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DSC680-T301 2233-1

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Questions and Answers

Github: [Applied-Data-Science/Hotel Booking Prediction & EDA at main · TheodoreKoby-Hersky/Applied-Data-Science \(github.com\)](https://github.com/TheodoreKoby-Hersky/Applied-Data-Science)

1. What challenges did you face when working with the data and how did you overcome them?
 - a. A challenge I faced was missing data from the children, country, agent, and company variables. I overcame these challenges by reviewing the variables and determining the best course of action for each variable such as fill missing values from the children variable with zero being that if the individual did not indicate they had children, then we will assume they did not have any.
2. Why do you think predicting cancellation rates is important to hotels?
 - a. Predicting cancellations for hotels can help determine the true hotel occupancy and see what type of guests are most likely to cancel.
3. Would other hotels be able to use this model to help them predict cancellation rates?
 - a. Yes, I believe other hotels could utilize this report to predict cancellation rates for their hotels if they have data on cancellations for guests.
4. Why is this topic important to you?
 - a. This topic is important to me because I currently work for the Walt Disney Company that owns many resorts, theme parks, cruise ships around the that would benefit from being able to predict cancellation rates within their different segments.

5. Why do you think these hotels are having a harder time bringing customers back?
 - a. From what I have seen in the data I would say for the most part return guests are only coming back if the average daily rates are around \$60 this could be since the hotels might not be in the best area or have the right amenities for all guests.
6. What was the cancellation rate for these hotels and is the rate normal or high for most hotels?
 - a. The cancellation rate is 37.20% and the average cancellation rate is around 25% to 30% a year so yes, these hotels are seeing a high cancellation rate.
7. Could you change the models to predict a different variable? If so, what is another variable that hotels would like to predict?
 - a. Yes, the hotel could use other variables to receive predictions such as the ADR average daily rate which will allow hotels to determine the rate throughout the year.
8. Why is the month of January so low for arrivals?
 - a. When reviewing the data, it looks like the month of January is the lowest month for arrivals throughout the year which can be due to the fact that holidays are over and people are just starting to get back to work and children are going back to school.
9. Why are almost all cancellations from first time guests?
 - a. I believe for the most part if a customer is willing to come back, they are most likely not going to cancel as they are for the most part taking advantage of a lower average daily rate and they know what they are in for as they have already been to the hotel.
10. In your presentation you stated the city hotel had almost if not double the number of bookings compared to the resort hotel. Did you come across any interesting facts regarding why this is?
 - a. When researching these findings, I found that the only peak months for the resort hotel was during summer and all other months were very low for ADR. While the City hotel

was average all year round with smaller spikes and dips. Which could be due to the city hotel being average booked year round due to business and decent rates all year round.