

**WELCOME
TO**



FUNDAMENTALS OF DATA ANALYTICS WITH TABLEAU

PROJECT TITLE

UNLOCKING INSIGHTS
INTO THE GLOBAL AIR
TRANSPORTATION
NETWORK WITH
TABLEAU



UNTER THE GUIDANCE OF

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PROJECT TITLE



UNLOCKING INSIGHTS INTO THE GLOBAL AIR TRANSPORTATION NETWORK WITH TABLEAU

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INTRODUCTION

1.OVERVIEW

- 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.

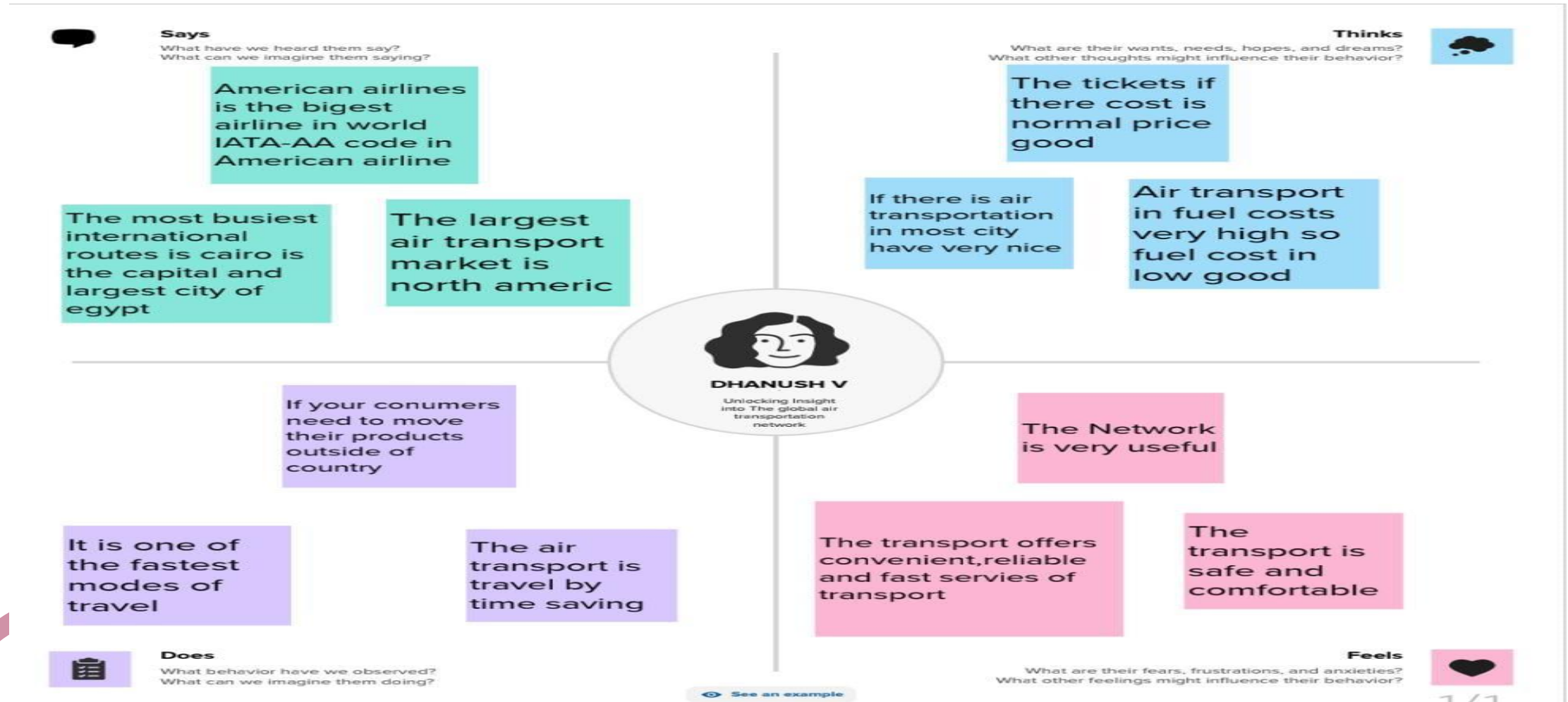


2.PURPOSE

- ➡ The air transport network is a key infrastructure asset. It is the only worldwide passenger and cargo transportation network.
 - ➡ providing an essential link between individual countries and the wider global economy.
 - ➡ Air transport allows people from different countries to cross international boundaries and travel other countries for personal, business, medical, and tourism purposes.
- 

PROBLEM DEFINING & DESIGN THINKING

2.1 Empathy Map



2.2 IDEATION & BRAINSTORMING MAP

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

why is tickets cost are high?



