



# Storytelling Case Study Airbnb- 1

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# Agenda

- ▶ Objective
- ▶ Background
- ▶ Data Preparation
- ▶ Breakdown:
  - ▶ Neighborhood Wise Business Distribution
  - ▶ Customer Booking with respect to minimum nights
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  - ▶ Price range preferred by Customers
  - ▶ Understanding Price variation w.r.t Room Type & Neighborhood
  - ▶ Price variation with respect to Geography
  - ▶ Popular Neighborhoods
- ▶ Recommendations

# Objective

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 e ready to provide services to customers.

# Background

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

# Neighbourhood Wise Business Distribution

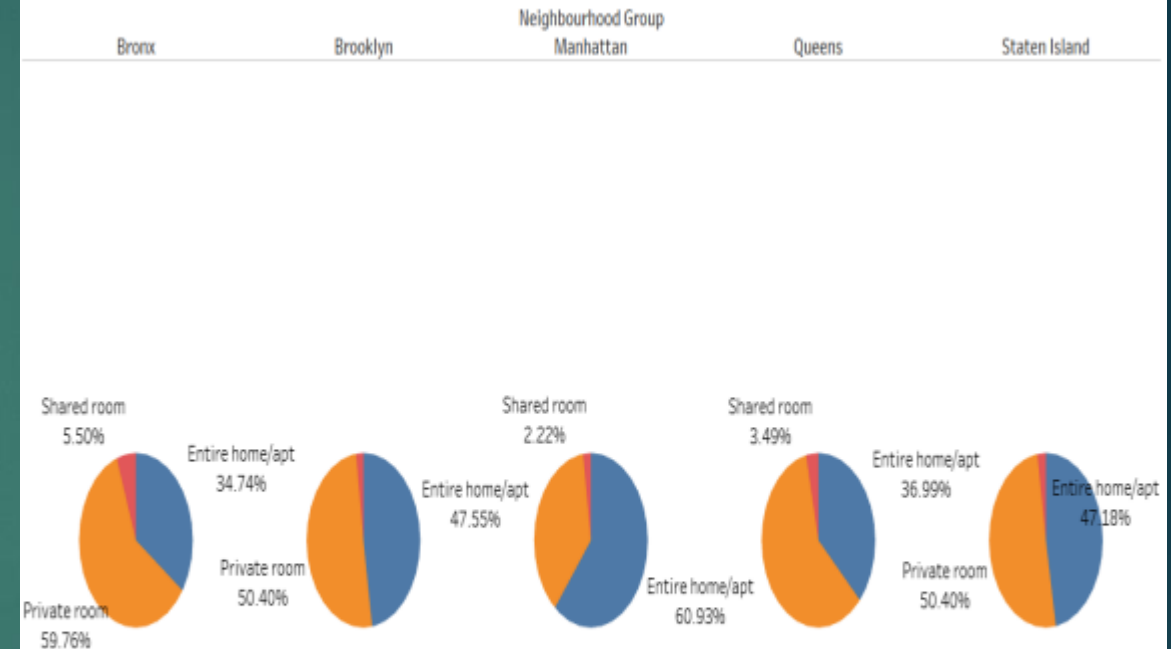
Manhattan and Brooklyn are top neighborhood groups and mostly people prefer to book the entire home or private room.

Manhattan has highest number of home/apt properties, i.e. 60.93% of total listed properties.

Maximum number of private rooms are available in Bronx i.e. around 59.76% of total listed properties.

