

Business Problem:

In recent years, both city hotels and resort hotels have experienced a surge in cancellation rates, resulting in significant revenue losses and operational challenges. High cancellation rates not only impact revenue generation but also lead to suboptimal utilization of hotel rooms and resources. Addressing this issue is crucial for maximizing revenue and improving overall hotel efficiency.

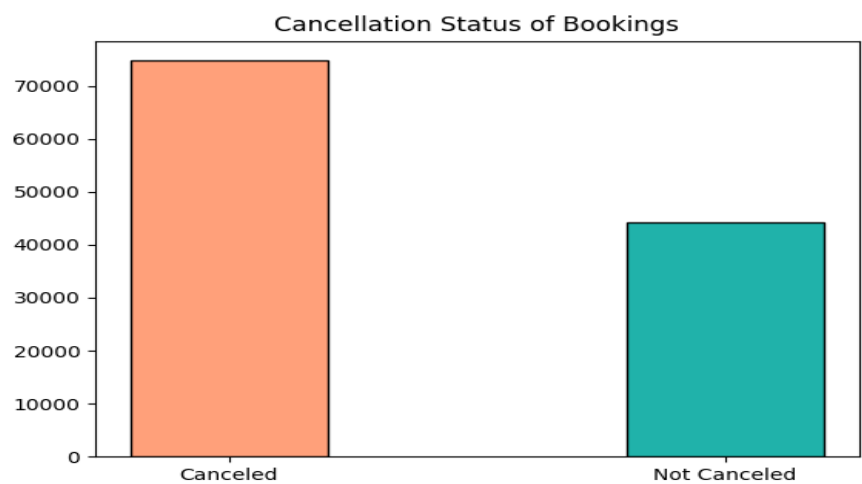
Project Objective:

The primary goal of this project is to analyze hotel booking data to understand the factors contributing to high cancellation rates in both city hotels and resort hotels. By identifying key drivers of cancellations and providing actionable insights, the project aims to help hotels mitigate cancellation rates, optimize revenue generation, and enhance operational efficiency.

Key Questions:

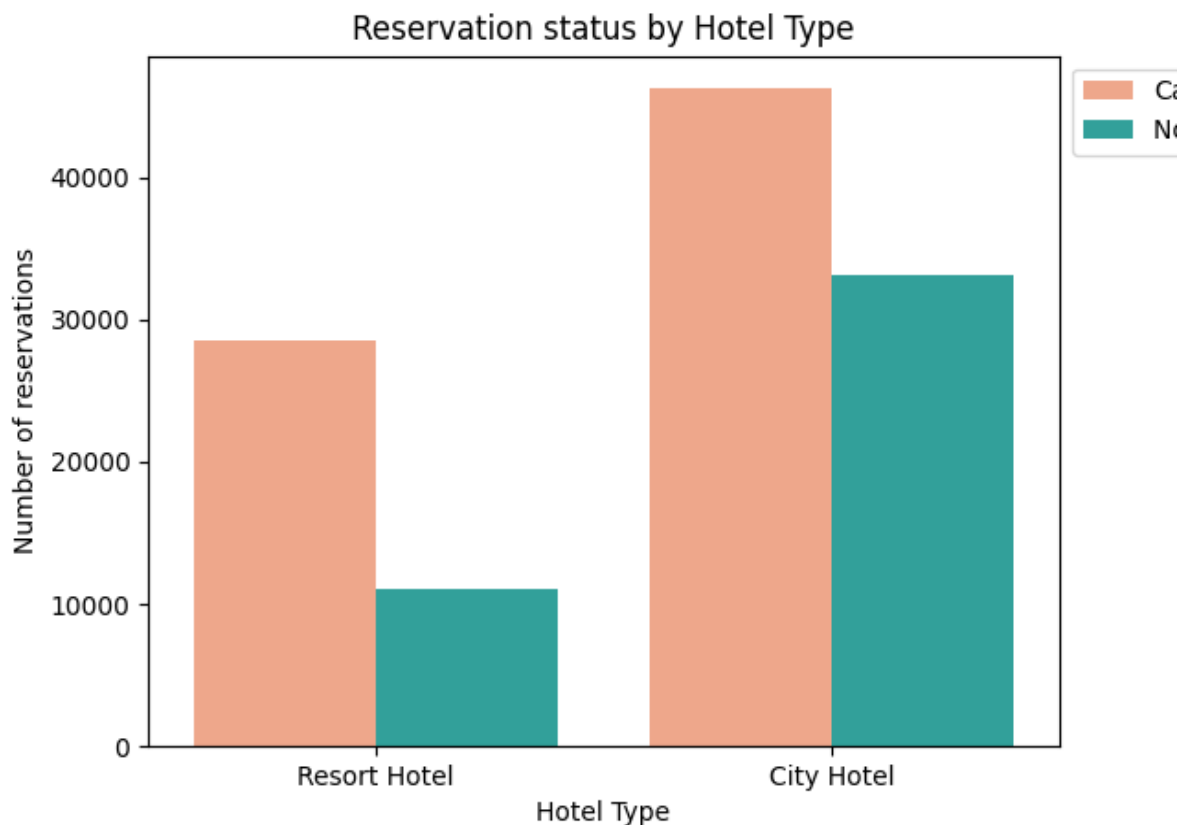
- 1. What are the main factors influencing hotel reservation cancellations?
- 2. How can hotel reservations be improved to reduce cancellation rates?
- 3. What pricing and promotional strategies can assist hotels in mitigating cancellation rates and maximizing revenue?

