

Prepare Tableau Calculations and Analysis for the Following:

1. **Neighborhood Popularity and Pricing:** Identify which areas have the most listings and analyze how pricing varies across different locations.



Insights from the map visualization:

1. This appears to be a map of New York City's boroughs, with different neighborhoods marked in different colors according to the legend on the right.
2. The boroughs shown are:
 - Bronx (orange markers in the north)
 - Brooklyn (dark teal markers in the south)
 - Manhattan (center)
 - Queens (purple markers in the east)
 - Staten Island (red markers in the southwest)
3. Each dot/marker likely represents a specific data point or location within that borough.
4. The visualization uses a dark background map with colored overlay points to distinguish between different neighborhood groups.

Key Observations:

1. Neighborhoods and Their Average Property Prices:

- **Null:** 658.36
- **Queens:** 630.21
- **Bronx:** 627.77
- **Brooklyn:** 626.56
- **Staten Island:** 624.49
- **Manhattan:** 622.44
- **Grand Total:** 625.29

2. Trends:

- The **Null** category has the highest average property price at **658.36**.
- **Manhattan** has the lowest average property price at **622.44**.
- The **Grand Total** (overall average) is **625.29**.

3. Y-Axis Range:

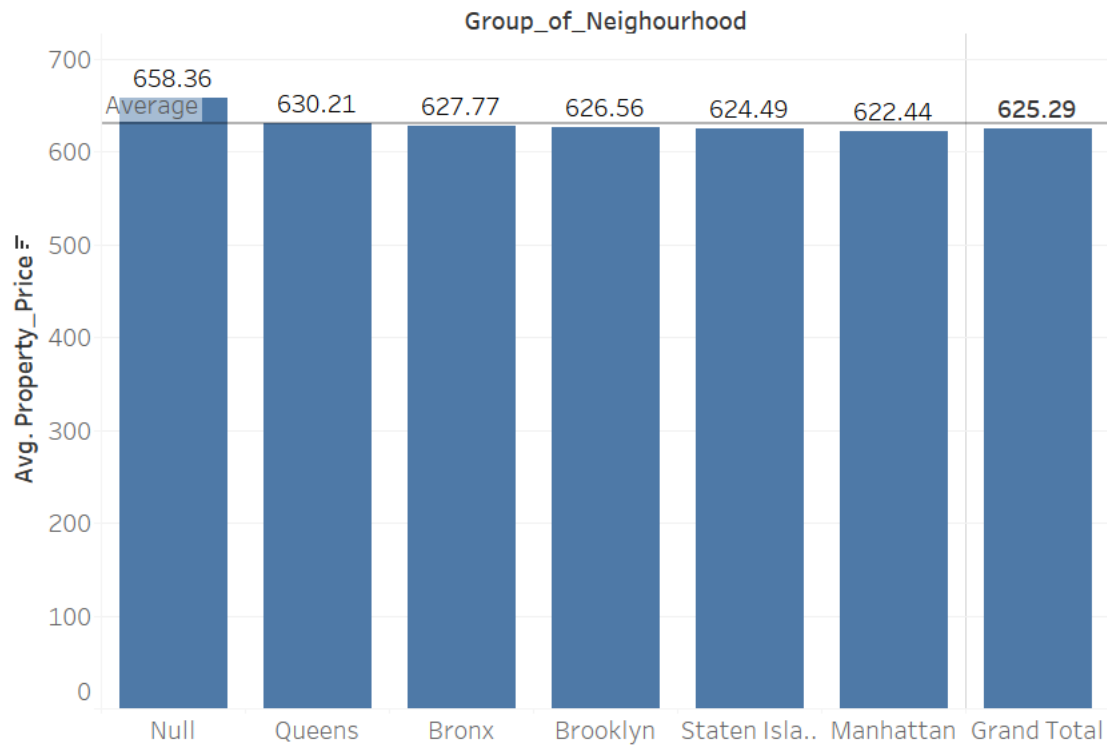
- The y-axis starts at 0 and goes up to 700, with the bars clustered between 620 and 660.

4. Comparison:

- The differences in average property prices between neighborhoods are relatively small, with all values falling within a narrow range of approximately 622 to 658.

