**Business Problem:**

In recent years, City hotels and Resort hotels high cancellation rates. Each hotel is now dealing with number of issues as a result, including few world 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 cancellation 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 it can be used to analyse 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 time.
7. Clients make hotel reservations the same year they make cancellations.

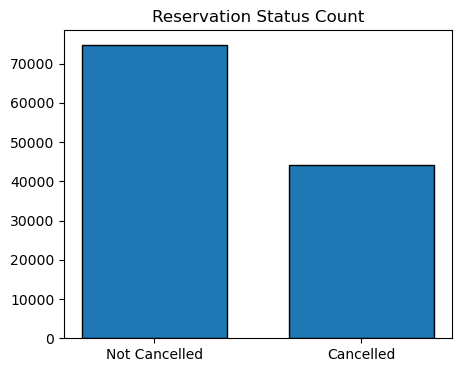
**Research Questions:**

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

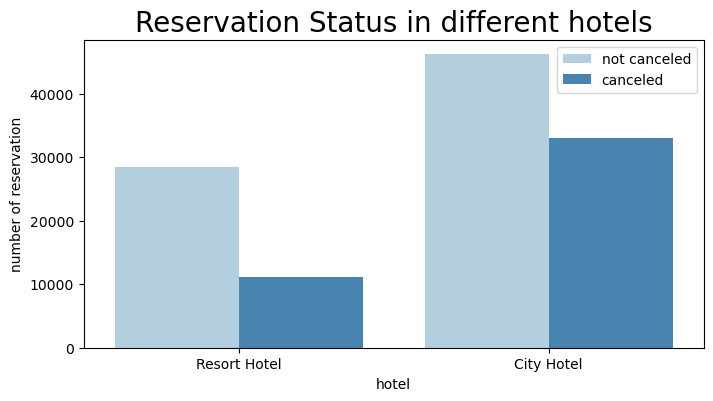
