

Final Project Report – Ola Booking Data Analysis

1. Introduction

The Indian ride-hailing industry is highly competitive, with customer experience, pricing, and operational efficiency being key differentiators. This project analyzes Ola booking data using Power BI to assess performance, identify cancellation patterns, evaluate customer and driver satisfaction, and uncover logistical inefficiencies.

2. Dataset Overview

- **Source:** booking - Sheet1.csv
- **Records:** 100 rows
- **Features:** 21 columns including date/time, vehicle type, ratings, cancellation reasons, and monetary values.

Sample Fields:

- **Booking Metadata:** Booking ID, Date, Time, Booking Status
- **Ride Information:** Pickup/Drop Locations, Vehicle Type, Booking Value, Ride Distance
- **Performance Metrics:** Avg VTAT (Vehicle Turnaround Time), Avg CTAT (Customer Turnaround Time)
- **Ratings:** Driver and Customer Ratings
- **Cancellation Info:** Cancellation reasons from both driver and customer

3. Business Objectives

- Analyze ride completion versus cancellation trends.
- Identify most frequent cancellation reasons and patterns.
- Understand customer and driver behavior through ratings.

- Determine popular pickup/drop locations and preferred vehicle types.
- Provide actionable insights to improve service quality and reduce ride failures.

4. Data Insights

a. Booking Status Breakdown

Status	Count
Success	62
Cancelled by Customer	16
Incomplete	12
Cancelled by Driver	10

Insight: About 38% of bookings did not complete successfully—an area that needs investigation.

b. Cancellation Reasons

Customer Cancellation Reasons:

- Driver not moving towards pickup: **5**
- AC not working: **5**
- Change of plans: **4**
- Driver asked to cancel: **2**

Driver Cancellation Reasons:

- Customer-related issue: **4**
- Customer sick/coughing: **3**
- Personal & car-related issues: **3**

Insight: Operational and behavioral issues from both parties lead to cancellations.

c. Vehicle Type Preference

Vehicle Type	Count
eBike	20
Prime Sedan	16
Auto	15
Mini	15
Bike	13
Prime SUV	11
Prime Plus	10

Insight: Majority of customers prefer **eBikes**, **Sedans**, and **Autos**—useful for fleet planning.

d. Top Pickup & Drop Locations

Top Pickup Locations:

- Bagalakunte, Bommanahalli, Koramangala, Whitefield, Electronic City

Top Drop Locations:

- Banashankari, Bellandur, BTM 2nd Stage, Sadashivanagar, Frazer Town

Insight: High-traffic areas offer opportunities for driver positioning and marketing.

e. Customer & Driver Ratings

Metric	Mean	Std Dev	Min	Max
Customer Rating	4.14	0.41	3.5	5.0
Driver Rating	4.25	0.46	3.5	5.0

Insight: Ratings indicate generally good experiences, but a few low scores exist—useful for targeted feedback.

f. Ride & Value Analysis

- **Avg Booking Value:** ₹281.51 (Min: ₹53.13, Max: ₹486.31)
- **Avg Ride Distance:** 12.33 km (Min: 1.4 km, Max: 24.76 km)

Insight: High variability—short and long distance rides affect pricing models and driver payout strategies.

g. Payment Methods

Method	Count
Cash	15
UPI	14
Card	12
Wallet	11
Net Banking	10

Insight: Digital payments dominate, suggesting mobile-centric user base.

5. Power BI Dashboard Highlights

- **KPI Cards:** Total bookings, success rate, cancellation rate
- **Pie Chart:** Booking status distribution
- **Bar Charts:** Vehicle types, cancellation reasons
- **Line Graph:** Rating trends
- **Donut Chart:** Payment method breakdown
- **Map (optional):** Pickup/Drop location heatmaps

- **Slicers/Filters:** Booking status, vehicle type, payment method

6. Conclusion

The Power BI dashboard provides a rich, interactive view into Ola's ride data. While a majority of bookings succeed, customer-initiated cancellations remain high, mostly due to operational inefficiencies like vehicle navigation or condition. Driver ratings and vehicle type preferences provide insight into both service quality and user behavior.

High-Level Design (HLD)

Layer	Component
Source	booking - Sheet1.csv
Storage	Power BI (in-memory dataset)
Data Model	Flat table structure (no relationships)
Transformations	NA (basic cleaning and visual filters)
Output	Visual dashboards

Low-Level Design (LLD)

1. DAX Measures

Total Bookings = COUNT('Bookings'[Booking ID])

Success Rate = DIVIDE(CALCULATE(COUNT('Bookings'[Booking ID]), 'Bookings'[Booking Status] = "Success"), [Total Bookings])

Avg Customer Rating = AVERAGE('Bookings'[Customer Rating])

Cancelled by Customer = COUNTAX(FILTER('Bookings', 'Bookings'[Booking Status] = "Cancelled by Customer"), 'Bookings'[Booking ID])

2. Visuals

Visual	Metric
Pie Chart	Booking Status
Clustered Bar	Cancellation Reasons
Card	Avg Ratings, Total Bookings, Revenue
Line Graph	Ratings Over Time
Table	Booking-wise detail view

3. Filters

- Date
- Vehicle Type
- Booking Status
- Payment Method