

HOTEL BOOKINGS

EXPLORATORY DATA ANALYSIS

AND

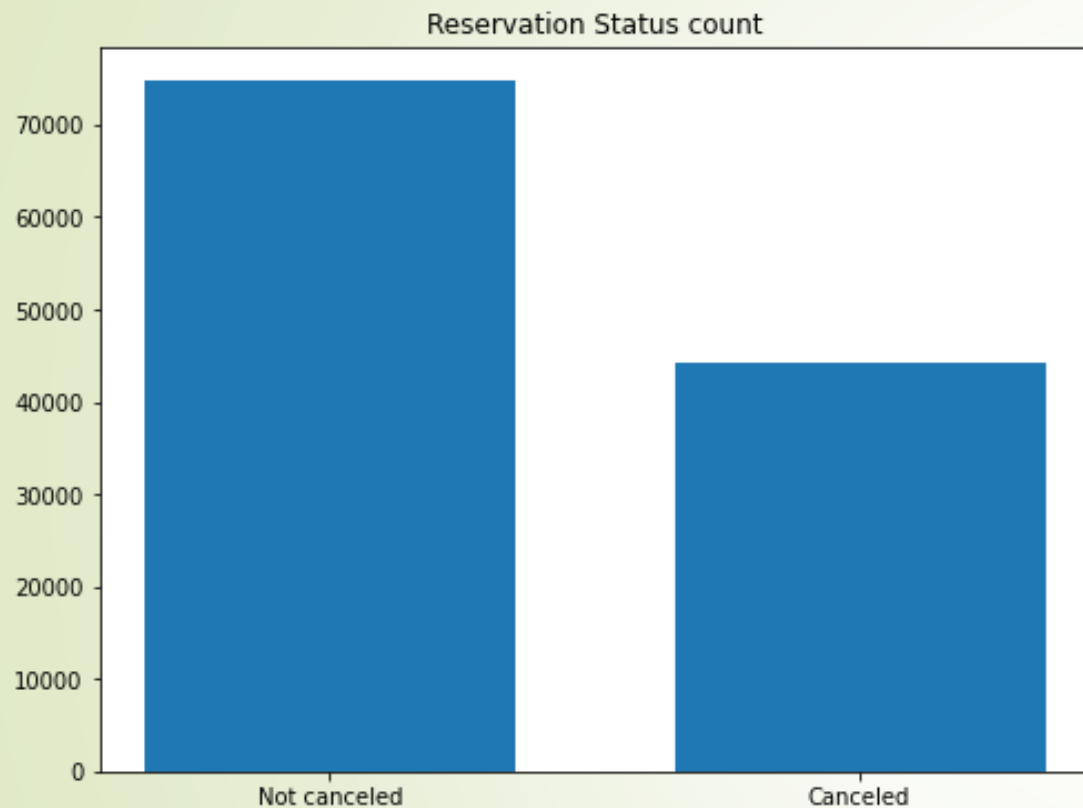
DATA VISUALIZATION

Business Problem

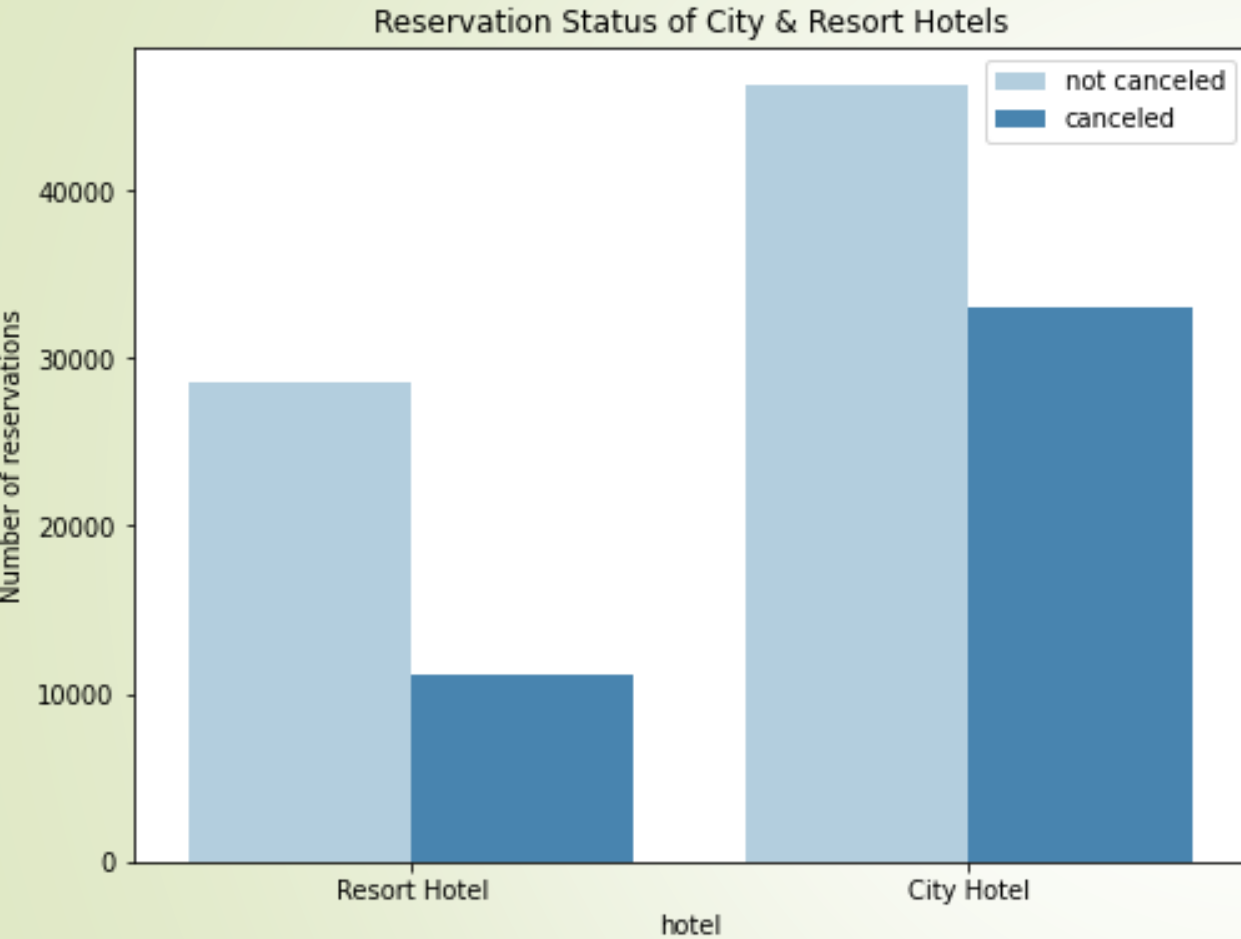
➤ In recent years, City Hotel and Resort Hotel have seen **high cancellation rates**. Each hotel is now dealing with a number of issues as a result, including fewer revenues and less than ideal hotel room use. Consequently, lowering cancellation rates is