

**Capstone Project**

# Bangkok Airbnb LISTING ANALYSIS

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# Background

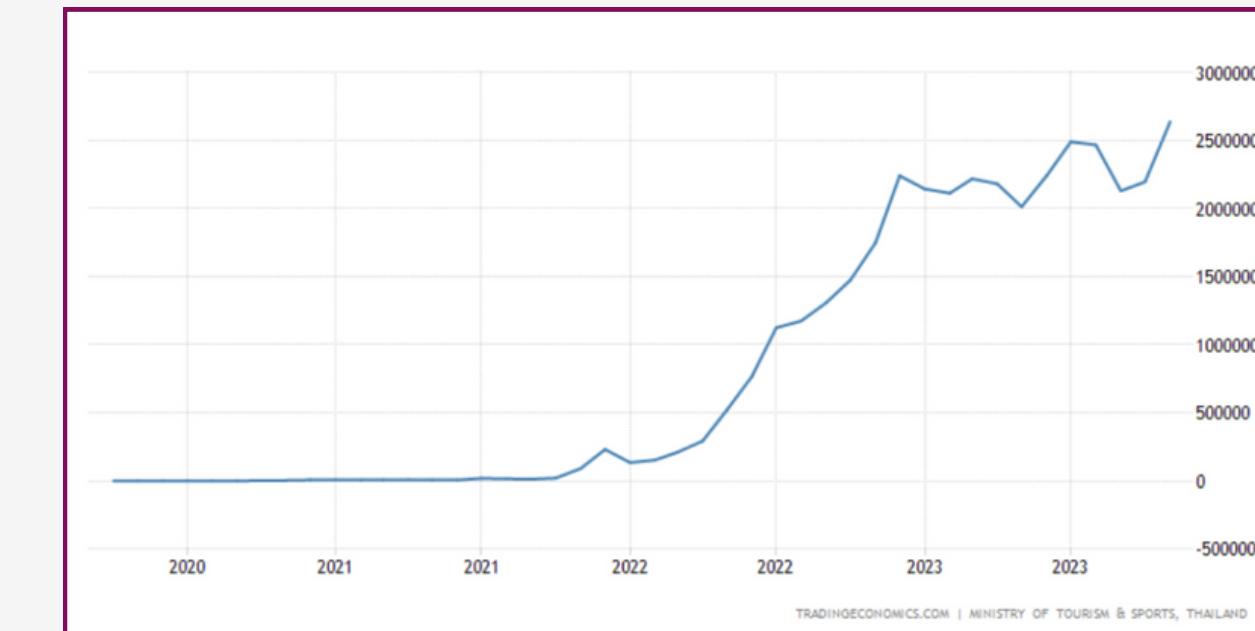
According to the **Thai Ministry of Tourism and Sports**, Tourist Arrivals in Thailand averaged **1463822.97** from 1997 to 2023, reaching an all-time high of **3930800.00** in December 2019 and a record low of **0.00** in April 2020 (due to Covid-19). Tourist Arrivals in Thailand also increased to **2637077** in November from **2197017** in October of 2023.

After the Covid-19 pandemic, tourism in Thailand has increased again, this can be clearly seen from the data below that from 2022 to 2023 Thai tourist visits will again experience a **positive trend**. In the long-term, the Thailand Tourist Arrivals is projected to trend around **2800000.00** in **2024** and **3100000.00** in **2025**, according to **Trading Economics econometric models**.

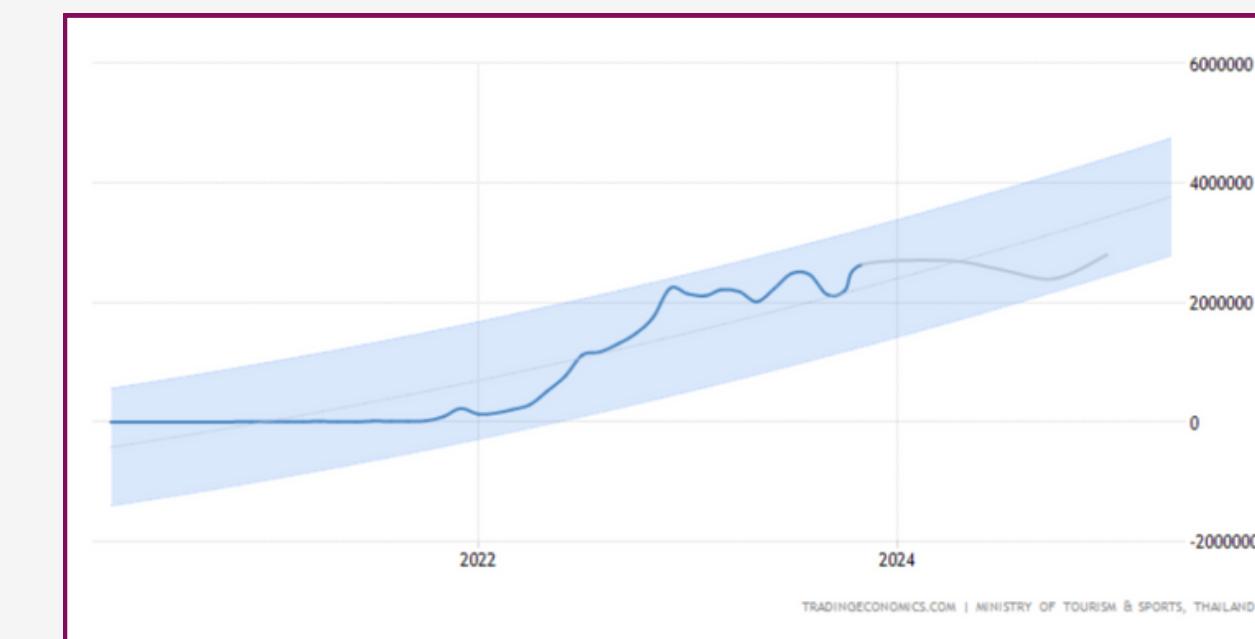
## Source:

<https://tradingeconomics.com/thailand/tourist-arrivals>

## THAILAND TOURIST ARRIVALS 2020-2023



## THAILAND TOURIST ARRIVALS FORECAST 2024-2025



# BACKGROUND

**Airbnb, Inc.** is an American company based in San Francisco that operates an **online marketplace for short- and long-term homestays** and experiences. The company acts as a broker and charges a commission from each order (Wikipedia).

Searches conducted in **Q1-Q3 2022** for check-ins in 2022 vs the same period in 2021, make **Bangkok the #1 trending destination** for Airbnb guests worldwide in 2022:

- Bangkok, Thailand
- Sydney, Australia
- Málaga, Spain
- Seoul, South Korea
- Melbourne, Australia
- Itapema, Brazil
- Angra dos Reis, Brazil
- Capão da Canoa, Brazil
- Auckland, New Zealand
- Brisbane, Australia

**The success of the AirBnB** depends on **accurately pricing each listing** in order to draw visitors and increase income. Setting the ideal pricing, meanwhile, can be difficult because it depends on a lot of variables, including **availability, minimum number of nights, room type, and location.**

Seeing the very high level of tourist visits to Thailand, especially Bangkok, we want to find out more about what types of homestays are most popular with tourists to spend the night in Bangkok. So that we as AirBnB rental service providers can better understand the characteristics of foreign tourists which leads to **increased income**.

