

SyriaTel Customer Churn

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Overview

This project explores and analyses telecom data Syriatel

The aim is to draw insights on customer churn

Analyse key churn drivers and their impact on customer satisfaction



Business Problem

- Are there any predictable patterns?
- Will a customer stop doing business with SyriaTel soon?
- The company wants to reduce money lost when a customer doesn't stay for long
- The goal is to identify the key factors contributing to churn
- Understand the drivers to churn
- Provide actionable insights to SyriaTel
- What strategies can help improve customer retention

Objectives

1. What factors contribute to high rate of customer churn?
2. What service is highly correlated to churn
3. Do plan packages affect customer satisfaction, leading to churn?

Data Management



Data Understanding

- The dataset is from Kaggle [here](#).
- It a CSV(comma-separated values) file.
- The data is clean and has 21 columns with 3333 entries.

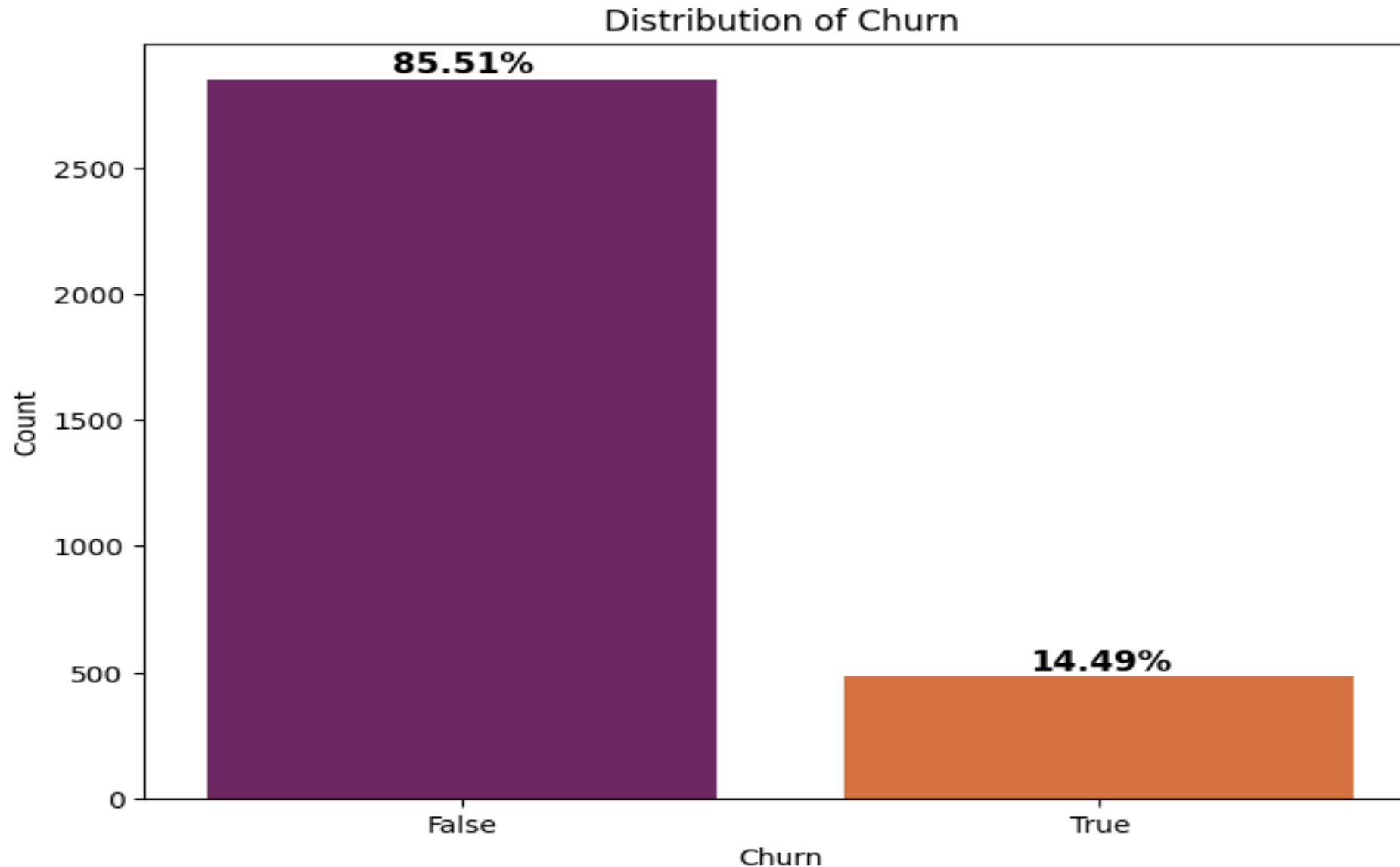
Data preprocessing

- One hot Encoding is used to create more columns for categorical columns.
- Then Standard scaler is applied to scale the data into same unit of variance.
- Data was analyzed using different libraries.

Modelling

- The data is split into training and testing.
- Two classification models are built:
 - Logistic Regression
 - Decision Trees

Objective 1: The overall churn rate



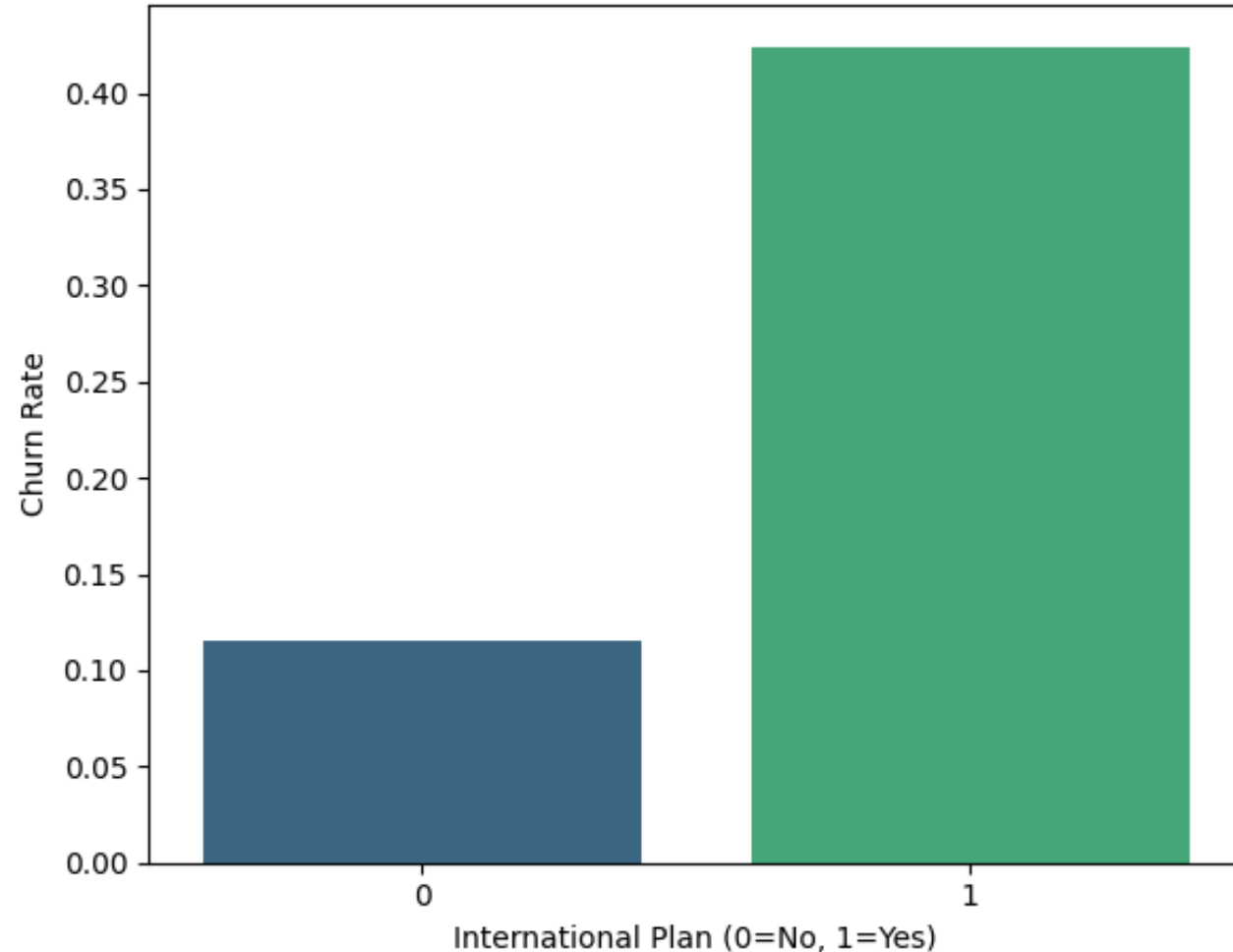
- **85.51 %**
represent Loyal customers
- **14.49%**
represent churn