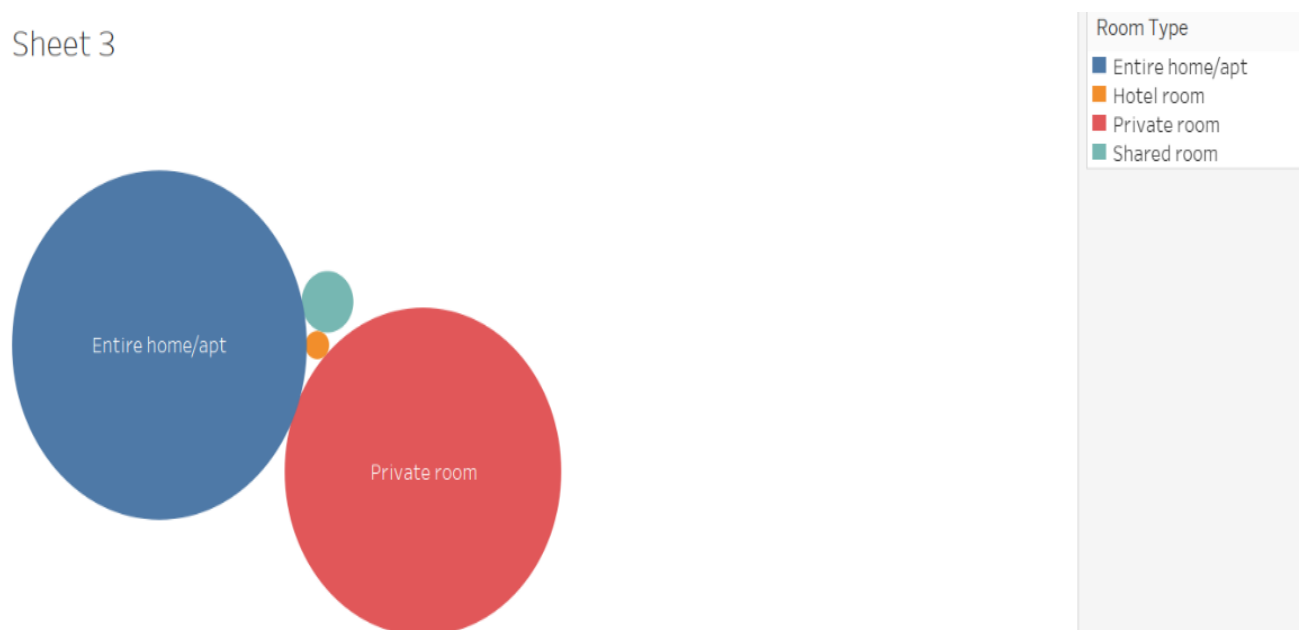
This chart provides a clear comparison of average property prices across neighborhoods, highlighting slight variations in pricing.

Sheet 2



2. **Property Type Distribution:** Investigate the different types of properties (entire homes, private rooms, shared rooms) and understand which types are most in demand.

Sheet 3



Sheet 3

Room Type

Entire home/apt	14,68,059
Hotel room	9,679
Private room	12,91,669
Shared room	45,368

Observations:

1. Room Types:

- The chart categorizes room types into four groups:
 - Entire home/apt (blue bubble)
 - Private room (red bubble)
 - Shared room (orange bubble)
 - Hotel room (green bubble)

2. Bubble Sizes:

- The size of each bubble corresponds to the relative demand or availability of each room type.
- The **blue bubble (Entire home/apt)** is the largest, indicating it is the most in-demand or most available room type.
- The **red bubble (Private room)** is the second largest, showing significant demand or availability.
- The **orange bubble (Shared room)** and **green bubble (Hotel room)** are much smaller, suggesting lower demand or availability.

3. Insights:

- **Entire home/apt** is the most popular or abundant room type, likely due to its appeal for privacy and convenience.

- **Private rooms** are also popular, possibly catering to budget-conscious travelers or those seeking a balance between privacy and cost.
 - **Shared rooms** and **hotel rooms** have minimal representation, indicating lower demand or availability in the dataset.
3. **Customer Satisfaction and Ratings:** Explore the relationship between listing prices and customer review ratings to identify factors contributing to higher customer satisfaction.

```
CORR([Property_Price],[Review Rate Number])|
```

A correlation of -0.004576 between property price and review rate number indicates **almost no linear relationship** between the two variables.

- The value is very close to 0, meaning that changes in property price are not linearly associated with changes in the review rate number.
- The negative sign suggests a very slight inverse relationship, but it is so small that it is practically negligible.

In practical terms, this means that property price and review rate number are likely independent of each other, at least in terms of a linear relationship. If you're looking for a stronger relationship, you might want to explore other variables or use non-linear methods to analyze the data.

