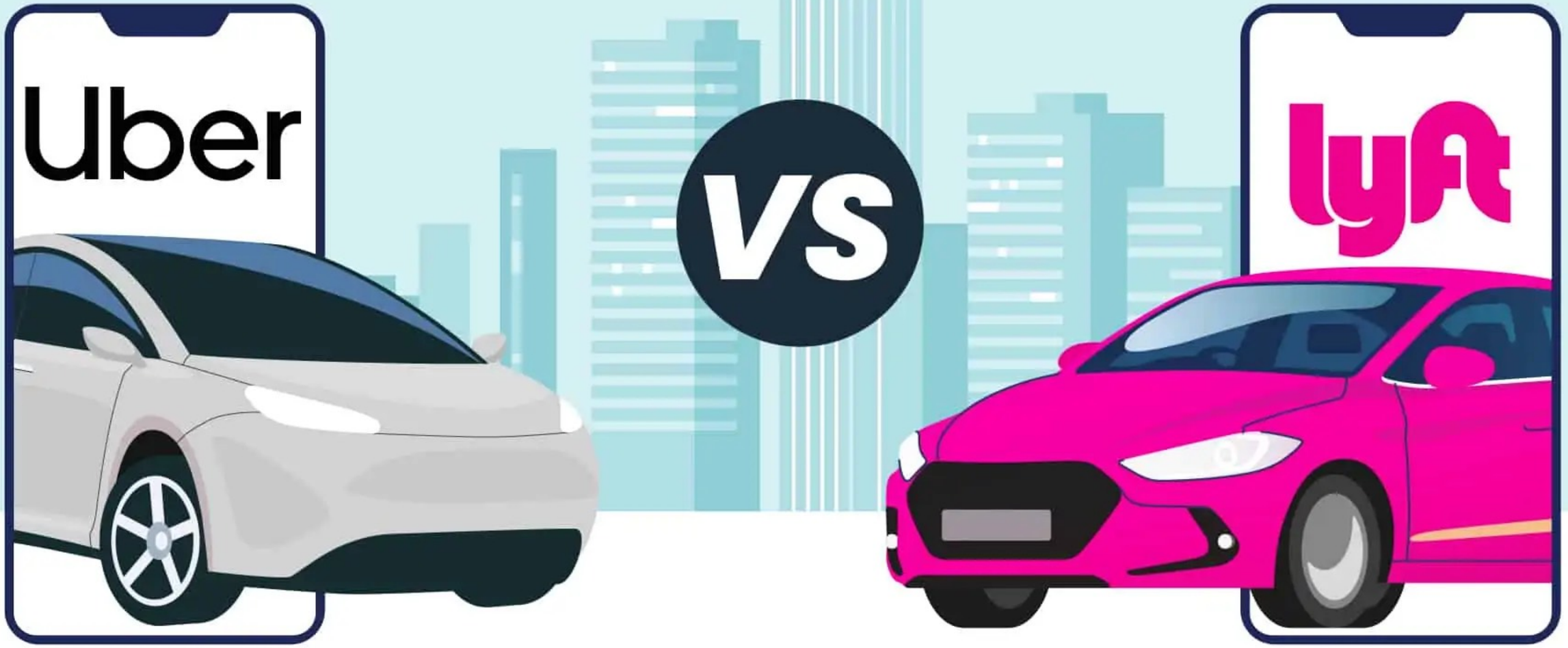

UBER LYFT ANALYSIS

MD REDOWAN AMIN MOLLICK

ridester

INTRODUCTION

The dataset comprises a comprehensive collection of attributes capturing various facets of ride-share operations (Uber Y& Lyft)

The dataset covers a specific timeframe, documenting rides over a particular period, allowing for temporal analysis and trend identification.

Explore and comprehend the trends and patterns in ride-share usage in the Boston area, particularly between Uber and Lyft services.

