

# *Airbnbs in Tokyo:*

*Analysis and Recommendations*



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# Agenda

1. *Business Overview*
2. *Data Understanding*
3. *Data Analysis*
4. *Results*
5. *Recommendations*
6. *Future Insights*





# About Airbnb in Japan

- Visitor arrivals in Japan reached **2.52 million in October**
- Airbnb Japan said its bookings in the 12 months ending in September rose **75%** from four years earlier
- The number of unused houses -- known in Japanese as akiya -- has almost doubled during the past two decades, to nearly **3.5 million in 2018**



# *Business Problem*



# *Business Problem:*

With the growing tourism demand in Japan, Airbnb wants to efficiently grow its presence in Tokyo.

# *Hypothesis:*

By assessing trends of previous bookings, we can suggest attributes of future Airbnbs to help with expansion and match consumers' specific demands.



# *Data Understanding*



# Data Overview

## Initial Data

### Reviews

- Used two datasets from [Inside Airbnb](#)
- **Reviews data** to understand quality and ratings
- **Listing data** to understand attributes of listings

### Listings

## Filtered Data Set

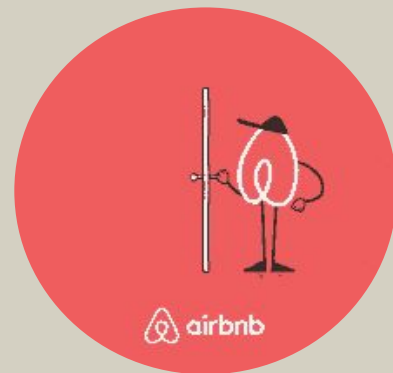
### Airbnb Listings

- Data only after **May 1, 2023**
- Listings with at least **10 reviews**
- 74K listings
- 10K unique properties



# Data Limitations

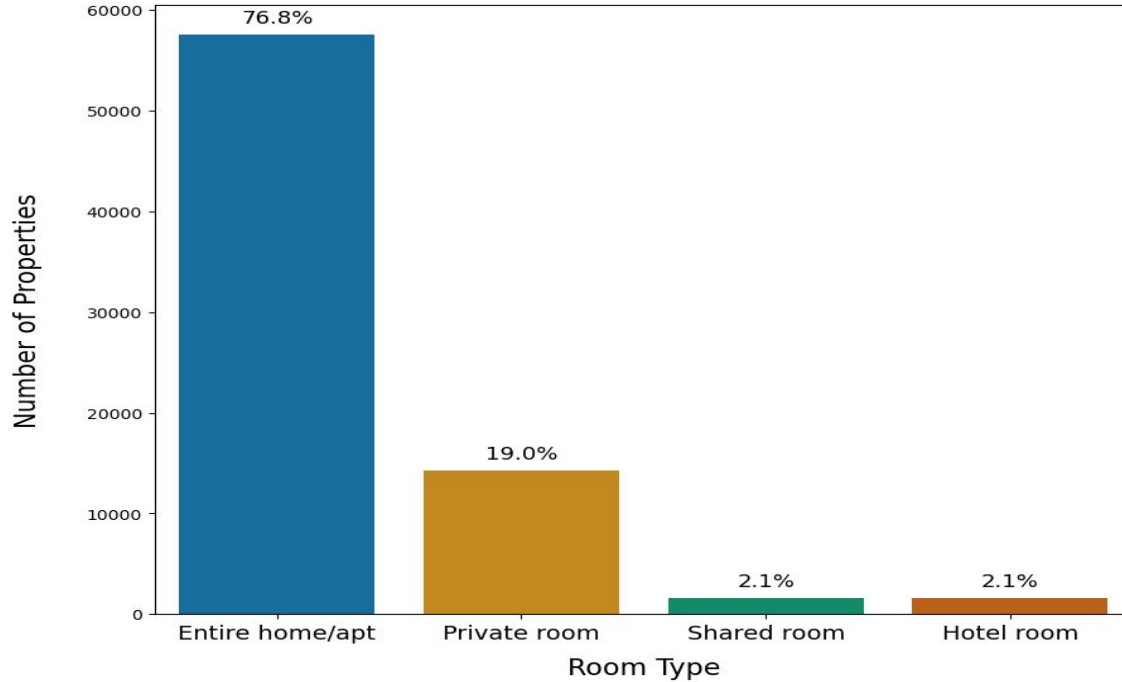
- **Listings data vary in quality** and can impact description, images, accuracy, completeness of attributes
- **User reviews** can be **subjective** and can **skew** to the **extremes** of the rating scale (1s and 5s)
- **Limited historical data** due to covid impact bookings in prior years



