

ANALYSIS ON HOTEL BOOKINGS

“The heart of hospitality is about creating space for someone to feel seen, heard, and loved”

- Shauna Niequist

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Disclaimer

This report is based on a fictional dataset and is intended for analytical and educational purposes only. The findings and recommendations presented are for illustrative purposes and do not reflect real-world hotel operations.

Executive Summary

This report analyses hotel booking trends, focusing on factors influencing reservation cancellations.

The objective of this study is to identify key variables affecting cancellations and provide actionable insights for improving hotel revenue.

The dataset includes booking details for City Hotels and Resort Hotels, covering aspects such as booking sources, seasonal trends, and price fluctuations.

Our analysis highlights that approximately 37% of reservations are cancelled, significantly impacting revenue.

Pricing strategies, seasonal demand, and booking sources play a crucial role in these cancellations.

Data Overview and Methodology

The dataset consists of hotel reservations, including attributes such as booking status, arrival date, number of nights, customer demographics, and booking sources.

The analysis was conducted using descriptive statistics and visualizations to identify patterns in cancellations, price variations, and customer behaviour.

The primary tool used for this analysis was Python, leveraging libraries such as Pandas, Matplotlib, and Seaborn for data manipulation and visualization.

Additionally, data cleaning was performed to remove inconsistencies and ensure accuracy in the analysis.

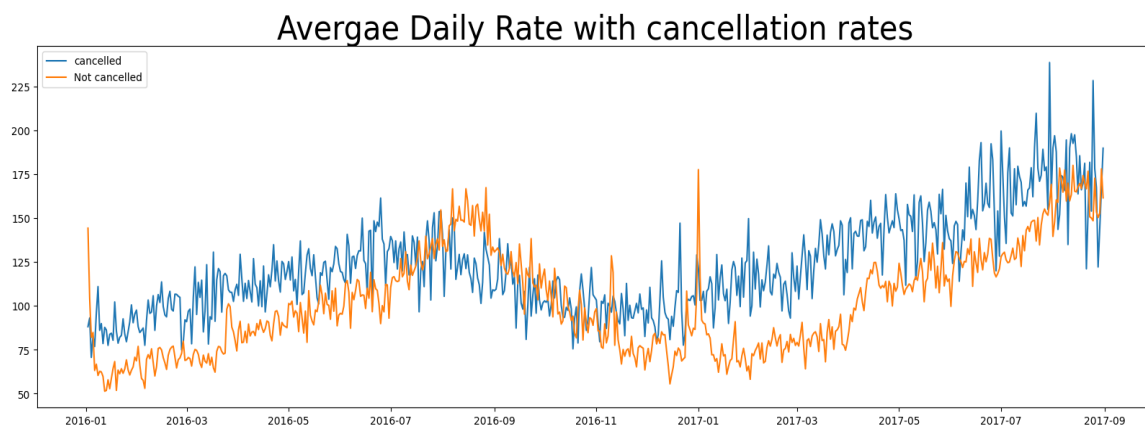
Exploratory Data Analysis

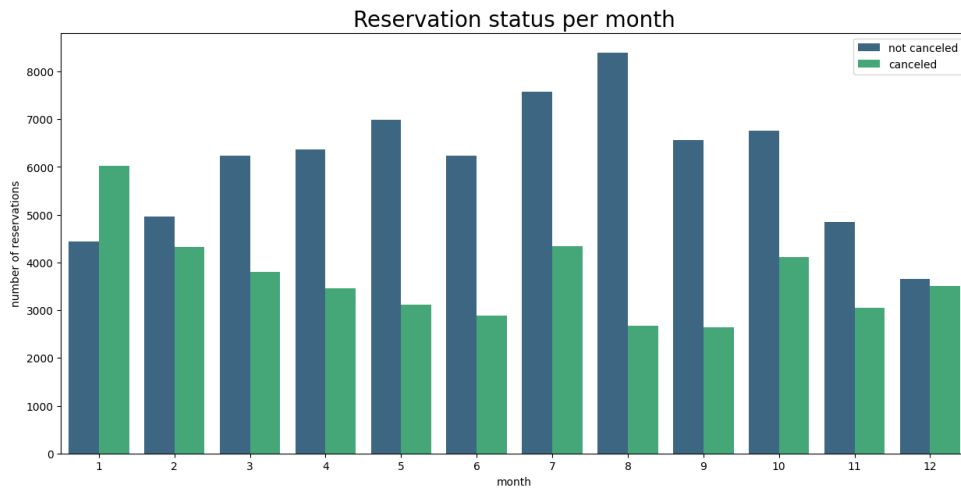
Customer Behaviour

- City Hotels receive more bookings than Resort Hotels, suggesting a preference for urban locations.

