



# Problem Description:









Vacation or Business plan went away!!!

## INTRODUCTION

Based on the problems, the research question in this analysis was designed:
What are the possible causes on flights delay?

# Let us share some favorite reasons conducted by other organizations for telling our story effectively.

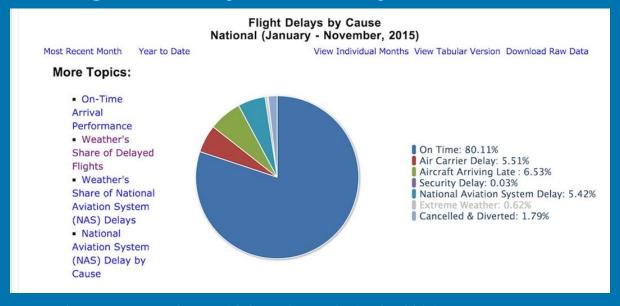


Table Flights Delays by Causes (@Copyright Trip Advice 2015)

#### **Our mission**

To help the insurance companies to adjust their insurance pricing trip-delay policies of NYC, based on the data of the flights, weather, airport, and airlines collected by Bureau of Transportation Statistics.

## PREPARE

#### **Abstract**

#### "DATA"

Original from two core sources, Bureau of Transportation Statistics and Openflights data.

#### URL1:

http://www.transtats.bts.gov/DL SelectFields.asp?Table ID=236

URL2:<u>http://openflights.org/data.html</u>

#### "Method"

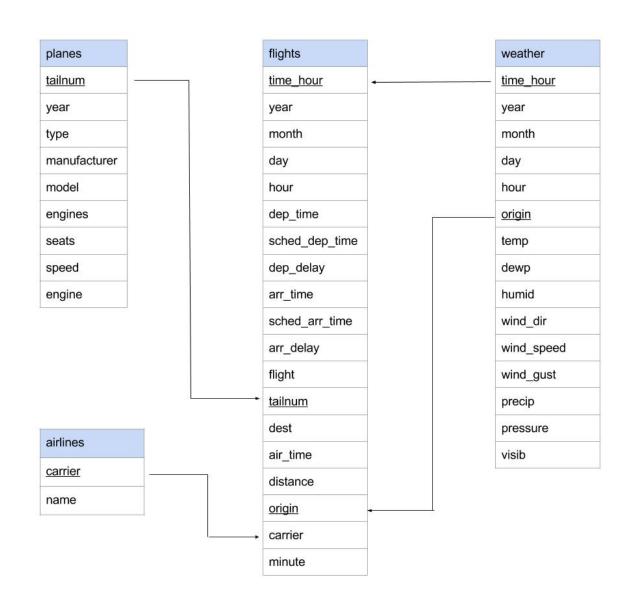
We created some database tables using PostgreSQL. And then designed our schema and explored the data.

## "Assumptions"

The weather and the time both will have impact on the flights delay.

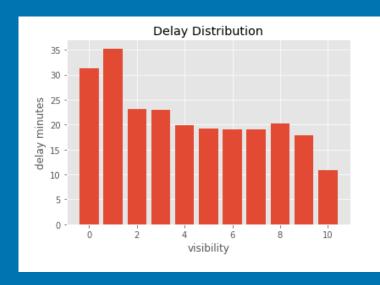
# PREPARE

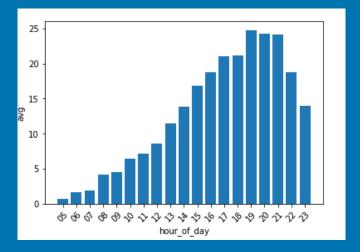
#### **SCHEMA**

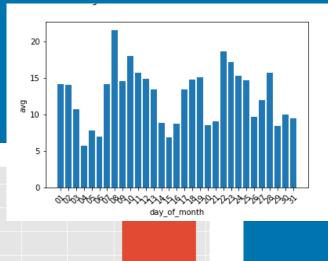


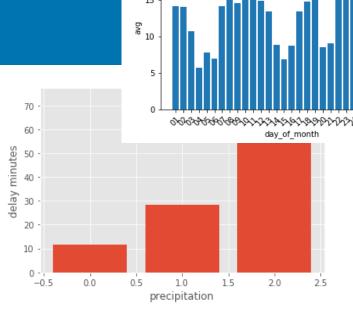
# PATTERNS

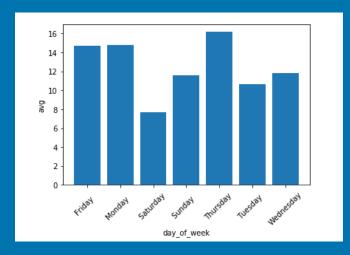
# Weather

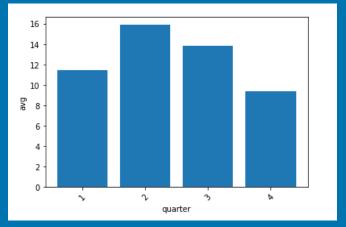












Time

# WHAT HAPPENS IF WE CONTROL WEATHER

# ?

### For each quarter:

visibility	longer delay in
low (0~4)	spring & summer
medium (4~7)	summer & fall
high (7~10)	summer

precipitation	longer delay in
<0	summer
0~1	fall
>1	-

For each hour of day or each day of week:

However the visibility or the precipitation is, the patterns due to change in time roughly maintain.

So...you might expect to wait longer if your flight is going to depart around dinner time on a Thursday!



# "DYNAMIC PRICING"

IT IS REASONABLE THAT
THE INSURANCE COMPANY
ADJUST THE PRICE OF ITS TRIP DELAY INSURANCE
ACCORDING TO WEATHER AND TIME.

# Thank you for listening!