

# **Namma Yatri: Data-Driven Operational Insights**

Technical Methodology &  
Analytical Findings

**Group Identifier:**  
**DataTrio\_CharuAshAkanksha**

# Objective

- Uncover data-driven insights to optimise Namma Yatri operations.
- Understand ride patterns, payment preferences, cancellations, and zone-wise performance.

# Agenda

- **Data Preparation**
- **Exploratory Data Analysis**
- **Technical Findings**
- **Recommendations**

# Data Sources & Joins

**5 Tables:** Assembly, Duration, Payment, Trip Details, Trips

## Joins:

- Trips → Trip Details on tripid
- Trips → Payment on method
- Trips → Duration on duration
- Trips → Assembly on from\_place\_id
- Trips → Assembly\_to on to\_place\_id

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# Data Cleaning & Processing

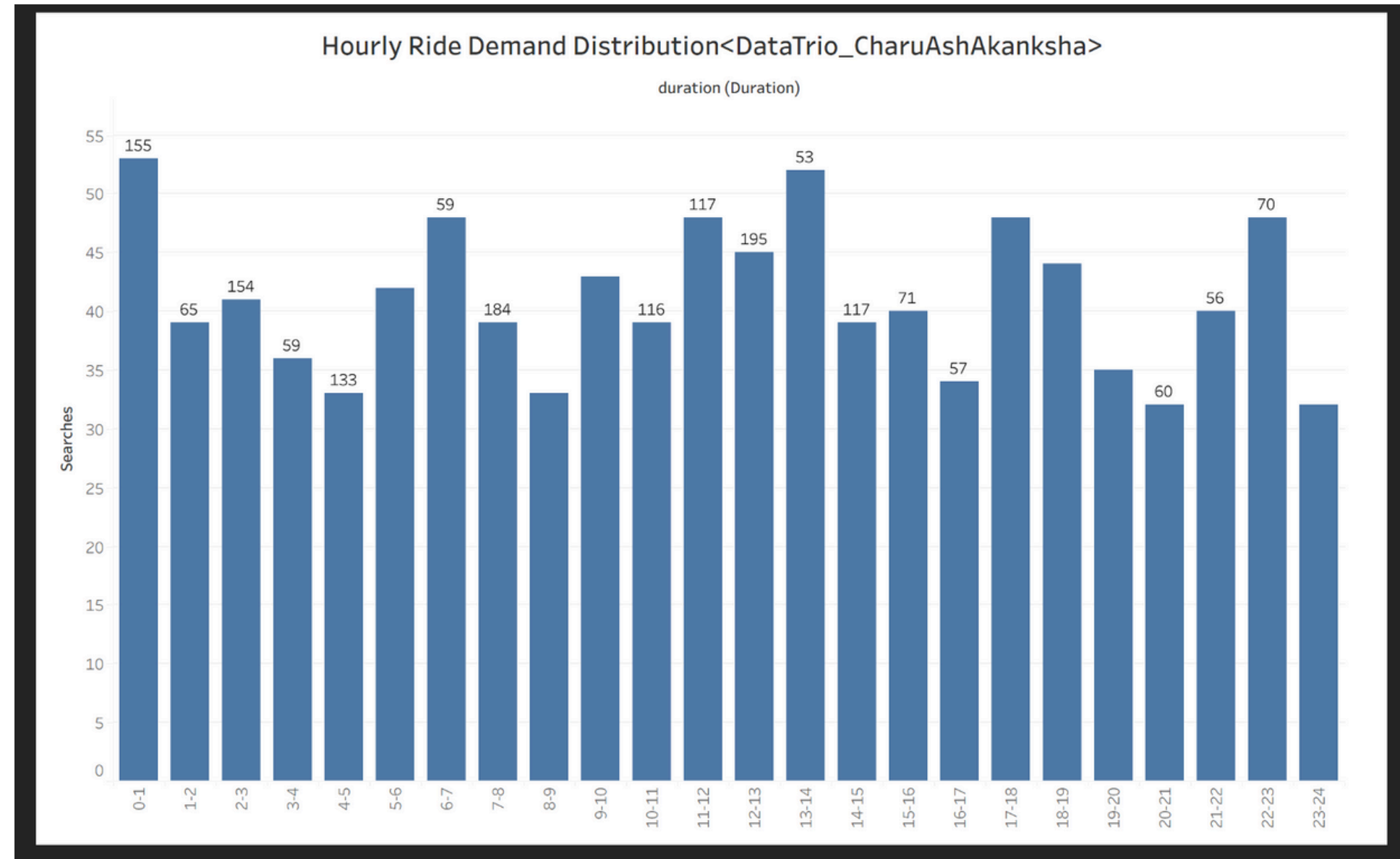
- Removed null/zero fares
- Standardised payment method naming
- Eliminated duplicates
- Created calculated fields :
  - Trip Duration (Minutes)
  - OTP Status (Entered/Not Entered)

