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# Storytelling Case Study: Airbnb, NYC

Created By:  
Amandeep Gagein,  
Shailjanand Jha,  
Sachin Jangid



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## Objective:

- Identify high-potential hosts and target them for acquisition.
- Analyze customer behavior and preferences to identify profitable neighborhoods and properties.
- Develop property adjustment recommendations to improve customer satisfaction and revenue.
- Provide recommendation to various departments to be prepared for the changes post pandemic.



## Background

- *Airbnb has seen a decline in revenue due to the COVID-19 pandemic and reduced travel demand.*
- *With restrictions lifting and travel increasing, Airbnb wants to prepare for the anticipated demand.*
- *To achieve this, Airbnb has conducted an analysis of a New York Airbnb dataset to gain insights into customer behavior, property characteristics, and pricing trends that will help them increase revenue and improve customer satisfaction.*

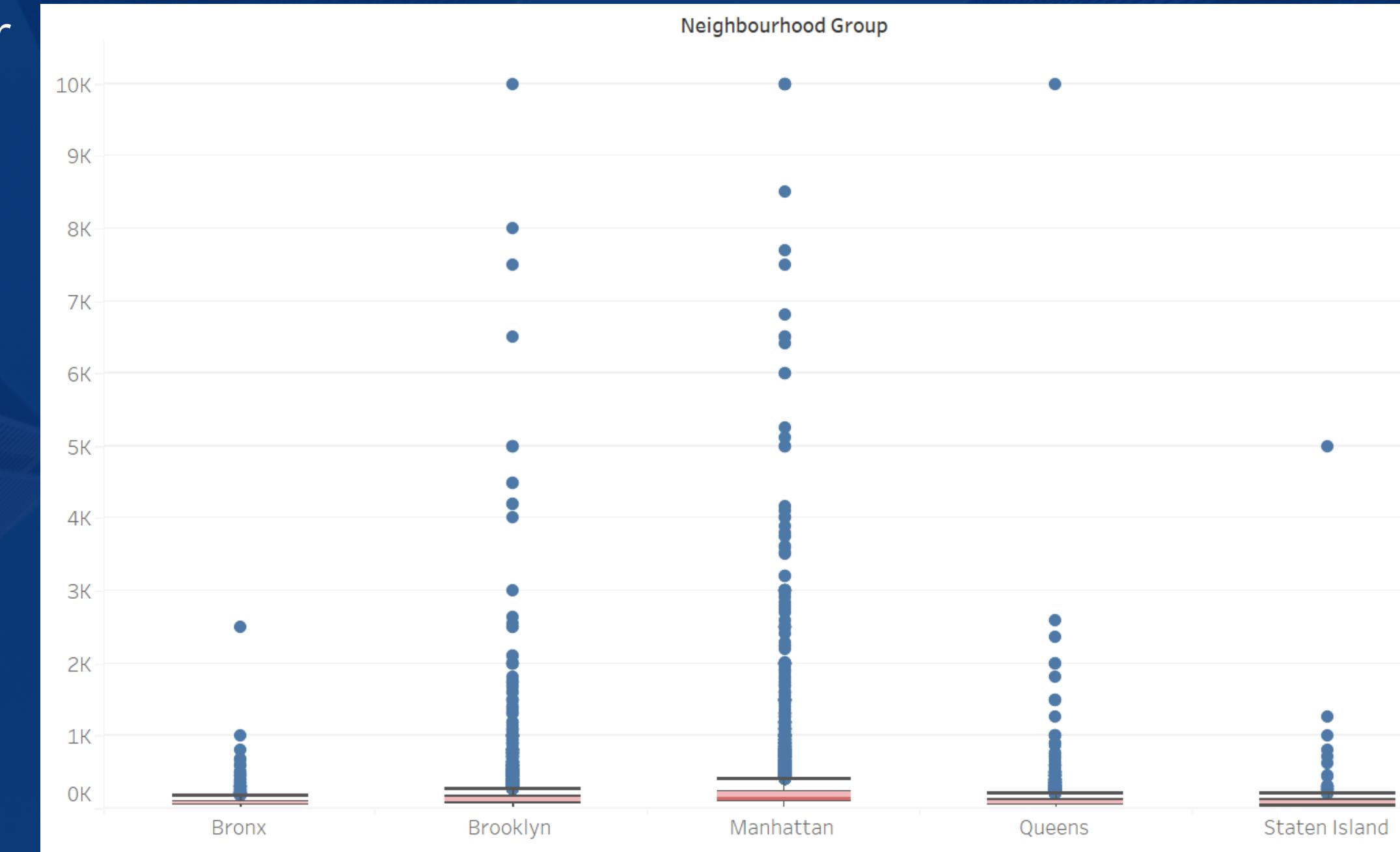


## Data Preparation

- *Data cleaning was performed to remove missing values and duplicates.*
- *Insignificant columns were dropped from the dataset.*
- *Outliers were identified and addressed to ensure data accuracy and reliability.*