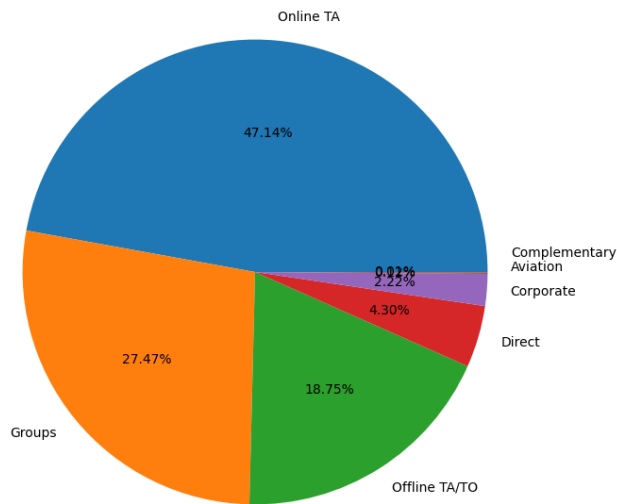


- Cancellation rates are significantly influenced by pricing, with higher Average Daily Rates (ADR) leading to more cancellations.

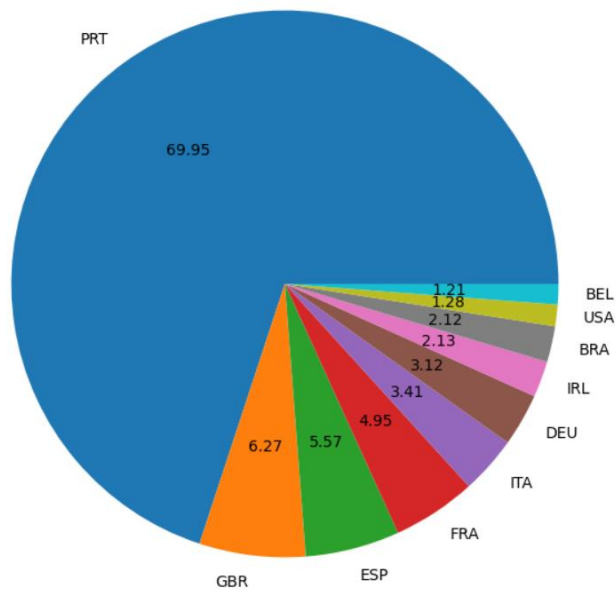




- Booking source impacts cancellations—47% of bookings come through travel agencies, which also have higher cancellation rates compared to direct bookings.

