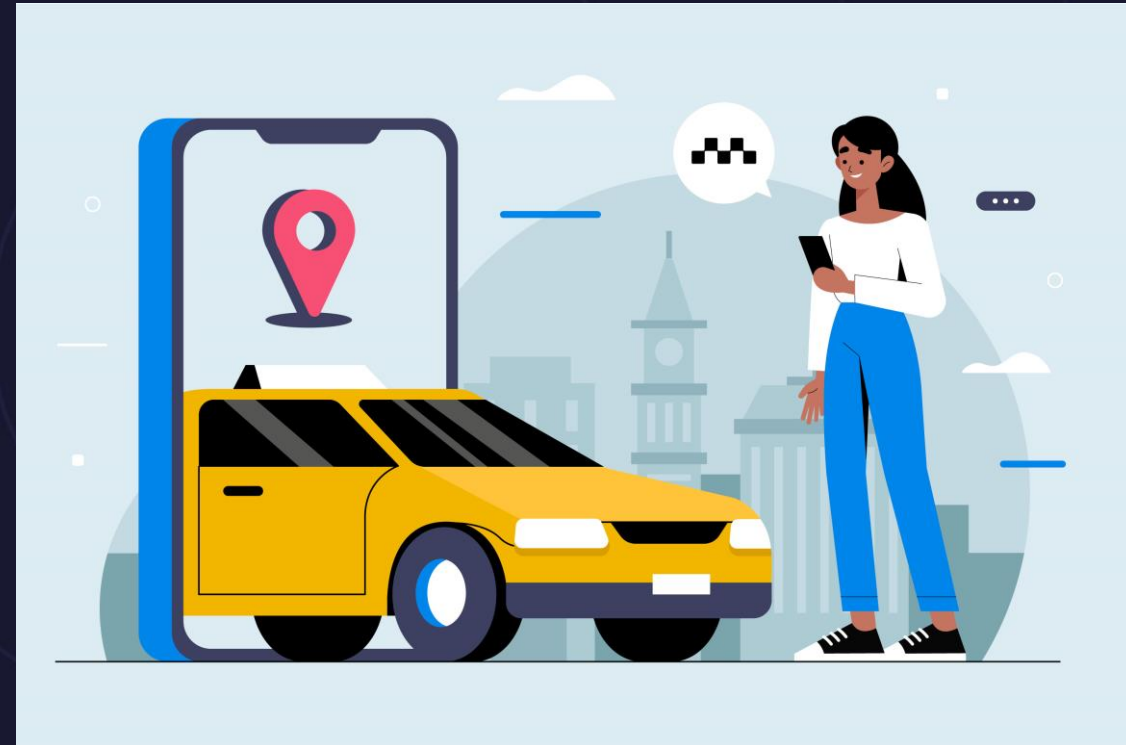




GoodCabs : Transportation & Mobility



Gunjan Revar

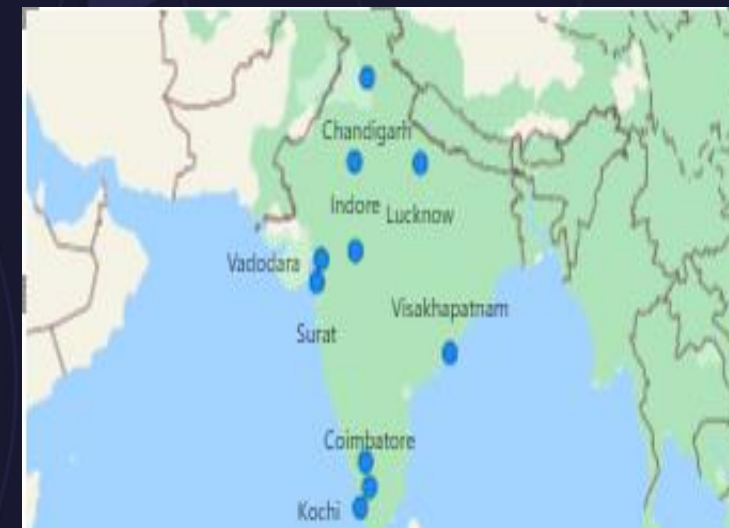




Problem Statement

GoodCabs is a cab service provider catering to tier-2 cities, dedicated to delivering a efficient transportation experience. The company emphasizes strong partnerships with local drivers while ensuring outstanding service for passengers.

With operations spanning 10 tier-2 cities, GoodCabs is driven by a passion for achieving ambitious goals and continuously exploring opportunities to enhance its services and customer satisfaction.





