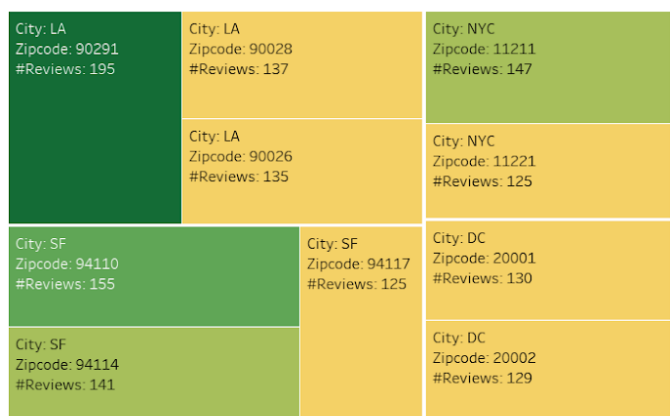


# Airbnb Listings Analysis

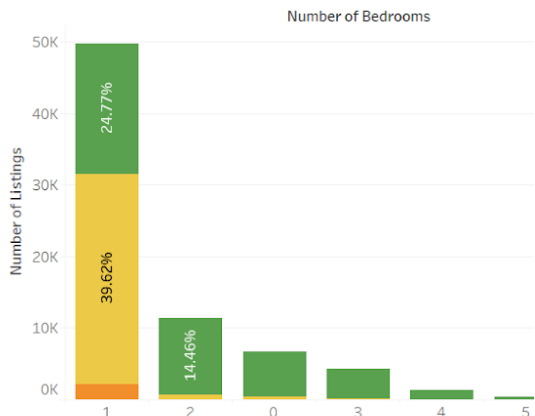
## Project Overview

This Tableau project analyzes Airbnb listing data from major cities including **New York City (NYC)**, **Los Angeles (LA)**, **Washington DC (DC)**, **San Francisco (SF)**, and **Chicago** to uncover key insights about pricing, reviews, room types, and neighborhood popularity. The goal was to create interactive visualizations to assist stakeholders (e.g., property managers, travelers, and analysts) in understanding market trends and identifying high-performing locations and room types.

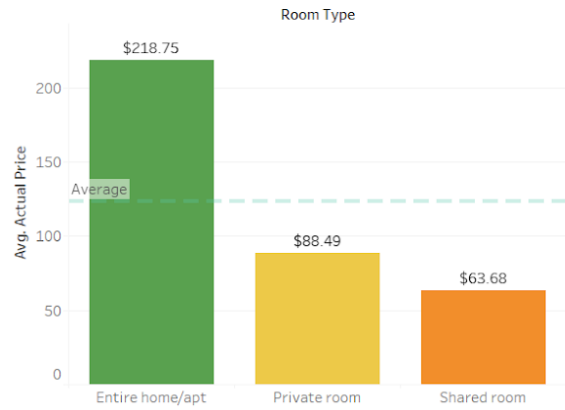
Airbnb's Most Popular Zip Codes by Review Count



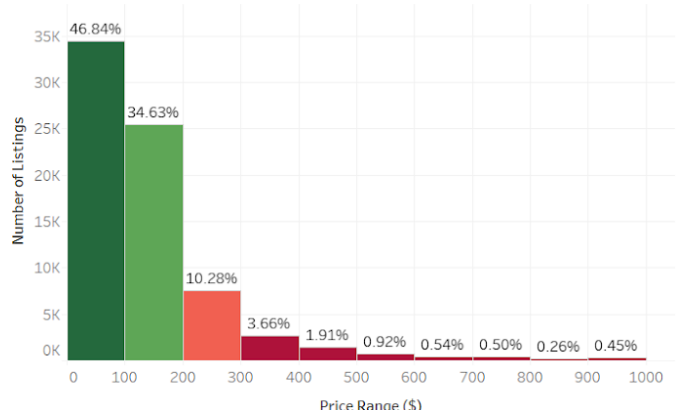
Distribution of Airbnb Listings by Number of Bedrooms



Average Price by Room Type



Price Distribution of Airbnb Listings



## Description:

This project visualizes Airbnb data to highlight market trends, such as pricing distributions, room type performance, and the popularity of neighborhoods. The analysis is aimed at helping property managers optimize their listings and travelers make informed decisions. The project includes interactive Tableau dashboards showcasing:

- Distribution of Airbnb listings by room type, price range, and number of bedrooms.
- Top-performing zip codes and neighborhoods based on reviews.
- Price trends across different room types.

