UNLOCKING INSINGHTS INTO THE GLOBAL AIR TRANSPORTATION NETWORK WITH TABLEAU

1. INTRODUCTION:

1.1 OVERVIEW

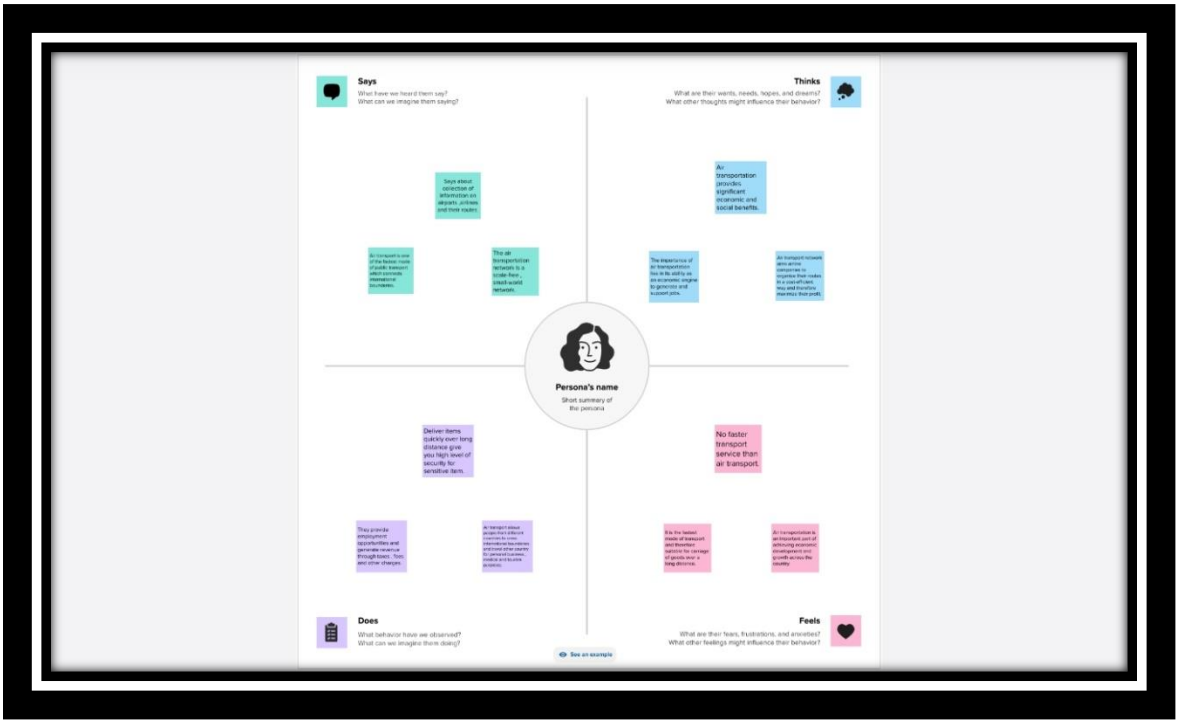
The Global Air Transportation Network dataset is a comprehensive collection of information on airports, airlines and their routes. It contains information such as names, cities, countries, codes longitudes, latitudes and altitudes of airports across the world with detailed time zone and daylight saving time data. Additionally this includes information about airlines including this IDs, name aliases, IATA and ICAO codes, call signs country of origin and active/inactive status.

