Unlocking Insights into the Global Air Transportation Network with Tableau.

- INTRODUCTION
- Overview

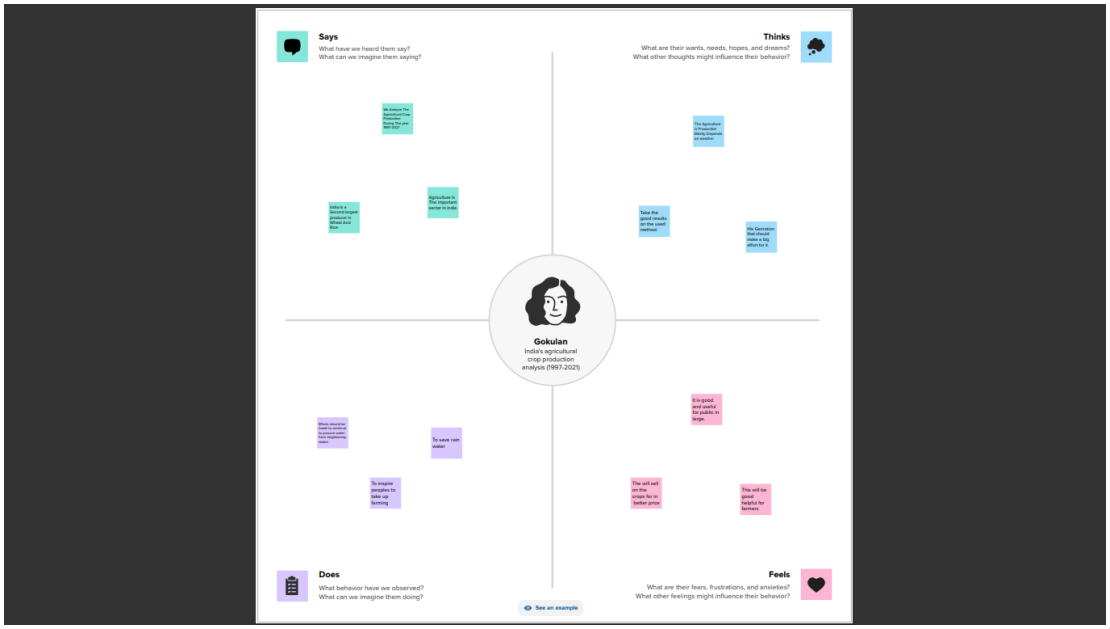
This Global Air Transportation Network dataset is a comprehensive collection of information on airports, airlines and their routes. It contains information such as names, cities, countries, codes (IATA and ICAO) longitudes, latitudes and altitudes of airports across the world with detailed time zone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

- Purpose

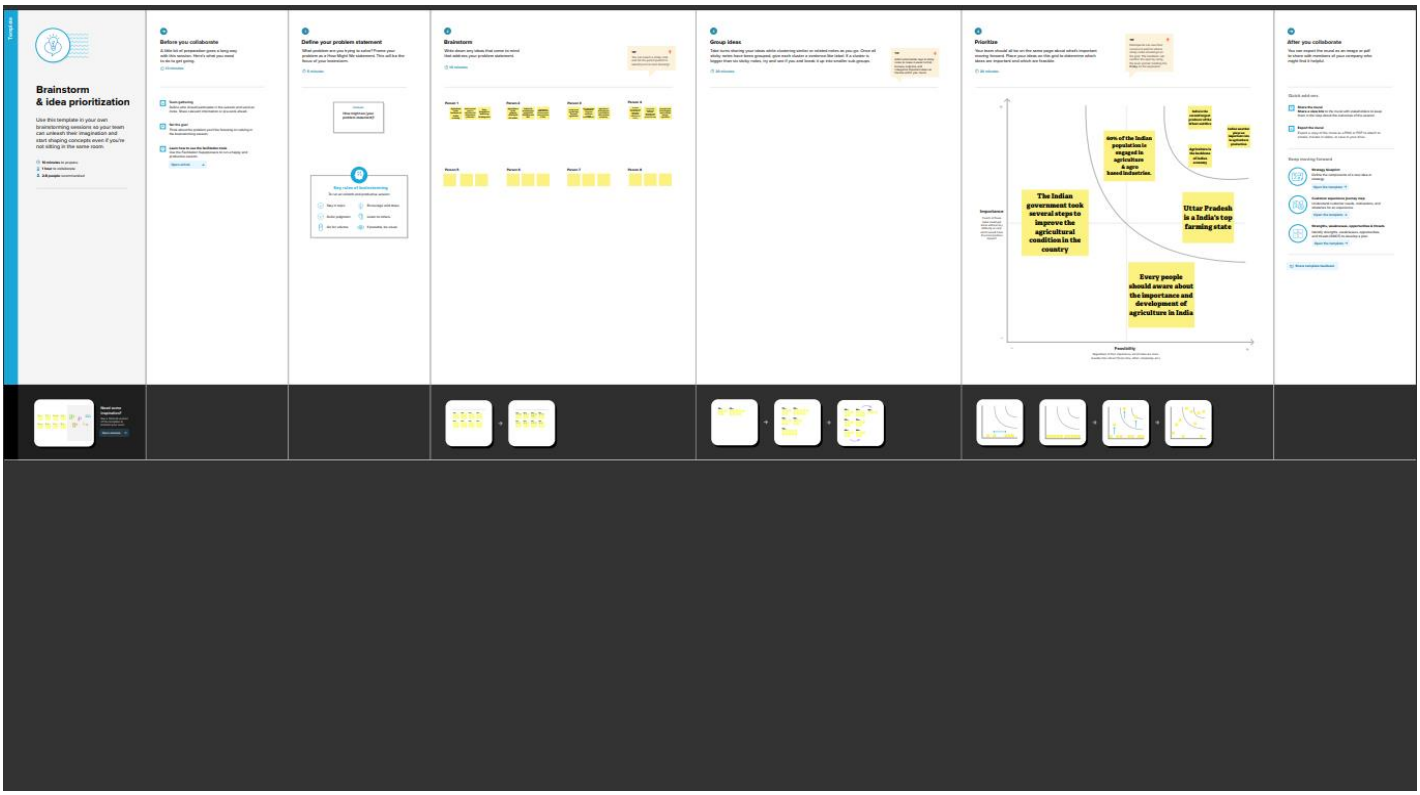
The purpose of this project is to unlock the insights into Global Air Transportation Network using Tableau software. Various data has been analyzed and conclusions are made. …….

