# Hotel Booking Analysis

Problem statement: City Hotels and Resorts are facing high cancellation rates withich in turn is impacting their revenue. As a data analyst, you need to identify the potential factors leading to this problem.

Research Questions:

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

Analysis and Findings:
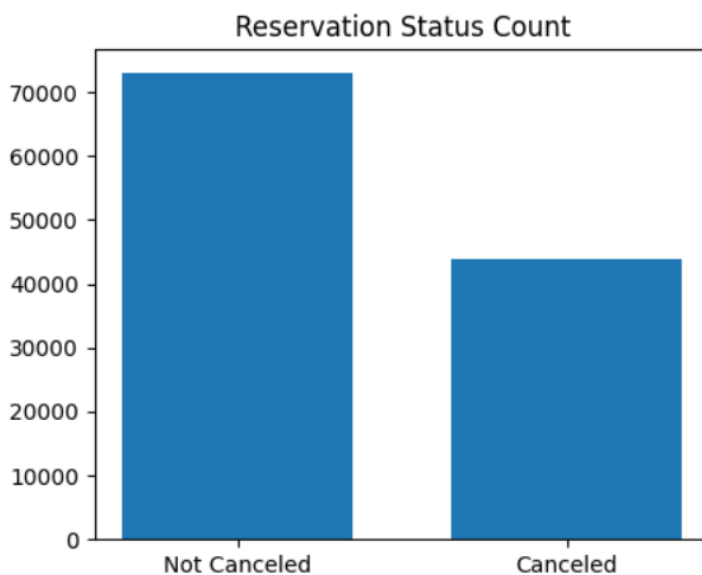
This bar graph compares the number of canceled and non-canceled reservations. Although non-canceled reservations are higher, canceled reservations make up about 37% of the total, significantly impacting the hotel's revenue.

Reservation status in different hotels

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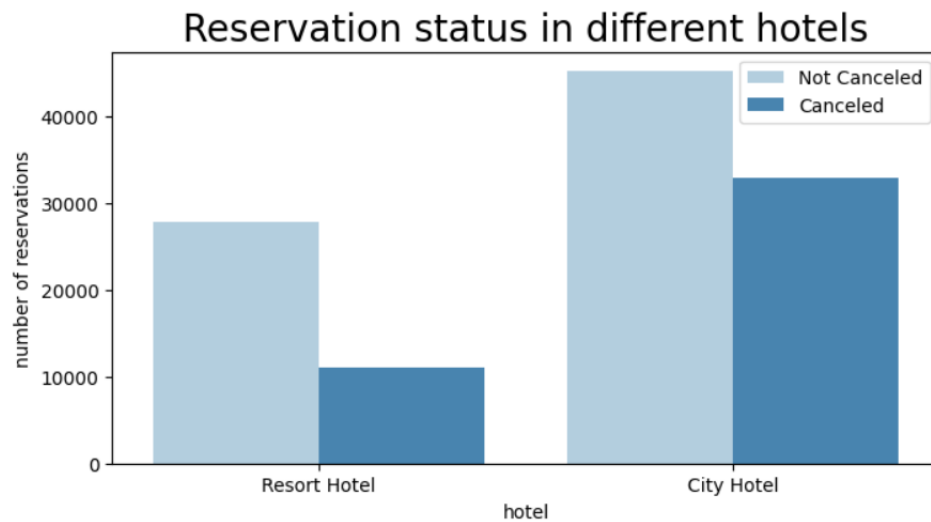
When we compare each hotel's reservation status, City hotels have more bookings. This could mean the prices of Resort hotels are costlier than City hotels.