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.

2

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!

Person 1

A flight from profit to loss depending on how many people are on the flight

Labor is the biggest operating cost of an airline, accounting for approximately 31% of operational expenses

air travel is faster than sea travel, so ticket prices are higher

Person 2

The fuel cost is high price so the tickets cost are high

The tickets prices are higher as the passengers travel by first class tickets

The cost is high because of the high level of security for the passengers in the plane

Person 3

Food, drinks, snacks, etc. while traveling on the plane will make the ticket price high

usually years summer travel season has seen an unusually high spike in ticket price

If you travel on a big plane, you will pay more

Person 4

Festivals and holidays the plane tickets are high

If the distance to the destination is long it will attract higher fares

Biggest airline, is expecting to raise ticket prices

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.

- 1) A flight from profit to loss depending on how many people are on the flight
- 2) Labor is the biggest operating cost of an airline, accounting for approximately 31% of operational expenses
- 3) Air travel is faster than sea travel, so ticket prices are higher
- 4) The fuel cost is high price so the tickets cost are high
- 5) The tickets prices are higher as the passengers travel by first class tickets
- 6) The cost is high because of the high level of security for the passengers in the plane
- 7) Food, drinks, snacks, etc. while traveling on the plane will make the ticket price high
- 8) usually years summer travel season has seen an unusually high spike in ticket price
- 9) If you travel on a big plane, you will pay more
- 10) Festivals and holidays the plane tickets are high
- 11) If the distance to the destination is long it will attract higher fares
- 12) Biggest airline, is expecting to raise ticket prices

