



# **AIRBNB DATA ANALYSIS IN NEW YORK CITY**

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## OBJECTIVE

- WITH OVER 30,000 LISTINGS IN NEW YORK CITY,  
TRY TO INVESTIGATE THE DATA FROM 2008 - 2015
- TRY TO FIND ANY PATTERN OR TREND FOR THIS  
CITY



## DATA OVERVIEW & CLEANING

- Host data since 2008 until 2015 with 30,478 total listings
- Using python first to do the data cleaning
- Trying to understand each column's meaning and representing
- Deleting null value and other data analysis

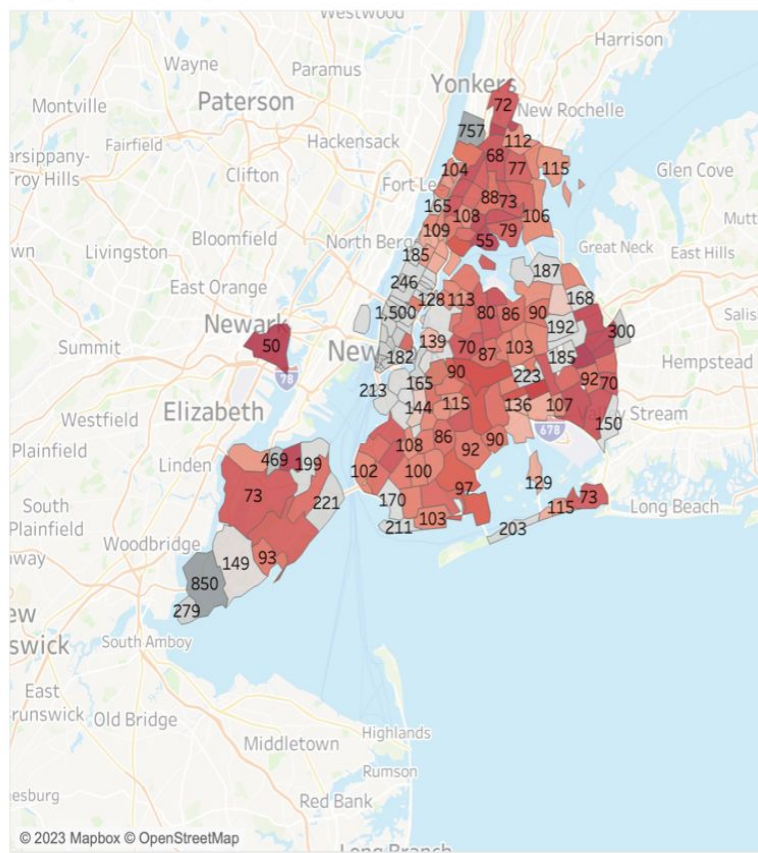


## QUESTION IN TABLEAU

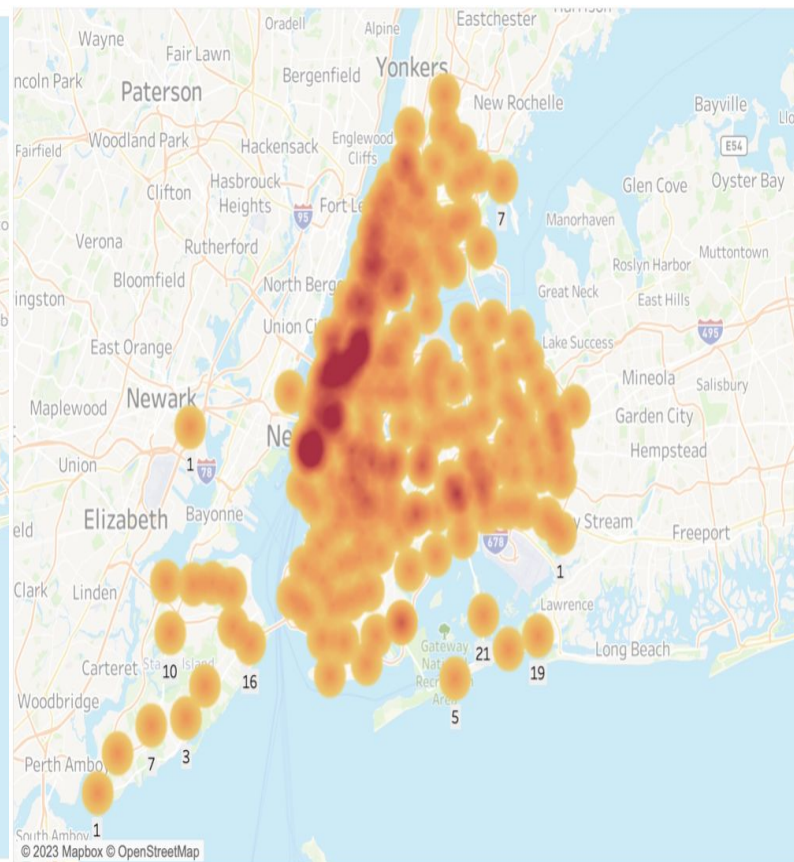
- The relations between density and price
- What type of property is the most popular across the neighbourhood?
- The trending and patterns among the neighbourhood, ratings and prices



## avg price by map



Map based on Longitude (generated) and Latitude (generated). Color shows average of Price. The marks are labeled by average of Price. Details are shown for Zipcode and Neighbourhood. The data is filtered on Action (Neighbourhood, Zipcode), Action (Host Id), Action (YEAR(Host Since), Neighbourhood) and Property Type. The Action (Neighbourhood, Zipcode) filter keeps 204 members. The Action (Host Id) filter keeps 24,274 members. The Action (YEAR(Host Since), Neighbourhood) filter keeps 38 members. The Property Type filter keeps 20 of 20 members. The view is filtered on Neighbourhood, which keeps Bronx, Brooklyn, Manhattan, Queens and Staten Island.



Map based on Longitude (generated) and Latitude (generated). The marks are labeled by sum of Number of Records. Details are shown for Zipcode and Neighbourhood. The data is filtered on Action (Host Id) and Property Type. The Action (Host Id) filter keeps 24,274 members. The Property Type filter keeps 20 of 20 members. The view is filtered on Neighbourhood, which keeps Bronx, Brooklyn, Manhattan, Queens and Staten Island.



