



AIRBNB Case Study

Revenue Analysis

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Background of the Case Study

- During Covid, Airbnb saw a major decline in revenue. Post Covid people have started to travel more, Airbnb wants to make sure its prepared for this change and wants us to help with this process.

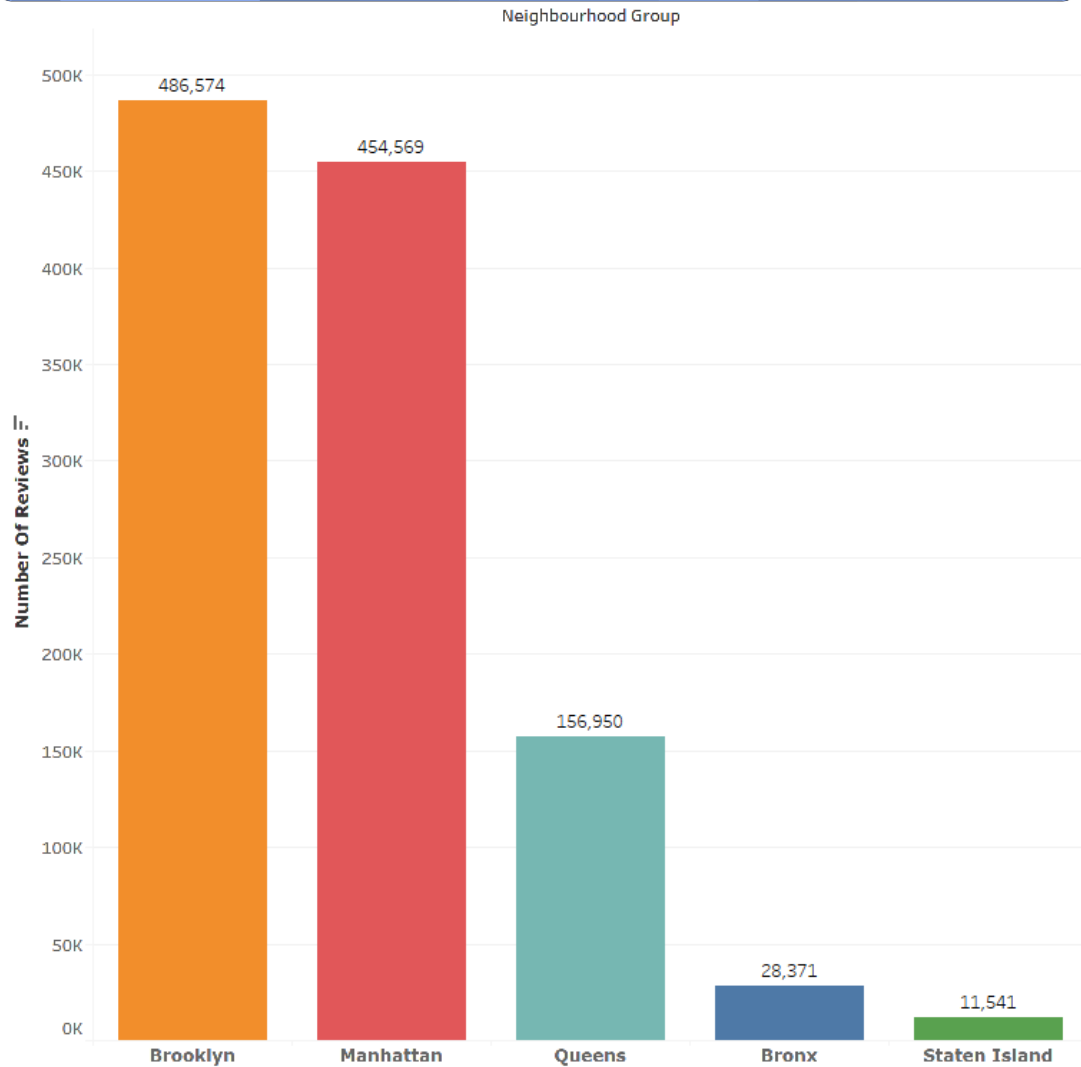
Objective and Agenda

- Deriving Key insights to understand the Airbnb business before covid.
- Analyze the data and find patterns to understand customer preference.
- We'll be using different cuts of data to derive the insights for making suggestions using different datapoints including Price, Neighborhood Groups, Availability, Reviews etc.
- Suggest steps through those analytics to drive revenue revival post covid.

