

Airbnb Tableau Project

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Introduction

Airbnb is a global online marketplace that connects travelers with hosts offering unique accommodations, ranging from private homes and apartments to boutique hotels and shared spaces. Founded in 2008, the platform revolutionized the hospitality industry by enabling individuals to monetize their properties while providing travelers with diverse, affordable, and personalized lodging options.

With millions of listings across 220+ countries, Airbnb caters to various travel needs, whether for short-term vacations, business trips, or long-term stays.



Problem Statement

Airbnb Property Management Optimization

You are working as a Data Analyst at Airbnb, and Airbnb aims to develop a Tableau dashboard to optimize rental strategies, enhance customer satisfaction, and maximize revenue for property owners. Your role is to analyze Airbnb's dataset and generate valuable insights that will help improve decision-making for both Airbnb and its hosts.

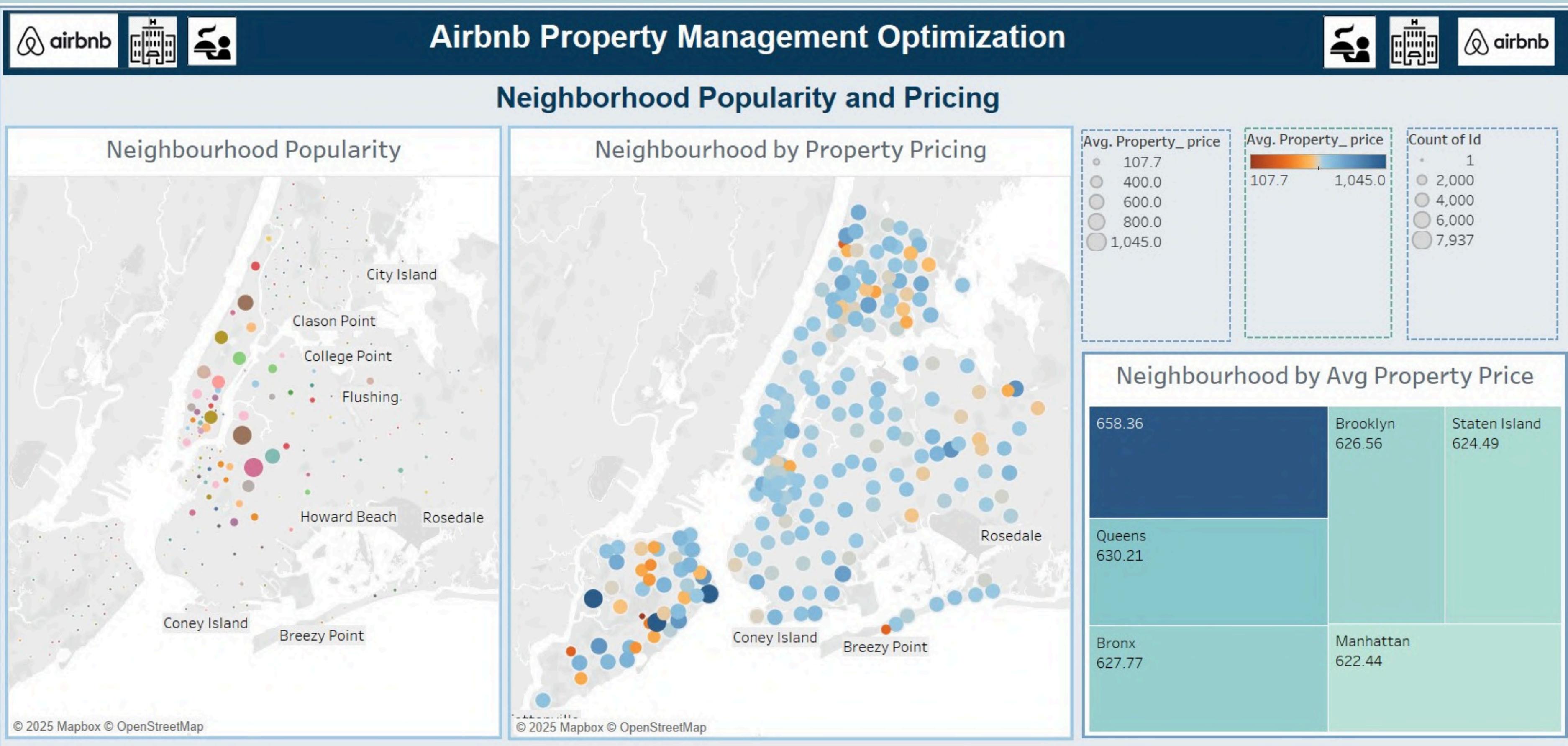




Prepare Tableau Calculations and Analysis for the Following

- **Neighbourhood Popularity and Pricing:** Identify which areas have the most listings and analyze how pricing varies across different locations.
- **Property Type Distribution:** Investigate the different types of properties (entire homes, private rooms, shared rooms) and understand which types are most in demand.
- **Customer Satisfaction and Ratings:** Explore the relationship between listing prices and customer review ratings to identify factors contributing to higher customer satisfaction.
