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Nano Degree , Final Project

Visualization -1

Which Airline has maximum number of delays in 2015?

--Amazon the 14 airline, WN has the worst delays time.

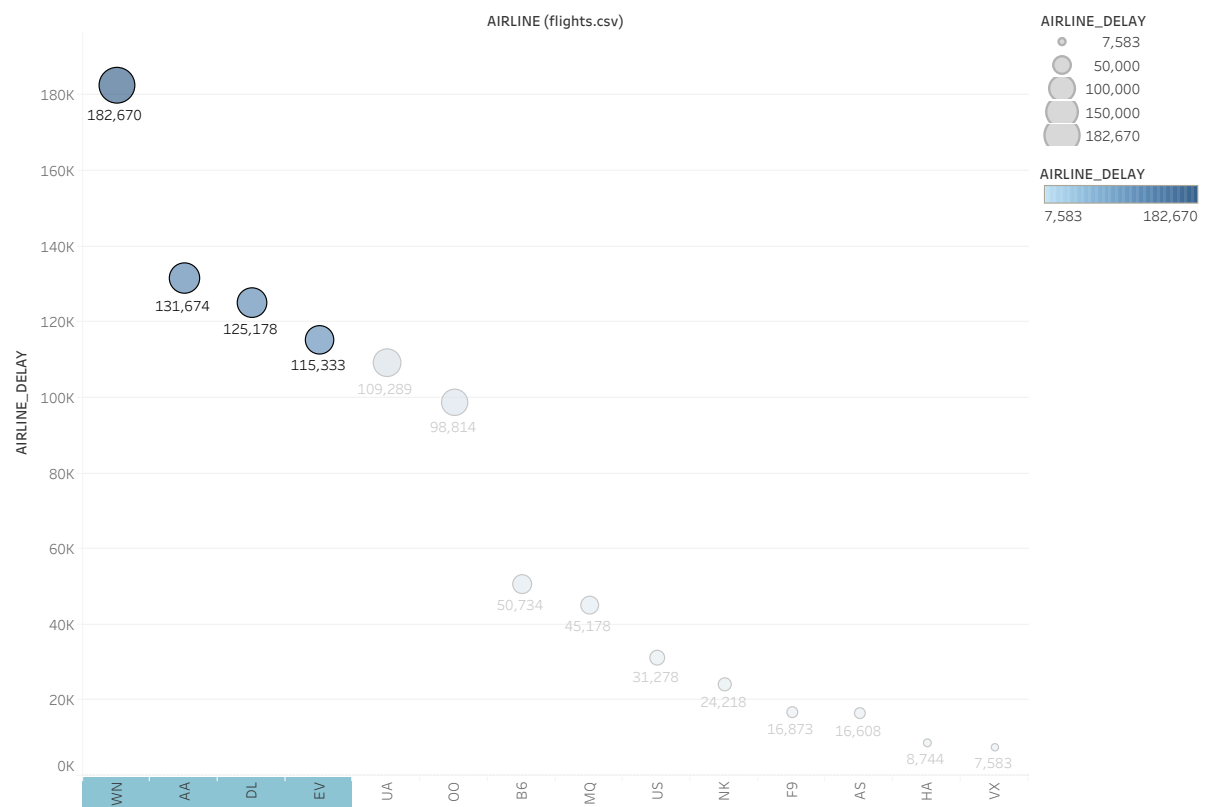
we have added the delay time for the all the flights in order to get a better understanding of the airlines.

We will be selecting the top 4 airlines with highest delay time for our further visualization.

Creating the graph with airline and airline delay and showing the quantity in a round shape which changes it's size accroding to the size of the parameter and makes it easier to comapare with other airline plus it makes the graph look less clutterred up

Resources: N/A

Airline with the worst delay time



Sum of AIRLINE_DELAY for each AIRLINE (flights.csv). Color shows sum of AIRLINE_DELAY. Size shows sum of AIRLINE_DELAY. The marks are labeled by sum of AIRLINE_DELAY.

