

# Hotel Booking Analysis Report

**Project:** Unlocking Hotel Booking Data

**Objective:** Analyze factors affecting hotel booking cancellations and provide actionable business recommendations.

## 1. Business Problem

In recent years, both City Hotels and Resort Hotels have experienced high booking cancellation rates. These cancellations negatively impact hotel revenue and result in suboptimal utilization of hotel rooms. Reducing cancellations is therefore a key objective to improve operational efficiency and revenue generation.

This report analyzes hotel booking cancellations along with other factors influencing revenue, providing actionable insights to support strategic business decisions.



## **2. Assumptions**

- No unusual external events between 2015 and 2017 significantly affect the dataset.
- The dataset is current enough to provide relevant insights for planning.
- There are no unforeseen negative consequences associated with implementing the suggested strategies.
- The hotels are not currently employing any of the recommended solutions.
- Booking cancellations are the primary factor impacting revenue.
- Cancellations result in vacant rooms for the reserved duration.
- Customers make reservations and cancellations within the same year.



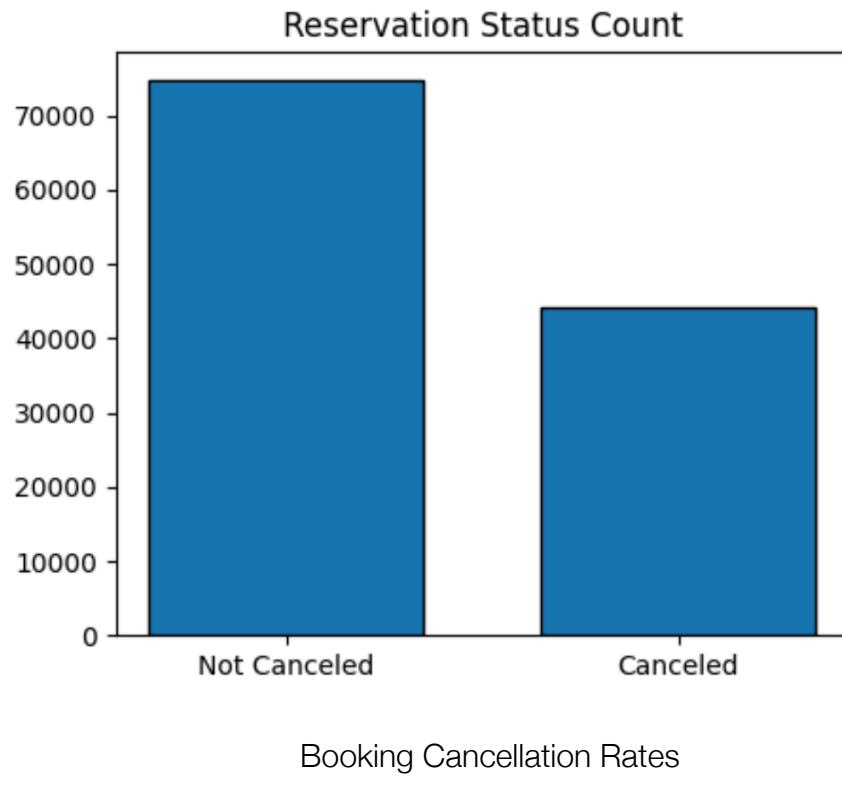
## **3. Research Questions**

- What are the key variables that affect hotel booking cancellations?
- How can hotels reduce booking cancellations?
- How can this analysis assist hotels in making pricing and promotional decisions?

## **4. Hypotheses**

- Higher prices lead to more cancellations.
- Longer lead times (time between booking and arrival) increase the likelihood of cancellations.
- Most clients make reservations through offline travel agents rather than direct bookings.

