



SYRIATEL CUSTOMER CHURN

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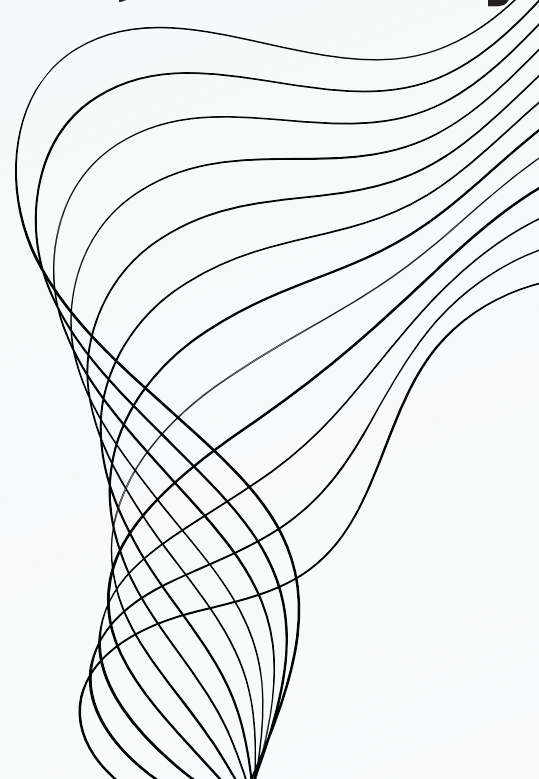
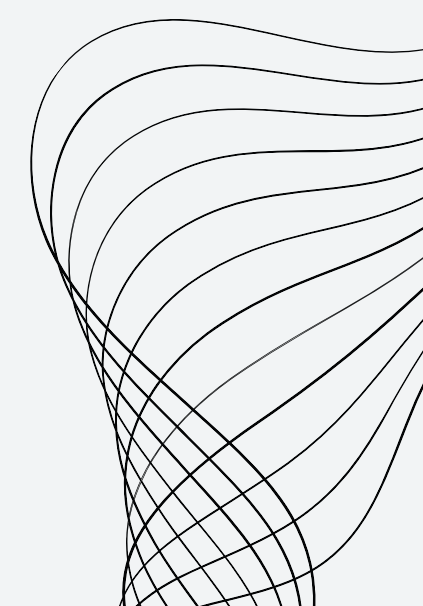




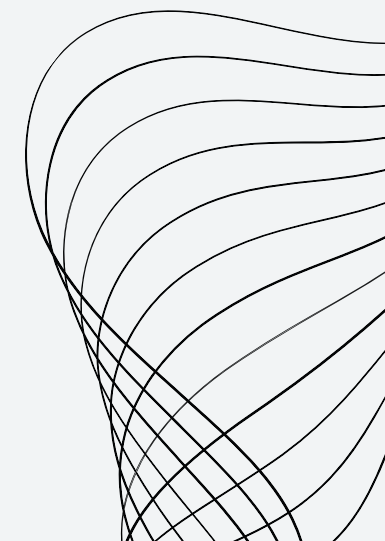
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INTRODUCTION

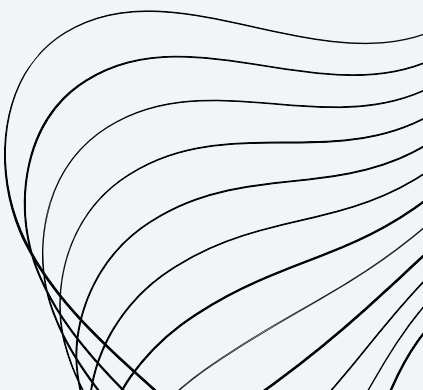
SyriaTel, a telecom company, struggles with customer churn, causing revenue loss. This project aims to analyse the reasons behind churn and predict future churners using a model. The findings will benefit various stakeholders at SyriaTel, including executives, product managers, marketing, finance, account, and contact centre teams.





BUSINESS PROBLEM

SyriaTel faces customer churn impacting revenue and market share. Stakeholders aim to prevent brand damage by analysing churn reasons. The project plans to use historical data to develop a classifier model, predict churners, implement retention strategies, and reduce churn impact. Various classification models will be explored for predicting churn outcomes.





