

# Storytelling Case Study: Airbnb, NYC

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## Objective:

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- Airbnb is an online platform using which people can rent their unused accommodations.
- During the covid time, Airbnb incurred a huge loss in revenue.
- People have now started travelling again and Airbnb is aiming to bring up the business again and is ready to provide services to customers.



## Background:-

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- 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.

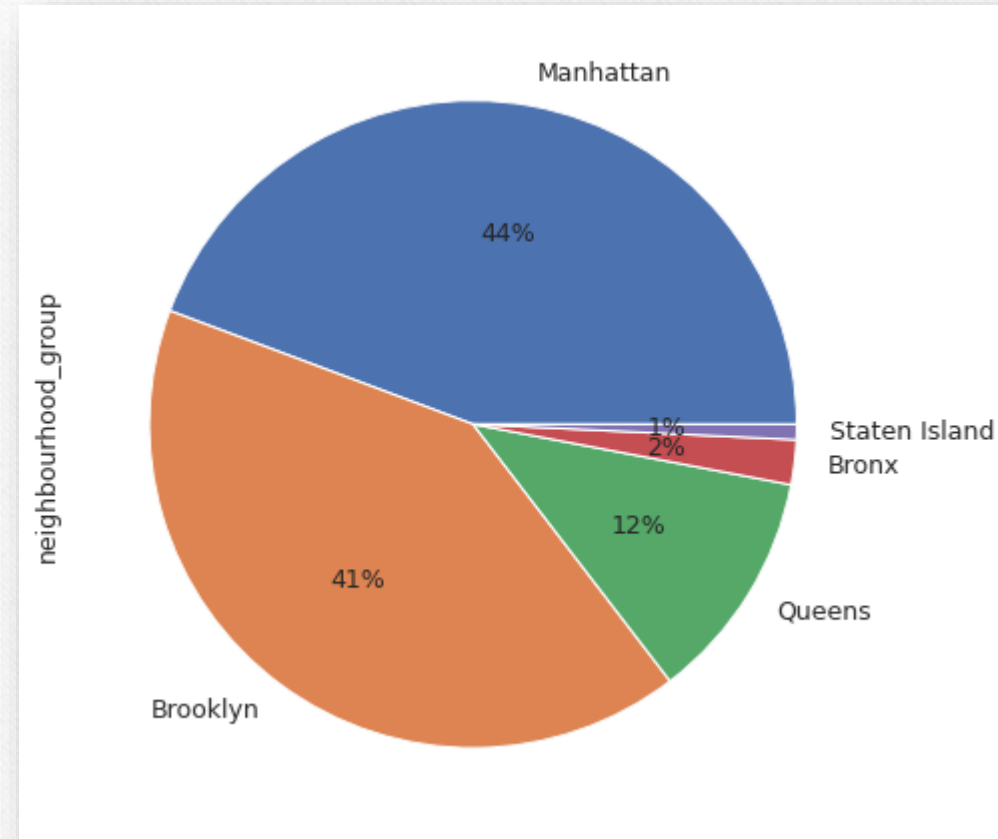
# Data Preparation:

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- Cleaned data to remove any missing values and duplicates.
- Dropped insignificant columns.
- Identified outliers

# Room type with respect to Neighbourhood group:

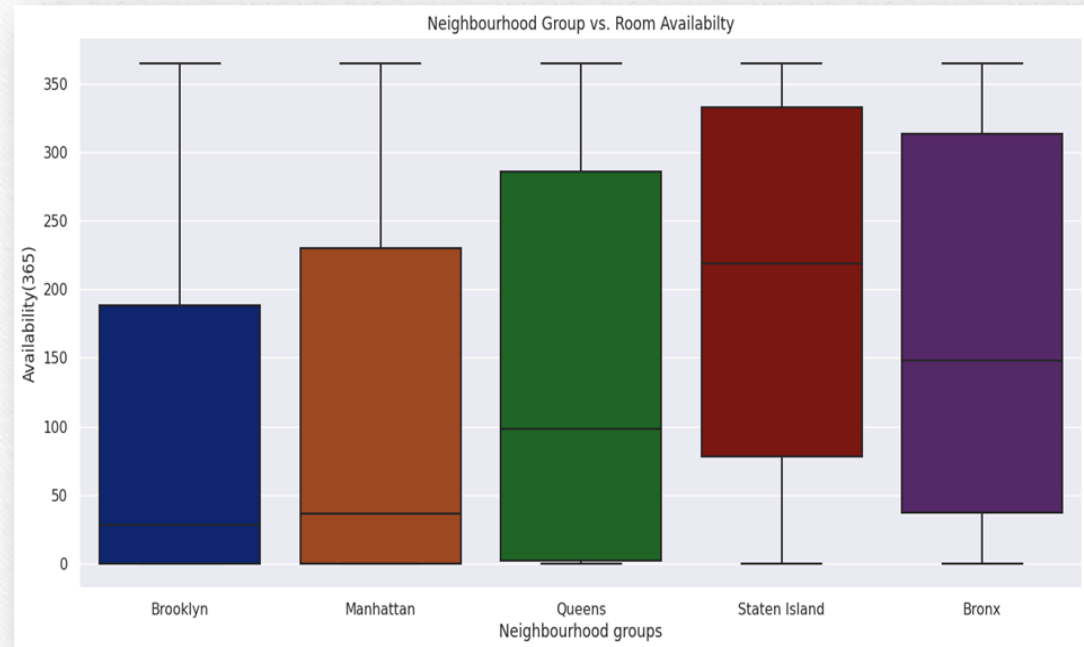
- Manhattan and Brooklyn are top neighbourhood groups and mostly people prefer to book the entire home or private room.
- In all of NYC, the neighborhood "Manhattan" has the most listings—nearly 44%.
- Very less number of shared rooms are available in each Neighbourhood group.
- Brooklyn comes next (41%), followed by Queens (12%), the Bronx (2%), and Staten Island (1%), which has the fewest listings





