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Project 4 Individual Report:

Dataset:

Link- <https://www.kaggle.com/datasets/hetsuhagiya/flight-delays-cleanded>

Screenshot-

AutoSave

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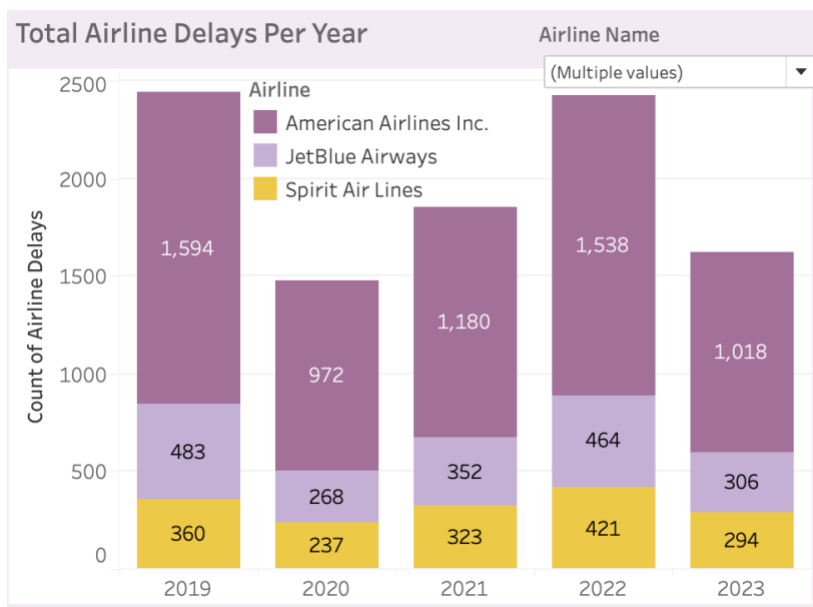
Data Understanding

- Quantitative data used is Count of Departure Minutes and Departure Delay Minutes.
- Minutes of Departure Delays histogram used cross-sectional numerical data.
- A histogram is an appropriate visual because it fits both data types.

Insightfulness

- Depending on the airline selected, it can be seen exactly how many flights have had the same number of departure delay minutes.
- This visual also helps find the most common departure delay minutes per airline in the U.S. (the tallest bin)
- This visual also allows us to compare various U.S. airlines and see which has the most departure delay minutes.

#2 Stacked Bar Chart



Data Understanding

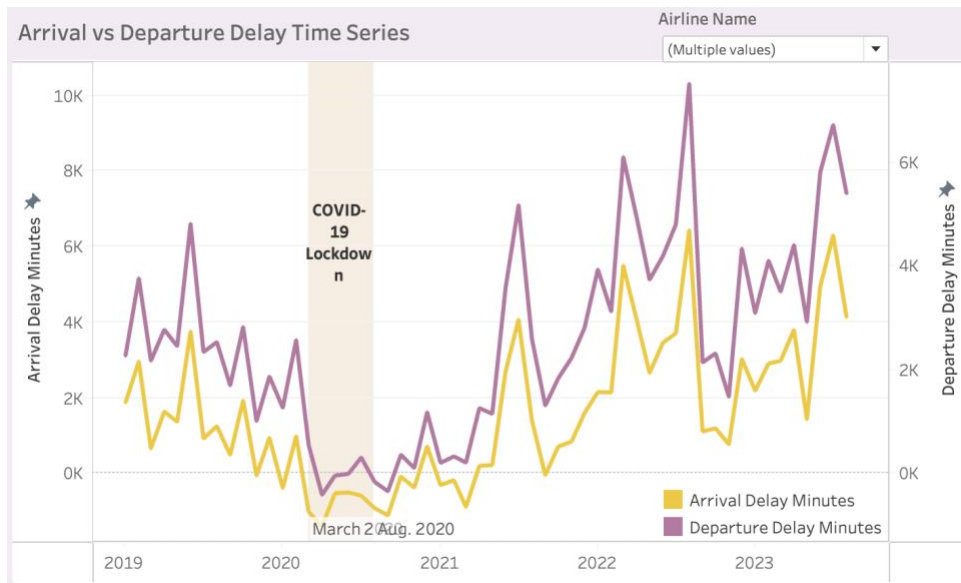
The quantitative data used is the Count of Airline Delays. Qualitative data used is flight date (time).

- The total Airline Delays per Year visual is a time series as we see the count of delays over time.
- A stacked bar chart is appropriate for these data types and makes the visual eligible.

Insightfulness

- This visual allows us to compare the number of delays of various U.S. airlines annually.
- We can see what year a specific airline had a lot of delays.
- As well as what year had the most delays and how delays were affected in 2020 due to the pandemic.

