

# **HOTEL BOOKING CRISIS**



# **Business Problem**

**In recent years, City Hotel and Resort Hotel have seen *high cancellation rates*. Each hotel is now dealing with a number of issues as a result, including *fewer revenues* and *less than ideal hotel room use*. Consequently, lowering cancellation rates is both hotels' primary goal in order to increase their efficiency in generating revenue, and for us to offer thorough business advice to address this problem.**

**The analysis of hotel booking cancellations as well as other factors that have no bearing on their business and yearly revenue generation are the main topics of this report.**

# Assumptions

- No unusual occurrences between 2015 and 2017 will have a substantial impact on the data used.
- The information is still current and can be used to analyze a hotel's possible plans in an efficient manner.
- There are no unanticipated negatives to the hotel employing any advised technique.
- The hotels are not currently using any of the suggested solutions.
- The biggest factor affecting the effectiveness of earning income is booking cancellations.
- Cancellations result in vacant rooms for the booked length of time.
- Clients make hotel reservations the same year they make cancellations.



# Research Questions

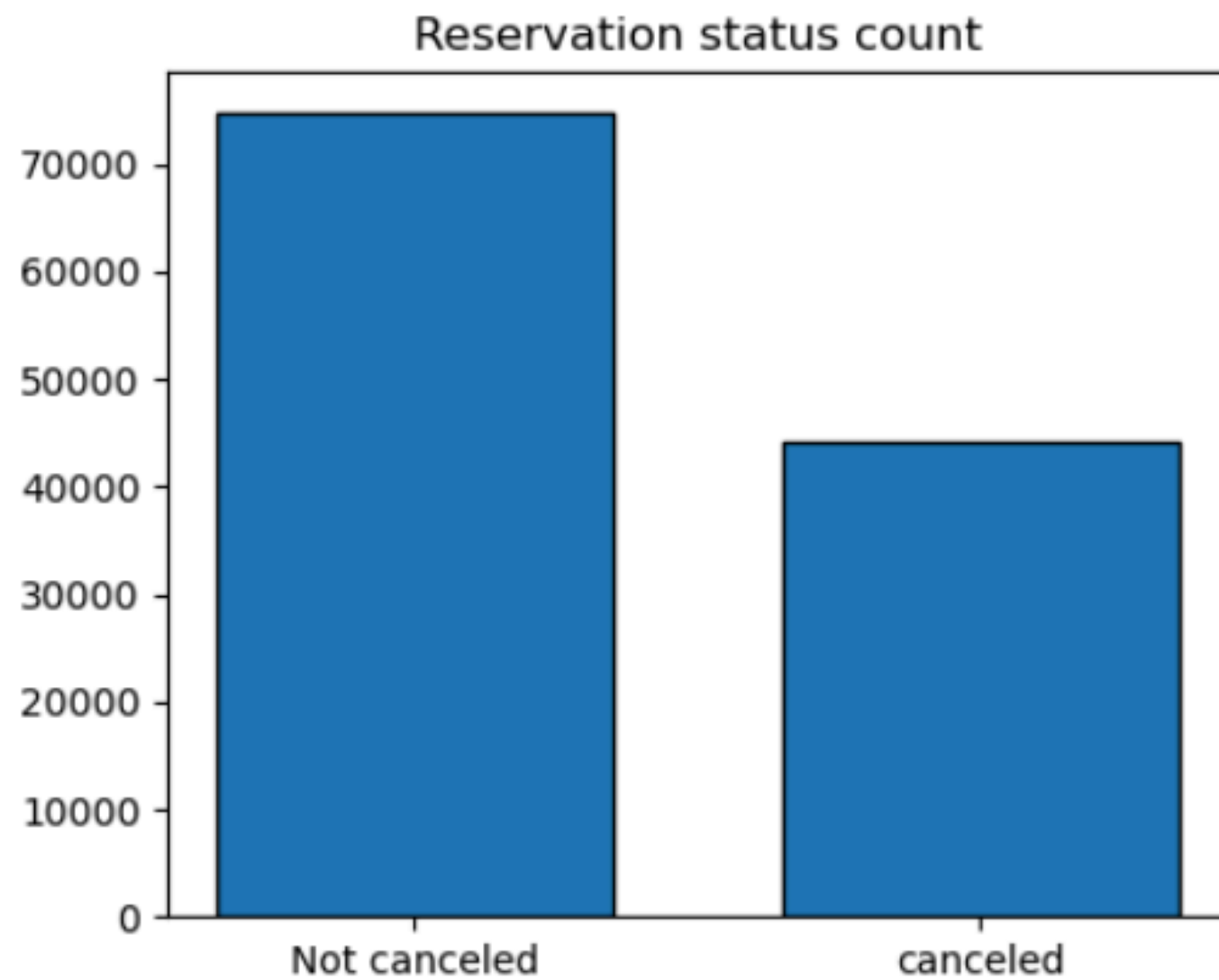
- What are the variables that affect hotel reservation cancellations?
- How can we make hotel reservations cancellations better?
- How will hotels be assisted in making pricing and promotional decisions?

