Flight Delays and Cancellation

Data Source : https://www.kaggle.com/datasets/usdot/flight-delays?select=flights.csv

➢ Arrival Delays Dashboard:

Link:

https://public.tableau.com/app/profile/alaa.nabil.ali/viz/FlightDelaysandCancellation_16761190166850/Delays

Summary:

- NK Airline (Spirit Airlines) has the worst arrival delays with average 15.73 minutes.
- F9 Airline (Frontier Airlines) has the second worst arrival delays with average 12.79 minutes.
- GUM Airport (Guam International Airport) has the worst arrival delays with average 47 minutes as an origin airport.
- MQT Airport (Sawyer International Airport) has the worst arrival delays with average 83.42 minutes as a destination airport.

Design:

- Creating a tree map to compare between arrival delays for each Airline.
- Creating two bar charts to highlight the arrival delays difference for each (Origin or Destination) Airport.
- Using each chart as a filter to filter the dashboard.

➢ Delays Reasons Dashboard:

Link:

https://public.tableau.com/app/profile/alaa.nabil.ali/viz/FlightDelaysandCancellation_16761190166850/DelaysReasons

Summary:

- MQT Airport (Sawyer International Airport) has the most of delays with average 212.8 minutes as a destination airport.
- The most of delays occurred because of Late Aircraft Delay with average 23.74 minutes.
- The most of delays occurred in June with average delay 63.39 minutes.

Design:

- Creating bar chart to compare between the average delay for each Airport.
- Creating tree map to compare between the average delay for each delay reason.
- Creating area chart to present the change of average delay for each delay reason over the year.
- Adding Airline Filter to filter the dashboard.
- Using bar chart as a filter to filter the dashboard.

➢ Canceled Flights Dashboard:

Link:

https://public.tableau.com/app/profile/alaa.nabil.ali/viz/FlightDelaysandCancellation_16761190166850/CanceledFlights

Summary:

- TX State has the highest number of canceled flights with total 668 flights.
- ORD Airport (Chicago O'Hare International Airport) has the highest number of canceled flights with total 454 flights (253 canceled by weather, 91 canceled by Airline and 110 canceled by Air System).
- Southwest Airlines Co Airline has the highest number of canceled flights with total 818 flights.
- 54% of cancelled flights canceled by weather.
- The most of flights canceled in February with total 1,058 flights.

Design:

- Creating map chart to provide the correlation between the total of canceled flights and the state of the airport.
- Creating a bar chart to present the total of canceled flights for each airport and the cancelation reason.
- Adding text table to present the total of canceled flights for each airline.
- Creating packed bubbles chart to provide the percent of canceled flights for each cancelation reason.
- Creating a line chart to present the change in total canceled flights over the year.
- Using each chart as a filter to filter the dashboard.