both hotels primary goal in order to increase their efficiency in generating revenue, and for us to offer thorough business advice to address this problem.

Research Questions:

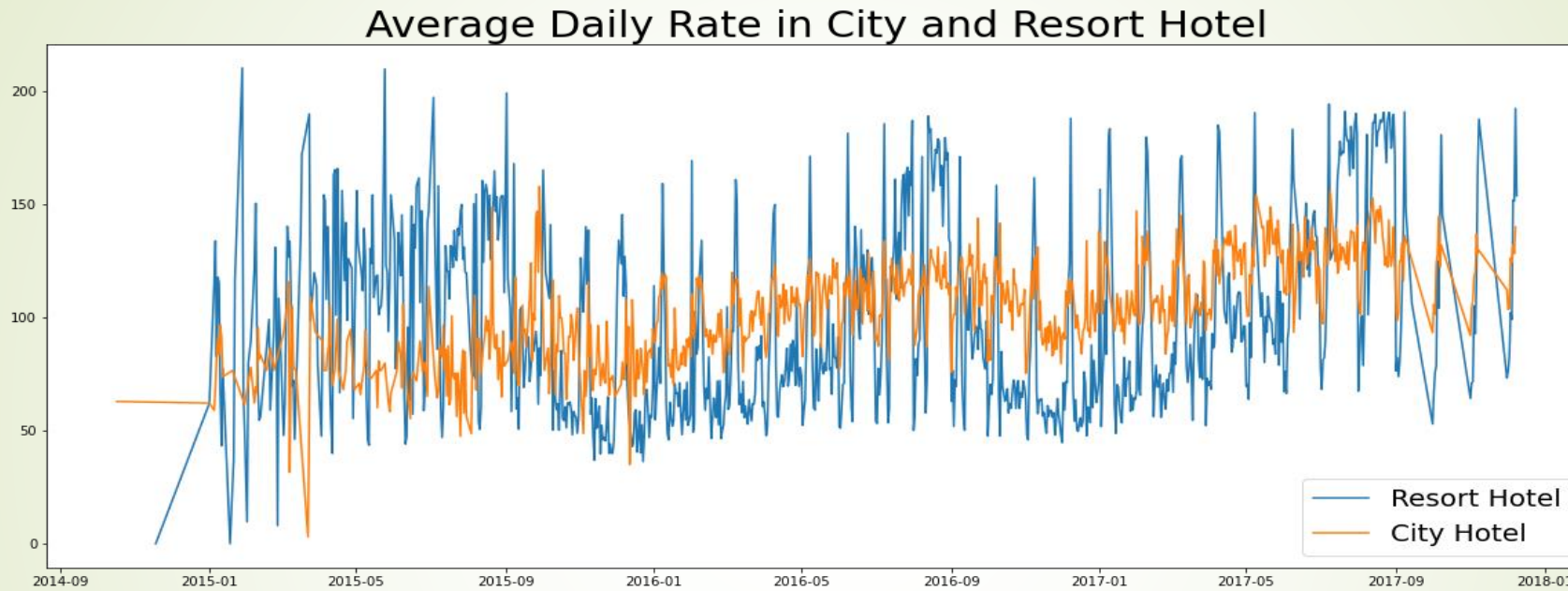
- What are the variables that affect hotel reservation cancellations?
- How can we make hotel reservations cancellations better?
- How will hotels be assisted in making pricing and promotional decisions?



