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Agenda

- Objectives
- Backgrounds
- Key findings
- Recommendations
- Appendix:
 - Data sources
 - Data Methodology
 - Data model assumptions

Objective

- Improve understanding about important insights on various attribute in the data set to increase the revenue.
- Improve understanding about customer preferences
- Provide recommendation to Airbnb operations teams

Background

- 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 fully prepared for this change.
- So, analysis has been done on a dataset consisting of various Airbnb listings in New York.

Key Findings

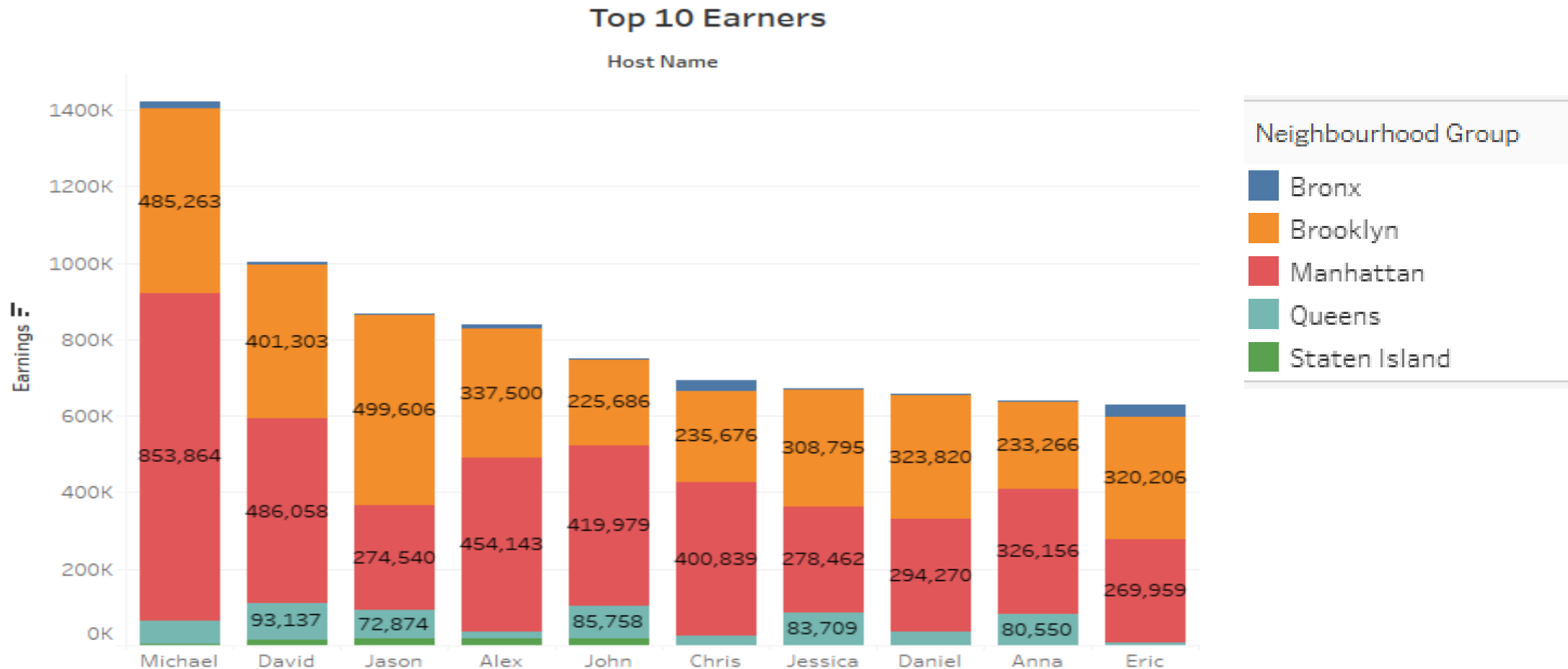
- Overall customers appear to prefer Entire Home (51.41%) & Private Room (46.91%) in comparison to the shared room (1.69%).
- Most likely neighborhood group is Brooklyn (43.14%) then Manhattan (41.90%).
- Manhattan and Brooklyn are top neighbourhood groups and mostly people prefer to book the entire home or private room.

Data Cleaning and Preparation

- First, we understand the data of the dataset in python.
- Then we have handled the missing values and Identified equal number of null values in both last_review, and reviews_per_month of around 20.55%. Also, find missing value in name and host_name.
- Then separated the columns of dataset into categorical and numerical datatypes.
- Then we have imputed the categorical column with mode and numerical column with median
- Then we have checked if there are any outliers in 6 continuous columns and treated the using capping method.

