Decoding Airbnb Pricing: Insights into Trends and Influencing Factors

By : Kunal Ahirrao, Praveen Bharathi

Project Description:
In this project, we explored Airbnb pricing trends by analyzing key factors like neighbourhoods, room types, availability, and reviews. The goal was to understand how these factors impact listing prices. We used visualizations to highlight patterns and provide actionable insights for both hosts looking to optimize their pricing strategies and travelers making booking decisions.
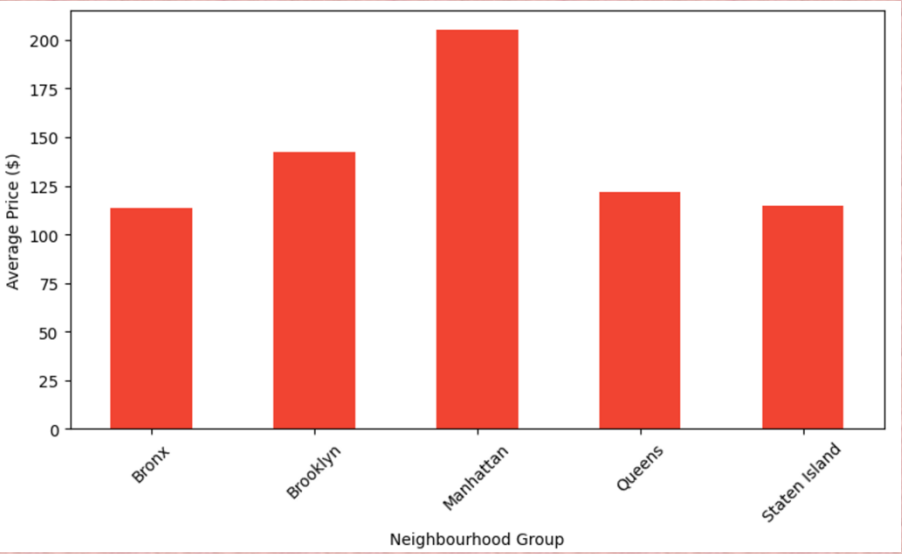
DATA SUMMARY:
THE DATASET CONTAINS 37,541 ROWS AND 18 COLUMNS.
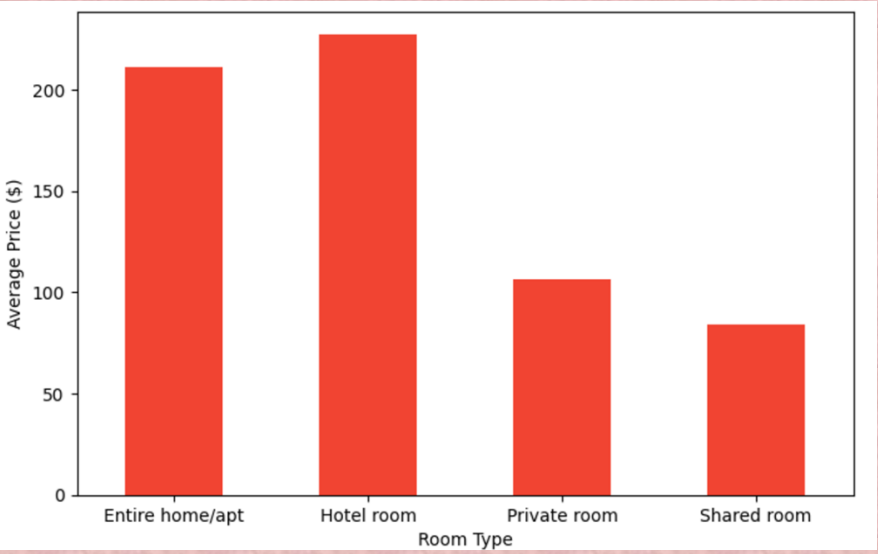SOURCE : HTTPS://INSIDEAIRBNB.COM/GET-THE-DATA/
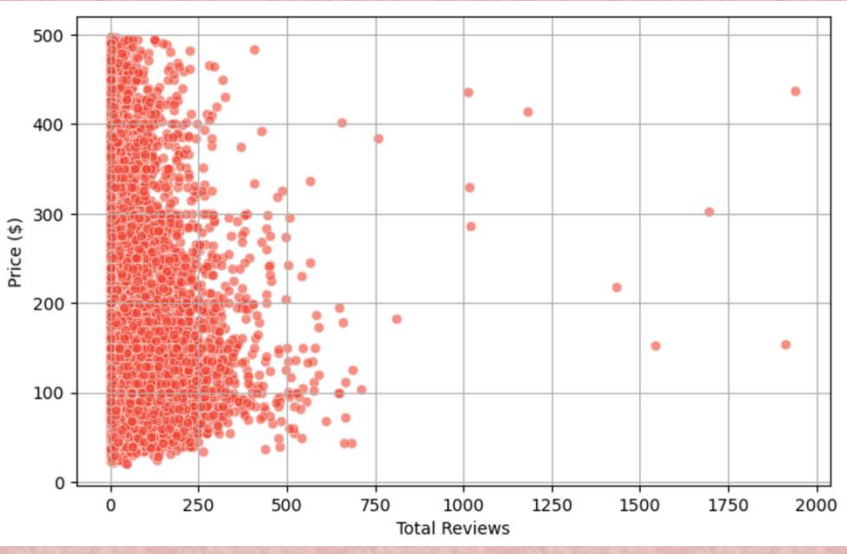
AVERAGE PRICE BY NEIGHBOURHOOD GROUP