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BUSINESS ISSUE

Competitive Analysis

Customer Behaviour and Preference

Impact of External Factors

Pricing Strategy

Operational Improvements

Strategic Marketing

Service Enhancement

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OBJECTIVE

Identify Influential Factors

Explore User Behaviour

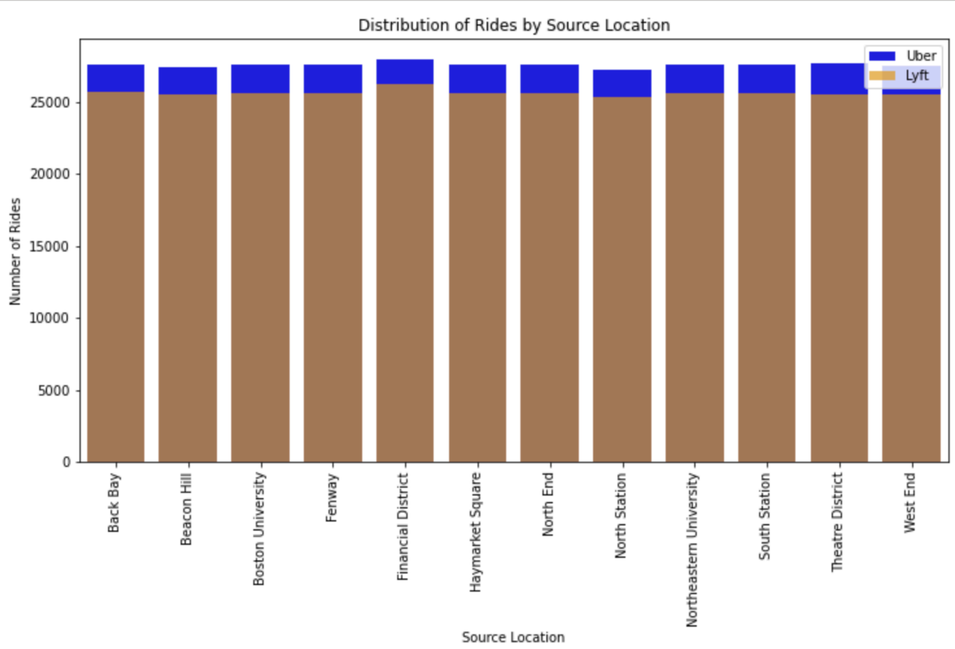
Model Building and Selection

Feature Importance Analysis

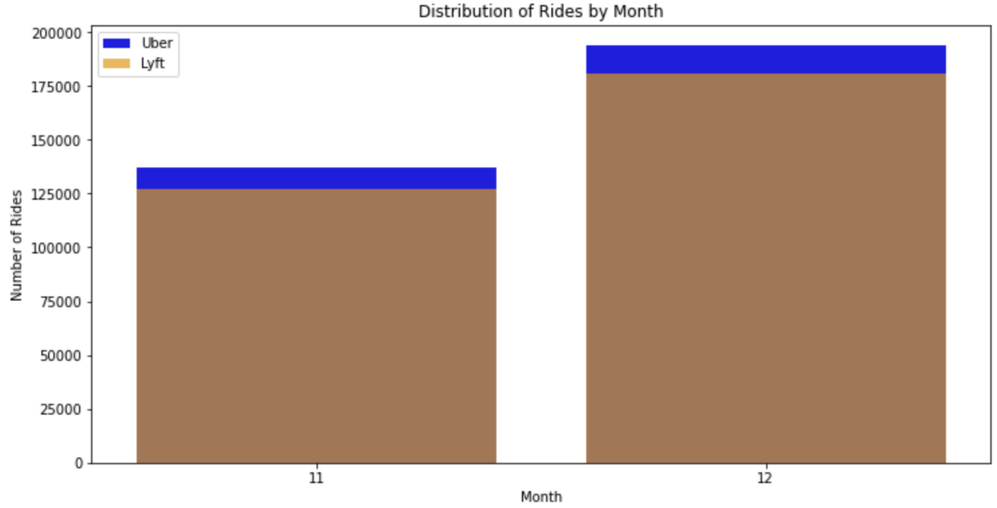
Hypothesis Testing

Provide Insights

VISUALISATION



Counting Rides by Destination Location:



Counting Rides by Source Location:

