**Capstone Project Submission**

Travelling is a key factor for human beings to learn and experience new things in their life. So, we visit new places and stay a little while for an experience of that environment where we like to visit. Hotel is a key factor which decides whether our experience will be good or bad. As human beings we always have a curiosity that we should get a good hotel room at the lowest price possible and the service of the hotel should be also good. So, we do a **Hotel Booking Analysis** so we can understand the key factors which influence the price factor of the hotel and also understand the behavior of the customer with **Exploratory Data Analysis**.

In this EDA project the first step we perform is data wrangling over the raw data where we do various operations to form a ready to used data frame so it will be easy to handle. The 1st step includes Importing various libraries and reading CSV files, Checking and Exploration of data frame, clearing data and adding missing/required data, then we further divided our complete project in five basic analysis.

In the first analysis we do time wise and place analysis where we find which year and which month we get the highest number of rooms booking happen and from which country the booking is done. So, it gives a statistical idea about how the yearly and monthly demand for booking rooms is shown and Also from which country people like to book most.

In the second part analysis we do hotel wise analysis like which type of hotel has the highest number of booking, highest room type booked, which room type generates highest adr so we can understand how revenue comes from room and analysis in each hotel type booking on yearly basis.

In the third part of analysis we have done various distribution of various channel wise analyses like number of rooms booking, finding most common market segment to booking hotels, number of rooms booking by top 10 agents, which type of meal preferred by the peoples.

In the fourth part we do check a relationship between market segment and cancellation so we get an idea from which segment/channel we get the highest number of booking and how the cancellation of booking happened in each segment. This analysis gives a clear idea of booking cancellation ratio for each segment.

In the fifth part of analysis we can clearly see that there are various co-relations between data like Total stay length and lead time have little correlation. It means that longer hotel stays people generally plan little before the hotel so adr also likely to increase.

**Contributor Role: -**

**N Santosh Ku. Choudhury**

* Data Wrangling
* Checking data frame
* Data frame Exploration
* Finding the most common segment preferred for hotel booking.
* Which month's highest booking happened?
* Visualizing each Hotel type wise yearly bookings.
* What is the relationship between market segment and cancellation?
* Correlation of the columns.
* Which top 10 countries have the most babies during their visit?
* Which type of Meal is mostly preferred by the guests during their visit?
* Draw the box plots of the two columns

**Kuresh Chandra tripathy: -**

* Data Wrangling.
* Mounting and read the data frame
* Clearing and Processing Data frame
* Which Year does most room booking happen?
* Country with Highest Number of Booking
* Map wise room booking density graph.
* Which type of Hotel has the highest number of bookings?
* Which room type is booked in the highest Number?
* Number of rooms booking by top 10 Agent
* Which room type generates the highest adr?
* Find is the most common market segment that prefers to book hotels?
* How long do people stay at the hotel?

#**GOOGLEDRIVELINK-https://drive.google.com/drive/folders/18ZNFo4WjPeAixPgLxzZm0BgZJ1wTmF0v?usp=sharing**

**#GITHUBLINK-** **https://github.com/SANTOSH7077/HOTEL\_BOOKING.git**