- **Host and Listing Analysis:** Determine which hosts have the highest number of listings and how their pricing strategies compare.
- **Impact of Amenities on Pricing:** Understand how the presence of certain amenities influences listing prices.

Dashboard 1: Neighbourhood Popularity and Pricing



Insights from Neighbourhood Popularity and Pricing

High-Priced Neighbourhoods:

- The treemap visualization highlights that neighbourhoods such as Brooklyn and Queens have relatively high average property prices, making them potential premium locations for Airbnb investments.

Popularity Distribution:

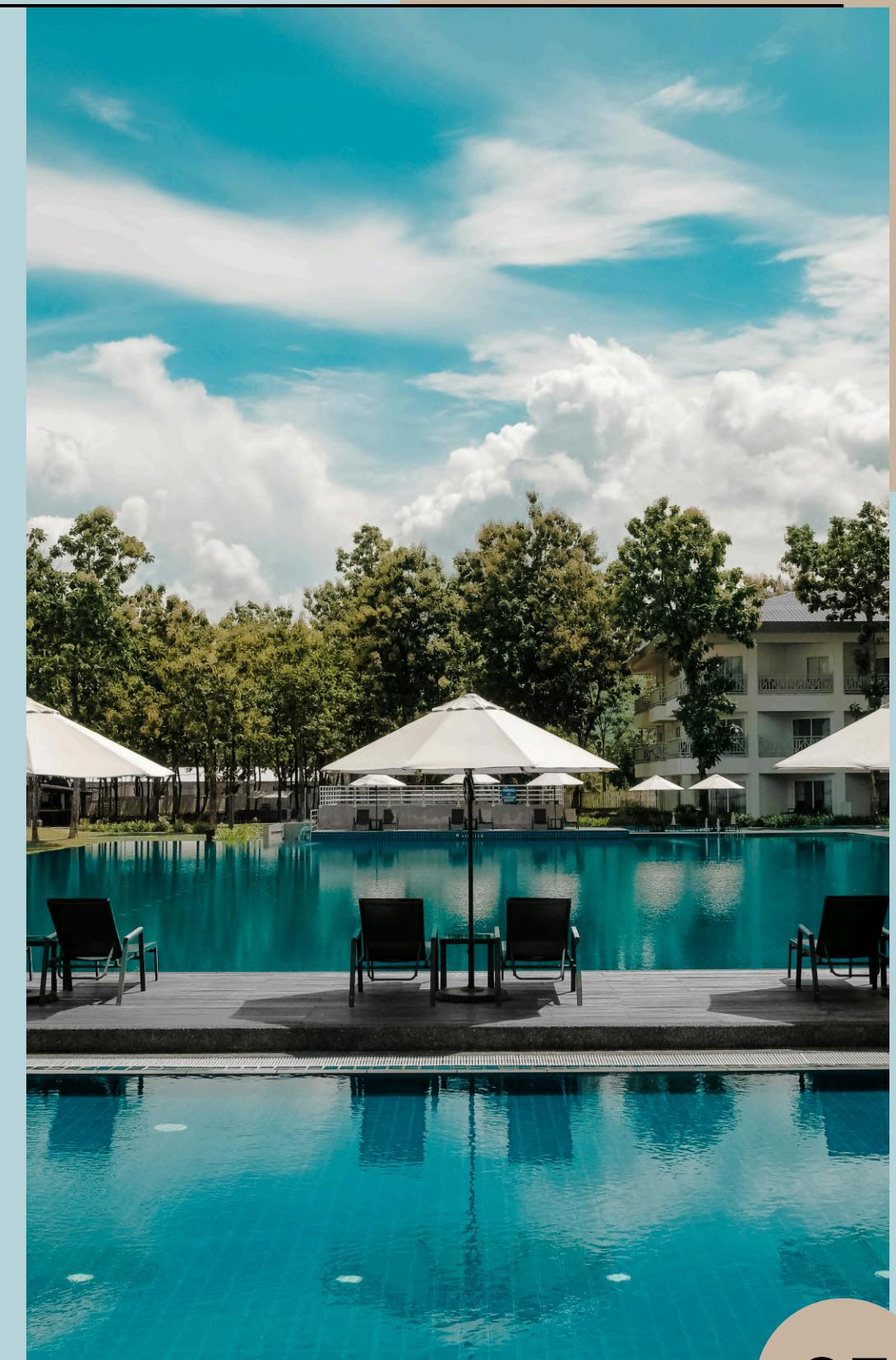
- The map shows that high-demand areas (denoted by larger dots) are concentrated in key neighborhoods like City Island, Clason Point, and Coney Island, suggesting that these locations attract more guests.

