Airbnb Data Story Telling Case Study

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Objective

- Airbnb, Inc. is an American San Francisco-based company operating an online marketplace for short- and long-term homestays and experiences.

- The company acts as a broker and charges a commission from each booking.

- To find insights to grow the business in a profitable manner

Background

- Airbnb wants to increase sales Post Covid since the restrictions has been removed and travels   have been increased

- A dataset consisting of various Airbnb listings in New York have been given for the analysis of data to find insights and easy visualizations

- Data set with 48,897 rows and 16 columns were taken for analysis

Data Preparation

- Data set is checked for Null values ,Outliers and Duplicates

- Variables with Null values are treated by optimally filling them or dropping them if not necesary

- Data types of the variables have been checked

- Outliers have been treated in Price column for a clear view of results

- Unnecessary columns – Id,Date Column with max Null values have been dropped to optimize the data set for faster analysis

- The reduced data set id further exported to Tableau for further Analysis and Visualizations of the data

Recommendations

- Hosts who have less no of listings with more no of reviews shows they provide very good service at their property- which are suitable for acquiring

- Prices are higher in Manhattan and Brooklyn

- Entire home/apt followed by Private room have higher prices

- Manhattan and Brooklyn has more no of Rooms availability with max share in Entire Home/apt next comes the Private Room

- Entire Home/apt was most attracted by Customers, Manhattan was best Neighborhood Group among them

- 40 – 120$ Price Range rooms were most picked by the customers

- Manhattan has the maximum no of Listings Compared to other neighborhood groups

- Entire home/apt avg min nights lie at 8-10

- Private Room avg min nights lie at 5

- Shared room avg min nights lie at 7-8

Data Visualizations

▶ Top 10 Hosts (host id's) who have higher customer reviews and their respective count of listings

▶
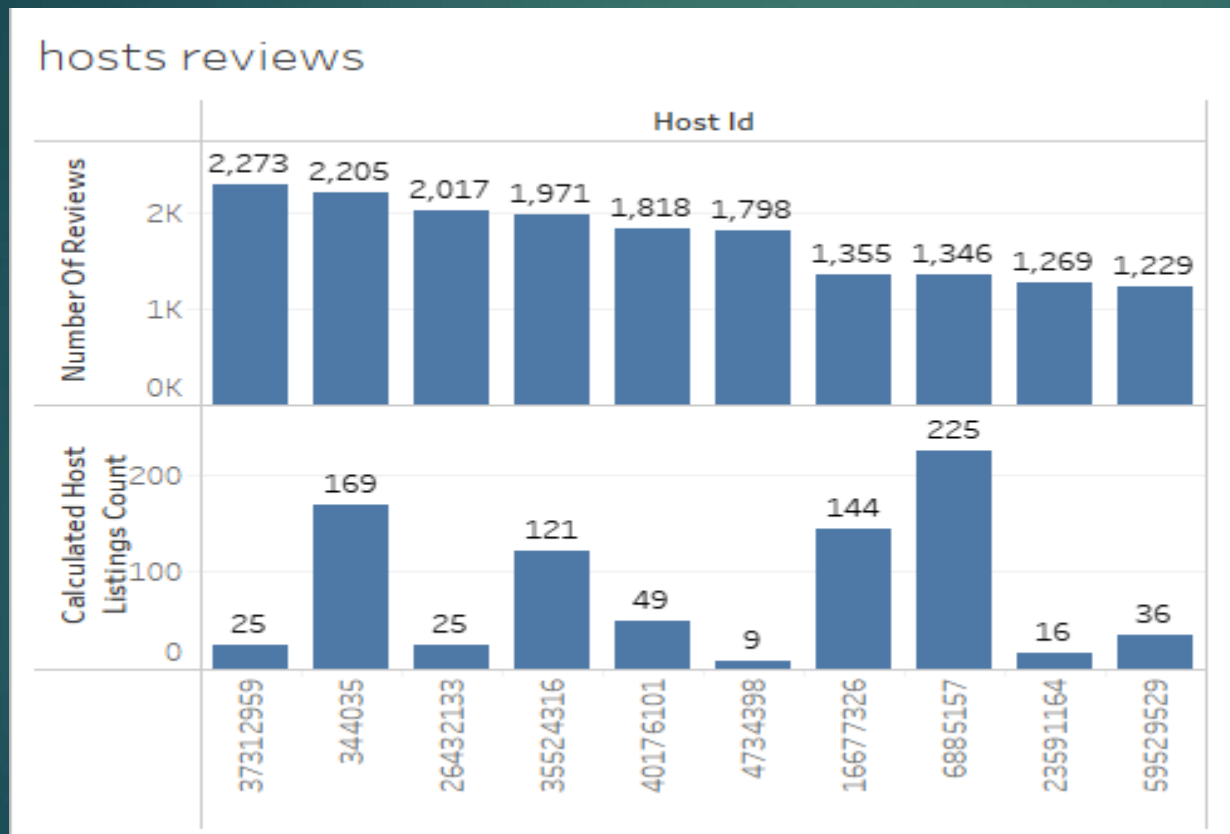
Properties belonging to these Hosts are well performed and are most suitable for acquisition