List of top 10 host to Acquire

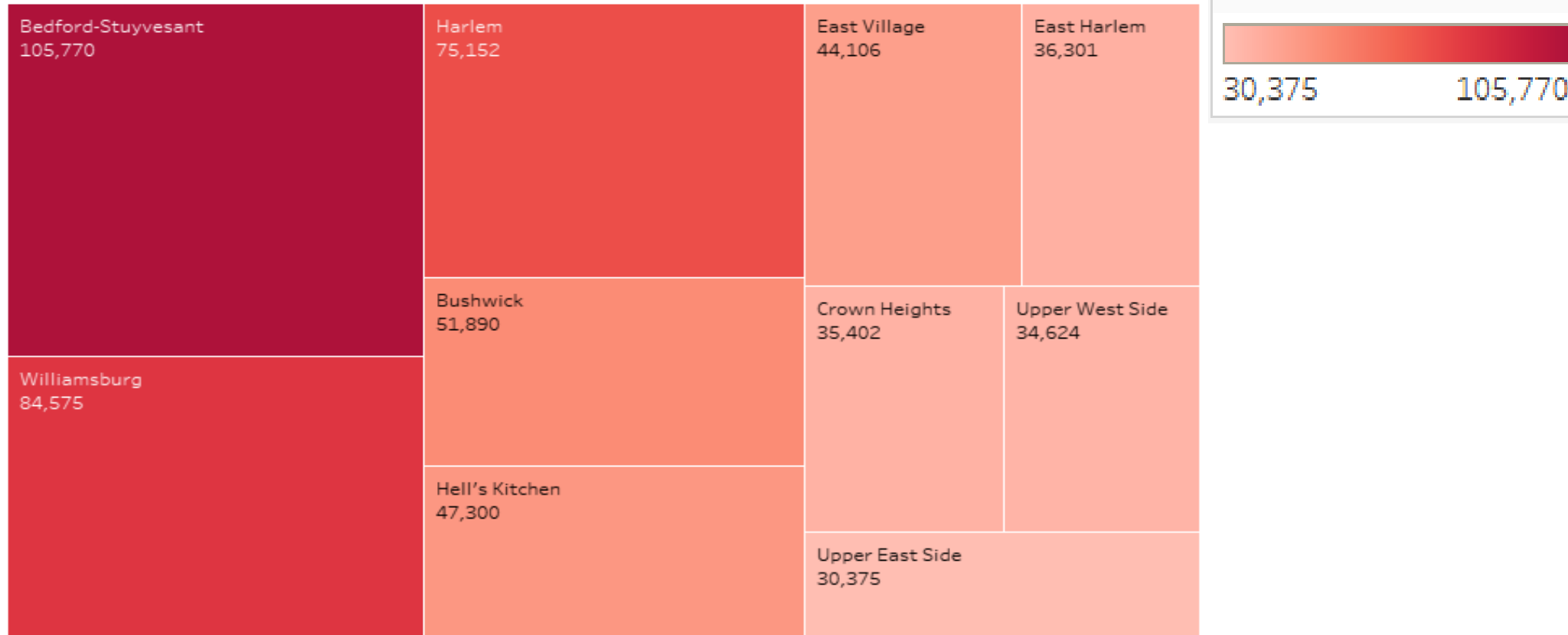
- The graph depicts the top 10 host who are earnings more.
- Michael is top earner who is earning more and he belongs to Manhattan.



