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Data Visualization Lab Assignment

Instructions: You may work alone OR in pairs for this assignment. Other than working with your partner, there is to be NO sharing of answers on this assignment. Failure to adhere to this policy constitutes academic dishonesty.

Utilize the AirBNB dataset for New York listings to complete this assignment. You will be graded on your visualization quality and your ability to answer each question (#s 1-4) or provide an insight (#5). Create visualizations that answer the questions listed below. Please include your answer and a screenshot of your visualization.

1. Create a "highlight table" that can help you answer the following question: What neighborhood has the cheapest average weekly price for a a) "boat," b) "bed and breakfast," and c) "Loft"? (5 points)

Property Type	Neighbourho.. ⸠	
Boat	Battery Park City	
	Country Club	
	Brooklyn	536.00
	The Rockaways	550.00

Property Type	Neighbourhood ⸠	
Bed and breakfast	East New York	
	Flatbush	
	Fort Greene	
	Hell's Kitchen	
	Marble Hill	
	Meatpacking District	
	Midtown	
	Ridgewood	
	St. George	
	Stapleton	
	Staten Island	
	The Bronx	
	The Rockaways	
	Upper West Side	
	Washington Heights	
	West Village	
	Williamsburg	
	Woodside	
	Midwood	420.0
	Corona	475.0
	Queens	475.0
	Concourse Village	500.0
	Upper East Side	580.0
	Brooklyn	681.7
	Bedford-Stuyvesant	697.0
	Park Slope	733.3
	Manhattan	741.0
	Harlem	978.3

Property Type	Neighbourhood ⸠	
Loft	West Village	
	Westchester Village	
	The Bronx	385
	Red Hook	412
	Queens	480
	Long Island City	490
	Bushwick	581
	Bay Ridge	700
	Harlem	700
	Greenpoint	736
	DUMBO	750
	Bedford-Stuyvesant	751
	Fort Greene	800
	Upper West Side	800
	Williamsburg	904
	Crown Heights	950
	Clinton Hill	967
	Park Slope	980

Battery Pack City has the cheapest average weekly price for a boat; Midwood has the cheapest average weekly price for a bed and breakfast; The Bronx has the cheapest average weekly price for a loft.

2. Create a scatter plot that is able to answer the following question: What is the relationship between average price and average square feet for entire homes, shared rooms, and private rooms? Utilize different shapes to showcase the different room types. Include a filter and a trend line in your visualization that answers this question. (5 points)
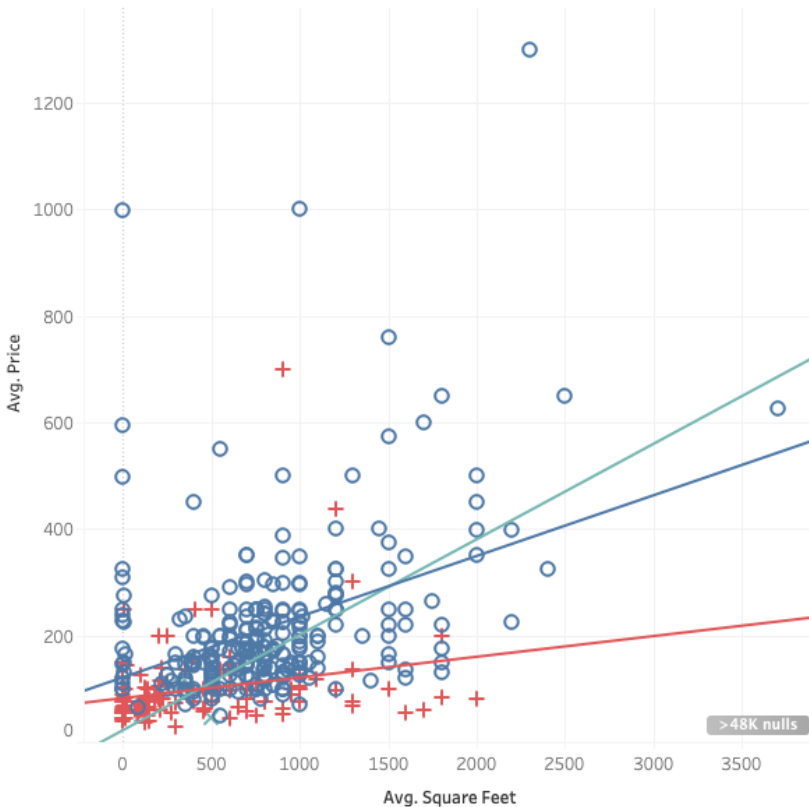

For entire homes, shared rooms, and private rooms, as average square feet increases, average price increases as well. Among all the room types, shared rooms average prices increase at the highest rate and private rooms increase at the lowest.

