# HOTEL BOOKING CANCELLATION ANALYSIS REPORT

Objective:

The objective of this data analysis is to gain insights and understand the factors influencing booking cancellations, which could help hotel management and booking platforms to optimize their operations, reduce cancellation rates and identify potential opportunities for improving booking management and customer experience.

Insights:
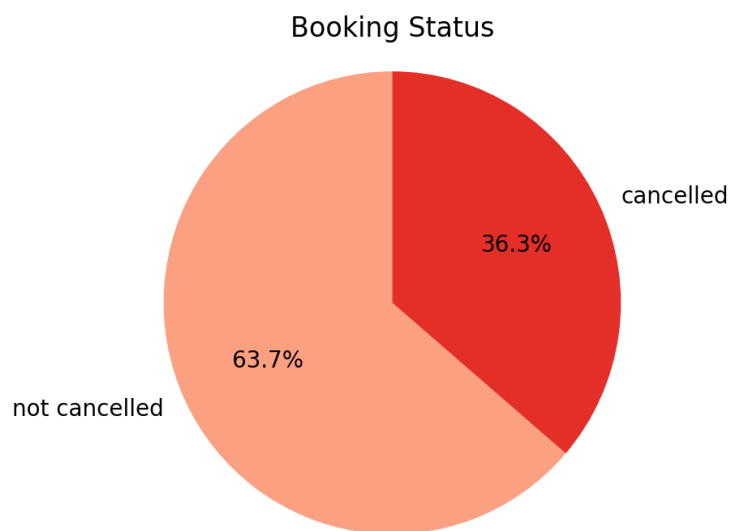
The accompanying pie chart shows the percentage of reservations that are cancelled and those that are not. It is obvious that there are still a significant number of reservations that have not been cancelled. There are still 36% of customers who cancelled their reservation, which has a significant impact on the hotel's revenue.
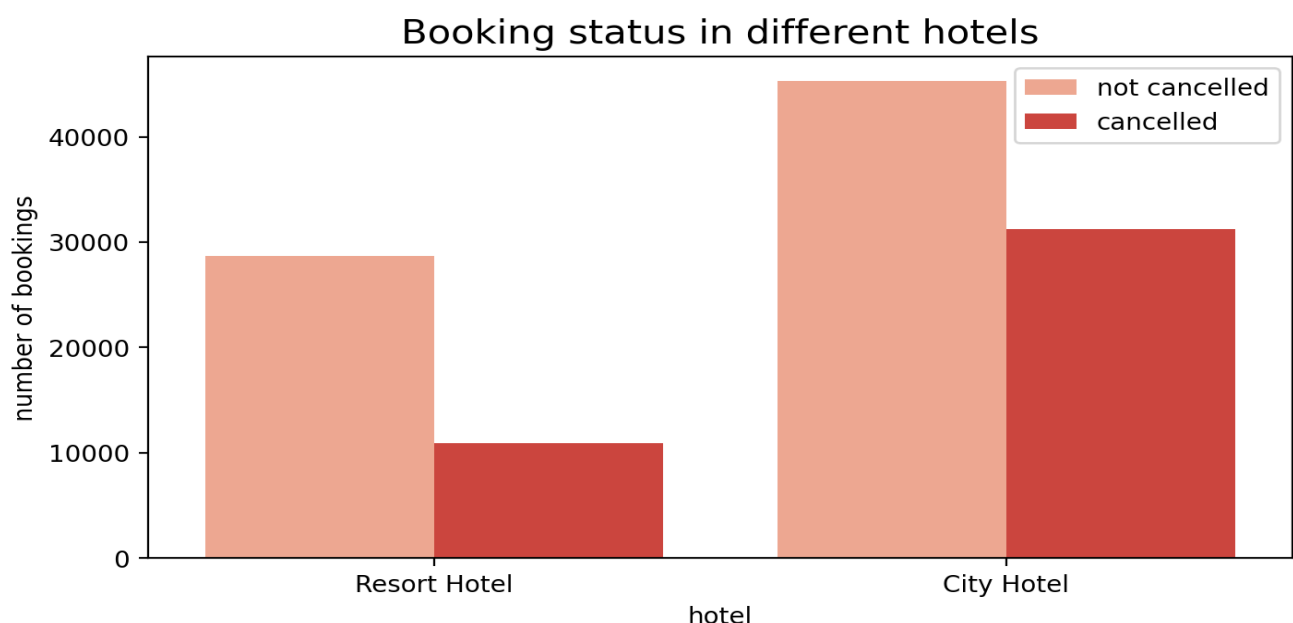
In comparison to resort hotels, city hotels have more bookings and even city hotels have higher booking cancellation ratio than resort hotels.

Average Daily Rate by hotel over Reservation Date
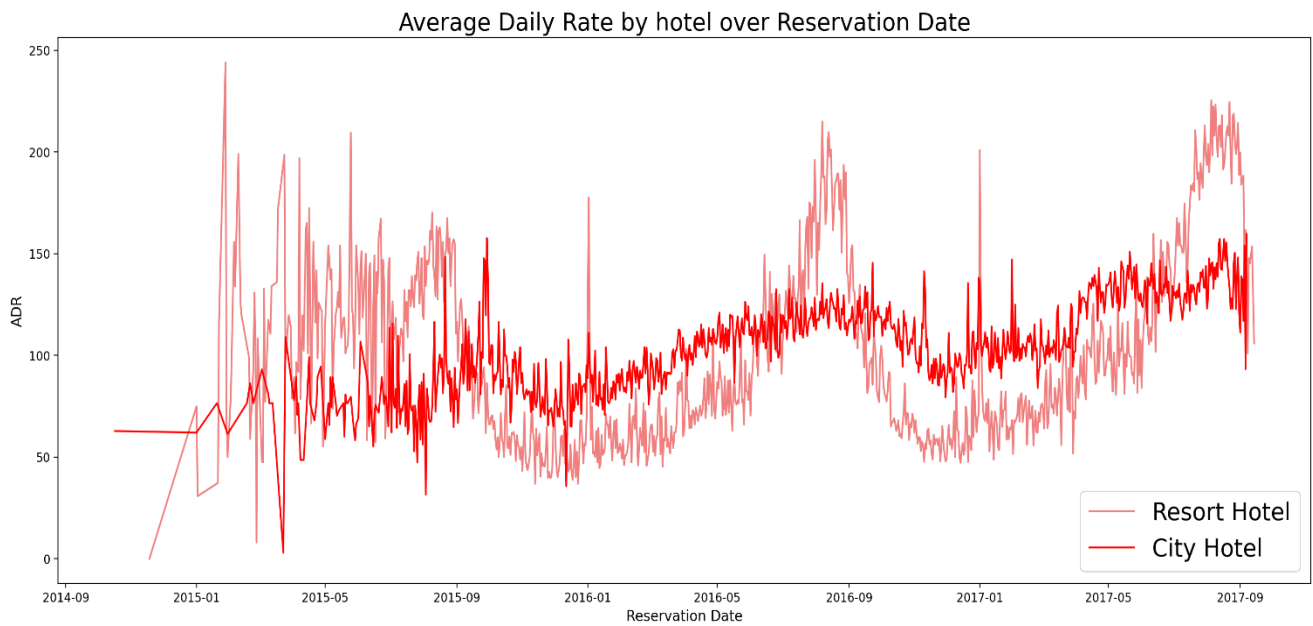
The line graph above shows that, average daily rate for Resort Hotel tend to change more frequently or seasonaly, but for City Hotel there is less change in ADR compared to Resort Hotel.