Average Daily Rate in City and Resort hotel
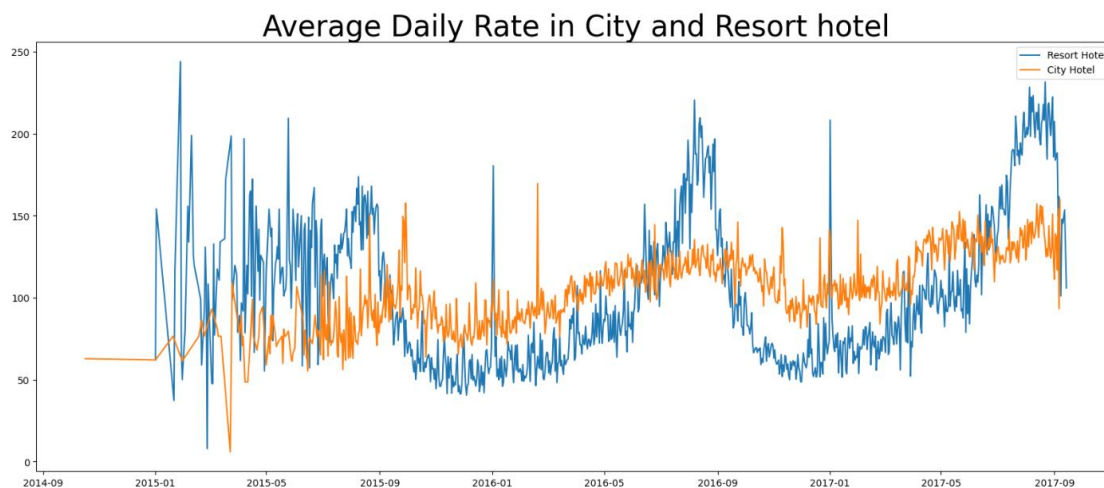
This line graph depicts the variations in average daily rates (ADR) for both City Hotels and Resort Hotels over the years. At certain points, the ADR for City Hotels surpasses that of Resort Hotels. However, Resort Hotels generally maintain a higher ADR. The greater fluctuations in the ADR of Resort Hotels may indicate increased demand during weekends or holidays.

Reservation status per month
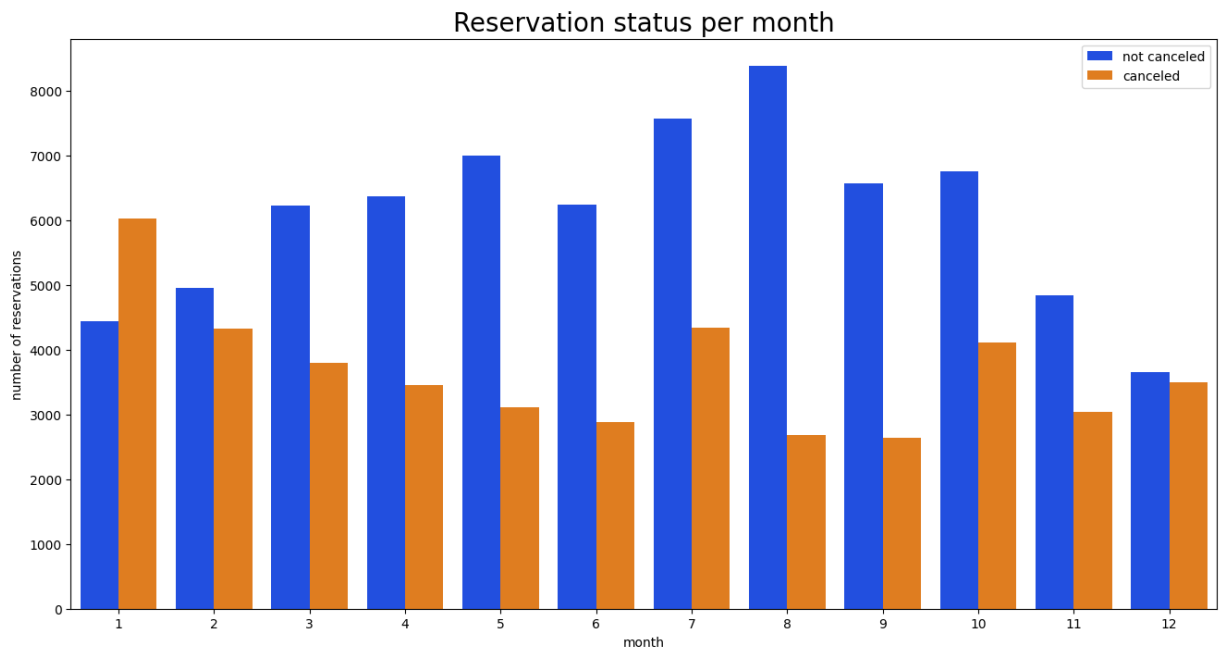
This grouped bar graph analyzes reservation levels across months based on reservation status. It shows that August has the highest number of confirmed reservations, while January records the most canceled reservations.