Target Group of this Presentation

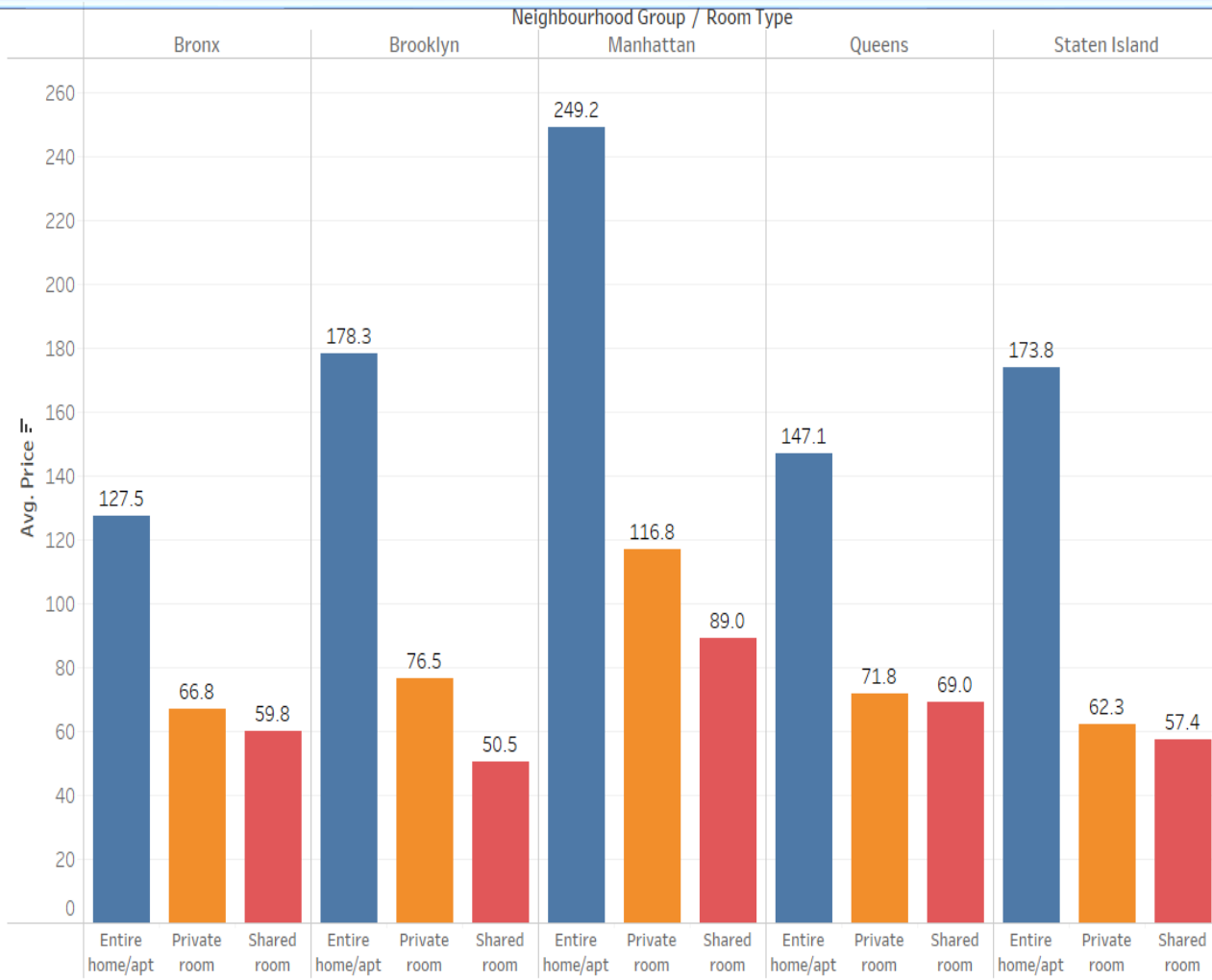
- Data Analysis Managers
- Lead Data Analyst

What are the neighbourhood groups they need to target?



