



NEWYORK CITY AIRBNB ANALYSIS

GROUP N

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OUR TEAMS – GROUP N



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GENERAL OVERVIEW DATA AIRBNB

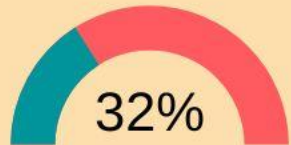




airbnb NEWYORK CITY

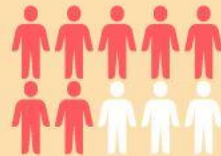
TOTAL AIRBNB BEDS

60.5K of 188.4k



VISITORS IN 2019

66.6 MILLION



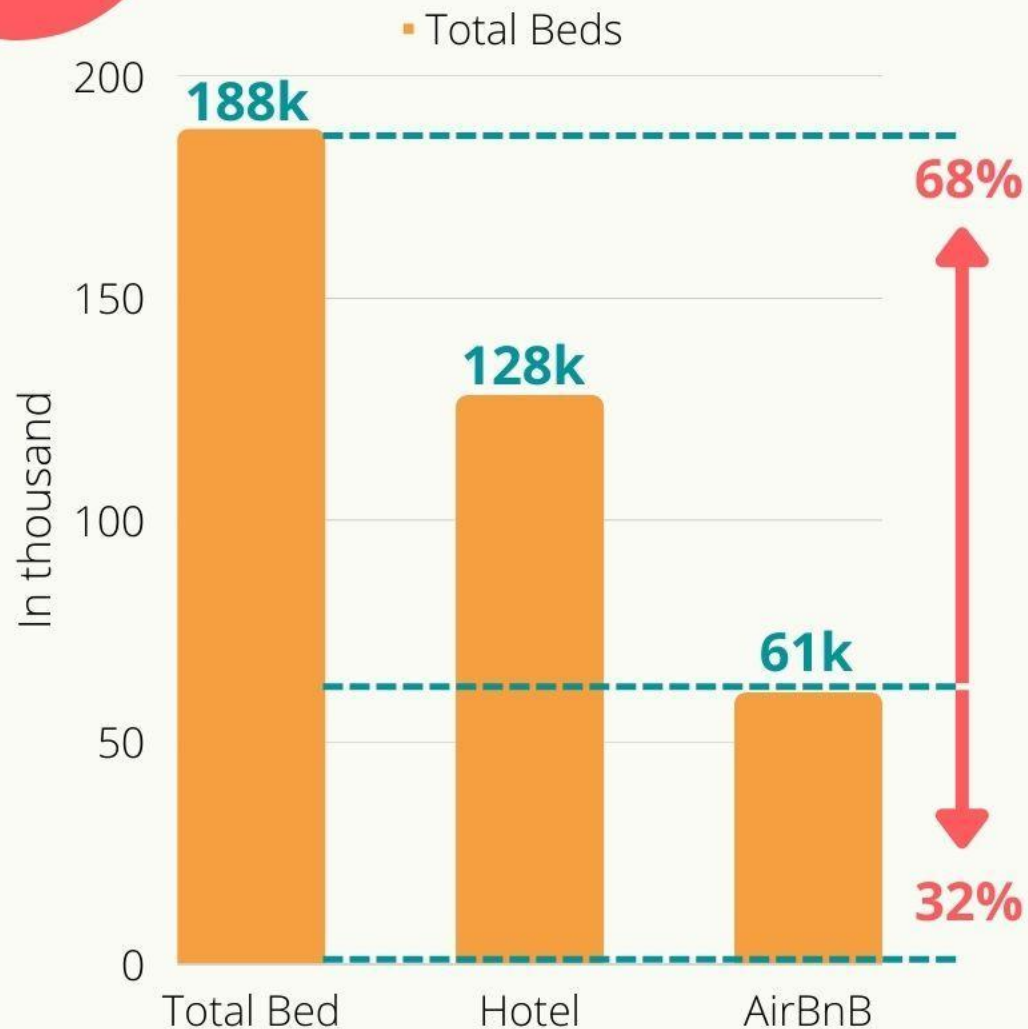
NUMBER OF BOROUGH

5

source : [New York City Airbnb Data](#)



Limitation : the dataset is from Jan 2008 to Dec 2020.



