# Questions & Insights

1. **Which airlines have the worst delays?**

   **Visualization Link:**

   https://public.tableau.com/profile/afnan8653#!/vizhome/FlightsDelays_16168446520790/WorstDelays?publish=yes

   **Summary:**

   According to the chart above, **Southwest Airlines** has the most delays in 2015 with a total of **648,419** minutes from **59,437** different flights. On the other hand, **Hawaiian Airlines** has the least delays in the same year with a total of **589** minutes based on **3,565** flights.

   ⇒ Tips**:**

   - Two calculated fields were created from the columns Day of Week and Month to convert the numbered valued to a written value, making visualization more readable.
   - The calculated fields Day of Week (Name) and Month (Name) were added as filters.
   - A tool tip with count of flights for each airline was added to the Marks.

   **Design Explanation:**

   Using a horizontal bars graph helped showing a comparison between two variables, a categorical variable (Airline) and a numerical variable (Departure Delay).

   **Resources:**

   N/A

2. **What are the most common reasons for flight cancellations in 2015?**

   **Visualization Link:**

   https://public.tableau.com/profile/afnan8653#!/vizhome/CancellationReasons_16168698519640/CancellationReasons?publish=yes

   **Summary:**

   We can see from the line chart that during 2015, most flights cancellations happened in **February** and **%17** of cancellations were due to the weather.

   **Design Explanation:**

   Creating a line chart showcases the change of a numeric variable (% of Total

Cancellation) over time using a date variable (Month). I've created a single line for each cause to compare between each reason choosing a colorblind-friendly palette so that every one of the audience can see and interpret the visualization.

**Resources:**

N/A

3. **Which states has the most flights departures in 2015? Using which airline?**

**Visualization Link:**

https://public.tableau.com/profile/afnan8653#!/vizhome/FlightsDashboard_16168730117230/FlightsDashborad?publish=yes

**Summary:**

The above dashboard shows that California state was the origin for the majority of air flights in 2015 with a total of **33,513** flights. Since the map state will be used as a filter, we can click on California and find on the other chart that Southwest Airline carried **10,191** of the total flights departing from California.

**Design Explanation:**

I created a new dashboard to combine between the two sheets which answer the questions. The first sheet includes a map graph to highlight each geo dimension (State) with their corresponding numeric variable (Total Flights). The second sheet includes a horizontal bar chart to compare between a categorical variable (Airline) and a numeric variable (Total Flights).

The two sheets were combined together in the dashboard with a month filter and the States map being used as a filter to know the most common airlines in each state during each month (or all months).

**Resources:**

N/A