**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:** |
| 1. Manoj Patil M   Email- [smmanoj208@gmail.com](mailto:smmanoj208@gmail.com)   * Data inspection * Data cleaning   + - 1. Checking null values       2. Finding duplicate values       3. Finding outliers * Data visualization  1. Target variable analysis 2. Box plot for finding outliers 3. Lmplot for checking relationship between day, eve and night charge 4. Churn distribution with total cast of day and total minutes of day 5. Heat map for finding correlation all the features with target column  * Technical documentation * Presentation ppt  1. Gulzar   [Email-gulzarkhan9980@gmail.com](mailto:Email-gulzarkhan9980@gmail.com)   * Data inspection * Data cleaning * Data visualization-   + - 1. Pie chart for churned %       2. Plot bar for top 10 churned states       3. All seaborn work like-Count plots, box plots etc.       4. Heat map for finding correlation of churn column       5. Frequency distribution of all data       6. Making suggestions based on our analysis     - Technical documentation     - Presentation ppt  1. Piyush Mishra   [Email-piyushmishra898@gmail.com](mailto:Email-piyushmishra898@gmail.com)   * + - * + Data inspection         + Data cleaning         + Checking null values       * Data visualization       * Technical documentation       * Presentation ppt  1. Parikshit Purohit   [Email-iprincepurohit@gmail.com](mailto:Email-iprincepurohit@gmail.com)   * Data inspection * Data cleaning * Checking null values * Finding duplicated values also * Data visualization-   1. Pie chart for churned %  2. Plot bar for top 10 churned states  3. All seaborn work like-Count plots, box plots etc  4. Frequency distribution of all data  5. Making suggestions based on our analysis   * + - Technical documentation     - Presentation ppt  1. Siddhant Mehra   [Email-siddhantmehra.007@gmail.com](mailto:Email-siddhantmehra.007@gmail.com)   * Data inspection * Data cleaning * Checking null values * Data visualization * Technical documentation * Presentation ppt * Summary * Video presentation * Graph plotting |
| **Please paste the GitHub Repo link.** |
| Github Link:- <https://github.com/Manojpatil123/Capstone-project-eda-on-telecom-chrun> |
| **Please write a short summary of your Capstone project and its components. Describe the problem statement, your approaches and your conclusions. (200-400 words)** |
| **Problem statement:** Orange S.A., formerly France Telecom S.A., is a French multinational telecommunications corporation. The Orange Telecom's Churn Dataset, consists of cleaned customer activity data (features), along with a churn label specifying whether a customer cancelled the subscription. Explore and analyses the data to discover key factors responsible for customer churn and come up with ways/recommendations to ensure customer retention. **Approach:**   * First, we load data set into Panda’s frame and initialize all the library which are required for doing EDA. * Then we did inspection of data on a basic level. * Then we did data cleaning by removing null values, duplicate values and outliers. * Then we used the matplotlib and seaborn to do Exploratory Data Analysis on sample data by plotting different graphs like count plot, pie chart, lmplot, bar plot, boxplot, subplot and heat map from this we got useful insights and correlation between target column and other features * By observing insights, we predicted what factors that are causing customer to churn and come up with suggestion for controlling customer churn   **Conclusion:**  Here are some suggestions to prevent churn   * We can clearly see some states having very high churn rate might be because of network issues or very high competition for other telecom company so implementing better networks, upgrading network in these areas and providing offers for customer will leads to reduce churn rate. * Customer having higher day mins, day charge has more churn rate maybe because of poor network quality, or high cost so providing discount or implementing new pricing strategy and improving network quality will reduce customer churn rate. * Customer with international plan has more churn rate maybe because of cost and network fluctuation, network quality so implementing new pricing strategy, providing discount and upgrading network will reduce churn rate. * We can observe poor customer service because of this high churn rate. So, providing better customer service, promoting customer service, collecting feedback from customer these are the factors company can implement to reduce customer churn. |