## - WHAT TYPE OF PROPERTY IS THE MOST POPULAR ACROSS THE NEIGHBOURHOOD?

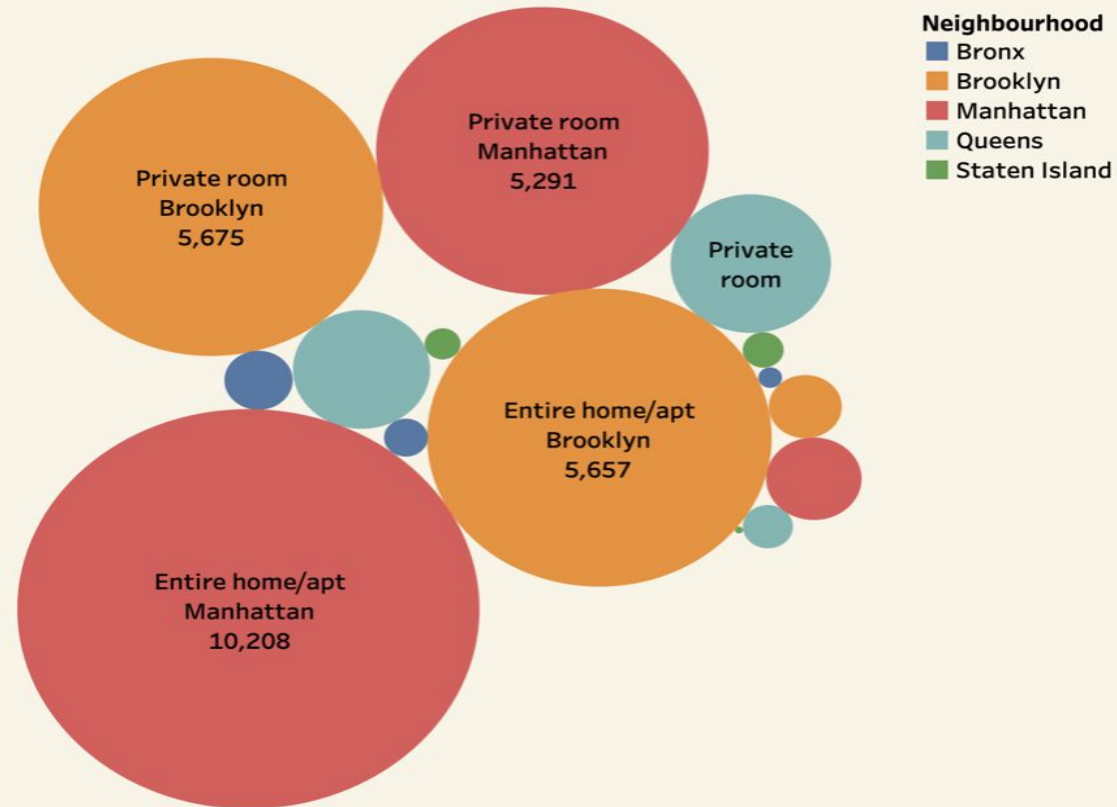
Avg prices across Neighbourhoods



Average of Price for each Room Type broken down by Neighbourhood. Color shows details about Neighbourhood. The marks are labeled by average of Price. Details are shown for Neighbourhood. The data is filtered on Property Type, which keeps 20 of 20 members. The view is filtered on Neighbourhood, which keeps Bronx, Brooklyn, Manhattan, Queens and Staten Island.



