

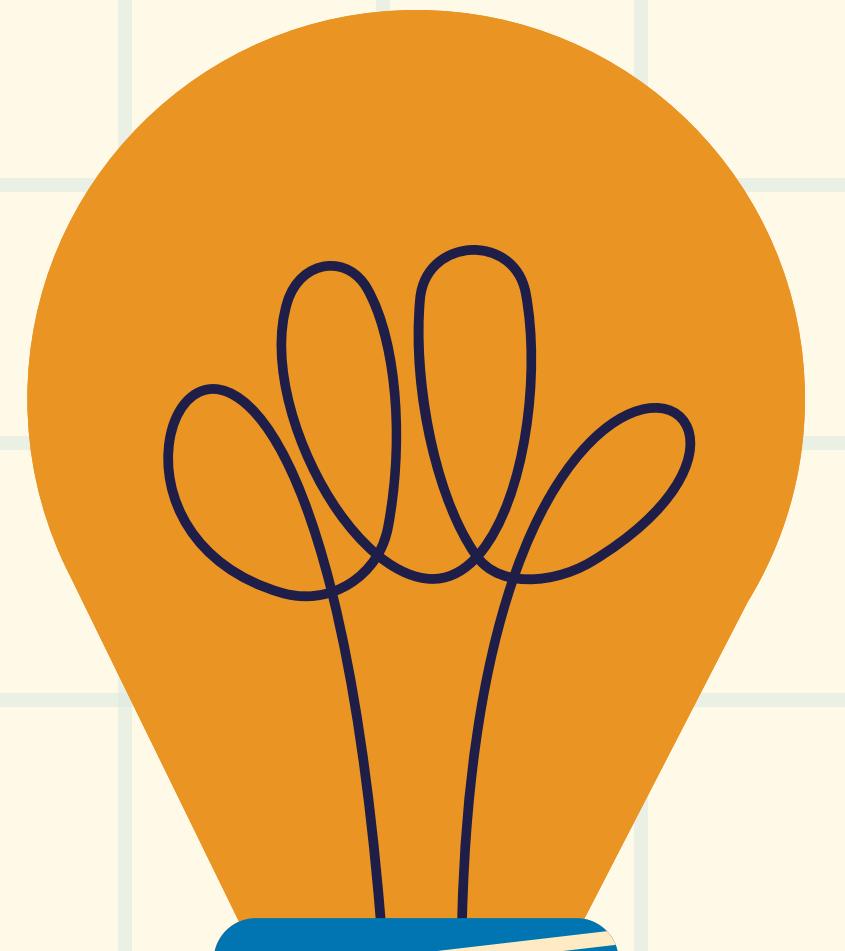


Ad-hoc Request

GOOD  
CABS



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# Company Overview

Goodcabs, operating in tier-2 cities, needs to assess key performance metrics like trip volume, passenger satisfaction, repeat passenger rates, and trip distribution. The company has set growth and satisfaction targets for 2024. The task has been assigned to the data analyst to analyze these metrics. The insights will be reported to the Chief of Operations, Bruce Haryali, to support decision-making. The analysis aims to align with the company's objectives and drive improvements.



## 1.Business Request - 1: City-Level Fare and Trip Summary Report

Generate a report that displays the total trips, average fare per km, average fare per trip, and the percentage contribution of each city's trips to the overall trips. This report will help in assessing trip volume, pricing efficiency, and each city's contribution to the overall trip count.

Fields:

city\_name  
total\_trips  
· avg\_fare\_per\_km  
· avg\_fare\_per\_trip  
· %\_contribution\_to\_total\_trips

```
with city_level_fare as (
  Select city_name, count(trip_id) as total_trips, round(sum(fare_amount)/sum(distance_travelled_km),2) as avg_per_km,
  round(avg(fare_amount),2) as avg_fare_per_trip from dim_city c
  join fact_trips ft on c.city_id=ft.city_id
  group by city_name
)

select *, round(total_trips/sum(total_trips) over()*100,2) as pct_contribute_to_total_trips from city_level_fare;
```

city_name	total_trips	avg_per_km	avg_fare_per_trip	pct_contribute_to_total_trips
Chandigarh	38981	12.06	283.69	9.15
Coimbatore	21104	11.15	166.98	4.96
Indore	42456	10.90	179.84	9.97
Jaipur	76888	16.12	483.92	18.05
Kochi	50702	13.93	335.25	11.90
Lucknow	64299	11.76	147.18	15.10
Mysore	16238	15.14	249.71	3.81
Surat	54843	10.66	117.27	12.88
Vadodara	32026	10.29	118.57	7.52
Visakhapatnam	28366	12.53	282.67	6.66

## Business Request - 2: Monthly City-Level Trips Target Performance Report

Generate a report that evaluates the target performance for trips at the monthly and city level. For each city and month, compare the actual total trips with the target trips and categorise the performance as follows:

- . If actual trips are greater than target trips, mark it as "Above Target".
- . If actual trips are less than or equal to target trips, mark it as "Below Target".

