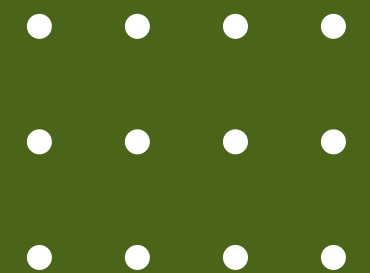


Hey, Its Harshit Agrahari

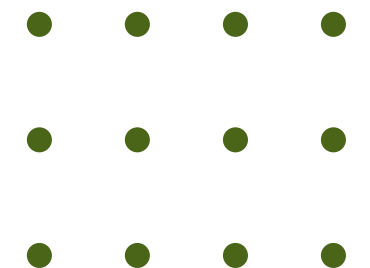
Data Analyst

Project{Hotel-cancellation-analysis}



Project Details

Detail inspection of why hotel cancellations increase in a hotel over time using pandas, matplotlib, numpy and seaborn we will generate insights from dataset and visualize the data.



Assumptions

1.No Unusual Occurrences:

- Between 2015 and 2017, no significant events or anomalies will substantially impact the data used for analysis.

2.Current Information:

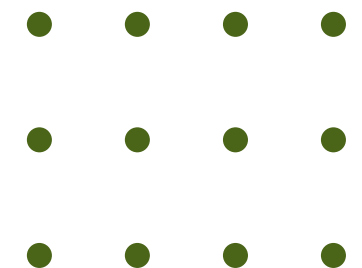
- The information available is still current and can be effectively utilized for analyzing a hotel's potential plans.

3.No Unanticipated Negatives:

- Employing any advised technique will not result in unforeseen negative consequences for the hotel.

4.Existing Solutions:

- The hotels are not currently implementing any of the suggested solutions.



Research Question

Variables Affecting Cancellations:

Investigate the factors that influence hotel reservation cancellations. Identify relevant variables such as booking lead time, room type, pricing, and guest demographics.

Improving Cancellation Process:

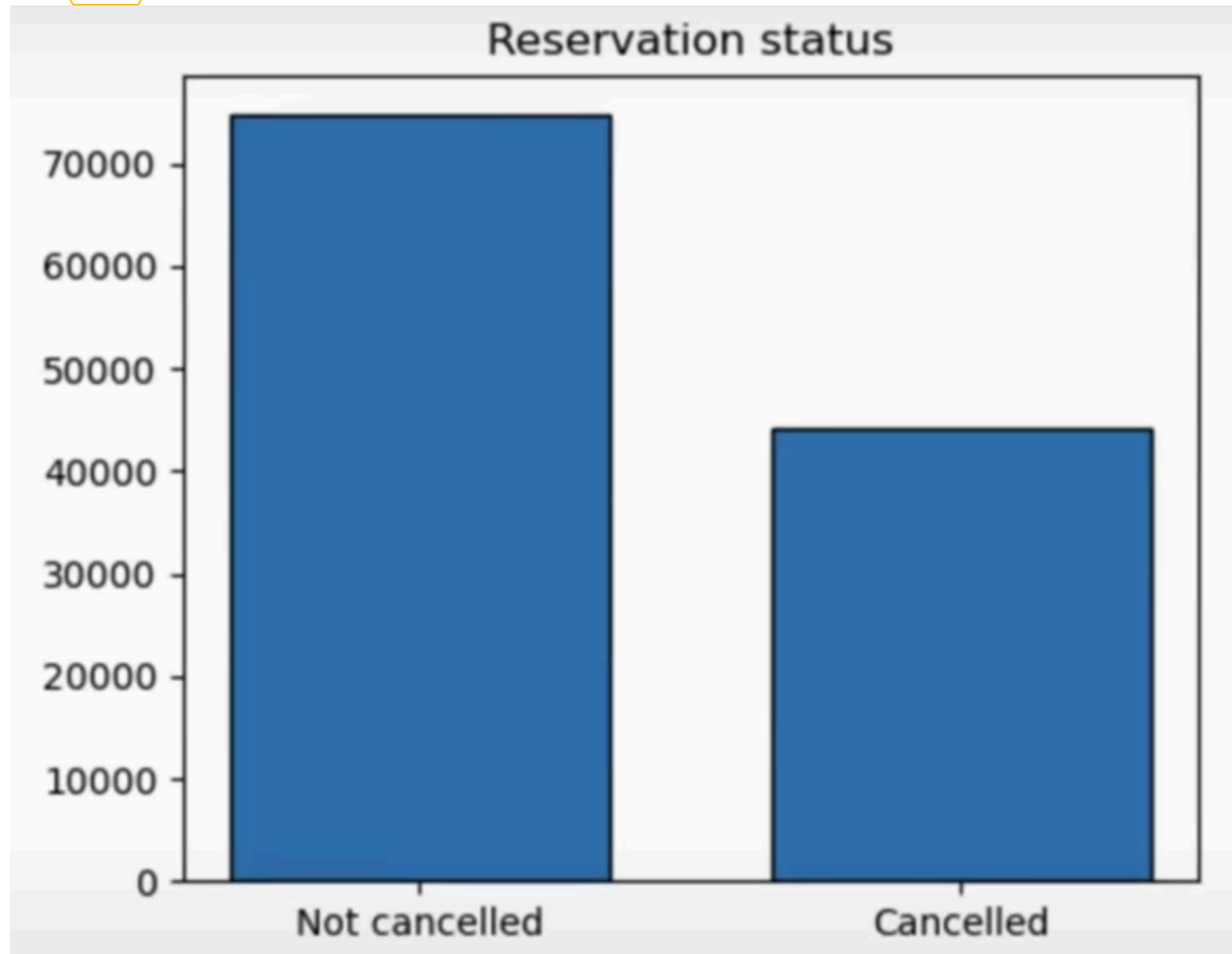
Explore strategies to enhance the hotel reservation cancellation process. Consider user experience, communication channels, and flexibility in cancellation policies.