## Roomtype by Neighbourhood



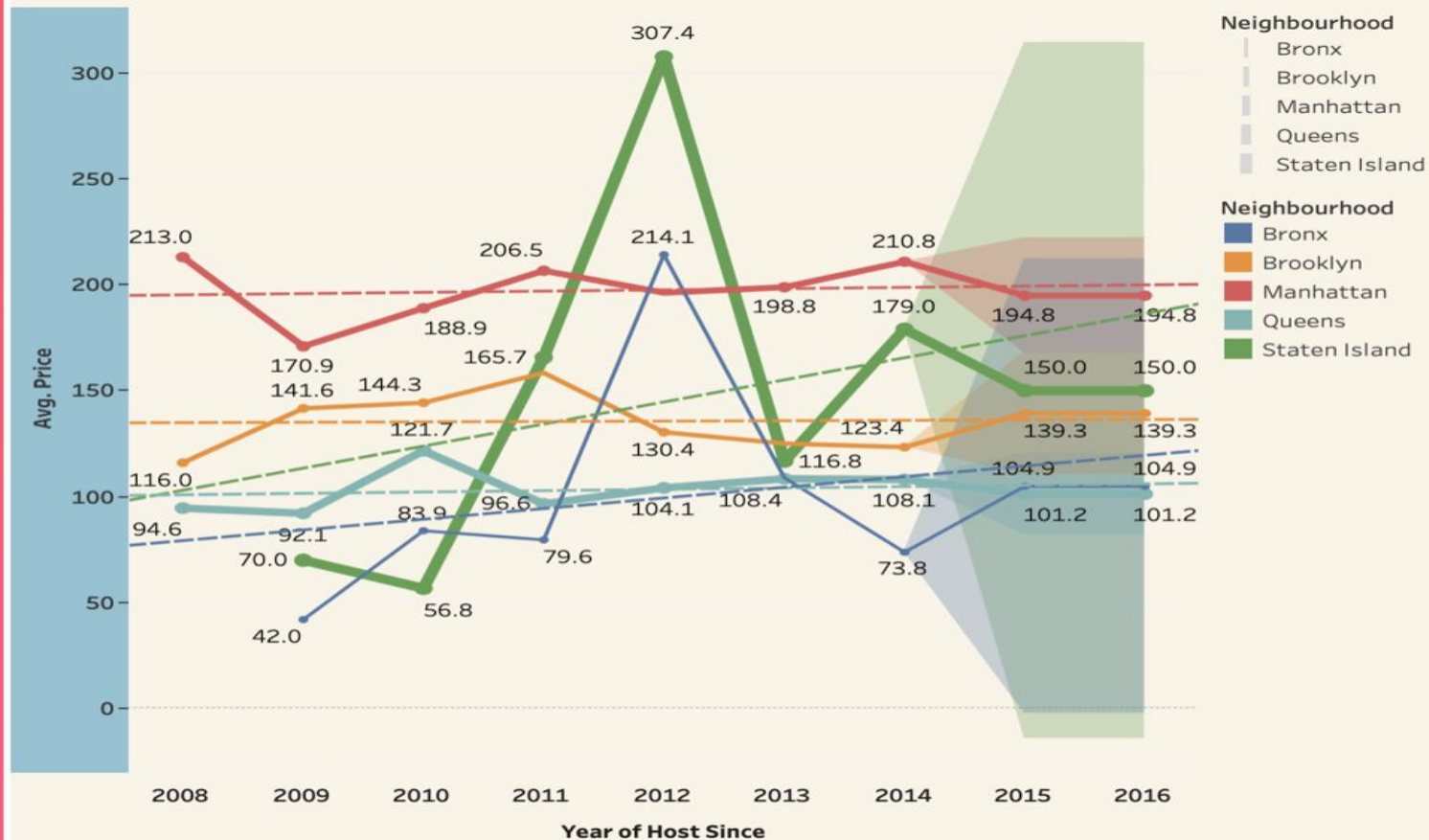
Room Type, Neighbourhood and count of Room Type. Color shows details about Neighbourhood. Size shows count of Room Type. The marks are labeled by Room Type, Neighbourhood and count of Room Type. The data is filtered on Property Type, which keeps 20 of 20 members. The view is filtered on Room Type and Neighbourhood. The Room Type filter keeps Entire home/apt, Private room and Shared room. The Neighbourhood filter keeps Bronx, Brooklyn, Manhattan, Queens and Staten Island.







