Telecom Customer Churn Prediction Assessment

Customer Churn is a burning problem for Telecom companies. In this project, we simulate one such case of customer churn where we work on a data of post-paid customers with a contract. The data has information about the customer usage behaviour, contract details and the payment details. The data also indicates which were the customers who cancelled their service. Based on this past data, we need to build a model which can predict whether a customer will cancel their service in the future or not.

You are expected to do the following :

1. **EDA (16 Marks)**
    - How does the data looks like, Univariate and bivariate analysis. Plots and charts which illustrate the relationships between variables (4 Marks)
    - Look out for outliers and missing values (4 Marks)
    - Check for multicollinearity & treat it (4 Marks)
    - Summarize the insights you get from EDA (4 Marks)
2. **Build Models and compare them to get to the best one (39 Marks)**
    - Logistic Regression (8 Marks)
    - KNN (8 Marks)
    - Naive Bayes (8 Marks) (is it applicable here? comment and if it is not applicable, how can you build an NB model in this case?)
    - Model Comparison using Model Performance metrics & Interpretation (15 Marks)
3. **Actionable Insights (5 marks)**
    - Interpretation & Recommendations from the best model