

Capstone Project-1

Airbnb Booking Data Analysis

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Introduction:

Airbnb:

Airbnb, Inc is an american company that operates an online marketplace or lodging, primarily homestays for vacation rentals and tourism activities. Based in San Francisco, California, the platform is accessible via website and mobile app. Airbnb does not own any of the listed properties; instead, it profits by receiving commission from each booking. The company was founded in 2008 by Brian Chesky, Nathan Blecharczyk and Joe Gebbia.

❖ Map Of Newyork City



❖ Problem Statement

- Key objects what We will be find out from this project:
- what can we learn about different hosts and areas?
- what can we learn from predictions?(ex: locations,prices,reviews, etc)
- which hosts are busiest and why?
- Is there any noticeable difference of traffic among different areas and what could be the reason fo

❖ Data Details:

• Numeric Data

- Id
- Host_id
- Latitude
- Longitude
- Price
- Minimum_nights
- Number_of_reviews
- Reviews_per_month
- Calculated_host_listing_count
- Availability_365

Categorical Data

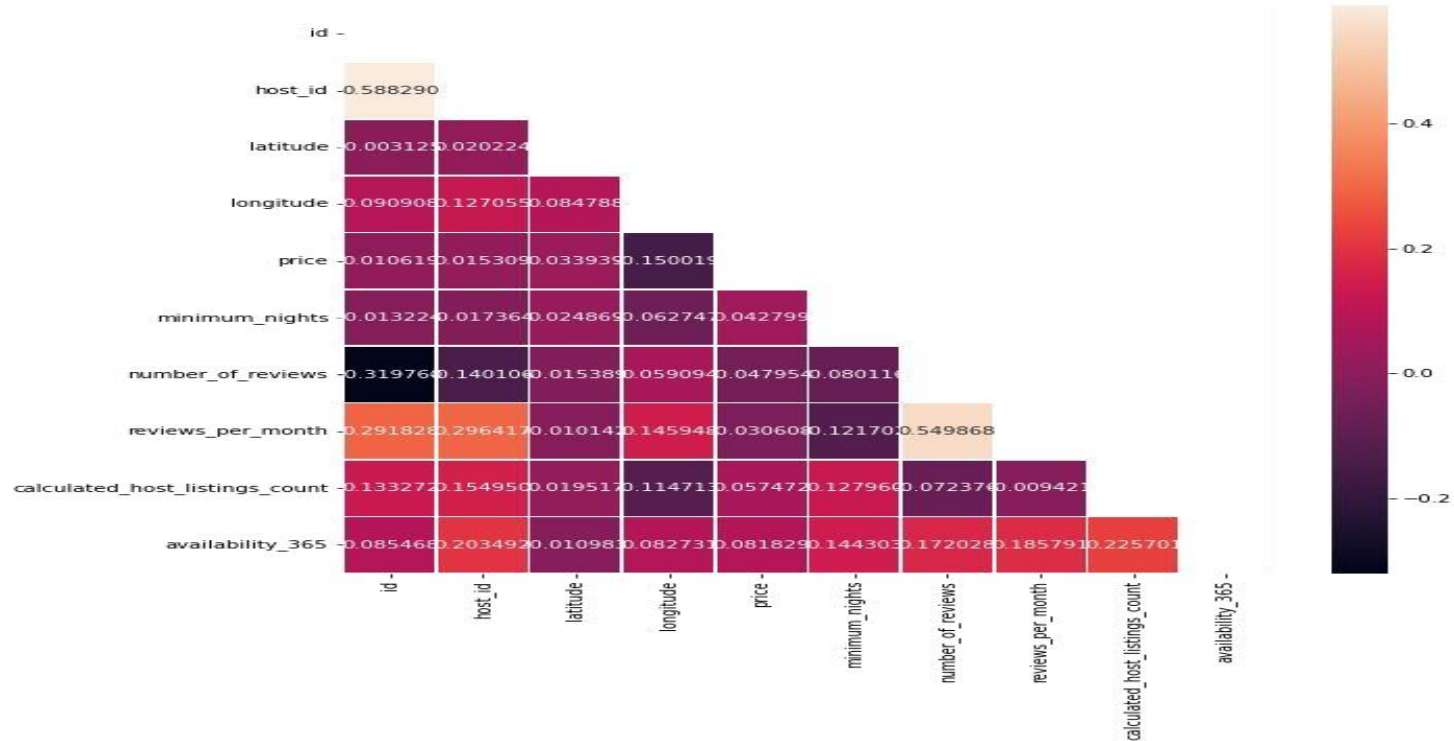
- Name
- Host_name
- Neighbourhood_group
- Neighbourhood
- Room_type
- Last_review