Package plans with high risk of churn

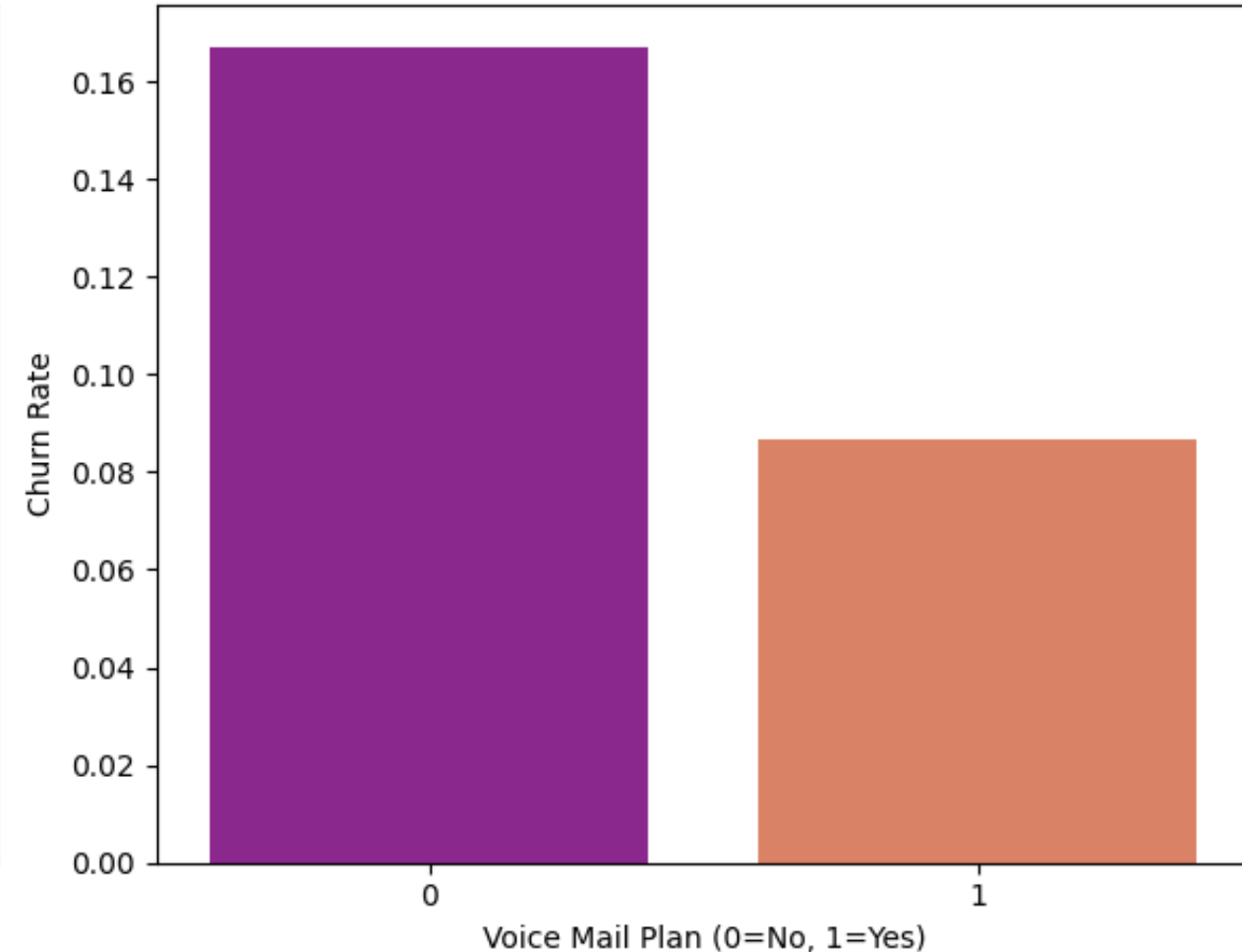
1. Customers with international plan are likely to leave SyriaTel soon



