**Capstone Project Submission**

EDA on Hotel Booking

| **Team Member’s Name, Email and Contribution:** |
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| **Team Members: Email**  1). Kartike - kknirajkumar@gmail.com  2). Animesh Chakraborty - animeshcharaborty.227@gmail.com  3). Anupam Mishra - mishraanu1991@gmail.com  4). Pinaki Nandan Hota - mjpinaki@gmail.com  **Contributor Roles:**  **1). Kartike:**  A). Explored the data  B). Pre-processed the booking wise data  C). Deposit Type  D). Relationship between previous cancellation and current cancellation rate  E). Variation in booking across different years and different months (Also with different  Days and week number).  F). Arriving Year, Lead Time and Cancellation  G). Regular Customer  H). Contribution in ppt, Technical Documentation, Project Summary.]  **2). Animesh Chakraborty:**  A). Explored the data  B). Pre-processed the remaining data  C). Overview of Cancelled Bookings  D). Market segment bookings  E). Number of bookings with percentage  F). Countries with maximum and minimum customers  G). Deposit Type  H). Contribution in ppt, Technical Documentation, Project Summary.  **3). Anupam Mishra:**  A). Explored the data  B). Pre-processed the hotel wise data  C). Types of rooms customer prefer  D). Meal category which loved by customers  E). Contribution in ppt  **4). Pinaki Nandan:**  A). Explored the data  B). Pre-processed the hotel wise data  C). Accommodation Type  D). Total Stay in Hotel |
| GitHub Link:- <https://github.com/KK-Niraj/Hotel-Booking-Analysis> |
| Colab Link:- <https://colab.research.google.com/drive/1ficLJgr2H7yuXiFVh7f_nBGMgp4WVvUG?usp=sharing> |
| **Summary** |
| A hotel is an establishment that provides lodging and, often times, meals and other services for travelers and other paying guests. ... Overall, sales from hotels account for 87.4% of industry revenue and 82.0% of industry employment. That’s why we found “Hotel Booking Analysis” project very interesting.  In this EDA Project, we were provided with a Hotel Booking Analysis Dataset in which 32 different columns containing relevant information such as hotel types, customer types, segment, meal, rooms and much more.  Firstly, we explored the dataset, preprocessed all the data to make it ready for data wrangling and analysis. After that we framed the whole project into three categories as – Hotel wise; Booking wise; and final part having rooms, customers, meal, segment and countries information.  In the booking wise category, we extracted some data about how many bookings got canceled? and how many customers checked-in at the hotel? the variation in the number of bookings across different years we had along with different months. We also estimated the period of maximum and minimum bookings.  In the hotel wise category, we analyzed the data according to the types of hotels – Resort hotels and City hotels. In this analysis we found interesting data about the trend of demand for both the hotels across different years. Further we proceeded how many nights’ customers preferred to spend in hotels.  In the final part, we ended with a representation of the number of customers with various room types, meal, customer, market segment and countries with maximum customers. We also estimated the best time of year to book a hotel room along with the optimal length of stay in order to get the best daily rate.  Set Non-refundable Rates, Collect deposits, and implement more rigid cancellation policies. Encourage Direct bookings by offering special discounts. Monitor where the cancellations are coming from such as Market Segment, distribution channels, etc. |