

# **Hotel Bookings Data Analysis (Report)**

## **About the Dataset**

The Dataset contains information about bookings for City and Resort Hotels. Each observation represents a hotel booking between the 1st of July 2015 and 31st of August 2017, including booking that effectively arrived and booking that were cancelled.

## **Problem**

These city and resort hotels have seen high cancellation rates in recent years. As a result, each hotel is dealing with a number of issues now, including fewer revenues and less than ideal hotel room use. Lowering the cancellation rates is the primary goal to increase their efficiency in generating revenue and we need to offer thorough business advice to address this problem.

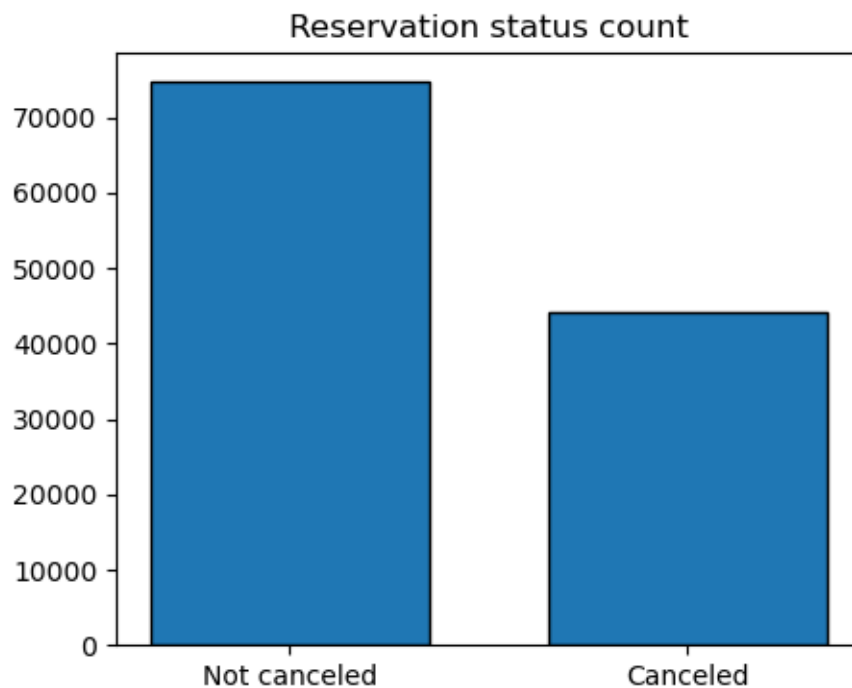
## **Questions**

- What are the variables that affect hotel reservation cancellations?
- How can we decrease the hotel reservation cancellation rates?
- Which countries accounts for more cancellation rates?