# EDA Overview

- Categorical vs Numerical variables classification
- Focus Areas:
  1. Ride Demand Trends
  2. Revenue Patterns
  3. Payment Preferences
  4. Zone-wise Performance
  5. Cancellations & Conversions

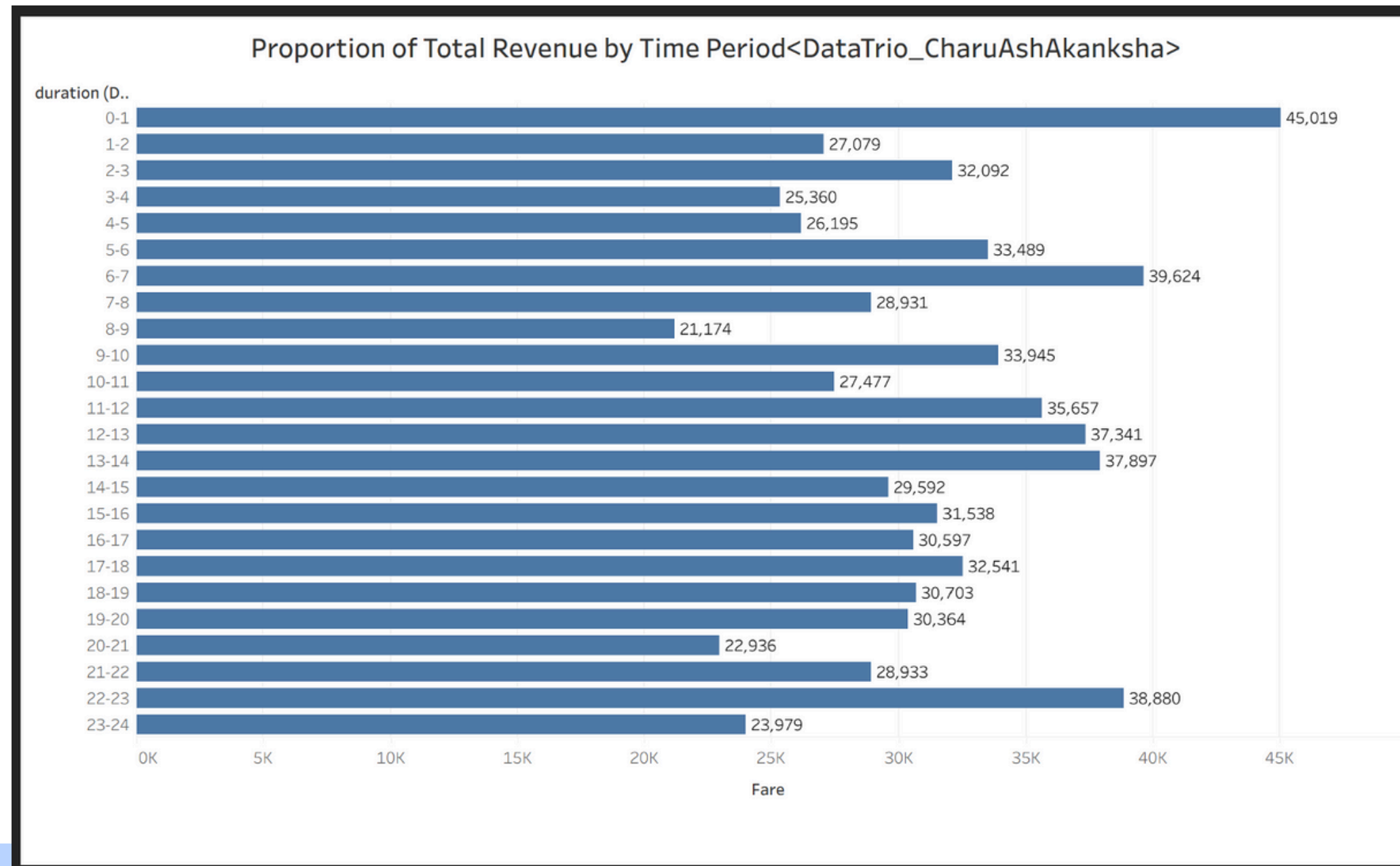
# Ride Demand Over Time

- **Peak demand:** 1 PM - 2 PM (13-14)
- **Additional peaks:** 11 AM - 12 PM, 5 PM - 6 PM
- **Visual:** Line Chart
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# Revenue by Time Period

