

Udacity – Business Analyst Nanodegree

Project 6

Build Data Dashboard

by

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Introduction

In this project, I have made a dashboard of Flight Delays and Cancellations database. I have used Tableau for making different visualizations to answer certain set of questions. I asked some questions and tried to obtain the answers for the visuals.

Dashboard 1

Summary:

In the first dashboard I have tried to answer to the following question. The dashboard can be found on the following [link](#).

Which airlines in which state and city has the maximum number of flight cancellation and which month has the maximum number of cancellations?

From the dashboard 1, we can observe that Texas state has the maximum number of cancellations, when we dig further, we can see that Dallas-Fort Worth has the greatest number of cancellations. Looking further, we can find that 2nd month which is February has the greatest number of cancellations with American Airlines having around 46 cancellations in just one month.

Design:

I have made some changes to this dashboard after the feedback. I have changed the month scale to 1-12 which was 0-13 earlier. I have also changed the bar graph to line chart for the month sheet as it is a sequence and not categorical. Also, I have added the dashboard name to easily convey the message to the viewer. I also changed the color scheme from automatic to orange-blue as it is easily visible to color-blind people.

Resources:

US Flight Data Source:

https://d17h27t6h515a5.cloudfront.net/topher/2017/December/5a3b1fad_flight-delays/flight-delays.zip

Dashboard 2

Summary:

In the second dashboard, I have tried to answer the following question and the dashboard is available at the following [link](#).

Which state and city has the most departure delay and which airline contribute the most to it?

From the dashboard 2, we can see that the average departure delay is highest in the state of Illinois. We further find that New Jersey has the greatest departure delay. On further investigation, we find that out of the three airports in New Jersey, Newark Liberty International Airport has the most delay with United Air Lines Inc. contributing to it the most.

Design:

I have changed the color scheme from automatic to orange-white-blue diversion which can be easily viewed by color blind people. Also, I have added a dashboard title, so it can easily convey the message to the viewer.

Resources:

US Flight Data Source:

https://d17h27t6h515a5.cloudfront.net/topher/2017/December/5a3b1fad_flight-delays/flight-delays.zip

Dashboard 3**Summary:**

In the dashboard three, I have tried to answer the following question with the dashboard in the following [link](#).

Which city has the maximum time delay and which airline contributes the most?

From the dashboard 3, we can find from the heatmap that Falls International Airport in Minnesota has the average total delay of 851 minutes which is the greatest that any other airport for all the airlines. We can also check for different airlines which has the most delay.

Design:

As per the feedback, I have changed the bubbles on the map to colors which can be clearly seen by the color-blind people which is orange and blue. Also, I have added a dashboard title for easy message conveyance to the audience.

Resources:

US Flight Data Source:

https://d17h27t6h515a5.cloudfront.net/topher/2017/December/5a3b1fad_flight-delays/flight-delays.zip

Dashboard 4**Summary:**

In the dashboard 4, I have tried to answer the below question and the dashboard is in the following [link](#).

What is the distribution of arrival and departure delay?

The last dashboard shows the distribution of arrival and departure delay for all the airlines.

Design:

I have changed the X axis ticks for both the histogram and decreased it to 600 as many ticks was making the histogram unclear.

Resources:

US Flight Data Source:

https://d17h27t6h515a5.cloudfront.net/topher/2017/December/5a3b1fad_flight-delays/flight-delays.zip