

Final Project Summary - NYC Airbnb Data Analysis

Tools Used

- Platform: Jupyter Notebook (Python)
- Libraries: Pandas, Seaborn, Matplotlib

Questions Answered

1. What factors influence the price of Airbnb listings in NYC?
2. Which neighborhoods have the highest and lowest average prices?
3. How does room type affect price and availability?
4. What is the relationship between the number of reviews and a listing's popularity?

Key Insights

- Price Factors: The number of accommodations, bedrooms, and beds are positively correlated with price. Ratings have weak correlation, implying other qualitative factors may be at play.
- Neighborhood Trends: Manhattan has the highest average listing prices, followed by Brooklyn. The Bronx has the lowest.
- Room Type Impact: Hotel rooms are the most expensive and moderately available. Shared rooms are cheaper and more widely available.
- Review Frequency: Most listings with high review counts are lower-priced. Popular listings tend to be budget-friendly, suggesting high turnover and value appeal.

Recommendations

- For Hosts: Optimize pricing based on neighborhood and room type; entire listings in Manhattan attract premium rates.
- For Analysts: Use reviews per month as a more current indicator of listing activity than total reviews.
- For Guests: Brooklyn and Queens offer better value for private accommodations with high availability.

Future Work

- Conduct sentiment analysis on review comments.
- Apply machine learning to predict listing price or popularity.
- Analyze seasonal trends in pricing and availability