My first data dashboard report

1st visual

- Link: https://public.tableau.com/app/profile/alzahraa.saad/viz/Mostpopularoriginaiportsforeachairline/Sheet1?publish=yes
- Summery:
    - The plot shows most popular airports by the number of flights departing from it. The result analyzed is that ATL Hartsfield-Jackson Atlanta International Airport is the most used airport, and some airports have no flights at all.
    - Such information is helpful as knowing popular airports may be cheaper but crowded. I can also deduce that transportation there is great on the other hand if I were to go to an unpopular airport theirs a higher chance of not financing and transportation unless someone is awaiting me.
    - I also added the city filter to decrease results specific to a certain city I'm going to let's say and see fi it has more than on airport and which airport is more popular
- Design:
    - For design enhancements I tried added airports or city as colors but found it distracting so I found the best way was to add them as filter. Accordingly decided to have all bars one color.
    - I also decided to have the bars in a descending order, so it is easier to know the most popular since that's the main goal behind the visual
- Resources:
    - N/A

2ed visual

- Link: https://public.tableau.com/app/profile/alzahraa.saad/viz/Numberofflightsperstatewithorigionanddestinationfilters/Sheet2?publish=yes
- Summery:
    - The plot shows a map of the USA states and number of flights departing from that state with 2 filters for origin airport and destination airport.
    - Such information is helpful for me if I was planning a travel with more than one stop to analyze and organize my traveling stops and not have problems with flights and or airports availability.
    - For example, if I'm targeting the airport with code ABQ then I would choose that in the destination filter and see which state has flights going to it. I can also see that taxis has the most flights going to it and then California, so it would be

better If I took the airplane from one of those 2 states that way ill have a lot of flight choices.

- Design:
  - Decided to go with a map because this is a state based (geographical) analysis
  - Also decided to add the origin and destination airport as filters so i can get more information that way
  - The colors are al shades of blue so the eye can be relaxed observing the countries, and details are added in tool tips to decrease text information on the plot.
- Resources:
  - N/A

3ed visualization

- Link: https://public.tableau.com/app/profile/alzahraa.saad/viz/Analyticsperairlinedashboard3/Dashboard1
- Summery:
  - My third visualization is a dashboard that I gathered some analytics for each airline in.
  - All intended to help the viewer choose appropriate airline to go with taking into consideration previous flights cancelation, delay or diversion that happened with the airline.
  - I used a text table as a start to provide average hours delay by airline, I found it is suitable to visualize such data as text as its is a continuous number and may take a lot of space from the dashboard
  - Second, I used stacked bars to show number of canceled and diverted flights for each line. Found this suitable as its categorical data with related x axis values (airlines)
  - Third, I provided total number of flights per airline as packed bubbles to give information about the most popular airline. Found this essential because it's comforting if an airline is well known verses one that has barely any flights
- Design:
  - For the text table I used plain colors so there's not a lot of colors on the dashboard in total and as explained above choose to go with text table to decrease use of space in dashboard.
  - For stacked bars I used blue and shade black to represent canceled and diverted, also to minimize the colors in dashboard as much as possible. The tool tip provided the numbers of each bar next to each other to provide ease of visual
  - For the packed bubbles I added the code of the airline on the bubble alongside colors taking into consideration colorblindness. (refer to notes)

- One filter is used for all the dashboard to limit the data to only one airline if needed by the user.

- Resources:
  - N/A
- **Notes:**
  - When I save the dashboard to tableau desktop it looks weird. I tried saving it multiple times and made sure the stacked bubble is not on “float” but it still changes when I save it
  - So I will provide the photo as a screenshot alongside the link. The dashboard in the link is working fine the functionalities are fine just the position of the graphs are messed up.
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