



Analysis of Airbnb Data Using Tableau

Prepared by Jayesh
Saraswat

- Objective
 - Visualisation
 - Inference
-



Objective


- Looking for underserved areas of New York that can be considered for expansion by the client.
- Factors to consider - Business and Corporate Clients who will prefer proximity to commercial areas and relatively quick access. They are seeking a cost effective alternative to hotels in the city.



Visualisation - Understanding the current property landscape

- Looking at the current spread of airbnb properties.
- 1) We find that Entire home/ apartments make for a more popular renting option across all boroughs.

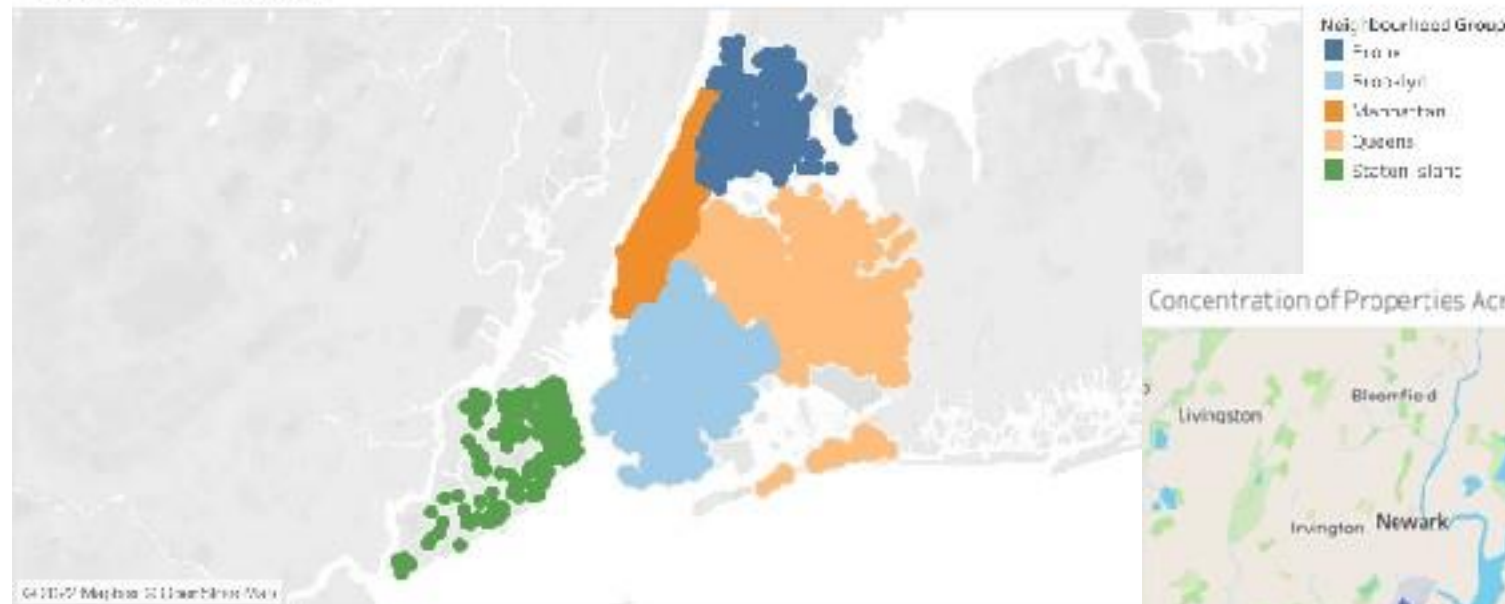
Number of Properties across Different Boroughs
(Divided by Property Type)

Room Type	Neighbourhood Group					Distinct count of Id
	Bronx	Brooklyn	Manhattan	Queens	Staten Island	
Entire home/apt	379	9,559	13,199	2,096	176	
Private room	652	10,132	7,982	3,372	188	
Shared room	60	413	480	198	9	

