Flight delay and cancellation data 2015 Tableau Project :

Links to Story, worksheets and dashboard:

Story -
https://public.tableau.com/views/flightdelayandcancellation_16772372479900/Story1?:language=en-US&publish=yes&:display_count=n&:origin=viz_share_link
Dashboard 1-
https://public.tableau.com/views/flightdelayandcancellation-dashboard1/Dashboard1?:language=en-US&:display_count=n&:origin=viz_share_link
Dashboard 2-
https://public.tableau.com/views/flightdelayandcancellation-dashboard2/Dashboard2?:language=en-US&:display_count=n&:origin=viz_share_link
Dashboard 3-
https://public.tableau.com/views/flightdelayandcancellation-dashboard3/Dashboard3?:language=en-US&publish=yes&:display_count=n&:origin=viz_share_link
Worksheet 1-
https://public.tableau.com/views/flightdelayandcancellation-noofflightsperairportwithairlines/nooflights?:language=en-US&:display_count=n&:origin=viz_share_link
Worksheet 2-
https://public.tableau.com/views/flightdelayandcancellation-arrivalanddeparturedelayplot/ddad?:language=en-US&:display_count=n&:origin=viz_share_link

Summery:

Insight from dashboard 1: We can visualize here which airport / airlines has worst delays. Chicago O'Hare international airport has worst delay at 623,809 minutes in a year and Southwest airlines Co NW has worst delay with 1,820,495 minutes a year. Also by selecting bubble you can see which airline does most delays at that airport. Like at Denver we see United airlines Inc. doing most delays.

Insight from dashboard 2: The delay is mostly seen around month of June followed by december and january. Another likely reason for delay is number flights at these few centers like chicago, new york, los angeles is higher during this time.

Insight from dashboard 3: The delay is mostly seen around month of June(6) followed by december(12) and january(1). Another likely reason for delay is number flights at these few centers like chicago, new york, los angeles is higher during this time.

Design choices:

In dashboard 1 you can see I have used bubble plot to display total delays at airports with bigger bubbles meaning larger delays. With that I have shown map locations where the small to big circles show total delays. In dashboard 2 I have used line graph to show month wise delay and month wise total flights. As I am representing wrt to time(month) line graph is appropriate. Also for dashboard 2 I have created a calculated field called total delays which adds all the delays present like weather delay, airline delay etc.

In dashboard 3 I have used stacked horizontal bars to represent total canceled flights while also visualizing their respective reason of cancellation.
In worksheet 1 you can see I have used a scatter plot with dual axis to represent the sum of arrival and departure delays with respect to airlines.

Resources used :

1. https://www.kaggle.com/code/fabiendaniel/predicting-flight-delays-tutorial