Links:

First dashboard:

https://public.tableau.com/profile/yushen1732#!/vizhome/AirplaneProject-Dashboard1/Dashboard1?publish=yes

Second dashboard:

https://public.tableau.com/profile/yushen1732#!/vizhome/AirplaneProject-Dashboard2/Eachairportdelayrecords

Third dashboard:

https://public.tableau.com/profile/yushen1732#!/vizhome/AirplaneProject-Dashboard3/Avgdelayminutesbyairlines

The way I designed:

First dashboard:

In the beginning, we define airplane delay. For passenger view, it means 'arrival delay' in terms of their destination. Therefore, I combined airline, original airport data and arrival delay data to complete this figure. One thing I could take away from this dash board is about the first place on arrival delayed airline, Alaska airline. Mostly, they delayed happened in JFK, John F. Kennedy International Airport in New York City.

Second dashboard:

Let see which USA's airport delay the most geographically. I extract six delay reasons from original raw data, which are **air system delay**, **late aircraft delay**, **cancelled**, **diverted**, **airline delay** and **weather delay**. I divide three group which shows different colors. The city airport who have the most airplane delayed frequency in 2015 is Chicago Midway International Airport.

PS:

1.I transfer raw data which showing in minutes to counted number. For instance, airline delay 10 minutes-> count 1 for delay reason.

2.Delay frequency= count of **air system delay**+ count of **late aircraft delay**+ count of **cancelled** + count of **diverted** + count of **airline delay** + count of **weather delay**

Third dashboard:

For airline company, I liked to know the connection between departure delay(average min) and arrival delay(average min) by each airline company. It is different with first dashboard

because the viewer in this dashboard mainly from airline companies rather than normal passengers. Therefore, we could see NK (Spirit Air Lines) usually delay more than 15 minutes whether departure or arrival. For Spirit airline, they probably need to review their airplane management.

In addition, the relationship between arrival delay and departure delay clearly show positive relation. Their correlation coefficient should be positive and close to 1.