Unlocking Insights into the Global Air Transportation Network with Tableau.

INTRODUCTION

1.1 Overview

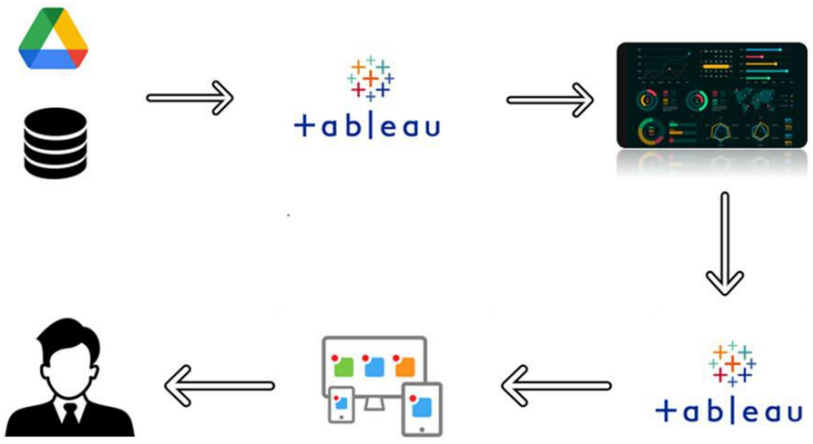
Air travel has now become one of the most commonly used modes of transportation across the world due to its ease of access, faster commute, and reasonable costs. Its increasing demand has made it possible to achieve connectivity to nearly every part of the world, with a growing number of direct flights to major cities. Studying the network of flight routes through social network analysis (SNA) helps us determine the airports that are significant players in the industry. By calculating the clustering coefficient and the average shortest path, we can ascertain that the world airport network (WAN) has the characteristics of a small-world network. In contrast, some regional networks possessed features of both small-world and scale-free networks. Previous studies conducted have primarily focused on complex air networks in a particular region. What sets our study apart is the use of a large dataset to analyse the properties of air transport across various parts of the world.

1.2 Purpose

Our aim through this project was to better understand the characteristics and patterns of air transport around the world. We used various measures of to arrive at our output, which included a comparison of regional airport networks, their importance in the network, and influence airports have on WAN. The tools used for analysis were designed tableau. Tableau is one of the fastest-growing BI products. It is the best way to change or transform a raw set of data into a format that is easy to understand, even if you don't know how to code or have any technical skills. It can help you interpret data better.This is why there is also a growing demand for Tableau Certification Course in the IT market

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. It requires your generous donations in order for them to keep updating this data source so please do donate if possible.



Air transport networks play a central role in trade, tourism, accessibility, and integration among regions as well as in social development and economic growth in general (Zhang et al., 2008; Fu et al., 2010), comprehensive studies of the subject have been scant with no empirical systematic literature review (SLR) being provided. The closest SLR available (Ginieis et al., 2012) offers a view of studies on the general topic of

air transport published from 1997 to 2009. However, almost a decade later, its results may not accurately reflect the present state of discussions in this field or the prominence of such discussions, thus leaving researchers and industry practitioners with no clear outlook on air transport networks. With this gap in mind, this research aims to map (1) the many perspectives from which air transport networks have been examined in the literature from 1973 to 2021, (2) the overall prominence of discourses about such perspectives, (3) the temporal evolution of these discourses, and (4) the main approaches undertaken in these analyses, determined by correlating employed methodologies and applications. The remainder of this paper is organised as follows. Section 2 specifies the research design and describes methodological justifications and data collection procedures.

