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**INTRODUCTION TO DATA PROCESSING AND VISUALIZATION**

**MIDTERM PART-2**

**NEWYORK AIRBNB ACCOMMODATION SPREAD**

**Data Cleaning**

1. Tableau’s built-in data interpreter
2. The calculated field for neighborhood groups

**1.** How does the price change over room types in Airbnb accommodations in New York?

**Chart, bar chart

Description automatically generated**

Newyork Airbnb prices are close values for most of the rooms, it differentiates between 600$-645$. The cheapest rooms are in Queens, hotel rooms, as seen above the hotel rooms in Queens are over 200$ cheaper than the average of Airbnb rooms in Newyork. The most expensive rooms are in Brooklyn, again hotel rooms, with a price around 100$ over the average. Although hotel rooms are seen to be the most expensive ones for the neighborhoods, in Staten Island shared rooms are averagely priced 715.6$, the second highest value for Newyork Airbnb room type-price spread. And last value that is considerably over the average is the Manhattan hotel rooms that are priced 681.5$ on average which is almost 50$ over the average price overall.

2. In Airbnb rooms in Newyork, are older buildings cheaper for staying in?

Chart, line chart

Description automatically generated

Well, not really. On the graph above there are minimum, maximum, oldest, and newest price values for construction years of Newyork Airbnb rooms. In Staten Island, for example, the building that has the cheapest room was constructed in 2015. The same situation can be said about Queens which also has the cheapest room that was constructed in 2015. The cheapest room in Brooklyn is again not the oldest, it was constructed in 2019 and for the Bronx, it’s 2011. So, the oldest room is only the cheapest in Manhattan.

3. Which neighborhoods are used more for accommodation in Newyork Airbnb?

Chart, treemap chart

Description automatically generated

In the graph above, the top 10 most reviewed(monthly) neighborhoods in Newyork Airbnb are displayed. The most preferred first two neighborhoods are in the Queens area. The most preferred neighborhood for Newyork Airbnb is East Elmhurst with 4.293 reviews monthly on average. East Elmhurst is followed by Glen Oaks with a close value of 3.980 reviews monthly on average. Even though it does not have the highest number of reviews monthly, Staten Island is also highly preferred, half of the top 10 list consists of the neighborhoods of Staten Island. Besides East Elmhurst and Glen Oaks, the other eight neighborhoods have close values between 3.600 – 3.200 reviews monthly on average.

4. Do more available Airbnb hosts have more strict cancellation policies in Newyork?

Chart

Description automatically generated

On average availability, the spread doesn’t seem to be changing over the cancellation policies, except for Staten Island. For Queens and Manhattan, hosts with strict cancellation policies seem to be slightly more available. The hosts with a moderate cancellation policy in the Bronx area seem to be a tad more available. But in Staten Island, it is shown that more available hosts have more flexible cancellation policies.

5. If an Airbnb host’s room is available for smoking, how does it affect ratings in Newyork?

Chart, treemap chart

Description automatically generated

Depending on the area, in Newyork Airbnb rooms smoking slightly affects ratings. The Bronx has the highest average rate, with 4.0, for rooms with no smoking policy. But in the Bronx area, smoking-free rooms also have a close value of 3.332 on average, meaning there is no significant effect of smoking policies for the area. Also in Staten Island, Brooklyn, and Manhattan no smoking policy doesn’t seem to change the ratings considerably. In Queens though, while rooms with no smoking policy have an average rate of 2.3, smoking-free places are rated at 3.331 on average.

6. In Newyork does Airbnb rooms being instantly bookable affect the preference of the users?

Chart, bar chart

Description automatically generated

The graph above it is shown the average number of reviews monthly of neighborhood groups in Newyork Airbnb. The room’s availability for instant booking does not seem to have a significant effect in Brooklyn and Manhattan. In Staten Island, instantly bookable rooms are preferable with an average of 0.2016 difference, it is safe to say the same for the Queens area, but the difference between the values is a significantly small value of 0.0273. For the Bronx area, again with a slight difference of 0.0699, the rooms that are not instantly bookable are preferred.

7. How does the price of the Airbnb rooms affect their service fee in Newyork?

Chart, line chart

Description automatically generated

The graph above shows the price change over the service fee of Newyork Airbnb. The values have a strong linear relationship between them.