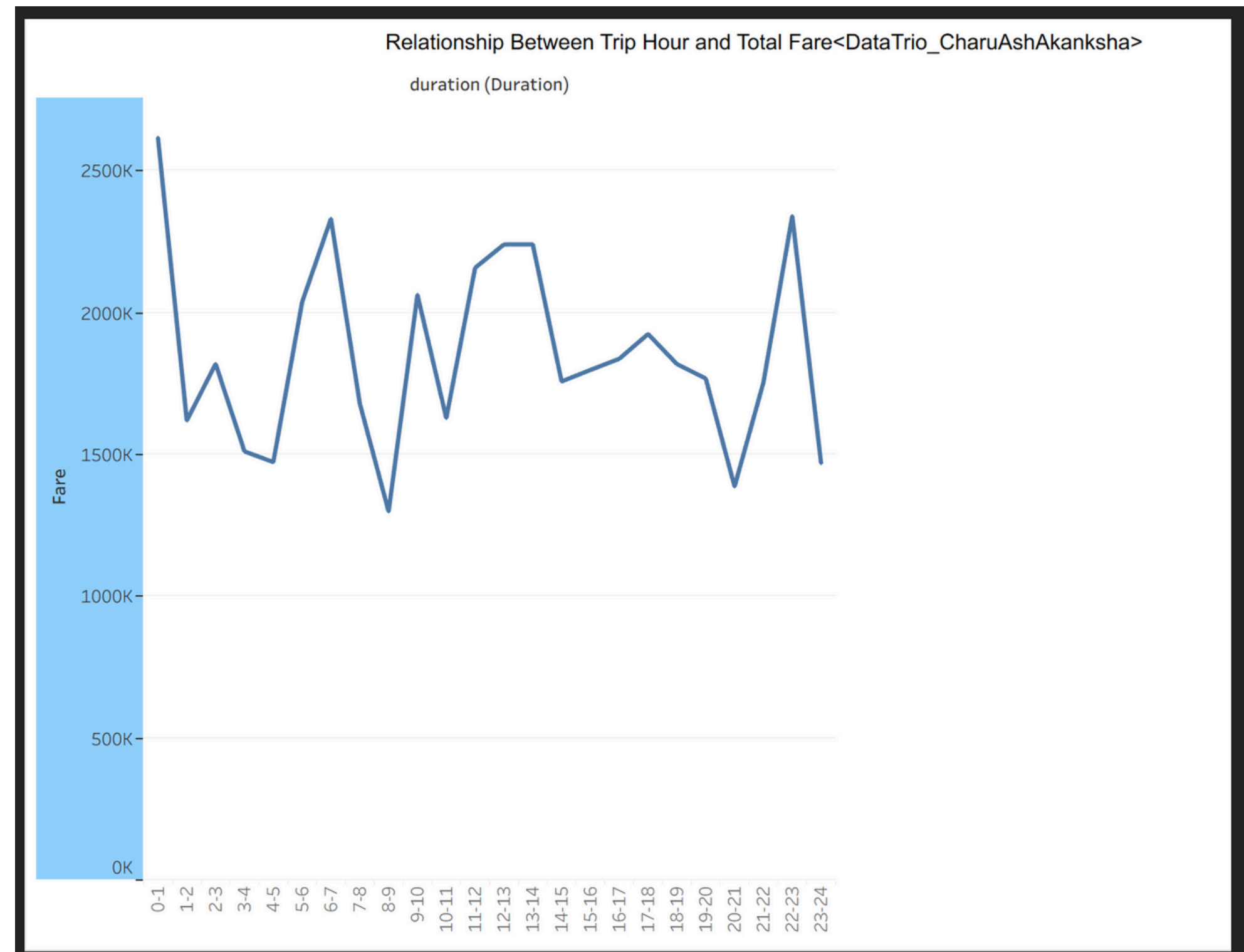
- **Revenue peaks:** 12-2 PM, 0-1 AM, 4-5 AM, 6-7 AM, 11 PM-12 AM
- **Visual:** Pie Chart
