



## RAPIDO CASE STUDY - REVOLUTIONIZING URBAN MOBILITY

EDA Insights and Strategic  
Recommendations for Rapido's Growth

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# Introduction

## OVERVIEW OF RAPIDO

### ● Vision and mission of Rapido

- Rapido, founded in 2015, is India's largest bike-taxi platform, offering affordable and efficient last-mile connectivity for millions of daily commuters.
- Rapido is dedicated to revolutionizing urban mobility by providing affordable, convenient, and reliable transport solutions, aimed at improving the overall commuting experience for users.



## OBJECTIVES

### ● EDA Goals

- Derive actionable insights from customer and operational data.
- Identify key trends and patterns to improve decision-making.
- Understanding customer behavior.
- Propose solutions to optimize pricing and enhance customer satisfaction.



# Dataset Overview



## KEY FIELDS ✎

- Number of records: 1,00,000
  - Customer\_ID: Unique identifier for each customer.
  - Booking\_Date: Date and time of ride booking.
  - Ride\_Fare: Amount charged for each ride.
  - Payment\_Method: Payment options used (e.g., UPI, Wallet, Cash).
  - Promo\_Code: Applied discount or offer code.
  - Travel\_Time: Time taken to complete each ride.
  - Ride\_Distance: Distance travelled in kilometres.
  - City: City in which the ride occurred.
  - Driver\_ID: Unique identifier for each driver.
  - Cancellation\_Status: Whether a ride was cancelled. 0: Completed, 1: Cancelled

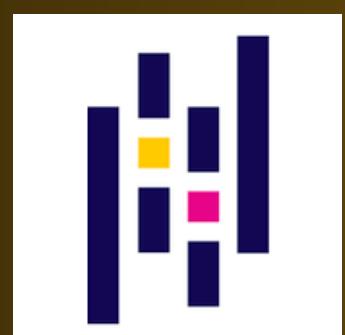
# Methodology



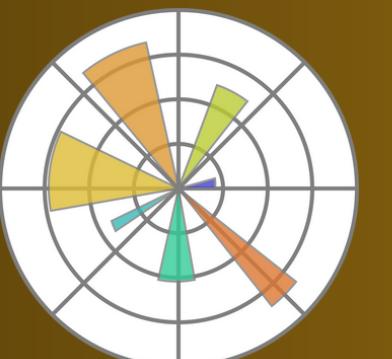
## Tools and Libraries Used



Python



Pandas



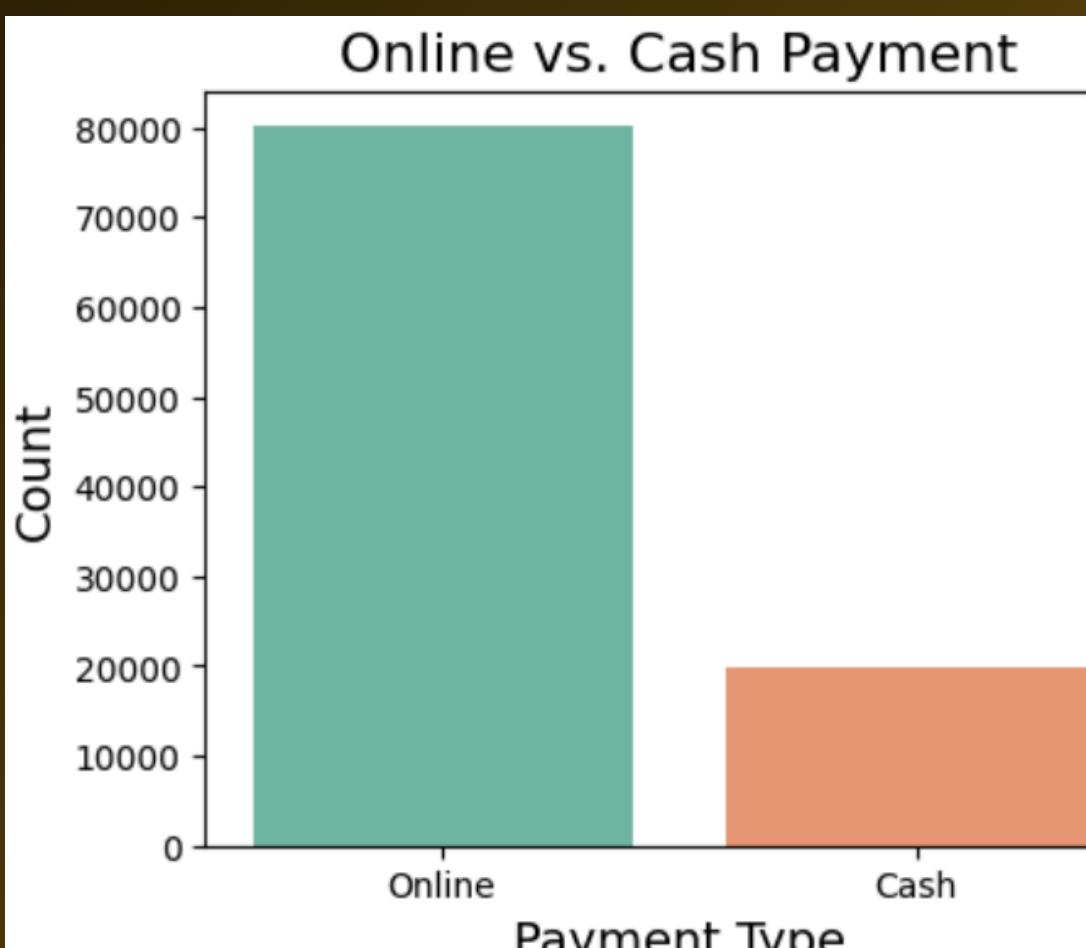
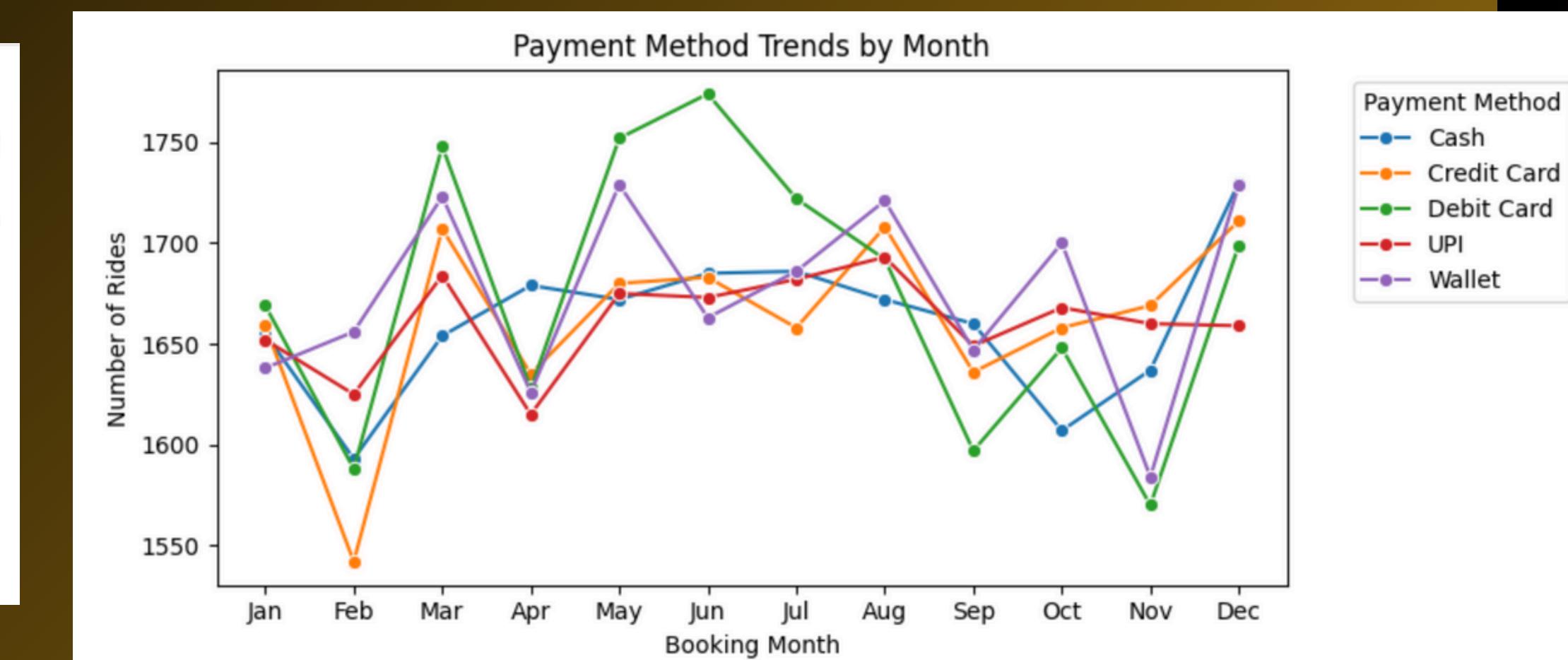
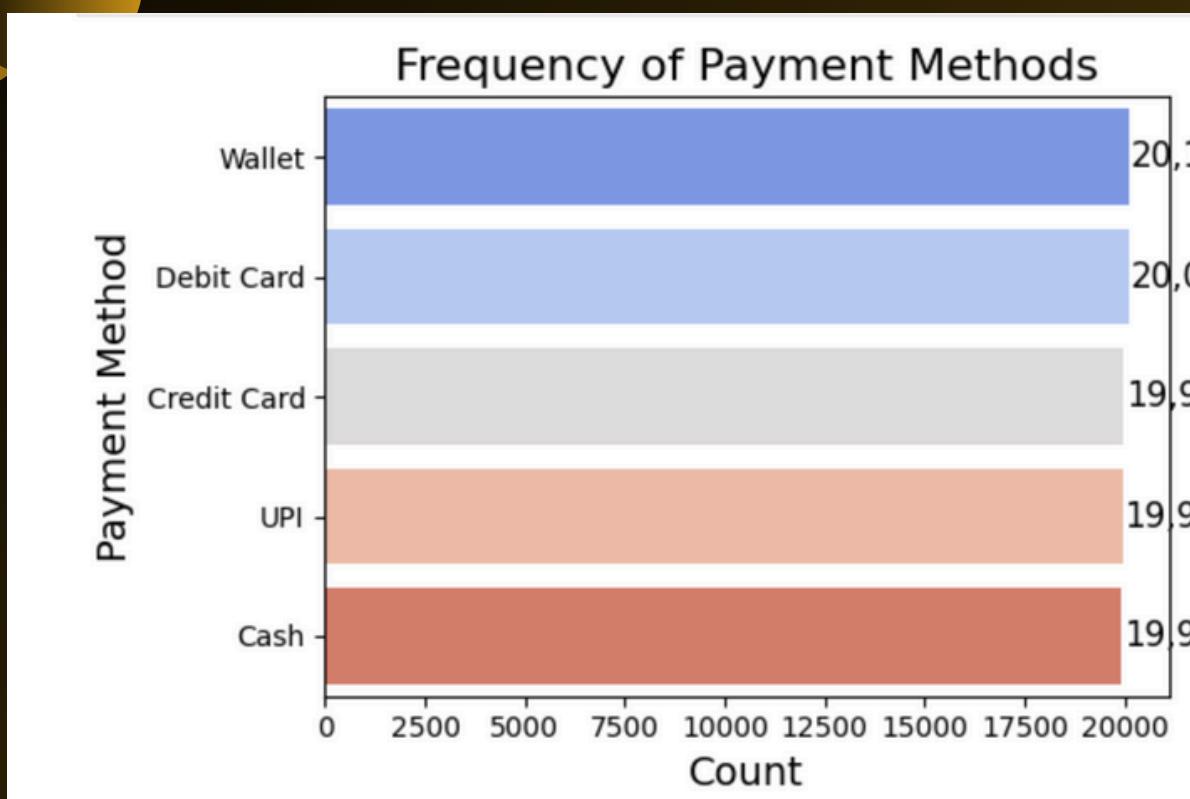
Matplotlib



