In Class Exercise
Letoh Hotel Group

Overview

Letoh Hotel Group is interested in improving their hotel bookings across their two properties (city and resort) and is especially interested in minimizing cancelled reservations. They have hired your analytic services and provided you with about 3 years of bookings data. They request your services to help them to understand what factors lead to a cancelled booking and want to understand if you are able to create a model that is able to predict the probability a booking being cancelled. Note that this is far too much work to be completed on your own and thus you will need to work as a team to complete this exercise. Exercise (Code and Slides) is ***due today at 07:15PM***.

Core components of Exercise

1. **What factors lead to cancelled bookings?**
   a. Visualization
   b. Predictive Model
      i. Including performance metrics and
      ii. Limitations of the model
2. **What is the estimated impact of minimizing cancellations?**
   a. How should Letoh Hotels employ the model to improve their bookings? E.g. If the model indicates a booking has a high probability of being cancelled, what should they do, if anything?
   b. Is there anything Letoh Hotel can do to lower the risk a given customer will cancel their reservation?
   c. What are the impacts on revenue for the hotel of using the model?
3. **Business-friendly PowerPoint presentation –** *Follow the BLUF structure!*