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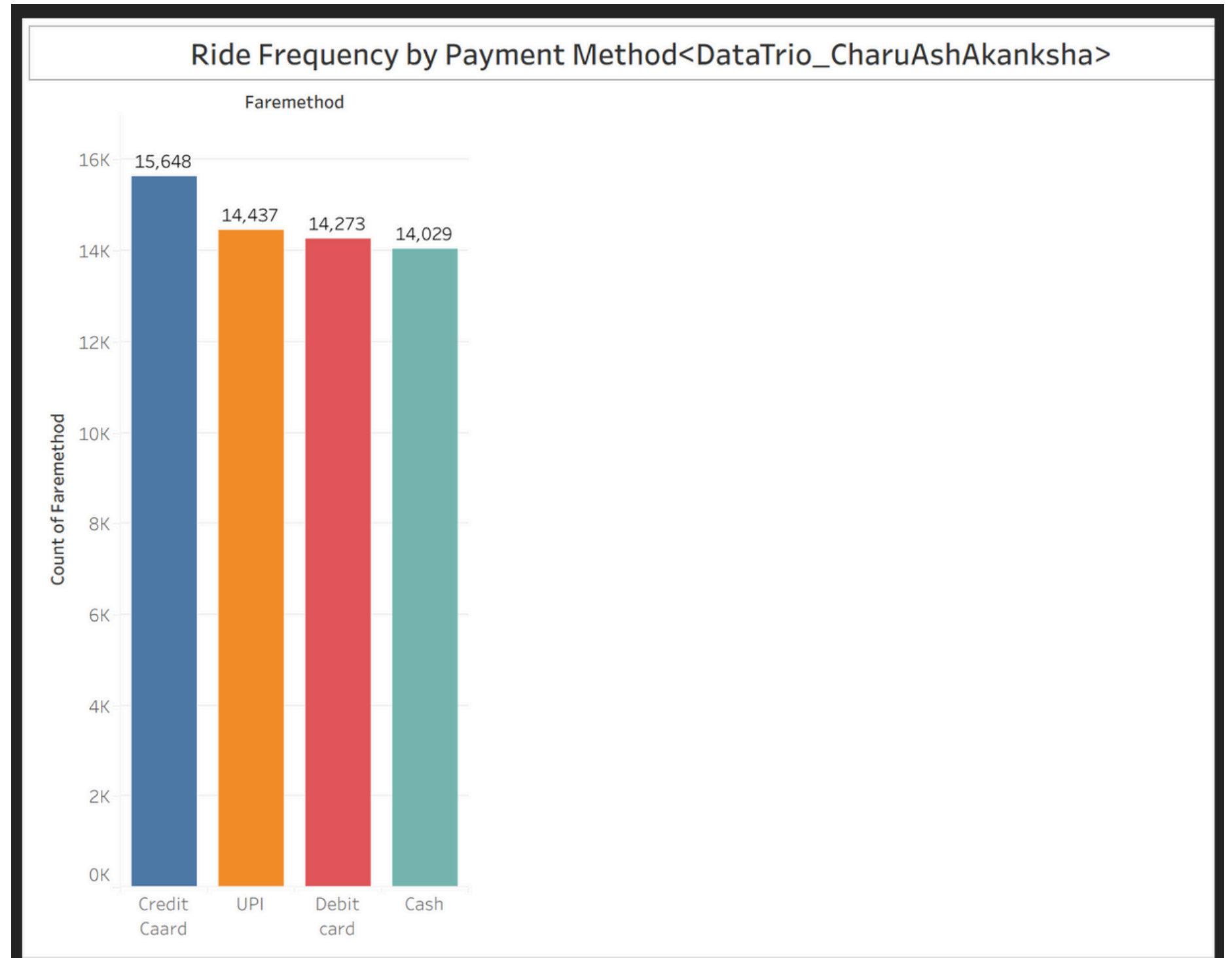
# Trip Hour vs Revenue Correlation

