

Business Problem

City Hotel and Resort Hotel have experienced high cancellation rates in recent years. This has led to issues such as reduced revenues and suboptimal hotel room utilization. As a result, both hotels aim to reduce cancellation rates to improve revenue efficiency. The analysis aims to address this problem and provide comprehensive business advice.

Additionally, the report will analyze hotel booking cancellations and other factors that impact the hotels' business and yearly revenue generation.

Assumptions

- No unusual occurrences between 2015 and 2017 significantly impacted the data used, meaning the data is free from major outliers or anomalies.
- The information is current and applicable for analyzing the hotels' plans efficiently.
- There are no unanticipated negatives for the hotels in employing any suggested techniques.
- The hotels are not currently using any of the proposed solutions.
- The biggest factor affecting the effectiveness of earning income is booking cancellations.
- Cancellations result in vacant rooms for the entire length of the booking.
- Clients make hotel reservations and cancellations within the same year.

Research

1. what are the variables that affect hotel reservation cancellation?
2. how can we solve hotel reservation cancellations?
3. how will hotels be assisted in making pricing and promotional decisions?

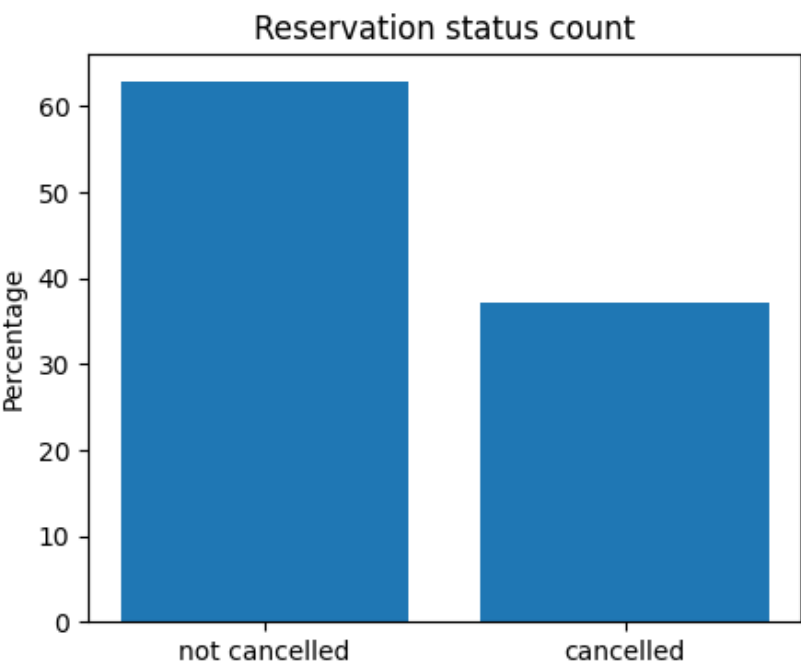
hypotheses

Higher Prices Lead to More Cancellations: Customers are more likely to cancel bookings when prices are higher.

Long Waiting Lists Increase Cancellations: Customers tend to cancel more frequently when the waiting period for a reservation is longer.

Majority of Clients Use Offline Travel Agents: Most clients make their reservations through offline travel agents rather than online platforms or direct bookings.

