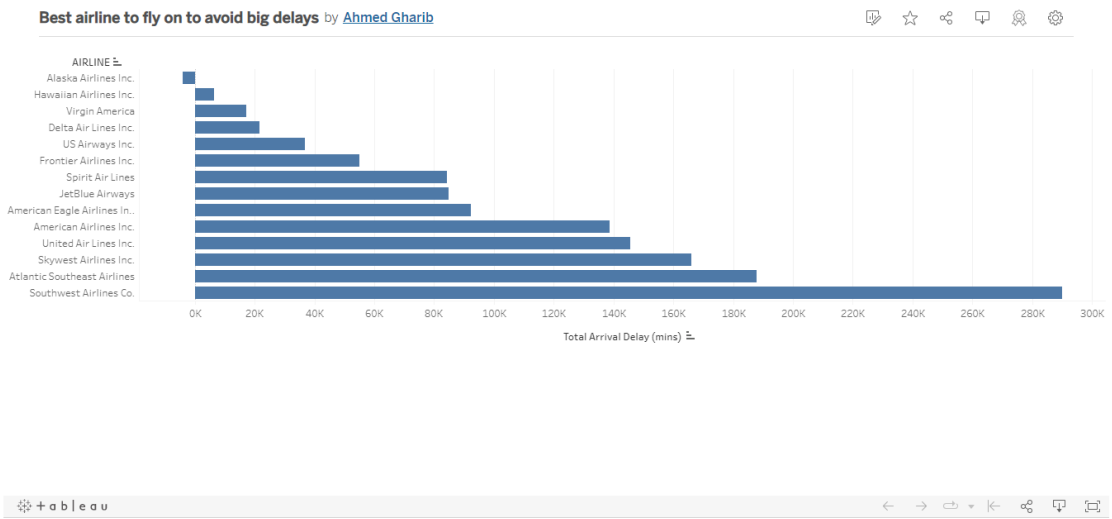
**Build a Data Dashboard Project**

**Flight Delays and Cancellations for 2015**

**The visualization (1)**




**Links:**

**https://public.tableau.com/app/profile/ahmed.gharib8601/viz/Bestairlinetoflyontoavoidbigdelays/Sheet2**

**Summary:**

**Here we ask a question:**

**What is the best airline to travel on to avoid big delays?**

**To answer this question, the second design mentioned above shows us the best airline to travel on to avoid big delays, which is "Alaska Airlines", and it also shows us the advantage of arriving flights ahead of time with total minutes of "-4007".**

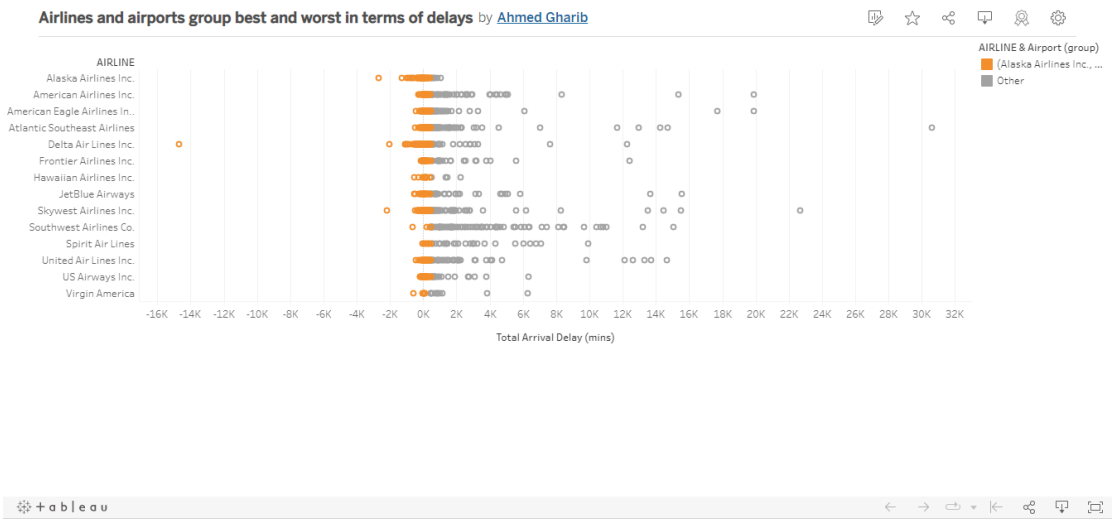
**Design:**

**A horizontal bar chart was used because it is more readable using blue color with ascending sorting to show which airlines have the fewest flight delays.**

**Resources:**

**N/A**

## The visualization (2)




**Links:**

**https://public.tableau.com/app/profile/ahmed.gharib8601/viz/Airlinesandairportsgroupbestandworstintermsofdelays/Sheet3**

**Summary:**

**The third design mentioned above shows us the idea of making two types of aggregates that might work best to determine which airlines and airports are best and worst in terms of delays.**

