

GOODCABS TRANSPORTATION & MOBILITY ANALYSIS



CODEBASICS RESUME PROJECT CHALLENGE 13

Domain - Transportation & Mobility.

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- 4) Secondary Analysis & Recommendations
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ABOUT GOODCABS

- Goodcabs is a cabs service company established 2 years ago and they focused on 10 tier-2 cities in India.
- Supporting local drivers for sustainable livelihoods.
- Ambitious goals for 2024 to enhance passenger satisfaction and business growth.



Problem Statement

Goodcabs Operating in tier-2 cities, aims to improve :

- Evaluate key metrics like trip volume and passenger satisfaction..
- Analyze repeat passenger rates and trip distribution.
- Compare new vs repeat passenger trends.
- Generate insights for 2024 growth & passenger satisfaction goals.
- Address ad-hoc business questions using SQL.

PRIMARY ANALYSIS

Identify the top 3 & bottom 3 cities by total trips over the entire analysis period.



Jaipur has 77K trips , Lucknow has 64K & Surat has 55K are the top 3 Cities by total trips.

Out of 426K Overall Total Trips

Visakhapatnam has 28K total trips, Coimbatore has 21K & Mysore has 16K out of 426K Overall Total trips these all 3 Cities are the Bottom 3 Cities by Total trips

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



Jaipur has the **highest** average fare of 483.92 Rs with an average trip distance of 30.02km.

Surat has the **lowest** fare of 117.27 Rs with an average trip distance of 11.00km.

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



Vishakhapatnam , Mysore , Kochi & Jaipur have the highest Passenger ratings & Driver ratings.

Vadodara , Surat & Lucknow have the Lowest Passenger & Driver ratings for both New vs Repeated Passengers.

For each city, identify the month with the highest total trips (Peak Demand) & the month with the lowest total trips (Low Demand). This analysis will help Goodcabs understand seasonal patterns & adjust resources accordingly.

Peak & Low demand Months by Cities											
Month	Chandigarh	Coimbatore	Indore	Jaipur	Kochi	Lucknow	Mysore	Surat	Vadodara	Visakhapatnam	Total
January	6810	3651	6737	14976	7344	10858	2485	8358	4775	4468	70462
February	7387	3404	7210	15872	7688	12060	2668	9069	5228	4793	75379
March	6569	3680	7019	13317	9495	11224	2633	9267	5598	4877	73679
April	5566	3661	7415	11406	9762	10212	2603	9831	5941	4938	71335
May	6620	3550	7787	11475	10014	9705	3007	9774	5799	4812	72543
June	6029	3158	6288	9842	6399	10240	2842	8544	4685	4478	62505
Total	38981	21104	42456	76888	50702	64299	16238	54843	32026	28366	425903

- For **Chandigarh , Jaipur & Lucknow**
Peak Demand month is **February**.

► For **Indore , Kochi & Mysore** May is Peak Demand month & **April** is Peak Demand month for **Surat, Vadodara & Visakhapatnam**

