

# Data Visualization Project

## Project Dataset: Flight Delays and Cancellations

This data comes from a Kaggle dataset, which tracks the on-time performance of US domestic flights operated by large air carriers in 2015.

### Insight 1: What causes delays in airlines?

Link:

[https://public.tableau.com/views/Whatcausesdelaysineachairlines/Whatcausesdelaysinairlines?:language=en-US&publish=yes&:display\\_count=n&:origin=viz\\_share\\_link](https://public.tableau.com/views/Whatcausesdelaysineachairlines/Whatcausesdelaysinairlines?:language=en-US&publish=yes&:display_count=n&:origin=viz_share_link)

**Summary:** We note that most of the reasons for aircraft delays are **Airline delays** **Air system delays** and **weather delays** of most airlines companies We can apply a filter according to a specific Month to see if a certain month affects the type of delay or not I did not use CANCELLATION\_REASON Column because it contains many null values Calculations will be inaccurate

**Design Comments:** I used horizontal bars because it gives space for the names of airlines to appear, and it also makes it easier to know what kind of delay causes occur more because of colors. I didn't put the red and green colors so as not to disturb people with color blindness

### Insight 2: On what date did most flight cancellations occur?

Link:

[https://public.tableau.com/views/Onwhatdatedidmostflightcancellationsoccur/Dashboard1?:language=en-US&publish=yes&:display\\_count=n&:origin=viz\\_share\\_link](https://public.tableau.com/views/Onwhatdatedidmostflightcancellationsoccur/Dashboard1?:language=en-US&publish=yes&:display_count=n&:origin=viz_share_link)

**Summary:** Most of the flight cancellations were in the 2nd month and 6 months We note that the weather was very bad in the second month in particular, and most of the things that led to delays occurred frequently in the sixth month. This explains why many flight cancellations occurred in the second and sixth months

**Design Comments:** I used a line plot Because it is suitable for displaying quantitative data over a period of time and I used an area chart Because, through it, I can easily know the time period with the highest level

### Insight 3: Does the destination affect the delay time?

Link:

[https://public.tableau.com/views/Doesthedestinationaffectthelaytime/Story1?:language=en-US&publish=yes&:display\\_count=n&:origin=viz\\_share\\_link](https://public.tableau.com/views/Doesthedestinationaffectthelaytime/Story1?:language=en-US&publish=yes&:display_count=n&:origin=viz_share_link)

**Summary:** We note that the longer the destination, the longer the delay time and canceled flight, Therefore, we conclude that the distance affects the amount of flight delay And sometimes it affects the cancellation of flights

**Design Comments:** I used a Scatter plot Because it is the best way to find out the strength of the relationship between two variables