Analysis and Findings

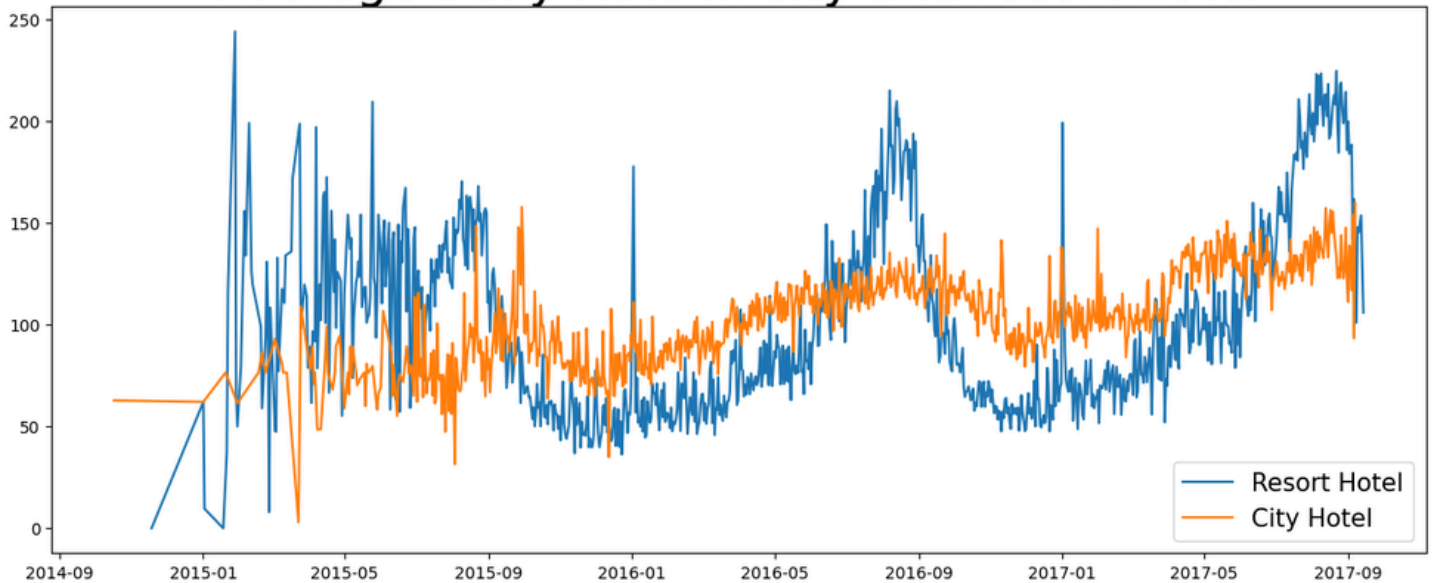


The bar graph compares the percentage of reservations that are canceled versus those that are not. A significant number of reservations remain un-canceled, which is a positive sign. However, 37% of clients canceled their reservations, which has a significant negative impact on the hotels' earnings.