Seaborn



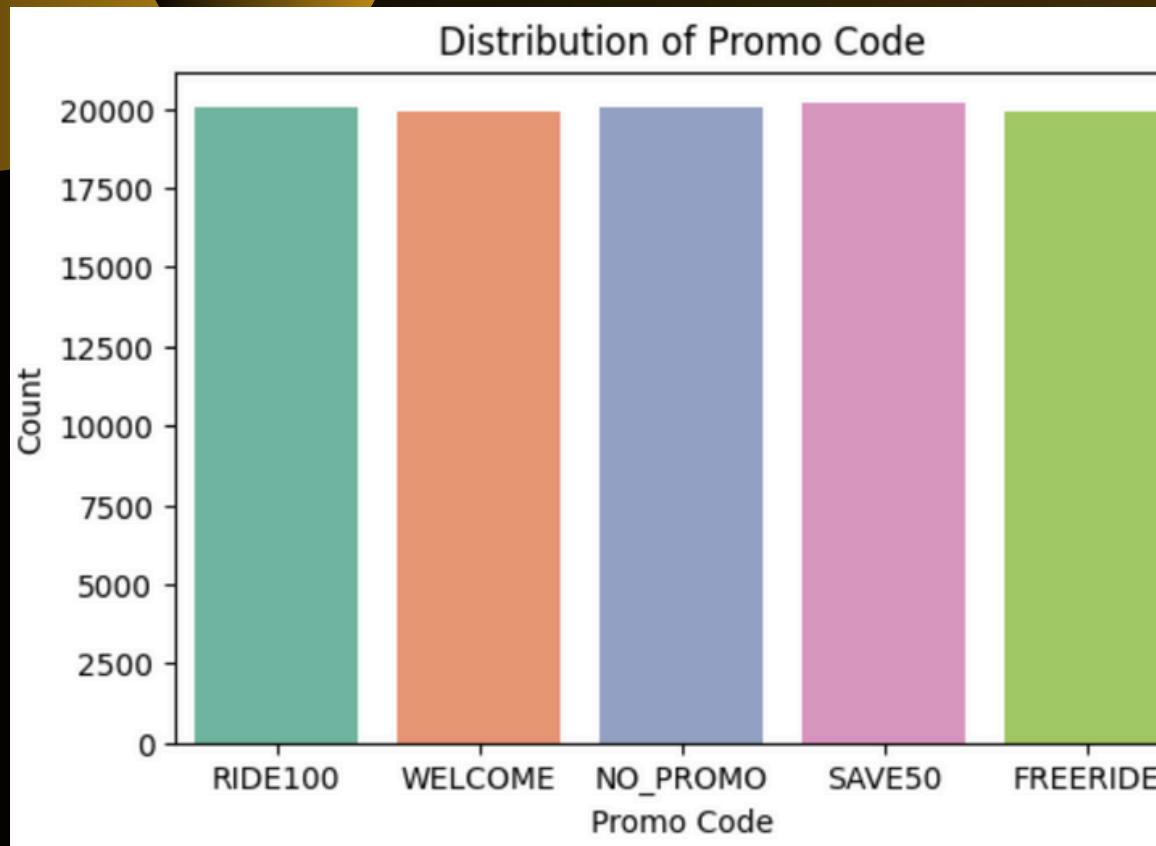
# Key Findings - Payment Gateway Effectiveness



## Observations:

- The frequency of each payment method is almost same with highest for Wallet and Debit Credit.
- The number of online payments is significantly higher than cash payments.
- Cash remains a prominent payment method, but its use has slightly decreased over the months.
- Payments through Credit Cards, Debit Cards, UPI, and Wallets show fluctuations, but overall, there's a gradual increase, especially for Debit Cards and Wallets.

