Data Visualization Nanodegree

Project 1, Revision - April, 25th

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Summary

Using Tableau I present a data visualization project based on a database of flight of United States provided by Udacity. I developed a Tableau dashboard to understand

1. Wich are the “types of flight delays”?
   Wich “type of flight delay” is the most impacting?
2. Wich month is the most affected by “flight delays”?
3. In wich state occurs more “flight delays”?

1/3 Feedback to review - “About the first feedback I acted inserting the question related to the analysis I developed.“Perfect - you started with clear null hypotheses (your questions) and ended with clear findings, just like expected. There's only **Insight 3** that has no related question in your report right now. Please add some to connect it with your findings. “

I acted inserting the question related to the analysis I developed: In wich state occurs more “flight delays”?

2/3 Feedback to review - “The written summary should include a brief description of the visualization and state at least one finding. A reader’s summary of the graphic would closely match the written summary in the writeup, and a reader is able to identify at least one main point or relationship that the graphic attempts to convey. To reiterate your report should include at least 3 sets of ... “

In this revision I describe my line of reasoning.

3/3 Feedback to review - “The three visualizations are included. These visualizations may be a single worksheet, but at least one must be a dashboard involving more than one worksheet. A dashboard counts as a single visualization. All visualizations must be clearly connected to a finding, and foster the interaction pieces (filters, colors, etc.) that allow for the finding to be found easily by a user. One Dashboard is required. A Dashboard is an option in Tableau that allows you to combine multiple charts into one page. This counts as 1 visualization. Two other unique visualizations are also required, These can be two single worksheets, two more dashboards, two more stories, or any combination of worksheet, dashboard, or story. “

After receiving feedback I studied the specific content related to dashboard development and reviewed what had studied before. e.

Insight 1

Which are the types of "flight delays"?

Which type of "flight delay" is the most impacting?

Before I received mentor´s feedback I was selecting each measure separately. In this revised version I´m very grateful to use a procedure that reduces rework; selecting "measures names" and "measures values". I would never have thought about it if I hadn´t researched it.

So when the measures names menu appeared it was easy to find the types of flight delays. Instead of developing a graph I opted for a table since sometimes "less is more", and I just wanted to know delay types. But then I thought that a simple and objective visual design would be effective; opted by the following bar plot I could easily identify "departure delay" as the most impacting (2.649.459 min).

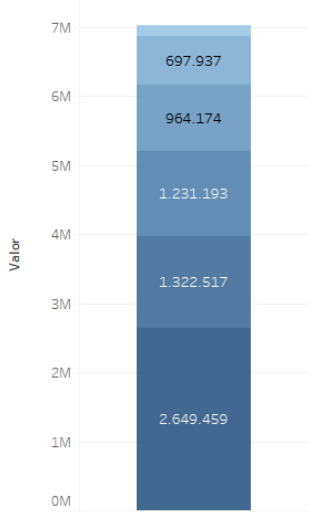
I created a calculated field called "Total Delayed" summing the 5 existing types of delays.

There are 7 types of flight delays: security, weather, air system, airline, late aircraft, arrival and departure. The most impacting type is departure delay.

Flight delay per type, 1st try

SECURITY_DELAY	4.702
WEATHER_DELAY	163.814
AIR_SYSTEM_DELAY	697.937
AIRLINE_DELAY	964.174
LATE_AIRCRAFT_DELAY	1.231.193
ARRIVAL_DELAY	1.322.517
DEPARTURE_DELAY	2.649.459
TOTAL DELAY	5.216.188

