Airbnb Analysis Insights

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Agenda

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Objectives

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 full prepared for this change.

So, analysis has been done on a dataset consisting of various Airbnb listings in New York to increase the revenue.

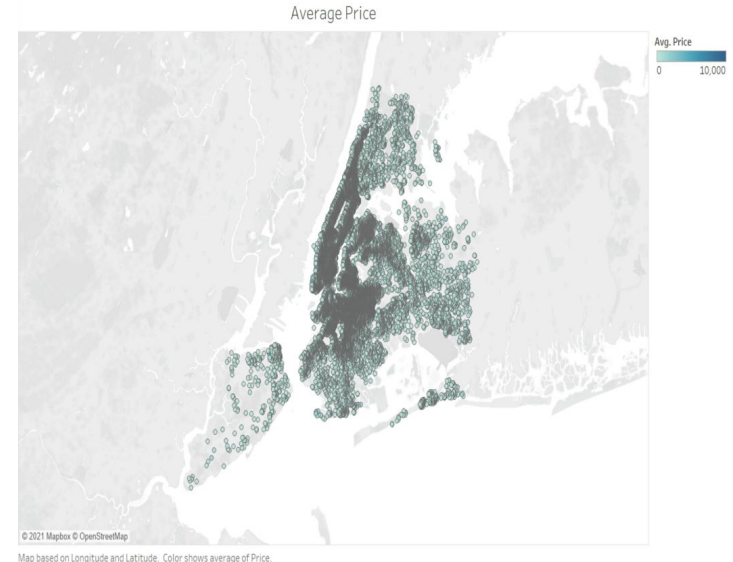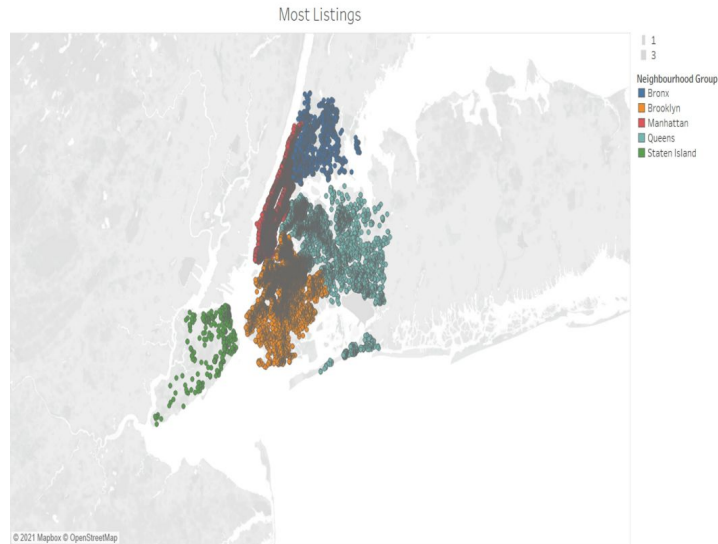# Key Findings

Hosts with Highest Number of Listings

Hosts from the Manhattan area have the most number of listings. Sonder (NYC), Blue ground and Kara being on the top. Sonder (NYC) has a staggering 327 listings.

The 4th being Kazuya, which interestingly has listings in Queens, Manhattan and Brooklyn.
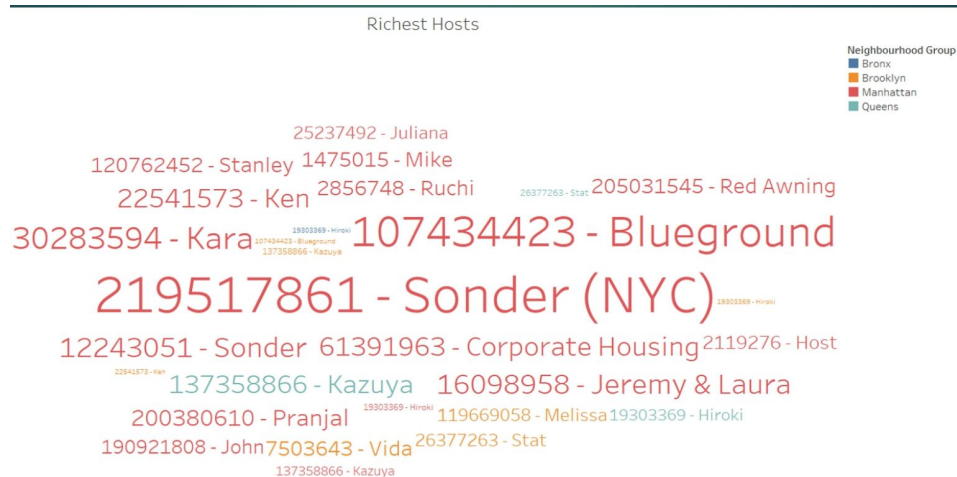
Average Price and Location of Properties

Both in terms of most listings and average price, it is evident from the graph that Manhattan is at the top, followed by Brooklyn.

