

## Business problem

In recent years, City Hotel and Resort Hotel have been high cancellation rates. Each hotel is now dealing with a number of issues as a result, including fewer revenues and less than ideal hotel room use. Consequently, lowering cancellation rates is both hotels primary 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 the report.



## Assumption

1. No unusual occurrences between 2015 and 2017 will have a substantial impact on the data used.
2. The information is still current and can be used to analyze a hotel's possible plans in an efficient manner.
3. There are no unanticipated negatives to the hotel employing any advised technique.
4. The hotels are not using any of these suggested solutions.
5. The biggest factor affecting the effectiveness of earning income is booking cancellations.
6. Cancellations result in vacant rooms.
7. Client make hotel reservations the same year they make cancellations.

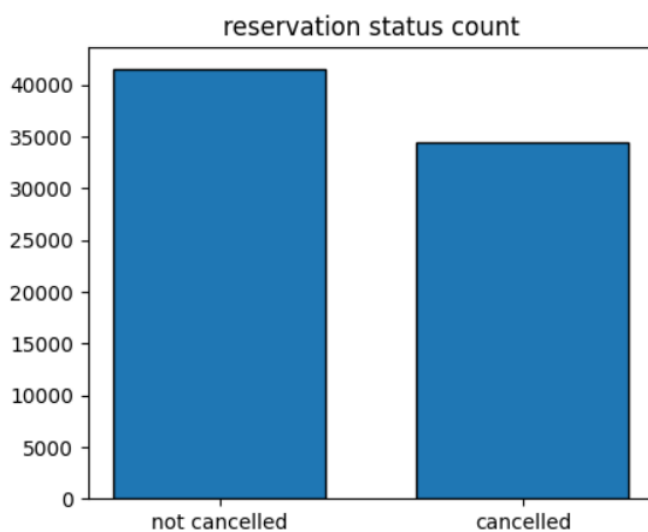
## Research Questions

1. What are the variables that effect hotel reservation cancellations?
2. How can we make hotel reservations cancellations better?
3. How will hotel be assisted in making pricing and promotional decisions?

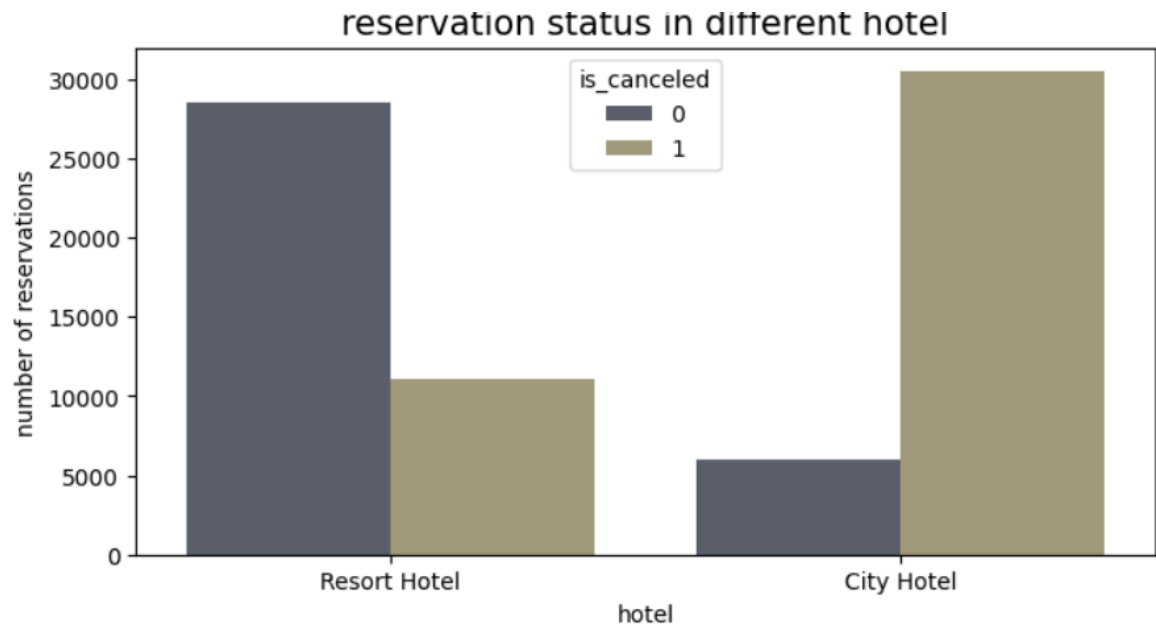
## Hypothesis

1. More cancellation occurs, when prices are higher.
2. When there is a longer waiting list, customer tends to cancel more frequently.
3. The majority of the clients are coming from offline travel agents to make their reservations.