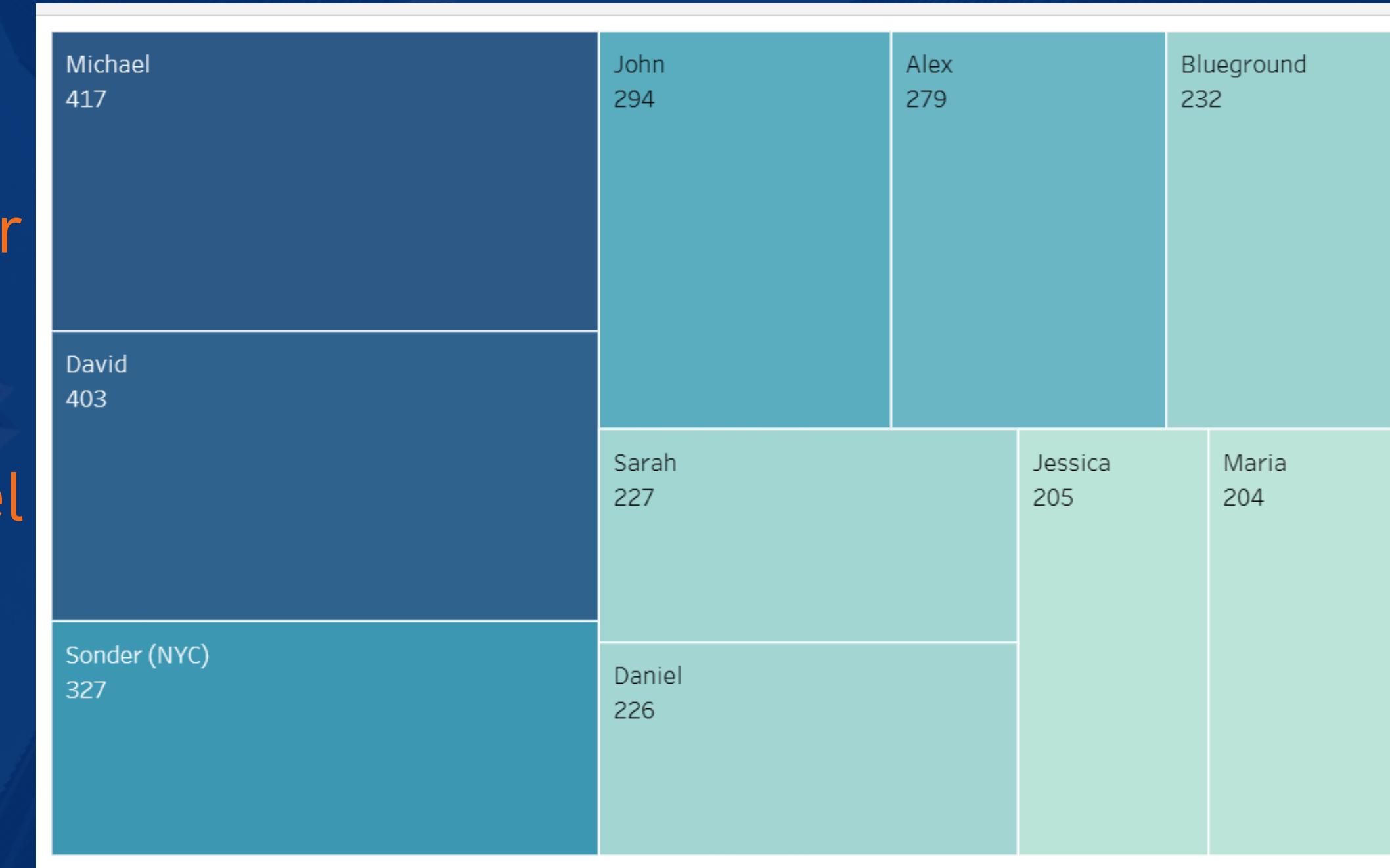
# Price Analysis Neighbourhood wise

- Most of the outliers in Price column are for Brooklyn and Manhattan.
- Also, Manhattan has the highest range of prices for the listings.
- Bronx is the cheapest of them all.
- We can see the median price of all neighbourhood groups lying between \$ 80 to \$ 300.
- Price was highly positively skewed so median was very close the lower quartile with some outliers as seen in the boxplot below.