2 Problem Definition & Design Thinking

2.1 Empathy Map

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2.2 Ideation & Brainstorming Map

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3 RESULT

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3 RESULT

3.1 World map showing details of all Airports within a Country and Number of Airports within the country

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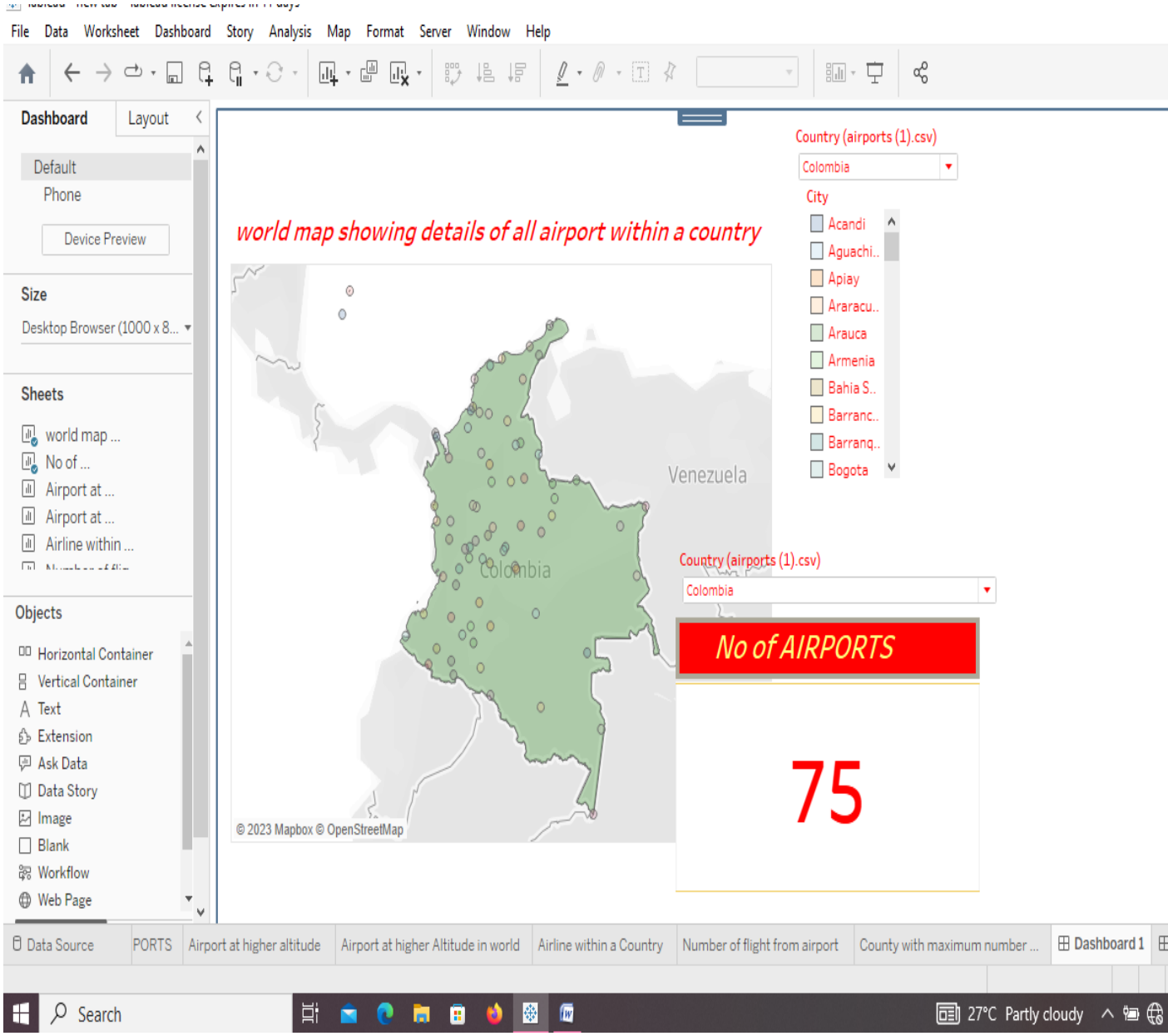
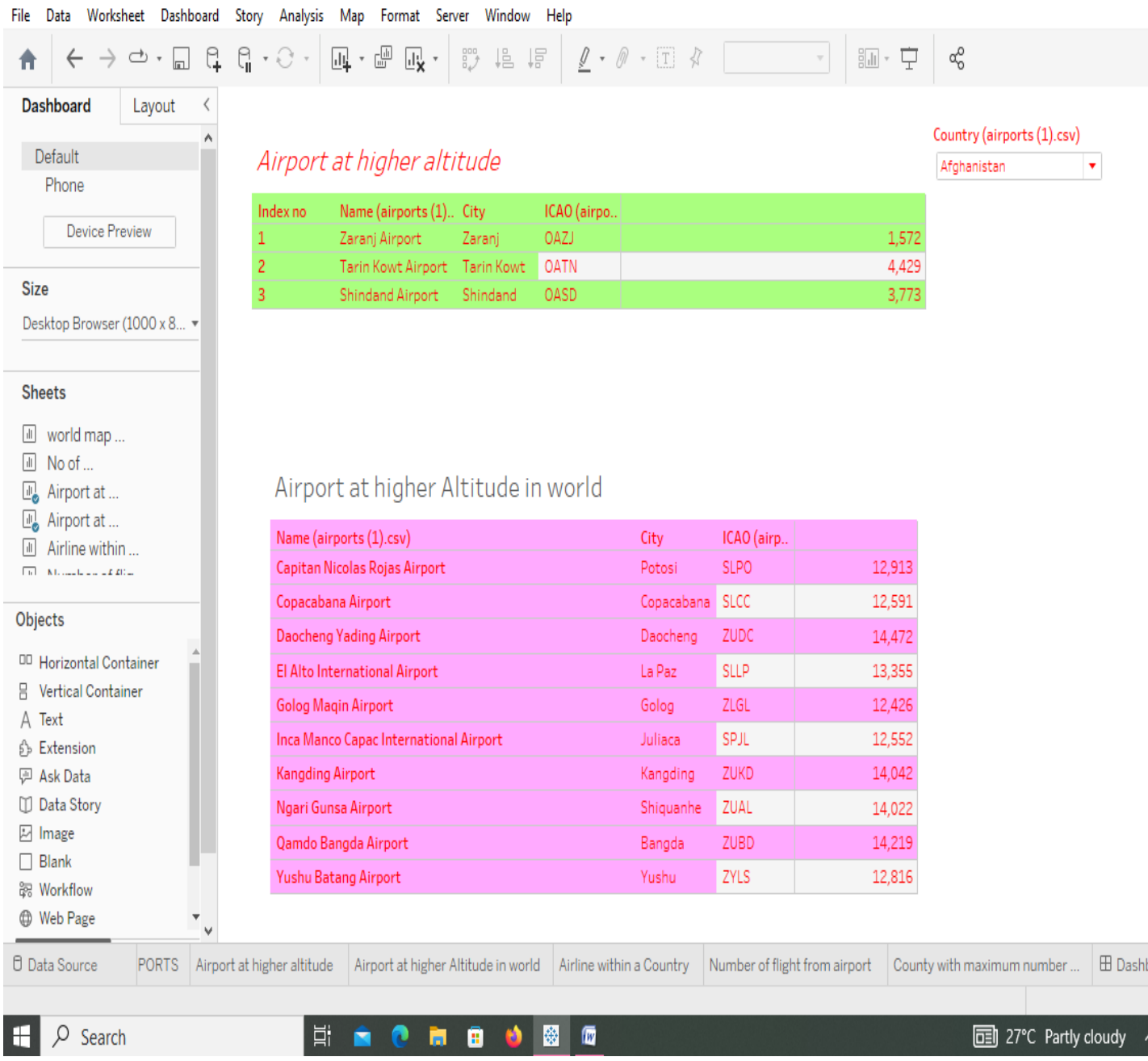
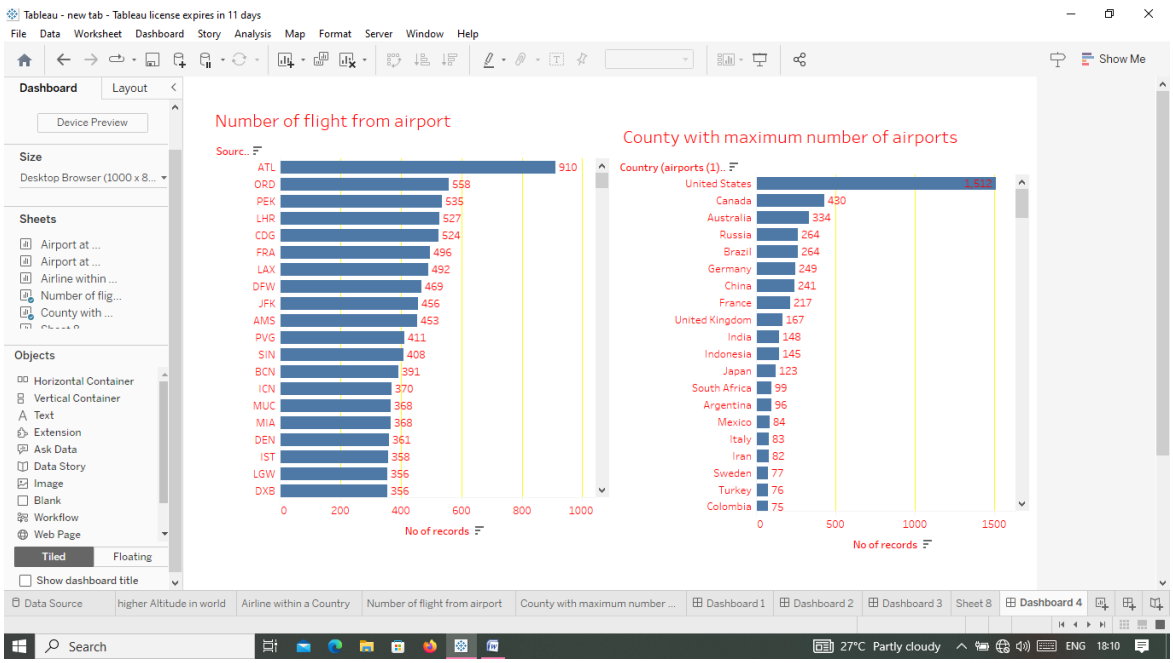