Visualization -2

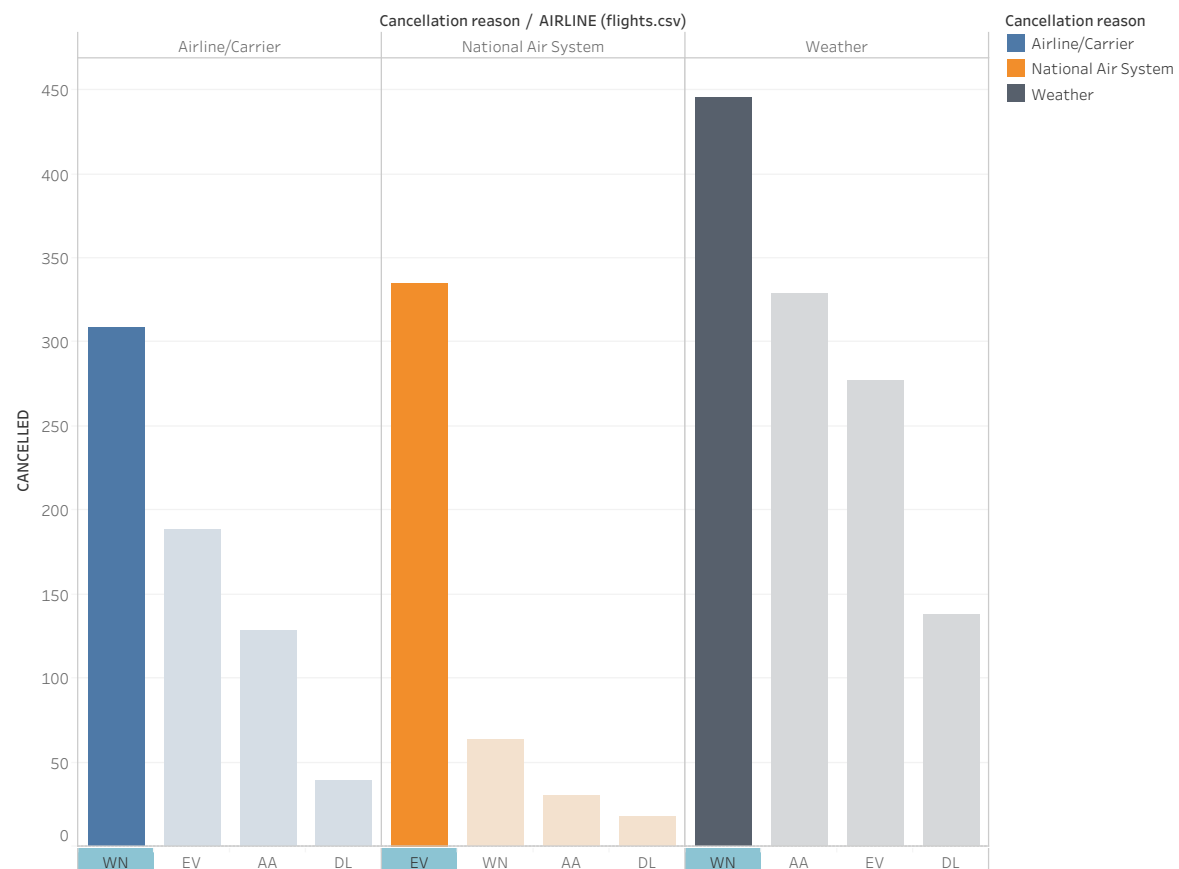
What is the reason for cancellation of flights?

WN has the highest cancellation due to A & B
where as EV airline has the highest number of cancellation due to C(National Air system)

Creating multiple bar chart with mutiple paramter helps in having the wide and good aspect about the data.
by using 3 barcharts in the same visulization we are able extrapolate that most of the cancellation is due to weather and least due to Airline/Carrier.

Resources- N/A

Reason for Cancellation



Sum of CANCELLED for each AIRLINE (flights.csv) broken down by Cancellation reason. Color shows details about Cancellation reason. The view is filtered on AIRLINE (flights.csv) and Cancellation reason. The AIRLINE (flights.csv) filter keeps AA, DL, EV and WN. The Cancellation reason filter keeps Airline/Carrier, National Air System and Weather.

Visualization -3

In which month of the year were maximum number of cancellation recorded?

