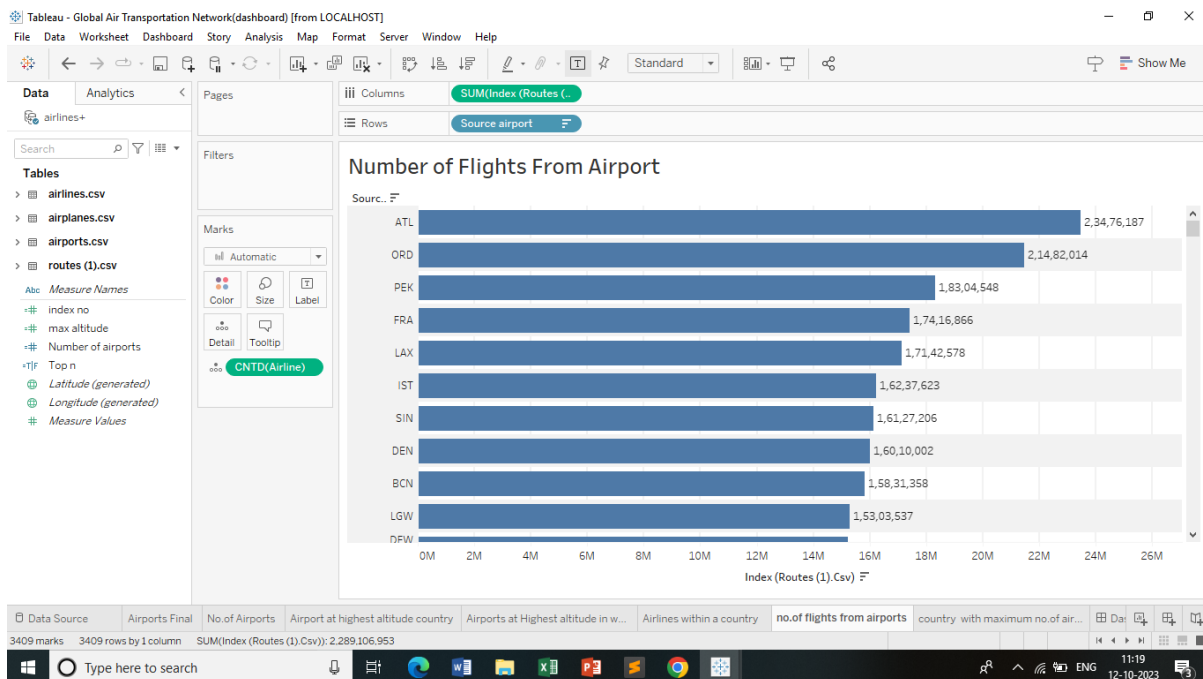
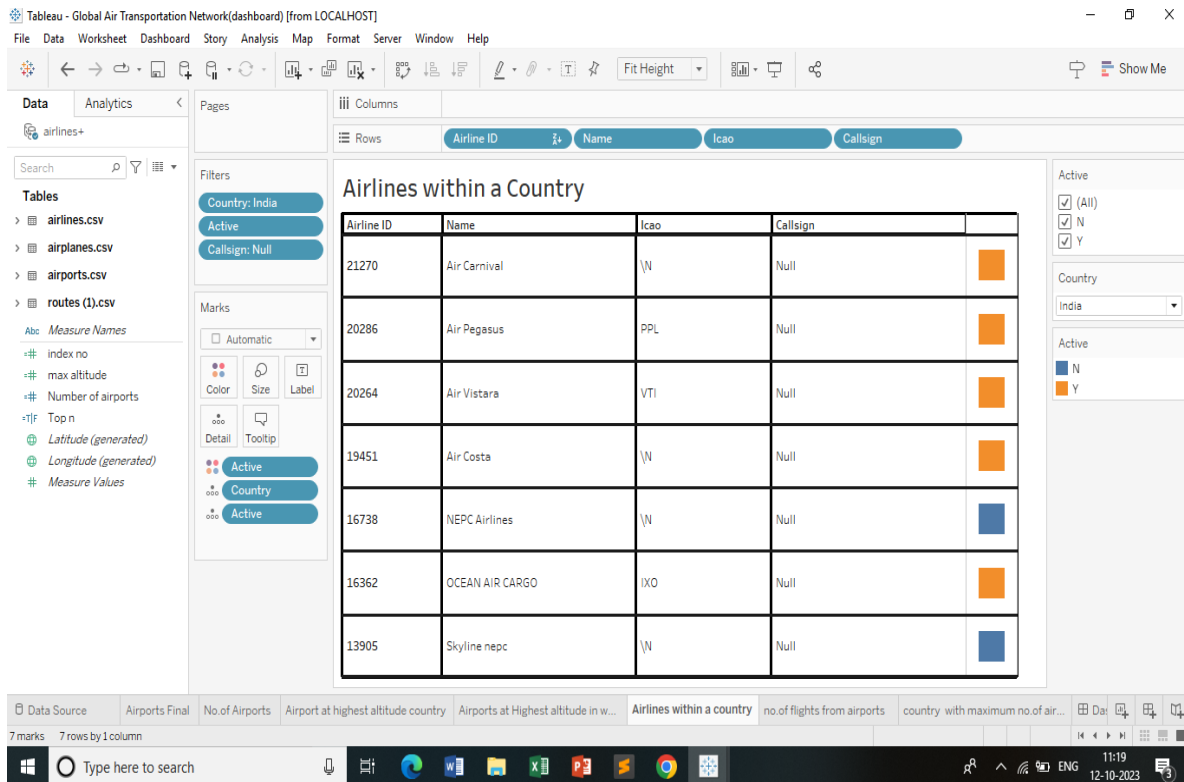
Airports at Highest Altitude in world

