Airbnb Data Analysis: Insights on Listings and Bookings

TABLE OF CONTENTS

Overview of the Data

- Listings: Details about available accommodations (name, neighborhood, price, host, property type, room type).
- Hosts: Information on hosts, including whether they are superhosts and have profile pictures.
- Reviews: Reflects the quality of accommodations.
- Calendar: Tracks the availability and bookings of listings.

Goals of the Presentation

- Analyze and understand the structure of the data.
- Answer business-critical questions using SQL queries.
- Extract actionable insights, such as popular areas, property types, and host performance.

SQL Queries and Insights

Key Metrics

- Total number of:
- Listings
- Hosts (unique)
- Reviews
- Bookings (where availability = 0).

Regional Analysis

- Unique neighborhoods where accommodations are offered.
- Percentage of listings per neighborhood (using subqueries).
- Average price per neighborhood and comparisons to identify premium areas.

Host and Property Insights

- Which type of host (superhost vs. nonsuperhost) has the most listings?
- Number of listings per host (including host names).
- Property types with the highest average price.
- Room type with the most reviews.

Specialized Filters

- Listings in neighborhoods starting with "P".
- Listings priced between €0 and €100.
- Listings without any reviews.

Data Updates

Transformations Applied

- Converted columns with t/f values to Yes/No for better clarity.
- Changed column data types to varchar(3) for consistent storage.

Impact of Updates

- Improved readability of data.
- Enhanced the usability of the dataset for analysis and reporting.

Key Findings and Recommendations

Major Insights

- Superhosts tend to have a higher number of listings.
- Premium neighborhoods (average price > €200) attract high-end customers.
- Certain property types have the highest demand and average price.
- Listings with more reviews correlate with higher popularity.

Recommendations

- Focus marketing efforts on premium neighborhoods.
- Encourage hosts to become superhosts to increase bookings.
- Optimize pricing for specific property and room types