Reservation status per month
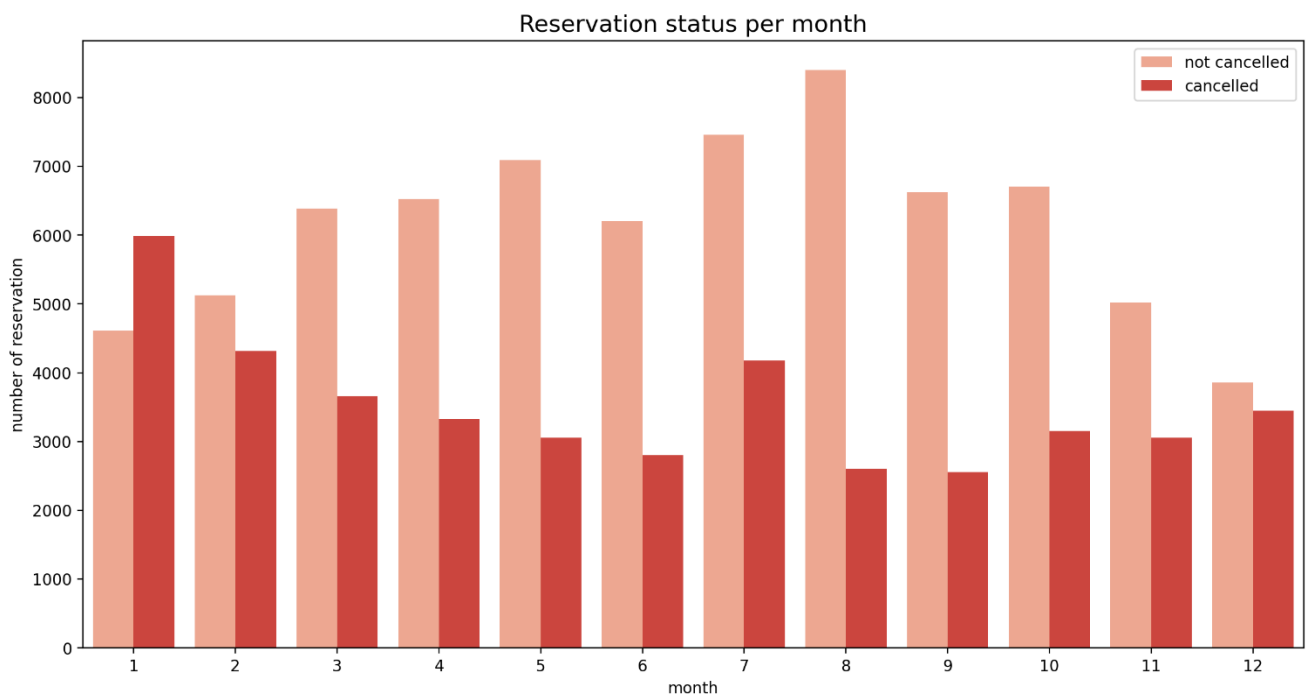
We have developed the grouped bar graph to analyze the months with highest and lowest reservation. As can be seen, in the month of August the number of confirmed reservation are the highest and cancelled reservation are the lowest. In the month of January cancellations are higher than the confirmed reservation and it has the highest cancellations.

City Hotel Reservations status per month

For City Hotel, in the month of January, February and December cancellations are higher than the confirmed reservation. Cancellations are lower in the month of June, August and September.

## Average Daily Rate by Booking Status over Reservation Date
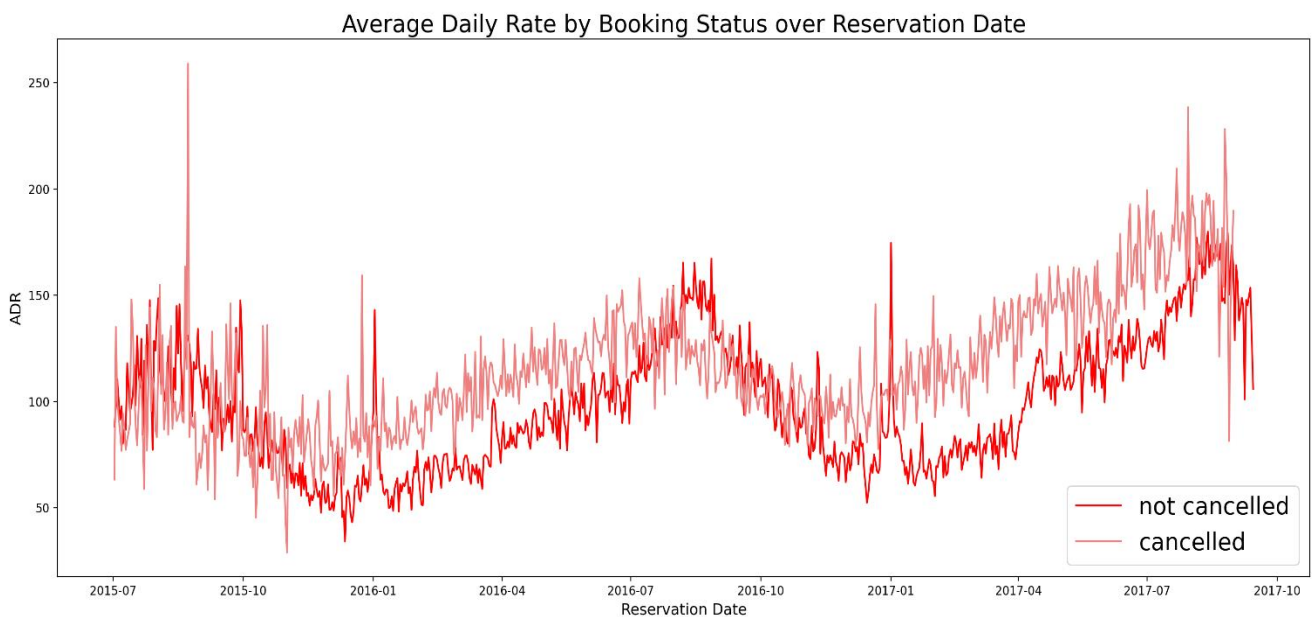
The bar graph demonstrates that cancellations are most common when prices are high and least common when the prices are low. Therefore, the cost of the accommodation is responsible for cancellation.