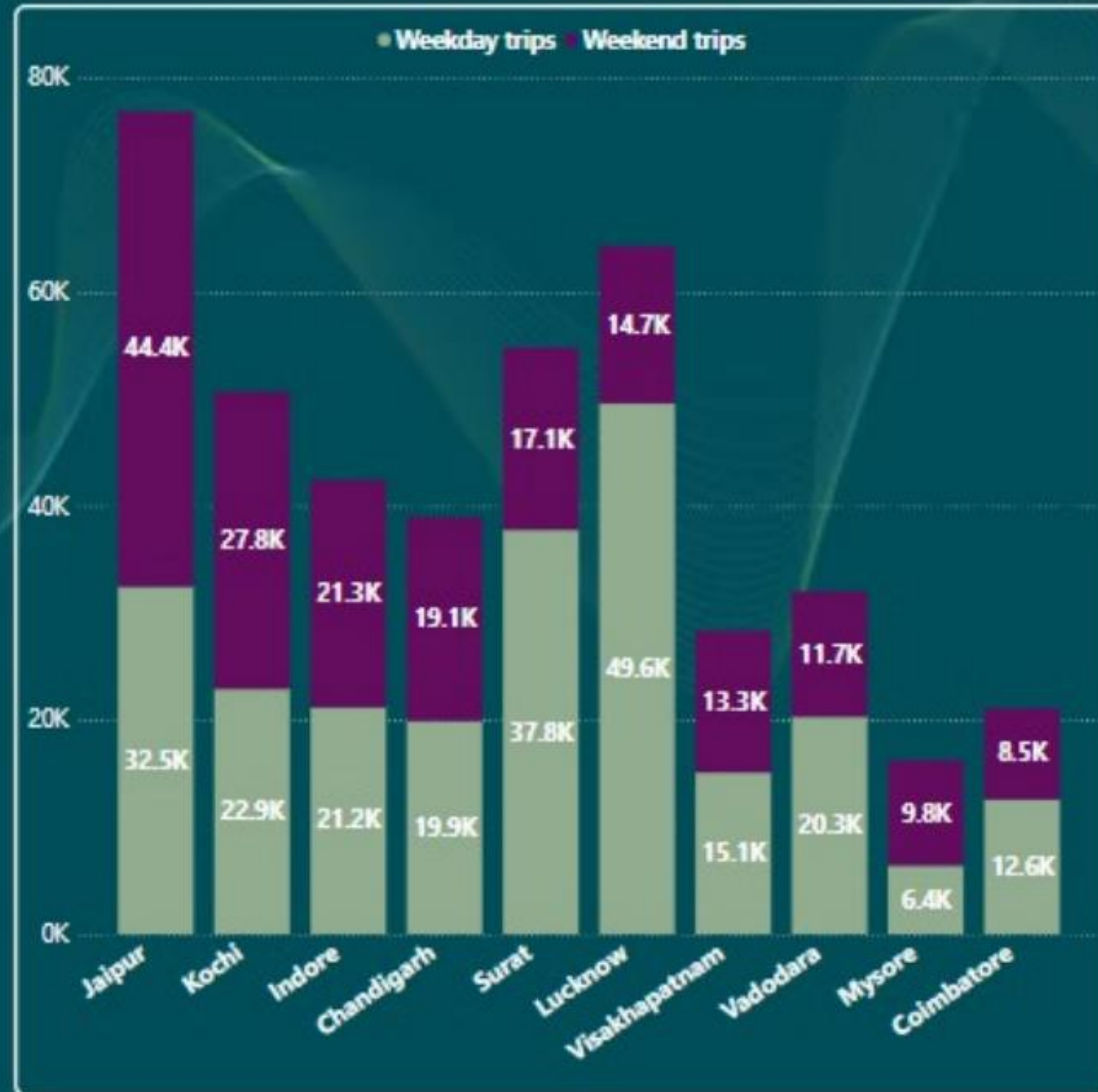
► For **Coimbatore** Peak Demand month is **March**.
- Low Demand Month is **January** for **Mysore , Surat & Visakhapatnam**

► For **Chandigarh** April is low Demand month & For **Lucknow** Low Demand month is **May**.

► **June** is Low Demand month for **Coimbatore, Indore, Jaipur, Kochi & Vadodara**

Compare the Total Trips taken on Weekdays Vs Weekends for each city over the 6 month period. Identify cities with a strong preference for either Weekend or Weekday trips to understand demand variations.