Analysis and Findings:

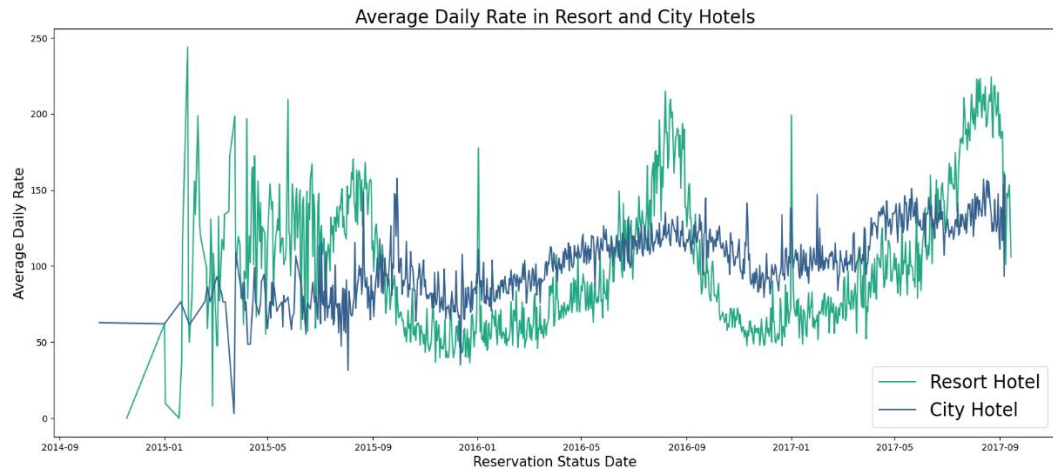


The accompanying bar graph depicts the percentage of reservations that have been canceled compared to those that have not. It's evident that a significant portion, 37% of clients, have canceled their reservations, which has a substantial impact on earnings.

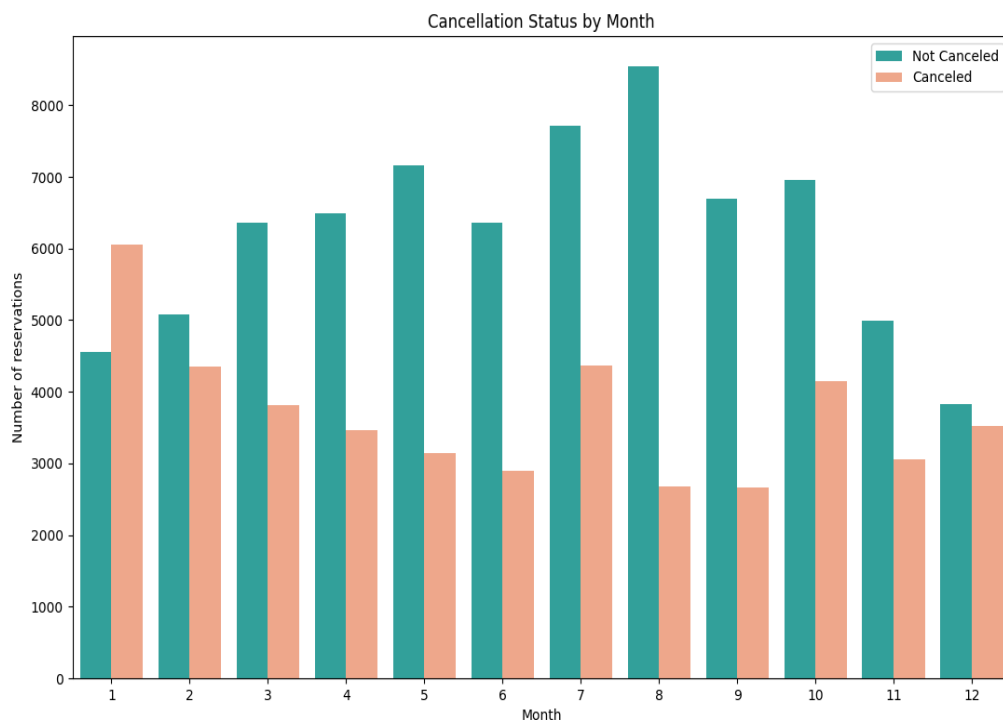
The high percentage of cancellations highlights a pressing issue for hotels, as it directly affects revenue generation. Understanding the reasons behind these cancellations is crucial for devising effective strategies to mitigate their impact.



