

## **GOODCABS**

**Domain: Transportation & Mobility** 



## Introduction

Goodcabs, a cab service company established two years ago, has carved a niche in the Indian market by focusing on tier-2 cities. The company prioritizes supporting local drivers while ensuring top-notch passenger service.

## **Objective**

The Management
team aims to assess
the company's
performance across
key metrics, including
trip volume,
passenger
satisfaction, repeat
passenger rate, trip
distribution, and the
balance between new
and repeat
passengers.

## Task

Analyze the datasets, design a clear dashboard with actionable insights, and generate SQL-based reports. Address key business questions and add any additional research to support recommendations.

#### Action

Utilized advanced
SQL queries to
conduct ad-hoc
analysis, used Excel
for data exploration
and validation, used
Power BI to build the
report and address
key questions, and
PowerPoint to
showcase the
findings.







# **Dataset Information**

- 1. trips\_db: provides the detailed information about each trip, demographics data, dates, passengers, passenger type etc.
- 2. targets\_db: provides crucial target information like average\_passenger\_rating, new\_passengers, total\_trips etc.







## trips\_db database

- 1. dim\_city demographics data for location-based analysis.
- 2. dim\_date date specific data for time-based analysis.
- 3. dim\_repeat\_trip\_distribution city-month based trip count data.
- 4. fact\_passenger\_summary city-month based passengers data.
- 5. fact\_trips complete breakdown of each trip for deep analysis.







## targets\_db database

- 1. city\_target\_passenger\_rating- average passenger rating target set for each city
- 2. monthly\_target\_new\_passengers monthly new passengers target for each city.
- 3. monthly\_target\_trips monthly trips target for each city.