## HYPOTHESIS

1. More cancellations occur when prices are higher.
2. When there is a longer waiting list, customers tend to cancel more frequently.
3. The majority of clients are coming from offline travel agents to make their reservations.



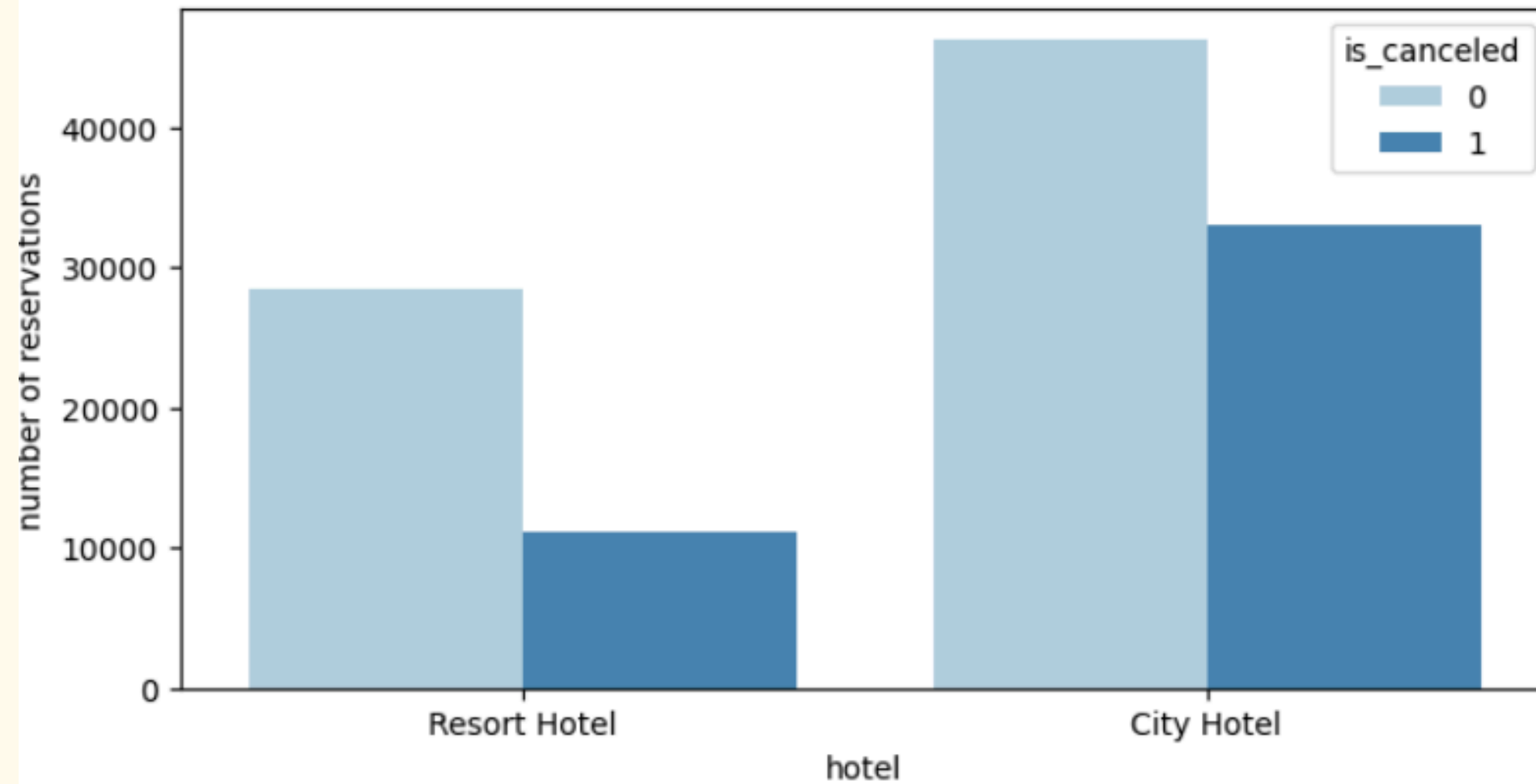
```
0    0.628653
1    0.371347
Name: is_canceled, dtype: float64
```



