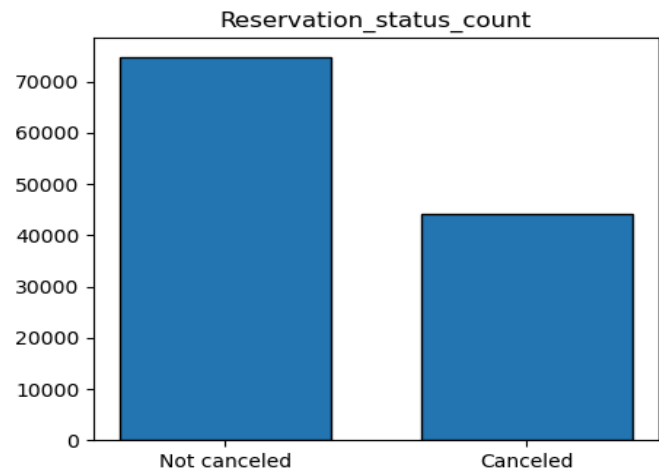


Business Problem

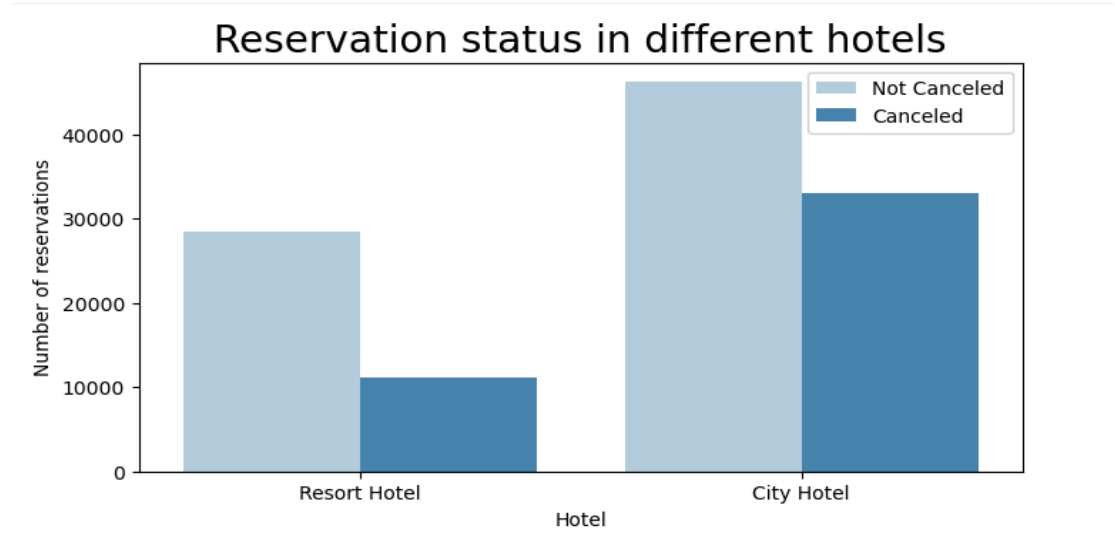
The city and Resort hotel are facing higher Cancellation Rates.

Analysis and Findings

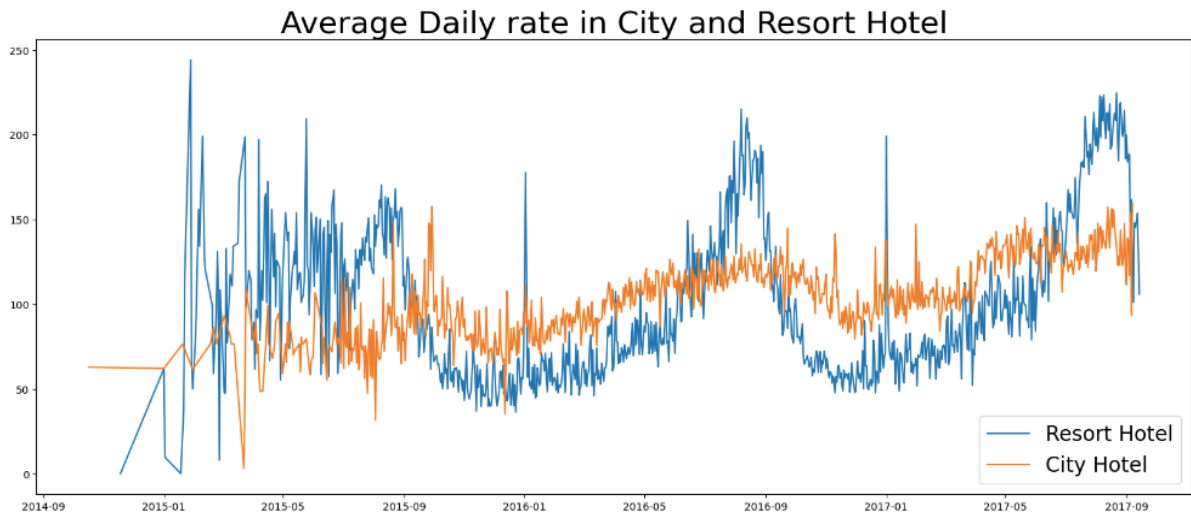
```
0    0.628653
1    0.371347
Name: is_canceled, dtype: float64
```