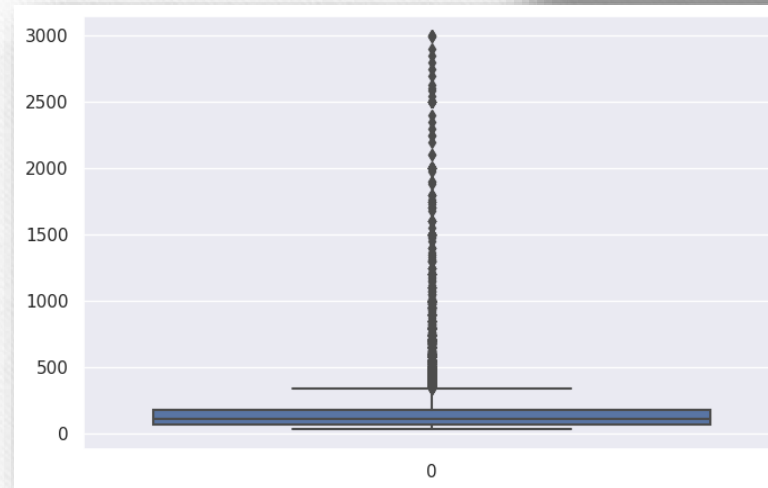
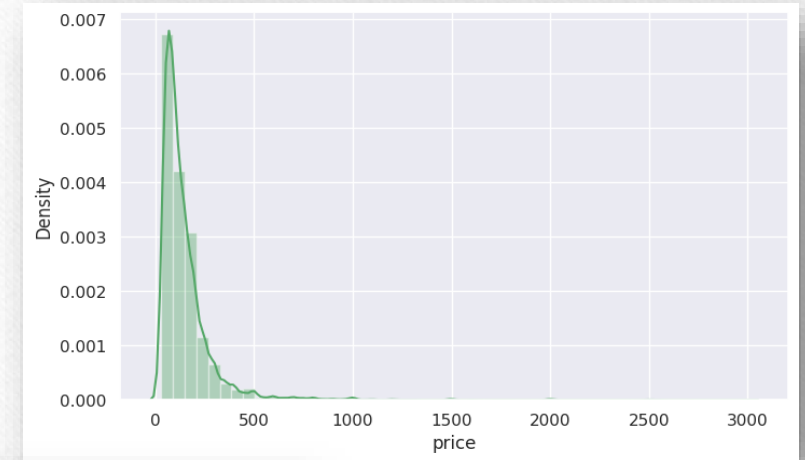
# Neighbourhood vs Availability:

- We can deduce that postings in Staten Island are more readily available throughout the year to more than 300 days from the aforementioned Categorized box plot. These postings are typically available for 210 days each year on average, with the Bronx coming in second with 150 days per year.



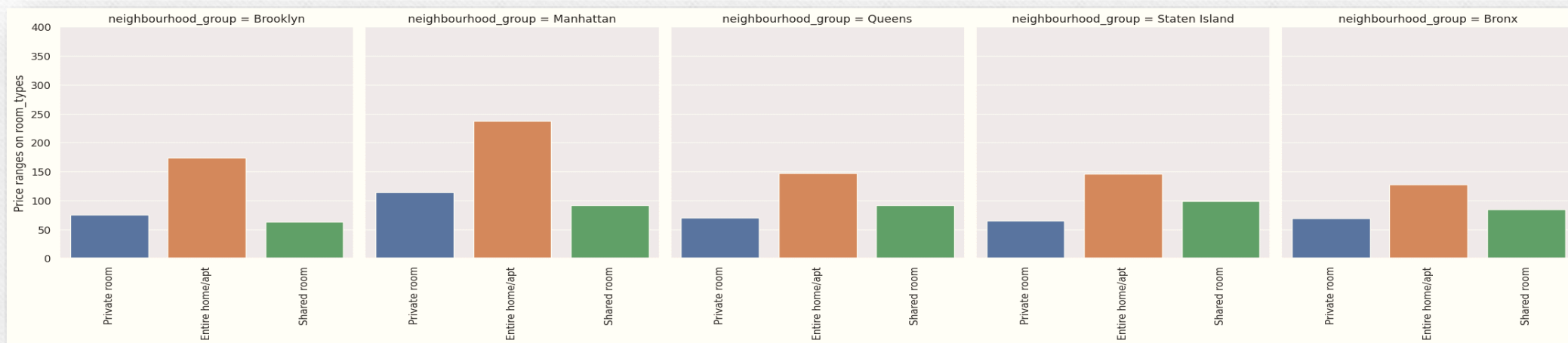
# Price range preferred by Customers:

- We have taken pricing preference based on volume of bookings done in a price range.
- The graphs show that the beneficial price range is between 60 - 200. The majority of consumers favor this pricing bracket.



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

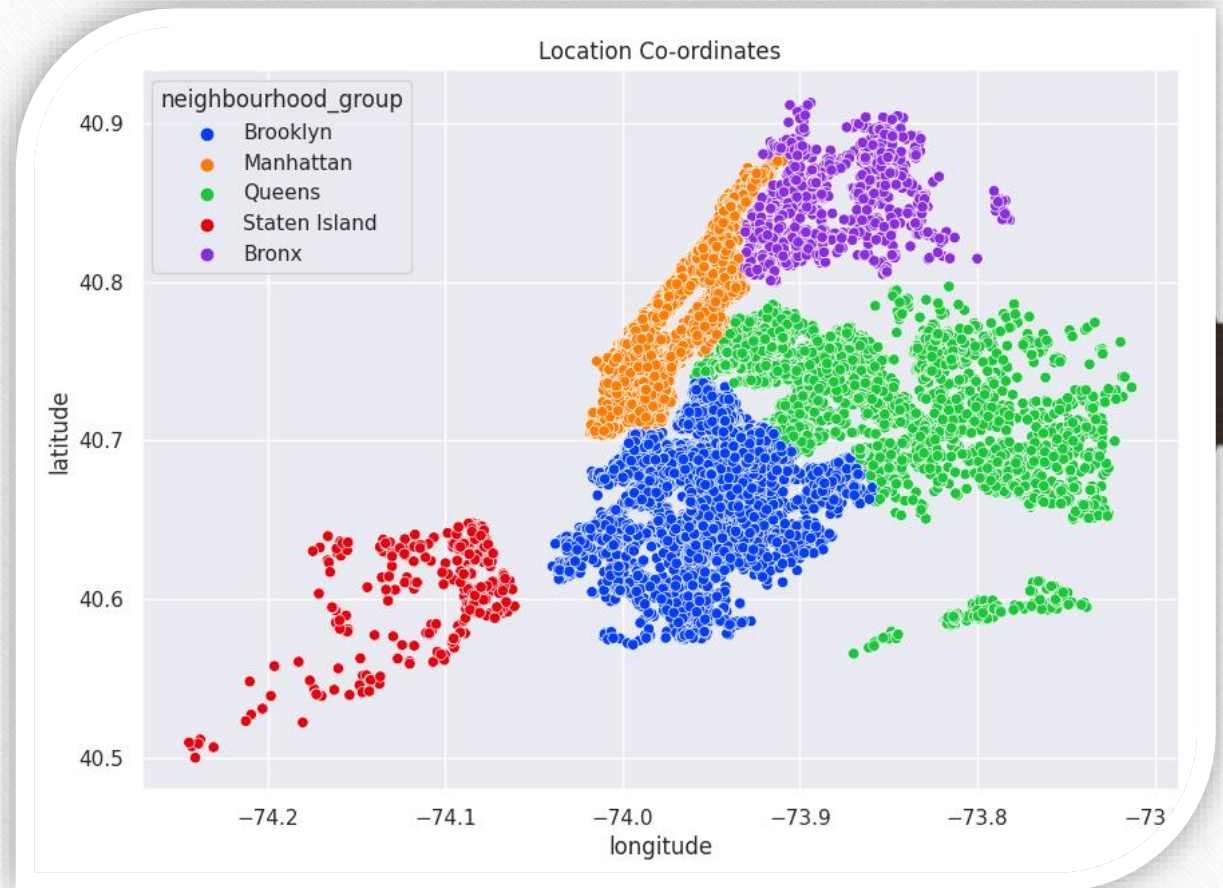
- The 'Entire home/apt' room type in Manhattan is the most expensive at 240 USD, much higher than the overall average.
- 'Private rooms' of Manhattan & Brooklyn has the highest average with 110 USD.
- 'Shared Room' type is the cheapest in Brooklyn.





# Price variation with respect Geography:

- We see that, Airbnb has good presence in Manhattan, Brooklyn & Queens.
- Due to the large population density and the fact that Manhattan and Brooklyn serve as New York City's financial and tourism Centre, listings are most plentiful there. Due to its low population density and limited number of tourist destinations, Staten Island has the fewest listings.



# Popular Neighborhoods:

- We see that Williamsburg with 27% the highest popular.
- 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.

