SYRIATEL TELECOM

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BUSINESS AND DATA UNDERSTANDING

- SyriaTel is a prominent telecommunication company and is confronting the issue of customer churn.

- We have the dataset that gives us information on 3333 clients and their consumer behavior patterns.

- This project seeks to create a classification model that predicts customer churn by identifying the patterns and factors associated with it.

OBJECTIVES

To build a robust predictive model using the provided dataset to classify customers as churned or not.

To identify any discernible patterns or trends associated its customer churn.

To provide actionable insights to SyriaTel to take proactive measures to retain customers once the model is developed.

To evaluate the model performance using appropriate evaluation metrics such as accuracy, precision, recall and F1 score.
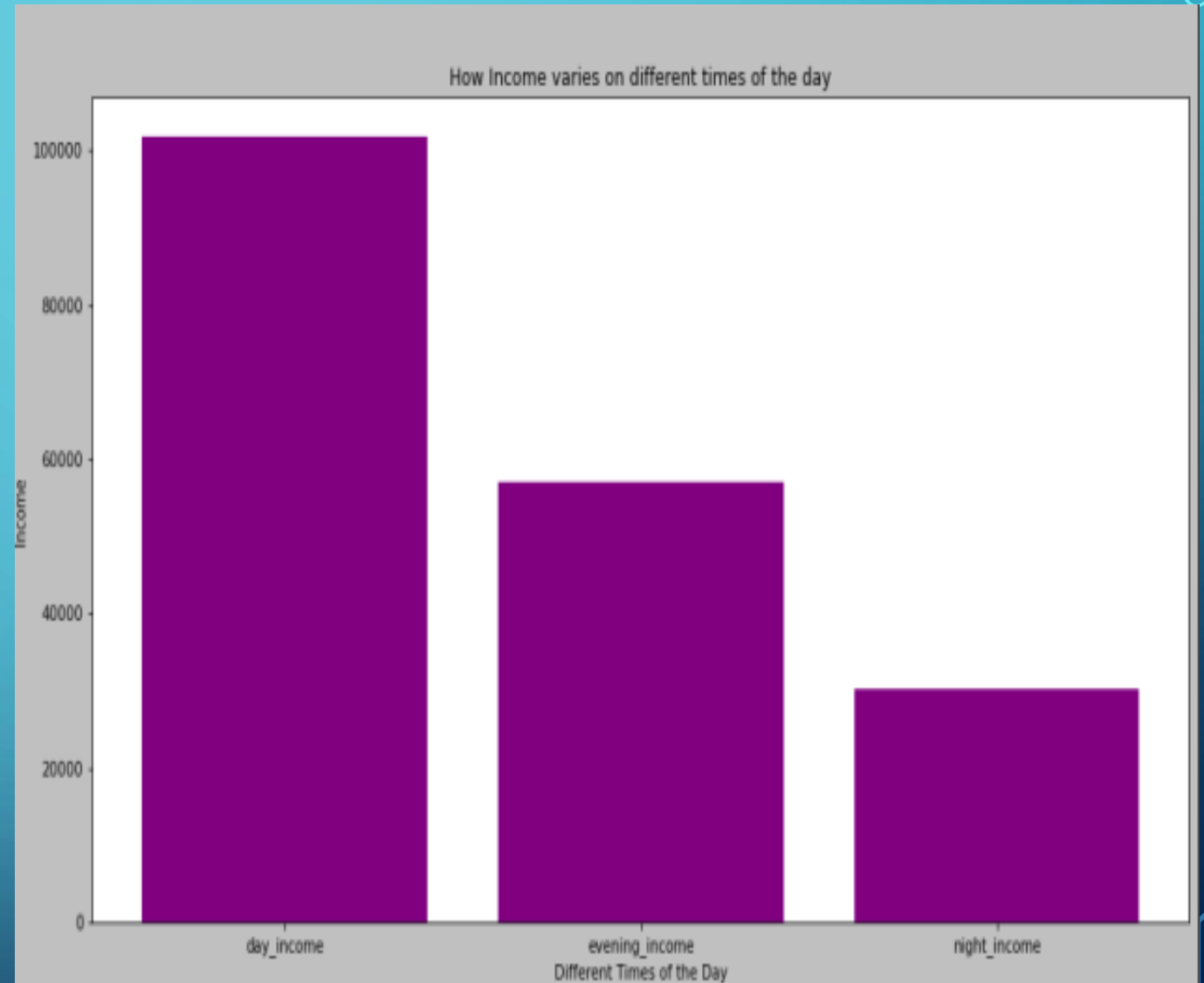
VISUALIZATION

The top five states that provide the highest income to SyriaTel.