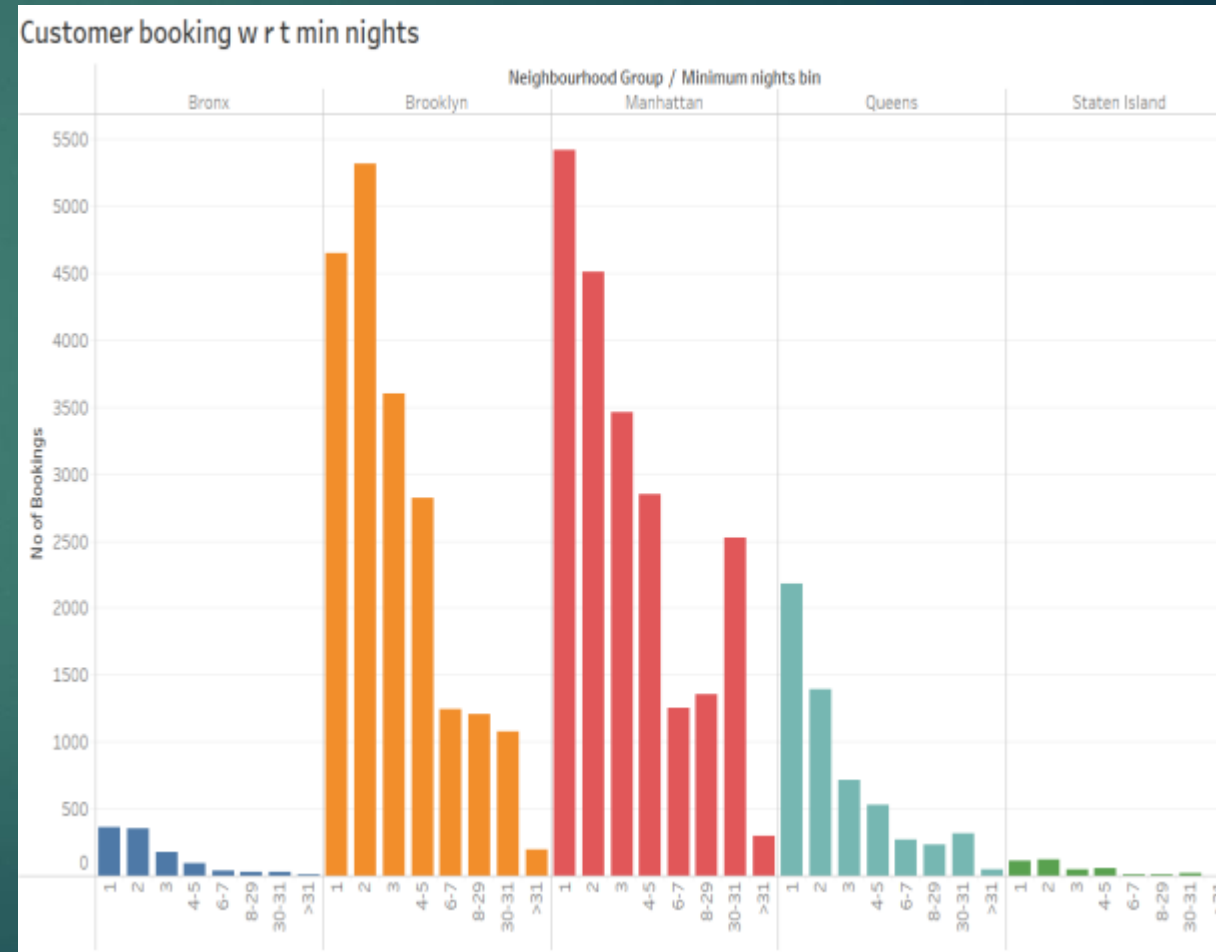
Very less number of shared rooms are available in each Neighborhood group

