Graph Design

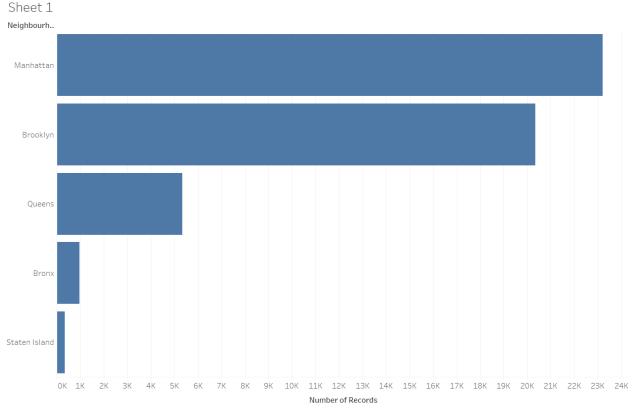
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1) Which areas in NYC have the highest/lowest number of listings?

Ans:



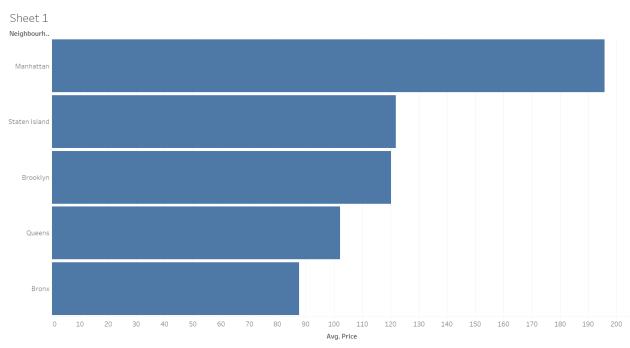


Sum of Number of Records for each Neighbourhood Group Cleansed.

Here, we have defined area as **Neighbourhood group** ("Neighbourhood Group Cleansed" attribute in the Dataset) and as evident from the bar graph Manhattan has the highest number of listings (23,213) and Staten Island has the lowest number of listings (343).

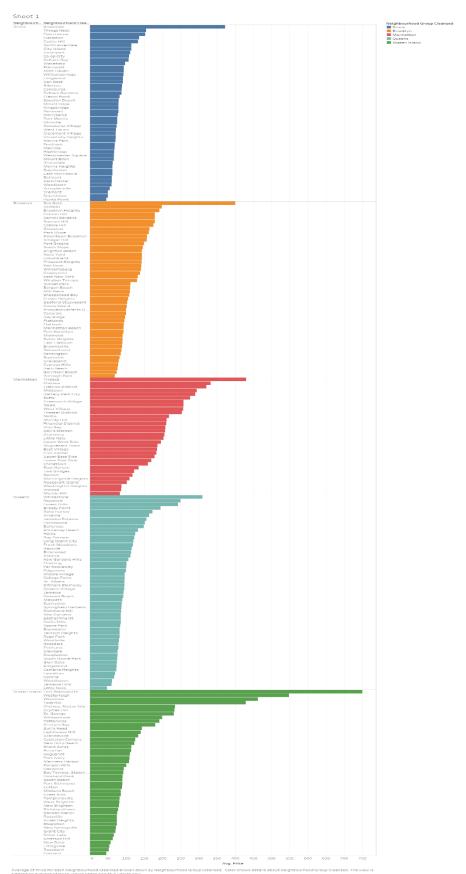
2) How does price distribute across different regions in NYC? Where are the areas with the highest and lowest prices?

Ans:



 $Average of Price for each \, Neighbourhood \, Group \, Cleansed. \, The \, view \, is \, filtered \, on \, average \, of \, Price, \, which \, keeps \, non-Null \, values \, only.$

Here, the term price has been defined by the **average of the price** attribute of the dataset for different areas defined by the **Neighbourhood group** ("Neighbourhood Group Cleansed" attribute in the Dataset) and as evident from the bar graph Manhattan has the highest price (195.7) and Bronx has the lowest price (87.6)



Here, the term price has been defined by the **average of the price** attribute of the dataset for different areas defined by the **Neighbourhood** ("Neighbourhood Cleansed" attribute in the Dataset) for a given **Neighbourhood Group** ("Neighbourhood Group Cleansed" attribute in the Dataset) and as evident from the bar graph.