**Hypothesis:**

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

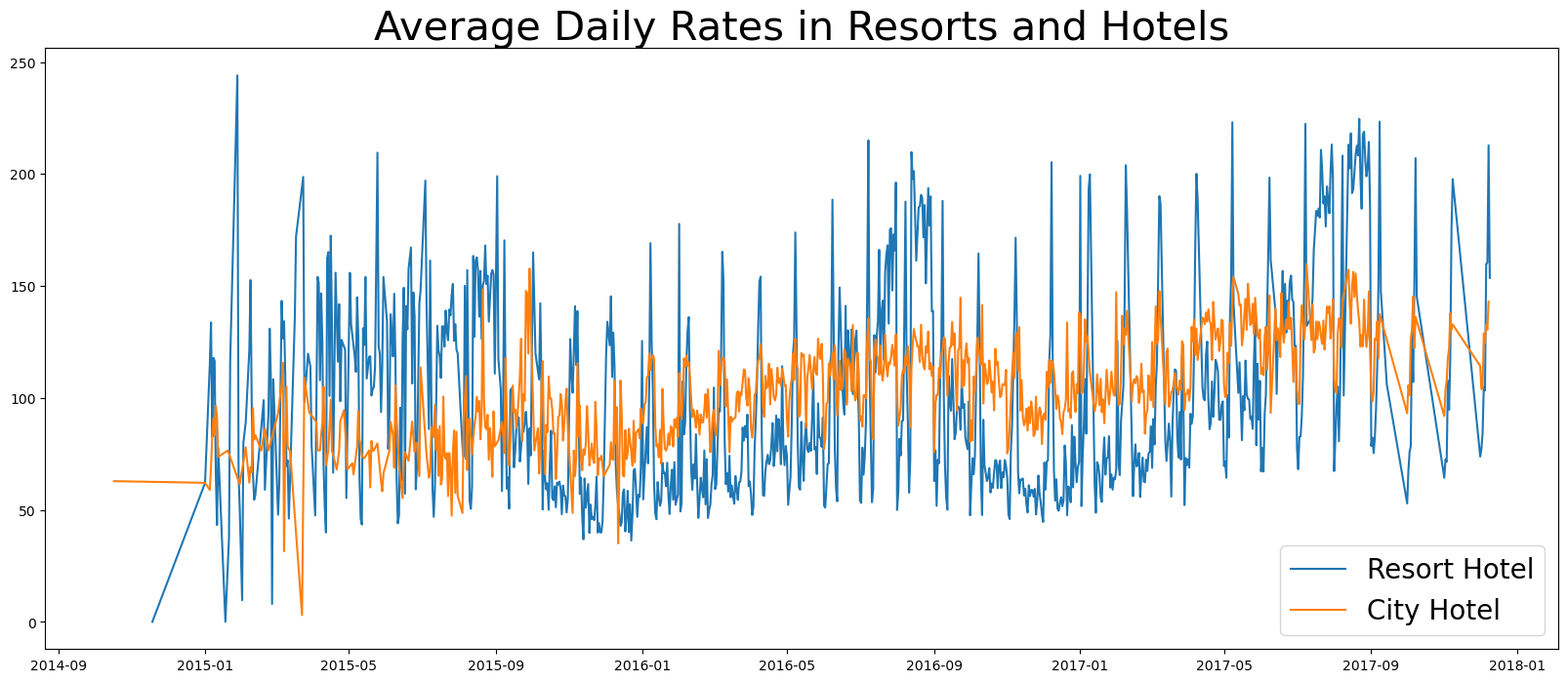
**Analysis and Findings:**

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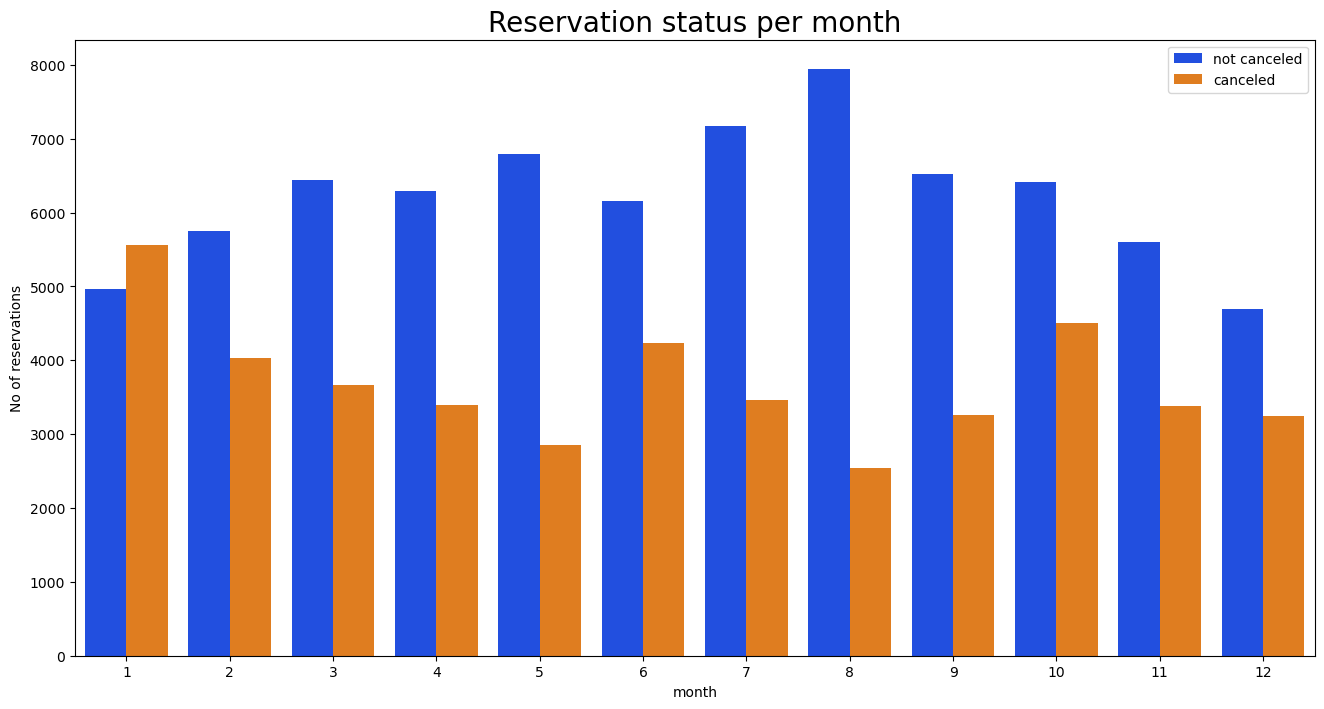
The accompany bar graph shows the percentage of reservations that cancelled and those that are not. It is obvious that there are still a significant number of reservations that have not been cancelled. There are still 37% of clients who cancelled the reservation, which has a significant impact on hotels’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