1.2 PURPOSE

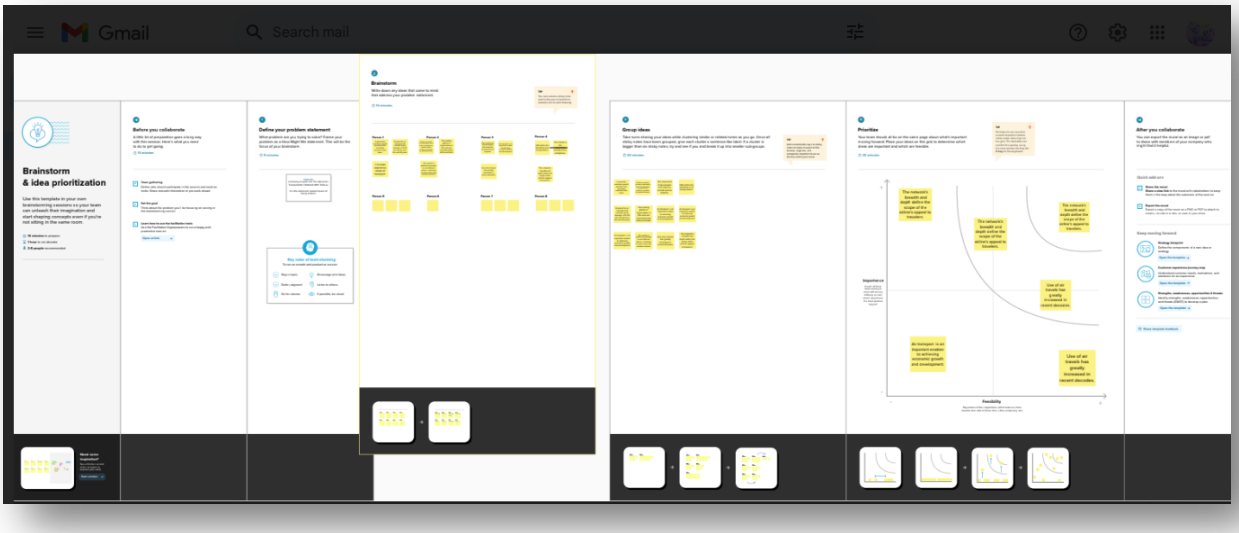
Air transport allows people from different countries to cross international boundaries and travel other countries for personal, business, medical and tourism purpose. Air transportation plays a critical role in connecting people and business around the world, providing faster and more efficient transportation options than other modes of transportation. Moreover, air transport drives economic growth by promoting international trade.