**Bar graph shows % of cancelled vs not cancelled. It can be observed that % of people who are not cancelling are much more than that of people who cancelled. But this 37% of clients who cancelled are making a significant impact on the hotel's learning.**

```
Text(0, 0.5, 'number of reservations')
```

## Reservation status in different hotels



```
resort_hotel = df[df['hotel'] == 'Resort Hotel']  
resort_hotel['is_canceled'].value_counts(normalize = True)
```

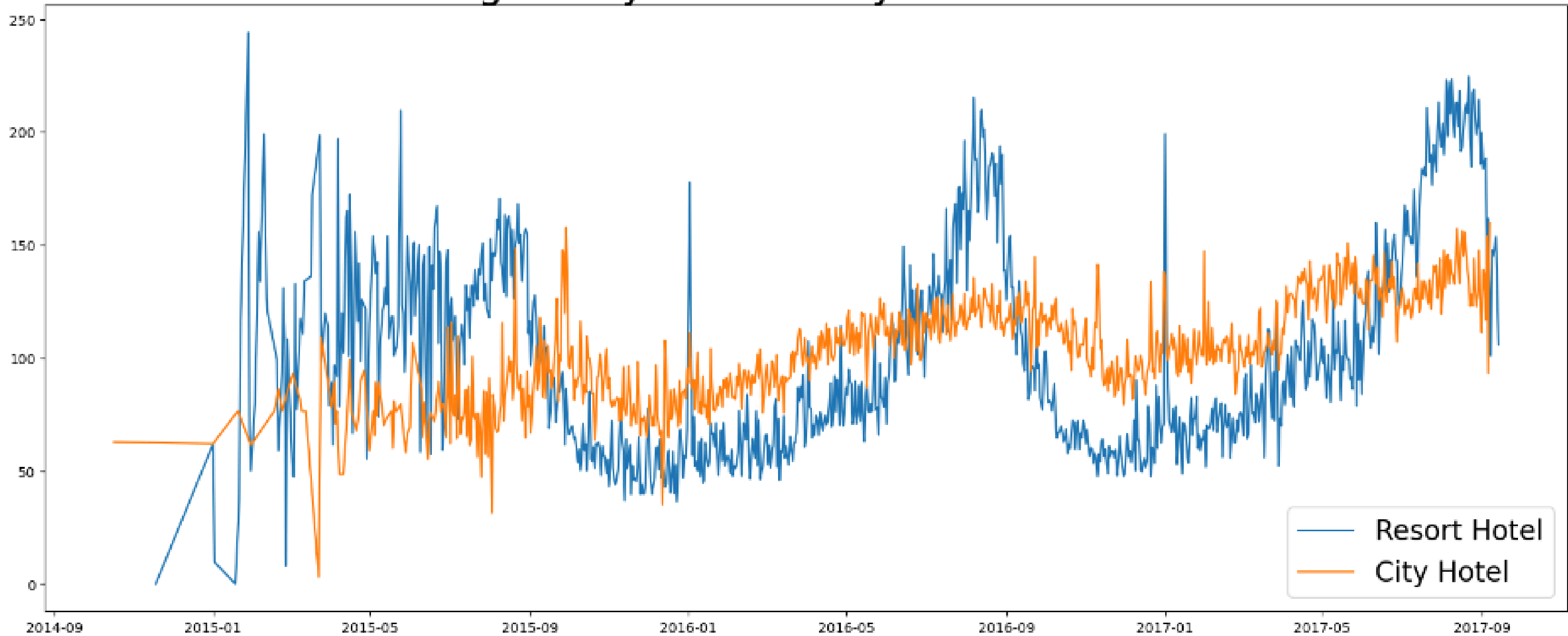
```
0    0.72025  
1    0.27975  
Name: is_canceled, dtype: float64
```

```
city_hotel = df[df['hotel'] == 'City Hotel']  
city_hotel['is_canceled'].value_counts(normalize = True)
```