- Brooklyn (486,574) has got the greatest number of reviews and Staten island has the lowest (11,541)
- Brooklyn and Manhattan seem to be doing good with 82% of the reviews but the other 3 neighborhood groups are lacking (18%) as per the number of reviews and can be targeted by the company to maximize the revenue.
- Also, Brooklyn and Manhattan can further be focused to further improve as they the biggest group with max reviews.

How do prices vary with respective neighbourhoods, rental property types ?



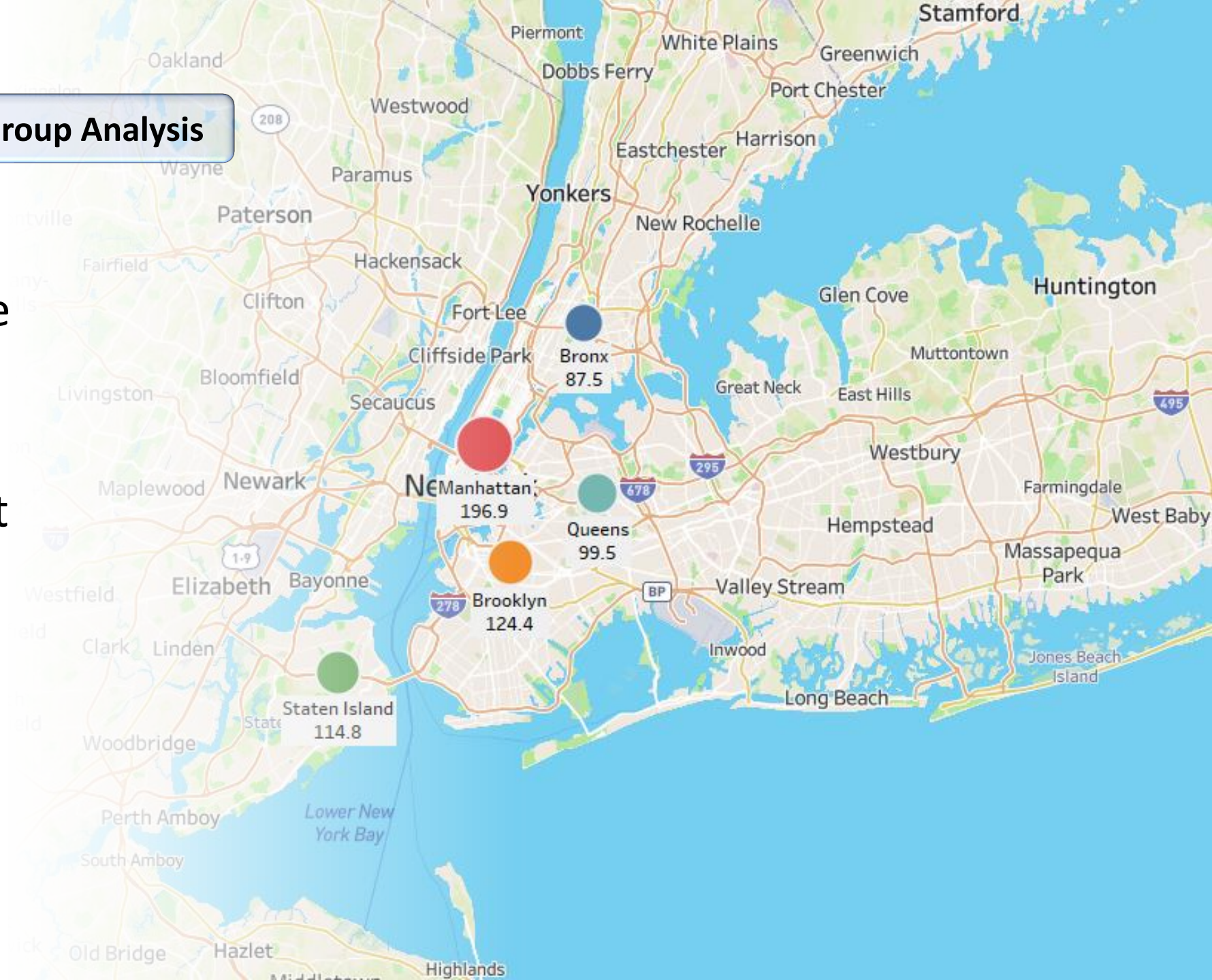
Entire Home/Apt has the max average price in every neighborhood group.

