

Building data dashboard Tableau

Dashboard for Kaggle's data: Flight Delays and Cancellations

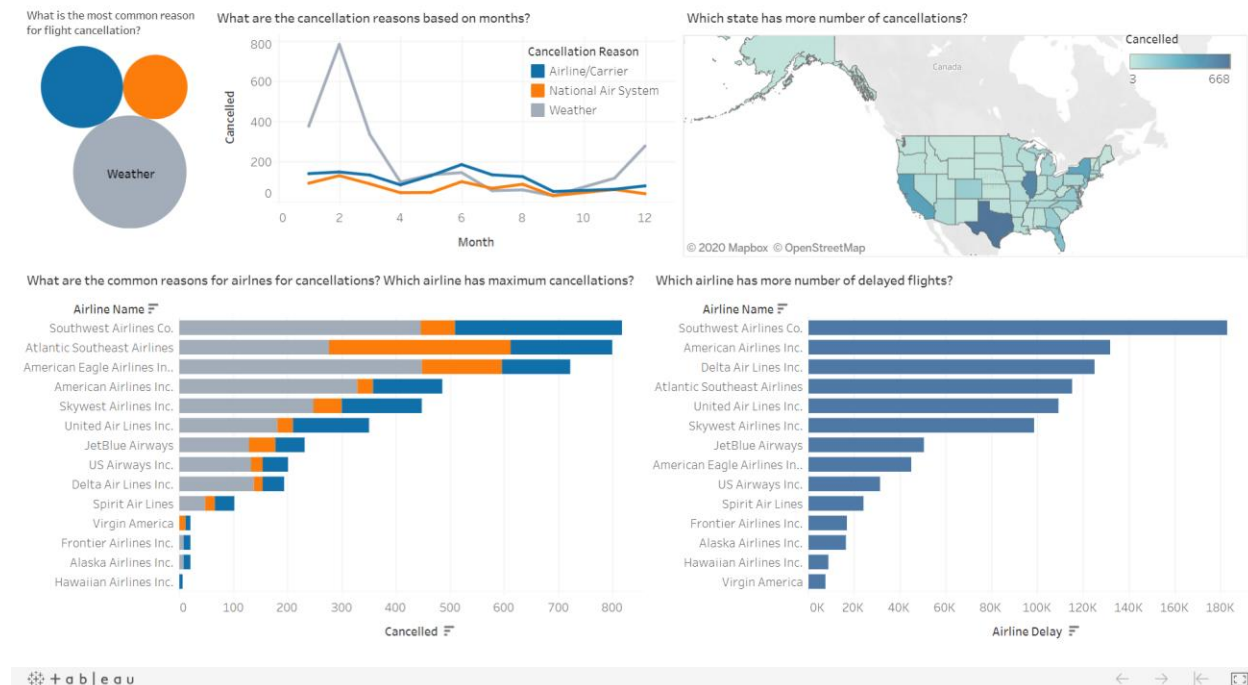


Tableau Public URL for dashboard:

<https://public.tableau.com/profile/harsh.jain2653#!/vizhome/FlightDelaysandCancellationsDashboard15930180145860/Dashboard1>

Creation of the visualizations and dashboard needs Kaggle's dataset 'Flight Delays and Cancellations' which has three CSV files: Flights, Airplanes, and Airports.

Before diving-in to create visuals for this dataset, we need to follow two steps:

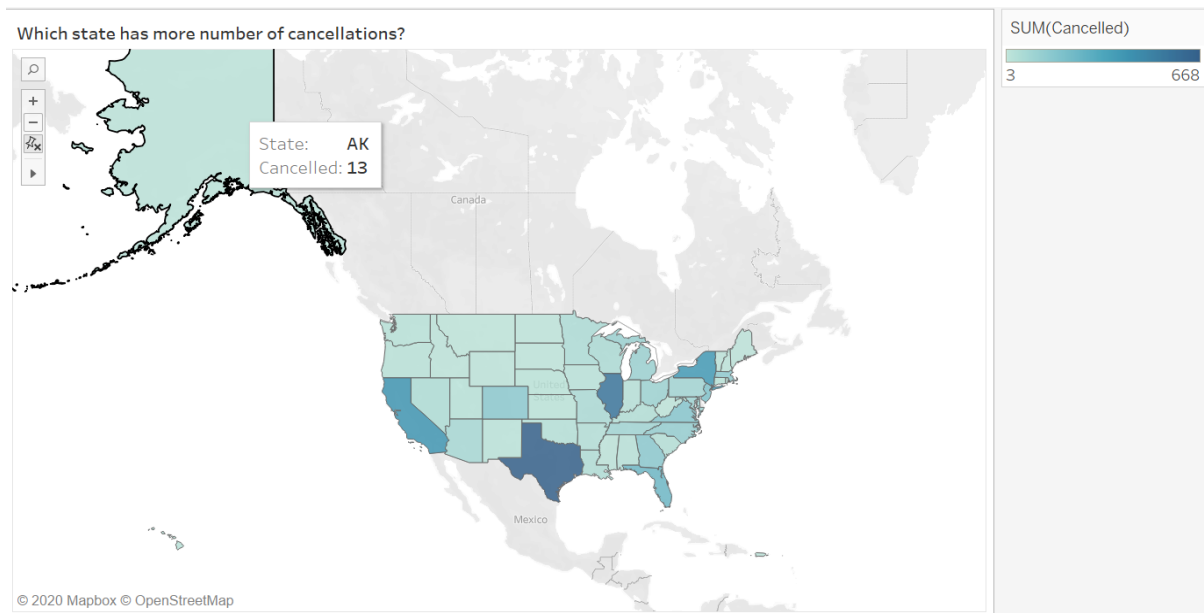
Step 1: To come up with final data set I used JOIN