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

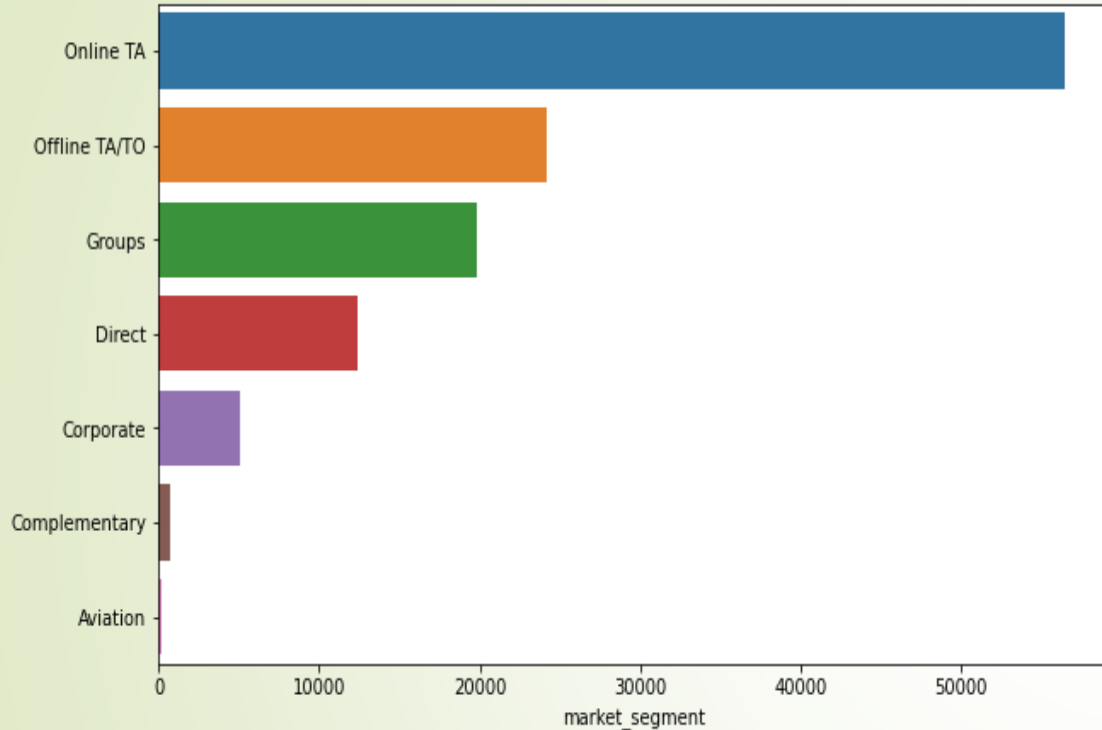


- In comparison to resort hotels, city hotels have more bookings. It's possible that resort hotels are more expensive than those in cities.