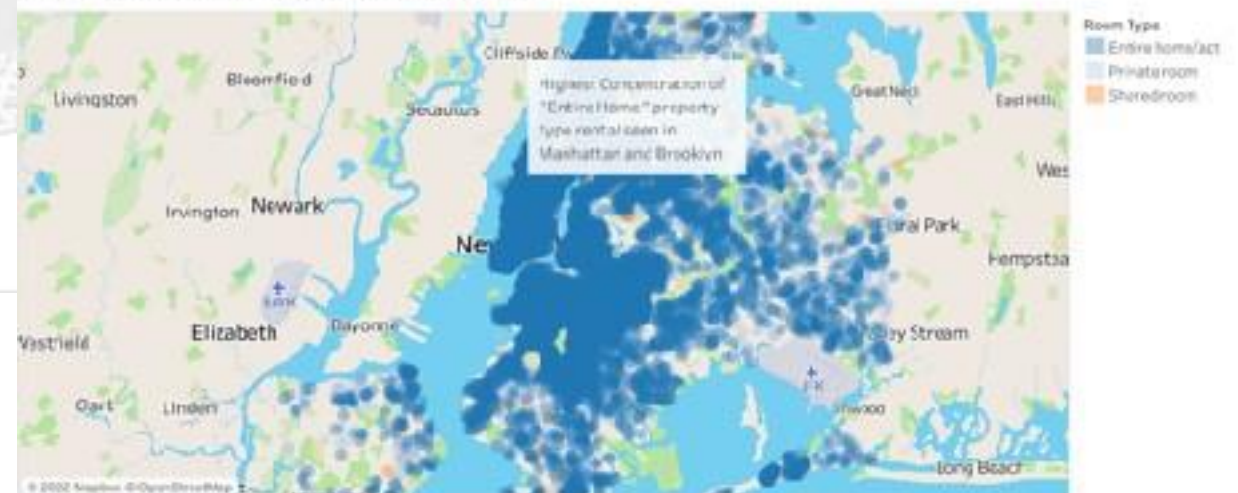
Visualisation - Understanding the current property landscape

- 2) Highest Concentration of the same is found in Manhattan and Brooklyn. We can see that by comparing a general borough map with a property density map across the city.

General Borough Map




Concentration of Properties Across Boroughs



Visualisation - Understanding the current property landscape

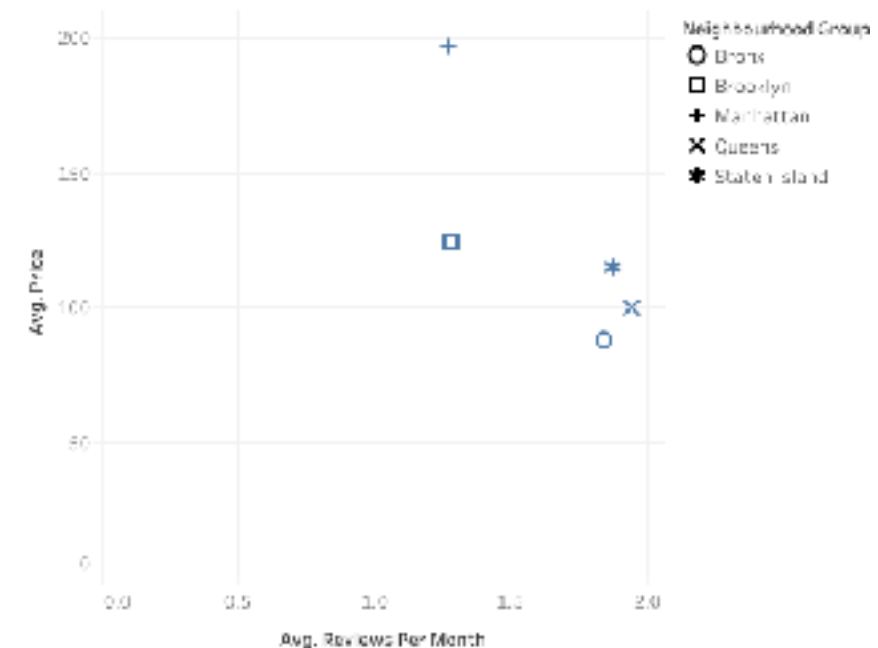
- 3) We further find that the popularity matrix across the city paints a slightly different picture. We use the measure of Average Reviews per month as a proxy for popularity.