Weekday vs Weekend Trip By City

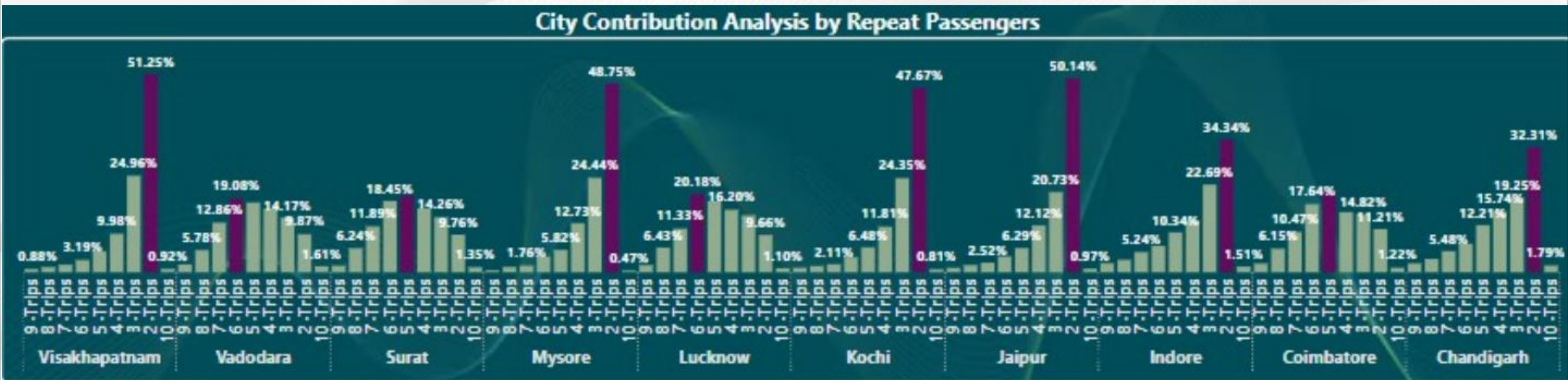


Surat , Luckhnow,Vadodara, Visakhapatam & Coimbatore cities with the highest Weekday Demand.

Jaipur,Kochi & Mysore cities have highest Weekend Demand.

Indore & Chandigarh cities have the balanced demand for both Weekdays & Weekends trip.

Analyse the frequency of trips taken by repeat passengers in each city(e.g.,% of repeat passengers taking 2 trips,3 trips etc.).Identify which cities contribute most to higher trip frequencies among repeat passengers,& examine if there are distinguishable patterns between tourism-focused & business-focused cities.



Visakhapatnam , Mysore , Kochi & Jaipur have the most repeat passengers take only **2 trips** (around 50%)

10-trips represent the minimum number of trips taken by repeat passengers across all the cities.

For each city, evaluate monthly performance against targets for total trips, new passengers, and average passenger ratings. From targets_db.Determine if each metric met , exceeded or missed the target, and calculate the percentage difference. Identify any consistent patterns in target achievement, particularly across tourism versus business-focused cities.

Monthly Performance for Total Trips					
city_name	Month	Actual Total trips	Target Total Trips	Total Trips Status	Total trips difference(%)
Kochi	May	10014	9000	Exceeded	11.27
Kochi	June	6399	9000	Missed	-28.90
Lucknow	January	10858	13000	Missed	-16.48
Lucknow	February	12060	13000	Missed	-7.23
Lucknow	March	11224	13000	Missed	-13.66
Lucknow	April	10212	11000	Missed	-7.16
Lucknow	May	9705	11000	Missed	-11.77
Lucknow	June	10240	11000	Missed	-6.91

Monthly Performance for New Passengers						
city_name	city_type	Month	Actual New Pax	Target New Pax	New Pax status	New Pax difference (%)
Lucknow	Business	January	3465	3200	Exceeded	8.28
Lucknow	Business	February	3529	3200	Exceeded	10.28
Lucknow	Business	March	3159	3200	Missed	-1.28
Lucknow	Business	April	2311	2000	Exceeded	15.55
Lucknow	Business	May	1825	2000	Missed	-8.75
Lucknow	Business	June	1971	2000	Missed	-1.45

Luckhnow missed its total trips & Average passenger ratings targets across all months

But **Luckhnow** exceeded its New Passenger target in **January,February & April** but it missed the target in other months.

Monthly Performance for Avg Passenger ratings						
city_name	city_type	Month	Actual Avg Pax rating	Target Avg Pax rating	Avg Pax rating status	Avg Pax rating difference (%)
Lucknow	Business	January	6.6	8.0	Missed	-16.98
Lucknow	Business	February	6.6	8.0	Missed	-17.57
Lucknow	Business	March	6.5	8.0	Missed	-17.94
Lucknow	Business	April	6.5	8.0	Missed	-19.07
Lucknow	Business	May	6.4	8.0	Missed	-20.26
Lucknow	Business	June	6.3	8.0	Missed	-20.39

Analyze the repeat passenger rate (RPR%), for each city across the six-month period. Identify the top 2 and bottom 2 cities based on their RPR% to determine which locations have the strongest and weakest rates. Similarly, analyse the RPR% by month across all cities and identify the months with the highest and lowest repeat passenger rates. This will help to pinpoint any seasonal patterns or months with higher repeat passenger loyalty.