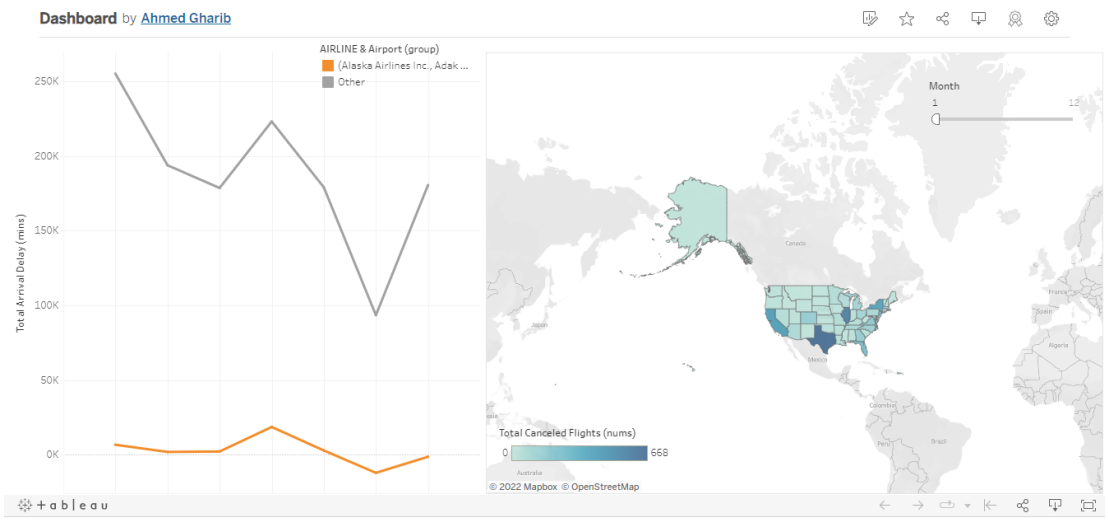
**Design:**

**The circle chart was used to determine which airlines and airports have the best and worst delays and to create a group to use in the line chart the design.**

**Resources:**

**N/A**

## The visualization (Dashboard)




**Links:**

**https://public.tableau.com/app/profile/ahmed.gharib8601/viz/Dashboard_16513628091640/Dashboard1**

**Summary:**

**The dashboard above shows us two visualizations that answer the flight delay and cancellation dataset questions.**

**Here we ask a question (1):**

**Which airlines and airports have the worst delays during the months?**

**To answer this question, the fourth design mentioned above shows us which airlines and airports have the worst delays during the months and also by day of the week, and use the airlines and airports group created in the previous design, the gray line chart design shows which airlines and airports are the worst in Flight delays.**

**Here we ask a question (2):**

**What is the geographical location of the number of canceled flights?**

**To answer this question, the fifth design mentioned above shows us the geographical location of the total canceled flights, the map shows us that the largest country for canceled flights is "Texas" with a total number of "668" while the lowest country is "Vermont" with a total number of "8".**

**Design:**

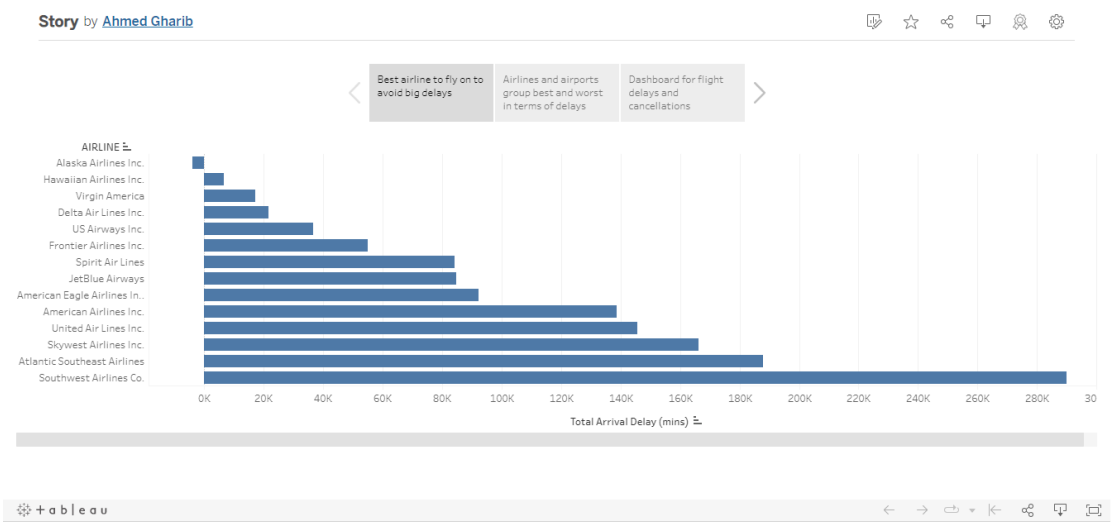
(1) **The line chart was used with groups of airlines and airports and selected in gray and orange and a filter was created for months and also added a tooltip for canceled flights, because line charts are best suited to represent time series data as it is easier to perceive trend over time on line charts.**

(2) **A map is best suited here as I had to plot state-wise flight cancellations which involve geographical data. I used a sequential blue color wherein the darker the blue color, the more the number of flight cancellations. This type of coloring makes it easier to quickly spot which states have high/low cancellations. I added a month filter so that readers can dig which states have the highest and lowest cancellations in each or a range of months.**

**Resources:**

**N/A**

## The visualization (Story)




**Links:**

**https://public.tableau.com/app/profile/ahmed.gharib8601/viz/Story_16513655038280/Story1**

**Summary:**

**The story above shows us all the visualizations that answer the questions of the flight delay and cancellation dataset.**

**Design:**

**A horizontal bar chart, a circle chart, a dashboard with a line chart and a map were used, with an interactive filter created for months and eye-pleasing colors.**

**Resources:**

**N/A**