Flight delay per type, 2nd try

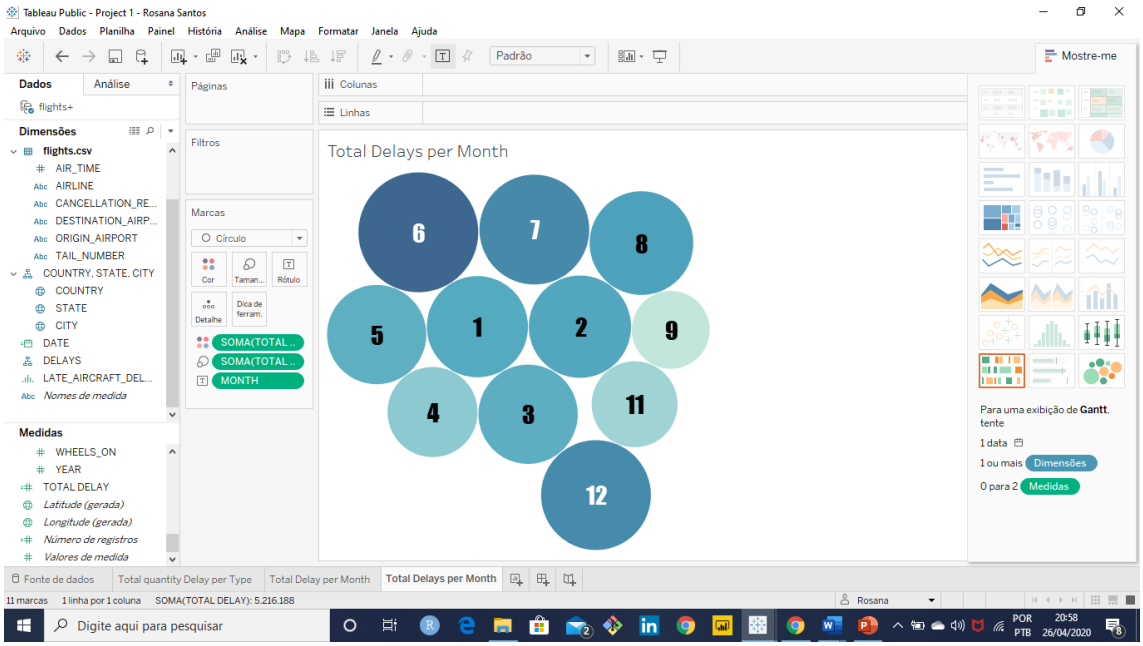


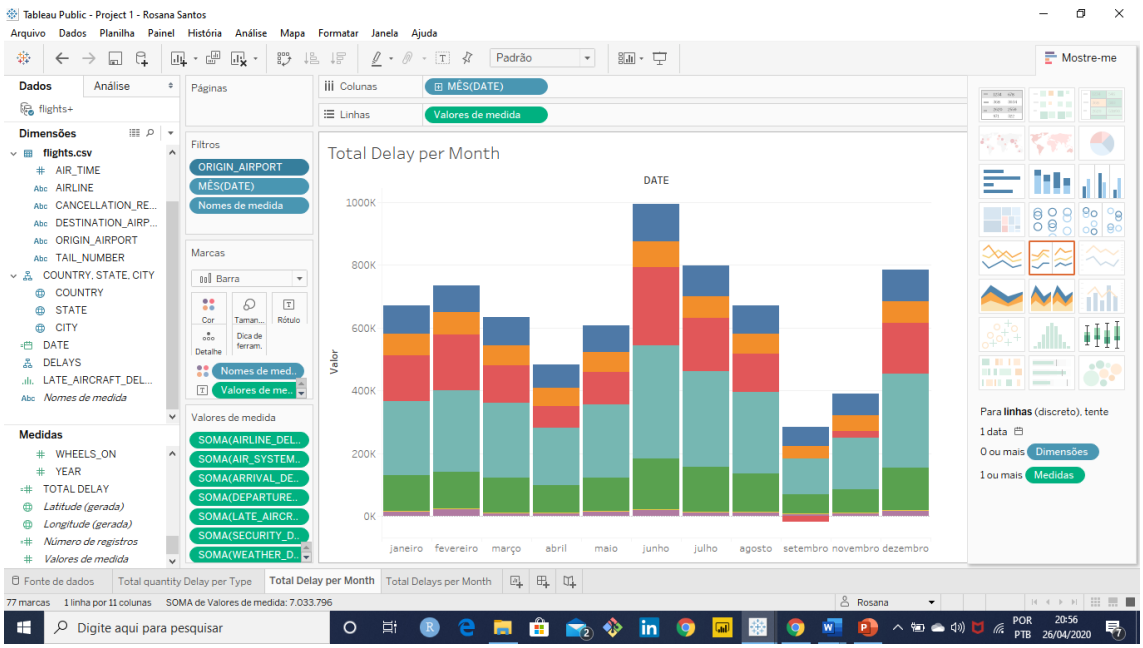
Insight 2

Which month is the most affected by "flight delays"?

