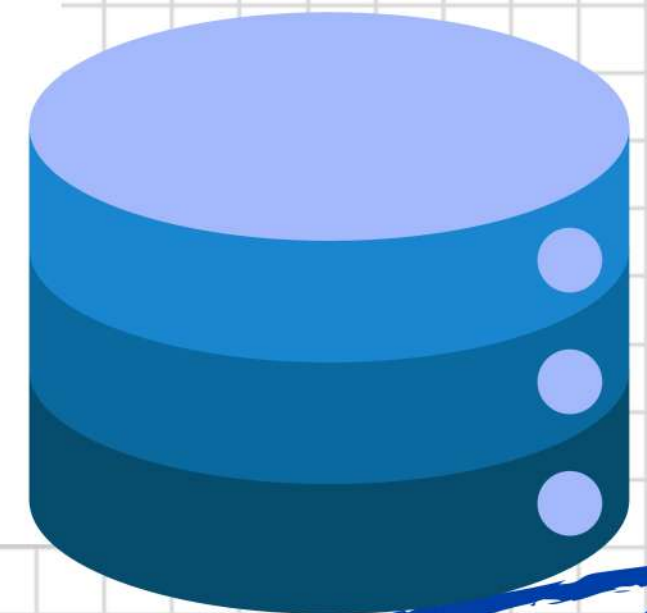# Ride-sharing service Data

Cellula

Introduction to Data

To explore the ride-sharing service data and uncover insights related to fare, traffic, weather, and time-based trends.
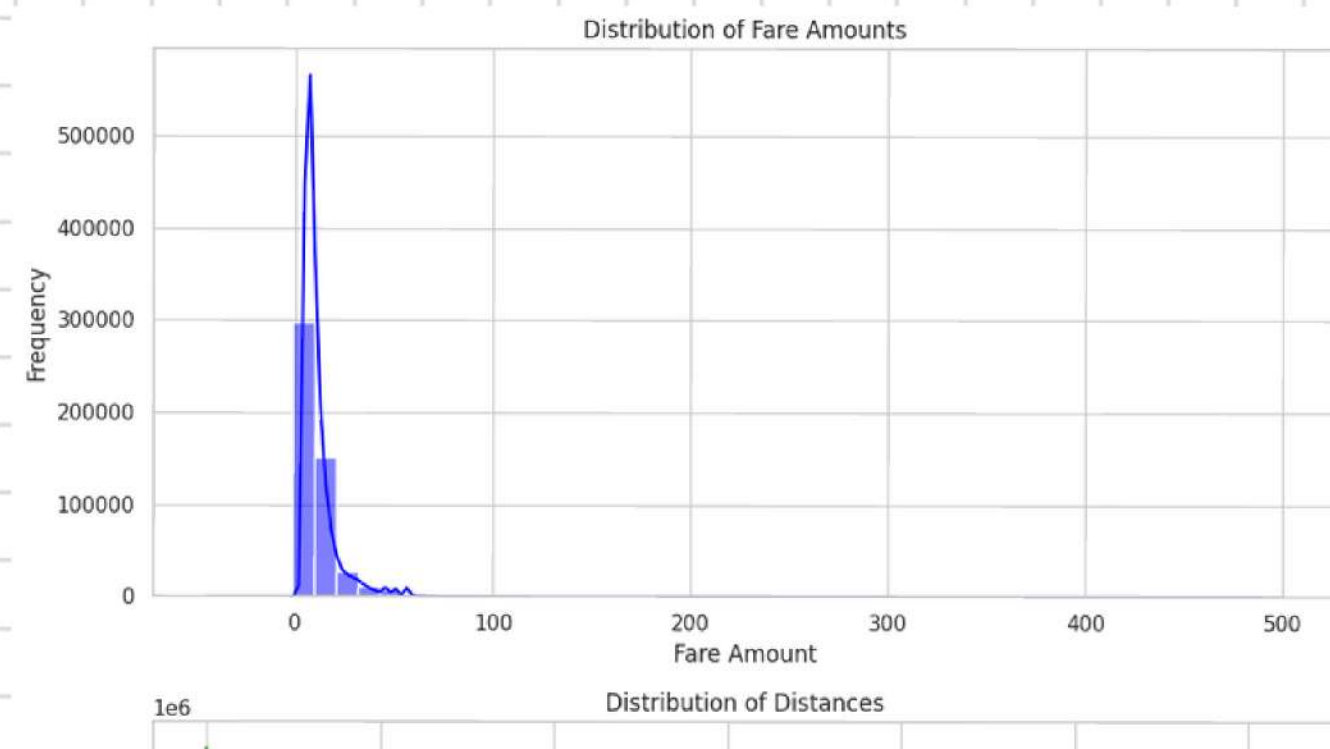
- **500,000+ records** of ride-sharing trips

- Key columns: User ID, Driver Name, Fare Amount, Weather, Traffic Condition, Distance, and time-related features like year, month, weekday.
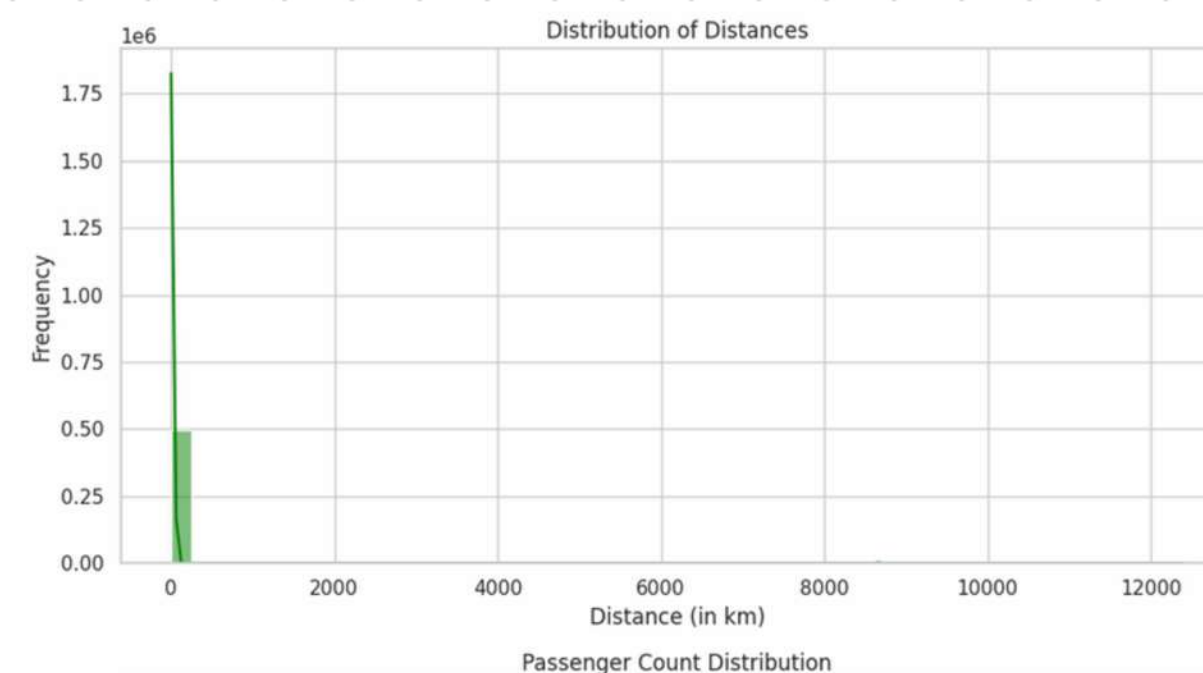
Understanding the Fare Distribution

