

# AIRBNB PROJECT

This report represents an **analytical exploration** of Airbnb data obtained from the Inside AirBNB platform. As an online marketplace for short-and-long-term homestays and experiences in various countries and regions.

The objective of this project is to derive meaningful insights from this data through the use of interactive **dashboards** and **visualizations**. By analyzing key metrics such as **listing prices, availability, host activity, and neighborhood trends** the project aims to better understand the dynamics of the Airbnb marketplace. This analysis not only helps in identifying patterns in user behavior and pricing strategies but also assists stakeholders in making data-driven decisions for optimizing listings and improving guest experiences.

# Chicago

## Data Description

### **Dataset Source:**

The dataset used in this project is sourced from Airbnb, a platform providing detailed data on Airbnb listings globally.

### **Location Covered:**

Chicago

### **Key Features:**

- **Property Details:**

Listings ID, Name, Room type, Location (neighbourhood, longitude, latitude)

- **Host Details:**

Host name, Host Id

- **Pricing & Availability**

Price per night, Minimum nights, Availability (calendar-based data for 365 days)

- **Customer Engagement**

Number of reviews, Review scores, Last review date

- **Approach**

To analyse the Airbnb listings in Chicago, the following steps were followed.

1. Data Cleaning

Removed missing or inconsistent data entries.

Standardized data formats for price, date and availability.

Converted price values from strings to numerical format for analysis.

2. Filtering for Active Listings.

3. Dashboard Creation

Used Power BI for creating visualizations.

- No. of listings by neighbourhood.
- Average price by neighbourhood.
- Distribution of room types
- Price by room types.
- Price by location.
- Correlation b/w price and reviews.