#3 Line Chart



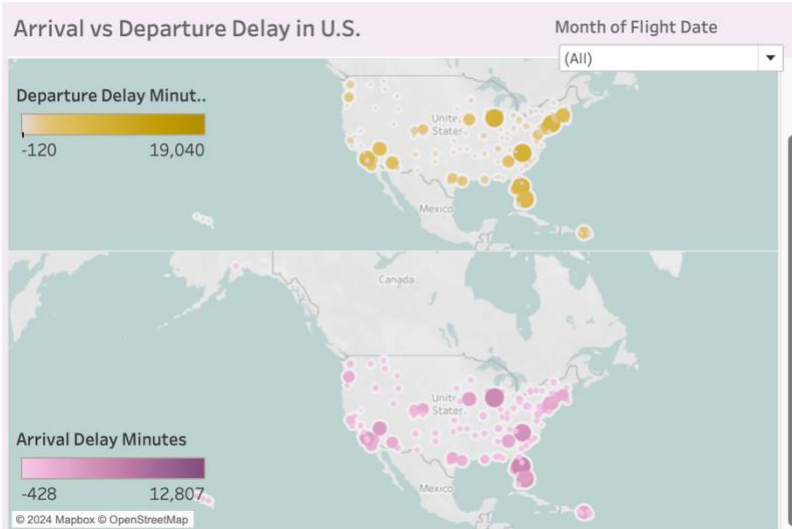
Data Understanding

- Quantitative data used is Arrival and Departure Delay Minutes. Qualitative data used is flight date (time).
- Arrival vs Departure Delay Time Series visual is a time series.
- A line graph is appropriate for these data types and makes the visual eligible.

Insightfulness

- This visual allows us to see the difference in arrival and departure delay minutes for each U.S. airline.
- Also, how airlines were affected during the COVID-19 lockdown.
- It also allows us to compare multiple U.S. airline arrival and departure delay minutes.

#4 XY Map Chart



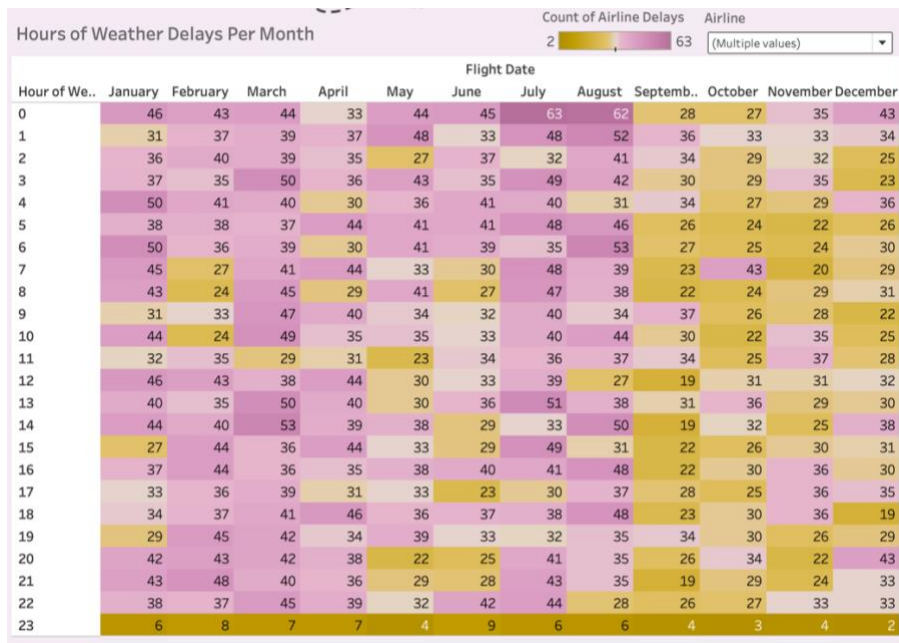
Data Understanding

- Quantitative data used is Arrival and Departure Delay Minutes. As well as latitude and longitude.
- Arrival vs Departure Delays in the U.S. is a cross-sectional data type because we have two units over time.
- An XY map is an appropriate visual for these data types and allows the question to be answered.

Insightfulness

- This visual allows us to see the difference in arrival and departure minutes based on the city and filter by month of flight.
- We can see that larger and more touristy cities have greater delay minutes.
- In the month selected, we can see which city airlines are busier.

#5 Heatmap



Data Understanding

- Quantitative data used is Hours of Weather HH SS. Qualitative data used is flight date (time).
- This heatmap is a time series data type.
- A heatmap is an appropriate visual for these data types and allows visual to flow nicely.

Insightfulness

- This heatmap allows us to see how many delays per month an airline is based on every hour.
- The heat map lets us quickly conclude which airline has more delays per month.
- It allows us to see the airlines' busiest and least busy hours each month.