

UNLOCKING INSIGHTS INTO THE GLOBAL AIR TRANSPORTATION NETWORK REPORT

1.Introduction:

This Global Air Transportation Network dataset is 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.

1.1 Overview:

In this project, we are able to discuss about Airlines, Airplanes, Airline routes and No of Airports in the country and world also. The project includes world map, tables and bar graphs. Here we are able to discuss about,

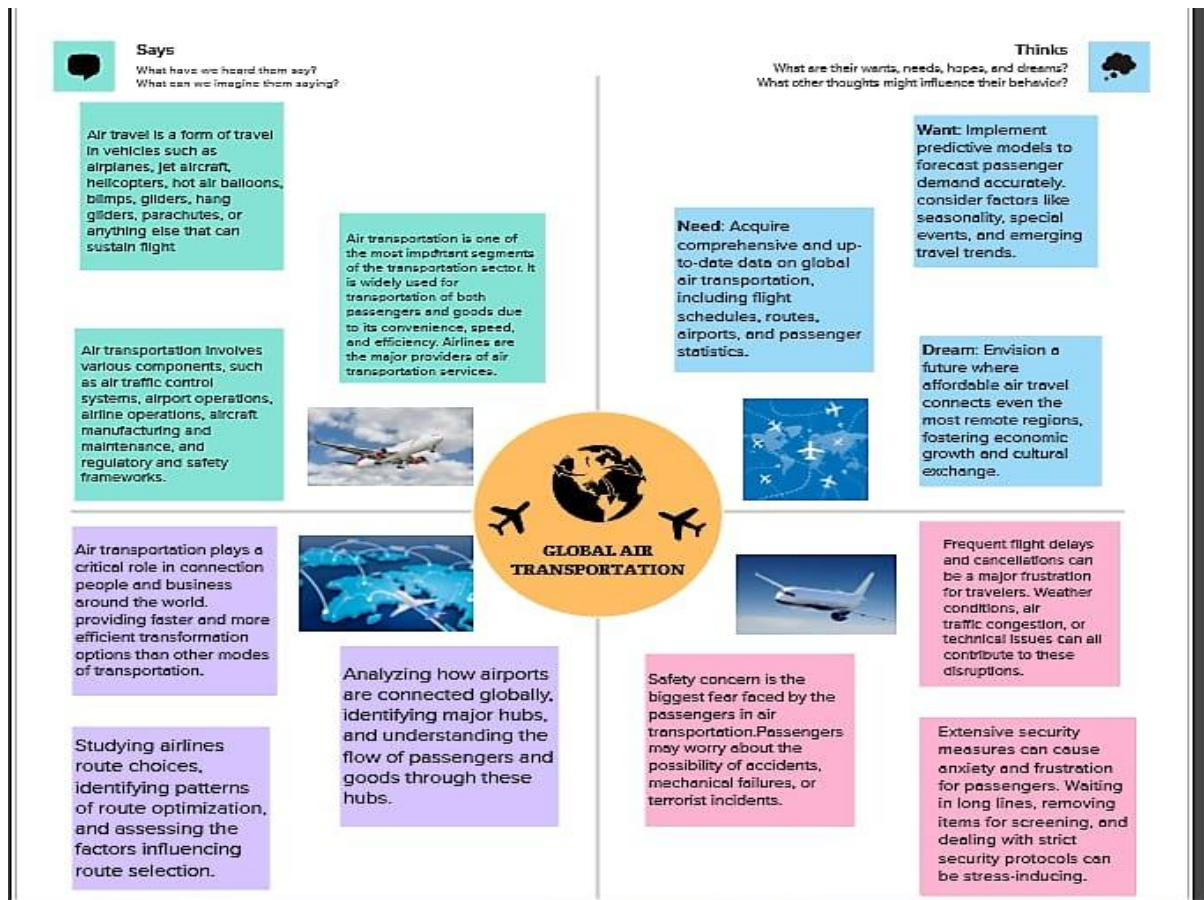
1. World Map showing details of all Airports within a Country.
2. Number of Airports within the Country.
3. Airports at Higher altitude within a Country.
4. Airports at Higher altitude in the world.
5. Airlines within a Country.
6. Number of flights from airport.

