Case Study: Rapido - Revolutionizing Urban Mobility

Case Background

Imagine a city where every individual can seamlessly navigate traffic, save time, and reduce carbon footprints—all while enjoying affordable rides. Rapido has emerged as a game-changer in urban mobility by offering bike taxis as a convenient solution to combat traffic congestion and make daily commuting easier.

Founded with the vision of democratizing public transport, Rapido has steadily grown into a popular platform with millions of users across India. With a focus on last-mile connectivity, Rapido's rides are affordable, fast, and efficient, making it the preferred choice for students, professionals, and everyday commuters. However, much like any fast-growing service, Rapido faces challenges in maintaining operational efficiency while ensuring a seamless customer experience.
The goal now is to gain deeper insights into customer behaviour, optimize pricing, and analyze operational data to ensure continued growth and success in a competitive ride-hailing market.

Objectives

Your task is to perform exploratory data analysis (EDA) on Rapido's dataset to derive actionable insights. Key objectives include:

1. **Ride Fare Distribution:**
    - Understand the distribution of fare amounts.
    - Identify popular fare ranges and variations across different time slots and locations.
2. **Customer Engagement & Preferences:**
    - Analyze the most popular time slots and days for ride bookings.
    - Identify the peak demand hours and busiest routes across cities.
3. **Operational Efficiency & Driver Metrics:**
    - Evaluate the average ride completion time and cancellations.
    - Understand the distribution of rides per driver and driver availability trends.
4. **Payment Gateway Effectiveness:**
    - Assess the effectiveness of different payment methods.
    - Analyze the frequency and success rate of online vs. cash payments.
5. **Promo Code Utilization & Impact:**
    - Explore how promotional codes influence booking behaviour.
    - Determine which campaigns drive higher customer engagement.
6. **Relationship Between Ride Distance and Fare:**
    - Investigate correlations between ride distance, fare amount, and travel time.
    - Identify patterns that can help optimize fare calculation.

Deliverables

Participants are expected to provide:

1. **Comprehensive Report:**

A detailed report summarizing key findings, insights, and trends discovered through EDA.

2. **Visualizations:**

Charts and graphs supporting your analysis, such as:

- Histogram of fare distribution.
- Heatmaps of peak demand zones.
- Line graphs showing payment method trends.

3. **Actionable Recommendations:**

Suggestions for Rapido's management to improve pricing strategy, enhance operational efficiency, and increase customer satisfaction.

Appendix

Key fields from the Rapido dataset include:

- **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

Summary

By analyzing this dataset, participants will uncover patterns in customer behavior, identify opportunities to streamline operations, and recommend strategies to increase efficiency. Insights from this analysis will guide Rapido's management team in decision-making processes related to pricing, operations, and customer satisfaction.

This template aligns with the provided DCL case study structure while adapting it for Rapido's operational context. You can modify it further based on specific datasets or any additional objectives you'd like to address.