# Promo Code Utilization & Impact



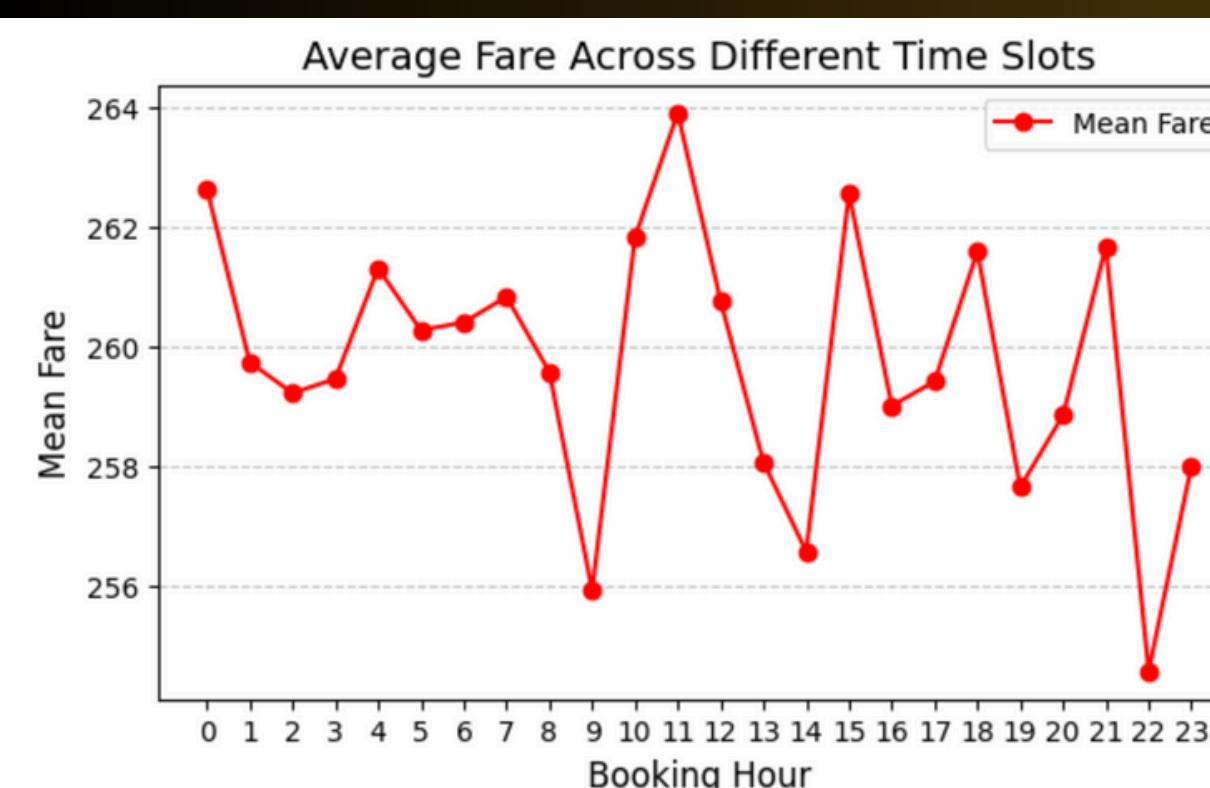
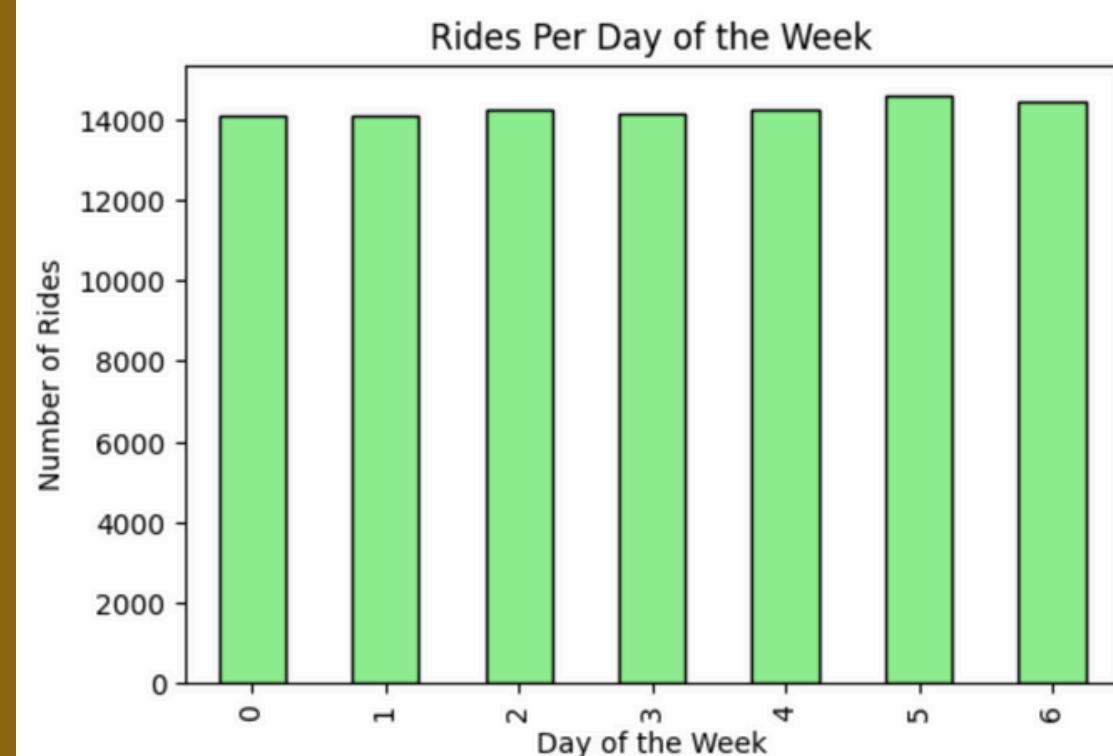
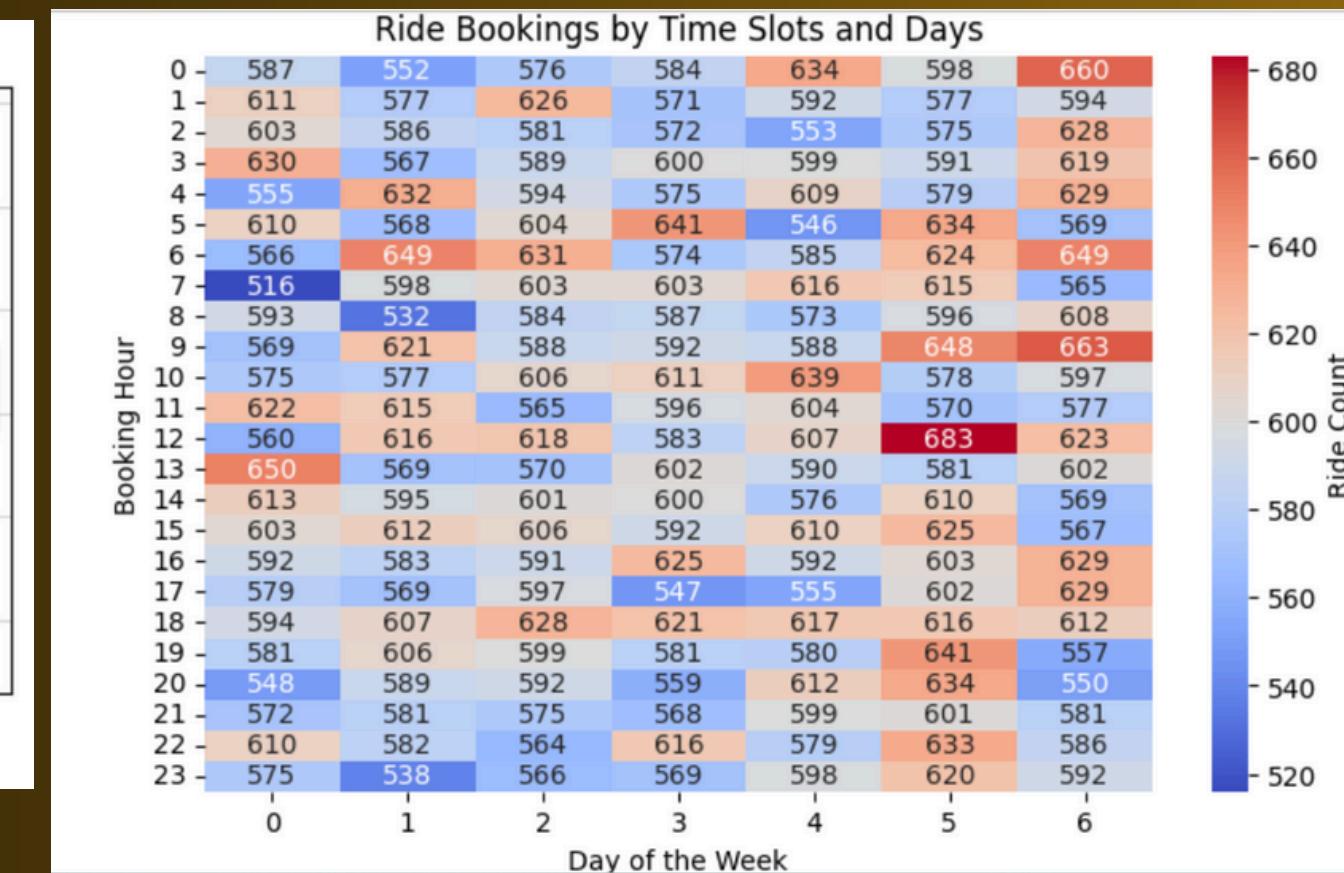
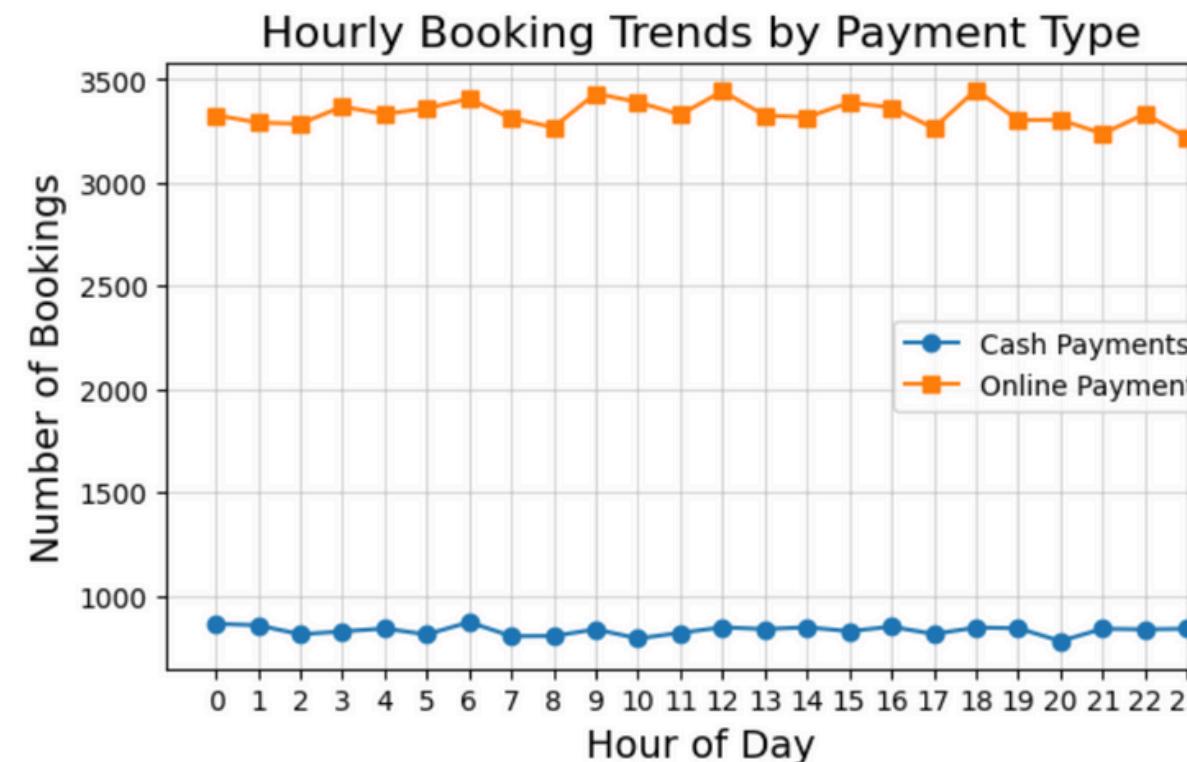
Promo_Code	Cancellation Rate (%)	Total Bookings	Cancelled Rides
FREERIDE	50.050266	19894	9957
NO_PROMO	49.758286	20065	9984
RIDE100	50.404798	20010	10086
SAVE50	49.895771	20148	10053
WELCOME	50.792134	19883	10099

