



Airbnb Property Management Optimization Using Tableau

Presented by: Sangeeta Rajput

Introduction

Airbnb is a global online marketplace that connects people who want to rent out their homes, apartments, or other properties with travelers seeking short-term lodging. Founded in 2008, Airbnb has grown to become one of the largest platforms in the hospitality industry, with millions of listings worldwide.



Problem statement

This project aims to analyze Airbnb data to uncover trends and actionable insights for hosts, guests, and the platform. The key objectives include:

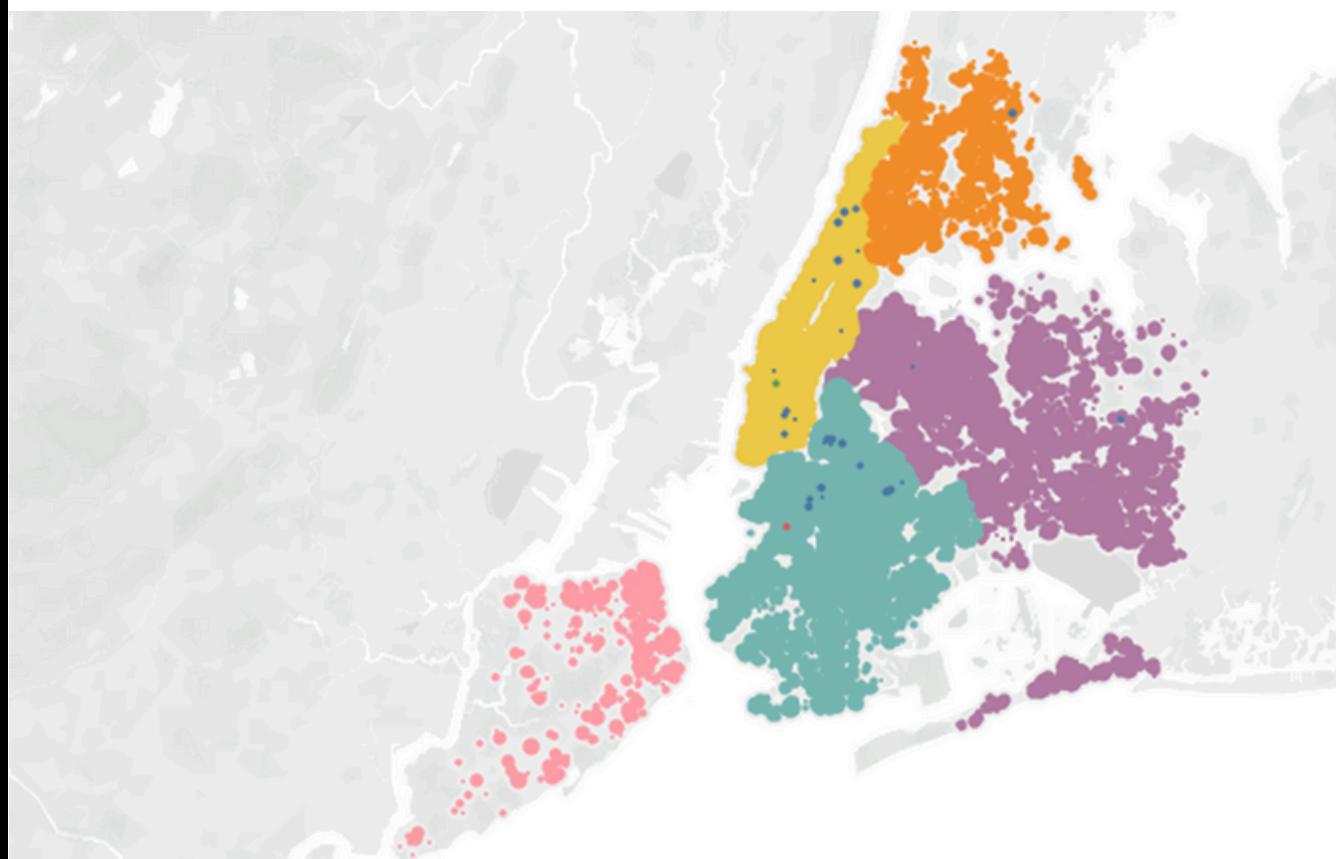
1. Identifying neighborhoods with the most listings and understanding how pricing varies by location.
2. Examining the distribution of property types (entire homes, private rooms, shared rooms) and their demand patterns.
3. Exploring the relationship between listing prices and customer review ratings to identify factors contributing to satisfaction.
4. Determining which hosts have the highest number of listings and comparing their pricing strategies.
5. Analyzing how specific amenities influence listing prices, helping hosts prioritize valuable upgrades.

