

# AIRBNB NYC

## Case Study

By – Ajinkya Survase  
Jagruti Desai  
Mohit Thakur



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# Introduction

Airbnb, Inc. is an American company that operates an online marketplace for lodging, primarily homestays for vacation rentals, and tourism activities. Airbnb provides a platform for hosts to accommodate guests with short-term lodging and tourism-related activities. New York City is the most diverse and populated city in the United States. The city is made up of 5 boroughs: Manhattan, Brooklyn, Queens, the Bronx and Staten Island, all of which were “grouped” together into a single city. It is widely recognized as the global centre for the financial services industry. It’s also the heartbeat of the American media, entertainment (along with California), telecommunications, law and advertising industries.

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# Problem statement

For the past few months, Airbnb has seen a major decline in revenue. Now that the restrictions have started lifting and people have started to travel more, Airbnb wants to make sure that it is fully prepared for this change. So, analysis has been done on a dataset consisting of various Airbnb listings in New York.

# Objectives



The presentation will focus mainly on the following points:



Understand customer preferences and customer experience in airbnb listings



Understand the pricing relation to various parameters



Recommendations to improve quality of new acquisitions and customer experience.

# Key Insights



To understand some important insights we have explored the following questions:



Customer preference for neighbourhood & room type



Property demand based on minimum nights offered



Price range preferred by customers



Understanding Price variation w.r.t Room Type & Neighbourhood



Understanding Price variation w.r.t Geography

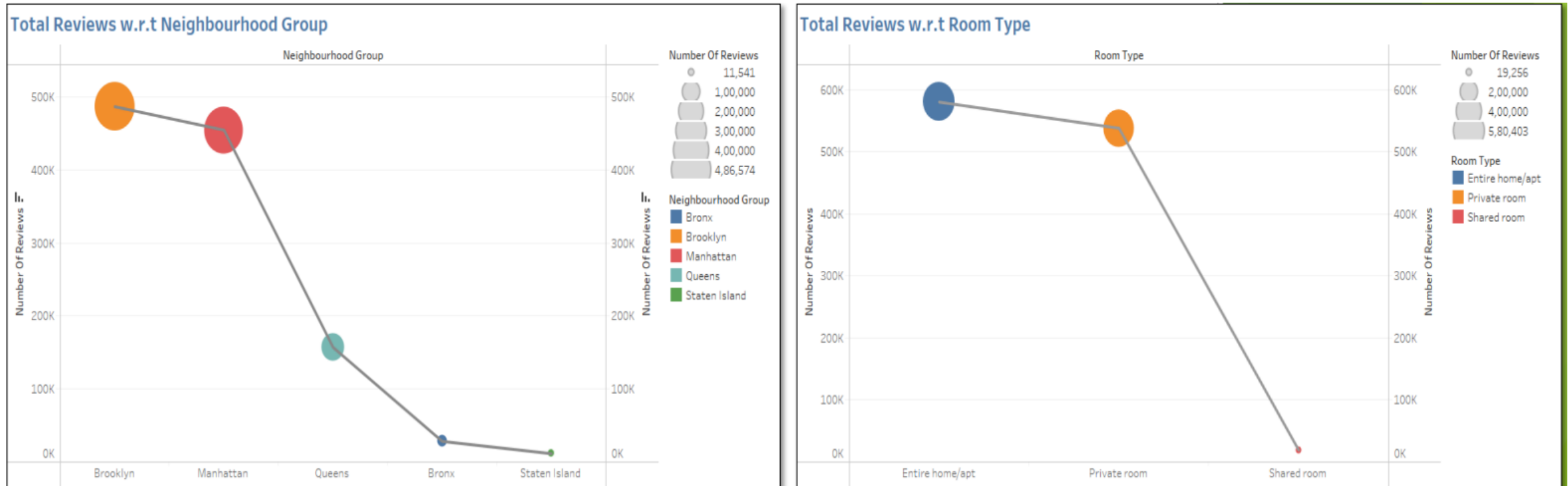


Top reviewed properties



# Customer preference for neighbourhood

There are three types of rooms - Entire home/Apartment, Private room & shared room. Customers prefer private rooms or entire homes in comparison to shared rooms. Also, we can see maximum reviews in listings for Manhattan & Brooklyn, implying that more bookings happen in these neighbourhoods. (The higher number of customer reviews imply higher satisfaction)