1. Neighbourhood Group: Bronx

Highest price Neighbourhood: Riverdale (371.9) **Lowest price Neighbourhood:** Hunts Point (45.8)

2. **Neighbourhood Group:** Brooklyn

Highest price Neighbourhood: Sea Gate (400.2) **Lowest price Neighbourhood:** Borough Park (68.6)

3. **Neighbourhood Group:** Manhattan

Highest price Neighbourhood: Tribeca (429.8) Lowest price Neighbourhood: Marble Hill (83.3)

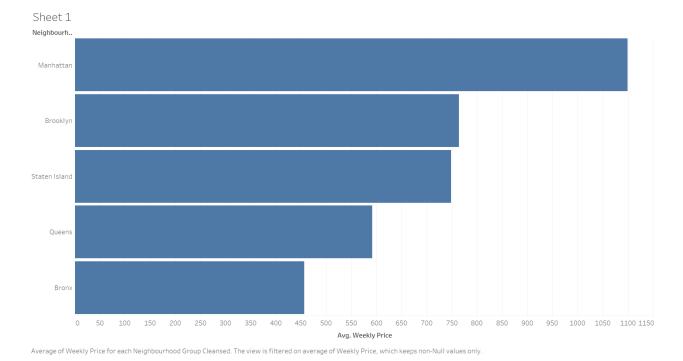
4. **Neighbourhood Group:** Queens

Highest price Neighbourhood: Whitestone (310.3) **Lowest price Neighbourhood:** Little Neck (47.5)

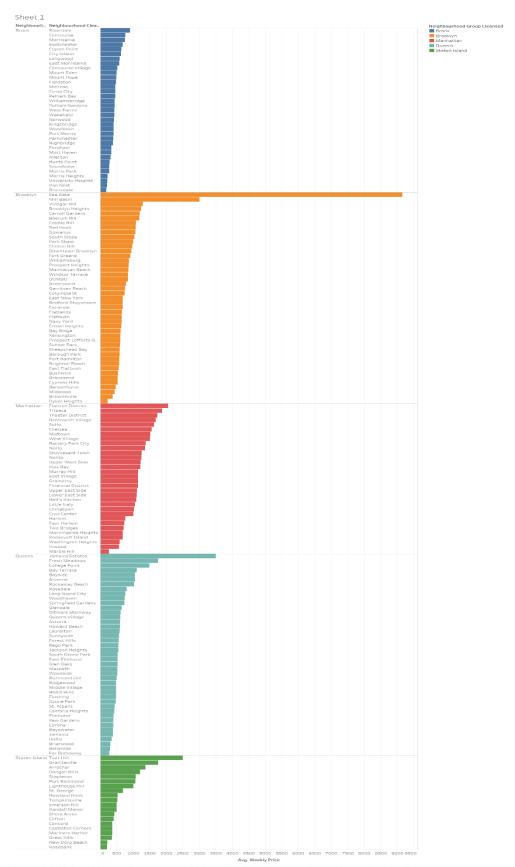
5. Neighbourhood Group: Staten Island

Highest price Neighbourhood: Fort Wadsworth (750)

Lowest price Neighbourhood: Concord (45.2)



Here, the term price has been defined by the **average of the weekly price** attribute of the dataset for different areas defined by the **Neighbourhood group** ("Neighbourhood Group Cleansed" attribute in the Dataset) and as evident from the bar graph Manhattan has the highest weekly price (1099.1) and Bronx has the lowest weekly price (456.5)



Here, the term price has been defined by the **average of the weekly price** attribute of the dataset for different areas defined by the **Neighbourhood** ("Neighbourhood Cleansed" attribute in the Dataset) for a given **Neighbourhood Group** ("Neighbourhood Group Cleansed" attribute in the Dataset) and as evident from the bar graph.