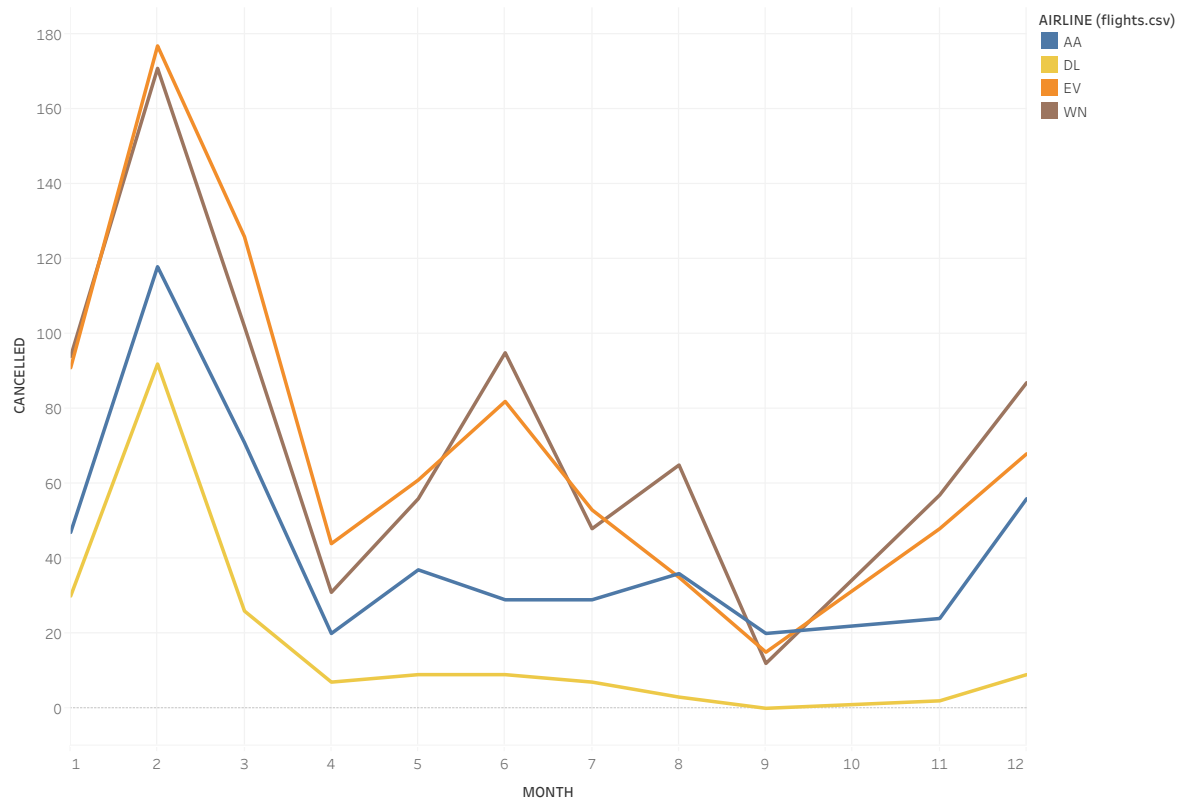
In the month of February maximum number of cancellation of flights have been recorded with EV on the top of the list followed by WN then AA and at the end is DL airline

where after 2nd month another rise in cancellation is seen in 6th month.

Creating a line chart is the best way to see changes in the number of cancellation is a continuous way. It helps us in seeing the trend created by the data.

Resources- N/A

No of cancelled flights wrt months



The trend of sum of CANCELLED for MONTH. Color shows details about AIRLINE (flights.csv). The view is filtered on AIRLINE (flights.csv), which keeps AA, DL, EV and WN.