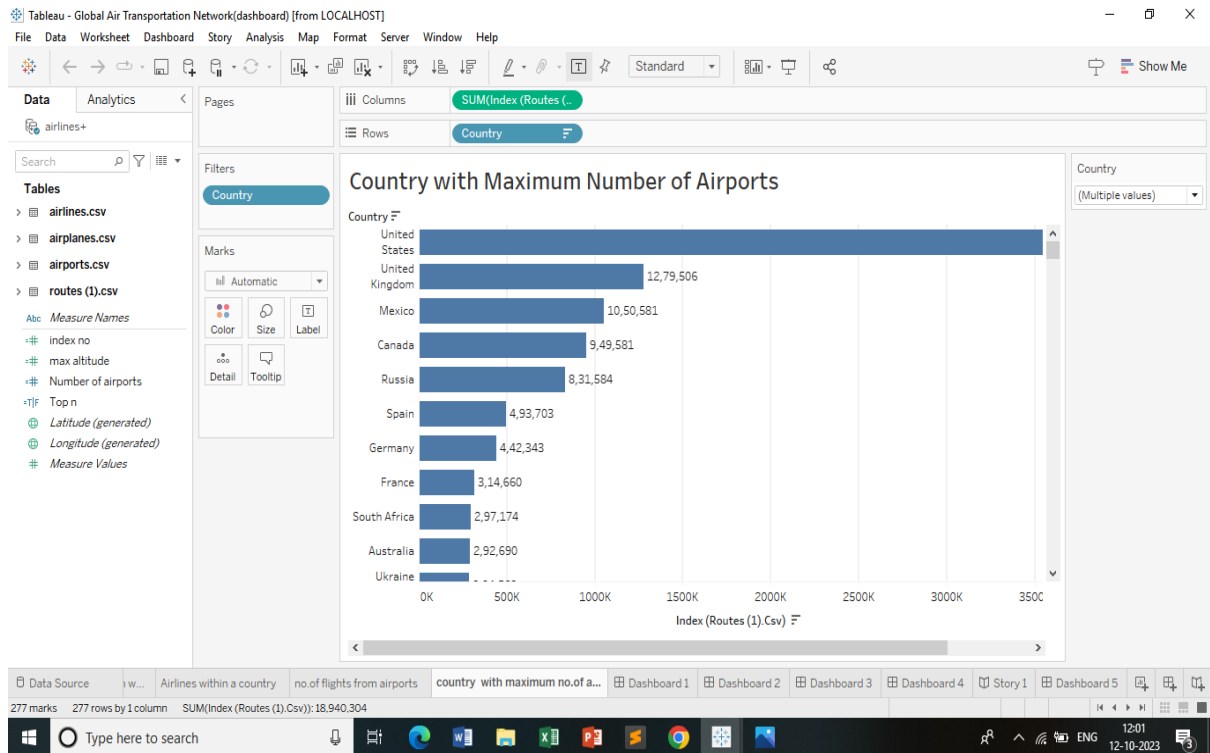
Name (airports.csv)	City	ICAO (airports.csv)	
Daocheng Yading Airport	Daocheng	ZUDC	14,472
Qamdo Bangda Airport	Bangda	ZUBD	14,219
Kangding Airport	Kangding	ZUKD	14,042
Ngari Günsa Airport	Shiquanhe	ZUAL	14,022
El Alto International Airport	La Paz	SLLP	13,355
Capitan Nicolas Rojas Airport	Potosi	SLPO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

Data Source Airports Final No. of Airports Airport at highest altitude country Airports at Highest altitude in ... Airlines within a country no. of flights from airports country with maximum no. of air...

10 marks 10 rows by 1 column SUM(Altitude): 133,408

Type here to search





4. ADVANTAGES & DISADVANTAGES :

Advantages:

- High Speed
- Fast Service
- High Standard Of Security
- Natural Route
- There Is Less Need For Heavy Packaging

Disadvantages :

- Risky
- Cost
- Some Product Limitation
- Capacity For Small Carriage
- Enormous Investment

5. APPLICATIONS :

- ❖ Used in all industrial sectors and distribution chains.
- ❖ Most companies use air transport to market goods and products internationally or to deliver samples and documents related to foreign trade operations.

6. CONCLUSION :

The air transport industry is not only a vital engine of global socio-economic growth but is also of vital importance as a catalyst for economic development in most countries and for many regions within each country.

7.FUTURE SCOPE :

Experts in aviation can expect to make between INR 2 and INR 15 lakhs per year. Graduates who are engaged by a range of organisations have the best chances of success.