4. **Host and Listing Analysis:** Determine which hosts have the highest number of listings and how their pricing strategies compare.

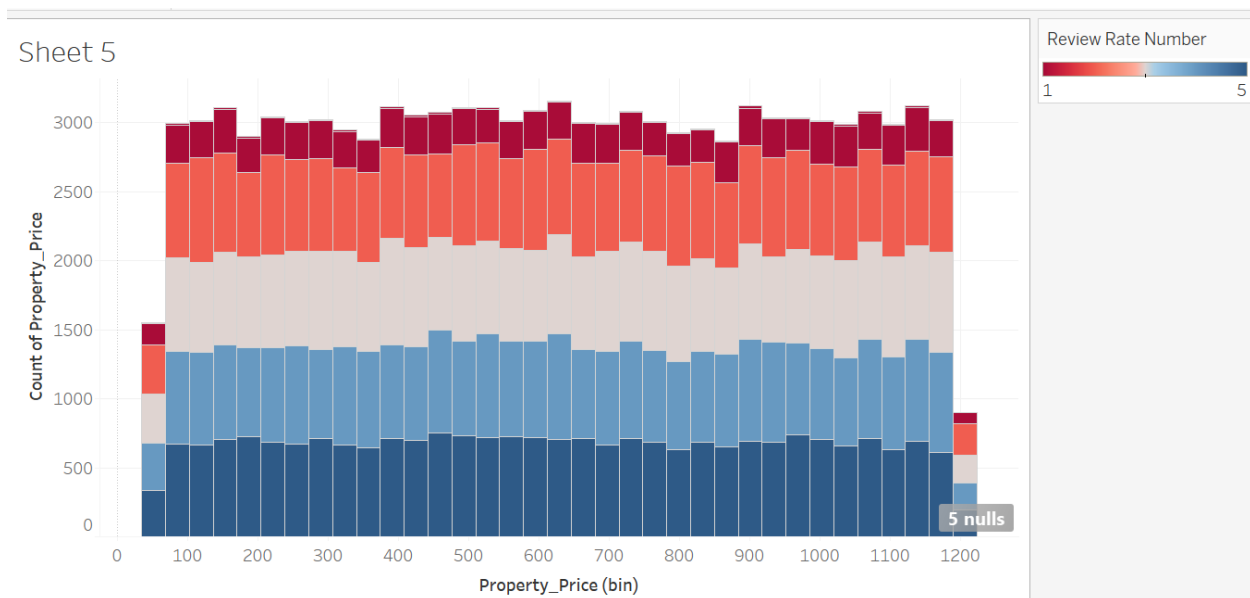
For this specific image:

This appears to be a stacked area chart showing property price distribution data. The x-axis represents "Property Price Bin" ranging from 0 to approximately 1200, while the y-axis shows "Count of Property Prices" ranging from 0 to about 3000.

Key insights:

1. The chart is divided into multiple colored sections stacked on top of each other
2. There appears to be at least 4 distinct color bands:
 - A dark blue section at the bottom

- A lighter blue section above that
 - A gray/neutral section in the middle
 - A red/pink section at the top
3. The overall height of the stacked areas remains relatively consistent across the price bins, suggesting a fairly stable distribution of properties across different price ranges
 4. There's a legend or key on the right side that appears to show "Review Rate Number" with a gradient from red (1) to blue (5)
 5. The chart's title appears to be "Sheet 5" which suggests this might be part of a larger dashboard or report
 6. The data visualization shows patterns in property prices and possibly their associated review ratings, with different colors potentially representing different rating categories.



Key Observations:

1. X-Axis (Room Type):

- The x-axis represents the room types, abbreviated as:
 - "Entir." (Entire Room)
 - "Hotel." (Hotel Room)
 - "Priva." (Private Room)

- "Shar." (Shared Room)

2. Y-Axis (Avg. Review Rate Number):

- The y-axis represents the average review rate number, ranging from 0 to 3.5.