Targeted Neighborhood

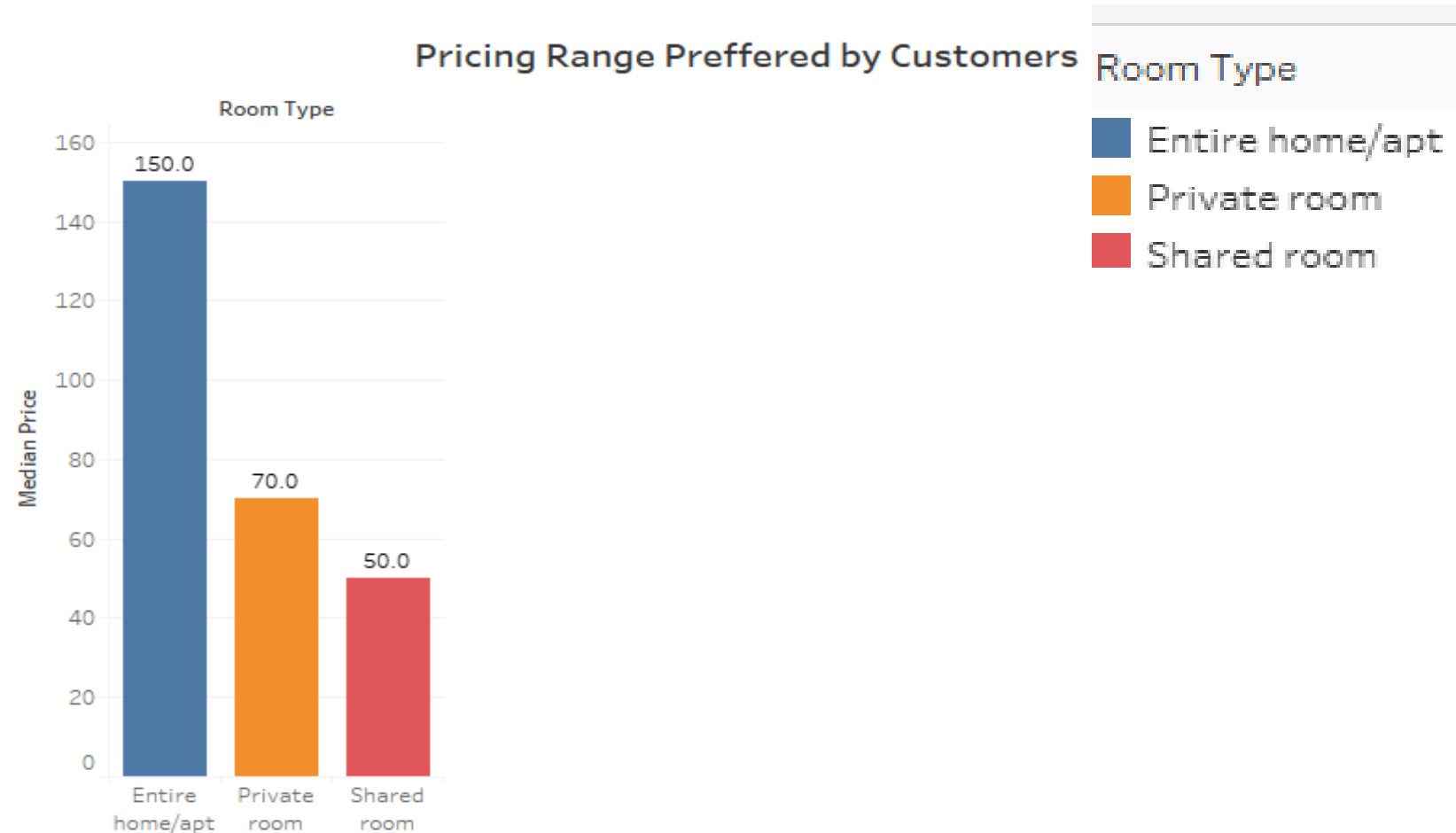
- We can clearly comprehend that this location are most targeted location among all neighborhood, most of the people would prefer to go this neighbor location/area only.
- Review wise Bedford-Stuyvesant is best among all location/area.

