

Capstone Project Submission

Instructions:

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

Team Member's Name, Email and Contribution:

Contribution Roles:

1. Nikunj Sonule (nikunj.sonule10@gmail.com) :-

1. Data Cleaning and organizing data
2. General Analysis
 - Guest pay for a room per night
 - Busy month
 - meals most preferred by customer
 - Guest stay at weekends and weekdays
 - most busy month for adults and child
3. Business Perspective Analysis
 - Preferred business segment

2. Amay Khonde (Amaypk99@gmail.com) :-

1. Data Cleaning
2. Analysis based on Cancellation
 - Cancelled and non-cancelled bookings
 - impact of lead time on cancellation
 - cancellation percentage
 - highest number of cancellation
 - deposit varies in non-cancellation
3. Business Perspective Analysis
 - Bookings and cancellation per market segment

3. Parvez Ahmad (aparvez441@gmail.com) :-

1. Analysis based on Bookings
 - total bookings made by both hotels
 - year wise bookings

- categories of room
 - market segment where customer have to wait for bookings
2. Business Perspective Analysis
- Average daily rate changes over year

Please paste the GitHub Repo link.

Github Link:- <https://github.com/nikunjsonule/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)

Hotel data analytics refers to qualitative and quantitative processes and techniques used to enhance productivity, marketing strategies, occupancy rates, and yield. The hotel data is first extracted and then categorized to identify and analyze behavioral data and patterns; the techniques used can vary depending on the business requirements, which have different independent variables such as hotel type, is cancelled, lead time, country etc. and using this dataset in our EDA project we found some relevant analysis which would help hotels to perform better.

As the first step, we perform Data Cleaning over the dataset. Further we divided our project in four main parts i.e Analysis Based on Bookings, Analysis based on Cancellations, General Analysis, Business Perspective problem statements.

In Analysis Based on Booking, we focused mainly on the booking with reference to hotel types, years, months, category of room booked etc. Through this we overcome with different conclusions which would be helpful for booking.

In Analysis Based on Cancellation, we compared people on the basis of cancellation made after booking (i.e is cancelled or not cancelled). Through this we found different analysis like hotel cancellation percentage, which month/ year or type of hotel has most cancellation etc. This analysis would help the management to look in the matter and find a relevant technique to overcome cancellation.

In General Analysis, we found that the pricing analysis for guest, the most busy month, the meal preferred by the customer, duration of guest staying on weekends and weekdays and number of adults and children visited month wise. The estimation of problem for hotel management would be able to improve their service towards customers and other products.

At last we have Business Perspective problem statements analysis where we compare different Market Segments on the basis of cancellation, booking and type of hotel they prefer.

That's how we have accomplished our team work in Hotel Booking Analysis project.

Throughout the project we learn many new things right from taking problem statement to understand the technical side of a product to analysis. We deal with missing data and outliers, we tested some of the fundamental assumptions. Data cleaning and dealing with duplicate value was also most important to deal with correct methodology. Understanding the dataset and predicting the solution of the problem from team work was also great big task.

At last by all analysis and research it is been clear that most of the preferred business is city hotels while looking towards corporate, online TA, offline TA/TO etc.

Drive link :-

https://drive.google.com/drive/folders/1_92jr88LT6ntgG6OGVz78OGI0MZXyQWD?usp=sharing