2. PROBLEM DEFINITION & DESIGN THINKING:

2.1 EMPATHY MAP

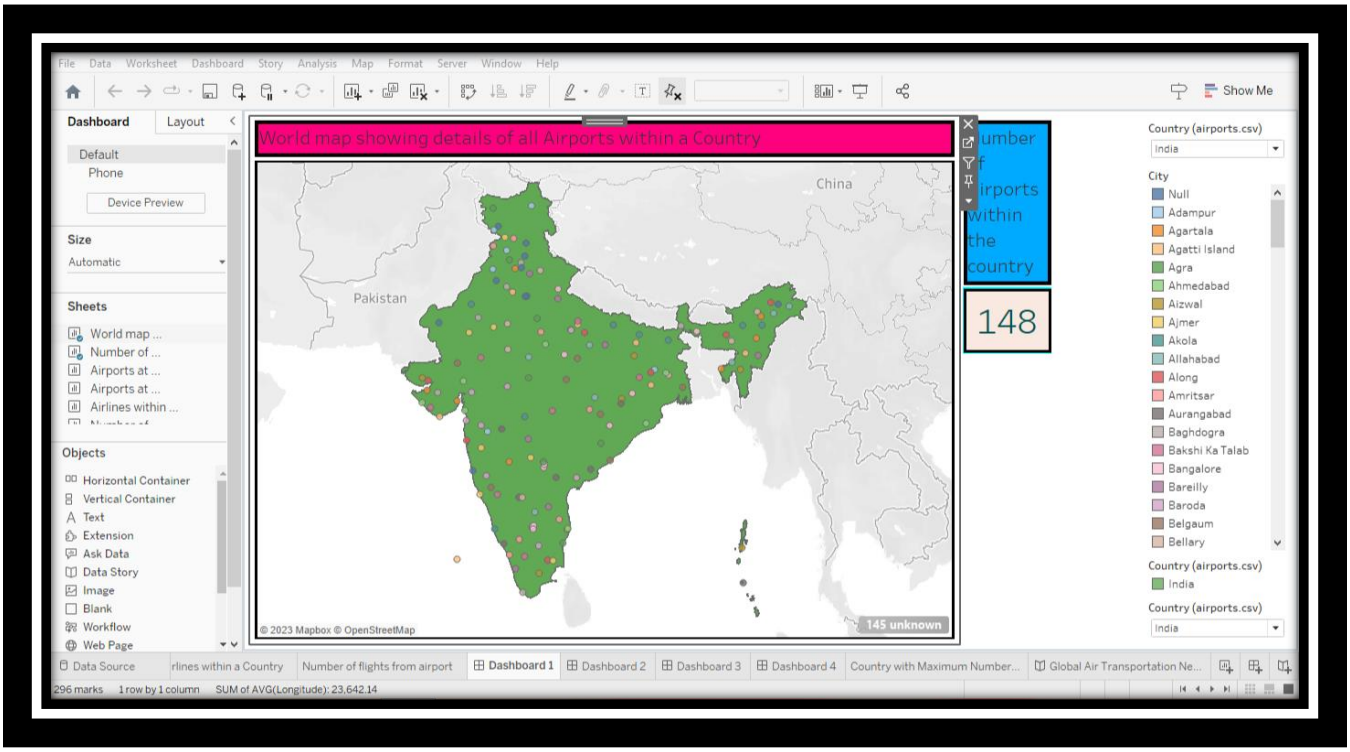