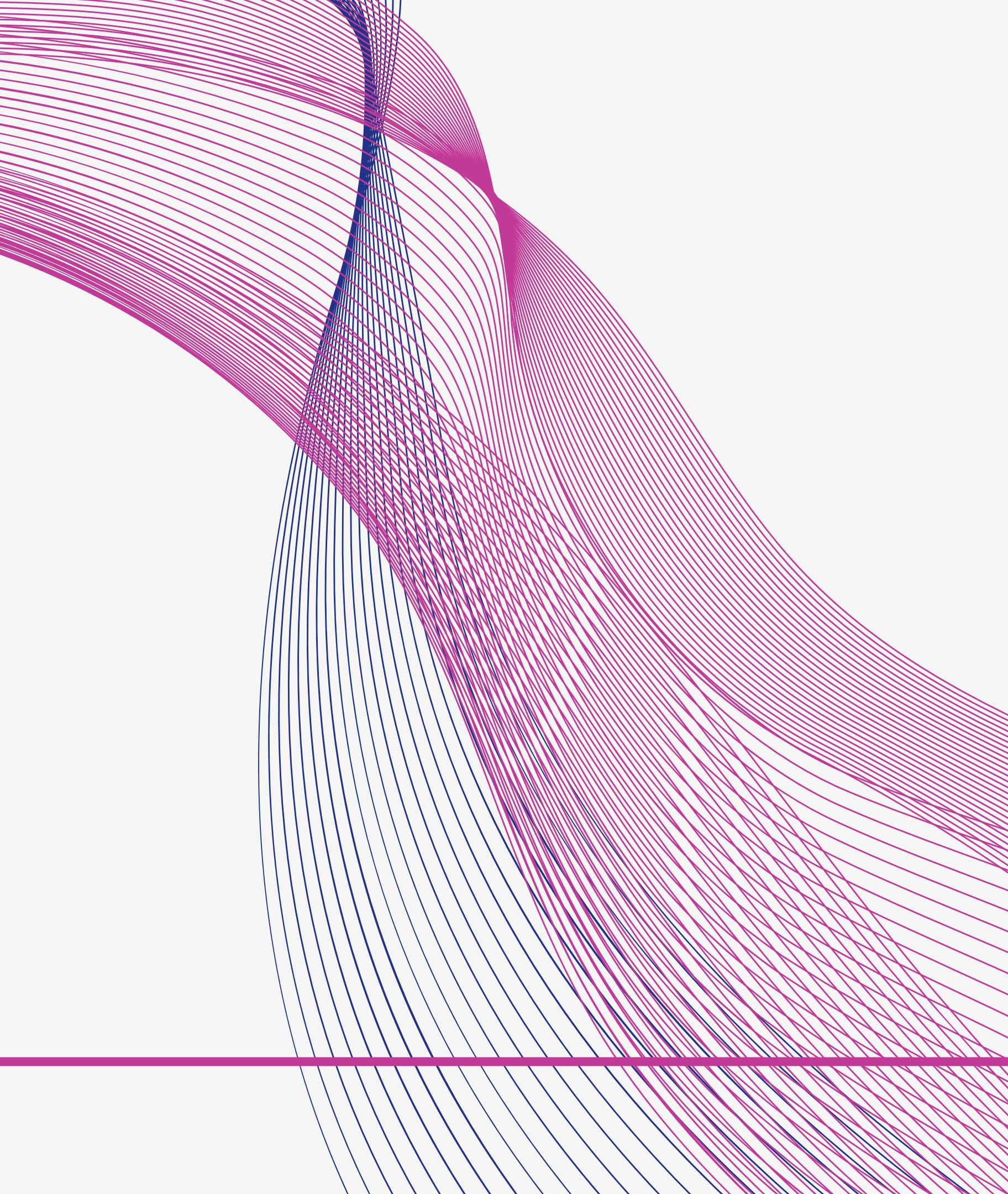
**Source:** <https://www.nationthailand.com/pr-news/thailand/tourism/40023364>

# Analysis OUTLINE

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Based on the existing background, it can be explained as follows:

- **Context:** The audience for this analysis project will be aimed at AirBnB owners in the Bangkok area.