Room Type wrt Neighbourhood group



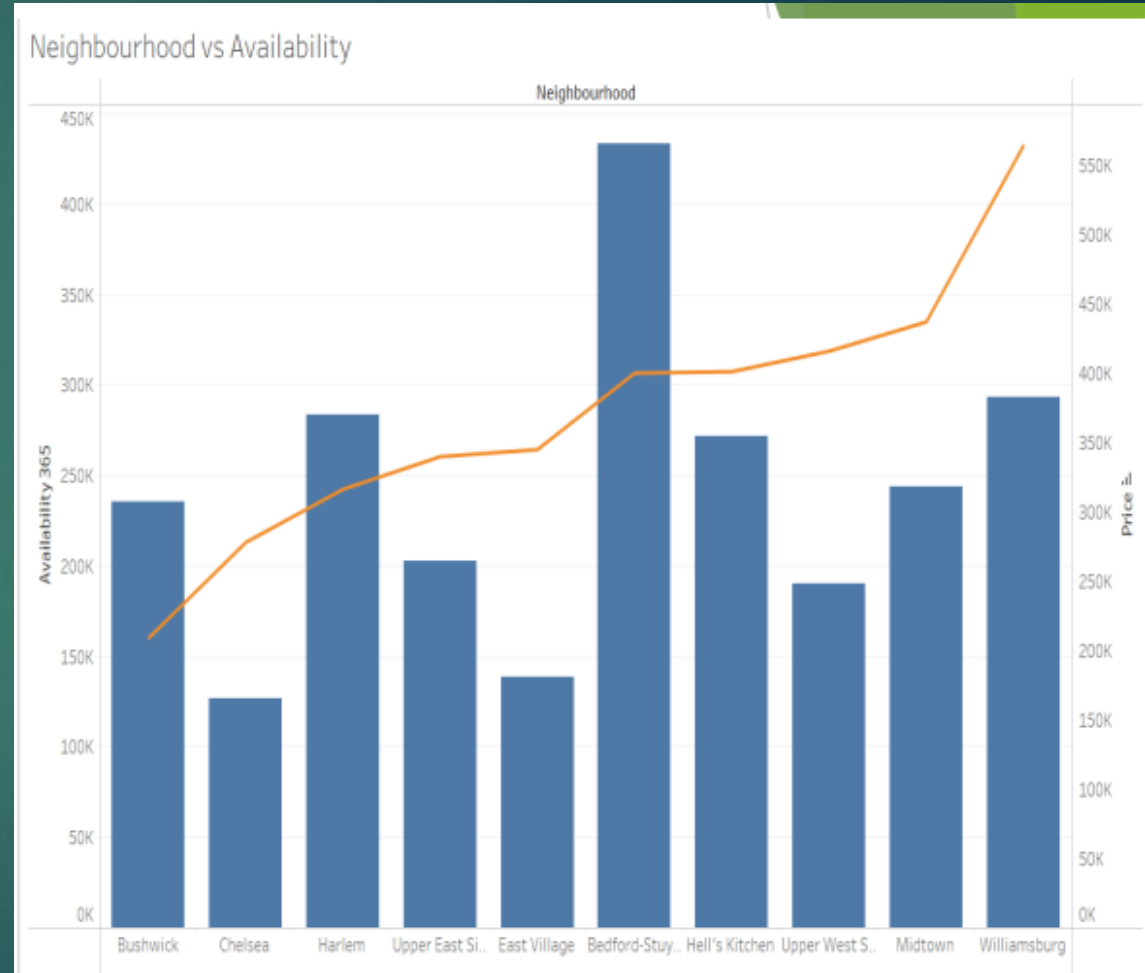
# Customer Booking with respect to minimum nights