1. Flights joined to Airplanes (join on IATA code with Airline)
2. Flights joined to Airports (join on IATA Code with Destination Airport)

Step 2: The dataset has "flight cancellation reason codes", but we need to create a calculated field to show the reason and not the codes (like A, B, C as it is unclear). I renamed the dimension "Cancelled Reason" to "Cancellation Reason Codes" and created a new field called "Cancellation Reason Name" and used the following code:

```
IIF ([Cancellation Reason Code] = 'A' , 'Airline/Carrier', (IIF ([Cancellation Reason Code] = 'B' ,  
'Weather', (IIF ([Cancellation Reason Code] = 'C' , 'National Air System', (IIF ([Cancellation Reason Code] =  
'D' , 'Security', 'Other'))))))))
```

Insight 1 : Which state has more number of cancellations?



Description: Through this visualization, it can be concluded that the highest number of cancellations had been seen in Texas (#668), followed by Illinois (#563). The legend indicates the color encoding for the visual. The darker the region, the more the number of cancellations.

URL: https://public.tableau.com/profile/harsh.jain2653#!/vizhome/FlightDelaysandCancellationsDashboard_15930180145860/CancellationbyStates

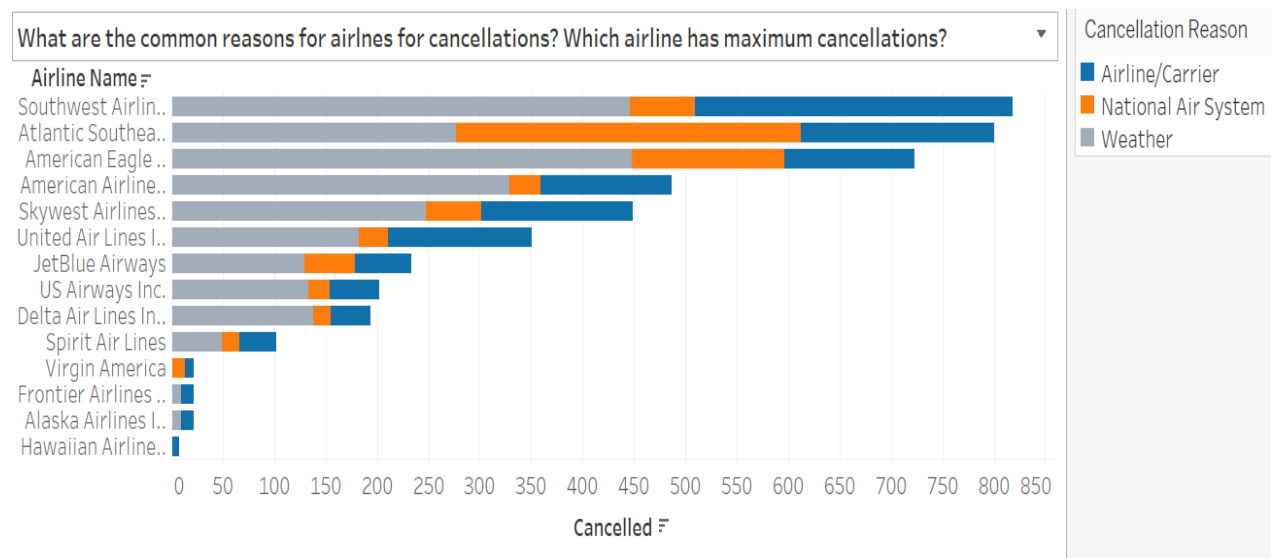
Insight 2: What is the most common reason for flights cancellation?



Description: This visual shows that the reason for most of cancellations is weather. The legend indicated the color encoding for the cancellation reasons, this will be useful in the next visuals. 'Color-Blind' color palate is chosen for color encoding for all the visuals to promote better readability for all the people (including the once who have color-blindness) as the colors are not too bright the are not distracting.