Resort Hotel ADR for Confirmed and Cancelled Booking per month
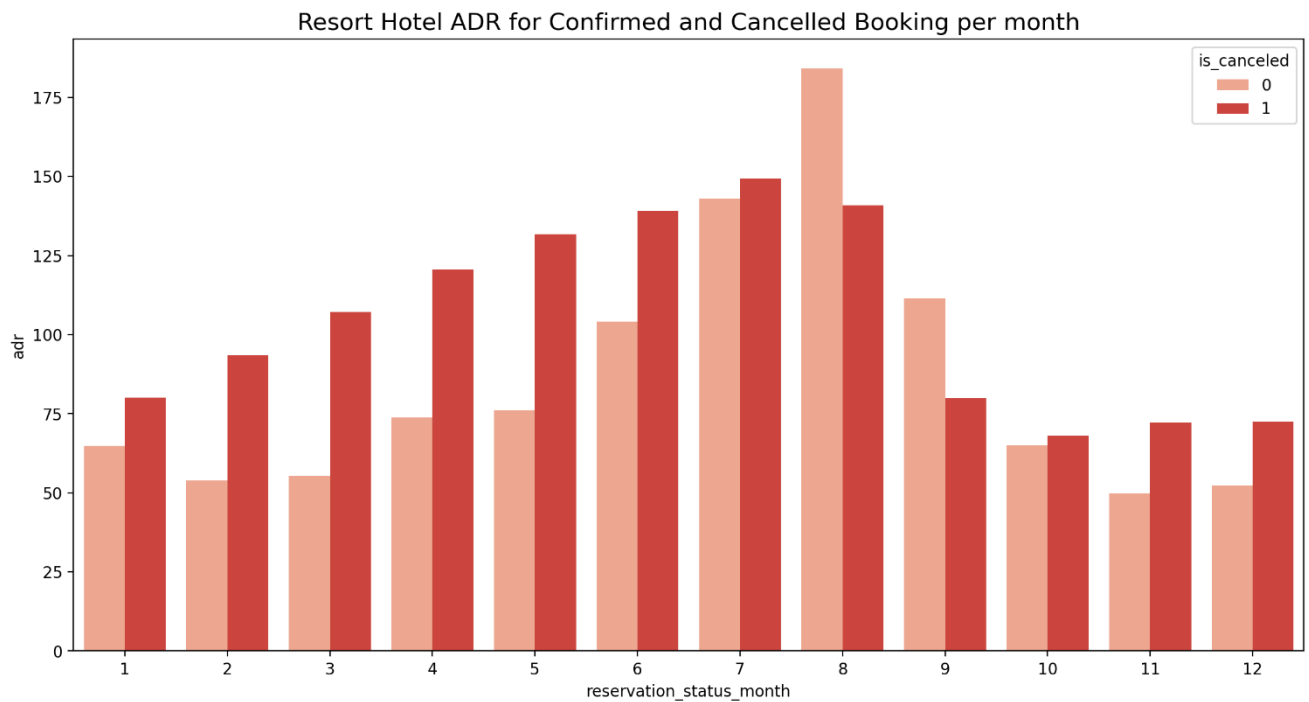
From the above bar graph, it can be seen almost in every month of Resort Hotel average daily rate of cancelled reservation are higher than the confirmed reservation. ADR can be reduced in Resort hotel in order to reduce cancellations.

Average Lead Time for Cancelled and confirmed Bookings
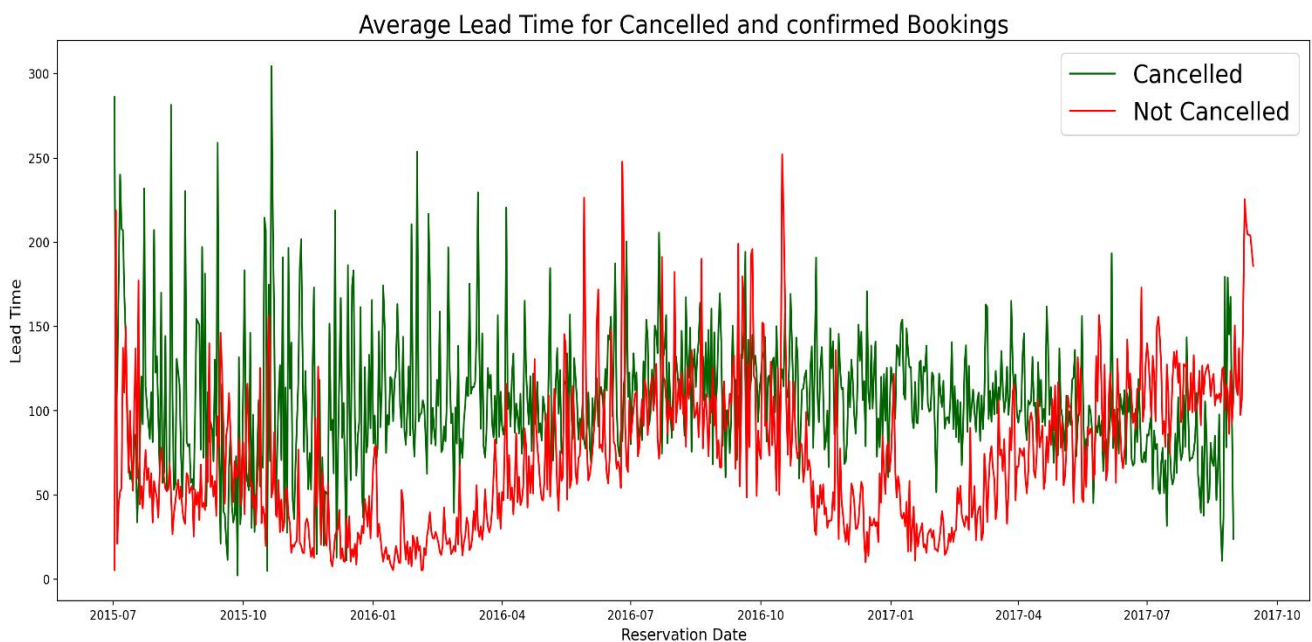
The above line chart demonstrates the average lead time for cancelled and confirmed reservations, most of the time cancelled reservation has higher lead time than the confirmed ones. Therefore, the higher lead time leads to cancellations.

