One of the most profitable industries in the world is the hotel sector. The hotel industry is growing more and more competitive as a result of the increased worldwide mobility and travel that is occurring. The project includes a record of actual hotel reservations for a city and a resort hotel from 2015 to 2017. It includes information on reservations, cancellations, and guest information. In this project, we will examine hotel booking information in order to gain insightful knowledge and offer recommendations for improving hotel profitability.

In order to grasp the substance of the dataset we have, we first looked over each file in the dataset. The dataset needed to be carefully evaluated because there were a lot of null values and some data types that didn't match. As a result, we started the first phase, called data pre-processing, and got rid of all the duplicate and missing values as well as adding new column.

Once the data file was complete and clear of any ambiguities, we were prepared to move on to the Data Analysis part. Analysing data sets to identify trends and make judgments about the information they contain is the process of doing data analytics. Initiatives including data analytics can support a company's attempts to boost customer service, optimise marketing campaigns, and generate revenue.

After analysing I have come up with these questions.

Q1- Which is the most booked hotel

Q2- which is busiest month in the year

Q3- Which hotel has the most booking for each year.

Q4- Which country has the highest booking and guest.

Q5- What is proportion of non-cancelled and cancelled reservations.

Q6- Which rooms in each hotel are the most frequently used.

From the analysis we can conclude that City hotel has more booking than resort hotel. Overall, there are 27.5% Cancelled and 72.5% Non-Cancelled reservations. In the month of August and July hotel has more booking so there is lack vacant rooms available if, want to visit come in December and November months as there is less booking compared to peak times. In 2015 resort hotel has more booking whereas in 2016 city hotel has more booking. Most of the guests came from PRT (Portugal), followed by GBR (United Kingdom), FRA (France), ESP (Spain) and DEU (Germany). Room A was the most used in both hotels, followed by Room D. However, room C at the resort hotel was unused while room B at the city hall was no longer in use.

Github Link:- https://github.com/SouravSinghBaghel/Exploratory-Data-Analysis-on-Hotel-booking