

Telco Customer Churn Prediction - Project Summary

Author: Anshu Jaiswal (username: ezCoder0)

1. Problem Statement

Predict whether a telecom customer will churn (leave the service) based on their usage patterns, contract details, and other attributes.

2. Dataset Information

The Telco Customer Churn dataset contains over 7,000 customer records with features such as MonthlyCharges, TotalCharges, Tenure, InternetService, Contract type, and more. The target variable is 'Churn' (Yes/No), which is converted to binary (1/0).

3. Data Processing & Feature Engineering

Handled missing values, converted TotalCharges to float, and applied one-hot encoding to categorical variables. The data was then split into training and testing sets.

4. Models Used

- Logistic Regression: Basic baseline model.
- Random Forest Classifier: Performed better, achieving around 80% accuracy.

Random Forest was selected as the final model due to better performance and feature importance insights.

5. Results & Conclusion

The final model is capable of identifying potential churners with high accuracy. This can help telecom companies take proactive steps to retain customers and improve satisfaction.