

Capstone Project Submission

Name - AJIT KUMAR TOPPO

Email - ajitkumartoppo@gmail.com

Github Link:- [hotel-booking-analysis](https://github.com/iam-ajitkumartoppo/hotel-booking-analysis)

<https://github.com/iam-ajitkumartoppo/hotel-booking-analysis>

Drive link:-

https://drive.google.com/drive/folders/1b6SuWC5EcL_kxvNOHif1J1Pppl3d2rNq

https://drive.google.com/drive/folders/1b6SuWC5EcL_kxvNOHif1J1Pppl3d2rNq?usp=share_link

Hotel Booking Analysis

context:

Hotel industry generates a lot of data about the booking information which can be analyzed. Patterns available in the past data are important to help the hotels plan better. Our aim is to perform exploratory data analysis on a data set which contains booking information of customers for a city hotel and a resort hotel. The dataset has 1,19,390 rows and 32 columns.

problems statement:

Here we tried to find answers to various questions like
How much of the bookings done got cancelled?
Which type of hotel has a higher number of bookings: City Hotel or Resort Hotel?
In which month the maximum number of bookings are done?
From which country the maximum number of bookings are done?
Which is the most preferred type of room for booking?
How many guests are repeated customers?
Which type of meal is most preferred by the customers?
Which type of deposit customers prefer?
In which year most of the bookings were done?
Which type of customers are most likely to visit?
How does the ADR vary over the year for both the hotels?
Which is the most preferred method for the booking?
Before how many days most of the bookings are done?

approach:

First we began with the understanding of our data present then imported the required libraries. Checked the size of data and found the missing values present in the dataset, treated the outliers present and cleaned the data for further analysis. Discovered answers to various questions by analyzing various columns present in the data and their relationship with others, have shown some of our findings with the help of graphs to make visualization better. All the insights gathered from the previous booking records of customers will surely be helpful to make important decisions by the management for the development of the business and also to help better understand the preferences and needs of customers.

conclusion:

>> We observed that the city hotel has a higher number of booking requests and it also has a higher number of cancellation rates than the resort hotel.
>> 61.8% of bookings are done for the city hotel and 38.2% of bookings are done for the resort hotel.

>>maximum bookings are done in month of July & August while minimum number of bookings are done in the months of January and December.

>>Top countries from where bookings are most done :
Portugal,UnitedKingdom,France,Spain,Germany.

>>People prefer specific rooms more than others, room A&D are the most preferred.

>>most of the bookings done are not by one time customers.

>>most people prefer BB which is bed and breakfast, very few prefer FB which is full board(breakfast,lunch & dinner).

>>most people do not prefer giving advanced deposits to ensure booking. there are very few people who give some amount of money for ensuring advanced booking.

>>maximum number of bookings records is of the year 2016.

>>Transient party customers are most likely to visit.

>>Majority of the bookings are done by Online TA and Offline TA/TO.

>>Most of the bookings done are planned for a close time but still we can see few percent of people who do planning long before their arrival.