The chart illustrates a comparison of booking volumes between city hotels and resort hotels. It's noticeable that city hotels have a higher volume of bookings compared to resort hotels. The disparity in booking volumes between city hotels and resort hotels suggests potential differences in demand, pricing, and guest preferences between the two types of accommodations. Resort hotels, on the other hand, may attract a different demographic of guests seeking leisure and relaxation, which could contribute to their lower booking volumes.



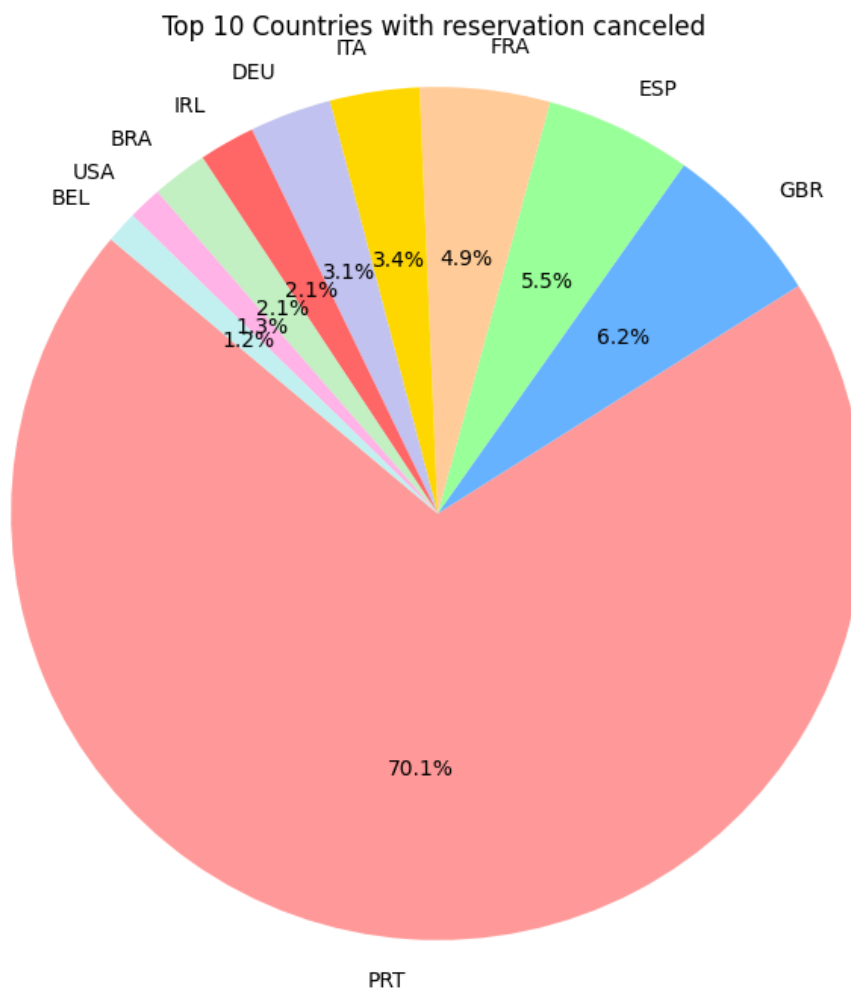
The line graph depicts the comparison of average daily rates (ADR) between city hotels and resort hotels over time. It's evident that on certain days, the ADR for a city hotel is lower than that of a resort hotel, and on other days, the difference is even more pronounced. Understanding the factors driving differences in ADR between city hotels and resort hotels can inform pricing decisions and promotional strategies to capitalize on revenue opportunities.