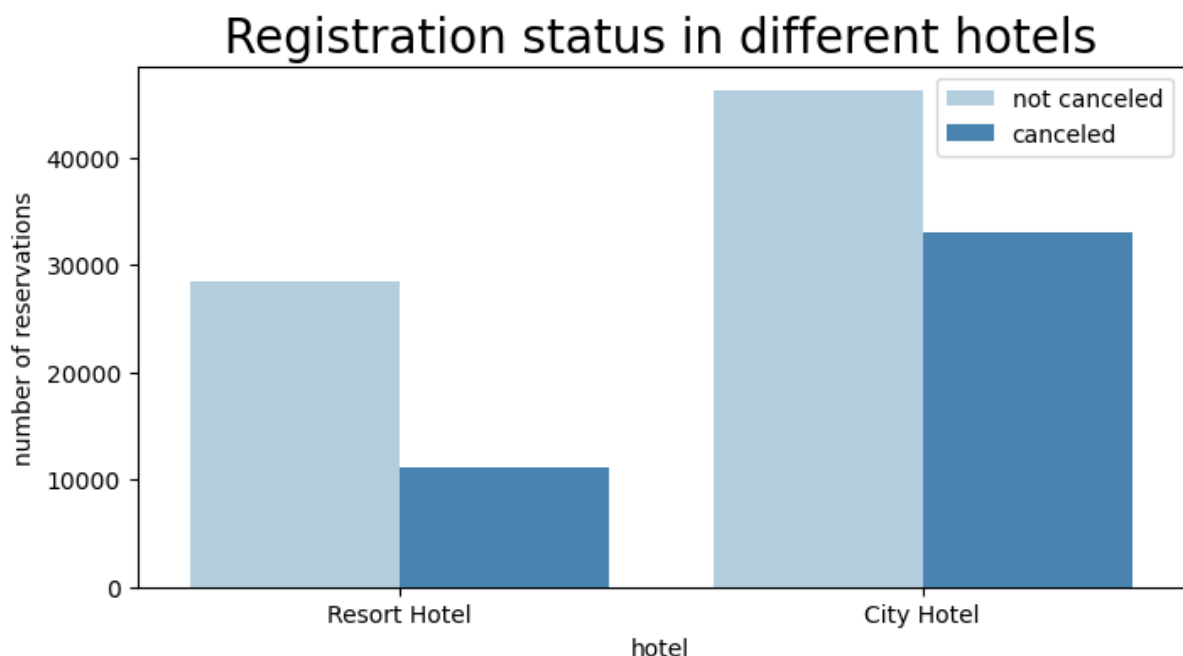
## **Hypothesis**

- More cancellations occur when prices are higher

## Analysis and Findings

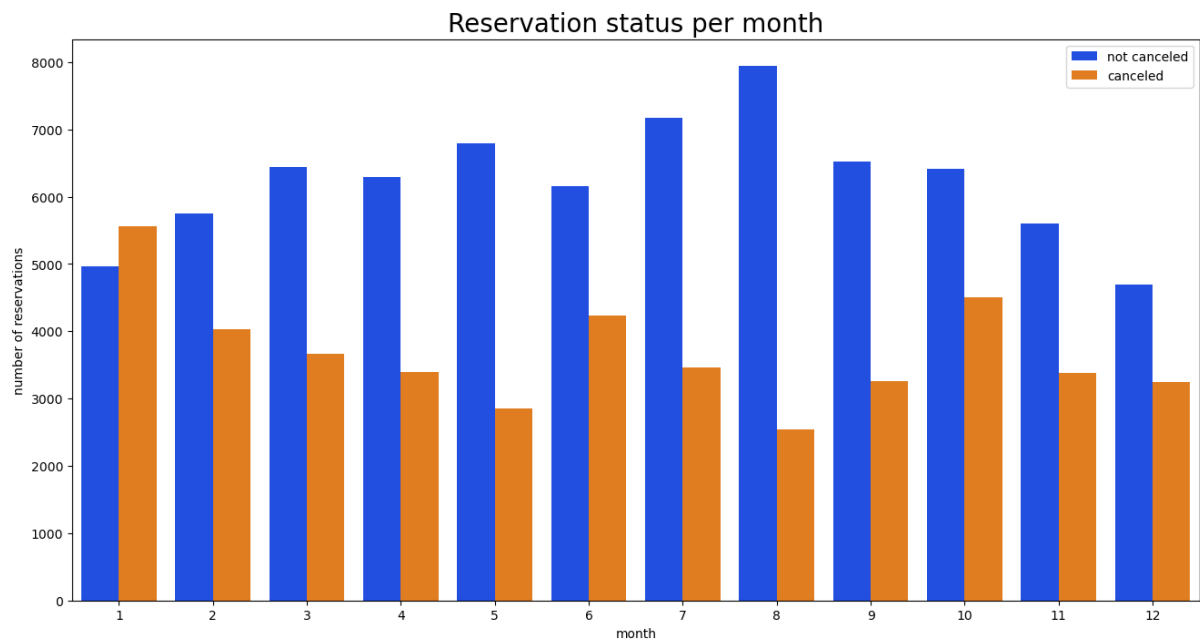


The accompanying bar graph shows the percentage of reservations that are cancelled and those that are not. The cancellation rate of 37% is observed which is quite high. This has a significant impact on the hotel's earnings.