# Airbnb - Chicago

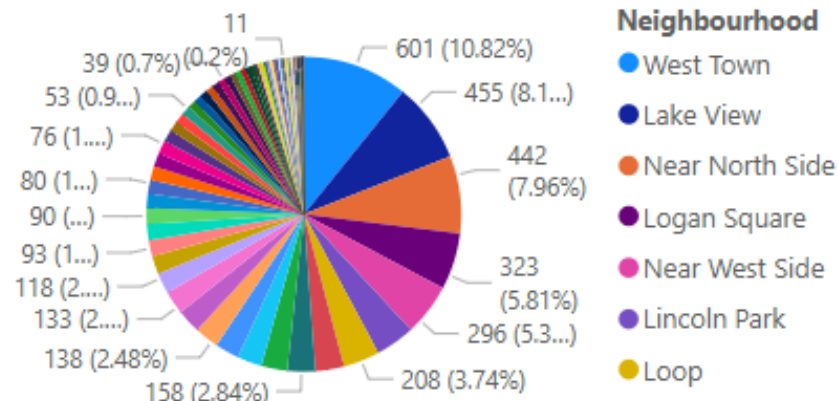
5555

Total Listing

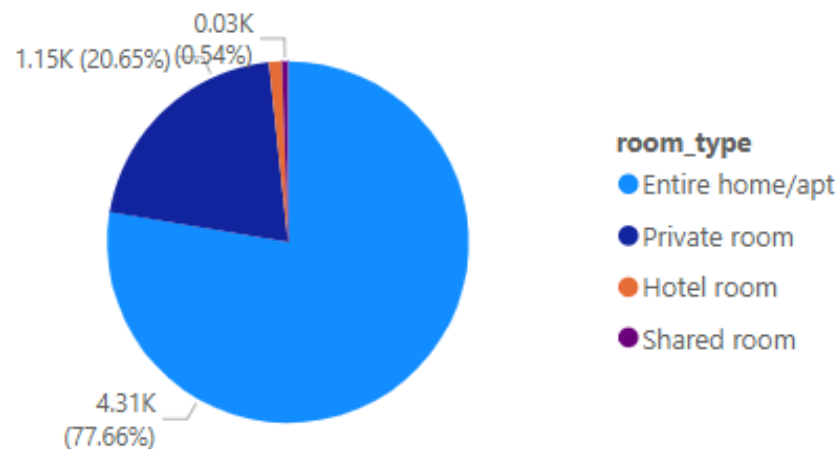
2.03

Avg. Review Per Month

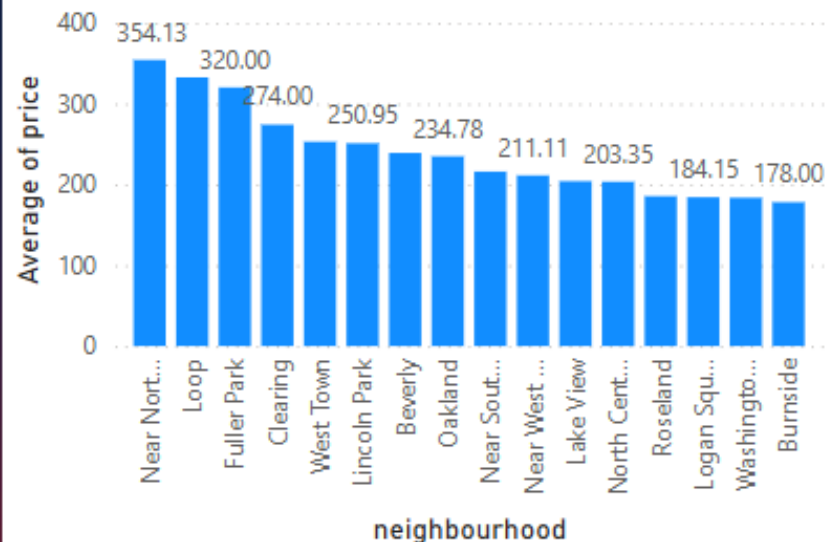
No. of listings by Neighbourhood



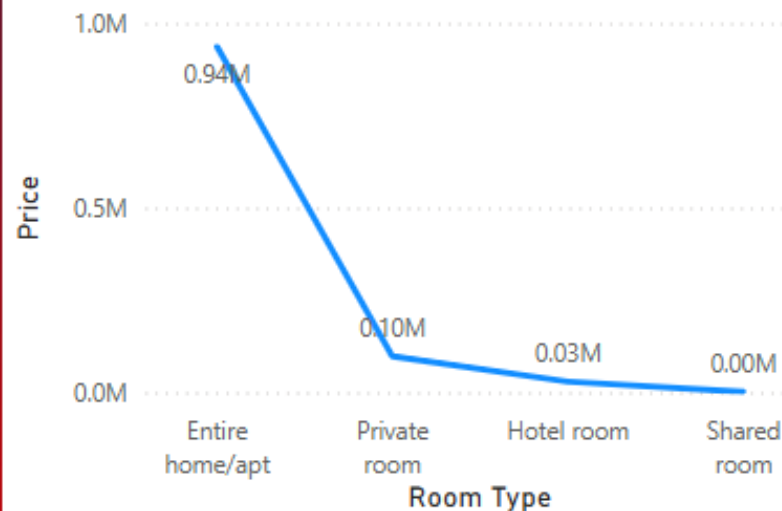
% Distribution of Room Types



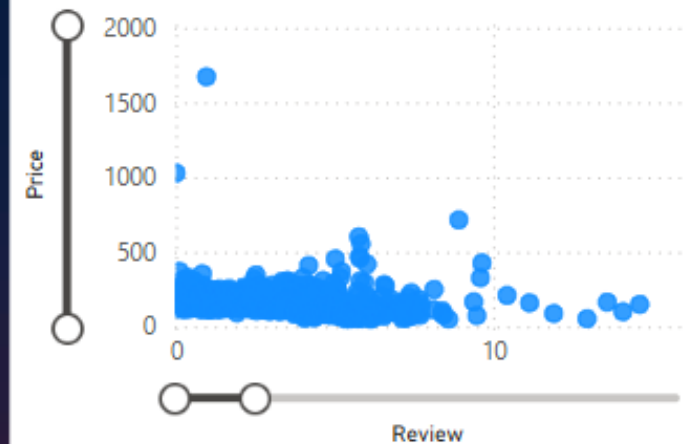
Average of price by neighbourhood



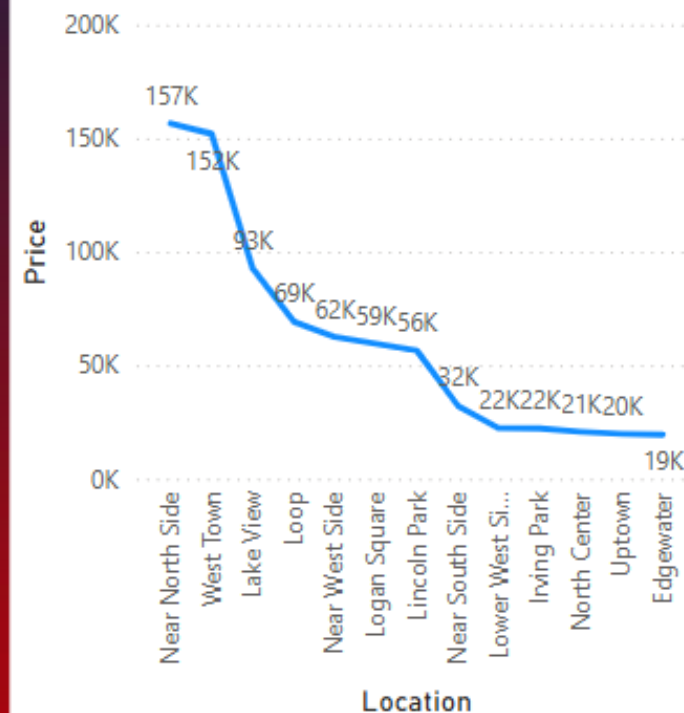
Price by Room Type



Correlation b/w Price and Reviews



Price by Location



# Insights

## Property Analysis

- The maximum no. of listing in Chicago is from **West Town** followed by **Lake View**, **Near North Side** and **Logan Square**.
- The average price by neighbourhood is maximum for “Near north side” followed by “Loop” and “Fuller park”.
- The maximum distribution of room type is of Apartment type followed by private room, hotel room and shared room comprising of 77%, 20%, 1.1% and 0.5%.

## Price Analysis

- Price of the room decreases from apartment type, private room, hotel room and shared room.
- Maximum price is Near north side followed by west town, lake view etc.

## Host Analysis

The maximum rating is for apartment type then private room, shared room and hotel room.

The maximum rating is for neighbourhood **Archer Height** of 3.71.

# New Orleans

## Data Description

### **Dataset Source:**

The dataset used in this project is sourced from Airbnb, a platform providing detailed data on Airbnb listings globally.

### **Location Covered:**

New Orleans

### **Key Features:**

- **Property Details:**

Listings ID, Name, Room type, Location (neighbourhood, longitude, latitude)

- **Host Details:**

Host name, Host Id

- **Pricing & Availability**

Price per night, Minimum nights, Availability (calendar-based data for 365 days)

- **Customer Engagement**

Number of reviews, Review scores, Last review date

- **Approach**

To analyse the Airbnb listings in New Orleans, the following steps were followed.

1. Data Cleaning

Removed missing or inconsistent entries.

Standardized data formats for price, date and availability

Converted price values from strings to numerical format for analysis.

2. Filtering for Active Listings.

3. Dashboard Creation

Used Power BI for creating visualizations which includes:

- No. of listings by neighbourhood.
- Average price by neighbourhood.
- Distribution of room types.
- Price by room types.
- Price by location.
- Correlation b/w price and reviews.

