

PROJECT REPORT

1 INTRODUCTION

1.1 Overview

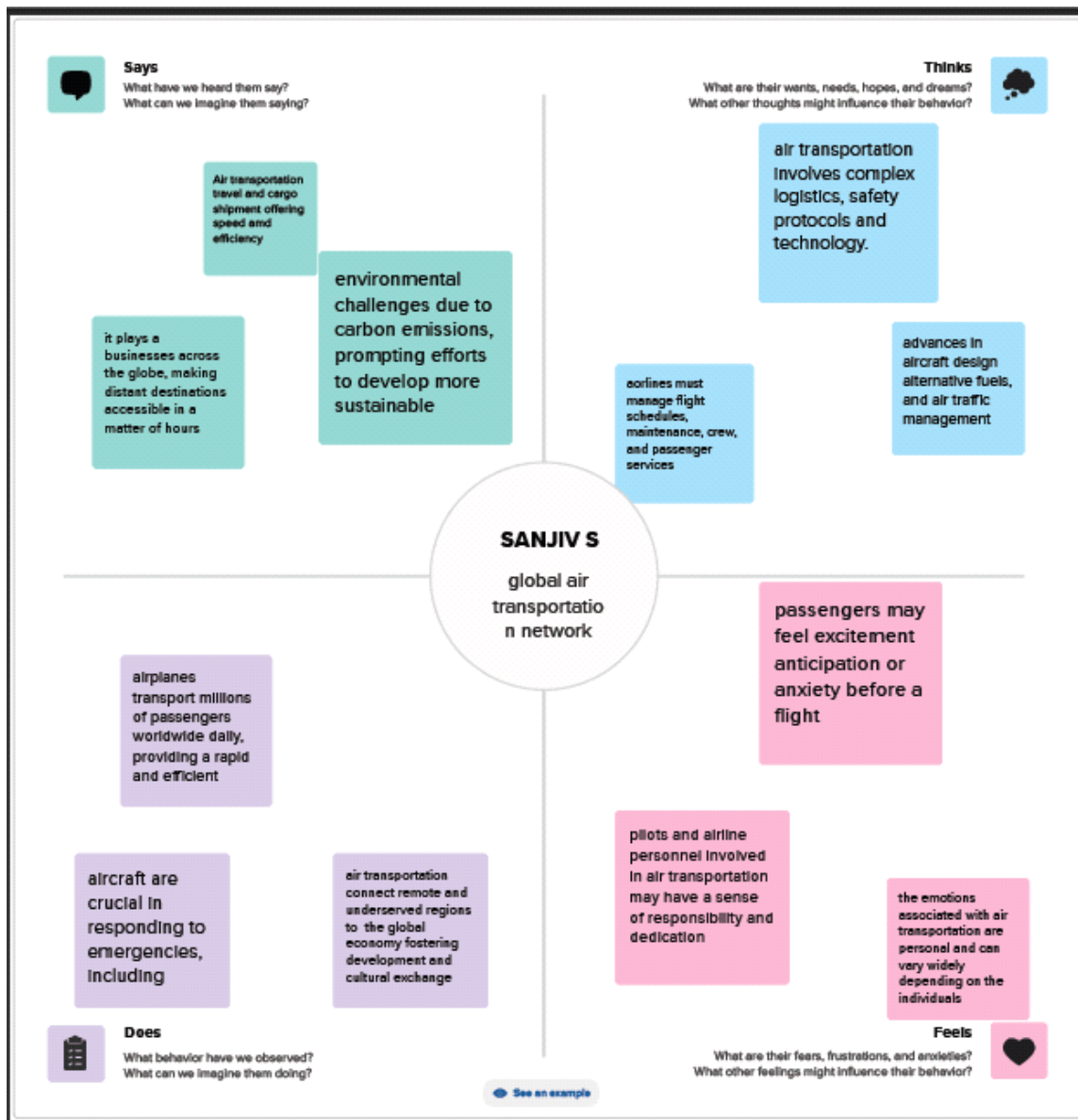
The Global Air Transportation Network dataset is a comprehensive collection of information on airports, airlines and their routes. It contains information such as names, cities, countries, codes (IATA and ICAO) Longitudes, Latitudes and altitudes of airports across the world with detailed time zone and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

