**Capstone Project Submission**

**Instructions:**

i) Please fill in all the required information.

ii) Avoid grammatical errors.

| **Team Member’s Name, Email and Contribution:** |
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| **Please paste the GitHub Repo link.** |
| GitHub Link:- https://github.com/Nitesh7179/Capstone-Project-Hotel-Booking-Analysis.git |
| **Please write a short summary of your Capstone project and its components. Describe the problem statement, your approaches and your conclusions. (200-400 words)** |
| **Mobile Price Range Prediction is done by 3 group members M Sameer Ahamed, Ayush Goyal, Nitesh bhowmick. In this project we got Mobile Price Range as csv file.**  **As we downloaded the data as csv file from alma better capstone project dashboard we encoded the file in colab notebook through mounting the drive. All the member from the group participated throughout the project with great efforts.**  **The data was huge and Understand the columns of the dataset.**  **The data was cleared and there are not any NaN & Null values also there are no duplicate values. Each and every column were compared to gain the knowledge for analysis. Worked individually gaining some insights doing some EDA .**  **The first difficulty we faced was the to find the outlier in the dataset, so we checked each & every column & find out that there are not too much outlier in the dataset. By getting info of dataframe we plotted graphs for each data to understand and visualize thouroughly.**  **From graphs we cleared the price range, Battery power, bluetooth connectivity, RAM,FC (front camera megapixels), PC (Primary camera Megapixels), Mobile weight, screen\_size confirmed through the data presents.**  **We scaling the data & than train & test the data.**  **After that we deploy that data into four different algorithm & with hyperparameter tunning, these are Logistic Regression, Random Forest, Decision Tree & Support Vector Machine.**  **From all the above experiments we can conclude that Logistic regression and Support Vector Machine with using hyperparameters we got the best results.**  **Accuracy Scores are 94% & 96%**  **Contributors Roles:**   1. **Ayush Goyal:**   1. Data Wrangling:  2. Visualizing mobile phones in 4 price ranges.  3. Visualizing how the battery mAh is spread with respect to price range.  4. Deploy & Run Logistic regression Model with hyperparameter tunning.  5. Visualizing Connectivity features & multi-collinearity.    **2. M Sameer Ahamed:**  1. Data Wrangling:  2. Visualizing bluetooth connectivity with respect to price range.  3. Visualizing Primary camera megapixels with respect to price range.  4. Scaling the data ,Train & test the data  5. Deploy & Run Random Forest Model with hyperparameter tunning.    **3. Nitesh Bhowmick:**  1. Data Wrangling:  2. Visualizing RAM with respect to price range  3. Visualizing bookings Screen Size wth respect to price range  4. Deploy & Run Decision Tree Model with hyperparameter tunning.  5**.** Deploy & Run Support Vector Mchine with hyperparameter tunning. |