Airport Data Analysis

Wireframe

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Homepage

Home Page - Airport Flights Dashboard

The Airport Flights Dashboard serves as the central hub for monitoring and analyzing critical performance indicators related to airport flights. It provides a comprehensive overview of key metrics, enabling stakeholders to gain valuable insights into flight operations and performance. The dashboard is designed to be visually intuitive and interactive, allowing users to explore data effortlessly.

Key Performance Indicators (KPIs):

1.Total Number of Flights:

1. This KPI showcases the overall volume of flights operating through the airport. It presents a single, easily digestible number, updating dynamically as new data is received.

2. Number of Airlines

1. Here, users can quickly identify the total number of airlines currently serving the airport. A simple count provides a snapshot of the diversity and size of the airlines in operation.

3. Average Number of Daily Flights:

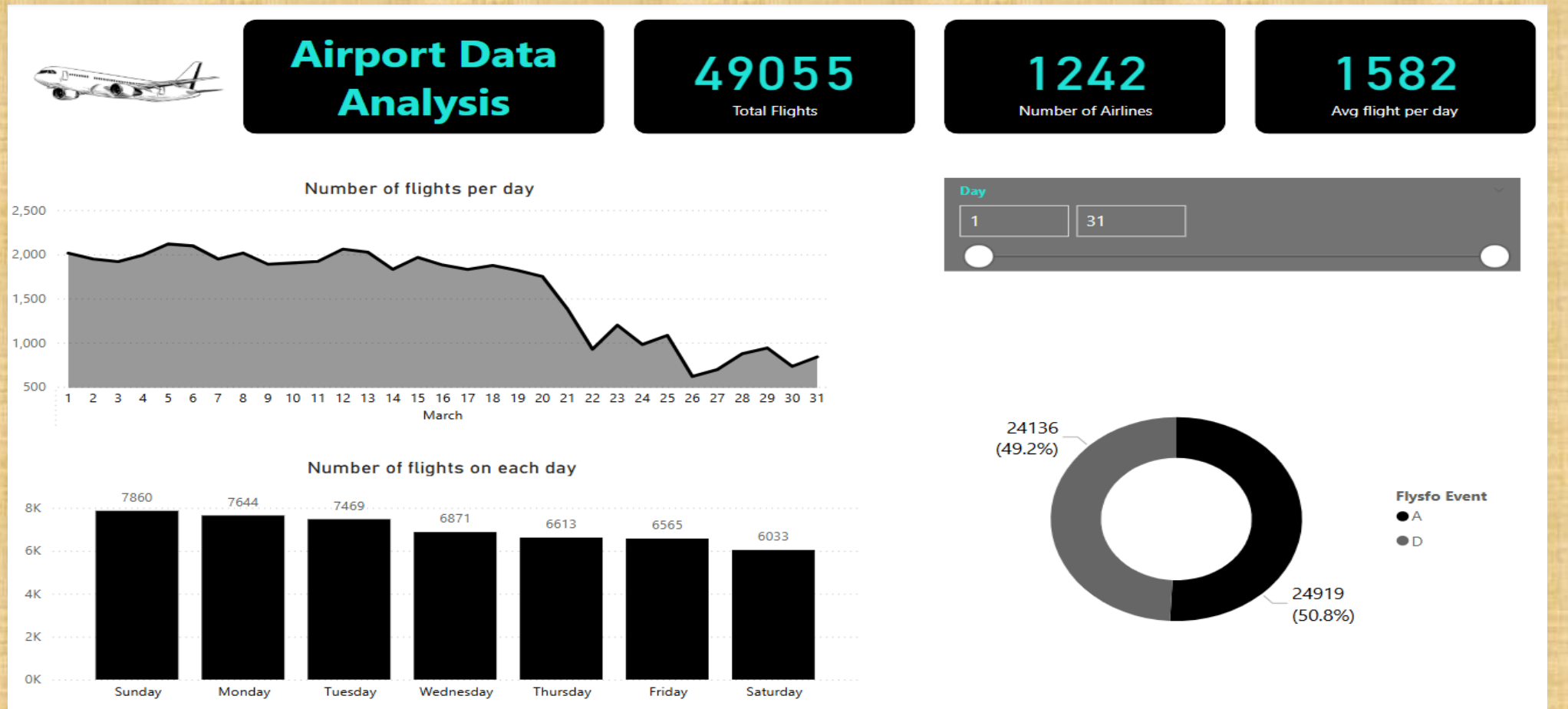
1. This KPI represents the mean number of flights departing or arriving at the airport on a daily basis. A line chart visually illustrates daily trends over time, helping identify patterns and fluctuations.