Distribution of Fare Amounts

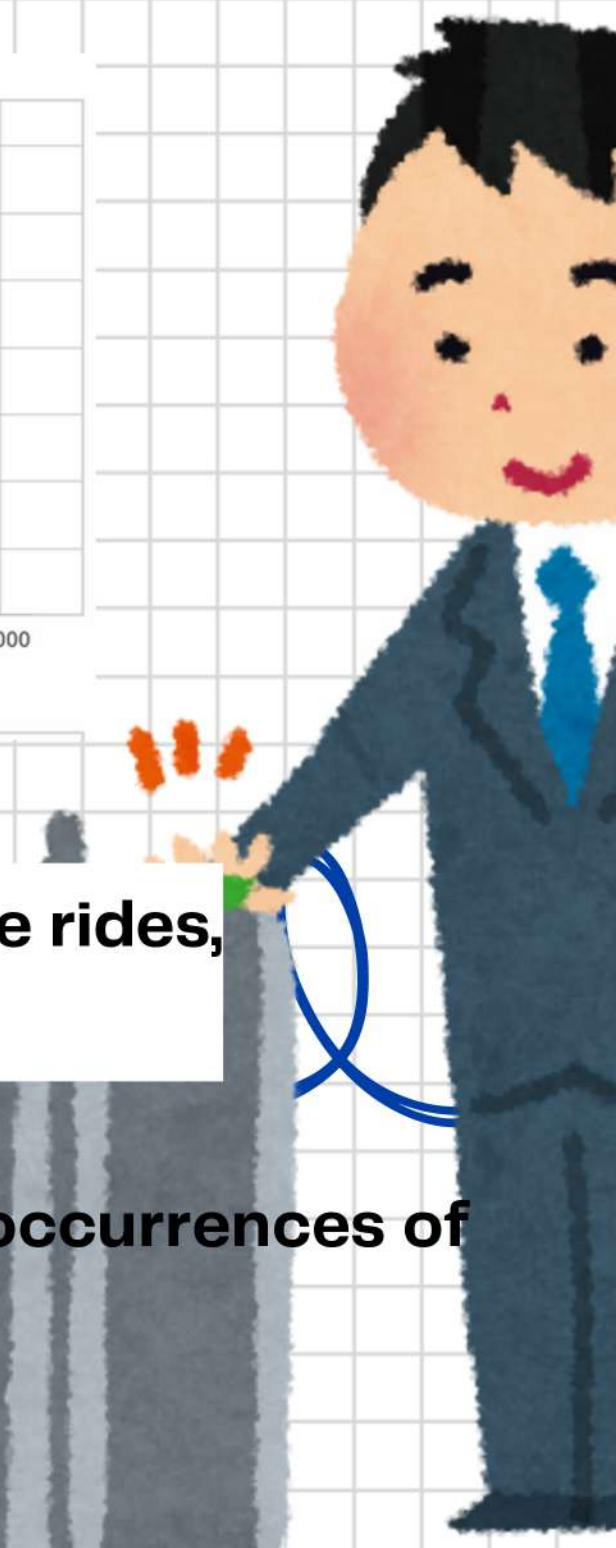Distribution of Distances

Distribution of Distances

Most fares cluster between $6 and $20, with a few outliers at higher amounts.
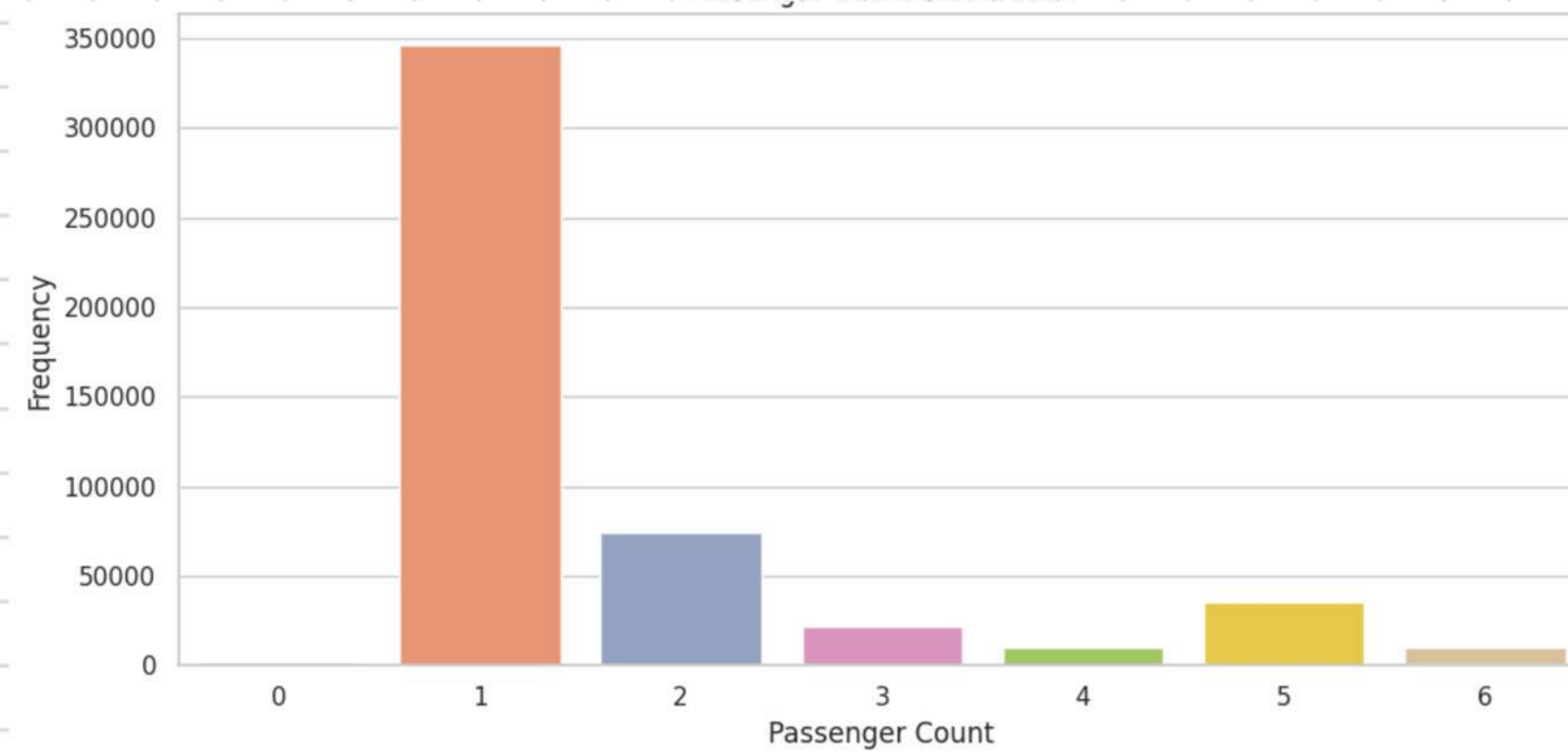
The majority of trips are short-distance rides, reflected in lower fares.

The fare distribution shows that the service is affordable for most customers, with rare occurrences of high fares.
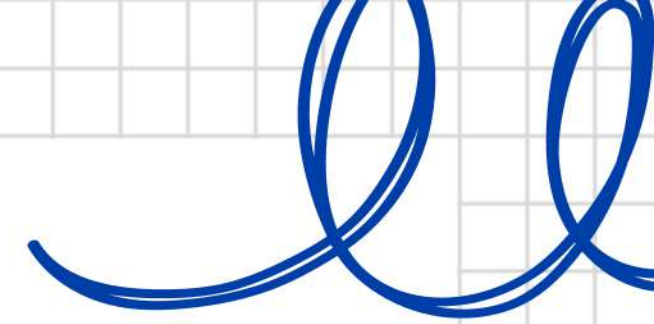
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Passengers Count