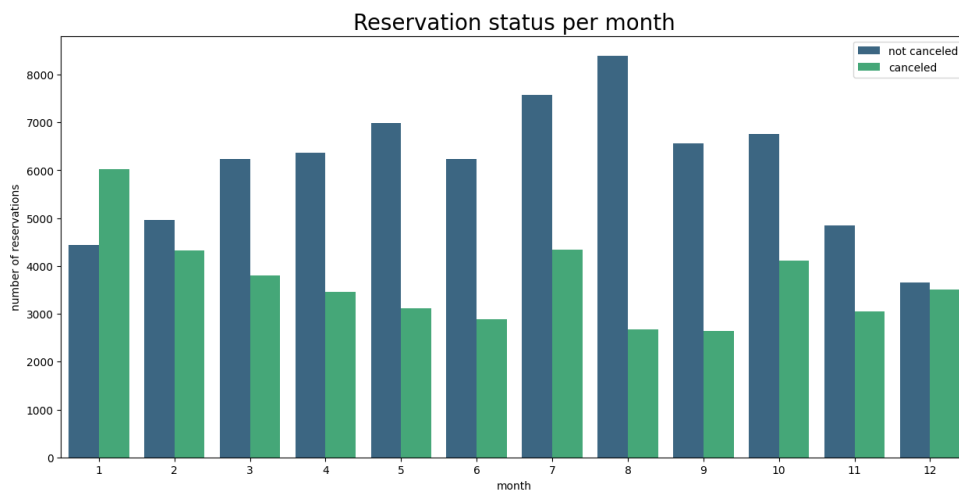


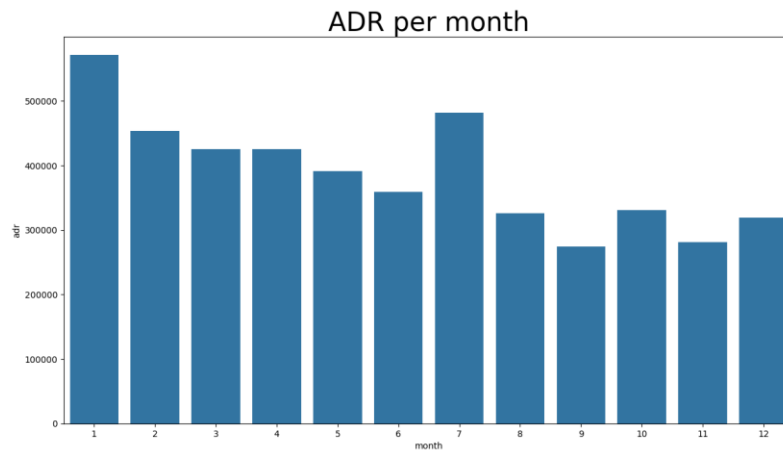
- Portugal has the highest number of cancellations among the top 10 countries in the dataset.



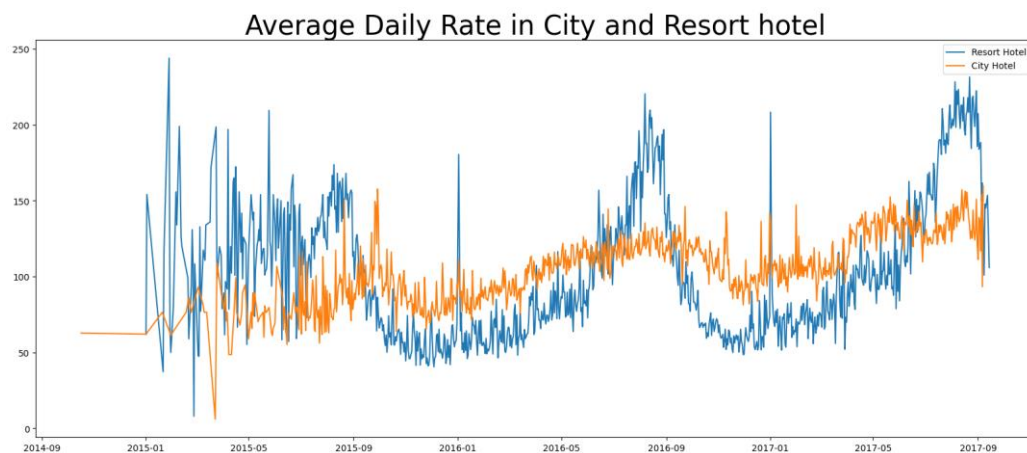
Additional Findings

- January experiences the highest number of cancellations, coinciding with the highest ADR, indicating price sensitivity.





- August sees the highest number of confirmed bookings, likely due to peak travel demand.
- Resort Hotels generally have a higher ADR than City Hotels, with noticeable fluctuations during weekends and holidays.



Key Insights and Business Implications

- **Pricing Strategies:** Hotels should consider dynamic pricing models to optimize revenue and reduce cancellations, particularly in high-priced months like January.
- **Marketing Initiatives:** Targeted promotions and discounts could be introduced to retain bookings and reduce cancellations during peak cancellation periods.
- **Booking Channel Optimization:** Encouraging direct bookings through loyalty programs or exclusive discounts could help mitigate cancellations from third-party sources.
- **Seasonal Demand Management:** Adjusting prices for Resort Hotels on weekends and holidays can improve occupancy rates while maintaining profitability.
- **Service Enhancement:** Improving the overall customer experience may increase retention and reduce cancellations driven by dissatisfaction.

Conclusion

This analysis underscores the significant impact of pricing, seasonality, and booking sources on hotel reservation cancellations.

By implementing strategic pricing models, optimizing booking channels, and refining marketing efforts, hotels can reduce cancellations and enhance revenue.

Future studies could explore customer satisfaction metrics and real-time booking adjustments to further optimize operations.