Assisting Pricing and Promotions:

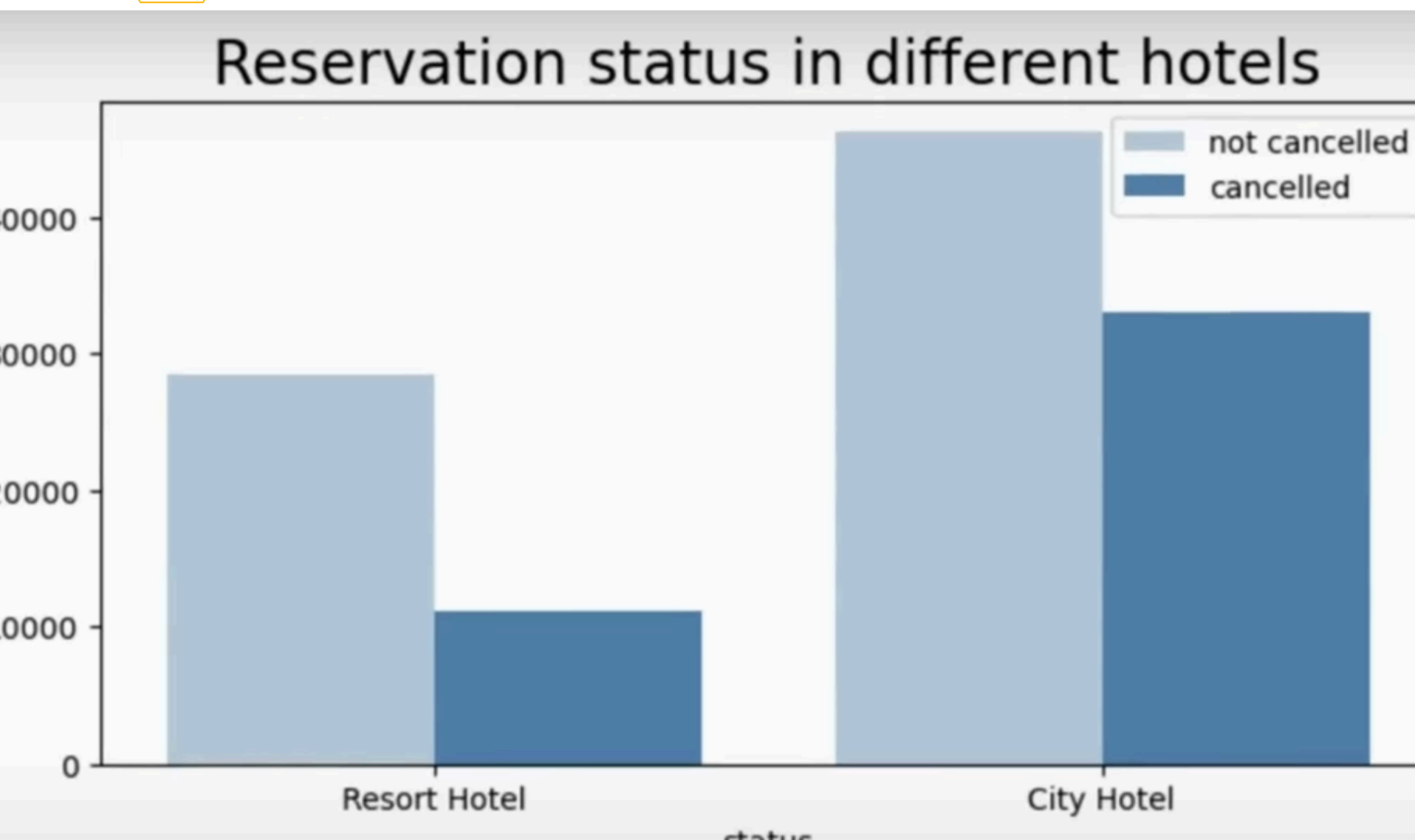
- Analyze how hotels can make informed pricing and promotional decisions based on cancellation trends. Understand demand patterns and adjust rates accordingly.