Relationship Between Distance and Fare

Positive correlation

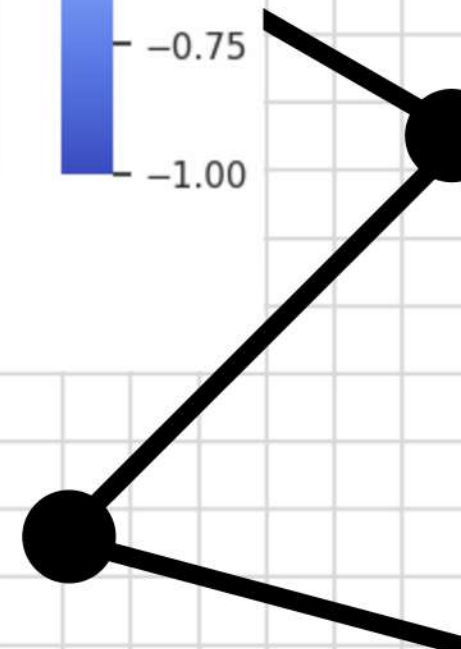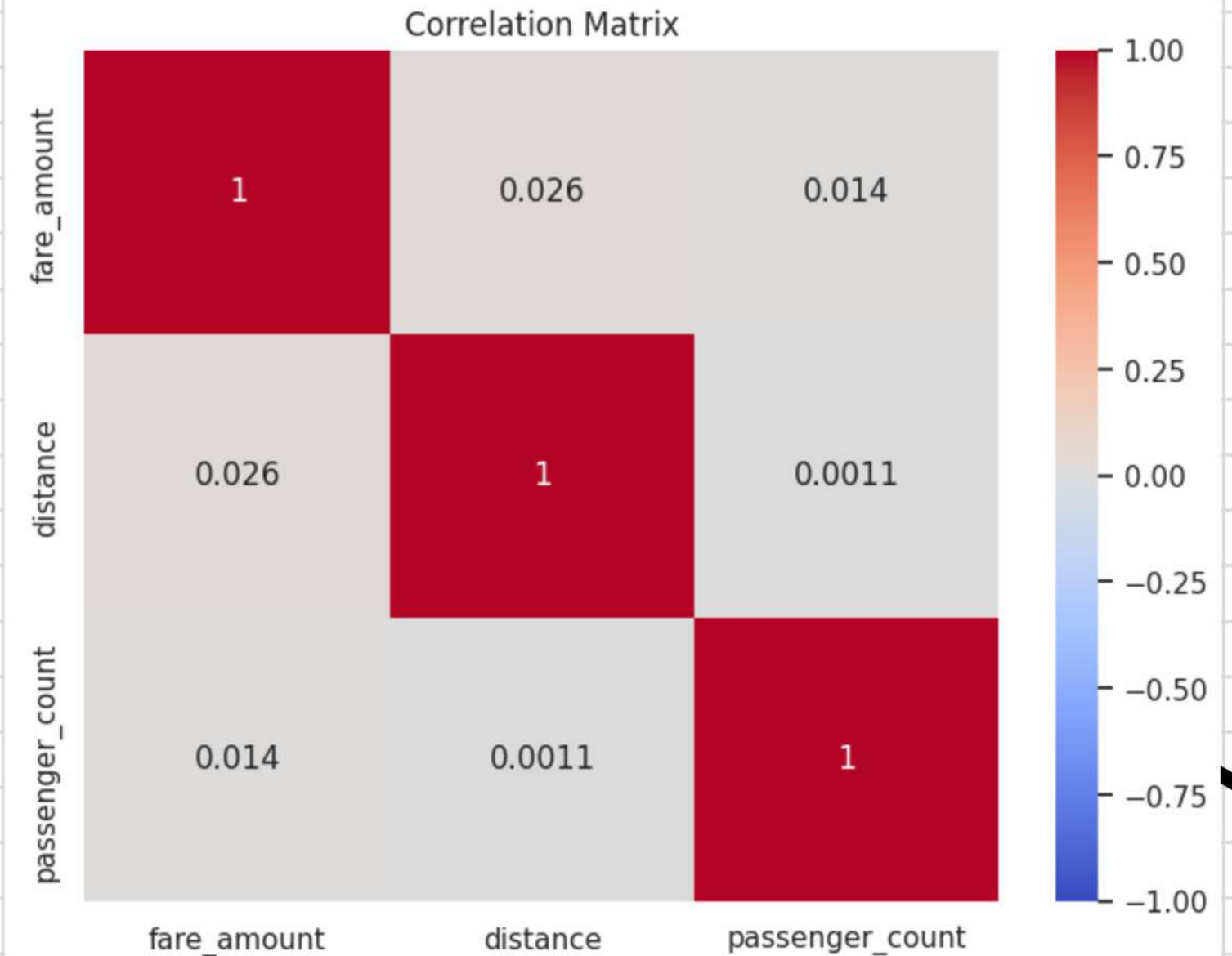- Longer distances generally result in higher fares.

outliers

