

## **Business Issue**

The City Hotel and Resort Hotel have seen high cancellation rates in recent years. As a result, each hotel is currently coping with a variety of problems, such as decreased revenue and subpar hotel room utilisation. Therefore, reducing cancellation rates is the main objective for both hotels in order to boost their revenue-generating efficiency and for us to provide comprehensive business assistance to deal with this issue.

The primary subjects of this research are the analysis of hotel booking cancellations along with other elements that don't affect their business or annual revenue generating.



## **Presumptions**

1. No anomalous events that occurred between 2015 and 2017 will significantly affect the data that was used.
2. The data is still up to date and can be effectively utilised to assess potential hotel developments.
3. The hotel using any recommended technique has no unforeseen drawbacks.
4. None of the recommended solutions are being used by the hotels at this time.
5. The largest element influencing how profitable it is to earn money is cancellations of reservations.
6. Rooms that are cancelled remain unoccupied for the duration of the reservation.

7. In the same year that they cancel, customers book hotels.

### **Research Question:**

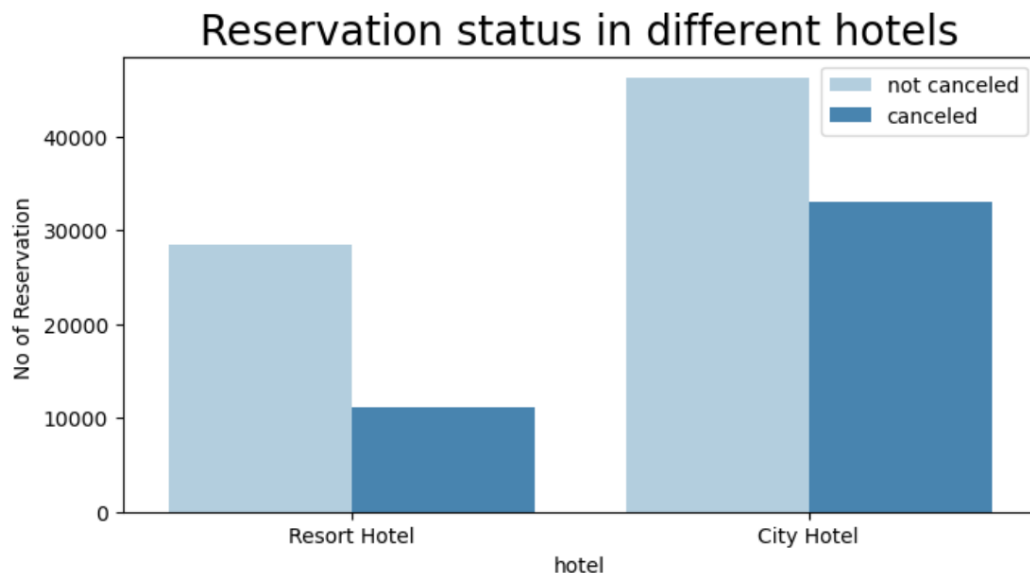
1. What factors influence cancellations of hotel reservations?
2. How can we improve the way that hotel reservations are cancelled?
3. How will hotels be helped to decide on promotions and prices?

### **Hypothesis**

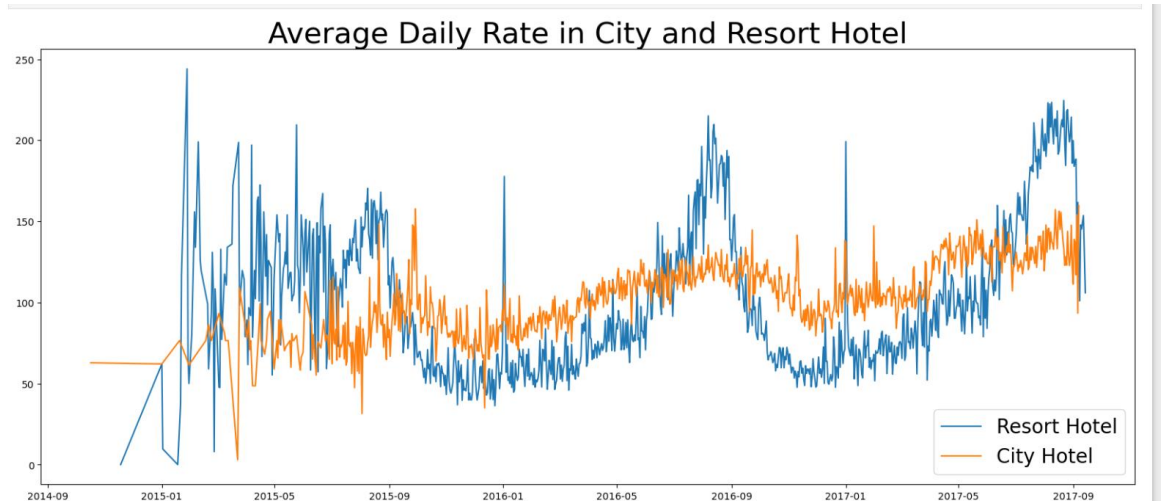
1. More cancellations occur when prices are greater.
2. Customers tend to cancel more frequently on longer waiting lists.
3. The bulk of customers make their arrangements through offline travel agencies.