1.Total Number of Flights On Each Day :

1. A bar chart showcases the distribution of flights across each day of the week. This KPI provides an understanding of peak travel days and identifies any significant variations.

2. Total Number of Flights Per Day :

A line chart showcases the distribution of flights across each day. This KPI provides an understanding of peak travel days and identifies any significant variations.



Flight Route Map

The Flight Route Map is an interactive visualization that provides a geographical representation of different flight routes using a flow map. This page aims to offer a visual exploration of flights' paths, and users can apply various filters to gain insights into specific routes based on dates, airlines, and origin-destination combinations.

Flow Map Visualization:

•The main focus of this page is the interactive flow map. The flow map displays flight routes as arrows connecting the origin airport to the destination airport, with the thickness of the arrows representing the volume of flights on each route.

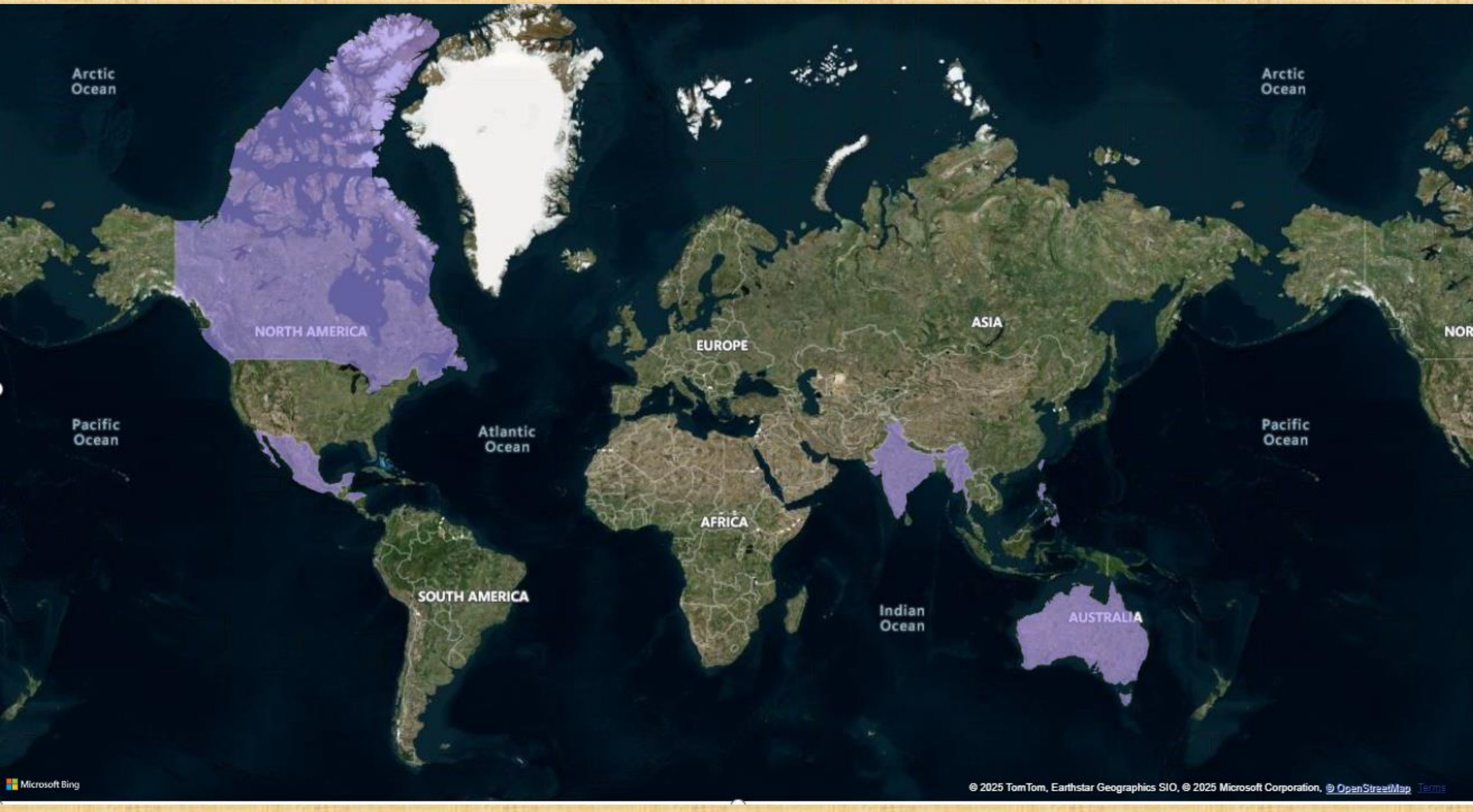
Filters:

Users can apply the following filters to customize the flow map and narrow down their analysis:

1.Date Filter: A date range selector allows users to filter flights based on departure or arrival dates. This filter helps identify patterns and trends over specific time periods.

2.Airlines Filter: Users can choose specific airlines from a dropdown list to isolate and analyze the routes operated by those airlines exclusively.

3.Route Filter: A text-based search filter allows users to enter airport names or IATA codes to focus on specific origin-destination combinations. As users type, the filter suggests matching routes for easy selection.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Line Graph - Total Number of Flights Over Time:

•The line graph visualizes the total number of flights over a selected time range. The X-axis represents the date, and the Y-axis shows the count of flights. Users can zoom in or use the date slicer to analyze specific periods of interest.

Bar Chart – Number of flights on each route:

•The Bar chart displays the distribution of the number of flights. The X-axis represents the distance bins, and the Y-axis shows the frequency of flights falling into each bin. Users can observe the range and frequency of different numbers of flights.

Bar Chart – Types of flights on each day:

•The bar chart visualizes the total number of flights for different types of flights. Each bar represents a specific type, and the height of the bar indicates the total count of flights. Users can click on a bar to see additional details about the types of flights.

Bar Chart – Number of flights taken at each gate:

•This bar chart illustrates the total number of flights taken at different airport gates. Each bar corresponds to an airport gate and the number of flights taken at each gate. Users can quickly identify peak and off-peak days for air travel