Total nights for cancelled and confirmed reservation by Total night Stay
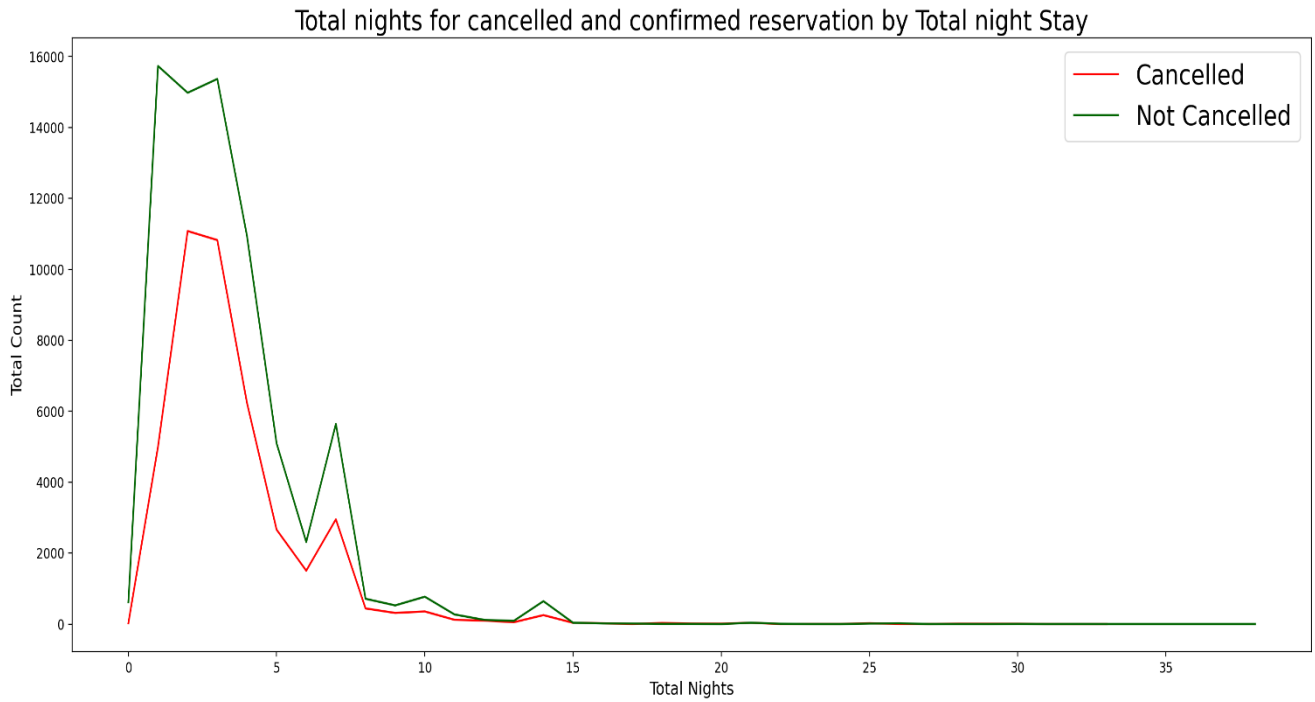
From the above line graph, we can observe both cancelled and confirmed reservation has same ratio for no. of nights.


Booking status by Market Segment
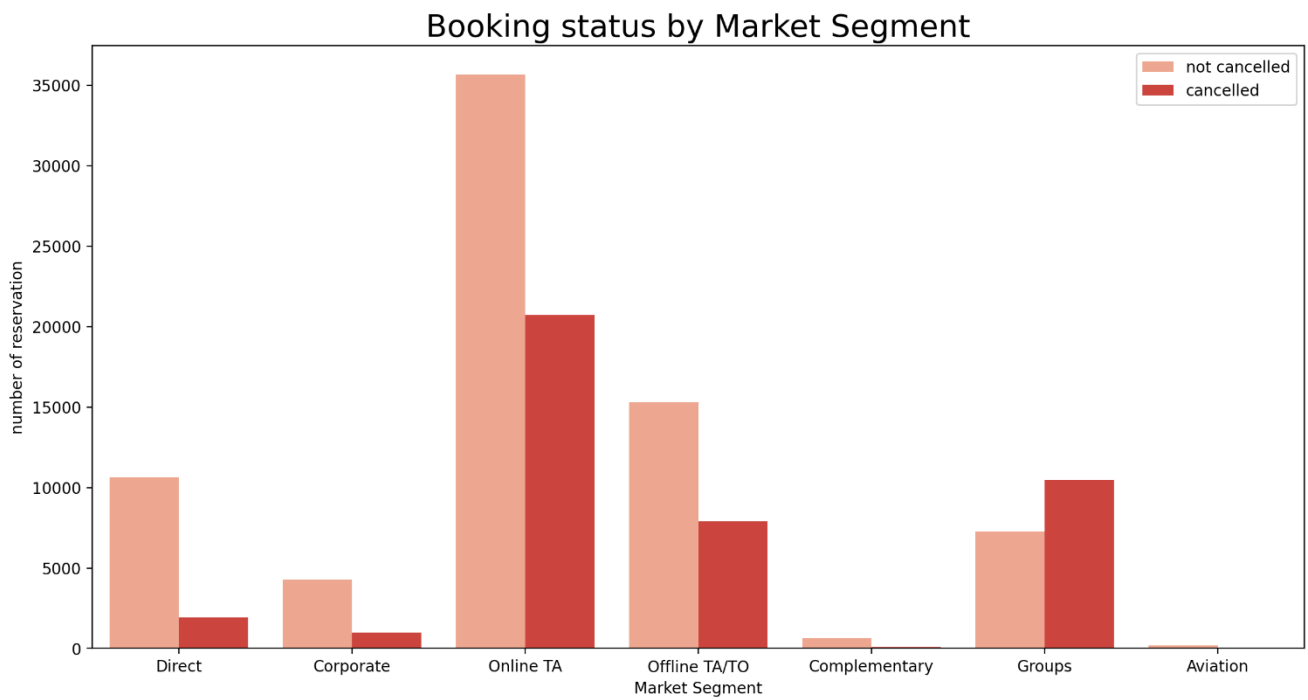
Bookings are more from Online Travel Agent, cancellations are also in more numbers from online travel agents. In Groups category, cancellations are more than confirmed reservations.