First I developed a bubble graph in order to identify the month most affected by flight delays. This one was eough to answer the question. The month is June (670.748 min)

But then benchmarking na example that I researched I learned how do deploy flight delays by months and by types. Using this other visualization I am now able to identify June as the most impacting month and the flight delays types composing de total. The biggest delay type in June is the to departure delay (360.568 min).





Insight 4

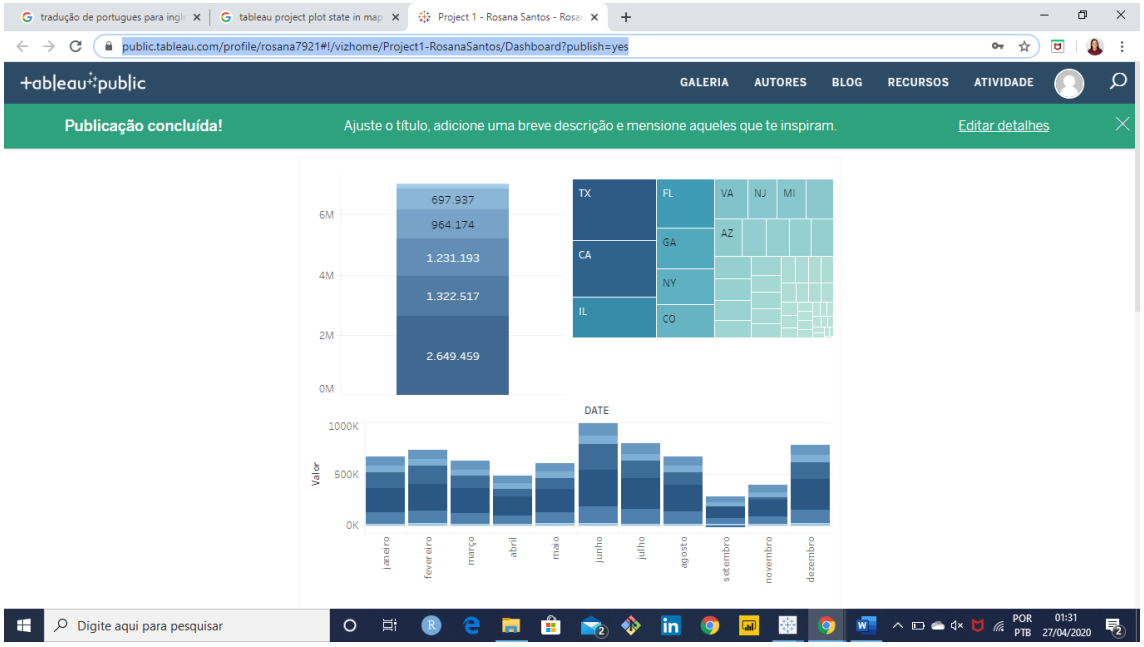
In which state occurs more "flight delays"?

From this map we can see where the most Airlines delay occurs: in Texas (116.528) and in California (110.011).

After analizing the proposed questions I developed a dashboard.

Texas is the state more affected with flight delays (83.565)

https://public.tableau.com/profile/rosana7921#!/vizhome/Project1-RosanaSantos/Dashboard?publish=yes



Conclusion

Using Tableau features I constructed a History.

https://public.tableau.com/profile/rosana7921#!/vizhome/Project1-RosanaSantos/Histria?publish=yes

With these data base analisys I as abale to asnwer the proposed questions.

1. Wich are the “types of flight delays”?
   Wich “type of flight delay” is the most impacting?

   There are 7 types of flight delays: security, weather, air system, airline, late aircraft, arrival and departure. The most impacting type is departure delay.

2. Wich month is the most affected by “flight delays”?

   June is the month more affected with flight delays.

3. In wich state occurs more “flight delays”?

   Texas has the majos occurance off light delays.

Resourses

2018, Jan. What Caused the Most Flight Delays in 2015? **https://rickjevans.com/tag/udacity/**