SyriaTel Customer Churn Analysis

Flatiron Phase 3 Project
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Business Problem

- Determine the best predictors of 'churn' (customers stopping business with them)
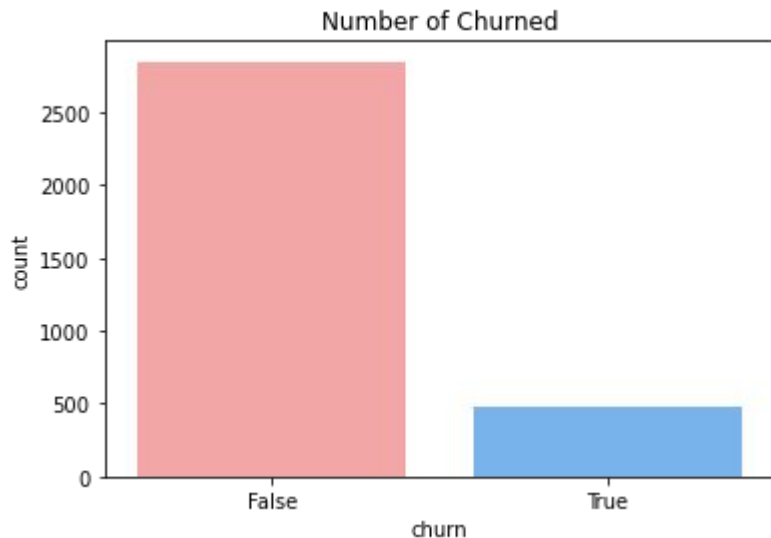-
- Recommend solutions

Data

- Available from Kaggle:https://www.kaggle.com/datasets/becksddf/churn-in-telecoms-dataset