2. Problem Definition & Design Thinking

1.3 Empathy Map



1.4 Ideation & Brainstorming Map



Result :

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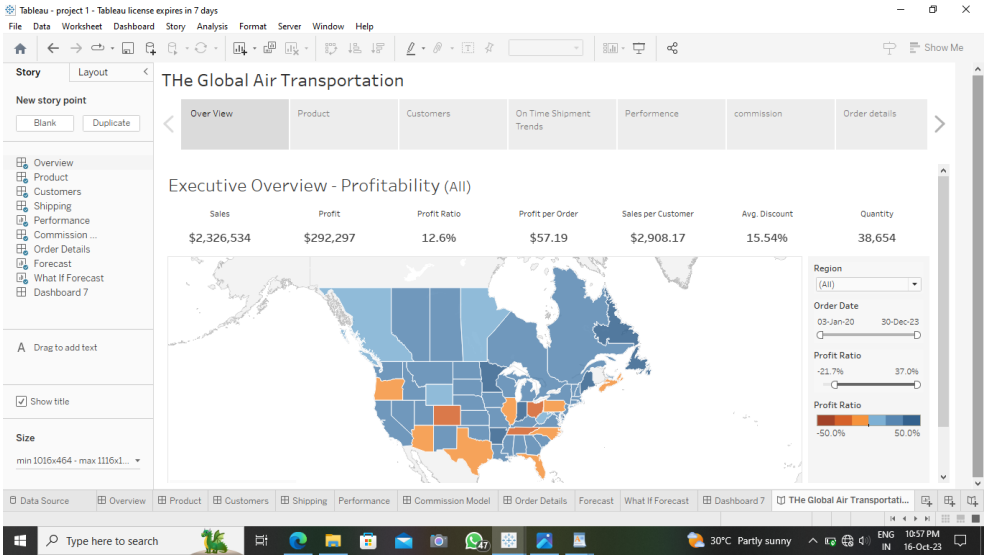