Targeted Neighbourhood with Review



Average Price prefer by People

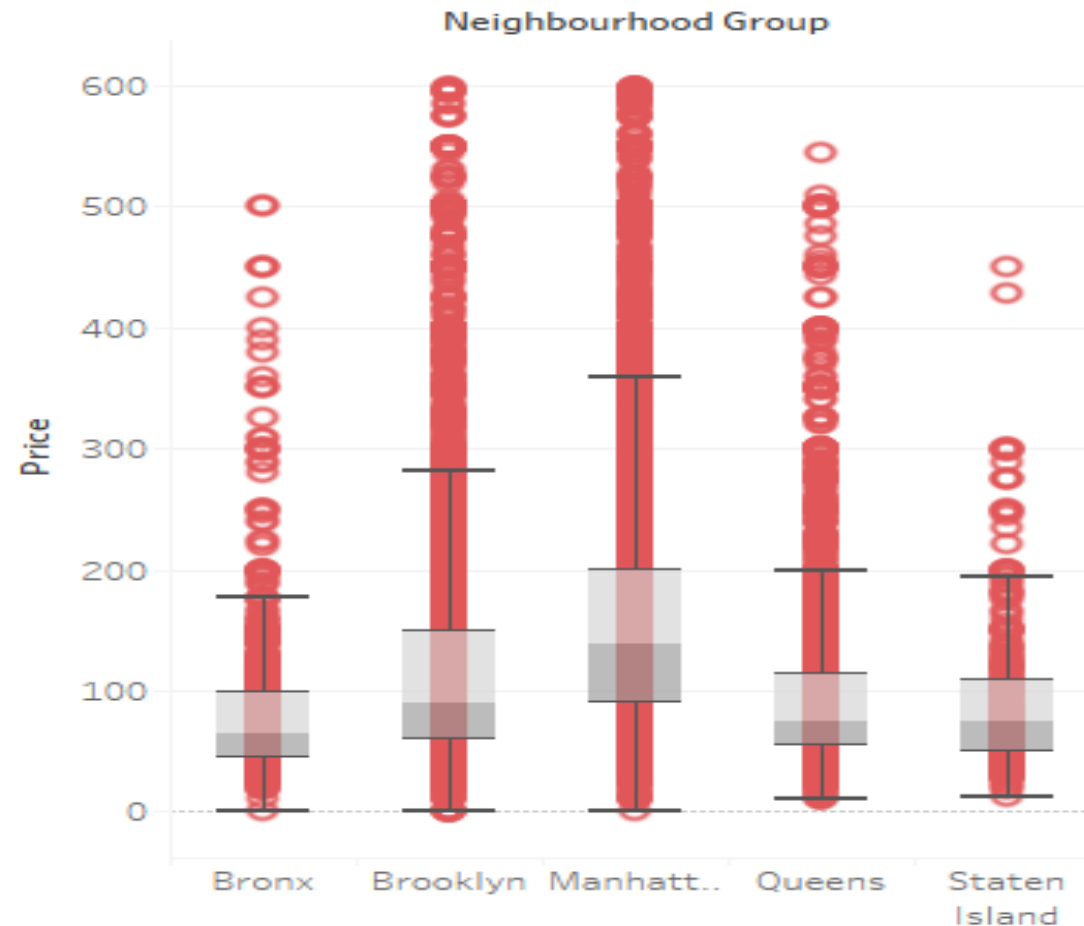
- Clearly depicts from the graph on the basis of room type the average price preferred by customer for Entire Room is 160.
- Entire home/apt is most prefer among all three types.



Price Analysis with Neighborhood Types

- Graph depict that Manhattan is costlier than Brooklyn among all neighborhood groups

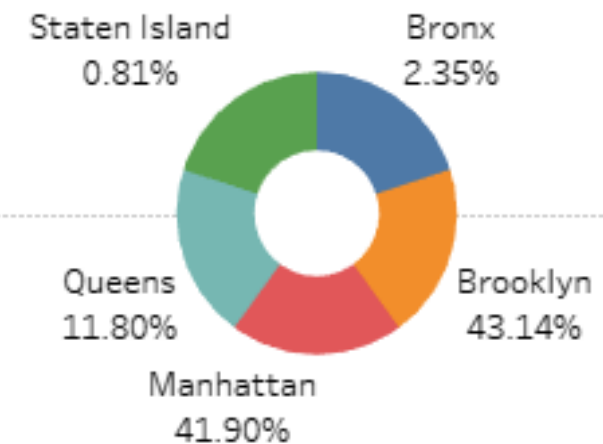
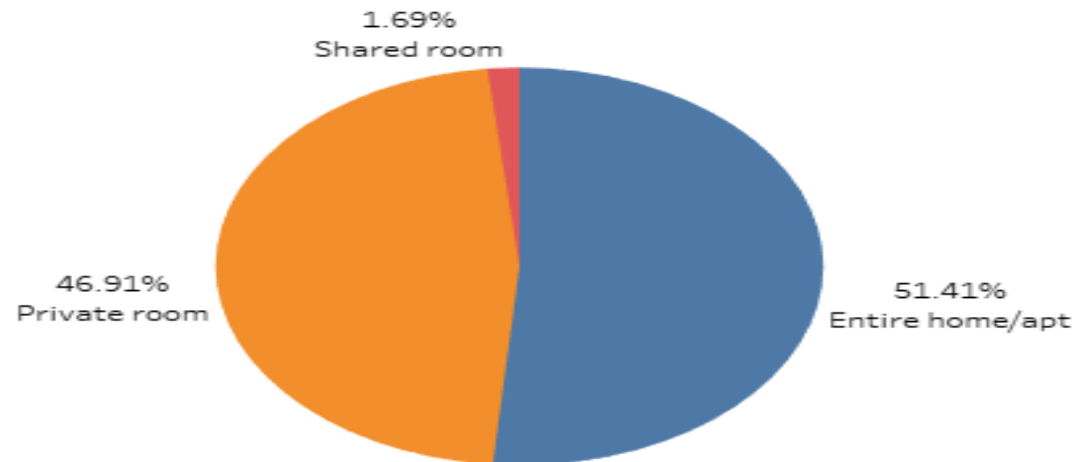
Price Analysis with Neighbourhood Group