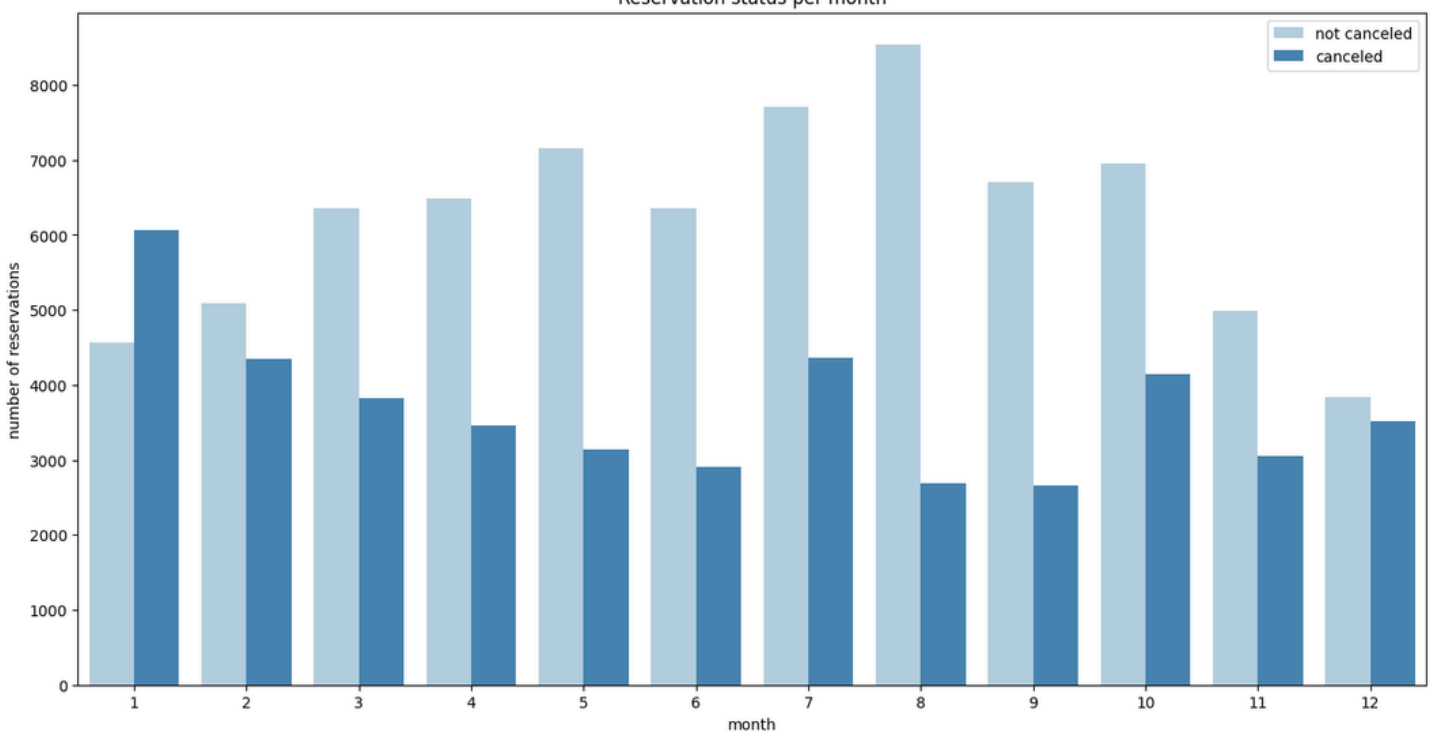
In Compared to resort hotels, city hotels have more bookings. it`s possible that resort hotels are more expensive than those in cities.

Average Daily Rate in city and resort hotel



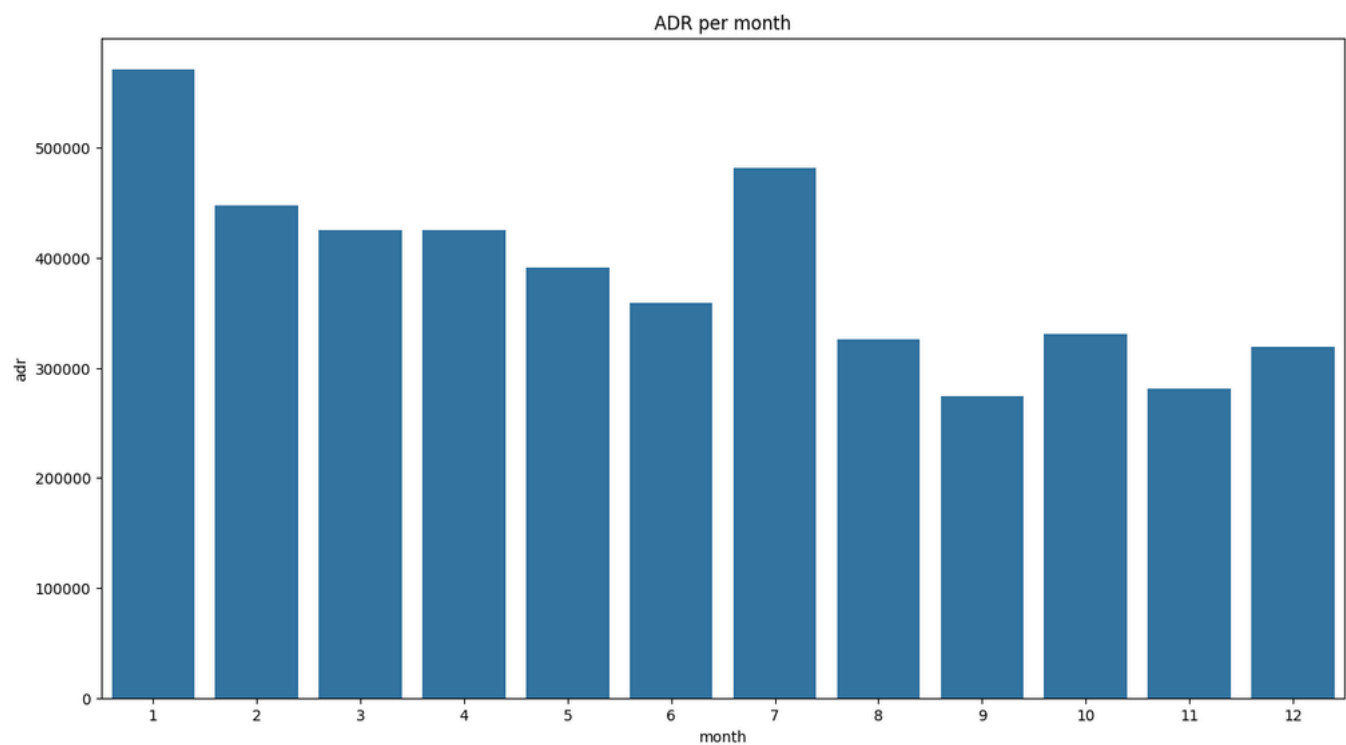
The line graph shows that the average daily rate for City Hotels is sometimes lower than for Resort Hotels and can drop even further on some days. Resort Hotel rates tend to go up on weekends and holidays because more people book them during these times. This shows that prices change depending on the day and demand.

