Link :

https://public.tableau.com/app/profile/ahmadhida/viz/Project3_16483091871170/Story1?publish=yes

Data preparation:

1-We cleaned the data as follow

1. Replaced the null and negative values to zeros in the following measures
    1. Airline Delay
    2. Air System Delay
    3. Arrival Delay
    4. Departure Delay
    5. Late Aircraft Delay
    6. Security Delay
    7. Weather Delay
2. Modified the Airlines name by removing the word ‘Airlines’ from all the records
3. Modified the Airport name by replacing the word 'International' by 'Int' and 'Regional' by 'Reg' and remove the word 'Airport'

2-Joined the flight sheet with the Airport sheet twice (once for the Departure and other for destination)

3-Joined the flight with Airlines

Insight 1

This Dashboard has 2 bar charts for worst 10 Airlines and Airports

1- Worst Airport we took the Average Departure Delay as our measure in Rows and Airport Short name (modified name) as columns then create a set by the top 10 according to Departure Delay measure and added to the filter section

2- Worst Airlines we took the Average Airline delay as our measure in Rows and Airline Short name (modified name) as columns then create a set by the top 10 according to Airline Delay measure and added to the filter section

Insight 2

We can see in the area chart the portion of each delay type per airlines mostly are the same pattern which is as follow:

1- Late Aircraft Delay

2- Airline Delay

3- Air System Delay

4- Unknown delay

5- Weather Delay

6- Security Delay

In this pie chart we tried to analyse the Arrival delay type as we can see from the data ,that the Arrival delay if it is greater than zero in most cases it is equals to the summation of the 5 measures (Air System Delay ,Late Aircraft Delay ,Security Delay ,Weather Delay and Airline Delay)

in few cases there is difference so we created new calculated measure wit this difference and called it Net Unknown delay

as we can see from the chart that the delay reason from highest as follow :

1- Late Aircraft Delay with Avg 4.47

2- Airline Delay with Avg 3.507

3- Air System Delay with Avg 2.538

4- Unknown delay with Avg 1.115

5- Weather Delay with Avg .595

6- Security Delay with Avg .017

Insight 3

We try to see if the delay is related to geographic data or related to time

In the first par chart we can see the Avg Arrival delay and Avg Departure Delay per month , we can not extract certain pattern , that means there is no relation with the year month

In the second map charts we can see the Avg Arrival delay and Avg Departure Delay per state , also we can not extract certain pattern , that means there is no relation with the state