The grouped bar chart presents an analysis of monthly reservation levels and cancellation rates. It is observed that both the number of confirmed reservations and canceled reservations are largest in the month of August. Upon closer examination of the data, it is evident that January stands out as the month with the highest number of canceled reservations. Possible reasons for

higher cancellation rates in January could include changes in travel plans following the holiday season, adverse weather conditions, or seasonal fluctuations in demand.

There is a clear relationship between booking prices and cancellation rates, indicating that cancellations are highest when prices are at their greatest.

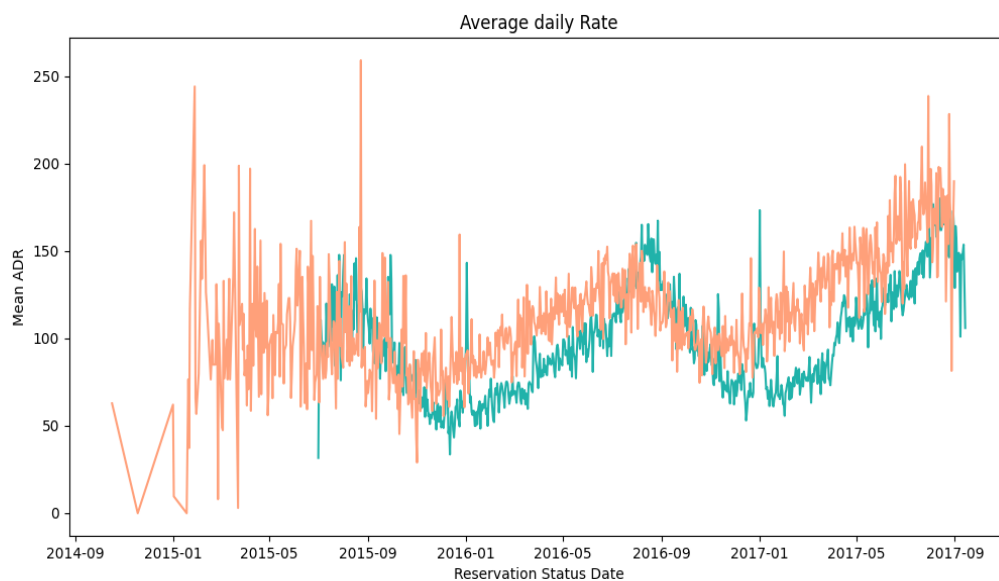


The pie chart visually represents the distribution of cancellation rates among different countries, with Portugal having the highest proportion of cancellations compared to other countries.

Portugal's prominence in the distribution of cancellation rates underscores the need for targeted strategies to mitigate cancellations and optimize revenue generation in this market.

Factors such as travel trends, economic conditions, and competitive landscape may influence cancellation behaviors in Portugal, necessitating tailored approaches to address customer concerns and preferences.

The data reveals that 46% of clients made their bookings through online travel agencies (OTAs), 27% through group bookings, and only 4% through direct visits to the hotel's website.



The graph illustrates a clear relationship between the average daily rate (ADR) and cancellation rates, indicating that reservations are canceled more frequently when the ADR is higher.

Suggestions:

1. **Optimize Pricing Strategies:** Implement dynamic pricing algorithms and revenue management techniques to adjust room rates based on demand fluctuations, market trends, and competitor pricing. Offer competitive pricing options while maintaining profitability to attract bookings and minimize cancellations.
2. **Targeted Marketing Campaign:** Launch a targeted marketing campaign in January to increase revenue and mitigate cancellation risks during this peak cancellation period. The campaign can focus on promoting special offers, discounts, and value-added packages to incentivize bookings and drive demand.

3. **Service Enhancement Initiatives:** Implement service enhancement initiatives specifically tailored to the needs and preferences of guests in Portugal, the top country with the highest cancellation reservations. Focus on improving key aspects of the guest experience to increase satisfaction and reduce the likelihood of cancellations.