3.2 Airports at Higher altitude within a country and Airports at Higher altitude in the world

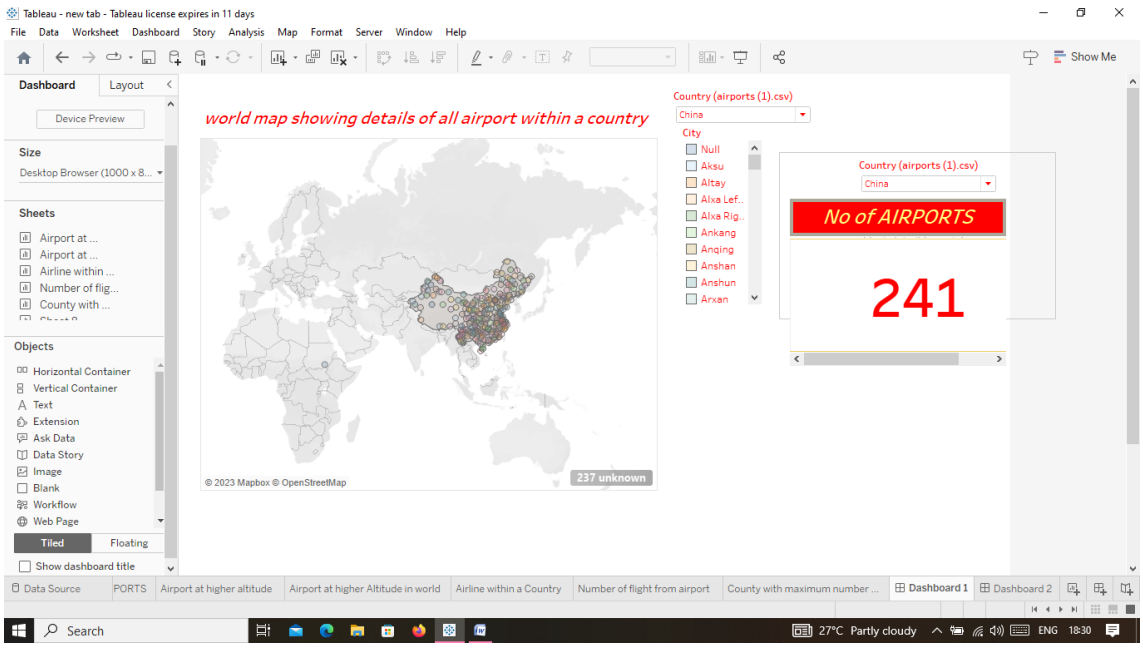


Number of flights from airport and country