# Case Study: ANALYZING AIRBNB LISTINGS WITH TABLEAU (Sample Data)

**Objective:**

The primary objective of this project is to analyze Airbnb listings data to derive actionable insights on pricing, distribution, and revenue. These insights aim to help hosts optimize their pricing strategies and improve listing performance.

**Methodology:**

**Data Cleaning & Processing:**

- Cleaned and processed raw Airbnb data to ensure the dataset is accurate and ready for analysis.
- Handled missing values by imputing or removing them to maintain data integrity.
- Transformed data types to appropriate formats for seamless analysis.
- Detected and managed outliers to avoid skewed results.
- Created new features such as average price per bedroom and total revenue to enhance the analysis.

**Key Metrics Analyzed:**

1. **Average Price per Bedroom:**
   o Assessed pricing trends per bedroom across various listings to understand how bedroom count influences pricing.
2. **Distinct Count of Bedroom Listings:**
   o Determined the number of unique bedroom listings to gauge the variety and availability of different bedroom options.
3. **Price per Zip Code:**
   o Analyzed how prices vary by location, identifying high-demand areas and potential pricing strategies for different zip codes.
4. **Revenue by Year:**
   o Calculated annual revenue from listings to track performance over time and identify trends in revenue growth.

**Visualization with Tableau**

1. **Geographical Distribution:**
   o Created maps to show listing concentrations by zip code, highlighting popular areas for Airbnb stays.
2. **Pricing Trends:**
   o Developed visualizations of average prices per bedroom and per zip code, providing a clear view of pricing patterns across different locations.
3. **Revenue Analysis:**
   o Designed charts displaying annual revenue trends to visualize the financial performance of listings over the years.

## Conclusion:

The integration of data processing and Tableau visualization provided actionable insights into Airbnb's market dynamics. These insights help hosts optimize pricing and improve listing strategies. This project enhanced my skills in data processing and data visualization, enabling me to derive actionable insights into Airbnb's market dynamics and optimize pricing strategies effectively.

## Dashboard Link:

https://public.tableau.com/app/profile/muhammad.jalal.khan/viz/AirBnBFullProject_1716 06778