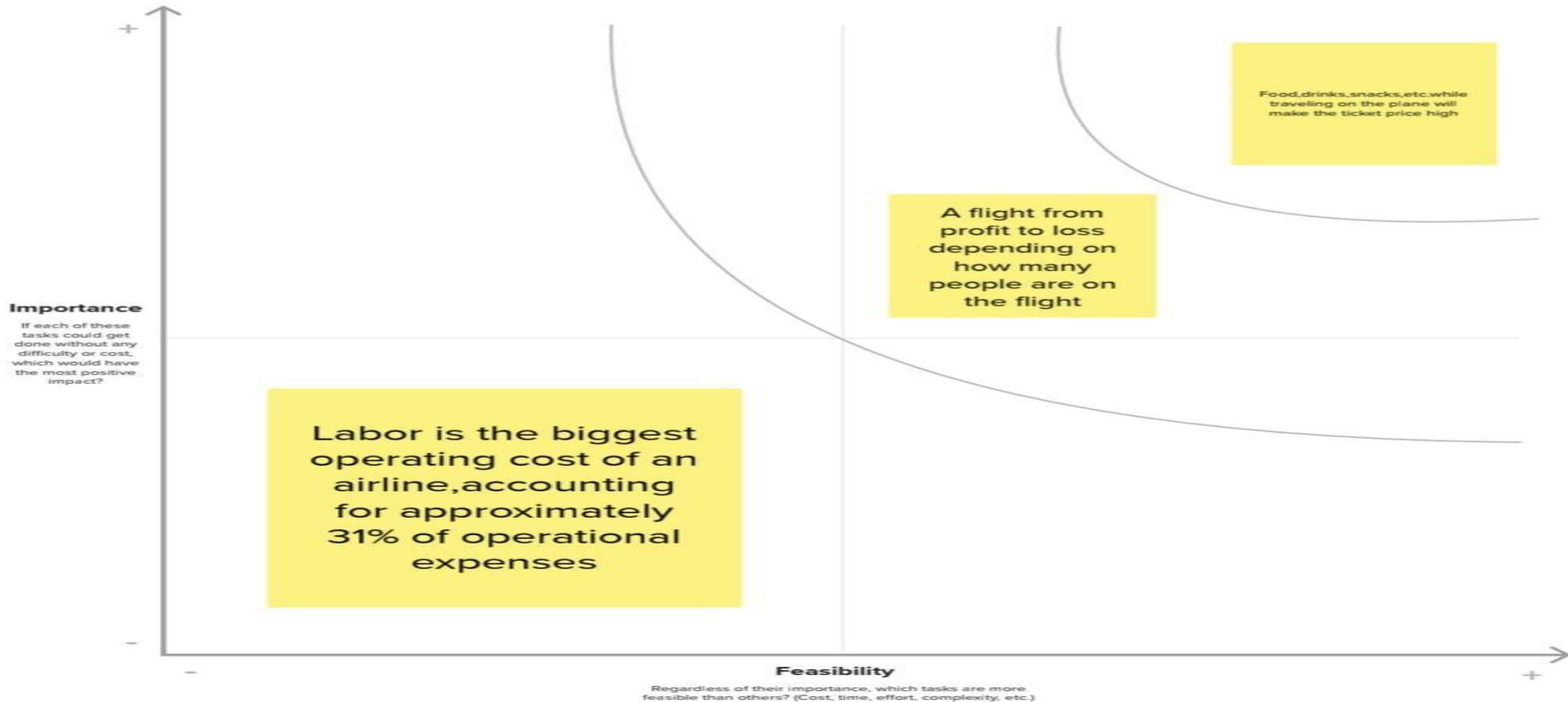
Prioritize

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

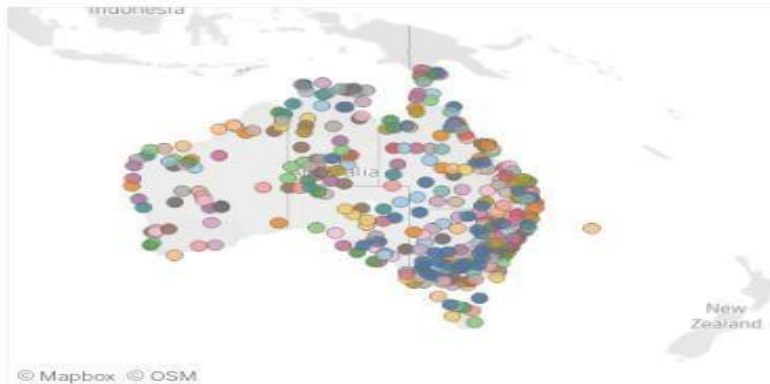
Participants can use their cursors to point at where sticky notes should go on the grid. The facilitator can confirm the spot by using the laser pointer holding the **H** key on the keyboard.



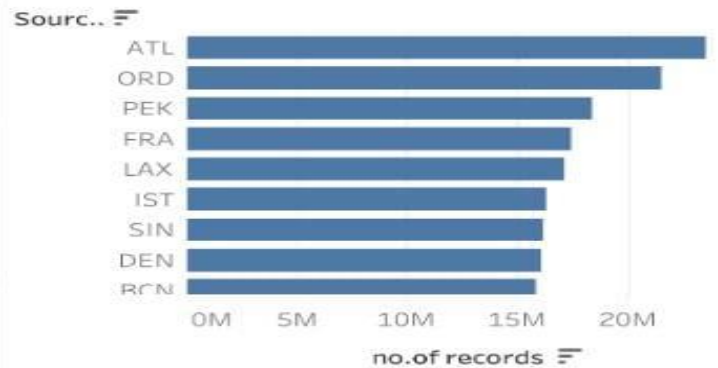
3.RESULT: Final findings (output) of the project