#### **Data Analysis steps:**

##### **Data Cleaning:**

- Filled missing values, particularly for attributes like bathrooms, using averages.
- Ensured consistency in categorical data like room types and city names.

##### **Data Preparation:**

- Reviewed the dataset for outliers, null values, and inconsistencies.
- Imported the cleaned Excel file into Tableau.
- Created calculated fields for percentages and actual prices.

Name

Airbnb\_Data

Fields

Type	Field Name	Physical Table	Remote Field Name
#	Id	Airbnb!Data	id
#	Log Price	Airbnb!Data	log_price
=#	Actual Price	Calculation	Calculation_3349833722605453314
Abc	Property Type	Airbnb!Data	property_type
Abc	Room Type	Airbnb!Data	room_type
Abc	Amenities	Airbnb!Data	amenities
#	Accommodates	Airbnb!Data	accommodates
#	Bathrooms	Airbnb!Data	bathrooms
Abc	Bed Type	Airbnb!Data	bed_type
Abc	Cancellation Policy	Airbnb!Data	cancellation_policy
T F	Cleaning Fee	Airbnb!Data	cleaning_fee

AirbnbData  
10,000 rows 29 fields

<div><div><div><div><div></div><div>AirbnbData</div></div><div><div><div></div></div></div><div><div><div>last_review</div><div></div></div></div></div></div><div>AirbnbData</div><div>name</div></div>	<div><div><div><div><div></div><div>AirbnbData</div></div><div><div><div></div></div></div><div><div><div>neighbourhood</div><div></div></div></div></div></div><div>AirbnbData</div><div>neighbourhood</div></div>	<div><div><div><div><div></div><div>AirbnbData</div></div><div><div><div></div></div></div><div><div><div>property_type</div><div></div></div></div></div></div><div>AirbnbData</div><div>property_type</div></div>	<div><div><div><div><div></div><div>AirbnbData</div></div><div><div><div></div></div></div><div><div><div>room_type</div><div></div></div></div></div></div><div>AirbnbData</div><div>room_type</div></div>	<div><div><div><div><div></div><div>AirbnbData</div></div><div><div><div></div></div></div><div><div><div>thumbnail_url</div><div></div></div></div></div></div><div>AirbnbData</div><div>thumbnail_url</div></div>	<div><div><div><div><div></div><div>AirbnbData</div></div><div><div><div></div></div></div><div><div><div>accommodates</div><div></div></div></div></div></div><div>AirbnbData</div><div>accommodates</div></div>	
7/18/2016	Beautiful brownstone 1-bedr...	Brooklyn Heights	Apartment	Entire home/apt	https://a0.muscache.com/i/...	
9/23/2017	Superb 3BR Apt Located Nea...	Hell's Kitchen	Apartment	Entire home/apt	https://a0.muscache.com/i/...	
9/14/2017	The Garden Oasis	Harlem	Apartment	Entire home/apt	https://a0.muscache.com/i/...	
Null	Beautiful Flat in the Heart of ...	Lower Haight	House	Entire home/apt	https://a0.muscache.com/i/...	
1/22/2017	Great studio in midtown DC	Columbia Heights	Apartment	Entire home/apt	Null	
9/5/2017	Comfort Suite San Francisco	Noe Valley	Apartment	Private room	https://a0.muscache.com/i/...	
4/21/2017	Beach Town Studio and Parki...	Null	Apartment	Entire home/apt	https://a0.muscache.com/i/...	
4/12/2017	Near LA Live, Staple's, Starb...	Downtown	Condominium	Entire home/apt	https://a0.muscache.com/i/...	
9/24/2017	Cozy Garden Studio - Private ...	Richmond District	House	Private room	https://a0.muscache.com/i/...	
4/16/2017	No.7 Queen Size Cozy Room ...	Null	House	Private room	https://a0.muscache.com/i/...	
11/15/2016	Large East Village Bedroom T...	Alphabet City	Apartment	Private room	https://a0.muscache.com/i/...	
11/18/2016	Sand Section Beach Bungalow	Hermosa Beach	House	Entire home/apt	Null	
Null	Beach Pad 1 min walk to the ...	Torrance	Apartment	Private room	https://a0.muscache.com/i/...	
4/30/2017	Charming 2 bdrm in trendy U...	U Street Corridor	Apartment	Entire home/apt	Null	
4/6/2017	VINTAGE 1930s Mediterania...	Null	Apartment	Entire home/apt	https://a0.muscache.com/i/...	
Null	Sweet Home Chicago	Humboldt Park	Apartment	Private room	https://a0.muscache.com/i/...	
10/16/2016	Private room in Wicker Park L...	Wicker Park	Loft	Private room	https://a0.muscache.com/i/...	
2/7/2017	Comfy room (C) near T, conv...	South Boston	Townhouse	Private room	https://a0.muscache.com/i/...	
12/12/2016	Amazing LES apt - cool, brigh...	Lower East Side	Apartment	Entire home/apt	Null	

