

Business Problem

I will do analysis of hotel booking cancellations. It will comprise of following steps:

1. Data Collection
2. Data Cleaning
3. Data analyzing
4. Data visualizing
5. Drawing conclusion
6. Presenting the data in terms of reports on the basis of useful findings.

Assumptions:

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 currently using any of the suggested solutions.
5. The biggest factor affecting the effectiveness of earning income is booking cancellations.
6. Cancellations result in vacant rooms for the booked length of the time, thus hampering the economy generation from the hotels.
7. Clients make hotel reservations the same year they make cancellations.

Research Questions:

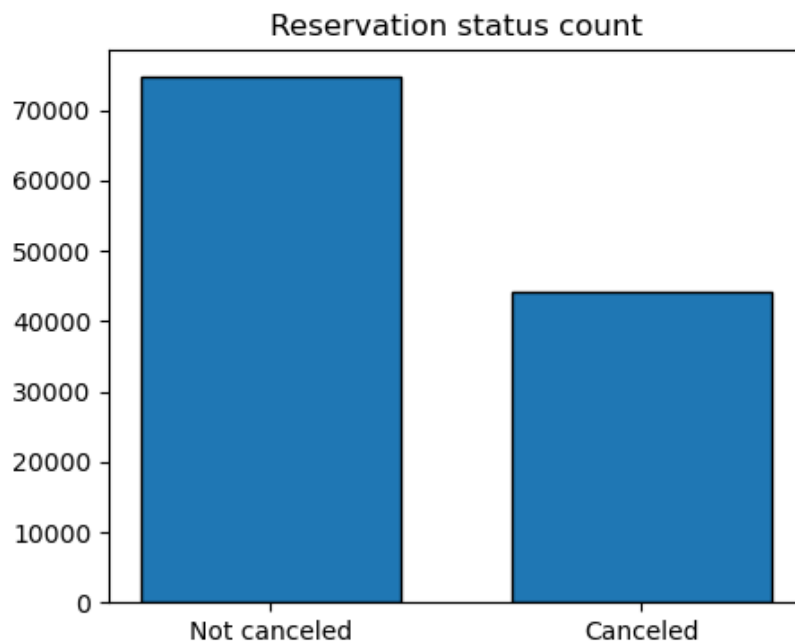
1. What are the different parameters that affect hotel reservation cancellations?
2. How can we reduce hotel reservations cancellations scenario?
3. How will hotels be assisted in making pricing and promotional decisions?

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 online travel agents to make their reservations.

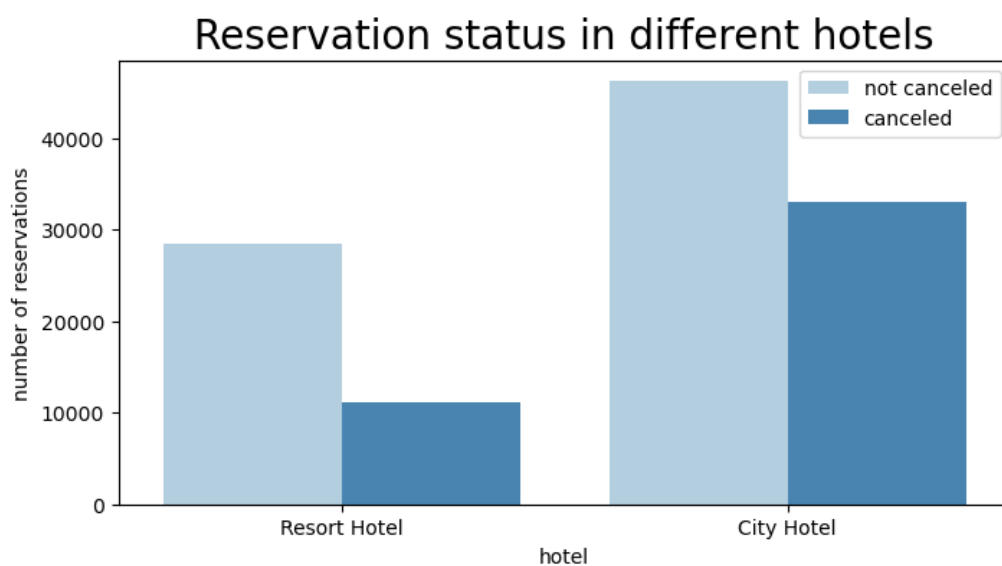
Analysis and Findings:

Reservation Status Count:



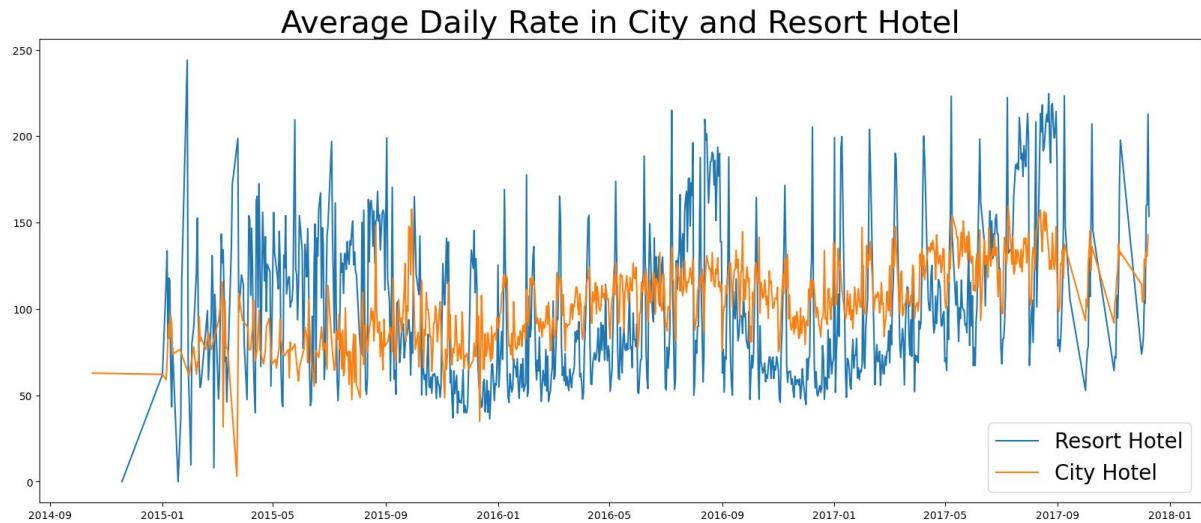
The above bar graph shows the percentage of reservations that are cancelled and those that are not. It is obvious that there are still a significant number of reservations that have not been cancelled. There are still 37% of clients who cancelled their reservation, which has a significant impact on the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

Reservation Status in different hotels:



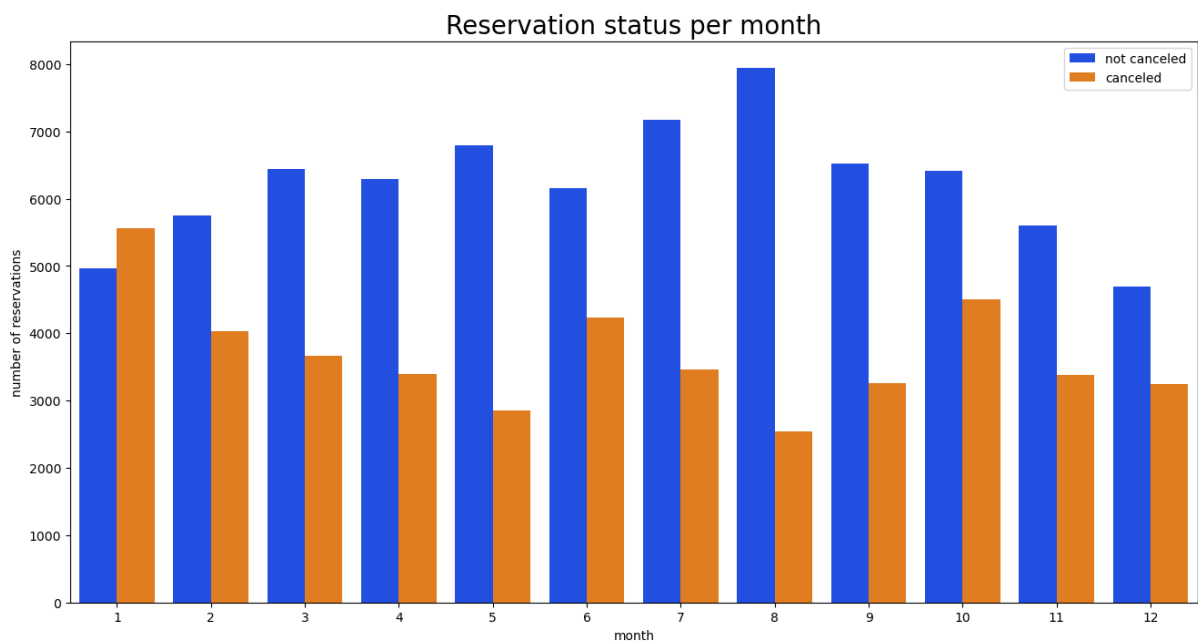
In comparison to resort hotels, city hotels have more bookings. It is possible that resort hotels are more expensive than those in cities.