Visualization -4

What is the relation between delay time and distance

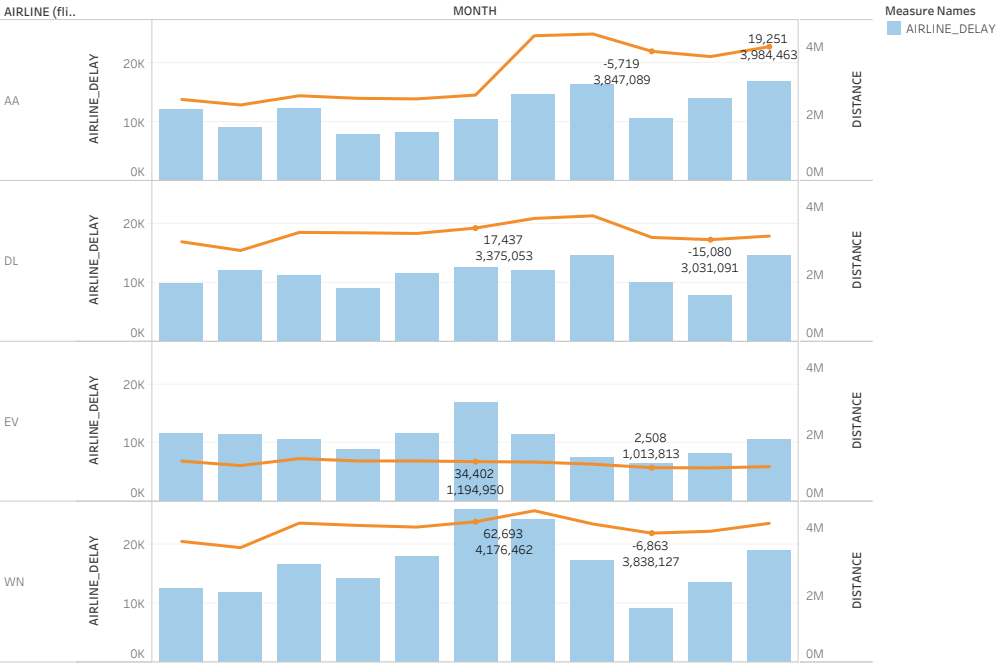
In continuation with the 3rd visualization,

From the below graph we can decipher that for the WN Airline that as the distance of the flight increase changes of time delay increase.

where as in the case EV airline it can be seen that the delay is not dependent upon how big the flight is.

Resources- N/A

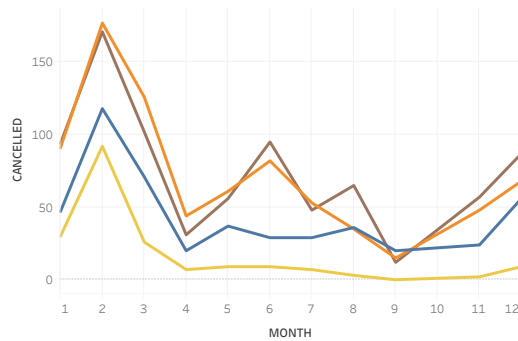
Delay time with dulance traveled



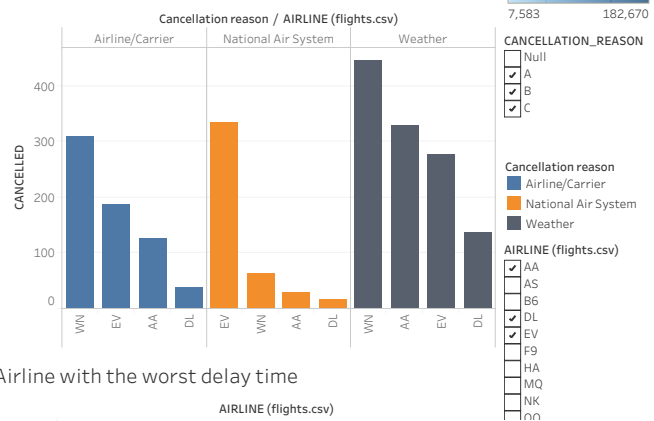
The trends of AIRLINE_DELAY and sum of DISTANCE for MONTH broken down by AIRLINE (flights.csv). For pane Sum of AIRLINE_DELAY: Color shows details about AIRLINE_DELAY. For pane Sum of DISTANCE: The marks are labeled by sum of ARRIVAL_DELAY and sum of DISTANCE. The view is filtered on MONTH and AIRLINE (flights.csv). The MONTH filter keeps 11 of 11 members. The AIRLINE (flights.csv) filter keeps AA, DL, EV and WN.