Analysis and Findings

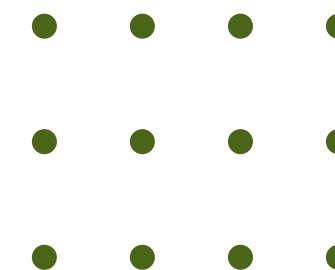
The accompanying bar graph shows the percentage of reservations that are canceled and those that are not. It is obvious that there are still a significant number of reservations that have not been canceled. There are still 37% of clients who canceled their reservation, which has a significant impact on the hotels' earnings.

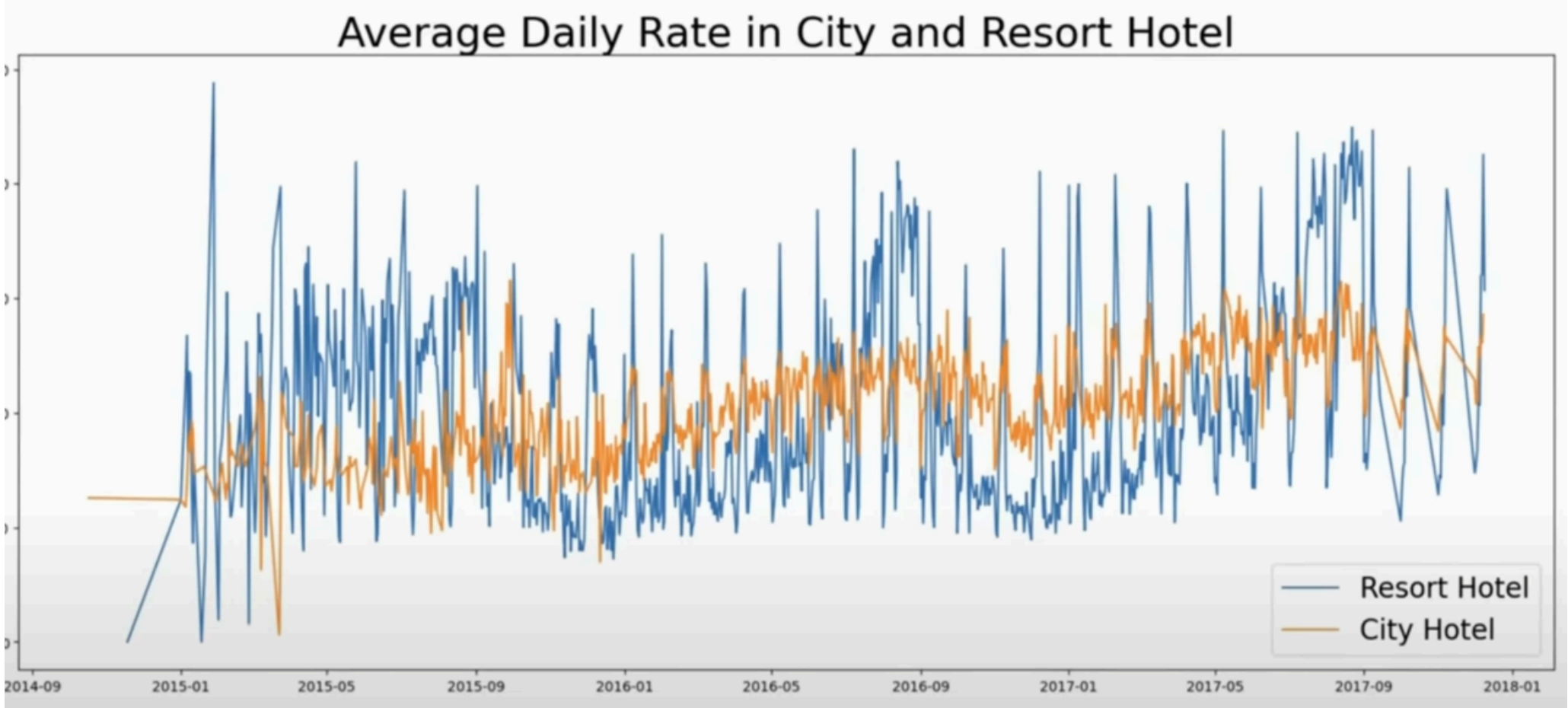


20%

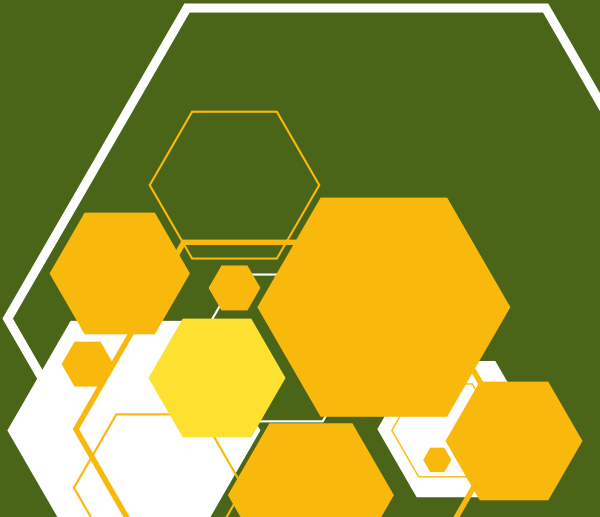
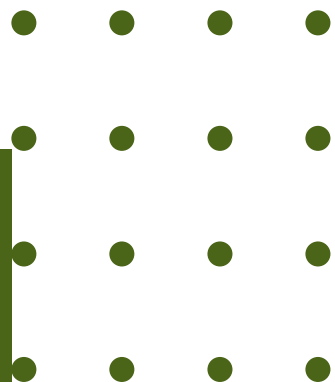


