

Hotel Booking DataSet

Introduction

About Authur

I am Masod ul Hassan Ghauri. I am a student of Data science & AI subject.

LnkDn Profile: <https://www.linkedin.com/in/masod-ghauri-914a18334/>

Kaggle Profile: <https://www.kaggle.com/masodulhassanghauri>

GitHub Profile: <https://github.com/Masod6>

About Data Set

The hotel business involves providing accommodation and additional facilities for guests staying for business trips, vacations, or other purposes. There are two main types of hotels based on location and the purpose of the visit, namely city hotels and resort hotels.

City Hotels Explanation:

City hotels are typically located in city centers or business districts. These hotels aim to serve guests who are on business trips, attending conferences, or have activities within the urban area. The facilities offered often include meeting rooms, high-speed internet, transportation services, and fully operational restaurants.

Resort Hotels Explanation:

Resort hotels are usually located in tourist destinations such as beaches, mountains, or other natural attractions. The main focus of resorts is to provide a relaxing stay complete with recreational facilities, such as swimming pools, spas, golf courses, and entertainment programs

Business Problem

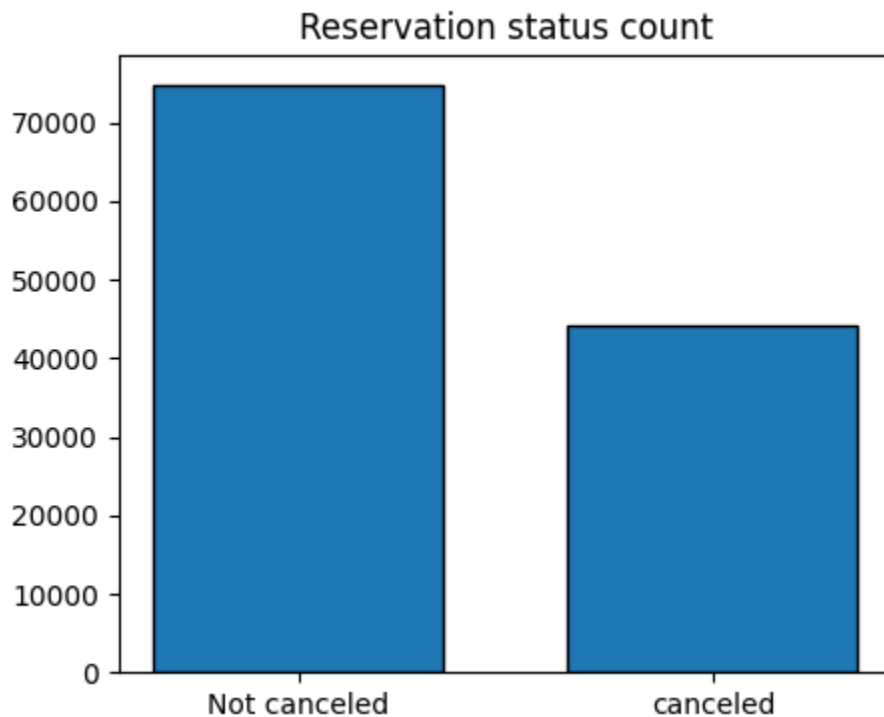
In recent years, City Hotel and Resort Hotel have seen high cancellation rates. Each hotel is now dealing with a number of issues as a result, including fewer revenues and less than idea hotel room use. Consequently , lowering cancellation rates is both hotels'primery goal in order to increase their efficiency in generating revenue, and for us to offer thorough business advice to address this

problem. The analysis of hotel booking cancellations as well as other factors that have no bearing on their business and yearly revenue generation are the main topics of this report.

Hypothesis

1. More cancellations occur when prices are higher.
2. When there is a longer waiting list, customers tend to cancel more frequently.
3. The majority of clients are coming from offline travel agents to make their reservations.