Average Reviews

Room Type	Neighbourhood Group					Avg. Reviews Per Month
	Bronx	Brooklyn	Manhatt.	Queens	Staten Island	
Entire home/apt	2.230	1.310	1.142	1.907	2.074	
Private room	1.642	1.256	1.449	1.948	1.699	
Shared room	1.352	1.071	1.793	1.523	1.332	

- 4) The more expensive Manhattan isn't exactly the most popular. In fact, Queens leads the way here

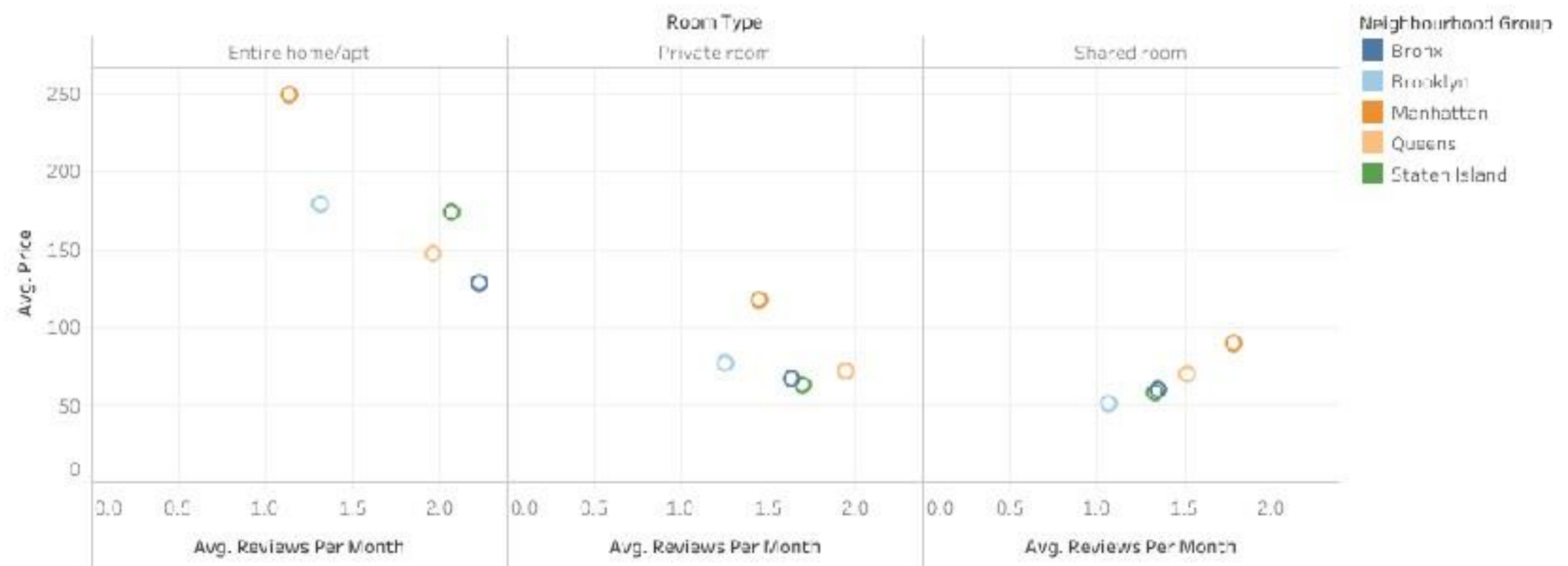
Average Price and Average Monthly Reviews