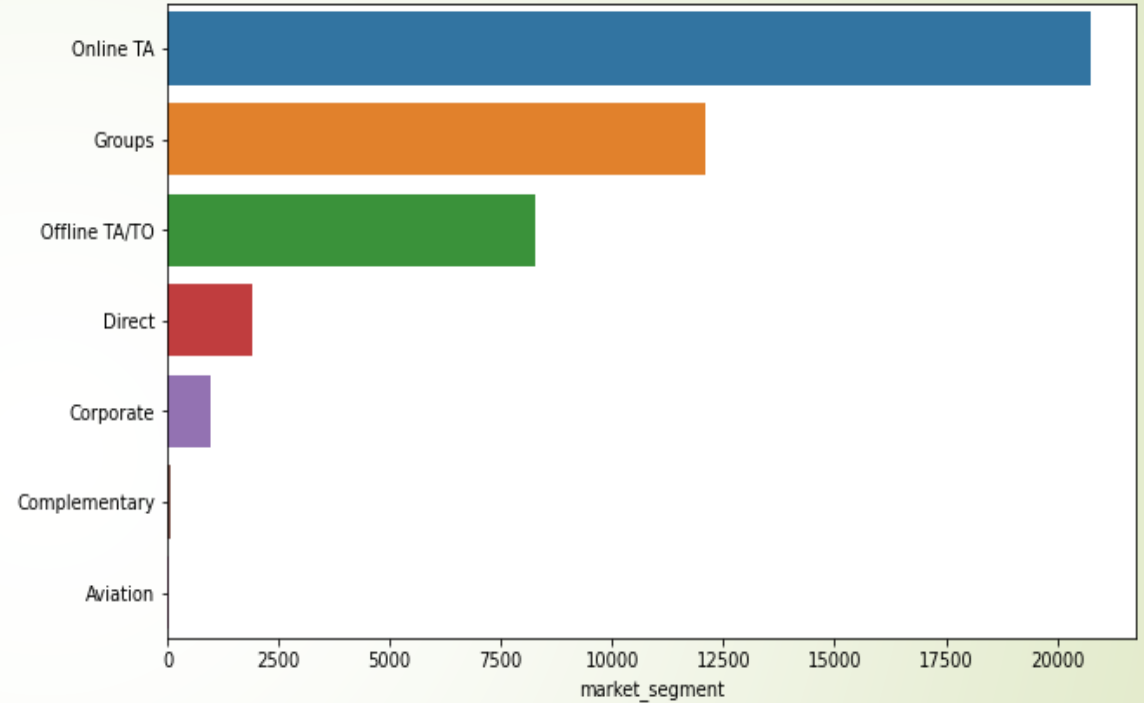


- The line graph above shows that, on certain days, the average daily rate for a city hotel is less than that of a resort hotel, and on other days, it is even less. It goes without saying that weekends and holidays may see a rise in resort hotel rates.

