

# Data Methodology of AIRBNB Case Study

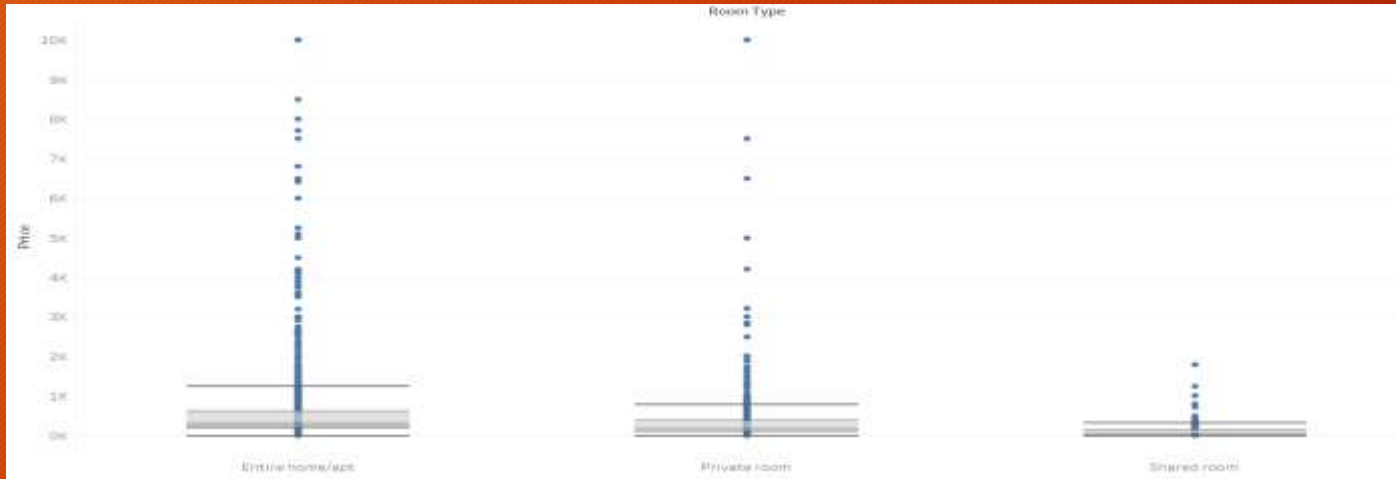
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# **Step A** – STORY BOARDING

- Went through the data to get familiarized with it and noted down important fields.
- Made a mind map of the various slides of the presentation.
- Made a rough template based on this mind map.

# Step B – DATA WRANGLING

- Did univariate analysis using Tableau on the fields to see their distributions, the unique values in a field, the missing values and to check for outliers if any.
- There was a small proportion of null values which would not affect my analysis so let them stay as it is.
- Price was highly positively skewed so median was very close the lower quartile with some outliers as seen in the boxplot below.