The top 5 highest States Income Providers for SyriaTel
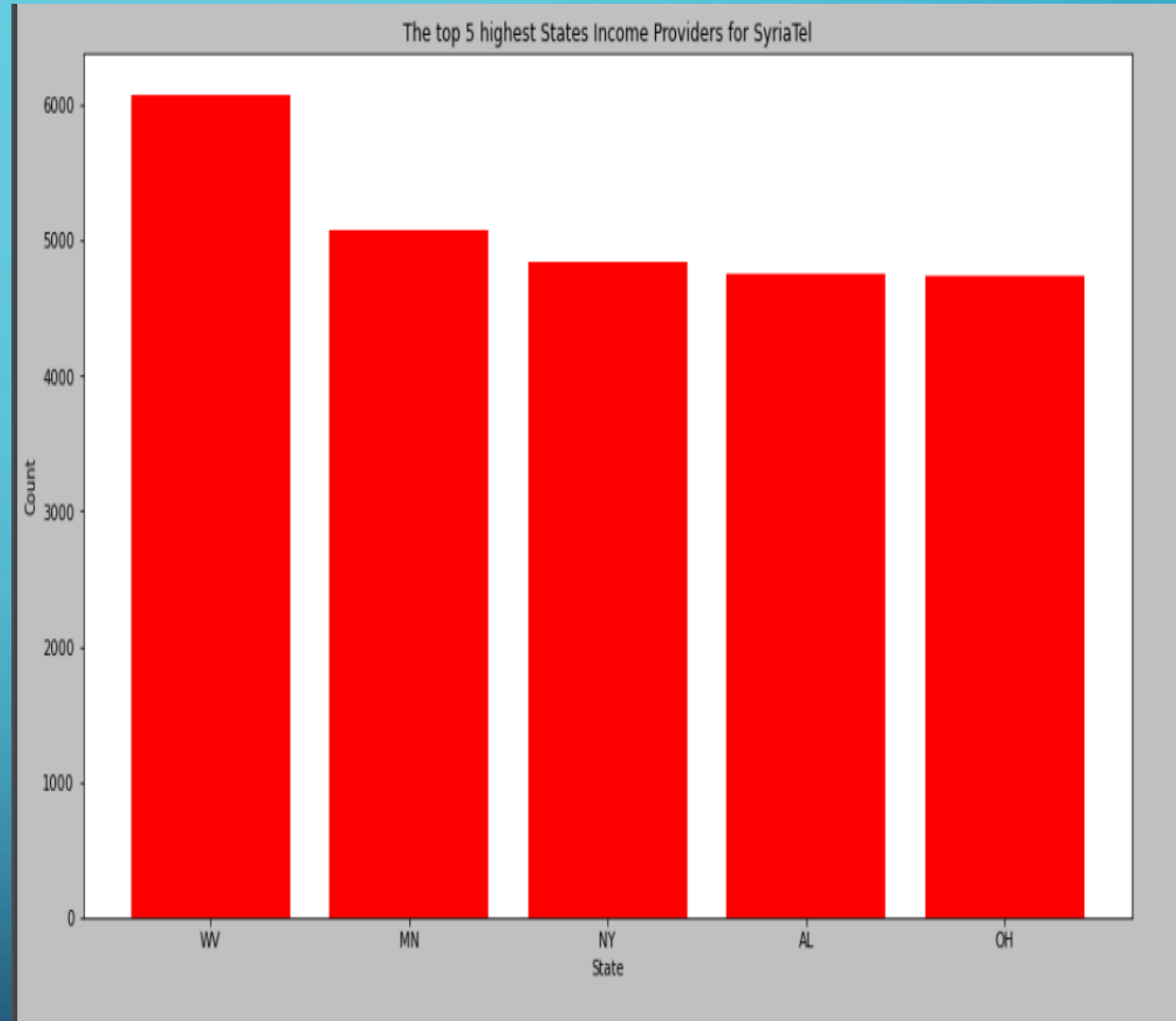
VISUALIZATION