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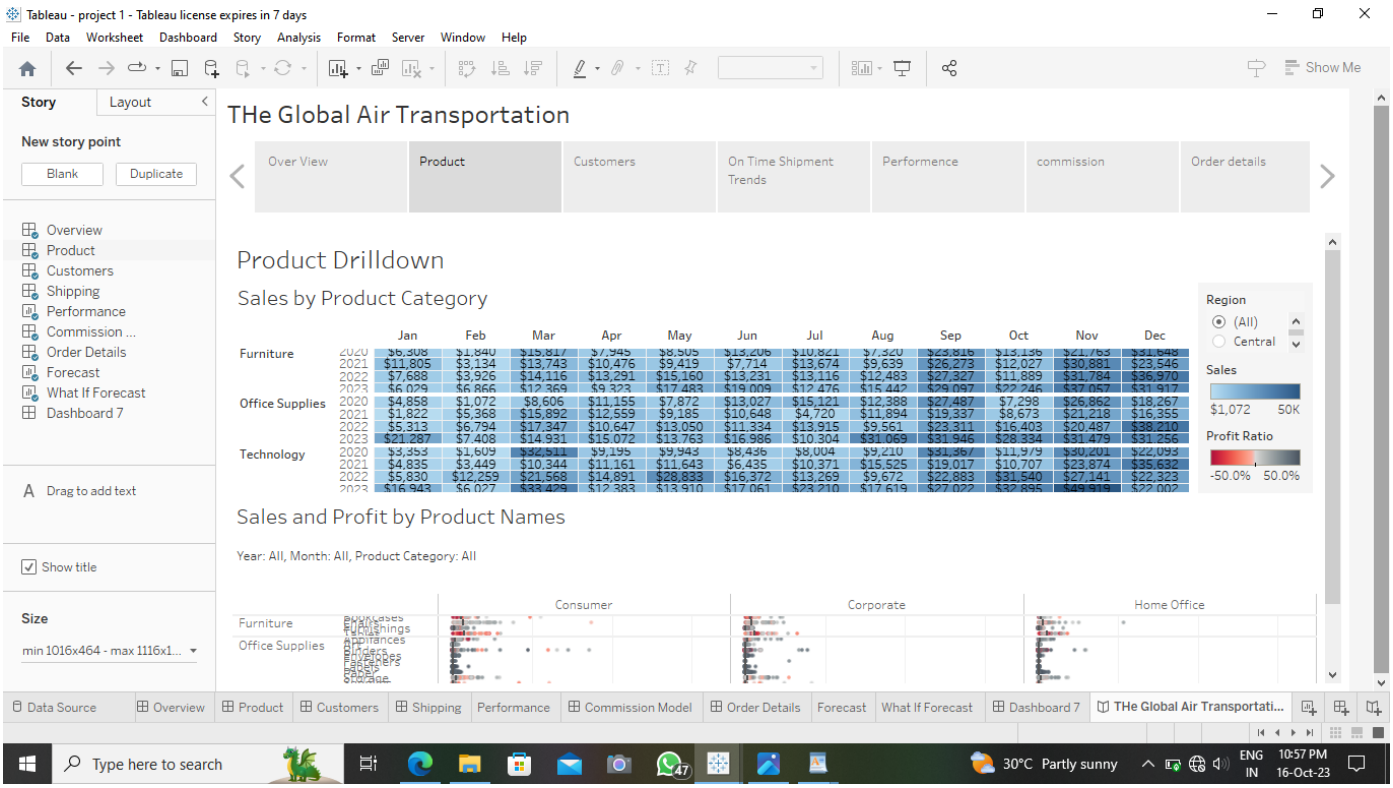

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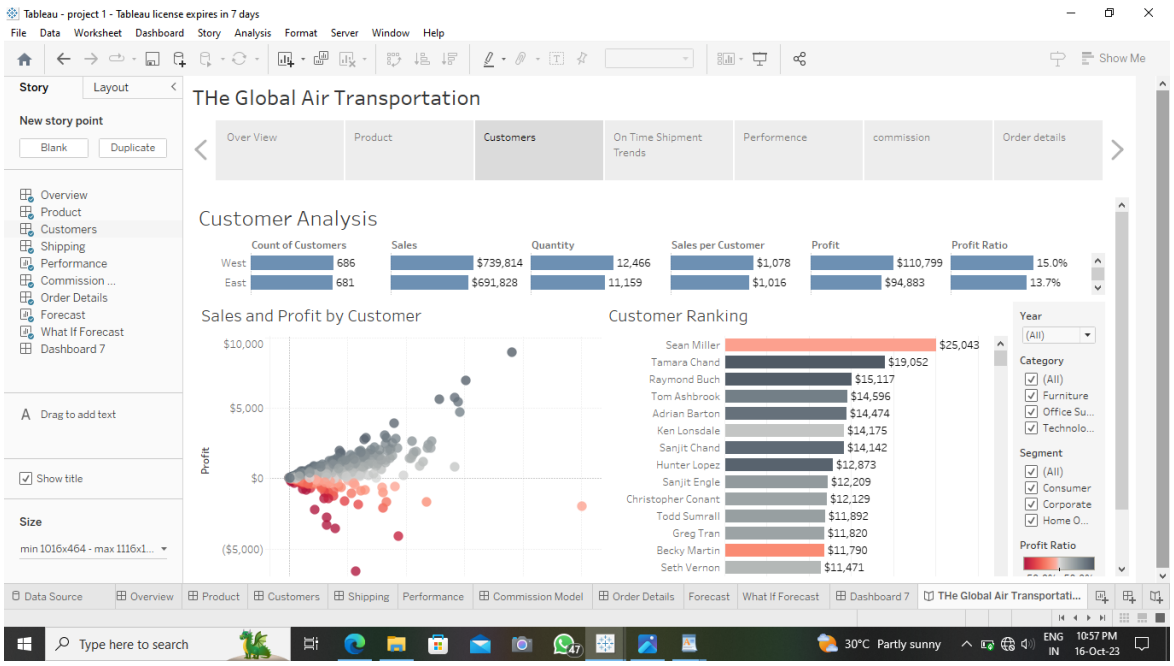