ADR per month
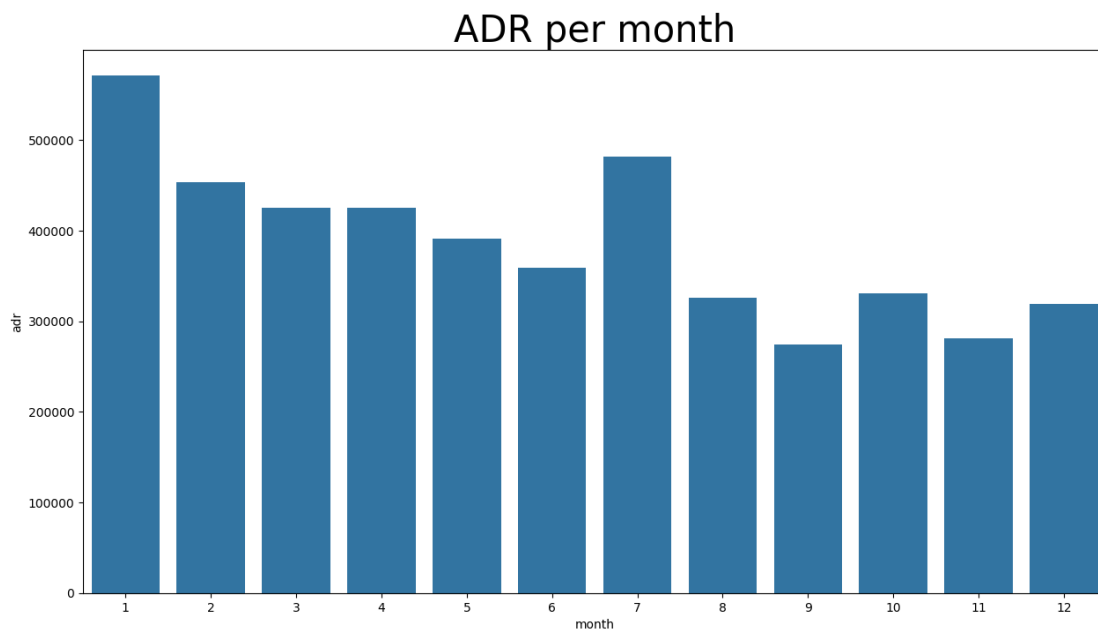
This bar graph displays the Average Daily Rates (ADR) across months. January shows the highest ADR for both hotel types, which likely contributes to the elevated cancellation rates during this month. This suggests that higher accommodation costs may influence cancellation trends.
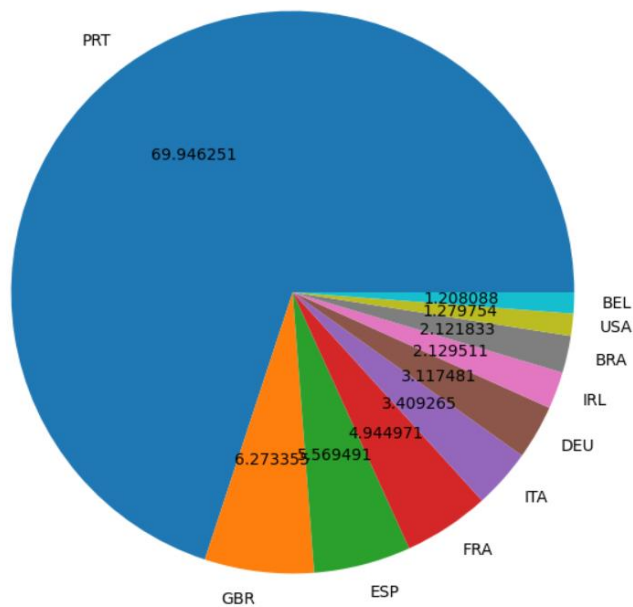
This pie chart shows the top 10 countries with the highest cancellation rates. Portugal is the top country with highest cancellation rates.
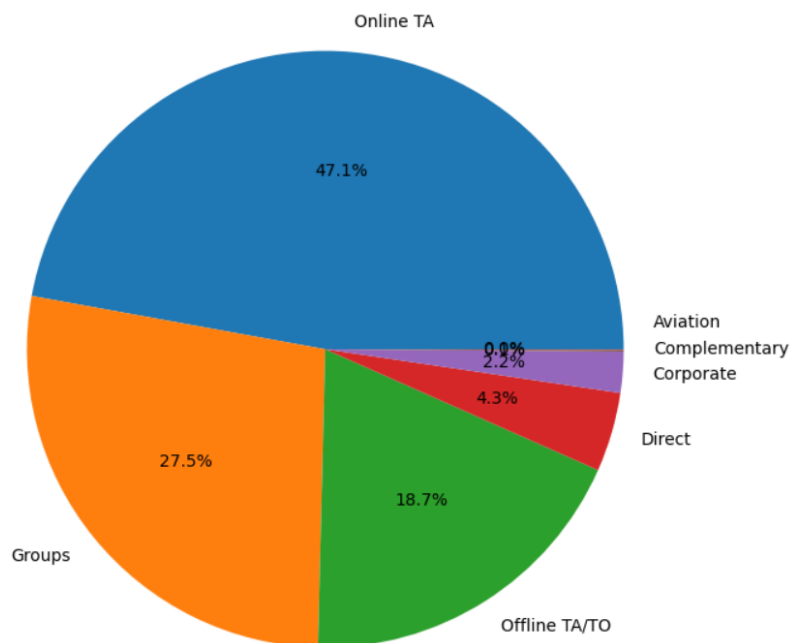
This pie chart illustrates the sources of hotel bookings, including direct bookings, group bookings, and online or offline travel agents. It reveals that approximately 47% of bookings are made through travel agencies, 27.5% come from group bookings, and only 4% of clients book directly with the hotel.