# GOODCABS (i)





**Executive Dashboard** 



City Level Analysis

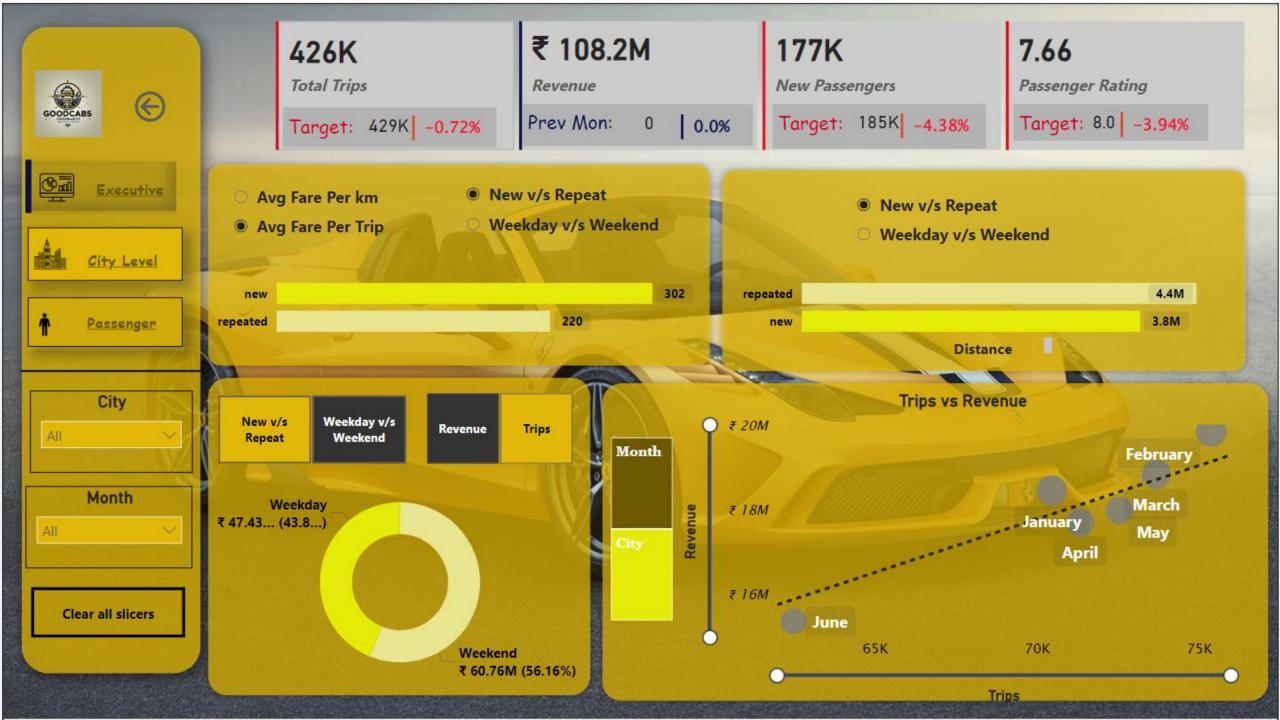


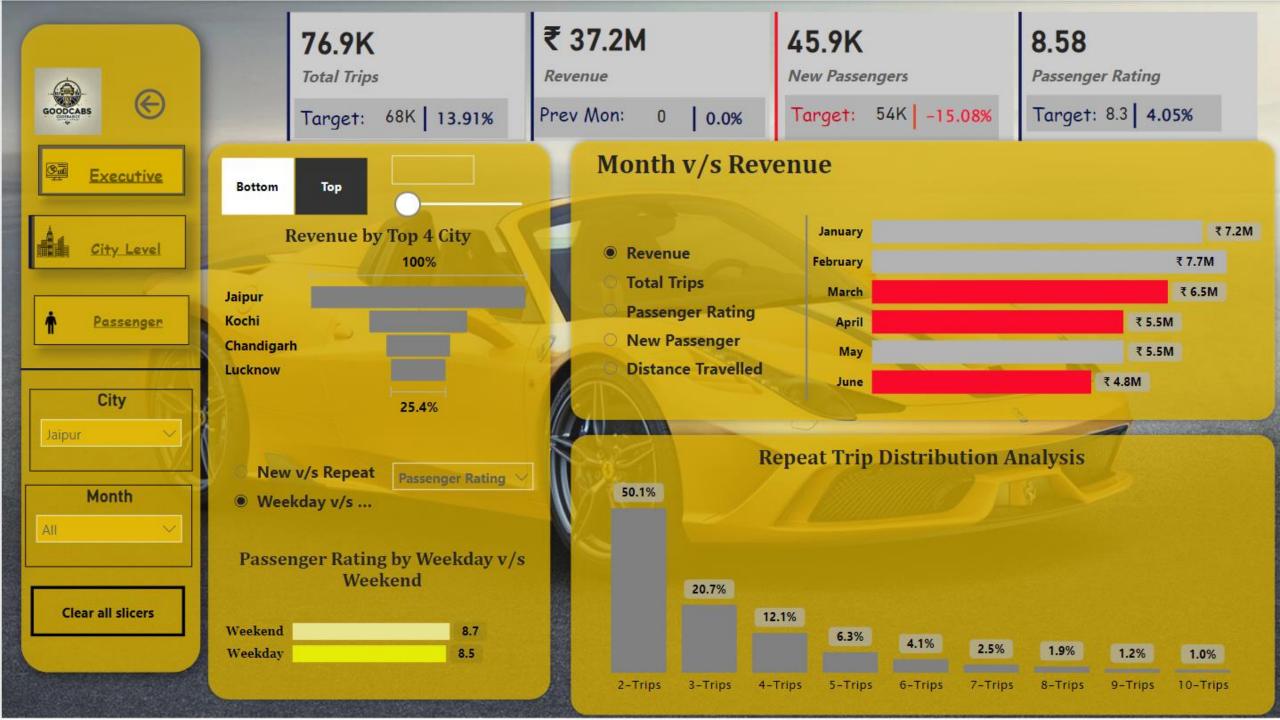
Passenger Level Analysis













## 55.5K

**Total Passengers** 

Prev. Mon.: 0.0K | 0.00%

## 45.9K

New Passenger

Target: 54.0K | -15.08%

#### 17.4%

Repeat Passenger Rate %

Prev. Mon.: 0.0% | 17.43%

8.58

Average Passenger Rating

Target: 8.3 | 4.05%

Info about Jaipur:

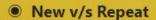
All Months

<u>REVENUE:</u> ₹ 37.21M <u>TRIPS:</u> 77K

DISTANCE (IN km): 2308.4K

MIN DISTANCE TRIP (IN km): 15

MAX DISTANCE TRIP(IN km): 45



Weekday v/s Weekend

8.6

**Passenger rating** 

**Driver rating** 

new repeated

7.0

new repeated

7.5

8.3

#### **Passenger Detail Summary**

	City	TP	RP	RPR (%)	NP	NPR (%)	PR	
$\oplus$	Chandigarh	24.0K	5.1K	21.1%	18.91K	78.9%	7.98	
<b></b>	Coimbatore	11.1K	2.6K	23.1%	8.51K	76.9%	7.88	
<b>±</b>	Indore	22.1K	7.2K	32.7%	14.86K	67.3%	7.83	
<b>±</b>	Jaipur	55.5K	9.7K	17.4%	45.86K	82.6%	8.58	
<b>±</b>	Kochi	34.0K	7.6K	22.4%	26.42K	77.6%	8.52	

#### Abbreviation -

- · TP Total Passengers
- · RP Repeat Passengers
- · RPR(%) -Repeat Passenger Rate







# **Primary Questions**

- 1. Top & Bottom Performing Cities
- 2. Average Fare per Trip by City
- 3. Average Ratings by City & Passenger Type
- 4. Peak and Low Demand Months by City
- 5. Weekend vs Weekday Trip Demand by City
- 6. Repeat Passenger Frequency and City Contribution Analysis
- 7. Monthly Target Achievement Analysis for Key Metrics
- 8. Highest & Lowest Repeat passenger rate (RPR %) by city & month.





## 1. Top & Bottom Performing Cities



Identify the Top 3 & Bottom 3 cities by total trips over the entire analysis period





Top 3 – Contributes to 46%

Bottom 3 – Contributes to 15.5 %



## 2. Average Fare per Trip by City



Calculate the average fare per trip for each city and compare it with city's average trip distance. Identify the city with the highest & lowest average fare per trip to assess pricing efficiency across locations.

#### **Avg Fare Per Trip:**

Jaipur (Rs 484) > Kochi (Rs 335) > Chandigarh (Rs 284)

#### **Avg Distance (in KM):**

Jaipur (30 km) > Kochi (24 km) > Chandigarh (23 km)

#### **Anomaly:**

The average fare per trip is similar to the average distance. While Indore has a slightly higher average distance than Mysore, Mysore is notably more expensive in terms of fare per trip.

#### **Interesting Insight:**

Mysore, despite having the fewest total trips and being average in both fare per trip and distance, maintains a very high average fare per kilometer.

City Name	avg_fare_per_trip	Avg Distance(in KM)	avg_fare_per_km
Jaipur	483.9	30.023	16.1
Kochi	335.2	24.065	13.9
Chandigarh	283.7	23.519	12.1
Visakhapatnam	282.7	22.554	12.5
Mysore	249.7	16.497	15.1
Indore	179.8	16.502	10.9
Coimbatore	167.0	14.979	11.1
Lucknow	147.2	12.513	11.8
Vadodara	118.6	11.518	10.3
Surat	117.3	10.997	10.7





## 3. Average Ratings by City & Passenger Type



Calculate the average passenger rating and driver rating for each city, segmented by passenger type (new vs repeat). Identify cities with the highest & lowest average ratings.





## **Passenger Rating**

<u>Max</u> – Mysore (8.7)

Min – Surat (6.4)

#### **Driver Rating**

Max - Kochi (8.9)

Min – Surat (6.6)

