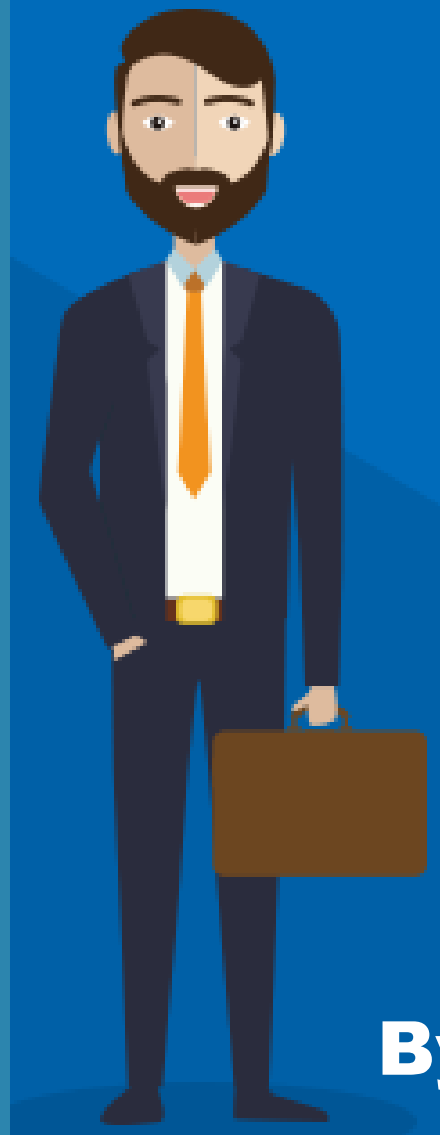
Churn Analysis Model



By Edwin Mwai

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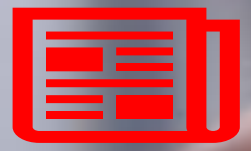

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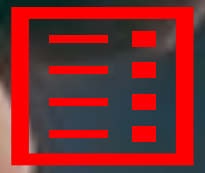


Conclusion

Recommendations

Introduction

- In today's competitive landscape, understanding and effectively managing customer churn is paramount for businesses aiming to sustain growth and profitability.

- Churn analysis can significantly impact revenue in a company by identifying the factors that contribute to customer attrition and implementing strategies to mitigate churn.

Problem Statement

- Customer churn presents a significant challenge for businesses across various industries, leading to revenue loss and decreased market share.
- In order to mitigate this issue, there is a critical need to develop an effective churn prediction model that can accurately forecast which customers are at risk of leaving.
- This model should enable companies to intervene proactively with targeted retention efforts, thereby reducing churn rates and improving overall customer retention.

Main objectives

- **Develop a reliable and precise predictive models capable of forecasting customer churn risks, enabling companies to intervene with tailored retention measures before customers defect.**
- **Utilize insights from these models to devise and execute impactful retention strategies, including targeted marketing initiatives, personalized incentives, enhanced customer service, and product enhancements**

Specific Objectives

Data preprocessing

Clean and preprocess the data to handle missing values, outliers, and inconsistencies, ensuring the accuracy and reliability of the predictive model.

Evaluate various machine learning algorithms to identify the most suitable model for predicting customer churn.

Model selection

Model training

Train the model on a subset of the data and validate its performance to ensure optimum performance.

Define appropriate evaluation metrics to assess the performance of the churn prediction model objectively