Pricing Variation Across Locations:

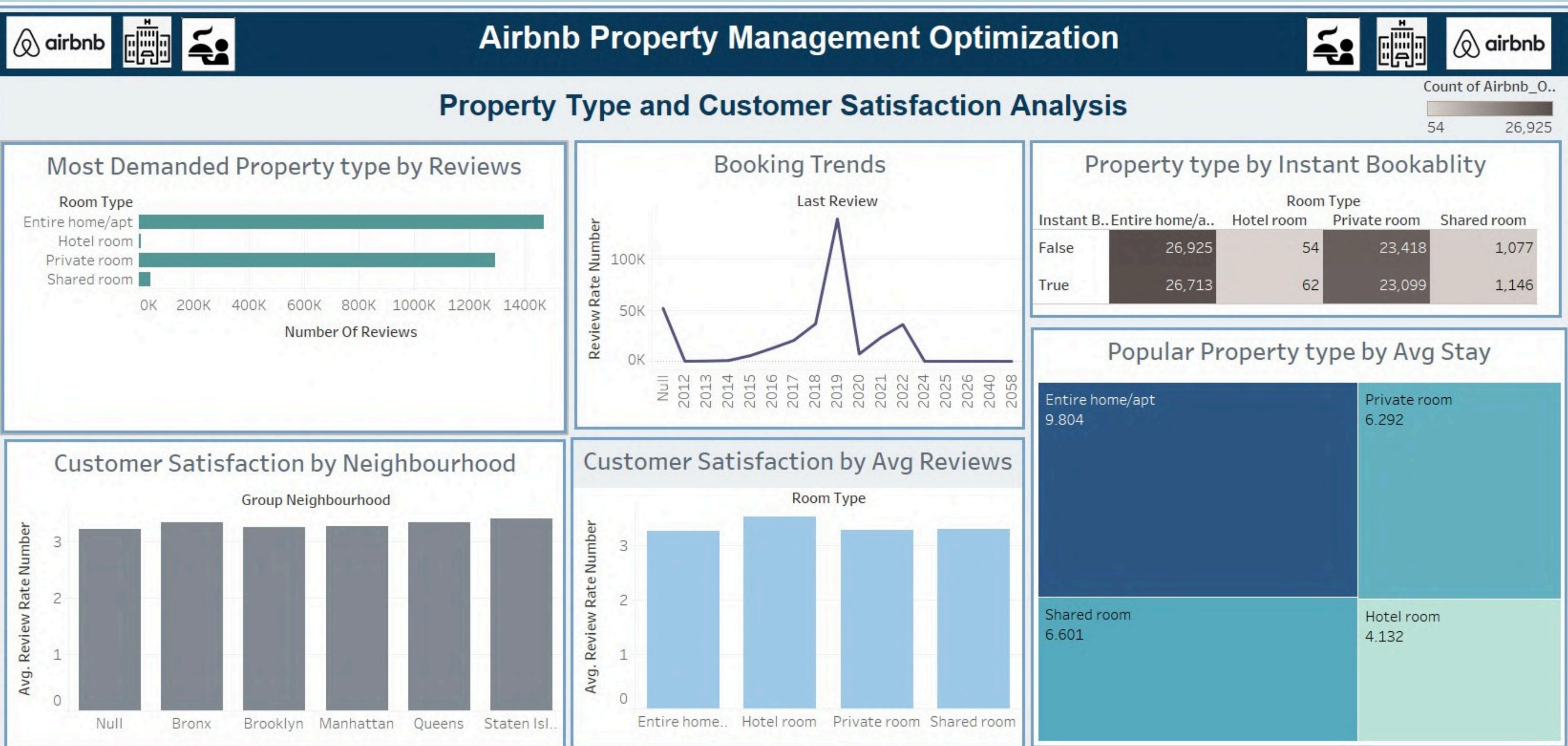
- The second map reveals that property pricing is not uniform. Some areas have significantly higher average prices, while others offer budget-friendly options.

Correlation Between Popularity and Pricing:

- Popular neighborhoods do not always align with high-priced listings. Some lower-priced areas still maintain strong demand.



Dashboard 2 : Property Type and Customer Satisfaction Analysis



Insights from Property Type and Customer Satisfaction Analysis

Most Demanded Property Type:

- "Entire home/apartment" is the most reviewed property type, indicating strong guest preference.

Booking Trends Over Time:

- The trend analysis shows a peak in bookings around 2019–2021, possibly due to post-pandemic travel rebounds.

Instant Book ability Impact:

- Properties with "instant booking" enabled have a slightly lower count than non-instant bookings, suggesting a possible hesitation from hosts or guests.

Customer Satisfaction Trends:

- Satisfaction rates remain relatively consistent across neighbourhoods, meaning location does not significantly impact review ratings.

Average Stay by Property Type:

- Entire homes attract longer stays (~9.8 days), whereas hotel rooms and shared spaces have shorter stays.



Dashboard 3 : Host, Listing, and Property Price Analysis



Insights from Host, Listing, and Property Price Analysis

Host Listings vs. Pricing:

There is no strong correlation between the number of listings per host and the price of the property, meaning hosts with multiple listings do not necessarily charge more.

Service Price Impact on Property Price:

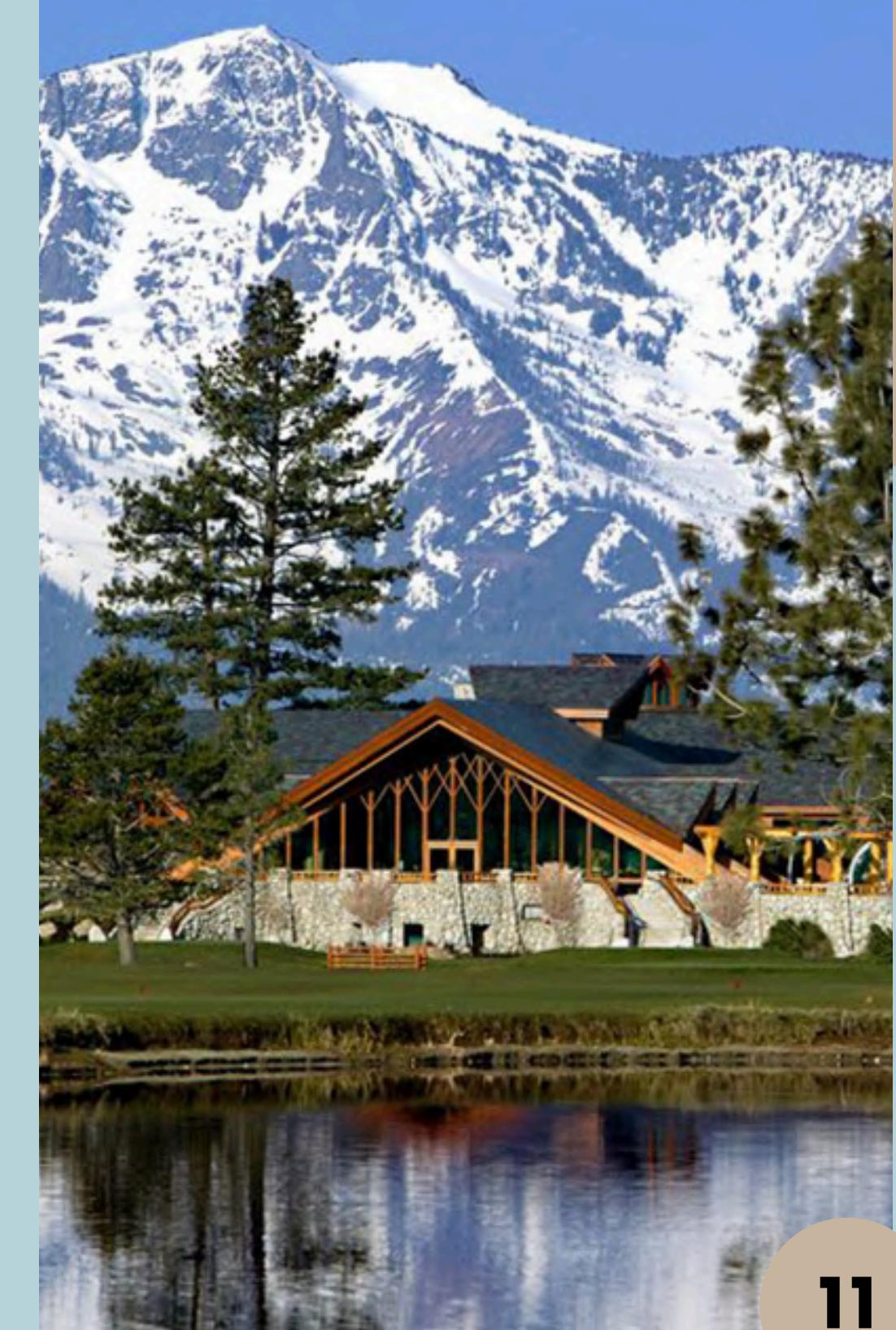
A strong correlation (1.0000) between service price and property price suggests that higher service fees are directly impacting the overall listing cost.

