**Capstone Project Submission**

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| **Shriram Buchkul (shrirambuchkul@gmail.com)** |
| Data Wrangling:  Loading and Structuring Data  Data Cleaning and Preprocessing  Data Enrichment and Validation  Summarizing Data  Data Analysis:  Hotel Types and Preferences  Booking Trends (by Month, Year, and Daily)  Cancellation Rates and Special Requests  Average Daily Rate and Stay Length  Outlier Detection  Visualizations:  Bar Graphs and Pie Charts  Line Plots and Scatter Plots  Heat Maps and Box Plots  Additional Contributions:  Code Evaluation and Debugging  Observations and Summarization  Conclusions and Insights |
| **Please paste the GitHub Repo link.** |
| Github Link:- [https://github.com/shriram7755/EDA\_ON\_HOTEL\_BOOKING](Hotel_Booking_Analysis.pptx)  Drive Link:- |
| **Please write a short summary of your Capstone project and its components. Describe the problem statement, your approaches and your conclusions. (200-400 words)** |
| **The hotel industry is booming, driven by global travel and increasing competition. To better understand this market, our capstone project analyzed hotel booking data from 2015 to 2017, covering both city and resort hotels. The aim was to gain insights into booking trends, cancellations, guest demographics, and overall hotel performance, providing suggestions for revenue growth.**  **We started by cleaning the dataset, addressing issues like null values and data type mismatches. This data preprocessing ensured the dataset was accurate and ready for analysis. Our data analysis focused on two approaches: univariate analysis, which examines individual variables, and multivariate analysis, which explores relationships among multiple variables.**  **Our findings were interesting. City hotels had higher booking rates, while resort hotels were favored for longer stays. However, both types of hotels had low retention rates, indicating a need for better customer retention strategies.**  **In terms of guest demographics, most visitors came from Europe, particularly Portugal. The peak booking period was from May to September, suggesting this is when hotels could maximize revenue.**  **When we examined room types and average daily rates, it was clear that most guests preferred Room Type A, which offered a lower rate. Other room types with higher rates saw fewer bookings, indicating that hotels might need to reconsider their pricing strategies.**  **Based on our analysis, we suggest hotels focus on improving retention rates and adjust pricing to attract more guests to the higher-rate rooms. Additionally, since most guests come from European countries, marketing efforts should target these regions. Given that city hotels had a higher booking rate, a larger portion of the marketing budget should be allocated to them. Finally, hotels should maximize their revenue by concentrating on the high-booking period from May to September.** |
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