Data preparation and Data wrangling

- **Data exploration:** visualization of data is made to analyze and understand data.
- **Dealing with missing values:** In datasheet we can remove null values or replace them as NaN value.
- **Reshaping data:** The data is modified and manipulated according to the requirements.
- **Filterinng data:** The unnecessary rows and columns are are filtered.
- **Others:** Other functions also used to.

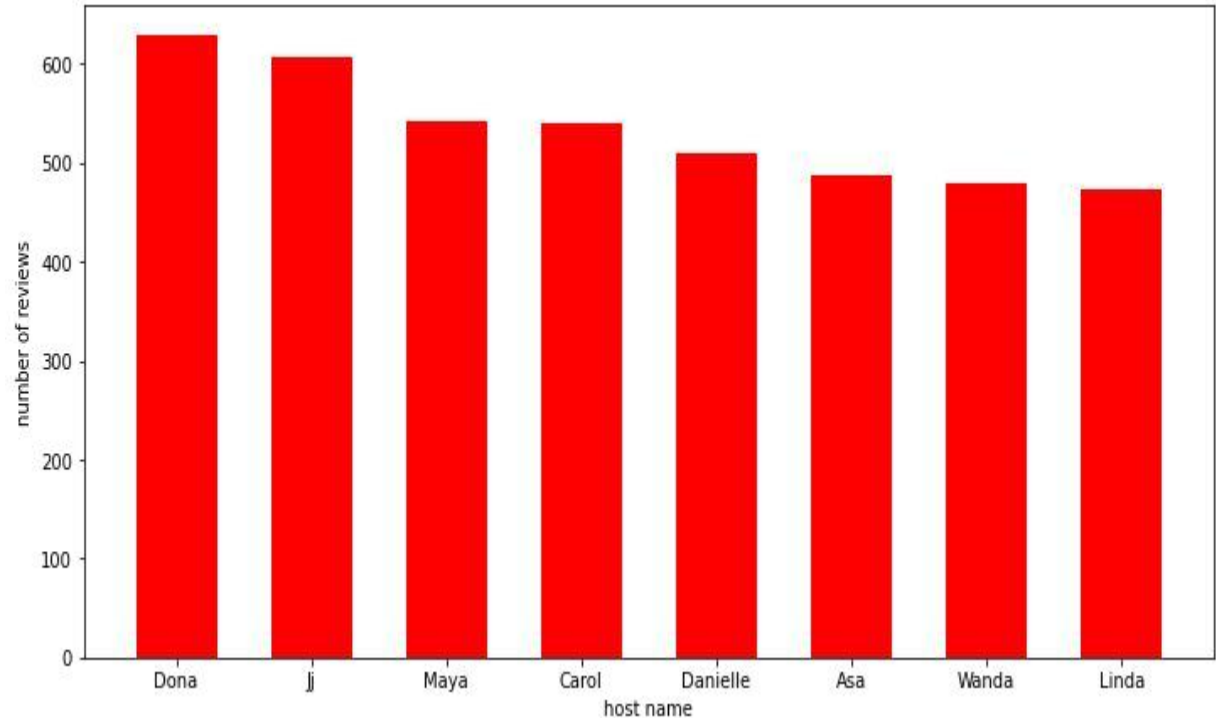
DATA VISUALIZATION

Data Correlation Matrix



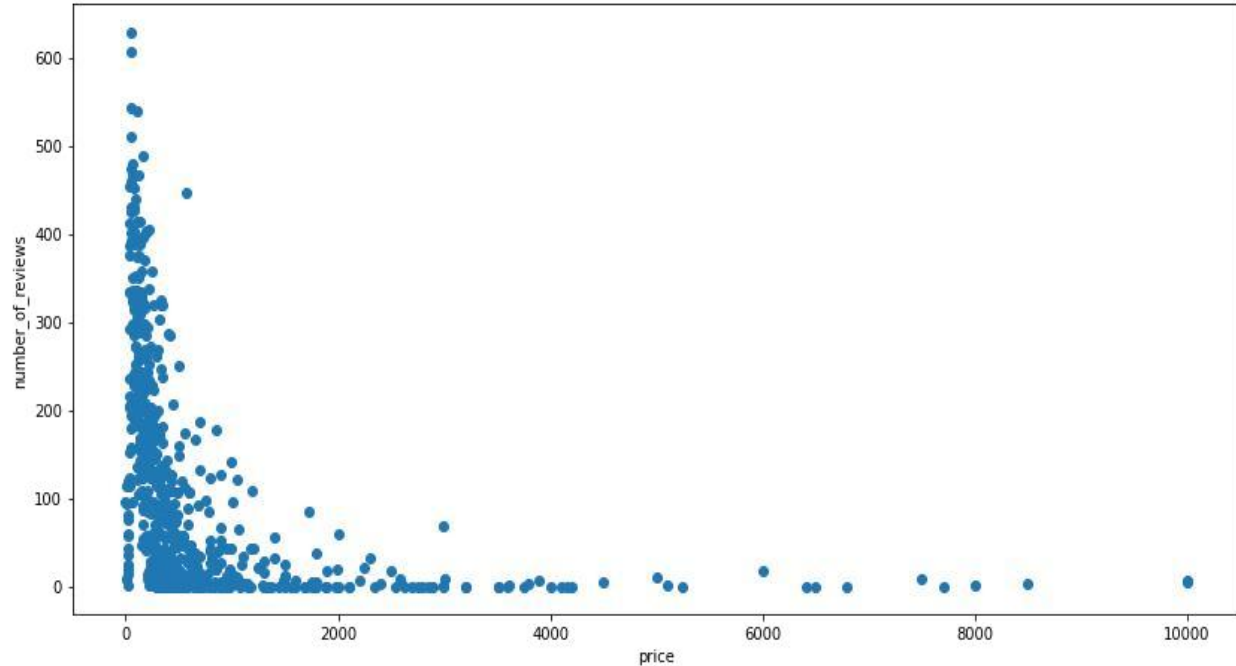
■ Host_name vs number_of_reviews

- From this plot we can say that most of busiest hosts are Dona, Ji, Maya, Carol and Denielle because these hosts listed room type as entire home/apt and private room which is preferred by most of people.