- **Business Problems:** Many AirBnB owners are still unable to optimize the level of popularity of their AirBnB which results in a lack of optimal income they receive.
- **Goals:** Provide recommendations and insight on how to increase the occupancy rate and total income of the AirBnB listings they have.



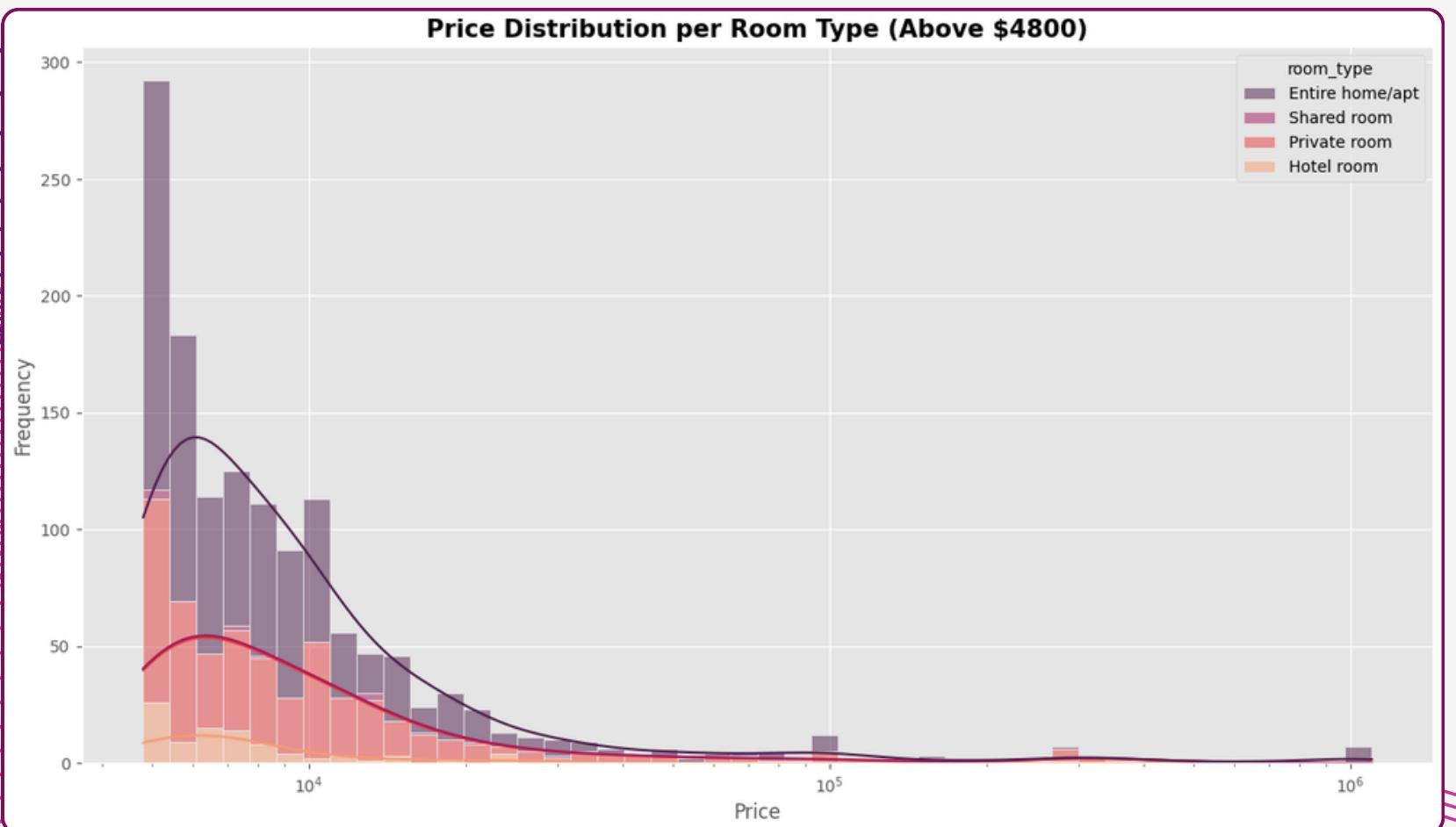
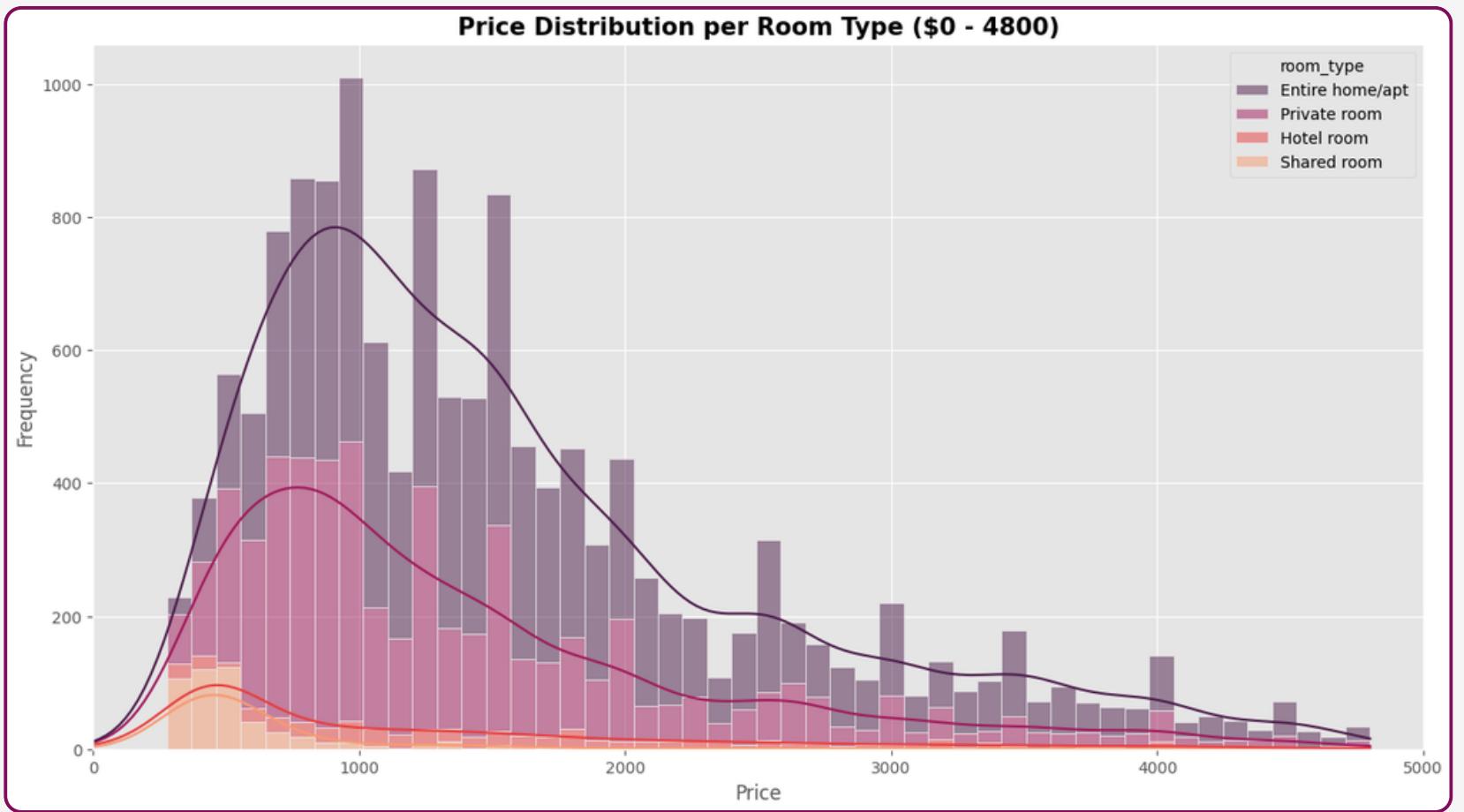
# BUSINESS QUESTIONS

