**Capstone Project Submission**

**Instructions:**

i) Please fill in all the required information.

ii) Avoid grammatical errors.

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| **Team Member’s Name, Email and Contribution:** |
| Deepak Kumar Gautam ([deepakpracheta@gmail.com](mailto:deepakpracheta@gmail.com)) :  Getting the data  Data Cleaning  Working on Outliers  1) Comparing different variables month wise?  2) What is the preferred stay length in each hotel?  3) Which meal type is most preferred meal of customers?  Bindu Kovvada ([bindukovvada187@gmail.com](mailto:bindukovvada187@gmail.com)):  Getting the data  Data Cleaning  Data Analysis:  1) Percentage of bookings in each hotel type?  2) Which is the busiest month for hotels?  3) How many bookings were cancelled?  4) From which country most guests come?  Saksham Tripathi (saksham757474@gmail.com):  Getting the data  Data Cleaning  Exploratory Data Analysis:  Working on Outliers  Heatmap  Data Analysis:  1) Which room type is in most demand?  2) Which room type generate highest adr?  3)Let’s see does not getting same room affects the adr?  4) Which is the most common channel for booking hotels?  Shivangi Mishra:  Getting the data  Data Cleaning  1) Booking cancellation and repeated guest  2) Distribution channel and days on waiting list?  3) Which distribution channel has highest cancellation percentage?  4) Days on waiting list and market segment?  Satyajit Sahoo:  Getting the data  Data Cleaning  1) Checking whether not getting allotted the same type as demanded is the cause of cancellation  of bookings?  2) Effect on lead time on cancellation?  3) Which type of customers are most repeated? |
| **Please paste the GitHub Repo link.** |
| Github Link:- https://github.com/deepakpracheta/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)** |
| **For our first EDA Capstone project we chose Hotel Booking Analysis as our project. This we chose because we were familiar with hotel booking and had some experience about what factors we look for while booking a room in a hotel. So this way we chose Hotel Booking analysis as our project.**  **While analyzing the data we were to make few inferences and conclusions from this data set like**   1. **Which hotel type is most booked.** 2. **Which is the best time in a year to book a room.** 3. **What are some factors responsible for cancellation of a booking.** 4. **Which mode is most used by customers to book a hotel.** 5. **What is the optimal length of stay in City Hotel or Resort Hotel.** 6. **Which is the busiest month for hotel booking** 7. **Relation between booking cancellation and Repeated Guest ,if any.**   **And many more…**  **Starting with our project first we have out data set of Hotel Booking database which was collection of no. of booking made by different customers from different countries from year 2015 to 2017.**  **Our dataset has 119390 rows and 32 columns.**  **Next task was to clean this data so for this part we replaced null values, removed duplicate data and also removed outlier as outliers make data unreliable and creates noise.**  **After data was cleaned then we plotted charts to draw inferences and conclusions.**   1. **Higher lead time has higher chance of cancellation.** 2. **July-August are the busiest and most profitable months for both the hotels.** 3. **The best time to book a hotel would be between October to February to get for cheaper price.** 4. **Most people prefer to stay in the hotels for upto five days in both types of hotel. However, if people tend to stay longer then they prefer resort hotels over city hotels.**   **5. Maximum number of repeated guests are "Transient type" i.e., the "Short-time customers"**   1. **City hotels receive around 60% of bookings, while Resort hotels receive 40%, hence city hotels are busier than Resort hotels.** 2. **City hotel’s total adr is slightly higher than Resort hotel’s.** 3. **Most of the guests were from European countries, with the most coming from Portugal followed by Great Britain and France.** 4. **Guests use different channels for making bookings out of which most preferred way is TA/TO.** 5. **Almost 30% of bookings via TA/TO are cancelled.** 6. **Bookings are not affected if they do not receive the same room as reserved. Although different room allotment does lessen the adr.** |