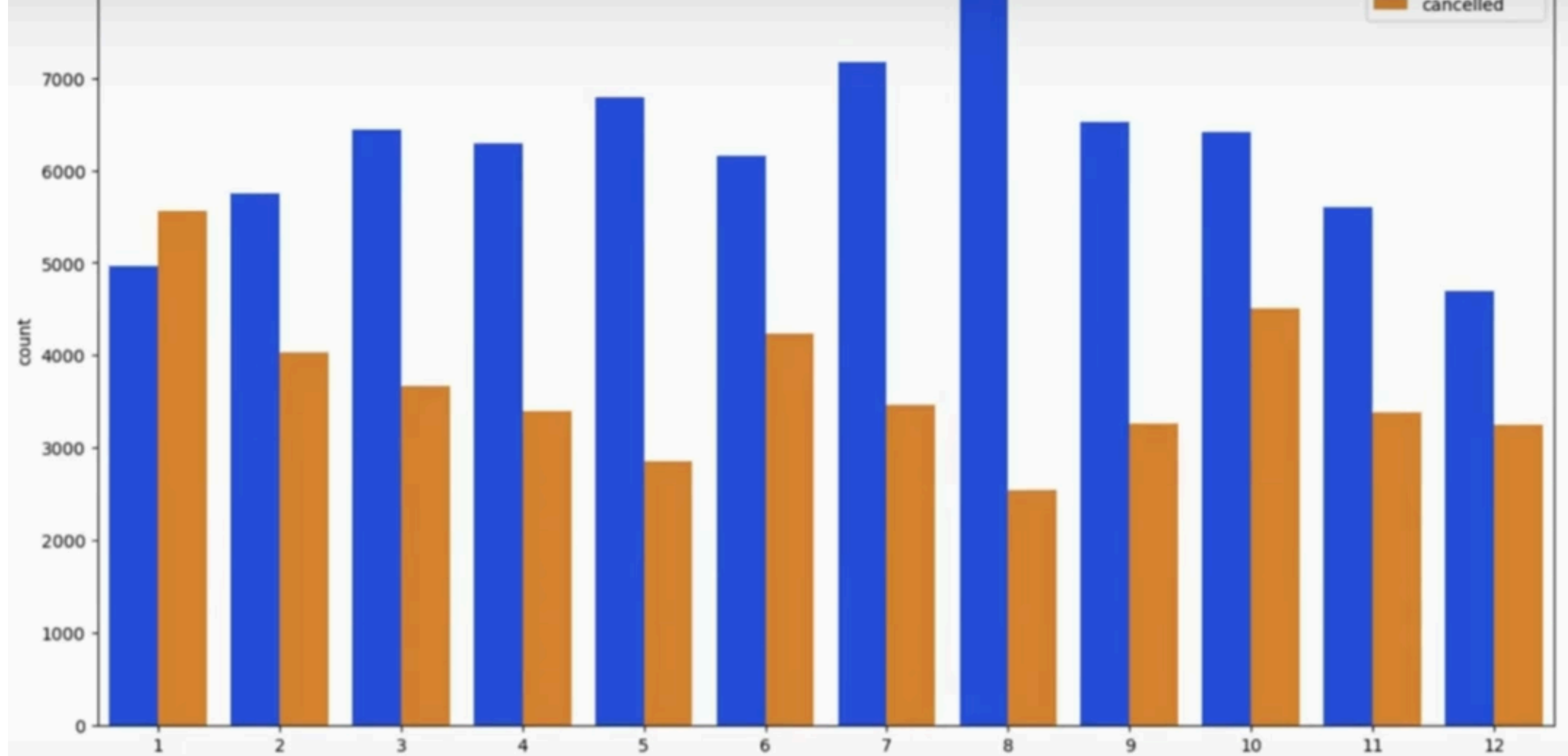
In comparison to resort hotels, city hotels have more bookings. It's possible that resort hotels are more expensive than those in cities.