- How is the distribution of AirBnB prices in the Bangkok area? (both in terms of area & room type)
- What Factor that can influence the popularity level (Number of Reviews and Occupancy Rate) & total revenue of an AirBnB?
  - Number of rooms rented by one owner.
  - Price
  - Minimum Nights
  - Title of advertisement placed on the website
  - Neighborhood
  - Room Type

# Price ANALYSIS

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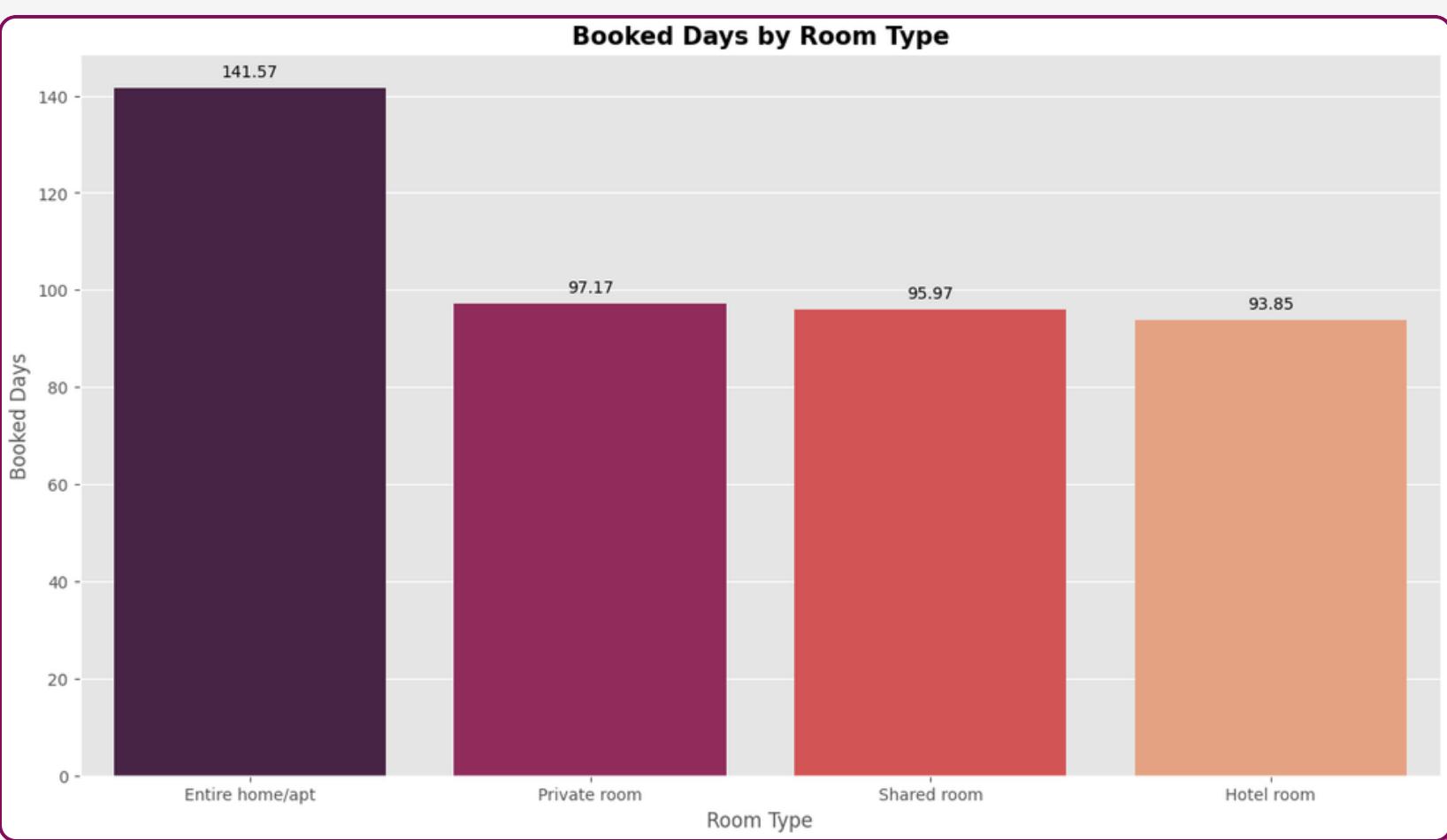
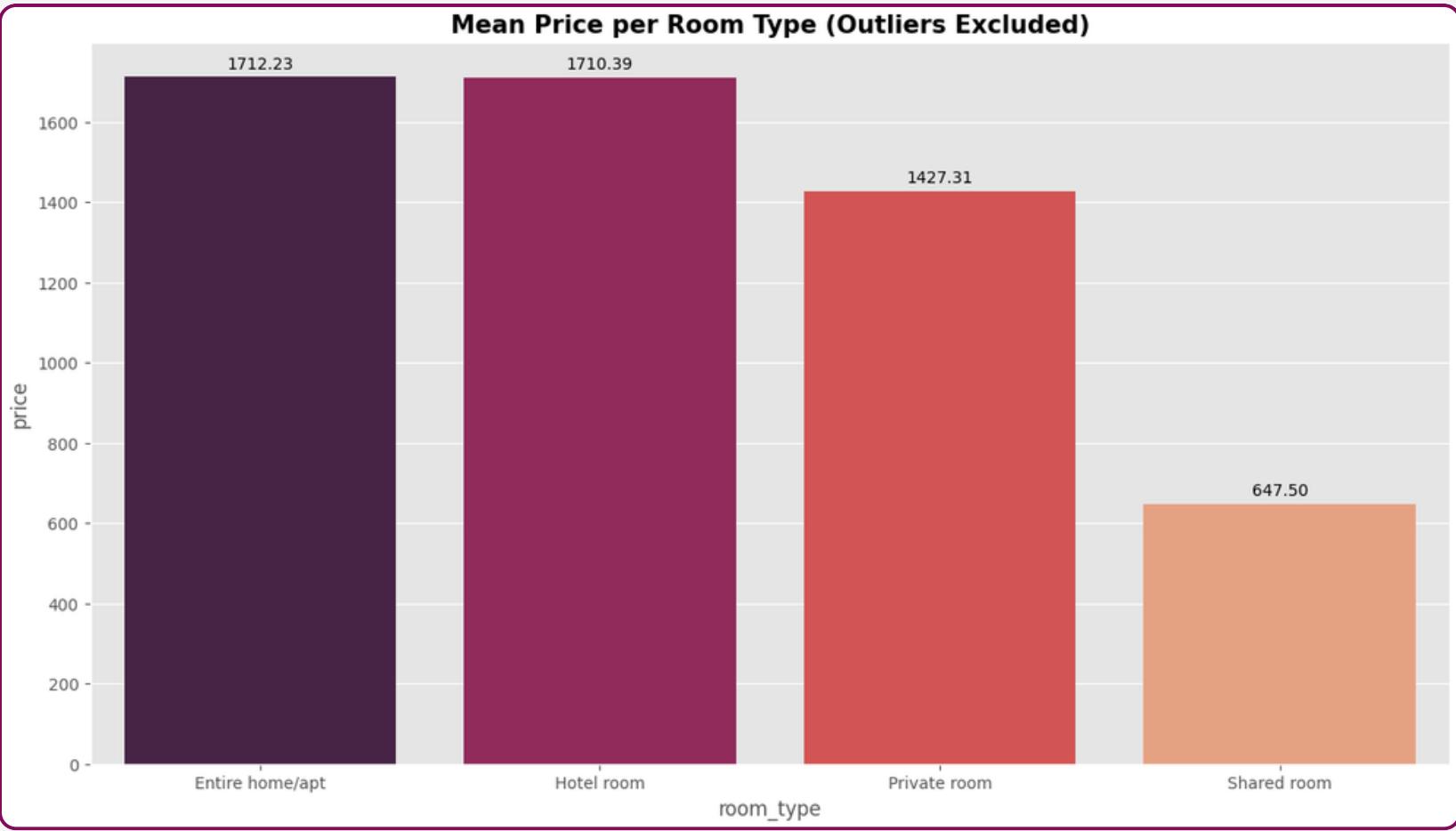
# Price Distribution PER ROOM TYPE



From the histogram, it can be seen that the distribution of AirBnB Bangkok listing prices is very diverse (0 - 1100000), and the data distribution is skewed to the right.

# Average Price & Booked Days PER ROOM TYPE

- After excluding outlier data (**Above \$4800**) , the room type with the highest average price is the Entire House/Apt (**1712.23**), and **shared room** is the room type with the lowest price average (**647.50**)
- and **Entire Home/apt** is the **most booked room type** with an average of **141 days**.
- So it can be concluded that **tourists tend to choose** the **entire home/apt** room type to stay in Bangkok



# Average Price PER NEIGHBOURHOOD

Average Price by Neighbourhood											
Parthum Wan 2,179	Ratchathewi 1,762	Bangkok Yai 1,566	Sai Mai 1,454	Saphan Sung 1,446	Phra Nakhon 1,429	Thung khru 1,405	Lat Phrao 1,389	Din Daeng 1,378	Chom Thong 1,378		
Bang Rak 1,932	Yan na wa 1,695	Phaya Thai 1,535									
Vadhana 1,928	Taling Chan 1,663	Sathon 1,532	Dusit 1,355	Bangkok Noi 1,273	Thon buri 1,253	Bang Na 1,245	Suanluang 1,241	Phra Khanong 1,237			
Samphanthawong 1,896	Khlong Sam Wa 1,624	Huai Khwang 1,518	Chatu Chak 1,351	Wang Thong Lang 1,228	Bang Khen 1,192	Bang Kapi 1,163	Min Buri 1,156	Pra Wet 1,152			
Nong Chok 1,828	Pom Prap Sattru Phai 1,614	Bueng Kum 1,507	Bang Khae 1,346	Khan Na Yao 1,215							
Khlong Toei 1,773	Khlong San 1,568	Bang Bon 1,504	Rat Burana 1,313	Bang Phlat 1,214							
		Bang Kho laen 1,484	Thawi Watthana 1,309	Nong Khaem 1,205	Bang Khun than 1,113	Don Mueang 1,087	Bang Sue 1,034				