# *Data Analysis*

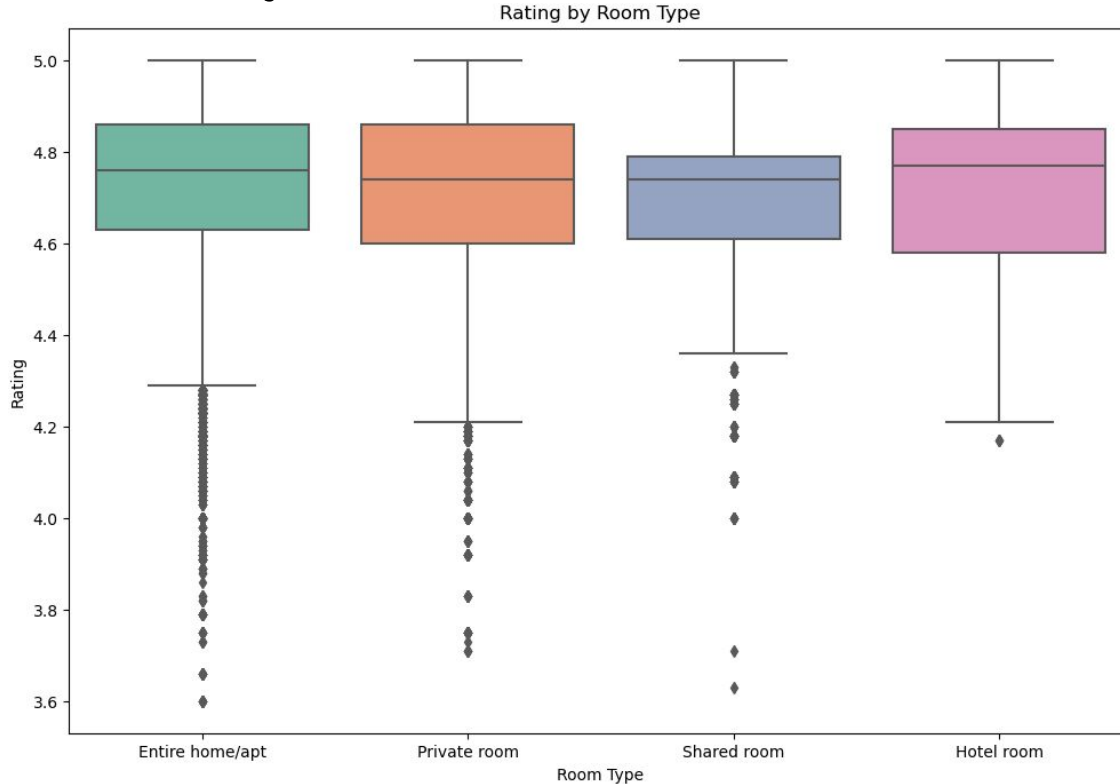


# Property Types



- Listings with ratings over 4.5
- A majority, **77%** of the listings were **entire private homes or apartments**.
- **2%** of the properties were **shared homes or hotel rooms**