- About 3,000 records

  - including descriptive aspects of their telephone interactions with SyriaTel

15% `churn' from SyriaTel

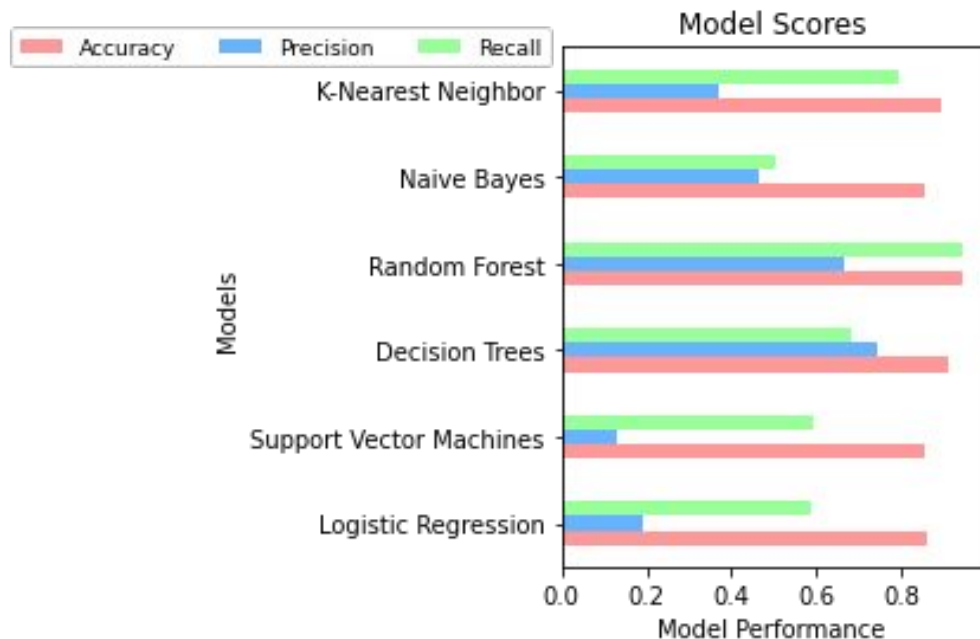- 14.49% churn
- 85.5% do not churn

Number of Churned

Most Important Features

Feature Importances
(Sorted By Length)
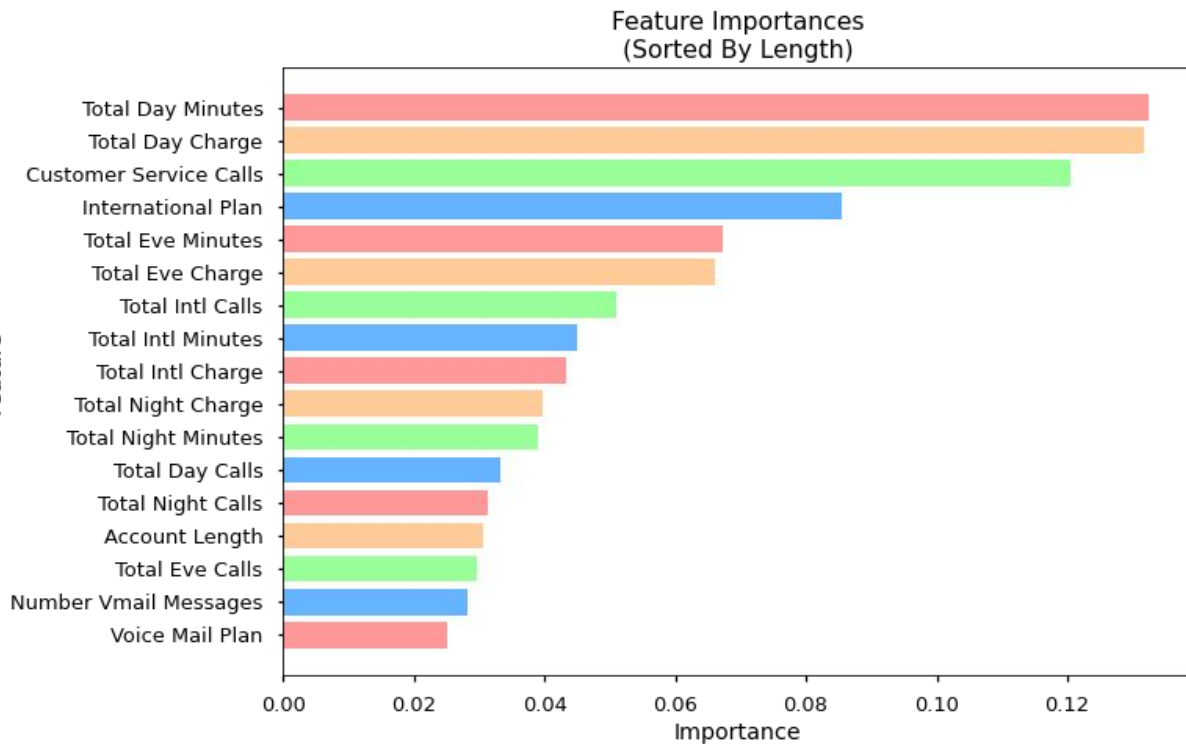
- Total Day minutes
- Total Day Charge
- Customer Service Calls

Models with the highest accuracy

Model Scores

● The highest accuracy among the models was 95%

Evaluating models after hypertuning

Hypertuned Model Comparison
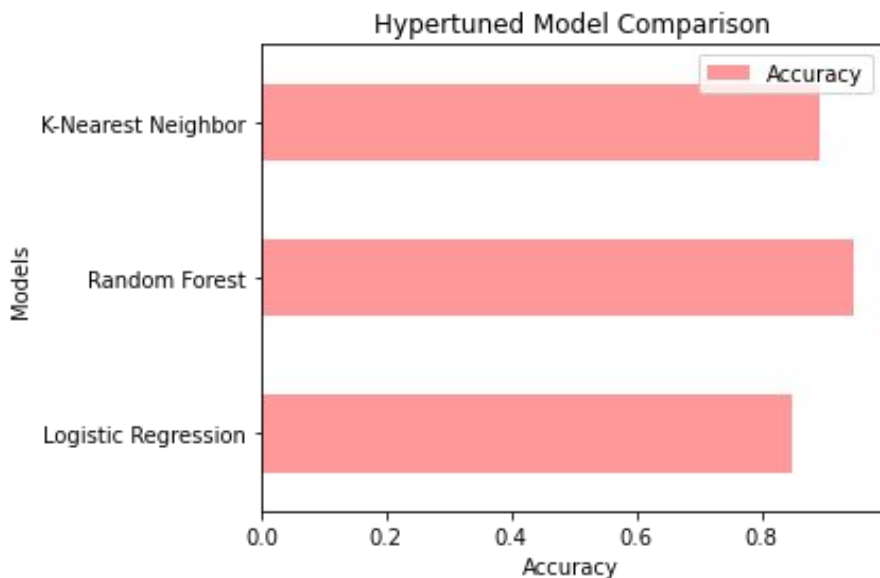
	Accuracy
Logistic Regression	0.850120
Random Forest	0.946043
K-Nearest Neighbor	0.894484

Construing to New Data

- When applying the model outward it was discovered that lessening total day minutes on the phone and total day charged per customer will lessen the churn of people from SyriaTel.

Recommendations

- Shorter phone calls may lead to higher retention rates. More training to staff on how to lead succinct phone calls.

- Whether daily or hourly, how payment is collected will effect churn as well. Changing the method from daily to hourly could discourage churn.

Thank you for your time

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