Evaluation metrics

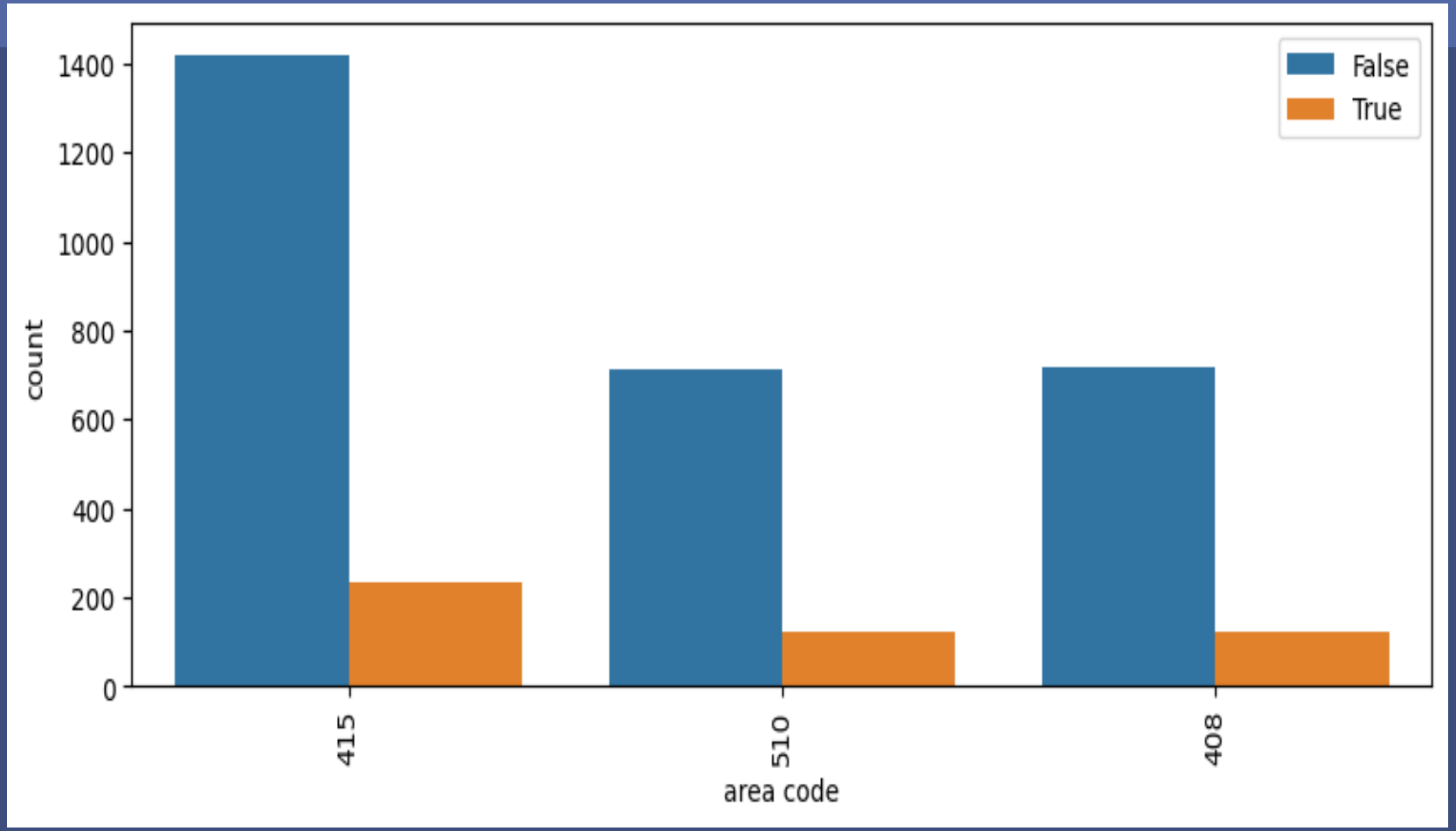
Data Used

- Data used in this project was obtained from Kaggle.
- The data contained collection of customers behaviors on using SyriaTel, a telecommunications company services.
- This dataset offered a perfect avenue to analyze and gain valuable insights from the luminaries of the platform and was used to train our model to be able to predict YouTube earnings .

Patterns and findings

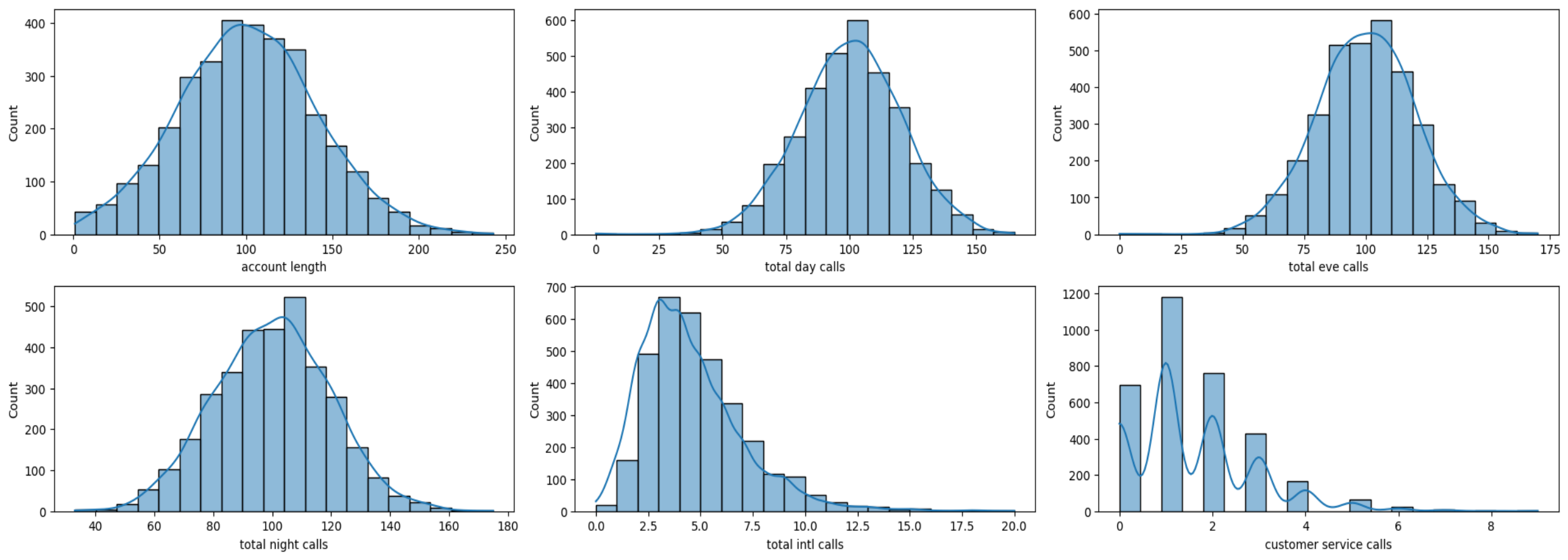
Comparison of customers who churn by Area Code