Key Insights & Visualizations:

1. Average Price by Room Type

Average Price by Room Type

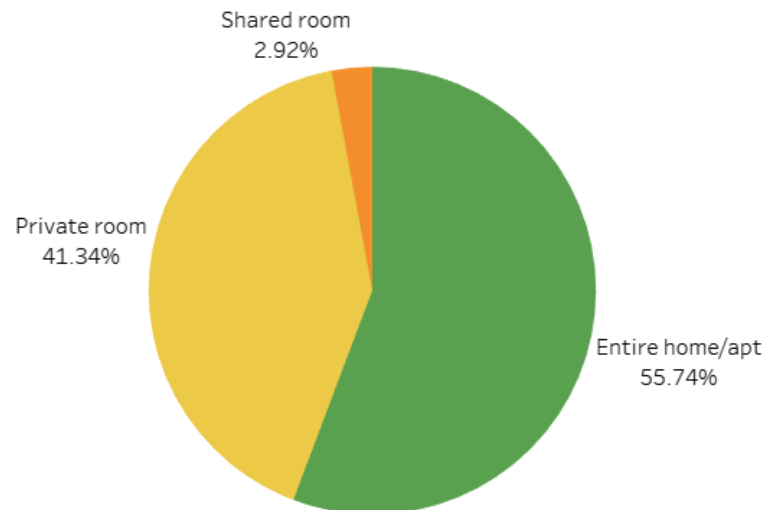


### Key Insights:

- **Entire Home/Apartment** listings have the highest average price of **\$218.75**.
- **Private Rooms** are more affordable at **\$88.49**, and **Shared Rooms** are the cheapest at **\$63.68**.
- This pricing aligns with the type of accommodation and the level of privacy provided.