Objectives

1. Enhance Operational Transparency: Deliver a clear picture of daily business activities.
2. Track Performance Indicators: Measure critical metrics such as revenue, customer engagement, and ratings.
3. Facilitate Strategic Decisions: Empower stakeholders with data-driven insights for informed decision-making.
4. Identify Patterns and Outliers: Uncover trends and irregularity to drive business improvements.





Project Overview

The GoodCabs Project involves creating a Power BI Dashboard to analyze and visualize operational, financial, and customer-related data for GoodCabs. This project aims to provide insights into the following areas:

- City Performance
- Monthly Analysis
- Target Performance
- Insights





Dataset Overview

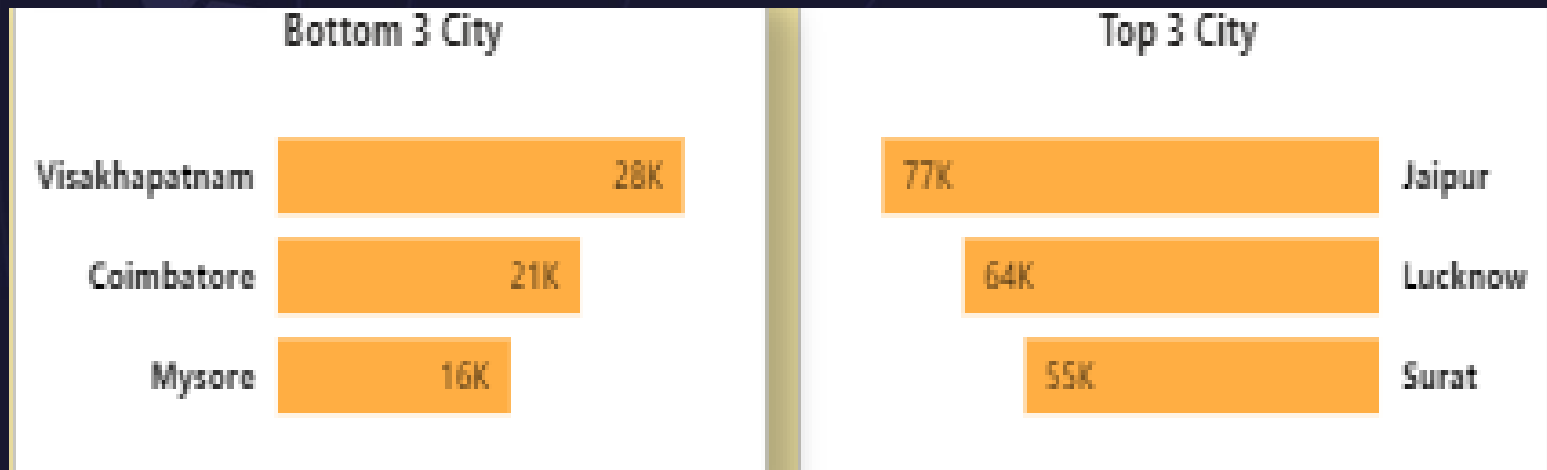
The dataset contain **8 CSV files & 2 databases** containing record of each trip. A list of **key insights** asked by stakeholders are primary analysis questions. We use **SQL report** for ad-hoc business questions. I added SQL-based business questions to the GitHub repository.

This project is done based on 6 month of cab service data.



1. Top & Bottom Performing Cities

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



Surat, Jaipur & Lucknow are top performing cities while Mysore, Coimbatore, Visakhapatnam shows minimal activity in terms of passenger trips.