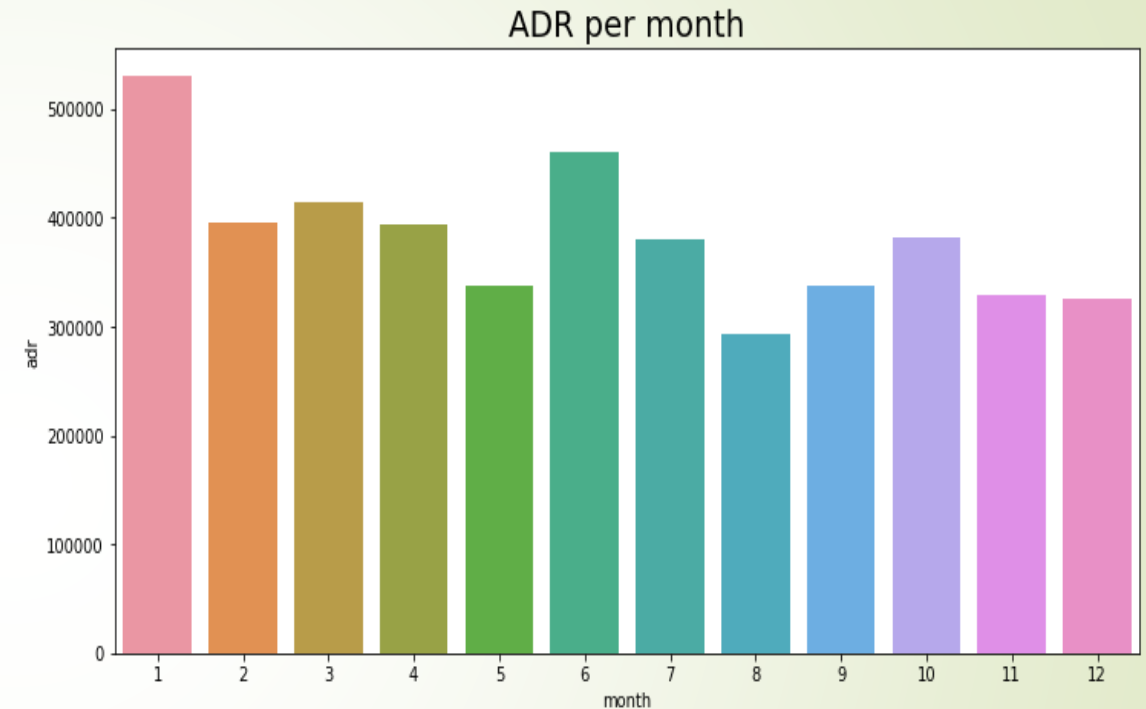
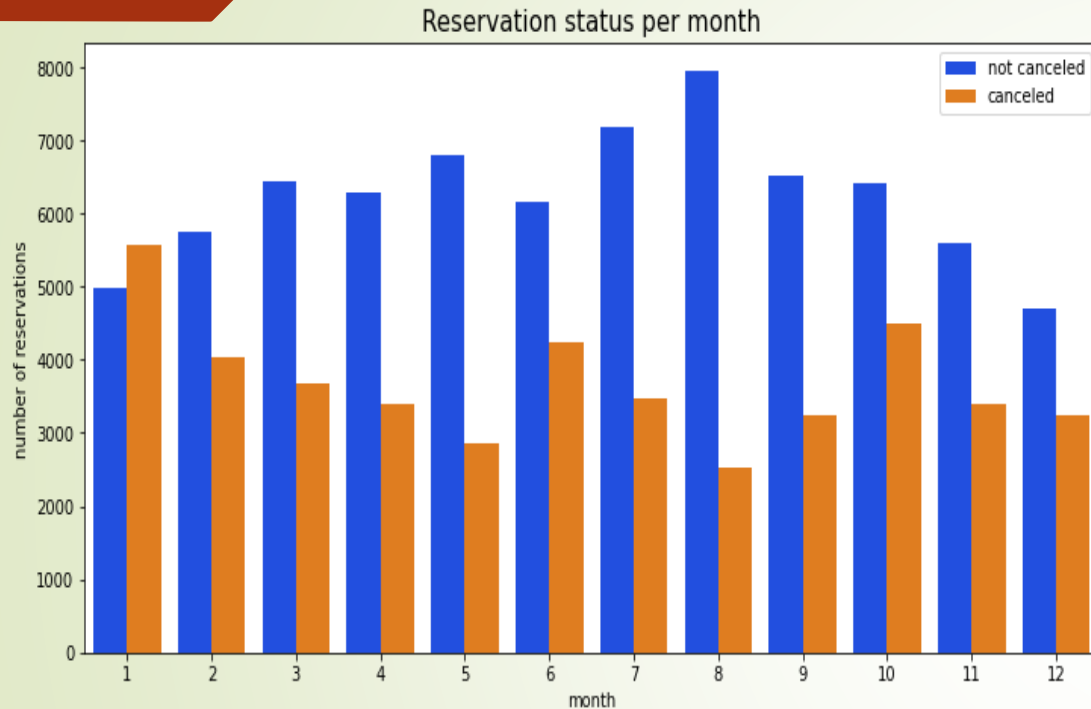
Market Segments