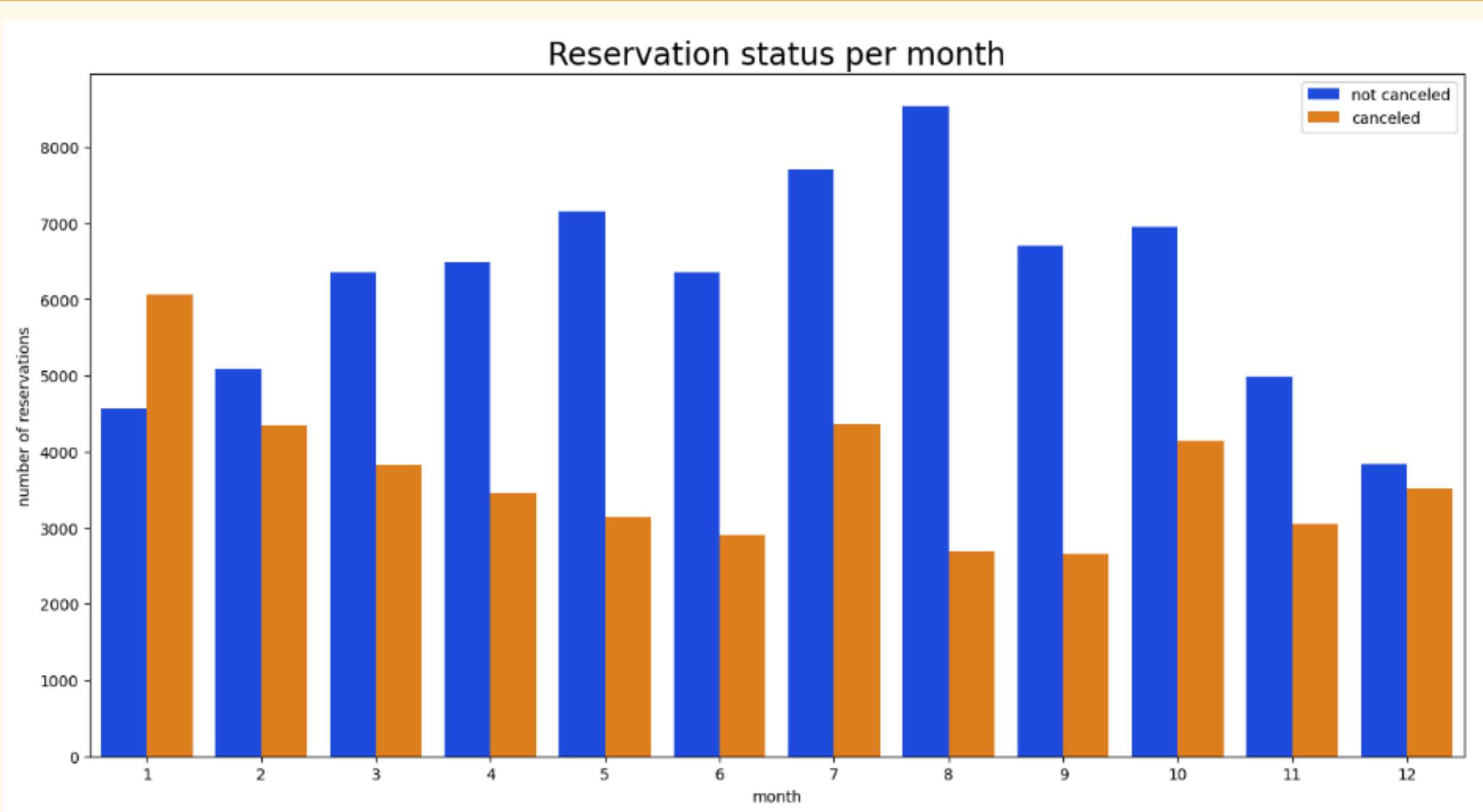
```
0    0.582918  
1    0.417082  
Name: is_canceled, dtype: float64
```

The number of booking are more for city hotels than resort hotels . It may be possible that resort hotels are expensive than city hotels for clients. But this situation is not adding up to why percentage of cancellation is more in city hotels than resort hotels. Let's look further.