- 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



# Neighbourhood vs Availability

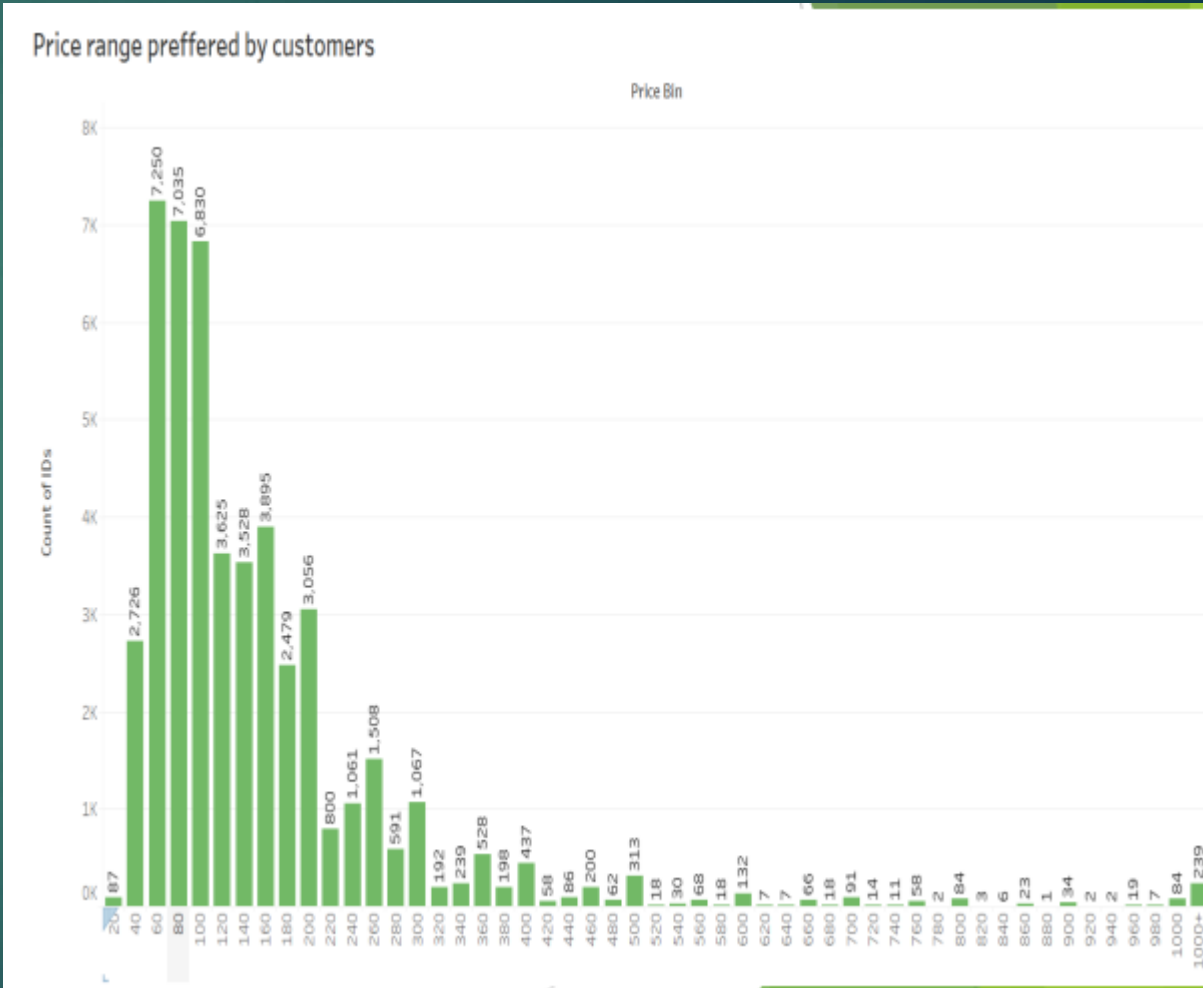
- Availability of Bedford is highest and its price is on the lower side. It is a good choice for customers.
- After Bedford, Harlem follows the same trend.
- Chelsea's availability low but it is costly.
- On the other hand, Williamsburg's price is high and has average availability