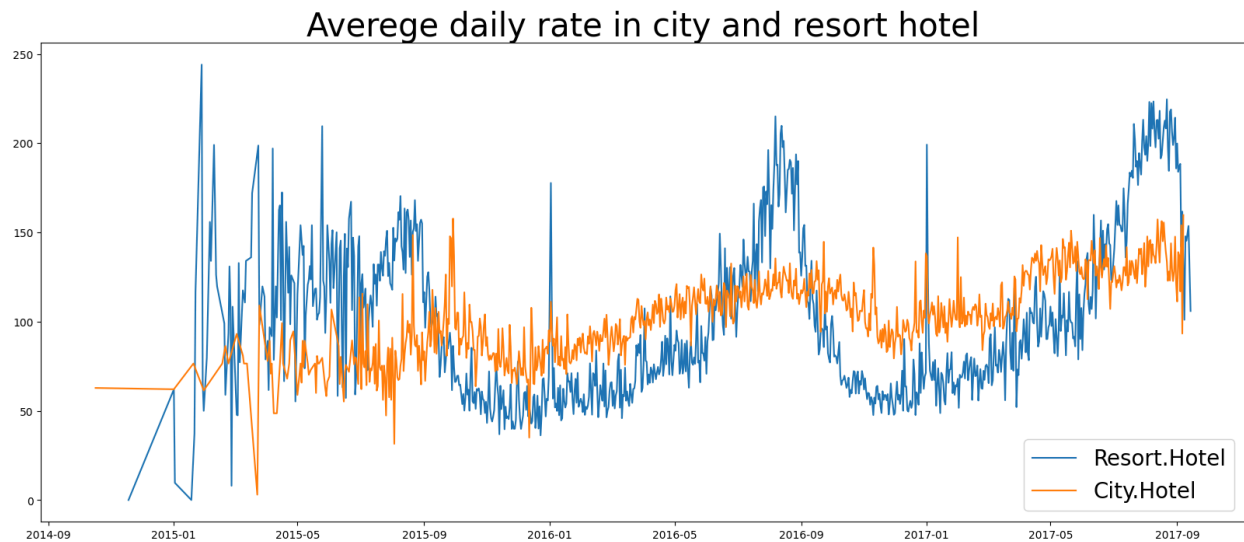
Analysis and Findings



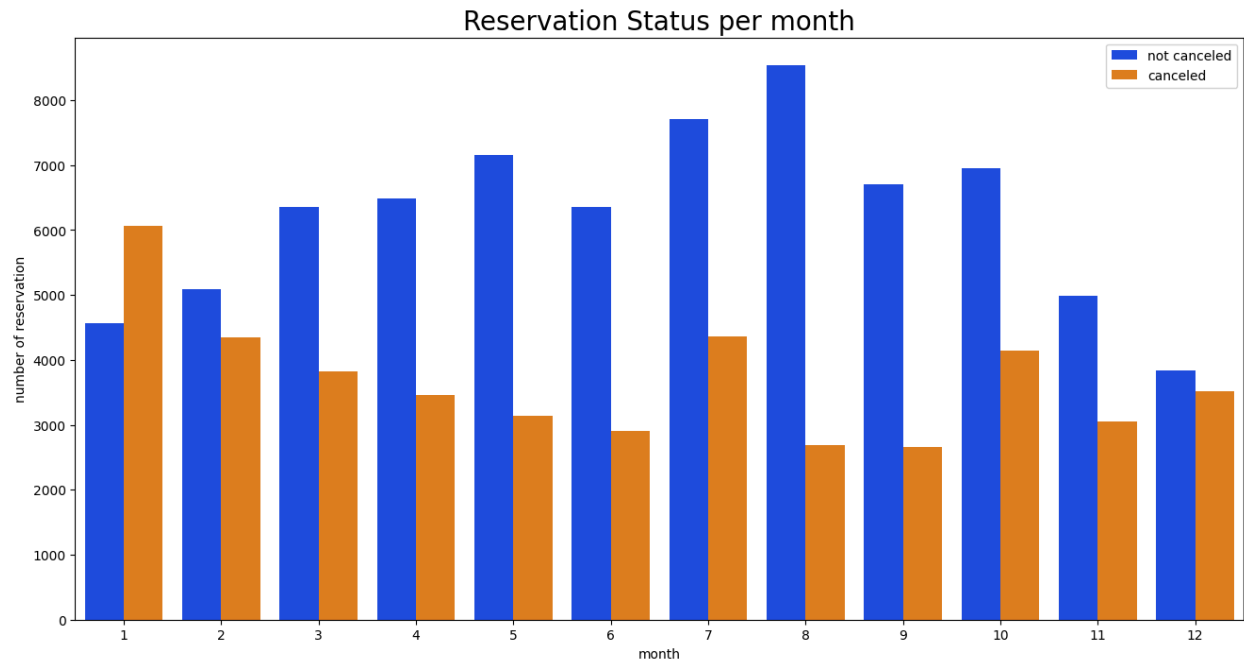
The accompanying bar graph shows the percentage of reservations that are canceled and those that are not. It is obvious that there are still a significant number of reservations that have not been canceled. There are still 37% of clients who canceled their reservation, which has a significant impact on the hotel's revenue.



