# Flight Delays and Cancellations

This project consists of building visualization dashboards using Tableau. Corresponding data sets document a variety of airline information including delays, cancellations, dates and destinations. Data set from 2015 for major airlines and airports.

The goal of the dashboards is to visualize which airlines have the greatest number of delays and possible causes. This information can be useful in the improvement and improvement of airlines, which may lead to better branding and customer experience/satisfaction

### Which airlines or airports have the worst delays and Cancellations?

- **Link** Udacity Project-delays | Tableau Public
- **Summary:** This visualization shows a comparison of airlines with delays, given in thousands of minutes, and cancellations, this shows that Dallas/Fort Worth International Airport has the highest number of delays of any kind, nearly double of any competitor.
- **Design:** I used a Map because I had to plot geographical data. I thought a Map would be the best visual for this purpose. I used a sequential blue color for the states. The darker the blue color, more is the number of flight cancellations.
- **Resources: NA**

### What causes Cancellations?

- **Link** Udacity Project-Reason | Tableau Public
- **Summary:** This visualization shows how often cancellations occur for reasons (Airline/Carrier, Weather, Weather) related to the specific day, the time of the month, and the month. The main reason for cancellation is " Weather" which accounts for more than half. While the Excel sheet doesn't clearly state the cause of a " Weather", looking at the month of February indicates that it's related to weather conditions because that's the end of winter.
- **Design:** When there are multiple sets of data that would like to compare, they can use a variation of an area chart called a stacked area chart.. And the color choices “color Blind”
- **Resources: GitHub/Ohara124c41**

**What are the airlines on time performance?**

- **Link** Udacity Project-IsDelayed | Tableau Public
- **Summary:** Now, we can see something interesting and insightful. This graph still shows Southwest (WN) still has the worst delays and cancellations,
- **Design:** A bar chart displays data with rectangular bars that give a visual representation of the data over different sets "Airline"
- **Resources: https://public.tableau.com/app/profile/mark.soro**

**Dashboard**

- **Link** Udacity Project-Dashboard | Tableau Public
- **Summary:** Finally, a rudimentary Dashboard is added to show relationships between each research question and the similarities between their results.
- **Design:** The whole chart together
- **Resources: NA**

**Discussion**

This data could be analyzed over multiple years and could result in improvements. If the airline or airport knows that there will be these sorts of dilemmas, they could notify users in advance or offer some form of compensation. This is under the premise that these conditions are unavoidable (weather is relative to location and season), and the best course of action would be a social resolution