- Non-linear relationship with peaks in late night and midday
- **Visual:** Dual Axis Graph
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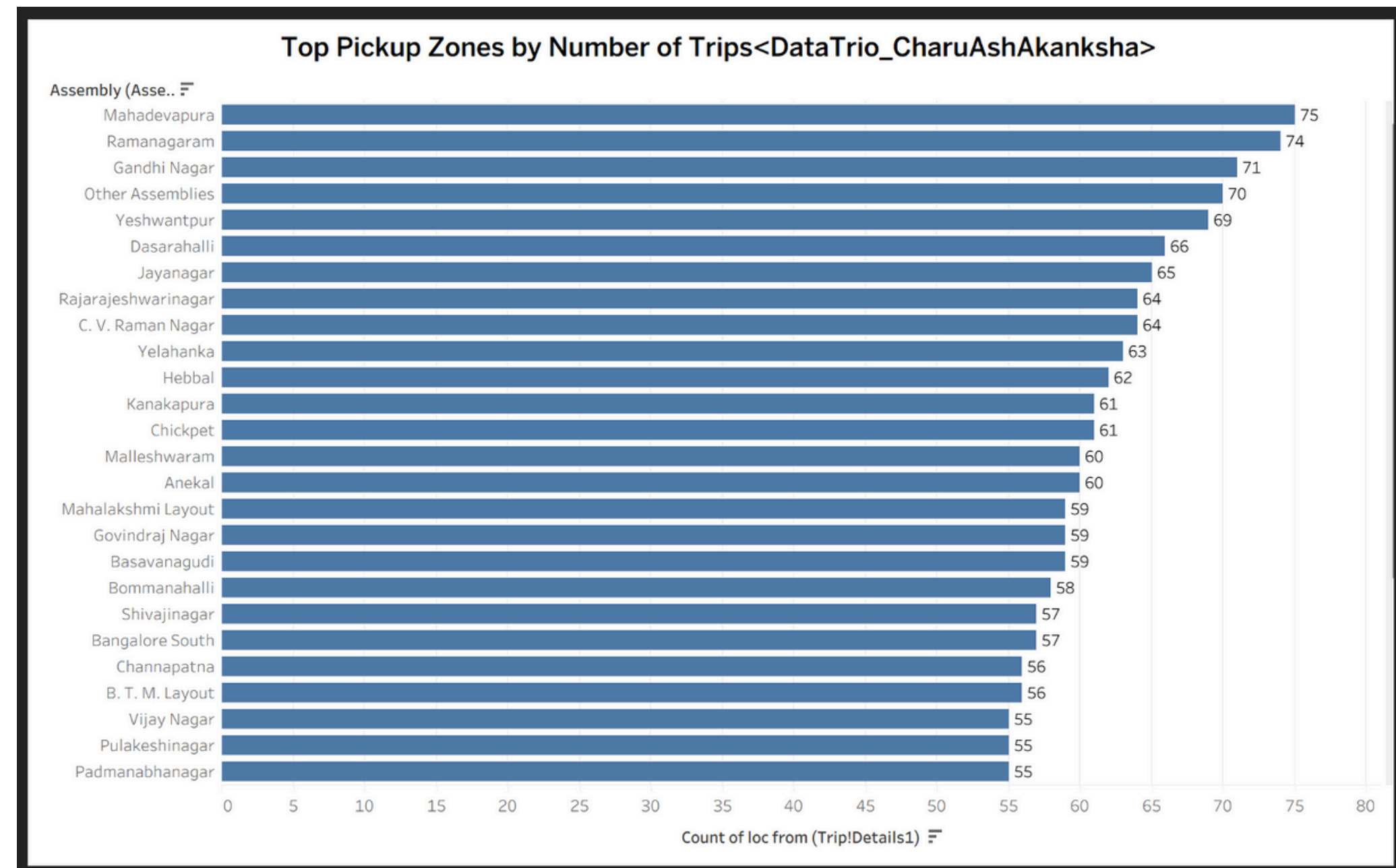
# Payment Method Analysis