Visualisation - Understanding the current property landscape

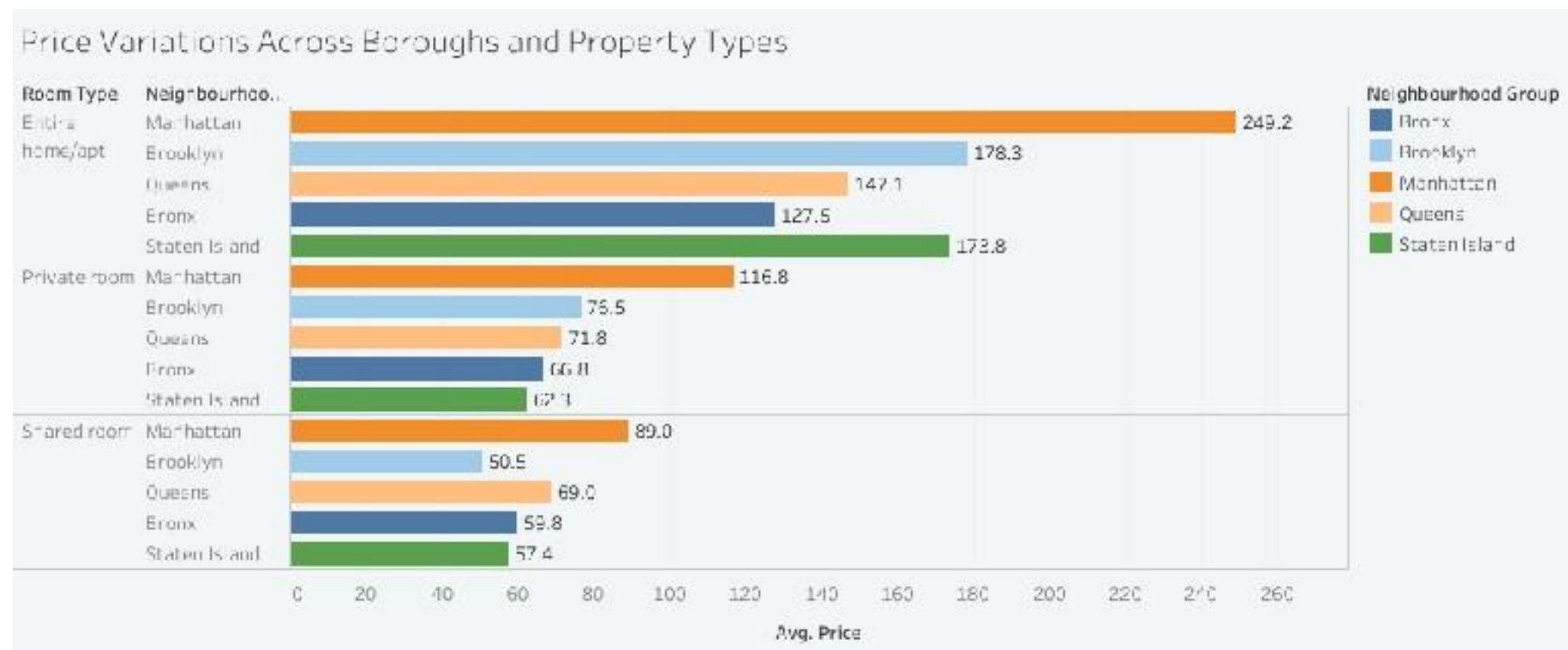
- 5) Queens, Bronx and Staten Island remain popular for the categories of Private House and Private Room.

Average Price and Average Monthly Reviews



Visualisation - Understanding the current property landscape

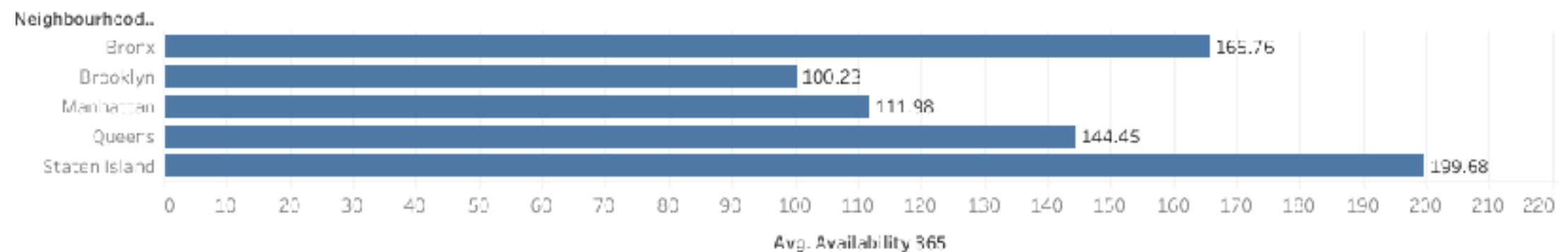
- 6) Average price across boroughs also varies with Manhattan topping the charts for every category of accommodation.