OCCUPANCY RATE OF AIRBNB IS ONLY 50% ON AVERAGE



AIRBNB

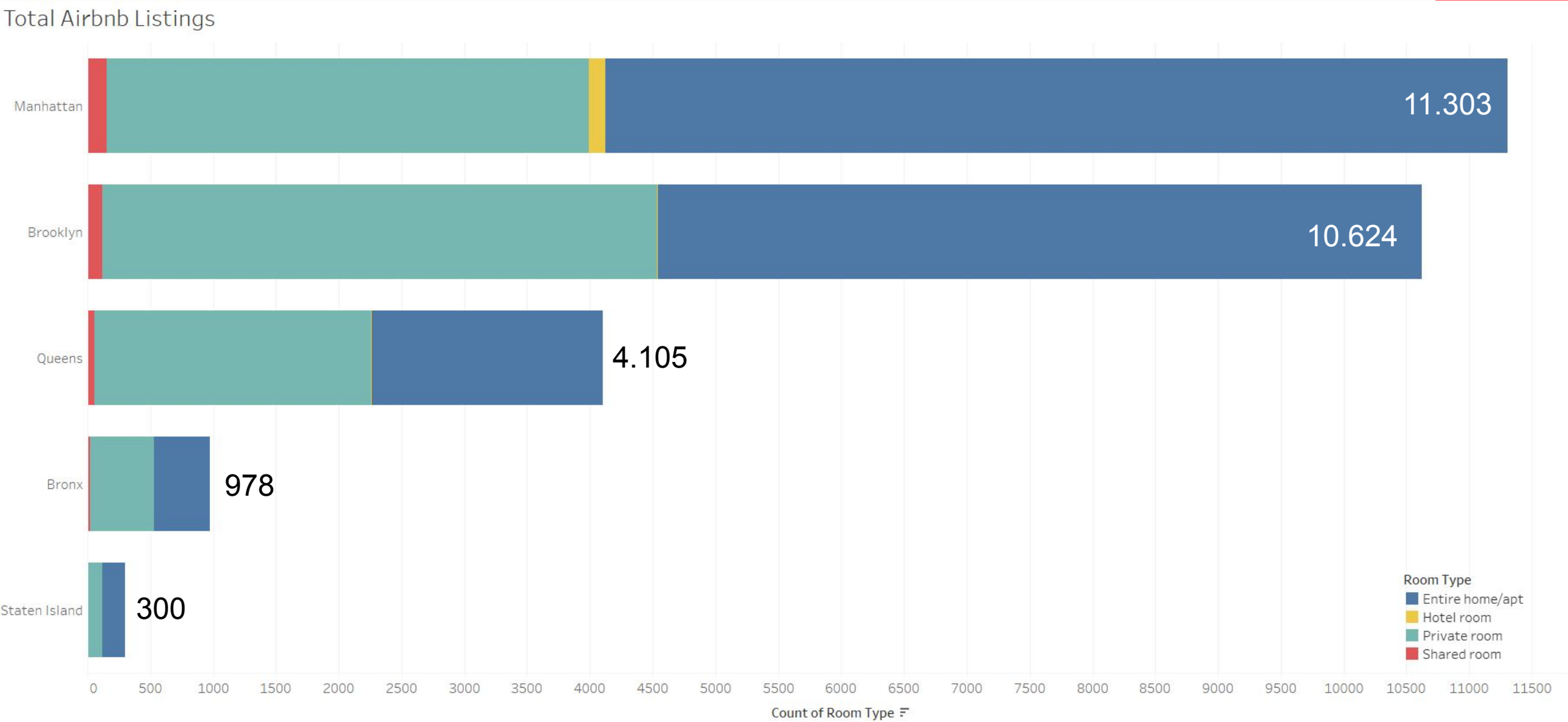


HOTEL

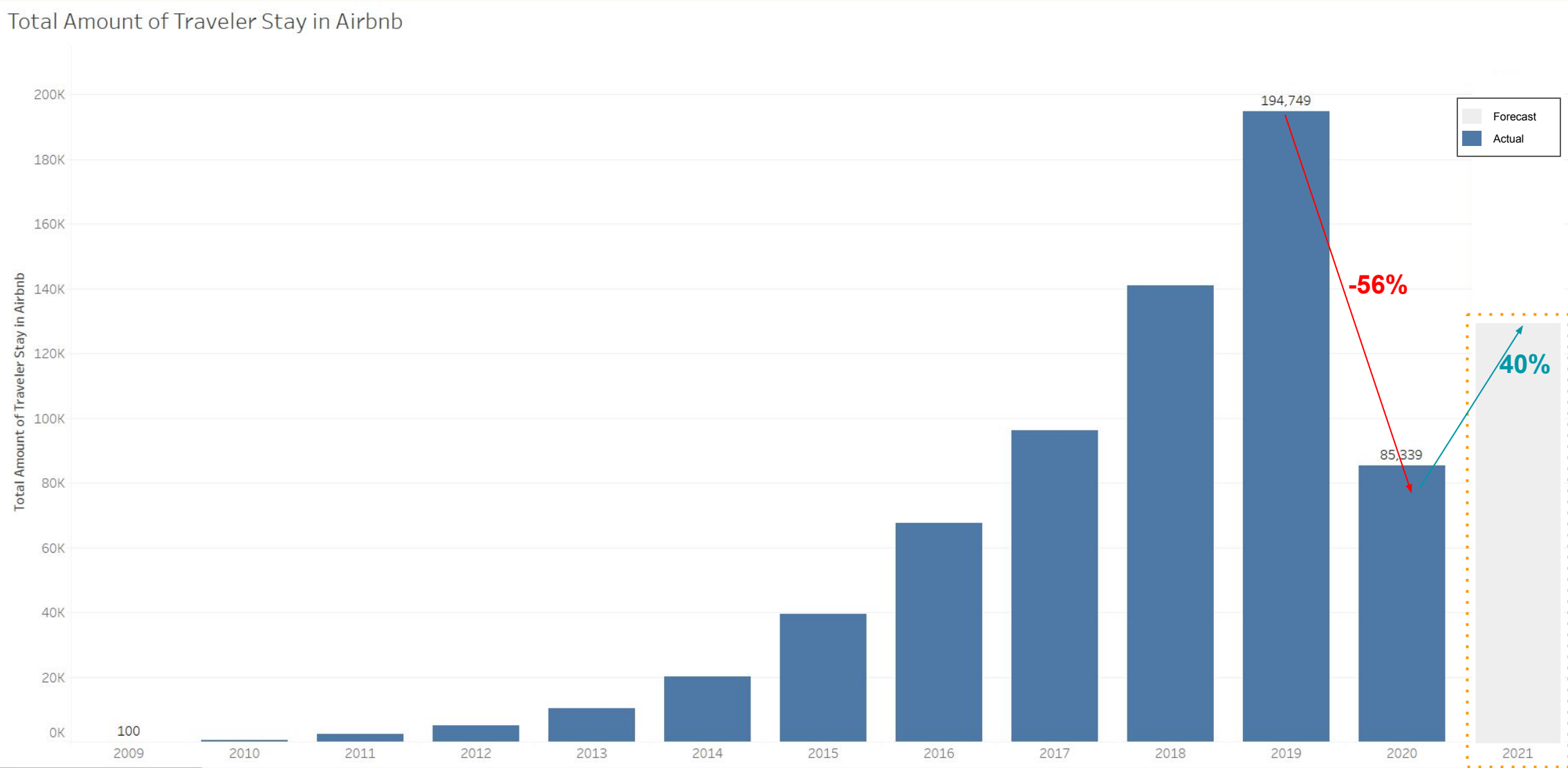
source : 1. [hotel occupancy rate](#)

