

Predicting Customer Churn

Overview

- Project objective
- The data
- Method and approach
- The final model
- Results and implications

Business Problem

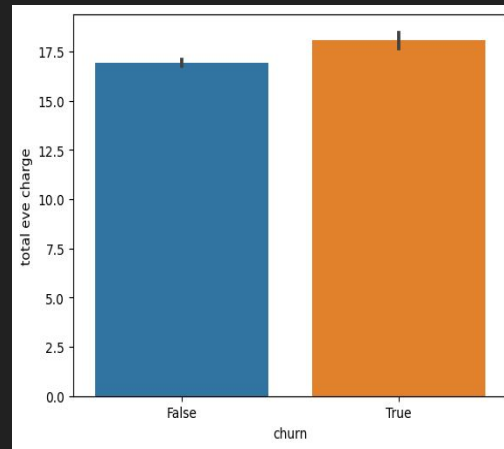
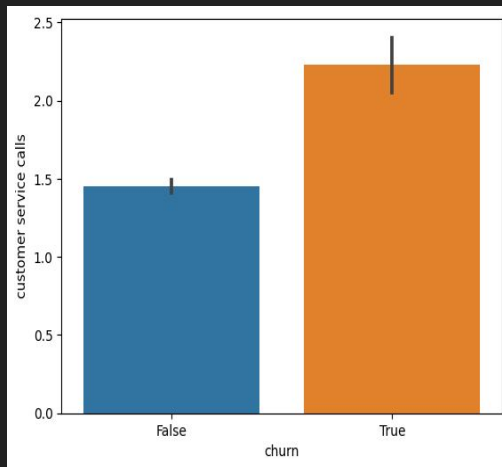
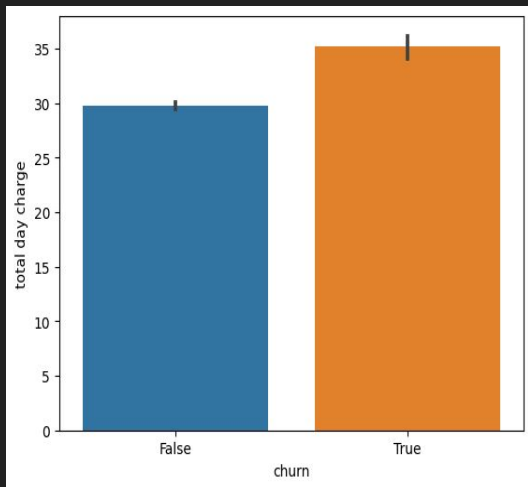
Objective: Predict whether a given customer will churn

- reduce revenue loss
- Increase customer retention

Data

- Information about past customers
- More than **3000 customers** and more than **20 features**

Graph of classes and mean value of features:



Modelling method

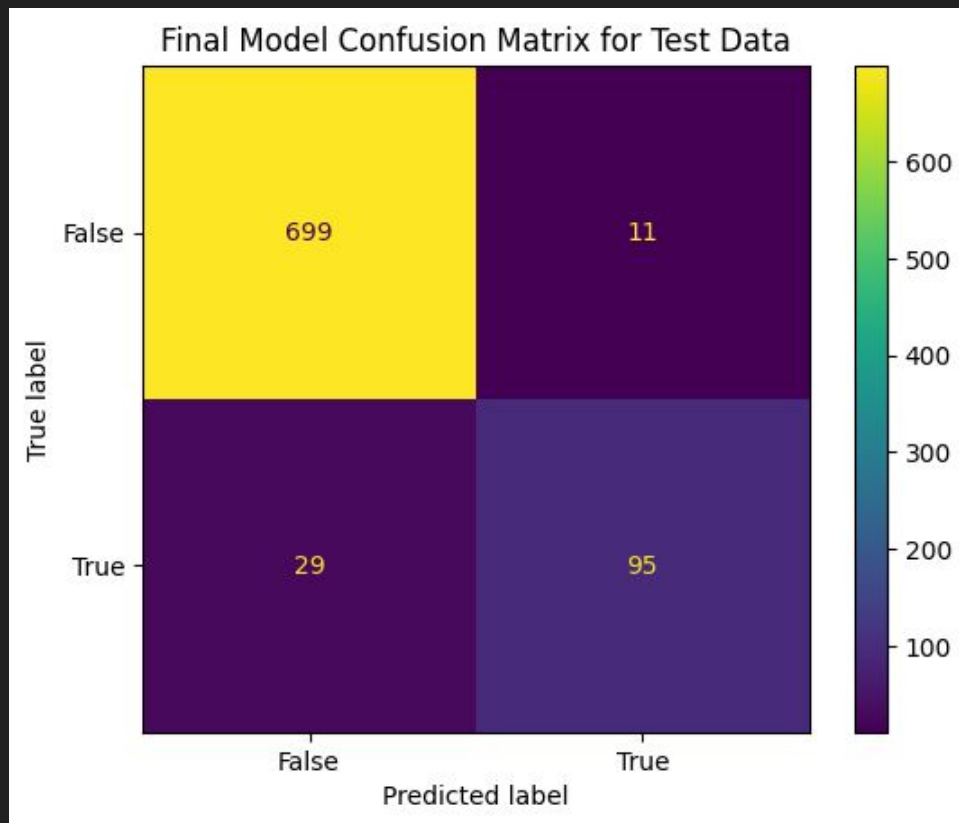
Decision Trees - a binary classification model