Promo_Code	Average_Fare	Ride_Count
0 FREERIDE	260.360057	19894
1 NO_PROMO	259.701745	20065
2 RIDE100	259.711273	20010
3 SAVE50	259.557635	20148
4 WELCOME	259.444110	19883

## Observations:

- Customers are fairly equally distributed across the different promo codes.
- FREERIDE:** This promo likely appeals to customers despite offering fewer discounts due to its name or perceived value.
- WELCOME:** Has the lowest average fare (₹259.44) and 19,883 rides. It likely targets new users and successfully provides an entry point at a discounted rate.
- The WELCOME promo code has the highest cancellation rate (50.79%), which could suggest that customers using this promo code are more likely to cancel their rides.
- Promo codes like WELCOME and RIDE100 have relatively high cancellation rates, suggesting that these may be less effective at keeping customers engaged compared to NO\_PROMO and SAVE50.

# Customer Engagement & Preferences



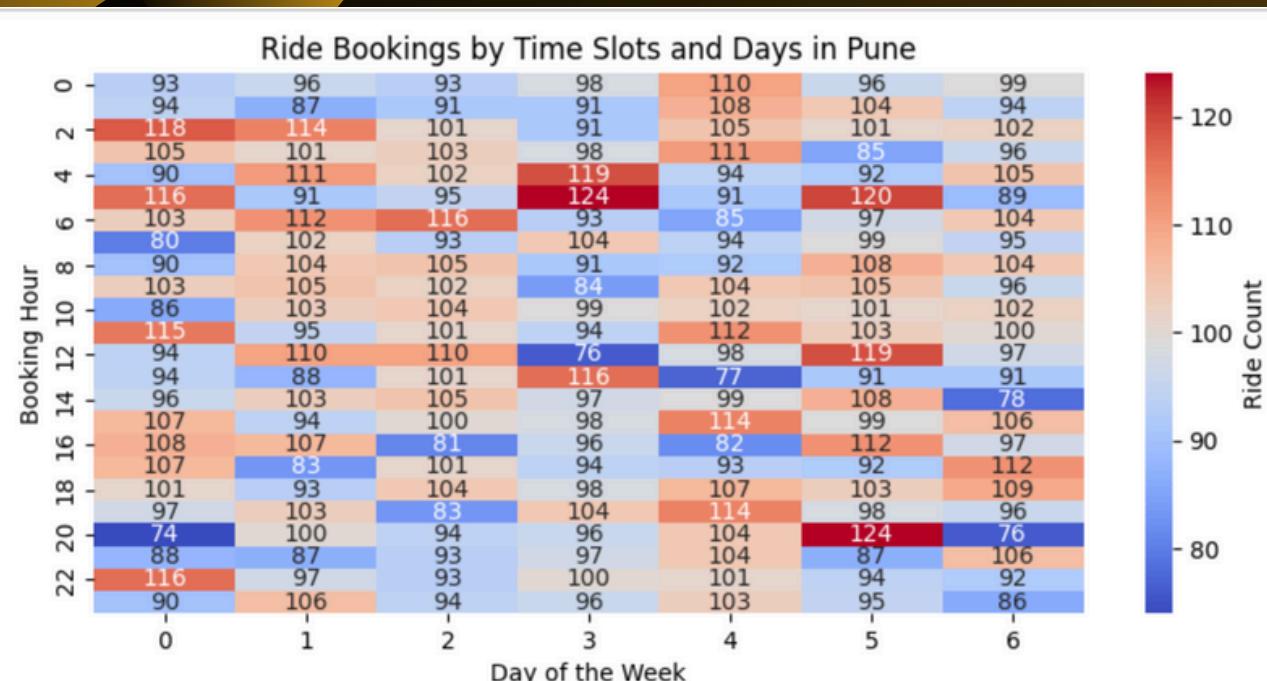
## Observations:

- Online Payments dominate throughout the day, with consistently higher numbers than Cash.
- The highest average fares seem to occur around specific hours, such as: Hour 10-12
- The fares seem to dip around certain hours (e.g., early morning and late evening, such as between hours 2 and 4, and between 21 and 23), indicating lower demand or lower surge pricing.
- Higher ride activity during mid-morning to early afternoon hours (e.g., 12 PM on Day 5) likely indicates leisure travel or personal trips.

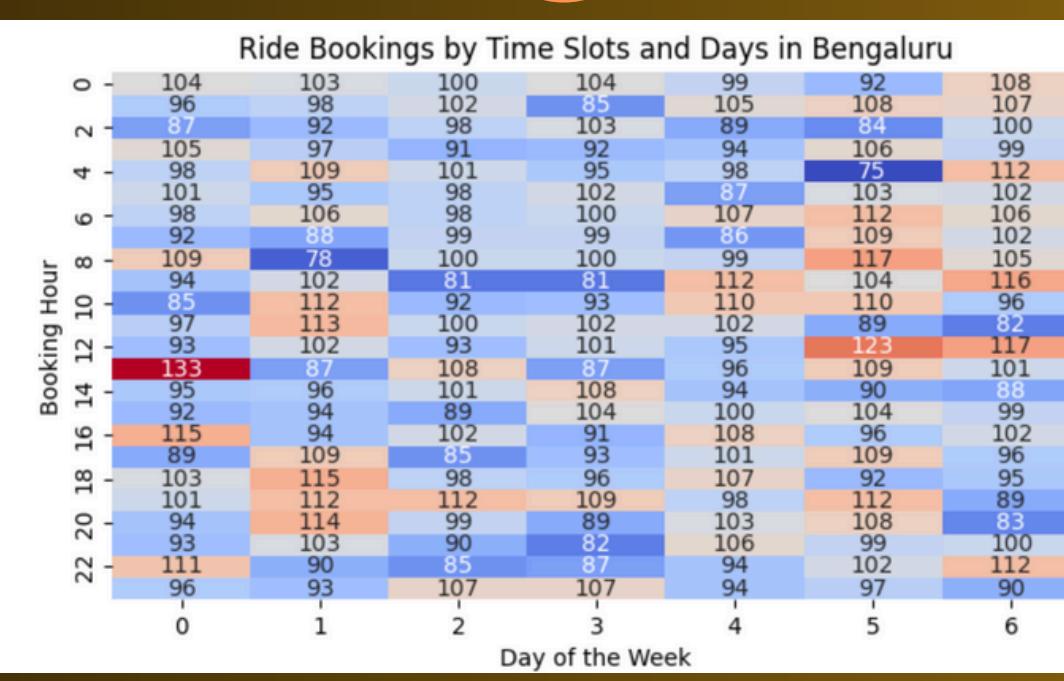
# Popular Time Slots and Days for Ride Bookings CityWise