with maximum number of airports

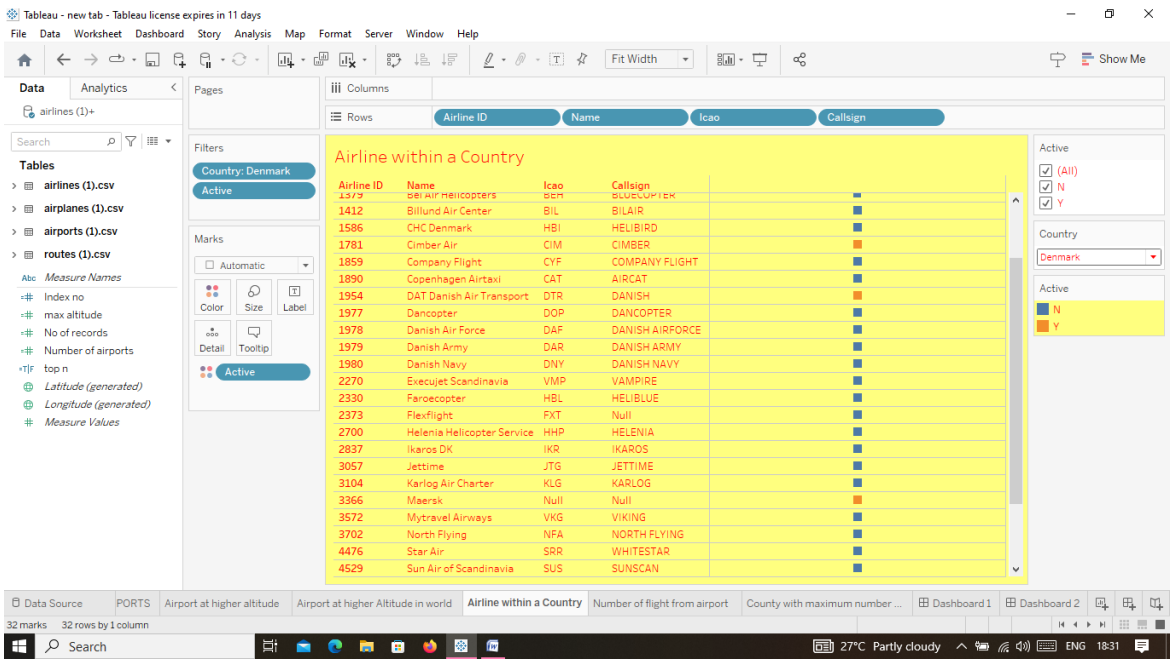


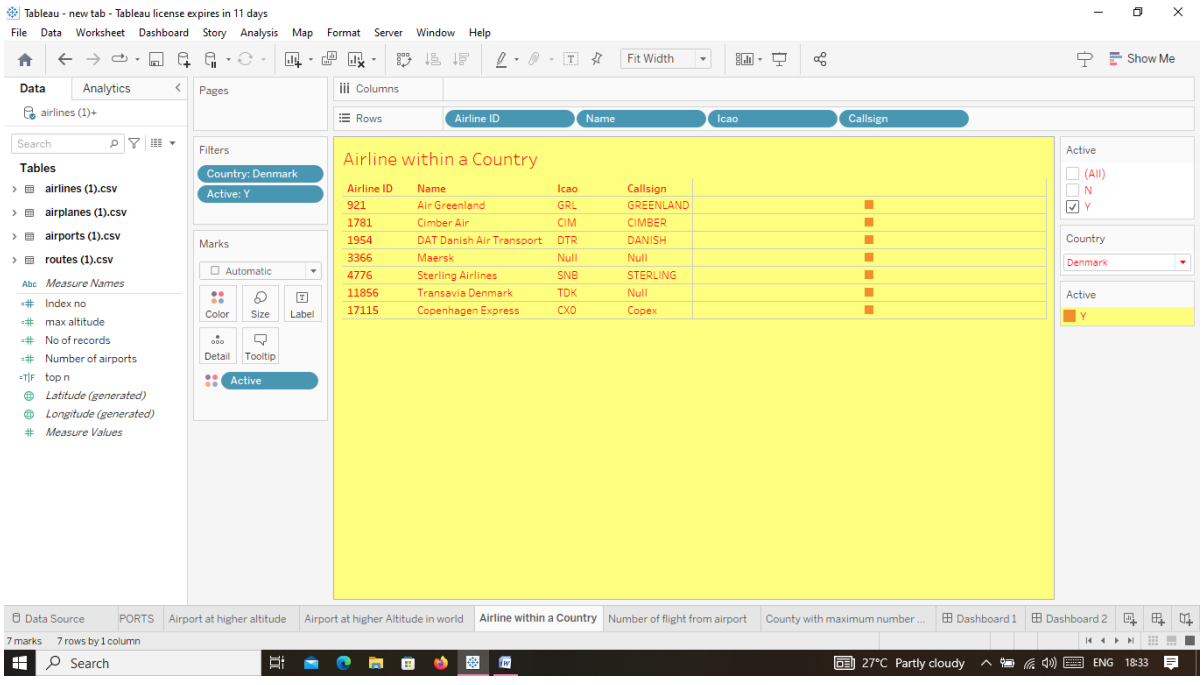
World map showing details of all Airports within a Country

