

METHODOLOGY

Data understanding:

The dataset contained the following columns:

Categorical: room_type, neighbourhood_groups, neighbourhood, etc.

Numerical: price, availability_365, minimum_nights, etc.

Location: Latitude, Longitude.

Time: Last review.

Data assumptions:

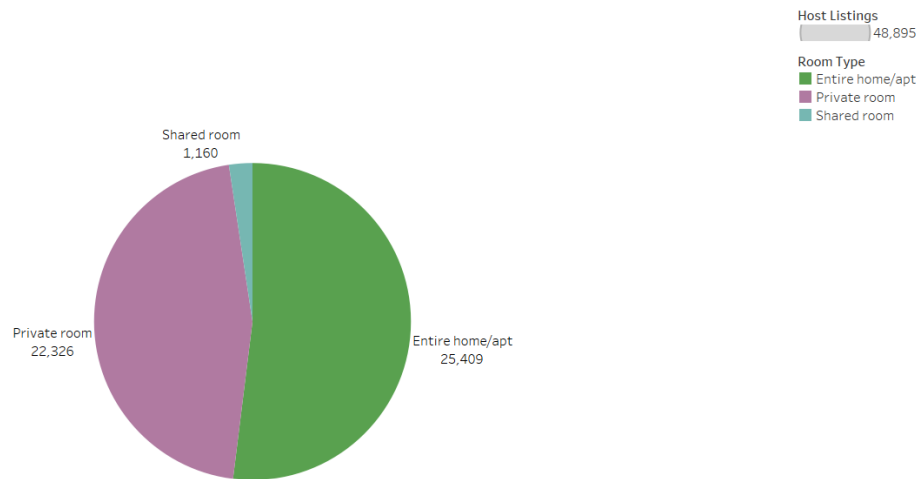
- Used Number of Reviews to measure the popularity of the locations assuming them to be positive since there was no mention of positive or negative reviews.
- Used the average of minimum nights to find out how on an average people stayed in a particular location in a particular room type.
- Assumed that null values and outliers does not cause a noticeable impact in the analysis.

Data Visualization:

Used Tableau Desktop to visualize the data and derive the correct insights.

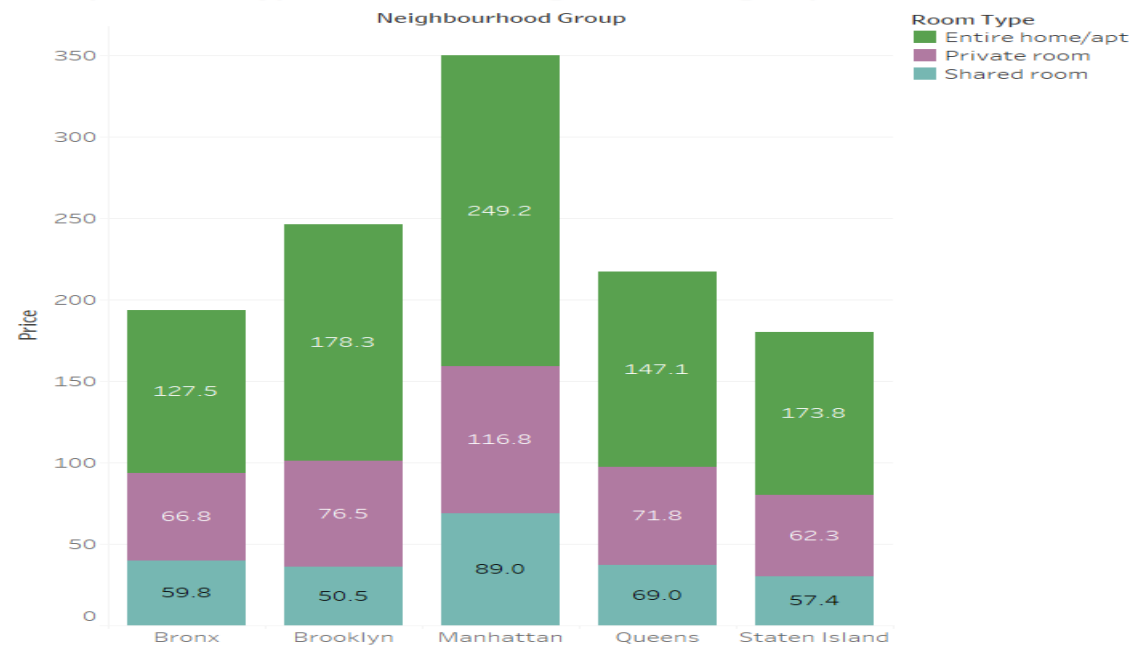
Here are the few visualizations below:

Host Listings per Room Type



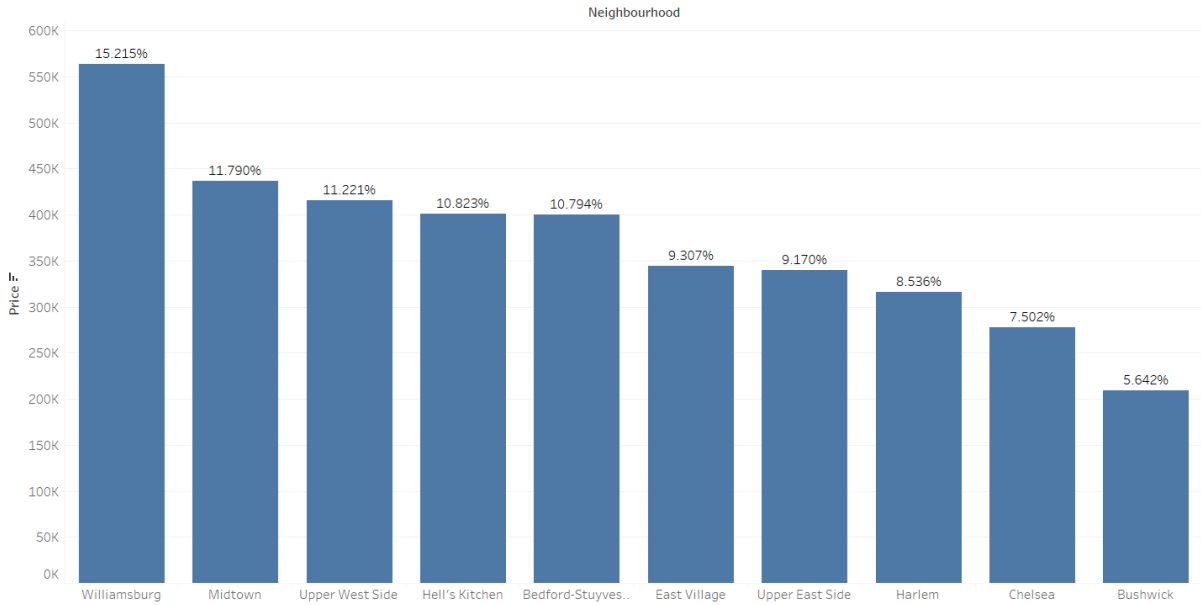
Room Type and count of AB_NYC_2019.csv. Color shows details about Room Type. Size shows count of AB_NYC_2019.csv. The marks are labeled by Room Type and count of AB_NYC_2019.csv.

Price per Room Type in different Neighbourhood groups



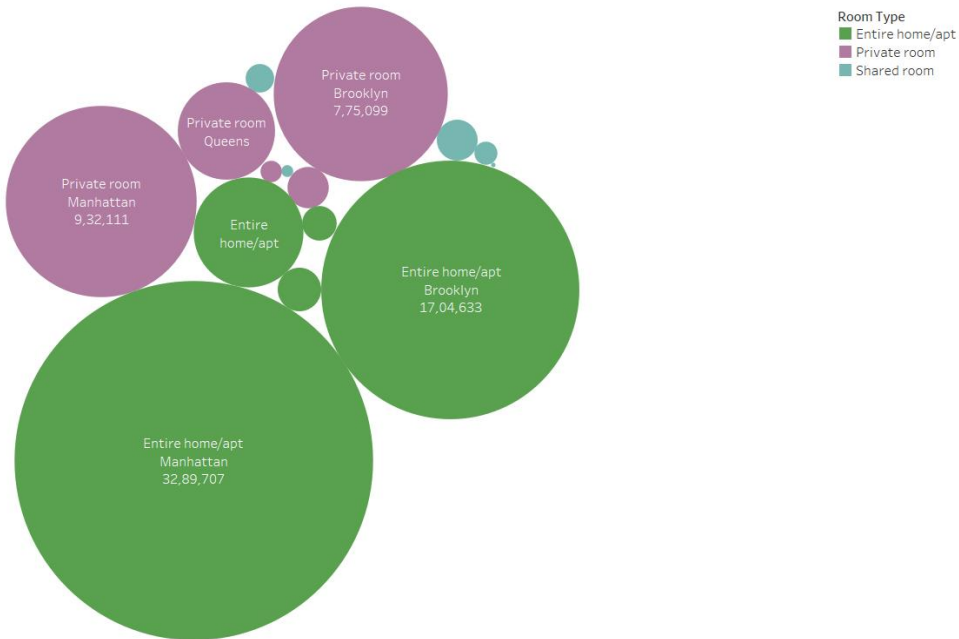
Median of Price for each Neighbourhood Group. Color shows details about Room Type. The marks are labeled by average of Price.