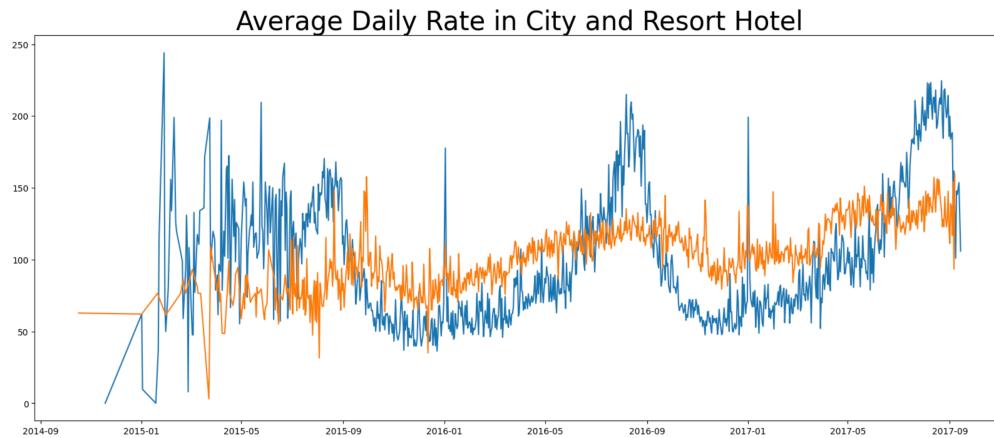
## 5. Analysis and Findings



- Approximately 37% of reservations are canceled, significantly affecting hotel revenue.
- City hotels have more bookings overall compared to resort hotels, possibly due to resort hotels being more expensive.

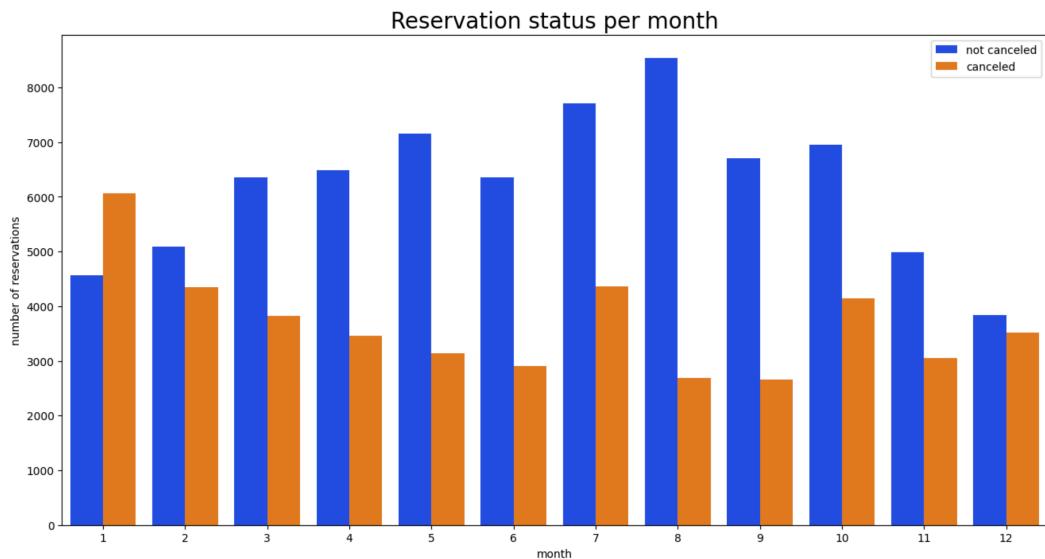


In comparison to resort hotels, city hotels have more bookings. It's possible that resort hotels are more expensive than those in cities.



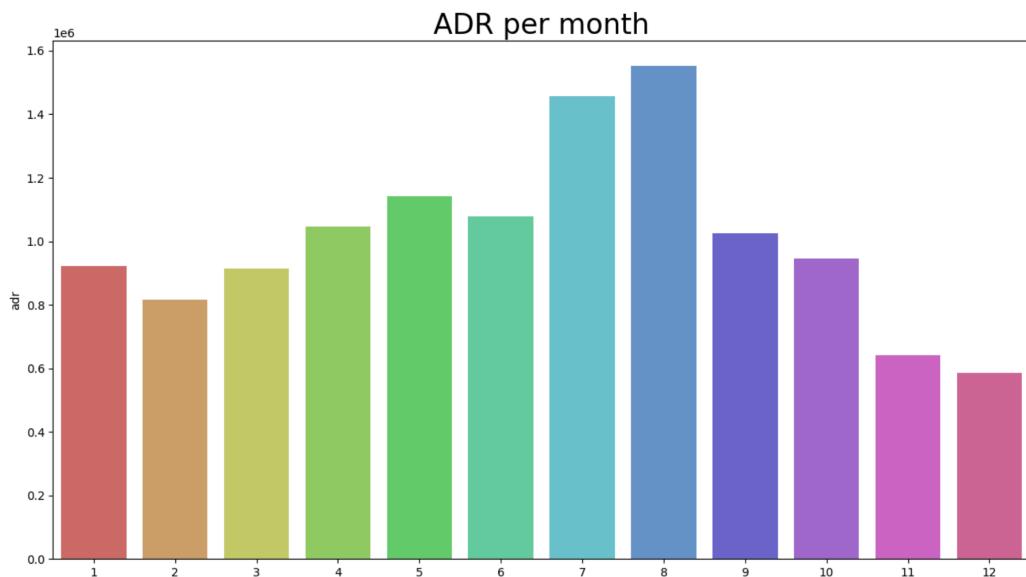
### Price and Average Daily Rate (ADR) Analysis

- ADR varies by hotel type and day. On certain days, city hotels have lower rates than resort hotels.
- Weekends and holidays often see higher resort hotel rates.
- Cancellations are more common when the average daily rate is higher, confirming that price is a major factor in cancellations.

