



Project Report
Ride Bookings
Data Analysis Project

Prepared by:
Sahil Chaudhari
Data Analyst



Table of Contents

Sr. No.	Section	Page No.
1	Abstract	2
2	Introduction	2
3	Objectives	2
4	Scope of work	2
5	Data Collection	3
6	Data Cleaning and Preparation	3
7	Dashboard Development	3-4
8	Insights and Analysis	4-5
9	Conclusion	5
10	Appendix	5-8

Abstract

This project focuses on analysing large-scale Ola ride booking data to derive meaningful insights using Excel, SQL, and Power BI. The dataset, collected from public sources, consisted of over 40,000 rows and 19 refined columns. After performing data cleaning and transformation in Excel, the dataset was imported into SQL for analysis and further visualized in Power BI through five interactive dashboards. The project delivers key insights into customer behaviour, revenue trends, vehicle preference, cancellation patterns, and ratings, simulating a real-world data analyst workflow.

Introduction

Ride-hailing services like Ola generate large amounts of transactional data every day. Analysing this data can help businesses understand customer trends, vehicle utilization, payment preferences, and service quality. This project takes a structured approach to extract, clean, analyse, and visualize Ola booking data to drive business intelligence and decision-making.

Objectives

- To clean and prepare raw booking data for structured analysis.
- To use SQL for deriving key performance metrics.
- To visualize the data through dynamic dashboards in Power BI.
- To identify trends in booking volume, revenue, vehicle usage, and service quality.
- To improve storytelling using data-driven insights.

Scope of Work

- Collection of raw data from public online sources.
- Cleaning and preprocessing using Excel.
- Importing structured data into SQL for querying and metrics computation.
- Building five separate dashboards in Power BI.
- Generating insights around bookings, revenue, cancellations, and ratings.
- Delivering a comprehensive data analyst project that simulates industry practices.

Data Collection

- Source: Data related to Ola ride bookings was collected using Google from publicly available CSV-based sample data and case study materials.
- Data Points Included:
 - Booking ID, Customer ID, Date/Time, Pickup/Drop Location
 - Vehicle Type, Distance, Payment Mode, Fare
 - Customer & Driver Rating, Booking Status, Cancellation Type
- Raw Format Issues: Missing values, inconsistent formats, duplicate rows, and unnecessary columns.

Data Cleaning and Preparation

- **Tool Used:** Microsoft Excel
- **Steps Taken:**
 - Removed duplicates and empty rows
 - Standardized datetime format and corrected typos
 - Cleaned special characters and extra spaces
 - Filtered out irrelevant or broken columns
- **Final Output:**
 - Rows: ~40,000+ clean entries
 - Columns: 19 relevant fields retained
 - Exported the clean data to CSV format and imported it into SQL for analysis.

Dashboard Development

After SQL-based exploration, the data was imported into Power BI. Using Power Query Editor, data types were adjusted and relationships defined. The following five dashboards were created:

- **Overall Bookings Dashboard**
- **Visuals:**
 - Pie Chart: Booking Status (Completed, Canceled)
 - Line Chart: Ride Volume Over Time

- Cards: Total Bookings, Cancellation Rate, Completed Rides
- **Vehicle Type Analysis**
- **Visuals:**
 - Table: Total Booking Value & Average Value by Vehicle Type
- **Purpose:** Highlight top-performing vehicle categories
- **Revenue Dashboard**
- **Visuals:**
 - Bar Chart: Revenue by Payment Mode
 - Area Chart: Ride Distance Distribution Per Day
 - Table: Top 5 High-Spending Customers
- **Cancellations Dashboard**
- **Visuals:**
 - Pie Charts: Cancellations by Customer & Driver
 - Cards: Total Bookings, Cancellations, Cancellation Rate
- **Ratings Dashboard**
- **Visuals:**
 - Table: Average Customer Rating
 - Table: Average Driver Rating

Insights and Analysis

- Ride Volume Trends: Steady increase over time, with peak in evenings.
- Vehicle Type: Prime Sedan and Mini had the highest booking and revenue share.
- Revenue: Digital payment methods (UPI/Wallet) were more popular than cash.
- Cancellations: Slightly more cancellations by customers than drivers.
- Ratings:
 - Customer Avg Rating: 4.2

- Driver Avg Rating: 4.0
- Top 5 Customers: Contributed significantly to overall revenue.
- Distance Trends: Moderate ride lengths were most common.