ADR (Average Daily Rate) in City and Resort Hotel:



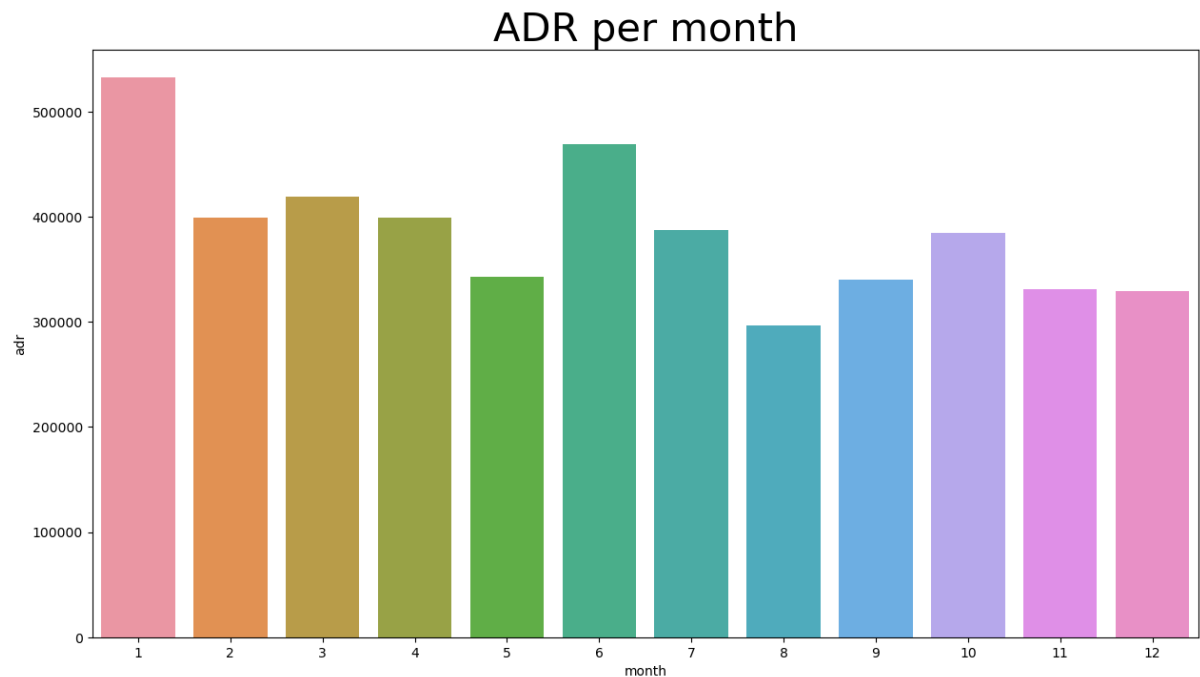
The line graph above shows that, on certain days, the average daily rate for a city hotel is less than that of a resort hotel, and on the other days, it is even less. It goes without saying that weekends and holidays may see a rise in resort hotel rates.

