

Cairo University - Faculty of Engineering Computer Engineering Department CMP461 Big Data



BDA Project

Project Proposal Hotel Booking Demand

Submitted to:

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Project idea / Objective

The Objective of this project is to predict **the possibility of** a booking cancellations for a hotel based on different factors. The audiences of the project are the hotels that want to allocate resources reasonably according to the cancellation rate of bookings during peak seasons, or the hotels that want to find out which factors cause booking cancelation.

Dataset

https://www.kaggle.com/jessemostipak/hotel-booking-demand

Planned approach

We are going to build a predictive model to find out how to predict future cancelled reservations in advance. We will use Logistic regression and Random Forest. We can also perform time series analysis to forecast the number of bookings. (Ex: using ARIMA model)

The process of our analysis will be:

- Understanding the datasets.
- Data preparation and wrangling.
- Analyzing.
- Visualizing the data.
- Model building.
- Finally, selecting the best model.