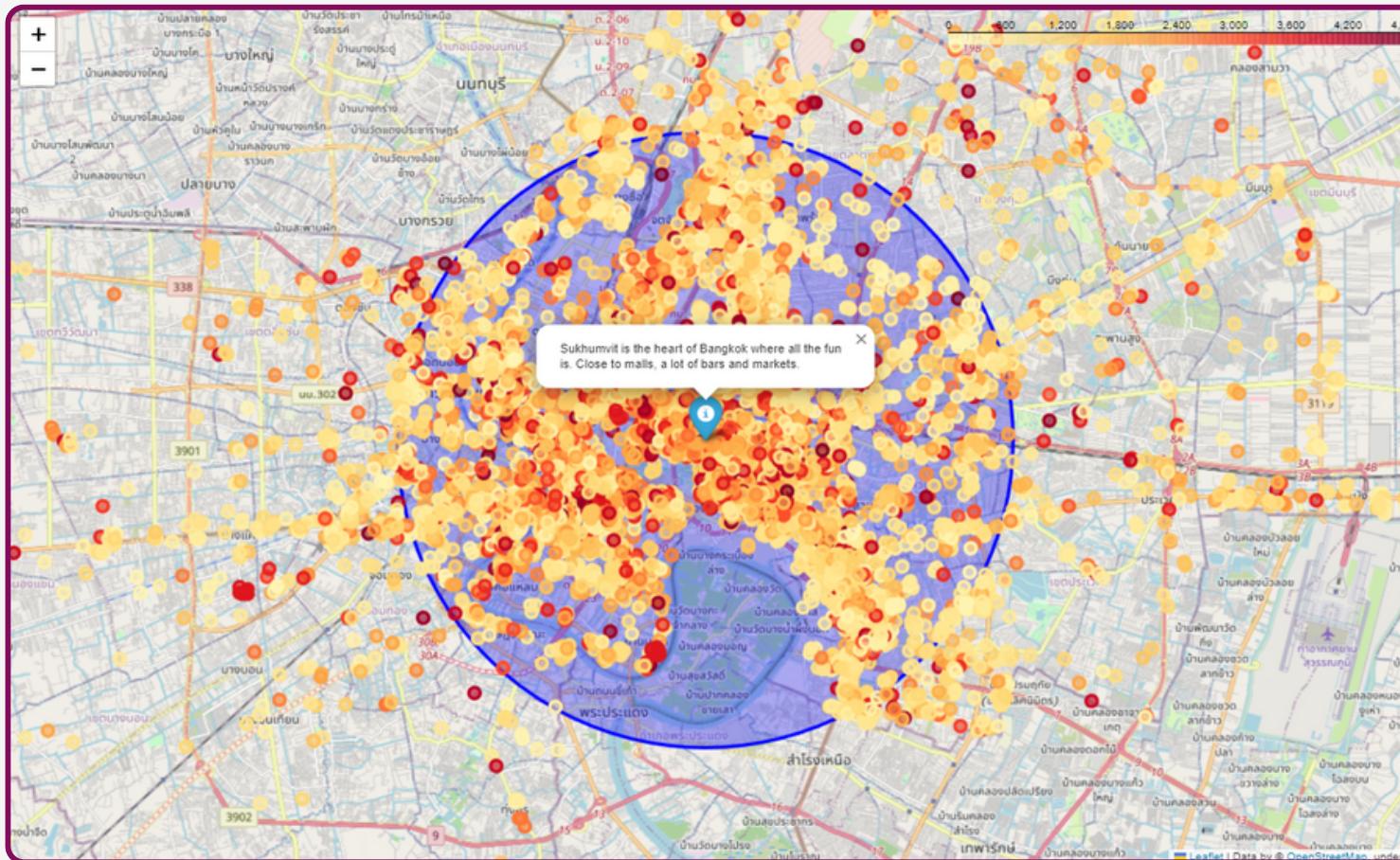
- In the dataset **without outliers** the neighborhood with the **highest average rental price** is in **Parthum Wan (2179)**, while the **lowest is in Bang Sue (1033.73)**.
- **Parthum Wan** is an area that **tends to have expensive rental prices** because it is in **the middle of Bangkok** and very close to **the city center**, namely **Sukhumvit**, which is only 3 km away and can be accessed using the BTS (**Bangkok Mass Transit System**).

# Neighbourhood ANALYSIS

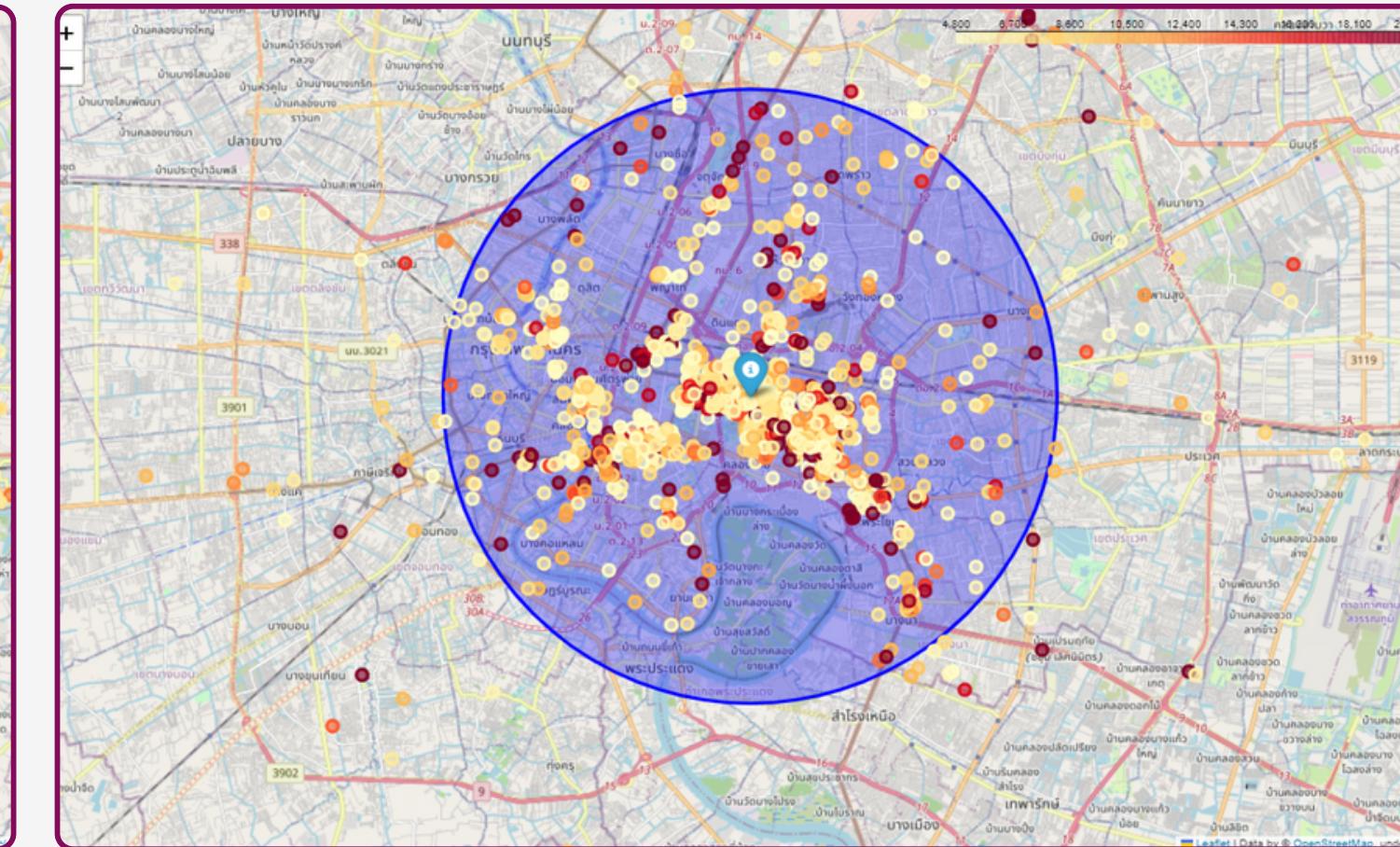
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# AIRBNB BANGKOK MAP

