

Capstone Project Submission

Instructions:

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

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

Summary:

Booking cancellations and very less or zero number of Hotel Bookings during some months of a year are undoubtedly two major problems for any revenue manager or hotel manager nowadays. This will not only result in the loss of profits But may also lead to some extra burden on Hotels.

So, what can hotels do to reduce these uncertainties and maximize their product and revenue? A lot can be done with revenue management techniques when it comes to rates, like reducing the cost of a room during low Booking days, overBooking methods to reduce the burden of cancelation rates, and giving some extra facilities to the customers. But nowadays you have to apply similar restrictions to those applied by your competitive set and hotels around you, so if you are going to be stricter, customers will prefer other hotels that are more permissive.

Therefore, it would seem that we have complex problems and not a viable solution. However, thanks to data science and machine learning there are many things we can do to find which months were the hotel receiving a very less number of Bookings and the number of Cancellations.

In the next chapters we are going to take on a public dataset of hotel bookings and apply an EDA (Exploratory Data Analysis) to understand the data and use descriptive analysis techniques to get a full picture of its behaviour.

For Simplicity purpose, we have divided the EDA to three parts

A) EDA to understand the Customer's Preferences : By Chadrakala(chandu.chandu611@gmail.com)

B) EDA to Understand the booking Trend : By Shubham Deshmukh (Shubhamdeshmukh278@gmail.com)

C) EDA to get insights from Cancellation : By Pragmesh Hingu

Problem Statement:

Have you ever wondered when the best time of year to book a hotel room is? Or the optimal length of stay in order to get the best daily rate? What if you wanted to predict whether or not a hotel was likely to receive a disproportionately high number of special requests? This hotel booking dataset can help you explore those questions!

This data set contains booking information for a city hotel and a resort hotel, and includes information such as when the booking was made, length of stay, the number of adults, children, and/or babies, and the number of available parking spaces, among other things. All personally identifying information has been removed from the data.

Explore and analyze the data to discover important factors that govern the bookings.

Approaches

1. Understanding the Datasets.
2. Data preparation and wrangling.
3. Analyze the data.
4. Data Exploration.
5. Conclusion.

Conclusions

After Performing the EDA, Below are some of the conclusions i came up with :

1. Peak Seasons are August and July whereas Off Seasons are January and December. Hence January and December were the best months to book a hotel.
2. Most of the people were coming from Portugal followed by France
3. The Hotel was likely to receive a disproportionately high number of special requests of 50%.
4. Most of the people prefer City Hotel compared to Resort hotels , since Resort Hotels are costlier than City Hotels.
5. the cancellation rates are much lower if there are special requests.
6. Cancellation Rate in city hotels is very high when compared to the Resort Hotel.
7. Most of the Bookings were from Online TA followed by Offline TA/To
8. Most of the people preferred to stay at weekend nights than Week day nights.
9. Most of the people preferred to stay only one day followed by 7 days.
10. The most visited type of people were couples followed by single people.

Please paste the drive link to your deliverables folder. Ensure that this folder consists of the project Colab notebook, project presentation and video.

Google Drive Link -

<https://drive.google.com/drive/folders/1B4FUwadBQuELHgUnOOEdxiVrnj7uYh1L?usp=sharing>

Github Link -

<https://github.com/ShubhamDeshmukh27/Hotel-Booking-Analysis-Capstone-Project.git>