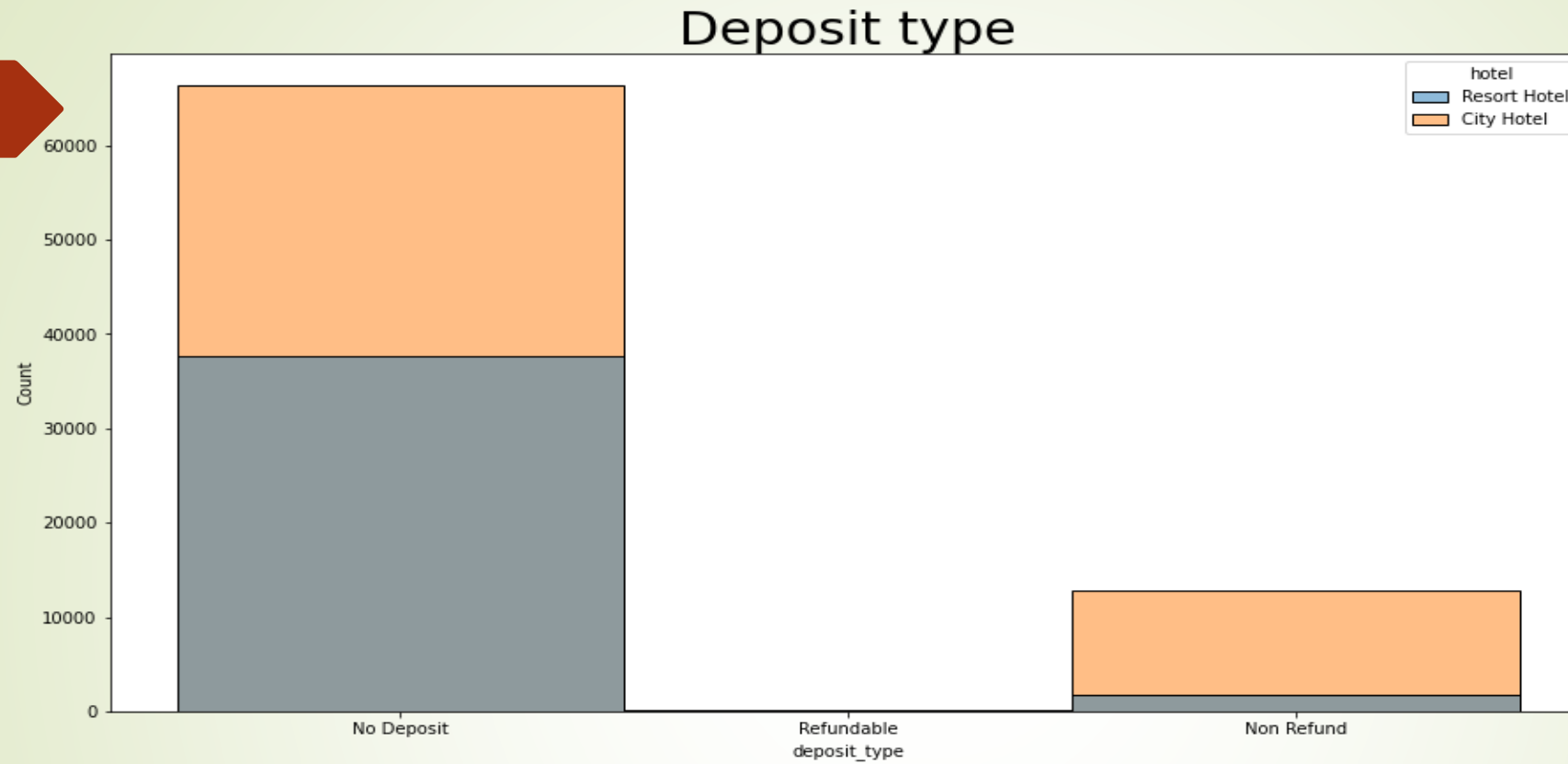
Cancelled data



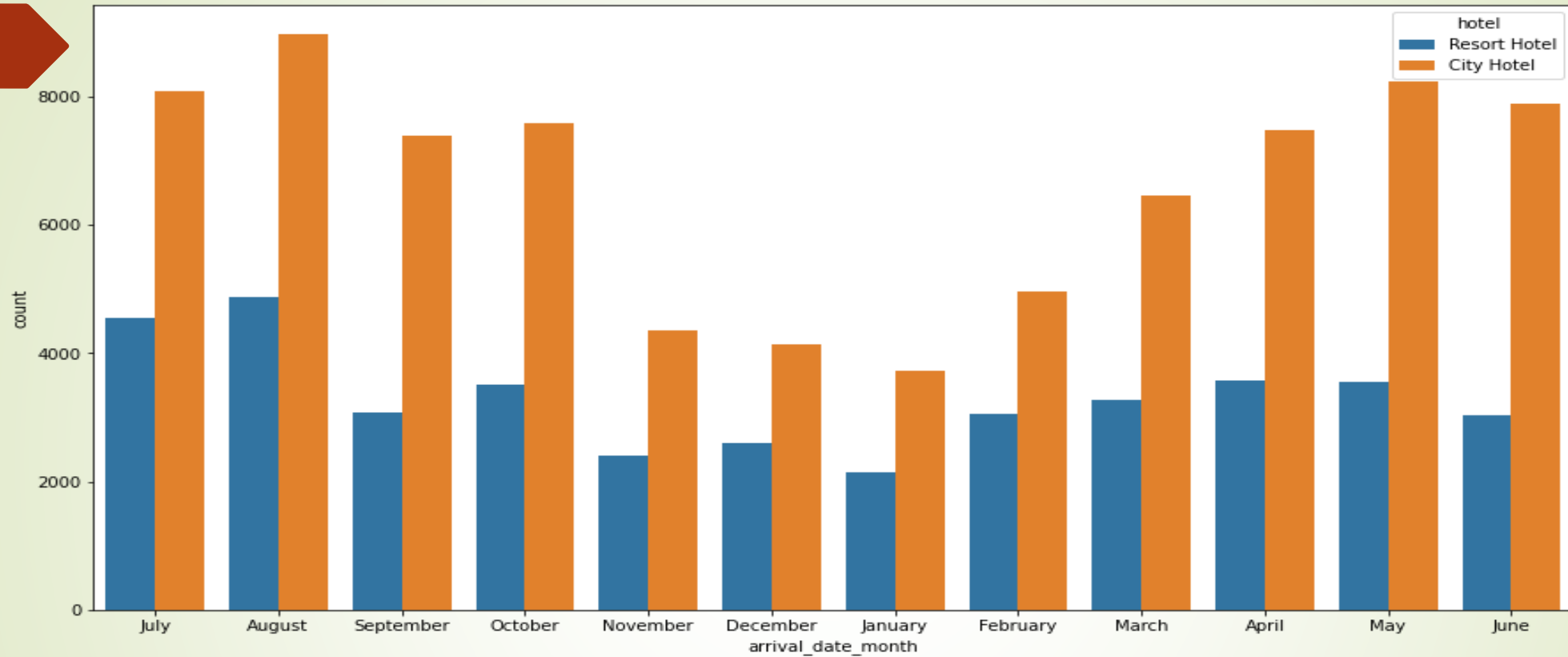
From the above two plots, we can conclude that **Online booking** is high in both Resort and city hotels. The cancellations also high (around 50%) in online booking. Reason may be - In online booking people get impressed by the photos of hotels and get booking. when they visit the hotels it's not as same in picture (low maintenance) so they easily rejecting in online.