2. Average Fare Per Trip by City & compare it with the cities Average Trip Distance.

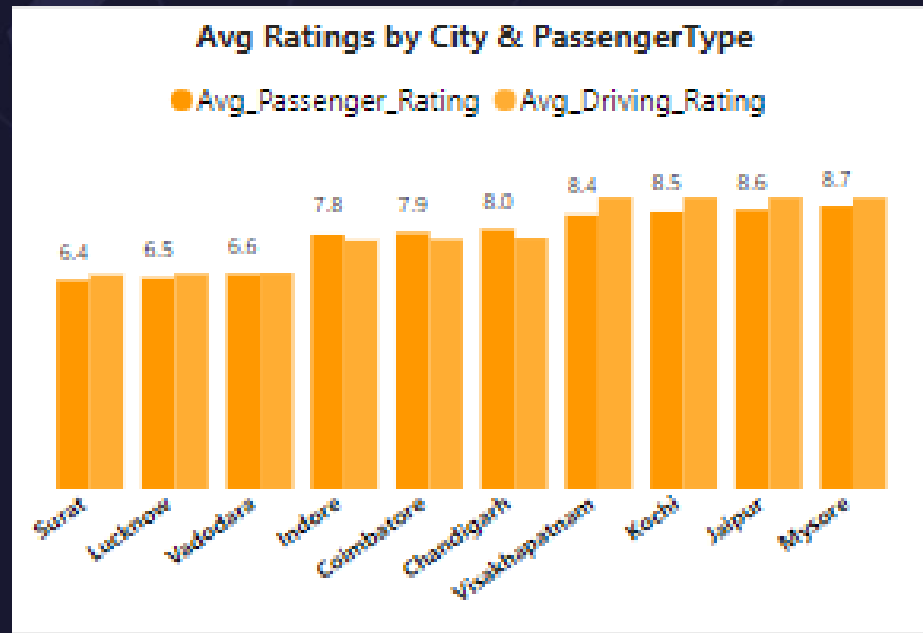
Avg Fare Per Trip By City				
city_name	Average_Trip_Distance	Avg_Fare_Per_Trip	Avg_Fare_per_Km	% Difference
Jaipur	30.02	483.92	16.12	13.91
Kochi	24.07	335.25	13.93	2.43
Chandigarh	23.52	283.69	12.06	-0.05
Visakhapatnam	22.55	282.67	12.53	-0.47
Mysore	16.50	249.71	15.14	20.28
Indore	16.50	179.84	10.90	-2.40
Coimbatore	14.98	166.98	11.15	0.50
Lucknow	12.51	147.18	11.76	-10.70
Vadodara	11.52	118.57	10.29	-14.60
Surat	11.00	117.27	10.66	-3.78

1. **Average Trip Distance:** Jaipur has the longest average trip distance, while Surat has the shortest .
2. **Avg Fare Per Trip:** Jaipur leads with the highest average fare per trip, and Surat has the lowest .
3. **Avg Fare per Km:** Mysore has the highest fare per km, while Vadodara charges the least .
4. **% Difference:** Jaipur's fare deviates most positively, whereas Mysore shows the largest negative deviation.





3. Average Passenger & Driver Ratings By City



1. Kochi, Jaipur & Mysore have highest Avg passenger ratings & Driver Ratings.
2. Surat, Lucknow & Vadodara have lowest Avg passenger ratings & Driver Ratings.



4. Peak & Low Demand Months by City

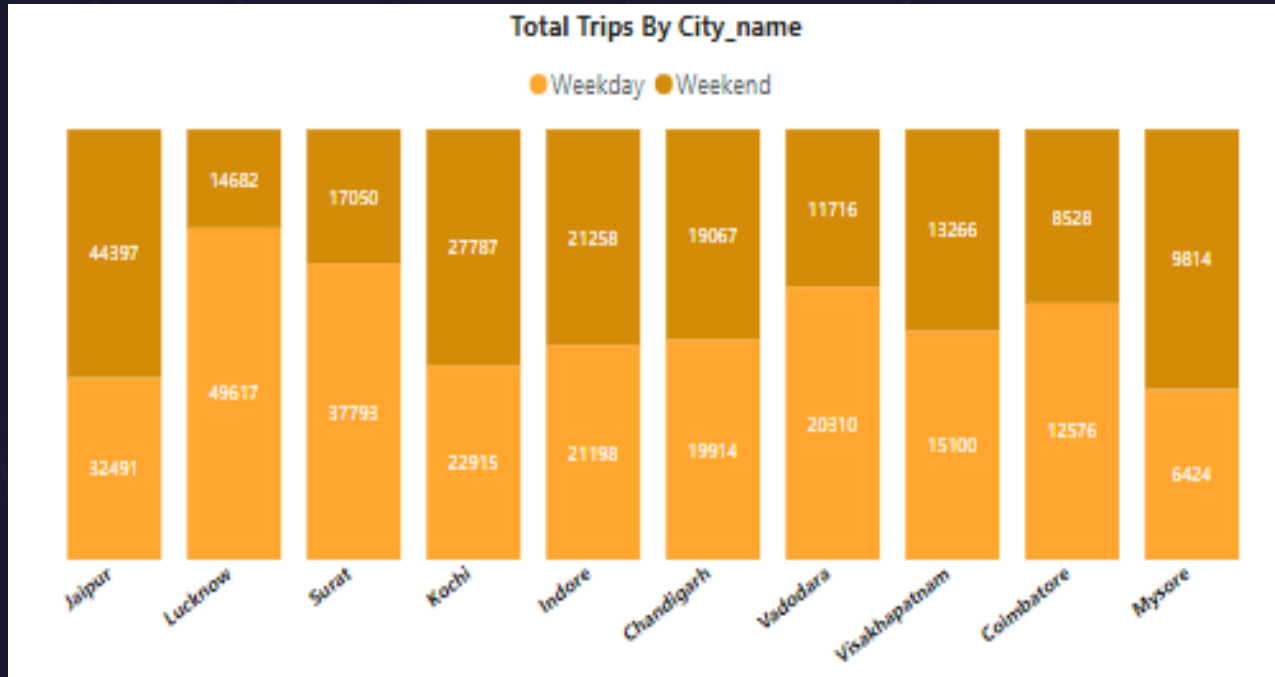
For each city, identify the month with the highest total trips and the month with the lowest total trips.