Types of properties by customers preferences and total neighborhoods by neighborhood groups

- Overall customers appear to prefer Entire Home (51-41%) & Private Room (46.91%) in comparison to the shared room (1.69%).

Properties Preferred By Customers



Most popular localities and properties in Newyork

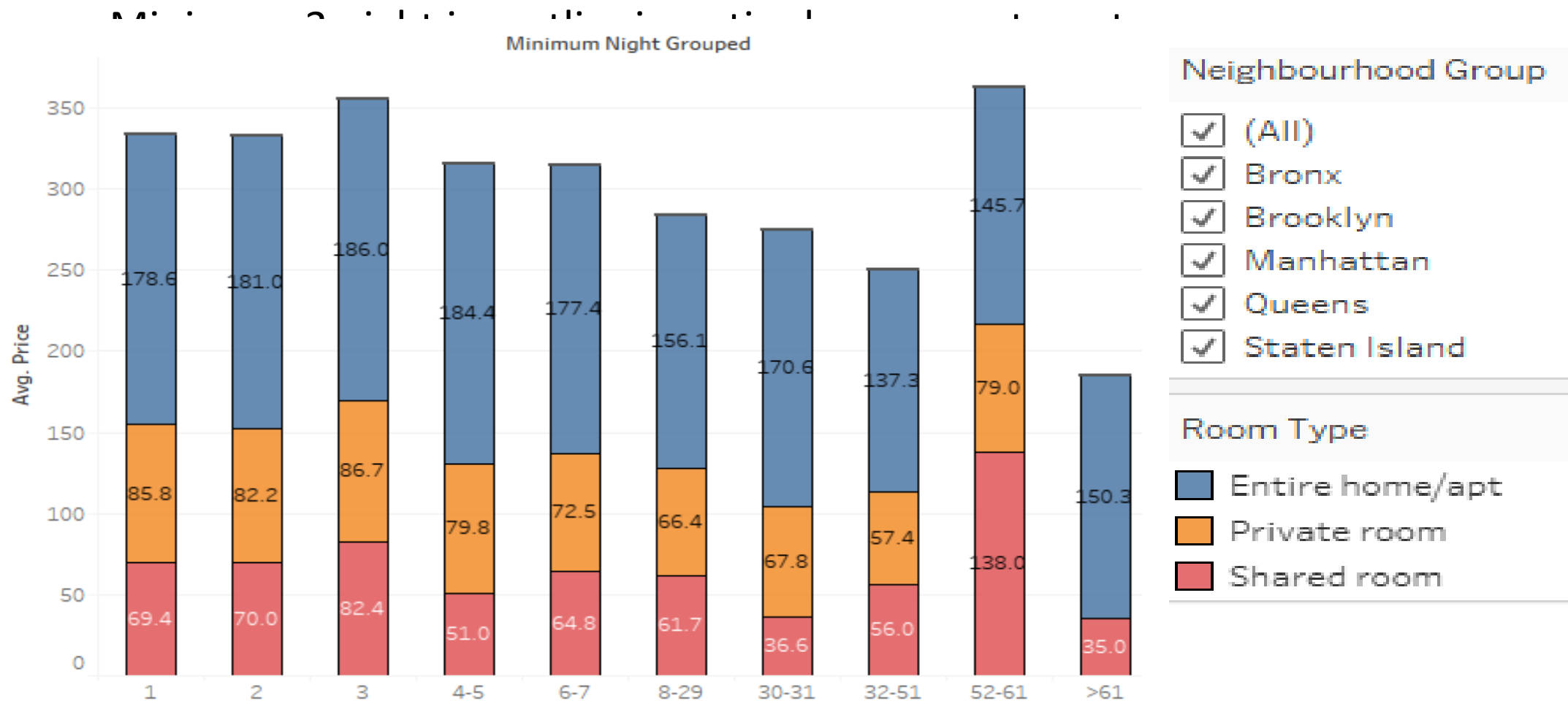
- According to this map more the darker orange side represents the most popular localities and the lighter side represents the least popular.
- We can conclude that Manhattan, Brooklyn & Queens are much popular than Bronx and Staten Island.