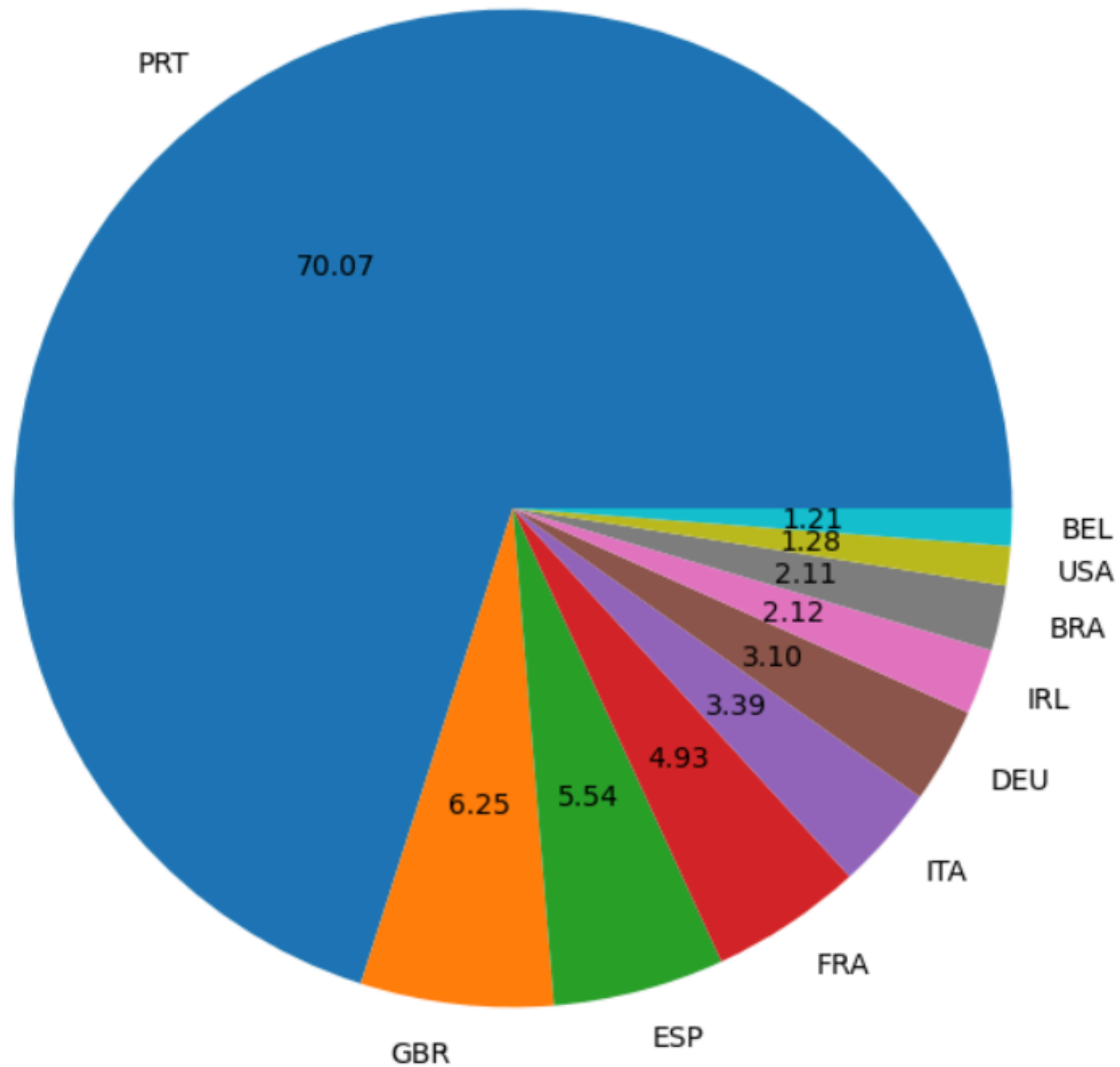


The line graph above shows that, on certain days, the average daily rate for a city hotel is less than that of a resort hotel, and on other days, it is even less. It goes without saying that weekends and holidays may see a rise in resort hotel rates.



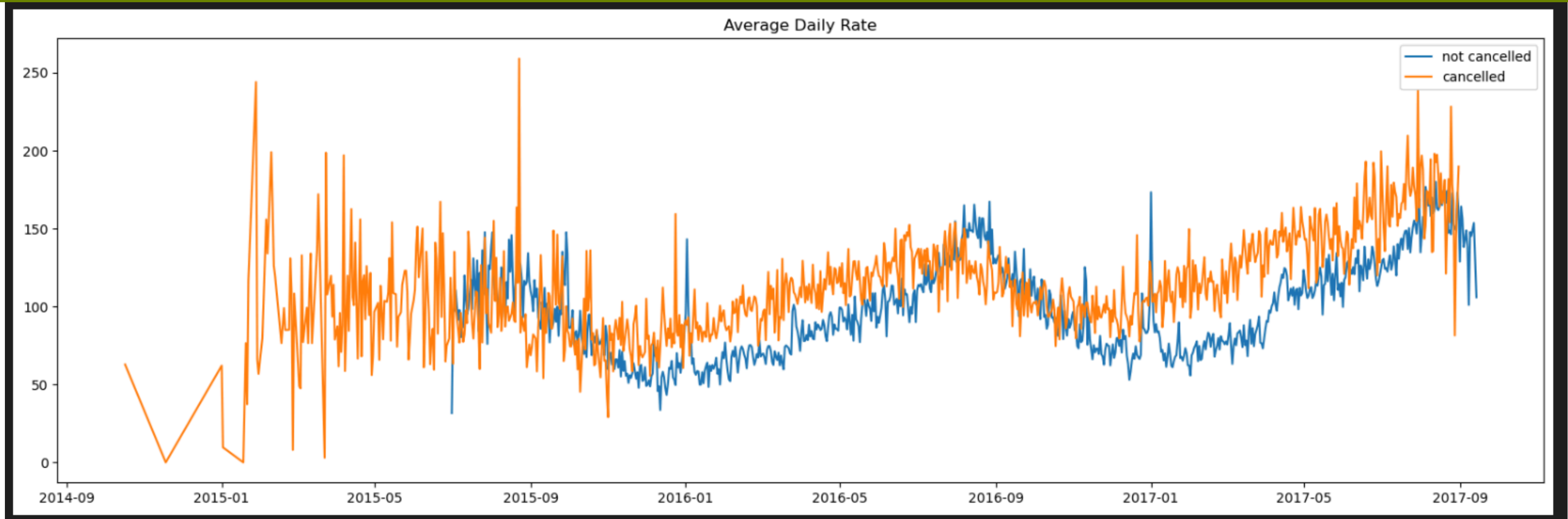


We have developed the grouped bar graph to analyze the months with the highest and lowest reservation levels according to reservation status. As can be seen, both the number of confirmed reservations and the number of canceled reservations are largest in the month of August whereas January is the month with the most canceled reservations.

