

AIRBNB – NYC CASE STUDY

GROUP MEMBERS :

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BUSINESS UNDERSTANDING

Airbnb is an American company based in San Francisco, California. It operates an online marketplace for lodging, primarily homestays for vacation rentals, and tourism activities. The platform is accessible via the website and mobile app.

After all, being an online marketplace for hosting personal homestays and private apartments in the majority, the company had two types of customers. One who hosts their place and the another who books the place for a particular time is the end consumer utilizing the hosted place. Airbnb earns commission from both ends and hence must make sure both of its customers are able to generate value from their business. They also must make the hosted place offered on their platform provide the best services at reasonable prices and lookout for the best technology to ease out the booking process for the end consumer without hassle.

OBJECTIVE

- 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.

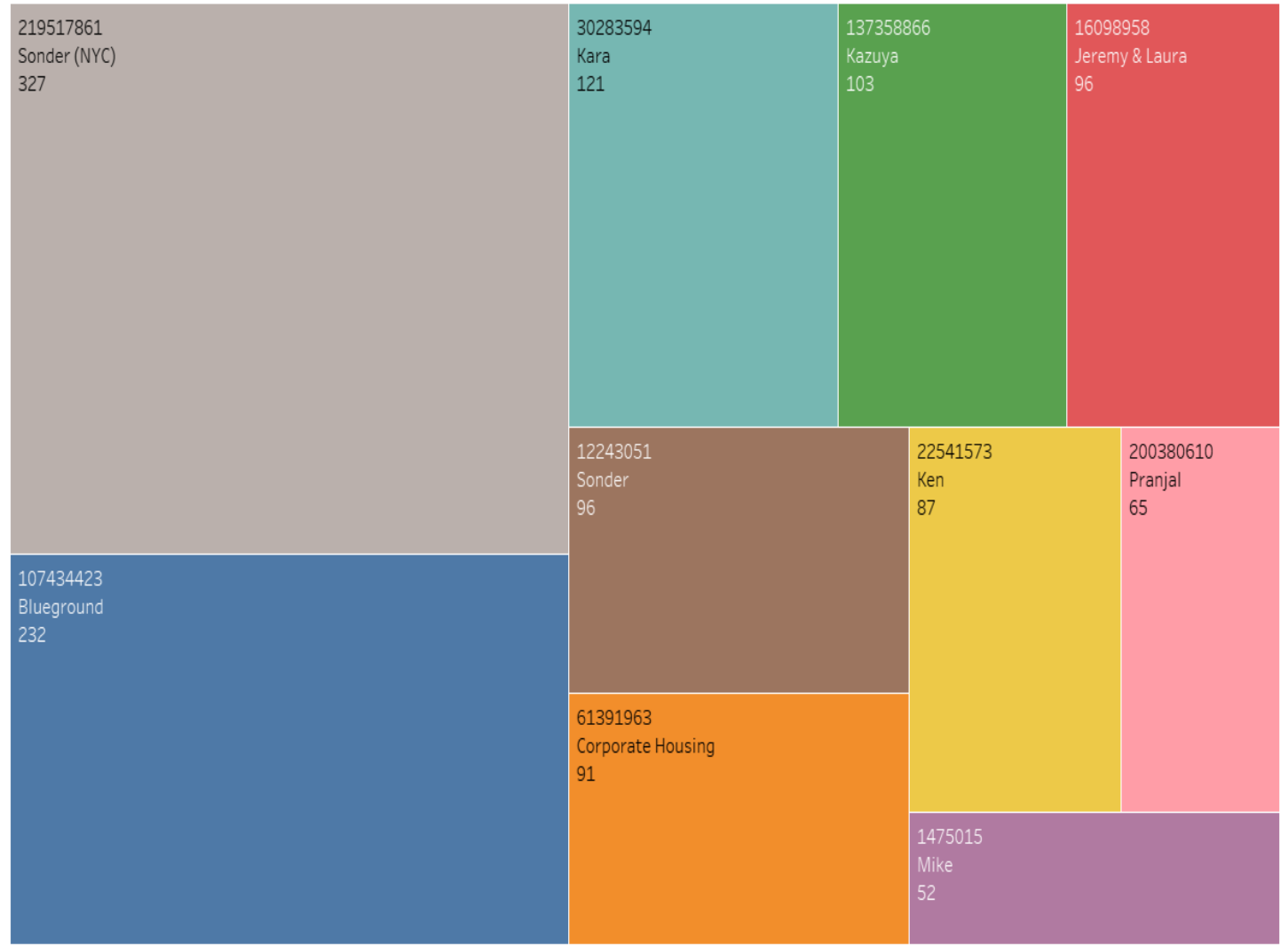
DATA PREPARATION

- Cleaned the data to remove null values.
- Modified the columns as per the requirement.
- Identified the outliers to improve the data validations.

TOP 10 HOSTS

- Based on the data we have found the top 10 hosts on the basis of number of reviews.
- In the list Sonder is on top with 327 reviews followed by Blueground and so on.
- So we can find the top performers from this visualization.