The goal is to improve pricing strategies, enhance guest satisfaction, and maximize host revenues through data-driven insights.

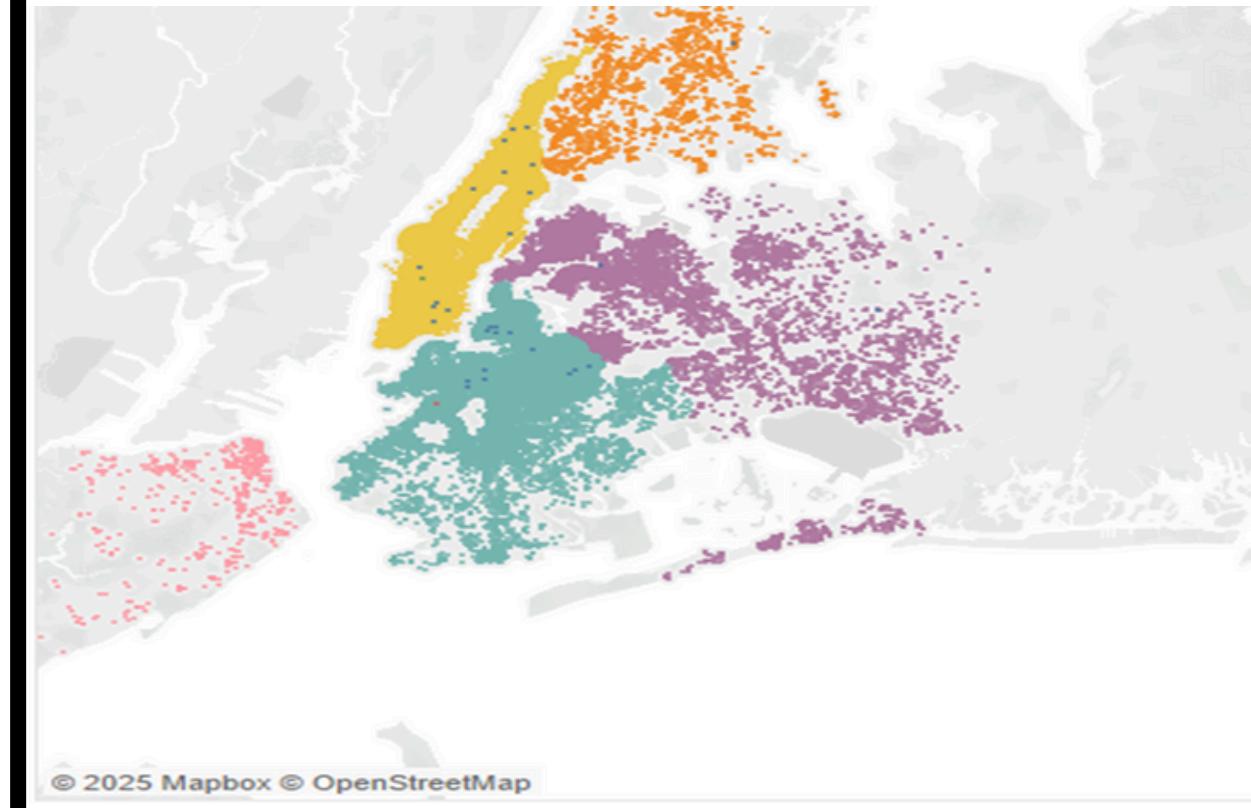


Airbnb Property Management Optimization Dashboard