Demo Dashboard

ALL AIRPORTS IN A AUSTRALIA COUNTRY



SOURCE OF AIRPORTS IN NO.OF RECORDS



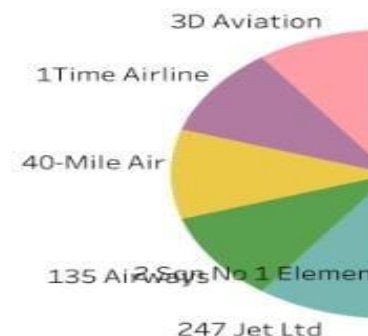
AIRLINES WITHIN A COUNTRY

| Airline ID | Name | Icao |
|------------|---------------------------------|------|
| 15 | Abelag Aviation | AAB |
| 271 | Allied Command Europe (Mobil.. | ALF |
| 538 | ASL | XXX |
| 634 | Airventure | RVE |
| 1346 | Belgian Air Force | BAF |
| 1373 | Belgian Army | AYB |
| 1428 | Belgavia | BLG |
| 1515 | Brussels International Airlines | BXI |
| 1531 | Brussels Airlines | DAT |
| 1551 | Belgian Navy | NYB |
| 2252 | European Air Transport | BCS |
| 2431 | Flying Service | FYG |

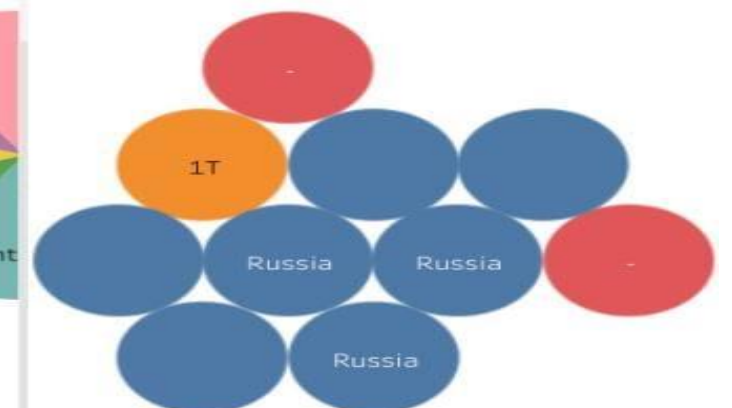
AIRPORTS AT HIGHEST ALTITUDE IN WORLD

| Name (airports.csv) | City |
|-------------------------------|------------|
| Daocheng Yading Airport | Daocheng |
| Qamdo Bangda Airport | Bangda |
| Kangding Airport | Kangding |
| Ngari Gunsa Airport | Shiquanhe |
| El Alto International Airport | La Paz |
| Capitan Nicolas Rojas Airport | Potosi |
| Yushu Batang Airport | Yushu |
| Copacabana Airport | Copacabana |
| Inca Manco Capac Internati.. | Juliaca |
| Golog Maqin Airport | Golog |