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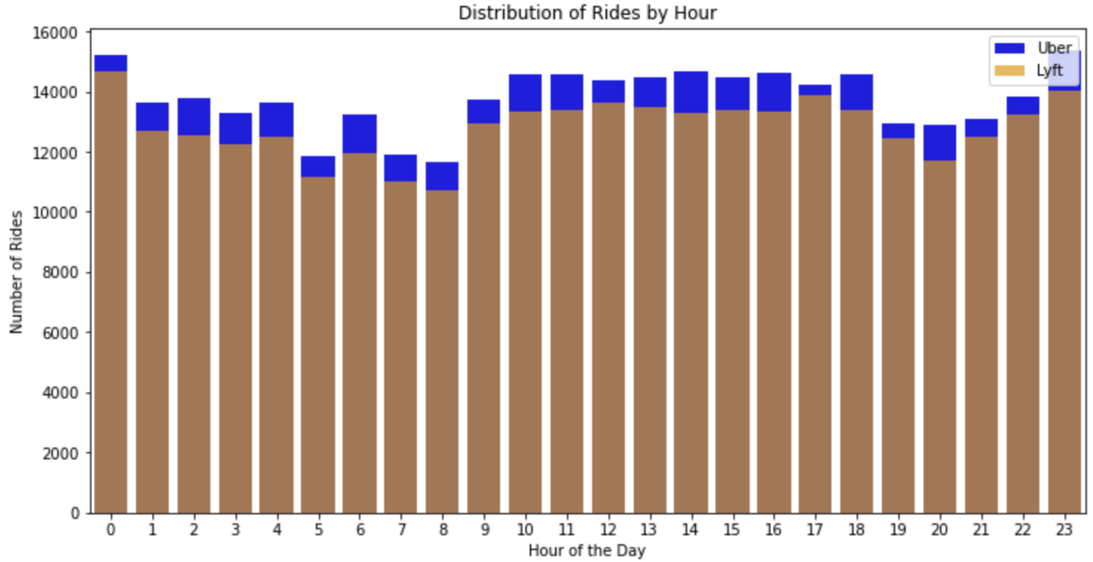
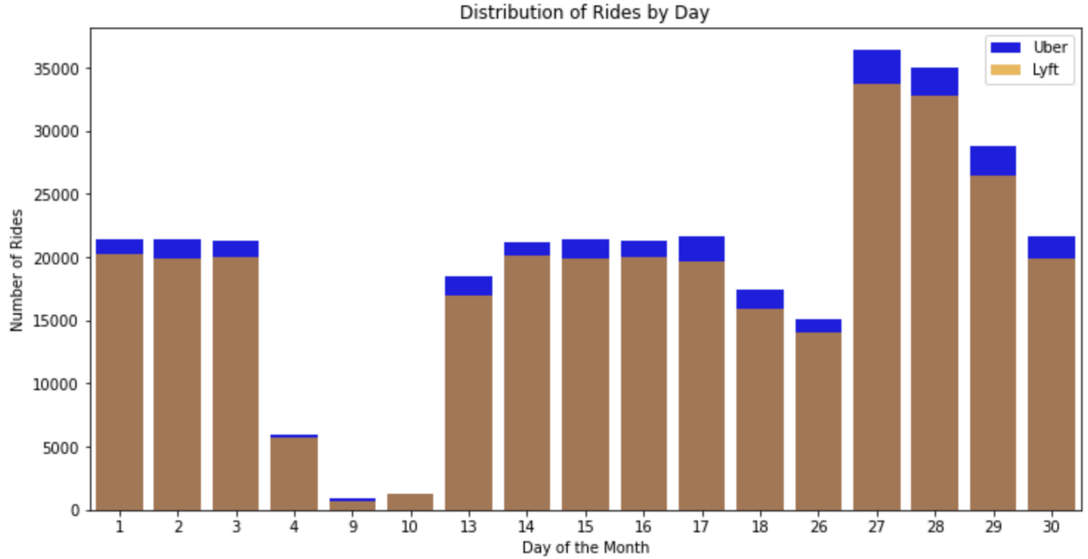
VISUALISATION



