

AI

Capstone Project - 1

Airbnb Bookings Analysis

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Introduction to Airbnb

- Airbnb, Inc. is American Company which is based in San Francisco, California.
- It operates an online marketplace focused on short-term homestays and experience.
- It's platform can be accessible via website and an mobile app.
- The company was founded in 2008 by Brian Chesky, Nathan Blecharczyk, and Joe Gebbia.



Introduction to Dataset

- The dataset consists of booking information on Airbnb.
- It have nearly around 49,000 observations.
- The observation had been observed since 2008 till 2019.

Problem Statements

We will try to answer the following problem statements:

- What can we learn about different hosts and areas?
- What can we learn from predictions? (ex: locations, prices, reviews, etc)
- Which hosts are the busiest and why?
- Is there any noticeable difference of traffic among different areas and what could be the reason for it?

Columns Description

The dataset consists of 16 columns which are as follows:

- **id** - It is the unique id for property listed.
- **name** - It is the name of the property listed.
- **host_id** - It is the unique id for registered hosts(providers).
- **host_name** - It is the name for the registered hosts.
- **neighbourhood_group** - It is the name of area present in NYC.
- **neighbourhood** - It is the name of the neighbourhood present.
- **latitude** - It is the coordinates of latitude of property.
- **longitude** - It is the coordinates of longitude of property.

- **room_type** - It is the type of rooms listed.
- **price** - It is the price for property in USD.
- **minimum_nights** - It is the minimum number of nights people stayed.
- **number_of_reviews** - It the number of reviews from people.
- **last_review** - It is the date when property last reviewed.
- **reviews_per_month** - It is the number of reviews per month.
- **calculated_host_listings_count** - It is the number of listing from each host.
- **availability_365** - It is the number of days property available in a year.

Different hosts and areas

- It is observed that Manhattan has highest number of listings.
- Brooklyn has second highest number of listings.

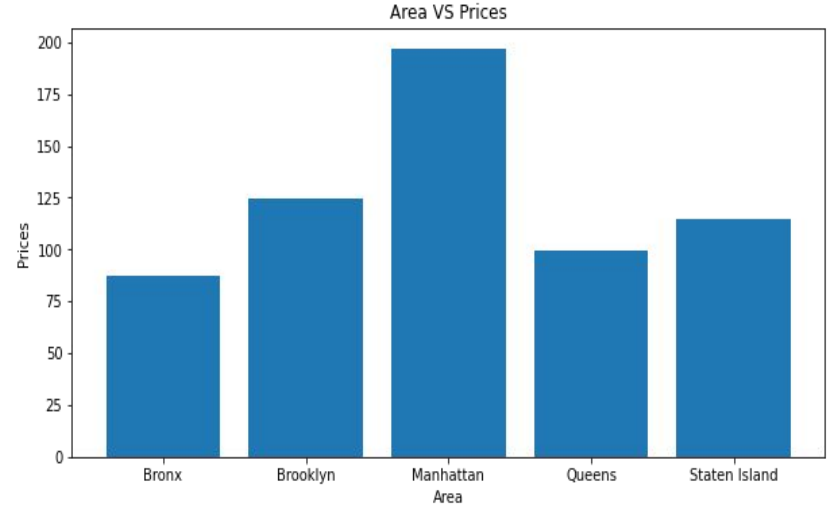
The hosts who have done most number of listings in Manhattan are:

- Sonder (NYC)
- Blueground
- Michael
- David

Area with Maximum Prices

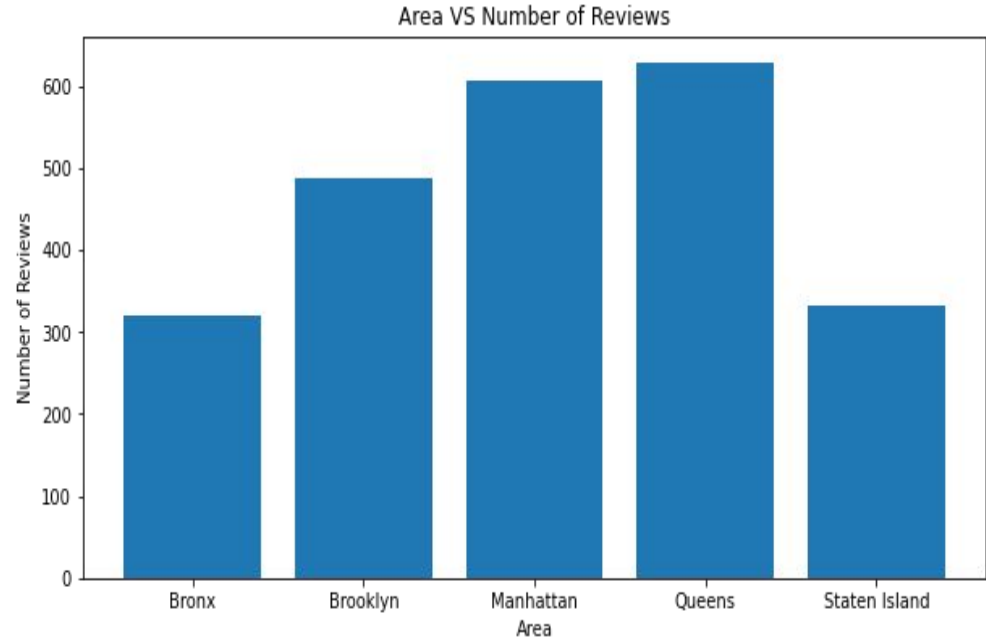
- The average rent price in Manhattan is highest as compared to other ones.
- The rent price in Bronx is the cheapest.
- The other areas have almost similar rent price.

