PREDICTION ON CHURNING RATE IN SYRATEL TELECOMUNICATION

Overview

This project aims to predict the churning rate in Syriatel and help them improve on customer retention in the company
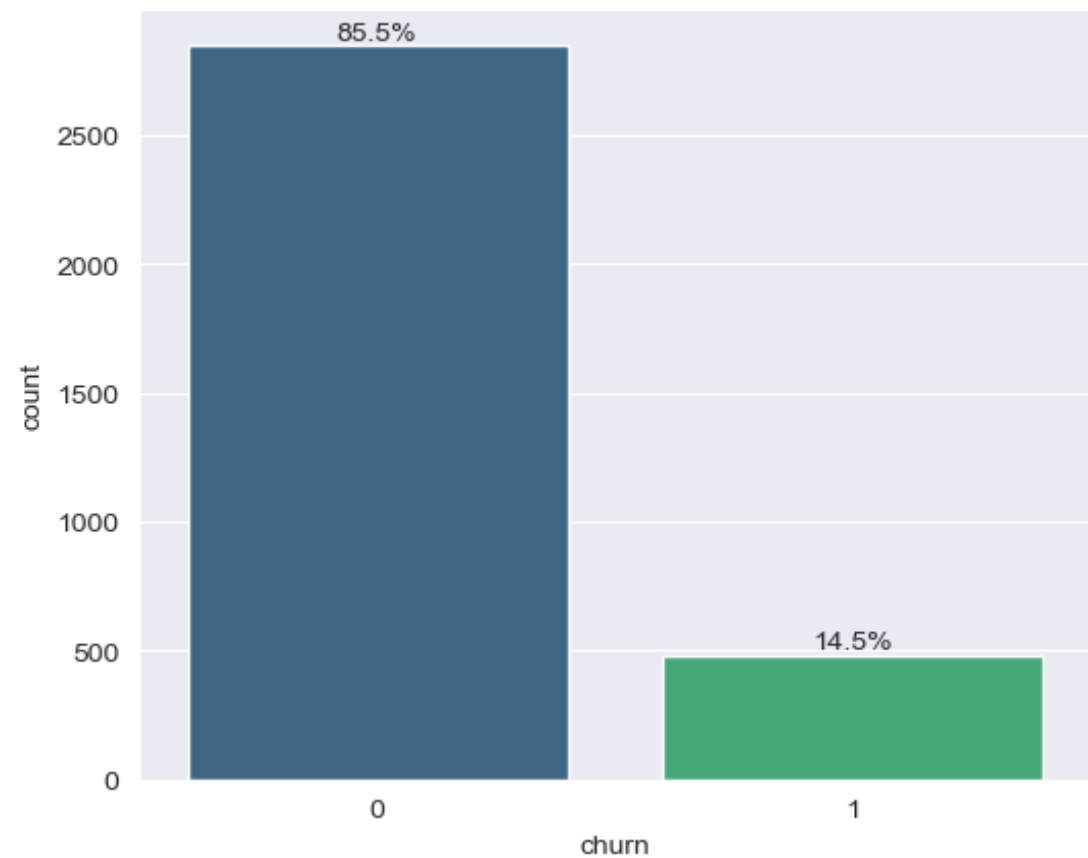
DATA UNDERSTANDING

Syriatel, a telecommunication company in Syria are worried of losing customers recently and it seems to get worse overtime. To try and fix this, the project aims to analyze customer data and create machine learning models to identify those at risk of churning, while keeping focus on the main goal of achieving accurate prediction. By understanding why customers leave, Syriatel can hopefully improve their services and improve on customer retention which in turn will attract new clients by effectively allocating resources based on the predictions. phase-3-project

objectives

❖ Find reasons behind churning

❖ To create models to predict future rate of churning accurately.