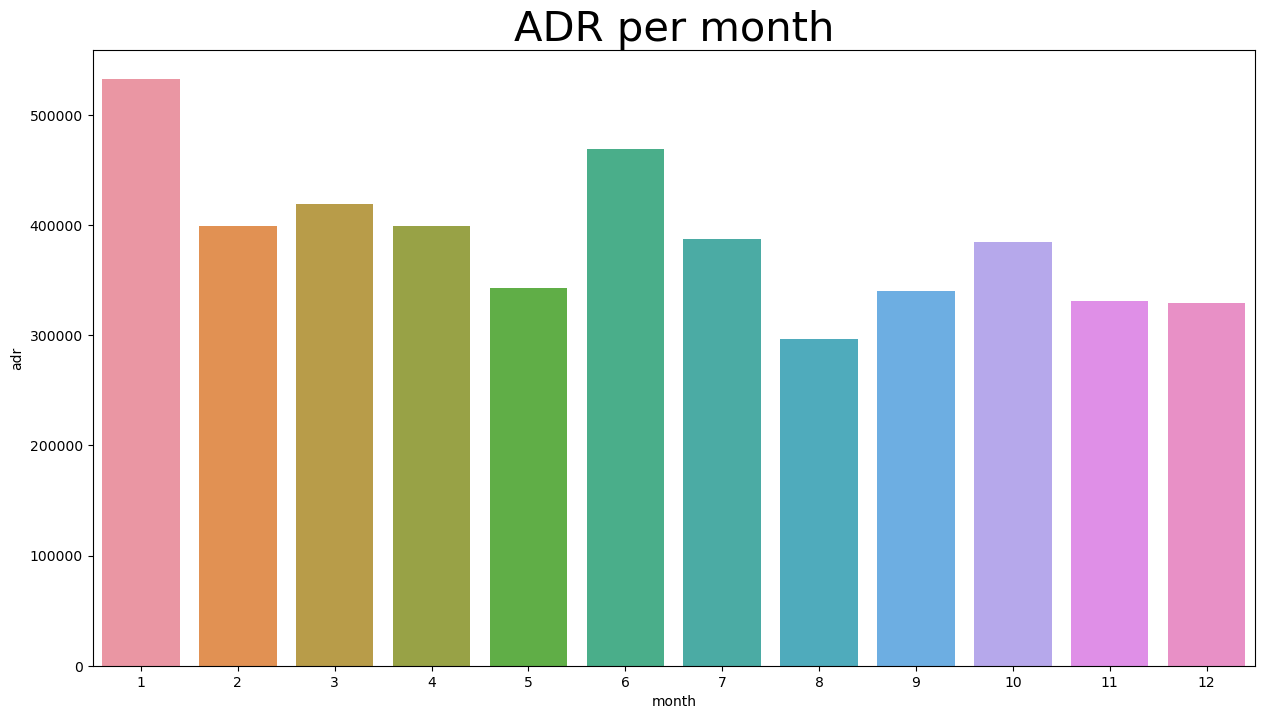
Comparison to resort hotels, city hotels have more bookings. It’s possible that resort hotels are more expensive than those in cities.