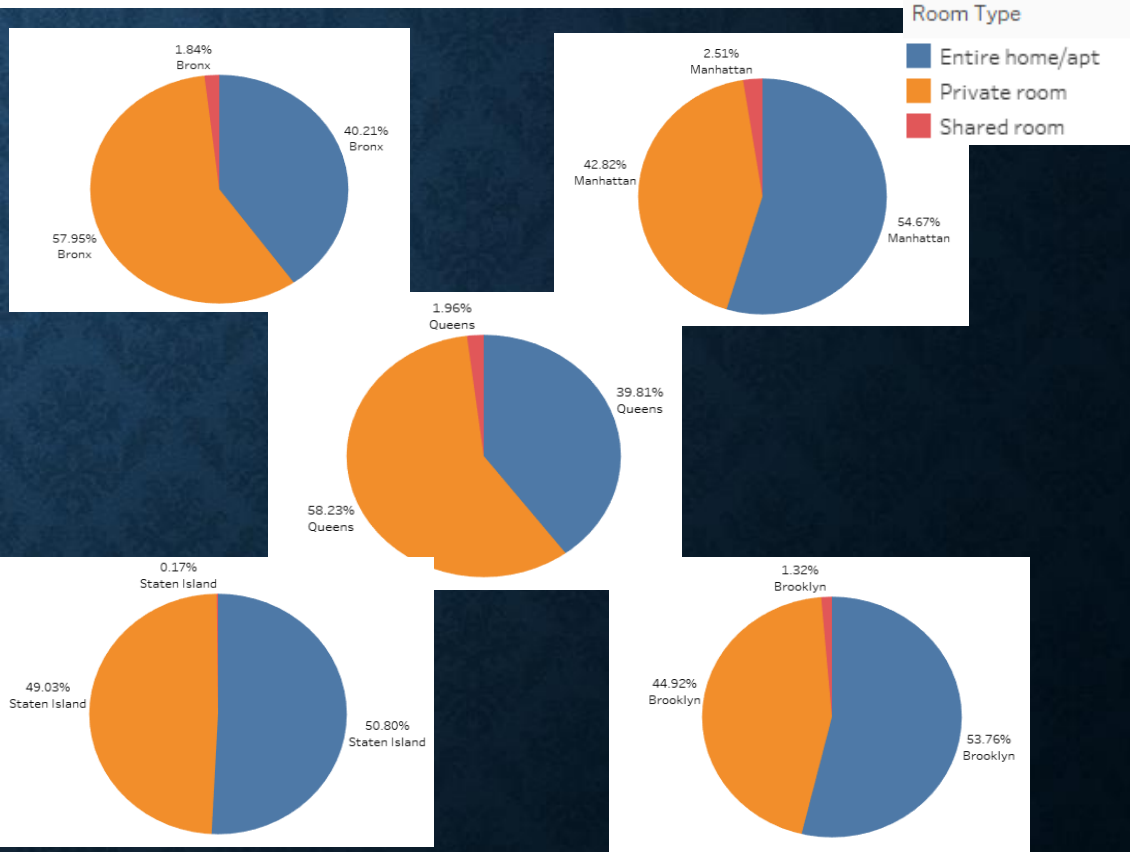
Top 10 hosts



ROOM TYPE BASED ON NEIGHBORHOOD GROUPS

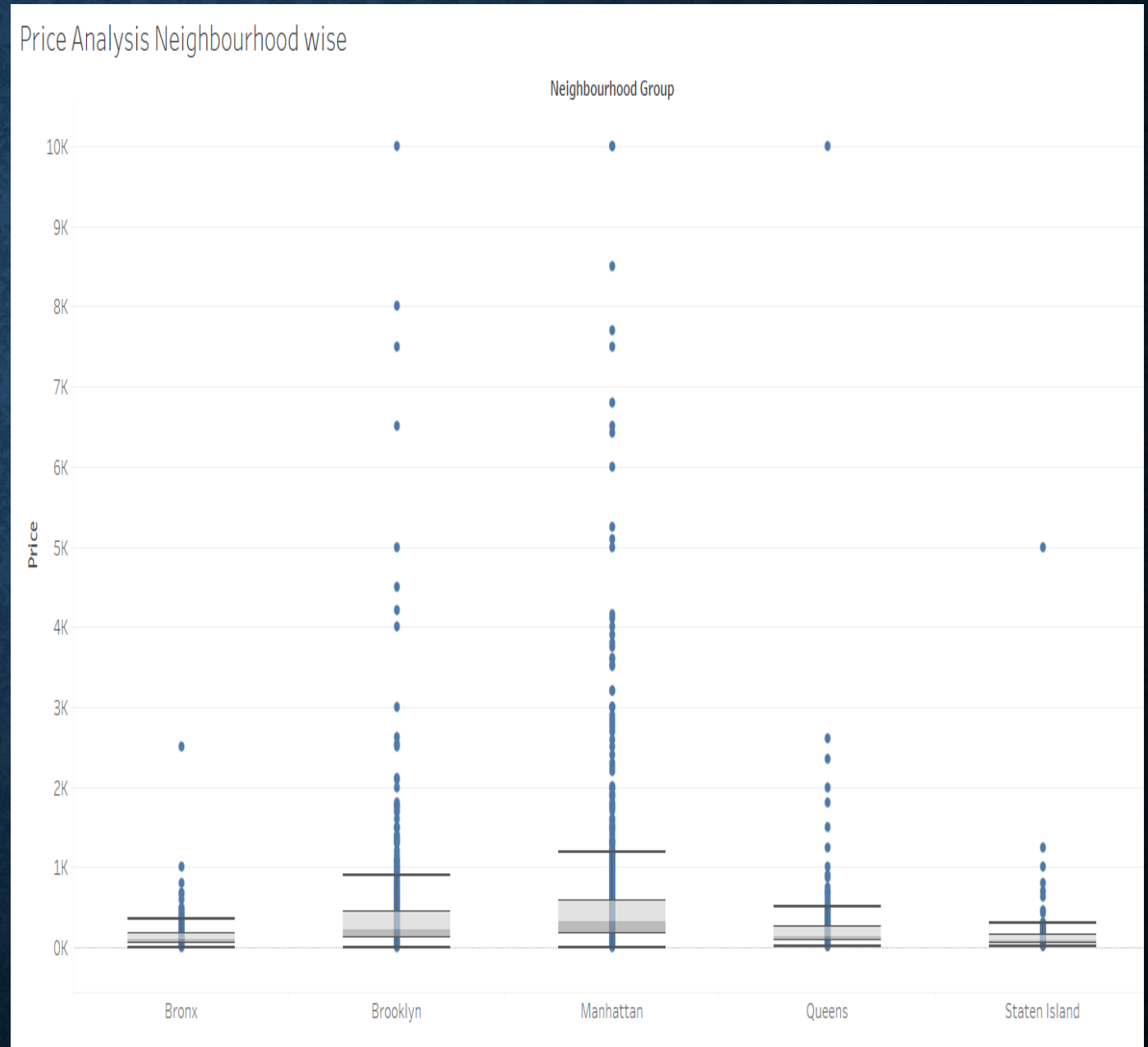
- There are three type of hosts/ rooms: entire room/ APT, private room and shared room.
 - Overall as per customer preferences entire room is most preferred with 52 %, followed by private room 46% and shared room 2%.
- As a result to this we should focus on shared room by acquiring more and promoting this to increase the bookings.