Counting rides by Day



Counting Ride by Month

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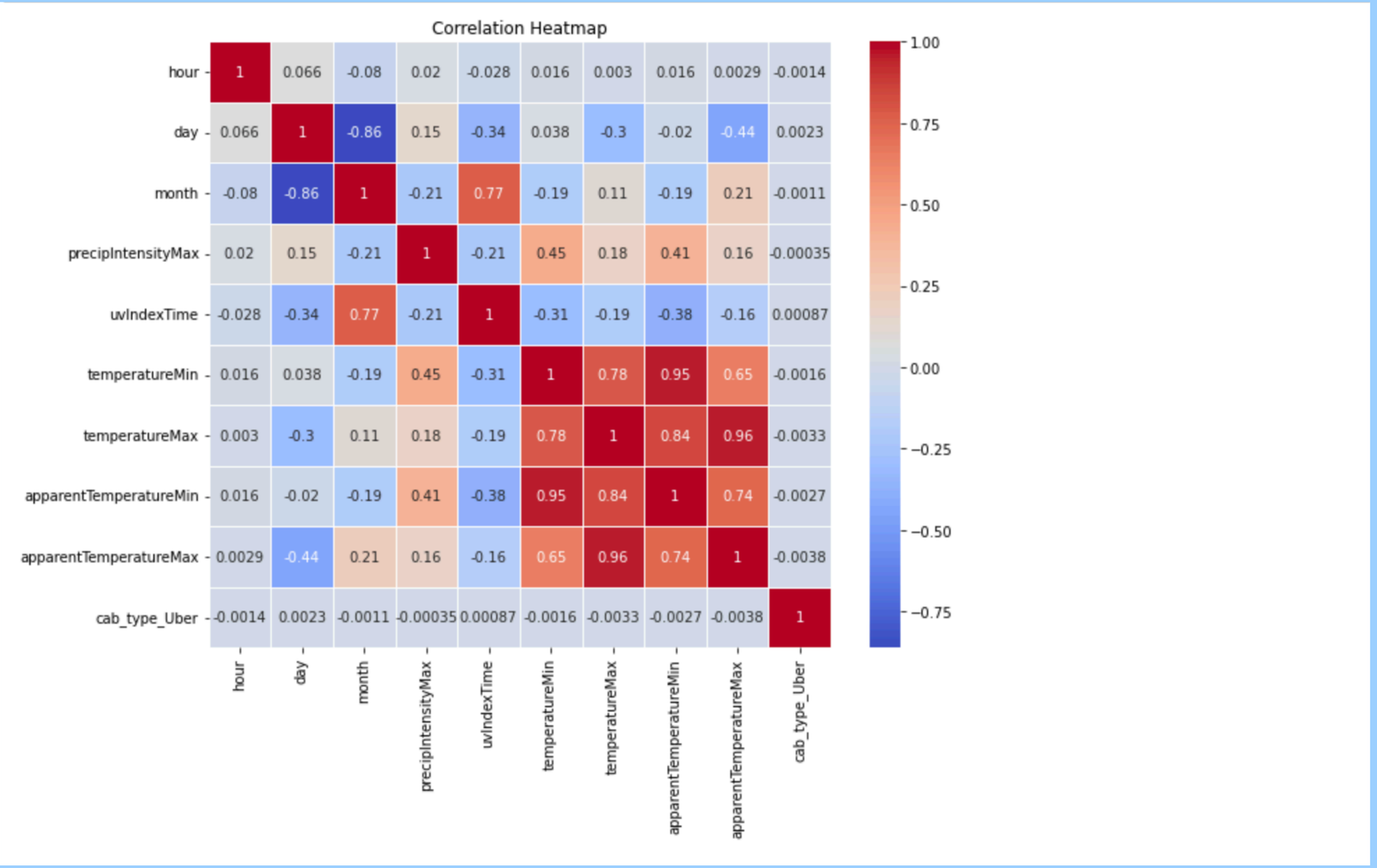
CORRELATION HEAT MAP