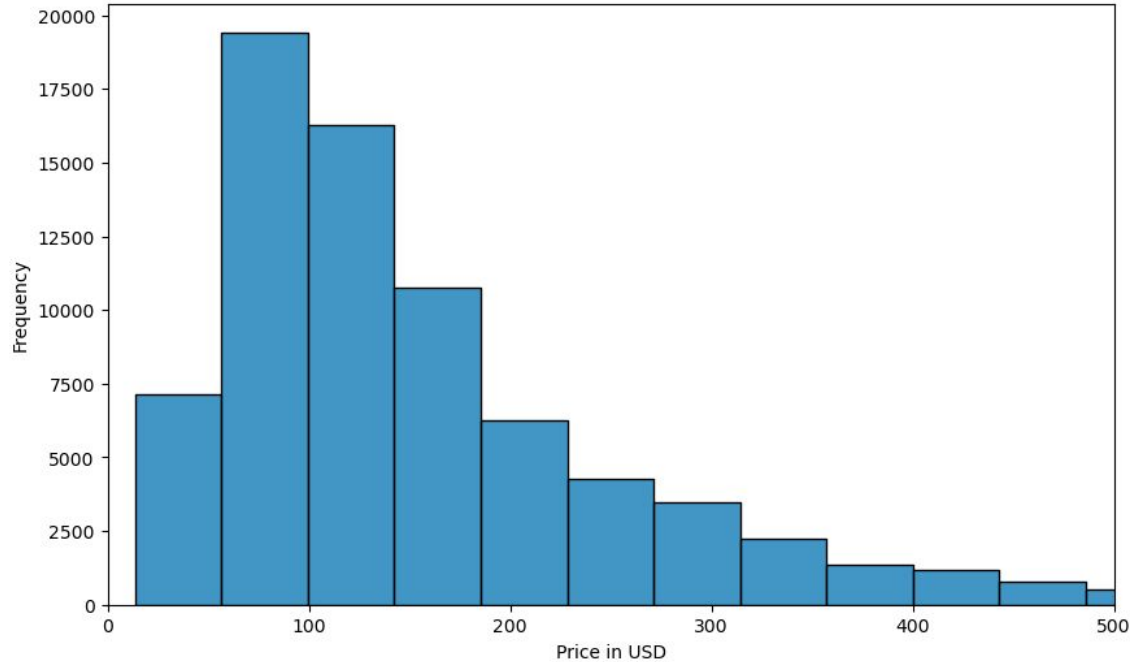
# Ratings Distribution



- Ratings for **entire homes** are the **highest** with a median of 4.7 and receive **consistent** ratings
- **Shared rooms** have a lower rating and **skew lower** in overall ratings