Reservation Status per month:



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

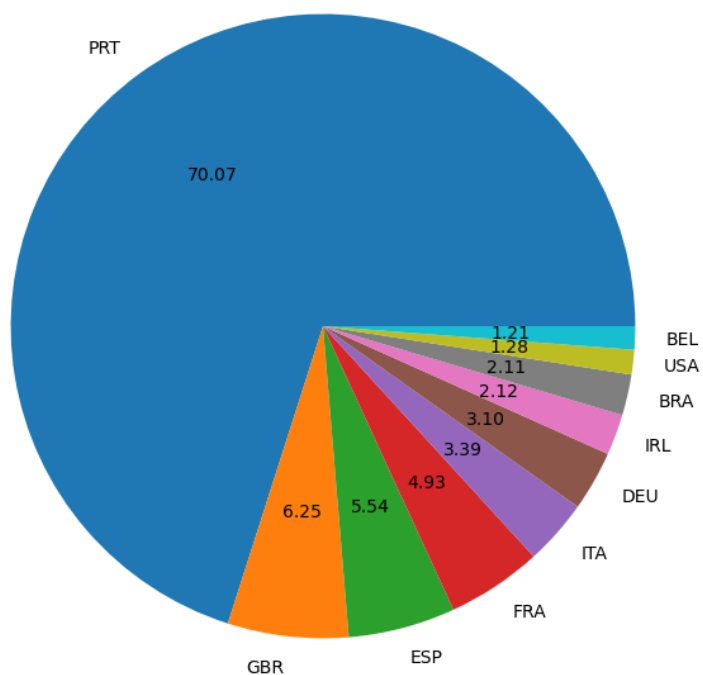
ADR (Average Daily Rate) for each month:



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

Top 10 countries with reservation cancelled:

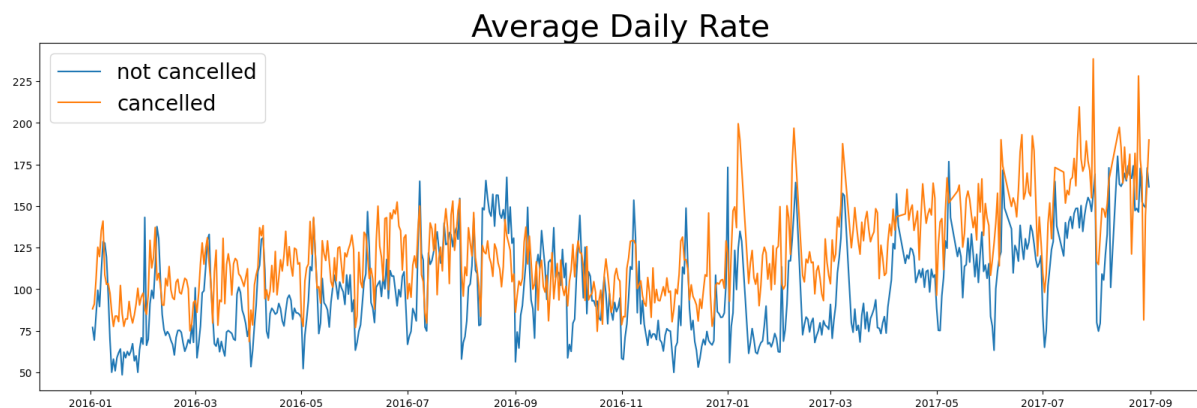
Top 10 countries with reservation canceled



The area from where guests are visiting hotels and making reservations:

Around 46% of the clients come from online travel agencies, whereas 27% come from various groups. Only 4% of clients book hotels directly by visiting them and making reservations.

Average Daily Rate:



As seen in the graph, reservations are cancelled when the average daily rate is higher than the average daily rate when it is not cancelled. It clearly proves all the above analysis, that the higher price leads to higher cancellations.

Suggestions:

1. Cancellation rates rise as the price does. In order to prevent cancellations of reservations, hotels could work on their pricing strategies and try to lower the rates for specific hotels based on locations. They can also provide some discounts to the consumers.
2. The ratio of cancellations and not cancellations of the hotels 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 with a reasonable amount to increase their revenue as the 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. Therefore, my suggestions to the hotels would be to enhance their facilities in Portugal, manage their prices, offering promotional discounts and doing advertisements