- **Most used:** Credit Card (15,648 rides)
- Followed by UPI, Debit Card
- **Visual:** Bar Chart
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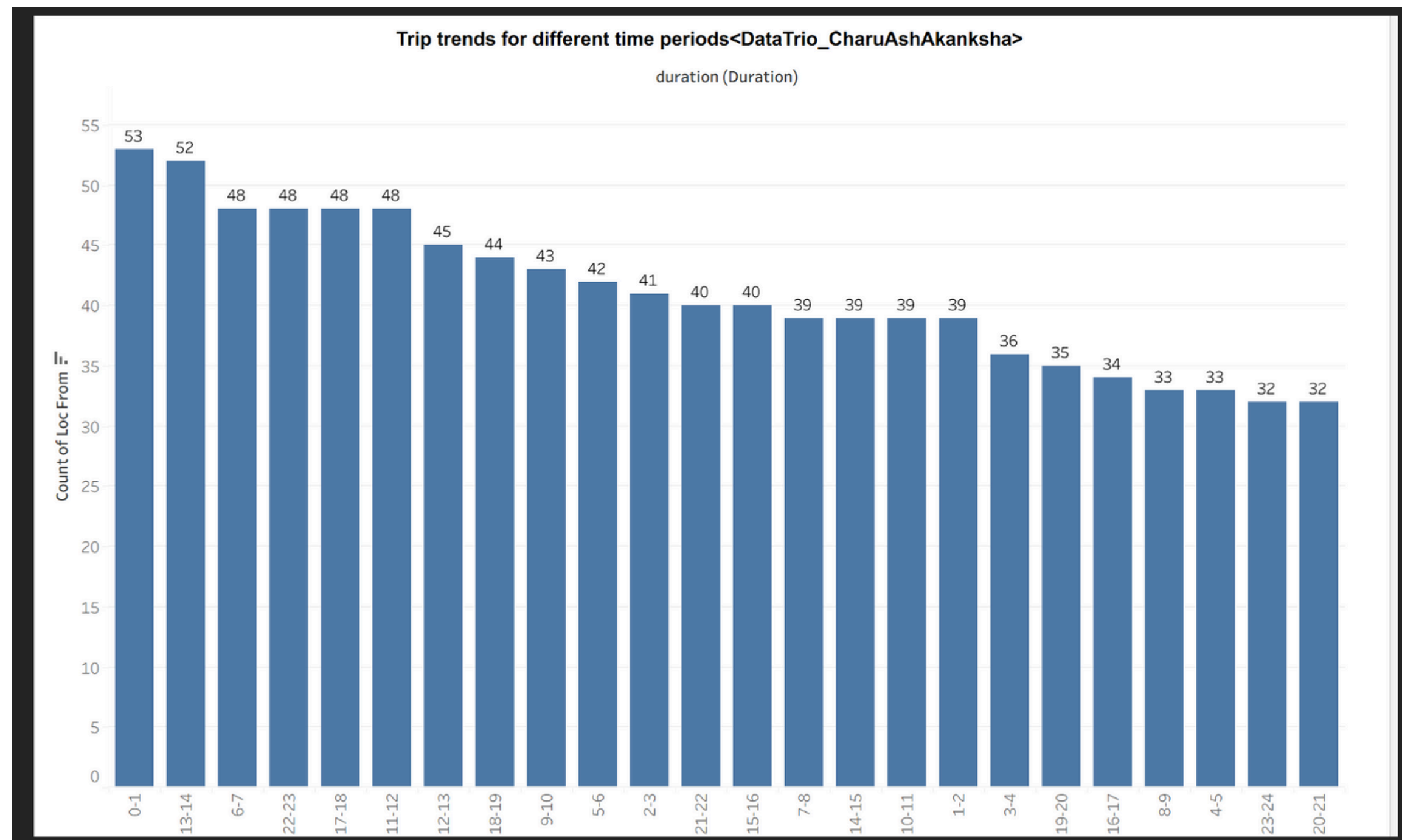
# High-Performing Zones