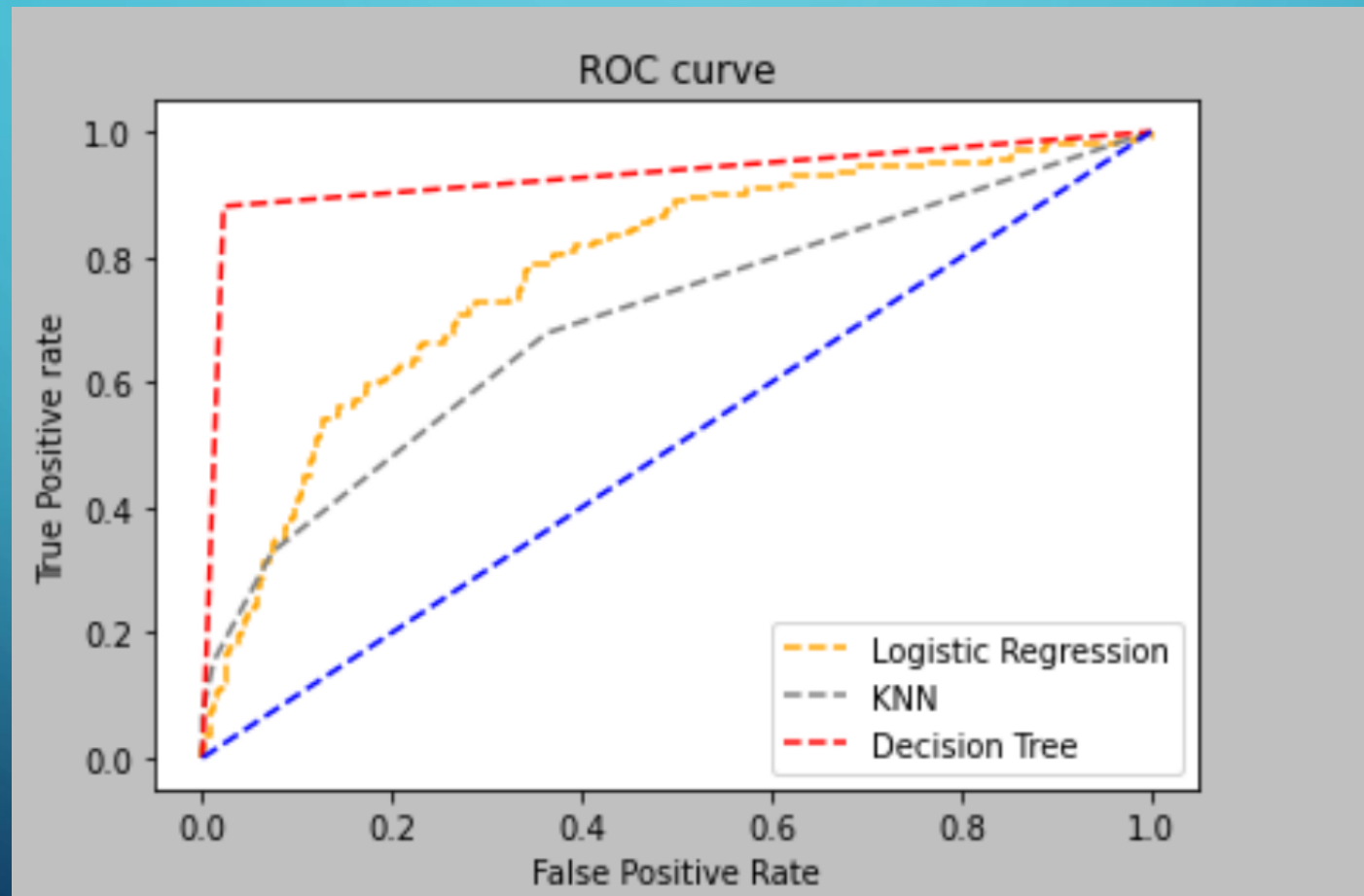The income performance at different times of the day.

MODELLING

We used 3 different model algorithms that are the:

1.Logistic Regression Model

2. Decision Tress

3. KNN Classifier

We settled on using the decision tree model since it had the highest area under the curve

ROC CURVE

CONCLUSIONS

- **Churn Analysis** ; Churn Rate was at 14.5%, it highlights a notable customer departure rate.

- **Customer Behavior Insights** ; International Plan Impacted Customers with international plans show higher churn rates, signaling a need for deeper analysis on dissatisfaction causes.

- **Service Usage Analysis** ; The distribution Analysis of service usage patterns, such as total day minutes and total evening minutes, did not show significant correlations with churn. However, further exploration may be warranted to understand the impact of these factors on customer retention

RECOMMENDATIONS

Customer service Experience

Pricing and usage plans

Service Quality

Geographical targeted campaigns

Continuous monitoring and Analysis

Thank you