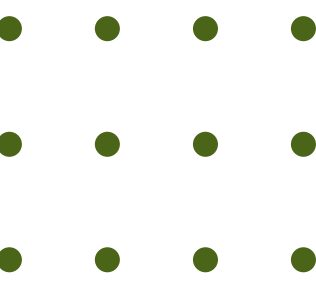


Now, let see which country have highest reservation canceled, Portugal with the highest number of cancellation around 70%

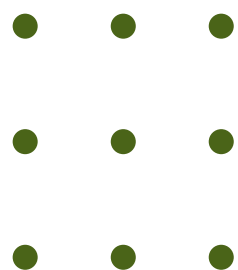
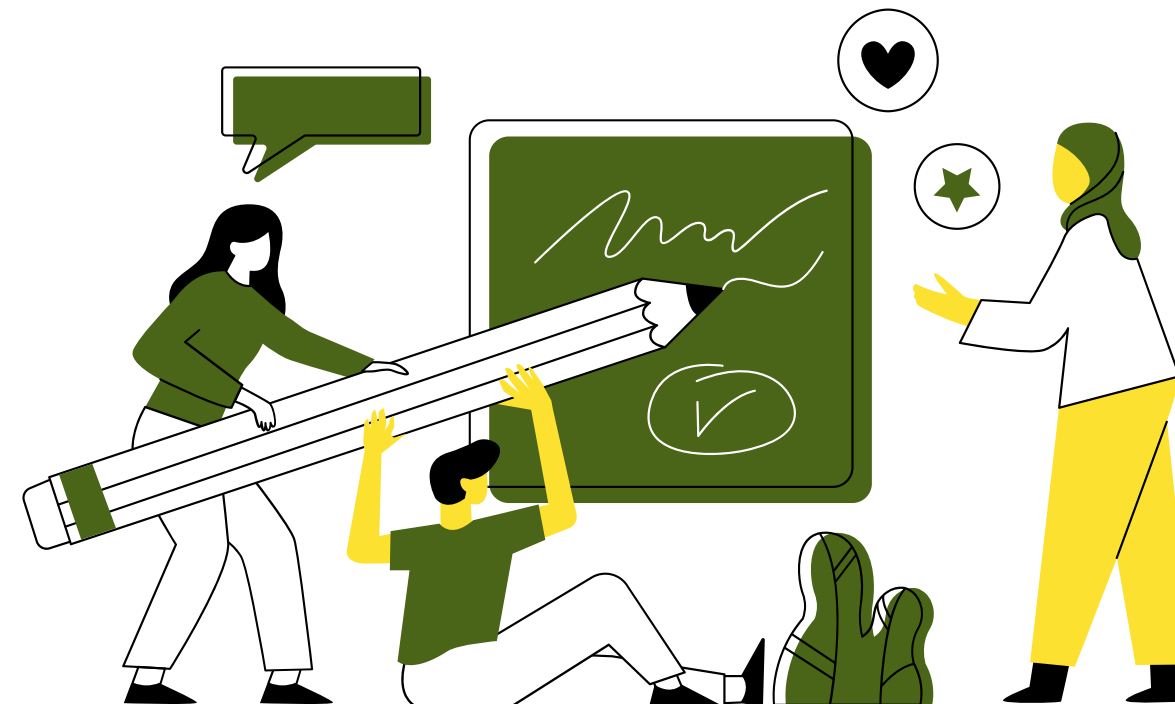
As seen in the graph, reservations are canceled when the average daily rate is higher than when it is not canceled. It clearly proves all the above analysis, that the higher price leads to higher cancellation.