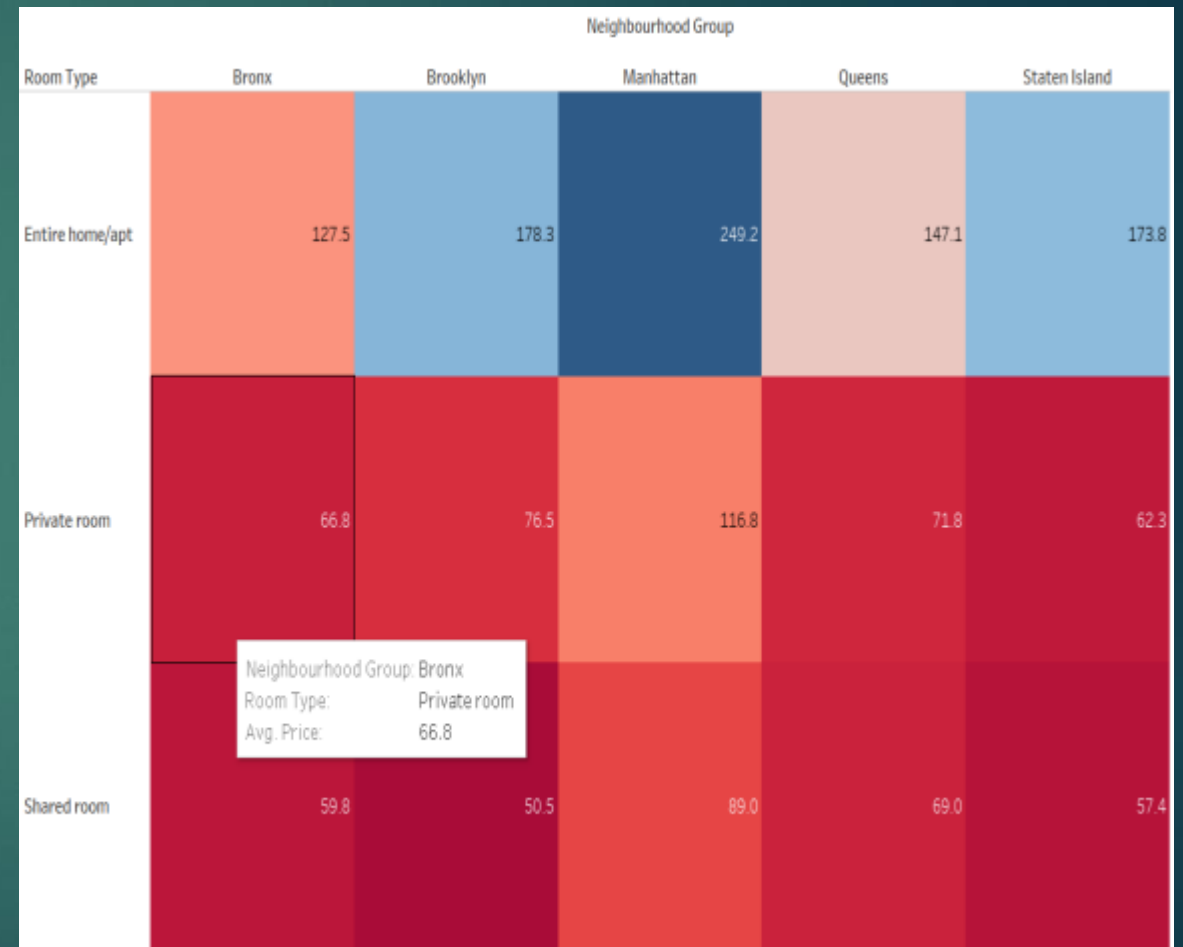
# Price range preferred by Customers

- We have taken pricing preference based on volume of bookings done in a price range.
- From both the graphs, the favorable price range is \$60 - \$200.
  - This is the price range most preferred by most customers