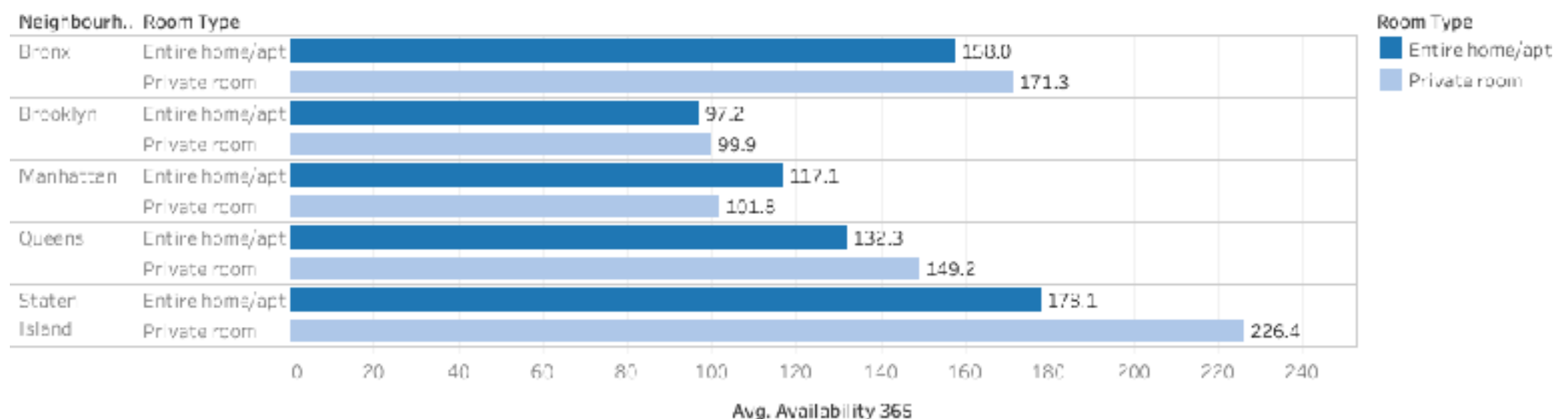
Visualisation - Understanding the current property landscape

- 7) The average availability of rooms across Queens, Bronx and Staten Island also stand out.

Average Availability



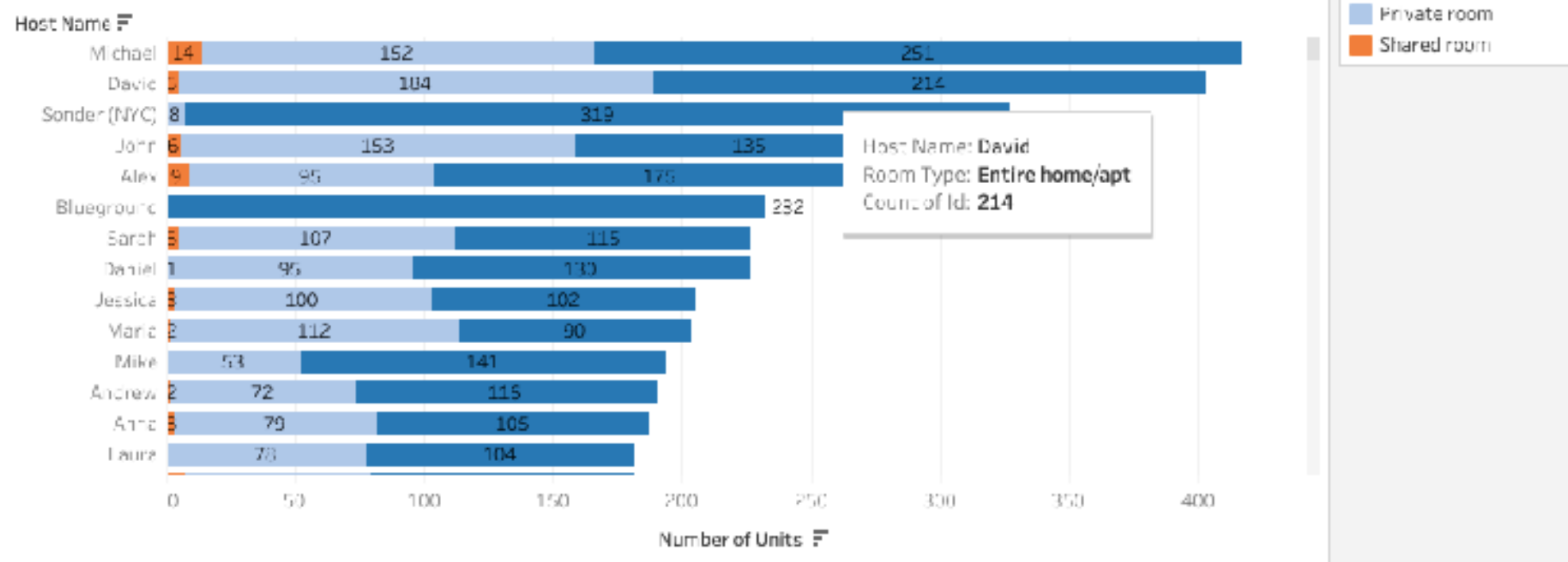
Average Availability across the two most popular unit styles



Visualisation - Understanding the current property landscape

- 8) The hosts with the most amount of properties reflect the general trend towards going for Private House or Private Room style units.