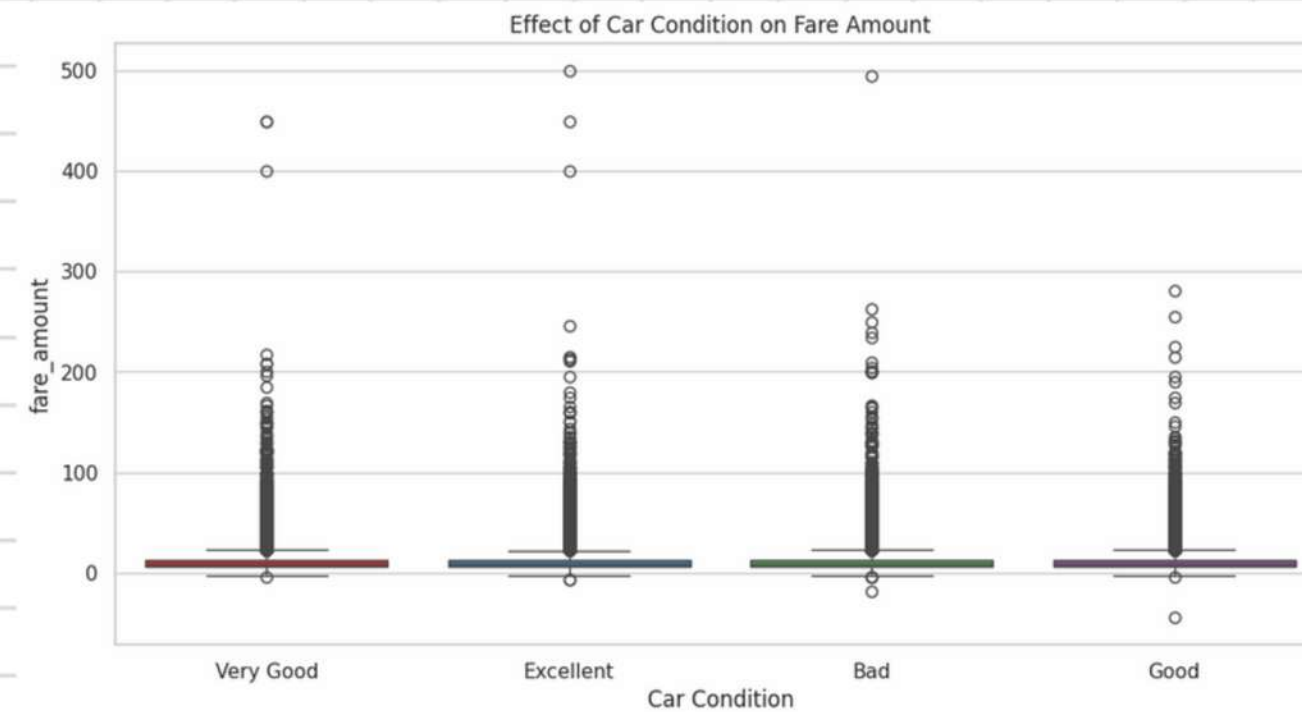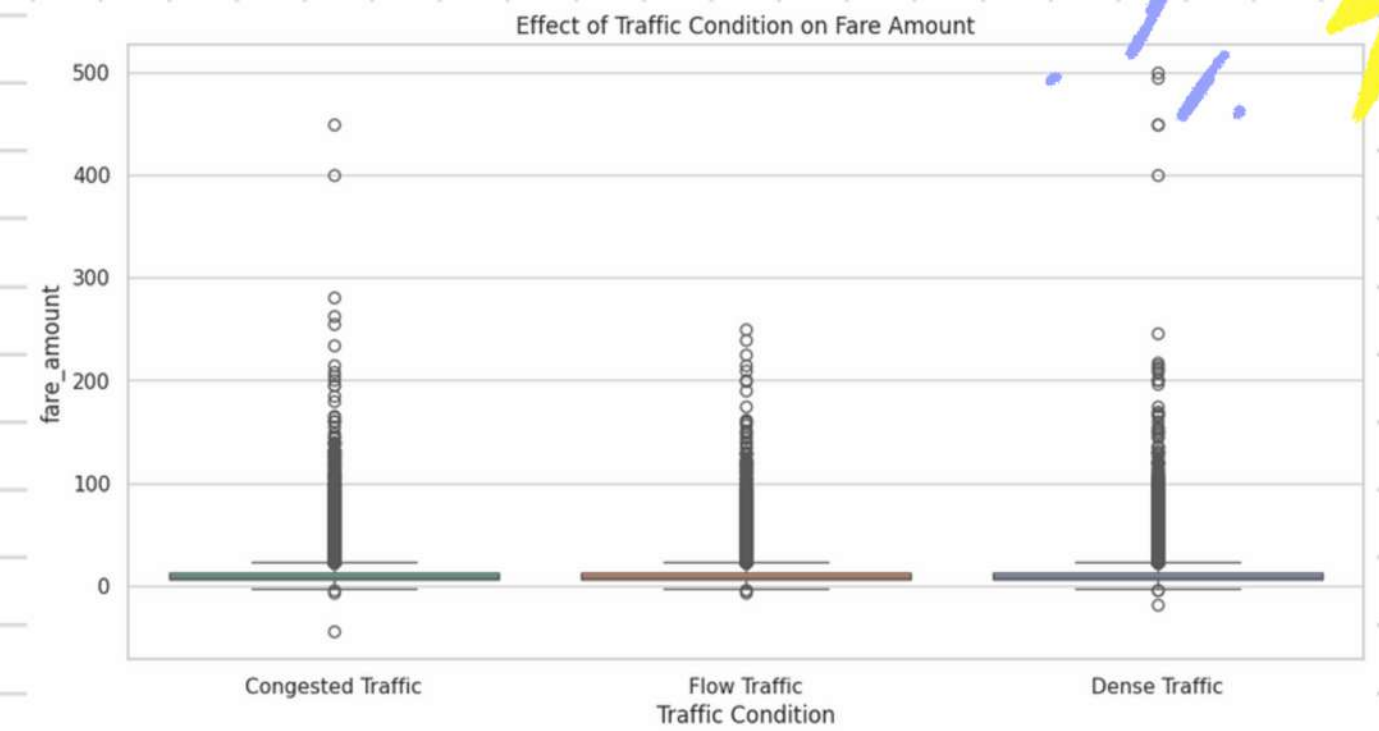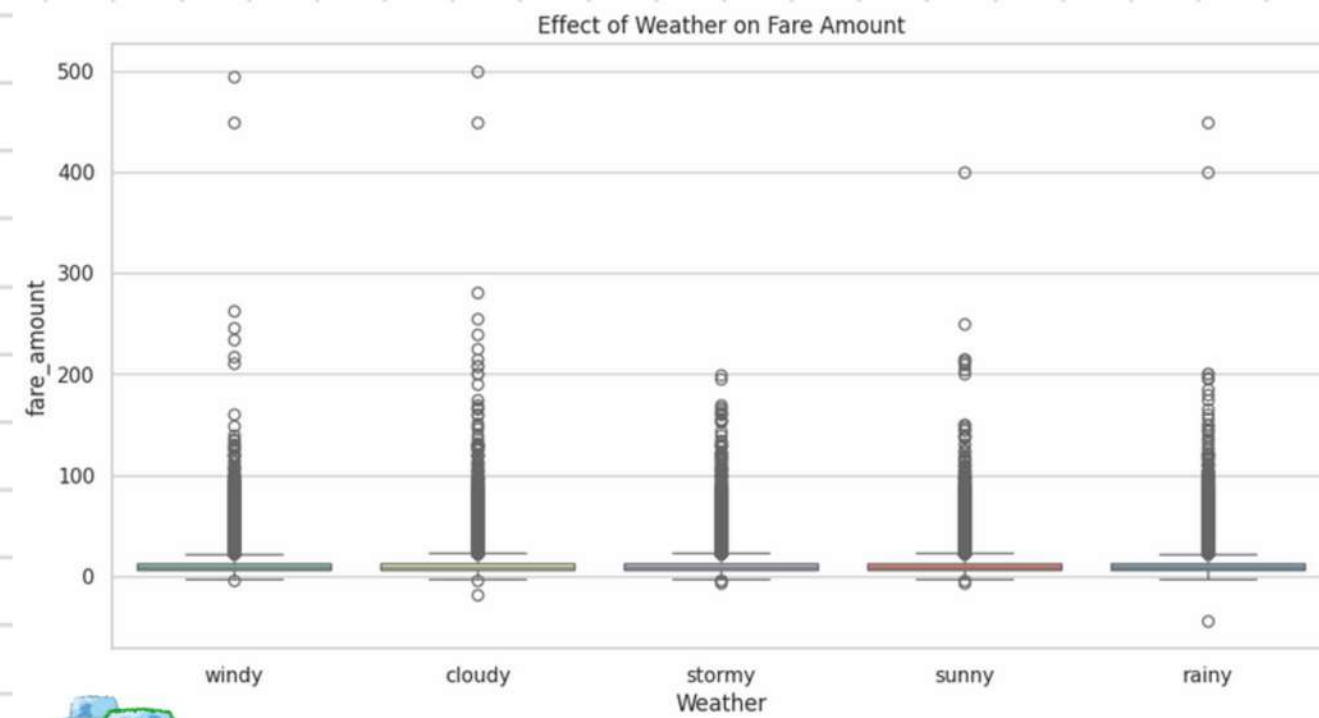- long trips have low fares, possibly due to promotions or special discounts.

