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# AIRBNB REPORT

## LISBON

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JUNE 2021



# INTRODUCTION

Air Bed and Breakfast, or Airbnb, is an online platform that connects people who want to rent out their properties with people who are looking for a unique accomodations anywhere in the world. Since 2008, Airbnb has already reached over 100,000 cities, 220 countries and 150 million users (last update 2018).

The COVID-19 pandemic struck hard the tourism industry. Airbnb, a company that has consolidated its position in the market for the last few years suffered a loss of 85 percent in new bookings. Even though, in 2020 generated \$3.4 billion in revenue and launched its IPO the last December. As the pandemic ends, its expected that the tourism industry recover its loss so a notable question to a stakeholder is the best place to invest in properties now.

The data used in this report is available on Inside Airbnb website, that contains data from all properties available in some regions on the platform. To support the analysis will be used the Foursquare to get information from the nearby region, like supermarkets, restaurants, shopings, etc. Foursquare is a independet location data platform for understanding how people move through the real world and its used for many popular services like Uber and Apple Maps.

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**Disclaimer:** The data presented is a portion of the data available.  
Some outliers was removed for the analysis.

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# OVERVIEW

The following page shows an overview of the Listings in Lisbon on April, 2021.

**10,500**

Airbnb listings

**4640**

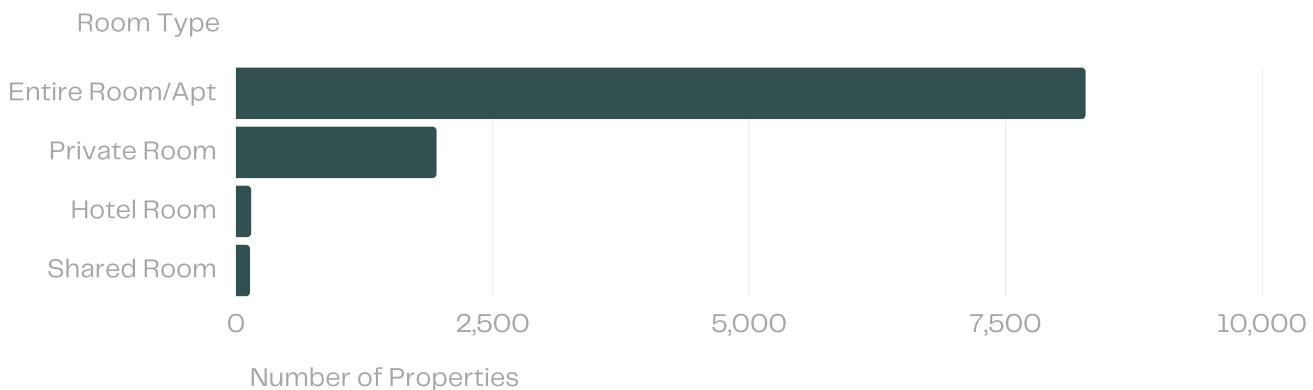
Hosts

**1605**

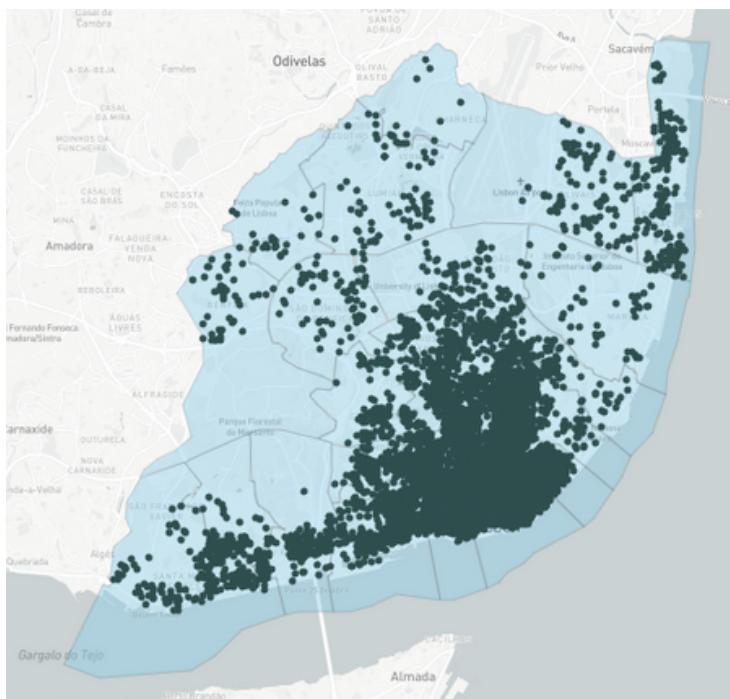
Superhosts

**2.3**

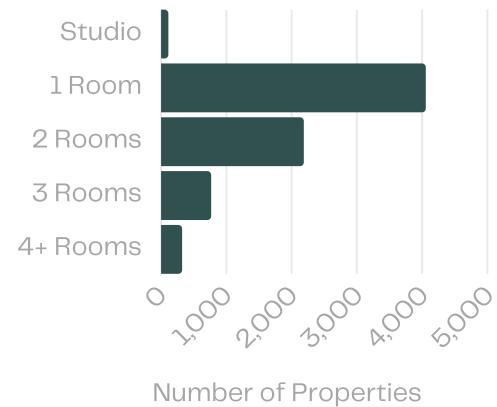
Listings / Host



## Lisbon Neighbourhoods



## Rental Size



**1.7**

Bedrooms Avg.