# Price Distribution

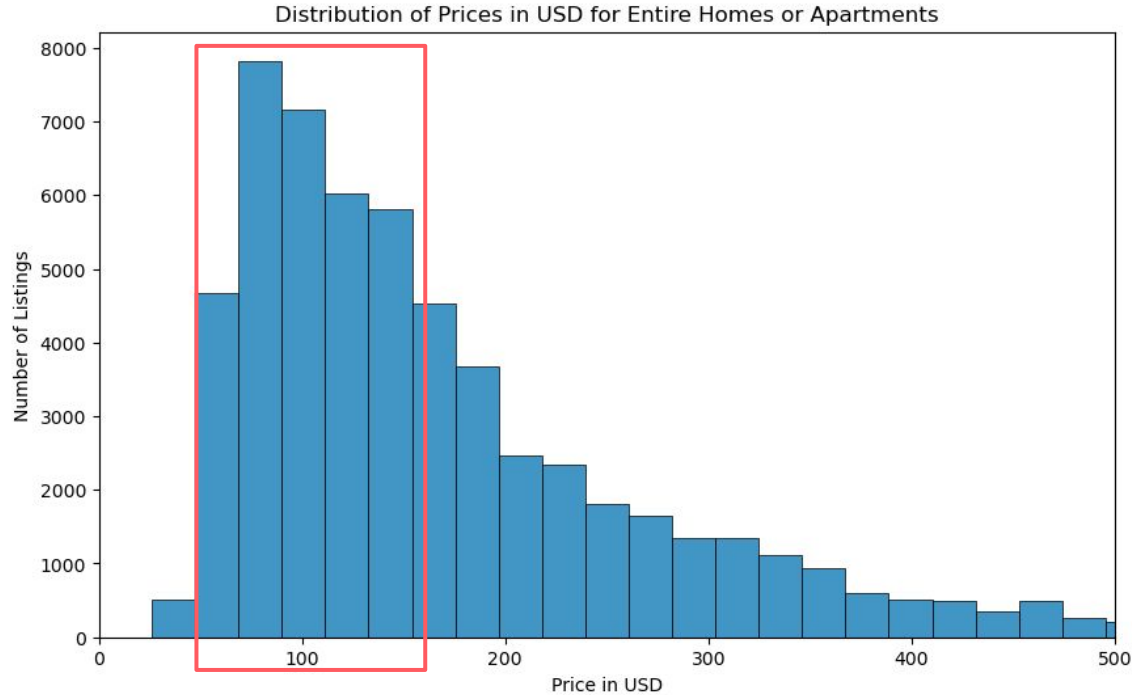
Distribution of Prices in USD



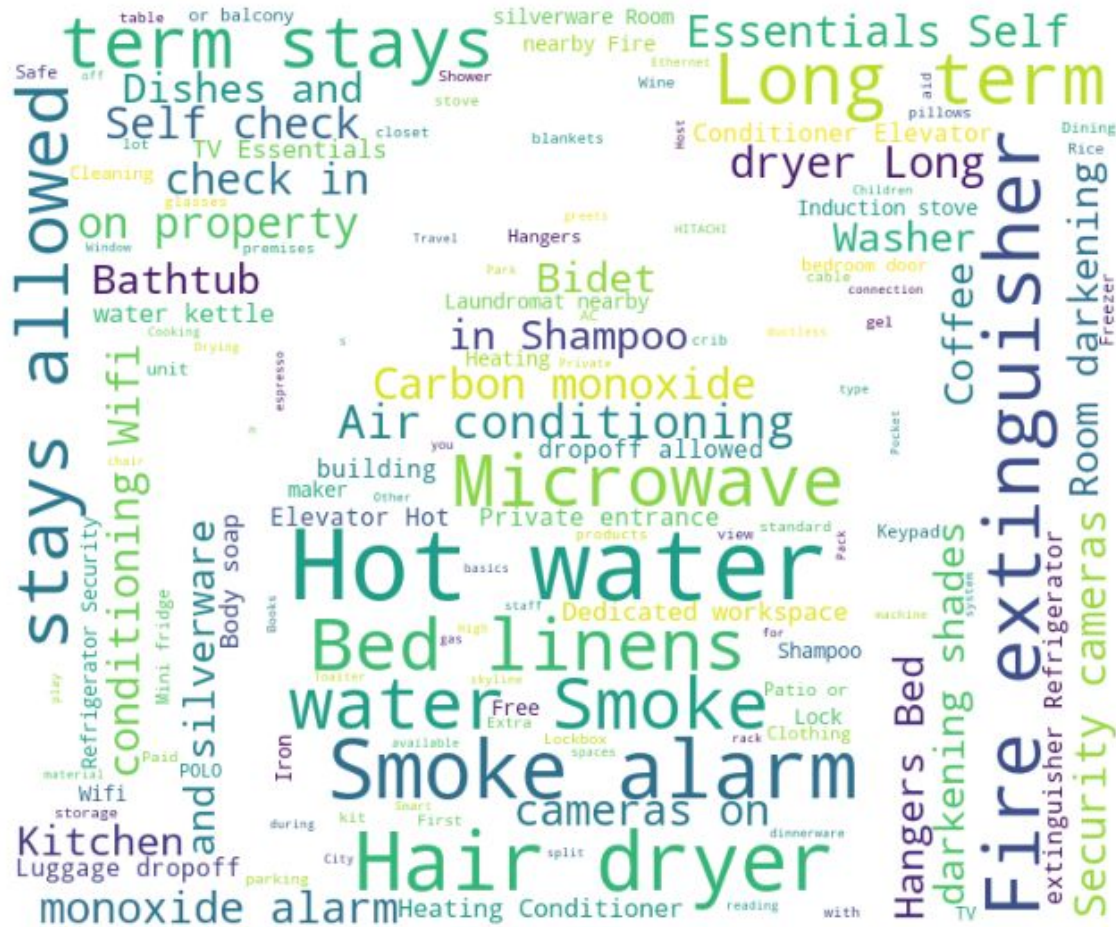
- A majority of listings are under \$200 a night



# Entire Home Prices



- Similar to the overall data set, a majority of listings are **under \$150 a night**
- There are **very little** listings **above \$300**



# Amenities

- **Safety features** - Fire and Smoke Alarms, Carbon Monoxide
- **Essentials** - linens, bath, kitchen products
- **Long term stays**
- **Self check in**

# *Actionable Recommendations*



# Actionable Recommendations

1. **Invest in entire homes or apartments** , for consistent high ratings
2. **Include popular amenities** - security, safety features and bath and kitchen essentials
3. **Price** the listing under **\$200/night**