The Final Dashboard

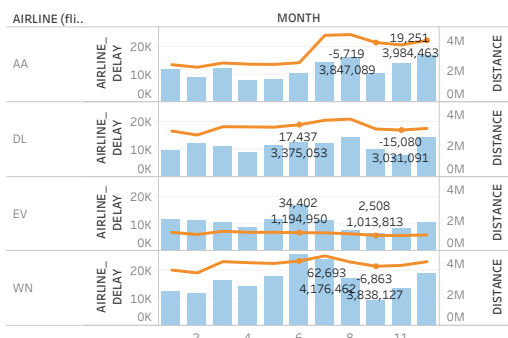
No of cancelled flights wrt months



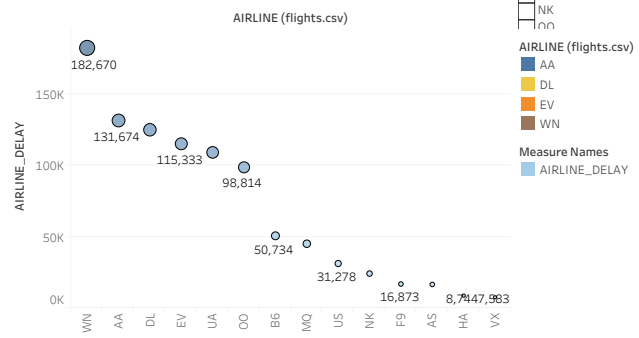
Reason for Cancellation



Delay time with distance traveled

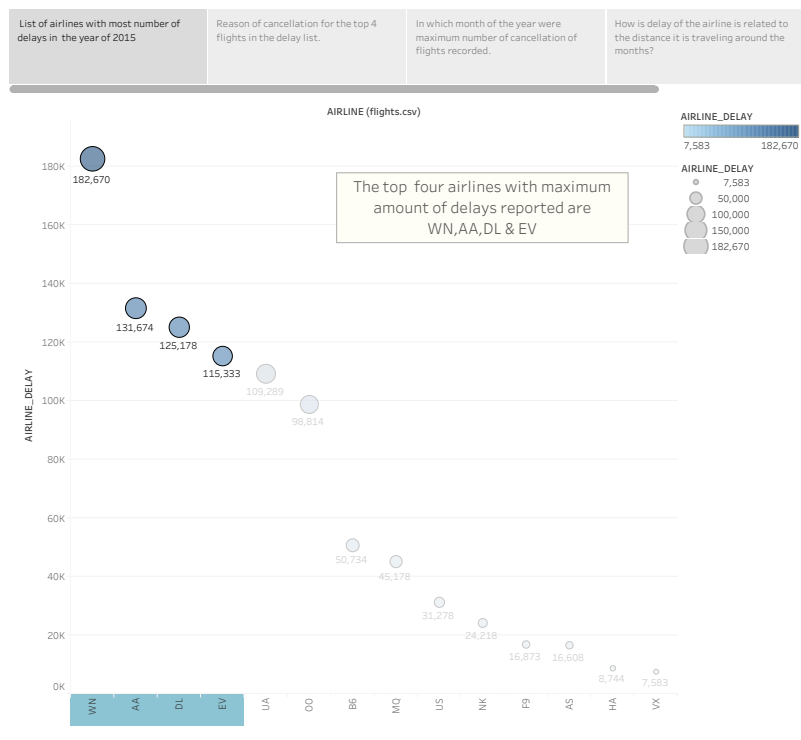


Airline with the worst delay time



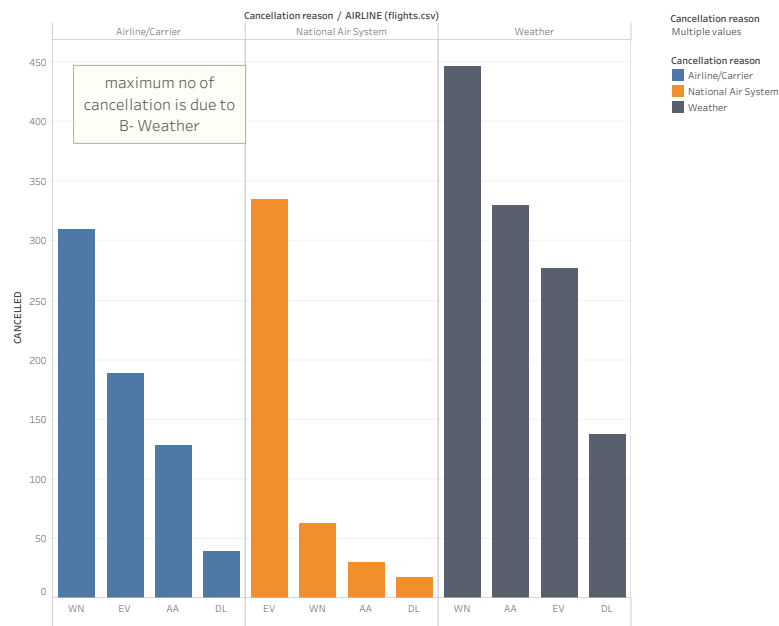
Story

Airline delays and cancellation



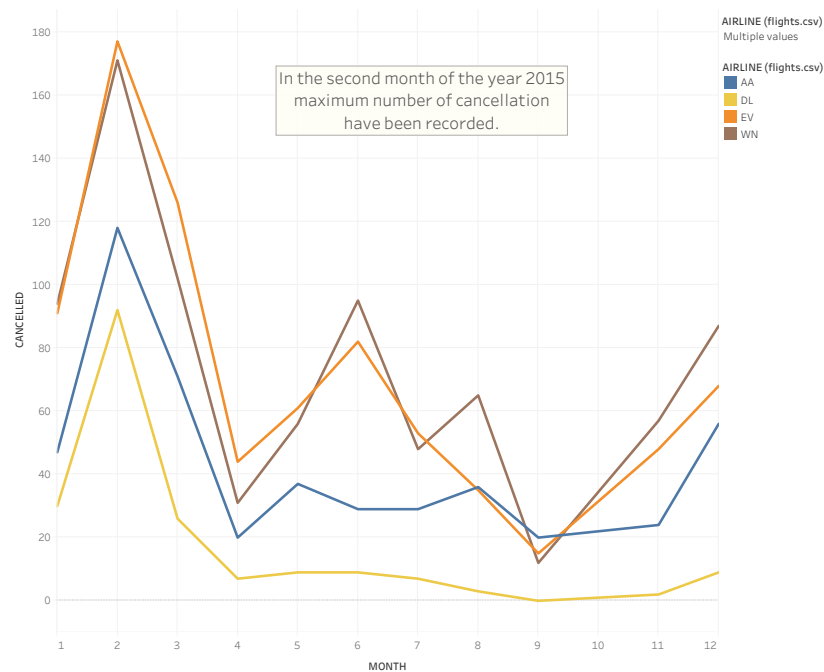
Airline delays and cancellation