Most Popular Properties Average Price in neighbourhood Room Type



Minimum Grouped Night

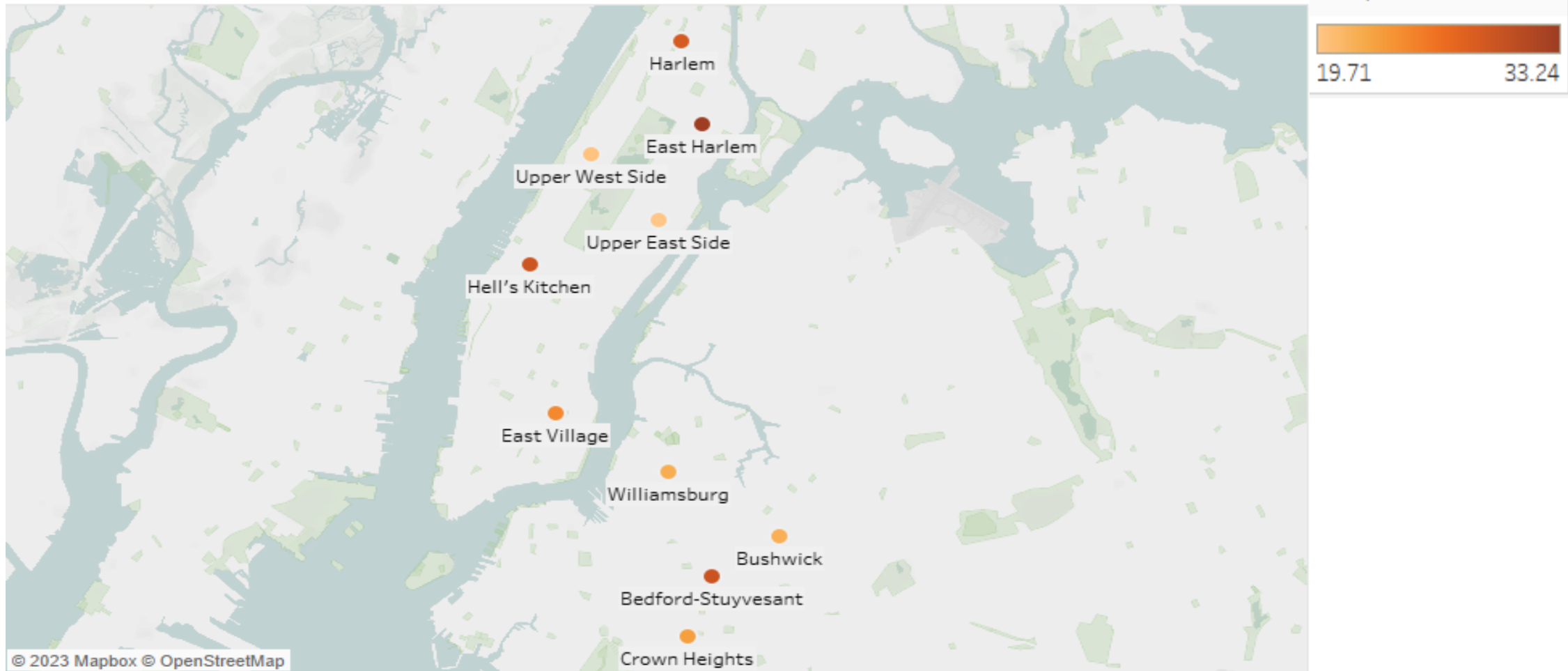
- Graph clearly depicts that minimum stay night of 32-51 is comparatively cheaper cost in Entire home apartment among all the neighborhood group the others two.



Top 10 Unpopular Properties

Graph clearly comprehend that light colour of city Upper Westside, Bushwick, Williamsburg etc are least popular city where people do not wish to visit or there may not be any tourist attraction point.

List Of Unpopular Properties



Recommendations

- With the exception of Manhattan and Brooklyn, every other city needs to alter its marketing plan to boost sales.
- Most customers prefer to invest their money in the \$40 to \$160 range. Try a fresh marketing tactic to draw customers, such as offering deals and reductions.
- Every unpopular locality needs to alter their current plan in order to increase revenue, such as by creating a tourism draw.
- Increase the customer's purchasing ability, etc.

Thank You