Top Neighbourhoods by Price



Sum of Price for each Neighbourhood. The marks are labeled by % of Total Price. The view is filtered on Neighbourhood, which has multiple members selected.

Preferred Room type per Neighbourhood group



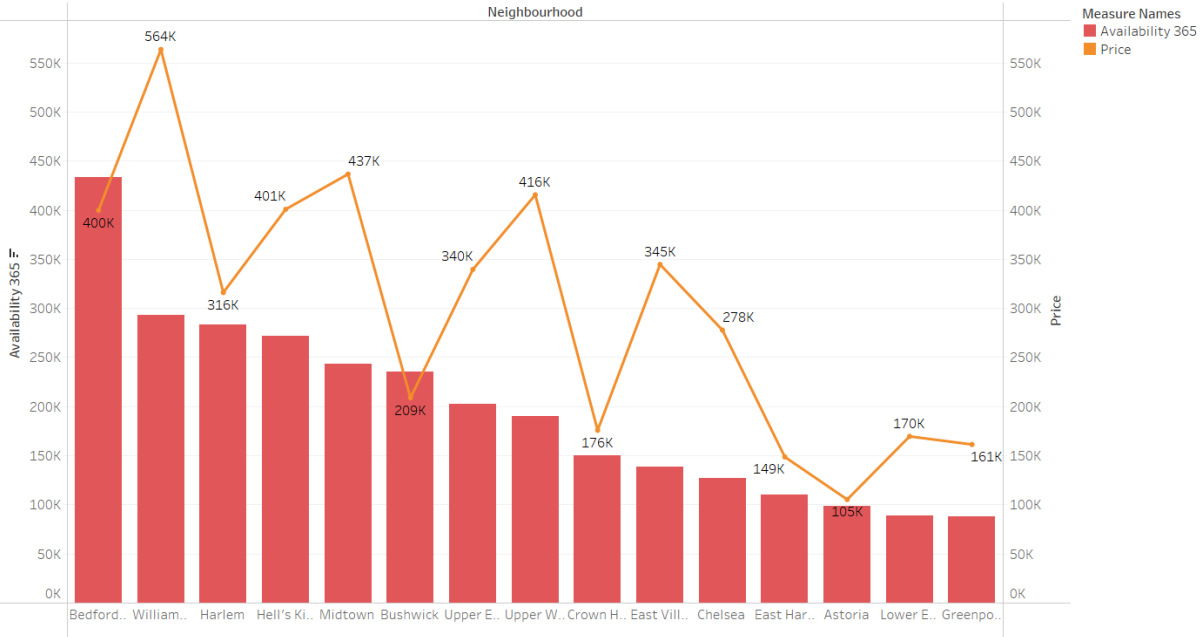
Room Type, Neighbourhood Group and sum of Price. Color shows details about Room Type. Size shows sum of Price. The marks are labeled by Room Type, Neighbourhood Group and sum of Price.