List of airlines with most number of delays in the year of 2015	Reason of cancellation for the top 4 flights in the delay list.	In which month of the year were maximum number of cancellation of flights recorded.	How is delay of the airline is related to the distance it is traveling around the months?
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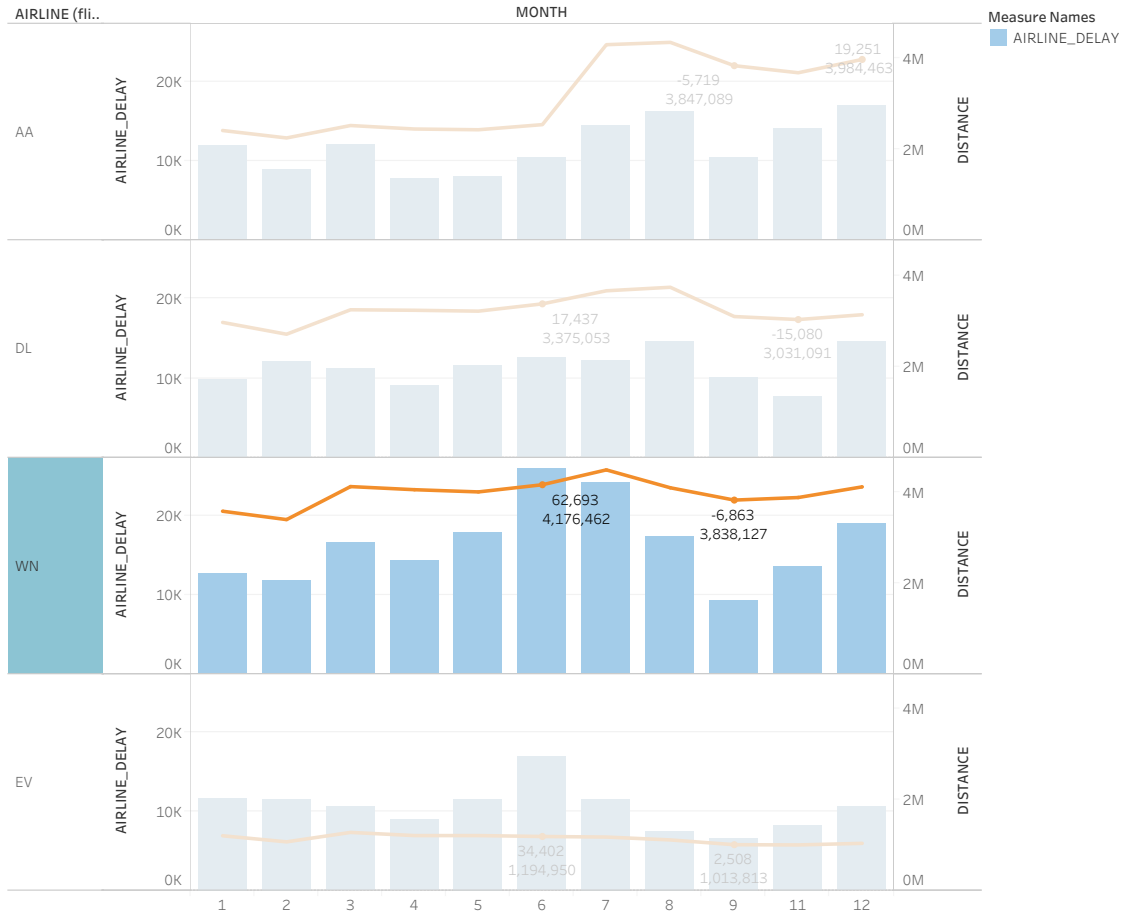
Airline delays and cancellation

