

# Data Methodology

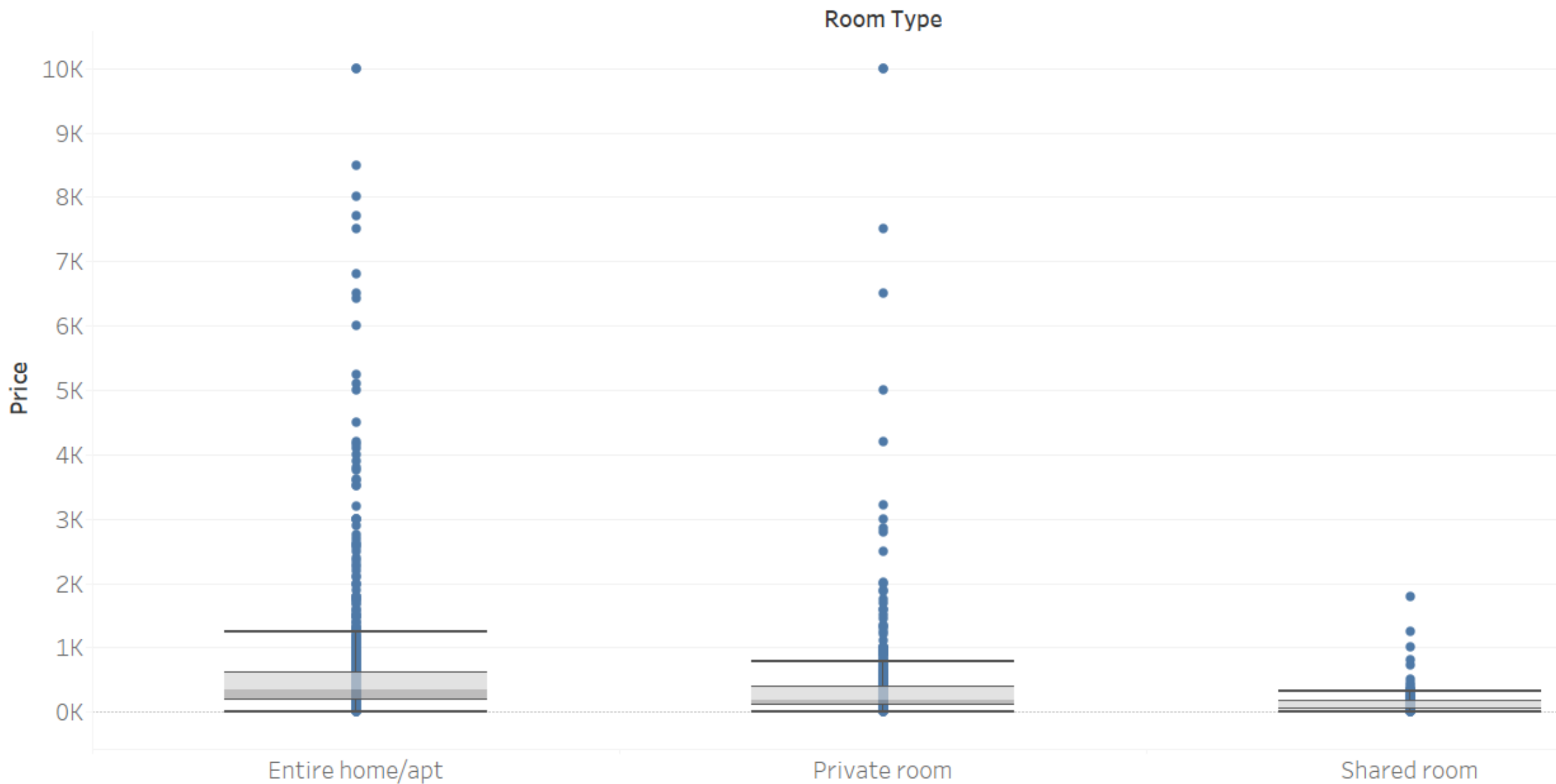
## Step 1: Storyboarding:

- Reviewed the data to become familiar with it and noted important fields
- Make a mental map of the different slides of the presentation
- Created a rough model based on this mental map