## avg price over year

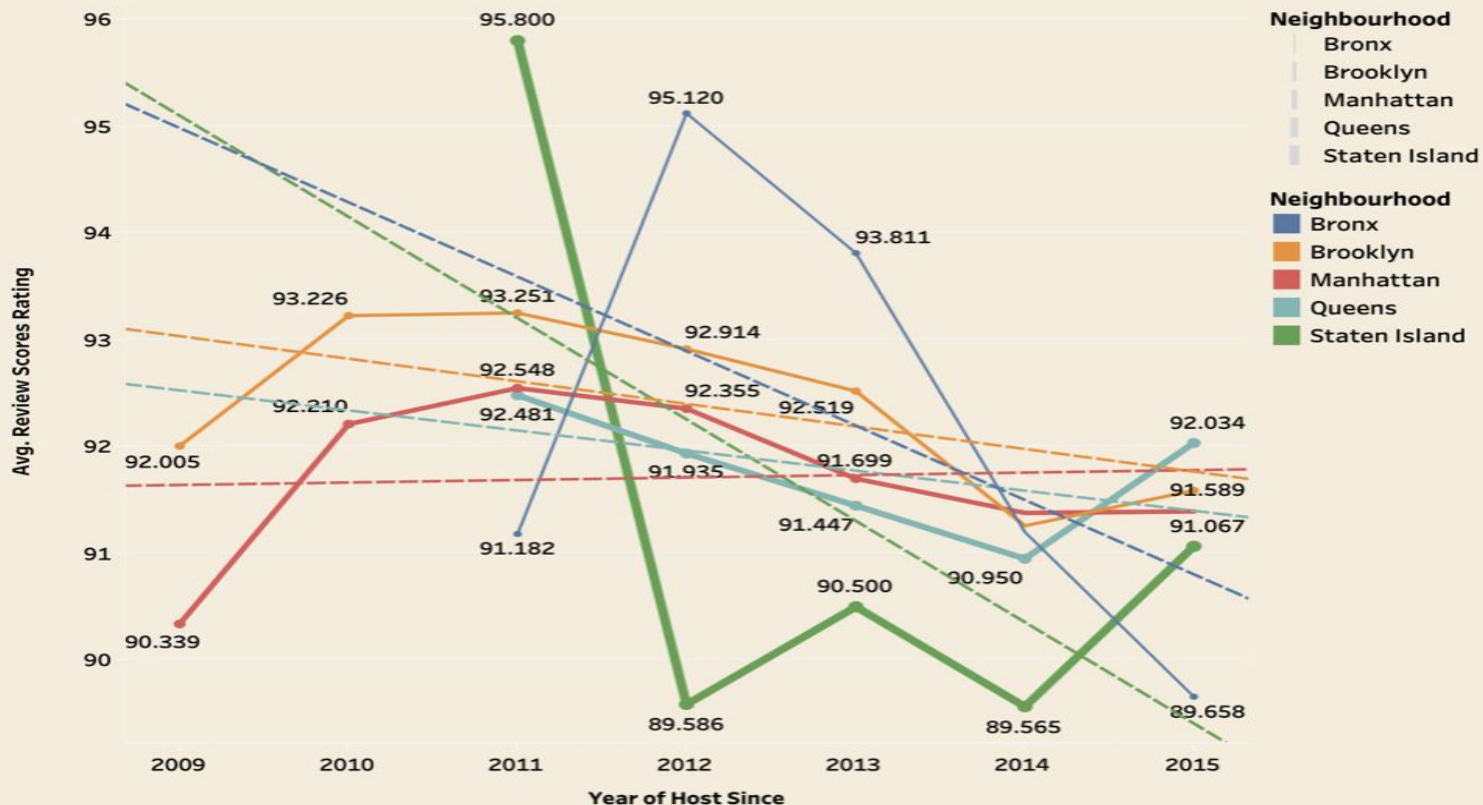


The trend of average of Price (actual & forecast) for Host Since Year. Color shows details about Neighbourhood. Size shows details about Neighbourhood. The data is filtered on Property Type, which keeps 20 of 20 members. The view is filtered on Neighbourhood, which keeps Bronx, Brooklyn, Manhattan, Queens and Staten Island.