## 2. Distribution of Airbnb Listings by Room Type

### Airbnb Listings by Room Type

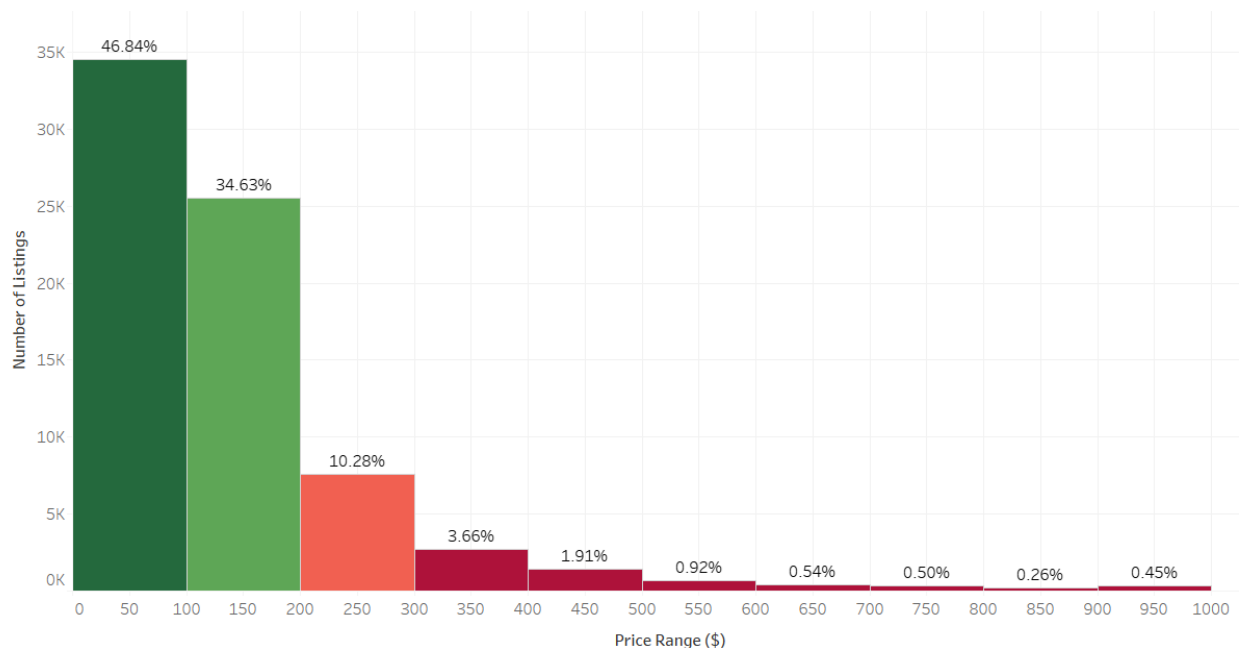


### Key Insights:

- Entire Home/Apartment listings dominate the market, accounting for **55.74%** of all Airbnb listings.
- Private Rooms follow with **41.34%**, catering to budget-conscious travelers.
- Shared Rooms represent only **2.92%**, indicating lower demand for shared accommodations.

### 3. Price Distribution of Airbnb Listings

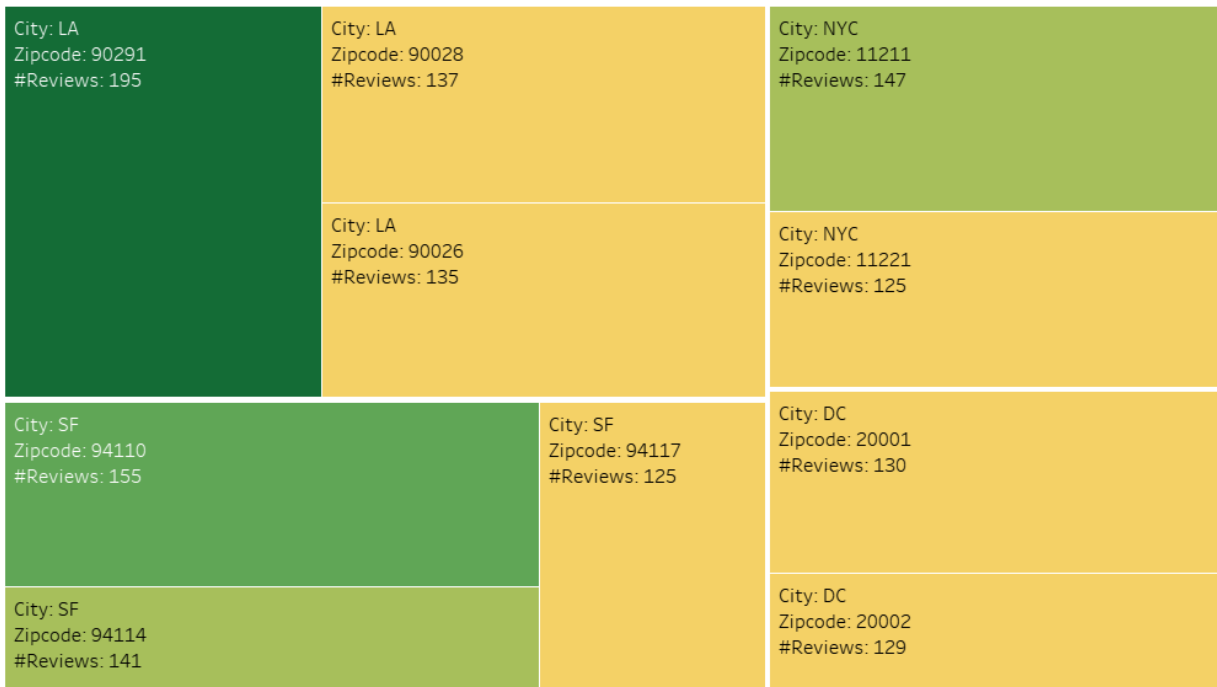
Price Distribution of Airbnb Listings



#### Key Insights:

- **Affordable Price Range Dominates:** The majority of Airbnb listings (46.84%) fall within the **\$0–\$100** price range, indicating strong demand for budget-friendly accommodations. This highlights affordability as a key driver for bookings.
- **Moderate Pricing is Popular:** An additional 34.63% of listings are priced between **\$100–\$200**, making this range the second most common, likely targeting mid-tier travelers.
- **High-Price Listings Are Rare:** Listings priced above **\$250** represent a significantly smaller share, with less than 10% of all listings in this category. The decline is steep for luxury accommodations, as only niche travelers seek properties above this range.
- **Strategic Value:** Hosts targeting the **\$50–\$200** price range are likely to attract the broadest audience, maximizing occupancy rates. Higher-priced listings cater to niche markets and may benefit from tailored marketing strategies.