Cancelled Assigned Room Type
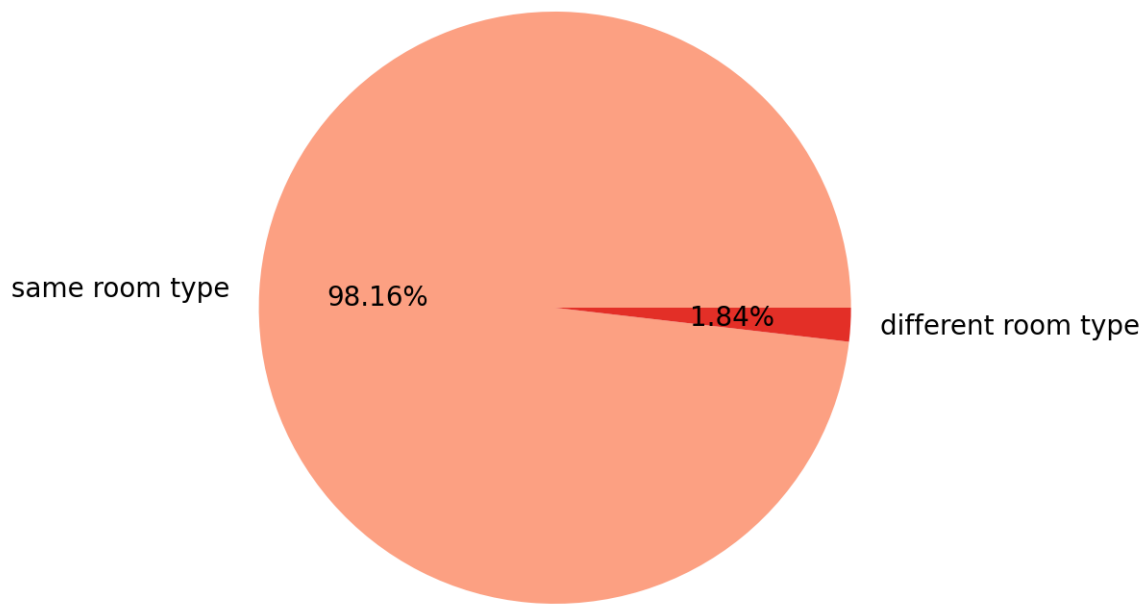
The accompanying pie chart shows the percentage of cancelled reservation's assigned room type, where most of the cancelled reservations are assigned with the same room type as they reserved. Only 1.84% of reservations are assigned with different room type.

Booking status by Deposit Type
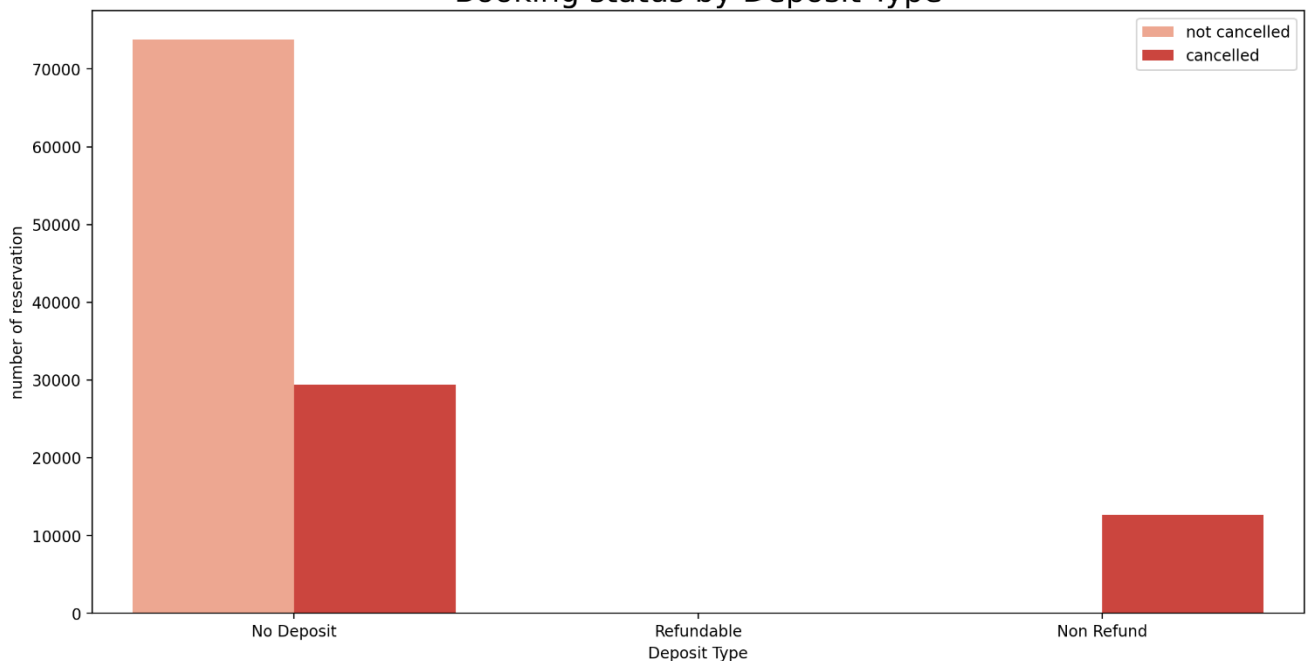
Most of the reservations are done without any deposit and highest cancellations are reserved without any deposit. Non Refund type of cancelled reservations tend to cancel more in ratio compared to confirmed non-refund type.