1.2 Purpose

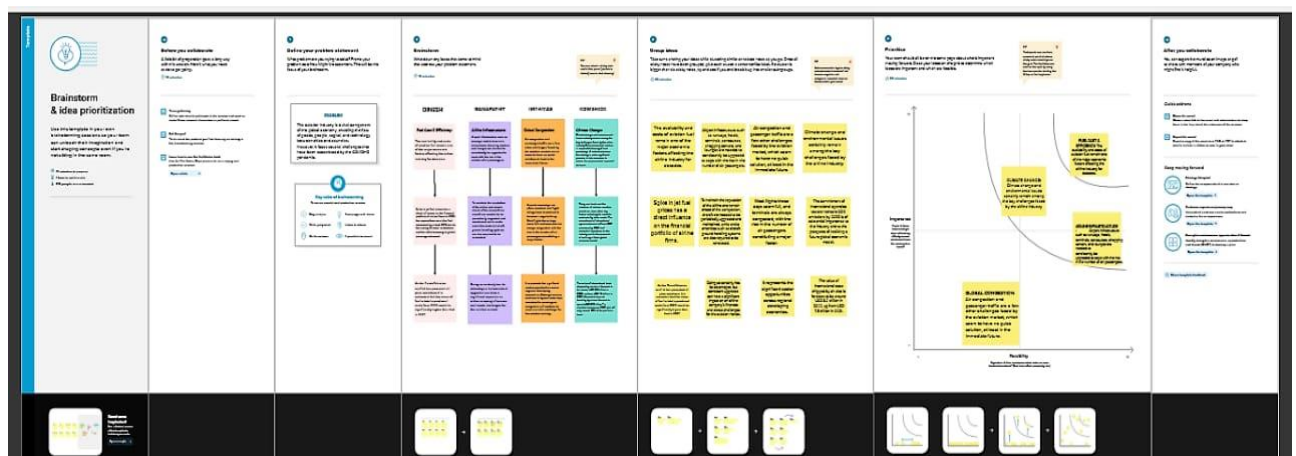
- ❖ It helps to know about the airport count in countries.
- ❖ Easily find out the active and inactive airlines in the country.
- ❖ It helps to know about the airlines in the country and world also.
- ❖ It provides comprehensive data for understanding the global air transportation network.
- ❖ Report helps to know about the airports which are at higher altitudes in the country and world also.
- ❖ It provides information about airports in different countries.

2.Problem Definition & Design Thinking:

