NEW YORK

PRESENTATION

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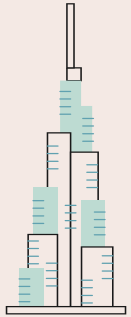
Airbnb NYC 2019 Dataset Overview :

Dataset contains detailed information about Airbnb listings in New York City.

- Data from 2019
- Main data contained over 40000 rows but had a lot of missing entries.
- After cleaning we got we were dealing with just under 300 data points.



RESEARCH ANGLE

Investigate factors influencing Airbnb prices and listing popularity in NYC.

Key Research Questions:

1. What factors influence the price of Airbnb listings?
2. How is the relationship between reviews and pricing?
3. What is the relationship between availability and the neighbourhood group?

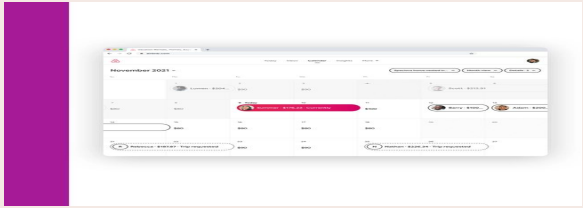
HYPOTHESIS

Location

Location influence price and availability

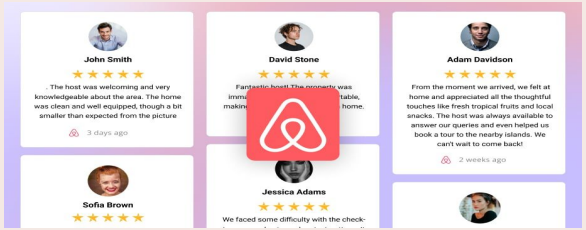
Availability

Availability of AirBNB influence guest opinion



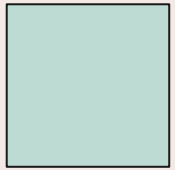
Apt. more reviews

Reviews affect pricing.



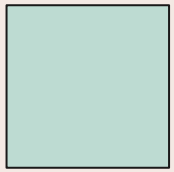
OBJECTIVES

1



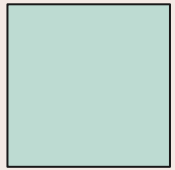
Identify factors influencing Airbnb prices.

2



Explore the relationship between reviews and listing attributes.

3



Analyze listing availability variations across neighbourhoods

Price Analysis: Top 10 Analysis

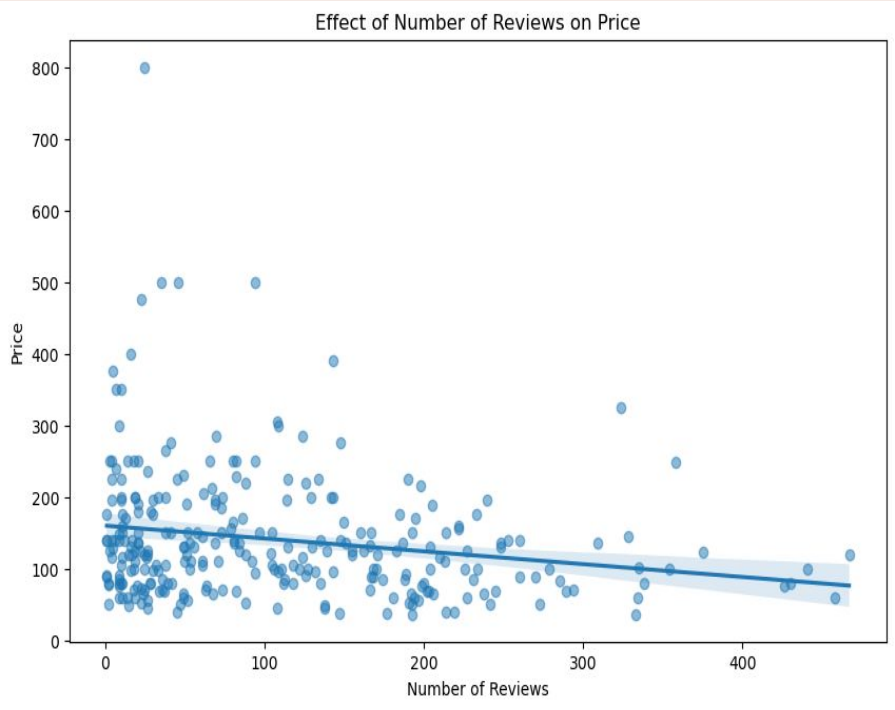
	price	neighbourhood_group
80	800	Brooklyn
98	500	Manhattan
235	500	Manhattan
226	500	Manhattan
153	475	Brooklyn
116	400	Brooklyn
255	390	Manhattan
56	375	Manhattan
176	350	Queens
109	350	Manhattan