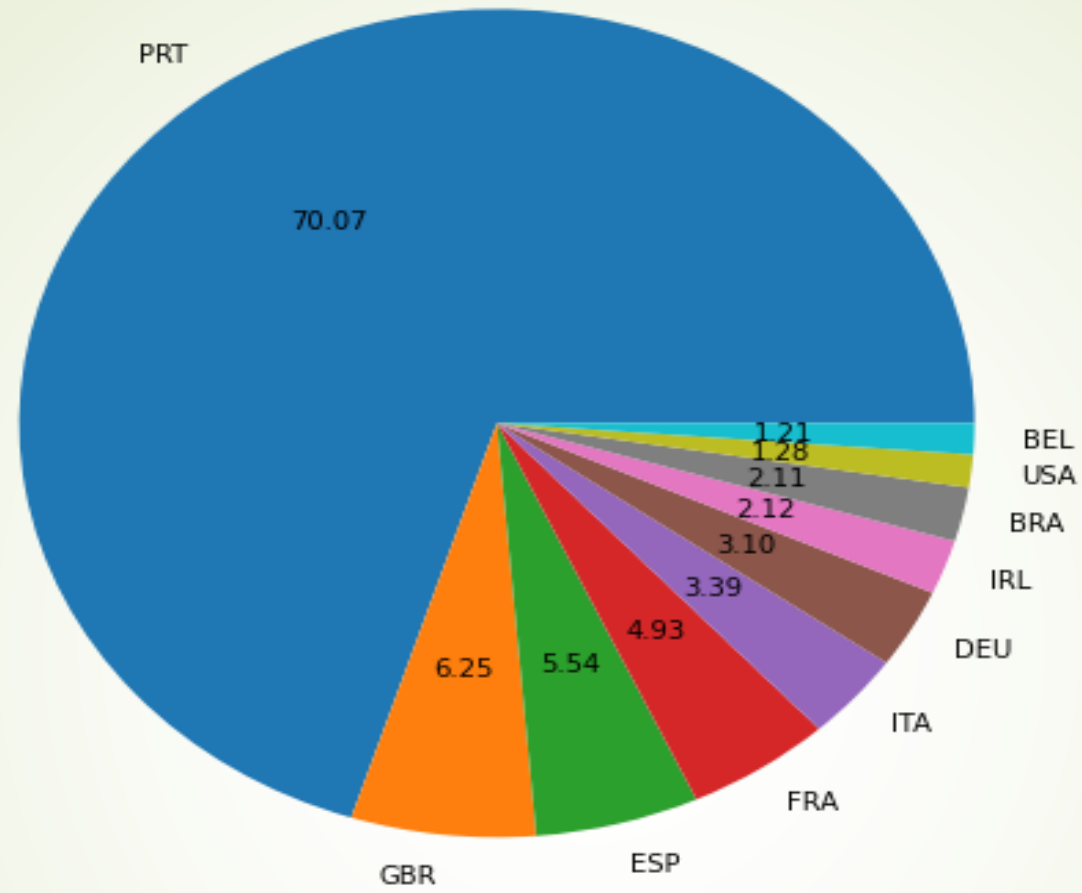
Number of Confirmed reservations (not cancelled) is high in **August** whereas the most cancellation occurs in **January** months. From the previous graph ,we came to know Number of confirmed reservation in **August** whereas most Cancelled Reservations in **January**. The Reason are Average Daily Rate(ADR) is more in January and less in August Compared to all other months. It is clearly evident that price hike is main reason for more cancellations This bar graph demonstrates 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.