## Average Daily Rate in City and Resort Hotel

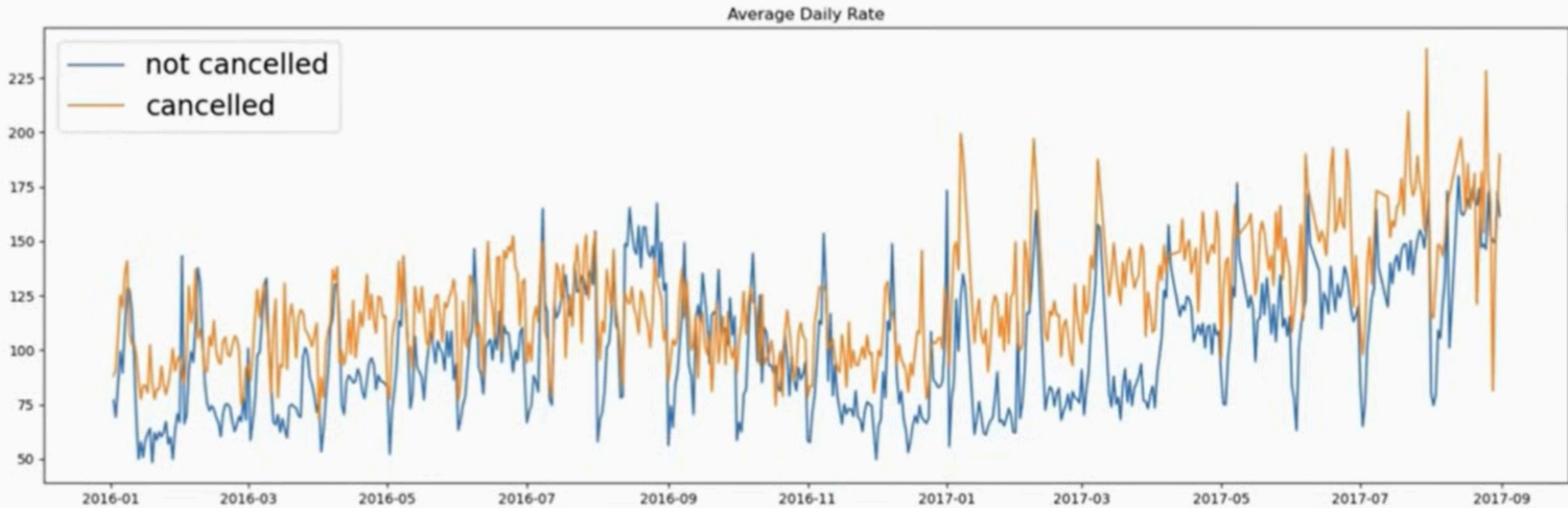


**It is observed that on city hotel rates are constant or fluctuating less as compared to resort hotel rates. On many days average daily rate of city hotels is less than resort hotels. This concludes that on weekends or holidays resort hotels experience high demand less supply situation which results in hike of prices for resort rooms.**



**This grouped bar graph shows the reservation levels according to reservation status. The most number of cancellations happens in January and least number of cancellations are seen in the month of August.**





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

# Suggestions

To prevent cancellations of reservations, hotels can work on their pricing strategy as they can provide good deals to clients from which they will find it hard to pass.

Hotel should focus on maintaining its average daily rate, this make clients attract as they can rely on the prices they once seen passing by.

For the month of January, hotels should invest in marketing so that they won't face losses for the days when the room is not occupied by any customers.

Hotels should also provide some additional benefits with the room, for example- fun activities like hiking, food and drinks coupons, spa facility, etc.



# Thank You!