Cancelled Bookings


Not Cancelled Bookings
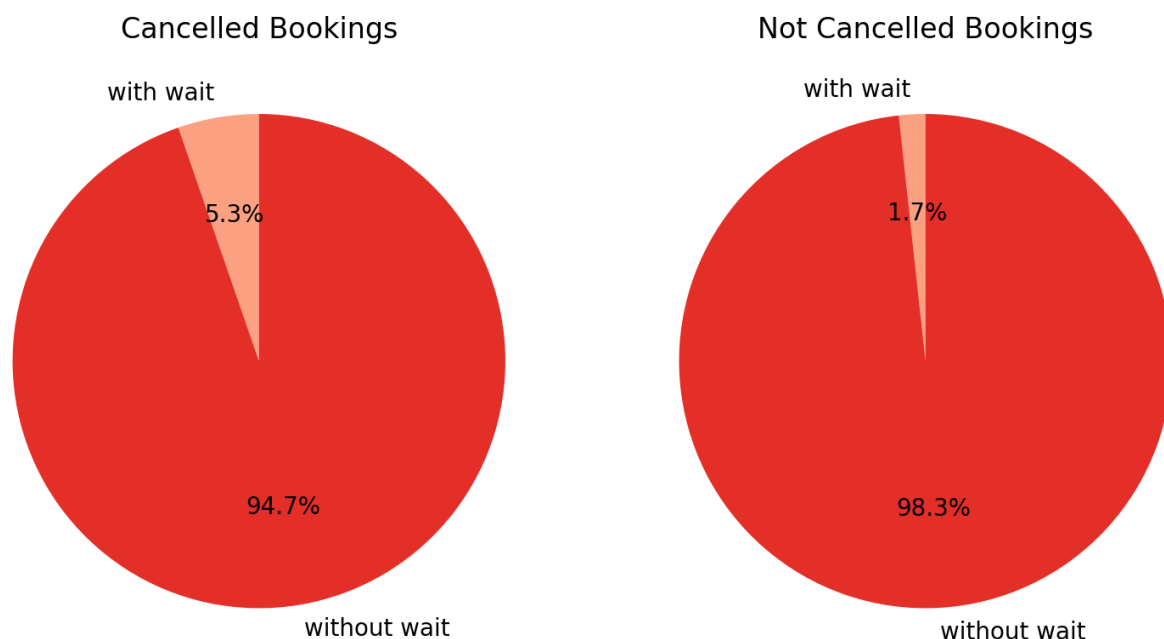
5.3% of reservations were in waiting list for confirmed reservations and 1.7% of reservations were in waiting list for cancelled reservations. Average waiting time for cancelled reservation is 306 days, while 141 days for confirmed reservations.
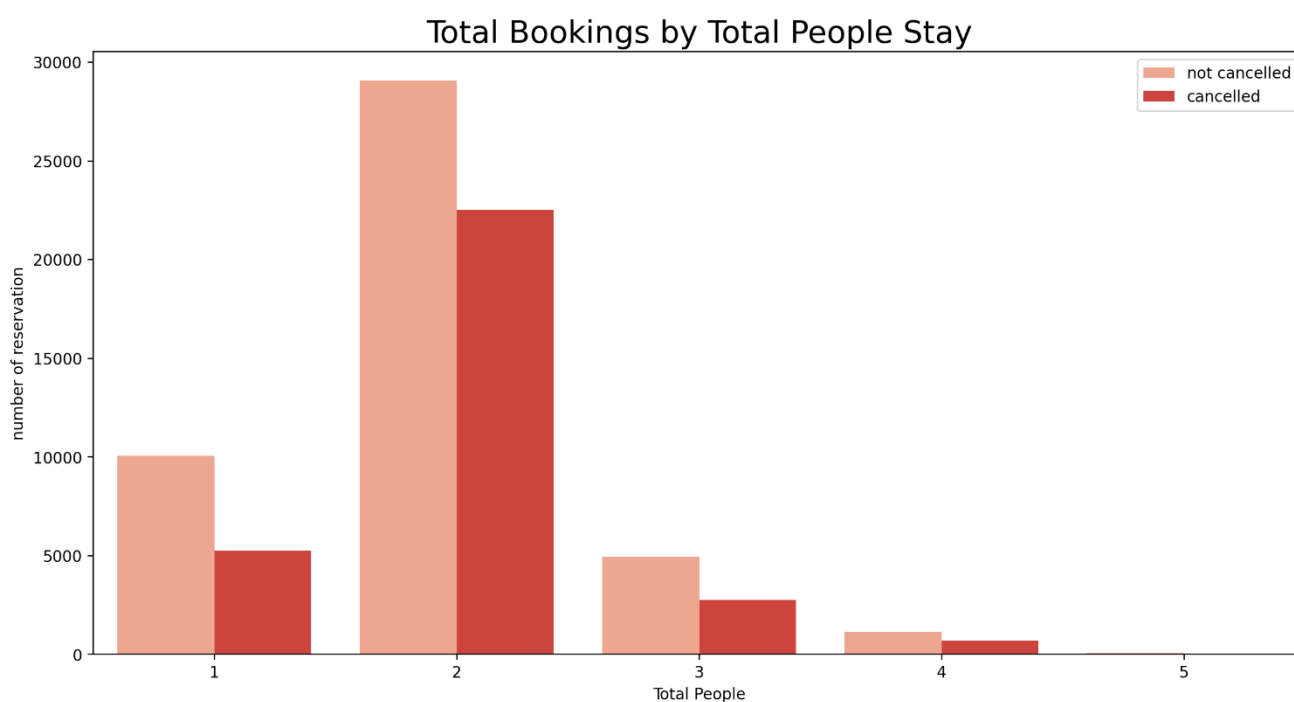

The accompanying chart shows, mostly there are 2 peoples who stay in the room and more than 75% customers tend to cancel reservation in comparison to confirmed reservation.