❖ Find solutions to curb churning
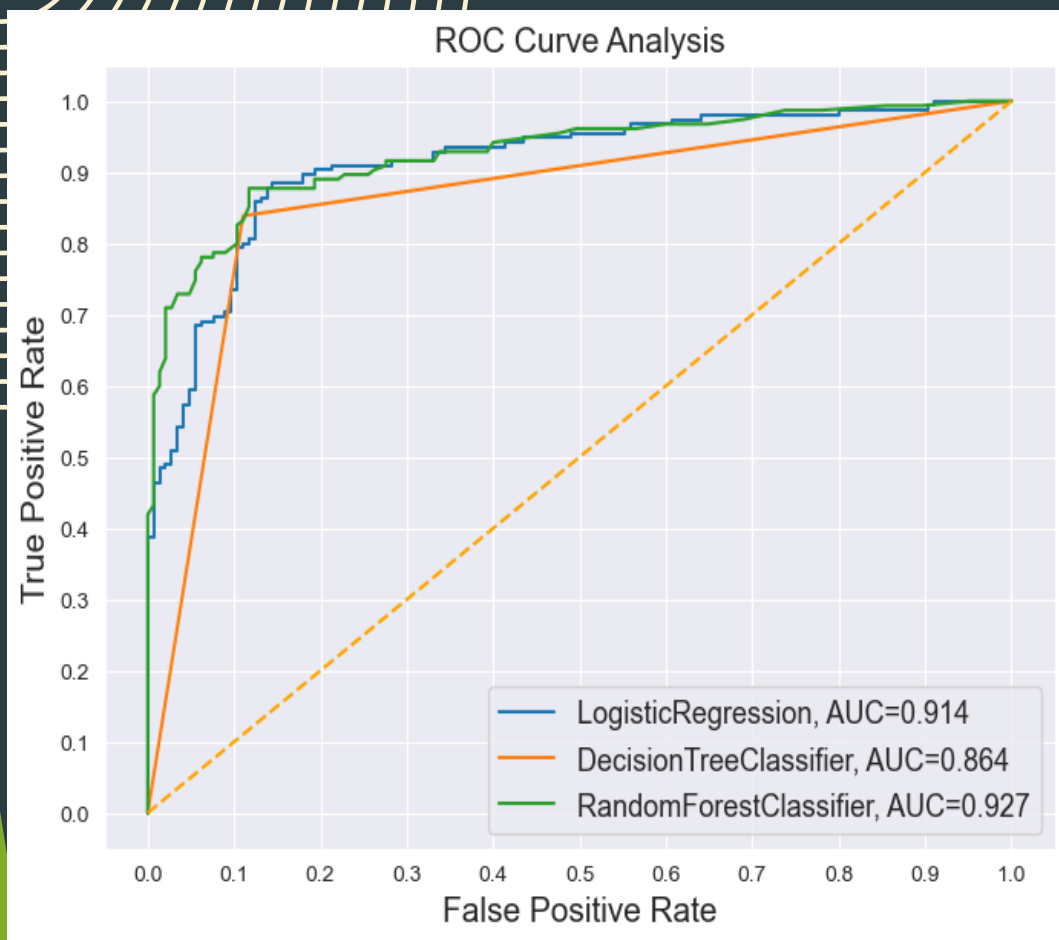
Churn Distribution Among Subscribers

❖ Customers = 3333

❖ Churned customers 483 = 14.5%

Algorithms used;
- Logistic Regression
 - Desicion Tree Classifier
- Logistic Regression Classifier