Key Role

Distance plays a key role in determining the fare, but other factors like traffic and demand likely impact the pricing too.
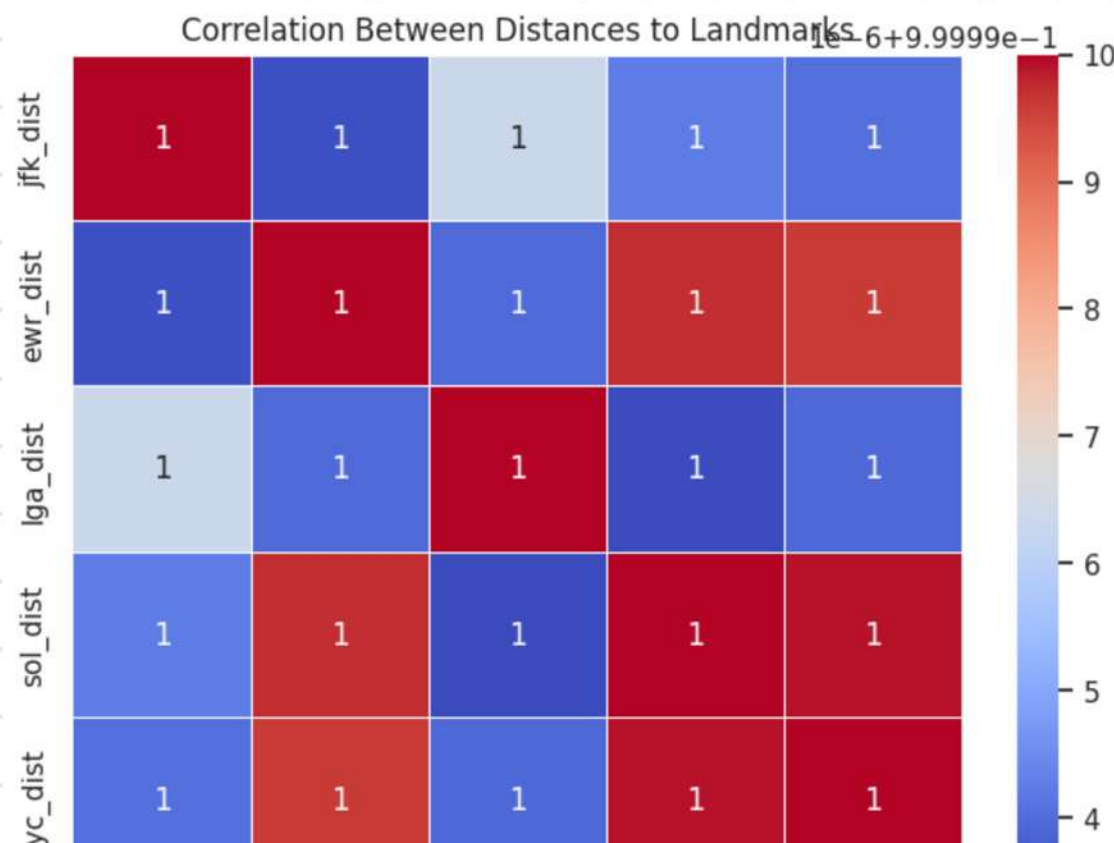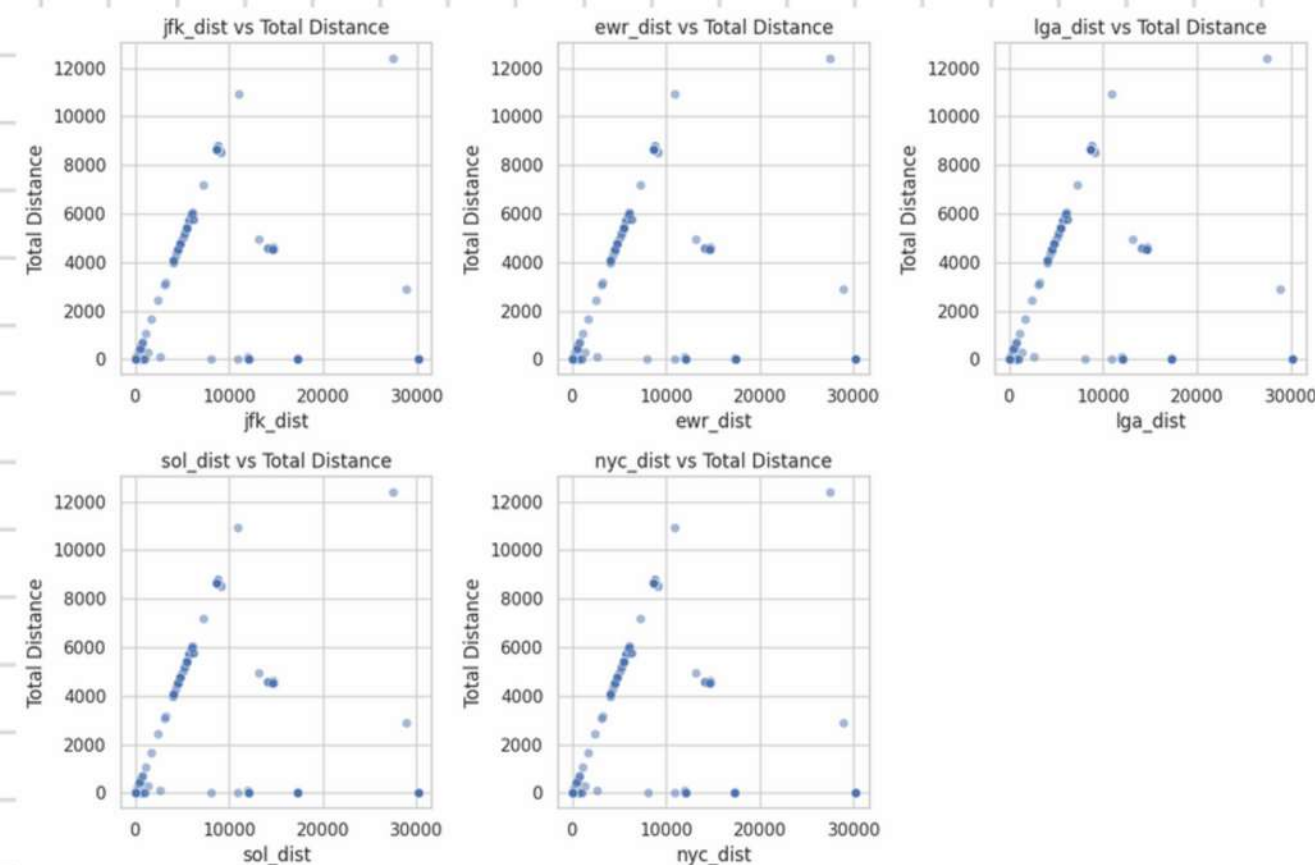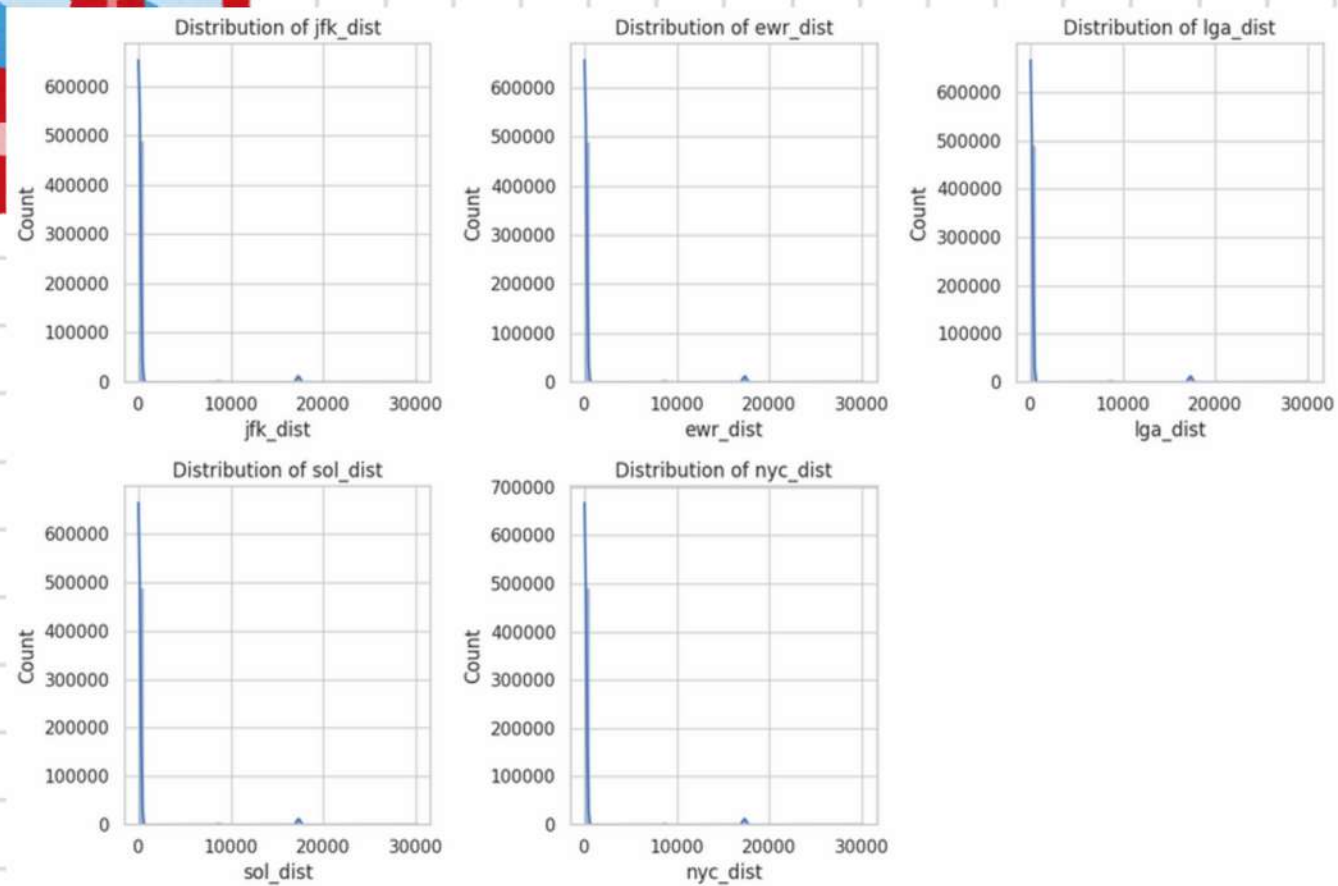

Correlation Matrix

	fare_amount	distance	passenger_count
fare_amount	1	0.026	0.014
distance	0.026	1	0.0011
passenger_count	0.014	0.0011	1