[2. airbnb occupancy rate](#)

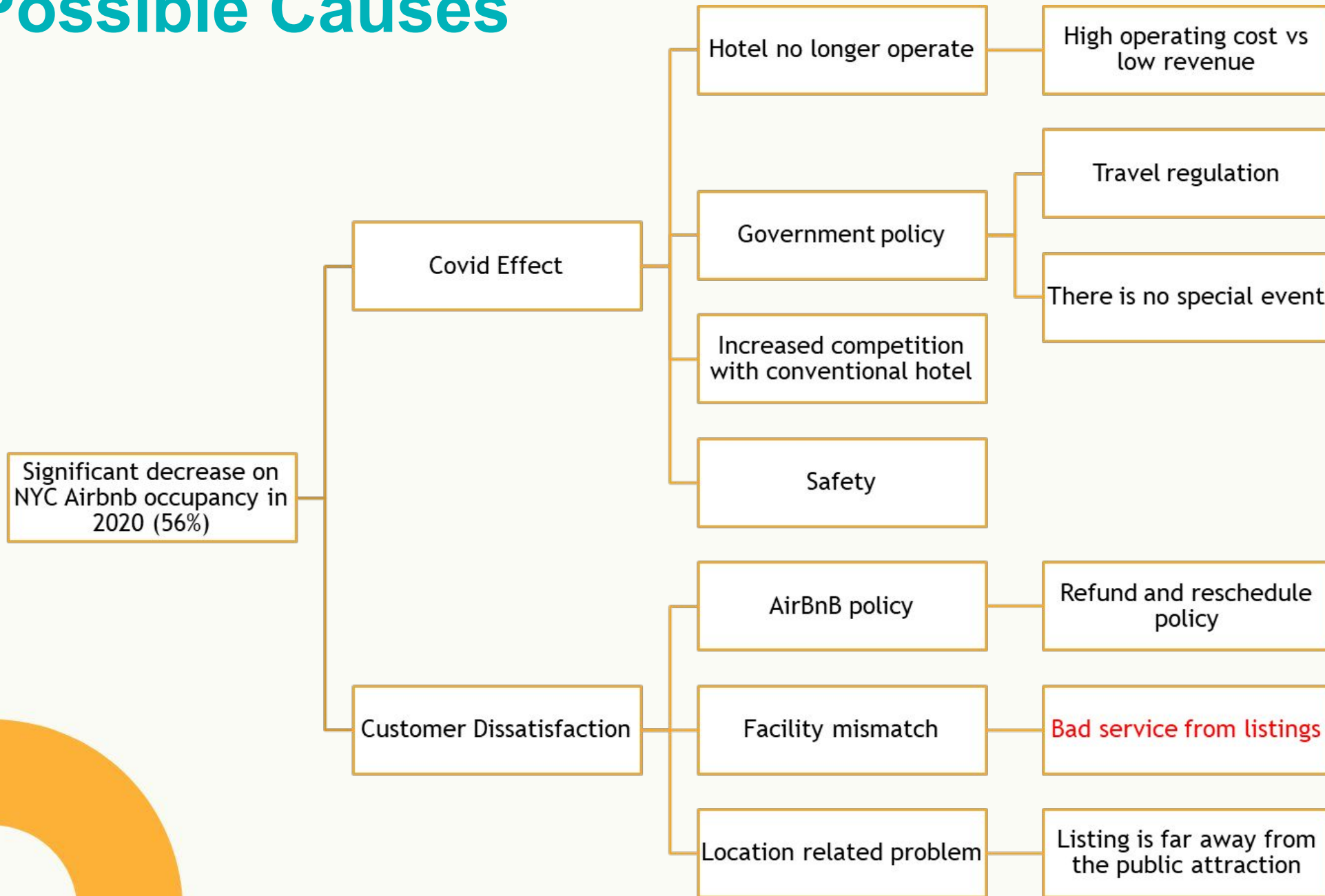
Manhattan has the most total room available in Airbnb listings, followed by Brooklyn, Queens, Bronx, and Staten Island





How to increase the growth of Traveler's stay in Airbnb from -56% yoy in 2020 to +40% yoy by the end of 2021?