#### 4. Top 10 Airbnb Zip Codes by Review Count

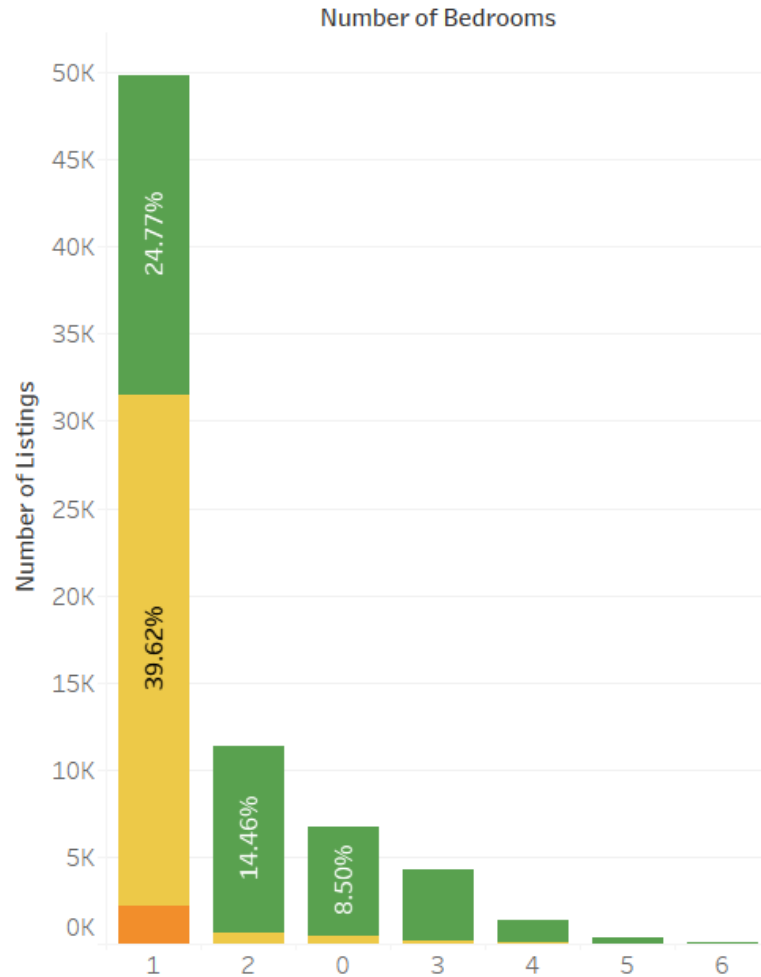


#### Key Insights:

- **90291 (LA)** leads with **195 reviews**, followed by **94110 (SF)** with **155 reviews**.
- Popular zip codes are concentrated in cities like **LA, NYC, SF**, and **DC**, indicating high tourist interest in these locations.