- Answers a yes/no question
- Groups data by commonality

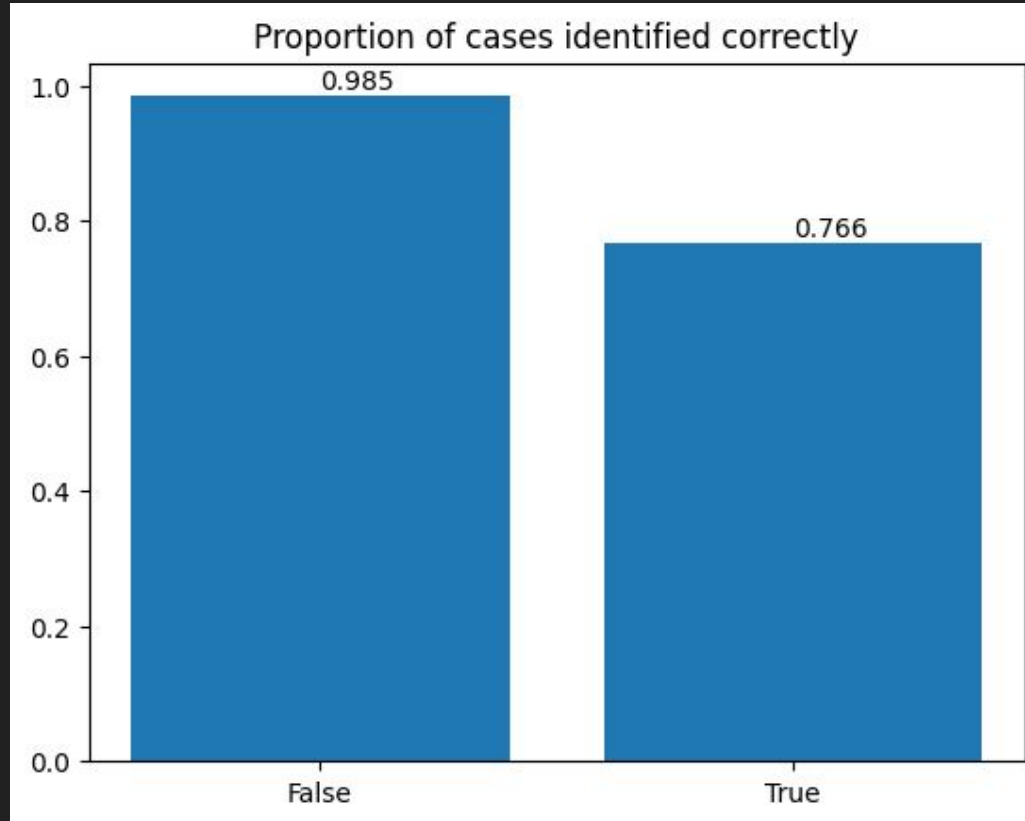
Evaluation - Recall score

- Targets false negatives

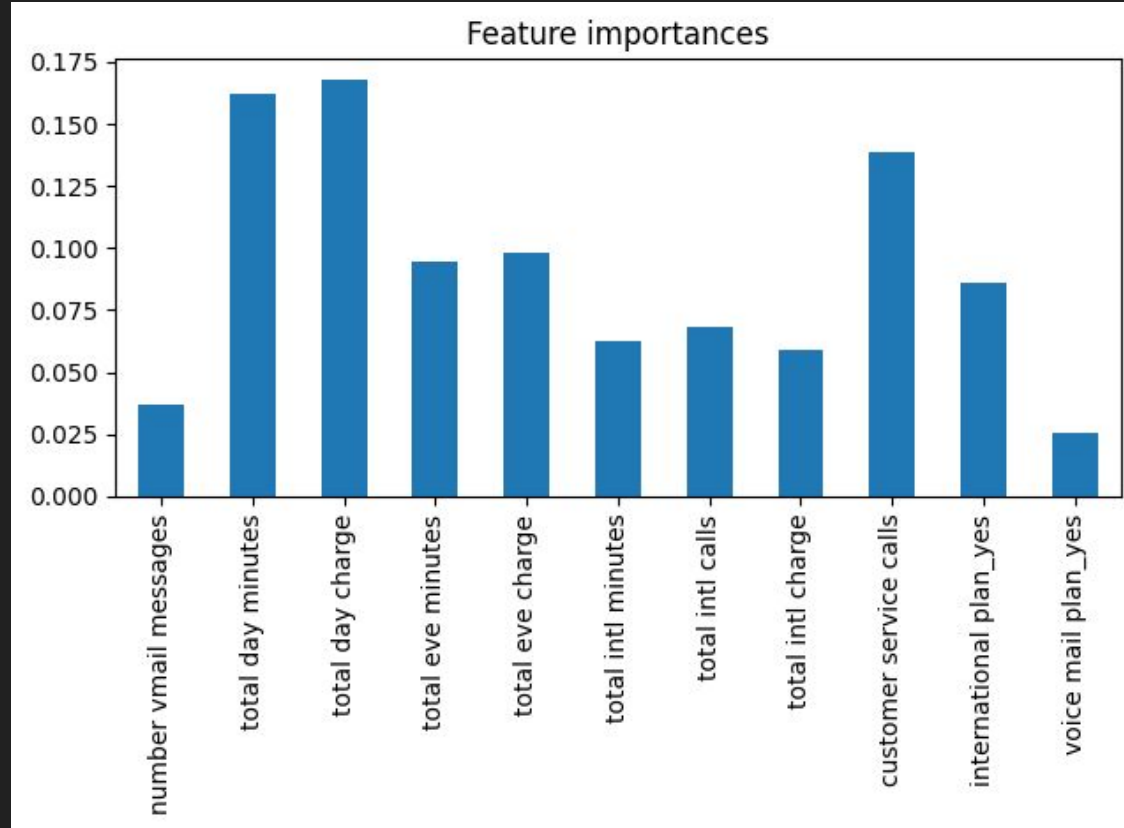
❖ 95 of 124 churn cases identified (~ 77%)



Recall scores for the two classes



Most important features: **total day charge** and **customer service calls**



Recommendations

- ❖ Surveys
- ❖ Keep track of content of customer service calls
- ❖ Incentives - discounts to reduce eve charge and day charge

Next Steps

- ❑ Obtain more data points to improve model predictions
- ❑ Experiment with other classification models

Thank you for listening!

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