## Customer preference for neighbourhood w.r.t Room type

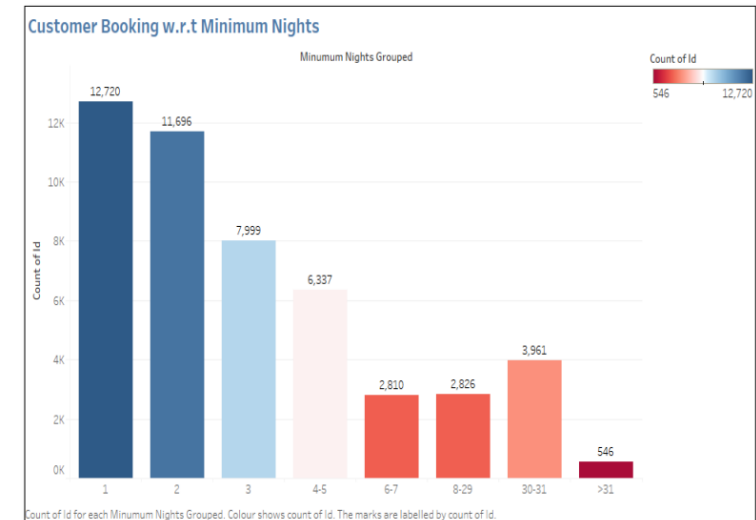
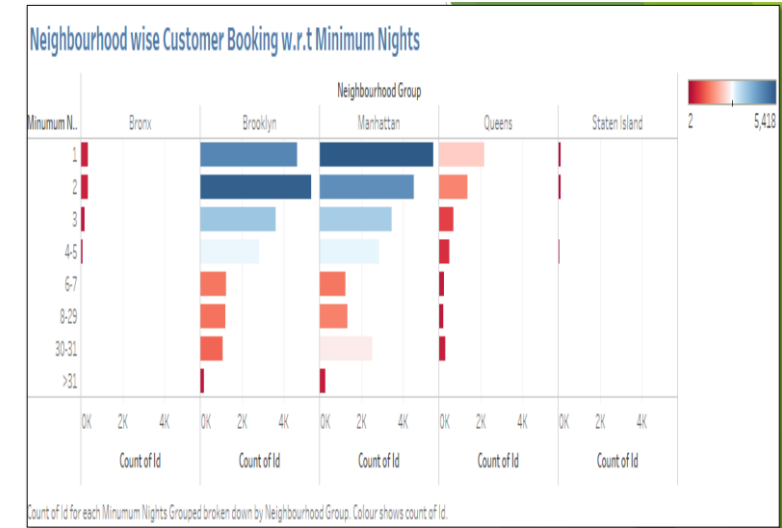
- Recommendation:
- ☐ Airbnb can concentrate on promoting shared rooms with targeted discounts to increase bookings.
- ☐ New acquisitions can be explored to acquire 'private rooms' in Manhattan and Brooklyn and 'entire homes' in Bronx and Queens.