Total price per Neighbourhood group



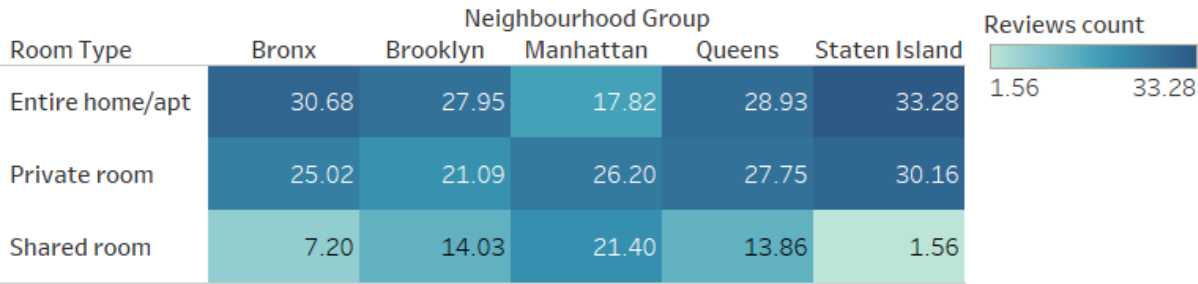
Map based on average of Longitude and average of Latitude. Color shows details about Neighbourhood Group. The marks are labeled by Neighbourhood Group and sum of Price.

Neighbourhood availability by Price



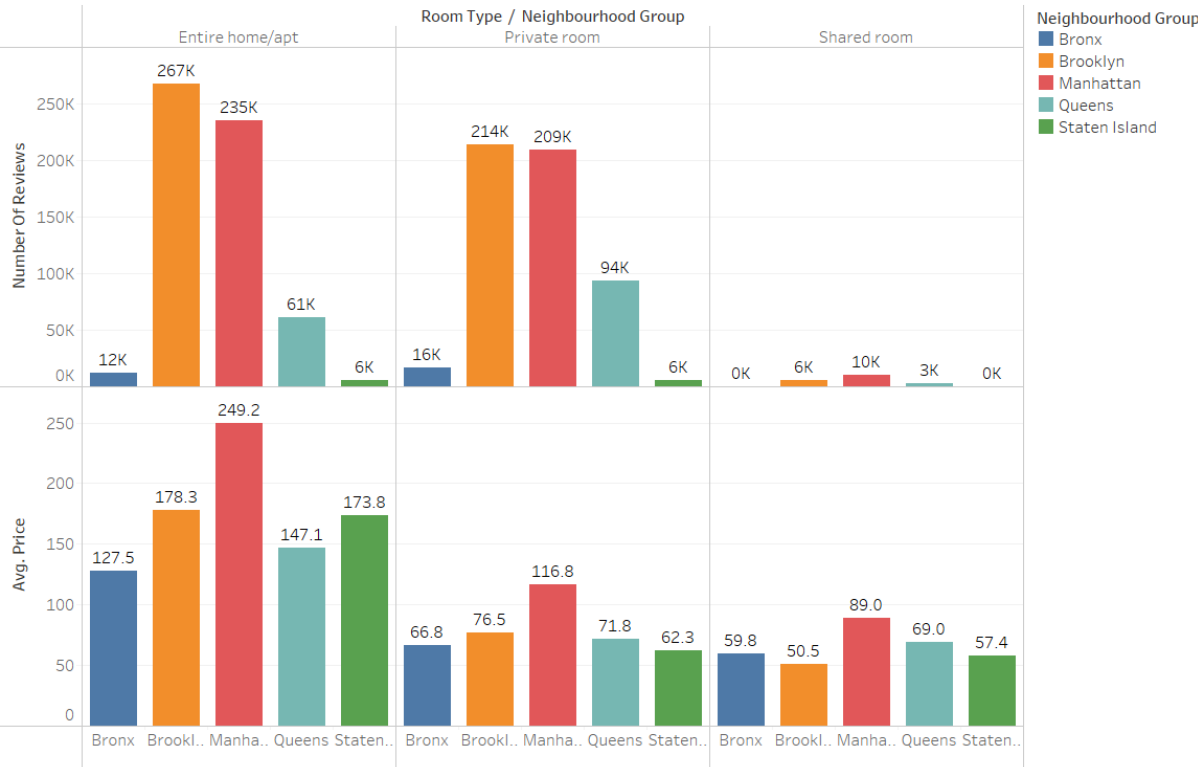
The trends of Availability 365 and Price for Neighbourhood. Color shows details about Availability 365 and Price. For pane Sum of Price: The marks are labeled by Price. The view is filtered on Neighbourhood, which has multiple members selected.