Reservation status per month



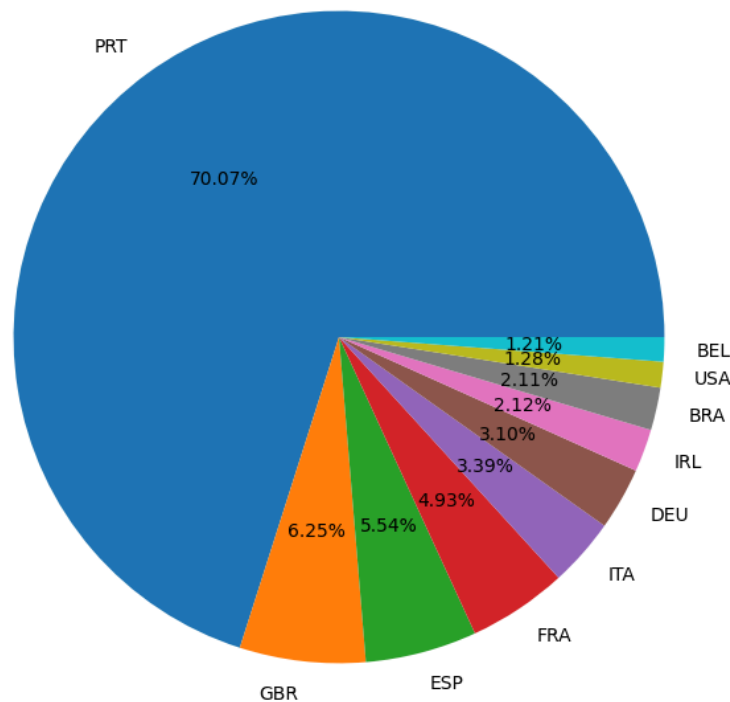
The grouped bar graph shows that August has the highest number of both confirmed and canceled reservations, indicating it as a peak month for bookings. In contrast,

January stands out as the month with the most canceled reservations, highlighting a possible seasonal trend where cancellations are more common at the start of the year.