Repeated Booking Status
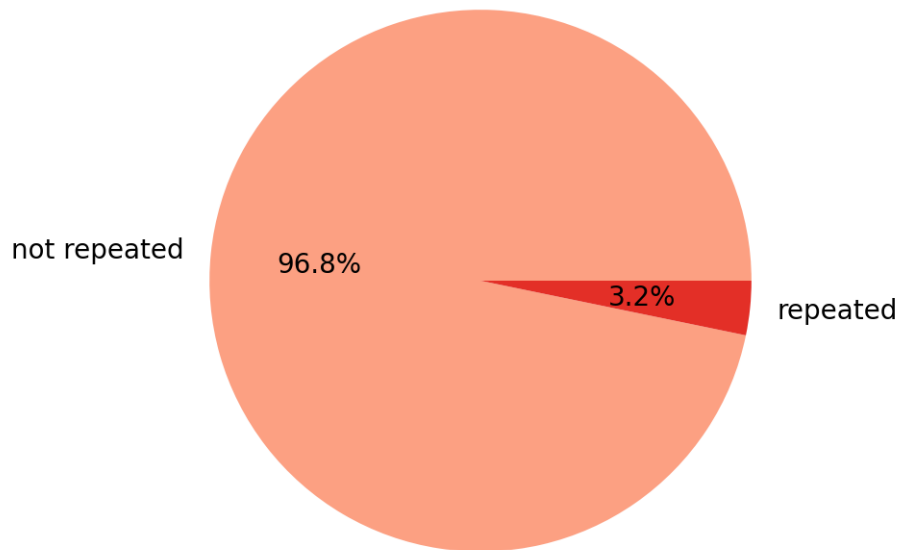
The accompanying pie chart shows the percentage of reservations that are repeated and those that are not. Most customers are not repeated, only 3.2% are repeated customers.
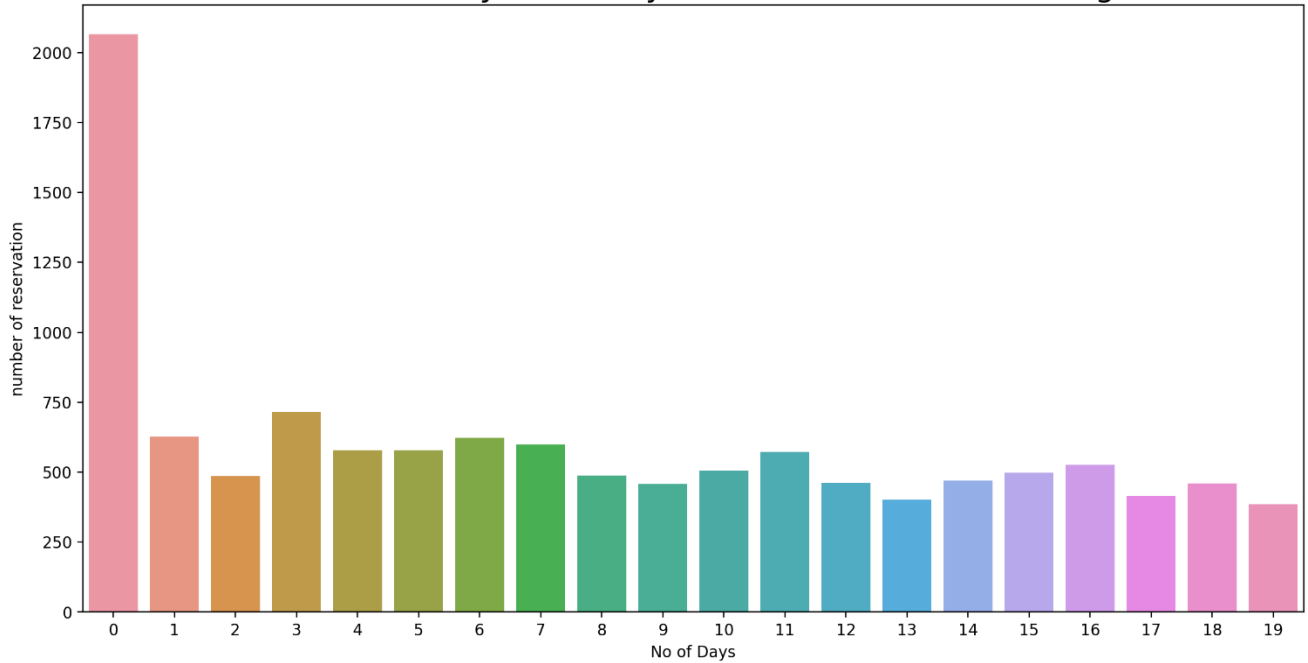
Booking status of Repeated Customers
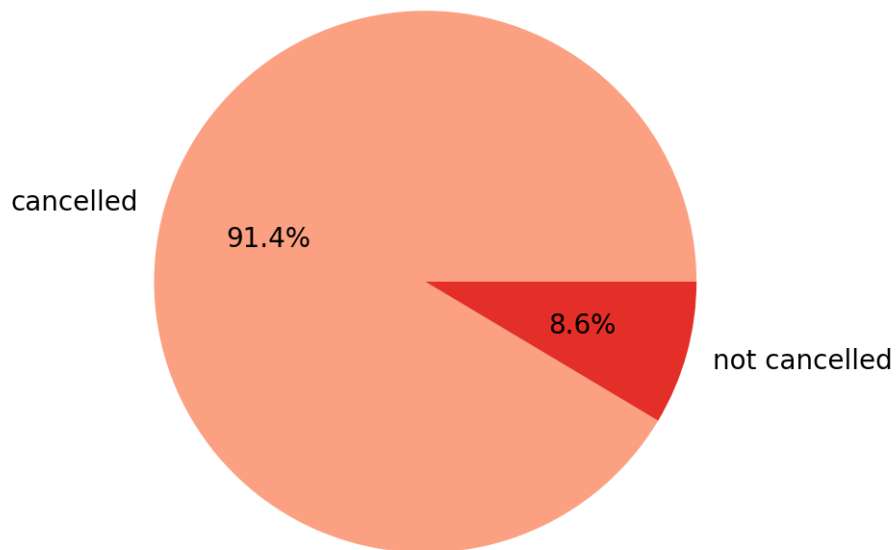
The accompanying pie chart shows the percentage of customers with previous cancellations, repeated customers are less in numbers, in that 91% tend to cancel reservation.
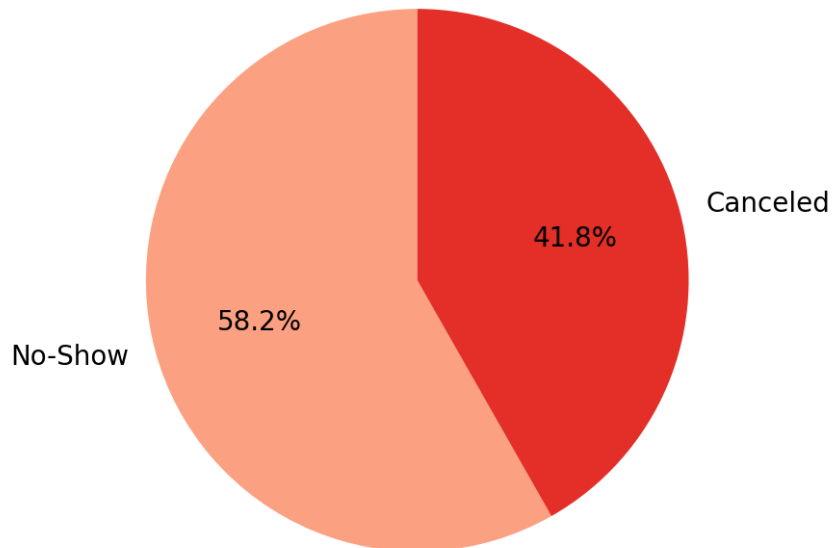
Count of reservations by no. of days before arrival date booking cancelled