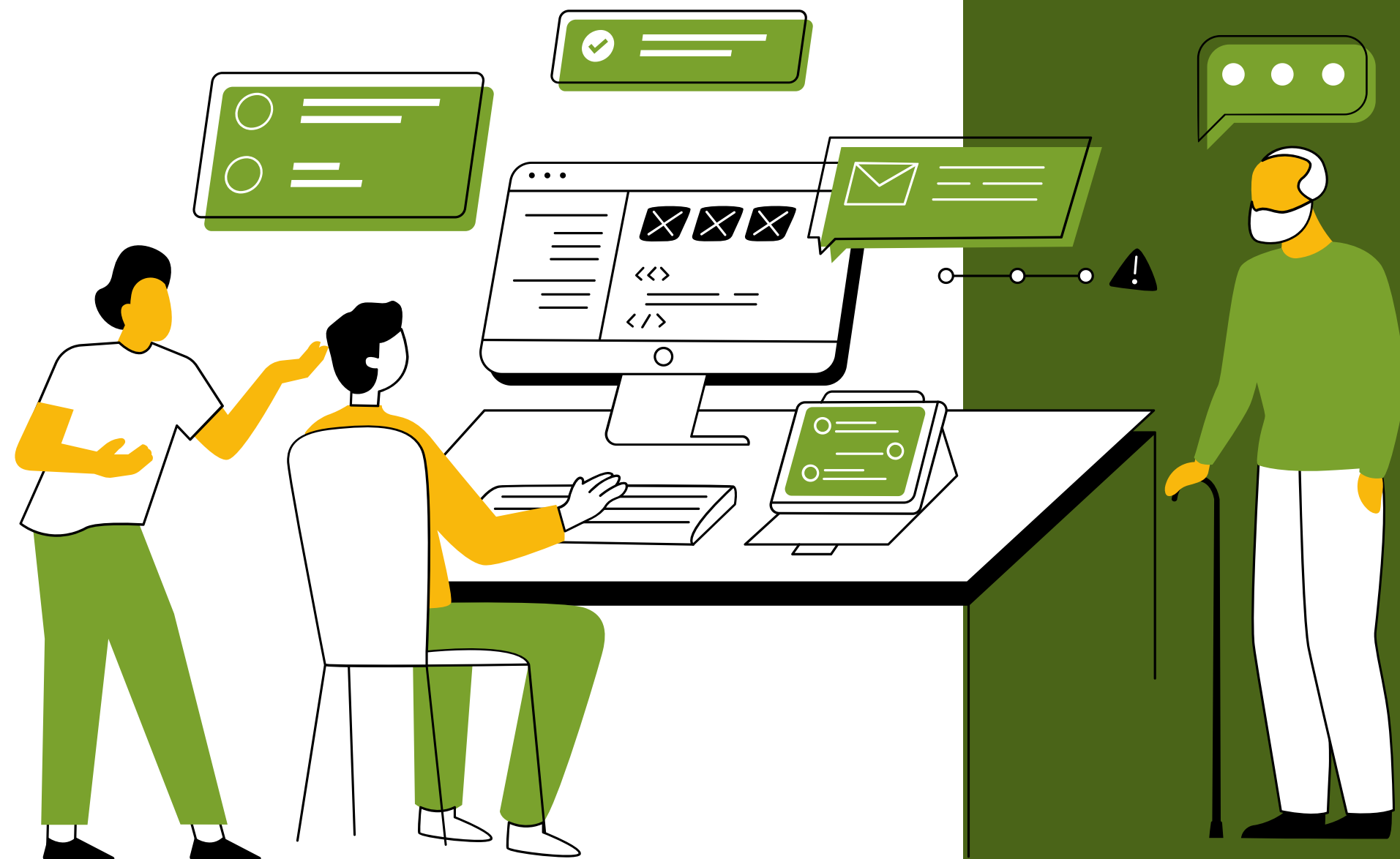


Suggestions



1. Cancellation rates could work on their does. In order to prevent cancellations of reservations, hotels should focus on their pricing strategies and try to lower the rates for specific customers based on locations. They can also provide some discounts to the consumers.
2. The ratio of cancellation to non-cancellation in resort hotels is higher than in city hotels on weekends or holidays.
3. In the month of January, hotels can start campaigns or marketing with a reasonable amount to increase their revenue, as cancellations are highest during this month.
4. To reduce the cancellation rate, hotels can also raise the quality of their services, especially in Portugal.





THANK YOU