METHODOLOGY

1.Source data

Loading data and
libraries

2. Understand business needs

Data understanding and
interpretation

3. Data preparation

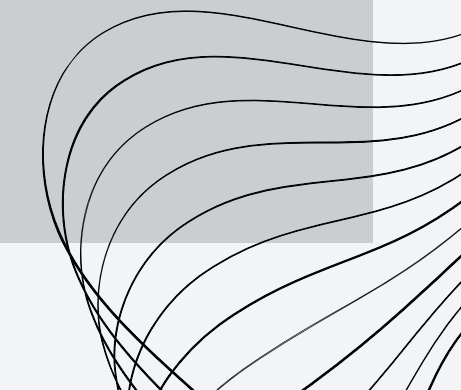
Cleaning data
Dropping columns,
Replacing null values,
Statistics and Visualising

4. Modelling

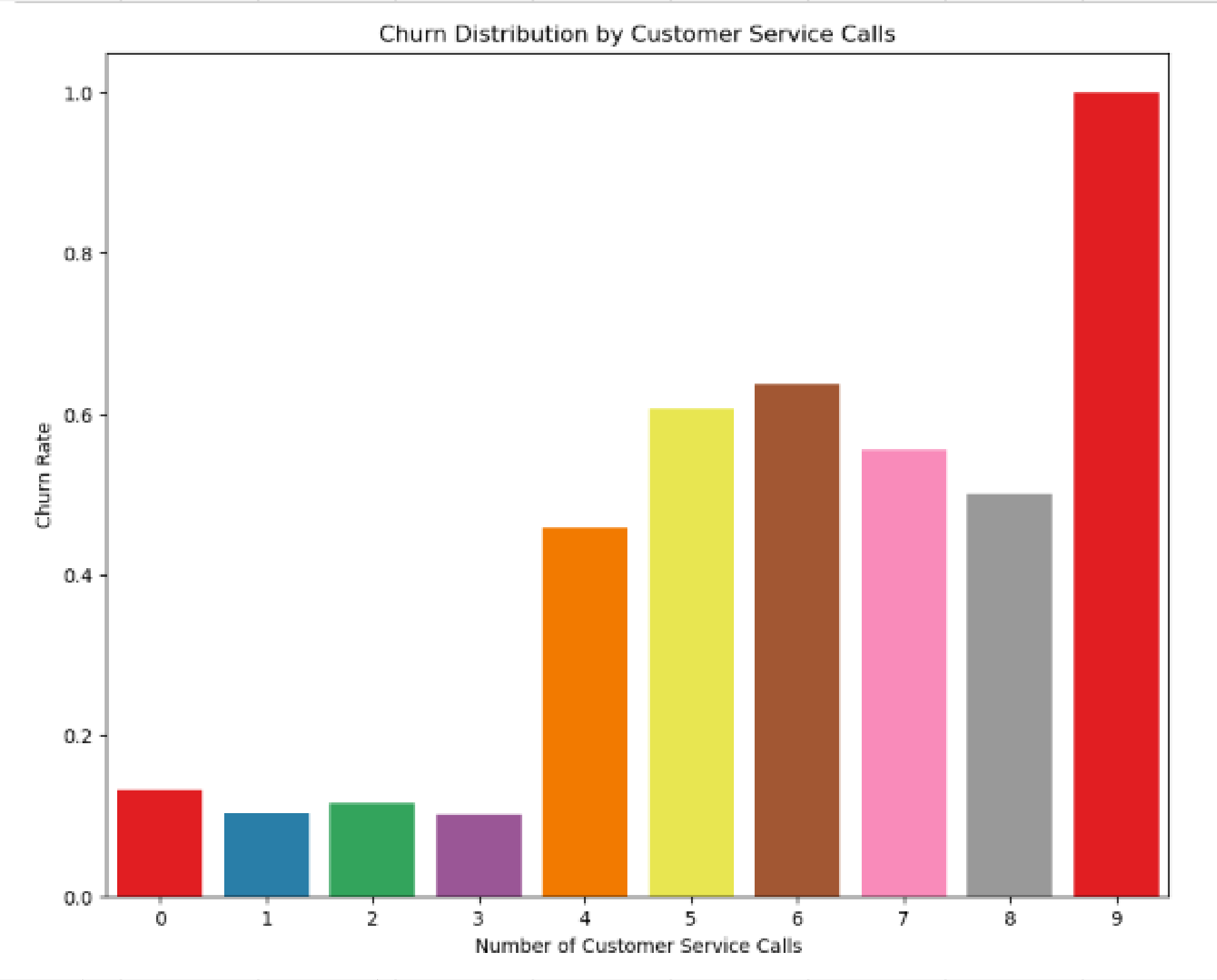
Representation of data
to make predictions or
decisions