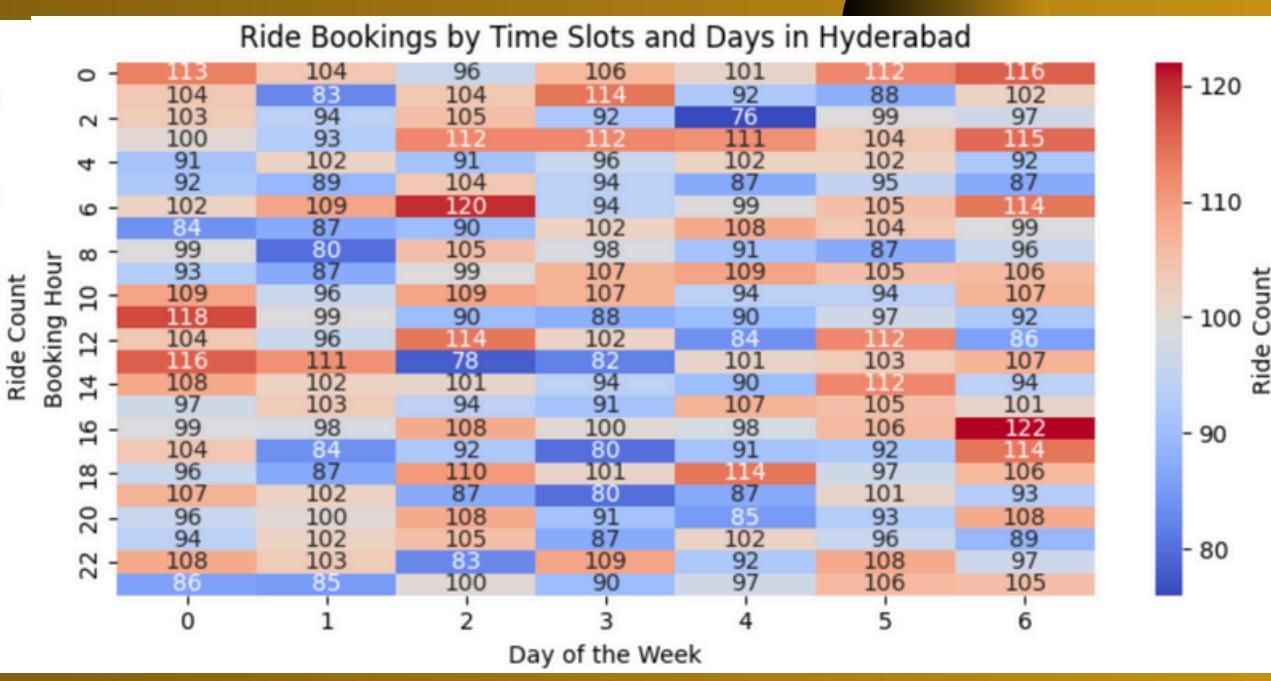
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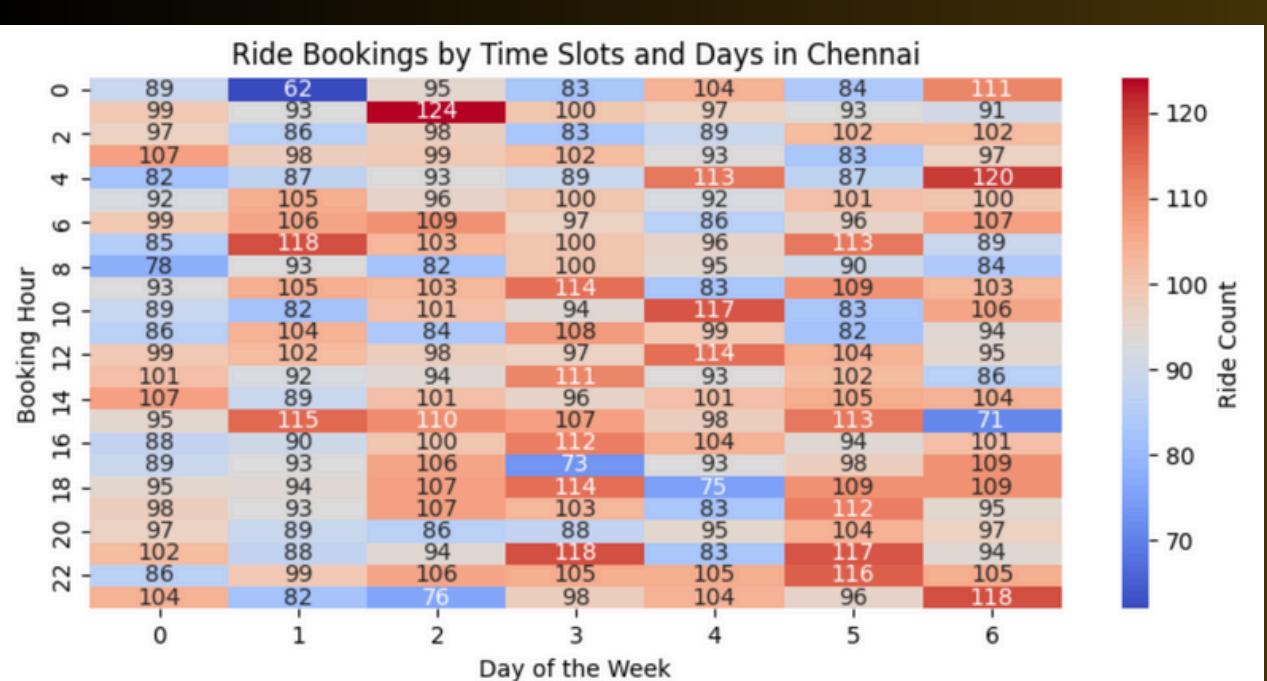
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