**Interesting Insight** – Despite having excellent ratings, Mysore ranks last in total trips.

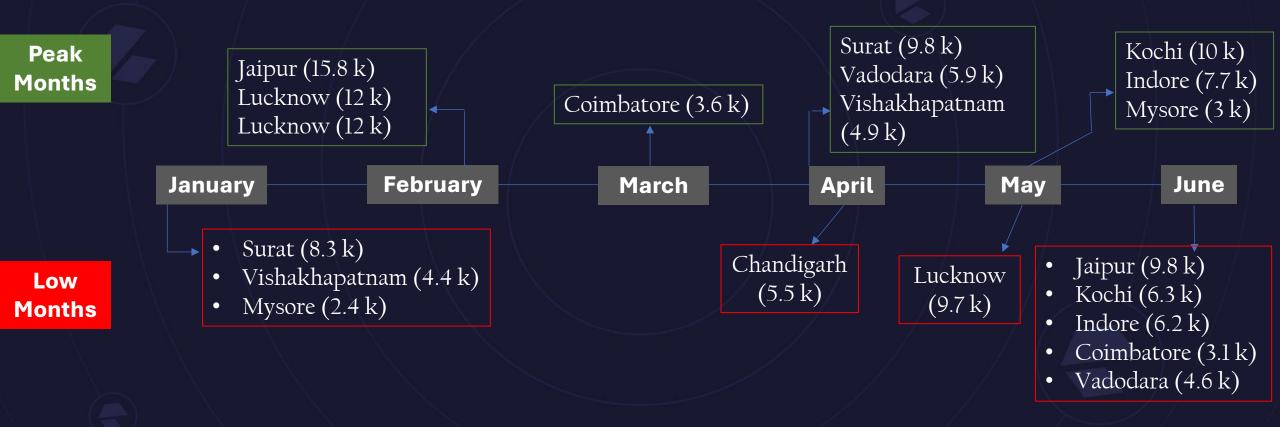




## 4. Peak and Low Demand Months by City



For each city, identify the month with the highest total trips (peak demand) and the month with the lowest total trips (low demand).



Peak Months: Feb, Mar, Apr, May

Low Months: Jan & June





## 5. Weekend vs Weekday Trip Demand by City



Compare the total trips taken on weekdays v/s weekends for each city over the six-month period. Identify city with the strong preference for either weekends or weekdays trips to understand demand variations.

**Weekday**: Business cities such as Lucknow, Surat, and Vadodara experience a significant surge in total trips during weekdays.

**Weekend**: Tourism cities such as Jaipur, Kochi, and Mysore experience a significant surge in total trips during weekends.

**Neutral**: Cities such as Indore, Chandigarh, Vishakhapatnam & Coimbatore experience almost same amount during weekdays as well as weekends.





## 6. Repeat Passenger Frequency and City Contribution Analysis



Analyze repeat passengers' trip frequencies across cities (% taking 2, 3+ trips). Highlight cities driving higher trip counts and identify patterns between tourism and business-focused cities.

**Jaipur, Kochi, Mysore, and Visakhapatnam**: Cities where 48-50% of passengers take 2 trips.

**Surat, Vadodara & Coimbatore**: Cities with high repeat usage of our services.

city_name	10-Trips	2-Trips	3-Trips	4-Trips	5-Trips	6-Trips	7-Trips	8-Trips	9-Trips
Chandigarh	1.8%	32.3%	19.3%	15.7%	12.2%	7.4%	5.5%	3.5%	2.3%
Coimbatore	1.2%	11.2%	14.8%	15.6%	20.6%	17.6%	10.5%	6.2%	2.3%
Indore	1.5%	34.3%	22.7%	13.4%	10.3%	6.8%	5.2%	3.3%	2.4%
Jaipur	1.0%	50.1%	20.7%	12.1%	6.3%	4.1%	2.5%	1.9%	1.2%
Kochi	0.8%	47.7%	24.4%	11.8%	6.5%	3.9%	2.1%	1.7%	1.2%
-	•						_	_	
Lucknow	1.1%	9.7%	14.8%	16.2%	18.4%	20.2%	11.3%	6.4%	1.9%
				_	•	•		1	
Mysore	0.5%	48.7%	24.4%	12.7%	5.8%	4.1%	1.8%	1.4%	0.5%
0								•	
Surat	1.4%	9.8%	14.3%	16.6%	19.7%	18.5%	11.9%	6.2%	1.7%
Vadodara	1								1
vadodara	1.6%	9.9%	14.2%	16.5%	18.1%	19.1%	12.9%	5.8%	2.0%
Visakhanatnam				40.00		2.20/		1 4 404	2.00
Visakhapatnam	0.9%	51.3%	25.0%	10.0%	5.4%	3.2%	2.0%	1.4%	0.9%





## 7. Monthly Target Achievement Analysis for Key Metrics



# Evaluate city-wise monthly performance on trips, new passengers, and ratings vs. targets. Identify % differences and patterns across tourism and business-focused cities

Jaipur, Mysore, and Chandigarh: Met overall trip targets.