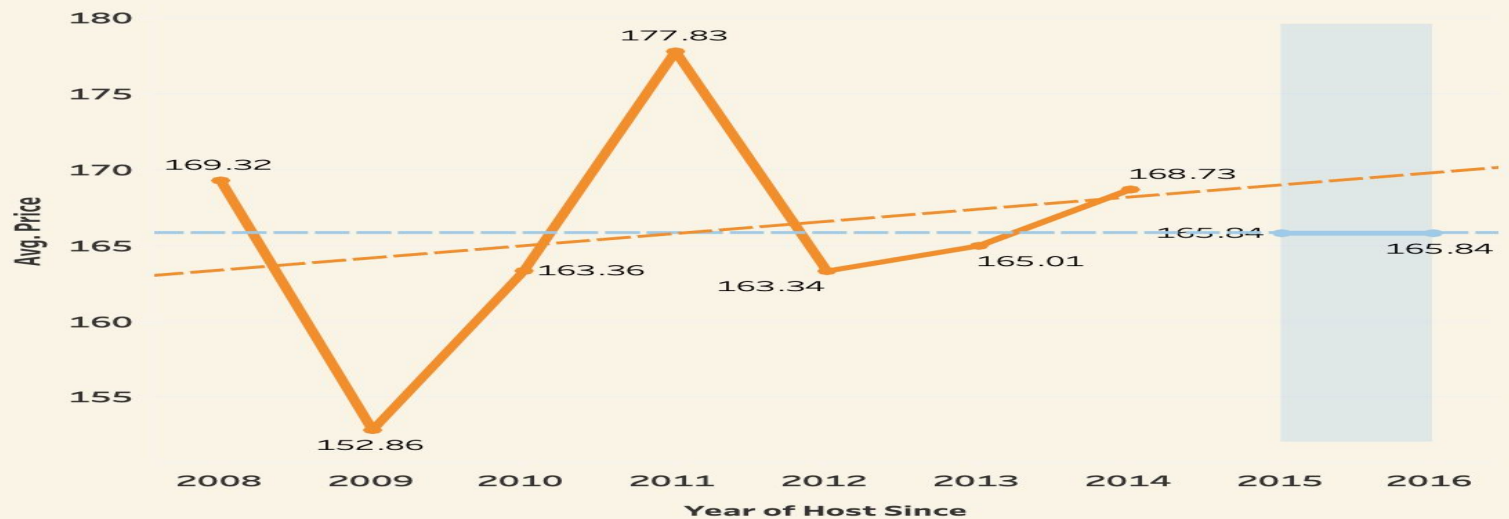
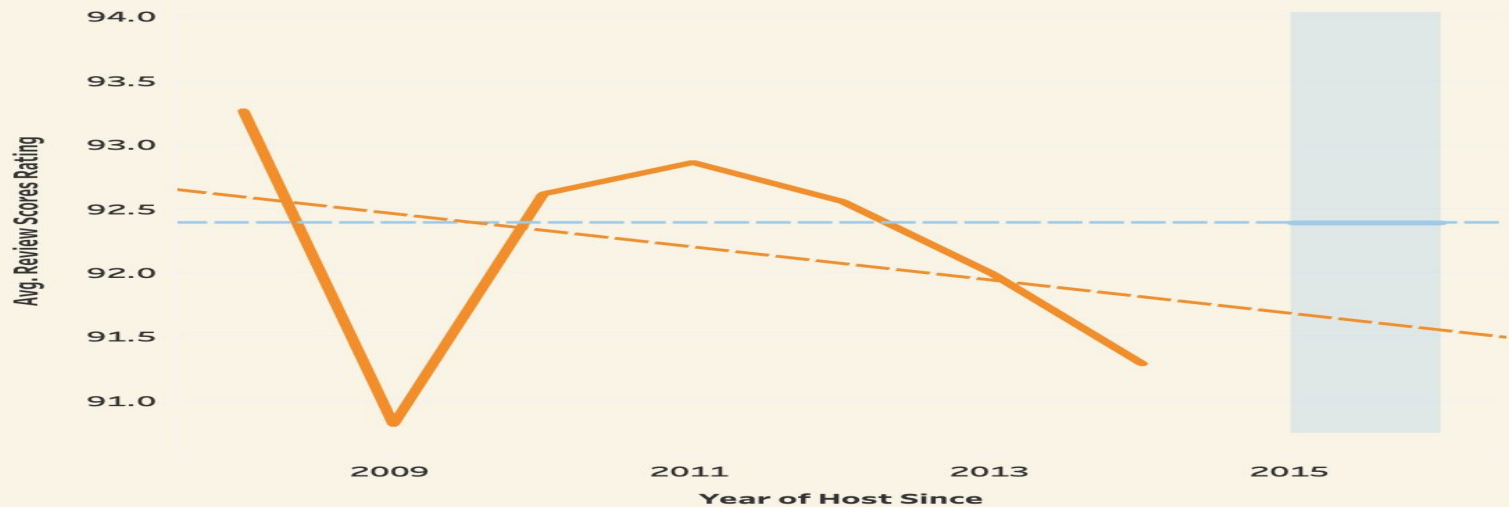