- **Top by Requests:** Mahadevapura, Ramanagaram, Gandhi Nagar
- **Top by Revenue:** Locations 6, 18, 17
- **Visual:** Heatmap
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# Ride Time Across Zones

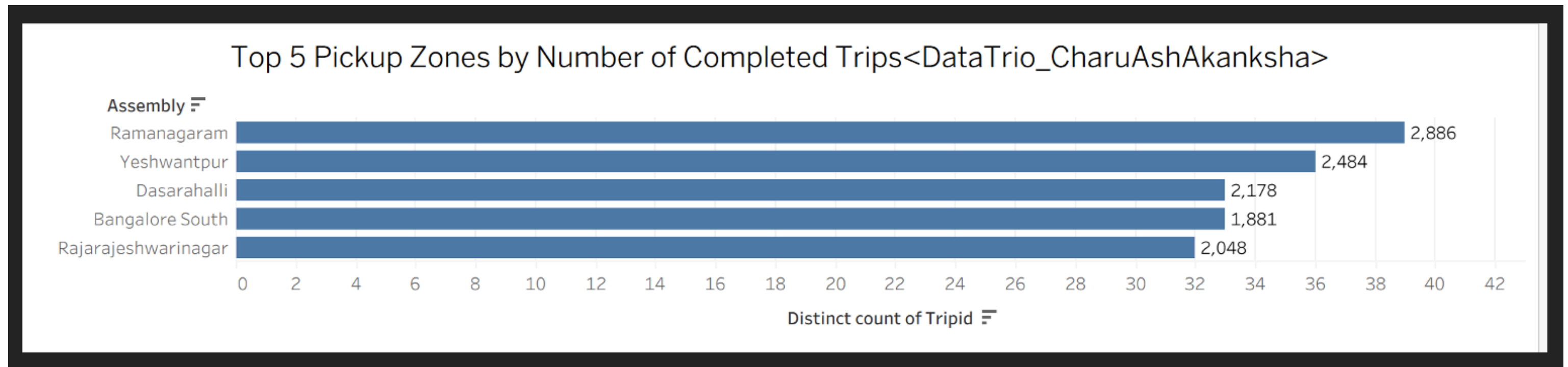
- **Example:** Zone 53 busiest late night, Zone 52 busy in afternoons
- **Visual:** Stacked Bar
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# Top 5 Zones by Volume

- 1.Ramanagaram
- 2.Yeshwantpur
- 3.Dasarahalli
- 4.Bangalore South
- 5.Rajarajeshwarinagar