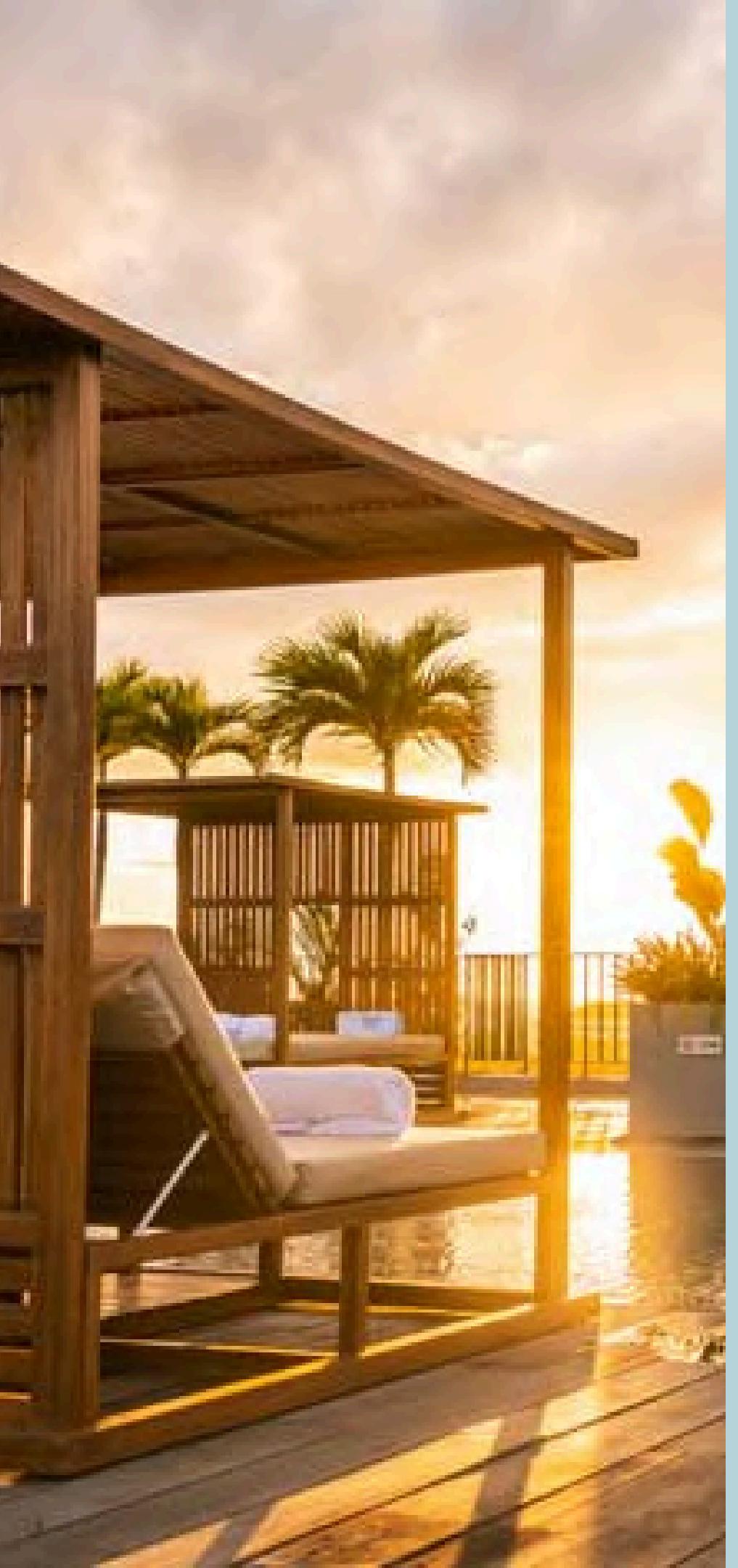
Listing Price vs. Customer Reviews:

A weak negative correlation (-0.0045) suggests that higher prices do not necessarily result in better or worse reviews.

Property Pricing Distribution:

Some hosts have significantly higher-priced properties compared to others, showing market inconsistency.





Conclusion



These dashboards provide critical insights into Airbnb property management optimization. Popularity and pricing trends can help stakeholders decide where to invest. Customer satisfaction and property type analysis ensure better guest experiences. Lastly, host and pricing analysis offers strategies to balance service fees and competitive pricing. By leveraging these insights, Airbnb managers can optimize property listings, improve customer satisfaction, and maximize revenue.



THANK YOU

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