Price of Room Type in each Neighborhood Group:

Price of room type

Neighbourhood Group

Bronx | Brooklyn | Manhattan | Queens | Staten Island

Room Type
- Entire home/apt
- Private room
- Shared room

- Manhattan and Brooklyn are well performed in all aspects
- Bronx and Staten Island Properties needs to be taken care of

Availability of Rooms based on Neighborhood Group and Room type:

availability based on neighbourhood and room type
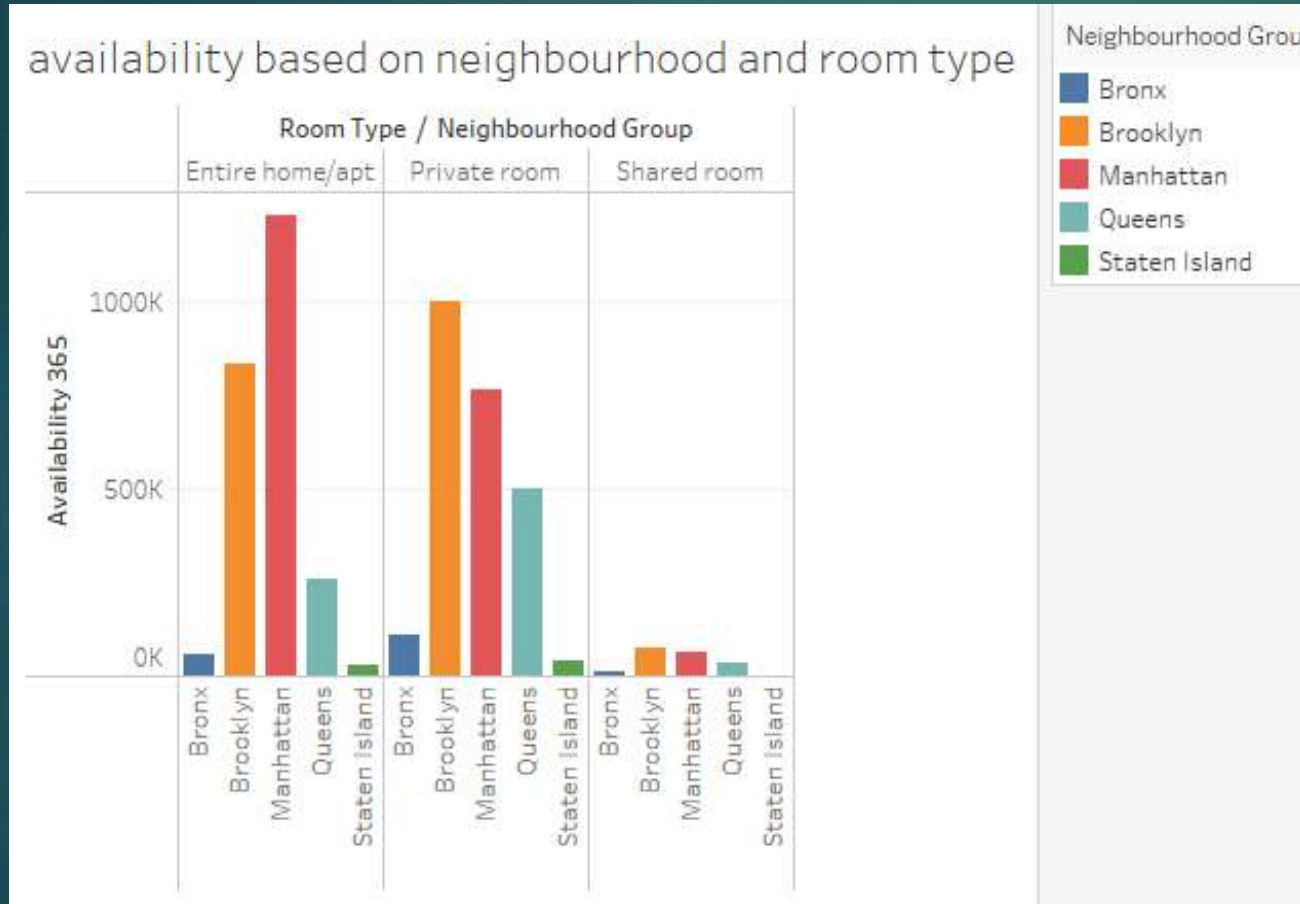
Private Room and Shared Rooms has less Availability based on demand
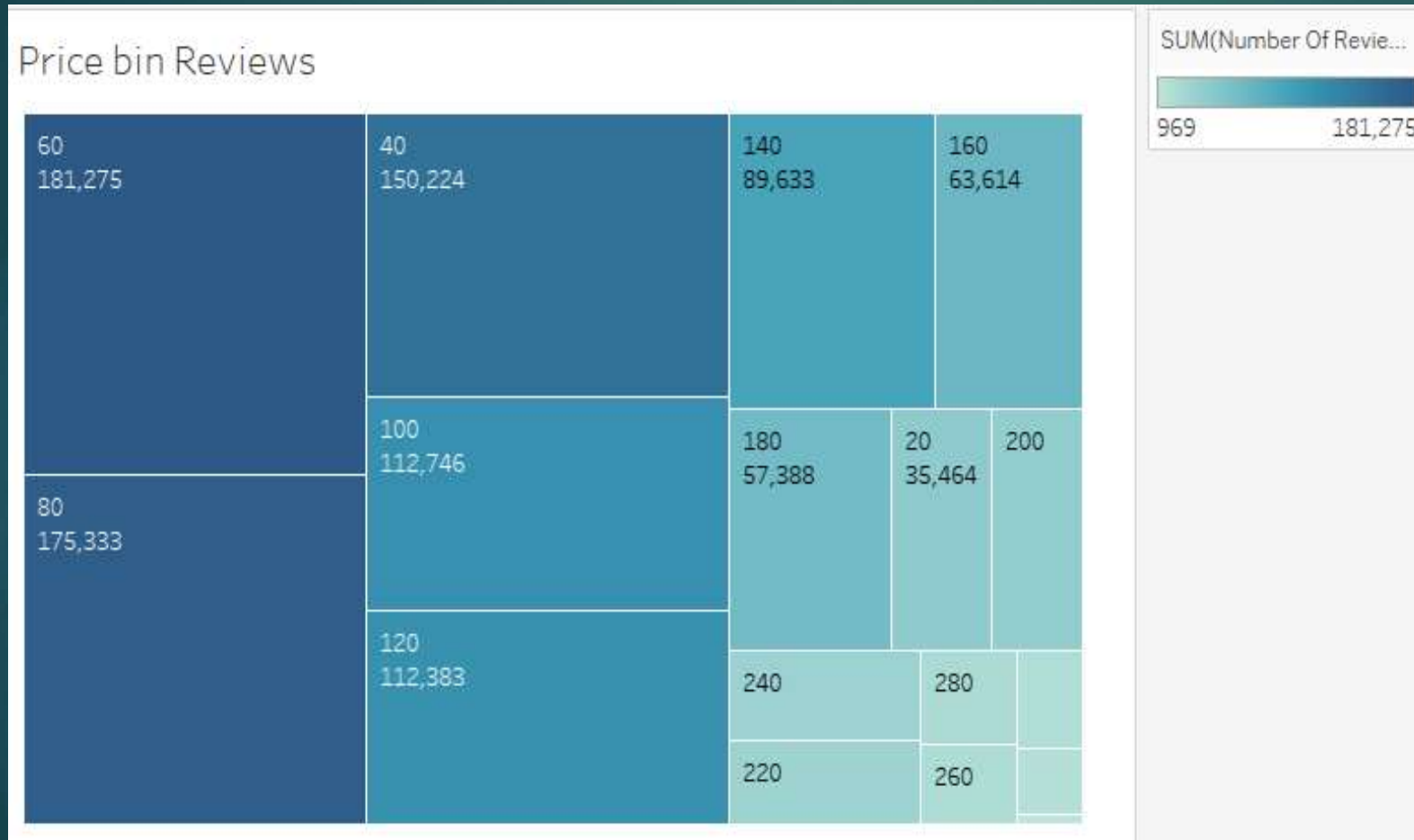