P & L Demand Month By City						
City_name	April	February	January	June	March	May
Chandigarh	5566	7387	6810	6029	6569	6620
Coimbatore	3661	3404	3651	3158	3680	3550
Indore	7415	7210	6737	6288	7019	7787
Jaipur	11406	15872	14976	9842	13317	11475
Kochi	9762	7688	7344	6399	9495	10014
Lucknow	10212	12060	10858	10240	11224	9705
Mysore	2603	2668	2485	2842	2633	3007
Surat	9831	9069	8358	8544	9267	9774
Vadodara	5941	5228	4775	4685	5598	5799
Visakhapatnam	4938	4793	4468	4478	4877	4812

1. Jaipur peaks in February & March month & hit its low in January.
2. Coimbatore and Visakhapatnam show lower passenger counts compare to other cities.
3. June shows low count in most cities, indicating a seasonal low. February and March are high demand months.



5. Weekend vs. Weekday Trip Demand by City



1. Weekday trips are highest in Lucknow, followed by Jaipur & Surat.
2. Weekend trips are highest in Jaipur, Kochi & Indore.



6. Repeat passenger frequency and City contribution Analysis

trip_count	Chandigarh	Coimbatore	Indore	Jaipur	Kochi	Lucknow	Mysore	Surat	Vadodara	Visakhapatnam
10-Trips	1.79	1.22	1.51	0.97	0.81	1.10	0.47	1.35	1.61	0.92
2-Trips	32.31	11.21	34.34	50.14	47.67	9.66	48.75	9.76	9.87	51.25
3-Trips	19.25	14.82	22.69	20.73	24.35	14.77	24.44	14.26	14.17	24.96
4-Trips	15.74	15.56	13.40	12.12	11.81	16.20	12.73	16.55	16.52	9.98
5-Trips	12.21	20.62	10.34	6.29	6.48	18.42	5.82	19.75	18.06	5.44
6-Trips	7.42	17.64	6.85	4.13	3.91	20.18	4.06	18.45	19.08	3.19
7-Trips	5.48	10.47	5.24	2.52	2.11	11.33	1.76	11.89	12.86	1.98
8-Trips	3.47	6.15	3.26	1.90	1.65	6.43	1.42	6.24	5.78	1.39
9-Trips	2.33	2.31	2.38	1.20	1.21	1.91	0.54	1.74	2.05	0.88

- Kochi and Visakhapatnam have the highest repeat passengers for 2-Trips, showing strong loyalty from early repeat travelers.
- In most cities like Chandigarh, Coimbatore, and Surat, the percentage of repeat passengers decreases as trip counts increase.
- Cities like Mysore and Jaipur have a steady percentage of repeat passengers across trip counts, showing better customer retention.

7. Monthly Target Achievement Analysis for Key Metrics



Analysis for Key Metrics										
City_name	Total Trips	Target Trips	Actual vs Target Trips	Total New Passengers	Target New Passenger	Actual vs Target new Passengers	Avg Passenger Rating	Target Passenger Rating	Trip_status	% Difference
Jaipur	76888	67500	9388	45856	54000	-8144	8.58	8.25	Exceeded	13.91
Kochi	50702	49500	1202	26416	27000	-584	8.52	8.50	Exceeded	2.43
Chandigarh	38981	39000	-19	18908	21000	-2092	7.98	8.00	Missed	-0.05
Lucknow	64299	72000	-7701	16260	15600	660	6.49	7.25	Missed	-10.70
Indore	42456	43500	-1044	14863	14100	763	7.83	8.00	Missed	-2.40
Visakhapatnam	28366	28500	-134	12747	13500	-753	8.43	8.50	Missed	-0.47
Mysore	16238	13500	2738	11681	12000	-319	8.70	8.50	Exceeded	20.28
Surat	54843	57000	-2157	11626	10500	1126	6.42	7.00	Missed	-3.78
Vadodara	32026	37500	-5474	10127	9900	227	6.61	7.50	Missed	-14.60
Coimbatore	21104	21000	104	8514	7500	1014	7.88	8.25	Exceeded	0.50