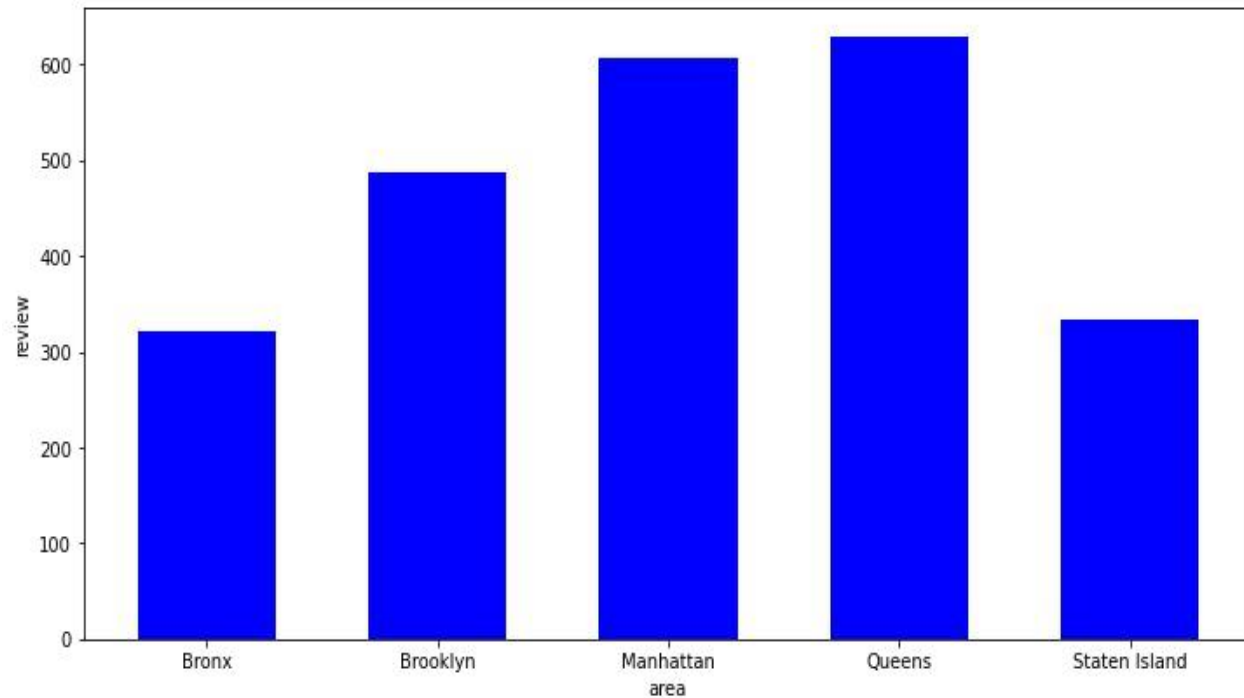
■ Number_of_review vs Price

- From the analysis we can say that most people prefer to stay in which areas where prices is less.



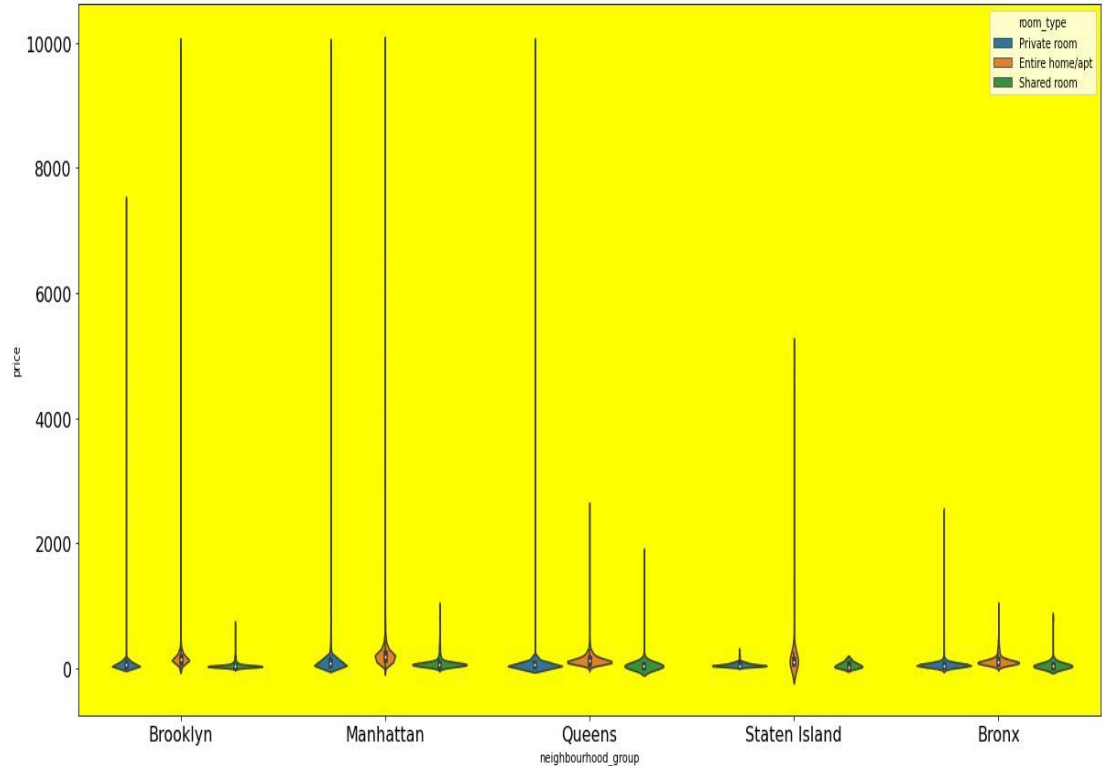
■ Neighbourhood_group vs number_of_reviews

- From this analysis we can say that most number of reviews get Manhattan and Queens neighbourhood group.



