

UNLOCKING INSIGHTS OF GLOBAL AIR TRANSPORTATION NETWORK

1.Introduction

1.1.Overview

The business requirement of the Global Air Transportation Network-Airports, Airlines, and Routes dataset is to provide stakeholders in the aviation industry with accurate, up-to-date information on the worldwide air transportation network. The dataset is intended to help stakeholders make informed decisions related to business growth, investment, capacity planning, and infrastructure development.

1.2.Purpose

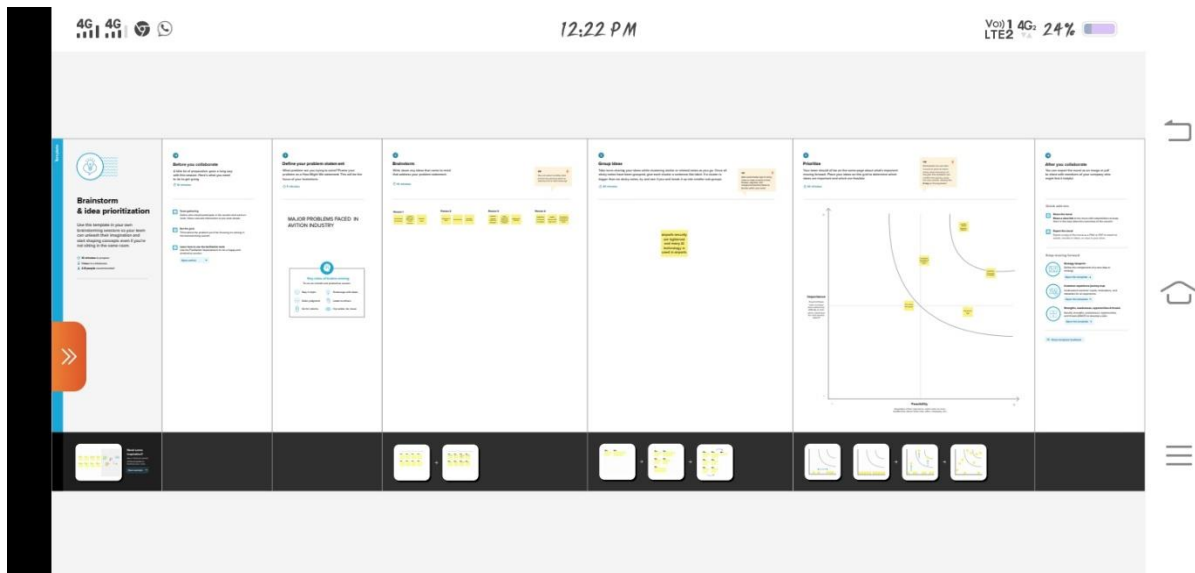
A literature survey for Global Air Transportation Network involves reviewing academic articles, books, and other sources related to the aviation industry including statistical, economic, financial models. It also discusses various factors that affect the flight delay, flight route etc. The survey can provide a comprehensive understanding of the significance, challenges, and opportunities associated with the aviation industry.