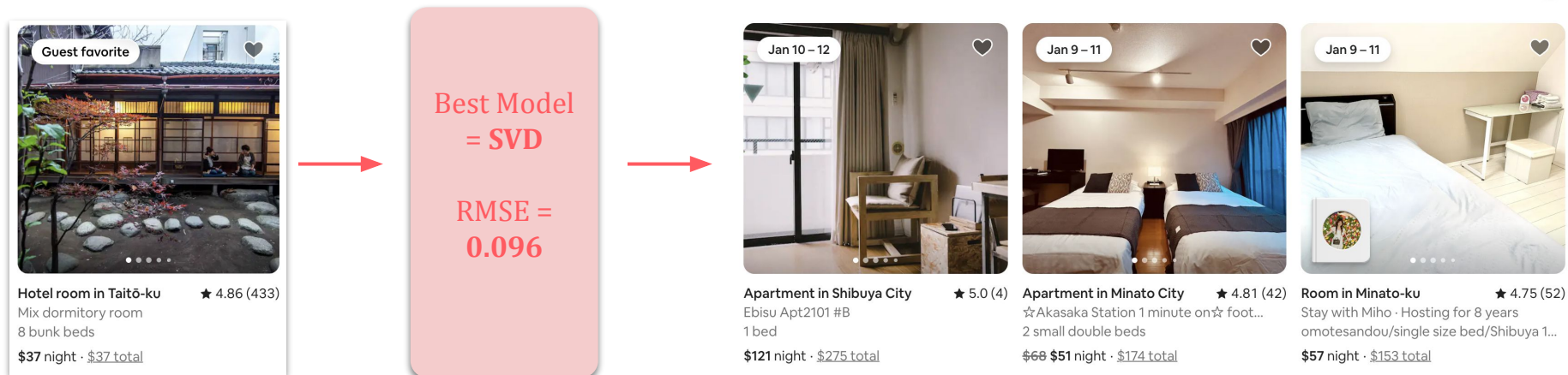


*Listing  
Recommendations  
for a New User*





# Airbnb Recommendations



1. A user selects and rates an Airbnb. These inputs are given to the model.

Recommendation # 1: ID 29947521, Description: Rooms are Japanese style with tatami mats, futon mattresses, and a kotatsu to keep you warm in winter.<br />The rooms are a 16-minute walk from Akasaka Station. The rooms are a 16-minute walk from Akasaka Station. The rooms are a 16-minute walk from Akasaka Station.

Recommendation # 2: ID 908974948897483972, Description: 新しい家で建築家がデザインしたスタイリッシュなお部屋です。東京観光の拠点にとっても清潔で心地よいお部屋を提供します。騒がしい観光地から離れて、ホッと安心してお過ごしいたしましょう。

Recommendation # 3: ID 15996058, Description: As the title says, I have another bedroom available in my brand new house in Ikebukuro (you can check out my other listing for the first time). The room is a 16-minute walk from Akasaka Station. The room is a 16-minute walk from Akasaka Station. The room is a 16-minute walk from Akasaka Station.

Recommendation # 4: ID 53517793, Description: Opening in December 2021! This is a room under the "stay me" brand!<br />stayme" is an accommodation facility based on the concept of "a stay me". The room is a 16-minute walk from Akasaka Station. The room is a 16-minute walk from Akasaka Station. The room is a 16-minute walk from Akasaka Station.

Recommendation # 5: ID 47151937, Description: This room can accommodate up to 8 people. The interior is designed to provide a relaxed atmosphere and a large living room for guests to relax. The room is a 16-minute walk from Akasaka Station. The room is a 16-minute walk from Akasaka Station. The room is a 16-minute walk from Akasaka Station.

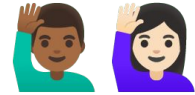
2. The model predicts a set of similar Airbnbs based on the users rating and the selected Airbnb.

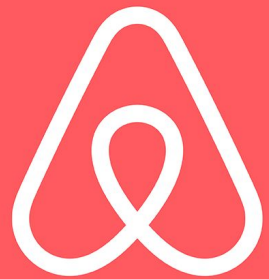
# *Future Steps*



# Future Steps

1. Change **UI** to have listing **recommendations** near the **top** of the **homepage**
2. Include feedback **survey** icons to ultimately **gain** insight on the **performance** of the listing recommendations
3. Add **demographic** data for **reviewers**





airbnb





# *Thanks for listening!*

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Questions?

# Appendix

[AirBnb Japan Statistics](#)

[Datasets](#)

[Japan Empty Homes](#)

[Japan Tourism](#)