1. Manhattan has the highest average price, indicating it is a premium location for Airbnb listings.
2. The Bronx has the lowest average price, making it a budget-friendly option for travelers.
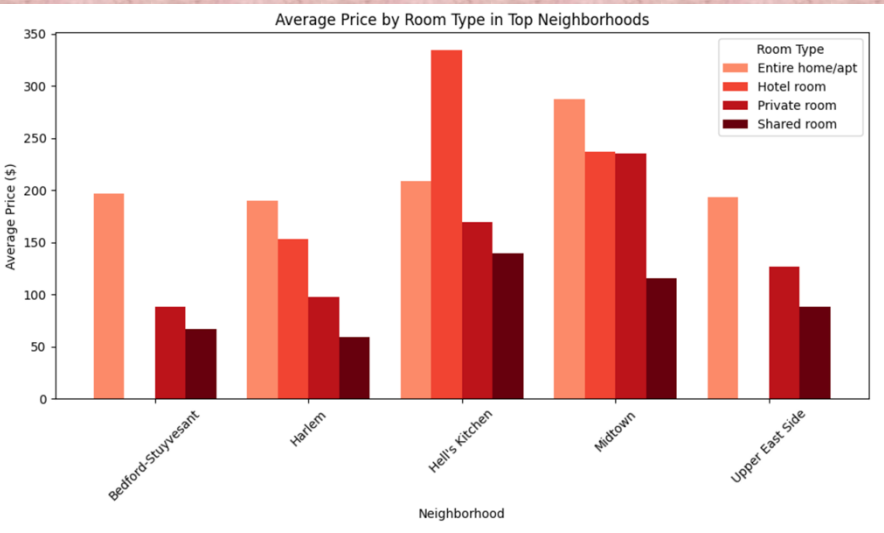
AVERAGE PRICE BY ROOM TYPE

1. Entire homes/apartments are significantly more expensive than private or shared rooms.
2. Shared rooms offer the lowest average price, appealing to budget-conscious travelers.

PRICE VS. NUMBER OF REVIEWS

1. Listings with higher reviews tend to cluster around lower price ranges, indicating affordabi... drives engagement.
2. Outliers with high prices and reviews suggest unique or premium listings.

AVERAGE PRICE BY ROOM TYPE IN TOP NEIGHBOURHOOD

1. Room type pricing varies significantly across neighbourhoods, with hotel rooms being most expensive in certain areas.
2. Entire homes dominate in premium neighbourhoods, reflecting guest preferences for privacy.

AVERAGE PRICE BY AVAILABILITY OF LISTINGS
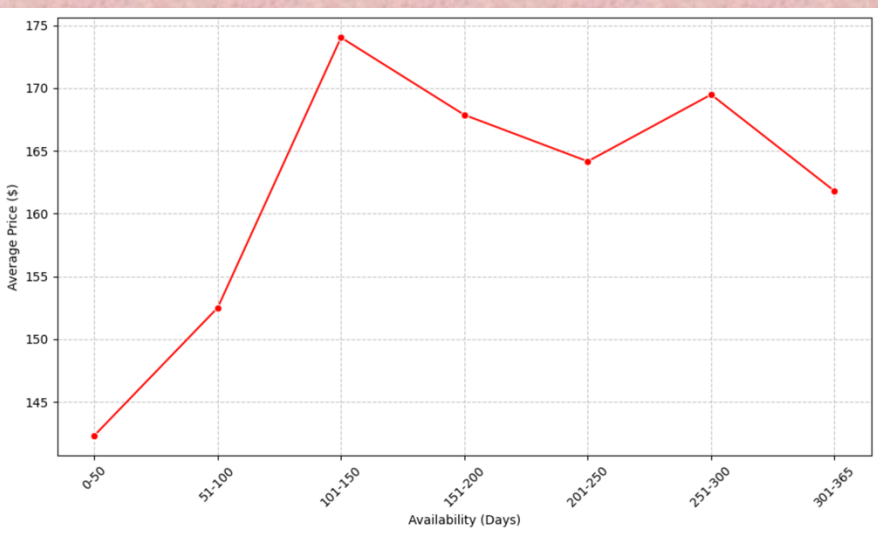
1. Listings with moderate availability (101–150 days) achieve the highest average prices.
2. Year-round listings (301–365 days) show a slight price drop, likely due to competition.

COMPARISON OF HIGH VS. LOW PRICE LISTINGS

1. High-priced listings are dominated by "Entire Home/Apt," have higher availability, and attra... more reviews.
2. Low-priced listings are mostly "Private Rooms" with fewer reviews and lower availability.

Overall Analysis :

For tourists, this analysis shows how one can be budget-friendly in neighbourhoods like the Bronx and the cost-effectiveness of private and shared rooms. For hosts, it further ascertains the need to create 'Entire Home/Apt' listings in upscale neighbourhoods, keep the availability regular, and ensure guest reviews for better revenue generation. With an understanding of these trends, both stakeholders can make more knowledgeable decisions toward meeting their objectives.