Metrics used;
- Recall-focuses on the model's ability to correctly identify positive cases.
 - ROC_AUC Curve-plots the true positive rate against the false positive rate at various classification thresholds
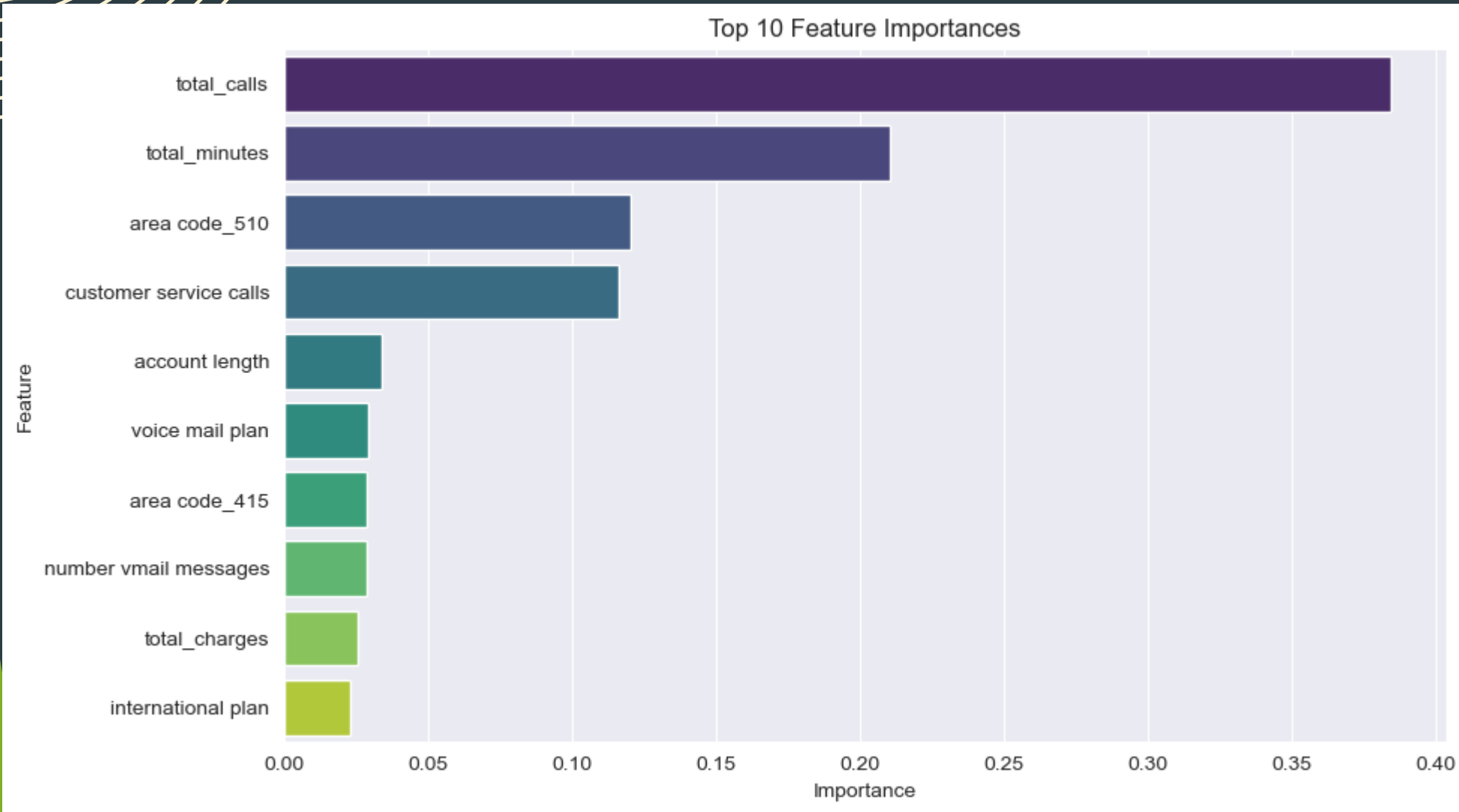
Based on recall score;
- Random Forest – 0.72
- Logistic Regression – 0.72
- Decision Tree – 0.75

Based on ROC_AUC curve;
- Random Forest – 0.93
- Decision Tree – 0.86
- Logistic Regression – 0.91

10 Features to Predict Churning

Top 10 Feature Importances

Reccomendation

❖ The company should focus on customer service calls to improve retention

❖ They company should consider promoting international plans to customers with frequent international calls

❖ They should potentially adjust pricing strategies to curb churning

❖ On account length they should reward long term customers to enhance loyalty

❖ They should analyze regional difference between area code 510 and area code 415 and customize services for these area code