1.2 Purpose

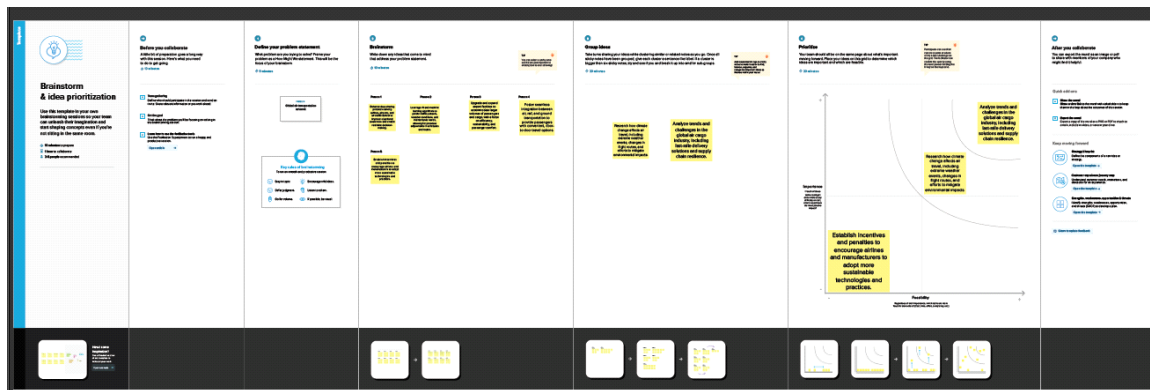
Understanding how airports and airlines operate helps individuals and businesses plan their travels more efficiently. This includes knowing about flight schedules, available services, locations of airports and active and inactive of airplanes.

