

Business Problem

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



- **Assumptions**

- 1.No unusual incidents happen between 2015 and 2017.
- 2.The information is still current and can be used to analyze a hotel's possible plans efficiently.
- 3.The hotels are not currently using any of the suggested solutions.
- 4.The biggest reason for reduced income generation is booking cancellation.

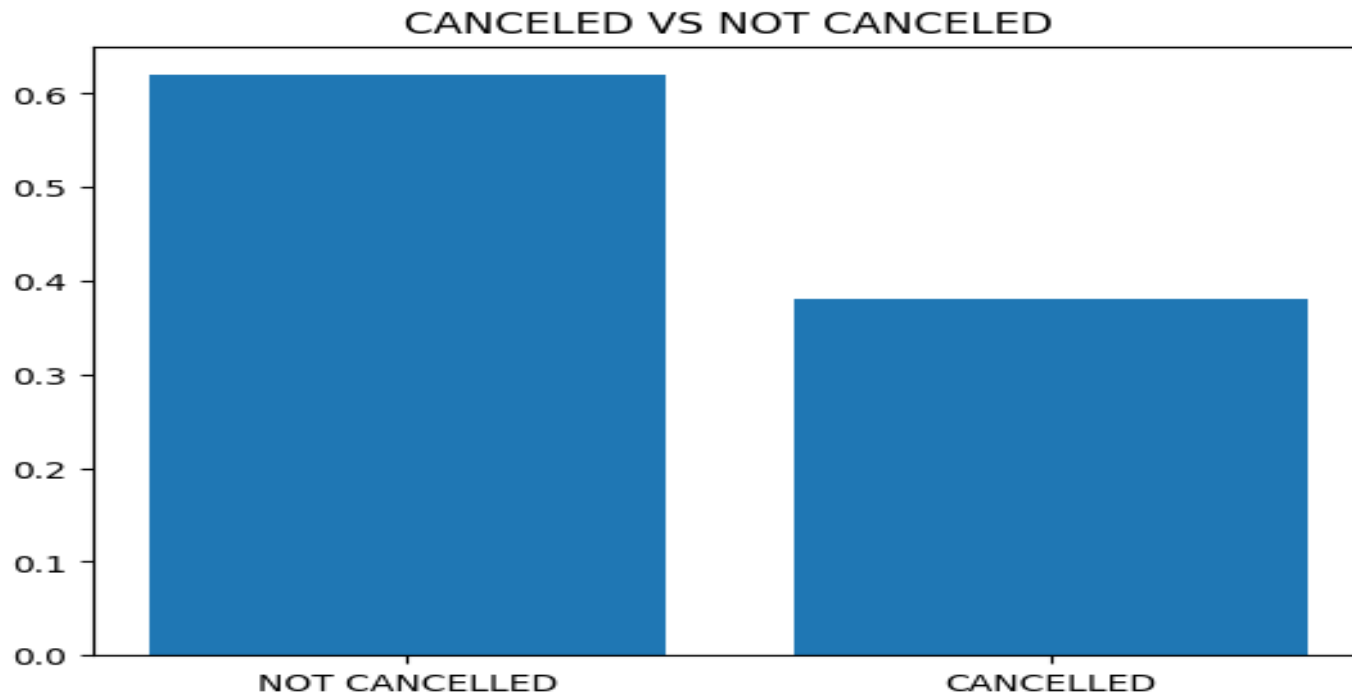
- **Research Question**

- 1.What are the variables that affect hotel reservation cancellations?
- 2.How can we reduce the number of hotel reservation cancellations?
- 3.How can hotels be assisted in making pricing and promotional decisions?