Impact of Traffic and Weather on Fares

r

Distance to Landmarks
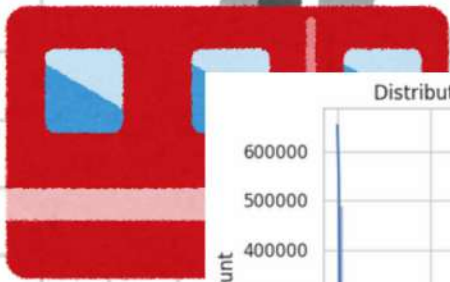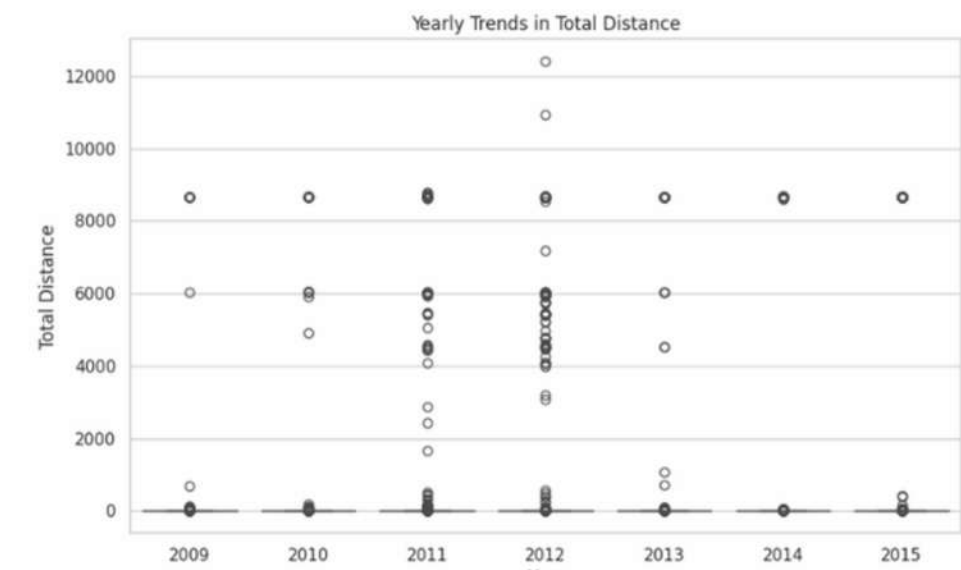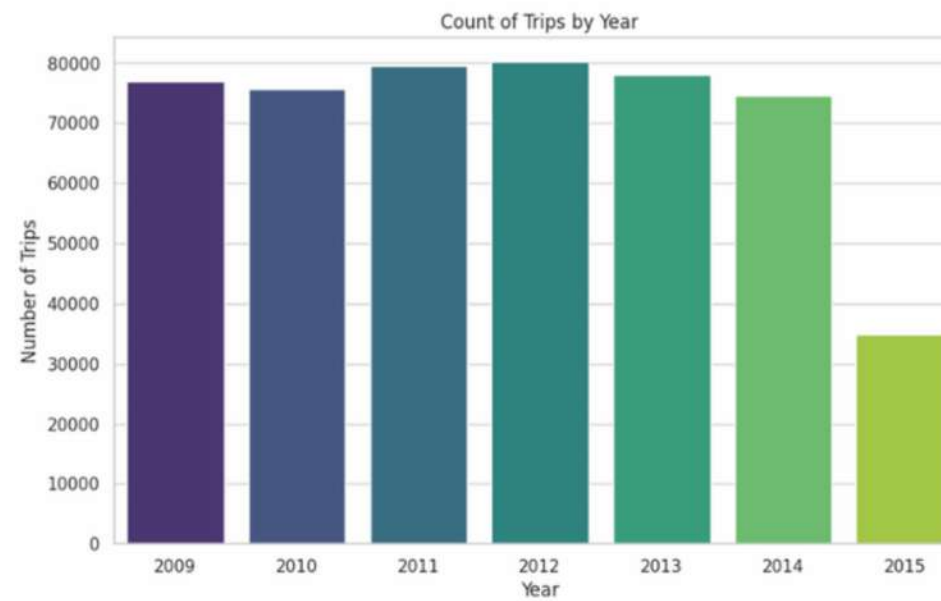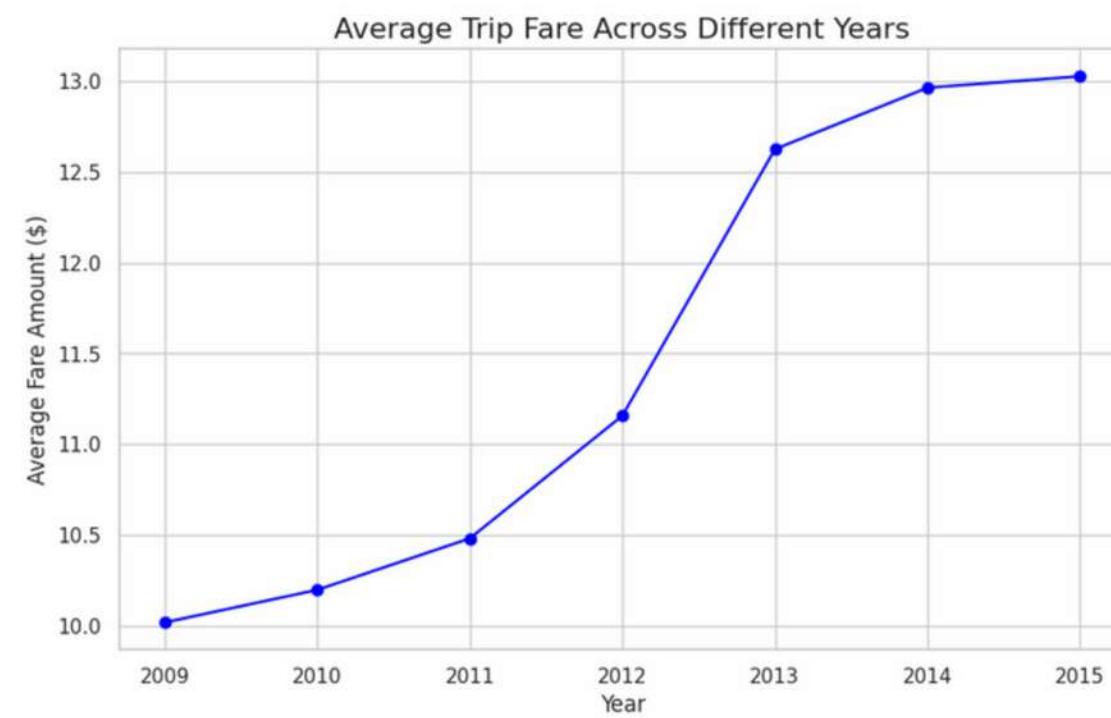
Fare

Pickup and Dropoff Locations

- pickup and drop of locations are almost in the same place showing that this ride sharing is for a specific institution