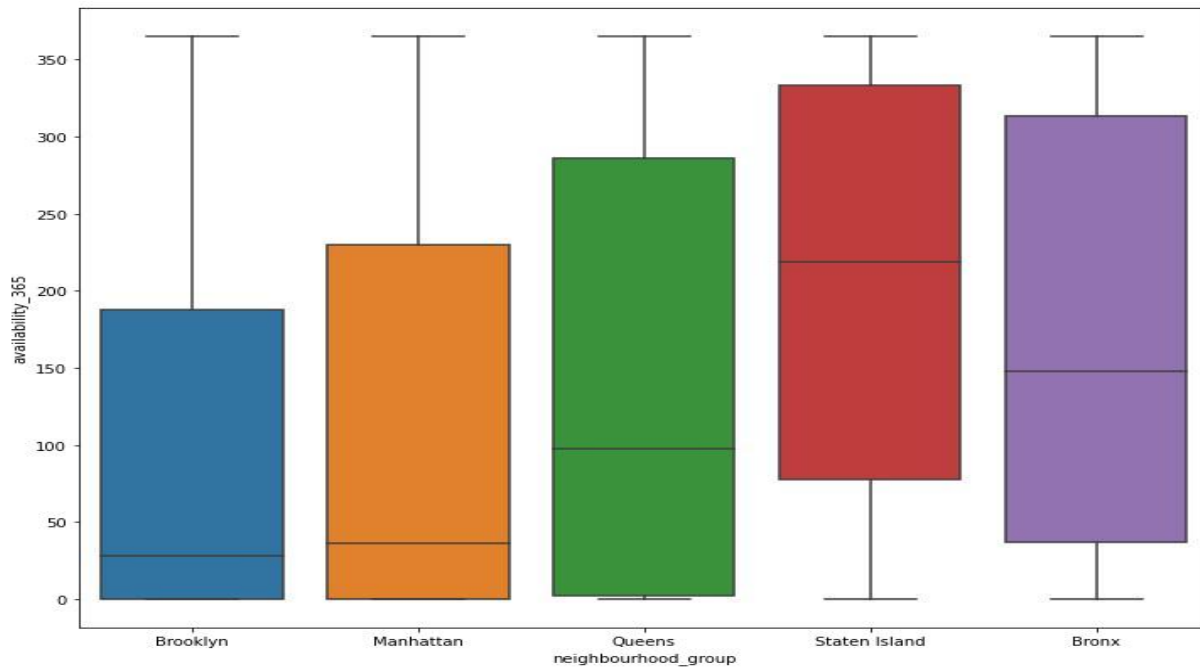
■ Price vs neighbourhood_group, room_type

- Here , from this plot we can say that most of rooms are in prices below 2000 in all neighbourhood group. Manhattan, Queens and Brooklyn has most number of rooms in private and entire home/apt type rooms.



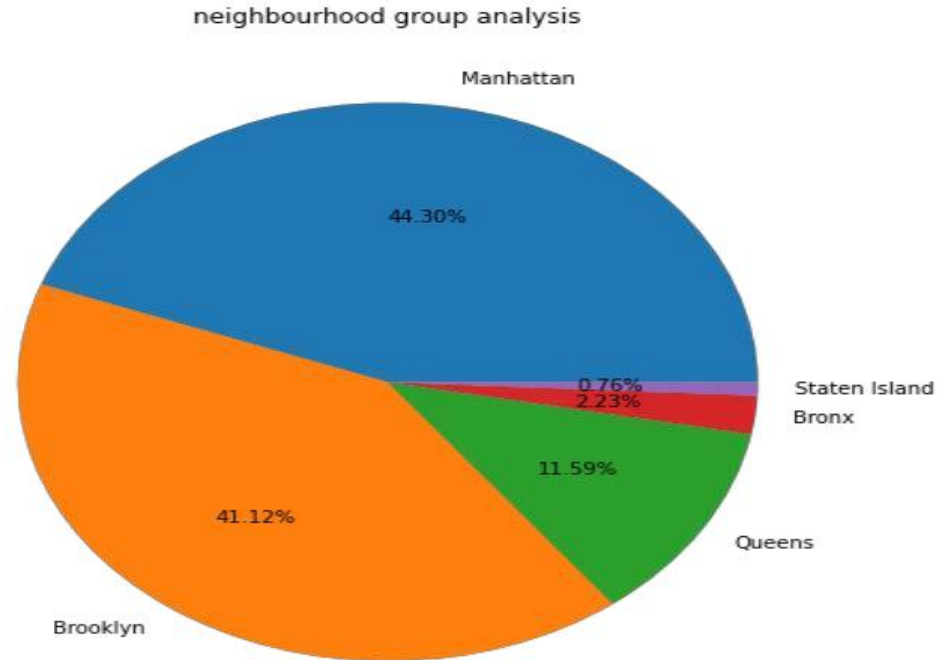
■ Neighbourhood_group vs availability_365

