Data Visualization Project

Project Dataset: Flight Delays and Cancellations

This data comes from a Kaggle dataset, which tracks the ontime performance of US domestic flights operated by large air carriers in 2015.

First Insight: What Causes Cancellations and Number of Cancellations.

Link:

https://public.tableau.com/app/profile/adham.sherif.abdelfa ttah/viz/Book5_16767239818170/AirlineVsCancellationReaso n?publish=yes

Summary: From this Bar Chart, we can see the cancellation reasons in each Airline. We can apply a filter To get the Cancellation reason for a Specific Airline. For instance, NK and B6 are the Only Airlines that has Cancellations due to Security Issues.

Design: The Bar chart is perfect to show the Cancellation Reasons With Differentiated Colors (From Green to Yellow) without Headers to Avoid Distractions. also the bar chart descendingly views the most to least From Green(Max) to Yellow(Min).

Second Insight: Which Airline Have the Most Arrival Delays and Which has the Worst Departure Delays.

Link:

https://public.tableau.com/app/profile/adham.sherif.abdelfa ttah/viz/Book3_16767200100840/AirlineAndDepartureDelay? publish=yes

https://public.tableau.com/app/profile/adham.sherif.abdelfa ttah/viz/Book4_16767204848160/MostDelays?publish=yes

Summary: From these Bar Charts, we can see where the most Airline Delays occur, Arrival Delays, Departure Delays, etc. It appears

that most Airline Delays happen in EV Airlines (375,017 minutes) for all months.

HA Airlines had the fewest number of Airline Delays with only 2,520 minutes for all months.

The Average Airline Delays for each reason is Implemented in this Exploratory Bar Chart.

Design: The Bar chart is perfect to show the most Airline Delays with Aqua color, also the bar chart descendingly views the most to least without any distracting colors.

Third Insight: which Airline Travelled the Longest Distance
And the Total Air Time Taken

Link:

https://public.tableau.com/app/profile/adham.sherif.abdelfa ttah/viz/Book5_16767239818170/AirlineVsDistanceTravelled AirlineTime?publish=yes

Summary: From this Bar Chart, we can see what is the most distance travelled by which Airline where we have the WN

Airport Leading with a Total Distance Travelled (160,193,847) in An Elapsed Time (25,966,572) and Airtime (22,006,270).

Design: The Bar chart is perfect to show the Total Distance Travelled with Dark Blue color for The Highest and Slightly Decrease in Opacity when we go down, also the bar chart descendingly views the most to least without any distracting colors.

Insight Four: Most Cancellations By States

Link:

https://public.tableau.com/app/profile/adham.sherif.abdelfa ttah/viz/Book5_16767239818170/CancelledFlights?publish=y es

Summary: We can observe the locations of the most cancellations using this Dashboard. Throughout all seven days of the week, Texas (6175) and Illinois (4457) appear to have the highest number of cancellations. These states remain at the top of the list of flight cancellations even if you filter by a particular day of the week.

Design: The map chart is ideal for showing the states with the most cancellations in blue (dark for most and light for least), and the bar chart shows the most cancellations in descending order without the use of any distracting colors.

Insight Five: Cancellation Causes

Link:

https://public.tableau.com/app/profile/adham.sherif.abdelfa ttah/viz/Book5_16767239818170/CancellationIssues?publish =yes **Summary:** According to this pie chart, weather circumstances account for (28,260) of Technical Error cancellations, followed by Weather (6,973) and the Overbooking (5,291), Lastly with 2 Security Issues. To determine if it will vary from one airline to another, we can apply a filter based on the individual airline. For instance, Virginia America Airlines doesn't cancel flights because of bad weather.

Design: For categorical data, like cancellation reasons, the pie chart is ideal. For clearance, I switched the palette to blind colour.

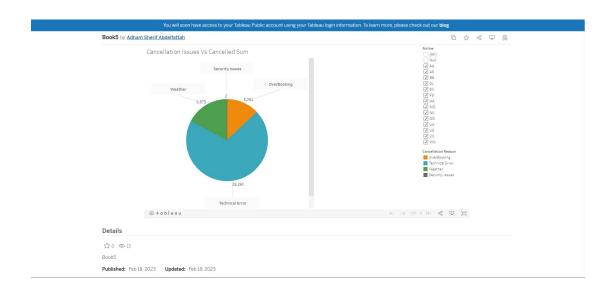
Insight Four + Five All Together in a Story Dashboard

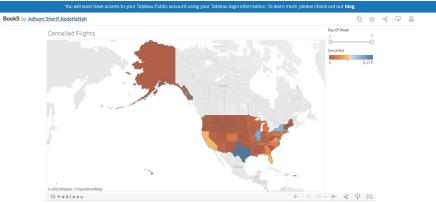
Link:

https://public.tableau.com/app/profile/adham.sherif.abdelfa ttah/viz/Book5_16767239818170/Dashboard1?publish=yes

Summary and Design are The Same as Insight Four and Five.

ScreenShots



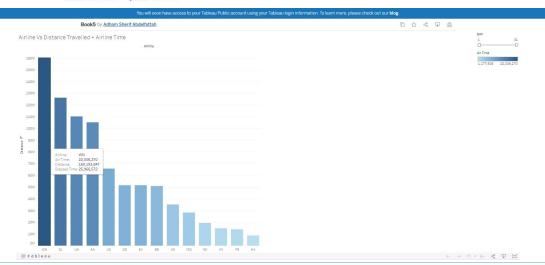


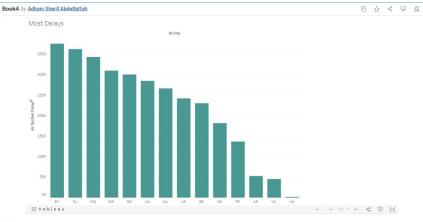
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