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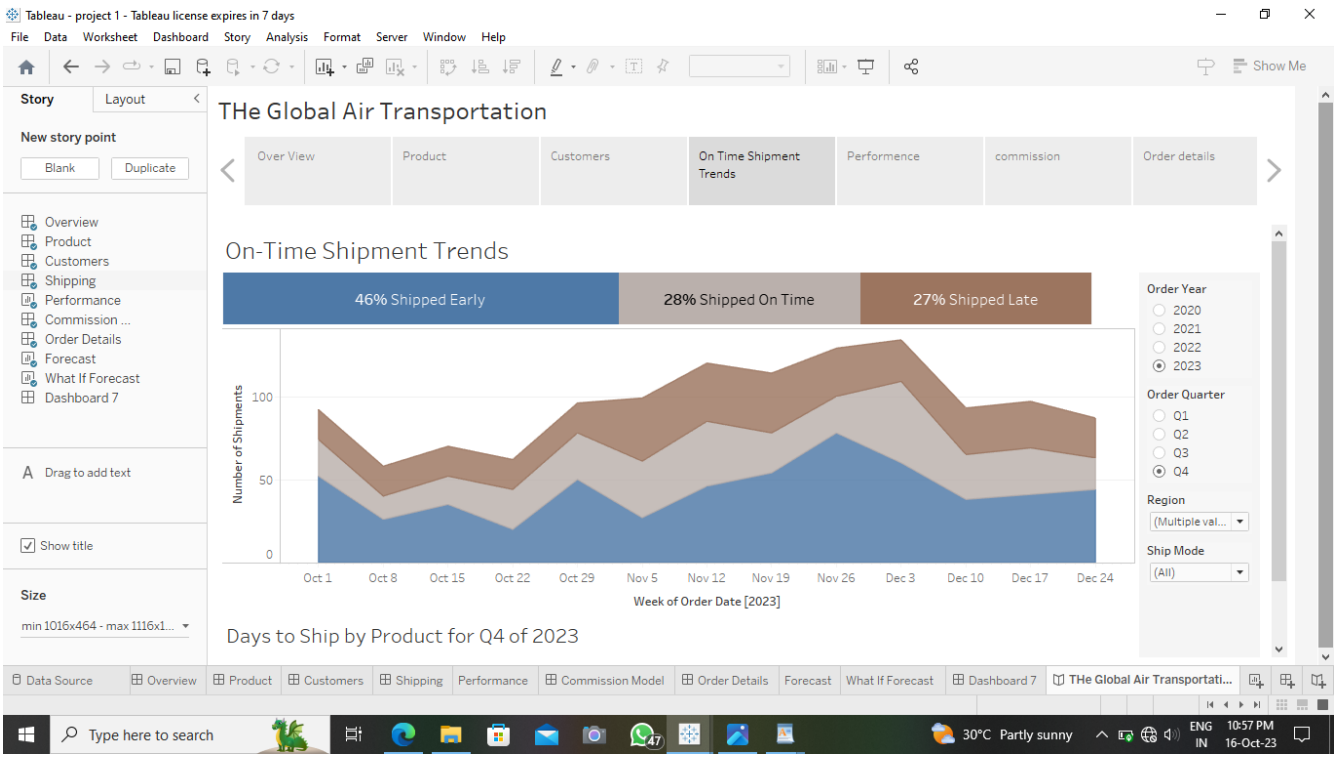

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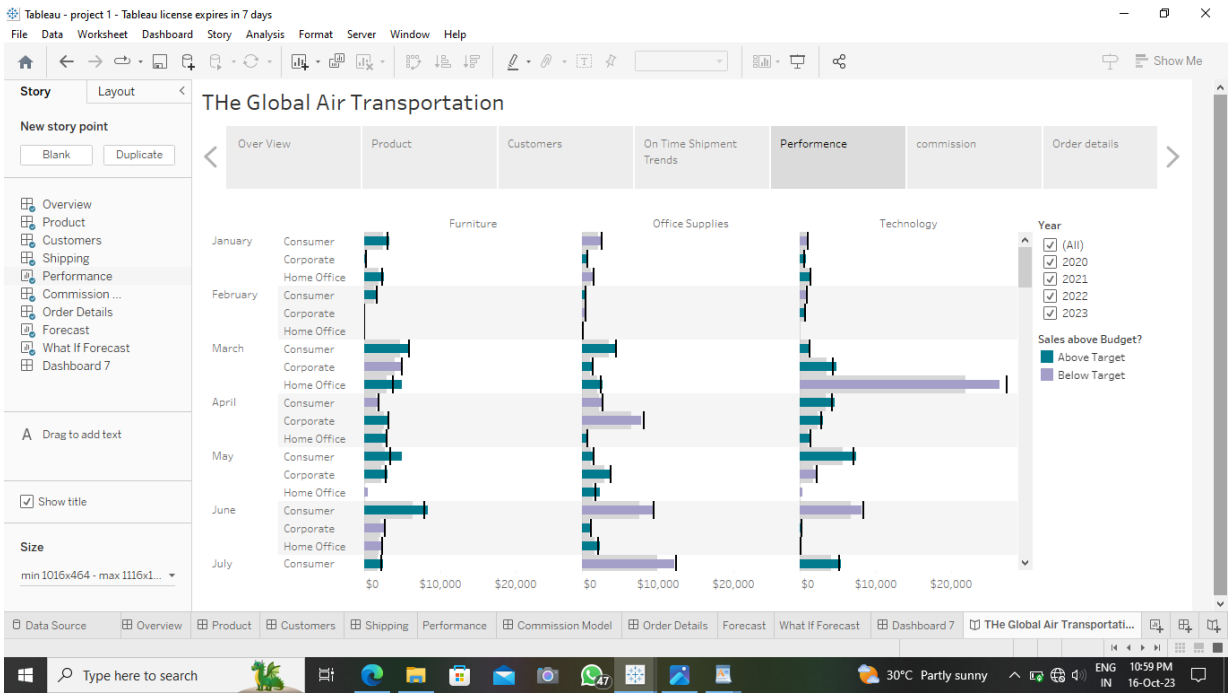