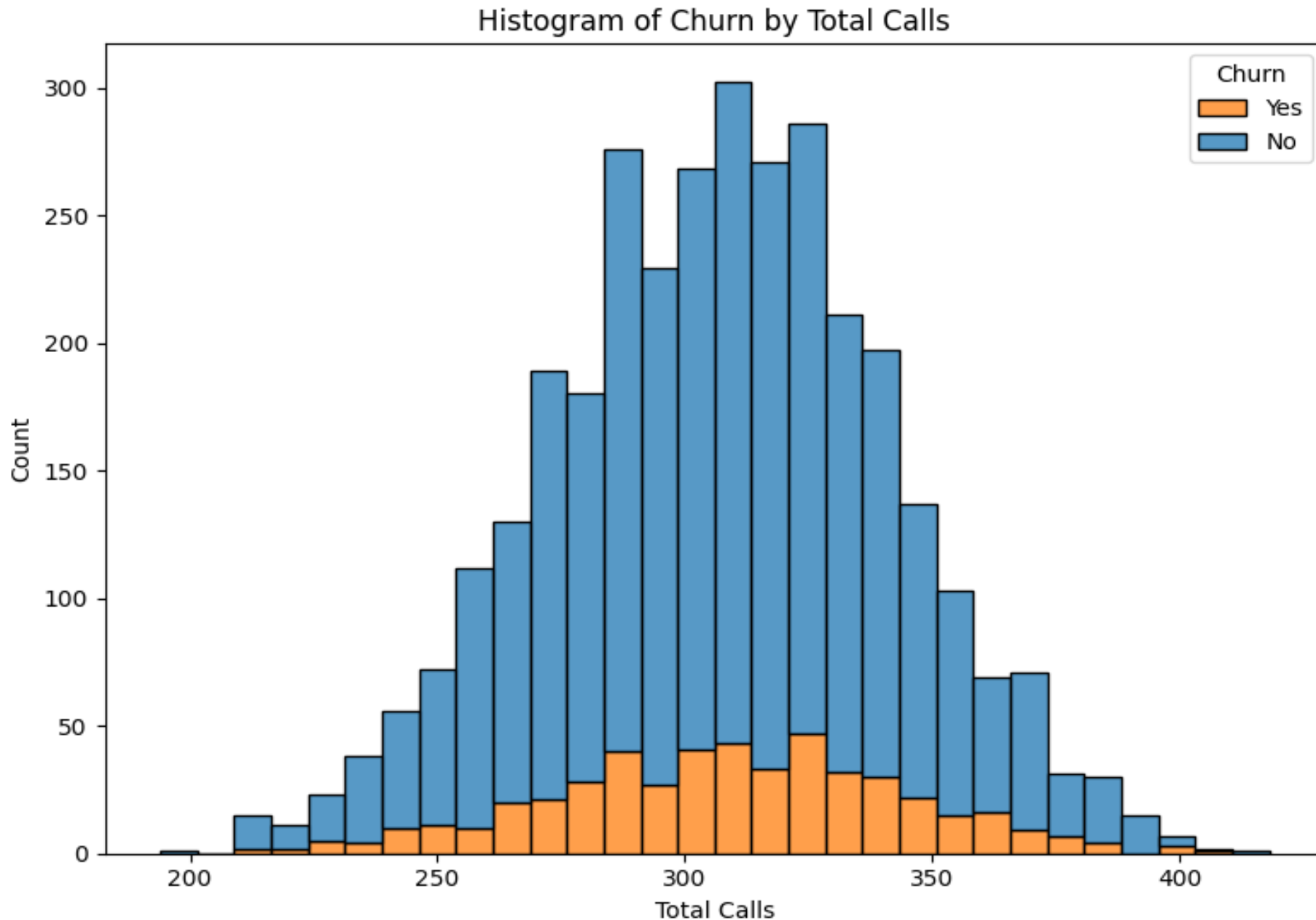
Churn Rate by International Plan



Churn Rate by Voice Mail Plan