Note: These prices are the mean of all price in that particular area.



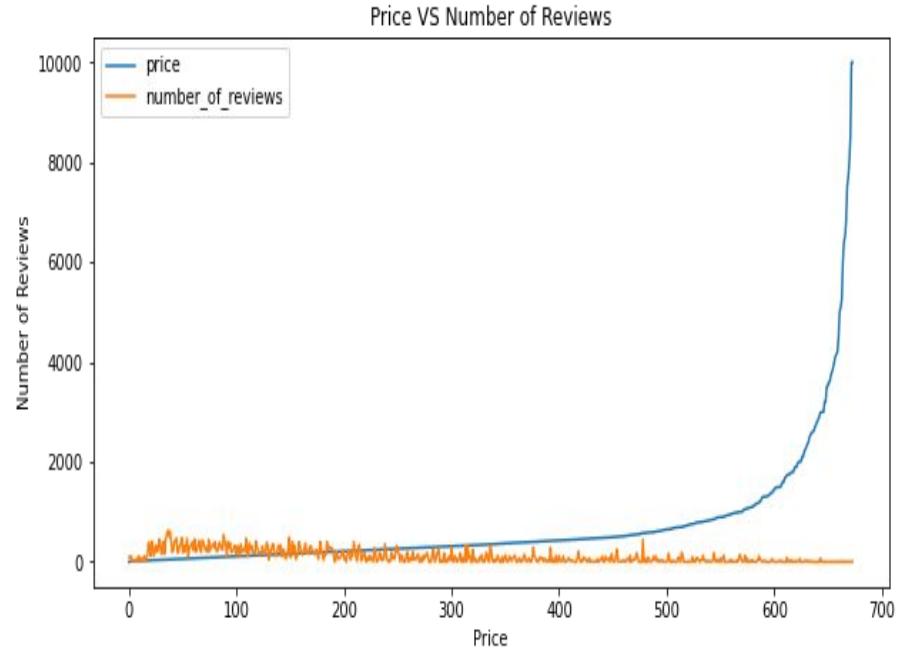
Areas with maximum reviews

- These are the number of reviews from people to the properties in particular area.
- It is observed that Queens have most number of reviews.
- Then followed by Manhattan.
- And then Brooklyn.
- Staten Island and Bronx has received less number of reviews.



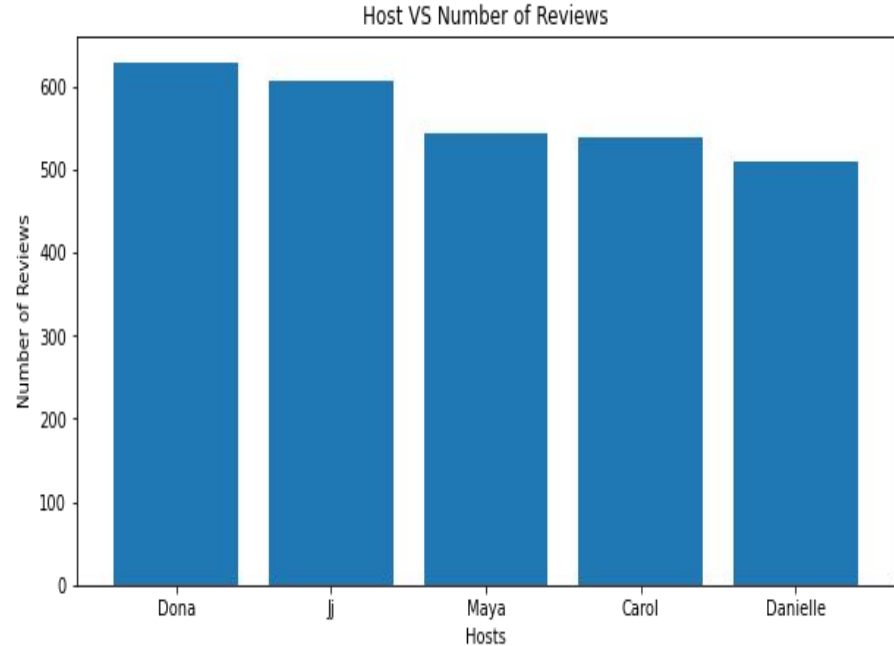
Prices with Number of Reviews

- These are the number of reviews received according to the price of property.
- It is observed that properties with less rental price get more number of views.
- People prefer to stay with cheaper price.