# Property demand based on minimum nights offered

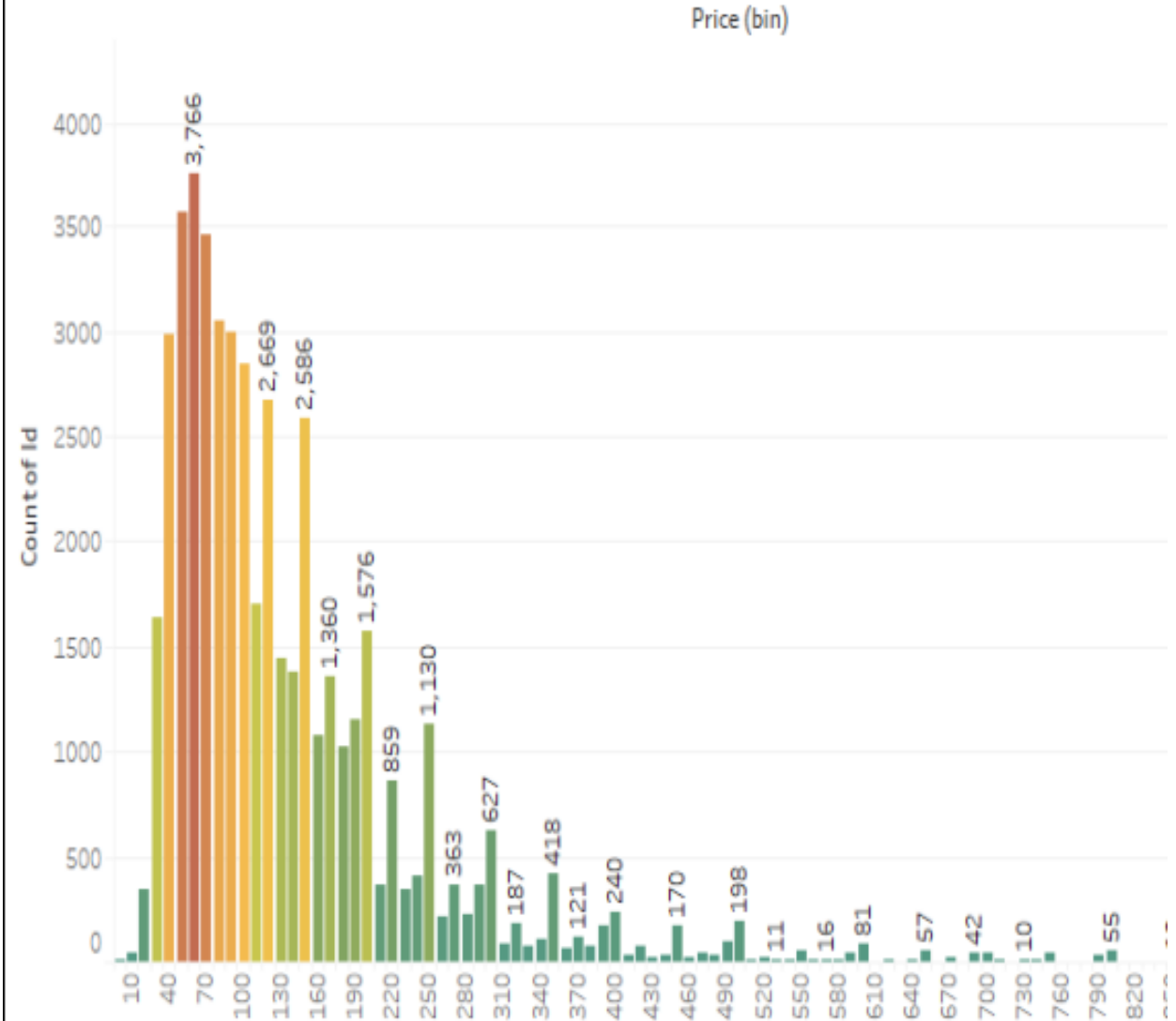
- The listings with Minimum nights 1-6 have the most number of bookings. We can see a prominent spike in 30 days. This would be because customers would prefer renting out on a monthly basis. After 30 days, we can also see small spikes at 60 & 90 days, this can also be explained by the monthly rent taking trend.
- Recommendation:
  - More number of hosts & listings with monthly rental duration (30-60-90) can be acquired. We see a good potential in the 30-day rental window. Manhattan & Brooklyn have higher number of 30 day bookings compared to the others, these areas can be further targeted.
  - Also, weekly or bi-weekly rentals can also be acquired as these can be used customers stranded in NYC for quarantine purposes.



# Price range preferred by customers

- We have taken pricing preference based on two parameters – volume of bookings done in a price
- range and number of reviews in a price range.
- The favourable price range is \$40 - \$190. This is the price range most preferred by most customers.
- Recommendation:
- ☐ New acquisitions and expansion can be done in the price range of \$40 - \$190 as it satisfies both
- parameters of volume of customer traffic and customer satisfaction.