THE TYPES OF FLIGHT IN WORLD



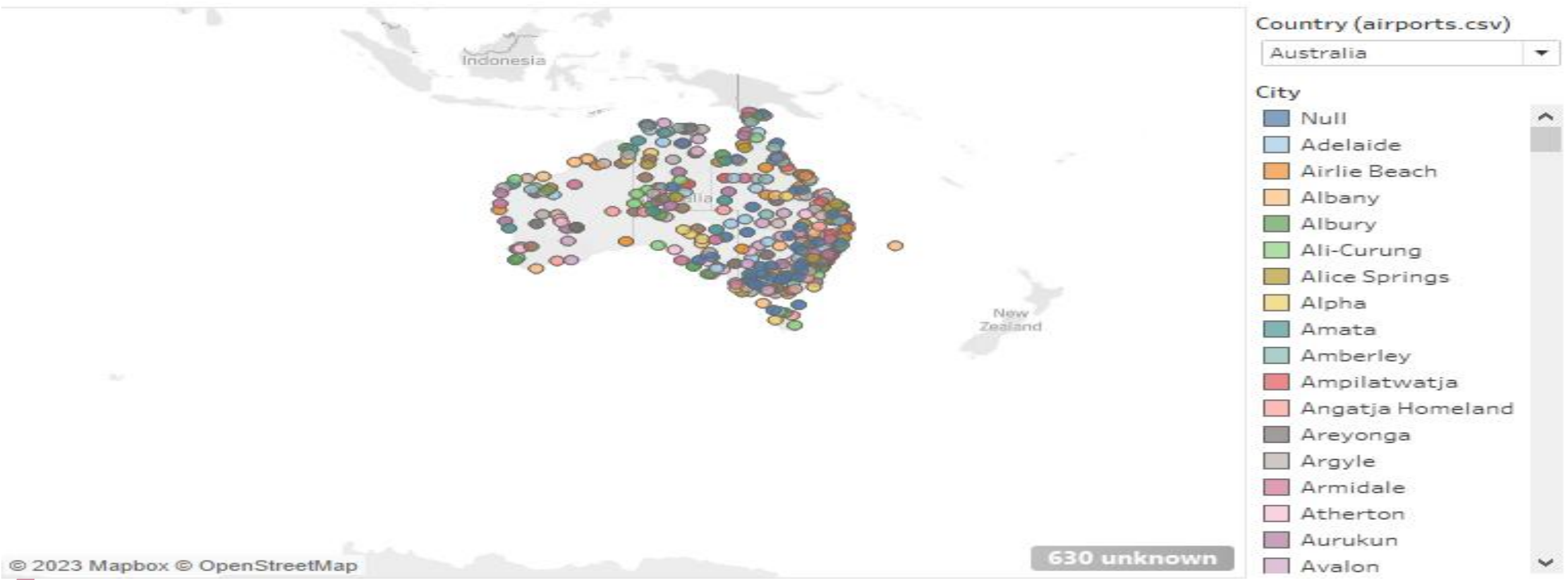
THE COUNTRY WISE COUNT OF AIRLINES



STORY VISUALIZATION 1:

UNLOCKING INSIGHTS INTO THE GLOBAL AIR TRANSPORTATION NETWORK WITH TABLEAU

explain about world map showing on australia with details of airports.