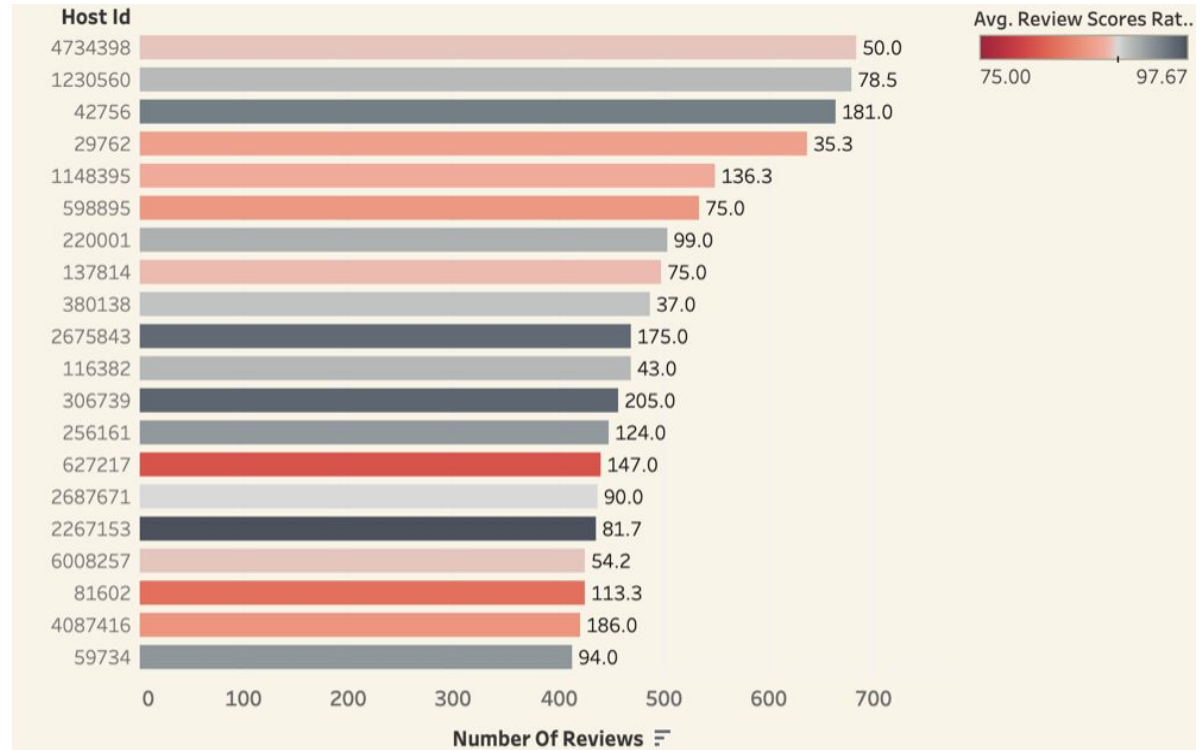
## Ratings by Neighbourhood



The trend of average of Review Scores Rating for Host Since Year. Color shows details about Neighbourhood. Size shows details about Neighbourhood. The data is filtered on Difference in Avg. Review Scores Rating, Action (Neighbourhood,Zipcode), Action (Host Id) and Property Type. The Difference in Avg. Review Scores Rating filter ranges from -6.213793103 to 4.466666667. The Action (Neighbourhood,Zipcode) filter keeps 204 members. The Action (Host Id) filter keeps 24,274 members. The Property Type filter keeps 20 of 20 members. The view is filtered on Host Since Year and Neighbourhood. The Host Since Year filter keeps all values. The Neighbourhood filter keeps Bronx, Brooklyn, Manhattan, Queens and Staten Island.