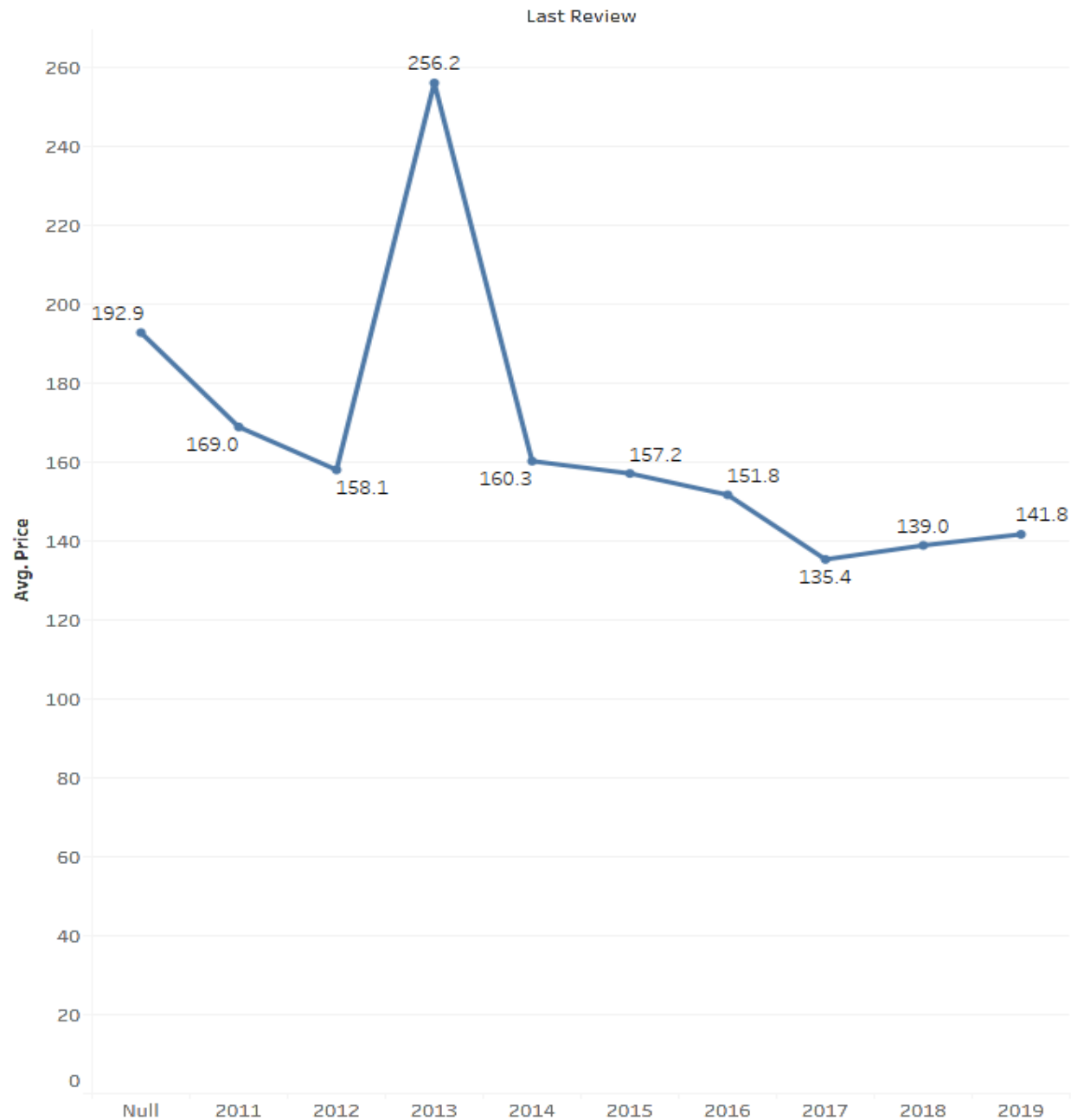
Manhattan tops with 249 followed by Brooklyn's 178 as per average price for Entire Home/Apt .

