



# **Capstone Project**

## **-Notes for Presentation-**

**Mentor:**

Maryam Najimigoshtasb

**Member:**

Pablo Martin Ruiz Diaz



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# Notes

## Introduction

1. As data analyst for Airbnb, I am requested to get insights about the market in the U.S. to make future marketing campaigns or help to improve the quality of services from hosts.
2. In this presentation, we will divide it into two sections. Firstly by location, where we look at information regarding cities and states; and secondly, we'll analyze through word clouds the behaviour of hosts and users' experience.

## Market in the U.S.

1. To begin, on our left we can appreciate the bubble map where the size is represented by the number of hosts in each state or the offer around the U.S. This means that California, New York, and Hawaii have the higher market. And this is perfectly understandable because there are popular tourist cities.
2. On our right, we may look at detailed information by cities. And something interesting is that more than 50% of our listings are in New York and California (in Los Angeles and San Diego to be more precise).
3. Moreover, checking the popularity in regard to the user's consumption, the same cities appear. The only difference is the top one changed from New York to California, with a clear difference in San Diego, where there is more demand than offer.
4. On this slice we may conclude:
  - a. First, if Airbnb applies any marketing campaign, these territories must have high priority;
  - b. Secondly, for new hosts who want to invest in, one good advice is San Diego, because its high demand and low offer.

## Incomes across 2023-24

1. Talking about incomes in 2023 we must mention the Top 10 States in the U.S. and the vast majority of them have been maintaining plateaus over this time. Nevertheless, two states stand up presenting an increase, California and Texas.
2. We can corroborate what we said analyzing their trend lines. They are just the only states whose trends are positive across 2023.



3. Coming back to the main slice, a forecast is applied to look at their behaviour over the beginning of 2024. California may decrease around 20% between January and March. However, this fall will rapidly change to rocket an increase of more than 25%.
4. To sum up, both states (California and Texas) have to be the focus for AirBnB to apply some marketing campaign looking for new hosts because of the possible high demand or handle with new prices.

## Accuracy of Listings by Cities

1. Over the following graph, we would like to analyze the accuracy of hosts to describe their listings and what they really offer regarding the reviews. At first sight, we look at an advantage, the mean score is close to 5 (the best score). Nonetheless, higher fluctuations in New York city, Los Angeles and Hawaii appear (remember, top cities). This means AirBnB might help the hosts with techniques, like word clouds, to help them give more accurate descriptions, and as a consequence optimize to high reviews scores.

## Review Location vs Price by States

1. At the beginning of the presentation, we talked about states and top cities in the U.S. over offer and popularity. Now, these cities (New York City, Los Angeles and Hawaii) appear again in a wake of having high demand.
2. On the other hand, the median price (bar graph) is more or less between \$100 and \$250 over all cities.
3. But the most important insight here is New York and Los Angeles with a median price around \$130. Making them great cities to invest in, between the high demand and accessible prices.
4. Going to the density graph, we look at how median price fluctuates against location reviews. Giving us information on how location of listings can help to be more accurate to select a price for hosts giving them as an option from the company. One example is New Jersey, where the same median price changes the rate of reviews, and this gives us the opportunity that listings with high scores may increase their prices rather than \$50, \$100 for example.

## Name of Listings

1. This word cloud helps the host to find which keywords are most used to name listings and to guide searches from users to find their places easily. Words like cozy, view or spacious are good options to describe the house, or mention the area around.



## Description of Listings

1. Continuing with the same idea, sometimes hosts will be able to rocket their demand with good descriptions. For this reason, talking about the space, facilities (like parking), services close and where is located (such as restaurants or close to a beach) can be great options to write about.

## Amenities

1. It is impossible to talk about how to increase the quality of the house or apartment if we don't say anything about amenities. Parking, alarm, wifi and hangers are essentials for users and an advantage to increase the quality of the place.

## Comments' Users

1. Last but not least, we show a word cloud regarding comments that users have made over the time divided by cities. These can help AirBnB to know if that city is positive or negative for the market or user's consumption. On the other side, help investors to know the cities' market better.