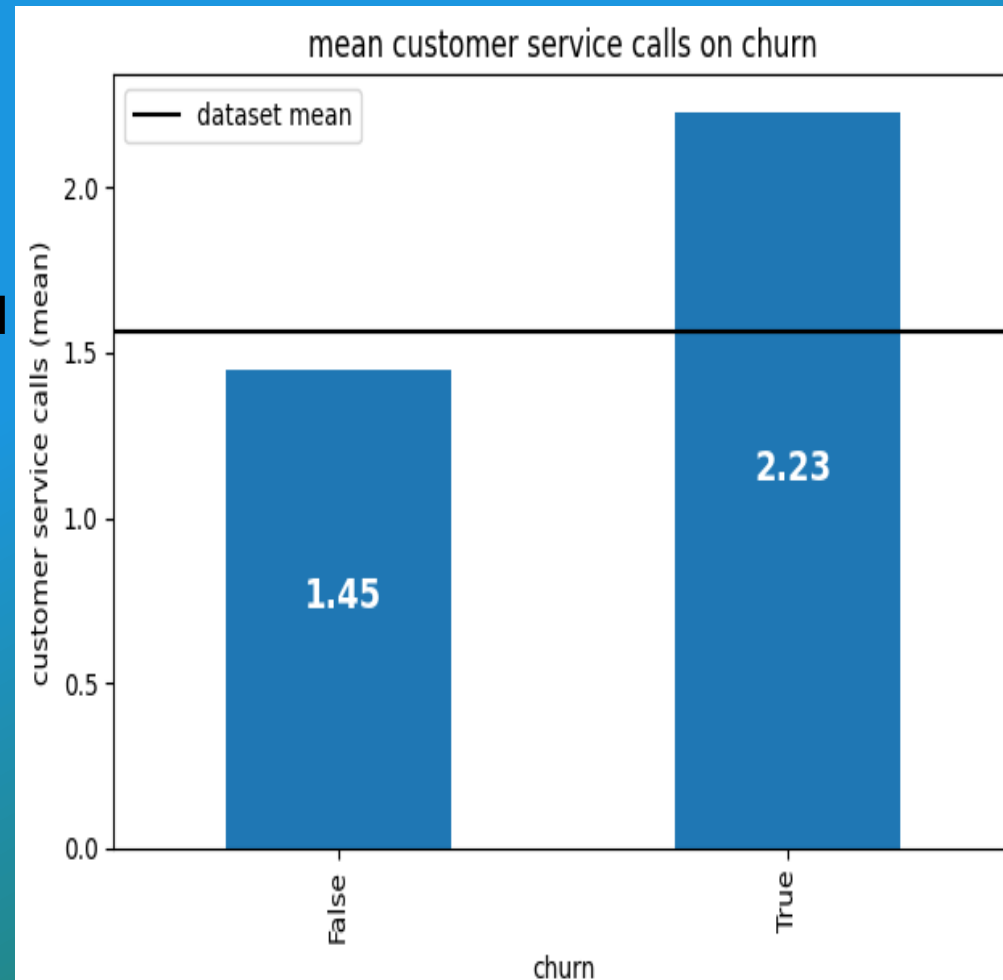
Package plans with high risk of churn



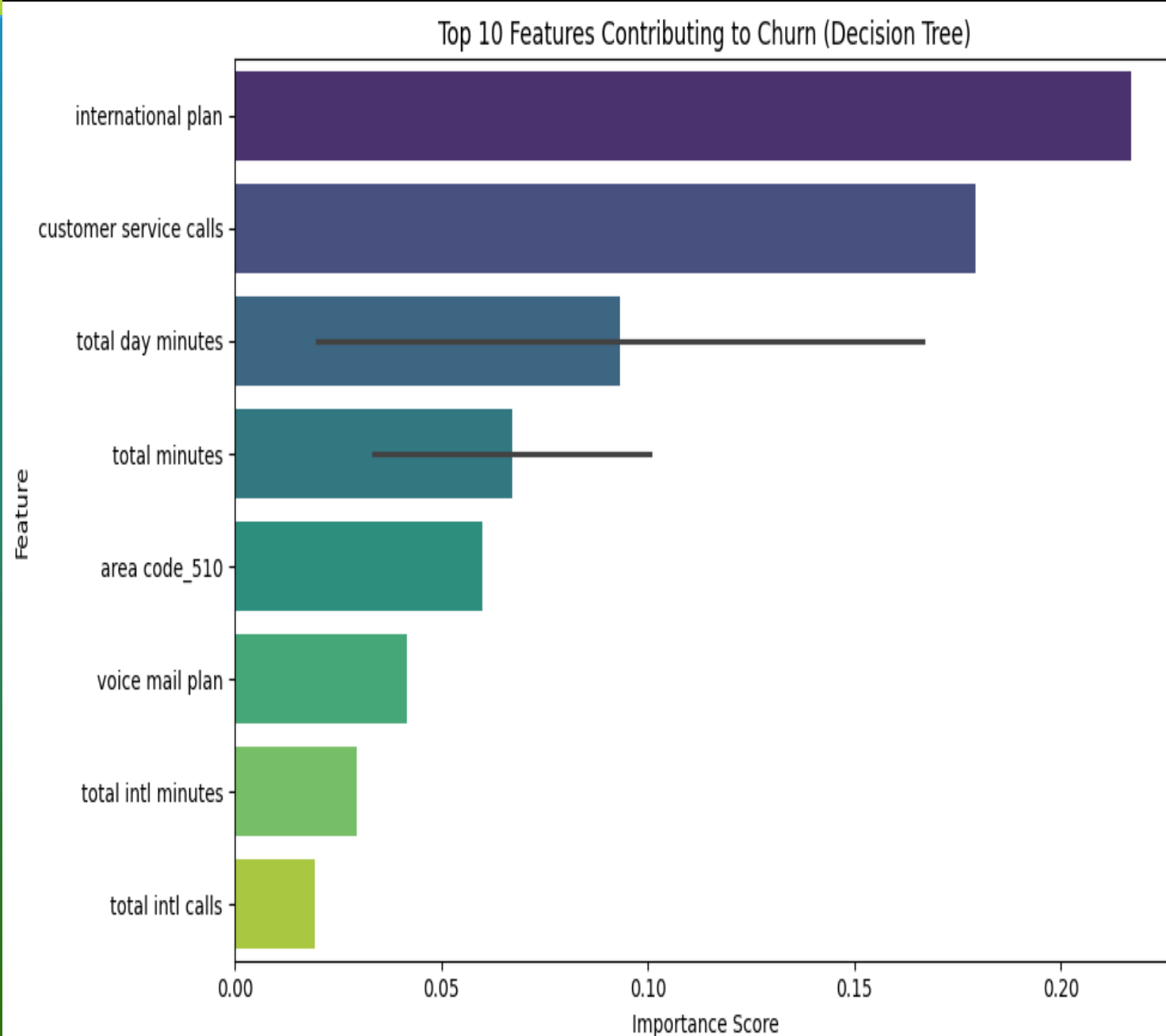
- Customers with very low number of calls are probably dissatisfied and likely to churn.