Day

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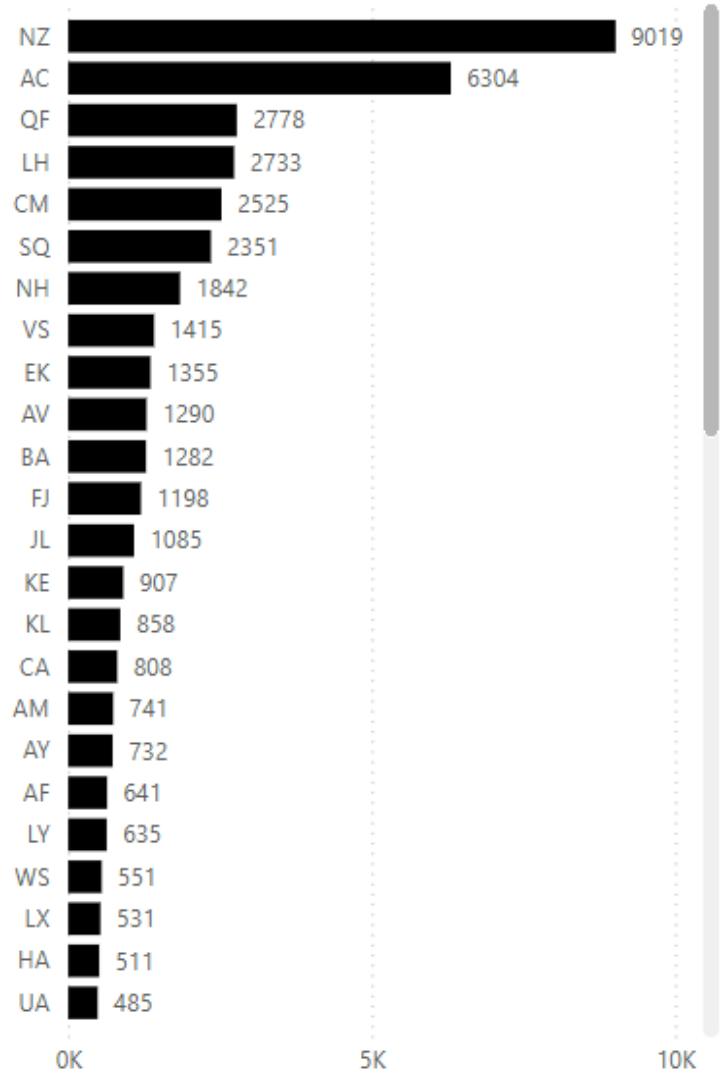
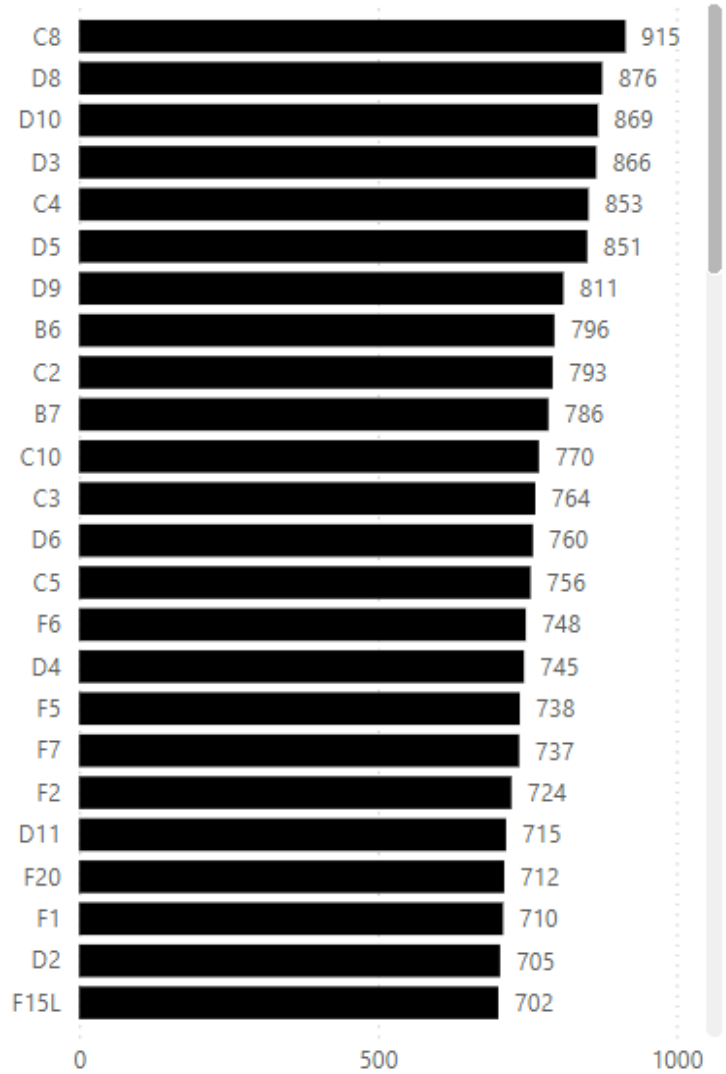
Types of flights on each day



Number of flights taken from each gate



Number of flights on each route