RPR % by City & Month							
city_name	January	February	March	April	May	June	Total
Surat	32.74%	36.81%	43.43%	45.70%	49.92%	49.17%	42.63%
Lucknow	29.23%	31.98%	33.93%	39.30%	47.66%	46.70%	37.12%
Indore	26.65%	27.71%	28.46%	35.52%	43.53%	35.88%	32.68%
Vadodara	20.66%	22.13%	30.10%	34.49%	38.48%	38.90%	30.03%
Visakhapatnam	20.55%	24.92%	29.84%	34.97%	32.91%	29.68%	28.61%
Coimbatore	17.71%	17.36%	21.73%	27.87%	32.66%	24.69%	23.05%
Kochi	14.05%	18.71%	21.70%	24.19%	29.78%	25.84%	22.40%
Chandigarh	15.52%	17.21%	21.27%	24.02%	26.20%	26.30%	21.14%
Jaipur	12.01%	13.34%	19.88%	22.10%	25.68%	16.98%	17.43%
Mysore	8.08%	7.99%	9.48%	11.39%	15.37%	14.93%	11.23%
Total	18.68%	20.83%	25.57%	29.26%	33.47%	29.76%	25.73%

Surat & Lucknow are the top 2 cities & **Jaipur & Mysore** are the Bottom 2 Cities by their RPR%

Month **May** has the highest RPR% while **January** has the lowest RPR% across all cities

SECONDARY ANALYSIS & RECOMMENDATIONS



Factors influencing Repeat Passenger Rate (RPR%)

Quality of service : Focus on improving service quality and offer loyalty programs (discounts , rewards) & provide good environment to keep passengers coming back.

Competitive Pricing : Goodcabs should offer affordable prices with well-maintained cabs & comfortable rides. This combination will help attract repeat passengers.

City Demographics : Focus on offering premium options in wealthier areas & affordable, efficient options in middle-income regions.



Tourism Vs Business demand impact

Seasonal Demand : Tourism seasons & local events or holidays like festivals, Wedding & functions significantly increase demand for Goodcabs.

Goodcabs should offering promotions during peak times or targeting popular tourist spots, can help boost trip volume in Tourism cities.

SECONDARY ANALYSIS & RECOMMENDATIONS

➤ Emerging Mobility Trends

Electric Vehicle (EV) Adoption & Green Energy Use : EV Vehicle adoption is a growing trend that supports eco friendly transportation. Goodcabs should consider integrating EVs to promote enviromental responsibility and reduce pollution in cities this adoption of EVs are reshaping the cab service market, especially in Tier-2 cities.

➤ Partner Opportunities with Local Businesses

Goodcabs can work with local businesses like hotels , malls & event venues to attract more customers and this initiative can help increase demand , especially in popular tourist spots or busy areas & build customer loyalty.

➤ Data Collection for Enhanced Data- Driven- Decision

Collect customer details like Age , Gender & location.

Gather data on peak trip times to improve scheduling.

Track trip habbits & customer feedback to improve quality.