**2.4**

Beds Avg.

**1.4**

Bathrooms Avg.

**4.9**

Guests Avg.

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# EXPLORING

The following page shows some interesting listings in Lisboa, Portugal.



Image taken from <https://www.airbnb.com/rooms/9785903>

## Nice Campervan

Parque das Nações, Lisboa  
by Raquel

Review

**95/100**

Baths

Price per night

**€ 50.00**

**1**

Baths

**1**

Beds

**2**

Guests

## Bairro Alto Town House

Misericórdia, Lisboa  
by Maria

Review

**94/100**

Price per night

**€ 250.00**

**4.5**

Baths

**16**

Beds

**16**

Guests



Image taken from <https://www.airbnb.com.br/rooms/1051719>

# EXPLORING

The following page shows some interesting listings in Lisboa, Portugal.

## The Mo Cuishle Yacht

Estrela, Lisboa

by Ricardo

Review      Price per night

**80/100**      **€ 430.00**

**4**

**10**

**13**

Baths

Beds

Guests



Image taken from <https://www.airbnb.com/rooms/33778341>

## Principe Real Swoonworthy

Misericórdia, Lisboa

by Karen

Review

**95/100**      **€ 54.00**

**1**

**1**

**4**

Baths

Beds

Guests



Image taken from <https://www.airbnb.com/rooms/19949397>

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# NEIGHBOURHOODS

The following page shows an overview of the Neighbourhoods in Lisbon.

Lisbon is composed by 5 regions - Historic Center, Western, Central, Eastern and Northern. The average price for each freguesia is a little different. The lowest average price is in Santa Clara, located at Northern Region, and the highest average price is in Parque das Nações, located at Eastern Region.

€ 23.00

Lowest Avg. Price  
Santa Clara

€ 60.00

Median Price

€ 73.80

Avg. Price

€ 98.60

Highest Avg. Price  
Parque das Nações

Over the 24 freguesias, there is around 72% of listings in only 5 freguesias: Santa Maria Maior, Misericórdia, Arroios, São Vicente and Santo Antônio.



The venues gathered are around a 200-meter range for each listing, meaning not necessarily all the venues in the Freguesia.

The main venue in the top five regions is Portuguese Restaurant. In total, it has 43 categories of Restaurant, meaning an average of 35% of all the venues. However, Santo Antônio is the only freguesia to contain a museum in the top ten venues, where Arroios does not contain any museum at all.

Misericórdia is the only freguesia in the top five that does not contain Hotel as one of the top main venues, but it contains Hostels.

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# SEGMENTING AND CLUSTERING

The following page shows discoveries in the Neighbourhoods in Lisbon.

The listings were divided into five groups using the k-means clustering model and some features, like price, review score, and if is super host.

Because of the shape of our data, the venus was not considered to cluster the data, but even so, it shows good results. Above it's the groups and the summaries, like the average price, overall rating, percentage of the total listing, and the percentage of super hosts. With this summary, we can gather some insights.

Group 1	Group 2	Group 3	Group 4	Group 5
<b>€72.50</b> Avg. Price	<b>€55.00</b> Avg. Price	<b>€288.20</b> Avg. Price	<b>€70.20</b> Avg. Price	<b>€66.40</b> Avg. Price
<b>95.50</b> Overall Rating	<b>86.00</b> Overall Rating	<b>94.30</b> Overall Rating	<b>96.20</b> Overall Rating	<b>56.90</b> Overall Rating
<b>38.6 %</b> Total Listings	<b>21.7 %</b> Total Listings	<b>4.4 %</b> Total Listings	<b>33.3 %</b> Total Listings	<b>2.0 %</b> Total Listings
<b>0 %</b> Superhosts	<b>2 %</b> Superhosts	<b>35 %</b> Superhosts	<b>100 %</b> Superhosts	<b>2 %</b> Superhosts

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# CONCLUSION

The 24 freguesias contain some differences, primarily the price and venues. Few freguesias have higher prices and have not direct relation to the density of the listings. The review score and super host appear to not have a strong impact.

The groups of the k-means model contain interesting results. Group 1 and 4 are the groups that contain more listings and they are opposite in the percentage of the super hosts but have a similar result in the price and review score. Even that this report does not try to estimate the revenue, it's interesting that the price is lower in the super host group.

Group 3 shows the highest average prices in Lisboa. Around 4.4% of the listings in the top five freguesias have high prices, great rating and 1/3 is a super host.

Even that the overall rating in Group 2 is higher than Group 5, the average is not. An overall rating of 56.90 is awful, but only 2% of the total listings.

The main diversity of venues in Lisboa is the Restaurants, having cuisines from all over the world. And about diversity, Lisboa contains some appealing listings and very different, like a boathouse, bus, and a CASTLE!!