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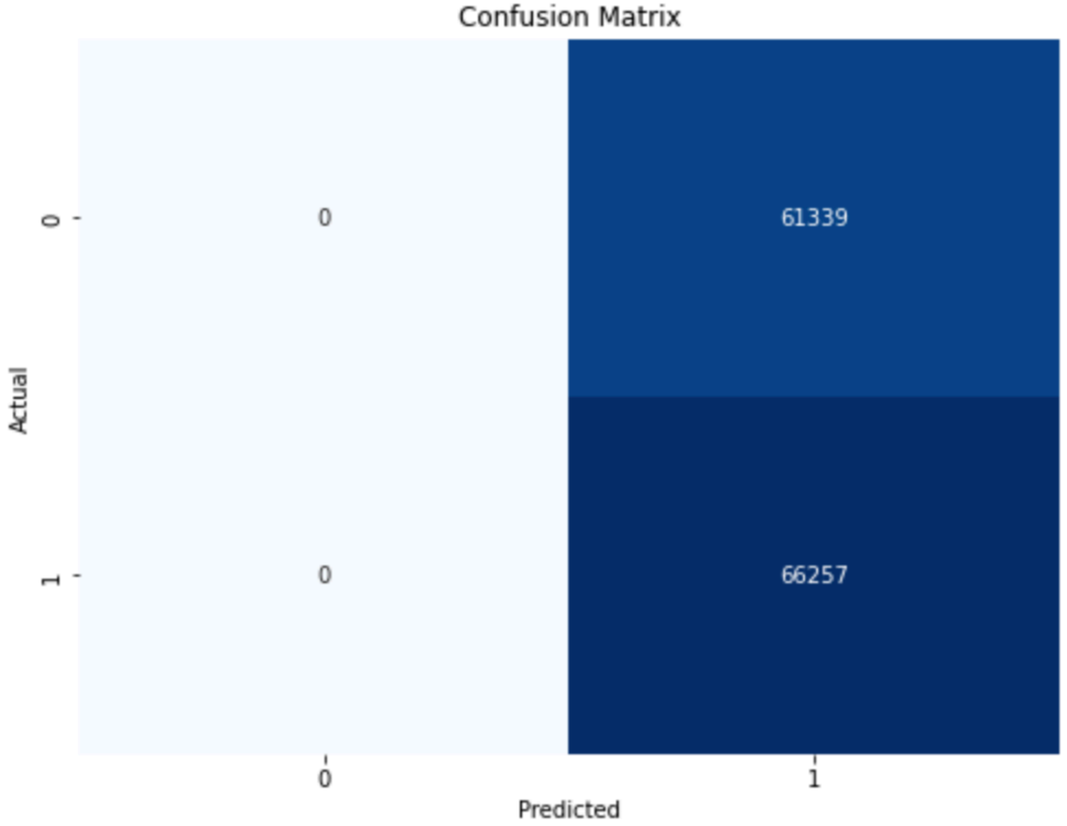
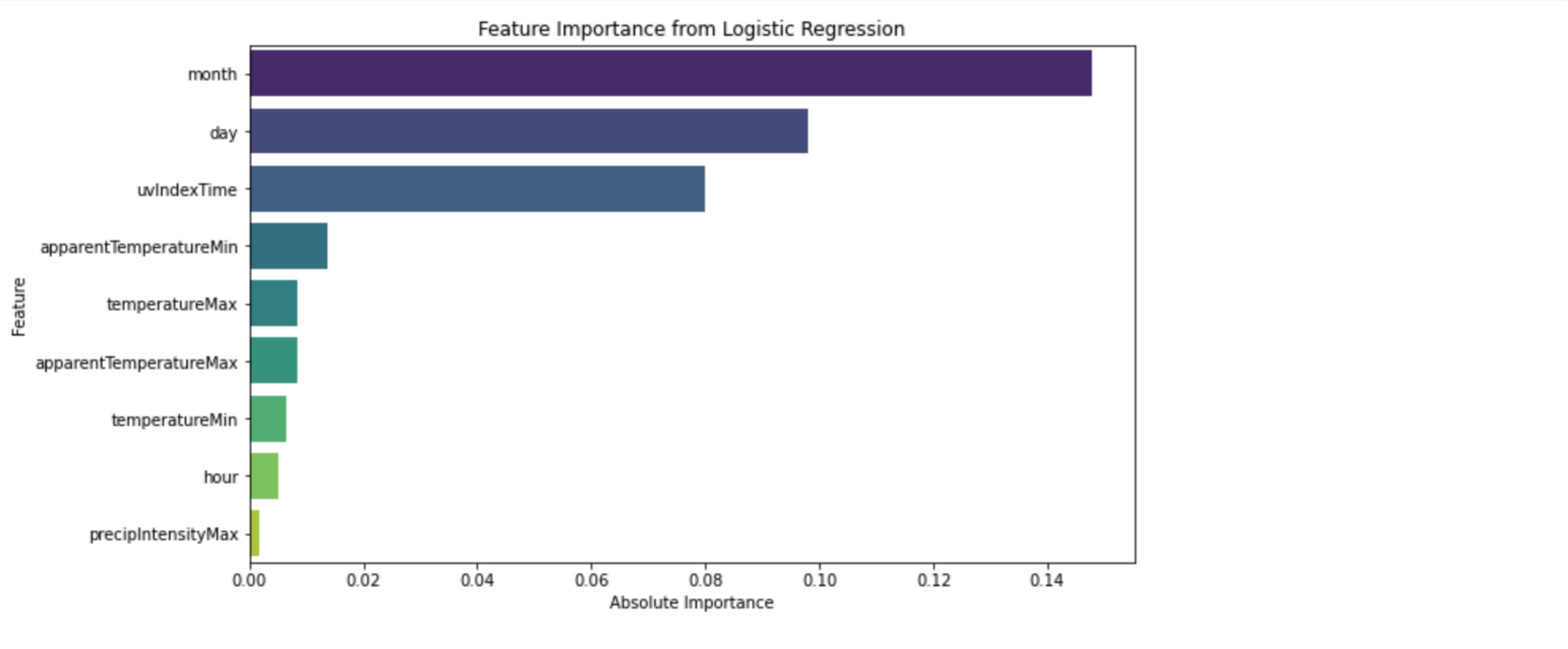
CONFUSION MATRIX