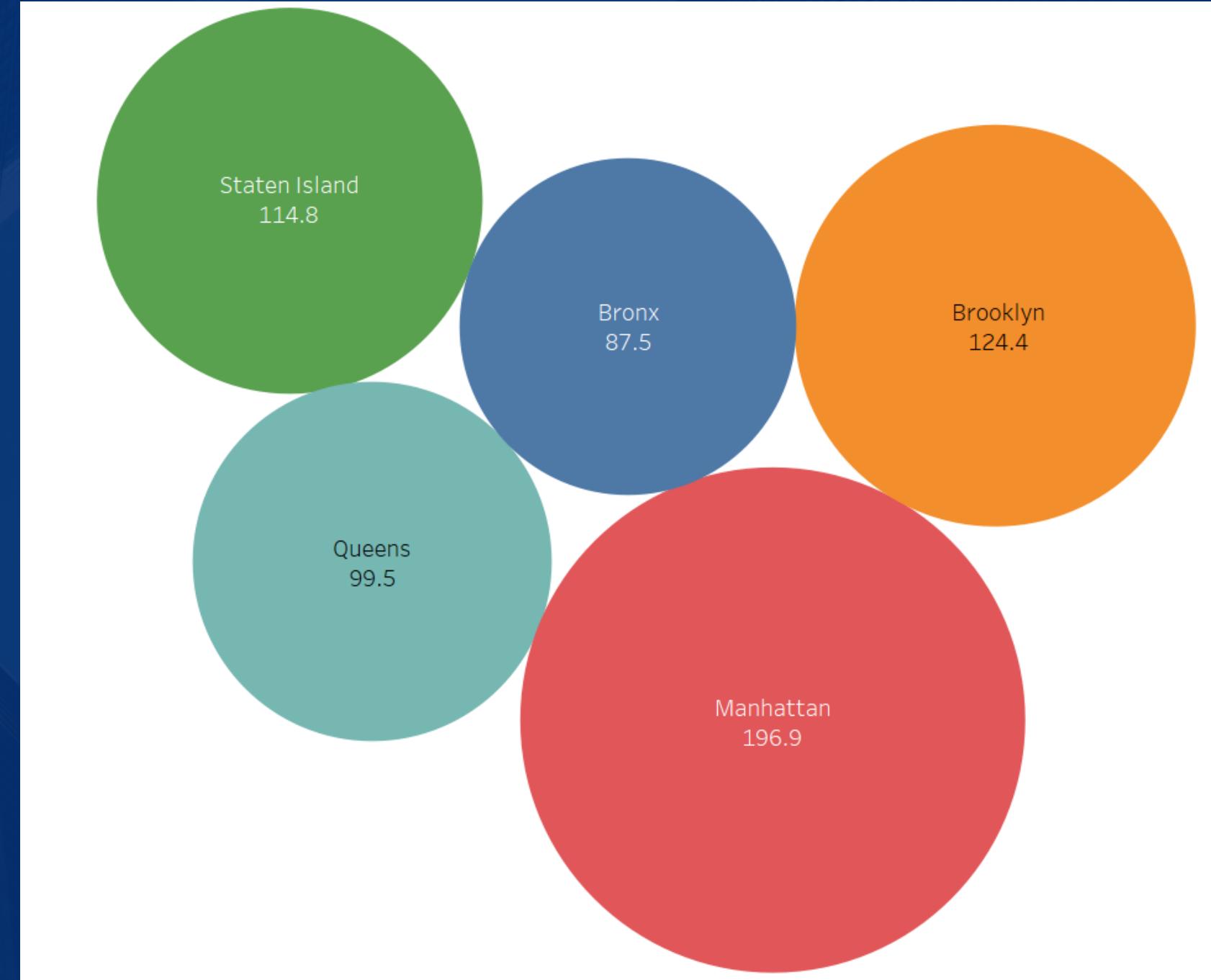
# Top 10 Host

- Host Michael, has been booked most number of times i.e. 417.
- Host David is the second popular host.
- Then there are other hosts like Sonder(NYC), John, Sarah, Daniel and Alex that fall under top 10 hosts.



# Average price of Neighbourhood groups

- The average price of listed properties in Manhattan is around 196.9, which is highest among all neighbourhoods.
- Average price for Brooklyn is second highest i.e. 124.4.
- Bronx appears to be an affordable neighbourhood as the average price is almost half than Manhattan's average price



# Room type

- There are three types of rooms - Entire home/Apartment, Private room & shared room.
- Overall, customers appear to prefer private rooms (45%) or entire homes (52%) in comparison to shared rooms (2.4%).
- Airbnb can concentrate on promoting shared rooms with discounts to increase bookings and also acquire more private listings.