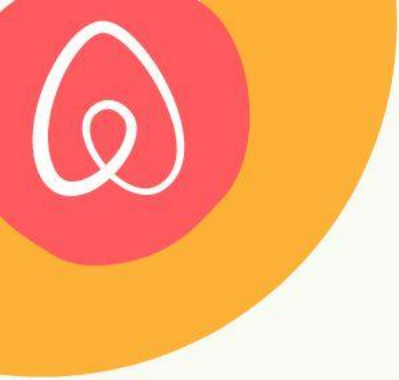


Possible Causes





ANALYSIS AND RECOMMENDATION



LISTING'S CLUSTERING

Based on Recency, Frequency and Monetary



TOP VALUE



HIGH VALUE



MEDIUM



LOW VALUE



LOST

38% of All Total Sales from The TOP Value Listing



TOP VALUE

1.882 listing (7% of Total Listing)
Total Revenue **59.8 mil USD (38%)**



HIGH VALUE

2.874 listing (11% of Total Listing)
Total Revenue **44.7 mil USD (28%)**



MEDIUM

6.018 listing (22% of Total Listing)
Total Revenue **37.4 mil USD (23%)**



LOW VALUE

8.088 listing (30% of Total Listing)
Total Revenue **14.5 mil USD (9%)**



LOST VALUE

8.448 listing (31% of Total Listing)
Total Revenue **2.8 mil USD (2%)**

The Characteristics Each Cluster



TOP VALUE

- Average time latest customer stay is **17** days ago
- Average frequency is 204 times/listings
- Average revenue is **31.176** USD/listings



LOW VALUE

- Average time latest customer stay is almost 2 years ago
- Average frequency is 10 times/listings
- Average revenue is 1.801 USD/listings



HIGH VALUE

- Average time latest customer stay is 160 days ago
- Average frequency is 93 times/listings
- Average revenue is 15.559 USD/listings



MEDIUM

- Average time latest customer stay is 1 year ago
- Average frequency is 35 times/listings
- Average revenue is 6.215 USD/listings



LOST VALUE

- Average time latest customer stay is 3 years ago
- Average frequency is **2** times/listings
- Average revenue is **341** USD/listings

TOP LISTING CHARACTERISTIC



- Price of top listings on average **10% lower than** other listing segment.
- Top listing generally offers their room **for daily stay**, while low or lost listing offers their room only **for monthly stay**.
- We can book **on average 168 days in advance for top listings**, while for lost listings **we can book none** (which means maybe the lost listings is closed permanently). Low listings only give the traveler booked their listings **one month in advance**.
- There's no difference between all listings in terms of room type. Most wanted room type in every segment is **entire home/apt**.



airbnb



RECOMMENDATION

In order to **bounce back faster in 2021**, we have to focus on our Top Listings, while at the same time, applying top listings characteristics to low performance listings.

For Top Listings



This is our revenue generator, we have to give ads placement in first page when traveler searching for nearby listings.



Creating promotional video for top listings using famous influencer.



Creating monthly or weekly discount for traveller if they stay longer (more than 3 days) in top listings.



Creating campaign competition for listings to achieve as much traveler as they could get.

For All Listings



Campaign for seasonal time (for example: National Holiday).



Creating guidebook/guestbook to tell the traveller everything they can do in the area.

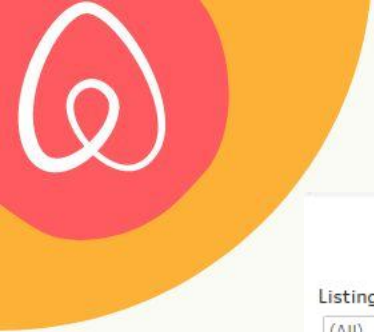


Creating loyalty point program for traveler (for example

Platinum

Gold

Silver

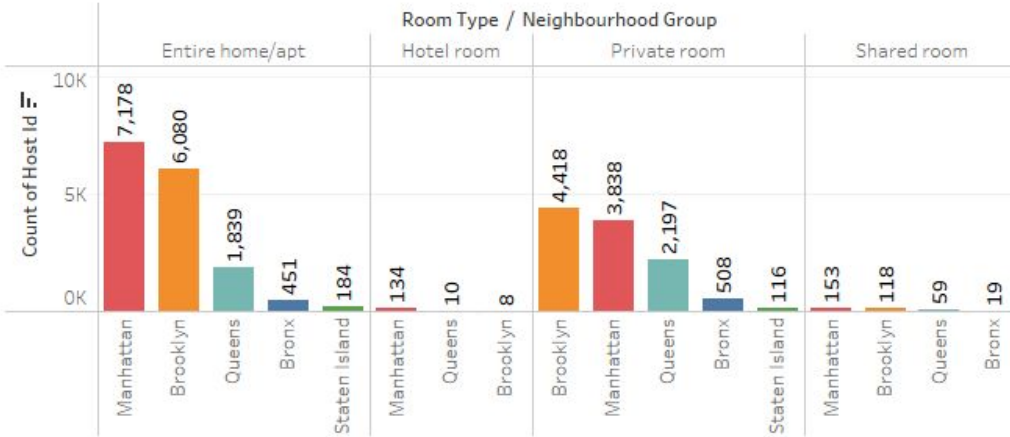


DASHBOARD

AirBNB NYC Operational Dashboard

Listings Segment: (All) Neighbourhood Group: (All) Room Type: (All)