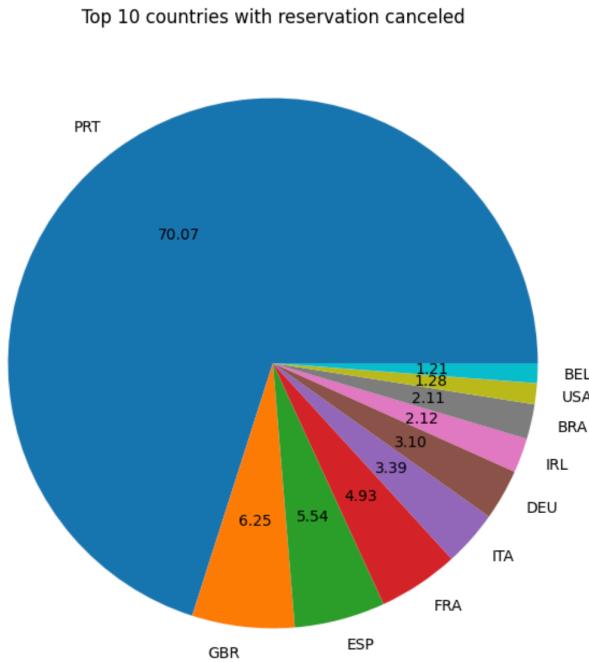


### Monthly Booking Trends

- August has the highest number of both confirmed and canceled reservations, while January sees the most cancellations.
- Hotels can use this insight to plan pricing and promotional strategies seasonally.



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.

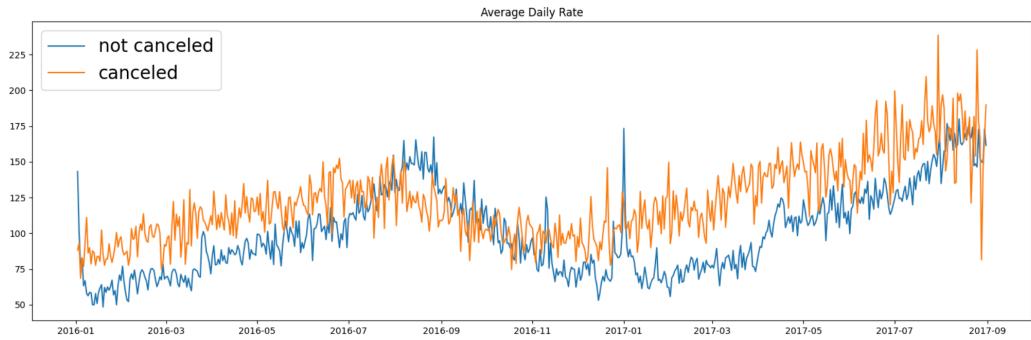


### Geographical Insights

- Portugal is the country with the highest number of canceled reservations.

Let's check the area from where guests are visiting the hotels and making reservations.

Is it coming from Direct or Groups, Online or Offline Travel Agents? Around 46% of the clients come from online travel agencies, whereas 27% come from groups. Only 4% of clients book hotels directly by visiting them and making reservations.



### Booking Channels

As seen in the graph, 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.

## **6. Suggestions and Recommendations**

### **Pricing Strategy:**

- Reduce room rates for high-risk periods to prevent cancellations.
- Offer targeted discounts based on hotel location and type.

### **Resort Hotel Focus:**

- Resort hotels show higher cancellation ratios than city hotels. Offer discounted rates on weekends or holidays to improve occupancy.

### **Seasonal Marketing:**

- Launch promotional campaigns in January, when cancellations peak, to increase confirmed bookings and revenue.

### **Geographical Targeting:**

- Improve hotel quality and services in Portugal to reduce cancellations from high-cancellation markets.

## **7. Conclusion**

Booking cancellations are a significant factor affecting hotel revenue, particularly at resort hotels and during high-priced periods. By adopting targeted pricing strategies, seasonal promotions, and geographical focus, hotels can reduce cancellations, increase occupancy, and enhance revenue efficiency.