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Business Problem

In recent years, both city hotels and resort hotels have experienced high cancellation rates. Each hotel is now facing a number of issues as a result, including:

- Reduced revenues
- Less than optimal room utilization

Goal:

To improve hotel efficiency and increase revenue, we aim to reduce cancellation rates in both hotels.

Scope:

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.



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 hotels' 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 room for the booked length of time.

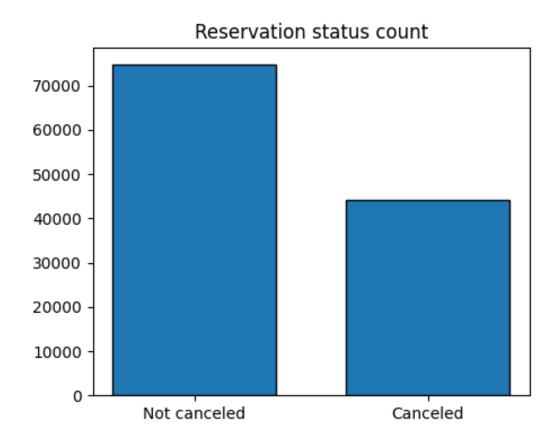
Research Questions

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

Hypothesis

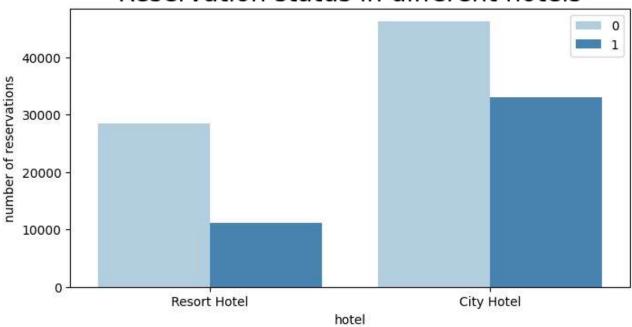
- 1. More cancellations occurs when prices are higher.
- 2. When there is no longer waiting list, customers tend to cancel more frequently.
- 3. The majority of the client are coming from offline travel agents to make their reservations.

Analysis and Findings

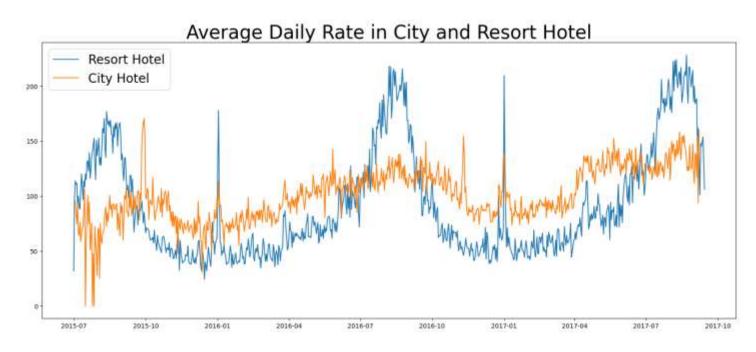


The accompanying bar graph shows the percentage of the reservations that are cancelled and those that are not. It is obvious that there are still a significant number of reservations that have not been cancelled. There are still 37% of the clients who cancelled their reservation, which has a significant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