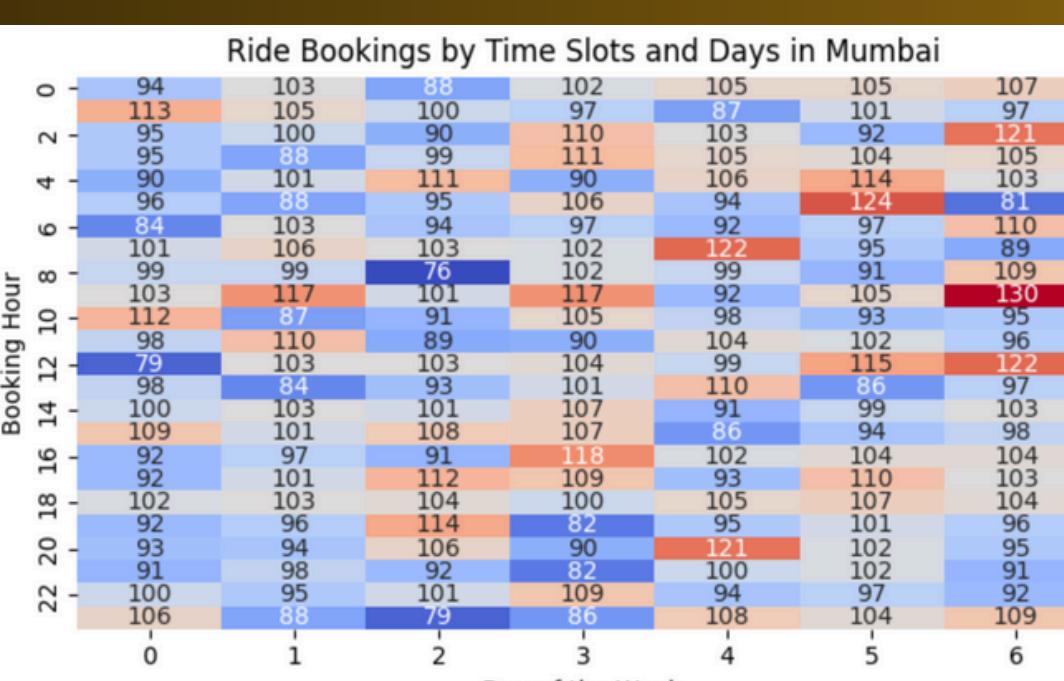
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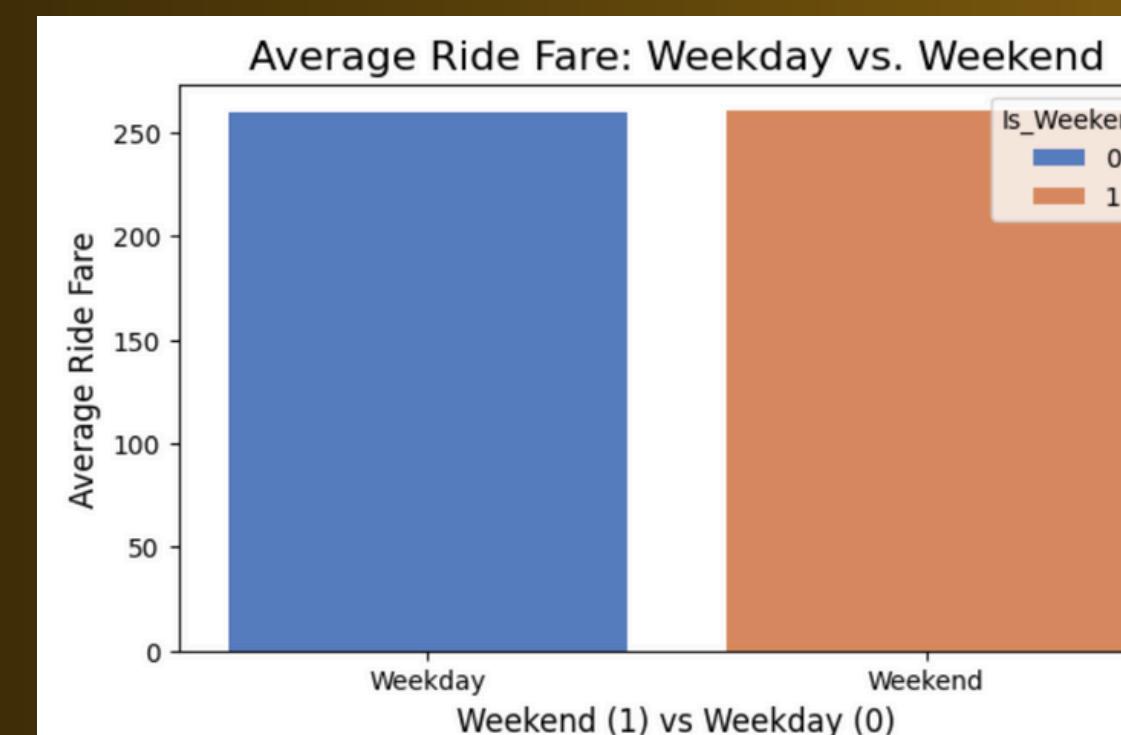
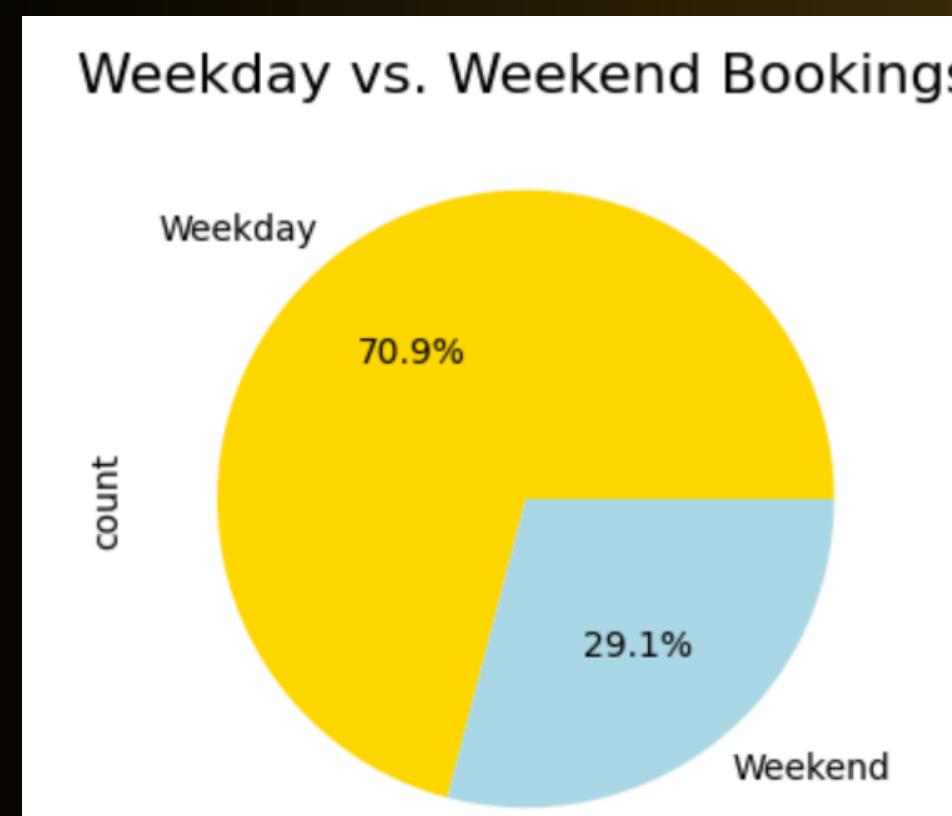
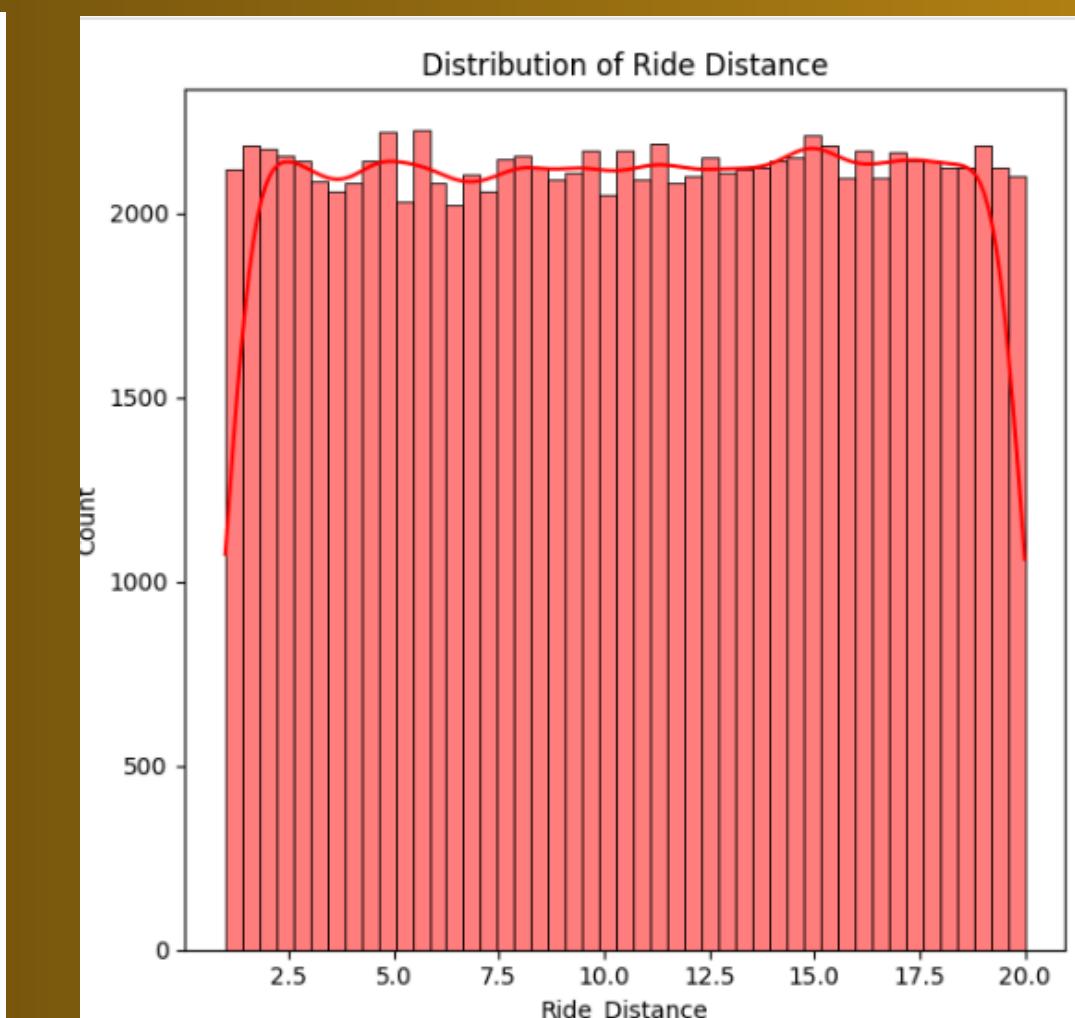