URL:https://public.tableau.com/profile/harsh.jain2653#!/vizhome/FlightDelaysandCancellationsDashboard_15930180145860/FlightsCancellationReasons

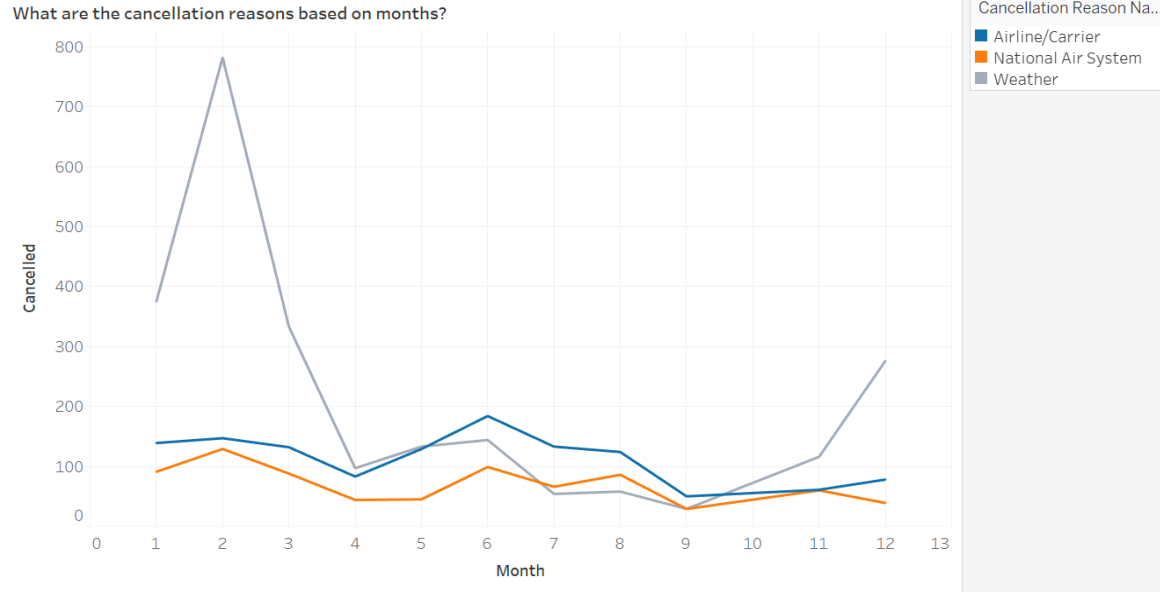
Insight 3: What are the common reasons for airlines for cancellations? Which airline has maximum cancellations?



Description: From this visualization, we can determine that the airline that has the most number of cancellation is "Southwest Airline". Also, the major reason for cancellation is weather for all the airlines except "Virgin America" and "Hawaiian Airline".

URL:https://public.tableau.com/profile/harsh.jain2653#!/vizhome/FlightDelaysandCancellationsDashboard_15930180145860/CancellationReasonsbyAirlines

Insight 4: What are the cancellation reasons based on months?

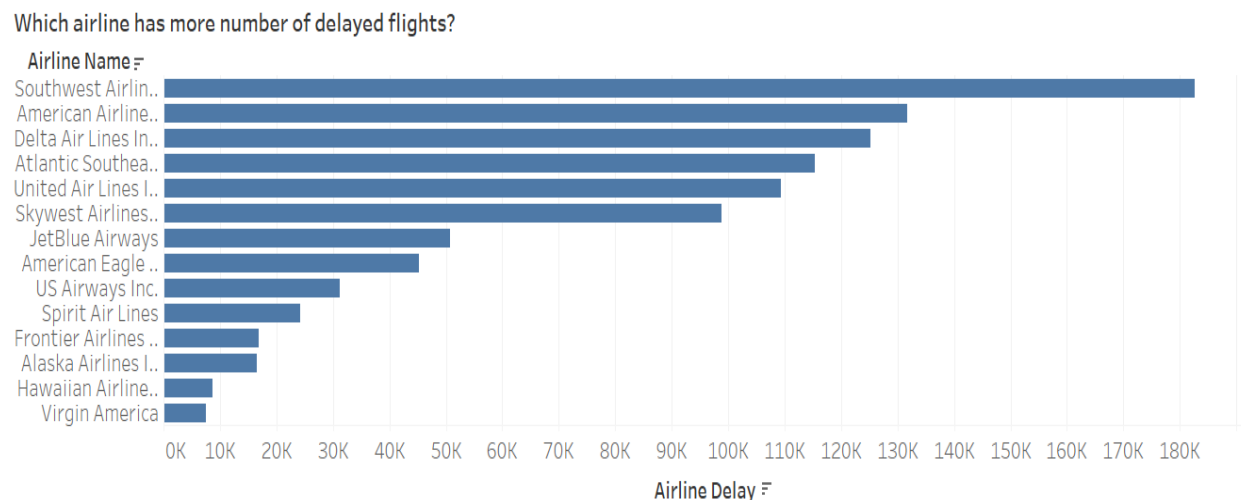


Description: The cancellation reason seen in most of the months is 'Weather'. However, in the month of May 'Airline/Carrier' and 'Weather' both are equally main reasons for cancellations. Also, in the month of June, July, August, and September the major reason is 'Airline/Carrier'.

In the month of June and July, weather is the least common reason for cancellations as 'National Air System' takes it over. We also see a high spike in 'Weather' as a cancellation reason in the month of February.

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Insight 5: Which airline has highest number of delayed flights?



Description: From the visual we can conclude that the airline that has the highest number of cases for flight delays is 'Southwest Airlines' followed by 'American Airline'.

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