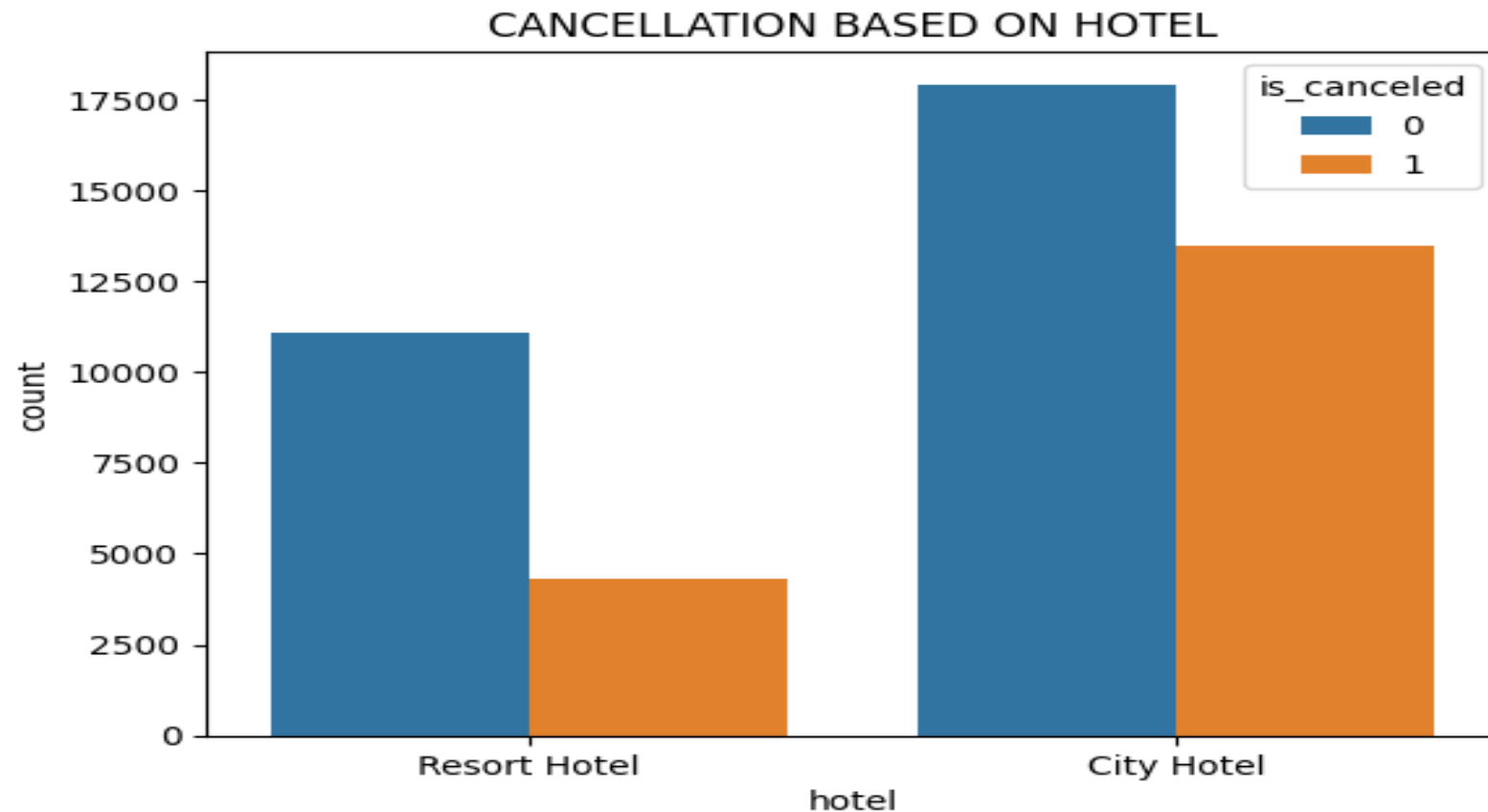
- **Hypothesis**

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

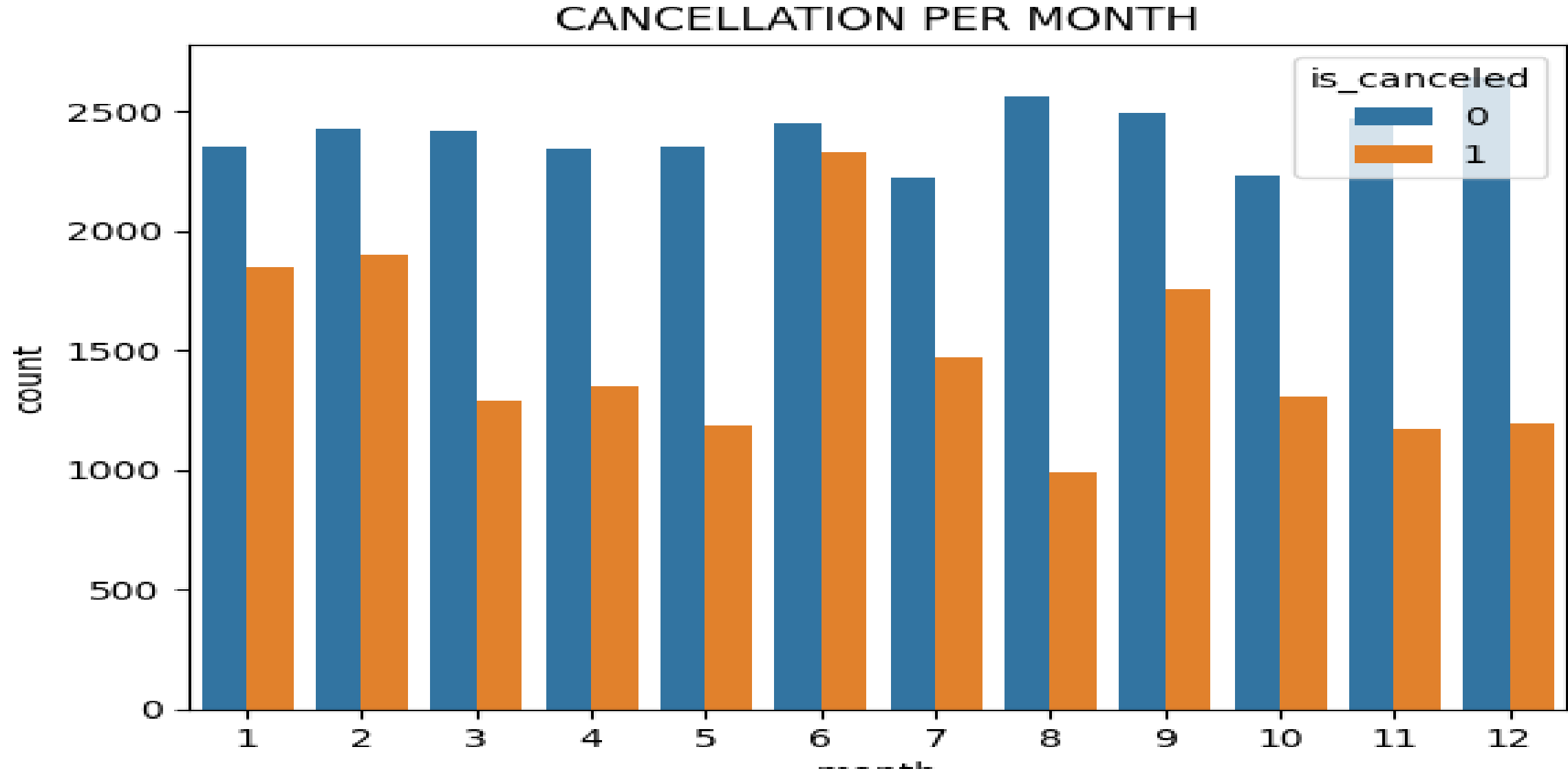
- **Analysis and Findings**



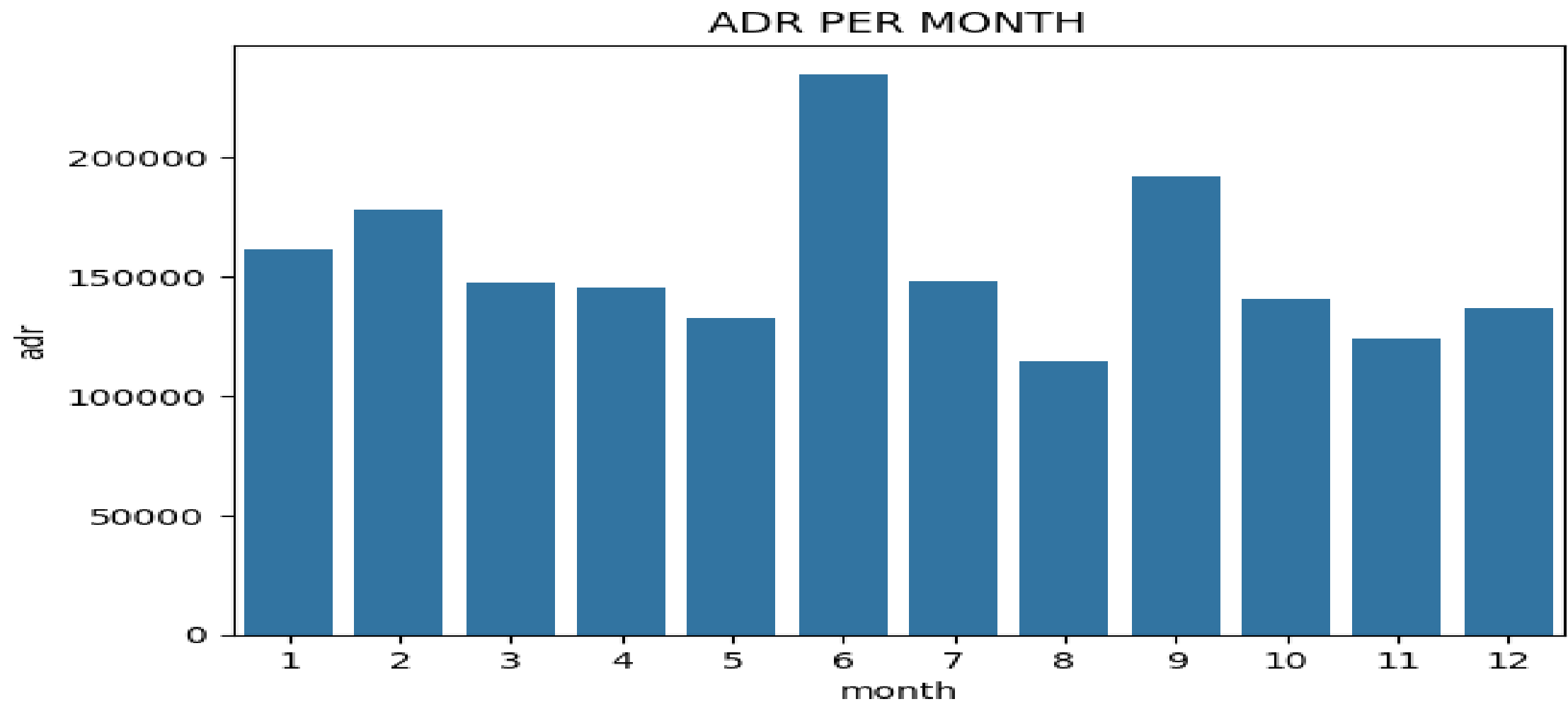
- The bar graph shows the Count of Reservations that are cancelled and that those are not. The “not cancelled” bar is taller than the “cancelled” bar, indicating that there are more reservations that were not cancelled than those that were cancelled. There are still approximately 36.44% of the client who cancelled their reservation, which has a significant impact on the hotel’s earnings.