1. **Neighbourhood Group:** Bronx

Highest weekly price Neighbourhood: Riverdale (899)

Lowest weekly price Neighbourhood: Bronxdale (179)

2. **Neighbourhood Group:** Brooklyn

Highest weekly price Neighbourhood: Sea Gate (9,149) **Lowest weekly price Neighbourhood:** Dyker Heights (220)

3. **Neighbourhood Group:** Manhattan

Highest weekly price Neighbourhood: Flatiron District (2054)

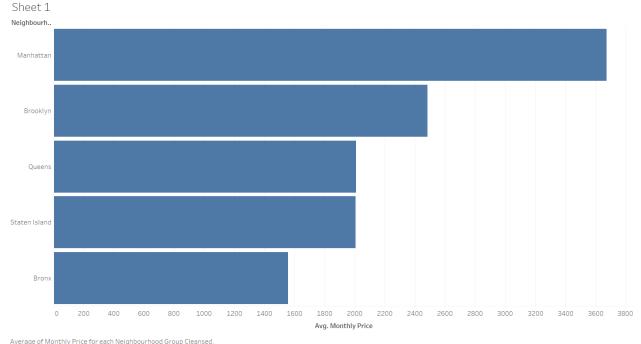
Lowest weekly price Neighbourhood: Marble Hill (265)

4. **Neighbourhood Group:** Queens

Highest weekly price Neighbourhood: Jamaica Estates (3500) **Lowest weekly price Neighbourhood:** Far Rockaway (273)

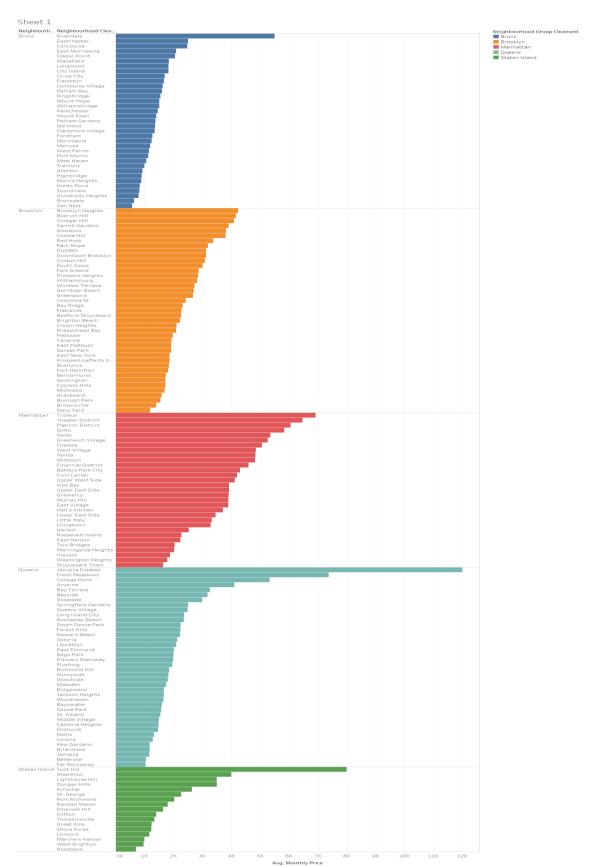
5. Neighbourhood Group: Staten Island

Highest weekly price Neighbourhood: Todt Hill (2499) Lowest weekly price Neighbourhood: Rosebank (200)



Average of Monthly Frice for each weighbourhood group creatised.

Here, the term price has been defined by the **average of the monthly price** attribute of the dataset for different areas defined by the **Neighbourhood group** ("Neighbourhood Group Cleansed" attribute in the Dataset) and as evident from the bar graph Manhattan has the highest monthly price (3672) and Bronx has the lowest monthly price (1558)



Here, the term price has been defined by the **average of the monthly price** attribute of the dataset for different areas defined by the **Neighbourhood** ("Neighbourhood Cleansed" attribute in the Dataset) for a given **Neighbourhood Group** ("Neighbourhood Group Cleansed" attribute in the Dataset) and as evident from the bar graph.

1. **Neighbourhood Group:** Bronx

Highest monthly price Neighbourhood: Riverdale (5500) **Lowest monthly price Neighbourhood:** Van Nest (565)

2. **Neighbourhood Group:** Brooklyn

Highest monthly price Neighbourhood: Brooklyn Heights (4246)

Lowest monthly price Neighbourhood: Navy Yard (1200)

3. Neighbourhood Group: Manhattan

Highest monthly price Neighbourhood: Tribeca (6918)

Lowest monthly price Neighbourhood: Stuyvesant Town (1650)