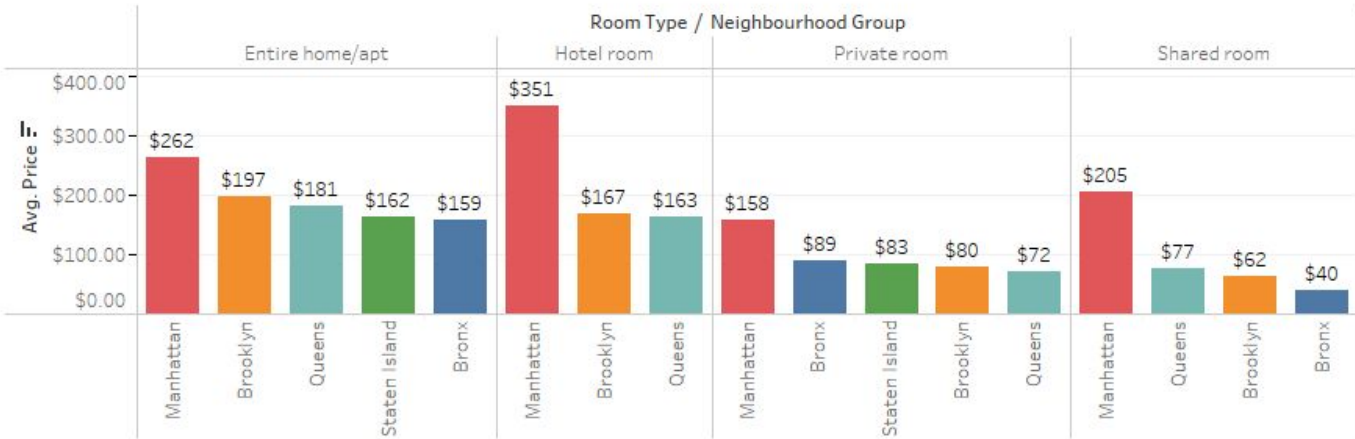
Total Room Type for Each Neighborhood Group



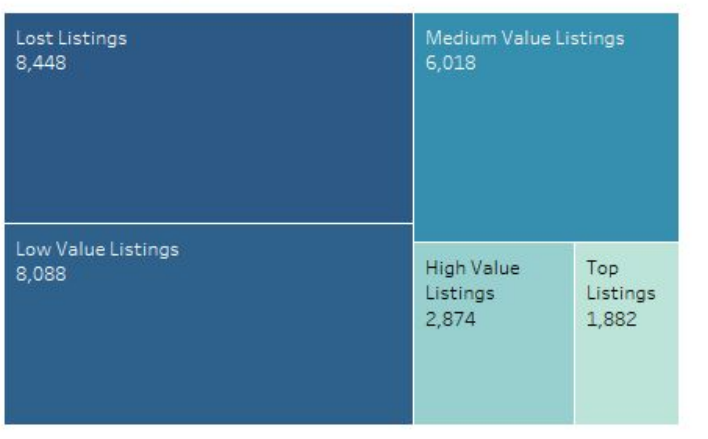
Average & Min Review

Room Type	Neighbou..	Number Of Reviews	Avg. Review Scores Val..	Min. Review Scores Val..
Entire home/apt	Staten Island	7,042	4.6977	3.33
	Manhattan	9,550	4.7246	2.67
	Brooklyn	177	4.6771	4.45
Hotel room	Queens	136	4.6688	4.00
	Brooklyn	115,395	4.6579	1.00
	Manhattan	115,056	4.6566	1.00
	Queens	66,234	4.6544	1.00
	Bronx	13,695	4.6597	1.00
Private room	Staten Island	3,282	4.5971	1.00
	Manhattan	3,962	4.7074	3.00
	Brooklyn	2,741	4.6960	3.00
	Queens	1,787	4.4406	1.00
	Bronx	299	4.6567	4.00
Shared room	Manhattan	153	4.6567	4.00
	Brooklyn	118		
	Queens	59		
	Bronx	19		