Most Listings

Neighbourhood Group
Bronx
Brooklyn
Manhattan
Queens
Staten Island

Map based on Longitude and Latitude. Color shows details about Neighbourhood Group. Size shows count of Id.

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Average Price

Avg. Price
0   10,000

Map based on Longitude and Latitude. Color shows average of Price.

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Minimum Stay vs. Listings

Hosts should be encouraged to reduce the minimum stay criterion in order to get more bookings. Listings with minimum nights criterion less than a fortnight are the most (approx. 43k listings), which means there is a huge market for shorter duration stays.

Those with 15 days to a month of criterion are approx. 5k listings, which is a huge drop. Hence, hosts should be encouraged to have this criterion preferably less than 15 days.

Minimum Nights v/s Bookings

Count of Id for each Minimum Nights (bin). Color shows details about Room Type.

Room Type vs. Pricing vs. Availability

Apartments and private rooms should be made available for more number of days in a year as the company is losing out on high revenue potential.

Entire homes/apartments are the most expensive and shared rooms are the cheapest, for obvious reasons.

However, when it comes to availability, the shared rooms are available for little less than half a year on average, whereas apartments and private rooms are available only for a little more than a quarter of a year on average.

Room Type v/s Pricing

Room Type

| Avg. Availability 3.. |
| 111.20 — 162.00 |

Entire home/apt
Private room
Shared room

Avg. Price: 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220

Average of Price for each Room Type. Color shows average of Availability 365.

Revenue vs. Pricing

Assumption: Since we do not know the number of nights the guests have stayed, we will consider the variable "minimum nights" to calculate the revenue per booking.

Premium properties should either increase the availability (more days per year) or increase the minimum nights criterion as many of them don't seem to be making much revenue per booking.

The scatter plot shows us a lot of high price listings at the bottom of our plot which is not good for the business.

Revenue per Booking v/s Price
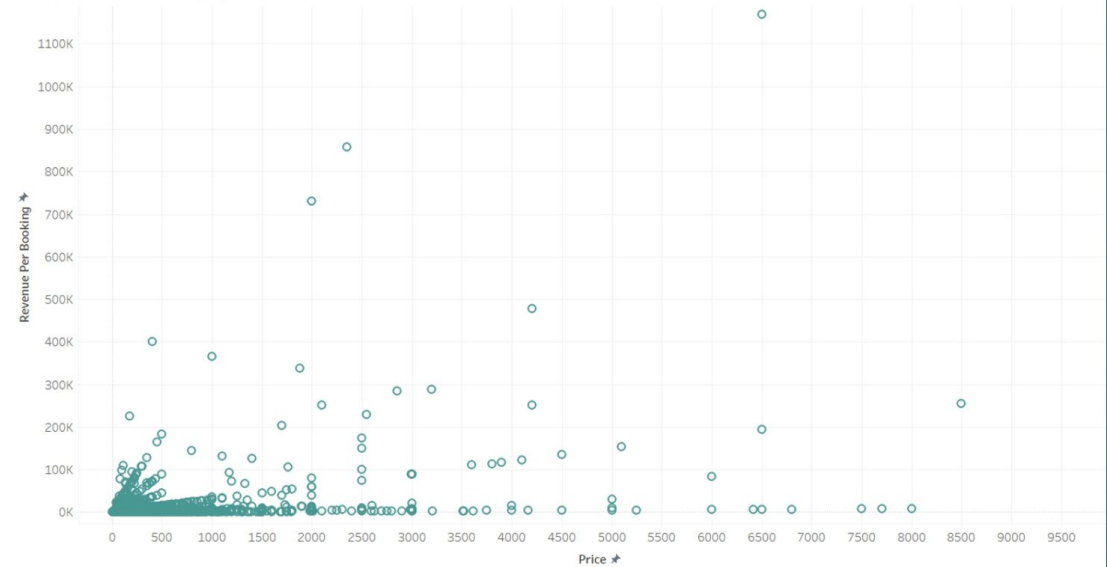
Price vs. Revenue Per Booking.

Recommendation

- Manhattan and Brooklyn areas are preferred neighbourhoods area. Hence those areas should be targeted.

- Apartments and private rooms should be made available for more number of days in a year as the company is losing out on high revenue potential

- Hosts imposing a higher minimum nights should be encouraged for going easy on the criterion, to get more bookings.

Appendix

- The important variable in the data dictionary are neighborhood_group, room_type, price , location & reviews.
- Methodology document has been uploaded in PDF format separately.
- We have used AirBnB data from the year 2019.

Thank You.