#### 5. Distribution of Airbnb Listings by Number of Bedrooms

## Distribution of Airbnb Listings by Number of Bedrooms



### Room Type

- Entire home/apt
- Private room
- Shared room

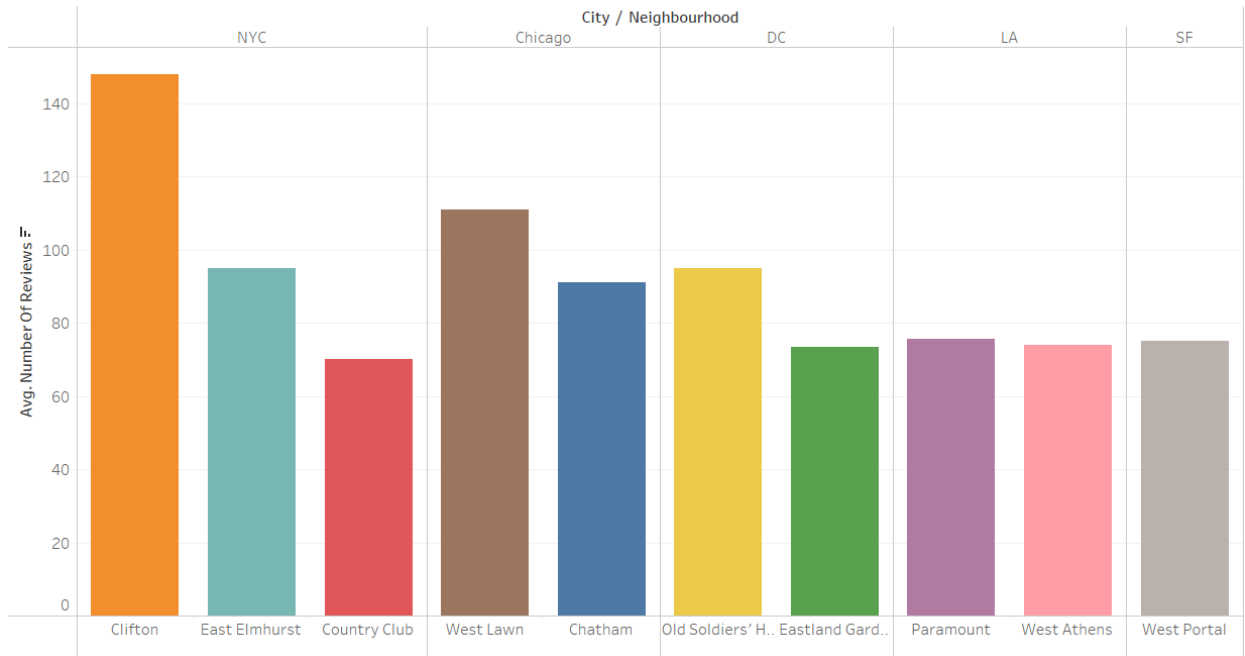
### Key Insights:

- **One-bedroom** listings are the most common, accounting for **39.62%** of the total.
- **Two-bedroom** listings follow with **24.77%**, while larger accommodations (3+ bedrooms) make up a smaller share.
- Reflects demand for compact, budget-friendly options catering to solo travelers or small groups.



## 6. Top 10 Most Popular Neighborhoods by Average Reviews

Top 10 Most Popular Airbnb Neighborhoods by Average Reviews

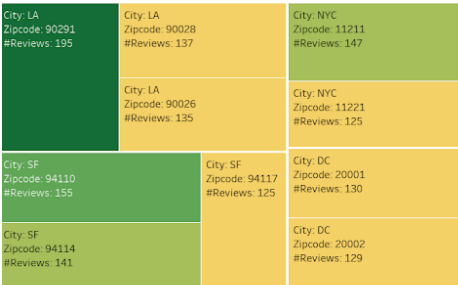


### Key Insights:

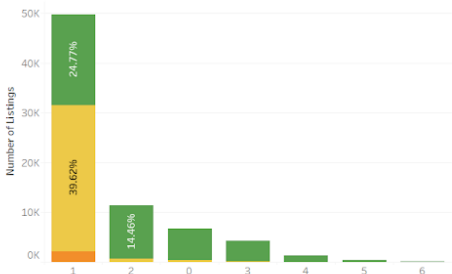
- **Clifton (NYC)** stands out with the highest average reviews (over **140**).
- Other high-performing neighborhoods include **West Lawn (Chicago)** and **Old Soldiers' Home (DC)**, reflecting balanced demand across cities.

# Dashboard Overview

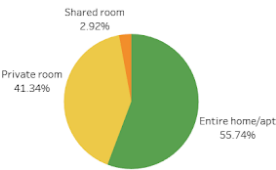
Airbnb's Most Popular Zip Codes by Review Count



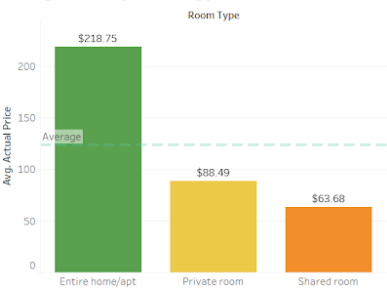
Distribution of Airbnb Listings by Number of Bedrooms