Pickup Locations
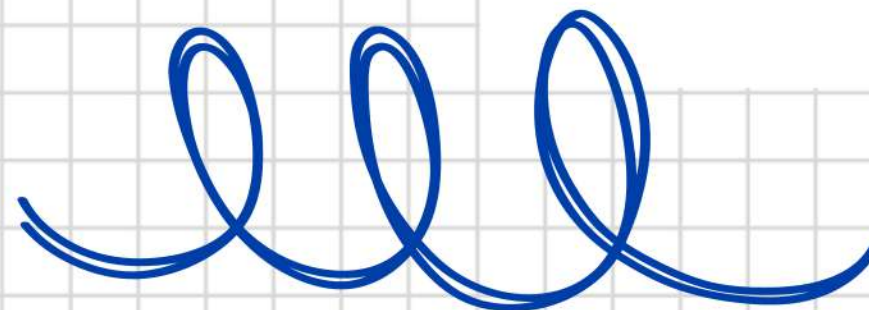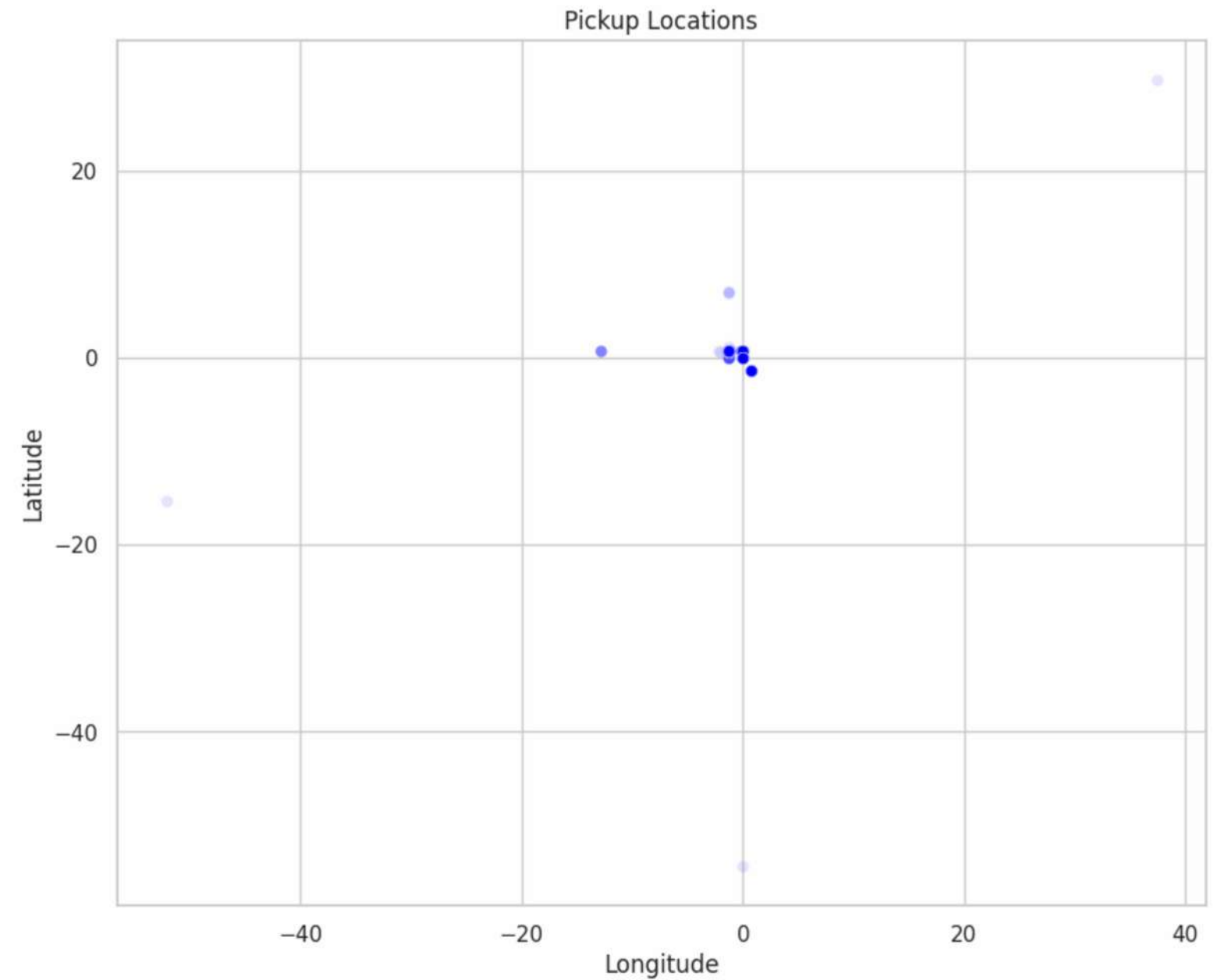
Rides per day ,hour, month
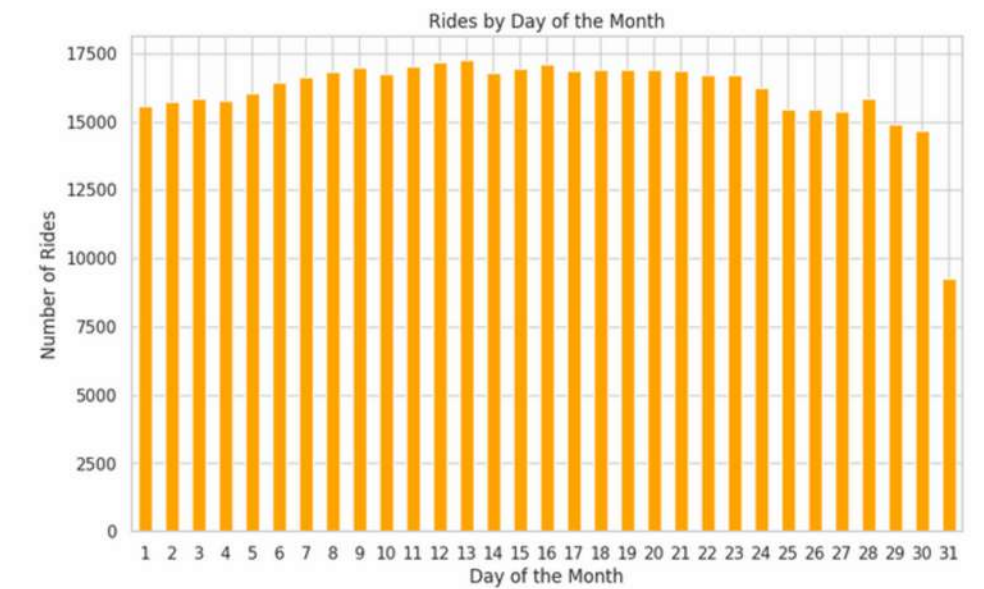
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Key Takeaways

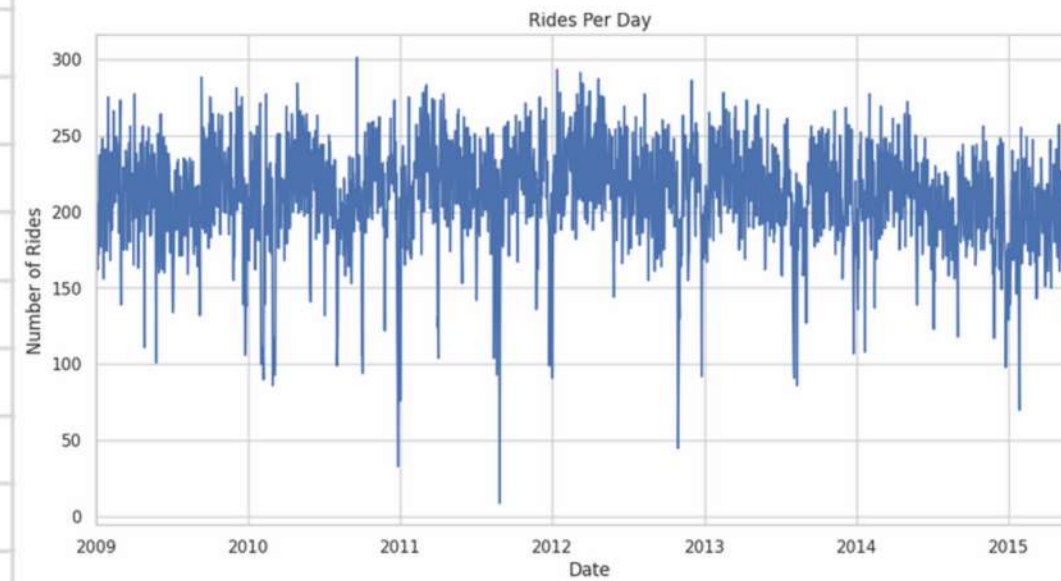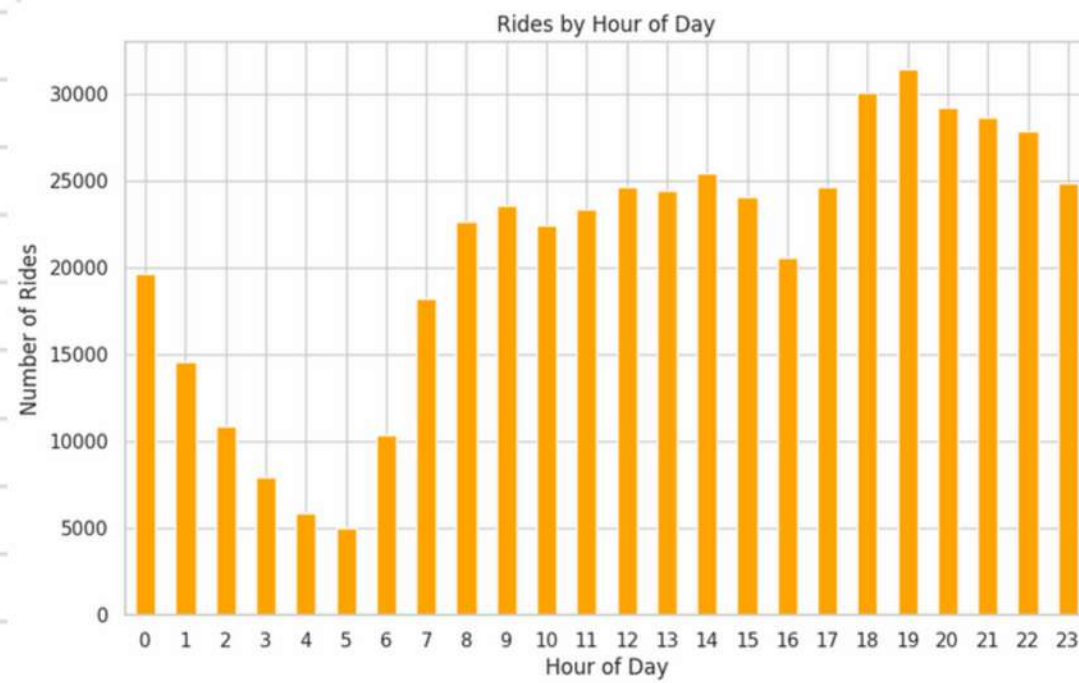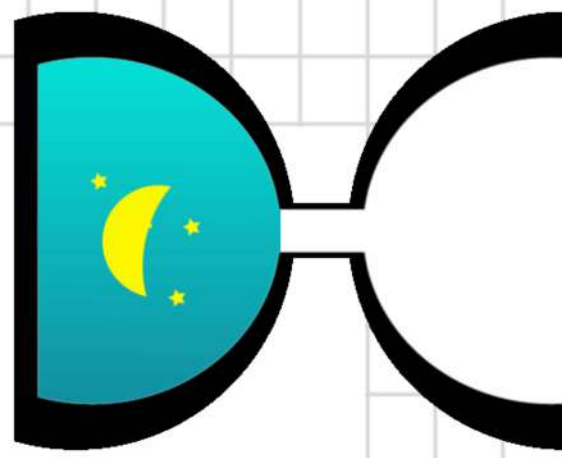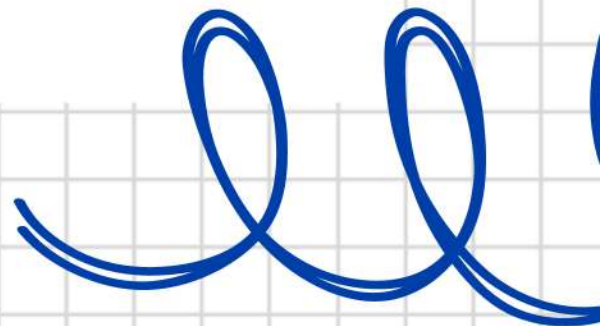## Most rides are affordable