Distribution of Rooms based on the Neighborhood Group:
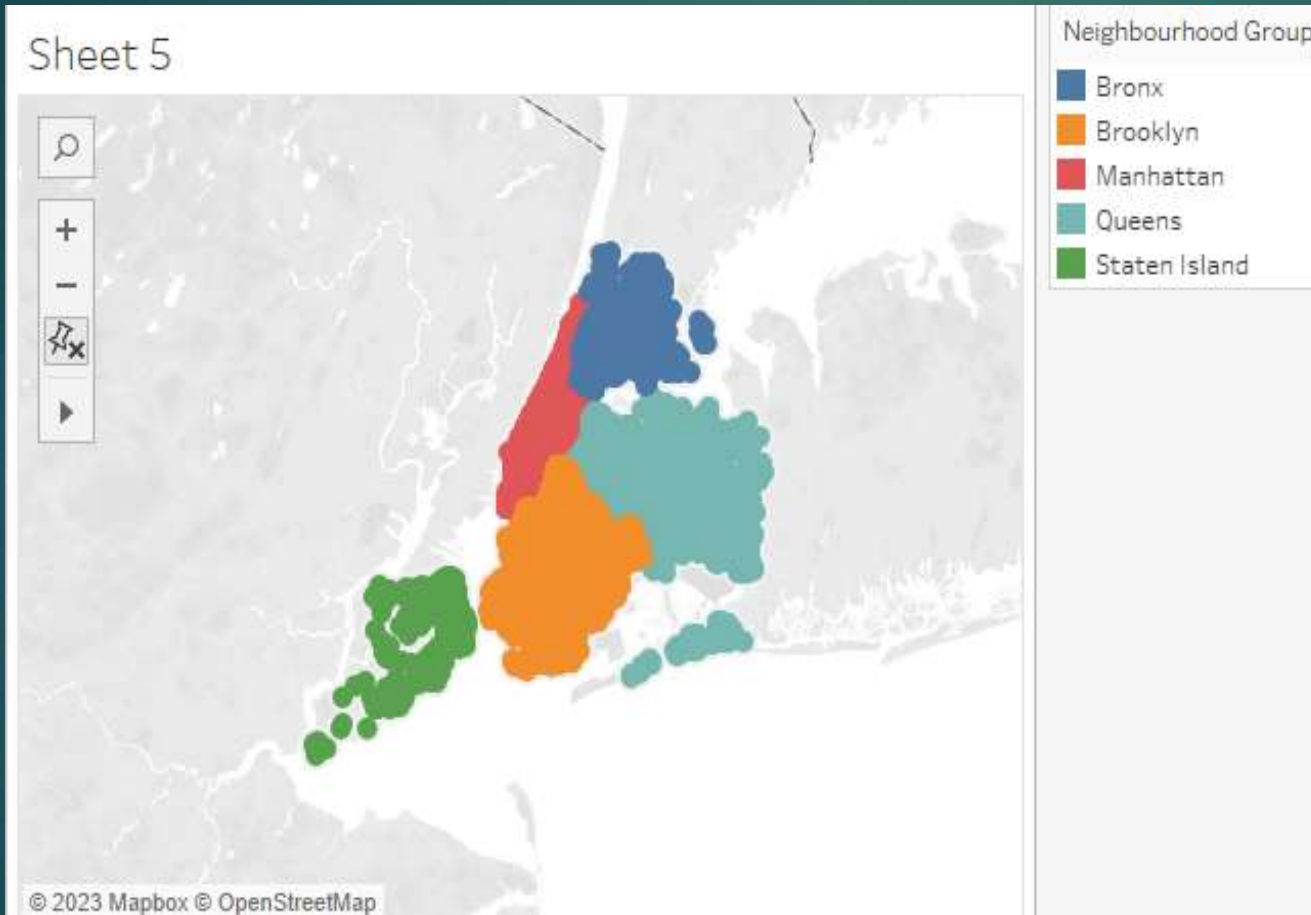
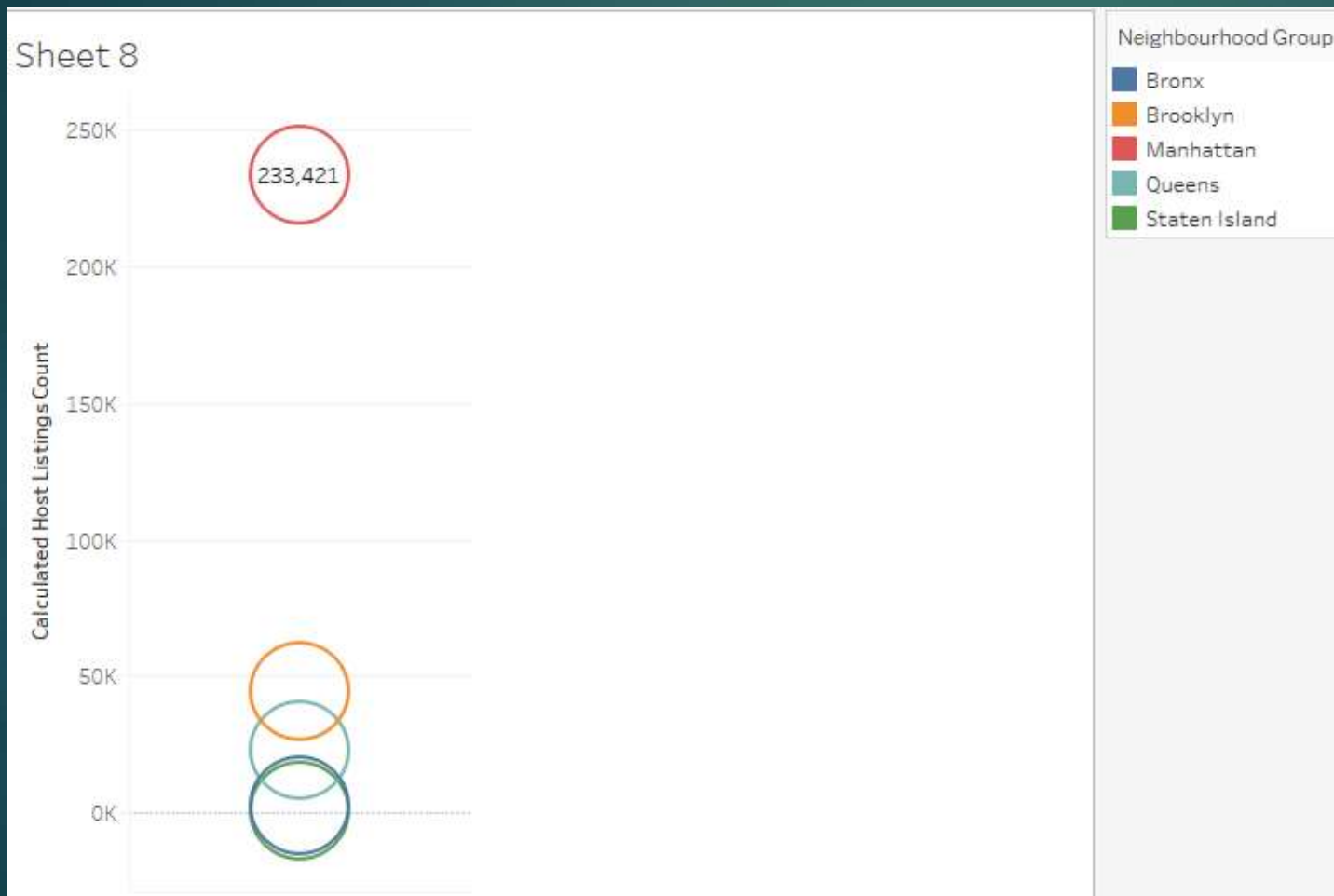# Percentage of Reviews on Each Room Type & Neighborhood Group