Explanation

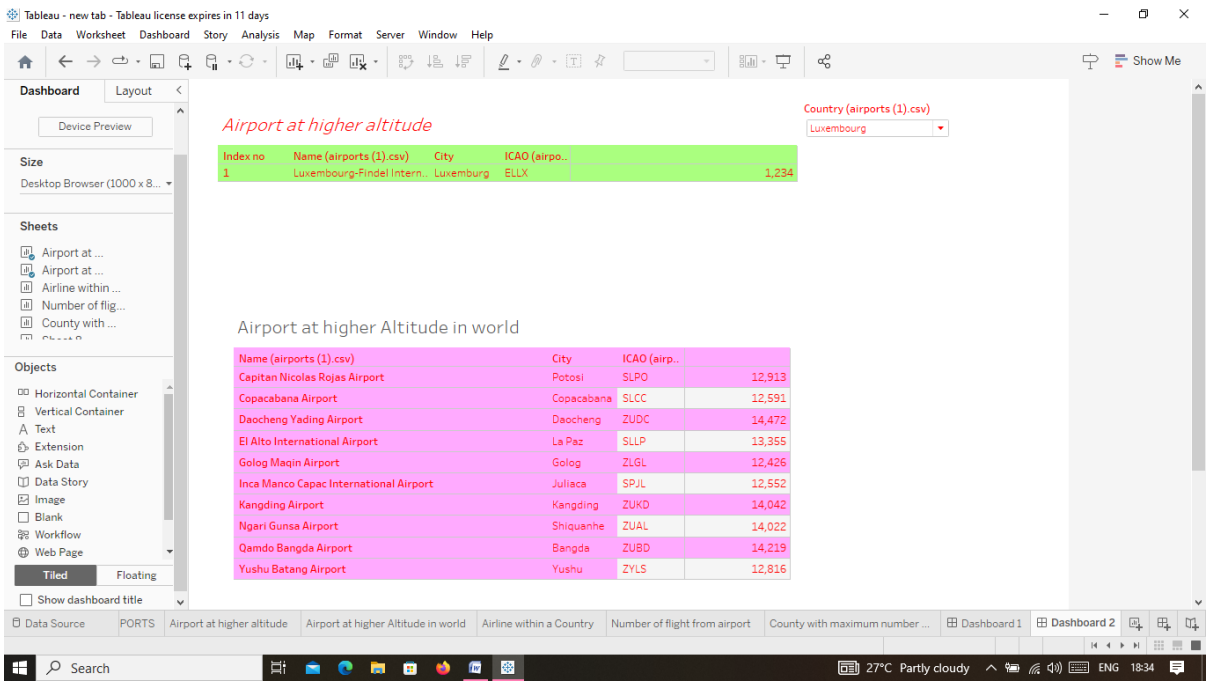


Airlines within a Country





Airports at Higher altitude in the world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El Alto International Airport La Paz SLLP 13,355
Golog Maqin Airport Golog ZLGL 12,426
Inca Manco Capac International Airport Juliaca SPJL 12,552
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Ngari Gunsa Airport Shiquanhe ZUAL 14,022
Qamdo Bangda Airport Bangda ZUBD 14,219
Yushu Batang Airport Yushu ZYLS 12,816
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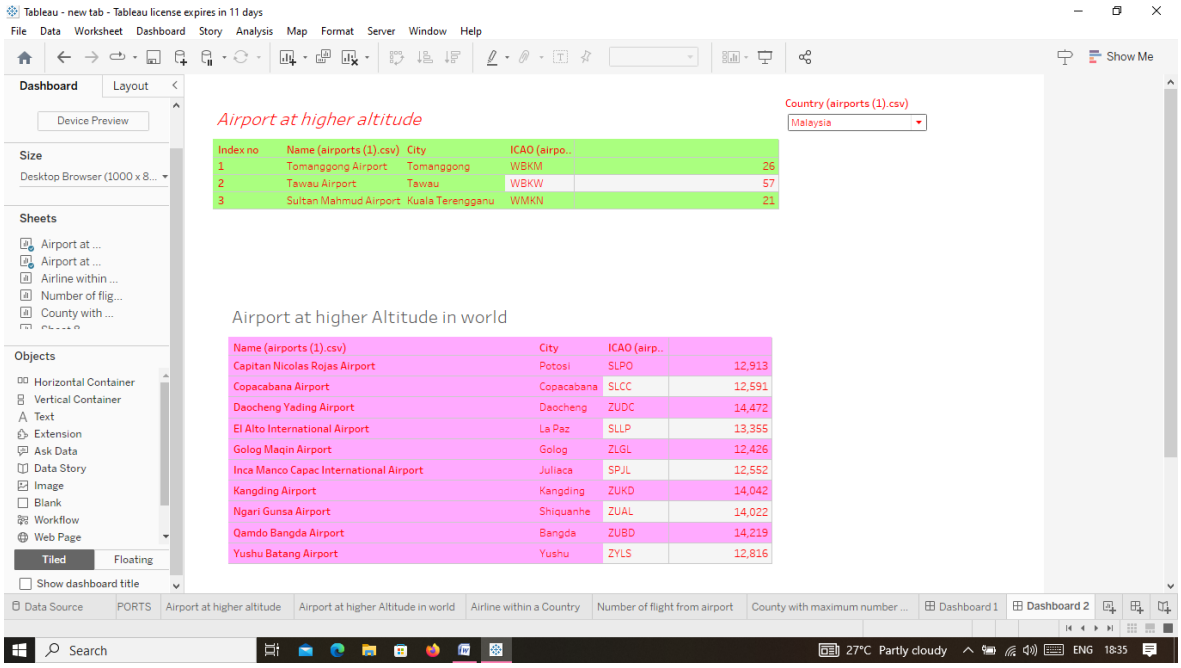
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2 Tawau Airport Tawau WBKW 57
3 Sultan Mahmud Airport Kuala Terengganu WMKN 21
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Network 2

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4 ADVANTAGES & DISADVANTAGES

FAST SERVICE

Air transportation offers convenient, reliable and fast service of transport.

RISKY

Air travel is the riskiest mode of transport, since there can be considerable losses to goods in minor crash.

5 CONCLUSION

The most recent mode of travels is air transport. In almost all the countries worldwide, the two world wars provided a big boost for the growth of air transport. Air transport's unsual feature is that a particular surface track is not needed for its operations.