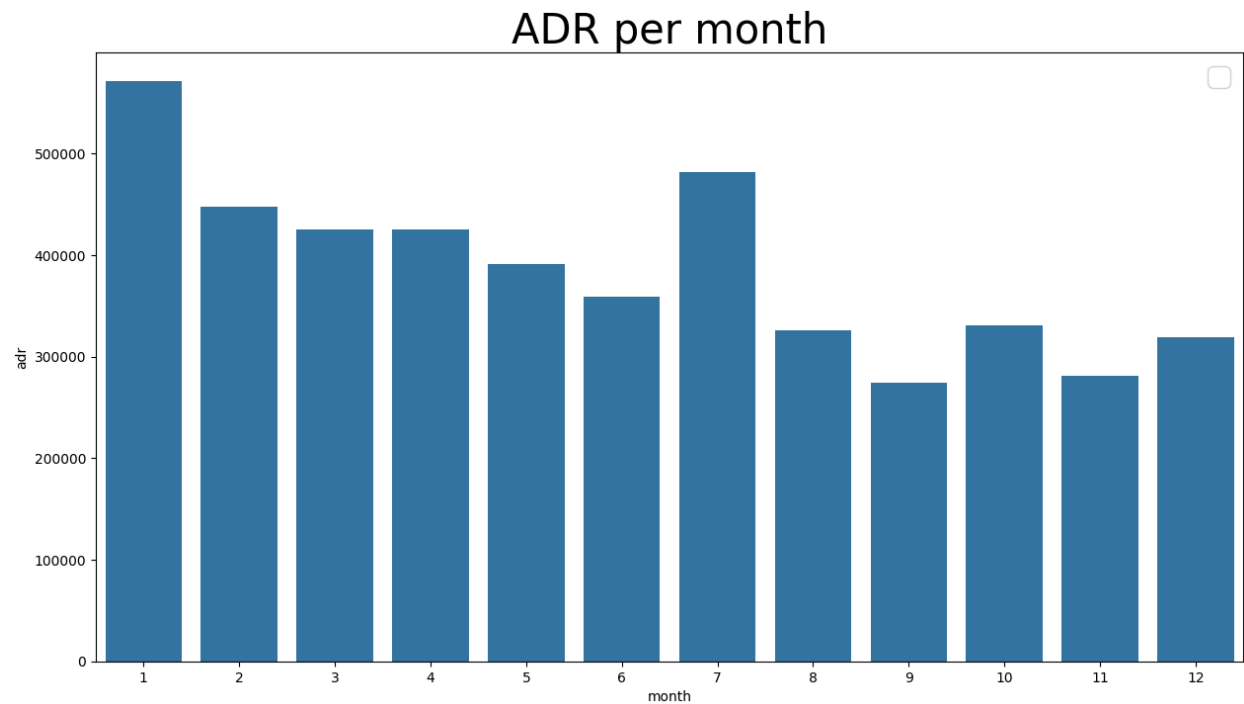
In comparison to resort hotel, city hotel have more booking. Its possible that resort hotels are more expensive than those in cities.



