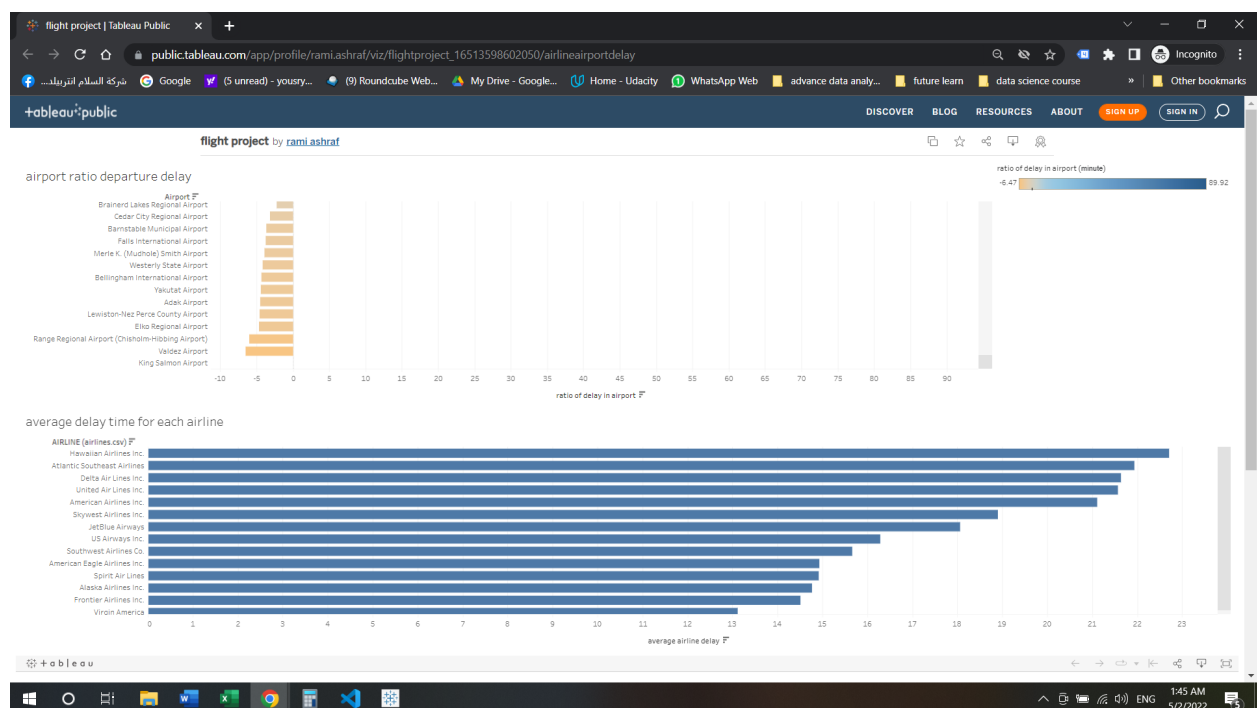# Insight 1 : Which airlines or airports have the worst delays?

Link:
https://public.tableau.com/views/flightproject_16513598602050/airlineairportdelay?:language=en-US&publish=yes&:display_count=n&:origin=viz_share_link

Summary:

The dashboard shows both the airport departure delay and the airline delay.

In airline we have used the ratio of delayed time in minutes in each airline .

In the airport we have used the ratio of departure delayed time in each airport , the darker blue color represent the more delayed time and the orange color represent the negative value which means the early departure from its planned time .

We could notice from this bar graph that airport "Sawyer International Airport" record the most departure delayed flights as in average of 89.92 minutes delayed . In other hand we can find that "Valdez Airport " have an average of (-6.47) minutes which mean that it is more likely that the flight in this airport will departure 6.47 minutes early than the arranged time of departure .

By studying the delay of the flights due to the airline , we can get that the "Hawaiian Airline" have the most record for the total delayed flights as in average of 22.7 minutes and we can see that "Virgin America Airline" have the minimum delay average time (13 minutes)

Design:

In my insight i have used bar chart to declare the categorical data for each airport departure delay and the airline delay . I have used in airport departure delay bar chart blue/orange color palette as it common colorblind-friendly palette.
In my aggregation i have used the mean for calculating both the airport and airline delay as it is more accurate in determining the average delay , because if we use only the sum we could find for example an airport that record high delay and that due to the high number of flights that arrival and departure from this airport .

Resources:
N/A

Insight 2 : What causes delays?

Link:
https://public.tableau.com/app/profile/rami.ashraf/viz/insight2flightproject/Story1?publish=yes

Summary:

In this story we have tried to answer the question of what causes delayed for each airline. And to solve that i have tried three approaches : average delay for each airline in each month and in each day of week and in each airport.

By taking the month scale we have noticed that in November we have the greatest delay in all airlines but if we are trynig to see which airline have the most delay in the year we notice that "Hawaiian Airline Inc. " have the highest delay in February (39.28 minutes) .

By taking the day of the week we can see that in day 6 (Saturday) we have the highest delay in all airlines(21.377) . And by taking the airline that have the highest average delay we can see that "Hawaiian Airline Inc. " in day 7 (Sunday) record as 49.94 minutes delayed time.

For an other view we can try to answer which airport record the high average delay for each airline , and we can notice that in our circular size data chart (packed bubbles chart) that "Hawaiian Airline Inc. " specifically in "John F. Kennedy Internatinal Airport (NY International Airport) have the largest bubble size as average delay (290.6 minutes).

Design:

In my approach i have chosen to use a story , because it give me the opportunity to answer my question with many views of dashboards and charts and it is good in sequence in story telling.

For the first and second dashboard in the story i have used a line chart for both the sum of average delay for all airline to display for which month and day of the week that have the high delay in all airlines and i have used a second line chart to display average delay for each airline in each month and day of the week , and i have used filter for the setting the range of the month and for day of the week and filter to airlines names to help sellect specific airlines , and i have used color to set colors for each airline to show the corresponding airline in each month or day of the week in each line chart.

And for the average delay in for each airline in each airport i have used the packed bubbles chart from show me bar in tableau for getting a beautiful and easy view for the high average delay corresponding airline with airport . i have used size to show the high and the low of average delay and i have used color to show each airline with specific color and i have used ToolTip to show the airline name with the corresponding airport and their average airline delay .

Resources:
N/A

Insight 3 : Which airline and state have the high record in cancellation flight ?

Link:

Summary:

In this insight we are answering a question for the number of the cancelled flight in each state and their corresponding airline . That approach will help us to find the state that record the hight cancelation flight number and we have provided a filter to give us more information to see the different month for each state .

We can see from our dashboard that TX (Texas) have the highest cancelation flights in all states (668 cancelled flights) , and also that the airline "Southwest Airline Co." have the highest cancellation flights (818 flight). In an other hand we can find that "VI,GU,DE,AS" (Vermont,Guam,Delaware,American Samoa) have a zero cancelled flight in those states .And aslo we can find that "Hawaiian Airline Inc." have the lowest cancelled flight (8 flights)

Design:

I have used a map to show the hight and the low number of cancelled flights in USA states and used a bar chart for show the sum of cancelled flights and i have arrange it as descending Arrangement (from high to low) in both graph that show the total number of cancelled flights for each state and in each airline .

I have used a color to show the different sum of cancelled flights in each state as drak blue state a high number to the light blue that correspond the low cancelleation number of flights .

I have used filters to make a choice to choose specific states and i have made a filter to show the sum of cancelled flights for different months , and that help us to have more look closer in our data to easy understand the different criterias such as different states and different months .

Resources:
N/A