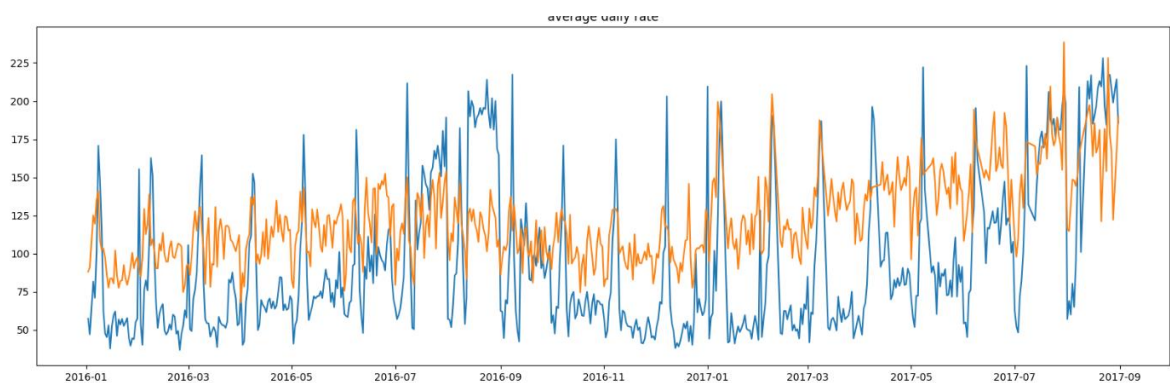
## Analysis and findings



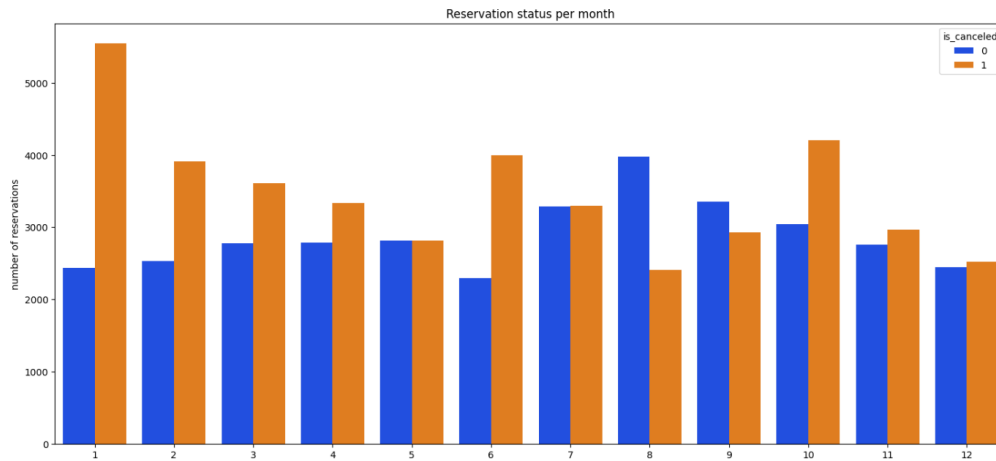
The accompanying bar shows the percentage of reservations that are cancelled and those that are not. It is obvious that there are a still significant number of reservations that have not been canceled. There are still 37% of clients who canceled their reservation, which has a significant impact on hotels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



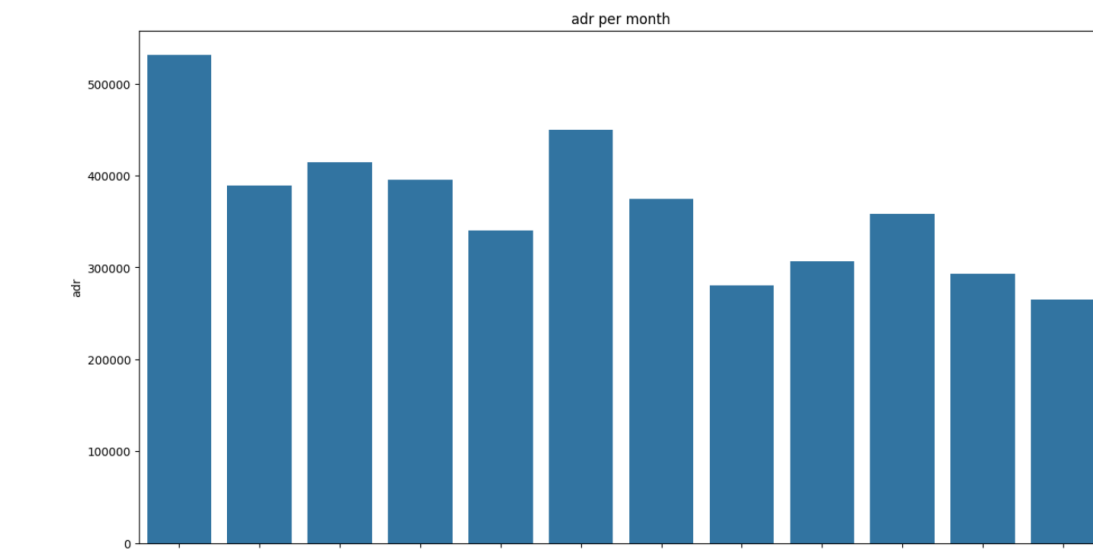
In comparison to resort hotels, city hotels have more bookings. It's possible that resort hotel is more expensive than city hotel.