## - THE PATTERN OF REVIEWS AND PRICE



Sum of Number Of Reviews for each Host Id. Color shows average of Review Scores Rating. The marks are labeled by average of Price. The data is filtered on Action (Neighbourhood,Zipcode), Action (YEAR(Host Since),Neighbourhood), Neighbourhood and Property Type. The Action (Neighbourhood,Zipcode) filter keeps 204 members. The Action (YEAR(Host Since),Neighbourhood) filter keeps 38 members. The Neighbourhood filter keeps Bronx, Brooklyn, Manhattan, Queens and Staten Island. The Property Type filter keeps 20 of 20 members. The view is filtered on Host Id, which keeps 20 of 24,274 members.





# Inside New York

164

Avg Price

92

Avg Review Rating

362,943

Number Of Reviews

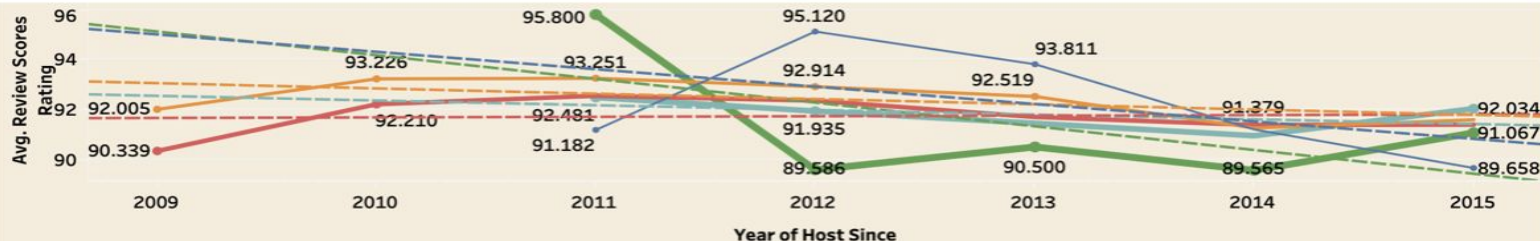
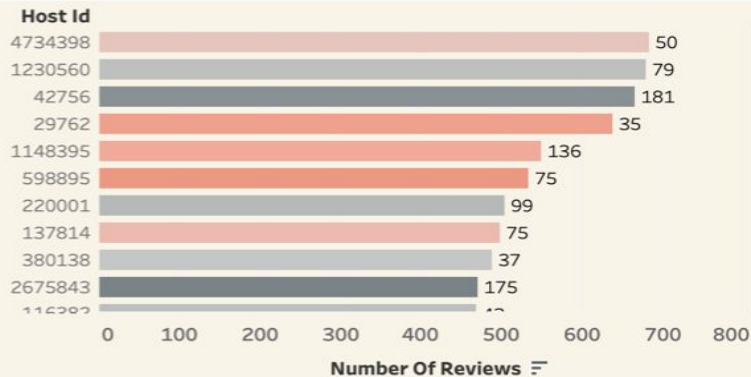
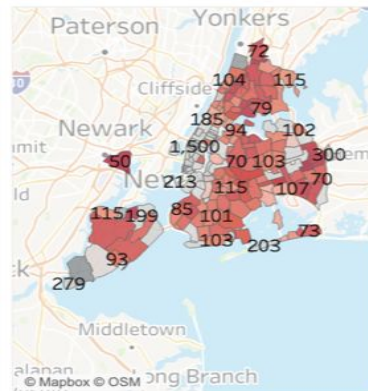
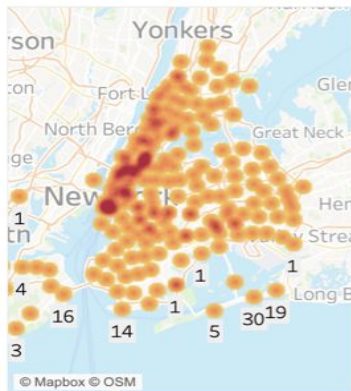
24,274

Number of Host

Glance for area

Property T.. All

Neighbour.. All



airbnb

# SUMMARY

- Dataset need to be improved and updated for more information
- Need to familiar and make myself master of the function and features of Tableau
- According to these visualizations, some pattern and trend can be displayed very easily and quickly