The accompanying chart shows how many days back starting from arrival day, reservation was cancelled. Highest cancellations are done on the same day as arrival day, it also includes no-show.
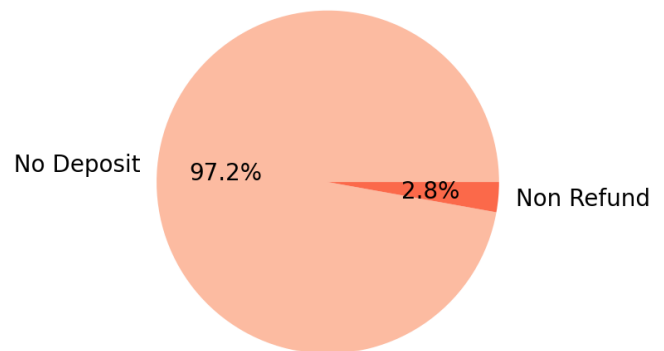
Cancellation Type on Arrival day

The above pie chart shows the percentage of booking cancellation on arrival day, in which 42% of cancelled reservations are no-show.

Cancelled Bookings with Deposit Type
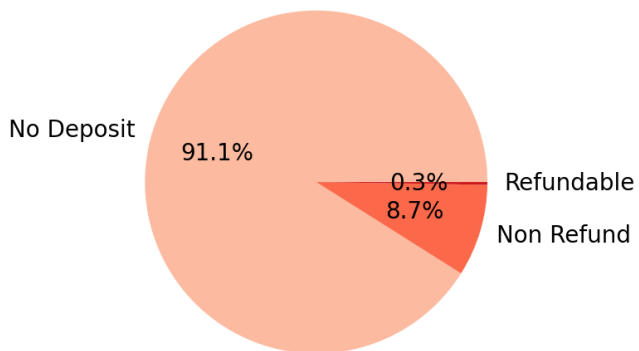
Only No-Show Bookings with Deposit Type

Most of the cancelled reservations are done without any deposit and 8.7% were non refundable. In No-Show most of the reservations are done without any deposit and 2.8% are non refundable.

Top 10 countries with Cancelled Reservation
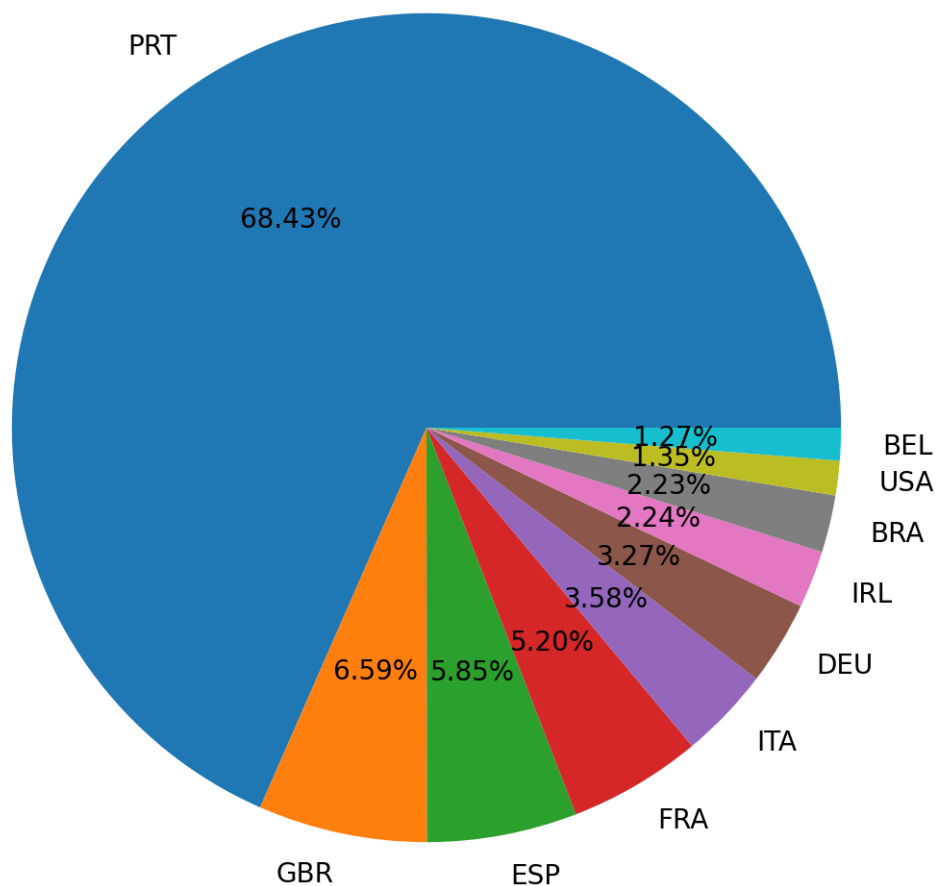
The above pie chart shows the top 10 countries with cancellations, in which cancelled reservations are highest in portugal and rest 32% of cancellations are from other countries.

Suggestions:

1. As compared to Resort hotels City hotels have higher cancellation rate and in the month of January cancellations are even more. So, hotels can start campaigns or marketing with new year environment that can attract the customers.
2. Cancellation rates are higher when prices are higher, in city hotels prices do not vary much, prices should vary according to seasons or demand. In order to prevent cancellations of reservation, hotels could work on their pricing strategies and try to lower the rates for specific hotels based on locations.
3. In particular to Resort hotels, cancellations are higher when ADR is higher throughout the year, cancellations can be reduced in Resort hotels by reducing prices.
4. Only 3.2% of previous customers reserved again in same hotel, and most of them cancelled the reservation. So, should increase the quality of their hotels and their services mainly in Portugal to reduce the cancellation rate. They can also provide discounts to previous customers.
5. Reservation with higher lead time tends cancel the most, so hotels should allow customers to reserve room with shorter lead time.
6. Cancellations are more, when customers reserve room without any deposits and cancellations or no-show are higher on the arrival day. In order avoid cancellations and vacant rooms, hotels need to make customers reserve room with some deposit.
7. More no. of reservations are with 2 peoples, mostly couples. Hotels should provide services according to type of customers.