- Brooklyn had the highest priced AirBnB on the list
- In the 10 top priced, Manhattan represented the most followed by Brooklyn and then Queens

Price Analysis: Neighbourhood Group

- The Map Analysis of the whole data seems to reflect the data in the top 10 priced list
- Queens on the list seems to be an outlier

Review Analysis: Hypothesis Testing



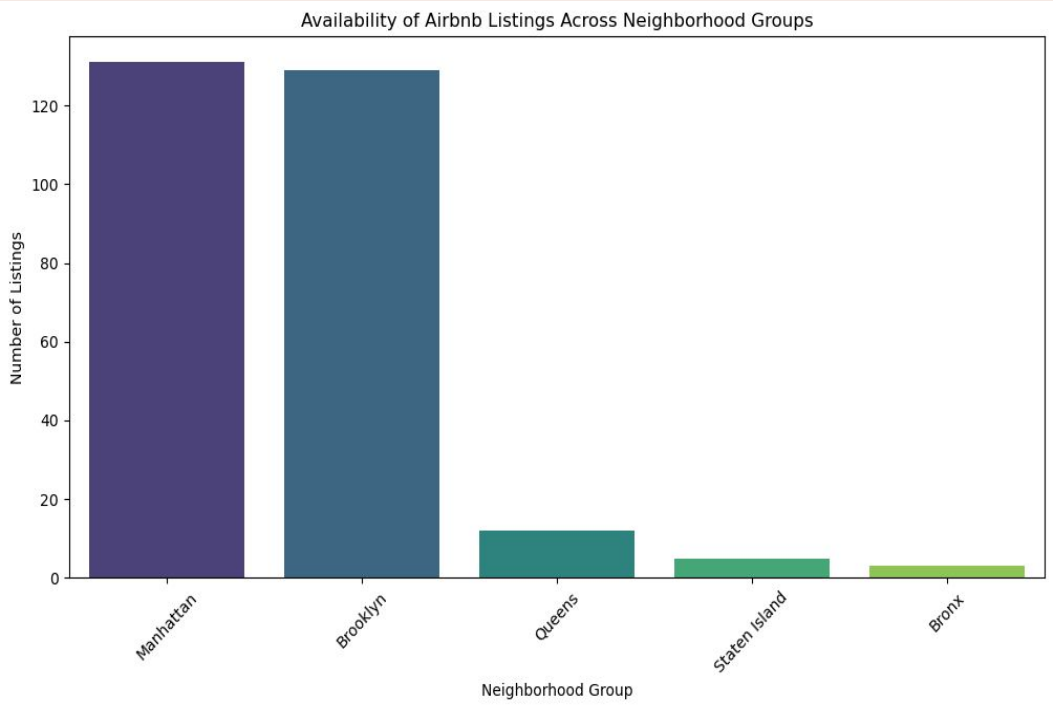
Null Hypothesis: Number of reviews affect price