- In this bar graph we can see that In comparison to resort hotels, city hotels have more bookings. Resort hotels may be expensive in those cities than in others.

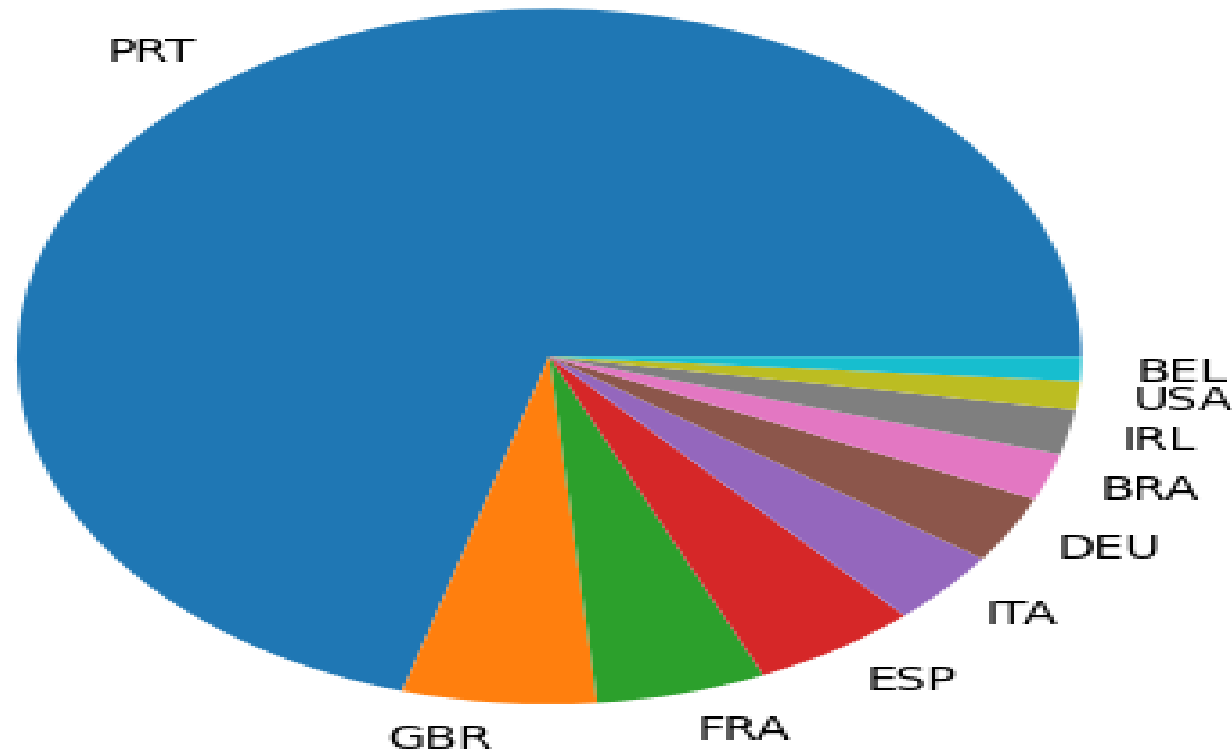


- I have developed the grouped bar chart to analyze highest and lowest level of reservation status by month. As we can see , the highest confirmed reservation in August and lowest cancellation in September. Whereas January is the month with the most cancelled reservation.