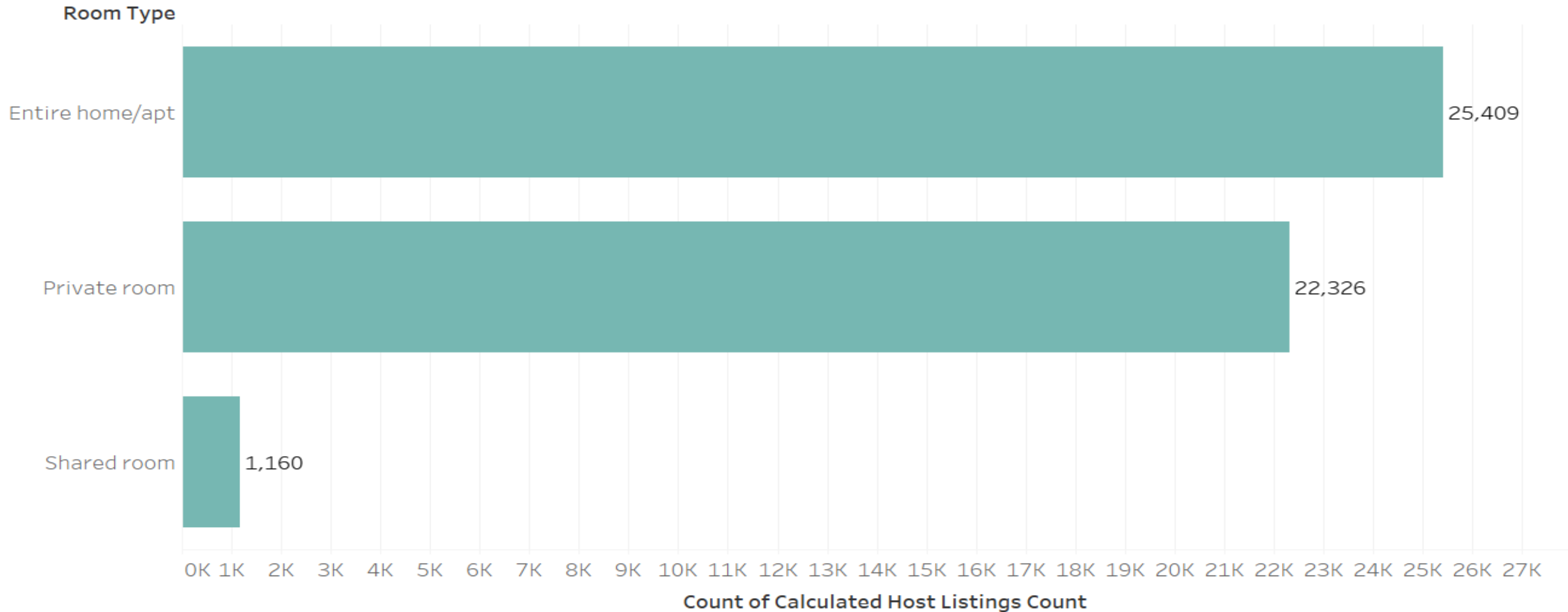
## Step 2: Data Wrangling:

- A univariate analysis was performed using Tableau on the field to check the distribution, unique values in the field, missing values and checked if outliers
- Is not changed due to the small percentage of zero values that do not affect my analysis.
- As shown in the box below, the price is strongly skewed such that the median is very close to the lower quartile with outliers.

# Room Type Wise Price



# Number of Host Listing per Room Type



- Because prices have outliers, the median is used as the price measure instead of the mean
- As you can see below, the number of host entries is highest for whole apartments and private rooms, and very low at for shared rooms.

