

Storytelling Case
Study: AirBnB New
York City

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Objective

- ☐ Enhance our approach to reduce the financial and business impacts of Covid-19 on New York City's Airbnb.
- ☐ Recognize user experience patterns and client preferences for Airbnb in New York City.
- ☐ Provide suggestions for new acquisitions and ways to improve the customer experience.



Background

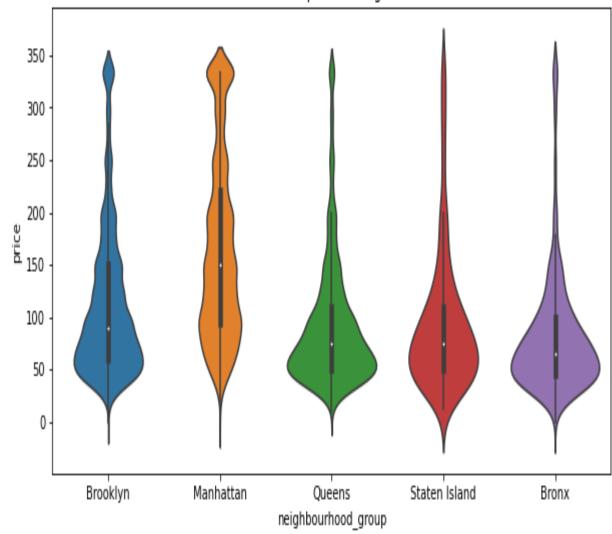
- ☐ Airbnb's income has decreased significantly as a result of travel restrictions imposed by the Covivirus-19 epidemic.
- ☐ Airbnb wants to make sure that it is completely prepared for this transformation now that the limits have started to loosen and people have started to travel more.
- ☐ Hence, analysis has been done on a dataset made up of several New York AirBnB listings.



Distribution of prices in neighbourhood

- ☐ First, we can state that Manhattan has the highest range of prices for the listings with \$150 price as average observation, followed by Brooklyn with \\$90 per night.
- Queens and Staten Island appear to have very similar distributions, Bronx is the cheapest of them all.
- ☐ This distribution and density of prices were completely expected; for example, as it is no secret that Manhattan is one of the most expensive places in the world to live in, where Bronx on other hand appears to have lower standards of living.

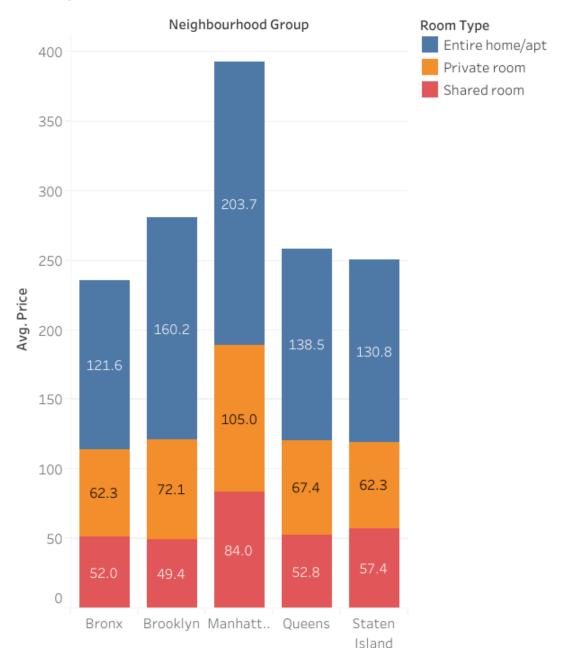




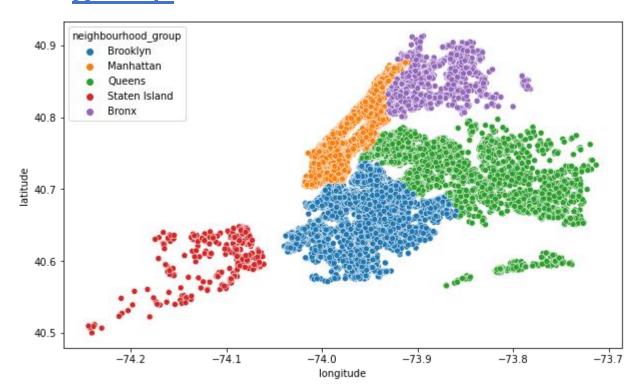
Average Prices of Properties and Room Type in Neighbourhood Group