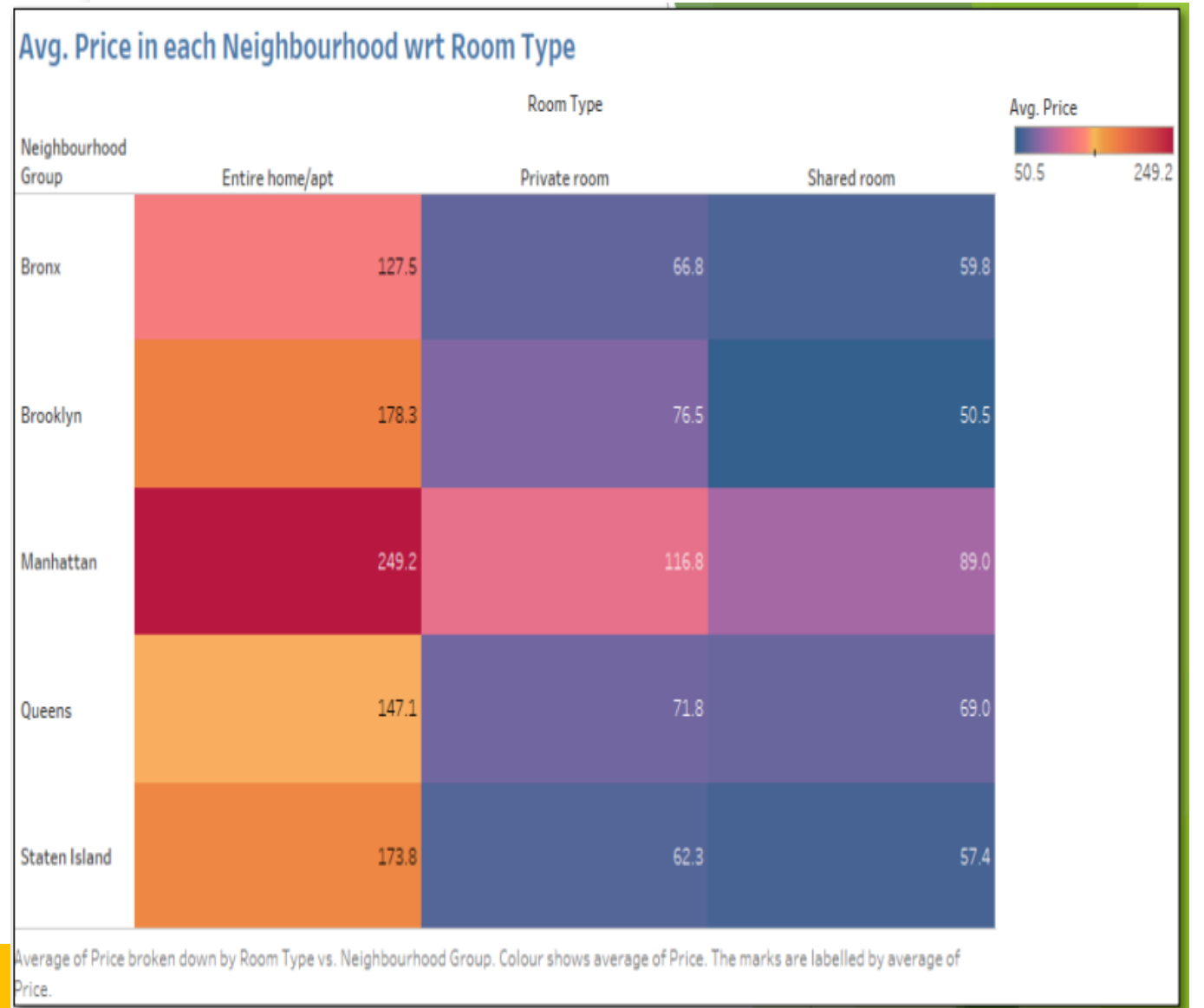
Preferred Price By customers



Count of Id for each Price (bin). Colour shows count of Id. The marks are labelled by count of Id. The view is filtered on Price (multiple members selected).