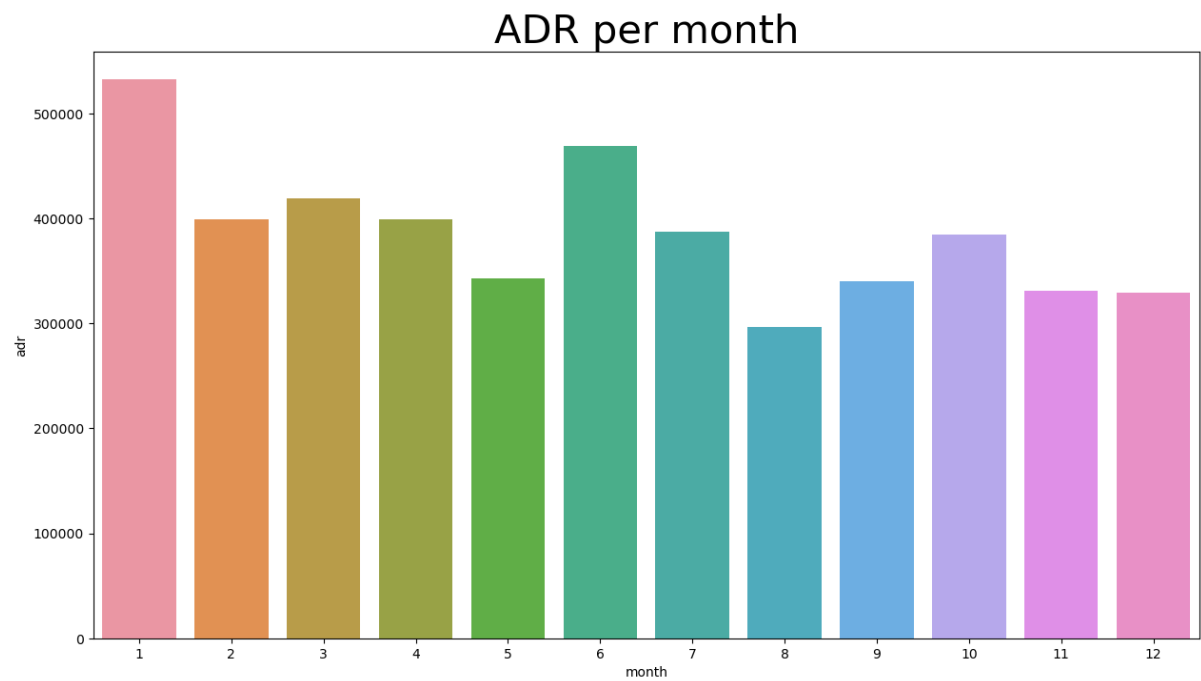


When we compare city hotels and resort hotels, we can observe that city hotels have more bookings. It's possible that resort hotels are more expensive than those in cities. But we can also observe that the cancellation rate of resort hotel is much

lower as compared to the city hotels. So the condition of the city hotels must be improved.