The line graphs above shows that, on certain days the average daily rate for a city hotel is less than that of a resort hotel and on other days, it is even less. The weekends and holidays may see a rise in resort hotel rates.



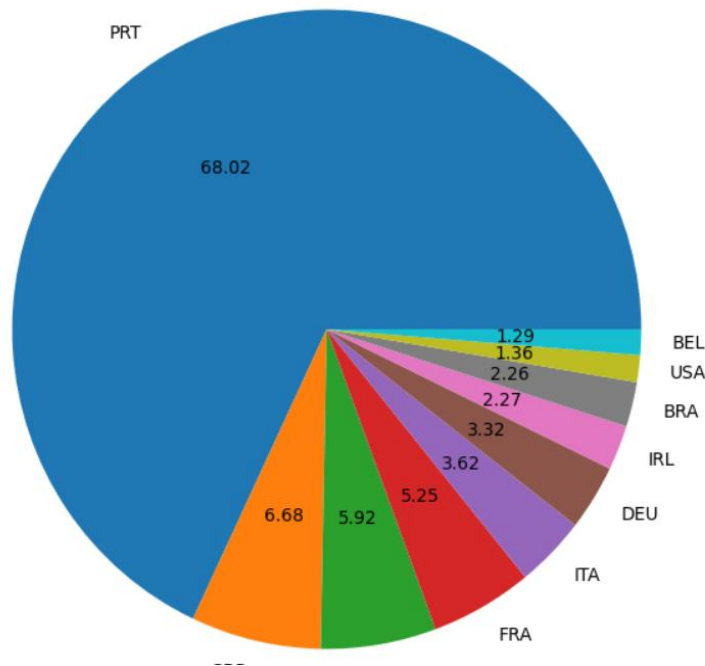
We have developed the group bar to analyze the months with the highest and lower reservation levels according to reservation status. As can be seen both the number of confirmed reservations and the number of canceled reservations is largest in the month of August, whereas January is the month with most cancelled reservations.



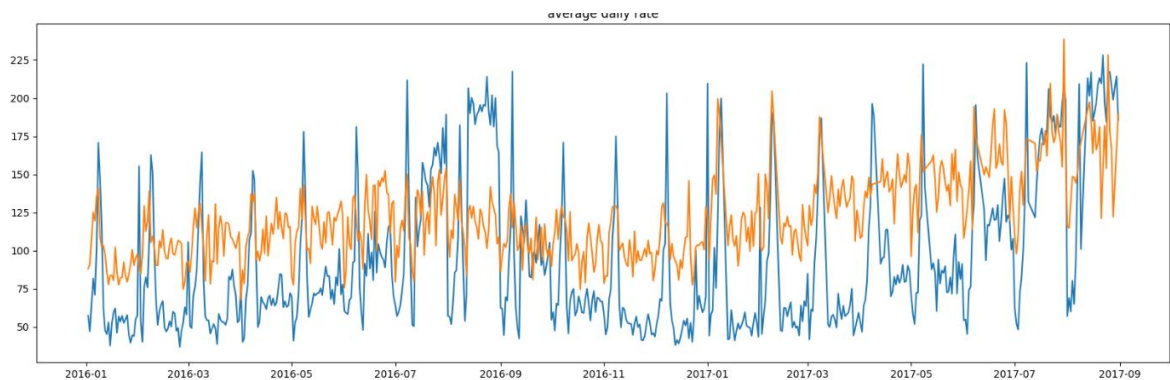
This bar graph demonstrates that, cancellation are most common when prices are greatest and least common when prices are lowest. Therefore, the cost of the accommodation is solely responsible for the cancellation.

Now let's see, which country has the highest reservation cancelled. The top country is Portugal with highest number of cancellations.

reservation cancellation for top countries



Let's check the area from where the guests are visiting and making the reservations. Is it coming from Direct or Groups, Online or Offline Travel Agents? Around 46% of the clients come from online travel agencies, whereas 27% come from groups. Only 4% of clients book hotels directly by visiting them and making reservations.



As seen in the graph, reservations are cancelled when the average daily rates are higher than when it is not cancelled. It clearly proves all the above analysis, 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 pricing strategies and try to lower the rates for specific hotels based on locations. They can also provide some discount to the customer.
2. As the ratio of the cancellation and not cancellation of the resort hotel is higher in the resort hotels than the city hotels, so the hotels should provide reasonable discounts on the room prices on the weekend or on holidays.
3. In the month of January, hotels can start campaigns or marketing with a reasonable amount to increase their revenue as the cancellation is highest in this month.
4. They can also increase their quality of their hotels and their services mainly in Portugal to reduce the cancellation rate.