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

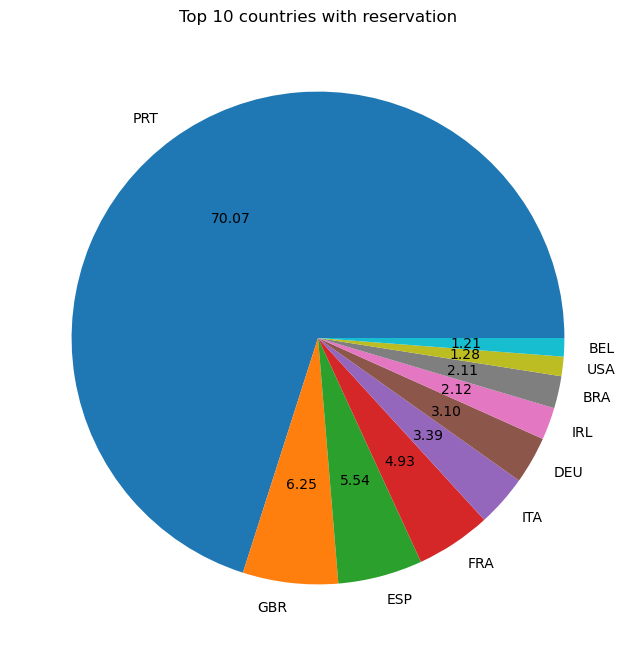


We have developed the group bar graph to analyse the months with the highest and lowest reservation levels according to reservation status. As can be seen, both the number confirmed reservations of cancelled reservations are largest in the month of August whereas January is the month with the most cancelled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

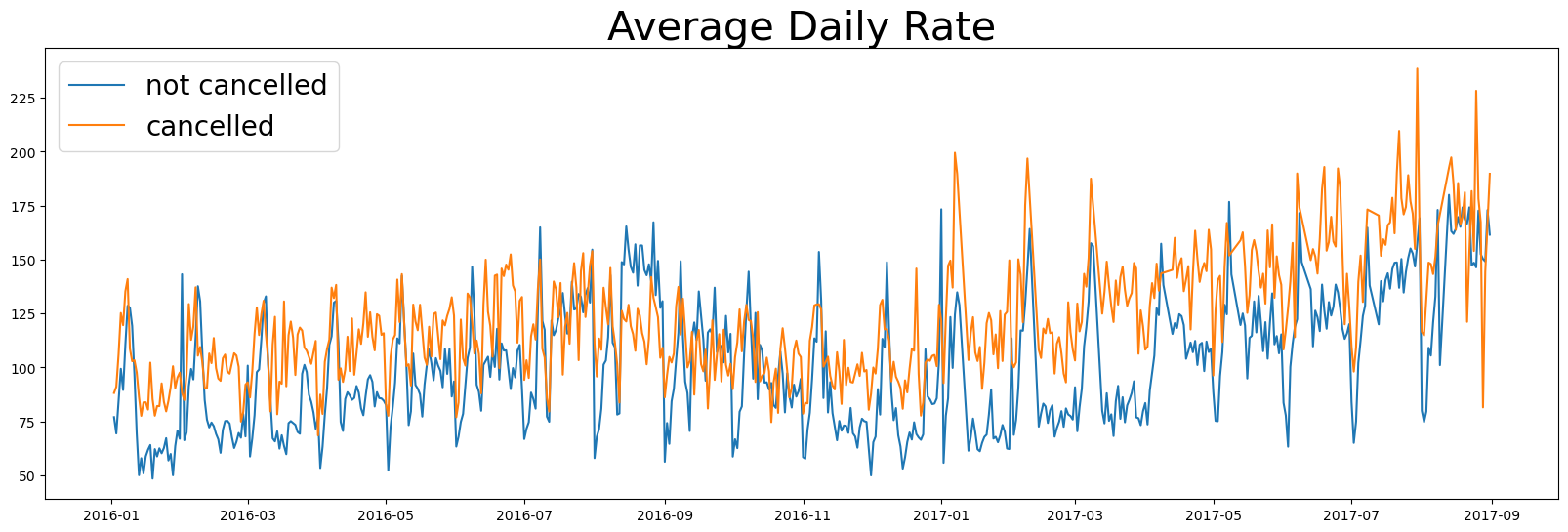


This bar graph demonstrate that cancellations are most common when prices are greatest and are least common when they are lowest. Therefore, the cost of the accommodation is solely responsible for the cancellation.

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



Let’s check the area from where guests are visiting the hotel and making reservations. Is it common 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% 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 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 strategies specific hotel based on location. They can also provide some discounts to the consumers.
2. As the ratio of the cancellation and not cancellation of the resort hotel is higher in the resort hotel than the City Hotel so the hotels should provide a reasonable discount on their room prices on weekends or on holidays
3. In the month of January, hotels can start campaigns on marketing with a reasonable amount to increase their revenue as cancellation is the highest in this month
4. They can also increase the quality of their hotels in the services mainly in Portugal to reduce the cancellation rate.