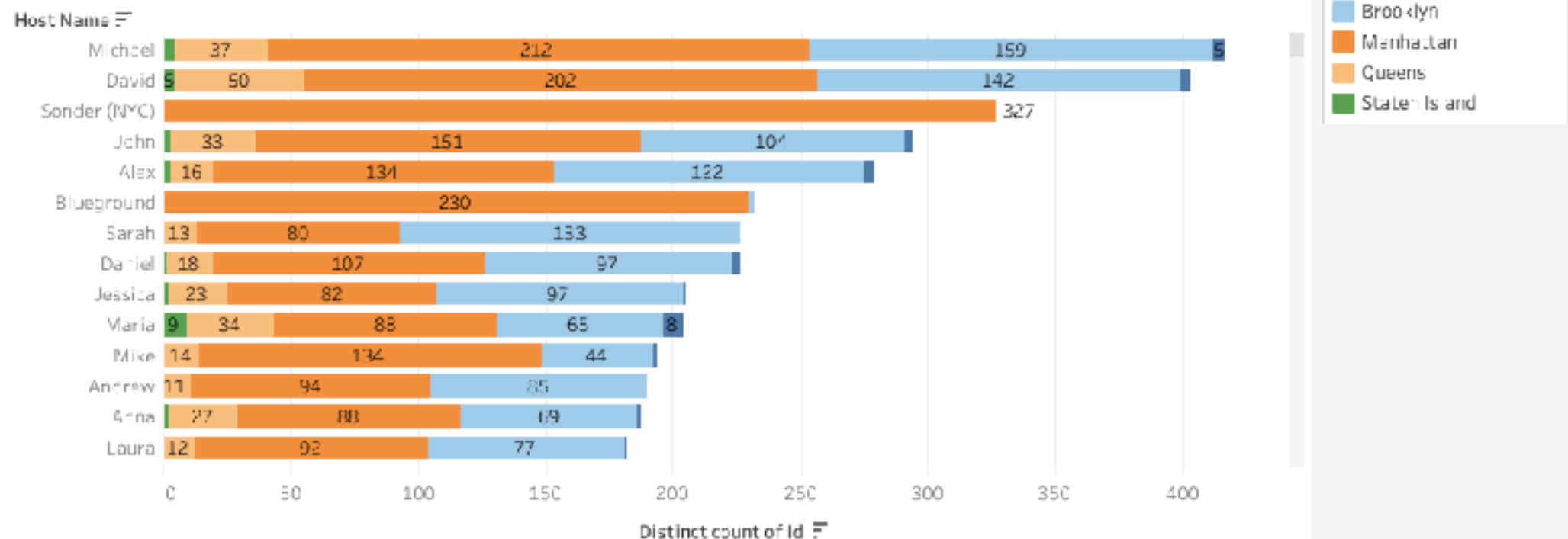
Host Units across Unit Style



Visualisation - Understanding the current property landscape

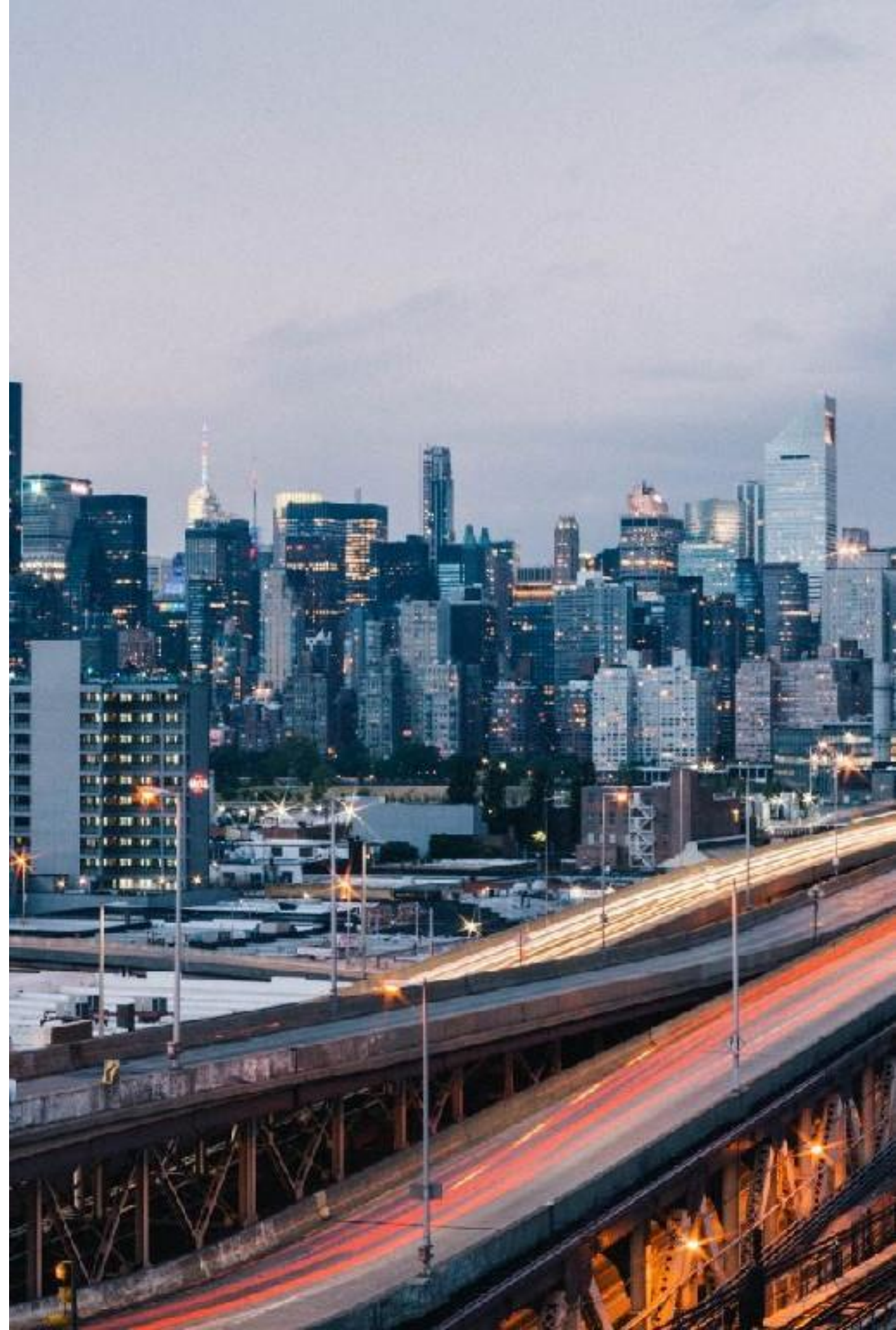
- 9) The hosts with the most amount of properties also tend to be concentrated in Manhattan and Brooklyn. With none of the top 10 hosts having more than 50 units in Queens or Bronx.

Host Units across Neighbourhoods



Inferences

- 1) Looking at the current trends of the Airbnb Data and understanding the geography of NY it is clear that we should be looking at **Queens or Bronx**.
- 2) Although Staten Island also enjoys some popularity with economical prices, its just a bit too far for the business and corporate clients' needs.
- 3) Bronx is the closest borough to Manhattan and the safer areas of Bronx, like Riverdale (15 mins to Mid-Town Manhattan) could make for good potential areas for expansion.



Inferences

- 4) Queens is another area which sits close to Brooklyn, another commercial center, and Manhattan. It is currently underserved but its current properties seem to enjoy strong popularity from tourists and visitors in the city.
- 5) Since Queens is a fairly large borough we need to do a further analysis for individual neighbourhoods which would be pin pointed using variables or distance, popularity and price.



Inferences

- 6) In Conclusion, Queens and Bronx make for potential underserved areas that could be considered for expansion.
- 7) Private apartments remain the most popular amongst airbnb visitors - these are also economical options across both Queens and Bronx - with average unit prices less than half of a Manhattan property.



Thank You

Prepared by Jayesh Saraswat in completion of the Upgrad -
CaltechCTME Data Analytics Certificate Program
Aug 2022