### **Examination and Results**

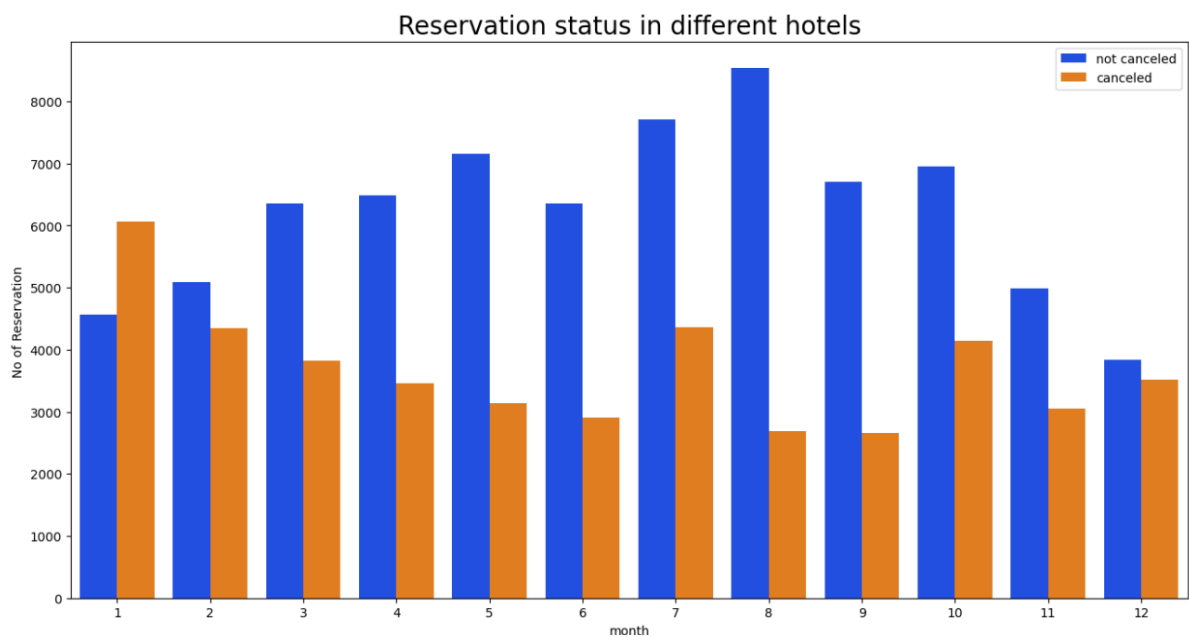
The percentage of cancelled and non-cancelled reservations is displayed in the accompanying bar graph. It is clear that a sizable portion of bookings have not yet been cancelled. 37% of customers still cancelled their reservations, which has a big effect on the hotel's revenue.