Avergae Daily Rate
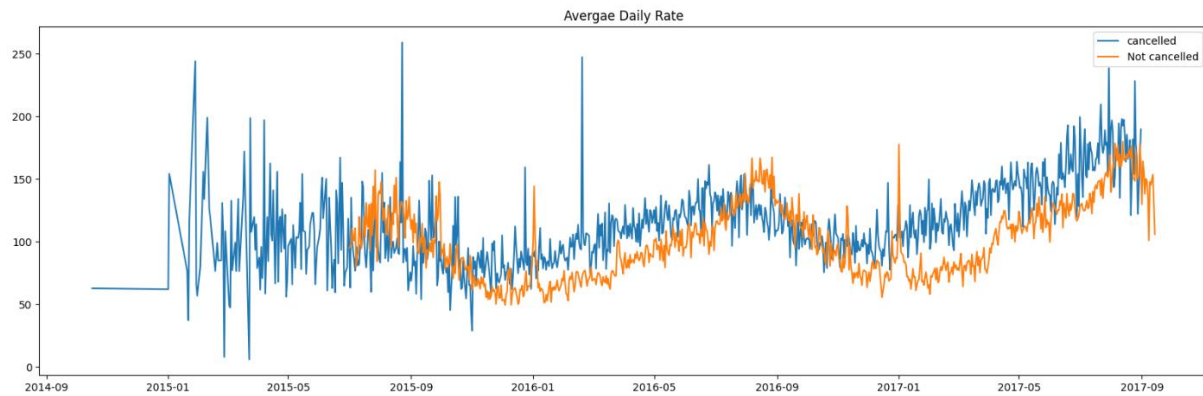
This graph reinforces the conclusion from the previous analysis: higher ADR rates are associated with higher cancellation rates. It demonstrates that increased prices often result in more cancellations.

Suggestions:

- Cancellation rates tend to increase with higher prices. Hotels could optimize their pricing strategies by adjusting rates based on location and offering targeted discounts to attract more bookings.
- Since January experiences the highest cancellation rates, hotels could launch focused marketing campaigns or promotions during this month to boost revenue and encourage bookings.
- Lowering the ADR for resort hotels, particularly on weekends and holidays, could help attract more customers and increase occupancy.
- Enhancing the quality of hotel services may build customer satisfaction and trust, reducing the likelihood of cancellations.