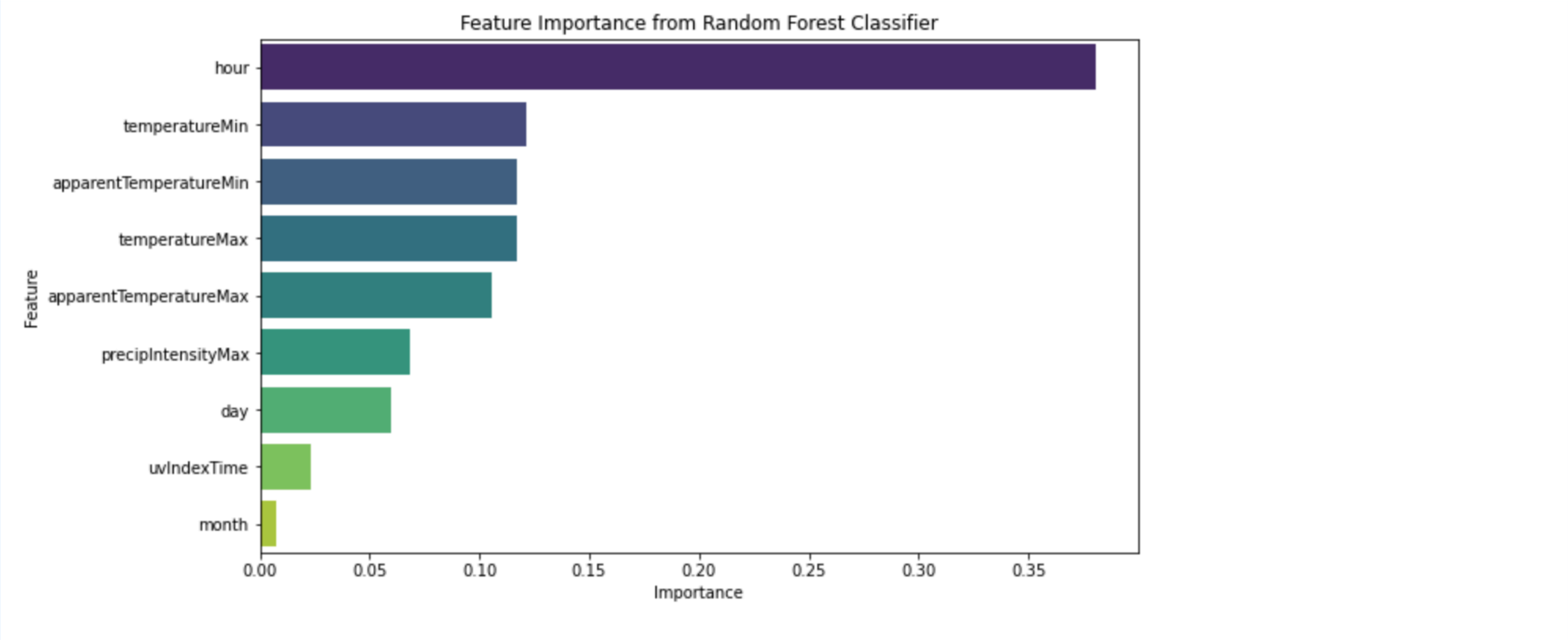



```
Accuracy: 0.52
Confusion Matrix:
[[    0 61339]
 [    0 66257]]
Classification Report:
              precision    recall  f1-score   support

           0       0.00      0.00      0.00     61339
           1       0.52      1.00      0.68     66257

    accuracy                           0.52    127596
   macro avg       0.26      0.50      0.34    127596
weighted avg       0.27      0.52      0.35    127596
```

FEATURE IMPORTANCE FROM LOGISTIC REGRESSION



FEATURE IMPORTANCE FROM RANDOM FOREST MODEL



CONCLUSION

Uber exhibits slightly higher usage compared to Lyft across hourly, daily, and monthly patterns.

Monthly variations suggest potential seasonality impacting ride choice.

Seasonal changes, marketing initiatives, and user behaviours might influence the choice between services.

Logistic Regression, Highlighted the significance of the month feature but may have limitations in capturing complex relationships.

Random Forest, Offered insights into feature importance and potentially better prediction accuracy due to its ability to handle complex interactions.

Seeking additional data sources to enhance insights and model performance.