3. Create a map that shows the AirBNB listings in New York and color-code them by price. Then, use filters to locate the host name and property name of a property that fits the following description: A 4 bedroom/4 bathroom townhouse that allows me to rent out the entire home, with a host that is defined as a "super host" and a cleaning fee that is no more than $150 (5 points)?

Host name: Barbara

Property name: Large 4 BR West Village townhouse/roof garden

Host Name: **Barbara**
Latitude: **40.73**
Longitude: **-74.00**
Name: **Large 4 BR West Village townhouse/roof garden**
Price: **700.0**
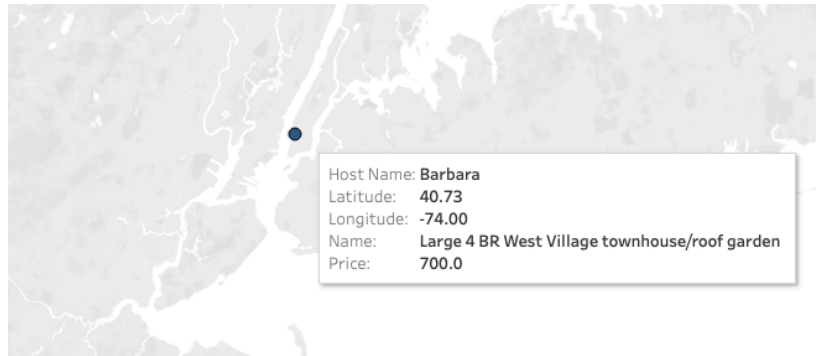
4. Create a bar chart that shows the average cleaning fee of property types for each neighborhood. Answer the following question: What neighborhood(s) has the highest average cleaning price

Neighbourhood
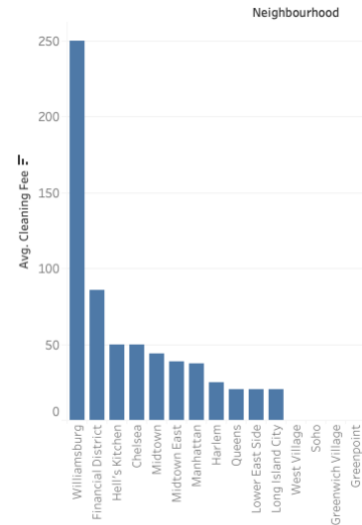
for a a) boutique hotel, b) townhouse and c) cottage? (5 points)


Neighbourhood
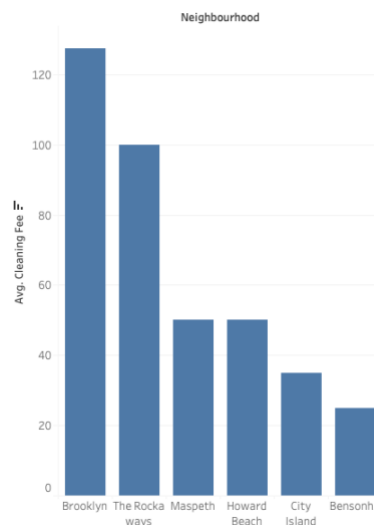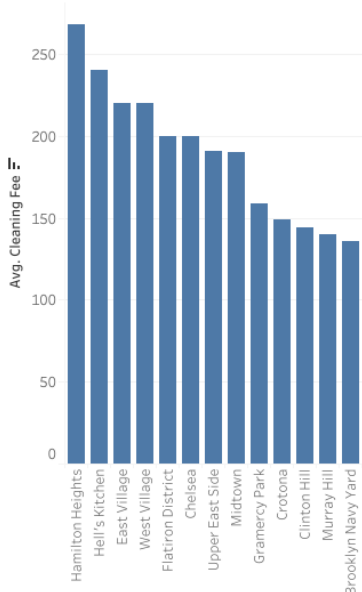
Williamsburg has the highest average cleaning price for a boutique hotel; Hamilton Heights has the highest average cleaning price for a townhouse; Brooklyn has the highest average cleaning price for a cottage.