AVG Price and Neighborhood Group Analysis

Manhattan has the
highest Average Price
196.9

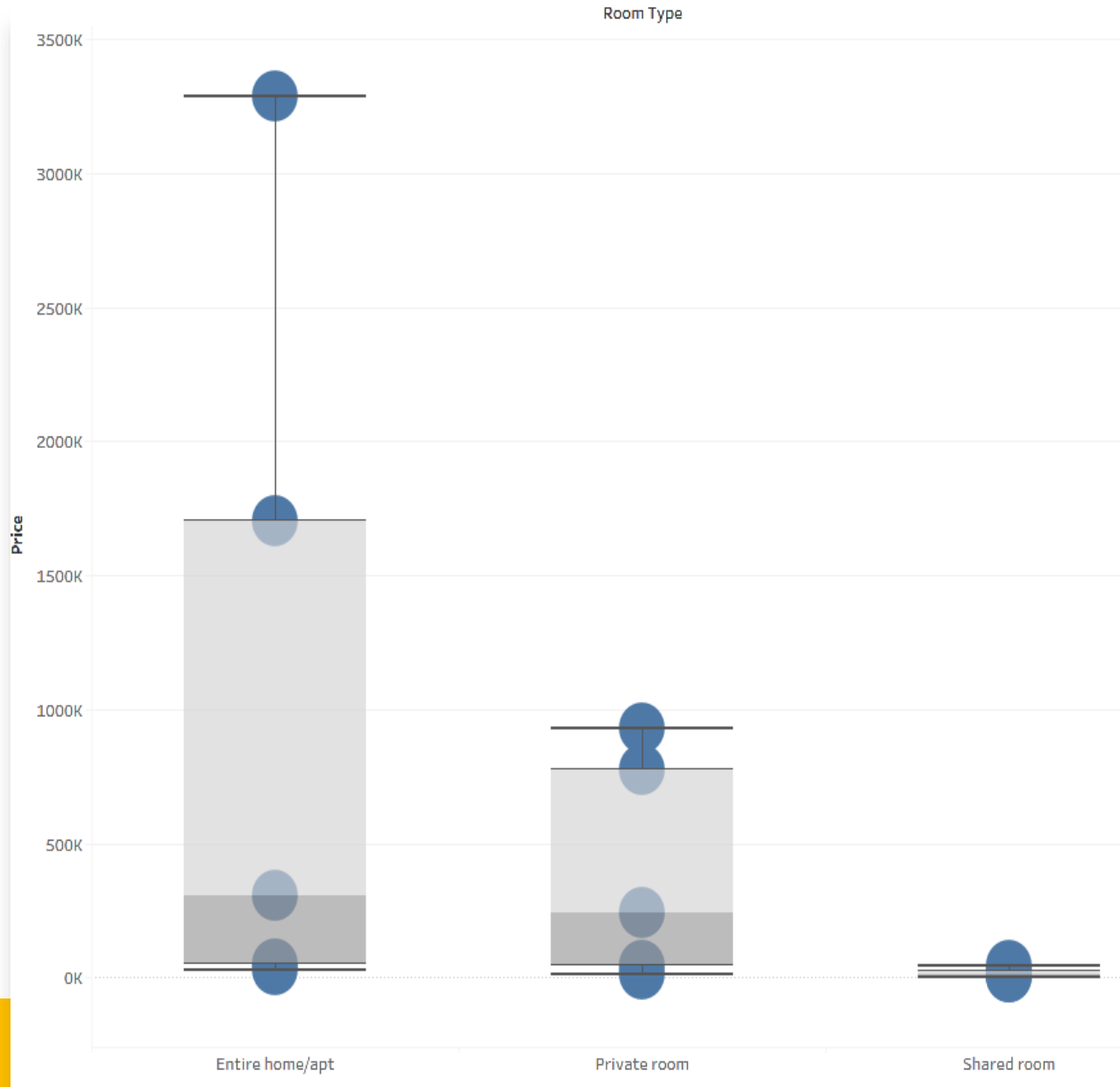
Bronx has the Lowest
Average Price **87.5**