Conclusion

This project successfully demonstrates an end-to-end analytics process using industry-standard tools. Starting from raw data collection, it covers cleaning, SQL querying, and dynamic dashboard development. The insights gathered help understand customer behaviour, operational bottlenecks, and revenue flow. It validates the importance of structured data analysis in business decision-making.

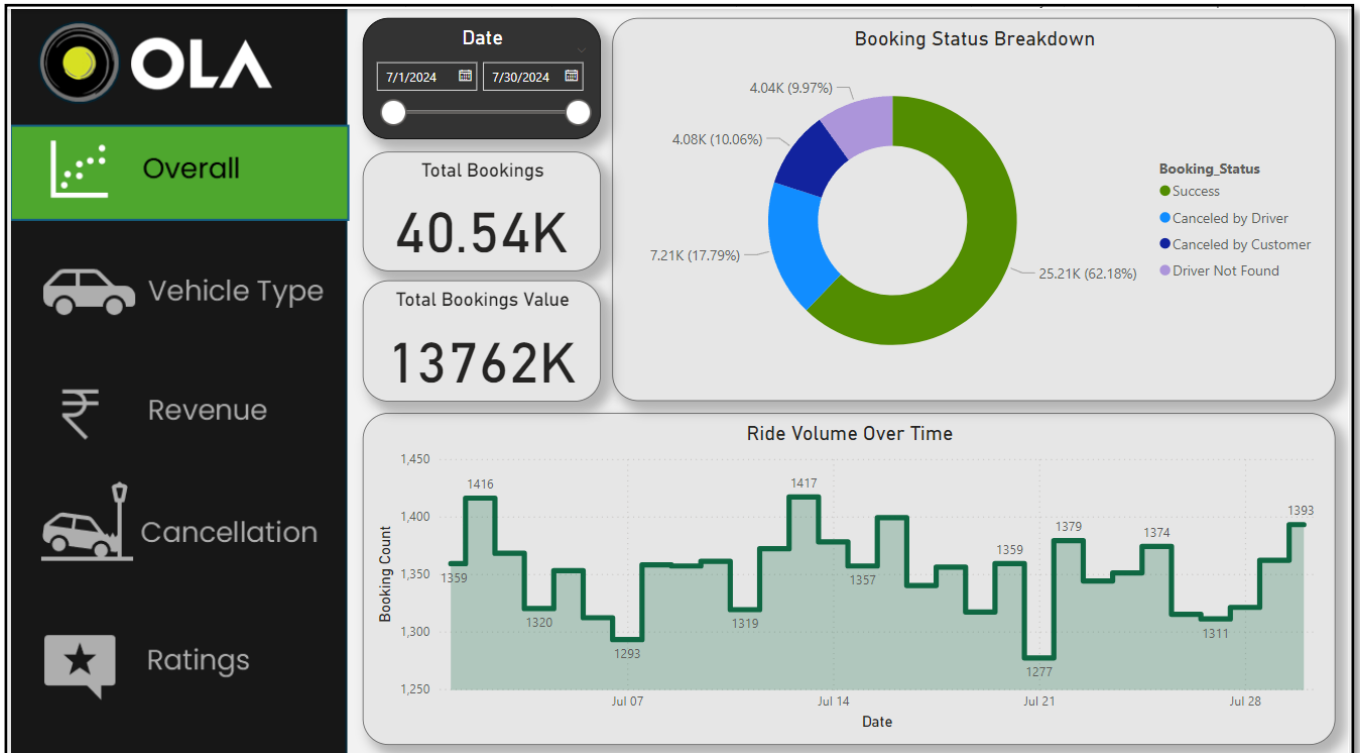
Appendix

Dataset Snapshot

Date	Time	Booking_ID	Booking_Status	Customer	Vehicle_Type	Pickup_Location	Drop_Location	C_TAT	Canceled	Canceled_Reason	Incomplete	Incomplete_Reason	Booking_V_Payment	Ride_Distance	Driver_Rating	Customer	
7/25/2024	22:20	CNR29404	Success	CID22542	Bike	Magadi Ro	Varthur	203	30	Null	Null	No	Null	158	Cash	13	4.1
7/30/2024	19:59	CNR29825	Success	CID27015	Prime SUV	Sahakar N	Varthur	238	130	Null	Null	No	Null	386	UPI	40	4.2
7/22/2024	3:15	CNR23951	Canceled	CID58132	eBike	HSR Layout	Vijayanagar	0	0	Driver is not available	Null	Null	Null	384	Null	0	0
7/2/2024	9:02	CNR17974	Success	CID93955	Mini	Rajajinaga	Chamaraj	252	80	Null	Null	No	Null	822	Credit Card	45	4
7/13/2024	4:42	CNR87871	Success	CID80242	Mini	Kadugodi	Vijayanagar	231	90	Null	Null	No	Null	173	UPI	41	3.4
7/23/2024	9:51	CNR36126	Success	CID47607	Bike	Tumkur Ro	Whitefield	133	40	Null	Null	No	Null	140	Cash	49	3.2
7/11/2024	11:12	CNR53748	Canceled	CID73569	Prime Plus	Bannerghatta	Sarjapur R	0	0	Null	Personal & Customer	Null	Null	344	Null	0	0
7/1/2024	19:19	CNR50306	Driver Not Available	CID99984	Mini	Chamaraj	Peenya	0	0	Null	Null	Null	Null	839	Null	0	0
7/18/2024	1:31	CNR63284	Canceled	CID90713	Auto	RT Nagar	Varthur	0	0	Null	Personal & Customer	Null	Null	893	Null	0	0
7/29/2024	23:33	CNR47875	Success	CID92340	Prime Plus	Hosur Ro	Jayanagar	35	55	Null	Null	No	Null	164	Cash	46	4.5
7/26/2024	4:03	CNR79436	Success	CID64702	Prime Plus	Kammanal	Rajajinaga	238	95	Null	Null	No	Null	399	Cash	18	3.9
