

# Capstone Project Submission

## **Instructions:**

- i) Please fill in all the required information.
- ii) Avoid grammatical errors.

### **Team Member's Name, Email and Contribution:**

Name: Sayesh Ankaram

Email: [sayeshsayesh@gmail.com](mailto:sayeshsayesh@gmail.com)

Contribution: Individual Participation (Each and every bit is individually composed).

### **Please paste the GitHub Repo link.**

Github Link:- <https://github.com/SpydaCodez/Hotel-Booking-Analysis>

### **Please write a short summary of your Capstone project and its components. Describe the problem statement, your approaches and your conclusions. (200-400 words)**

#### **Problem Statement:**

Hotel Booking Analysis data set contains booking information for City hotels & Resort hotels. It also includes information such as when the booking was made, length of stay, number of adults, children, babies and the types of rooms, meals and much more.

This hotel data set can help to answer so many questions like best time of the year to book a hotel room, optimal length of stay in order to get the best daily rates, predicting whether or not a hotel is likely to receive huge amounts of booking requests etc.

This Hotel booking data describes two data sets containing hotel demand information. The first hotel is a Resort hotel and the second hotel is a City hotel. Both data sets are structured similarly with 32 variables describing the 40,060 Resort hotel observations and 79,330 City hotel observations. Each observation represents a hotel reservation. Both data sets include bookings scheduled to arrive between July 1st, 2015 and August 31st, 2017, including bookings that actually arrived and bookings that were canceled.

#### **Approach:**

Instance Creation, Dataset Description, Prime Variable Selection, Dataset Processing, Categorical Dataframe Creation, EDA & Data Visualizations.

## Conclusion:

- There are about 63% of confirmed bookings & 37% of canceled bookings.
- For 1-3 days, majority of people prefer City Hotels and for 4-7 days, majority of people prefer Resort Hotels.
- The Highest Rates for a hotel room in both City & Resort hotels is for Room Type A.
- Hotel rates for Resort hotels are at peak in Summer season (May-August) but in Autumn season (September-November) the rates become cheaper.
- Hotel rates for City hotels have a decent growth in Spring season (March-May) but in Autumn season (September-November) the hotel rates slightly fell down.
- 47.56 % of customers prefer Online mode for hotel booking & 21.17 % of customers prefer Offline mode. •76.96 % of customers prefer Breakfast & Bed & 12.6 % of customers prefer Breakfast & Dinner as the Meal Type while Booking hotels.
- 77.85 % of customers prefer Family Type of Accommodation & 65.51 % of customers prefer Couple Type of Accommodation.
- 62.92 % of customers Checked-Out, 36.06 % of customers Canceled the Booking & 1.10 % of customers didn't show up.
- Countries with the most number of Guests are Portugal (Guest Count: 20977) followed by Great Britain (Guest Count: 9668) and France (Guest Count: 8468).
- 87.6 % of customers prefer No – deposit while booking hotel rooms.
- 66.4 % of customers prefer City hotels & 33.5 % of customers prefer Resort hotels.