## Understanding Price variation w.r.t Room Type & Neighbourhood

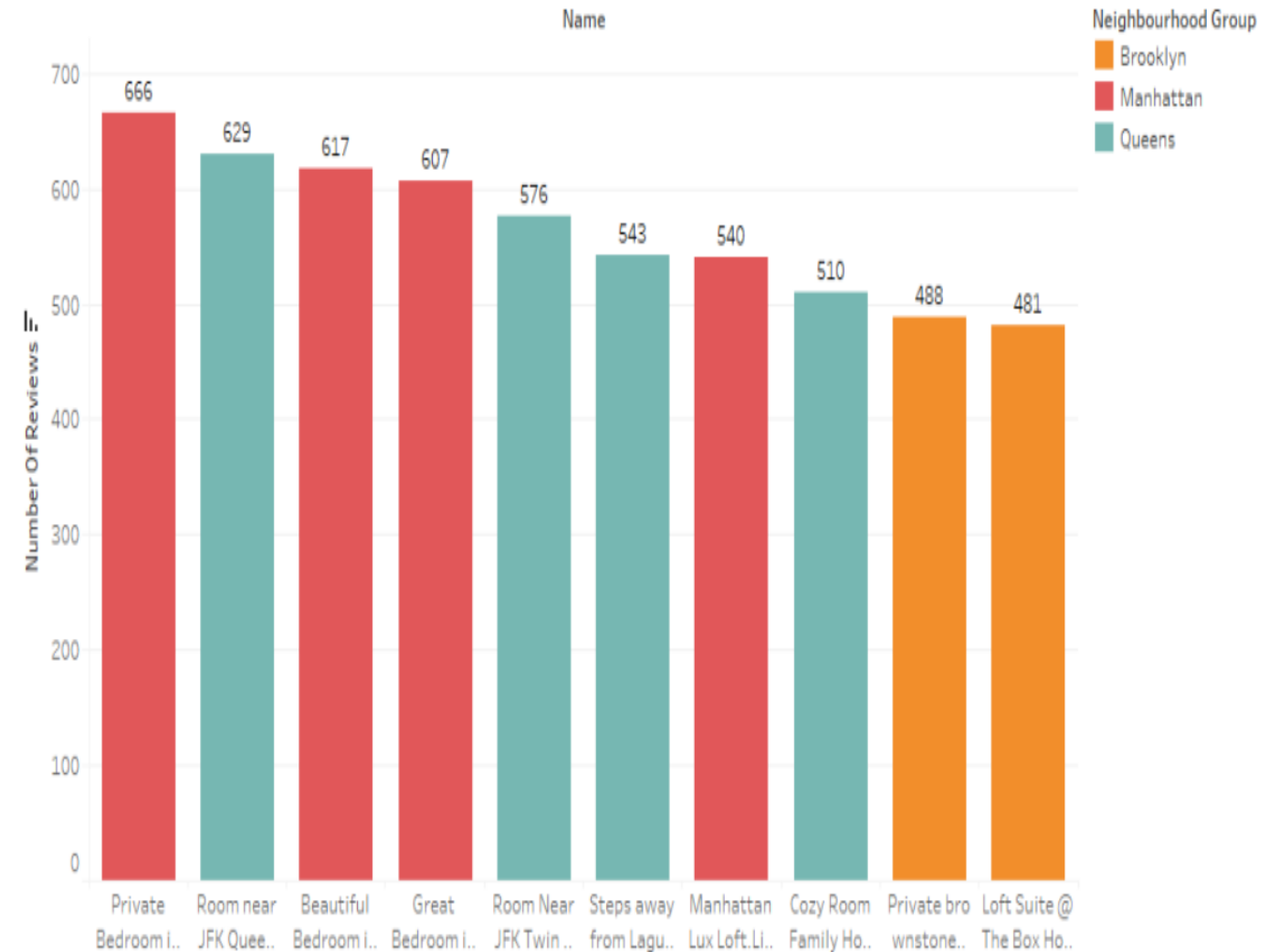
- Manhattan appears to have the highest average price of \$196.9. The 'Entire home/apt' room type in Manhattan is the most expensive at \$250, much higher than the overall average. □ 'Shared Room' type is the ch
- Recommendation:
- 'private rooms' of Manhattan & Brooklyn and 'entire homes' in Bronx and Queens Fall in the favourable price range (\$40-\$190).
- Brooklyn has an average price of \$124. As there are already many listings available in Manhattan, Brooklyn can be considered for
- expansion.eapest in Brooklyn.



# Top reviewed properties

- Manhattan, Brooklyn and Queens have the most liked properties (most reviewed)..
- The most reviewed property “Private Bedroom in Manhattan”, though it appears to be steeply priced still has managed to get the maximum number of reviews making it the most favourable property in NYC.

Top 10 Property as per Reviews



Sum of Number Of Reviews for each Name. Colour shows details about Neighbourhood Group. The marks are labelled by sum of Number Of Reviews. The view is filtered on Name, which has multiple members selected.

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# Recommendations

- Promotion of shared rooms with targeted discounts to increase bookings.
- More number of hosts & listings with monthly rental duration (30-60-90) can be acquired. We see a good potential in the 30-day rental window. Manhattan & Brooklyn have higher number of 30-day bookings compared to the others; these areas can be further targeted.
- Weekly or bi-weekly rentals can also be acquired, as these can be used customers stranded in NYC for quarantine purposes.
- New acquisitions and expansion can be done in the price range of \$40 - \$190 as it satisfies both parameters of volume of customer traffic and customer satisfaction.
- New acquisitions can be explored to acquire ‘private rooms’ in Manhattan and Brooklyn and ‘entire homes’ in Bronx and Queens. □ Brooklyn has an average price of \$124. As there are already many listings available in Manhattan, Brooklyn can be considered for expansion.
- Increasing acquisitions and new properties in coastal regions can increase customer bookings.



# Appendix

## Methodology

- ❑ The data was analysed through univariate and bivariate analysis.
- ❑ The analysis and visualizations were done using Tableau considering various parameters.
  - ❑ The main parameters that have been taken into account for analysis are –
    - ❑ Geography based bookings
    - ❑ Bookings based on room type
    - ❑ Number of reviews
      - ❑ Minimum number of nights
    - ❑ Inferences have been made keeping in mind the above parameters



Thank you