Room Type	% of Total Number Of Reviews along Room Type
Entire home/apt	51.85%
Private room	46.26%
Shared room	1.89%



PRICE ANALYSIS BASED ON NEIGHBORHOOD GROUPS

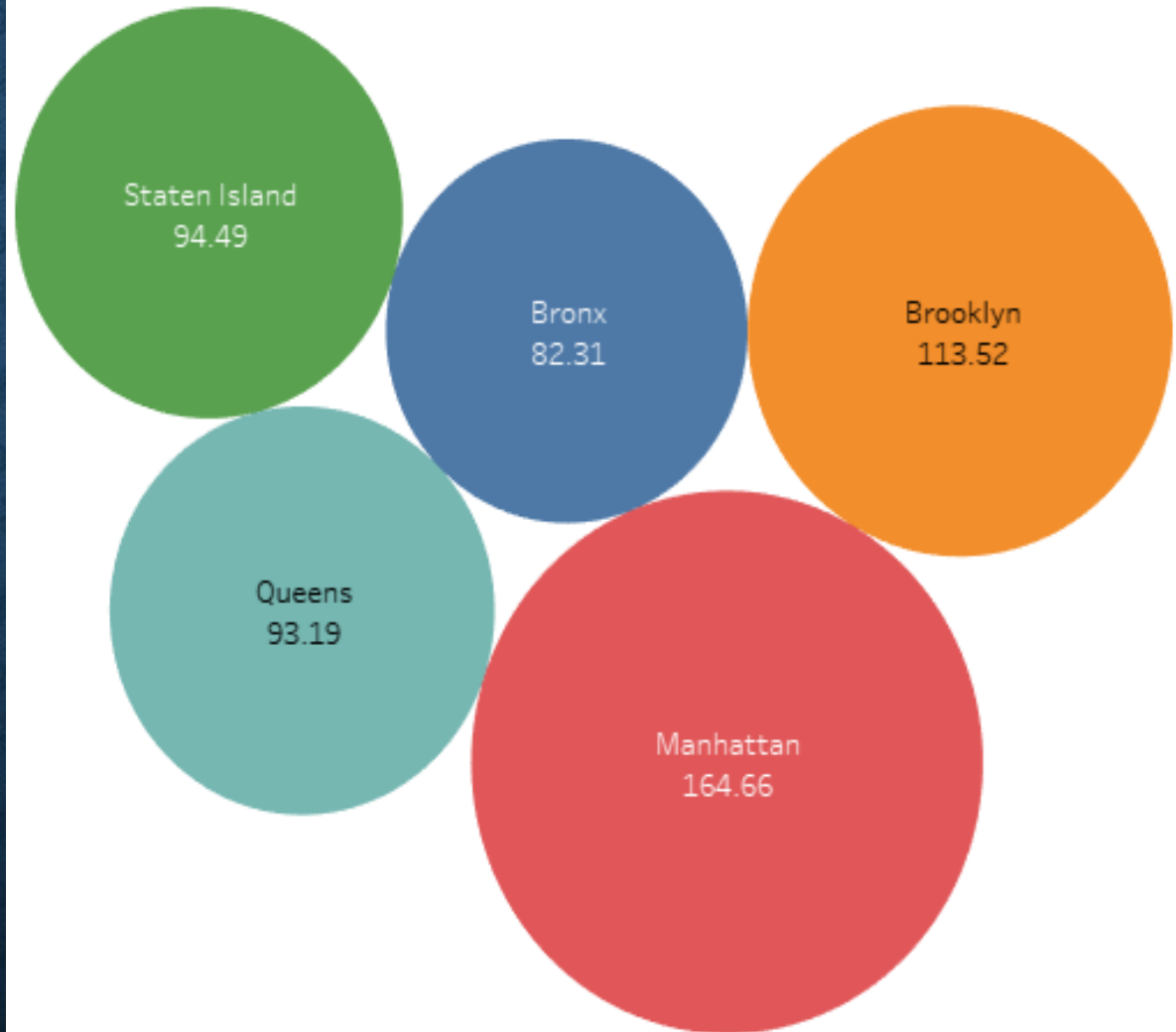
- Most of the outliers in Price column are for Brooklyn and Manhattan.
- Also, Manhattan has the highest range of prices for the listings.
- Bronx is the cheapest of them all.
- We can see the median price of all neighbourhood groups lying between \$ 80 to \$ 300.
- Price was highly positively skewed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