- 1. Jaipur leads with a significant **positive variance** of 13.91% in trip targets, indicating strong performance.
- 2. Lucknow and Surat faced notable shortfalls in trips, with deficits of -10.7% and -3.78%, respectively, requiring attention to improve efficiency.
- 3. Coimbatore exceeded both trip and passenger targets but only marginally (0.5%), showing steady growth potential.
- 4. Passenger satisfaction is high overall, but Lucknow's low average rating of 6.49 needs improvement to enhance service quality.



8.1 Highest & Lowest Repeat Passenger Rate by City & Month



Top 2 City By RPR%

month_name	Lucknow	Surat
April	39.30%	45.70%
February	31.98%	36.81%
January	29.23%	32.74%
June	46.70%	49.17%
March	33.93%	43.43%
May	47.66%	49.92%

1. Surat & Lucknow lead in RPR% among Business-focused cities.
2. Jaipur & Mysore have lowest RPR% among Tourism-focused cities.

Bottom 2 City By RPR%

month_name	Jaipur	Mysore
April	22.10%	11.39%
February	13.34%	7.99%
January	12.01%	8.08%
June	16.98%	14.93%
March	19.88%	9.48%
May	25.68%	15.37%



8.2 Highest & Lowest Repeat Passenger Rate by City & Month



RPR % By Month_name										
month_name	Chandigarh	Coimbatore	Indore	Jaipur	Kochi	Lucknow	Mysore	Surat	Vadodara	Visakhapatnam
May	26.20%	32.66%	43.53%	25.68%	29.78%	47.66%	15.37%	49.92%	38.48%	32.91%
June	26.30%	24.69%	35.88%	16.98%	25.84%	46.70%	14.93%	49.17%	38.90%	29.68%
April	24.02%	27.87%	35.52%	22.10%	24.19%	39.30%	11.39%	45.70%	34.49%	34.97%
March	21.27%	21.73%	28.46%	19.88%	21.70%	33.93%	9.48%	43.43%	30.10%	29.84%
February	17.21%	17.36%	27.71%	13.34%	18.71%	31.98%	7.99%	36.81%	22.13%	24.92%
January	15.52%	17.71%	26.65%	12.01%	14.05%	29.23%	8.08%	32.74%	20.66%	20.55%

1. Surat consistently leads with the highest **Repeat Passenger Rate (RPR)**, peaking at 49.92% in May, indicating strong customer loyalty.
2. Mysore struggles with the lowest RPR across all months, particularly in May (15.37%) and January (8.08%), signaling a need to improve retention strategies.
3. Jaipur shows significant fluctuations, with its RPR starting low in January (12.01%) but improving by May (25.68%), reflecting gradual retention progress.
4. Lucknow and Vadodara exhibit steady growth, with Lucknow's RPR consistently above 30% and Vadodara reaching a high of 38.90% in June.



Further analysis & Recommendations



- **Factors Influencing Repeat Passenger Rates:** Key factors include service quality, pricing, city demographics, and lifestyle patterns. Cities with better service and competitive pricing are likely to see higher repeat passenger rates.
- **Tourism-Focused Cities:**
 1. Customize the travel experience for tourists.
 2. Provide guide assistance services, especially during peak seasons.
 3. Incorporate cultural elements into the service during local festivals.
- **Business-Focused Cities:**
 1. Establish exclusive partnerships with conference venues and hotels.
 2. Offer subscription-based or discounted ride packages for businesses to support employee transportation.
 3. Use traffic data integration to streamline and optimize routes.





- **Emerging Mobility Trends:** Electric vehicle adoption and green initiatives are shaping tier-2 city cab markets. Goodcabs should consider integrating EVs and eco-friendly policies to stay competitive and appeal to environmentally conscious customers.
- **Partnership Opportunities with Local Businesses:** Collaborating with hotels, malls, or event venues can boost demand and foster customer loyalty. These partnerships can drive more traffic, particularly in tourism-heavy or high-footfall areas.
- **Data Collection for Enhanced Decisions:** Goodcabs should gather data on customer preferences, booking patterns, feedback, and operational metrics to refine strategies. Insights into market trends and behavior will enable tailored services and improved efficiency.