Price average of AirBNB Listing by Neighborhoods group



Total Listing Segment



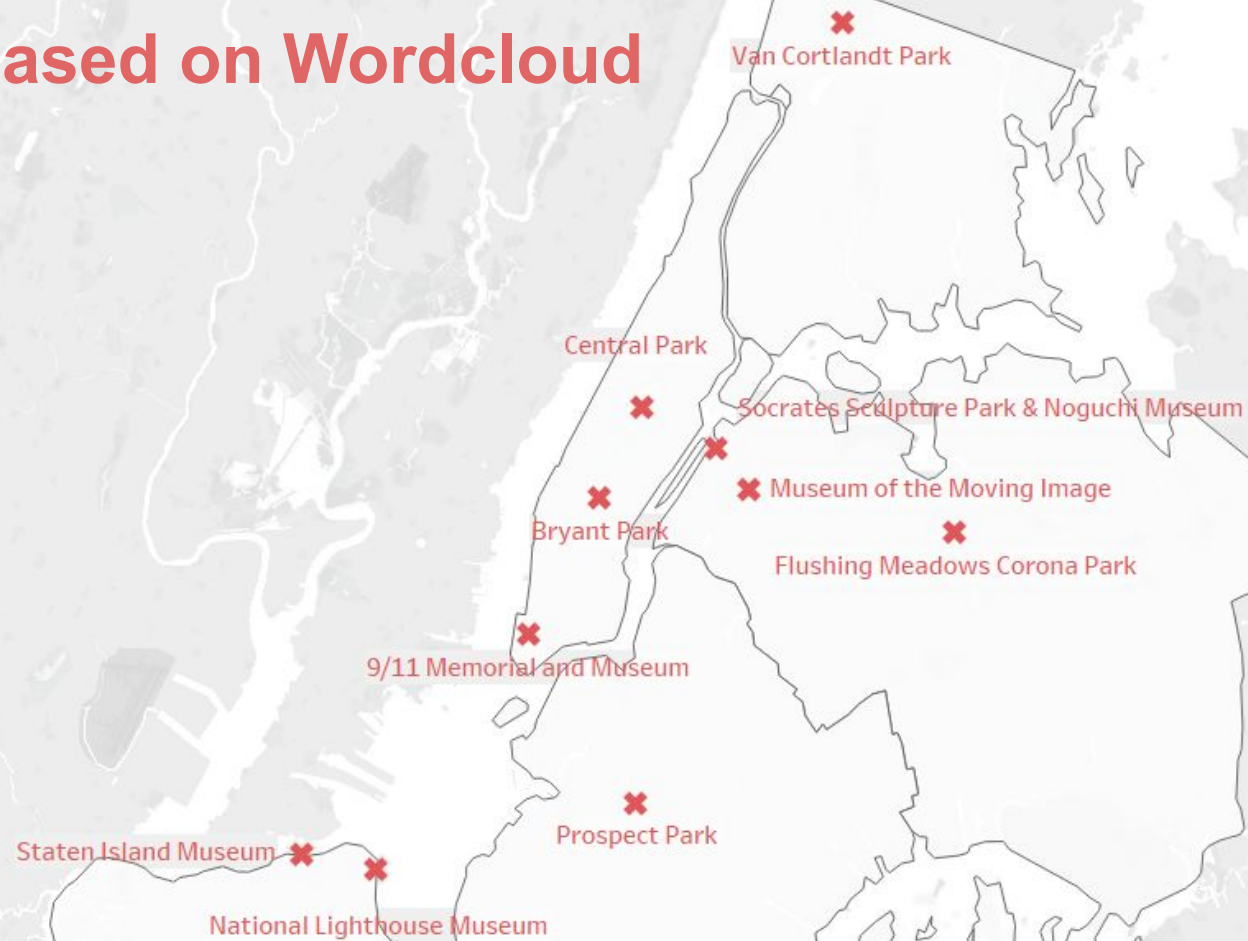


ADDITIONAL INFO

This is New York City



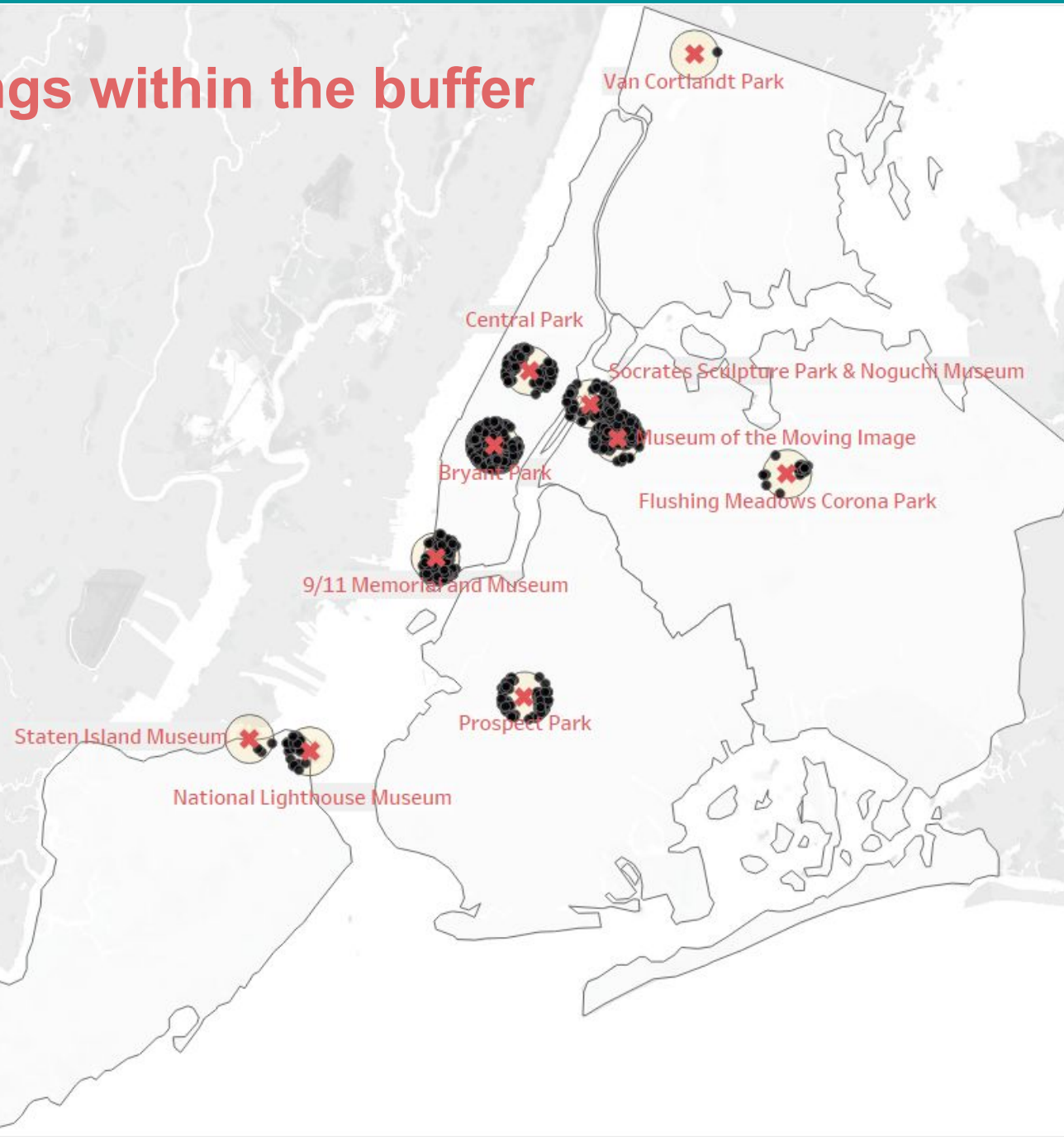