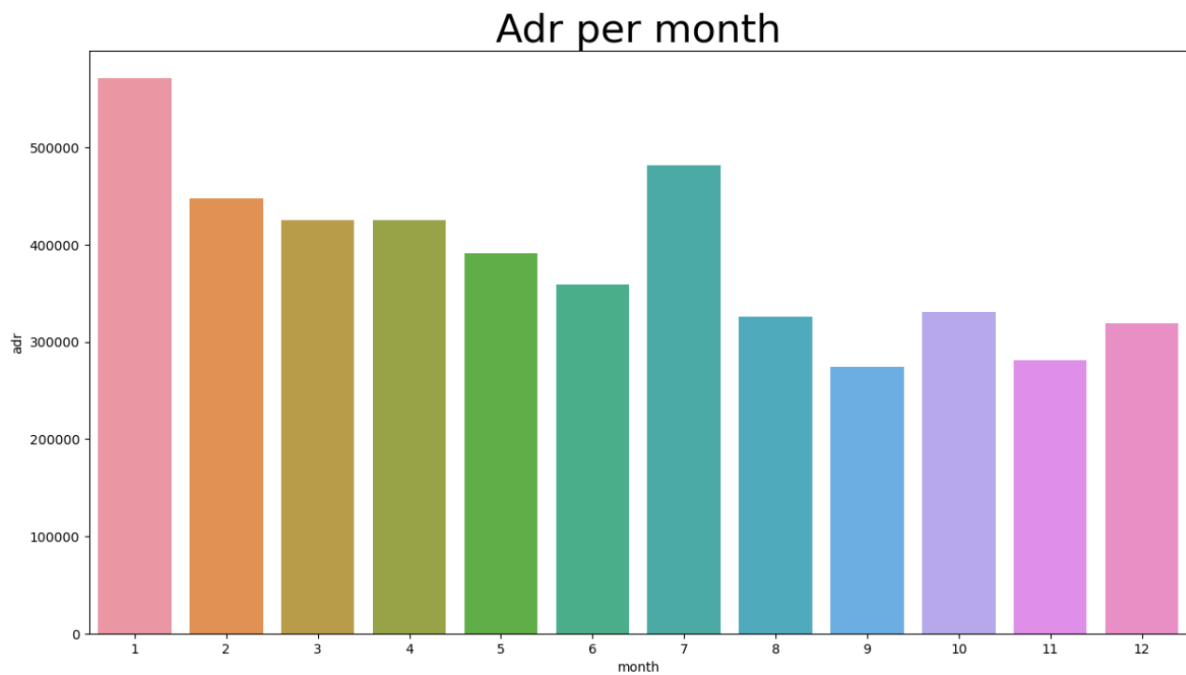
Reservations for city hotels are higher than for resort hotels. There's a chance that resort hotels cost more than city hotels.



The accompanying line graph illustrates how the average daily tariff for a city hotel can be less than that of a resort hotel on some days and considerably less on others. It goes without saying that resort hotel rates may increase on weekends and holidays.

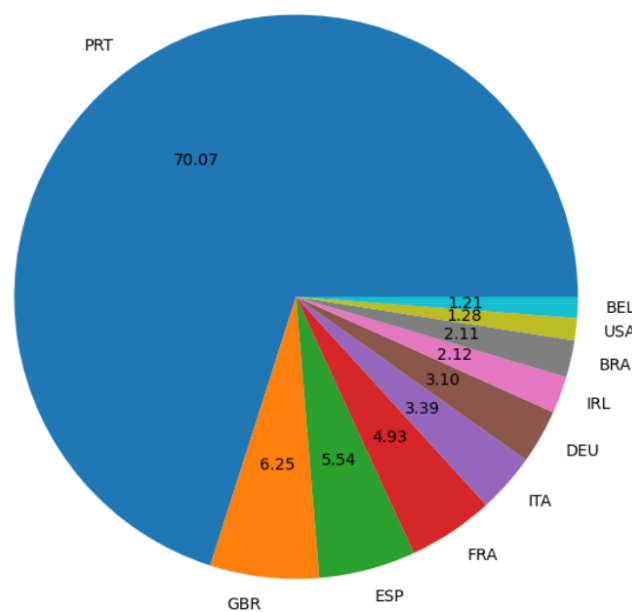


In order to examine the months with the highest and lowest reservation levels based on reservation status, we have created a grouped bar graph. It is evident that August has the highest number of confirmed reservations as well as the highest number of cancelled reservations. On the other hand, January has the highest number of cancelled reservations.