2 Problem definition & Design Thinking

2.1 Empathy Map

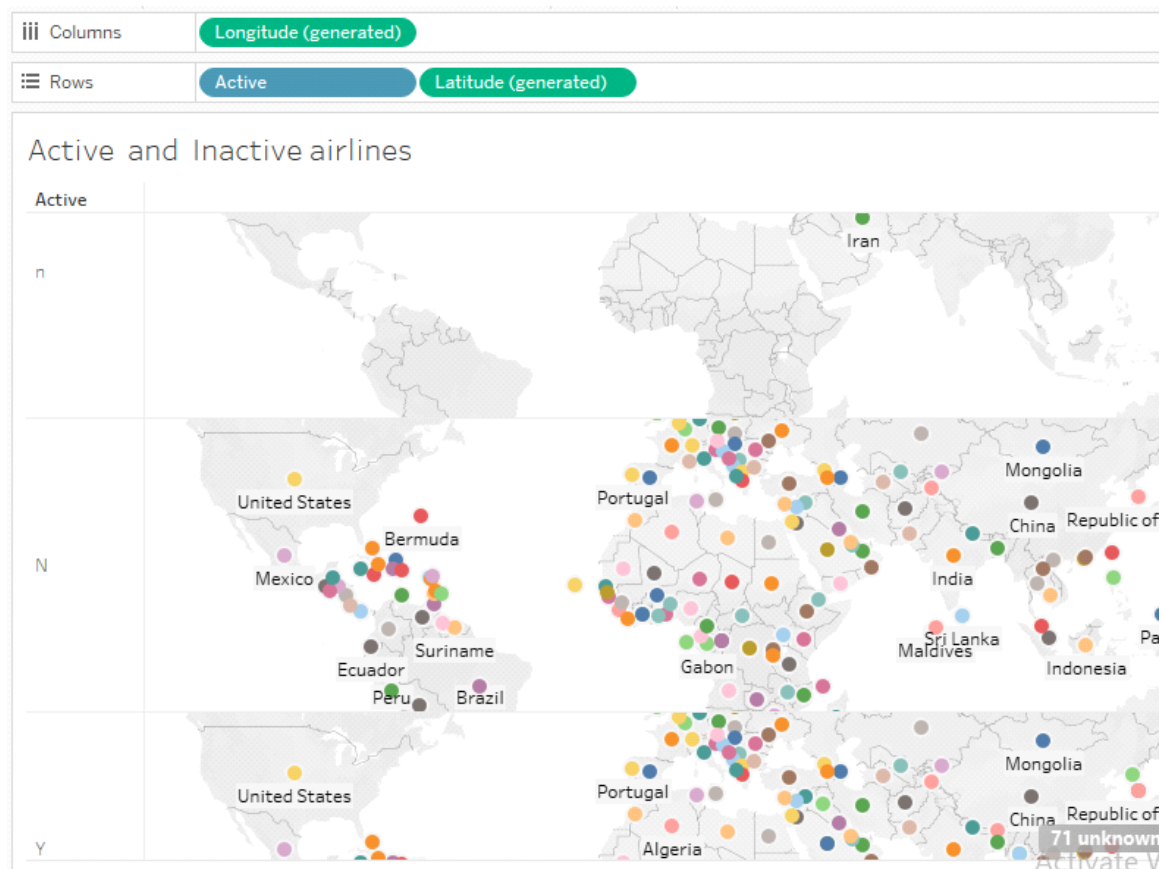


2.2 Ideation & Brainstorming Map



3 RESULT

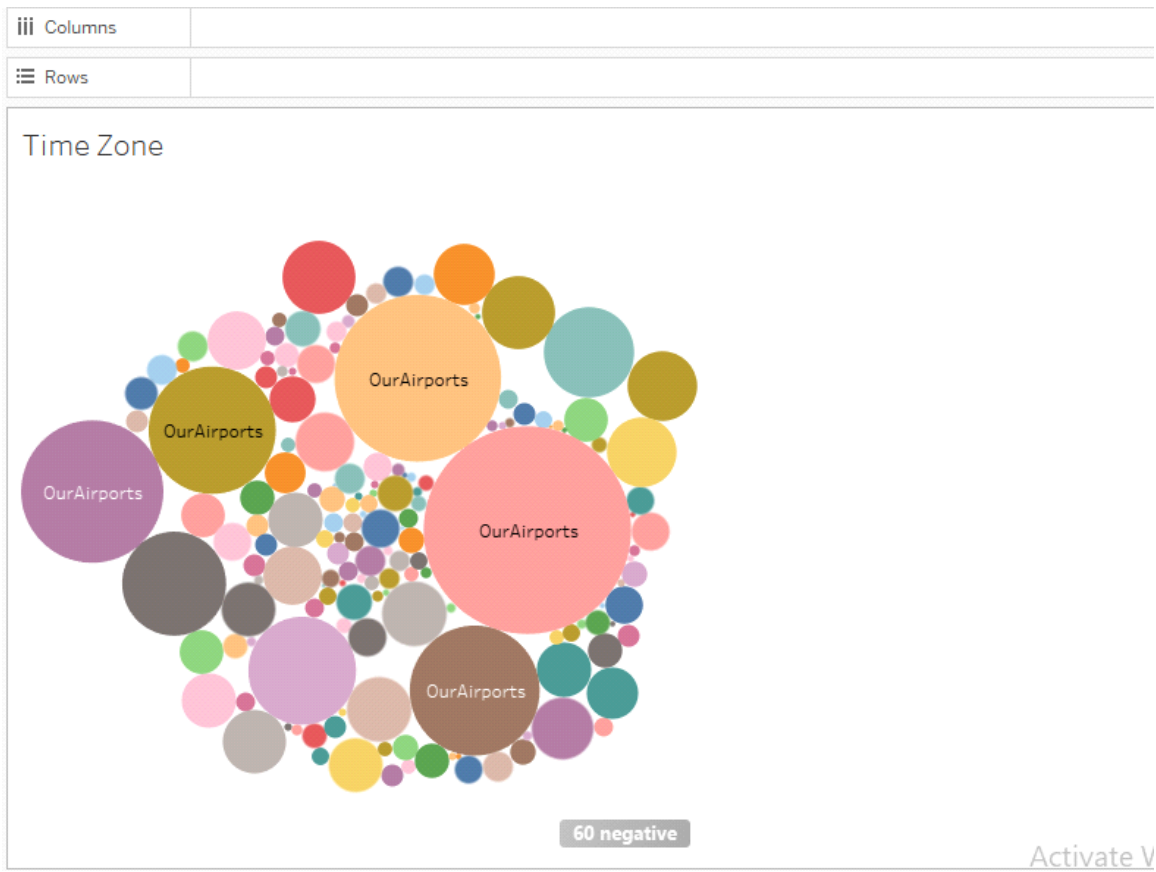
SHEET 1:



SHEET 2:



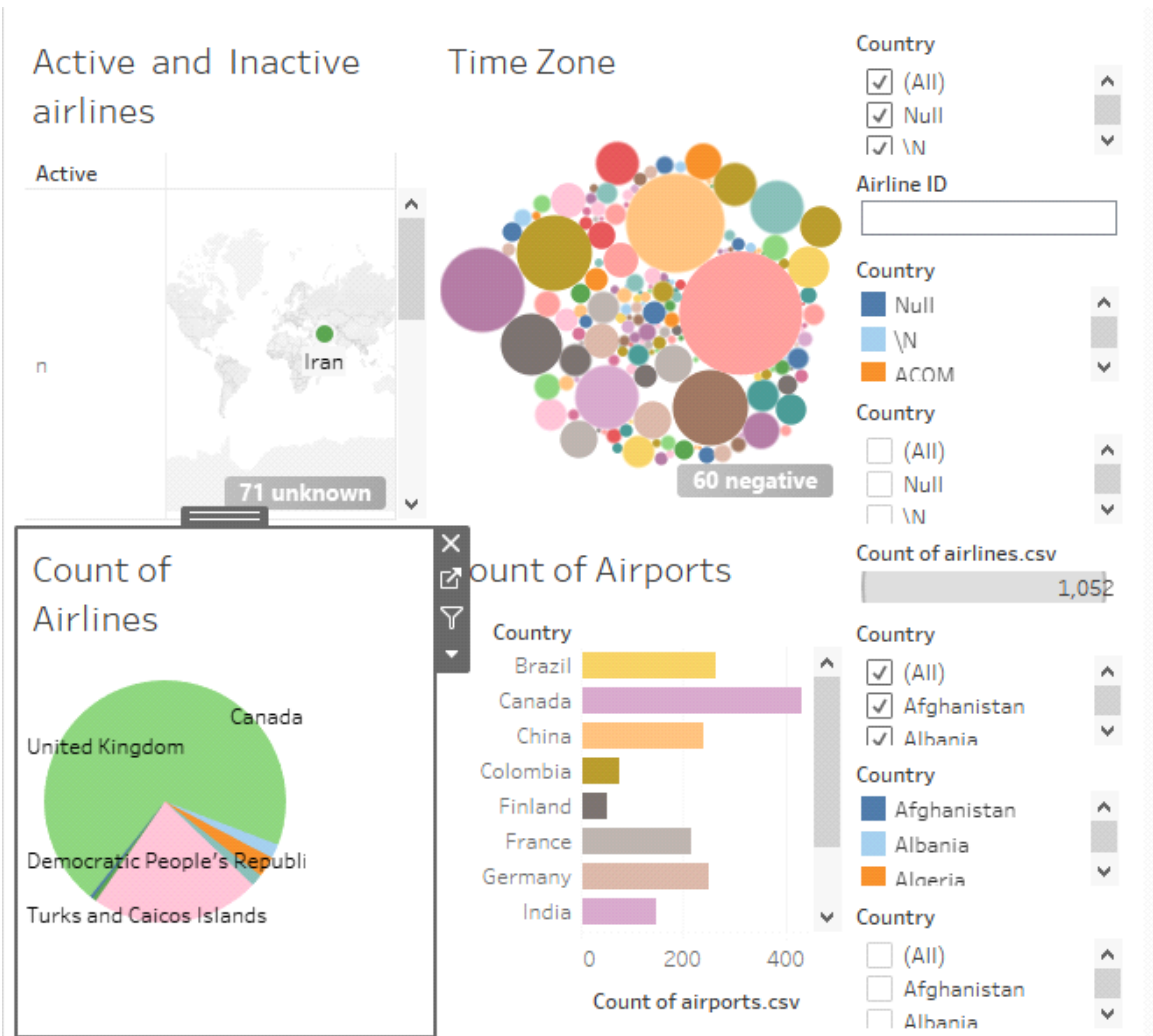
SHEET 3:



SHEET 4:



DASHBOARD:



STORY:



4 ADVANTAGES & DISADVANTAGE

Advantages:

- * Air travel is the fastest mode of transportation for long distances.
- * It allows people and goods to reach their destinations quickly.
- * Air travel provides access to almost any location on Earth, regardless of geographical barriers.

Disadvantages:

- * Air travel is a significant contributor to greenhouse gas emissions, particularly carbon dioxide (CO₂).
- * This contributes to climate change and air pollution.
- * Airports and aircraft operations can be noisy, which can be a source of disturbance for nearby communities.

5 APPLICATIONS

- * Enables mass movement of people for business, tourism, and personal reasons.
- * Facilitates rapid evacuation during natural disasters or conflicts.
- * Transports goods and commodities on a global scale, facilitating international trade and supply chains.
- * Critical for the timely delivery of medical equipment, pharmaceuticals, and supplies, especially in emergencies.

6 CONCLUSION

The air transportation network plays a crucial role in connecting cities and countries worldwide. It facilitates trade, tourism, and cultural exchange on an unprecedented scale. The aviation industry is a significant contributor to the global economy, supporting millions of jobs and generating substantial revenue for airlines, airports, and related industries. The evolution of aircraft design and technology has led to more efficient and environmentally friendly operations, with newer planes being more fuel-efficient and producing fewer emissions.

7 FUTURE SCOPE

Faster-than-sound and hypersonic planes could drastically reduce travel times, making long-haul flights much quicker. These could lead to more sustainable and efficient air travel, with reduced emissions and lower operating costs.

UAM involves short-haul flights within urban areas using electric vertical takeoff and landing vehicles. This could alleviate congestion and offer faster transport in densely populated cities.