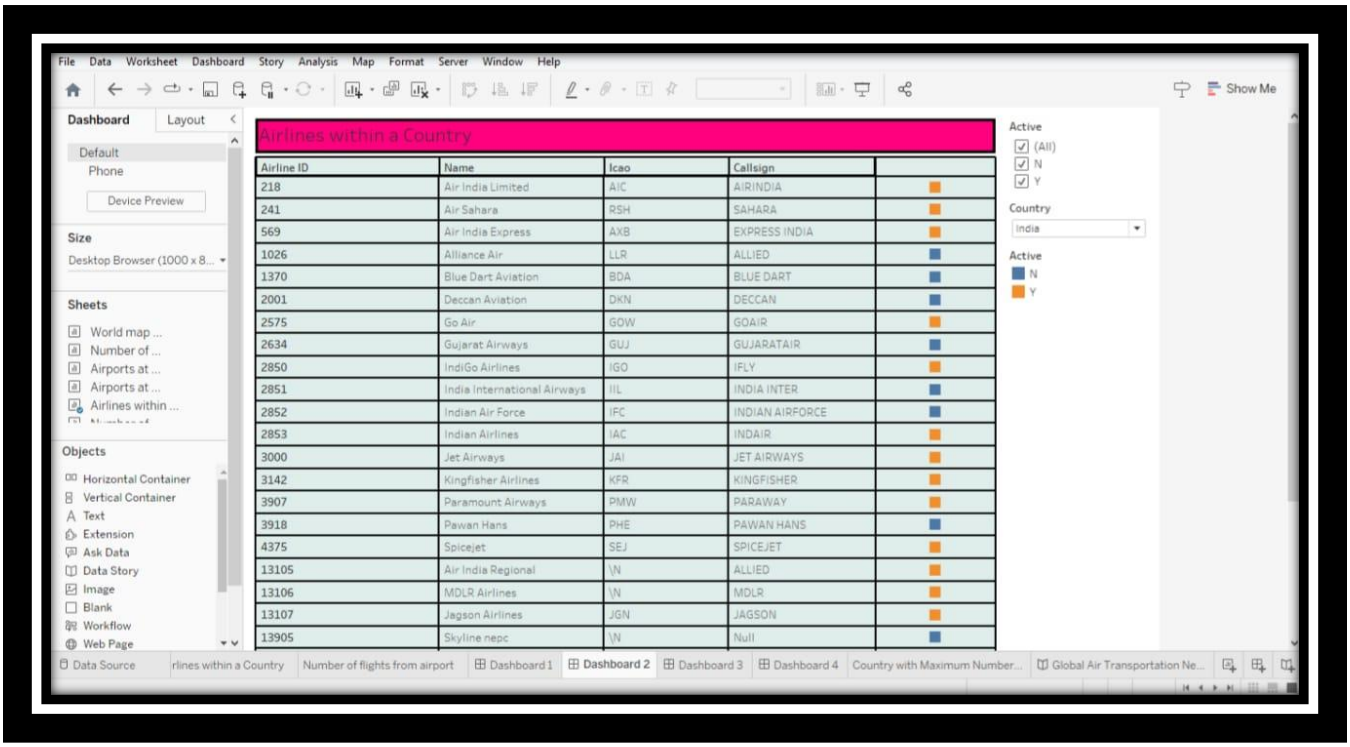
2.2 IDEATION & BRAINSTORMING MAP