7/27/2024	13:18	CNR45244	Success	CID54092	Auto	Cox Town	Yelahanka	126	35	Null	Null	No	Null	330	UPI	8	3
7/17/2024	18:55	CNR39145	Canceled	CID55784	Auto	Hosur Ro	Banashan	0	0	Null	Personal & Customer	Null	Null	427	Null	0	0
7/16/2024	9:54	CNR81816	Success	CID16764	Bike	Indiranaga	MG Road	70	95	Null	Null	No	Null	378	UPI	18	4.8
7/2/2024	10:25	CNR80905	Success	CID64015	Bike	Magadi Ro	HSR Layout	126	95	Null	Null	No	Null	343	UPI	23	3.7
7/2/2024	23:50	CNR32111	Driver Not Available	CID63035	Mini	Ramamurti	BTM Layout	0	0	Null	Null	Null	Null	366	Null	0	0
7/5/2024	23:42	CNR31961	Success	CID24327	Bike	Electronic	Langford T	140	40	Null	Null	No	Null	401	Cash	8	3.3
7/9/2024	11:11	CNR99755	Success	CID16205	Prime SUV	Magadi Ro	RT Nagar	42	30	Null	Null	No	Null	343	UPI	17	3
7/12/2024	14:44	CNR15911	Success	CID90278	eBike	Koramang	Sarjapur R	245	70	Null	Null	No	Null	2014	Cash	33	4.2
7/11/2024	20:42	CNR36503	Success	CID21709	eBike	Basavanag	Hulimavu	84	25	Null	Null	No	Null	650	Cash	34	4.9
7/8/2024	22:33	CNR60136	Success	CID81703	Prime Sed	Padmanab	Jayanagar	168	65	Null	Null	No	Null	231	Cash	2	3.2
7/16/2024	10:17	CNR43066	Canceled	CID10384	Prime SUV	Mysore Ro	Vijayanagar	0	0	Null	Customer	Null	Null	909	Null	0	0
7/3/2024	18:20	CNR98326	Success	CID65587	Bike	Koramang	BTM Layout	231	145	Null	Null	No	Null	189	Cash	6	4.9
7/3/2024	21:17	CNR56205	Success	CID29048	Prime Plus	Mysore Ro	Sahakar N	56	105	Null	Null	No	Null	311	Cash	28	4.3
7/19/2024	21:18	CNR44435	Success	CID65461	Mini	Tumkur Ro	Koramang	231	50	Null	Null	No	Null	286	UPI	44	4
7/25/2024	3:44	CNR71946	Success	CID53824	Mini	Mysore Ro	Hennur	175	50	Null	Null	No	Null	141	UPI	35	4.7
7/15/2024	17:11	CNR64946	Success	CID80536	Auto	Yelahanka	Malleshw	84	60	Null	Null	No	Null	214	UPI	2	3.3
7/30/2024	19:44	CNR68055	Success	CID81021	Prime SUV	Indiranaga	Indiranaga	35	145	Null	Null	No	Null	2183	Cash	20	4
7/21/2024	8:26	CNR60036	Canceled	CID35042	Prime Plus	Rajajinaga	Chamaraj	0	0	Driver asked to cancel	Null	Null	Null	604	Null	0	0