The line graph above show that, on certain days, the average daily rate for a city hotel is less than that of resort hotel, and on the other days, it is even less. It goes without saying that weekends and holidays may see a rise resort hotel rates.

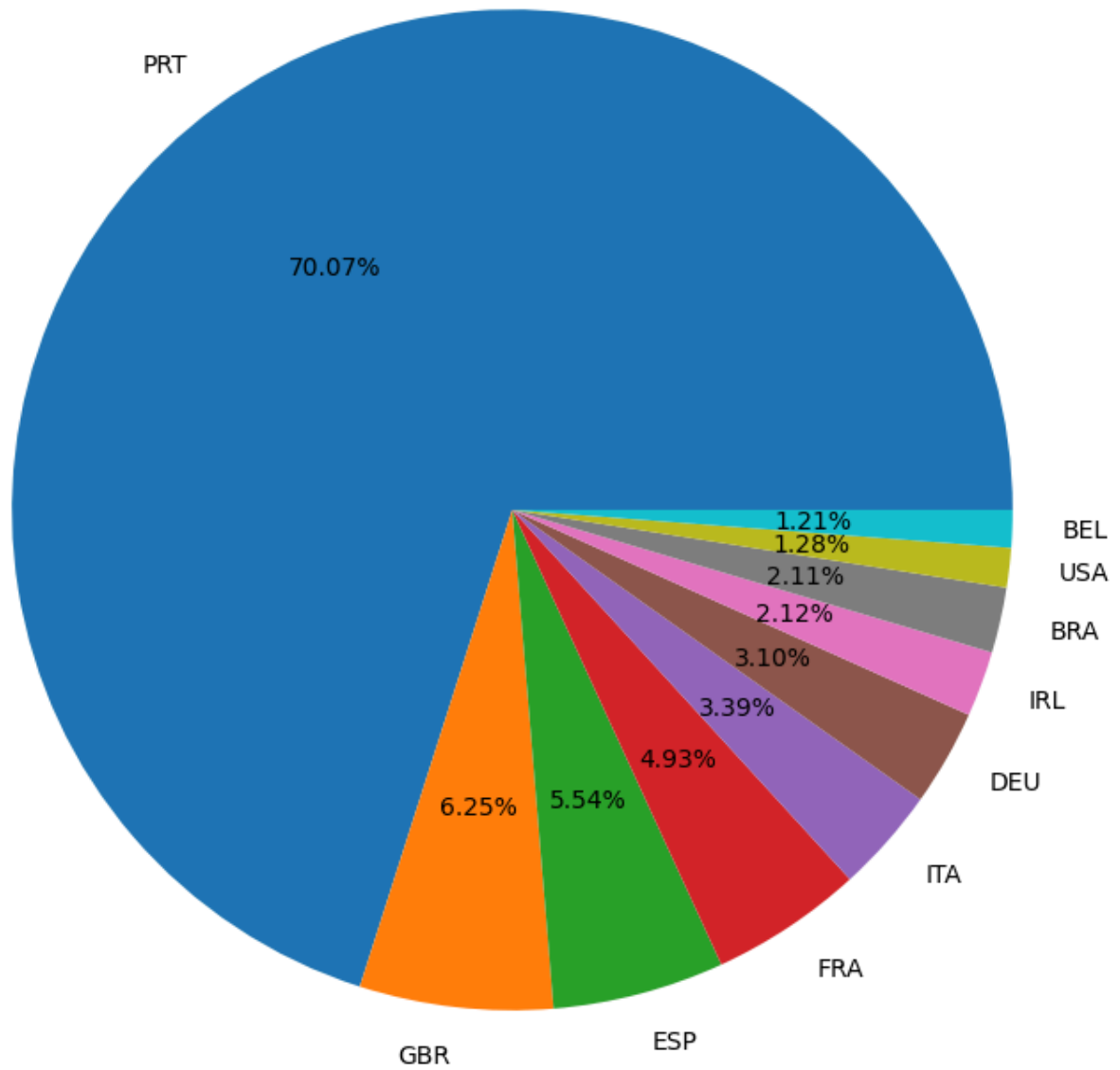


We have develop the grouped bargraph to analyze the months with the highest and lowest reservation levels according to reservation status. As can be seen, both the number of reservations and the number of cancellations are higher in the months of august. Whereas january is the month with the most canceled reservations.