PRICE RANGE \$0 - \$4800



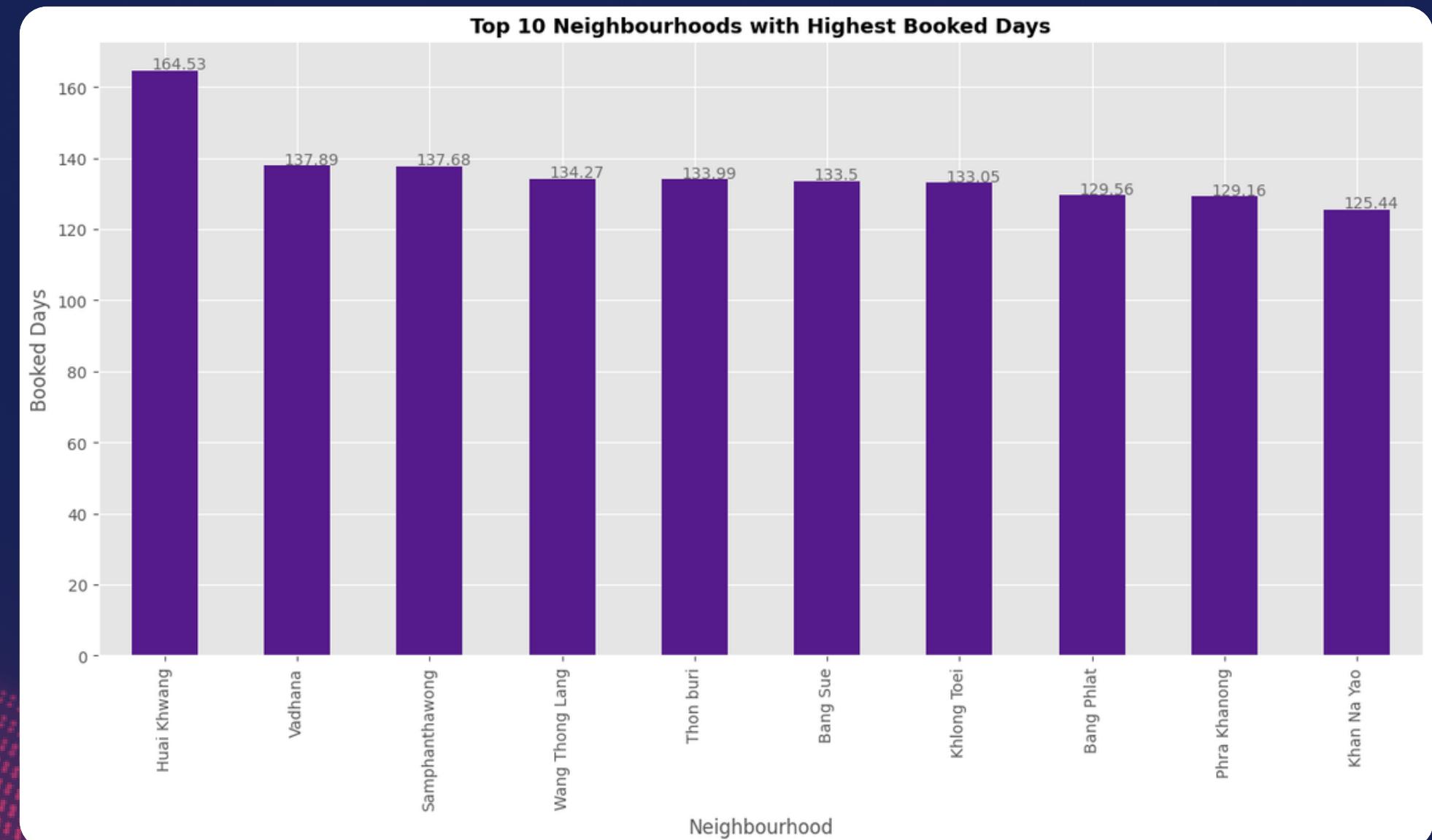
PRICE RANGE ABOVE \$4800



- There is a pattern that the majority of AirBnBs in the city of Bangkok are spread out in the city center (**Sukhumvit area**) with a radius of approximately **10 km** (The Blue Circle).
- AirBnB with relatively more expensive prices is also in this area.
- The distribution of AirBnBs with a price range of  $\leq 4800$  and  $> 4800$  (**outliers**) has the same distribution, both around the central area of Bangkok (**Sukhumvit Area**). This means that it can be said that the outlier data **is not associated with one particular neighbourhood** that has high prices, but is spread throughout the Bangkok area.

# Neighbourhood WITH HIGHEST BOOKED DAYS

- The neighborhood with the highest number of booking days is Huai Khwang (164 days), indicating that this neighborhood is one of the most popular accommodation locations and is considered strategic for tourists.
- Huai Khwang has many tourist attractions that can attract the attention of tourists, including:
  - a.Bangkok Float Center
  - b.EasyKart Bangkok - Go Karting
  - c.FITFAC Muay Thai Academy
  - d.Avatar creation.
  - e.Siamese Cookery House
  - f.and many more



# Popularity ANALYSIS

(NUMBER OF REVIEWS AND OCCUPANCY RATE)