# Airbnb - New Orleans

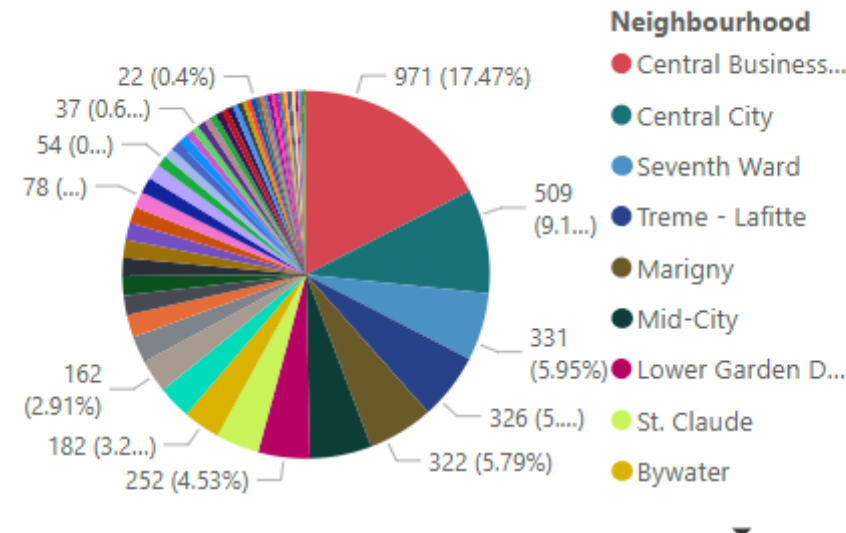
5559

Total listings

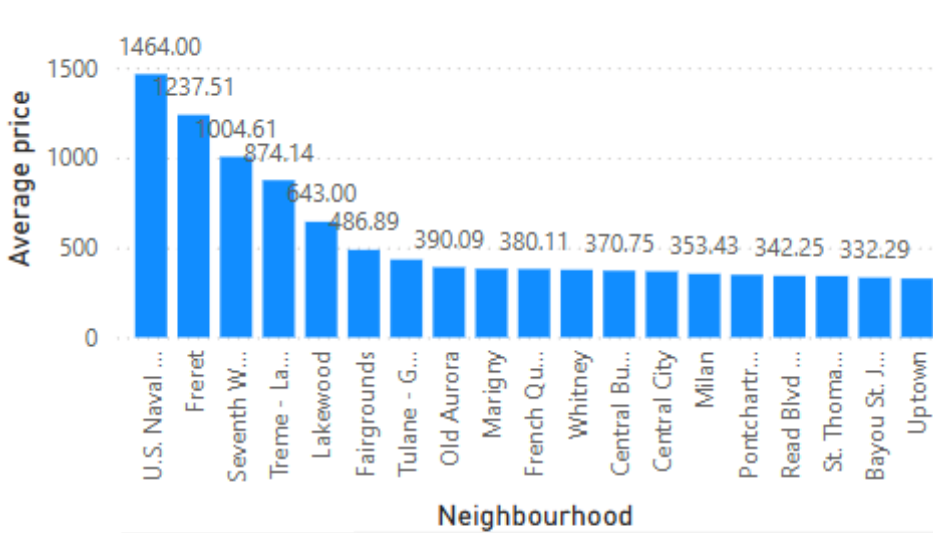
1.76

Average review per month

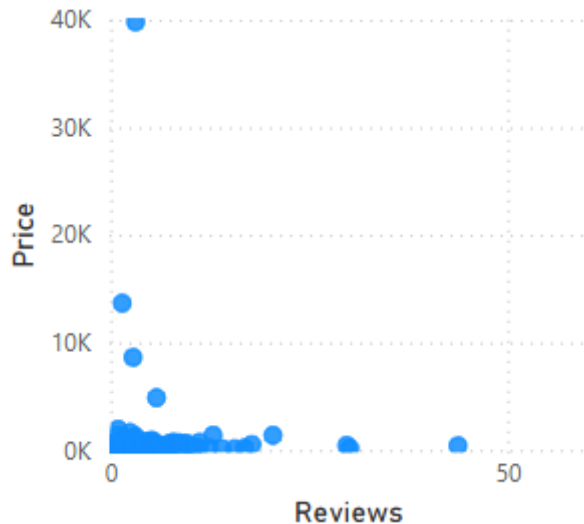
No. of listings by Neighbourhood



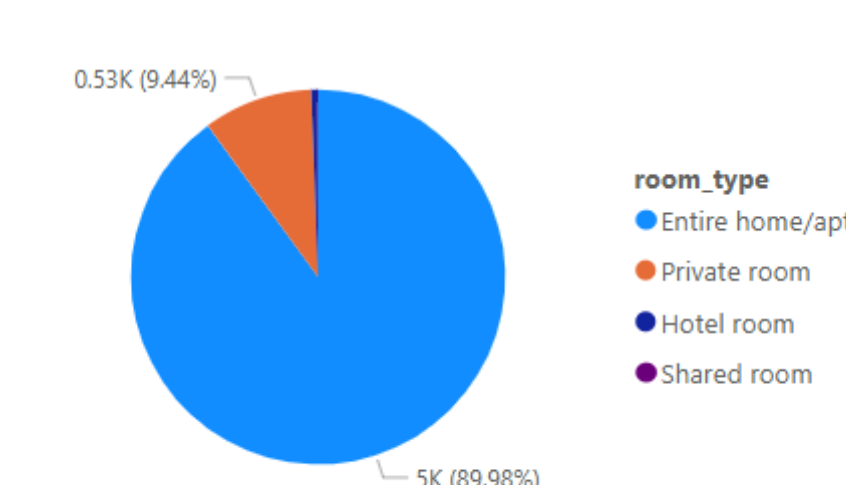
Average price by Neighbourhood



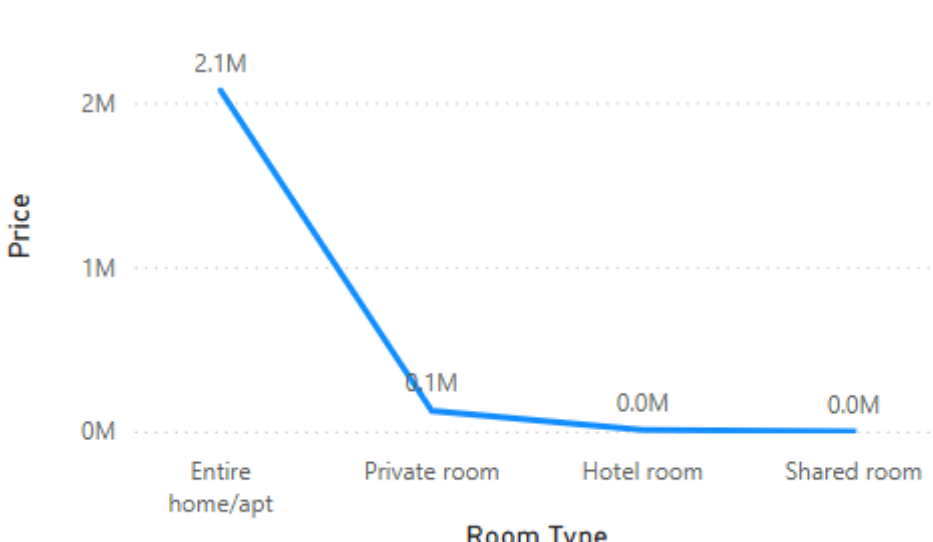
Price by Reviews



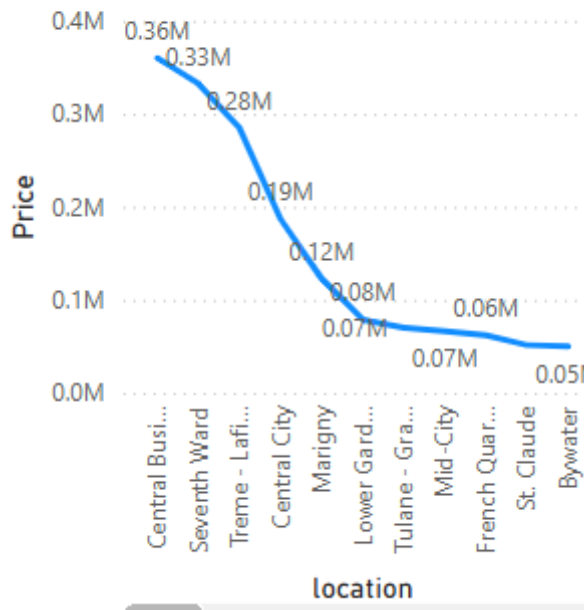
% distribution of room type



Price by Room Type



Price by location





# Insights

## Property Analysis

- The maximum no. of listing in Chicago is from **Central business district** followed by **Central city, seventh ward** and **Treme**.
- The average price by neighbourhood is maximum for “US naval base” followed by “Freret” and “Seventh ward”.
- The maximum distribution of room type is of Apartment type followed by private room, hotel room and shared room comprising of 89.98%, 9.44%, and rest for others.

## Price Analysis

- Price of the room decreases from apartment type, private room, hotel room and shared room.
- Maximum price is Near north side followed by Central business, seventh ward etc.

## Host Analysis

The maximum rating is for apartment type then private room, shared room and hotel room.

The maximum rating is for neighbourhood **Irish Channel** of 2.26.

# Conclusion

- When compared to Chicago, the Airbnb market in New Orleans is also almost comparable. The average rating of property for Chicago is better than New Orleans Showing more customer satisfaction for Chicago.
- New Orleans leads in terms of the number of listings, availability, average price, variety of properties, and number of reviews, indicating a more developed and tourism-driven short-term rental market.
- Both region has almost same trend of room type i.e. maximum for apartment type followed by private room, hotel room and shared room.
- Both area has almost same trend of price for room type i.e. maximum for apartment type.