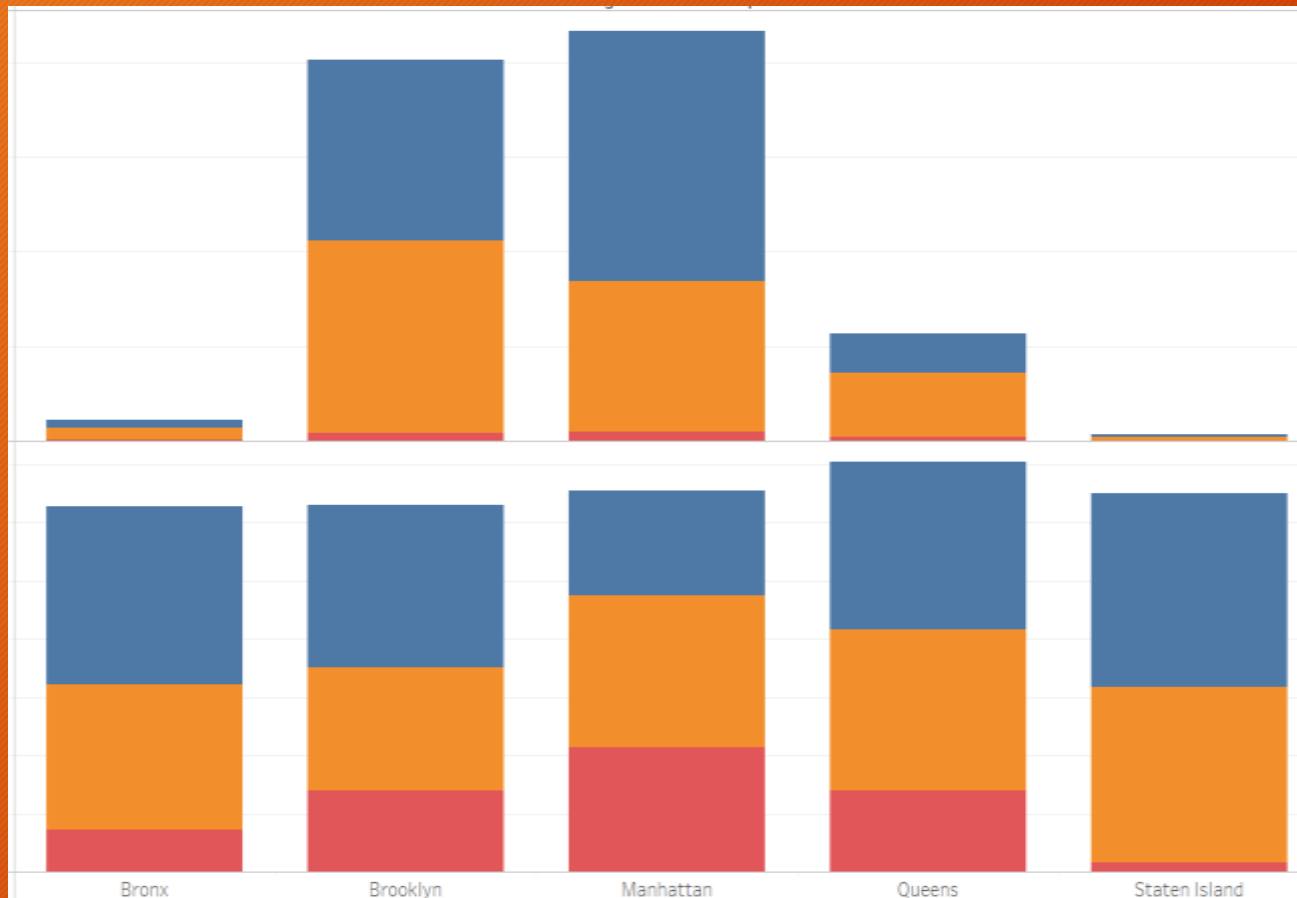
# Continuing Step B

- Since price has outliers, used median instead of mean as the measure for price.
- Host Listings count is maximum for entire apartment and private room and is very small for shared room.
- Created a grouped field for Minimum Number of Days assuming null values belonged to the category.
- Created a calculated field of number of reviews per listing.



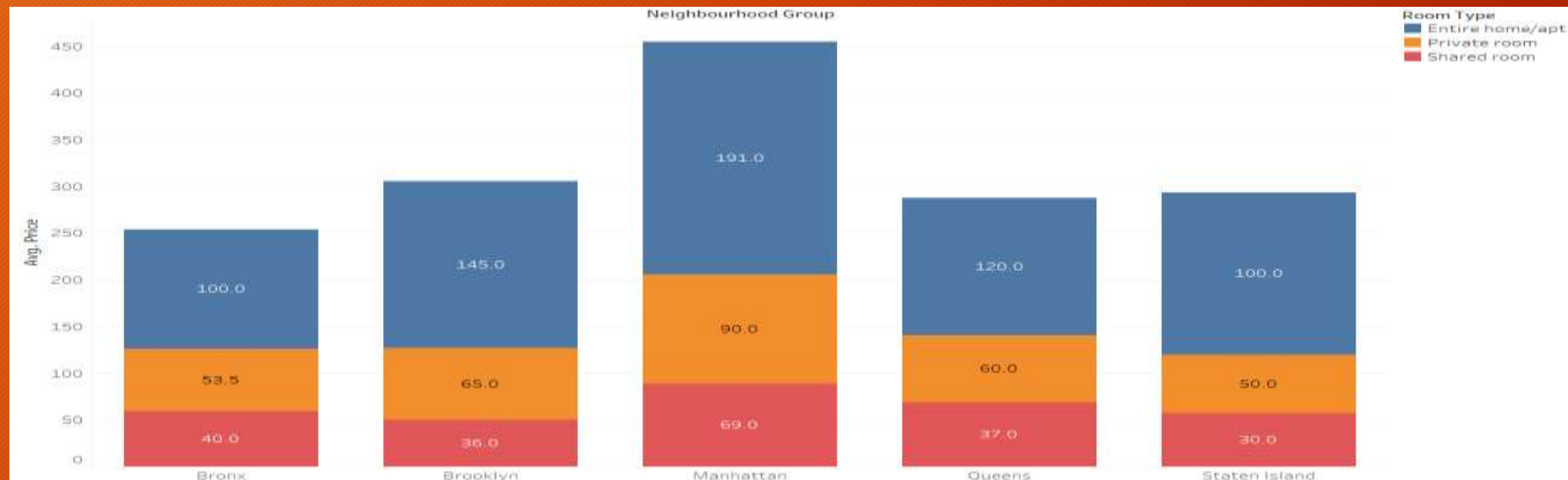
# Step C – DATA ANALYSIS

- Checked neighbourhood grouped wise distribution of price and room type.



# THROUGH THESE CLEARLY :

- Entire apartments are popular and so are private rooms.
- Except in Manhattan, shared rooms are very unpopular.
- Entire room's reviews per listing for Manhattan is 35% lower than the overall average and number of listings is the highest.





- Manhattan is costliest overall and the cheapest are:  
Entire apt: Bronx  
Private room: Staten Islands  
Shared room: Brooklyn
- Found difference in prices between shared rooms, private rooms and extire apartments for each neighbourhood as shown below.

	A	B	C	D	E	F	G	H	I	J	K	L	M
1													
2			Bronx	Brooklyn	Manhattan	Queens	Staten Island		Bronx	Brooklyn	Manhattan	Queens	Staten Island
3			127.5	178.3	249.2	147.1	173.8						
4			66.8	76.5	116.8	71.8	62.3		91%	133%	113%	105%	179%
5			59.8	50.5	89	69	57.4		12%	51%	31%	4%	9%
6													
7													

- Through this clearly we can say that:
  1. Entire home/ apt's price is ~100% more than private rooms except Brooklyn and StatenIsland with ~150% .
  2. Private room's price is ~10% more than shared rooms except Brooklyn and Manhattan with ~40 .

## **Step D - PRESENTATION**

- **Made the presentation adhering to best practices and pyramid principle.**
- **Added recommendations for the respective departments.**