2.1 Empathy Map:

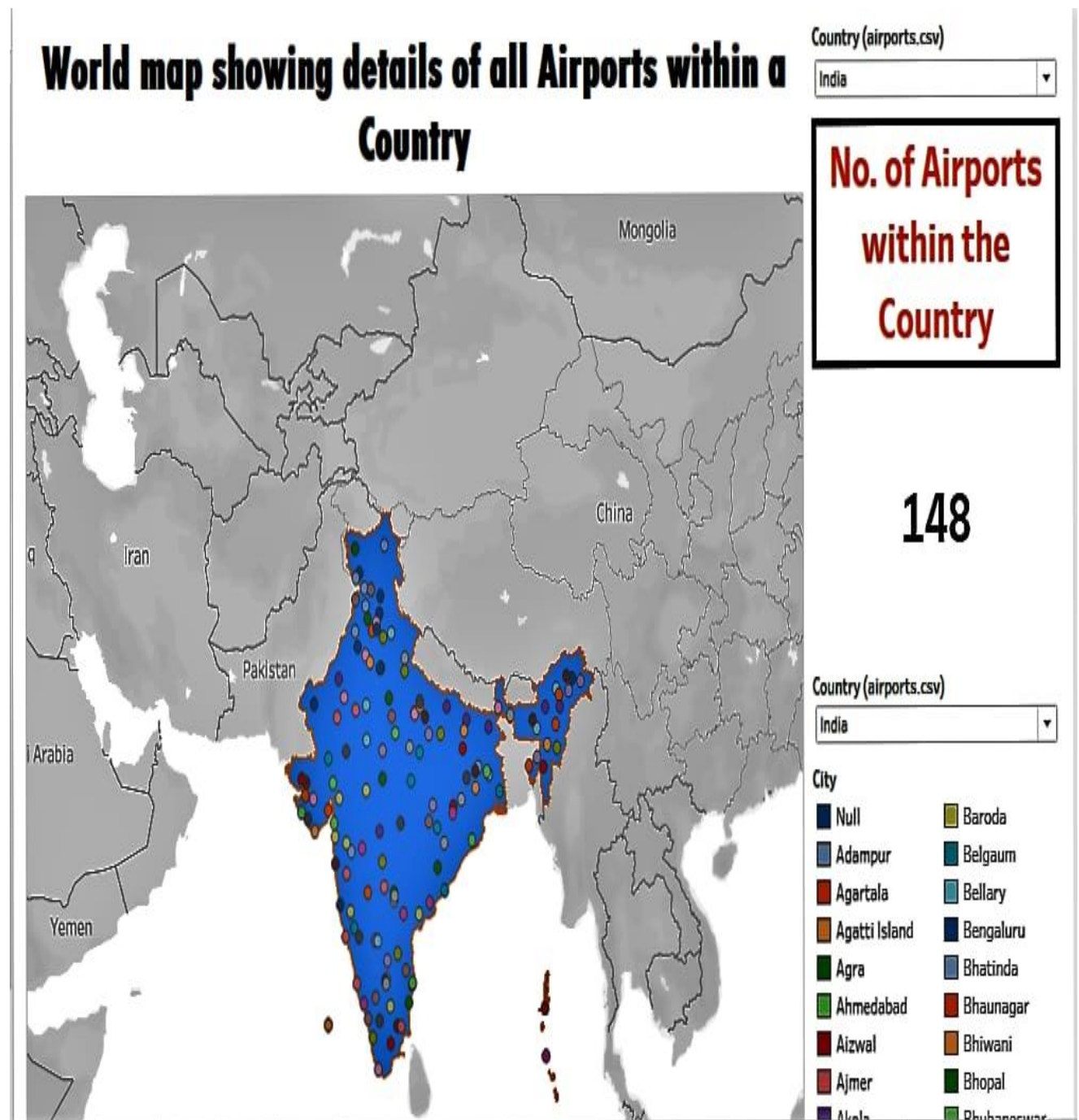


2.2 Brainstorming Map:



3. Result:

We are able to analyse the data about Airports, Airline routes, Airport count in every country and world also. It provides a comprehensive understanding of the air transportation network.



Airports at Higher altitude within a country

ICAO (airports.csv)

(All)

Country (airports.csv)

India

index no.	Name (airports.csv)	City	ICAO (airports.csv)	
1	Leh Kushok Bakula Rimpochee Airport	Leh	VILH	10,682
2	Sheikh ul Alam Airport	Srinagar	VISR	5,429
3	Ziro Airport	Zero	VEZO	5,403
4	Shimla Airport	Shimla	VISM	5,072
5	Kullu Manali Airport	Kulu	VIBR	3,573
6	Yelahanka Air Force Station	Bangalore	VOYK	3,045
7	Jakkur Aerodrome	Bengaluru	VOJK	3,013
8	Kempegowda International Airport	Bangalore	VOBL	3,000
9	HAL Airport	Bangalore	VOBG	2,912
10	Shillong Airport	Shillong	VEBI	2,910
11	Imphal Airport	Imphal	VEIM	2,540
12	Kangra Airport	Kangra	VIGG	2,525
13	Belgaum Airport	Belgaum	VABM	2,487
14	Mysore Airport	Mysore	VOMY	2,349
15	Bidar Air Force Station	Bidar	VOBR	2,178
16	Hubli Airport	Hubli	VAHB	2,171
17	Birsa Munda Airport	Ranchi	VERC	2,148
18	Udhampur Air Force Station	Null	VIUX	2,066
19	Rajiv Gandhi International Airport	Hyderabad	VOHS	2,024
20	Dundigul Air Force Academy	Dundigul	VODG	2,013
21	Kolhapur Airport	Kolhapur	VAKP	1,996
22	Jeypore Airport	Jeypore	VEJP	1,952
23	Pune Airport	Pune	VAPO	1,942
24	Chindli Airport	Chindli	VACD	1,886