5.Recommendations

Results analysis and
conclusions

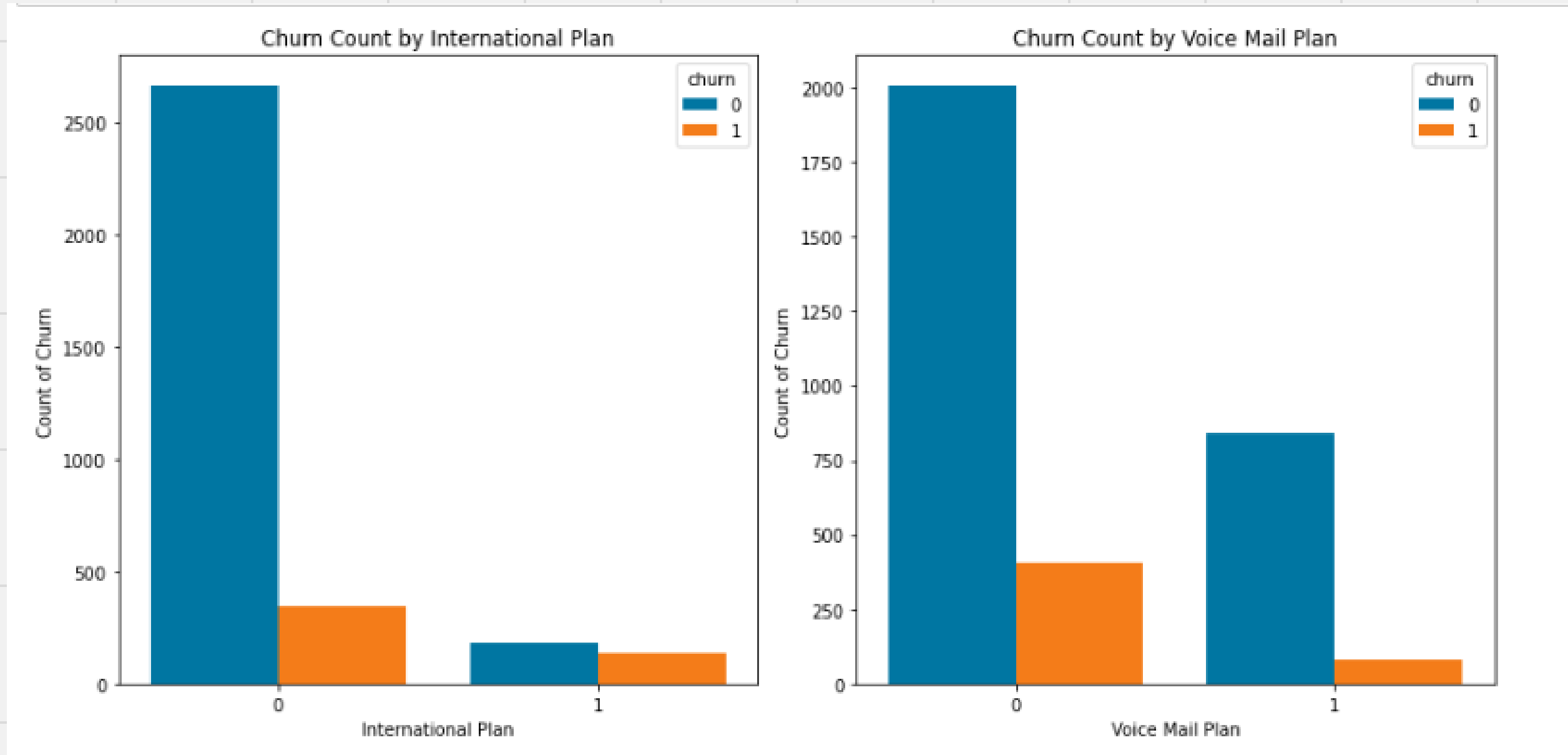


CHURN DISTRIBUTION BY CUSTOMER SERVICE CALLS



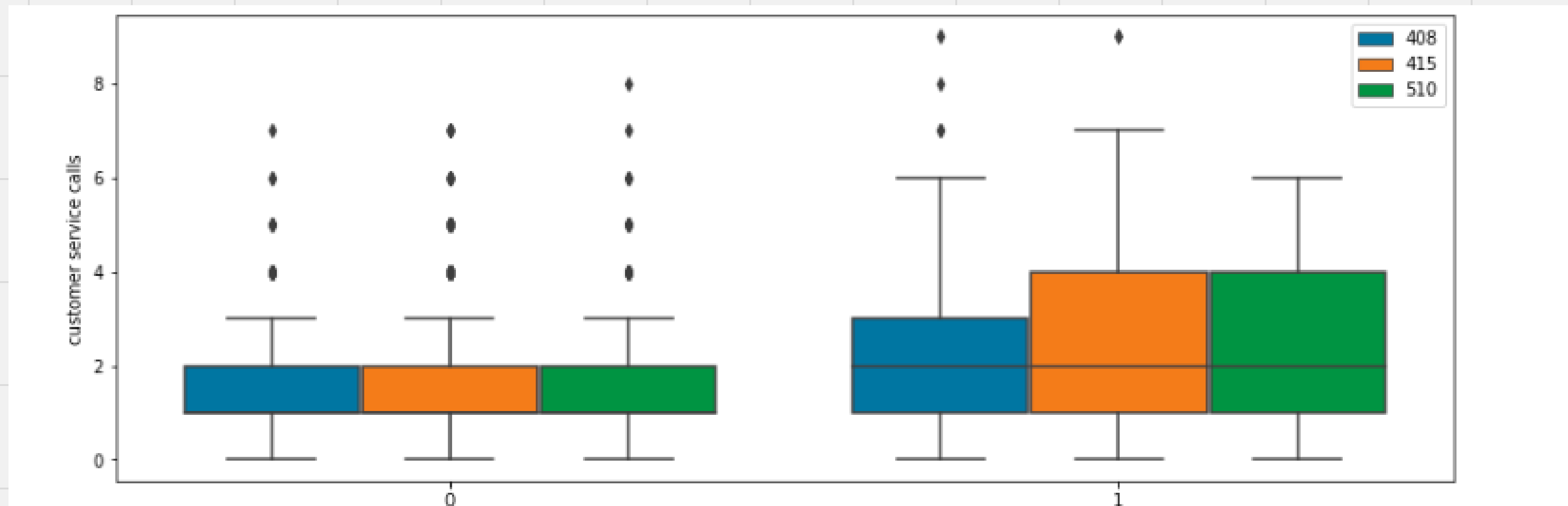
An increase in customer service calls leads to a likelihood in increase in churning

INTERNATIONAL PLAN AND VOICE MAIL PLAN



People who do not have an international plan and a voice mail plan have a higher churn rate

CHURN RATE BASED ON THE CUSTOMER SERVICE CALLS AND THE AREA CODES

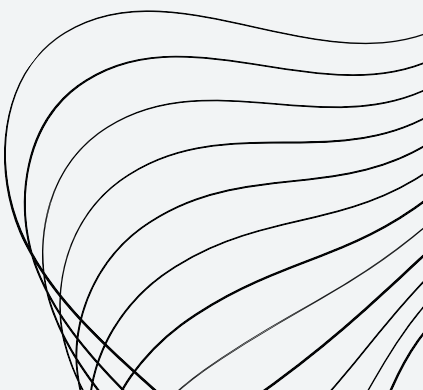


Area Code 415 & 510 have a high customer service calls which in turn have a high churn rate



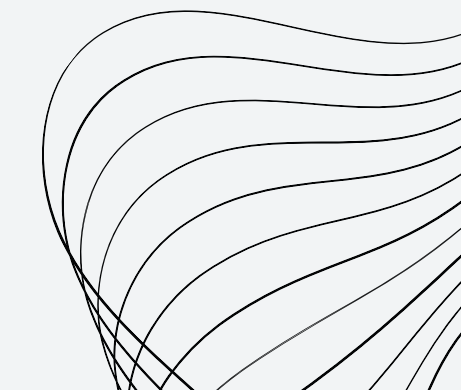
CONCLUSIONS

This project aimed to predict customer churn in the telecommunications industry using a machine learning model. The dataset was cleaned. EDA was performed to analyze the distribution of the independent variables and the target variables. Four models were used to predict customer churn and the random forest model had the highest accuracy and F-1 score.



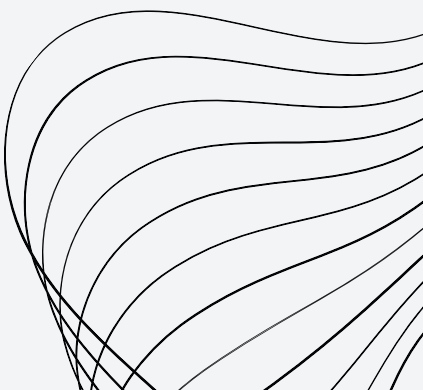


RECOMMENDATIONS

- Offer discounts or promotional offers to customers in area codes 415 and 510 as these have a higher churn rate.
 - Improve customer service quality and reduce the number of customer service calls.
 - Evaluate the pricing structure for day, evening, night, and international charges.
 - Focus on customer retention strategies in states with higher churn rates such as Texas, New Jersey, Maryland, Miami, and New York.
 - Enhance the value proposition of the voicemail plan to increase adoption among customers.
- 



FUTURE WORK

- Use customer data on what specific issues customers called customer service with.
 - Employ robust models like XBoost.
 - Acquire more data on cell signal patterns across the US, particularly in states with higher churn.
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THANK YOU!!!!