- ☐ Manhattan is the only neighbourhood category where the mentioned neighbou rhoods' average price is \$203.7 or higher.
- ☐ Brooklyn and Queens are less expensive and more accessible than Manhattan, with typical prices of \$160.2 and \$138.5, respectively.
- ☐ With typical prices of \$130.8 and \$121 respectively, Staten Island and the Bronx are the least expensive neighborhoods in New York City.

Stacked Chart neighbourhood group/room type

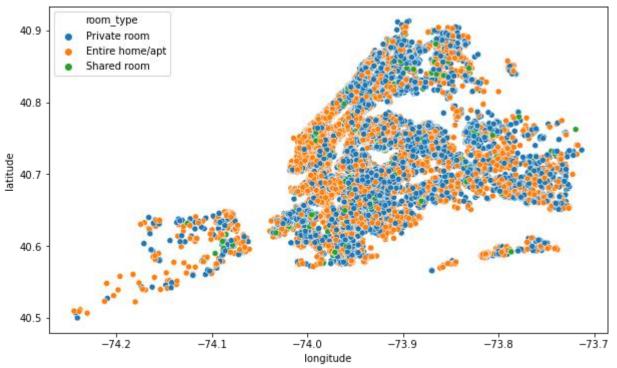


Scatter Plot of neighbourhood group

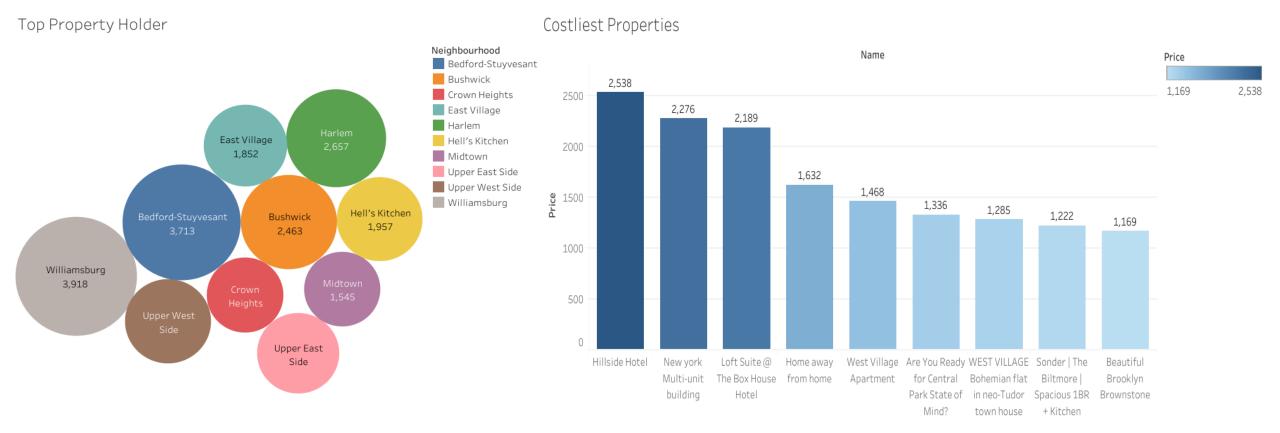


- ☐ Manhattan is the biggest neighbourhood group with count 21661.
- ☐ Brooklyn with count 20104.
- ☐ Queens with count 5666.
- ☐ Bronx with count 1091.
- ☐ Staten island is the lowest neighbourhood group with count 373.