- with fare amounts clustered between $6 and $20.

Longer trips generally cost more

- but outliers suggest other factors (like promotions or traffic) play a role.
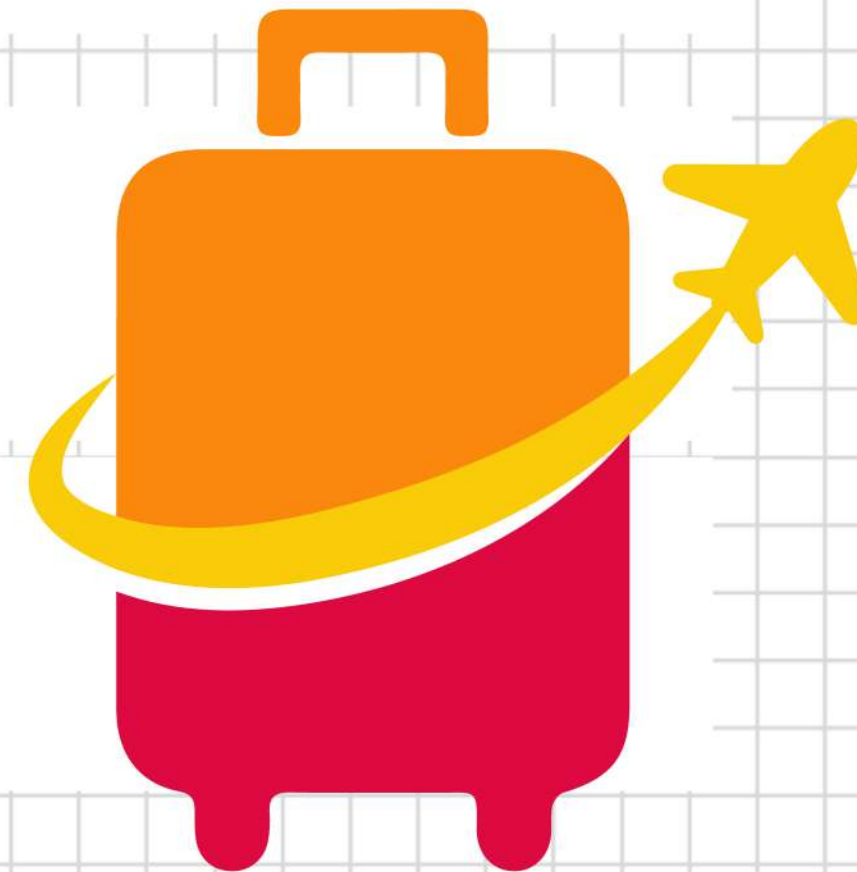
Bad weather and heavy traffic increase fares

- making trips more expensive.

Fares fluctuate based on time

- higher prices during weekends and busy months.

Recommendations for Further Analysis

Analyze Discounts and Promotions

- Investigate if outliers (short trips with high fares) are due to promotions.
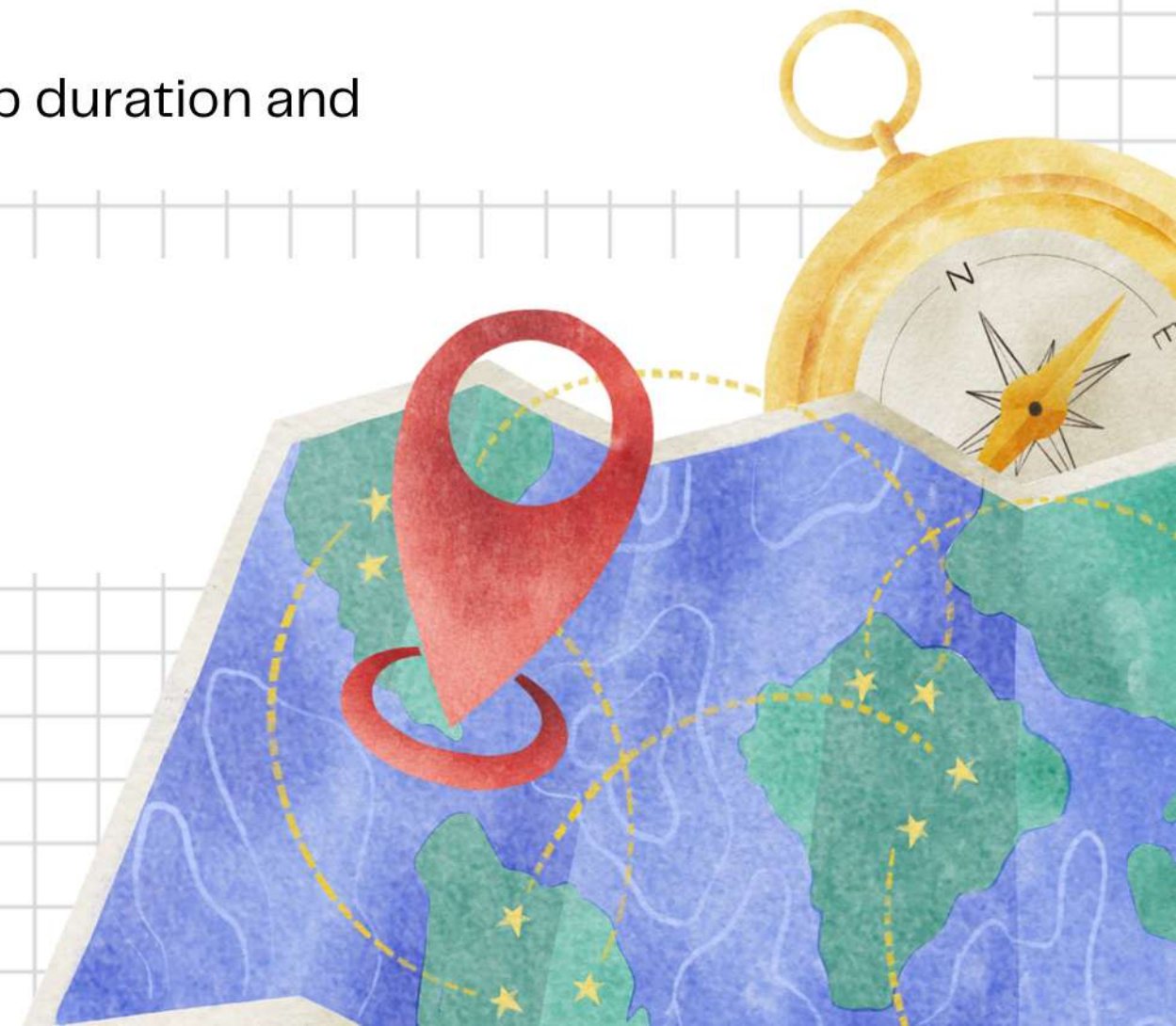
Study Driver Performance

- Look into how car condition and driver experience affect trip duration and fare.

Demand vs. Fare Relationship

- Examine how demand patterns impact surge pricing.

Conclusion

- This exploratory data analysis provides valuable insights into the key factors affecting fare amounts in ride-sharing services.

- Understanding these patterns can help both customers and companies optimize their experience and pricing strategies

Thank you!