4. **Neighbourhood Group:** Queens

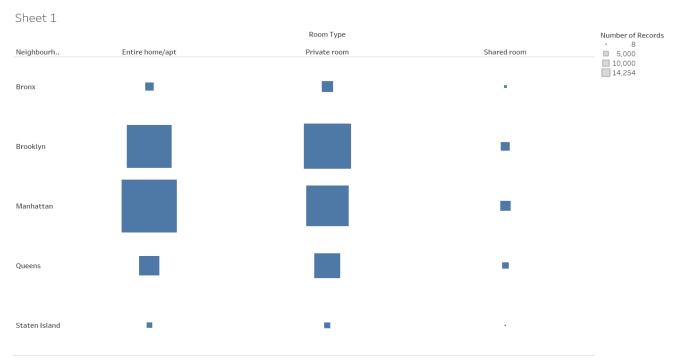
Highest monthly price Neighbourhood: Jamaica Estates (12000) **Lowest monthly price Neighbourhood:** Far Rockaway (1036)

5. Neighbourhood Group: Staten Island

Highest monthly price Neighbourhood: Todt Hill (7999) **Lowest monthly price Neighbourhood:** Rosebank (700)

3) How does the prevalence of room types (use "Room Type") change across the main boroughs? Are there any major differences on whether there are more entire apartments, private rooms or shared rooms?

Ans:



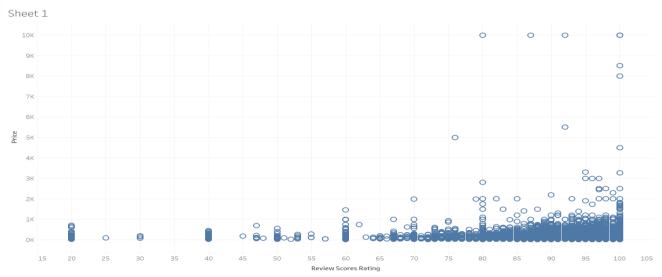
Sum of Number of Records (size) broken down by Room Type vs. Neighbourhood Group Cleansed

The following points are evident from the above Matrix:

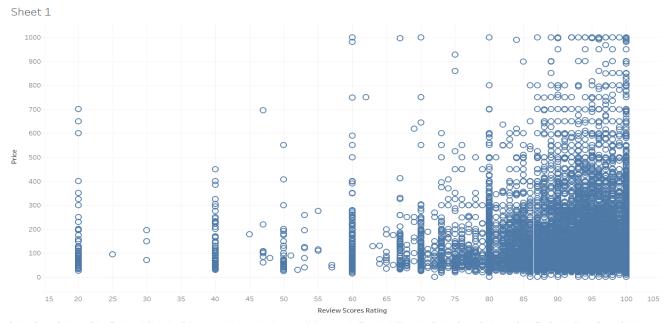
- 1. Bronx, Brooklyn, Queens and Staten Island have more private rooms followed by Entire home/apt followed by Shared room.
- 2. Manhattan has more Entire home/apt followed by private rooms followed by Shared room.

4) Is there a relationship between the price of a listing and the review score (use "Review Score Rating")? Do listings with higher priced tend to be rated with higher scores?

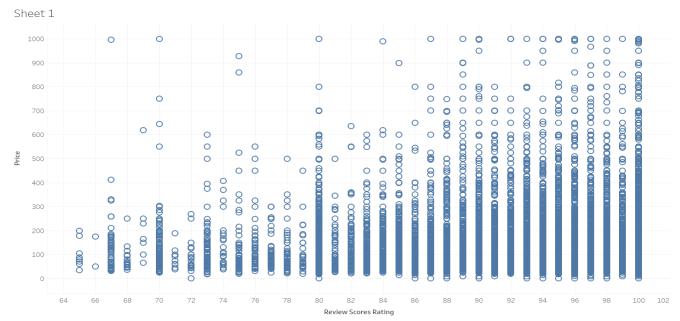
Ans:



Review Scores Rating vs. Price. The view is filtered on Review Scores Rating, which keeps non-Null values only



Review Scores Rating vs. Price. The data is filtered on Price as an attribute, which keeps non-Null values only. The view is filtered on Review Scores Rating and Price. The Review Scores Rating filter keeps non-Null values only. The Price filter ranges from 0 to 1000.



Review Scores Rating vs. Price. The data is filtered on Price as an attribute, which keeps non-Null values only. The view is filtered on Review Scores Rating and Price. The Review Scores Rating filter ranges from 65 to 100. The Price filter ranges from 0 to 1000.

From the above scatter plots with filtered ranges of Price and Review Scores Rating it is evident that listings with lower price tend to be rated with higher scores.