Dashboard

Goodcabs growth analytics



City Performance Overview

Demand & Trip Analysis



Passenger Loyalty & Targets

City Performance Overview

426K

Total trips

₹ 108.19M

Total Revenue

238K

Total Passengers

7.7

Avg Passenger rating

7.8

Avg Driver rating

Home

Demand & Trip
Analysis

Passenger Loyalty &
Targets

Month

All

passenger_type

All

city_name

All

Top 3 & Bottom 3 Cities by Total Trips

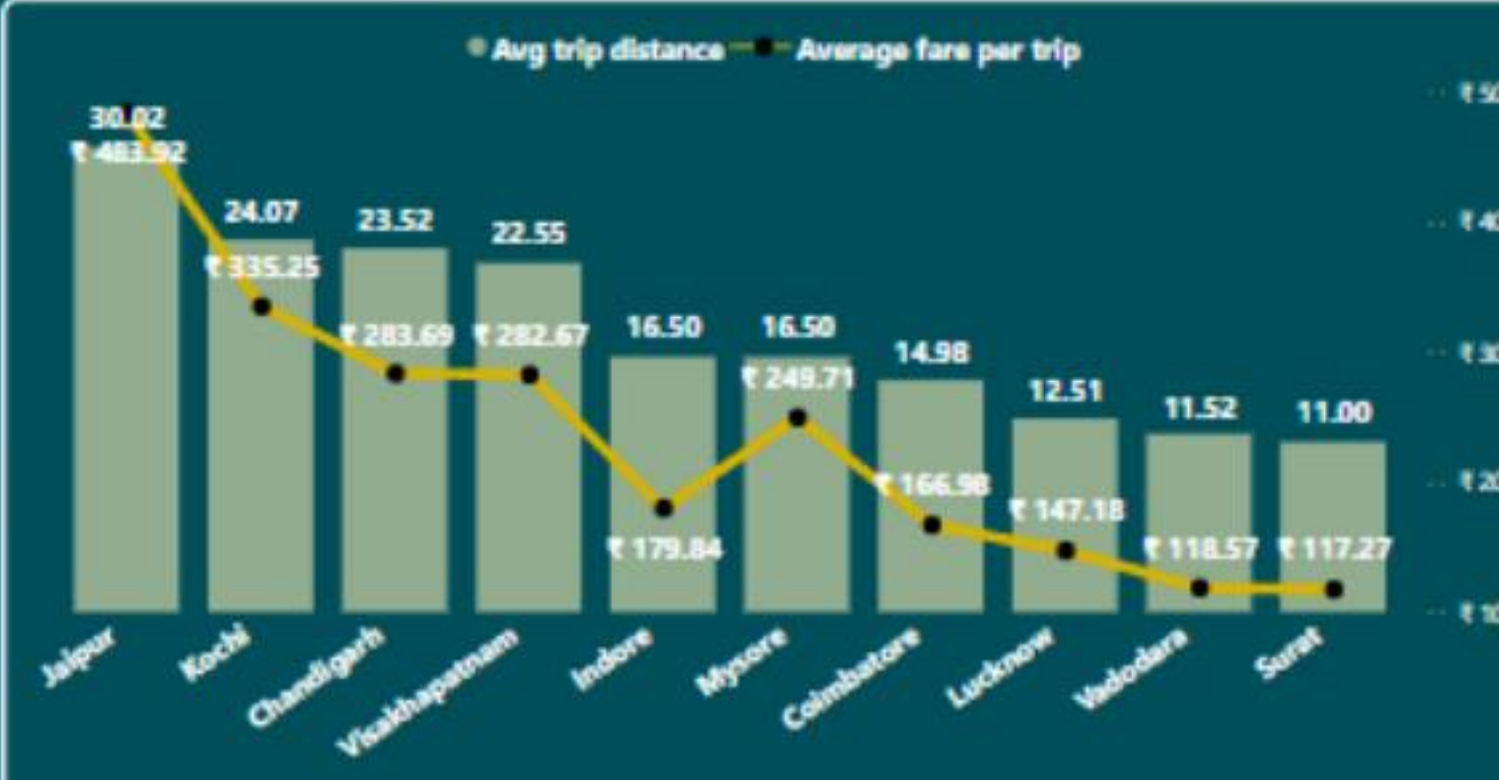


Top

Bottom 3 Cities by Total trips & Revenue

city_name		Total trips	city_name		Total fare
Coimbatore		21104	Coimbatore		₹ 3,523,992.00
Mysore		16238	Mysore		₹ 4,054,745.00
Visakhapatnam		28366	Vadodara		₹ 3,797,200.00
Total		65708	Total		₹ 11,375,937.00

Average fare & Average KM per trip by City



Average Passenger & Driver Ratings by City(New vs Repeated)



Demand & Trip Analysis

Peak Demand

Low Demand

426K
Total trips

₹ 108.19M
Total Revenue

238.34K
Weekday trips

188K
Weekend trips

Home

City Performance
Overview

Passenger Loyalty &
Targets

Month

All

city_name

All

Peak & Low demand Months by Cities

city_name	Month	Total trips
Chandigarh	January	6810
Chandigarh	February	7387
Chandigarh	March	6569
Chandigarh	April	5566
Chandigarh	May	6620
Chandigarh	June	6029
Coimbatore	January	3651
Coimbatore	February	3404
Coimbatore	March	3680
Coimbatore	April	3661
Coimbatore	May	3550
Coimbatore	June	3158
Indore	January	6737
Indore	February	7210
Indore	March	7019
Indore	April	7415
Indore	May	7787
Indore	June	6288
Jaipur	January	14976
Jaipur	February	15872
Jaipur	March	13317
Total		425903