- This bar graph confirmed that cancellations are more common when price are higher and least common when price are lower. Therefore , the cost of accommodation is solely responsible for the cancellation.

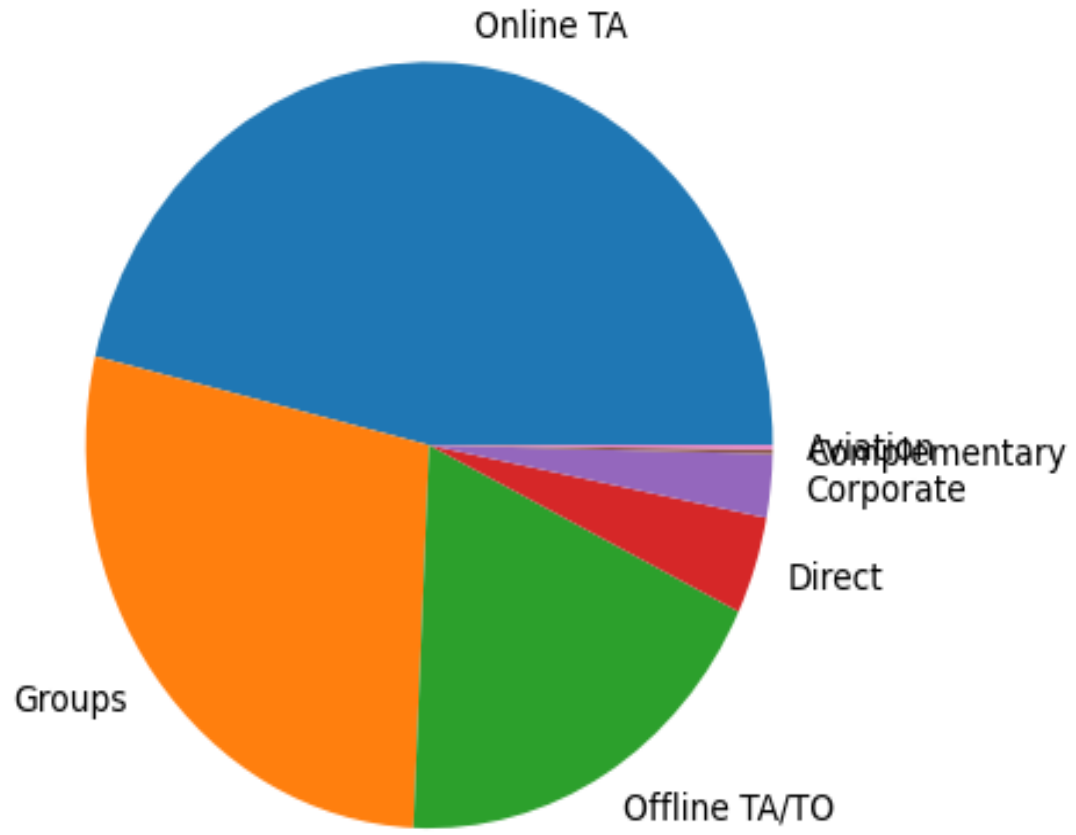
TOP TEN COUNTRY CANCELLATION



- The pie chart shows the top 10 countries with reservations cancelation. Portugal has the highest number of cancellations, with approximately 70.28% of all reservations being cancelled

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CANCELLATION BASED ON MARKET_SEGMENT



- If we analyze the area from where guests are visiting the hotels and making reservations. So, we can see that around 47% of reservations come from online travel agents, and 20.32% come from offline travel agents. 10.47% of clients make their reservations offline by visiting hotels.

- **Suggestions**

1. Cancellation rates increase as the price increases. To prevent reservation cancellations, hotels can consider adjusting their prices for specific hotels based on locations. They can also offer discounts to attract more customers.
2. Since the resort hotel has a higher ratio of cancellations compared to city hotels, they should consider offering reasonable discounts on room prices during weekends or holidays.
3. 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.
4. They can also enhance the quality of their hotels and services, primarily in Portugal to reduce the cancellation rate