- **Entire Home/apt** was most attracted by Customers
- **Manhattan** was best Neighborhood Group among them

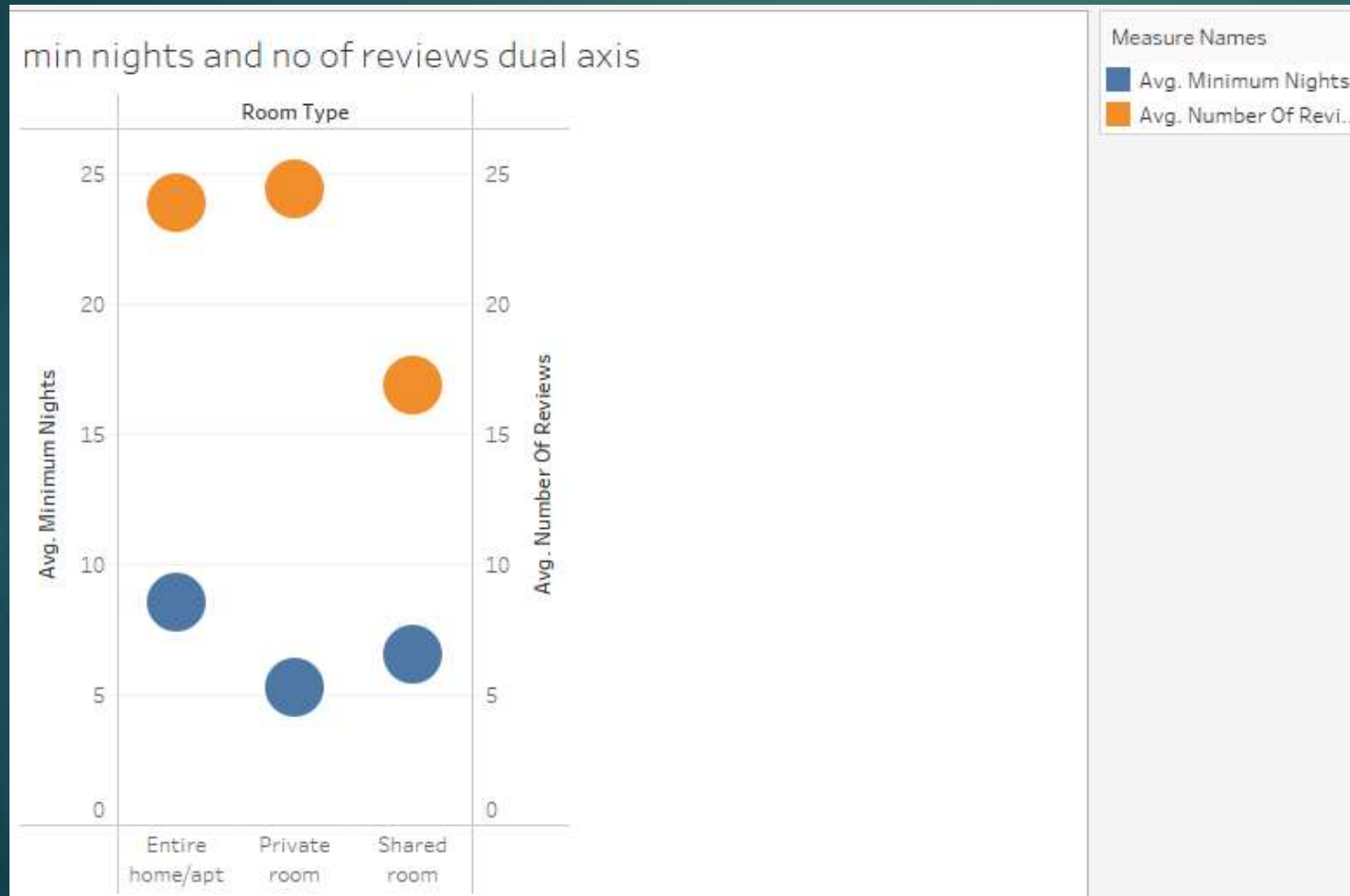# Most Interested Price Range of the Customers based on Reviews:

40 – 120$ Price Range rooms were most picked by the customers

Max No of Listings:

Manhattan has the maximum no of Listings Compared to other neighborhood groups

Minimum Nights and Average No of Reviews for a room type:

Customer Preferences on No of Nights to stay:
- Entire Home/apt - avg min nights lie at **8-10** Avg no of reviews lies at 23-25
- Private Room - avg min nights lie at **5** - avg no of reviews at 25
- Shared room - avg min nights lie at **7-8** - avg no of reviews at 16-17

Appendix:

- Data Sources:

- Data Methodology file has been attached with

    further more details and info of Data Set

- The Price ranges which are very high are

    assumed to be Outliers and are treated

- More no of Reviews is assumed to have more

     customer liking

Column	Description
id	listing ID
name	name of the listing
host_id	host ID
host_name	name of the host
neighbourhood_group	location
neighbourhood	area
latitude	latitude coordinates
longitude	longitude coordinates
room_type	listing space type
price	
minimum_nights	amount of nights minimum
number_of_reviews	number of reviews
last_review	latest review
reviews_per_month	number of reviews per month
calculated_host_listings_count	amount of listing per host
availability_365	number of days when listing is available for booking