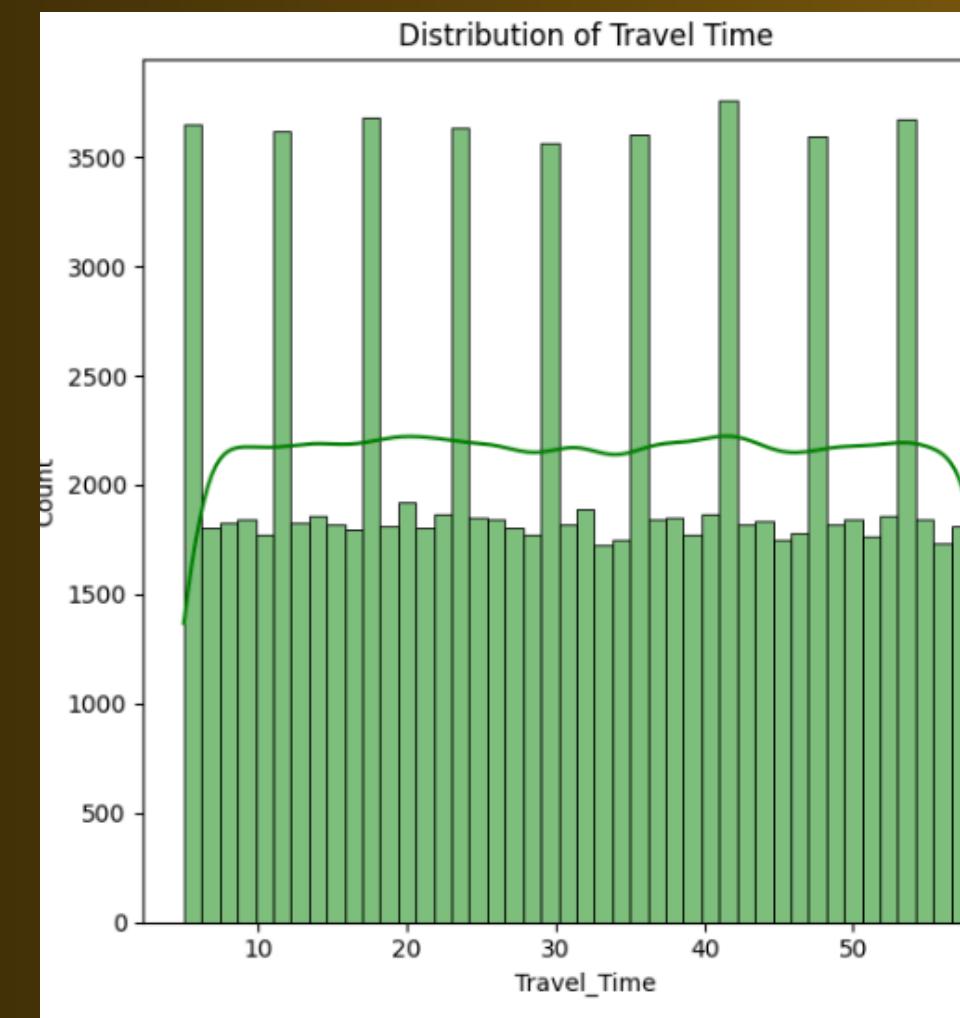
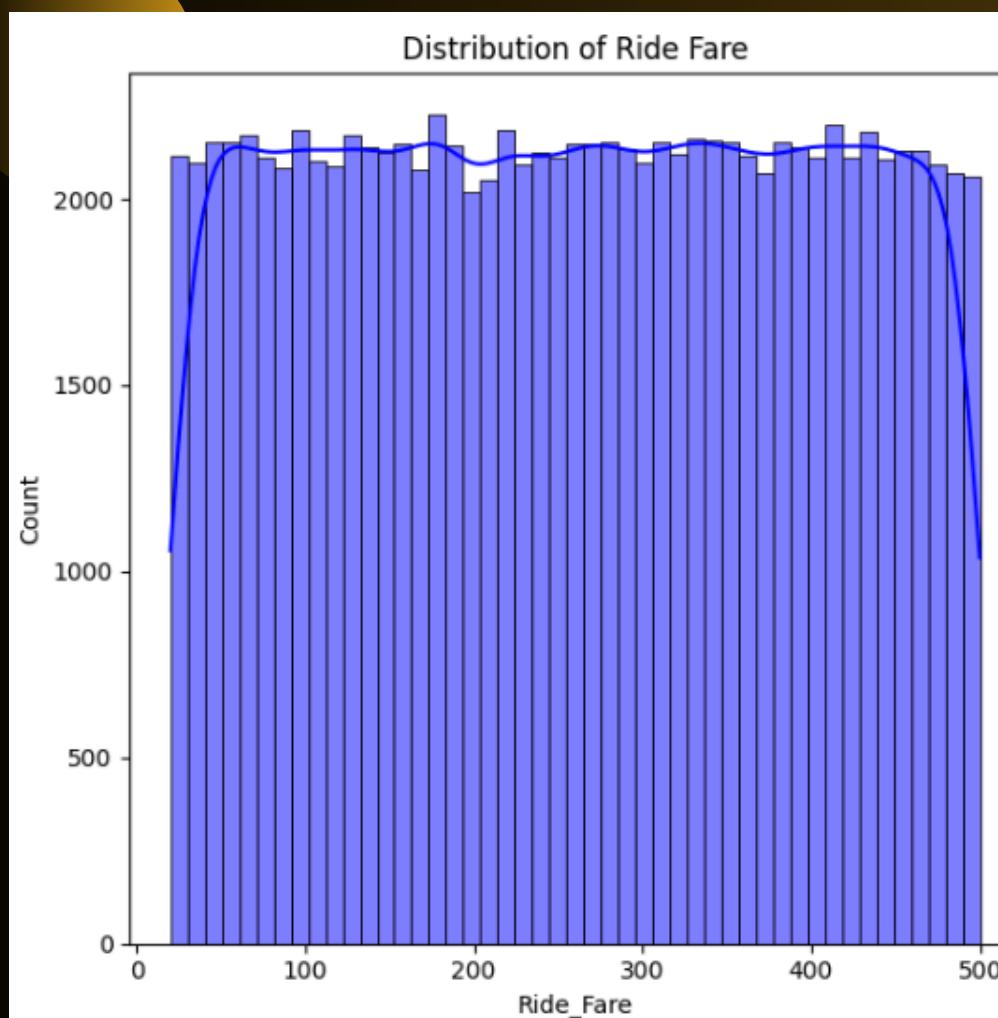
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# Charts and Graphs Supporting Key Findings



