Udacity Project - Create a Tableau Story

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Course: C939 Data Visualization

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Summary:

• The flight data utilized to create this project was gathered by RITA (Research and Innovative Technology Administration) and available through the Bureau of Transportation Statistics website under the dataset of Airline On-Time Statistics and Delay Causes (2020).

• I decided the analyze all flight data from January 2019 through December 2019, ensuring to capture all airline carriers and U.S. airports.

• The focus of my project was to showcase air transportation trends of the United States for the year 2019.

Design:

o Audience:

- Udacity Reviewer's and Students.

o The visualization project will address the following:

- Key attributes from the dataset, focusing on air travel delays, the reason for them and airline performance throughout the year of 2019.
- Relationships between the key attributes.
- Interesting/Unusual data points.
- Interactive views showing how the key attributes change based on the different variables/values.

o Chart Types:
- Bar chart: Bar charts will be utilized significantly to visually represent the dataset and identify the many categorical variables (such as: Delay Reason, Total Values, Month, etc.). The use of bar-charts useful to compare specific measures across the different categories.
- Line charts: This type of chart will be used to highlight the average delay per airline carrier and its trend throughout the entire year of 2019.
- Scatterplot: This type will be used to plot two measures, such as Average Security Impacted Delays and Count of Total Security Impacted Delays).
- Text table: This type of chart will be used to show very specific values for the overall total of delays per Airline Carrier and help the reader understand the total percent of delays per Airline Carrier by month.

o Encoding:
- Color Marks: I will use colors mainly to between the data set criteria and the impact of the values
- Filters: I will use interactive filters to allow the reader to manipulate the data based on their interest.
- Text Labels: I will use text labels to identify key marks within the data.

Resources:

Bureau of Transportation Statistics (2020) *Airline On-Time Statistics and Delay Causes*
https://www.transtats.bts.gov/OT_Delay/OT_DelayCause1.asp?pn=1

Feedback:

#	Reviewer	Feedback	Action
1	Peer Review	Identify unit of measure of being used in the Y Axis of worksheets.	Y Axis measure identified.
2	Peer Review	Change Airport filter to drop-down selection.	Legend updated for ease of data manipulation.
3	Peer Review	Identify the Month number as Name.	Modified data to include column with Month Name. Used in 2 worksheets.
4	Peer Review	Modify the color of the weather delay data.	Revised weather worksheet.
5	Peer Review	Add text Labels.	Included text labels in many of the worksheets.
6	Peer Review	Identify data as percentage total.	Updated a worksheet to reflect % total based on gathered data.

Versions:

#	Version	Link
1	01	https://public.tableau.com/views/C939v3_16101323245910/AirTransportationTrendsof2019?:language=en&:display_count=y&publish=yes&:origin=viz_share_link
2	A	https://public.tableau.com/views/C939vA/AirTransportationTrendsof2019?:language=en&:display_count=y&:origin=viz_share_link