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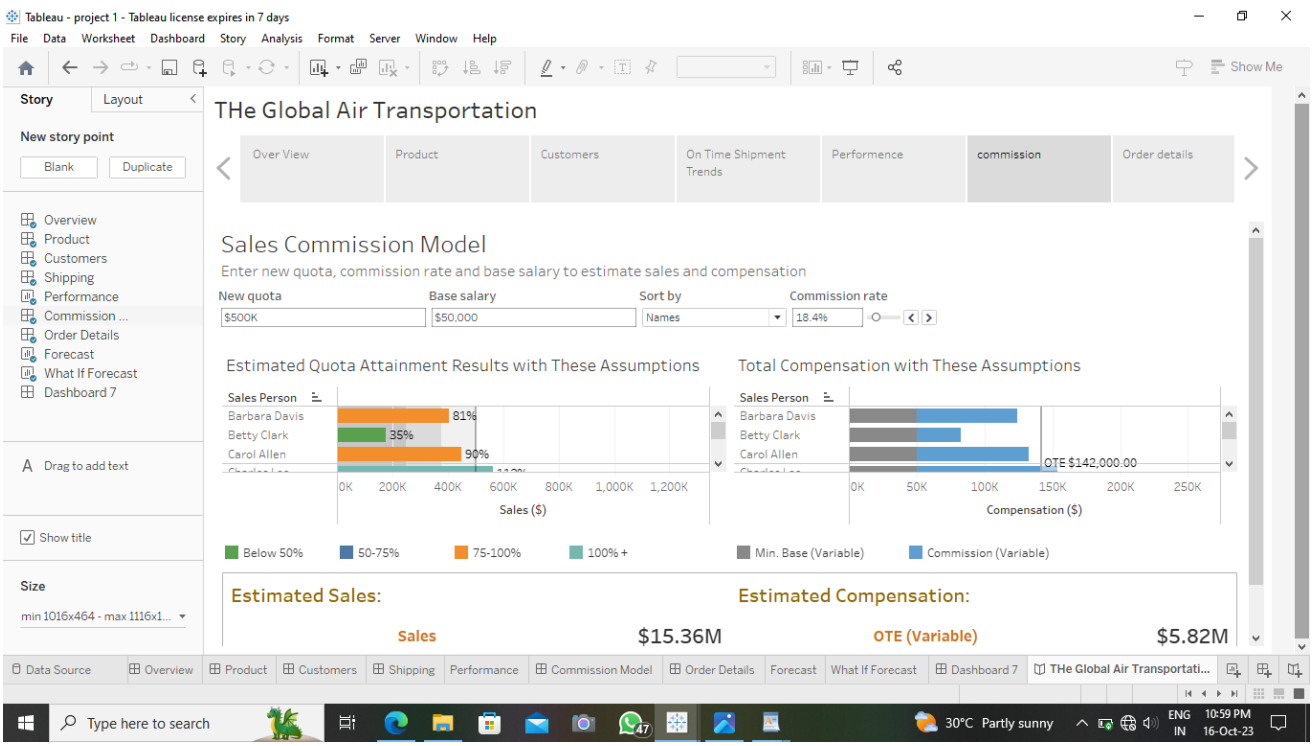

