**HOTEL BOOKING ANALYSIS**

# **ABOUT THE PROJECT:**

The dataset contains information about a city hotel and the resort hotel. It includes information such as when the booking was made, number of stays, types of customers, number of (adults, child, babies), room type, country information, arrival date etc. This dataset has 32 variables and with around 119,390 entries, the dataset has the data recorded between 2015 to 2017 which has booking.

We are using our PYTHON skill to perform EDA (Exploratory Data Analysis) and collecting informative insights about factors in hotel bookings and how the effect hotel booking.

# **PROJECT GOALS:**

Purpose of our project is to find out the best time for booking city hotels and the resort hotels. The optimal length of stay in order to get best daily rate. And study about special request.

We explore and analyze our dataset to discover important factors that governs the booking.

# **DATA VISUALIZATION:**

Data visualization is the graphical or visual representation of data. It helps to highlight the most useful insights from a dataset, making it easier to spot trends, patterns, outliers, and correlations. And the graph that we are using are:

* Box plot
* Histogram
* Pie chart
* Box plot
* Line plot
* Scatter plot
* Geo map

# **BUIT WITH:**

* Python:
* NumPy
* Pandas
* Matplotlib

# **DATASET SUMMARY:**

* The dataset contains single file which compares various booking information between two hotels:
* A city hotel
* A resort hotel
* The dataset contains total of 119,390 entries.
* Both hotels assumed to be located in Portugal, their exact location and name are unknown.

# **EDA AND VISUALIZATIONs:**

1. **Univariate analysis:**

Univariate analysis is the simplest form of analysing data i.e, study of one variable. Its major purpose is to describe, distribution of single data, and find patterns in the data.

1. **Bivariate analysis:**

Bivariate analysis between two variables. One of the variables will be dependent and the other is independent. The study is to analysed between the two variables to understand what extent the change has occurred.

1. **Multivariate analysis:**

Multivariate data analysis is the study of relationships among the attributes, classify the collected samples into homogeneous groups, and make inferences about the underlaying population from the sample.

# **COCLUSION:**

* Majority of people prefer A-room type so hotels should increase their numbers to get more revenue.
* Transient customers cancels more often but when people book in groups it leads to lesser cancellations, hence hotels should provide some offers focusing transient customers to decrease cancellations.
* Maximum number of bookings are in the month May to August, so hotels should provide exciting deal to customers to increase their booking in off season.
* City hotels receives more special requests than Resort hotels. Most of the customers don't have special requests.