Vadodara and Lucknow: Did not meet trip targets.

**Surat & Coimbatore**: Exceeded overall New

Passenger target.

Jaipur & Chandigarh: Did not meet New

Passenger target.

Jaipur, Kochi & Mysore: Only 3 cities were able to cross overall Passenger Rating target.

No other City could cross their overall Passenger Rating target.

C''	Trips Trip Target Differe		D:(( 0/	N D	N D	w Passenger Difference %		n .:	Diff 0/	
City	Irips	Irip larget	Difference %	New Passenger	New Passenger Target	Difference %	Passenger Rating	Passenger rating target	Difference %	
	<b>~</b>				larget		Rating	target		
☐ Jaipur						_				
February	15.9K	13.0K	22.1%	10.8K	12.0K	-1 <mark>0.1</mark> %	8.7	8.3	<b>↑</b> 5.1%	
January	15.0K	13.0K	15.2%	10.4K	12.0K	-1 <mark>3.1</mark> %	8.7	8.3	5.3%	
March	13.3K	13.0K	2.4%	7.4K	12.0K	-38.2%	8.5	8.3	<b>1</b> 3.4%	
May	11.5K	9.5K	20.8%	5.3K	6.0K	-1 <mark>1.1</mark> %	8.5	8.3	<b>1</b> 2.6%	
April	11.4K	9.5K	20.1%	6.1K	6.0K	2.0%	8.5	8.3	<b>1</b> 3.3%	
June	9.8K	9.5K	3.6%	5.8K	6.0K	-3.8 <mark>%</mark>	8.6	8.3	4.0%	
⊕ Lucknow	64.3K	72.0K	-10.7%	16.3K	15.6K	4.2%	6.5	7.3	-10.5%	
⊕ Surat	54.8K	57.0K	-3.8%	11.6K	10.5K	10.7%	6.4	7.0	-8.3%	
⊕ Kochi	50.7K	49.5K	2.4%	26.4K	27.0K	-2.2%	8.5	8.5	0.2%	
	42.51	43.516	2.404	44.01	44.49	5.40/	7.0		2.40	
⊕ Indore	42.5K	43.5K	-2.4%	14.9K	14.1K	5.4%	7.8	8.0	-2.1%	
Chandigarh	20.01	20.01	0.00/	40.01	24.01/	40.00/			0.30/	
⊕ Chandigarh	39.0K	39.0K	-0.0%	18.9K	21.0K	-10.0%	8.0	8.0	-0.3%	
Vadodara	32.0K	37.5K	-14.6%	10.1K	9.9K	2.3%	6.6	7.5	-11.8%	
Vadodara	32.UK	37.3K	-14.0%	10.1K	9.91	2.5 /6	0.0	1.5	-11.0%	
	28.4K	28.5K	-0.5%	12.7K	13.5K	-5.6%	8.4	8.5	-0.8%	
- visakiiapatiiaiii	20.41	20.5K	-0.5%	12.7 K	13.5K	-3.0%	0.4	0.5	-0.076	
⊕ Coimbatore	21.1K	21.0K	0.5%	8.5K	7.5K	13.5%	7.9	8.3	-4.4%	
- combatore	2	21.00	0.576	0.510	7.5K	13.376	,	0.5	7.770	
⊕ Mysore	16.2K	13.5K	20.3%	11.7K	12.0K	-2.7%	8.7	8.5	2.4%	
ysoic	10.2.1	15.51	20.570		12.00	2.170	0.7	0.5	21770	





## 8.1 Highest & Lowest Repeat passenger rate (RPR %) by city



Evaluate city-wise monthly performance on trips, new passengers, and ratings vs. targets. Identify % differences and patterns across tourism and business-focused cities

**Surat, Lucknow & Indore**: 3 cities who crossed their New Passenger target and has a great Repeat Passenger Rate (%) as well. (>30 %)

Mysore, Jaipur & Chandigarh: 3 cities who couldn't cross their New Passenger target and aren't able to maintain a decent RPR %.





