

Business Problem

Lately, both City Hotel and Resort Hotel have been facing a lot of booking cancellations. Because of this, they're dealing with problems like lower income and empty rooms that could've been used. So, their main focus now is to reduce cancellations to improve their earnings. This report looks into the reasons behind these cancellations and other things that might be affecting their business and yearly income.

Assumptions

1. Nothing unusual happened between 2015 and 2017 that could affect the data.
2. The data is still useful for analyzing hotel plans today.
3. There won't be any unexpected problems if hotels follow the suggested methods.
4. Hotels are not already using the ideas we are recommending.
5. The main reason hotels lose money is due to booking cancellations.
6. When people cancel their bookings, the rooms often stay empty for the same period.
7. Guests usually cancel their bookings in the same year they made them.

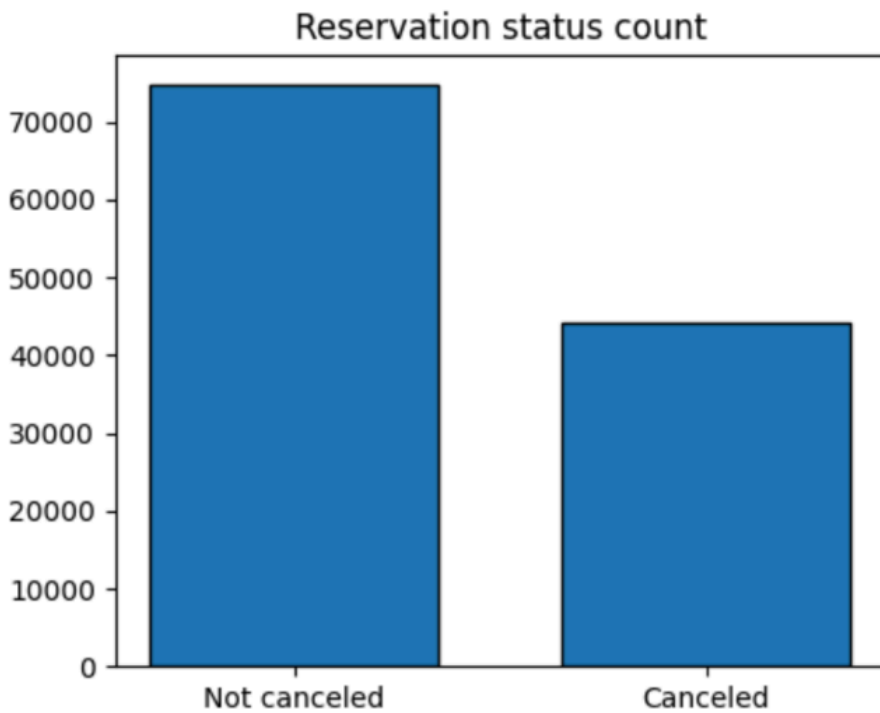
Research Questions

1. What are the reasons people cancel hotel bookings?
2. What can be done to reduce cancellations?
3. How can this help hotels set better prices and plan promotions?

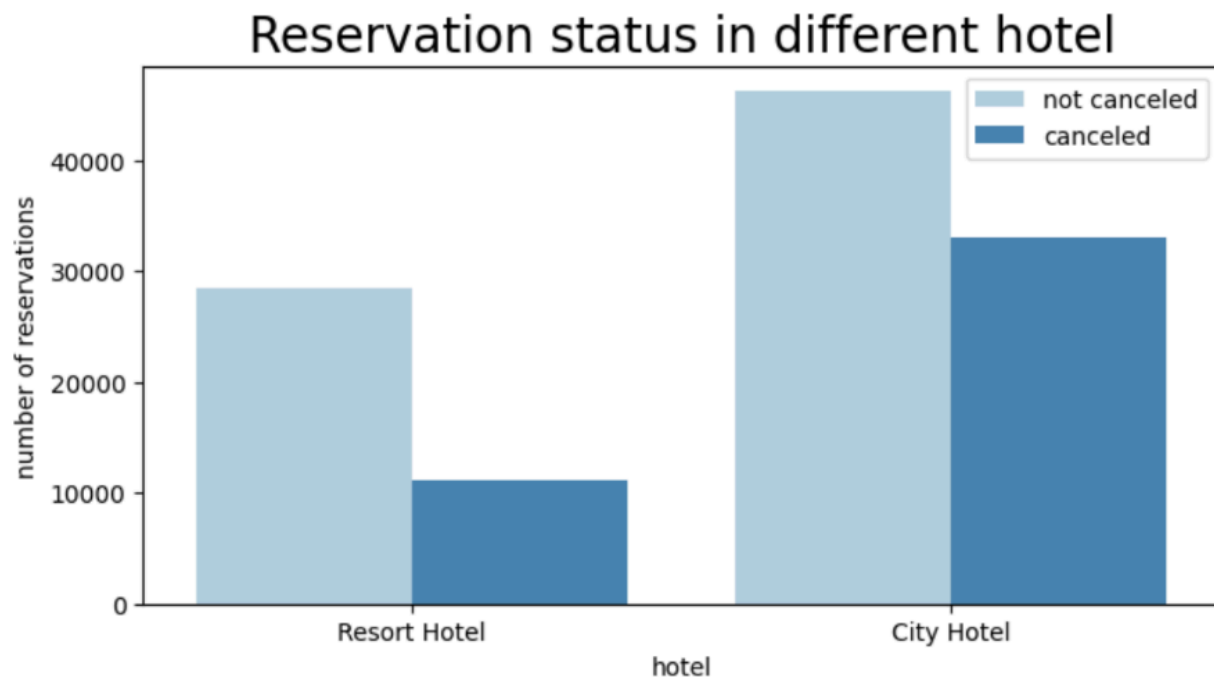
Hypotheses (What we think might be true)