Pic. Dataset

- Dashboard Screenshots



Pic. Dashboard 1

OLA

Overall

Vehicle Type

Revenue

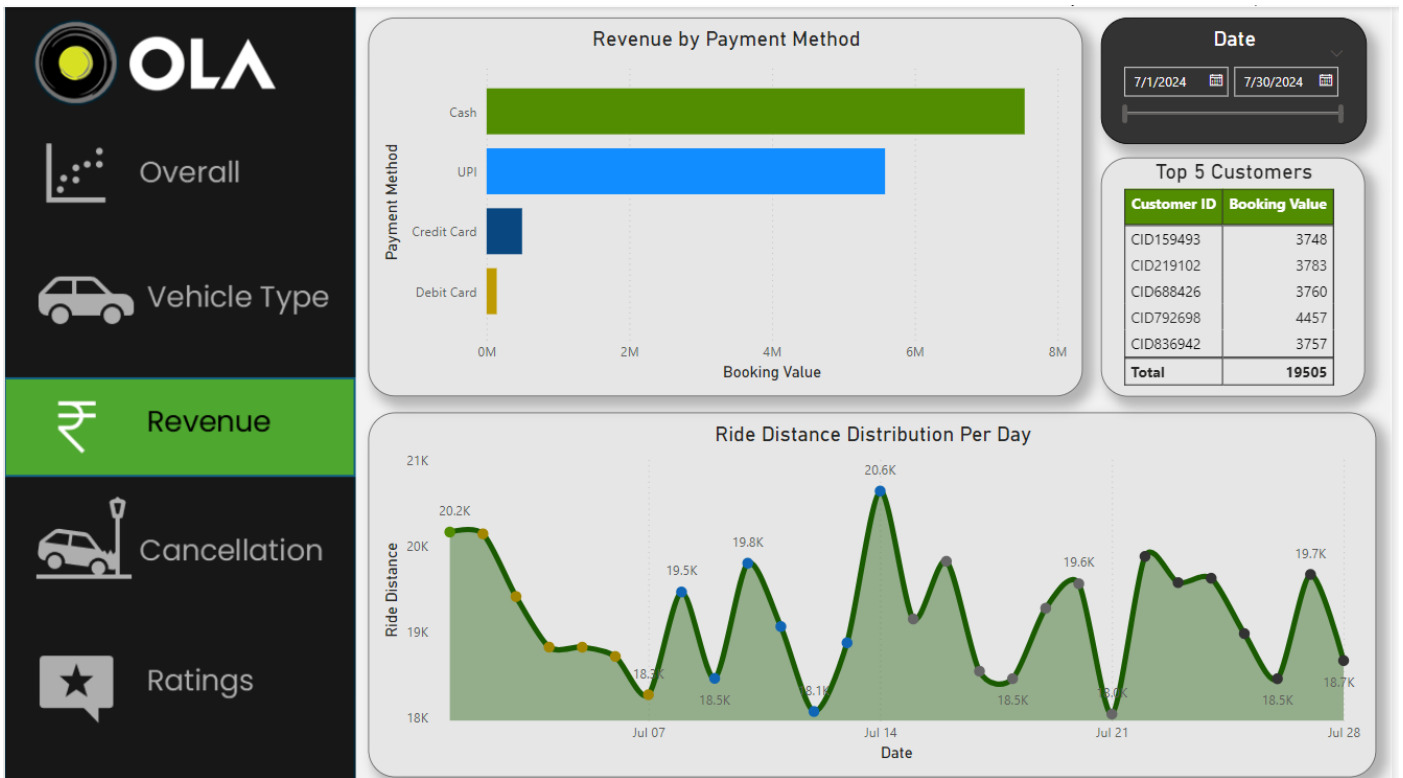
Cancellation

Ratings

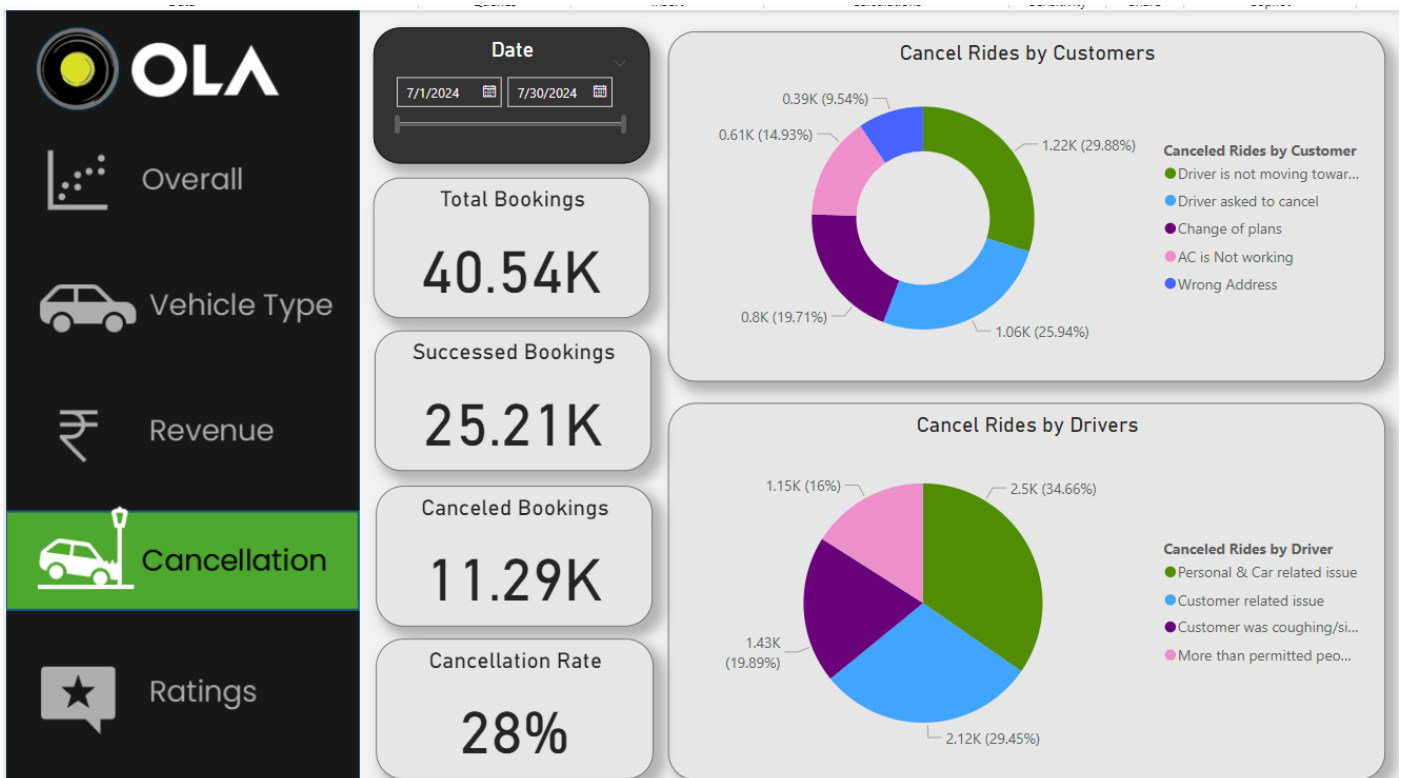
Date: 7/1/2024 to 7/30/2024

Vehicle Type	Total Booking Value	Success Booking Value	Avg. Distance Travelled	Total Distance Travelled
Prime Sedan	3281K	2050K	24.77	91K
Prime SUV	3168K	1955K	25.04	90K
Prime Plus	3108K	1912K	24.90	86K
Mini	3082K	1906K	24.94	87K
Auto	3131K	1969K	10.01	36K
Bike	3201K	1998K	25.20	93K
E-Bike	3212K	1973K	25.12	93K