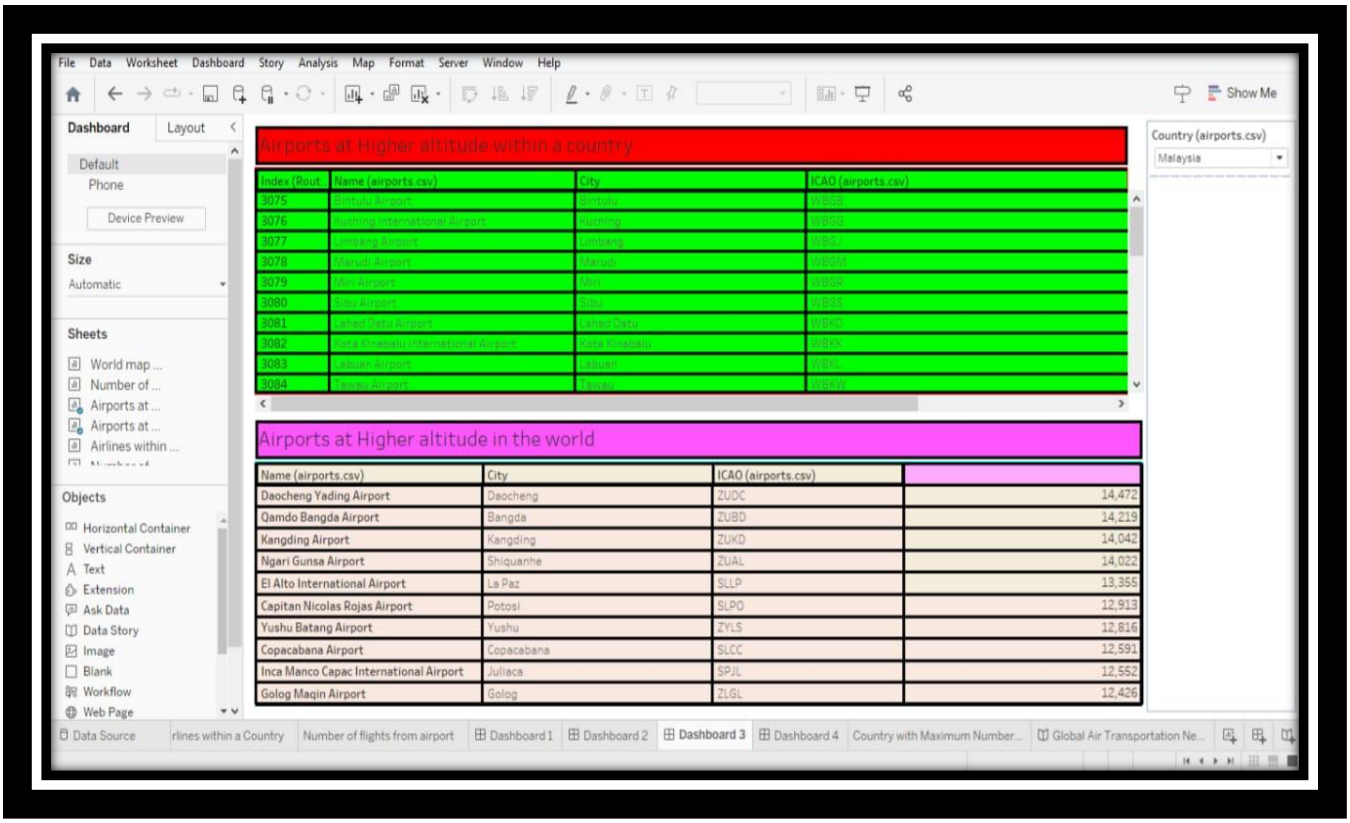


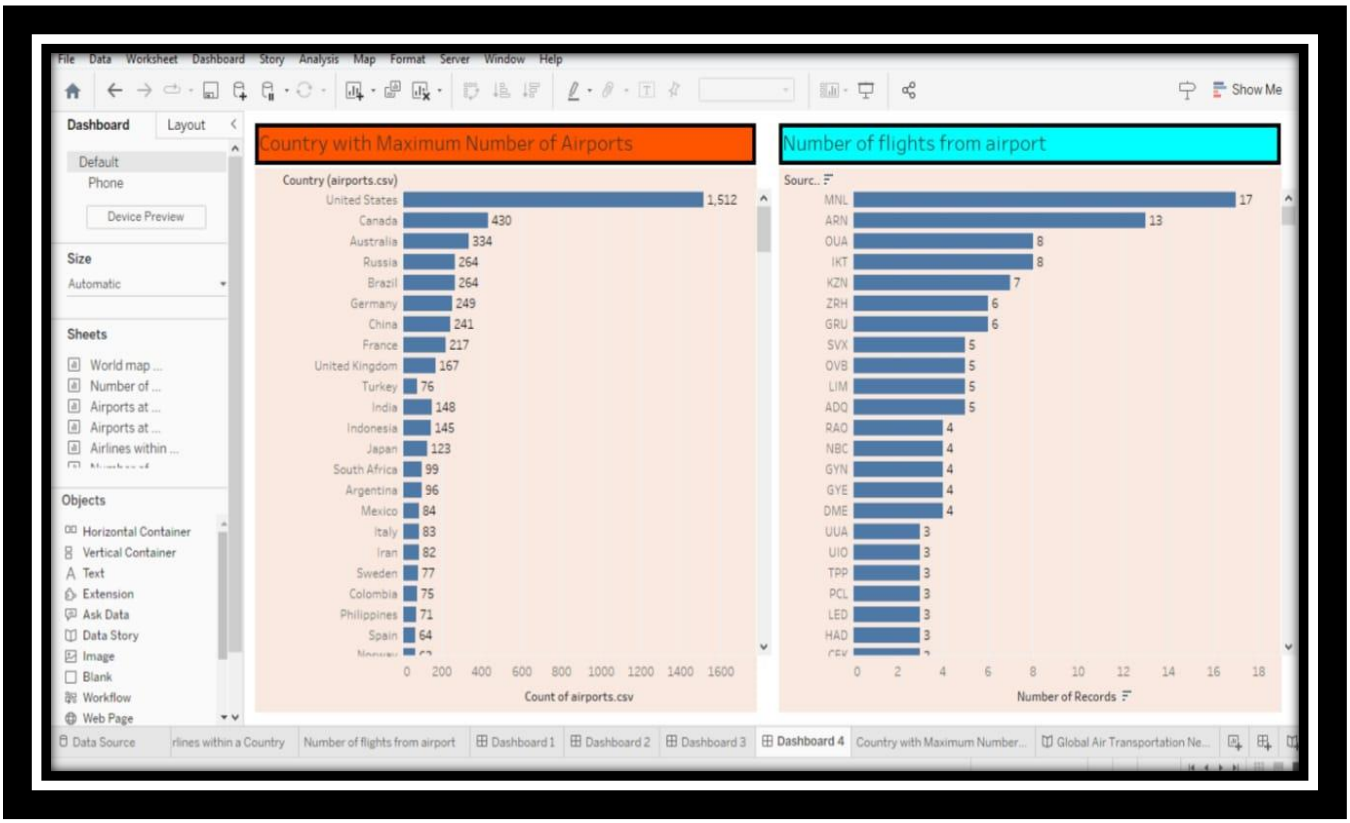
3. RESULT:

3.1 DASHBOARD

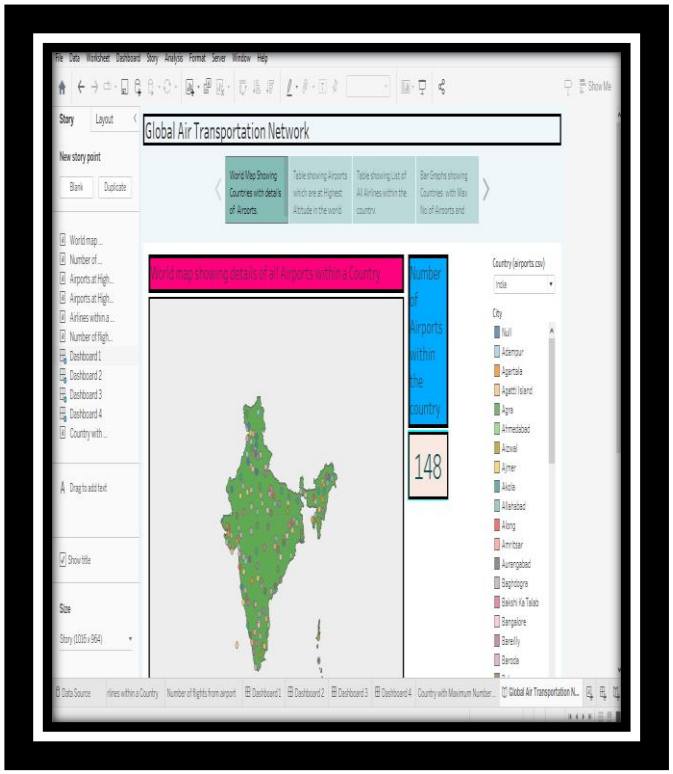





File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Show Me
Dashboard
Layout
Default
Phone
Device Preview
Size
Automatic
Sheets
World map ...
Number of ...
Airports at ...
Airports at ...
Airlines within ...
Objects
Horizontal Container
Vertical Container
Text
Extension
Ask Data
Data Story
Image
Blank
Workflow
Web Page
Airports at Higher altitude within a country
Index (Rout..
Name (airports.csv)
City
ICAO (airports.csv)
3075 Bintulu Airport Bintulu WBGB
3076 Kuching International Airport Kuching WBGG
3077 Limbang Airport Limbang WBGJ
3078 Marudi Airport Marudi WBGM
3079 Miri Airport Miri WBGR
3080 Sibu Airport Sibu WBGS
3081 Lahad Datu Airport Lahad Datu WBKD
3082 Kota Kinabalu International Airport Kota Kinabalu WBKK
3083 Labuan Airport Labuan WBKL
3084 Tawau Airport Tawau WBKW
Country (airports.csv)
Malaysia
Airports at Higher altitude in the 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 Gunsa 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
rlines within a Country
Number of flights from airport
Dashboard 1
Dashboard 2
Dashboard 3
Dashboard 4
Country with Maximum Number...
Global Air Transportation Ne...

