

# **Capstone Project - 1**

## **Airbnb Booking Analysis**

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# Content

**Objective**

**Data Information**

**Exploratory Data Analysis**

**Recommendations**

# Objective

**Explore and analyse the data to discover key factors responsible for customer behaviour and their booking patterns and come up with recommendations to ensure customer retention.**



Belong Anywhere

# Dataset information

## Airbnb Booking dataset description:-

- A) .csv file with 48895 entries

- B) 16 features

- C) attributes related to room\_type, price, number\_of\_reviews

- D) last\_review and reviews\_per\_month have 10052 null entries

# Exploratory Data Analysis

Some key observations-

Airbnb is majorly providing services in 5 areas – Brooklyn, Manhattan, Queens, Staten Island and Bronx.

Price in Manhattan is Highest and lowest in Bronx.

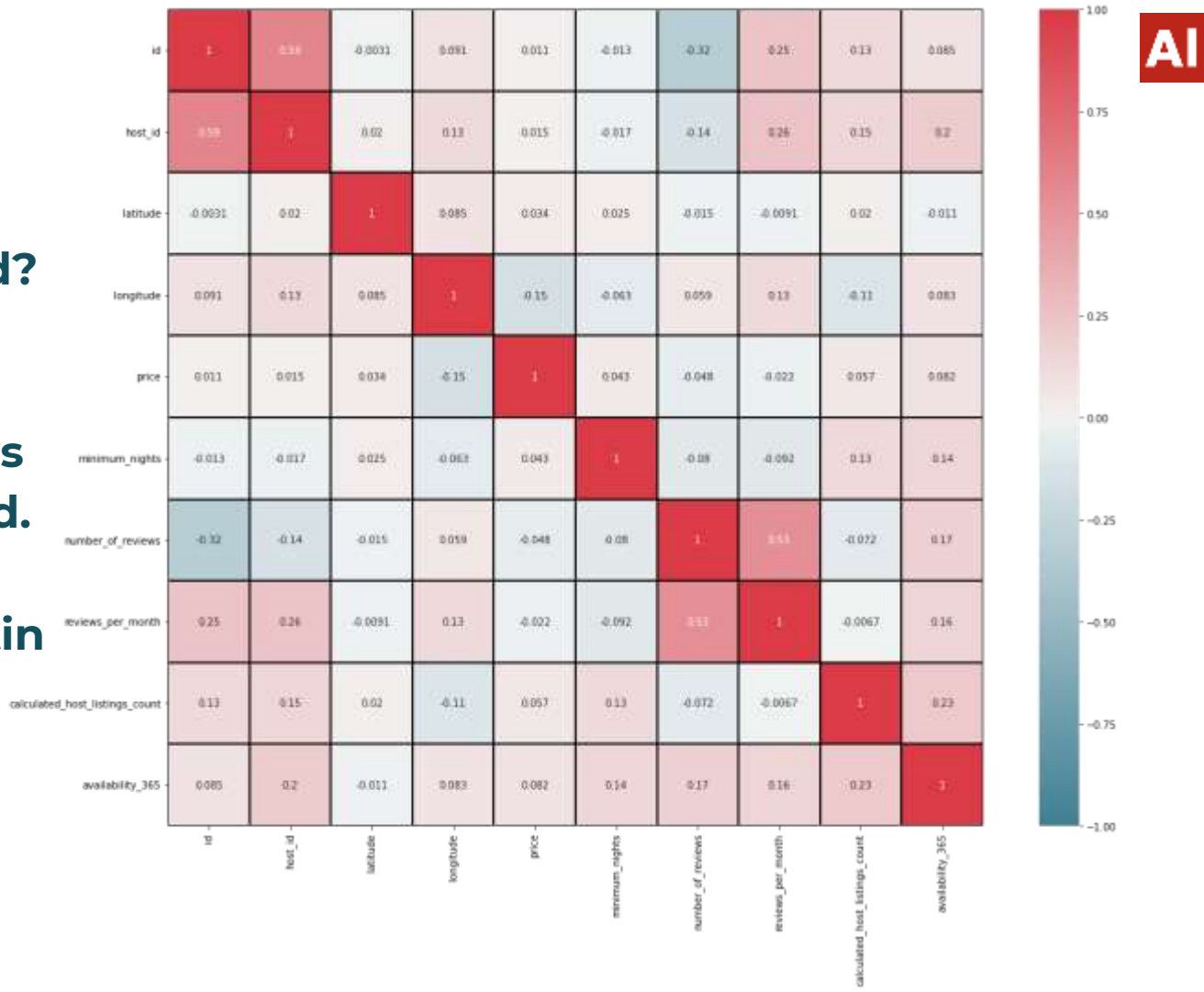
There are 3 different types of rooms are available and 37457 unique host have visited there.