1. People cancel more often when room prices are high.
2. If there's a long wait time before the stay, guests are more likely to cancel.
3. Most bookings (and cancellations) come from offline travel agents.

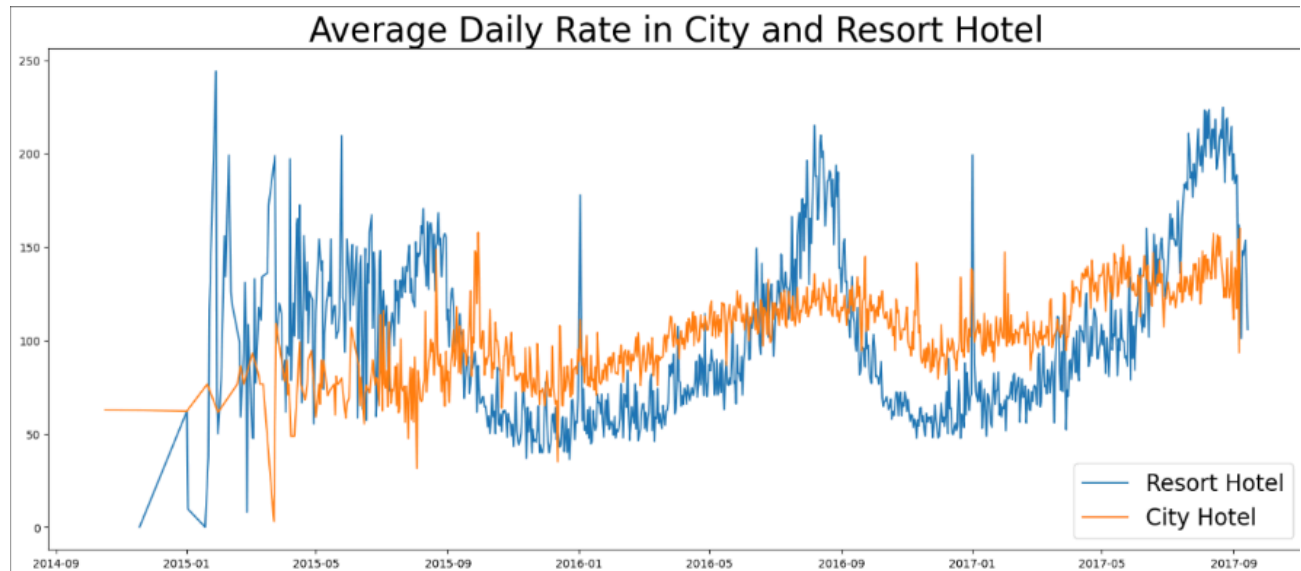
Analysis and Findings



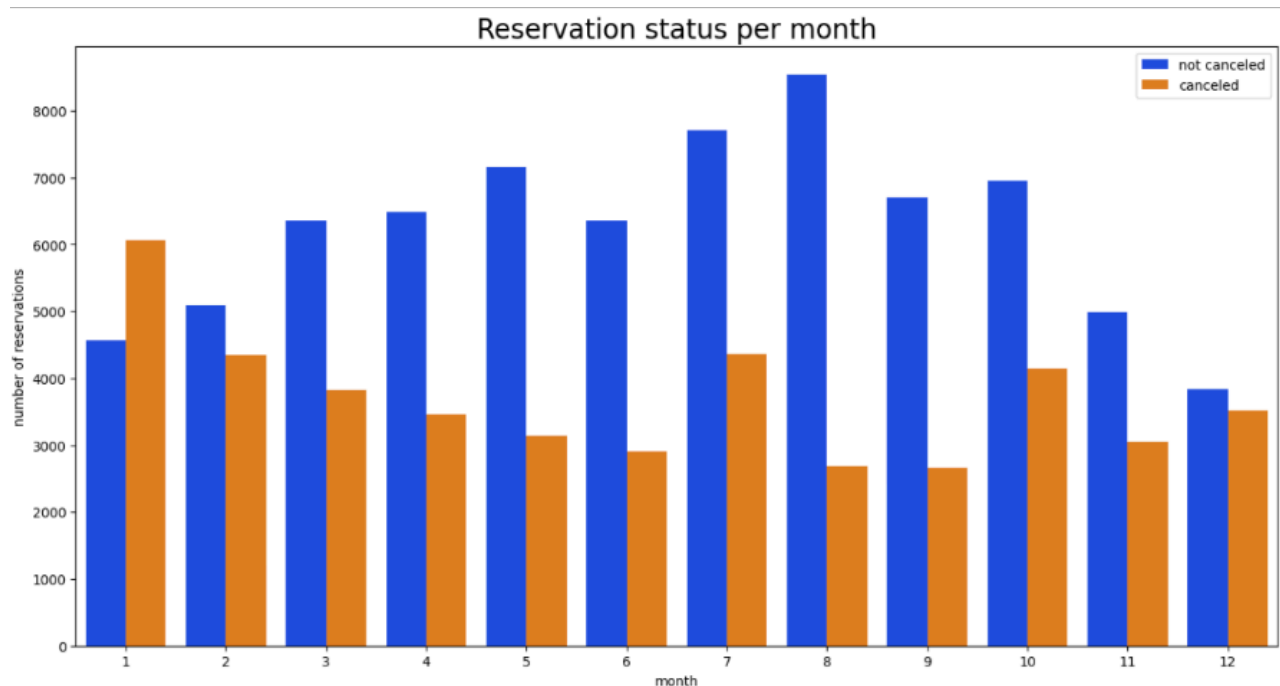
The bar graph shows how many reservations were canceled