- Created a grouped field for Minimum Number of Days assuming null values belonged to the category

Minimum Nights Gro

```
IF [Minimum Nights]=1 THEN "1"  
ELSEIF [Minimum Nights]=2 THEN "2"  
ELSEIF [Minimum Nights]=3 THEN "3"  
ELSEIF 4<=[Minimum Nights] AND [Minimum Nights]<=5 THEN "4-5"  
ELSEIF 6<=[Minimum Nights] AND [Minimum Nights]<=7 THEN "6-7"  
ELSEIF 8<=[Minimum Nights] AND [Minimum Nights]<=29 THEN "8-29"  
ELSEIF 30<=[Minimum Nights] AND [Minimum Nights]<=31 THEN "30-31"  
ELSE ">31" END
```

- Create a calculated field for the number of ratings per entry

No. of Reviews per Li

×

SUM([Number Of Reviews])/COUNT([Calculated Host Listings Count])

▶

The calculation is valid.

4 Dependencies ▾

Apply

OK

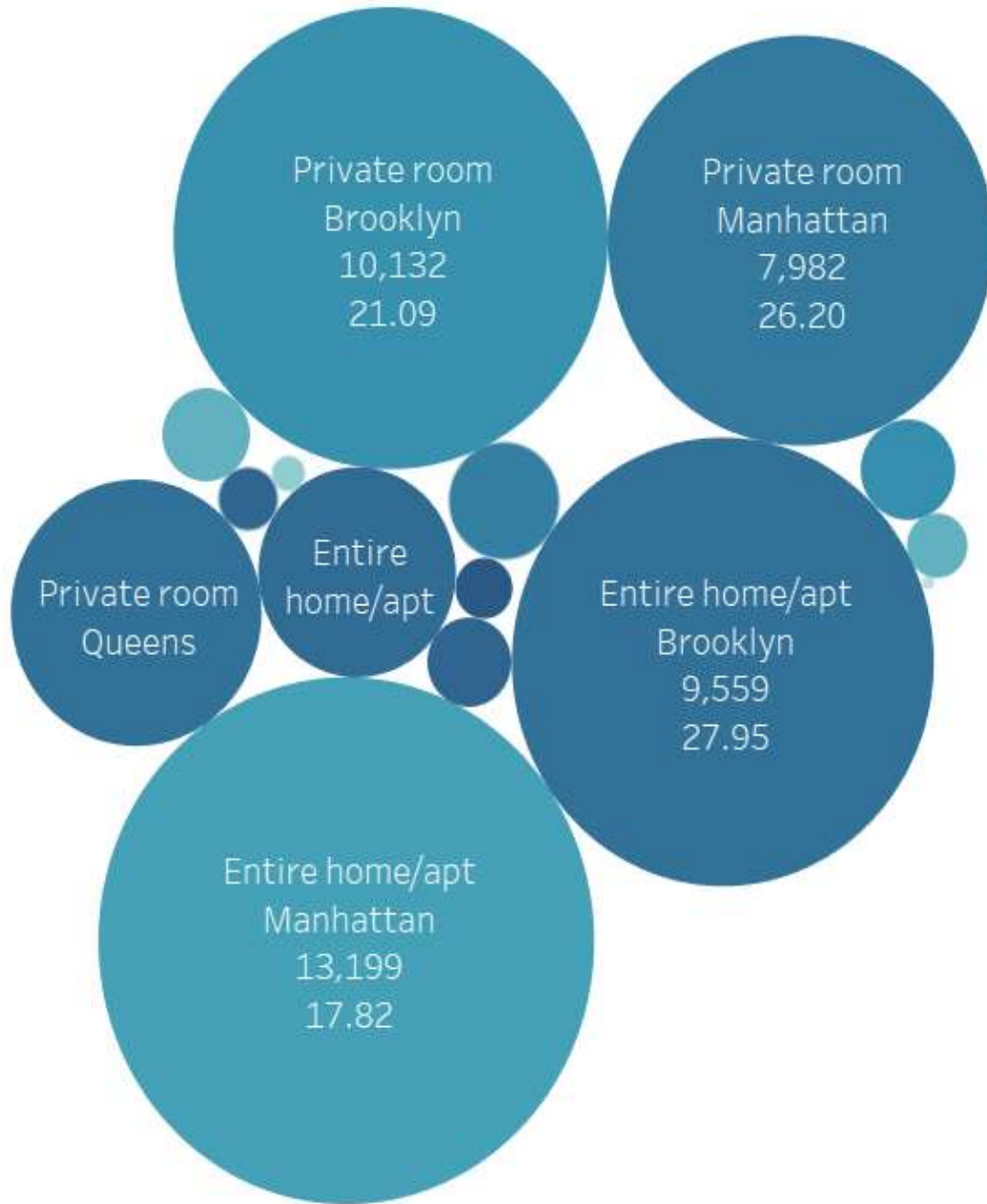
# Step 3: Data Analysis:

- Controlled distribution of price and room type neighborhood clusters



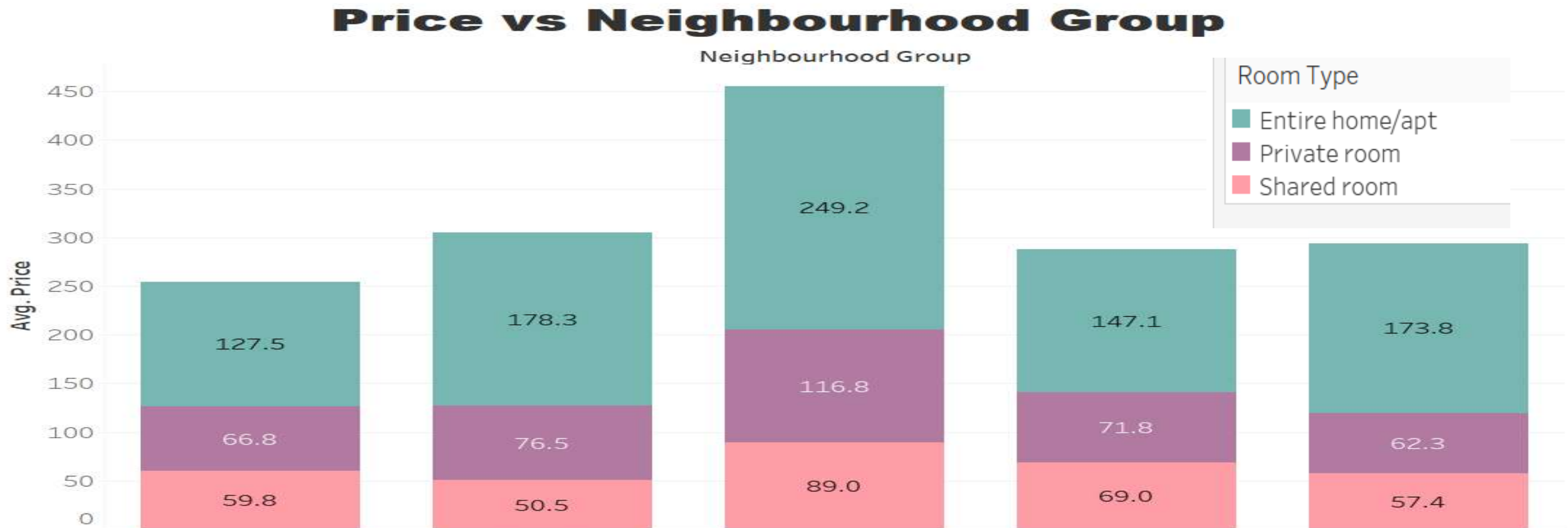
# Neighbourhoods Group Wise Bubble Chart

AGG(No. of Reviews pe...





- Through these clearly:
  - Entire apartments are popular, as are private rooms
  - Shared rooms are very unpopular except in Manhattan
  - Manhattan has the highest number of listings with 35% overall home reviews per listing compared to the overall average



- The most expensive and cheapest in Manhattan overall are:
  - Entire apt: Bronx
  - Private room: Staten Islands
  - Shared room: Brooklyn
- As shown in the graph below, the price difference between shared rooms, private rooms, and entire apartments in each community is

[illegible]

- From this we can clearly say:
  - With the exception of Brooklyn and Staten Island, a whole house/apartment costs about 100% more than a private room.
  - Private rooms are about 10% more expensive than shared rooms, while Brooklyn and Manhattan are about 40% more expensive.

#### Step 4: Presentation

- Made presentations based on best practices and pyramid principles
- Added recommendations for the respective departments