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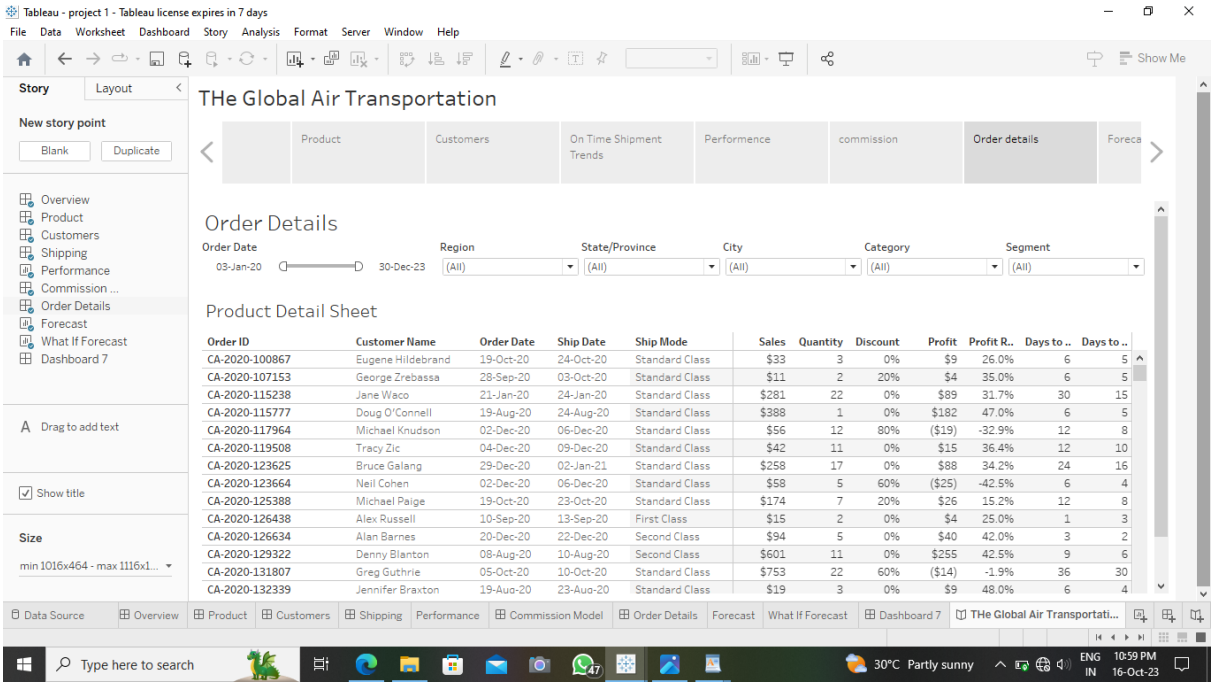

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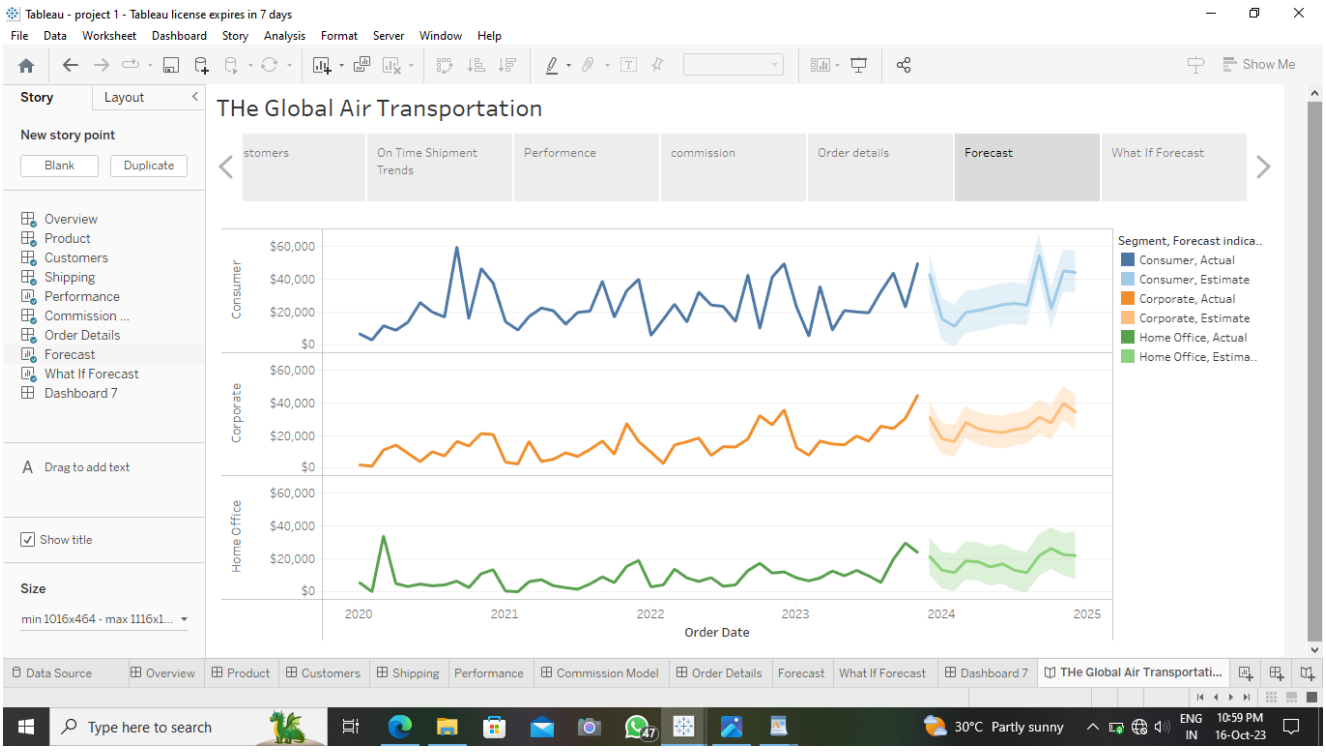