Scatter Plot of room type



- ☐ Entire home/apt is most preferred room type with count 25409 approximately 51.97%.
- ☐ Private room with count 22326 approximately 45.66%.
- ☐ Shared room is least preferred room type with count 1160 approximately 2.37%.



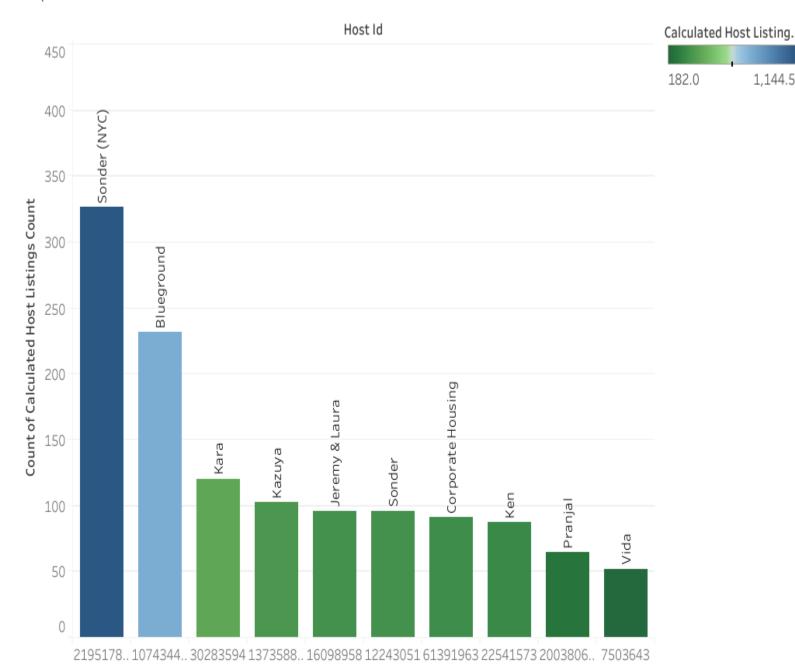
Top Property Holders And Costliest Properties

- ☐ Here we can see that Williamsburg followed by Bedford-Stuyvesant holds most of the property.
- ☐ Hillside Hotel have the costliest property followed by New York Multi unit building.

Top Ten Hosts

- ☐ From here we can observe that there are 300+ listings with 219517861 ID which has a maximum host listings. The host Sonder(NYC) has maximum host listings.
- Whereas host with 7503643 ID has a minimum with 50 listing.
- Whereas host with 107434423 ID has average with 200+ listing.

Top Ten Hosts



1,144.5

Pareto chart



Room Type/Neighbourhood Group

☐ Brooklyn has highest number reviews with average price lower whereas Manhattan has maximum average price with less number of reviews in each room type.

<u>Appendix</u>

Methodology:

- * The analysis and visualizations were done using Tableau considering various parameters.
- * The analysis was done keeping in mind the business side of the project. The important factors taken into consideration were customer booking volume and customer preference.
- The first half of the presentation focused on customer preference. The second half compared various parameters of customer preference with respect to price.
- ◆ The following parameters were considered − Customer experience : Neighborhood, Room type & minimum nights offered
- * Price variation: Volume of customer booking, Room type, Neighborhood, Number of reviews & Geography. Recommendations have been made keeping in mind the above parameters.

<u>Assumptions</u>

As we are not aware about the nature of reviews, we have assumed that the properties which received higher number of reviews have a better customer liking.

Key Insights And Recommendations

- ☐ Renters in New York City who use Airbnb are privileged entire house or apartment, plus private room above shared rooms.
- ☐ Manhattan has the most expensive rental properties followed by Brooklyn, while Bronx and Staten Island have the least expensive.
- People show interest in the host Sonder and spend most nights here.
- ☐ Pay attention to popular areas like Manhattan and Brooklyn where more people are interested.
- ☐ Since there is a lower likelihood that people will choose a highpriced room, there are more evaluations at lower prices than at higher prices.