Weekday vs Weekend Trip By City



Passenger Loyalty & Targets

Month

All

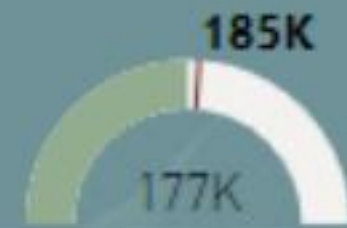
city_name

All

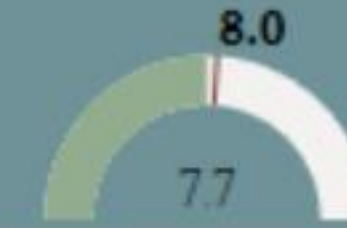
Total trips vs Target trips



New Passenger vs Target



Avg Passenger rating Vs Target

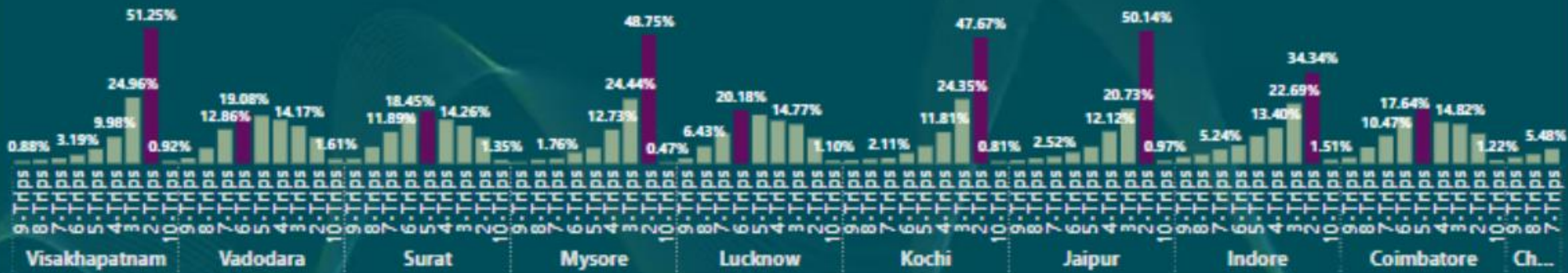


Home

City Performance Overview

Demand & Trip Analysis

City Contribution Analysis by Repeat Passengers



RPR % by City & Month

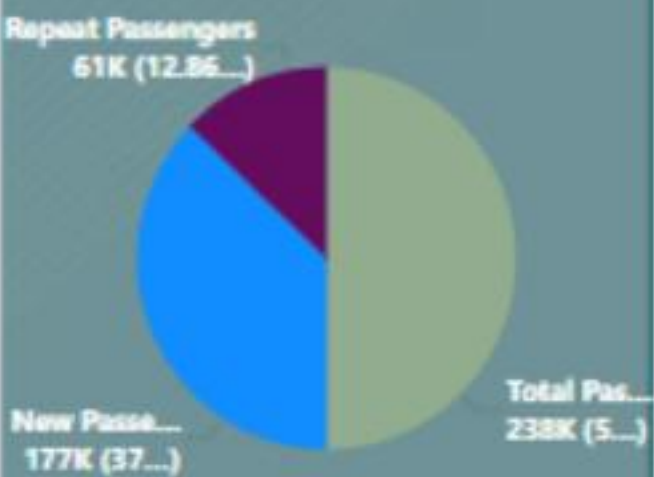
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Mysore	8.08%	7.99%	9.48%	11.39%	15.37%	14.93%	11.23%
Total	18.68%	20.83%	25.57%	29.26%	33.47%	29.76%	25.73%

Monthly Performance for Total Trips

Monthly Performance for New Passengers

Monthly Performance for Avg Passenger Rating

city_name	city_type	Month	Actual New Pax	Target New Pax	New Pax status	New Pax difference (%)
Chandigarh	Business	January	3920	4000	Missed	-2.00
Coimbatore	Business	January	1822	1500	Exceeded	21.47
Indore	Business	January	2843	2700	Exceeded	5.30
Jaipur	Tourism	January	10423	12000	Missed	-13.14
Kochi	Tourism	January	4865	5000	Missed	-2.70
Lucknow	Business	January	3465	3200	Exceeded	8.28
Mysore	Business	January	1957	2000	Missed	-2.15
Surat	Tourism	January	2432	2000	Exceeded	21.60
Vadodara	Other	January	2089	1800	Exceeded	16.06
Visakhapatnam	Tourism	January	2513	2500	Exceeded	0.52
Total			176998	185100	Missed	-4.38



PAX = Passengers

RPR = Repeat Passenger Rate

THANK YOU

