

Capstone Project Submission

Instructions:

- i) Please fill in all the required information.
- ii) Avoid grammatical errors.

Team Member's Name, Email and Contribution:

1. Rahat Bhambri (rahatbhambri@gmail.com) :

1. Data preprocessing, cleaning and description
2. Calculating feature importance's from data
3. State wise churn behavior
4. Categorical feature analysis
5. Checking distribution of all features
6. Area wise customer Distribution

2. Likhith Ram (likhithram998@gmail.com):

1. Planning the road map.
2. Percentage of churn the company is suffering.
3. State Wise churn behavior
4. Total minutes affecting churn rate
5. Customer calls affecting the Churn
6. Providing recommendations to decrease the churn rate.

3. Manoj Patil (pmanoj182@gmail.com) :

1. Data set summary
7. Exploratory Data Analysis
8. Box Plot visualization
9. calls charge rates
10. Correlation analysis using Heat map
11. visualization on State Feature
12. Top 10 states where customer resides
13. Area wise churn rate visualization

4. Manjari Lahariya(manjarilahariya001@gmail.com):

14. Data preprocessing, cleaning
15. Statistical Analysis
16. Box Plot visualization
17. customer calls timing
18. Frequency of calls
19. Correlation Interpretation using heat map
20. Interpretation of graphs and conclusion
21. distributions of the features

5. Krishna Das (krishna.das@gipe.ac.in):

1. Introductory remarks
2. Exploratory data analysis
3. Box Plot visualization
 - Customer calls timing

- Frequency of customer calls
- Calls charge rates
- 4. Finding hidden patterns with Correlation in Data
- 5. Count plot visualization
 - State wise churn behavior
- 6. How Customer service calls effects on churn

Please paste the GitHub Repo link.

Github Link:- <https://github.com/manojpatil3010/Capston-Project-EDA-on-Telecom-Churn>

Please write a short summary of your Capstone project and its components. Describe the problem statement, your approaches and your conclusions. (200-400 words)

In this EDA project, we have done Exploratory Data Analysis on The Orange Telecom's Churn Dataset. This is company named Orange S.A., formerly France Telecom S.A., is a French multinational telecommunications corporation. Given data set consists of cleaned customer activity data (features), along with a churn label in terms of True and False that specifying whether a customer discontinuing services or retained with company. Before we deep dive into data set, we need to understand churn rate. So churn can be defined as attrition that occur when customer wants to end his or her relationship with respective company. It means that Discontinuing or leaving company services.

As can see everywhere, mobile telecommunication is become integral part of everyone's life, So by taking consideration this, telecom companies also increasing .As the competition between companies growing day to day, its bigger challenge to telecom companies to retain customers and prevent their churn. Because A high churn rate will adversely affect a company's profits and their growth. Longer you have customers with company they are less likely to churn and also gets loyalty benefits. Our churn analysis would be able to provide clarity to the telecom company on how well it is retaining its existing customers and understand what are the underlying reasons that are causing existing customers to terminate their contract (high churn rate).

To analyze the data, first we have done data preprocessing to convert raw data into simplifies and understandable data. After that we checked for any missing values present in it and done statistical analysis. Further we interpret the data with the help of visualization by plotting graphs. In which we have plotted graphs to understand what churn rate of customers, Area wise Customer churn Distribution, Distributions of the Features and correlation. We also interpret how the variables such as State, Customer service calls, Voice mail messages and total calls and their charges affected to the churn.

Some of the factors that caused existing customers to leave their telecom company are good plans, better price offers and discount, faster internet services, calls quality given, effective customer service and a better experience given from other companies.