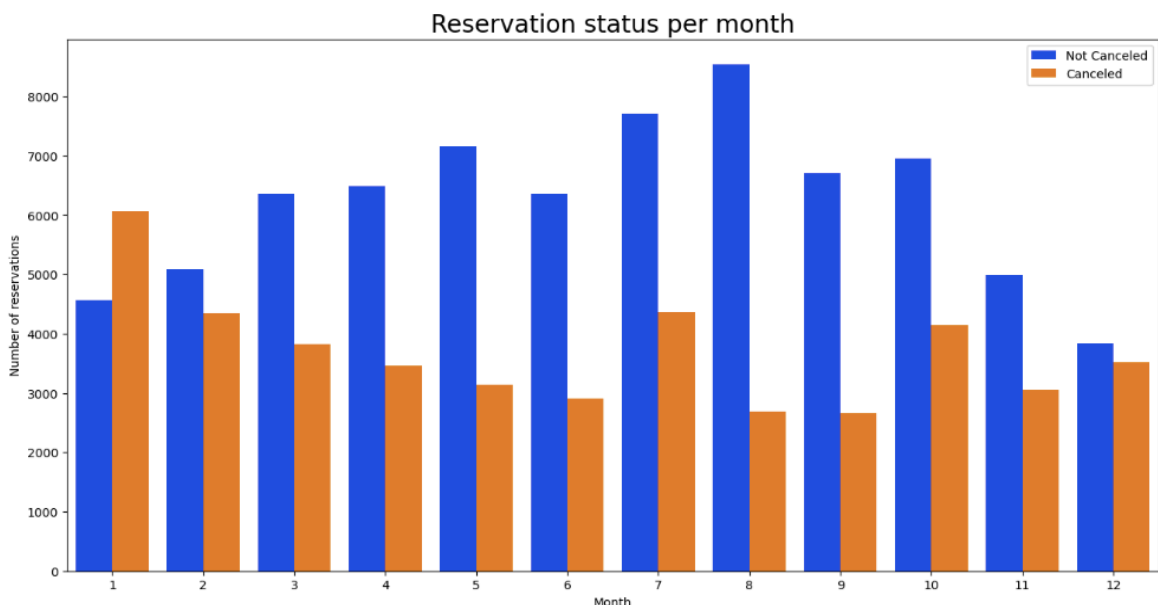
The provided bar graph depicts the distribution of reservations, highlighting both cancellations and confirmations. Notably, while a commendable 63% of bookings remain intact, there's a 37% cancellation rate. This sizable proportion undeniably influences the hotel's revenue, warranting close attention and possible strategies to mitigate it.



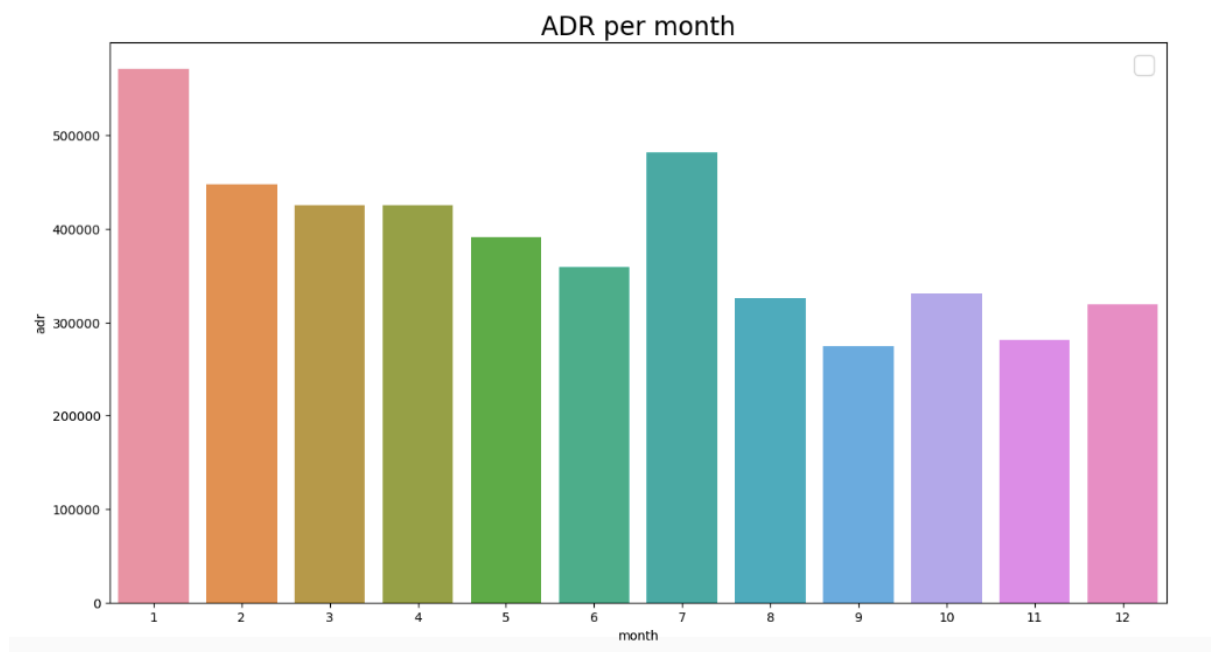
City hotels demonstrate a higher booking rate in contrast to resort hotels. This could potentially be attributed to the price differential, with resort hotels often being on the pricier side.