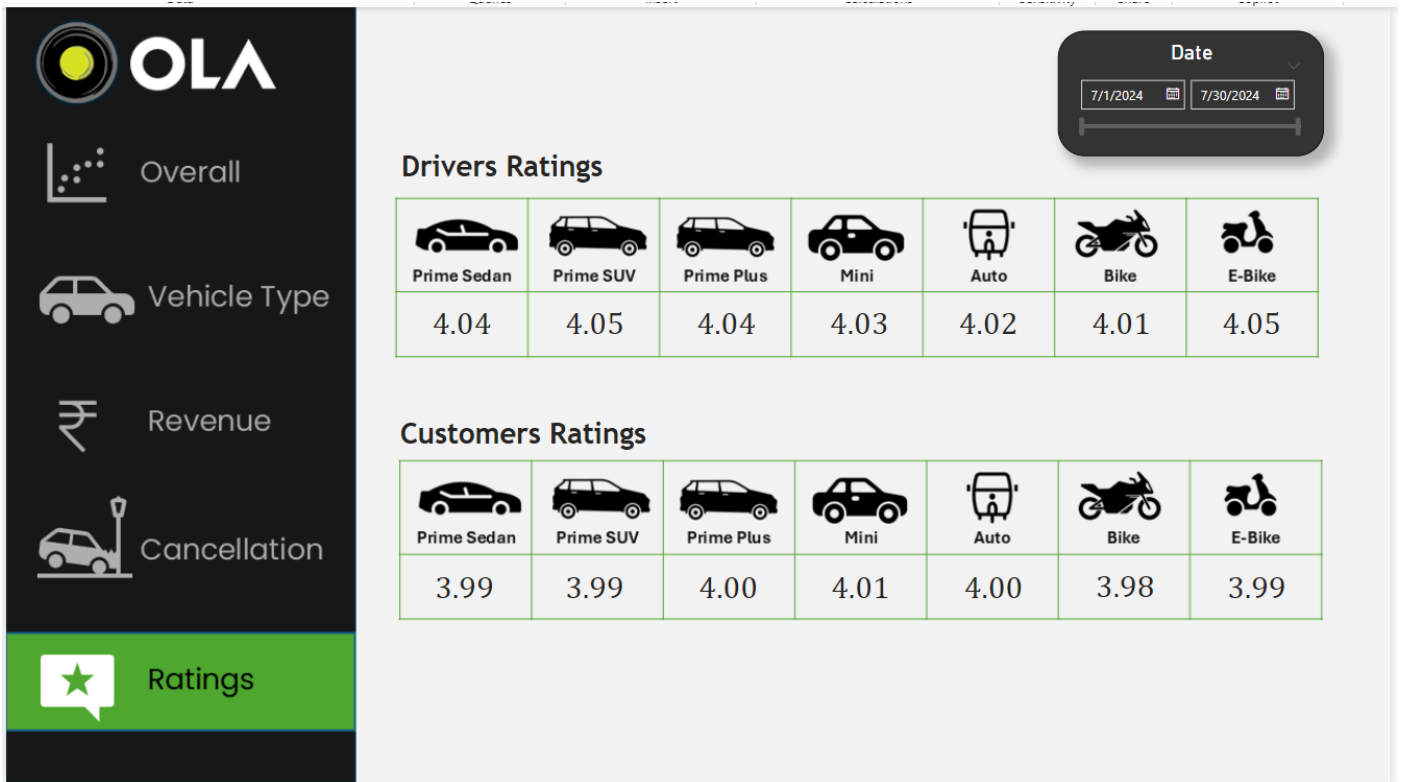
Pic. Dashboard 2



Pic. Dashboard 3



Pic. Dashboard 4



Pic. Dashboard 5