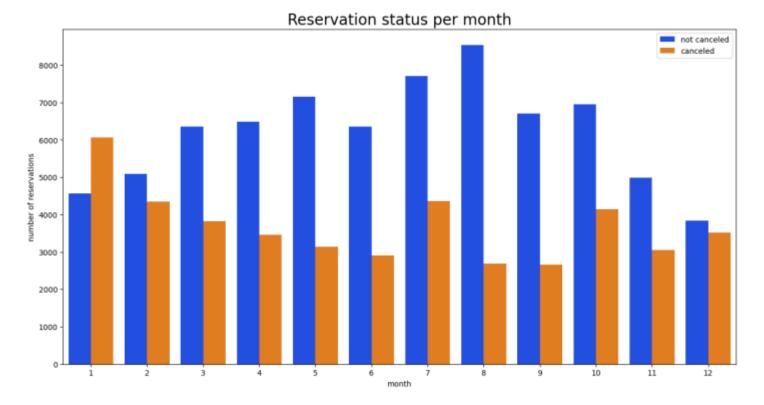
Reservation status in different hotels



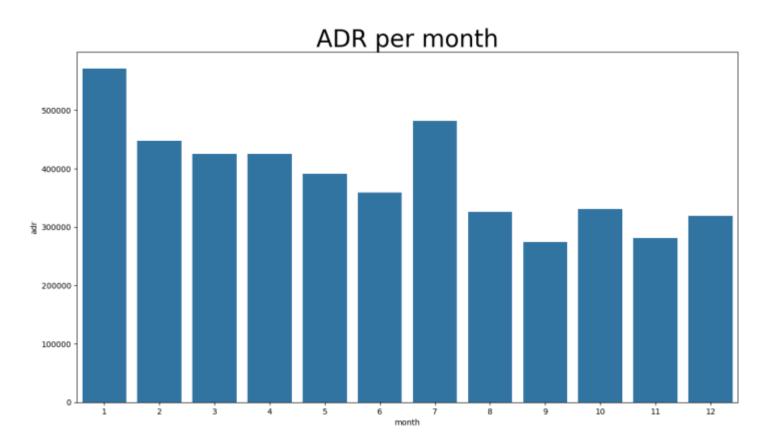
In comparison to resort hotels, city hotels have more bookings, it's possible that resort hotels are more expensive than those in cities.



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

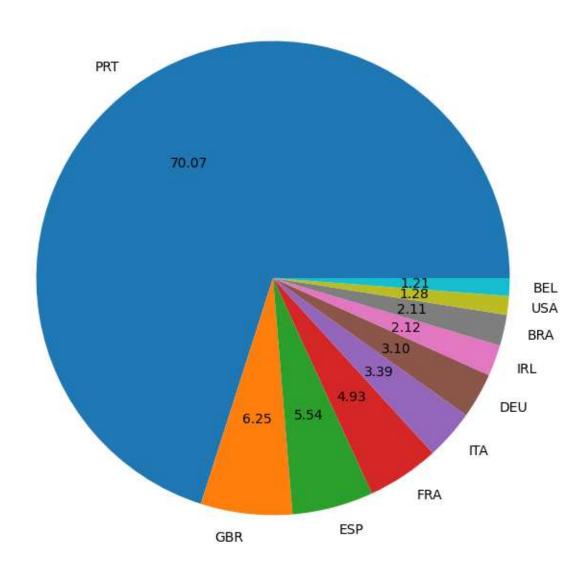


We have developed the grouped bar to analyse the months with the highest and lowest reservation levels according to reservation status. As can be seen, the number of confirmed reservations is largest and the number of cancelled reservations is smallest in the month of August whereas January is the month where most cancelled reservation takes place.



This bar graph demonstrate that cancellations are most common when prizes are greater and are least common when are lowest. Therefore, the cost of the accommodation is solely responsible for the cancellation.

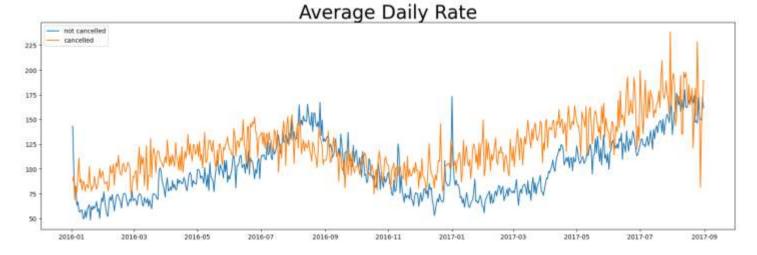
Now let's see which country have the highest reservation cancelled. The top country is the Portugal with the highest number of cancellations



Top 10 countries with reservation canceled

Let's check the area from where guests are visiting the hotels 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% comes from groups. Only 4% of the clients book hotels directly by visiting them and making reservations.



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

Suggestions

- 1. Cancellation rates rise as the price does. In order to prevent cancellations of reservations, hotel could work on their prices strategies and try to lower the rates for the specific hotels based on locations. They can also provide some discounts to the customers.
- 2. As the ratio of the cancellation and not cancelled of the resort hotel is higher than the city hotels. So the hotels should provide a reasonable discount on the room prices on weekends or on holidays.
- 3. As the majority of the cancellation are made on the online bookings, as customers might not be satisfied with the services which they saw online. Thus, hotels should improve there online galleries and should work on their services they provide.
- 4. In the month of January, hotels can start campaign or marketing with a reasonable amount to increase their revenue as the cancellation rate is highest in this month.
- 5. They can also increase the quantity of their hotels and their services mainly in the Portugal to reduce the cancellation rates