Tourist Attraction based on Wordcloud



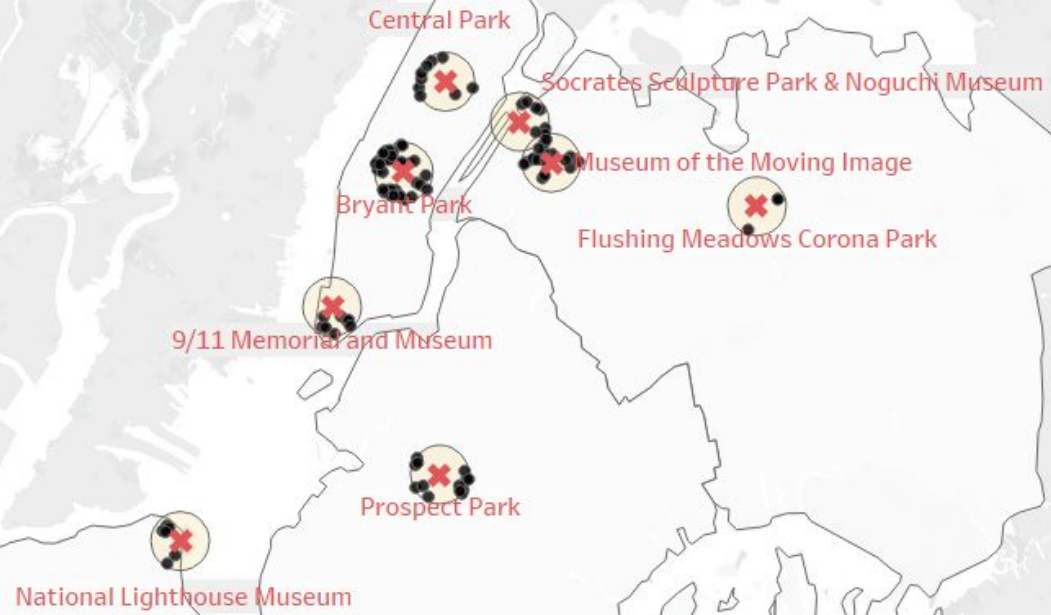
Within walking distance (1 km)...



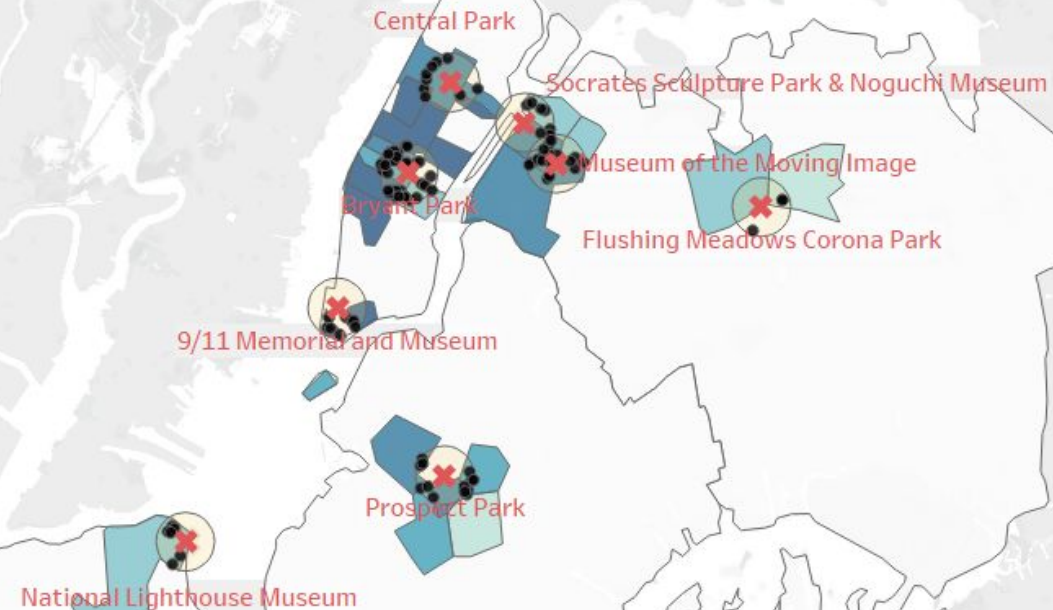
... And Airbnb listings within the buffer