5. Have some fun! Create your own visualization that explores something in the data that you find interesting. It must include a variable that is used as a "single value (dropdown)" filter. Interpret the findings of your analysis in your Word document (5 points).

I wanted to see if there is a relationship between average price and average review scores rating based on room types. My finding is that for all room types, average review scores rating increases as average price increases. This may indicate rooms with higher prices have higher

qualities which are more valued by customers. However, further research and analysis are needed to prove this point.

Sheet 6
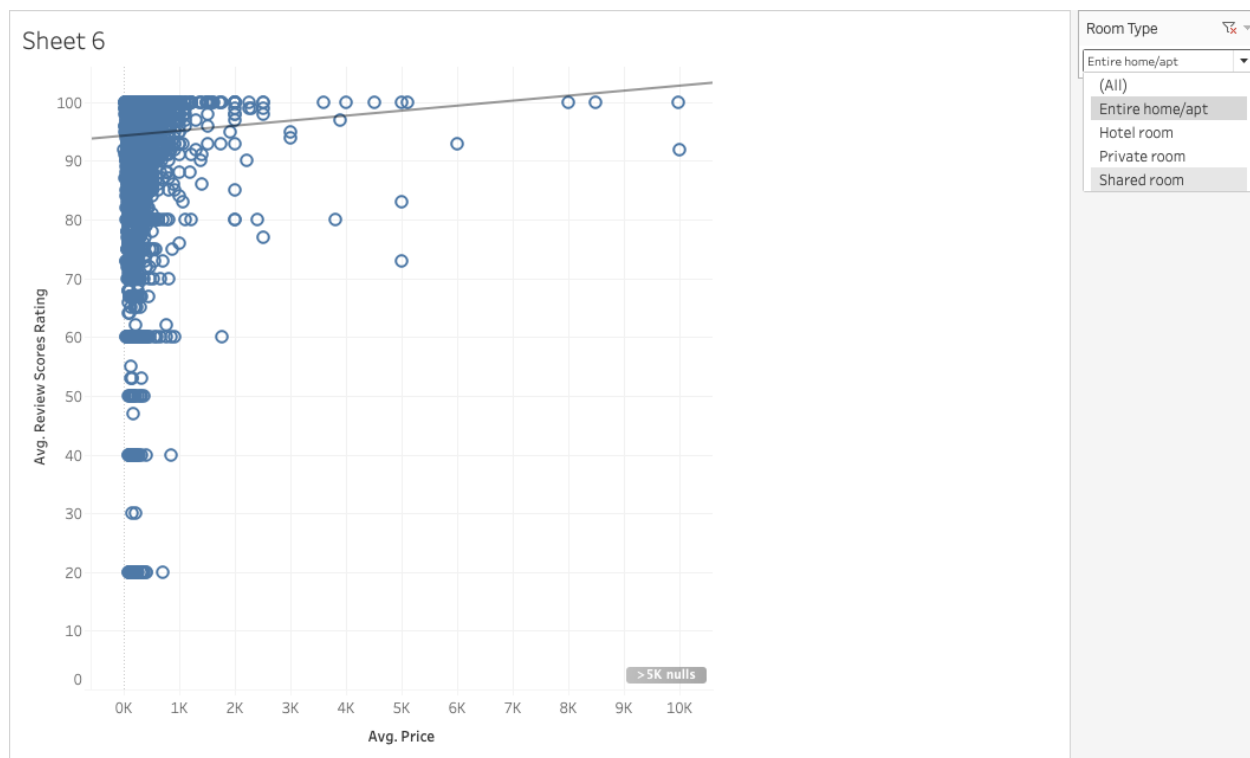
Remember to use tricks we did in class to ensure that your visualization is easy to read (color, shapes, labels, trend lines, filters, etc.). Each visualization and its corresponding description are worth 5 points. Completing this project will give you "classroom project experience" using Tableau and can provide an example that you can discuss with a potential employer on an interview. When you are finished, please upload this word document with your answers, screenshots, and "insights" to Canvas.

Include your name/your partner's name in the filename and at the top of your Word document when you save.