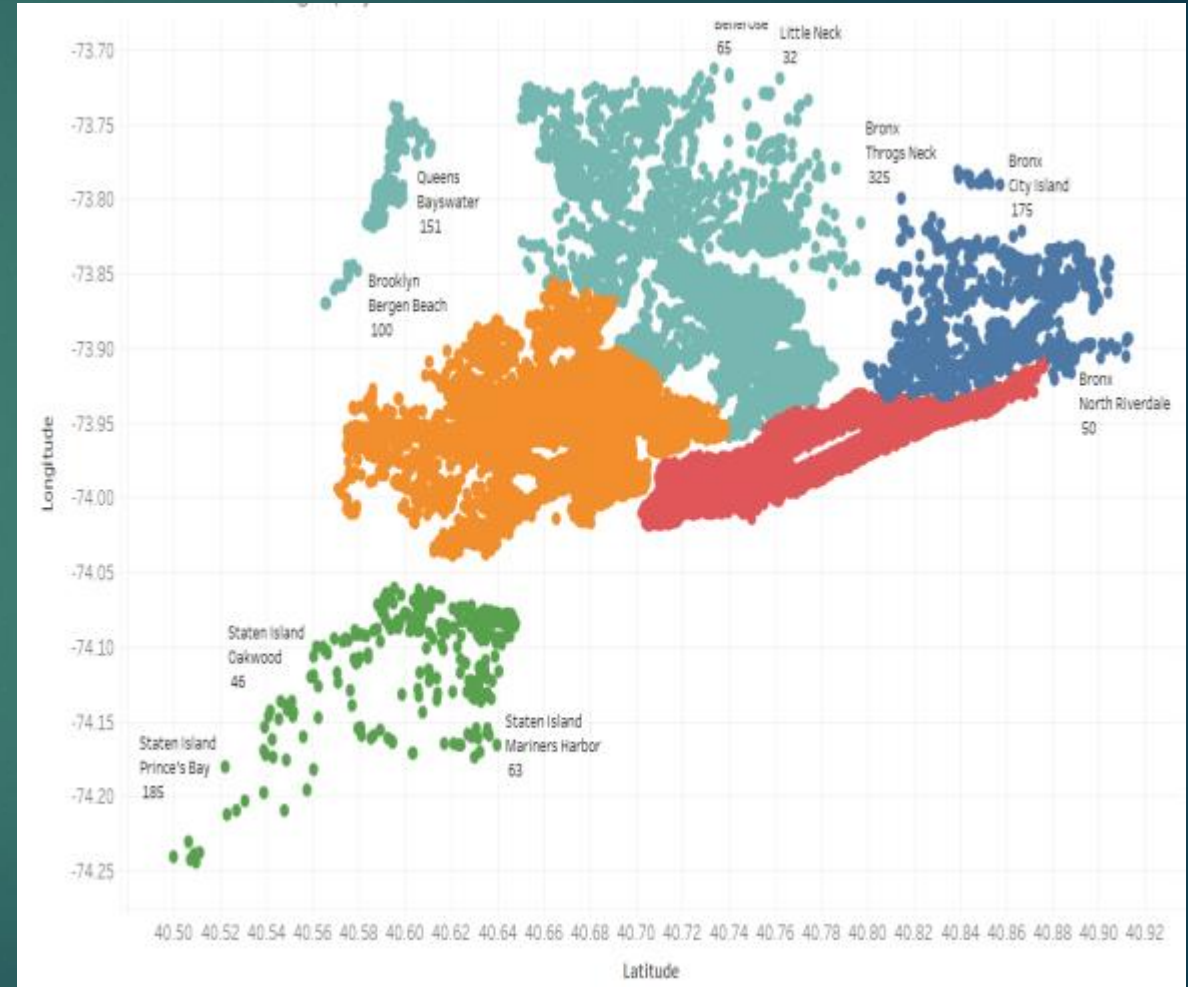
# Understanding Price variation w.r.t Room Type & Neighborhood

- The 'Entire home/apartment' room type in Manhattan is the most expensive at \$250, much higher than the overall average.
- 'private rooms' of Manhattan & Brooklyn has the highest average.
- 'Shared Room' type is the cheapest in Brooklyn with \$50.5