Airports at Higher altitude in the world

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

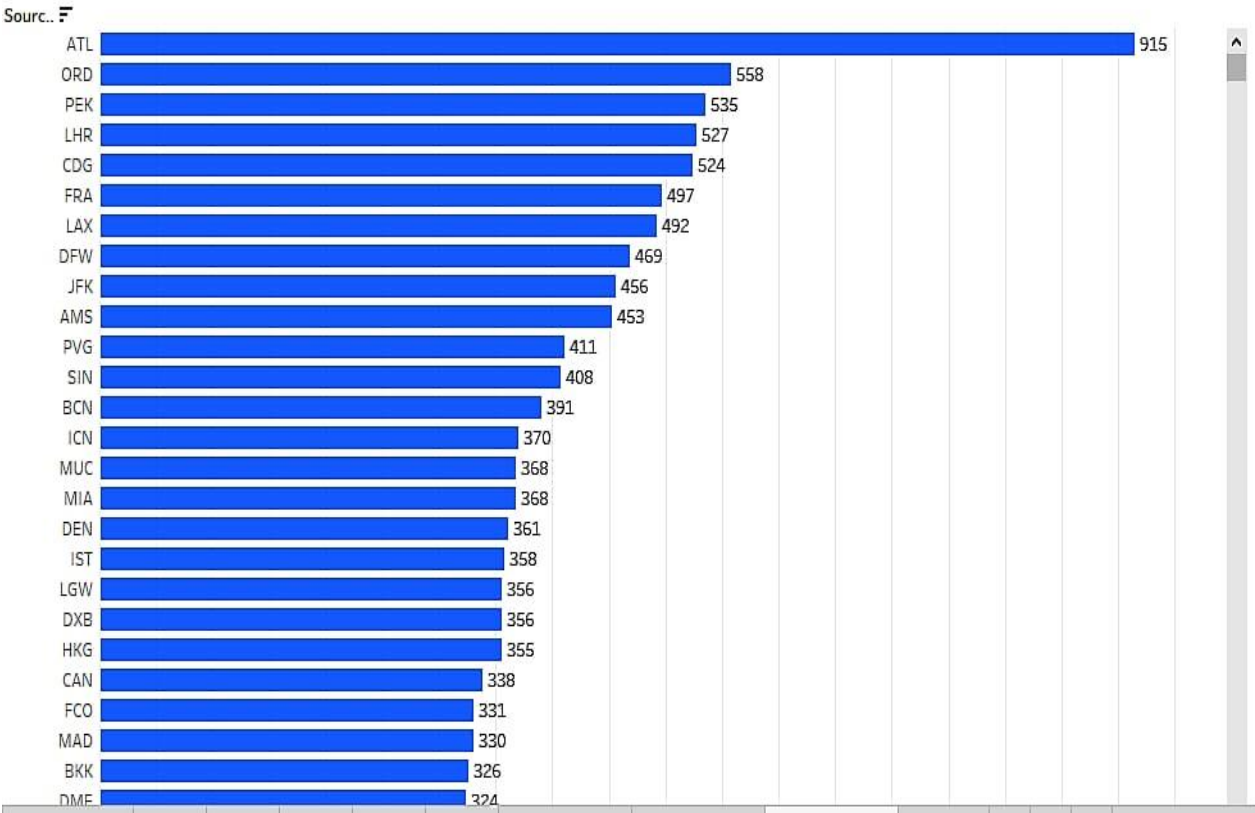
Airlines within a Country				
Airline ID	Name	Icao	Callsign	
218	Air India Limited	AIC	AIRINDIA	■
241	Air Sahara	RSH	SAHARA	■
569	Air India Express	AXB	EXPRESS INDIA	■
1026	Alliance Air	LLR	ALLIED	■
1370	Blue Dart Aviation	BDA	BLUE DART	■
2001	Deccan Aviation	DKN	DECCAN	■
2575	Go Air	GOW	GOAIR	■
2634	Gujarat Airways	GUJ	GUJARATAIR	■
2850	IndiGo Airlines	IGO	IFLY	■
2851	India International Air..	IIL	INDIA INTER	■
2852	Indian Air Force	IFC	INDIAN AIRFORCE	■
2853	Indian Airlines	IAC	INDAIR	■
3000	Jet Airways	JAI	JET AIRWAYS	■
3142	Kingfisher Airlines	KFR	KINGFISHER	■
3907	Paramount Airways	PMW	PARAWAY	■
3918	Pawan Hans	PHE	PAWAN HANS	■
4375	Spicejet	SEJ	SPICEJET	■
13105	Air India Regional	\N	ALLIED	■
13106	MDLR Airlines	\N	MDLR	■
13107	Jagson Airlines	JGN	JAGSON	■
13905	Skyline nepc	\N	Null	■
16327	Indya Airline Group	IG1	Indya1	■
16362	OCEAN AIR CARGO	IXO	Null	■
16738	NEPC Airlines	\N	Null	■
16901	12 North	N12	12N	■

Active
☒ (All)
☒ n
☒ N
☒ Y

Country
India

Active
■ N
■ Y

Number of Flights from Airport



4. Advantages:

- Helps the people to easily understand about airport counts and airlines.
- Helps the government in constructing the new airports in the world.
- Helps to know about the Active and Inactive airlines in the Country.

5. Disadvantages:

- Frequent flight delays and cancellations can be a major frustration for travellers.
- Safety measures is the fear faced by the passengers in air transportation.
- Airfares can be expensive when compared to the other modes of transportation.

6. Applications:

- Helps the government in developing the country through imports and exports of goods.
- Facilitating the movement of people for business, tourism and personal reasons.
- Helps the government to construct new airports in the world.

7. Conclusion:

The collected data about the air transportation network will be useful to developing the airline transportation in the country and in the world also.

8. Future scope:

- Advanced Air traffic management systems will be developed including artificial intelligence, to optimise the flight routes.
- Introducing light weight and durable materials will make aircraft more efficient and environment friendly.
- Costs reduction can lead to making air travel more affordable for passengers.