UBER MODEL
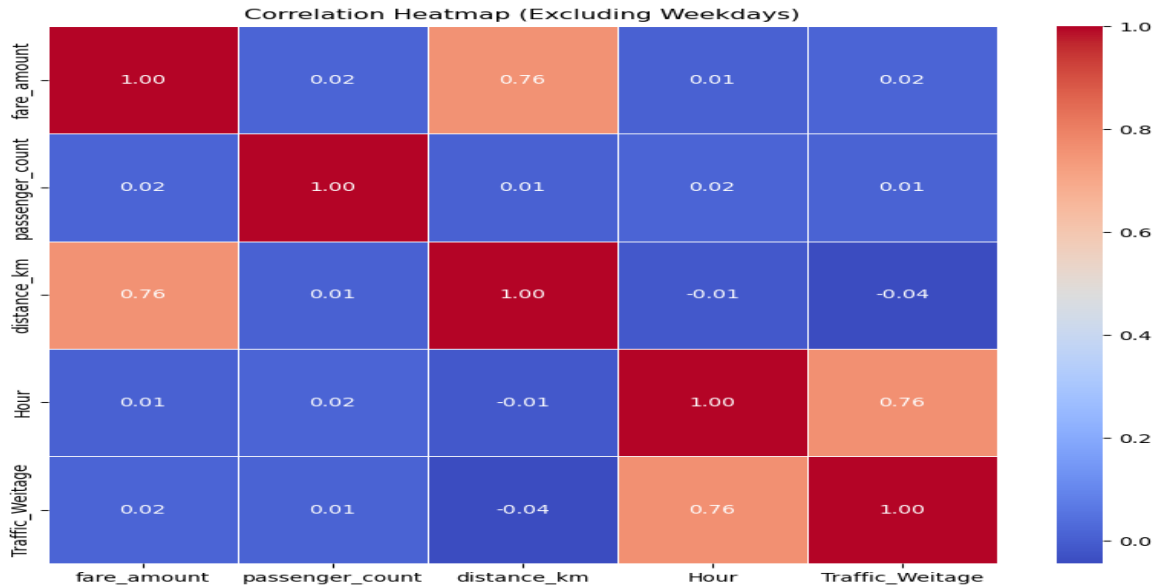
Top Features: These are the features that contribute the most to predicting the fare amount.

Implications:

Correlation Heatmap (Excluding Weekdays)

- **Distance:** Distance traveled is often a critical factor in determining fare amount. Longer distances typically result in higher fares due to increased fuel consumption and time spent on the trip.
- **Hour** : The time of day can also significantly affect fare amounts. For example, fares may be higher during peak hours or late at night due to increased demand or surge pricing.

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Weekdays vs Average Fare Amount
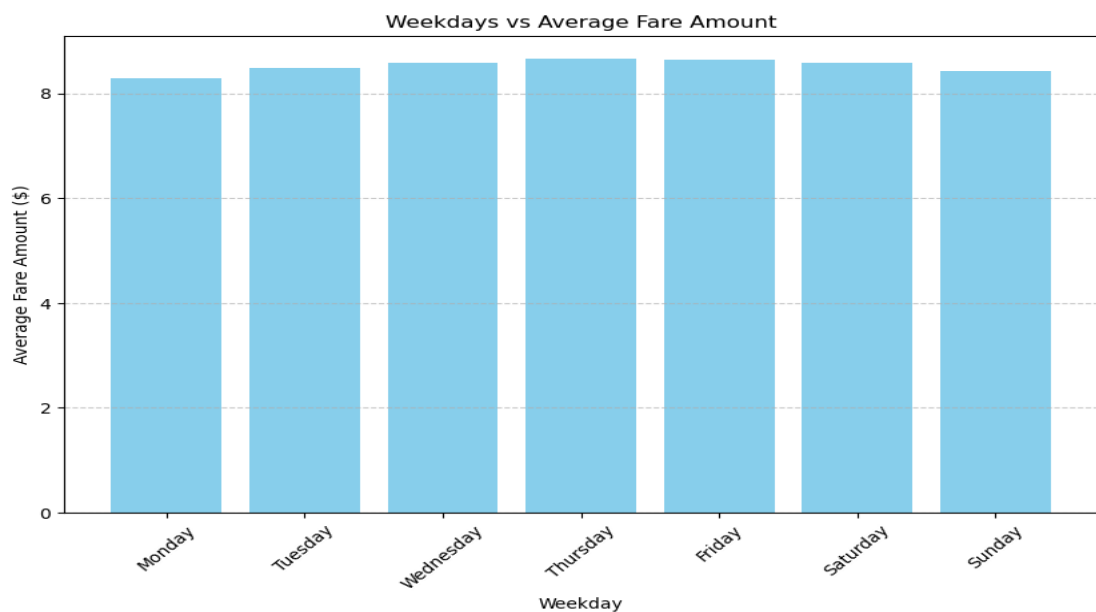
- **Weekday**: Certain weekdays like may have different fare dynamics, such as higher fares on Thursday compared to other weekday

RECOMMENDATIONS

Based on the analysis and insights from the regression model, here are some recommendations for the ride-sharing company:

- **Pricing Strategies:**
  Implement dynamic pricing based on factors such as hour of the day and weekday to optimize fare revenue. For example, consider increasing fares during peak hours and on weekdays with higher demand, like Thursdays.
  Offer discounts or promotions during off-peak hours or on less busy weekdays to incentivize ridership during those times and maximize utilization of drivers.
- **Driver Incentives:**

  Provide bonuses or higher commission rates to drivers during peak hours or on weekdays with higher demand to encourage more driver availability during these times.
  Offer incentives to drivers for accepting rides in areas with heavy traffic or during times of high demand, as indicated by the traffic weightage feature in the model.

- **Service Improvements:**

  Use insights from the distance feature to optimize driver routes and minimize travel time, which can improve overall efficiency and reduce fuel consumption.
  Implement real-time traffic monitoring and routing systems to help drivers avoid congested routes, thereby reducing travel time and improving customer satisfaction.

- **Customer Engagement:**

  Communicate transparently with customers about dynamic pricing strategies, especially during peak hours or high-demand weekdays, to manage expectations and avoid dissatisfaction.
  Offer loyalty programs or rewards for frequent riders to encourage repeat usage and build customer loyalty.