AVERAGE PRICE BASED ON NEIGHBOURHOOD GROUPS

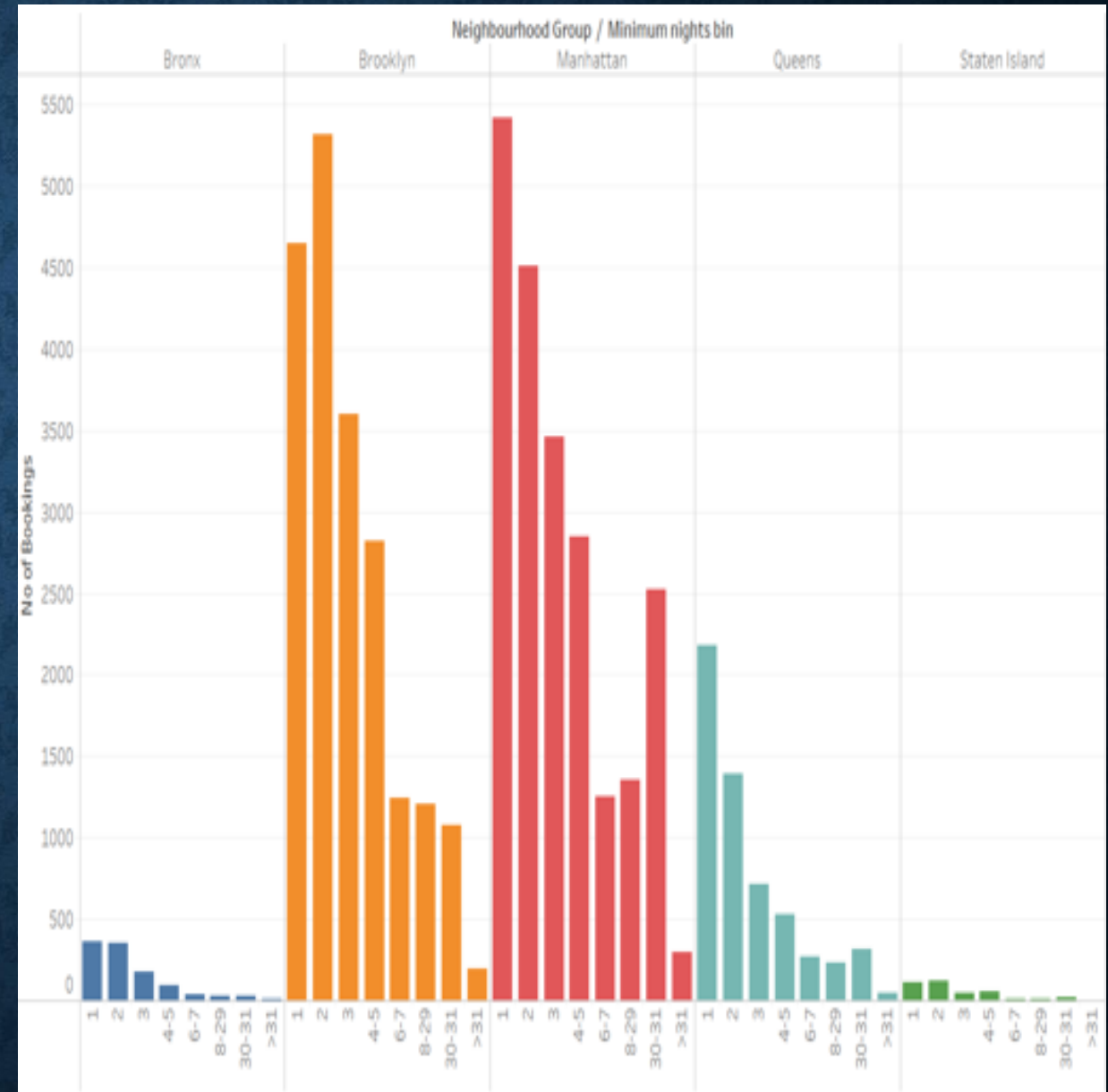
- The average price of listed properties in Manhattan is around 164.66, which is highest among all neighbourhoods.
- Average price for Brooklyn is second highest i.e. 113.52.
- Bronx appears to be an affordable neighbourhood as the average price is almost half than Manhattan's average price.