Churn by customer service calls

- **Dissatisfied customers may tend to make many calls to customer service support.**
- **They are likely to leave SyriaTel soon.**

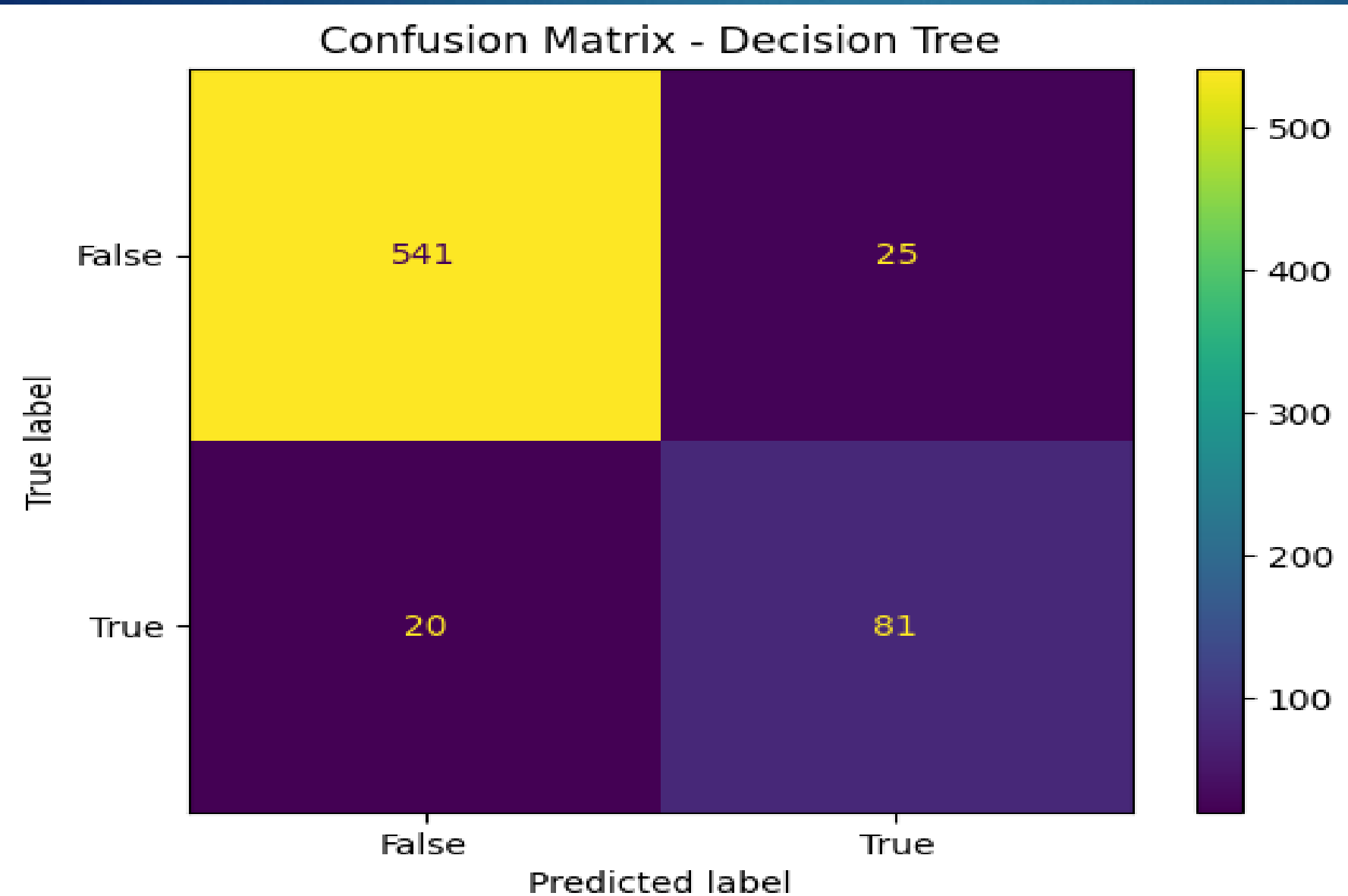


Objective 3: Factors that contribute to high rate of customer churn.