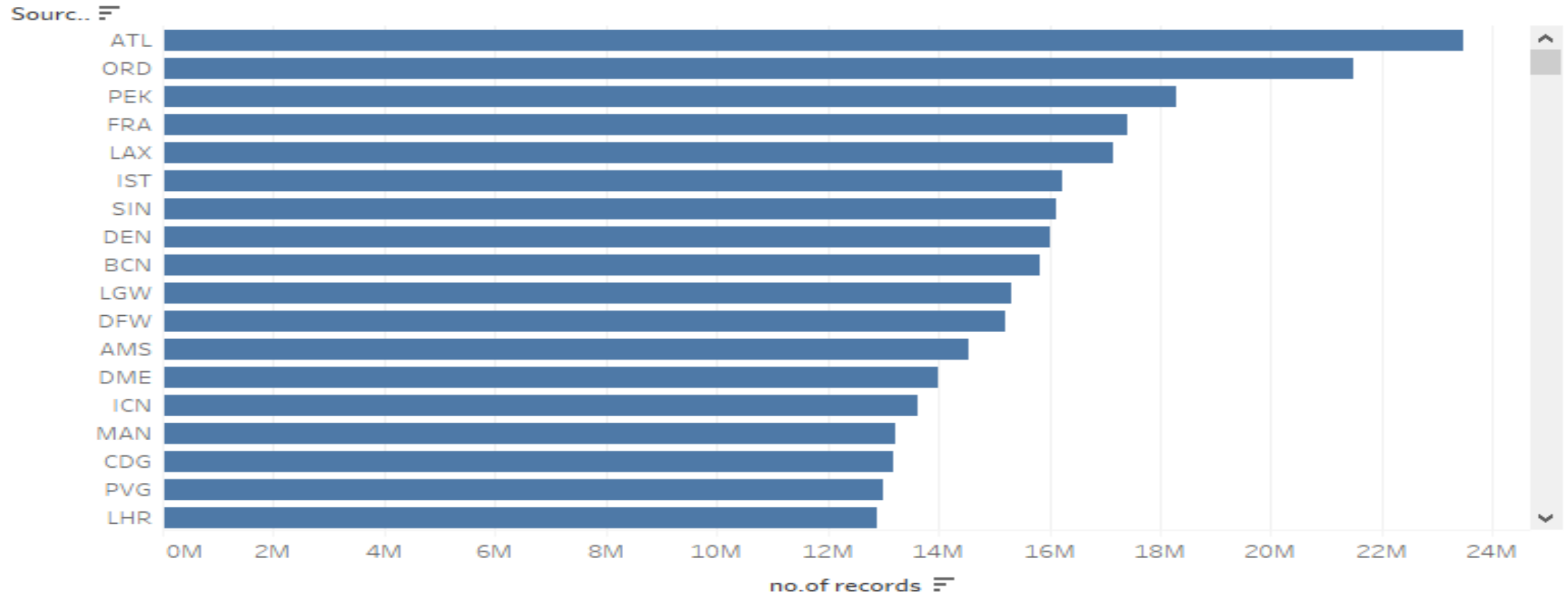


STORY

VISUALIZATION 2:

UNLOCKING INSIGHTS INTO THE GLOBAL AIR TRANSPORTATION NETWORK WITH TABLEAU

< explain about highest source of airports in ATL source. >



STORY

VISUALIZATION 3:

UNLOCKING INSIGHTS INTO THE GLOBAL AIR TRANSPORTATION NETWORK WITH TABLEAU

<

explain about airlines ID with name on world country.

>

| Airline ID | Name | Icao | Callsign |
|------------|------------------------------------|------|--------------------|
| 15 | Abelag Aviation | AAB | ABG |
| 271 | Allied Command Europe (Mobil.. | ALF | ACEFORCE |
| 538 | ASL | XXX | Null |
| 634 | Airventure | RVE | AIRVENTURE |
| 1346 | Belgian Air Force | BAF | BELGIAN AIRFORCE |
| 1373 | Belgian Army | AYB | BELGIAN ARMY |
| 1428 | Belgavia | BLG | BELGAVIA |
| 1515 | Brussels International Airlines | BXI | XENIA |
| 1531 | Brussels Airlines | DAT | BEE-LINE |
| 1551 | Belgian Navy | NYB | BELGIAN NAVY |
| 2252 | European Air Transport | BCS | EUROTRANS |
| 2431 | Flying Service | FYG | FLYING GROUP |
| 2528 | Gendarmerie Belge | GDB | BELGIAN GENERMERIE |
| 2235 | Eurocontrol | EUC | Null |
| 2800 | International Air Carrier Associ.. | ITC | Null |
| 3032 | Jetairfly | JAF | BEAUTY |
| 3821 | Ostend Air College | OCO | AIR COLLEGE |
| 4445 | SITA | SIT | Null |
| 4734 | Sky Service | SKS | SKY SERVICE |
| 4873 | TNT Airways | TAY | QUALITY |

Active

☐ (All)

☐ n

☒ N

☒ Y

Country

Belgium

Active

N

Y

STORY

UNLOCKING INSIGHTS INTO THE GLOBAL AIR TRANSPORTATION NETWORK WITH TABLEAU

VISUALIZATION 4:

<

ports which are at highest altitude in the world.

>

| Name (airports.csv) | City | ICAO (airports.csv) | Altitude |
|--|------------|---------------------|----------|
| Daocheng Yading Airport | Daocheng | ZUDC | 12,426 |
| Qamdo Bangda Airport | Bangda | ZUBD | |
| Kangding Airport | Kangding | ZUKD | |
| Ngari Gunsa Airport | Shiquanhe | ZUAL | |
| El Alto International Airport | La Paz | SLLP | |
| Capitan Nicolas Rojas Airport | Potosi | SLPO | |
| Yushu Batang Airport | Yushu | ZYLS | |
| Copacabana Airport | Copacabana | SLCC | |
| Inca Manco Capac International Airport | Juliaca | SPJL | |
| Golog Maqin Airport | Golog | ZLGL | |