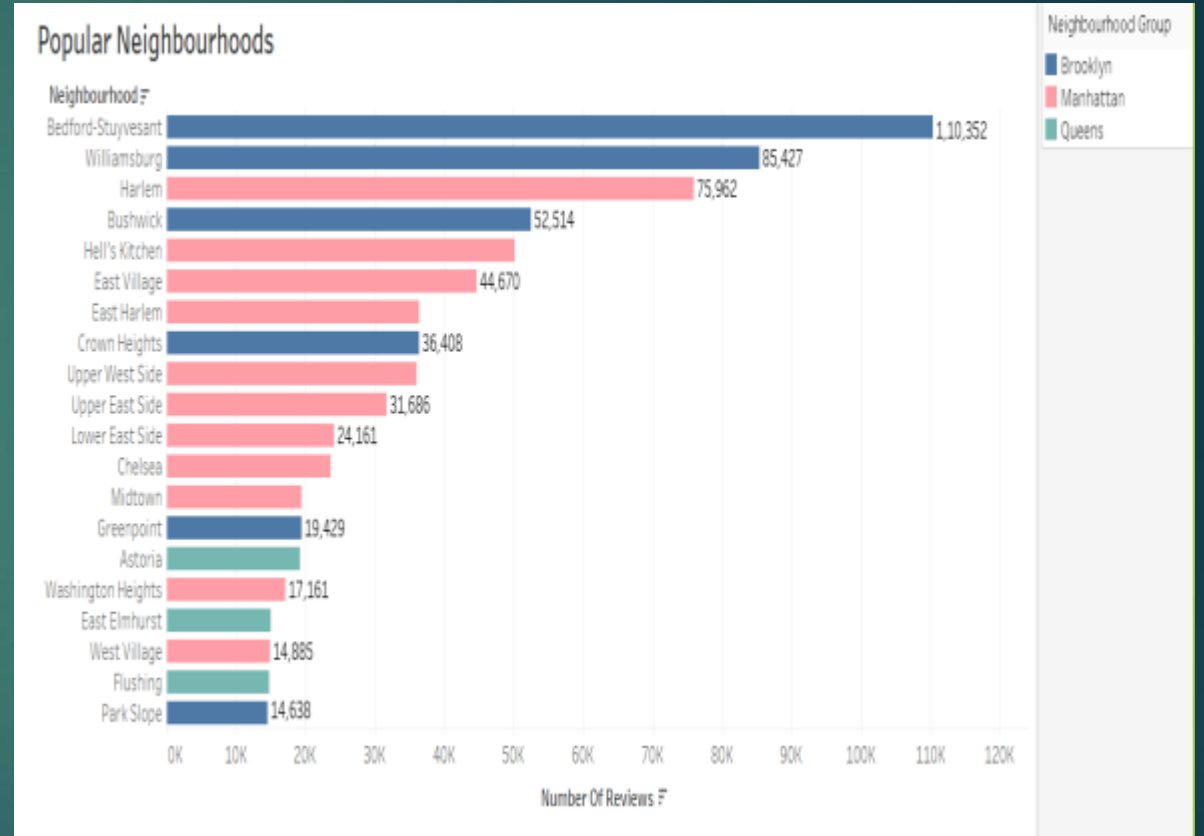
# Price variation with respect to Geography

- We see that, Airbnb has good presence in Manhattan, Brooklyn & Queens.
- Listings are maximum in Manhattan & Brooklyn owing to the high population density and it being the financial and tourism hub of NYC.
  - Staten Island has the least number of listings, due to its low population density and very few tourism destinations.



# Popular Neighbourhoods

- 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



# Recommendations

- ▶ Acquire private rooms and entire apartments, especially in Staten Islands since it is popular.
- ▶ Reducing the prices of entire apartments in Manhattan by at least 15% and increasing the price of private rooms in Queens by at least 10%
- ▶ Listings most popular have minimum number of nights requirement from 1-5 days and 30 days which should be showcased the most ordering them by properties which are available for most number of days to least