Filter only top listings...

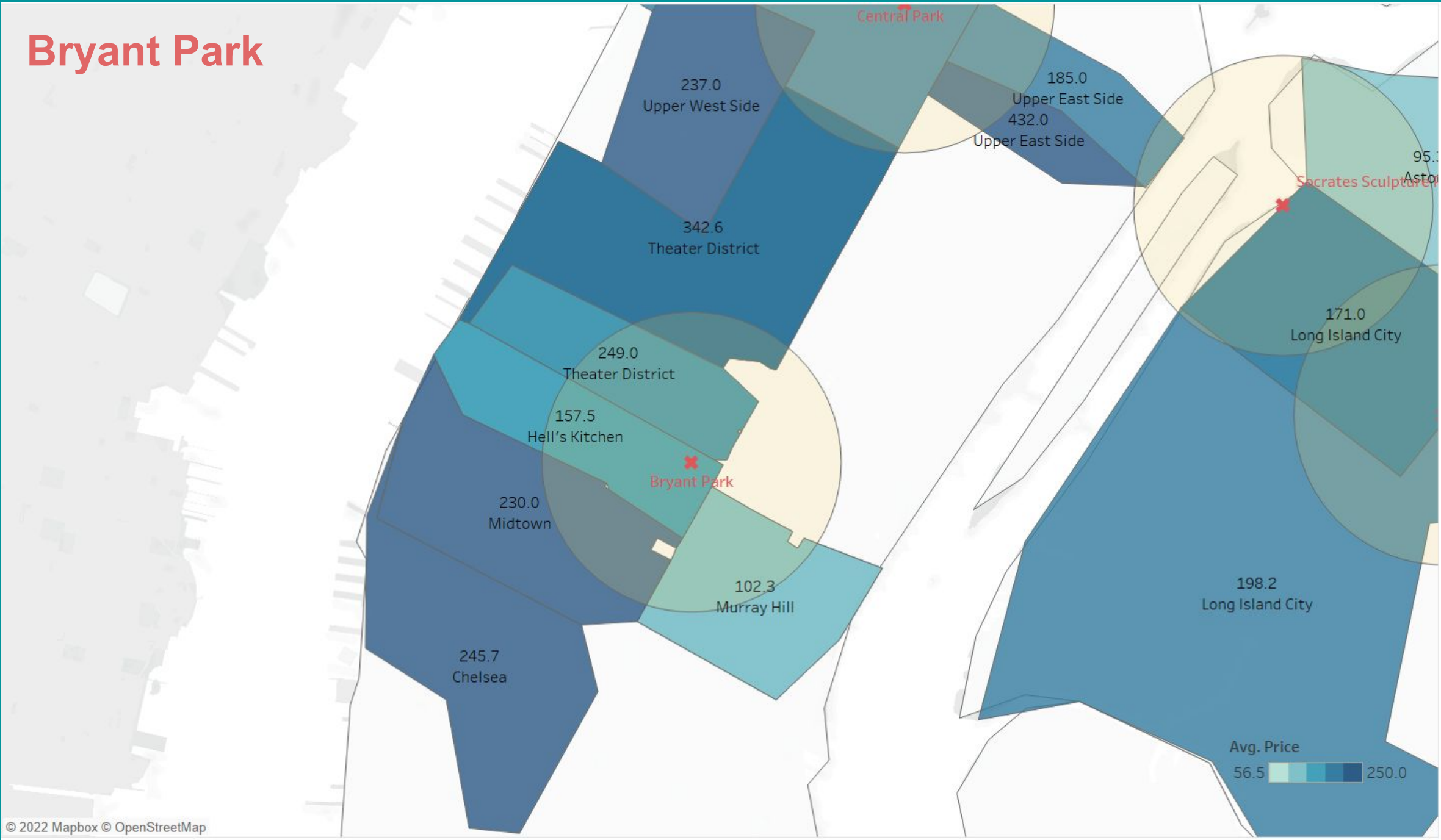


... And show avg price of nearby neighbourhood



Avg. Price
56.5 250.0

Bryant Park



Prospect Park



Thank you!



Full Python Script:

Any question, comment, or feedback?

Feel free to reach me at:



<https://tinyurl.com/rfm-analysis>



<https://www.linkedin.com/in/gilangbahana/>