<

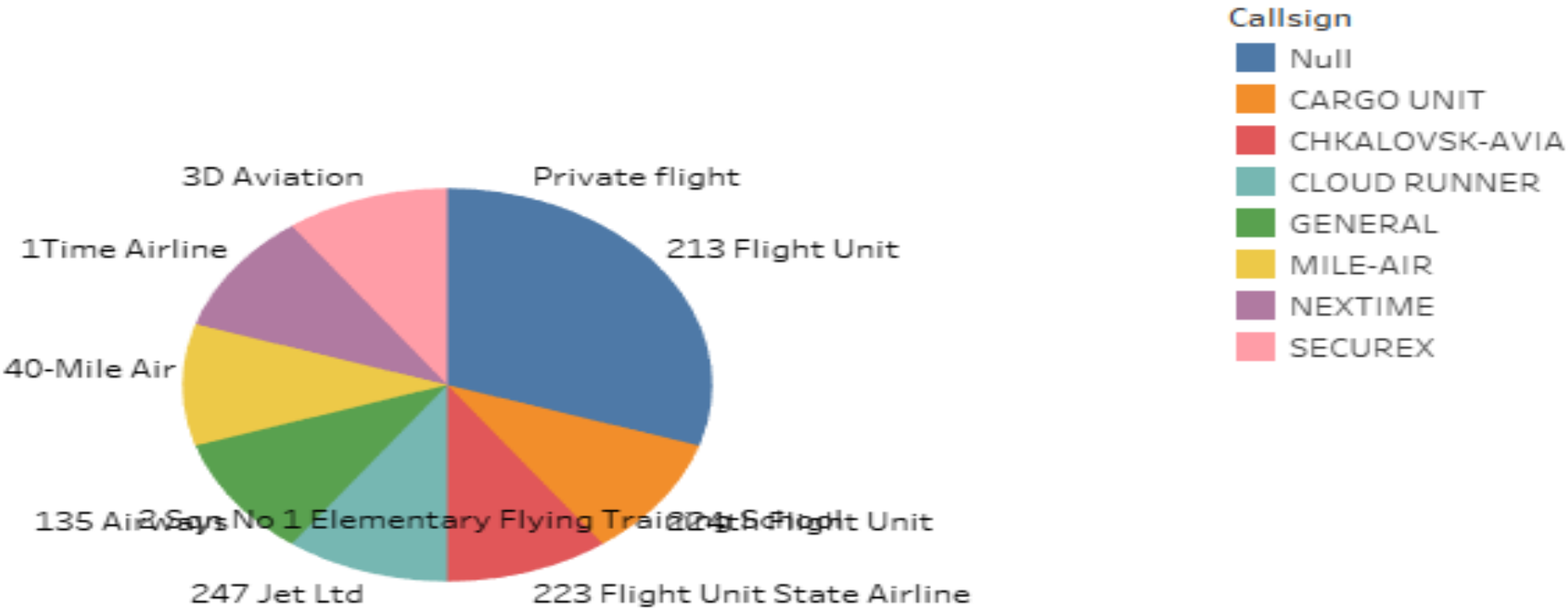
>

STORY

VISUALIZATION 5:

UNLOCKING INSIGHTS INTO THE GLOBAL
AIR TRANSPORTATION NETWORK WITH TABLEAU

explain about the world countrys in types of flight the yellow cloure is general on people comfortable in world airlines.