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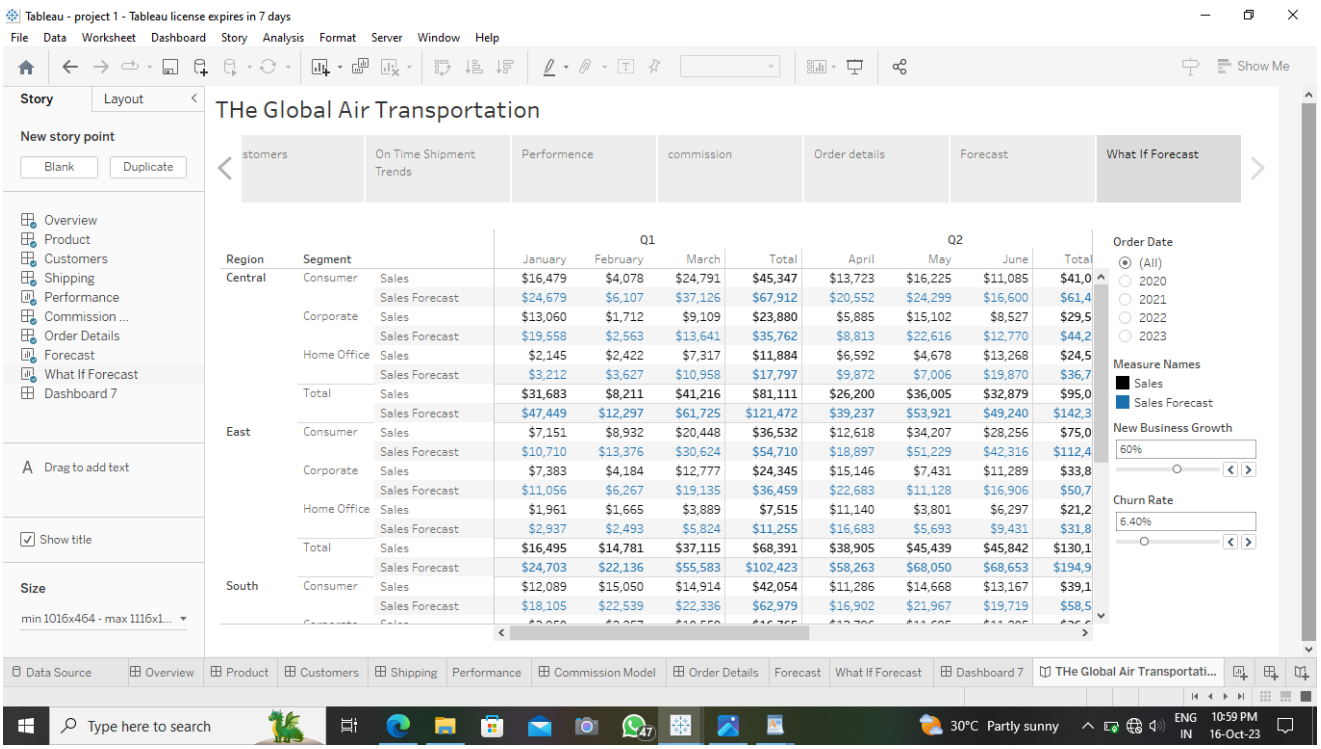
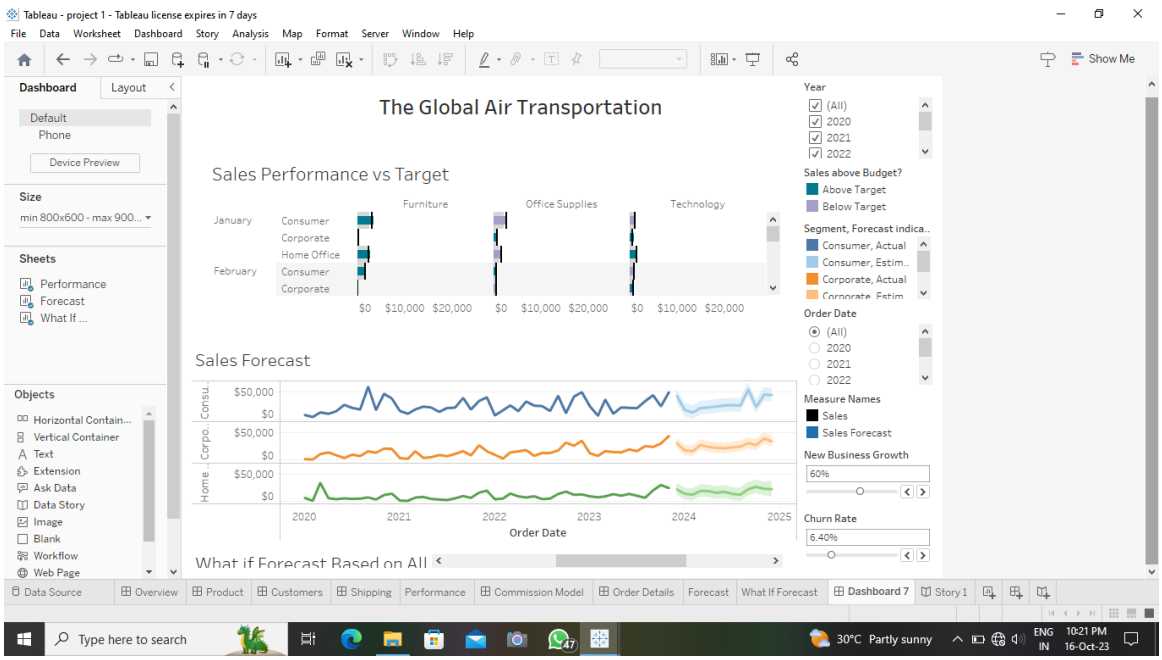