AVERAGE PRICE BASED ON NEIGHBOURHOOD GROUPS



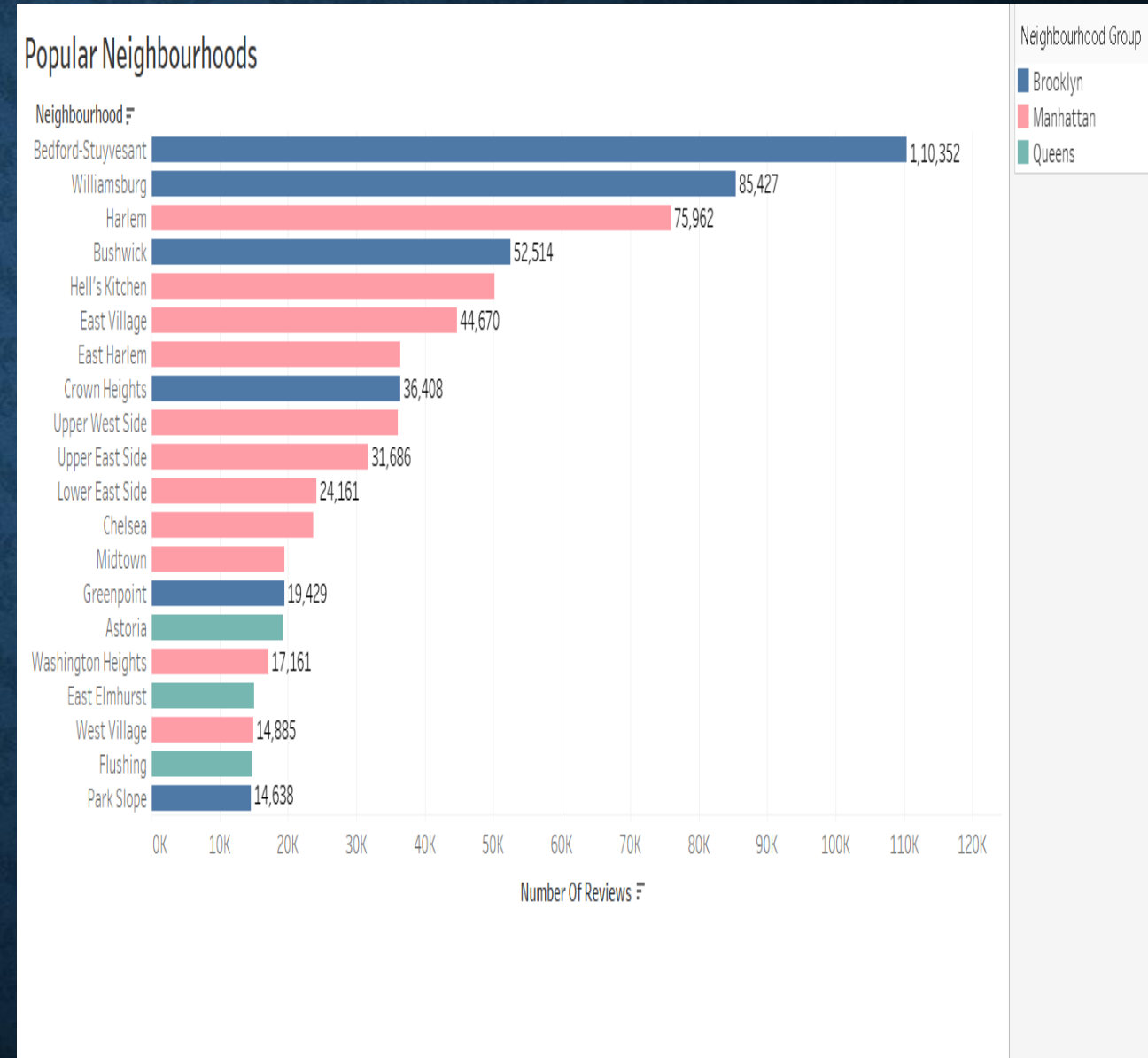
CUSTOMER BOOKINGS BASED ON MINIMUM NIGHTS

- The listings with Minimum nights 1-5 have the most number of bookings. We can see a prominent spike in 30 days, this would be because customers would rent out on a monthly basis.
- After 30 days, we can also see small spikes, this can also be explained by the monthly rent taking trend.
- Manhattan & Queens have higher number of 30 day bookings compared to the others. The reason could be either tourists booking long stays or mid-level employees who opt for budget bookings due company visits.