Latest Review **vs** Avg Price

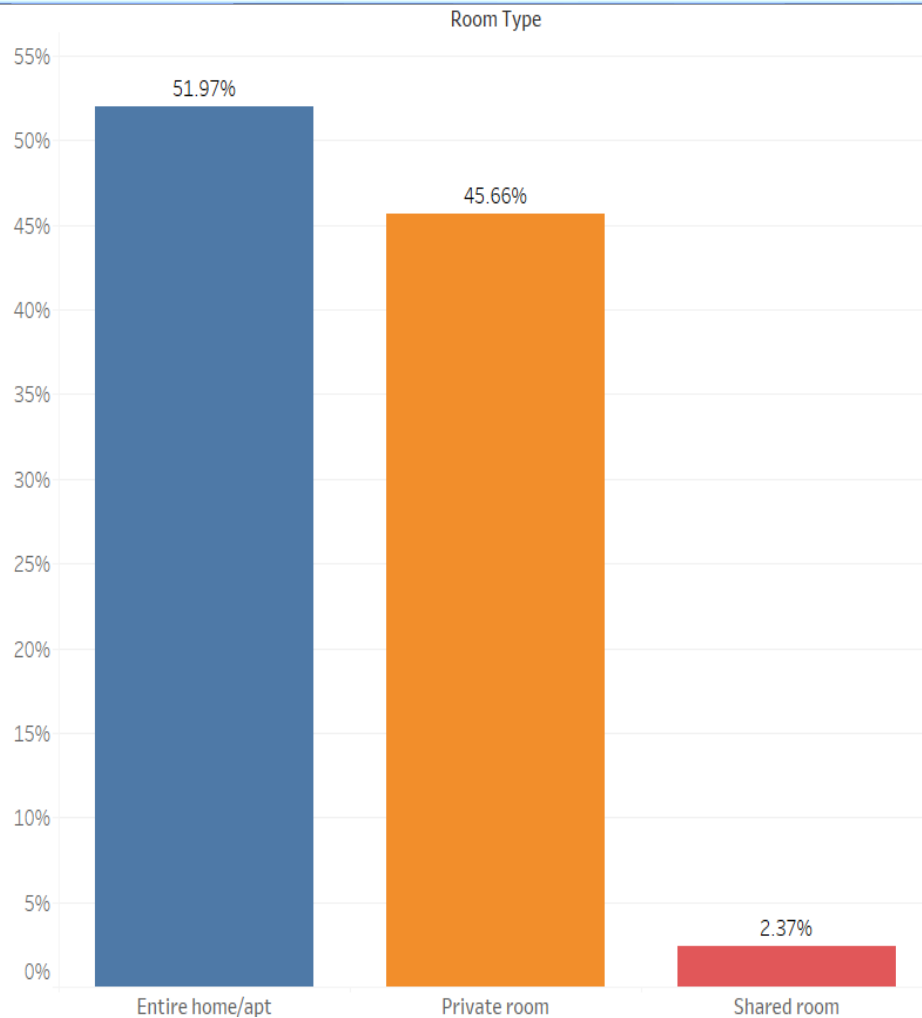
As per Last Review, the Average price of 2013 is highest with **256** as the Average Price.



Room Type Analysis - Outliers

- When we create a Box Plot, we see there are outliers in Room Type.
- We see we have a big outlier in Entire Home/Apt room type with around **3250 K** (approx.) Price.