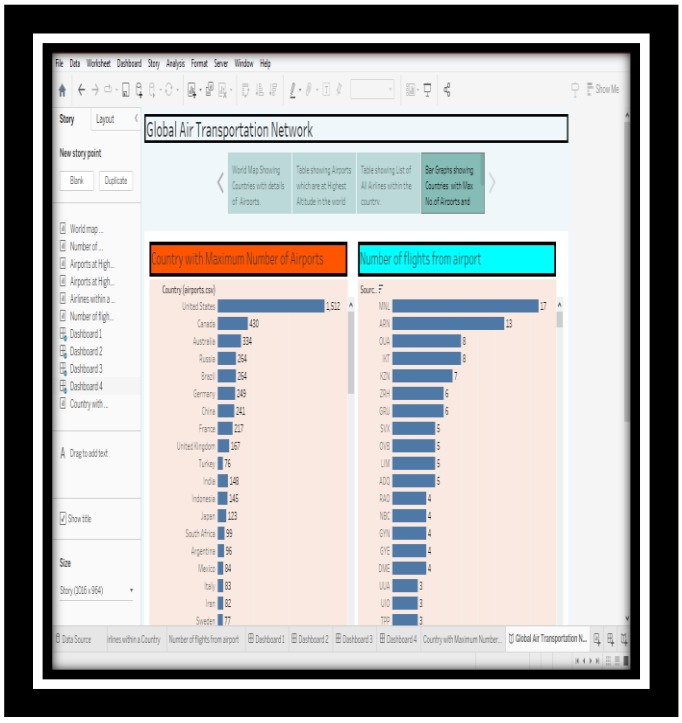

File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Show Me
Dashboard
Layout
Default
Phone
Device Preview
Size
Automatic
Sheets
World map ...
Number of ...
Airports at ...
Airports at ...
Airlines within ...
Objects
Horizontal Container
Vertical Container
Text
Extension
Ask Data
Data Story
Image
Blank
Workflow
Web Page
Country with Maximum Number of Airports
Country (airports.csv)
United States 1,512
Canada 430
Australia 334
Russia 264
Brazil 264
Germany 249
China 241
France 217
United Kingdom 167
Turkey 76
India 148
Indonesia 145
Japan 123
South Africa 99
Argentina 96
Mexico 84
Italy 83
Iran 82
Sweden 77
Colombia 75
Philippines 71
Spain 64
0 200 400 600 800 1000 1200 1400 1600
Count of airports.csv
Number of flights from airport
Sourc..
MNL 17
ARN 13
OUA 8
IKT 8
KZN 7
ZRH 6
GRU 6
SVX 5
OVB 5
LIM 5
ADQ 5
RAO 4
NBC 4
GYN 4
GYE 4
DME 4
UUA 3
UIO 3
TPP 3
PCL 3
LED 3
HAD 3
0 2 4 6 8 10 12 14 16 18
Number of Records
Data Source
rlines within a Country
Number of flights from airport
Dashboard 1
Dashboard 2
Dashboard 3
Dashboard 4
Country with Maximum Number...
Global Air Transportation Ne...

3.2 STORY


Global Air Transportation Network
World map showing details of all Airports within a Country
Number of Airports within the country
148

Global Air Transportation Network
Airports at Higher altitude within a country
Airports at Higher altitude in the world

Global Air Transportation Network
Airlines within a Country


Global Air Transportation Network
Country with Maximum Number of Airports
Number of flights from airport

4. ADVANTAGES:

- Fast speed of transport.
- Rapid service facility.
- Low infrastructure required to establish this service.
- No physical barriers can affect its speed.
- It provides a safe and secure environment to travel by valuable goods.

DISADVANTAGES:

- Costlier than other modes.
- Limited capacity of people or goods can move.
- Undependable and risky since it depends on weather conditions.
- Requires skill to fly or operate any aircraft.
- More accident – prone than other modes.

5. APPLICATIONS:

- Most companies use air transport to market goods and products internationally or to deliver samples and documents related to foreign trade operations.
- Air transport allows people from different countries to cross international boundaries and travel other countries for personal, business, medical, and tourism purposes.
- It generates economic growth, provides jobs, increases revenues from taxes, and fosters the conservation of protected areas.

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. Its importance arises not only from its ability to facilitate the movement of people but also its ability to expedite the movement of goods.

7. FUTURE SCOPE:

The most recent estimates suggest that demand for air transport will increase by an average of 4.3% per annum over the next 20 years. If this growth path is achieved by 2036 the air transport industry will then contribute 15.5 million in direct jobs and $1.5 trillion of GDP to the world economy.