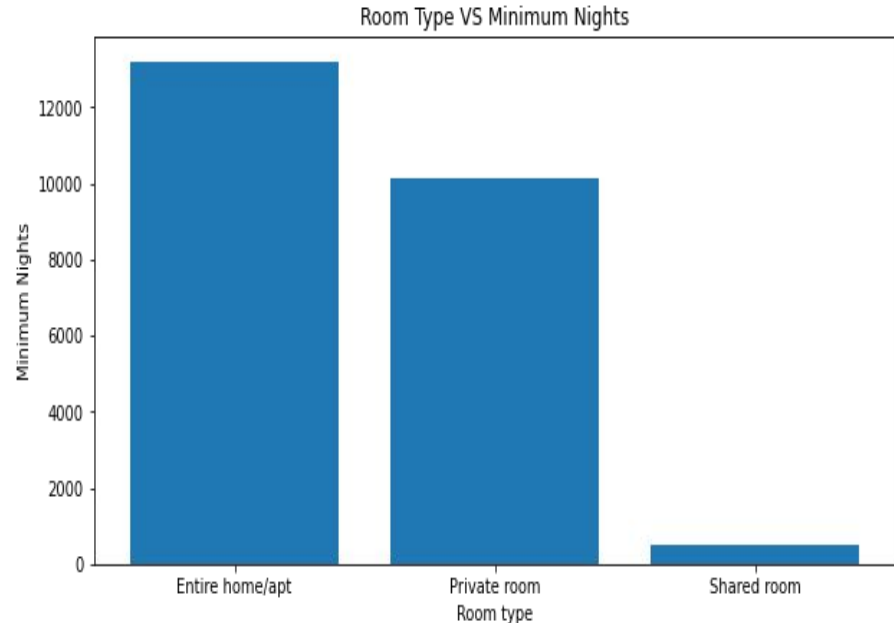
Busiest Hosts

- These are top five hosts with respect to the number of views.
- Among these five, Dona has most number of views.
- The more number of views, busier will be the host.
- The common thing between them is that they listed more private rooms.



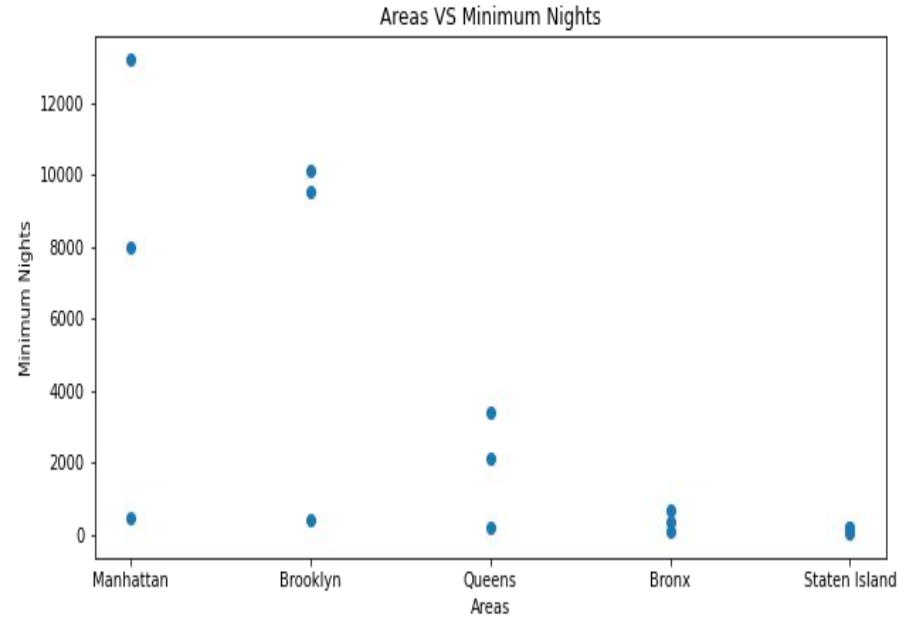
Preferred Room Type

- There are total three room types listed in dataset.
- Entire home/apt, Private Room, Shared Room.
- People prefer to go with Entire home/apt for longer stay.
- People also go for private room for shorter period.
- Shared room type is the least preferred.



People Stay Area

- These are total five areas where people prefer stay more.
- Among them, Manhattan is the area where people stay for long period.
- Then followed by Brooklyn and Queens.



Conclusion

- Most of the people prefer for cheaper price for rent.
- If people are staying for longer period, then they prefer Entire home/apt and private rooms.
- In New York City, Manhattan has the highest number of listings.
- Then followed by Brooklyn and Queens.
- Staten Island and Bronx has least number of listings.
- Prices in Manhattan are highest because it is a tourist place, famous for its museums, parks and many more.
- Brooklyn and Queens also are tourist attraction, having satisfying number of listings and most importantly, cheaper than Manhattan.

Thank You