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Airline delays and cancellation

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Airline delays and cancellation

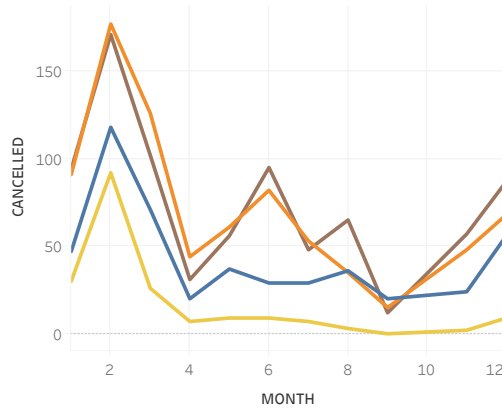
Reason of cancellation for the top 4 flights in the delay list.

In which month of the year were maximum number of cancellation of flights recorded.

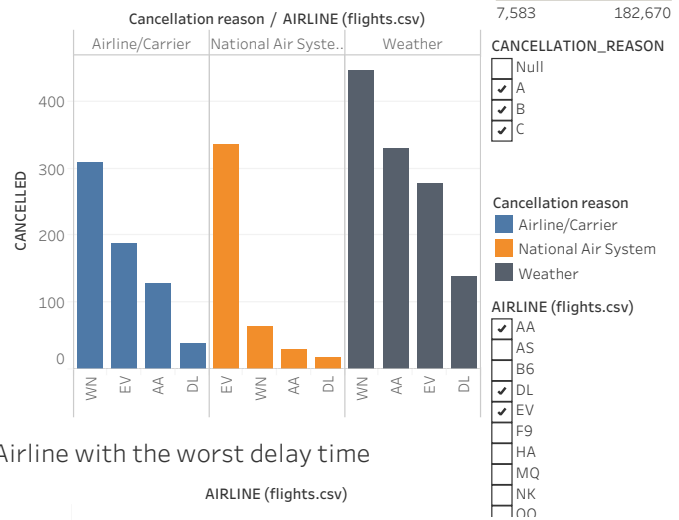
How is delay of the airline is related to the distance it is traveling around the months?

The final conclusion- the Airline WN has the worst delay and highest flight cancellation due to Airline/ carrier or weather issue.

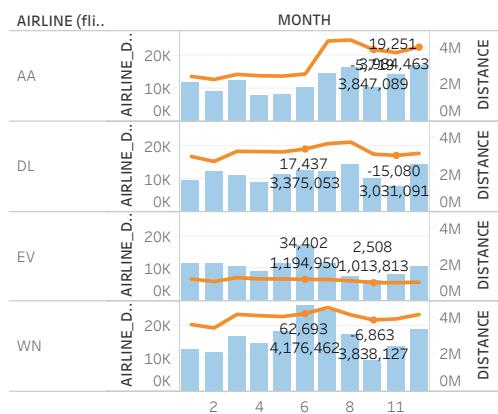
No of cancelled flights wrt months



Reason for Cancellation



Delay time with distance traveled



Airline with the worst delay time