DASHBOARD



4. ADVANTAGES & DISADVANTAGES

Advantages of Air Transport :

1. High Speed

Air is the type of freight capable of traveling long distances in short periods of time. This makes this model an optimum choice if the client has an urgent need to ship a product or if their freight demands special standards of protection or acclimation. It is the quickest transport mode and is therefore ideal for long-distance transport of goods. It takes less time.

2. Fast Service

Air transportation offers convenient, reliable and fast services of transport. It is considered the cheapest way to ship peregrinated goods. It offers a standard, convenient, reliable and fast service.

3. Send almost everywhere your freight

In regions that are not readily accessible to other modes of transport, air transport is considered to be the only means of transport. Open to all regions, irrespective of land interference. A vast network of airlines covering nearly the whole globe is available for many airlines. This ensures that the package can be sent almost anywhere.

4. High Standard of Security

High standard of protection with a low risk of robbery and injury. Shipping by air has a high degree of security since airport safety restrictions on cargo are strictly enforced. Tightly controlled airport controls also minimise cargo theft and loss.

5. Natural Route

An aircraft can fly to any location without seeing any natural obstacles or barriers. Since customs formalities are easily compiled. It eliminates the need for more time to seek clearance. Air travel is used for relief operations during earthquakes, floods, accidents, and famines.

Disadvantages of Air Transport :

1. Risky

Air travel is the riskiest mode of transport, since there can be considerable losses to goods, customer and crews as a result of a minor crash. Compared to other means of travel, the risks of collisions are higher.

2. Cost

Air travel is considered to be the most expensive means of transportation. The cost of maintaining aircraft is higher and the costs for the building of aerodromes and avions are much higher. That's why air travel is so expensive that it gets beyond ordinary people's grasp.

3. Some Product Limitation

There is a whole variety of materials not suitable for such products, from explosives, gases, batteries, fired solids and liquids, which cannot be shipped by air to name but a few.

4. Capacity for Small Carriage

The aircraft have no room and therefore are not ideal for carriage of voluminous and cheaper materials. As is seen for rails, the load volume cannot be raised.

5. Enormous investment

Air travel calls for enormous spending in aerodrome building and servicing. It also calls for professional, qualified and qualified staff that need a significant investment.

5.Applications :

Solutions:

* The issue of regulating the aviation industry should be treated as other transport policies, and its consistency should be maintained to protect the climate.

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* Airlines should pay for every ton of greenhouse gases they emit, just like other forms of transportation.

* Virtually predicting the extent of noise levels using the International Noise Model can be used to address the issue.

6.Conclusion

* Thus the needs of the passenger are entrenched both in safe and economical air transport that is provided regularly and efficiently.

* Justify the creation of a national research program focused on the needs of airport operators.

* Reveal how such a program can play a role in helping airport operators meet the many demands of federal agencies, state governments, local communities, and airport users.

* Provide guidance on governing, funding, and administering an airport research program.

7.Future Scope

* The industry has a number of domestic and international airlines, as well as a large network of airports.

* The future of the aviation industry in India is likely to see continued growth and expansion, driven by factors such as a growing middle class, increased tourism, and government policies supporting the industry.

* The industry is also likely to face a number of challenges, including infrastructure constraints and competition from low-cost carriers.