and how many weren't. You can see that a good number of people still keep their bookings. However, 37% of customers did cancel, which can seriously affect how much money the hotel makes.



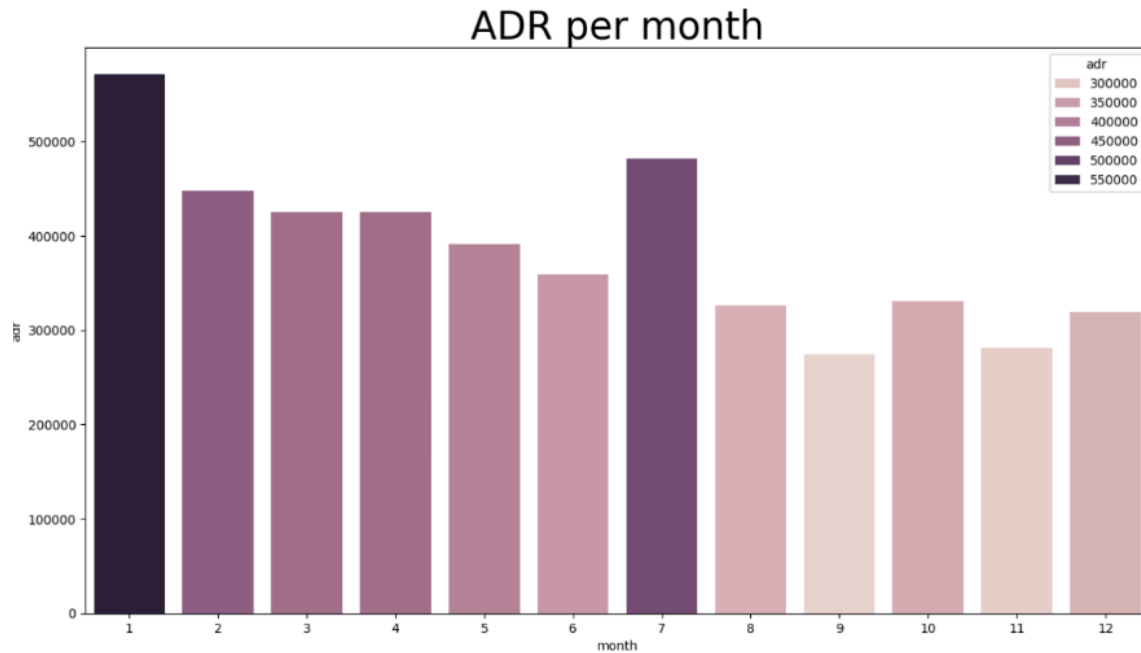
In comparison to resort hotels, city hotels have more bookings. It's possible that resort hotels are more expensive than those in cities.



