Flight Data Summary:

Insight 1:

Link:
https://public.tableau.com/views/TotalDelayforeachairline/Sheet2?:language=en-US&publish=yes&:display_count=n&:origin=viz_share_link

Summary: This chart denotes the total delay which is the sum of (Air system delay, Airline delay, Arrival delay, Departure delay, Late aircraft delay, and security delay), from this chart we have concluded that Southwest Airlines Co. has the greatest total sum of delays.

Design: In this chart I joined the flights csv file with the airlines csv file then added the sum of total delay column to the Rows and the Airline name from airlines csv file to the columns. Then I added two filters (city – month).

Insight 2:

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

Summary: This chart on the denotes the count of each cancellation reason which we can conclude from it that the main reason for delays is weather conditions.

Design: To create this chart (cancelation reason counts chart) by I started with decoding the values of each reason of cancellation from ('A', 'B', and 'C') to ('Weather', 'Airline/Carrier', and 'National Air System') using IIF statements and then adding the count of each value of Cancellation reason was added to the Rows and the Cancellation reason names to the columns.

Then I added a filter for this chart and used city column to create this filter. This filter was very useful because we could see from it that the cities having bad weather conditions had the greatest number of weather delays or cancellations.

Insight 3:

Link:
https://public.tableau.com/views/TotalDelayMapandtotaldelayeachmonthplot/Dashboard1?:language=en-US&publish=yes&:display_count=n&:origin=viz_share_link

Summary: In this dashboard we used two visualizations which are the total delay for each state map and the total delay for each month in 2015 chart. From the first chart (top chart) we found that Texas and California have the most total delay and we can use the second chart as a filter to see the total delay for each month. From the second chart (bottom chart) we can see that June is the month with the greatest total delay this can be because of the summer holidays and having high traffic in all airports.

To conduct this dashboard, we first joined the airports and the flights csv files, then we created the states map and added the sum of total delays to color marks. Then we created the second chart, first I converted the month column to date datatype and added it to the Columns and the sum of total delays to the Rows.