Most of the hotels are booked in **No deposit** type .So people easily cancelling their bookings whereas in Non refund cancellation is very low.

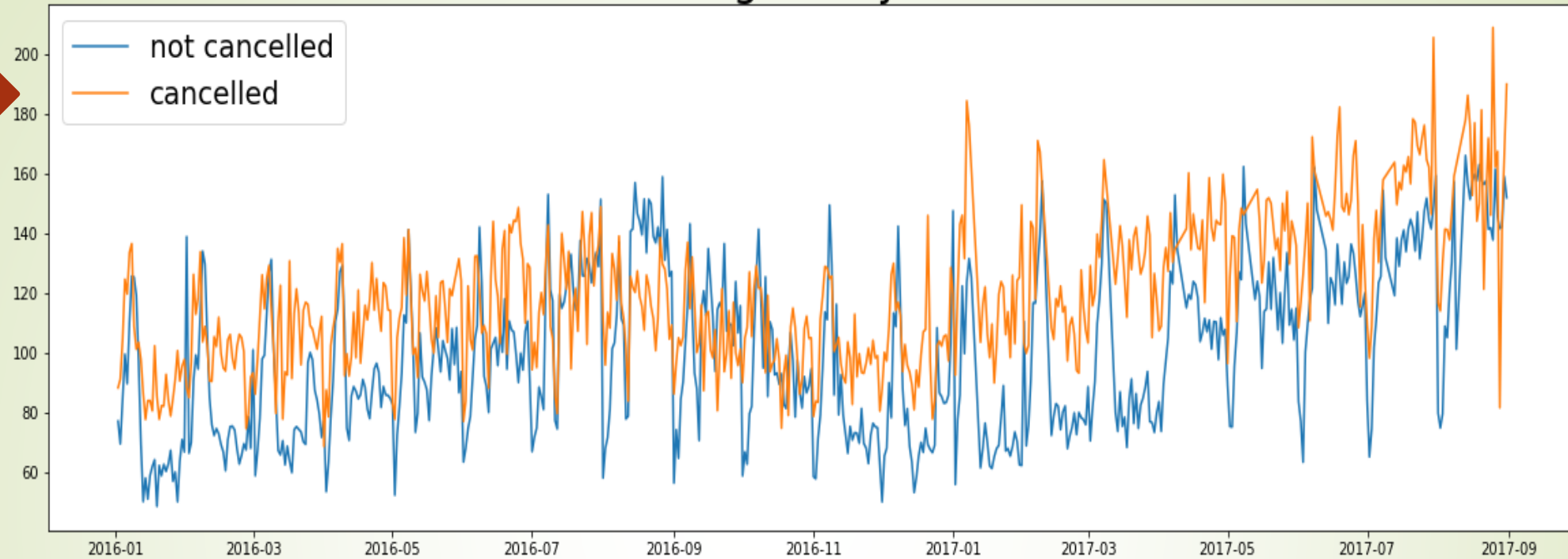


Since this Data belongs to Western Nations, the **Summer season** is between June to September where we can see the **high bookings** and in Winter season from November to February Bookings are low. So hotels should concentrate on these months to attract more guests in the future.



The top country is **Portugal** with the highest number of cancellations followed by Great Britain, Spain and France

Average Daily Rate



From the graph, Another Evidence that Reservations are canceled when the average daily rate is higher than when it is not canceled. It clearly proves all the above analysis, that the higher price leads to higher cancellation.



Consolidated Findings from above graphs

- Majority of the bookings are in City Hotels
- More Cancellations also in City hotels compared to Resort Hotels
- Average Daily Rate(ADR) is the prime factor.
 1. High ADR – More Cancellations
 2. Low ADR – Less Cancellations
- Customers preferring Online Bookings more because of Convenient, it easily paves way for easy cancellations also.
- No Deposit type also main reason for easy cancellations
- More Customers are in summer season from June to September
- More Cancellations from Portugal followed by Great Britain, France and then Spain



Suggestions to Improve Business

- 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.
- Can provide some discounts to the consumers to repeated Customers
- Allocate more marketing budget during peak booking seasons i.e from June to September
- In the month of January, hotels can start campaigns or marketing with a reasonable amount to increase their revenue as the cancellation is the highest in this month.