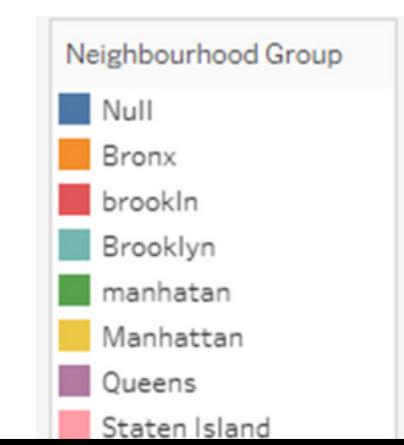
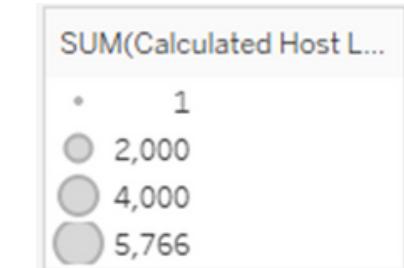
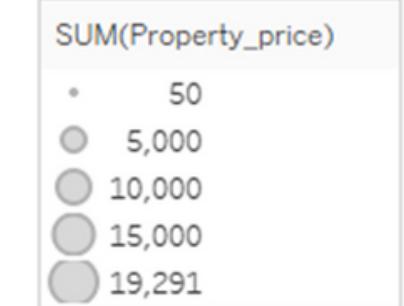
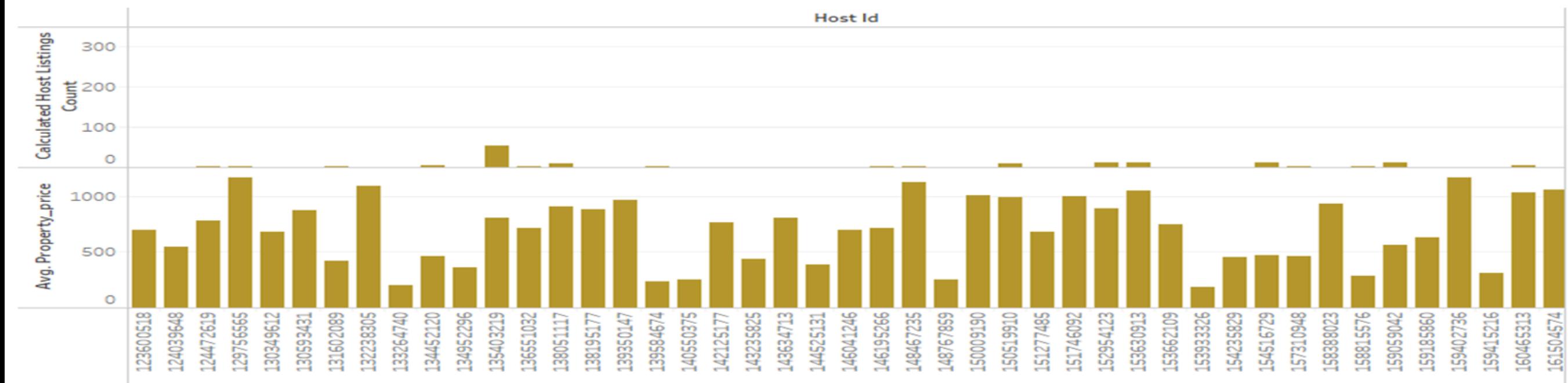
Property price by neighbourhoodgroup