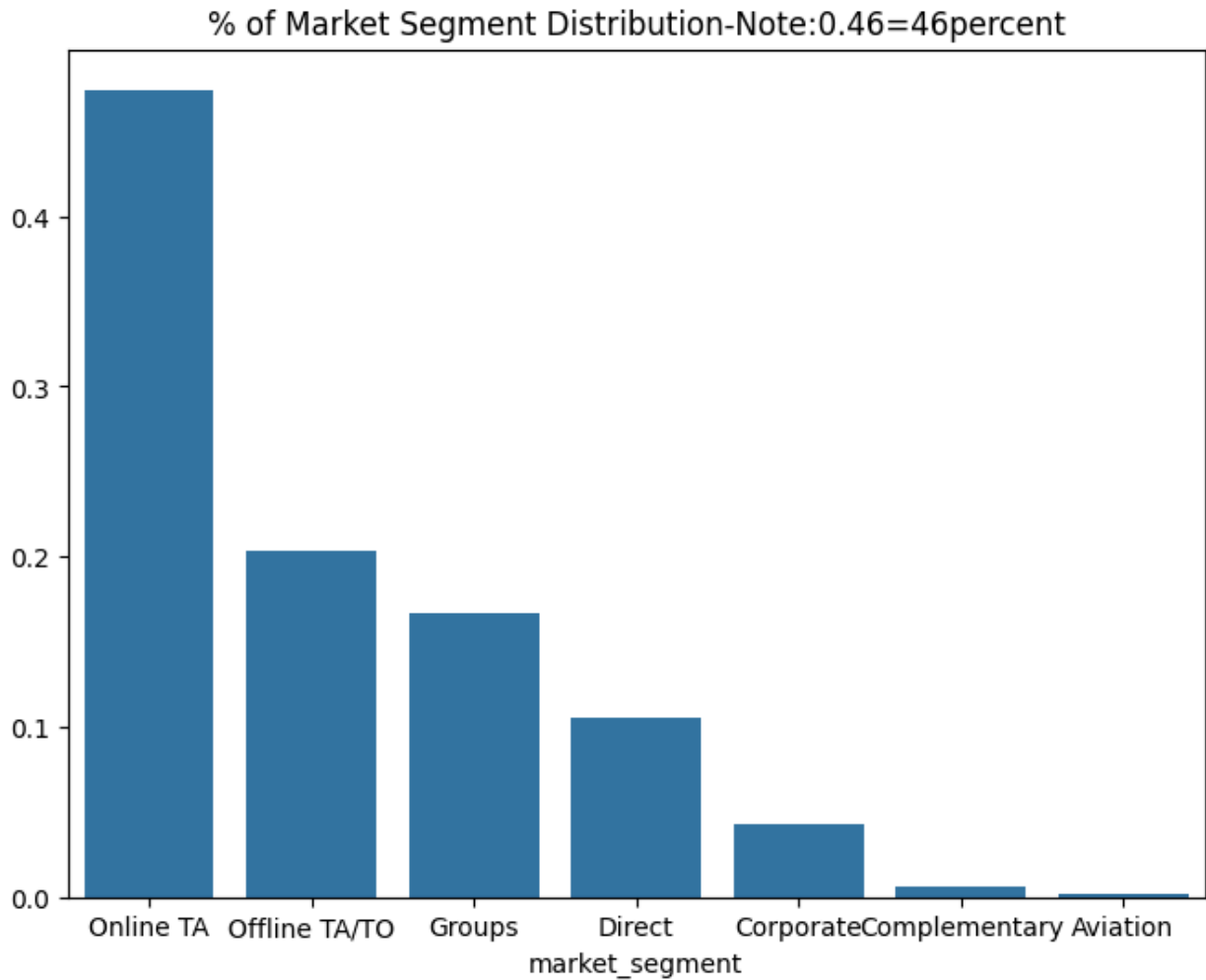


This bar graph demonstrates that cancellations are most common when price are greatest and are least common when they are lowest. Therefor, the cost of accommodation is sloley responsible for the cancellation. Now, lets see which country has the hiest reservation canceled.

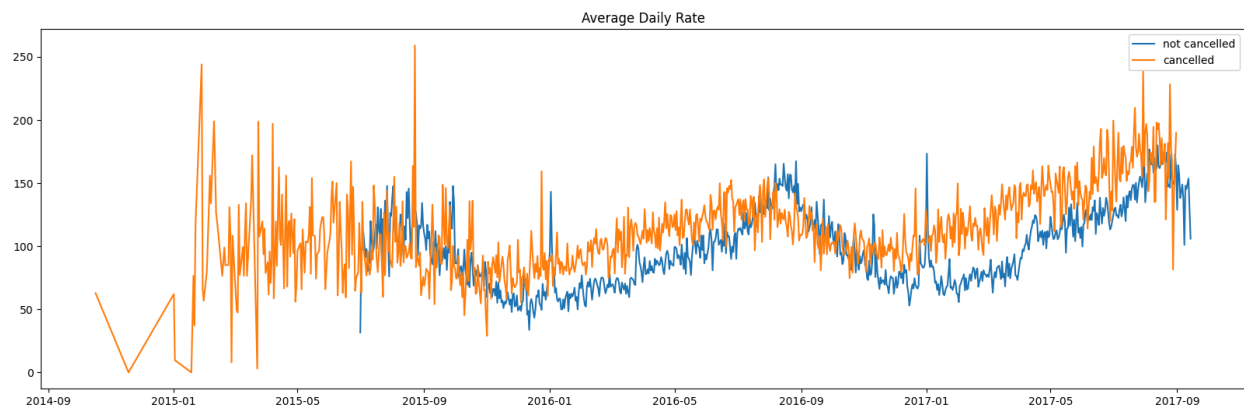
Top 10 Countries with Cancellations



The top country is Portugal with highest number of cancellations



Lets see the barchart, the area from where guests are visiting the hotels and making reservations. Around 46% of the clients come from online travel agencies, whereas 27% come from groups. Only 4% of clients book hotels directly by visting them and making reservations.



As the seen in graph, reservations are canceled when average daily rate is higher than when it is not canceled. It clearly proves that the higher price leads to higher cancellation.

Suggestions

1. Cancellation rates rise as the price does. In order to prevent cancellations of reservations, hotels could work on their pricing strategy. They could offer discounts to customers who book in advance, or offer a price match guarantee.
2. As the ratio of the cancellations and not cancellations of the resort hotel is higher in the resort hotel than the city hotels. So the hotels should provide a reasonable discount on the room prices on weekends or on holidays.
3. In the month of January, hotels can start campaigns or marketing at reasonable price to increase their revenue as cancellation is the highest in this month.
4. They can also increase the quality of their hotels and their services mainly in Portugal to reduce the cancellation rate.