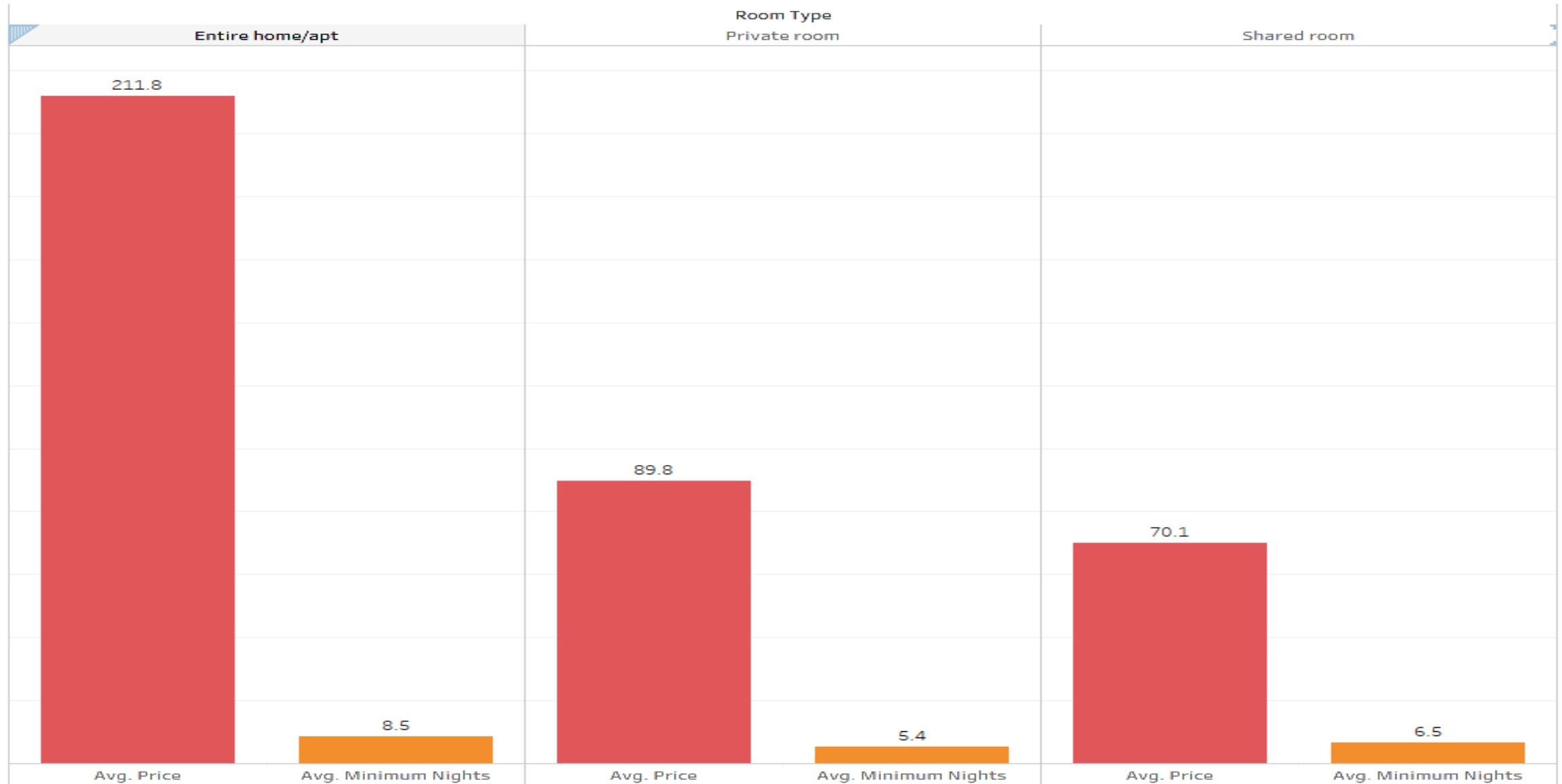
What Does Customers Prefer among the Different Room Types?



Entire Home/Apt and Private room account for about **97 %** of the total no. of rooms.

Clearly, Entire Home/Apt and Private room are much preferred over Shared room which has only **2.3%** of the total share of rooms.

Avg Price and Minimum Number of nights for different room types



Entire Home/Apt has the highest Avg Price and Avg Min. Nights among other room types (211/8.5)

Observations and Insights

- Queens, Bronx and Staten island have lowest no. of reviews with only **18%** combined. **Good Potential in areas where lower no. of reviews** there as the company can focus on those locations and increase the reviews count there as well to match with Brooklyn and Manhattan.
- Entire Home/Apt and Private room account for about **97%** of the total no. of rooms. **Customers prefer this room type.**
- Manhattan has the highest Average Price 196.9. Bronx has the Lowest Average Price 87.5.
- Min. nights is highest for Entire Home/Apt with **8.5** minimum average nights. **Customers typically stay longer in Entire Home/Apt .**
- Clearly, **Entire Home/Apt and Private room** are much preferred over **Shared room** which has only **2.3%** of the total share of rooms.

Appendix

- Detailed steps for each visualization added in Methodology Document (added separately)
- We used Exploratory data analysis to identify patterns in the given dataset.
- Key data points used for the analysis were –
 - Price
 - Neighborhood Groups
 - Reviews
 - Room Type
- We assumed that the reviews can be taken as positive reviews.