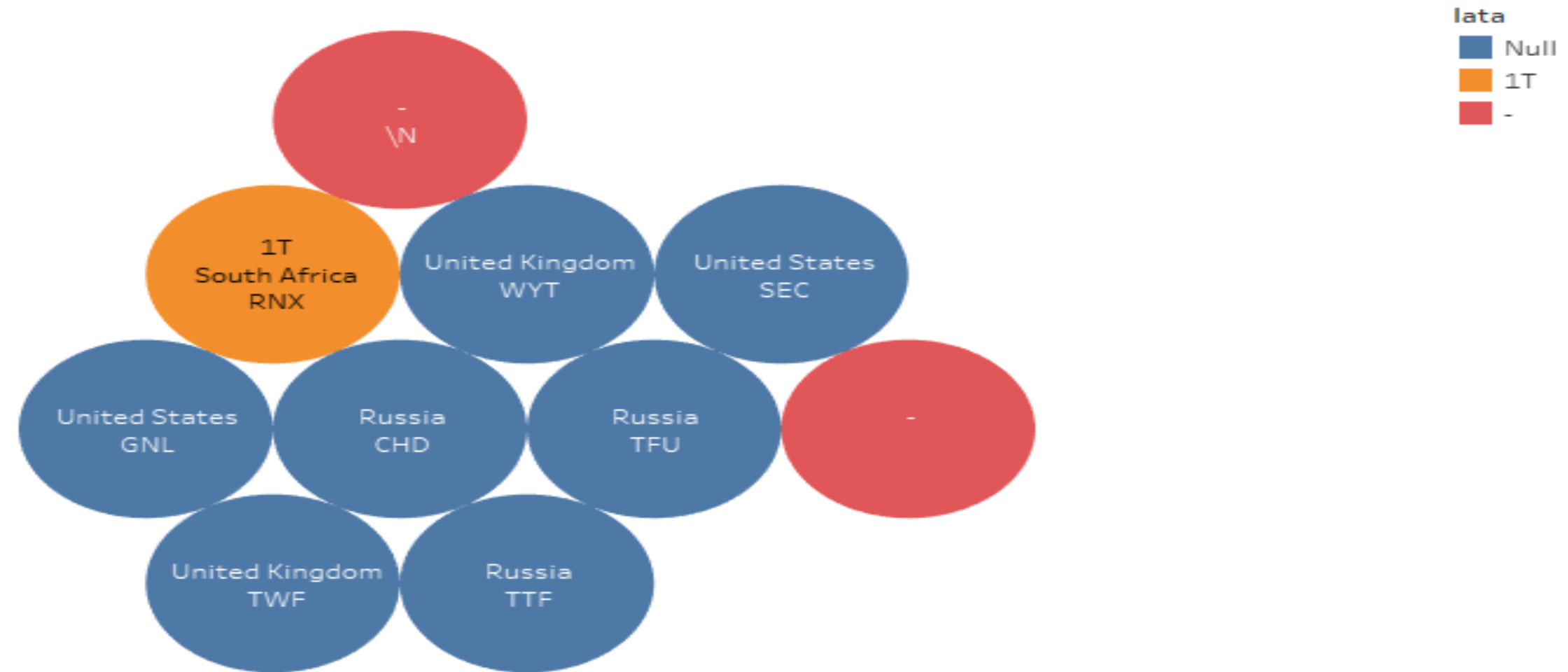
STORY

UNLOCKING INSIGHTS INTO THE GLO

VISUALIZATION 6:

AIR TRANSPORTATION NETWORK WITH TABLEAU

explain about the highest count of airlines in country russia then second highest count of airlines in two country they are country
kingdom



4. ADVANTAGES AND DISADVANTAGES

- **Advantages :**

- **1. Essential Services:** Transportation facilitates essential services such as water supply, ambulances, fire brigades, school buses, and commuting to workplaces, among others.
- **2. Employment:** The transportation industry provides many job opportunities, including truck, bus, and cab drivers, pilots, locomotive engineers, and others.
- **3. Social Connectivity:** Transportation helps people stay connected with friends and family, bridging the distance between people living far apart.
- **4. Tourism:** Transportation has significantly boosted the tourism industry, making it easy and quick to travel to previously hard-to-reach or unknown locations.

- **Disadvantages**

- **1.Noise Pollution:** Transportation traffic significantly contributes to noise pollution. Prolonged exposure to noise pollution can lead to hearing loss and other health problems.
- **2. Congestion:** Traffic congestion is a common problem in cities and densely populated areas. Congestion causes commuter delays, reduces transportation system efficiency, and increases air and noise pollution.
- **3. Safety:** Safety is a significant concern in transportation due to the potential for accidents. Vehicles can crash into each other, pedestrians, and property. Passengers can also be injured or killed in air, rail, or sea accidents.
- **4. Cost:** Transportation can be expensive due to fuel prices, regular maintenance of vehicles, and infrastructure.



CONCLUSAION

As the industry continues to evolve, IATA will remain an important player in shaping the future of air transport. In conclusion, the International Air Transport Association has been instrumental in developing and improving the air transport industry

DASHBOARD LINK:

https://public.tableau.com/views/dhanush_16963883525500/Dashboard2?:language=en-US&publish=yes&:display_count=n&:origin=viz_share_link

STORY LINK:

https://public.tableau.com/views/UnlockingInsightsIntoTheGlobalAirTransportationNetworkWithTableau_16969278331890/Story1?:language=en-US&publish=yes&:display_count=n&:origin=viz_share_link



THANK YOU