Variations in Fare by City ↗

City	mean	median	min	max	std	range
<b>City</b>						
Bengaluru	258.682559	260.28	20.00	499.97	138.035327	479.97
Chennai	260.326941	260.97	20.01	499.99	138.047382	479.98
Delhi	259.613227	260.29	20.01	500.00	138.593888	479.99
Hyderabad	258.654252	258.82	20.00	499.96	138.854379	479.96
Mumbai	261.618741	262.75	20.02	499.95	137.918550	479.93
Pune	259.625927	258.51	20.04	499.99	138.964742	479.95

# Recommendations

## Improving Promo Code

Revise or Target Less Effective Promo Codes:

Consider reviewing the terms for WELCOME and RIDE100 since they have higher cancellation rates.

## Operational Improvements

- Peak Pricing Strategy: Implement a dynamic pricing strategy during peak hours to optimize revenue. For example, surge pricing during the hours where fare is highest (around hour 10) could be implemented.
- Operational Adjustments: Understanding the timing of peak demand can help adjust driver availability or targeted promotions during hours with lower fares (like late evening).

## Pricing Optimization

- Consider dynamic pricing models tailored to each city's demand patterns, focusing on cities like Pune, where variability suggests room for optimization.
- Offer city-specific promotions or discounts in cities with lower average fares (e.g., Hyderabad) to attract more customers while maintaining competitiveness.

## Payment Preferences

- Focus on Wallet payments with incentives while boosting UPI-driven discounts to attract cost-conscious riders. Consider promoting Debit Card-linked offers.
- Offer exclusive benefits for online payment users (e.g., cashback, loyalty points) to reduce dependency on cash transactions.

- Improve Driver Allocation: In high-cancellation cities like Bengaluru, optimize driver assignment algorithms to reduce waiting times.
- Use low-demand periods (e.g., late nights) for vehicle maintenance or service.
- Increase driver availability on Saturdays from 6-9 PM to manage higher demand.
- Off-Peak Discounts: Encourage rides during low-demand periods like late nights (0-5 AM) or early afternoons (13-15 PM) with discounts or special offers.
- Implement a customer loyalty program with rewards for frequent riders. Offer exclusive discounts for repeat customers, especially those who ride during off-peak hours.
- Potential Focus for Digital Payment Methods: With UPI and Wallets showing consistent growth, there's a potential for further emphasis on these payment methods through marketing and promotions, as customers are adopting them more.

# THANK YOU