2.Problem Definition and Design Thinking

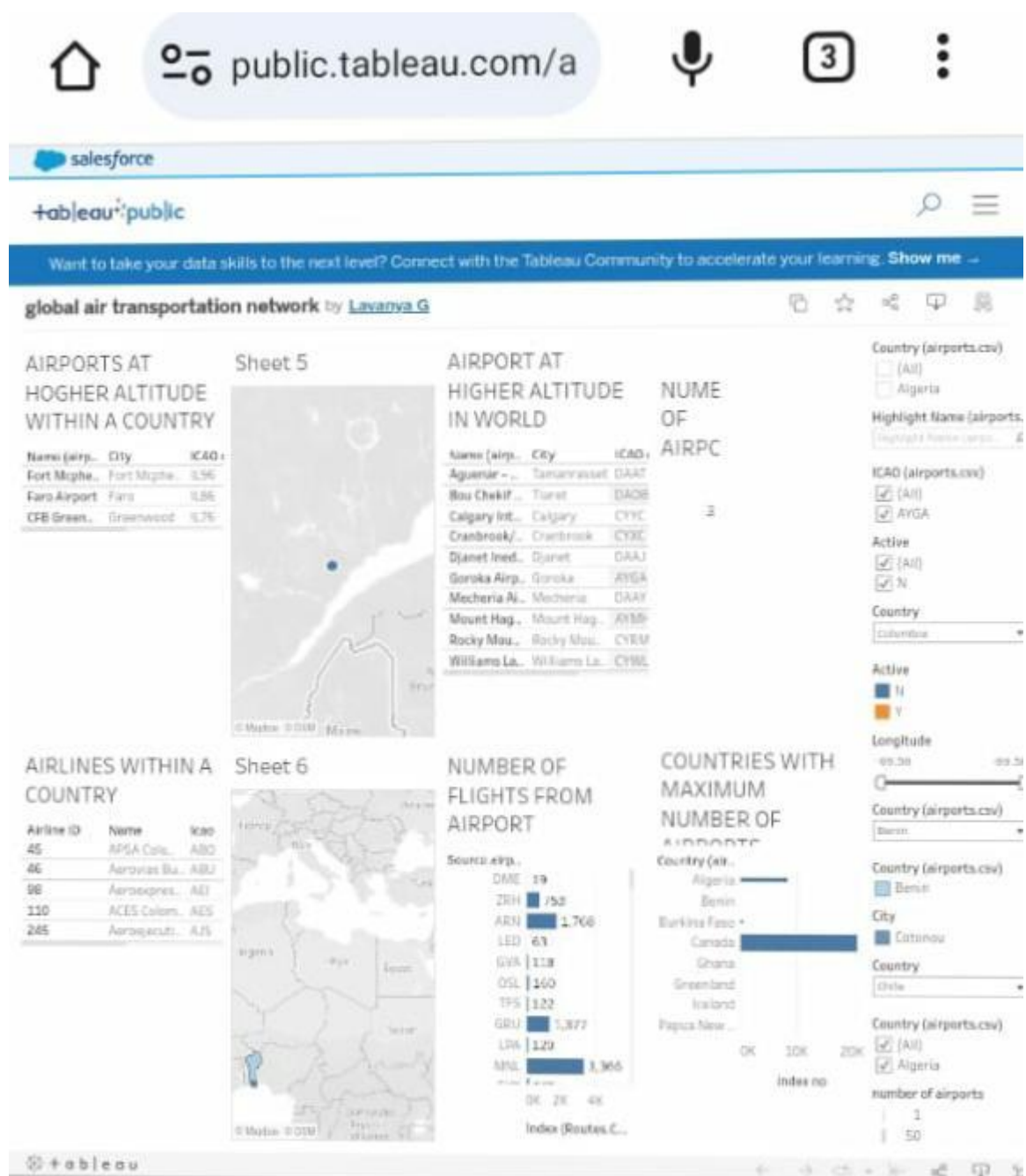
2.1.Empathy map



2.2.Ideation and brainstorming map

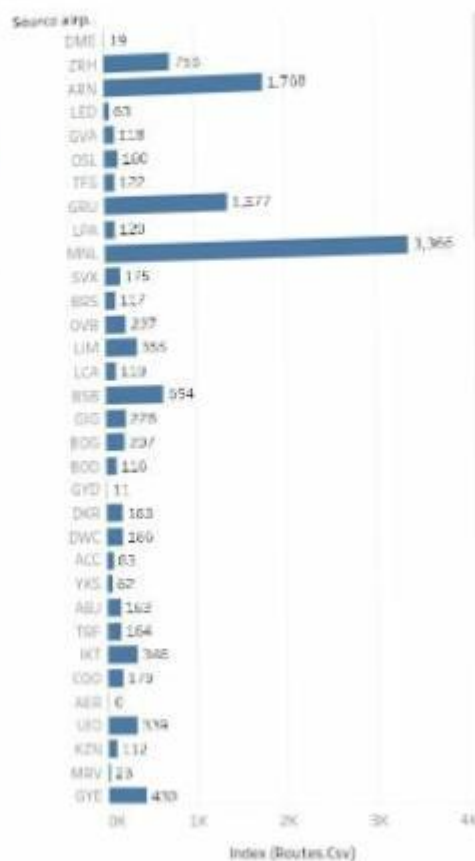
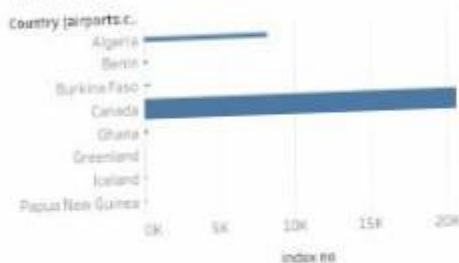


3. Result



GLOBAL AIR TRANSPORTATION NETWORK

Bar graph showing countries with most flights from



1	50
2	100
3	150
4	184

4. Advantages and Disadvantages

Air transport offers numerous advantages for international trade, depending on your requirements. Advantages of air transport for international trade. Some of the advantages of transporting your goods by air include: deliver items quickly over long distances give you high levels of security for sensitive items be used for a range of goods Disadvantages of air transport for international trade There are some disadvantages of transporting your goods by air, including: air transport can involve higher costs than other options, and is not suitable for all goods flights are subject to delay or cancellation you will need to pay taxes at each airport you use fuel and currency surcharges will usually be added to freight costs further transportation may be needed from the destination airport to the final destination

5. Applications

Our analysis of the community structure of the air transportation network is important for two additional reasons. First, it allows us to identify the most efficient ways to engineer the structure of the network. Specifically, having identified the communities, one can identify which ones are poorly connected and the ways to minimize that problem. Second, cities that connect different communities play a disproportionate role in important dynamic processes such as the propagation of infections such as severe acute respiratory syndrome. As we described, finding the communities is the first step toward identifying these cities.

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. Currently, rising operating costs, stoked by the high price of aviation fuel combined with slowing or even negative demand growth, will lead to dramatic restructuring of the airline industry and the collapse of many airlines especially smaller ones. Reduced access to air services for both passengers and freight may put many communities at a disadvantage.

The air transport industry needs not only to be financially sound to be effective as an economic catalyst for growth but also to be environmentally responsible. Governments need to be sensible, transparent and long-term in their approach. Priority must be given to tackling obstacles such as inefficient and fragmented ATMs, restrictive air service agreements, inadequate airport infrastructures and unjustified government charges and taxes. The development of more fuel efficient aircraft and engines must also be encouraged.

7. Futurescope

The aviation sector is growing fast and will continue to grow. 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. 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. Once the impacts of global tourism are taken into account, these numbers could rise to 97.8 million jobs and \$5.7 trillion in GDP.