3. Bar Heights (Average Review Rates):

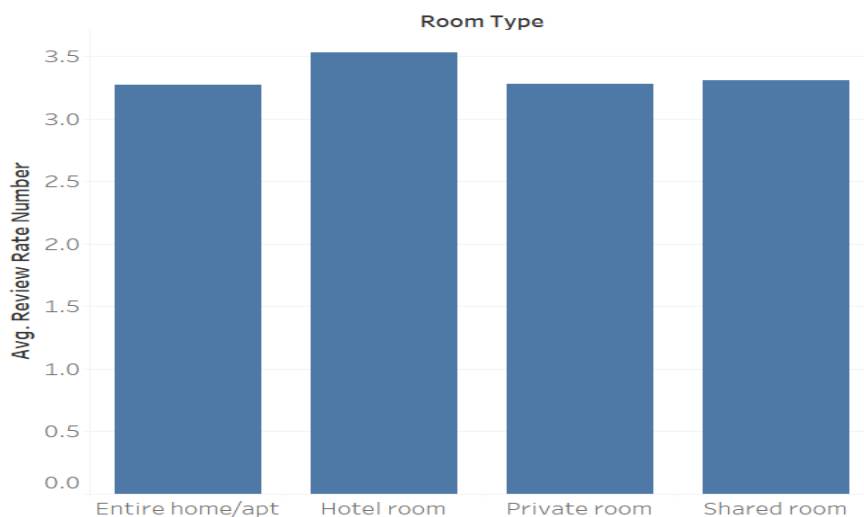
- The approximate average review rates for each room type are:
 - **Entir.:** Around 3.3
 - **Hotel.:** Around 3.5 (highest)
 - **Priva.:** Around 3.3
 - **Shar.:** Around 3.3

Insights:

- **Hotel rooms** have the highest average review rate number, slightly above the other room types.
- **Entire rooms, private rooms, and shared rooms** have similar average review rates, all slightly below hotel rooms.
- The differences in average review rates between room types are minimal, suggesting that review rates are relatively consistent across room types.

This data could be useful for understanding customer preferences or satisfaction levels based on room type

Sheet 7



Observations:

1. Graph Title and Axes:

- The graph is titled "Sheet 7."
- The x-axis represents **Room Type**, with four categories:
 - Entire home/apt
 - Hotel room
 - Private room
 - Shared room
- The y-axis represents **Avg. Review Rate Number**, with values ranging from 0 to 3.5.

2. Data Representation:

- The graph uses bar charts to compare the average review rate for different room types.

3. Key Insights:

- **Hotel rooms** have the highest average review rate, reaching approximately 3.5.
- **Entire home/apartment** has the lowest average review rate, slightly above 3.0.
- **Private rooms** and **shared rooms** have similar average review rates, both slightly below 3.5 but higher than entire home/apartment.

Insights:

1. Hotel Rooms Perform Best:

- Hotel rooms receive the highest average review rate, suggesting they may provide a more consistent or satisfactory experience for guests compared to other room types.

2. Entire Home/Apartment Lagging:

- Entire homes/apartments have the lowest average review rate, which could indicate variability in quality, higher expectations, or other factors affecting guest satisfaction.

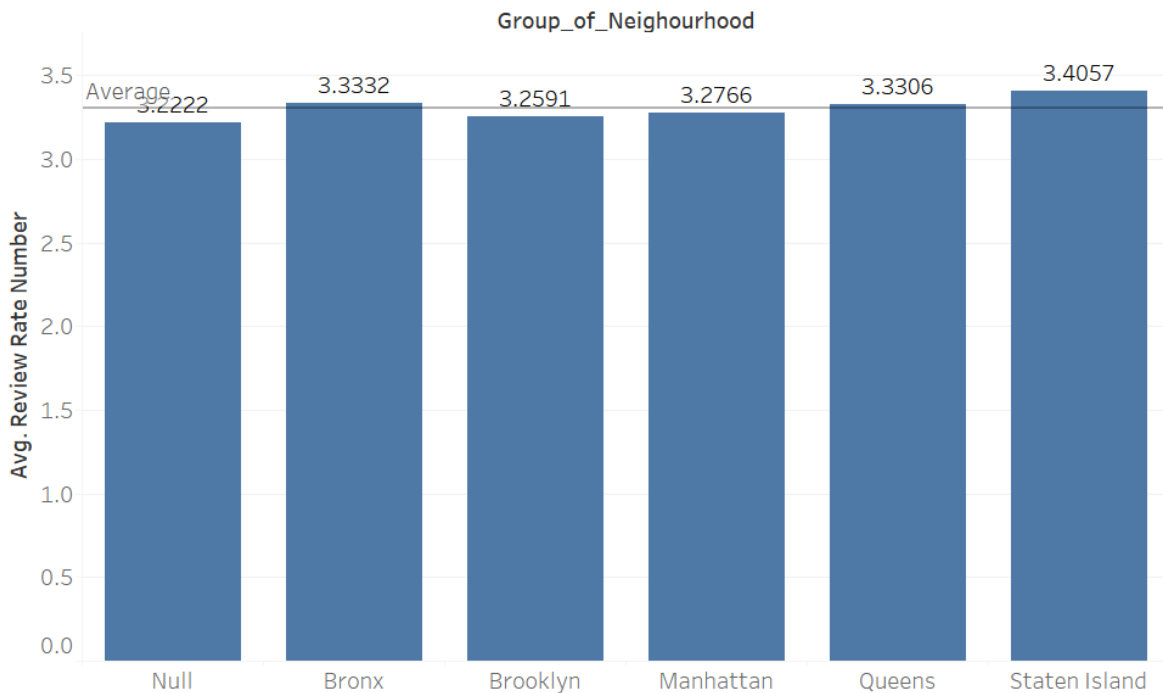
3. Private and Shared Rooms:

- Private and shared rooms perform similarly, with average review rates close to hotel rooms. This suggests that these options may offer a good balance of affordability and guest satisfaction.

4. Potential Focus Areas:

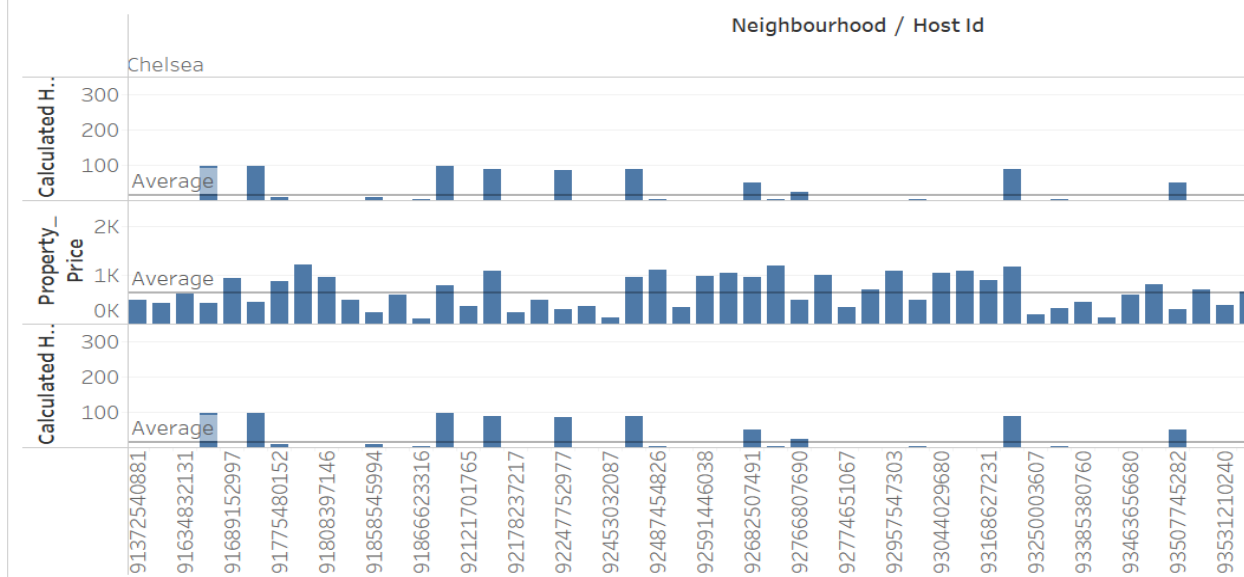
- Hosts offering entire homes/apartments might consider improving their offerings or addressing common guest concerns to increase review rates.

Sheet 8



- #### 5. Impact of Amenities on Pricing:
- Understand how the presence of certain amenities influences listing prices.

Sheet 10



A correlation of -0.004627 **between list price and customer review ratings** suggests that there is almost no relationship between these two variables. The correlation is very close to 0, which means changes in the list price are not significantly associated with changes in the customer review ratings.

In other words, whether the price of an item increases or decreases, it does not appear to have much of an impact on the customer ratings (based on the data you're looking at).

A correlation of -0.00008811 **between calculated host listing and listing price ratings** suggests that there is an extremely weak negative relationship between the two variables. Essentially, the correlation is very close to zero, meaning there is almost no linear relationship between the two.

In practical terms, this means that changes in the host listing (such as certain calculated metrics or features) are not meaningfully associated with changes in the listing price ratings.