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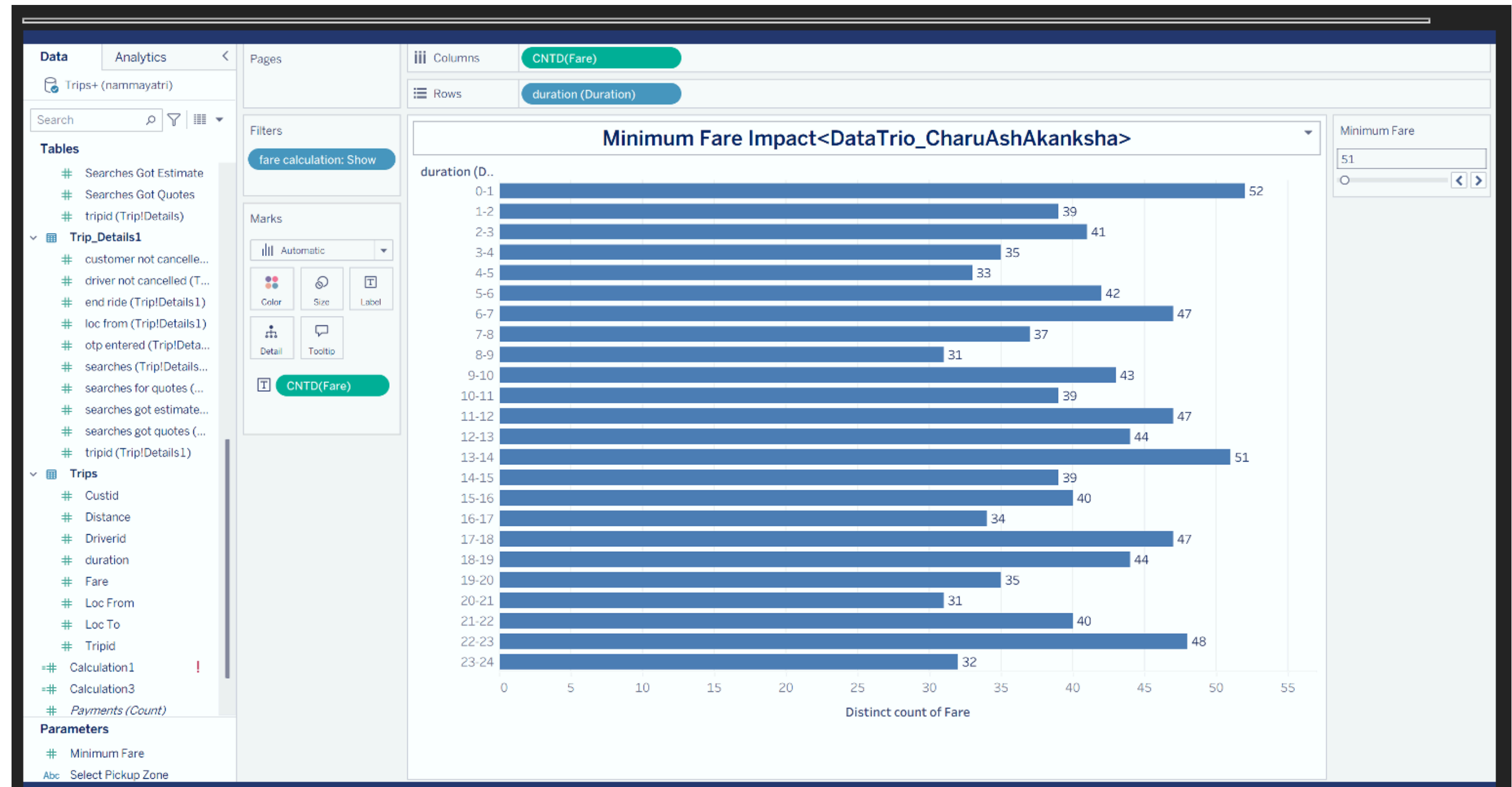


# Cancellations & Conversions

- Customer cancellation: **~12%**
- Driver cancellation: **~8%**
- Conversions **higher** in evenings
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# Parameters & Filters

- **Parameter:** Minimum Fare filter
- **Insight:** Higher fares yield better revenue per trip
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# Key Recommendations

- Boost driver availability during identified peak periods.
- Promote Credit Card and UPI payments.
- Incentivise drivers in top revenue zones.
- Reduce cancellations with policy improvements.





**Thank You**