Neighbourhoodgroup by listing



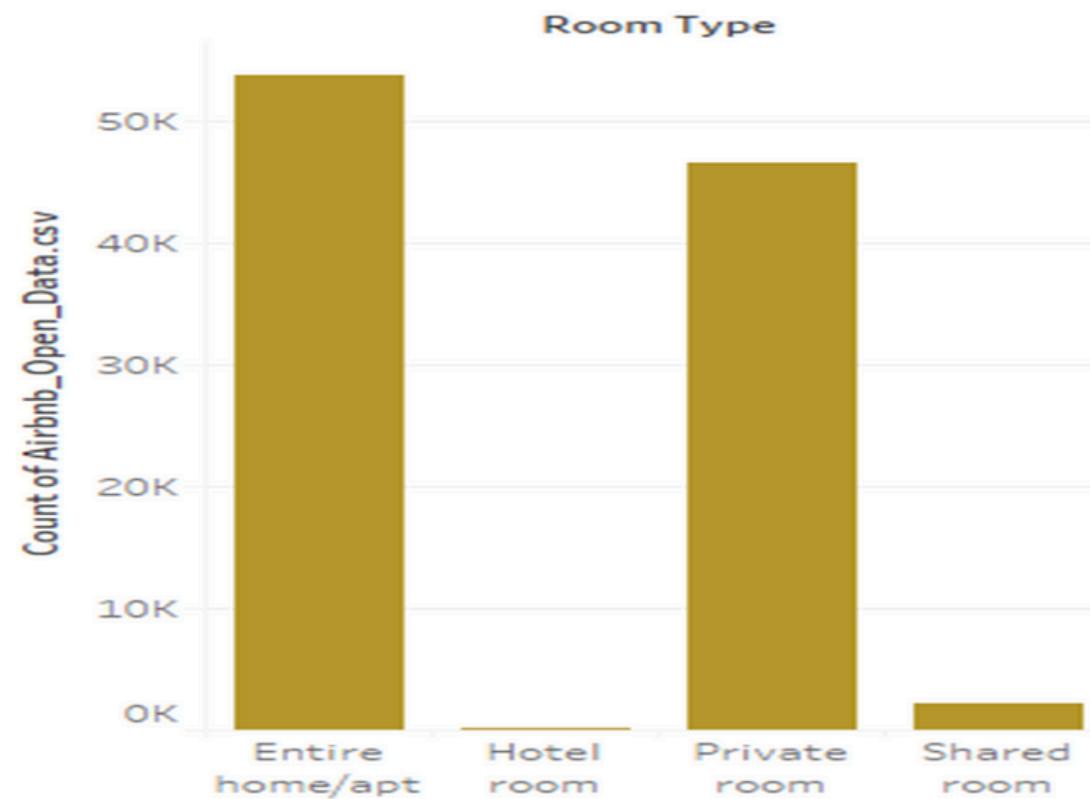
Host and listing analysis



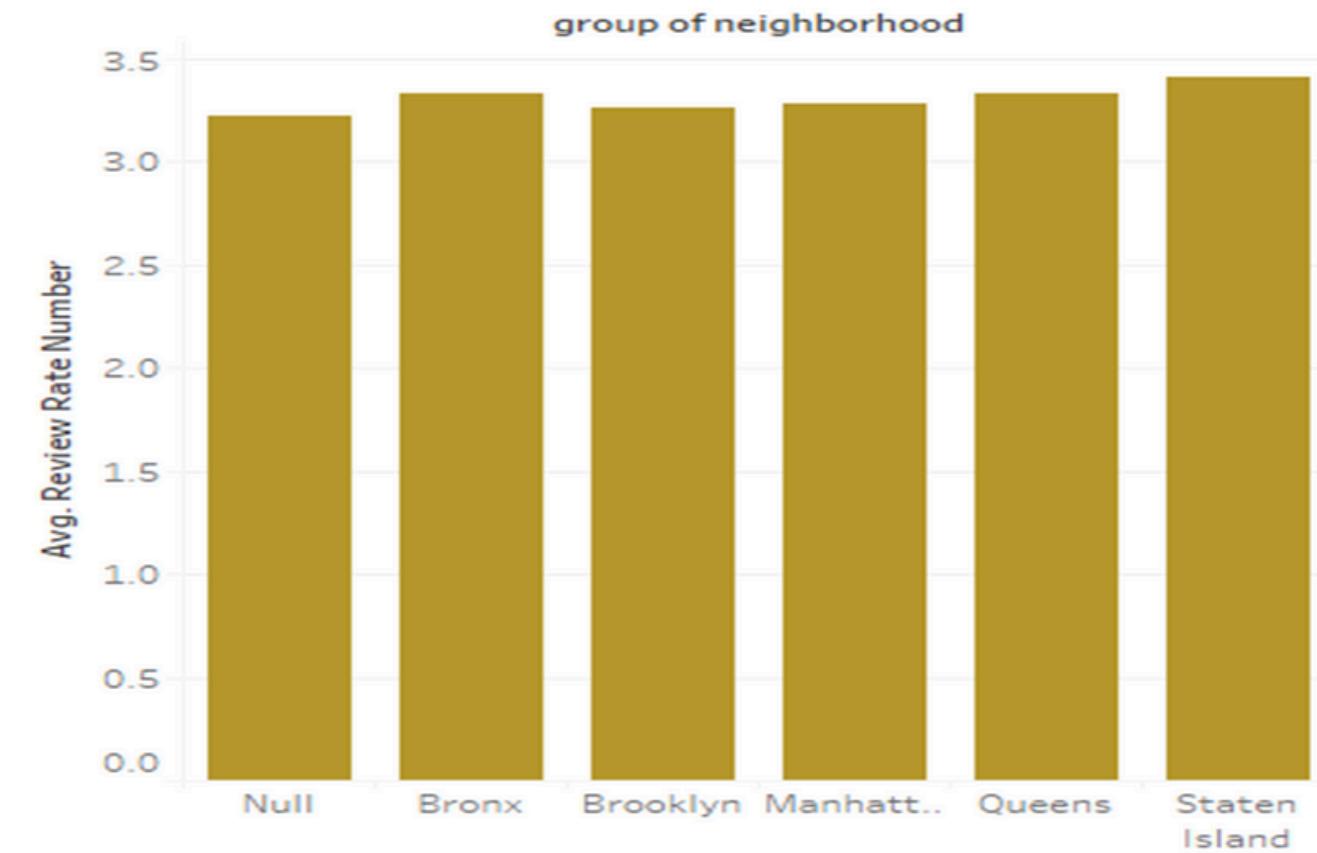


Airbnb Property Management Optimization Dashboard

Room type by demand



Neighbourhoodgroup by Avg review rate number



Listing of rooms types by neighbourhoodgroup

| Neighbourhood Group | Room Type | | | |
|---------------------|-----------------|------------|--------------|-------------|
| | Entire home/apt | Hotel room | Private room | Shared room |
| Bronx | 1,019 | | 1,569 | 117 |
| brookln | | | 1 | |
| Brooklyn | 20,532 | 8 | 20,389 | 820 |
| manhattan | | | 1 | |
| Manhattan | 26,401 | 100 | 16,277 | 904 |
| Queens | 5,133 | 8 | 7,731 | 362 |
| Staten Island | 473 | | 464 | 15 |

Correlation between property price and reviews

-0.004576



Key insights



1. Neighborhood Popularity and Pricing:

- Brooklyn and Manhattan dominate the list, with neighborhoods like Bedford-Stuyvesant and Williamsburg leading in popularity.
- The average price for listings across the top neighborhoods is relatively stable, with slight variations between \$609 and \$633.

2. Property Type Distribution:

Entire homes/apartments are the most in-demand, accounting for 53,701 listings with an average price of \$625, followed closely by private rooms (46,556 listings, \$625). Shared rooms and hotel rooms are niche options, with hotel rooms commanding the highest average price (\$668) despite their limited availability.

Key insights

3. Customer Satisfaction and Ratings:

Moderately priced listings often receive better reviews, as they balance affordability and quality, while extremely low or high prices may lead to unmet expectations. Entire homes tend to have higher ratings due to privacy and amenities, while private rooms offer strong value for money. Shared rooms generally face lower ratings due to limited privacy, despite being cost-effective.

4. Host and Listing Analysis:

Hosts with the highest number of listings often manage over 300 properties, indicating professional or business-level hosting. These high-volume hosts tend to adopt competitive, moderate pricing strategies to maximize occupancy across their listings. In contrast, hosts with fewer listings often price their properties higher, catering to niche markets or offering premium, luxury stays. This highlights a contrast between volume-driven and value-driven hosting approaches.



Key insights

5. Impact of Amenities on Pricing:

Amenities significantly impact Airbnb pricing. Luxury features like pools, hot tubs, or gyms command premium prices, appealing to high-end travelers. Work-friendly amenities (e.g., Wi-Fi, desks) attract professionals and justify higher rates, while family-oriented features like cribs and pet-friendly options boost demand and pricing. Basic amenities, such as air conditioning and kitchens, are expected, and their absence can noticeably lower prices.





Thank
you

in Sangeeta Rajput