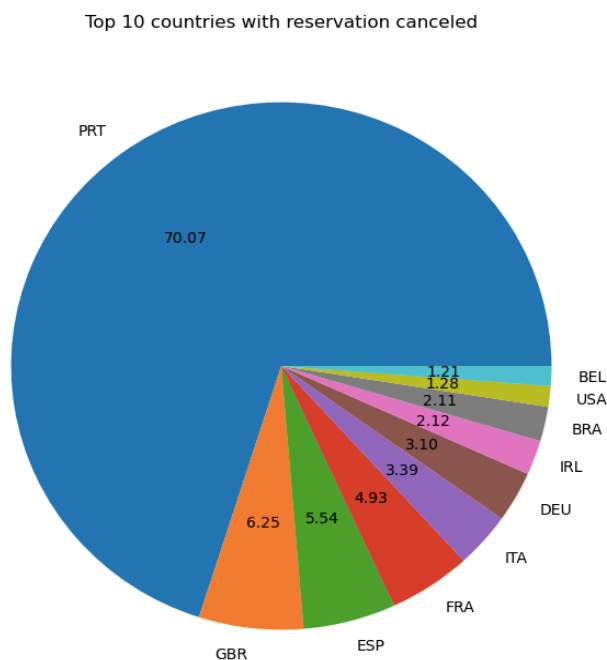
The line graph illustrates fluctuations in the average daily rate between city and resort hotels. There are days when city hotels command a higher rate, while on other occasions, they lag behind. Predictably, resort hotel rates might see a surge during weekends and holidays.



The grouped bar graph has been crafted to analyse monthly reservation trends based on their statuses. Evidently, August stands out with the peak in both confirmed and cancelled reservations. Interestingly, January predominantly witnesses the highest cancellations.

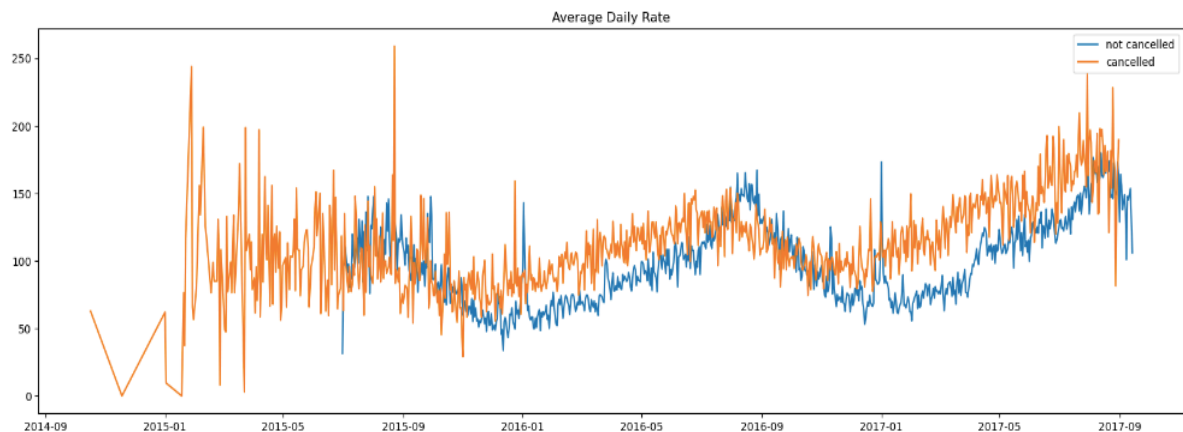


The bar graph highlights a correlation between accommodation rates and cancellation trends. Cancellations tend to peak when the rates are at their highest and dip when prices are more affordable, suggesting that accommodation pricing plays a pivotal role in reservation decisions.



Let's probe into the geographical distribution of cancellations. Notably, Portugal emerges as the country with the predominant number of cancelled reservations.

Let's explore the sources of our reservations. Impressively, online travel agencies account for approximately 46% of our bookings. Group reservations contribute to 27%, while a modest 4% of our clients prefer the traditional approach of visiting in-person to secure their bookings.



The graph distinctly showcases a trend: reservations tend to be cancelled when the average daily rate is elevated compared to instances when they are retained. This observation aligns seamlessly with our prior analysis, reinforcing the idea that steeper prices correlate with an rise in cancellations.