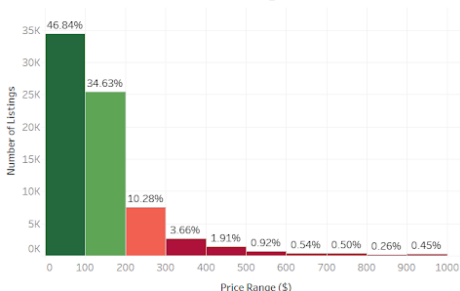
Distribution of Airbnb Listings by Room Type



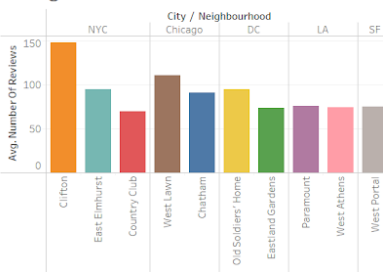
Average Price by Room Type



Price Distribution of Airbnb Listings



Top 10 Most Popular Airbnb Neighborhoods by Average Reviews



## Insights from the Dashboard

### 1. Market Trends:

- Entire Home/Apartment listings dominate the market and command the highest prices, while Private Rooms cater to affordability.
- Demand is concentrated in key cities like LA, NYC, SF, and DC, with specific zip codes standing out as high performers.

### 2. Pricing Insights:

- The \$50–\$100 price range dominates, reflecting affordability as a primary driver of bookings.
- Listings priced above \$250 cater to a niche audience, likely seeking luxury or larger accommodations.

### 3. Room Type and Bedroom Preferences:

- Smaller accommodations (1–2 bedrooms) dominate, highlighting a preference for compact and affordable options.

- Shared Rooms represent a small market share, likely due to the lack of privacy.

## **Recommendations**

### **1. Focus on the \$50–\$200 Price Range:**

- The majority of Airbnb listings fall within the \$50–\$200 price range, covering **81.47%** of all properties. Hosts should prioritize setting prices in this range to capture the widest audience and maintain competitive occupancy rates.

### **2. Enhance Listings in High-Demand Areas:**

- Listings in high-demand zip codes and neighborhoods should highlight competitive pricing within the preferred ranges to capitalize on local demand.

### **3. Experiment with Seasonal Pricing:**

- Adjust prices dynamically based on seasonal demand and market trends. Budget-friendly listings could offer discounts during low seasons, while higher-priced properties can maximize earnings during peak periods.

### **4. Highlight Value for Niche Properties:**

- For properties priced above \$300, ensure the listing communicates the added value (e.g., luxury experiences, exclusivity, or large group capacity) to justify the premium pricing.

## **Recommendations**

### **1. Focus on the \$50–\$200 Price Range:**

- The majority of Airbnb listings fall within the \$50–\$200 price range, covering **81.47%** of all properties. Hosts should prioritize setting prices in this range to capture the widest audience and maintain competitive occupancy rates.

### **2. Budget-Friendly Strategies:**

- With **46.84%** of listings priced under \$100, offering competitive pricing with added value (e.g., amenities, flexible cancellation policies) can attract budget-conscious travelers.

### **3. Optimize Marketing for High-Price Listings:**

- Listings above \$250 cater to niche markets, such as luxury travelers or larger groups. These hosts should focus on targeted marketing efforts, emphasizing unique features like premium amenities, scenic views, or proximity to exclusive locations.

### **4. Enhance Listings in High-Demand Areas:**

- Listings in high-demand zip codes and neighborhoods should highlight competitive pricing within the preferred ranges to capitalize on local demand.

### **5. Experiment with Seasonal Pricing:**

- Adjust prices dynamically based on seasonal demand and market trends. Budget-friendly listings could offer discounts during low seasons, while higher-priced properties can maximize earnings during peak periods.

### **6. Highlight Value for Niche Properties:**

- For properties priced above \$300, ensure the listing communicates the added value (e.g., luxury experiences, exclusivity, or large group capacity) to justify the premium pricing.

## **Conclusion**

The price distribution analysis reveals that the Airbnb market is predominantly driven by affordability, with nearly half of all listings priced under \$100. Properties within the \$50–\$200 range are highly competitive and cater to the broadest audience, making this range ideal for maximizing occupancy rates.

On the other hand, high-priced listings represent a smaller, niche segment of the market. While they cater to a limited audience, these properties can thrive by targeting luxury travelers and focusing on high-value offerings.

By aligning pricing strategies with market trends, optimizing marketing efforts, and emphasizing affordability or premium value, Airbnb hosts can effectively attract their target audience and improve their overall profitability.