The graph shows that sometimes city hotels charge less per day than resort hotels, and sometimes it's the other way around. It's pretty clear that resort prices often go up on weekends and holidays.



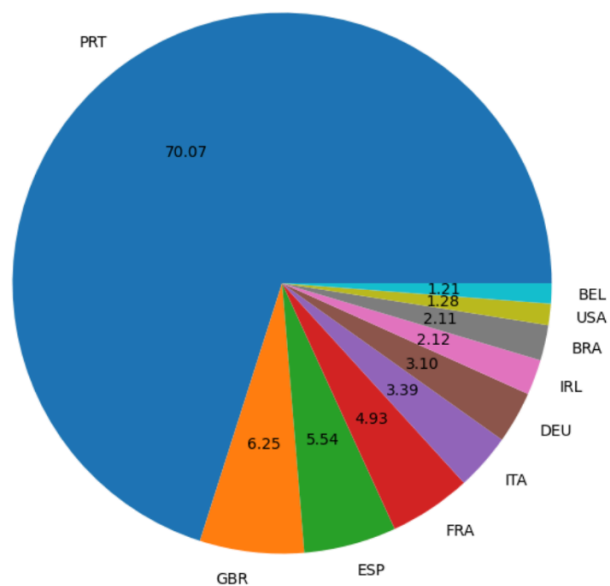
We made a grouped bar graph to see which months had the most and least reservations based on their status. From the graph, it's clear that August had the highest number of confirmed bookings and less cancellations, while January had the most cancellations.



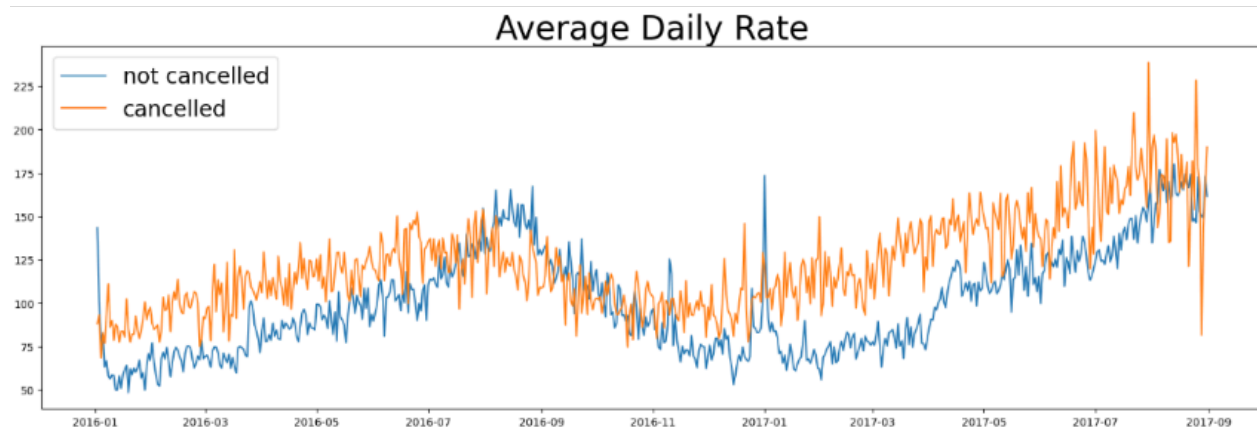
This bar graph shows that most cancellations happen when the prices are high, and fewer people cancel when the prices are low. So, it looks like price plays a big role in whether people cancel or not.

Now, let's check which country had the most cancellations — Portugal is at the top with the highest number of canceled bookings.

Top 10 countries with reservation canceled



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.



The graph shows that bookings are more likely to get canceled when the daily rate is higher. This supports the idea that people tend to cancel more when prices go up.

Suggestions:

The graph shows that people are more likely to cancel their bookings when the room prices are high. This means that when the rates go up, cancellations also increase.

1. Since cancellations seem to rise with higher prices, hotels can try adjusting their pricing. They could lower rates for certain locations or offer discounts to keep customers from canceling.
2. Resort hotels have more cancellations compared to city hotels. To handle this, resorts can give better weekend or holiday deals to encourage people to stick with their bookings.
3. January has the most cancellations, so hotels can plan ahead by running special offers or promotions during that month to attract more bookings and reduce losses.
4. Hotels, especially in Portugal, can work on improving their services and overall quality to make sure guests don't feel like canceling after booking.