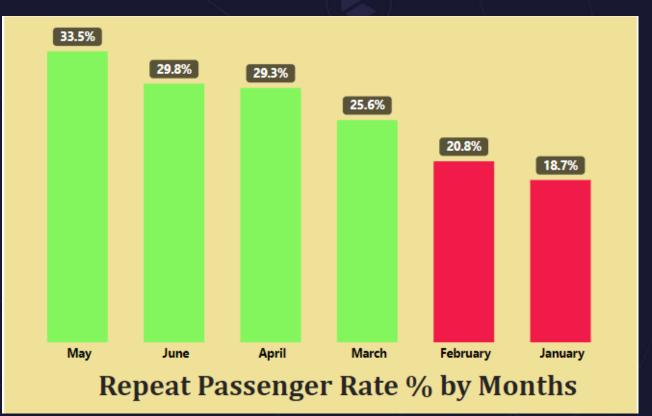
## 8.2 Highest & Lowest Repeat passenger rate (RPR %) by month



Analyze the RPR% by month across the cities and identify the months with the highest and lowest repeat passenger rates

**Peak Month**: RPR(%) -> May (33.5%)

**Low Month**: RPR(%) -> January (18.7%)







# **Secondary Questions**

- 1. Factors Influencing Repeat Passenger Rates
- 2. Tourism vs. Business Demand Impact
- 3. Emerging Mobility Trends and Goodcabs' Adaptation
- 4. Partnership Opportunities with Local Businesses
- 5. Data Collection for Enhanced Data-Driven Decisions





## 1. Factors Influencing Repeat Passenger Rates



This section explores the factors influencing repeat passenger rates across 10 tier-2 cities in India and examines potential correlations with service quality, pricing, and demographics.

- Quality of Service: In cities where drivers adhere to punctuality, maintain clean vehicles, and demonstrate professional behavior, repeat passenger rates are significantly higher compared to cities where delays, unclean vehicles, and poor driver conduct negatively impact the customer experience.
- <u>Competitive Pricing</u>: Pricing should be both <u>competitive in comparison to other</u> <u>companies</u> and <u>affordable for the local population</u>. It is a key factor influencing repeat passenger rates.
- <u>City Demographics</u>: Cities with a **younger, technology-driven population** tend to exhibit higher repeat passenger rates, as individuals in these demographics are more likely to book rides in advance from the convenience of their homes.





## 2. Tourism vs. Business Demand Impact

This section explores how tourism seasons and local events, such as festivals and conferences, influence Goodcabs' demand patterns. It also examines whether tailored marketing strategies during these periods can enhance trip volumes in tourism-centric cities.

#### **Tourism Season**:

Cities such as Kochi, Mysore, Vishakhapatnam, and Jaipur experience significant demand surges during festivals and holiday seasons.

- To capitalize on these peak periods, the company can implement dynamic pricing strategies and optimize fleet management.
- Additionally, forming partnerships with local tourist agencies and hotels can further enhance sales and strengthen market presence during these times.

#### **Business Oriented Cities:**

Cities like Chandigarh, Vadodara, Surat, and Lucknow experience consistent demand surges during conferences, meetups, trade fairs, and similar events.

- To cater to this audience, the company can implement dynamic yet affordable pricing strategies
  while ensuring drivers maintain punctuality, especially for airport-to-hotel commutes.
- Additionally, introducing subscription plans or collaborating as a partner to promote business events can help maximize sales and strengthen relationships with the corporate segment.





## 3. Emerging Mobility Trends and Goodcabs' Adaptation



Exploring how trends like electric vehicles and green energy adoption can help Goodcabs stay competitive in tier-2 cities.

## Pros for switching to EVs:

- Supporting India's net zero emission target by 2070 and being an early adopter of green technology can significantly enhance Goodcabs' brand image and attract environmentally conscious customers.
- Government incentives, including tax credits, grants, and subsidies for green vehicle adoption, can help offset the initial investment in EVs.
- EVs are generally more cost-effective than fuel-powered vehicles and offer a smooth, quiet ride, enhancing the overall passenger experience.