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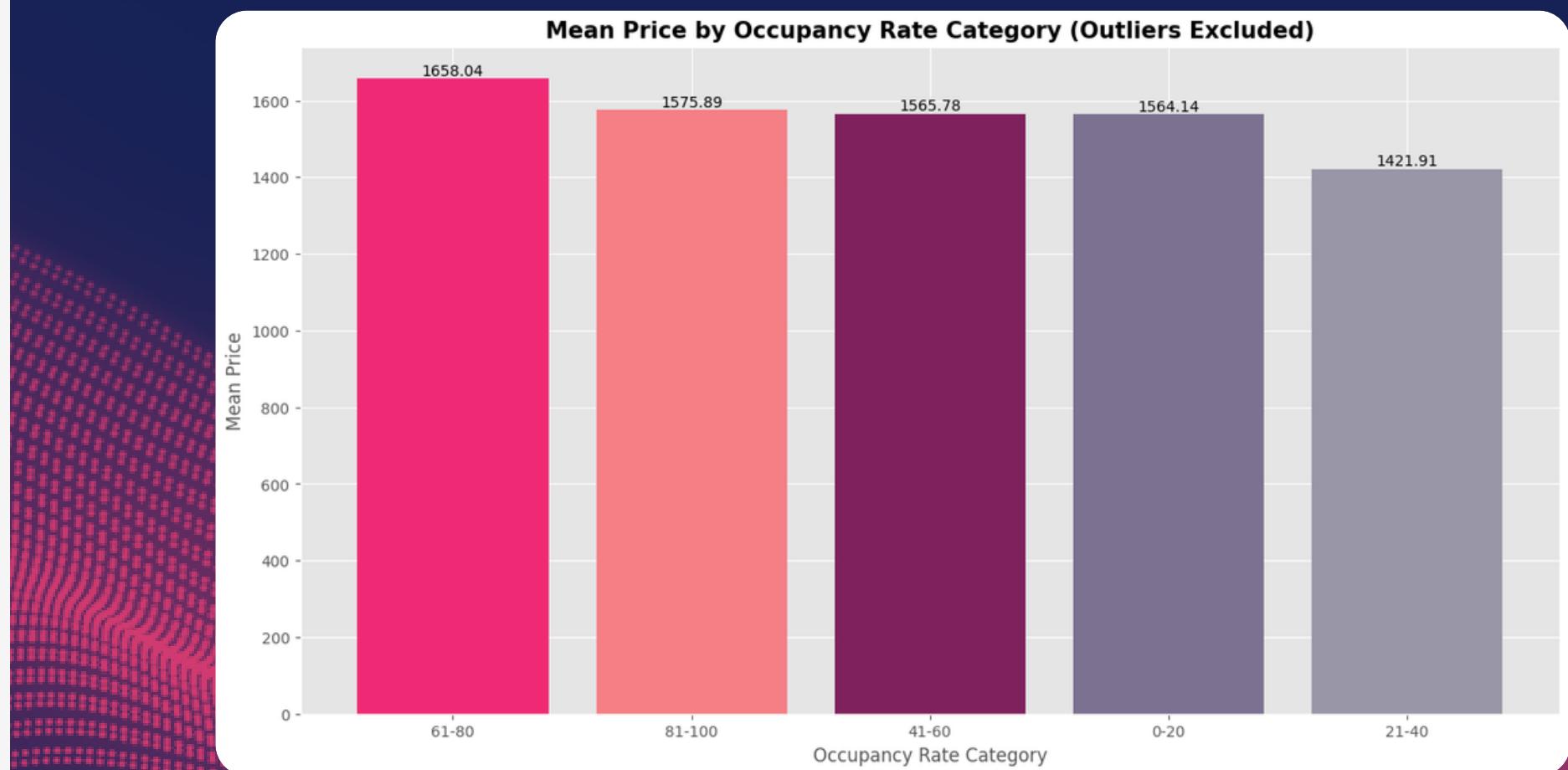
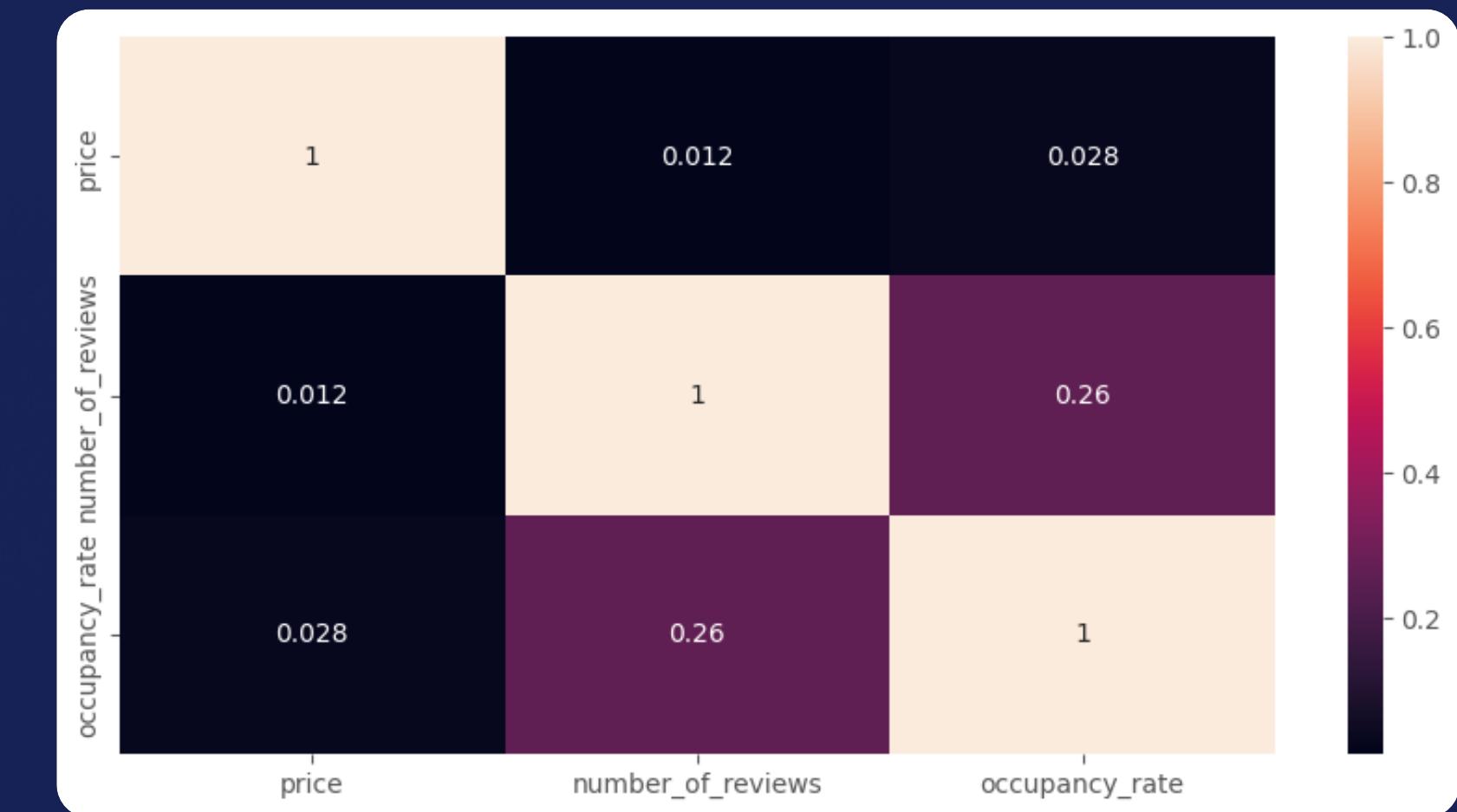
# Host Listing Count & POPULARITY

- It turns out that the **correlation** between the number of **AirBnBs rented out by one owner** has a **low level of correlation** with the **number of reviews (0.22)**. However, it has a **positive relationship**, if the number of listings increases, the number of reviews will also increase.
- This also applies to the correlation between **the number of AirBnBs rented out by one owner** and **the occupancy rate**, which has a low value (**0.053**) and **postive relationship**.
- So there is **no guarantee** that renting out more housing will become more popular among tourists, because even though it has a positive relationship, the correlation value is very weak.