- Area code 415 seems to be having higher number of customers
- The same area code is having high number of customers who churn.



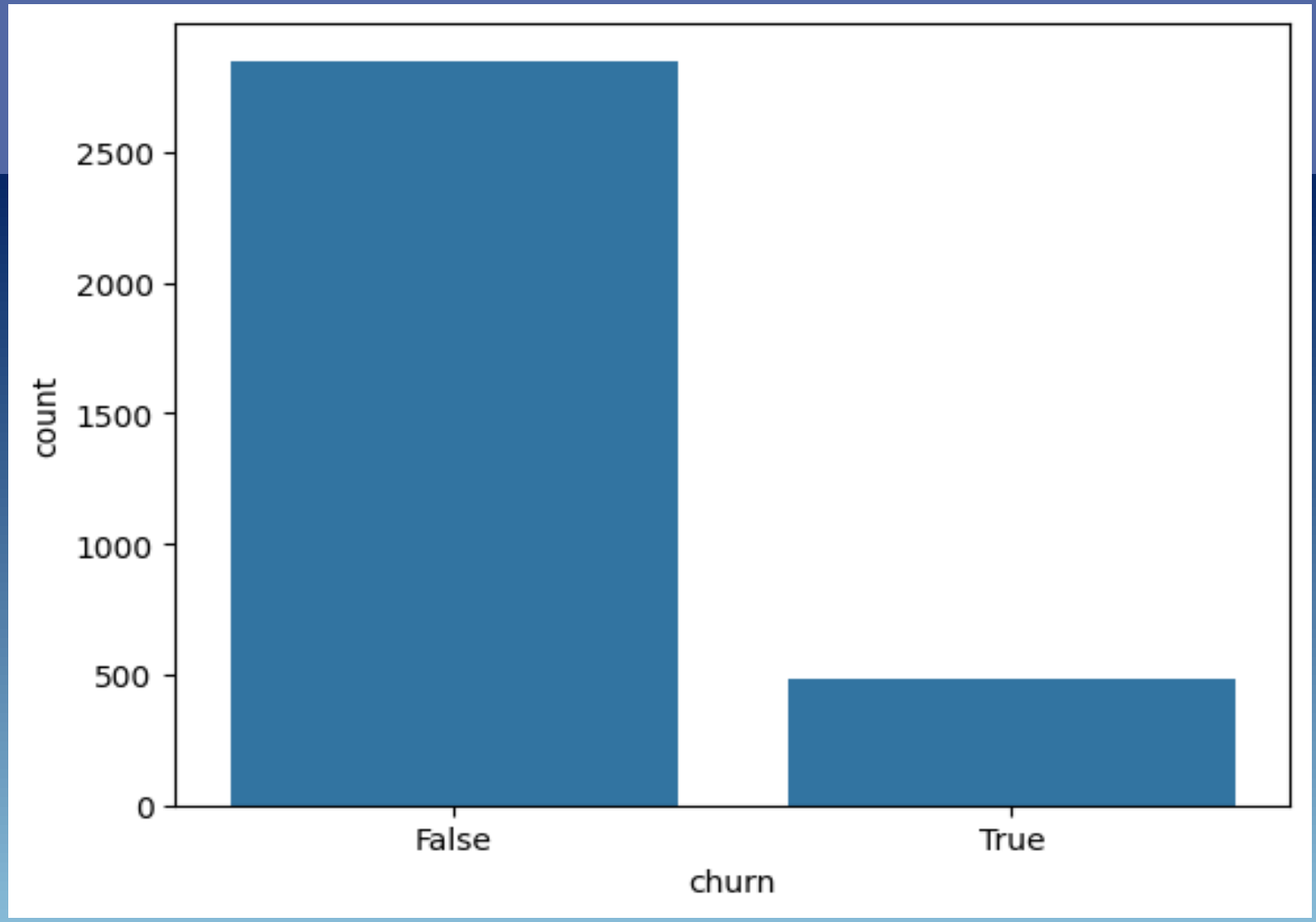
Distribution of our Features

- Most of our features are normally distributed except customer service calls.
- Customers who call the customer care more than 3 times are likely to churn



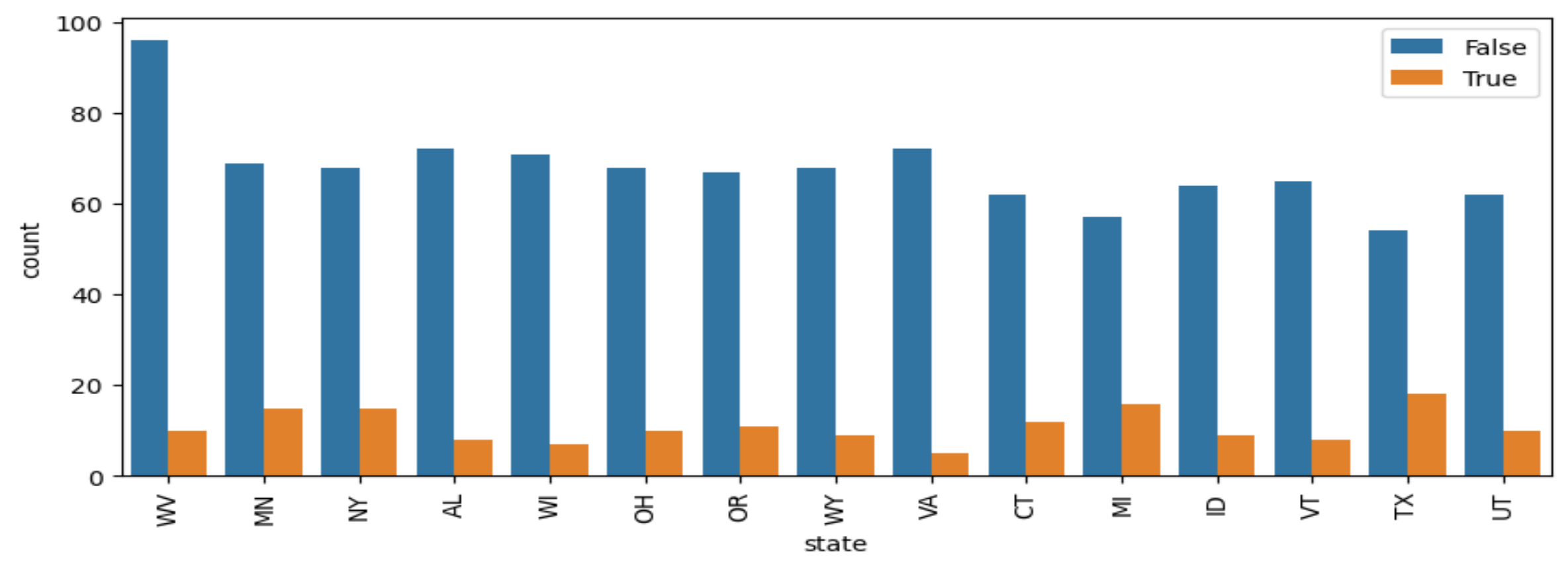
The rate of customer churning

- Approximately one in every six customers usually churn.



Distribution of customers by state

The state of Texas, New York, Minnesota and Mississippi have the highest churn rate



MODELLING

Introduction to customer churning Model
Having exclusively employed the classification model we are able to classify customers as likely to churn or not, we now extend our analytical approach to the realm of recommendation systems.

Our focus lies on what mitigation measures can be taken to reduce loosing customers through churning and hence preventing loss of revenues

In-Depth Insights
The model provided us with detailed insights into the factors influencing the customer to churn and

Conclusion

I would recommend we get more data regarding competitors in states with higher churn rate and try to investigate their marketing strategy

I would recommend we investigate on cell signal across the US to look for patterns in states with higher churn rate.

I would also recommend we investigate the ability of the customer care representatives to handle the customers complaints and offer solution.

Thank You