- International plan has the highest score to churn.
- Customer service is second highest followed by total day minutes
- Total international calls is the least

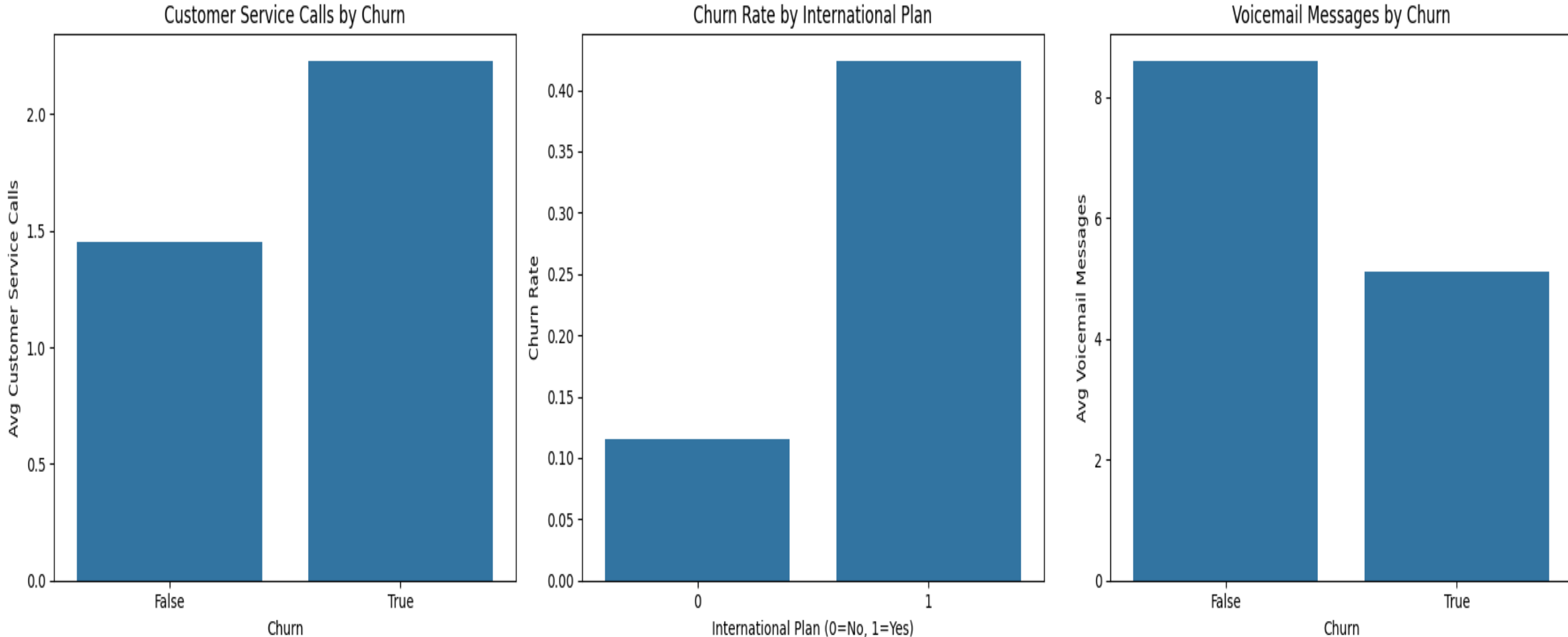
Model Performance



The model
predicted with
an accuracy of
92 %

Conclusions

- High customer service calls show dissatisfaction and likelihood to churn.
- Customers with international plan are likely to leave soon
- Customers on voice mail plan are likely to remain loyal.



Recommendations

- Offering incentives to high risk packages, eg. international plan customers
- Promote usage of voicemail plains to help retain customers
- Focus on improving service support and customer experience to reduce rate of churn and loss of revenue



Next Steps

- Stay update with real-time industry data and technology to adjust to new ideas
- Marketing team should focus on customer acquisition and retention methods like content marketing and loyalty rewards

THANK YOU