#### **Challenges for switching to EVs**:

- Establishing a reliable network of charging stations involves significant costs and logistical complexities, while limited infrastructure can impact operational efficiency.
- Battery degradation over time may reduce vehicle range and performance, with costly replacements adding to long-term expenses.
- The **limited driving range** and **extended charging times** compared to traditional refueling present challenges, particularly for longer trips.
- The high upfront cost of purchasing EVs can pose financial barriers to large-scale adoption.





## 4. Partnership Opportunities with Local Businesses



This section explores potential partnerships between Goodcabs and local businesses, such as hotels, malls, and event venues, to increase demand and enhance customer loyalty, particularly in tourism-centric or high-footfall areas.

Goodcabs can develop **tailored tour packages** covering major attractions in cities like Jaipur, Mysore, and Kochi, **offering discounts or additional perks** for tourists visiting these landmarks.

- Partnering with hotels to provide airport pick-up and drop-off services, along with city tours for hotel guests, can enhance convenience and drive demand.
- Offering discounts for cab rides to and from partnered malls can incentivize shoppers to choose Goodcabs.
- Providing transportation for special events or promotions hosted by malls can attract more visitors and increase visibility.
- Organizing shuttle services for large events such as weddings, conferences, or festivals ensures smooth transportation for attendees, while advertising Goodcabs in event programs or during intermissions raises brand awareness.





### 5. Data Collection for Enhanced Data-Driven Decisions



This section highlights additional data Goodcabs should collect to improve insights into customer behavior, operational efficiency, and key performance metrics.

## **Additional Data that company should collect:**

- Ride cancellation: Collecting ride cancellation data helps identify patterns and causes, enabling Goodcabs to reduce cancellations, optimize operations, and improve customer satisfaction.
- Payment Methods: Tracking payment preferences (cash, card, mobile wallets) provides insights into customer behavior and helps streamline payment options.
- Ride Preferences: Collecting data on ride preferences (e.g., preferred car type, driver gender, or temperature settings) allows for personalized experiences and increased customer loyalty.
- App Feedback: Collecting user feedback on the app experience helps identify areas for improvement, enhancing usability and customer satisfaction.
- Driver Performance: Collecting driver performance data helps identify top-performing drivers, provide targeted training, and ensure consistent service quality for passengers.





#### Recommendations



### **Corporate Partnerships**

- •Collaborate with companies in business-centric cities to offer cab services tailored for employees, particularly those working from offices.
- •Introduce subscription plans for organizations to facilitate regular employee commutes efficiently and cost-effectively.

#### **Driver Excellence**

- •Ensure hiring of experienced and courteous drivers who value punctuality and professionalism, enhancing customer satisfaction and trust.
- •Conduct regular driver training programs to maintain service quality and address performance gaps.

#### **Technology Enhancement**

- •Optimize the app to ensure seamless performance with a user-friendly interface, making booking and payment processes effortless for users.
- •Integrate features like live driver tracking and in-app customer support to improve the passenger experience.





#### Recommendations



#### **Price Optimization**

- •Design pricing strategies that strike a balance between profitability and customer retention, ensuring affordability for passengers while maintaining competitive edge.
- •Implement dynamic pricing during peak times and introduce discounts during off-peak seasons to attract and retain customers.

#### **Customer Retention Strategies**

- •Launch loyalty programs or subscription-based services to increase repeat passenger rates, particularly in cities with lower performance metrics.
- •Offer discounts or special promotions during low-demand months to drive customer retention and engagement.

#### **Localized Marketing Efforts**

- •Partner with local influencers in specific cities to promote Goodcabs and enhance brand visibility among targeted demographics.
- •Collaborate with event organizers, hotels, and malls to expand outreach and tap into high-footfall areas.







# Delivered as I Promised to myself

Finally, I wrap up the Codebasics Resume Project that I have been working on since 1st Jan 2025.

Feedback & suggestions are always welcome.

You know what to do. Just go in comment and tell me what I could do better

Thank You so much guys for getting this Far.