Correlation coefficient: -0.19974524913880048

P-value: 0.0007755905443694049

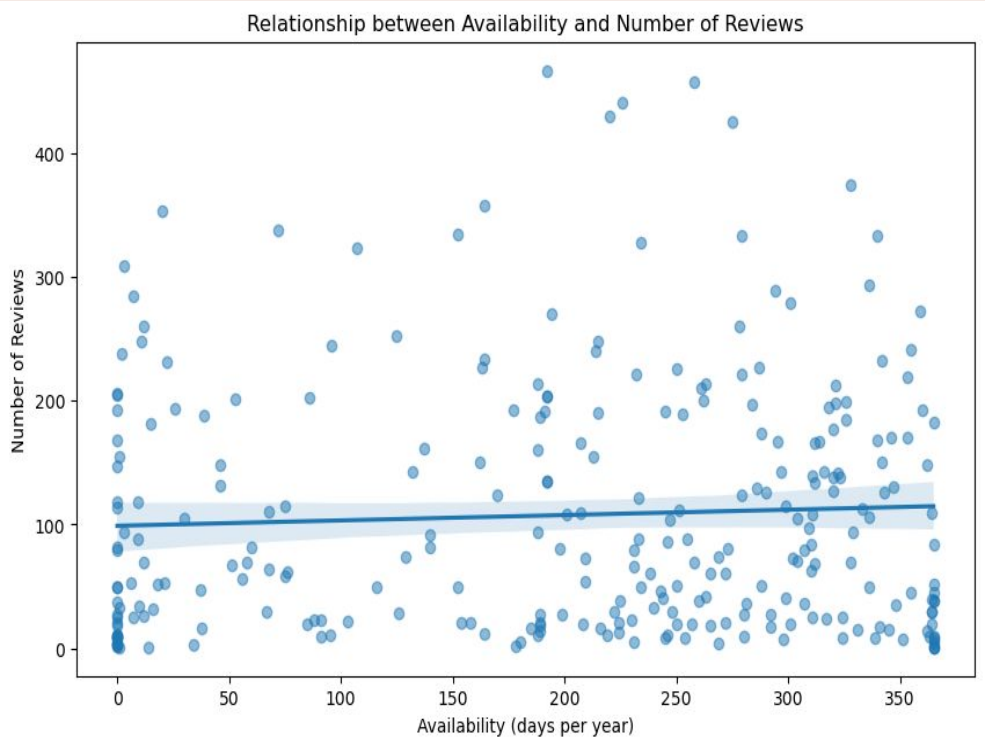
Reject null. Weak negative correlation between review and price.

Availability Analysis: Neighbourhood Group



- 'Manhattan' has the highest number of listings, it might indicate high demand and competition.
- 'Staten Island' has the lowest number of listings, it might represent an untapped market opportunity for new Airbnb hosts.

Availability Analysis: Hypothesis Test



Null Hypothesis: Availability influences Reviews

Correlation coefficient: 0.05393388274889865
P-value: 0.36859736982173497

Accept Null hypothesis. Weak positive correlation.

Conclusion

Price Analysis: High Prices: Central Manhattan, particularly around tourist hotspots, shows higher prices. Moderate to Low Prices: Listings in Queens and most of Brooklyn are generally more affordable. Outliers: Some listings in less central areas of Manhattan and Brooklyn still command high prices, possibly due to unique features or luxury accommodations.

Review Analysis: Based on the scatter plot, regression line, and correlation analysis, we might conclude that the number of reviews has a negligible effect on the price of Airbnb listings in New York. This suggests that while reviews are important for guests making a booking decision, they do not significantly influence the pricing strategy of hosts.

Availability Analysis: Based on the analysis, Manhattan had the highest number of available AirBnBs and places like Staten Island and the bronx are untapped markets.Also, availability influences reviews slightly positively.

KEY FINDINGS

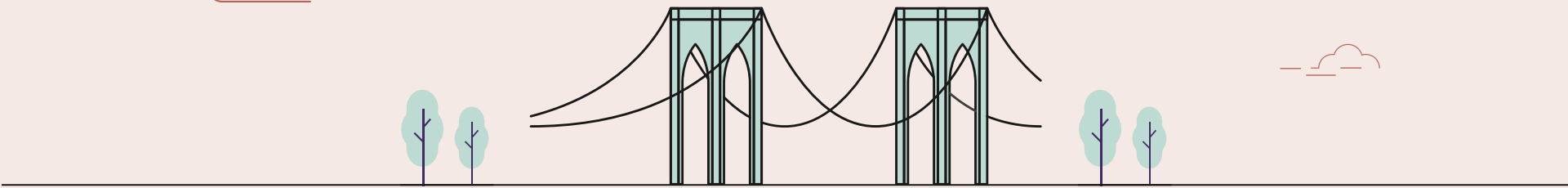
Pricing Trends

Review Analysis

Availability Insights

Challenge

- Dataset is quite old and could be non-representative of the time.
- Limited data points could contain bias.
- Deeper analysis would reveal clearer insight. Time and knowledge constraints.



THANK YOU!