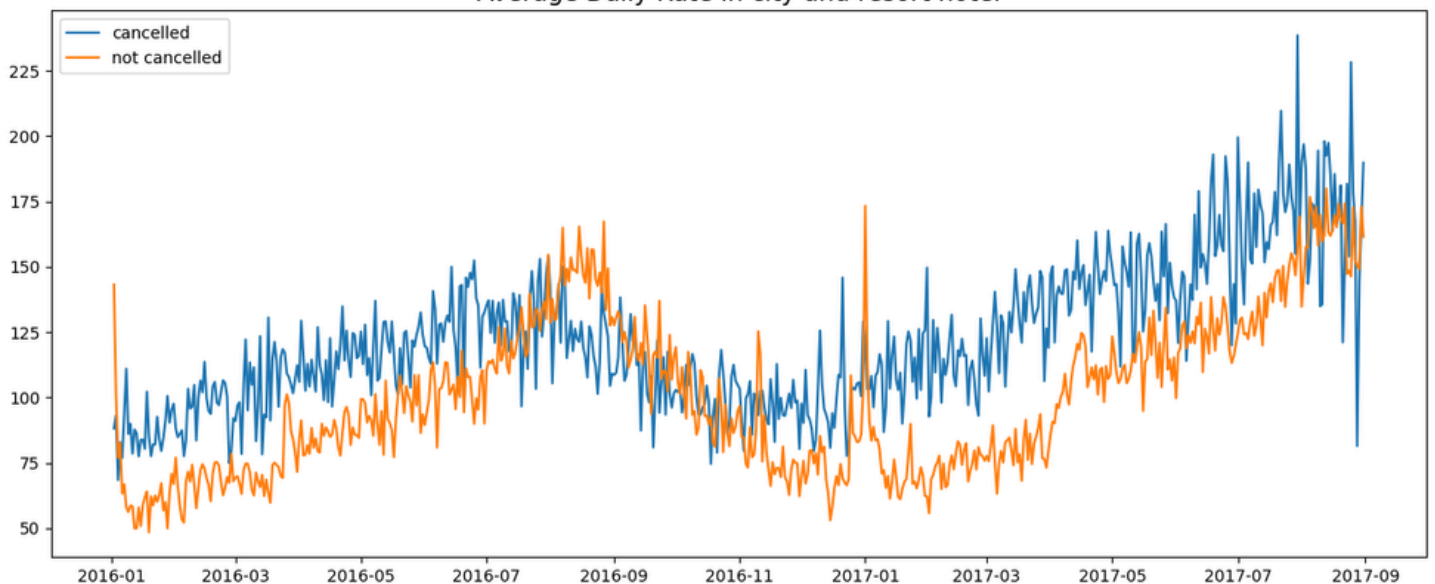
The bar graph shows that cancellations are most common when prices are highest and least common when prices are lowest, indicating that the cost of accommodation plays a major role in cancellations. Additionally, Portugal is identified as the country with the highest number of canceled reservations, highlighting a significant trend in that region.

Top 10 countries with reservation cancellations



The pie chart shows the Top 10 countries with reservation cancellations, with Portugal (PRT) leading significantly at 70.07%. The remaining countries contribute much smaller shares: **United Kingdom (6.25%)**, **Spain (5.54%)**, **France (4.93%)**, **Italy (3.39%)**, **Germany (3.10%)**, **Ireland (2.12%)**, **Brazil (2.11%)**, **USA (1.28%)**, and **Belgium (1.21%)**. This highlights Portugal as the dominant source of cancellations.

Average Daily Rate in city and resort hotel



As seen in the graph, reservations are canceled when the average daily rate is higher than when it is not canceled. It proves all the above analysis, that the higher price leads to higher cancellation

Suggestions:

cancellation rates increase with rising prices. To reduce cancellations, hotels should focus on improving pricing strategies by lowering rates for specific hotels based on their locations and offering discounts to consumers.

the ratio of cancellations and non-cancellations of the resort hotel is higher in the resort hotel than in the city hotels. So the hotels should provide a reasonable discount on the room prices on weekends or holidays

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.

They can also increase the quality of their hotels and their services mainly in Portugal to reduce the cancellation rate