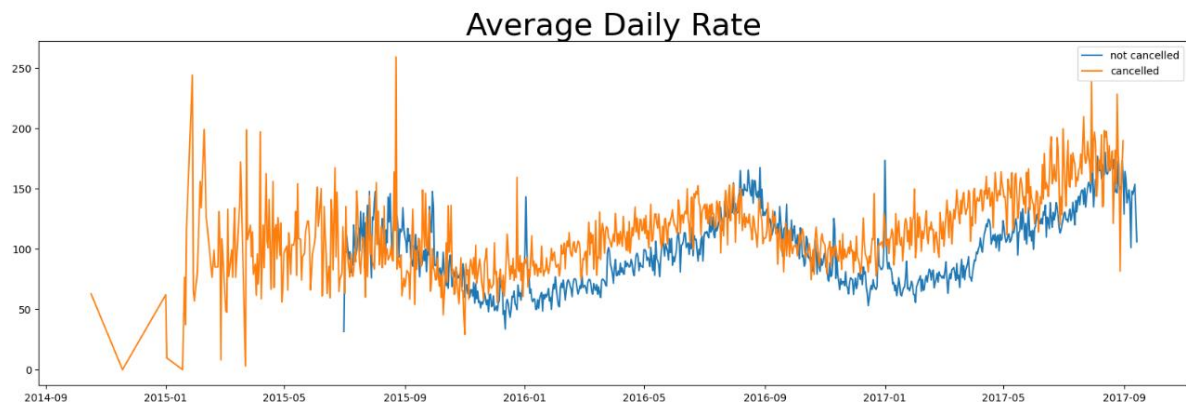


This bar graph shows that cancellations occur more frequently when prices are highest and less frequently when they are lowest. Therefore, the only thing that can be held accountable for the cancellation is the cost of the lodging.

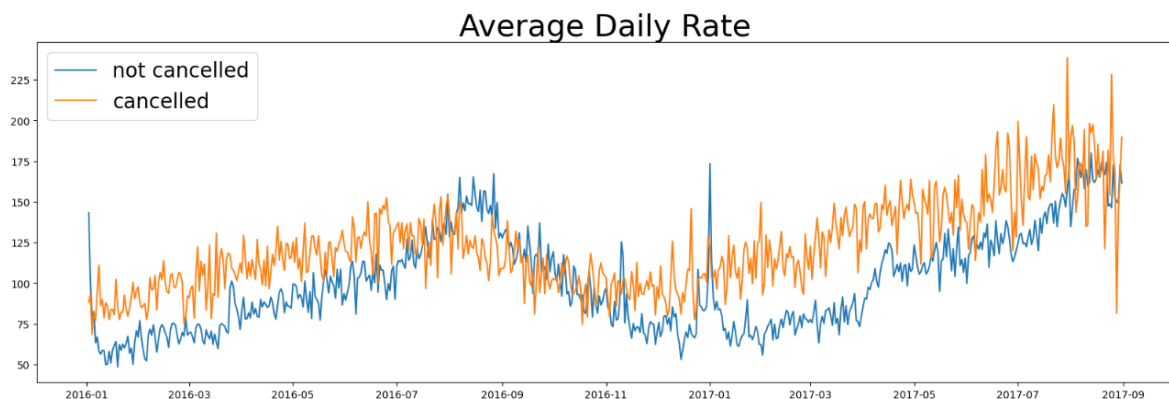
## Top 10 Country with reservatiom cancelled



Let's now examine which nation has the largest number of cancelled reservations. Portugal is the nation with the most cancellations overall.



Let's investigate the region from which visitors to the motels are coming and reserving. Does it originate from online or offline travel agents, groups, or direct? Approximately 46% of the customers are from online travel agents, while 27% are from organisations. Just 4% of customers make direct hotel reservations by going there.



Reservations are cancelled when the average daily rate is higher than when they are not cancelled, as the graph illustrates. It amply supports the preceding analysis, which states that a higher price corresponds with a larger failure rate.

### **Ideas & Suggestions:**

1. As prices rise, so do cancellation rates. Hotels could aim to reduce the prices for some hotels based on their locations and work on their pricing strategies to avoid reservation cancellations. They are also able to provide their customers some discounts.
2. Compared to city hotels, the ratio of cancellations to non-cancellations at resort hotels is higher. For this reason, hotels ought to provide a fair room rate reduction on weekends and holidays.

3. Since January sees the biggest number of cancellations, hotels can launch campaigns or marketing efforts with a fair budget to boost sales.
4. In order to lower the cancellation rate, they can also improve the calibre of their accommodations and services, particularly in Portugal.