# EDA (contd..)

How everything in dataset is correlated?

reviews\_per\_month  
& number\_of\_reviews  
are highly correlated.

Calculated\_host\_listings\_count  
& availability\_365  
is highly correlated.



## EDA (contd..)

### Relation between neighbourhood group and availability

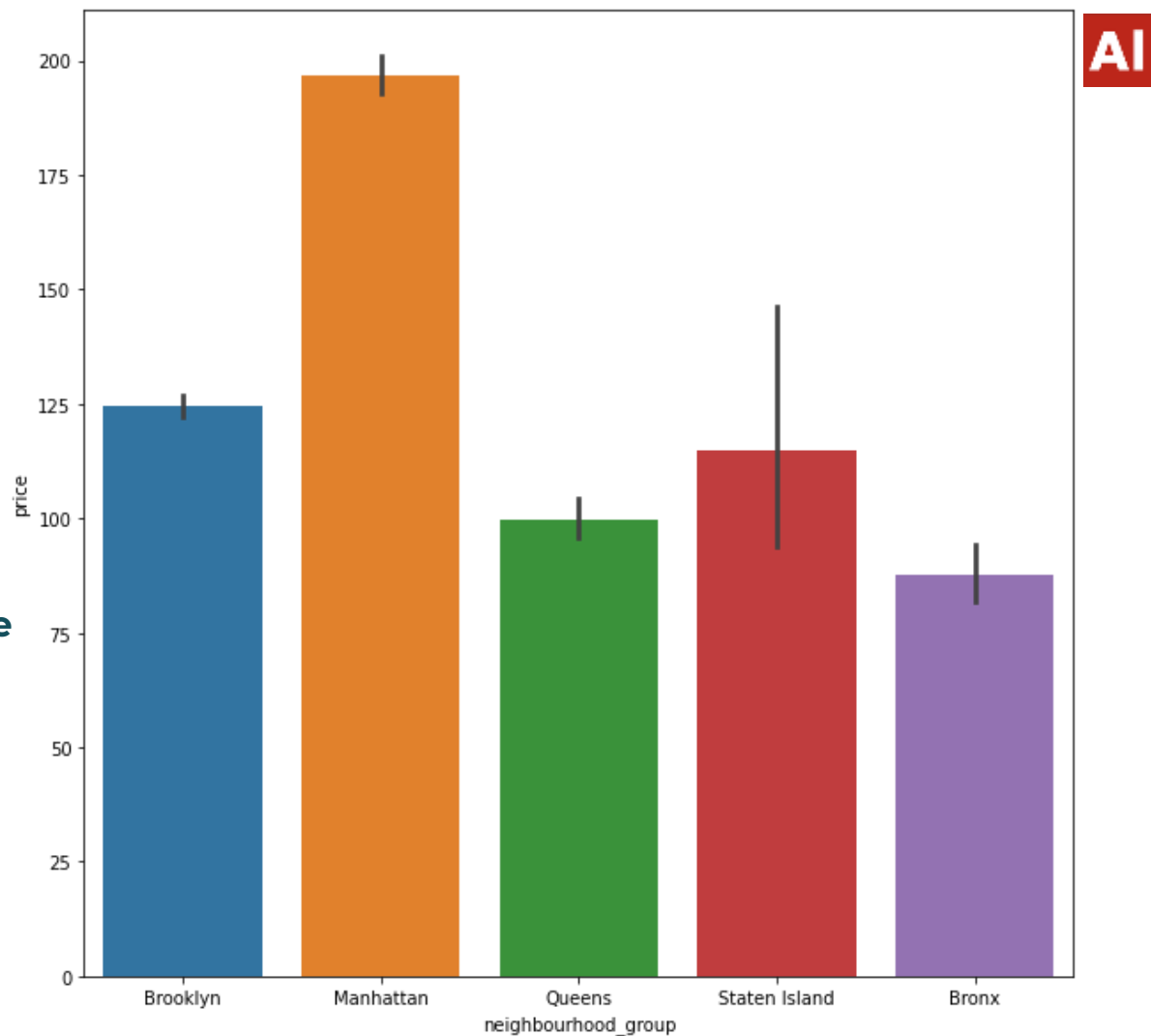


**Violin Plot shows that Staten Island has the highest mean availability value around 220-250 days compared to others**

# EDA (contd..)

## Relation between neighbourhood group and price

Bar plot plotted between neighbourhood group and price shown as that Manhattan has the most expensive