Room type by Number of Reviews



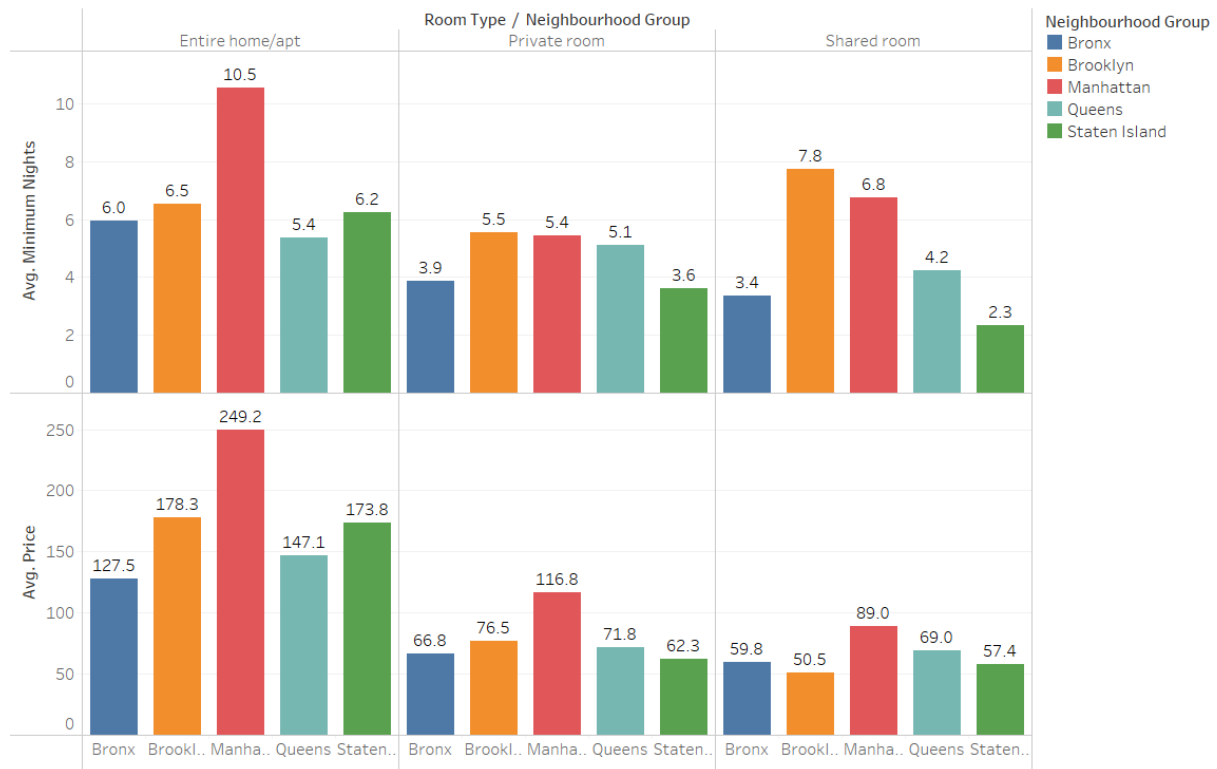
Reviews count broken down by Neighbourhood Group vs. Room Type. Color shows Reviews count. The marks are labeled by Reviews count.

Comparison using Avg Price & Number of reviews



Sum of Number Of Reviews and average of Price for each Neighbourhood Group broken down by Room Type. Color shows details about Neighbourhood Group. For pane Sum of Number Of Reviews: The marks are labeled by sum of Number Of Reviews. For pane Average of Price: The marks are labeled by average of Price.

Minimum Nights vs Price



Average of Minimum Nights and average of Price for each Neighbourhood Group broken down by Room Type. Color shows details about Neighbourhood Group. For pane Average of Minimum Nights: The marks are labeled by average of Minimum Nights. For pane Average of Price: The marks are labeled by average of Price.

Recommendations:

- Reducing the prices of Entire homes in Brooklyn and Staten Islands to attract more people.
- Acquire more rooms in Queens neighbourhood group to attract more people since there are a considerable number of reviews.
- Increase availability of rooms in Bedford and Williamsburg since more people visit these neighbourhoods too often.

Thank You.