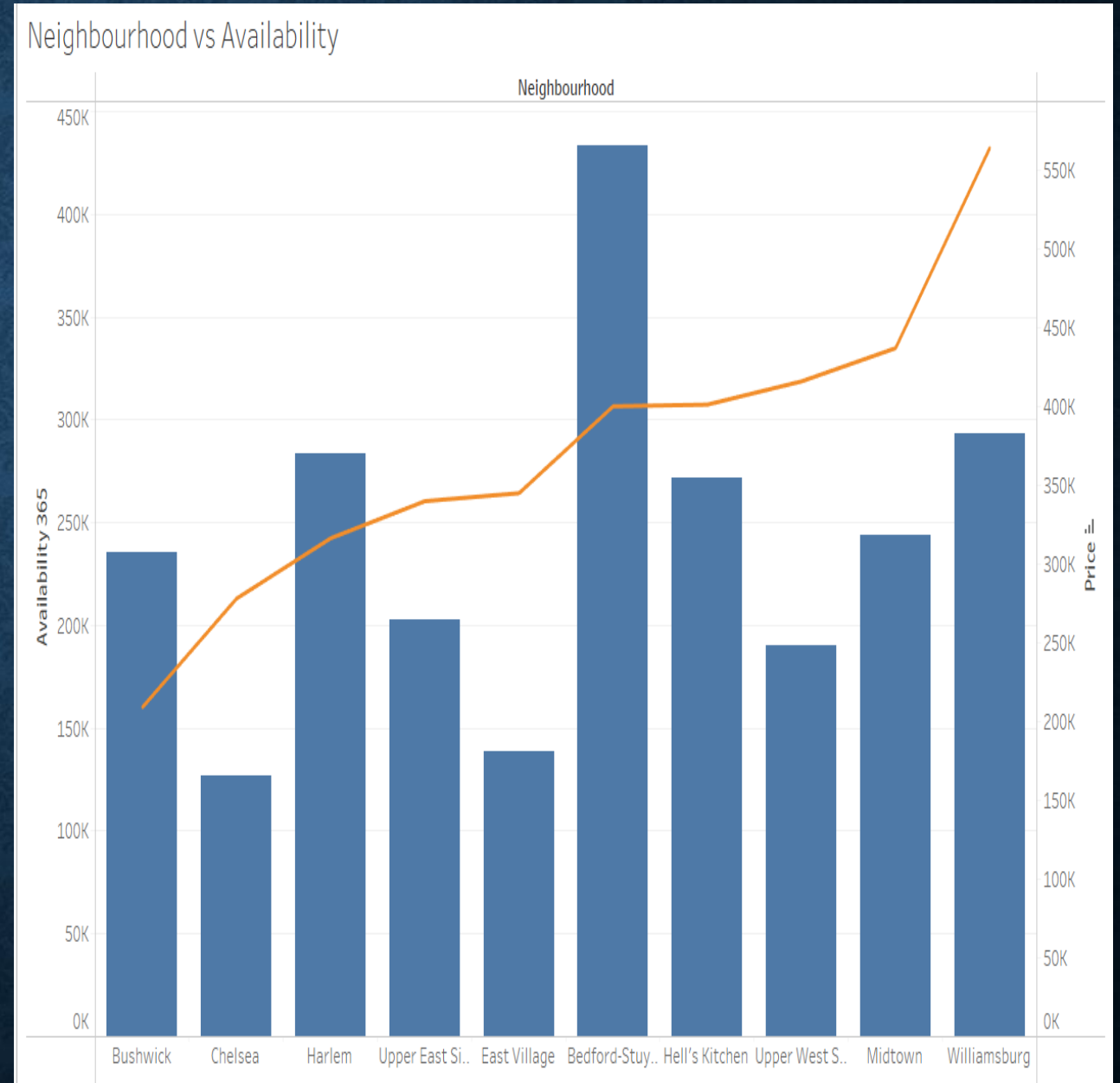
POPULAR NEIGHBORHOODS

- We see that Bedford-Stuyvesant from Brooklyn is the highest popular with 1,10,352 no of reviews in total followed by Williamsburg.
- Harlem from Manhattan got the highest no of reviews followed by Hell's kitchen.
- The higher number of customer reviews imply higher satisfaction in these localities.



NEIGHBOURHOOD VS AVAILABILITY

- Availability of Bedford is highest and its price is on the lower side. It is a good choice for customers.
- After Bedford, Harlem follows the same trend.
- Chelsea's availability low but it is costly.
- On the other hand, Williams's price is high and has average availability.



FINDINGS AND RECOMMENDATIONS

- Majority of the customers prefer a price range of 120\$ to 130\$ on average for a stay. As most of them have provided a good number of reviews between this price range.
- On average Entire home/apt types are preferred more by the customers followed by Private rooms and then Shared Rooms. Mostly because they are also available for a higher number of minimum night's stay window booking as compared to Private and Shared rooms.
- Manhattan and Brooklyn are the top neighbourhoods in offering maximum-minimum nights stay.
- Also based on the analysis we can say that they need to focus upon Staten Island to increase the listings and availability so that the business in future can grow more.
- To connect with the low performers and understand the challenges faced by them because of which the business is low and provide solutions for better approach.

THANK

YOU !