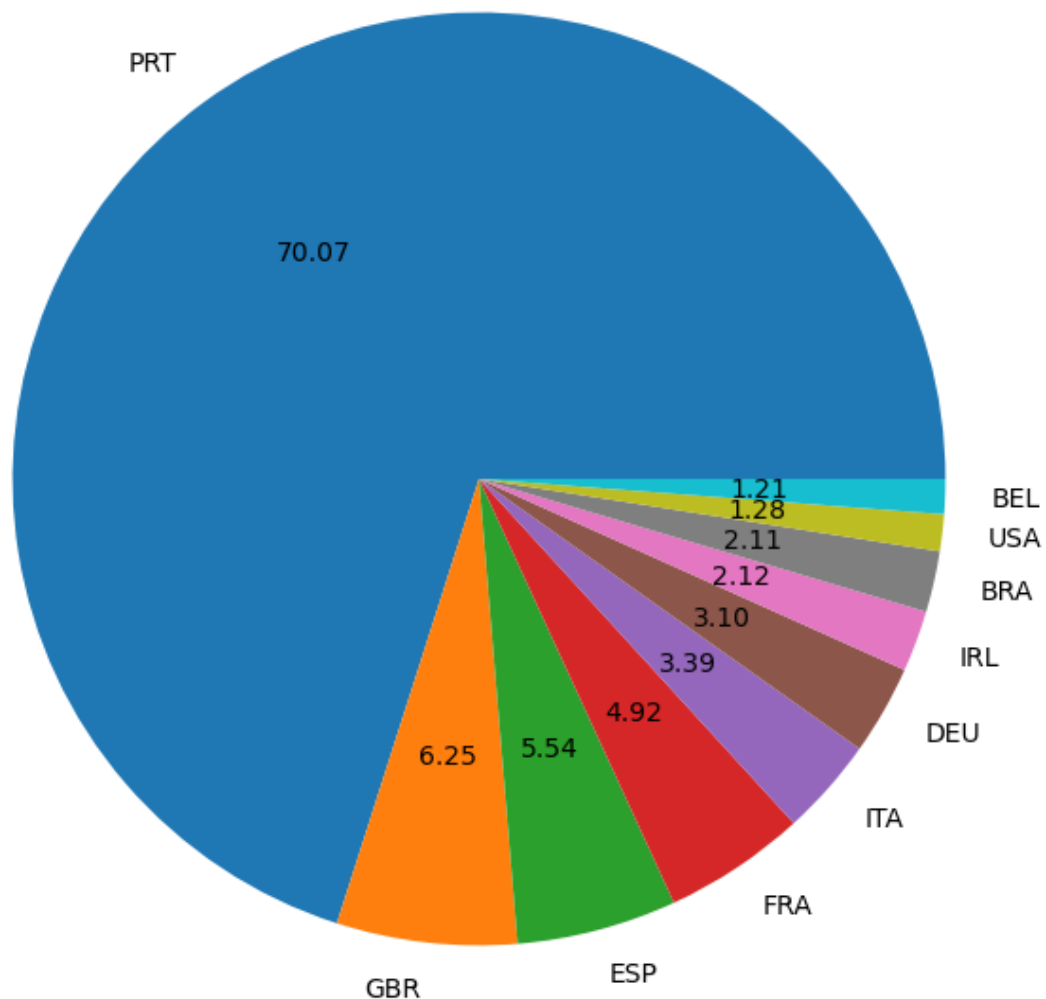


When we see the monthly results, we can observe that the cancellation rates in the month of January are higher than the bookings that are not cancelled. The reason could be the high ADR in the month of January. We can also see that the number of confirmed reservations is much higher than cancelled reservations in the month of August. Now we will take a look at the ADR for each month.



As we predicted, ADR is highest in the month of January, resulting in high cancellation rates. ADR is the lowest in the month of August, resulting in lower confirm to cancelled bookings ratio.

Top 10 countries with reservation canceled



Here, we take a look at the cancellation rates in various countries and we limit it to top 10. As we can see, the cancellation rates are highest in Portugal.

## Suggestions

- 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 for the consumers.

- As the bookings are lower in the resort hotel than the city hotels, the hotels should provide a reasonable discount on the room prices on the weekends or on holidays.
- In the month of January, hotels can start campaigns or marketing with a reasonable amount to increase their revenue as the cancellation rate is the highest in this month.
- The hotels should improve the quality of their hotels and services mainly in the country of Portugal to reduce the cancellation rates.