Flight Delay and Cancellation Project:

Insight 1

Link 1:

https://public.tableau.com/app/profile/khloud.elzoghby/viz/FlightCancellationbyState_16543845406090/Sheet1#1

Summary:

From this map we can see where the most cancellations occur. It appears that most cancellations happen in California (33,331) and Texas (32,612). While the state with the least cancellations is West Virginia having only 130.

Design:

I used Map as a visualization tool to show the distribution of the states having cancellation counts where the color is used as a filter to represent the change of count of the cancellation within each state.

Link 2:

https://public.tableau.com/app/profile/khloud.elzoghby/viz/FlightCancellationbyStateandDayofWeek/Dashboard1#1

Summary:

From this dashboard we can see the cancellation for each state according to the day of the week, showing California is still having the most count of cancellation for all the days of the week except for the 7th day of the week, Texas has more cancellations than California with only 84 cancellations.

Design:

I built this dashboard using the sheet built in link 1, a map of the cancellation count per each state, and a bar chart of the cancellation counts filtered for the day of the week, to show the difference of the count per each state within the different days of the week.

Insight 2

Link 1:

https://public.tableau.com/app/profile/khloud.elzoghby/viz/CountofArrivalDelayforeachDestinationAirports/Sheet1#1

Summary:

From the plot of count of arrival delay for each destination airport, we find that airport has the most sum of arrival delay is ORD of about 98,900 minutes.

Design:

It is a plot of bar chart for the sum of arrival delay for each airport and the plot is arranged in a descending order showing which airport is for the maximum total arrival delay period and that of the least count.

Link 2:

https://public.tableau.com/app/profile/khloud.elzoghby/viz/CountofArrivalDelayforeachDestinationAirportsandAirlines/Dashboard1#1

Summary:

From this dashboard, we consider the airline on with the arrival delay is calculated for each airport, showing for each destination airport the arrival delay for the airport and the delay for each airline in the airport, where the airport ORD having the maximum arrival delay (98,900 minutes), but the airline having the maximum arrival delay was found to be EV for the ATL airport with total arrival delay of 30,610 minutes.

Design:

The dashboard is built for the bar plot of the arrival delay for each destination airport, and a bar plot of the same relationship with a filter on the airline with color filter showing the airline of the most arrival delay count per airport, and the plots are ordered in a descending order.

Insight 3

Link:

https://public.tableau.com/app/profile/khloud.elzoghby/viz/DelayCountandSumofTaxiinandoutforeachmonth/Sheet3#1

Summary:

From the plot of total delays and months of the year, and plotting the sum of average Taxi in and out, we found that the amount of taxis in and out is not effected in a big way with the months of the year (average 23 Taxis), while for the total delay it was noticed that June has the most delay of about 15,212 hours of delays within the month, followed by December with 11,927 hours, while the month with least delay is September having only 3,777 hours of total delay, this can be because of summer trips leading to a heavy flight movement leading to increase in the delay factor, and the same for December because of the Christmas Celebration .

Design:

The worksheet is built on the line plot of the aggregation function of the sum for all delay periods that can affect the flight versus the month of the year, also a dual axis for the aggregation of the sum of averages for the taxis in and out versus the month of the year in a circle dotted plot, concerning the two main delay factor, departure delay and arrival delay, they are added as a filter on the two plots, where the sum of the arrival delay is built as a color filter, while the sum of departure delay is built as a size filter.

Resources:

The given data for the flight project and the walkthrough video provided by Udacity.