- In this plot we can find that island has the heighest mean availability value as compared to others.



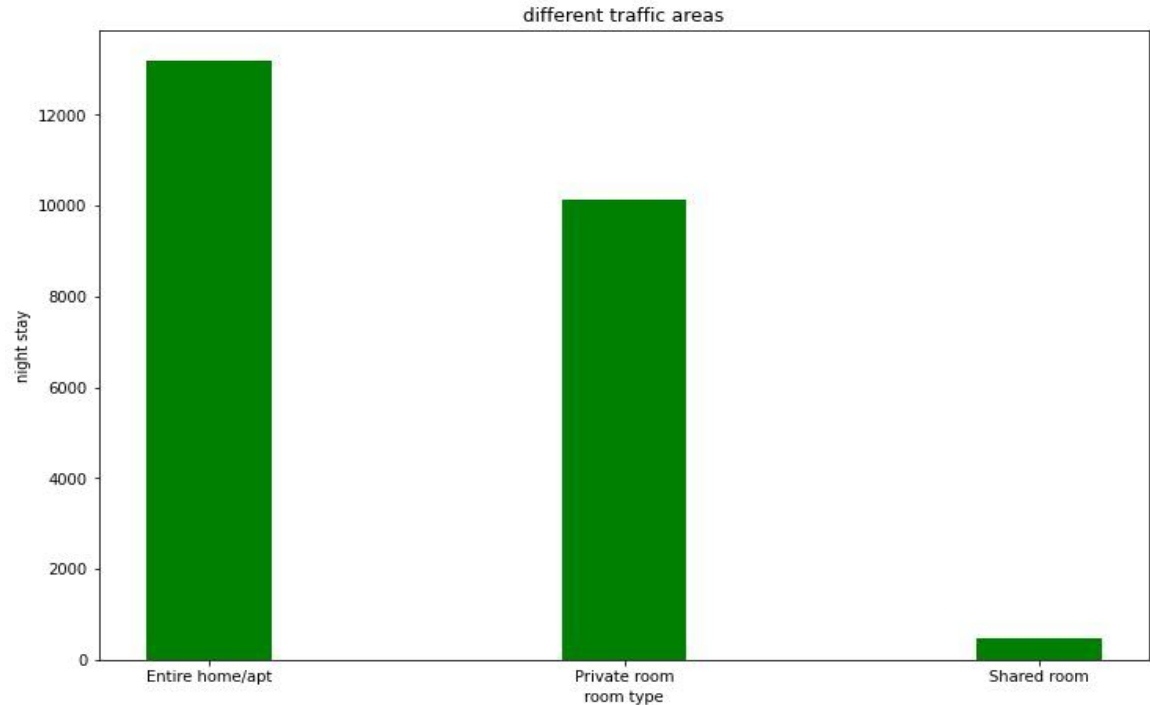
■ Neighbourhood_group analysis

- From the above analysis, We have to check out the percentage of each neighbourhood group. we can see that many rooms are rented out in two areas Manhattan 44.3% , Brooklyn 41.1% and Staten island cover very low area as compare to other neighbourhood group



■ Room_type vs Minimum_nights

- In this analysis we find that most of people preferred entire home and private room for night staying.



Conclusion:

- **Most Airbnb services is located in Manhattan and Brooklyn due to capital income state.**
- **In the category of room type we analysis that entire home/apt and private room are the most preferred room.**
- **sondar(NYC) is the busiest host among all.**
- **The neighbourhood group 'Manhattan' has highest number of listings in entire NYC.**
- **• Manhattan is the most focused place in New York for hosts to do their business.**

Thank You !