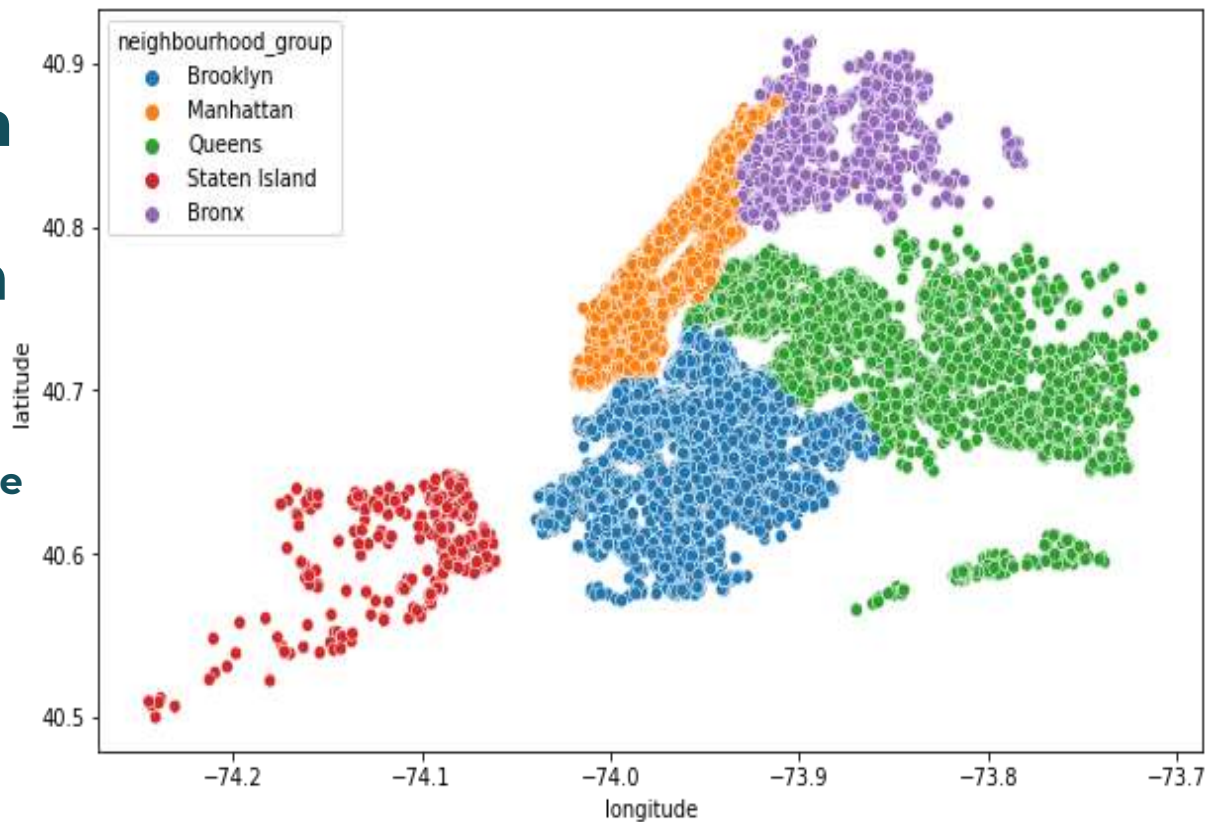




# EDA (contd..)

## Relation between latitude and longitude of each listing

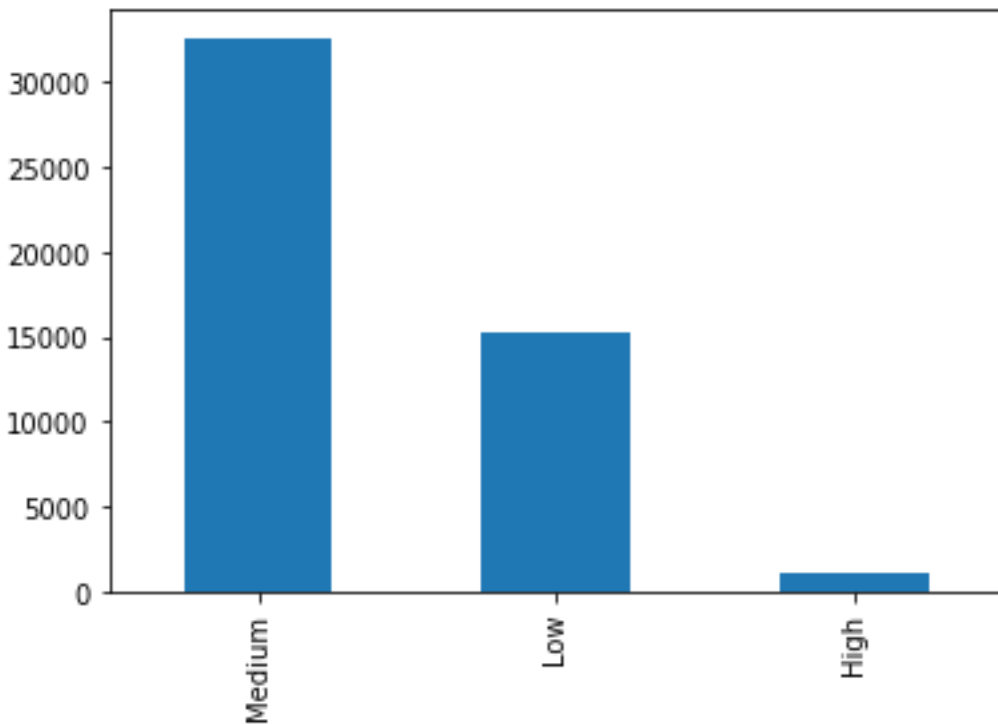
From the points on the map we can see that there is more density in the Brooklyn and Manhattan



## EDA (contd..)

Categorise rooms based on price Let price less than 75 dollars be low, between 75 and 500 dollars be medium and above 500 dollars be high

From the Bar chart – we can see that most of hotel lies in the range of medium priced hotel.



# Recomedations

- Company need to focus on Low price hotels and consider customer review to improve quality.
- Airbnb need more infrastructure in terms of marketing, technology and services especially in broxn and Queens to reduce customers complains .
- Staten Island has the highest mean availability value around 220-250 days so, here company can increase prices and make profit.
- Airbnb can introduce exclusive offers, services in low density area to gather more customers, if place have more customers then services and cost will be good.

# Thank You !