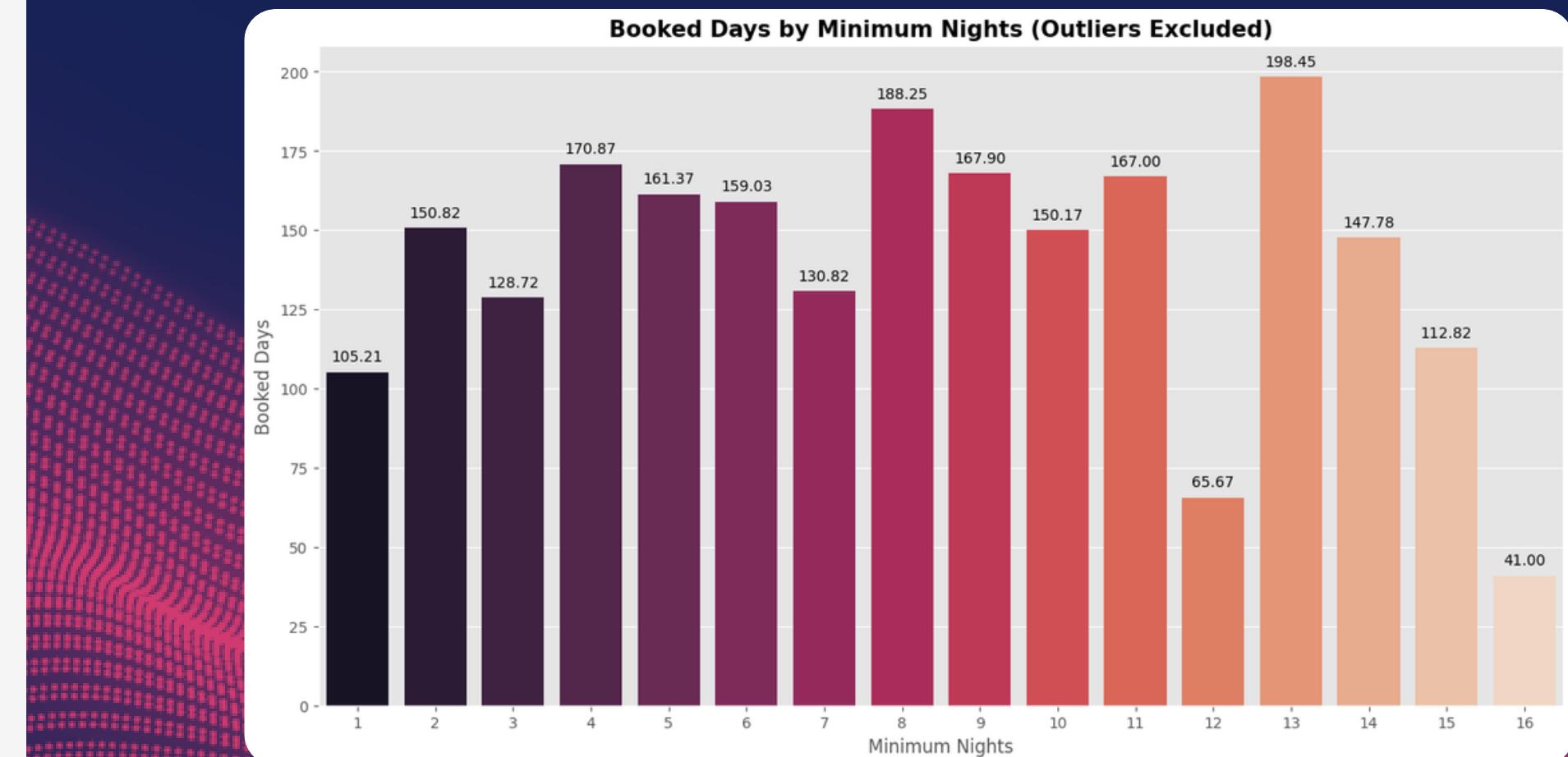
# Price & POPULARITY

- The correlation between **price** and **number of reviews** & **occupancy rate** is very weak (**0.012 & 0.028**) and the relationship between the variables is **positive**. The more expensive the price, the higher the reviews and occupancy rate.
- This is not in accordance with the hypothesis, that **if the price is higher popularity will decrease**. This may be because there are still tourists who deliberately choose **expensive places & are aiming for luxury facilities**.
- Based on the analysis, it can also be seen that hotels with **high occupancy rates (61-100%)** set a price range of around **1575 - 1658**.
- With the following results, it can be concluded that determining the **right price** approximately between **1575.89 - 1658.04** (not too expensive or not too cheap) can be a way to **optimize the Occupancy Rate** of an AirBnB. **But** it still has to be adjusted to the price range in a neighbourhood and room type.



# Minimum Nights & POPULARITY

- The correlation between the **minimum nights** and the **number of reviews & occupancy rate** is very weak (**0.13 & 0.18**) and has a **positive** relationship.
- The results of the correlation matrix are **not in accordance with the hypothesis which states that the higher the minimum nights, the lower the popularity of an AirBnB** (negative relationship) and there is also no special pattern in the bar chart between booked days and minimum nights.
- This may happen because **the length of stay preferences of tourists are different**, and it cannot be said that **all tourists only want to stay in hotels that have a low minimum night**.
- Even though it has a weak correlation with occupancy rates and reviews, that doesn't mean the minimum number of nights isn't important. **Since AirBnB caters mostly to tourists & they won't be staying long in Thailand**, setting a minimum nights stay is also something that AirBnB owners need to consider to **attract more customers**.



# POPULAR LISTING NAME



- The image above are words that are often used by AirBnB owners when creating a listing title.
  - Choosing the right title will have a big impact on the number of customers who are interested in seeing the listings that we have created.

# Total Revenue ANALYSIS

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# FACTORS THAT INFLUENCE TOTAL REVENUE

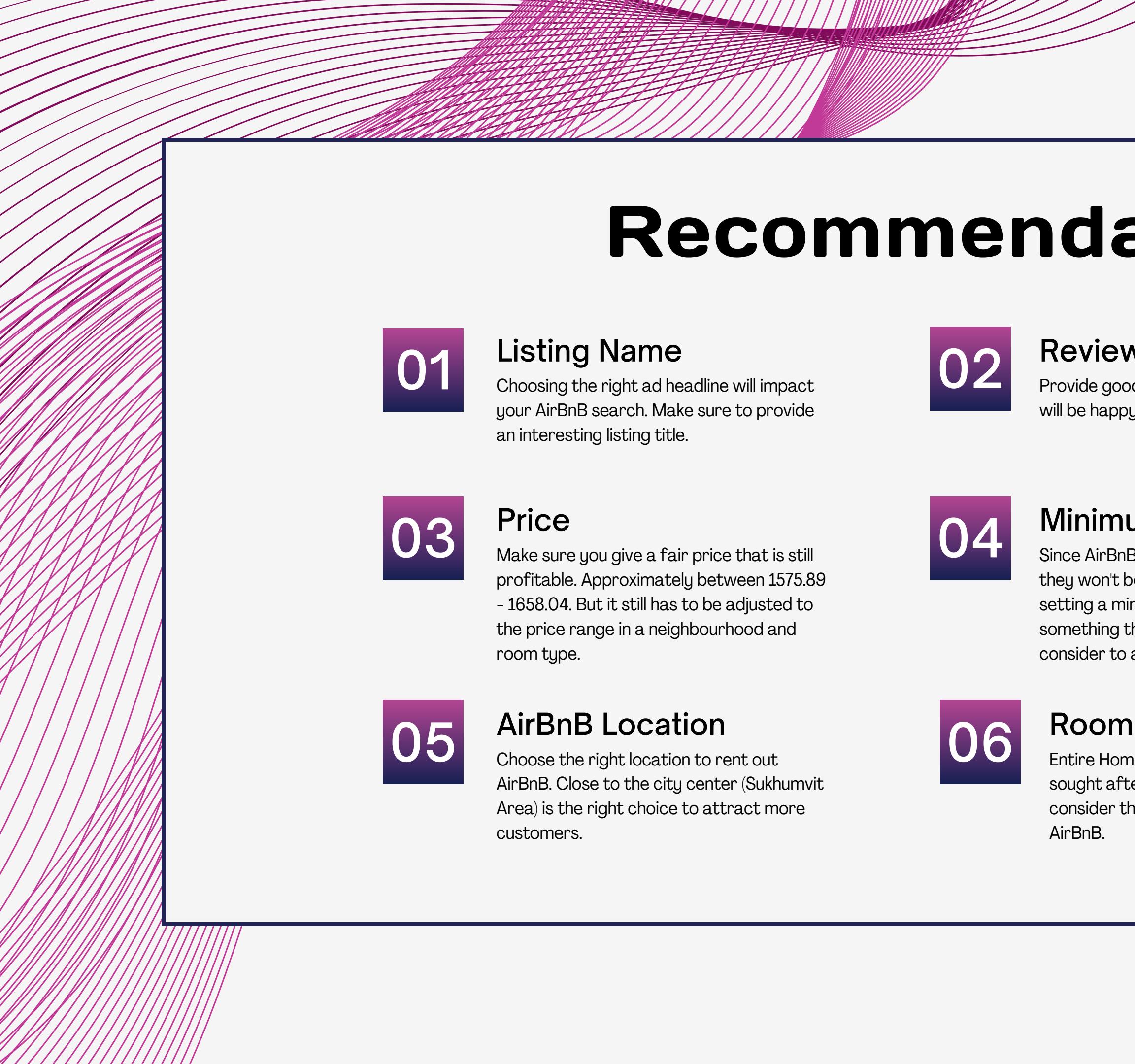


If we analyze the price, minimum nights, count the number of host listings & number of reviews and compare them with total revenue, we can conclude that:

- The factor most correlated with revenue is **price** (0.29), so setting the appropriate price will greatly influence AirBnB's revenue.
- The **number of reviews** also affects total revenue (0.25), so maintaining good reviews will really attract customers.
- Setting appropriate **minimum nights** will also increase revenue.
- and the least influential is the **number of listings owned by one owner** (0.046).

# RECOMMENDATION

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# Recommendation

01

## **Listing Name**

Choosing the right ad headline will impact your AirBnB search. Make sure to provide an interesting listing title.

03

## **Price**

Make sure you give a fair price that is still profitable. Approximately between 1575.89 - 1658.04. But it still has to be adjusted to the price range in a neighbourhood and room type.

05

## **AirBnB Location**

Choose the right location to rent out AirBnB. Close to the city center (Sukhumvit Area) is the right choice to attract more customers.

02

## **Reviews and Services**

Provide good services so that customers will be happy to give a good reviews.

04

## **Minimum Nights**

Since AirBnB caters mostly to tourists & they won't be staying long in Thailand, setting a minimum nights stay is also something that AirBnB owners need to consider to attract more customers.

06

## **Room Type**

Entire Home/Apt is the type of room most sought after by tourists, make sure to consider this when you want to rent out AirBnB.



# THANK YOU

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