

# Namma Yatri: End-to-End Data Analysis Report

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## Summary

This document summarizes the insights derived from a comprehensive data analysis project conducted on the Namma Yatri dataset. The data pipeline involves extracting raw data from a SQL database, cleaning and refining it, and visualizing the results in Power BI. The objective is to uncover ride patterns, customer behavior, operational metrics, and revenue trends that can inform business decisions and service improvements.

## Key & Insightful Analysis

1. What is the total number of rides completed?

→ The dashboard reveals a high volume of ride completions, indicating strong demand and platform reliability. The total ride count showcases the overall operational scale and daily engagement on the platform.

2. What are the busiest pickup and drop-off locations?

→ Certain pickup points like major transit hubs or commercial zones (e.g., railway stations, tech parks) are consistently the busiest. Drop-off locations often follow similar patterns, highlighting areas with concentrated commuter demand.

3. What time of day has the highest ride demand?

→ The dashboard highlights morning (7–10 AM) and evening (5–8 PM) peaks, aligning with commuter rush hours. Understanding these trends helps optimize driver availability and surge pricing strategies.

4. What is the average fare per ride?

→ The average fare provides a benchmark for pricing efficiency. It helps assess affordability for users and profitability for drivers.

5. How much total revenue was generated?

→ Revenue metrics give a snapshot of platform financial health. High revenue areas can be further leveraged through promotions or expansion.

6. How is the ride frequency distributed by customer type (new vs returning)?

→ Returning customers contribute significantly to ride volume, indicating satisfaction and loyalty. New customers offer growth potential and should be engaged through targeted onboarding offers.

7. What are the most common ride durations and distances?

→ Most rides fall within short- to mid-range durations (e.g., 10–30 minutes), suggesting local city commute use cases. Understanding duration and distance patterns assists in pricing and routing optimizations.

8. Which payment modes are preferred?

→ Digital payments dominate, showing increasing tech adoption. However, areas with higher cash usage may require driver training or customer incentives for digital transition.

9. Are there specific weekdays with higher ride volumes?

→ Weekdays, especially Monday to Friday, show higher ride frequency. This indicates professional commuting behavior and potential for business ride packages.

10. What areas or times see higher ride cancellations?

→ Cancellation hotspots or time windows can highlight app issues, driver shortages, or customer dissatisfaction. Addressing these can improve service quality and trust.

## Key Insights

- High engagement observed in metro and tech zone corridors.
- Peak hour demand aligns with urban commuter schedules.
- Returning customers dominate the user base, suggesting strong service experience.
- Short distance rides and mid-tier fares are most common.
- Weekdays drive the majority of traffic with digital payments preferred across users.

## Strategic Recommendations

- Optimize driver shifts during peak hours (morning/evening).
- Promote digital payment adoption in low-tech zones.
- Expand targeted marketing to new users based on ride trends.
- Monitor cancellation areas and improve app usability in those regions.
- Consider location-based incentives to smoothen demand-supply balance.