Additionally, calculate the % difference between actual and target trips to quantify the performance gap.

Fields:

- City\_name
- month\_name
- actual\_trips
- target\_trips
- performance\_status
- %\_difference

```
with actual_trip as (
  select c.city_id,city_name,monthname(date) as monthName,count(trip_id) as actual_trips from dim_city c
  join fact_trips ft on c.city_id=ft.city_id
  group by city_name,monthname(date)
)
select city_name,monthName,actual_trips,total_target_trips,
case
when actual_trips<=total_target_trips then 'Below Target'
else 'Above Target'
end as Performance_status,((actual_trips-total_target_trips)/total_target_trips*100) as diff_pct
from actual_trip act
join targets_db.monthly_target_trips mtt on act.city_id=mtt.city_id and act.monthName=monthname(mtt.month);
```

city_name	monthName	actual_trips	total_target_trips	Performance_status	diff_pct
Visakhapatnam	January	4468	4500	Below Target	-0.7111
Chandigarh	January	6810	7000	Below Target	-2.7143
Surat	January	8358	9000	Below Target	-7.1333
Vadodara	January	4775	6000	Below Target	-20.4167
Mysore	January	2485	2000	Above Target	24.2500
Kochi	January	7344	7500	Below Target	-2.0800
Indore	January	6737	7000	Below Target	-3.7571
Jaipur	January	14976	13000	Above Target	15.2000
Coimbatore	January	3651	3500	Above Target	4.3143
Lucknow	January	10858	13000	Below Target	-16.4769
Visakhapatnam	February	4793	4500	Above Target	6.5111
Chandigarh	February	7387	7000	Above Target	5.5286
Surat	February	9069	9000	Above Target	0.7667
Vadodara	February	5228	6000	Below Target	-12.8667

## Business Request - 3: City-Level Repeat Passenger Trip Frequency Report

Generate a report that shows the percentage distribution of repeat passengers by the number of trips they have taken in each city. Calculate the percentage of repeat passengers who took 2 trips, 3 trips, and so on, up to 10 trips.

Each column should represent a trip count category, displaying the percentage of repeat passengers who fall into that category out of the total repeat passengers for that city.

This report will help identify cities with high repeat trip frequency, which can indicate strong customer loyalty or frequent usage patterns.

.Fields: city\_name, 2-Trips, 3-Trips, 4-Trips, 5-Trips, 6-Trips, 7-Trips, 8-Trips, 9-Trips, 10-Trips

```
SELECT c.city_name,  
ROUND(SUM(CASE WHEN trip_count = '2-Trips' THEN repeat_passenger_count else 0 END) / sum(repeat_passenger_count) * 100, 2) AS '2-Trips%',  
ROUND(SUM(CASE WHEN trip_count = '3-Trips' THEN repeat_passenger_count else 0 END) / sum(repeat_passenger_count) * 100, 2) AS '3-Trips%',  
ROUND(SUM(CASE WHEN trip_count = '4-Trips' THEN repeat_passenger_count else 0 END) / sum(repeat_passenger_count) * 100, 2) AS '4-Trips%',  
ROUND(SUM(CASE WHEN trip_count = '5-Trips' THEN repeat_passenger_count else 0 END) / sum(repeat_passenger_count) * 100, 2) AS '5-Trips%',  
ROUND(SUM(CASE WHEN trip_count = '6-Trips' THEN repeat_passenger_count else 0 END) / sum(repeat_passenger_count) * 100, 2) AS '6-Trips%',  
ROUND(SUM(CASE WHEN trip_count = '7-Trips' THEN repeat_passenger_count else 0 END) / sum(repeat_passenger_count) * 100, 2) AS '7-Trips%',  
ROUND(SUM(CASE WHEN trip_count = '8-Trips' THEN repeat_passenger_count else 0 END) / sum(repeat_passenger_count) * 100, 2) AS '8-Trips%',  
ROUND(SUM(CASE WHEN trip_count = '9-Trips' THEN repeat_passenger_count else 0 END) / sum(repeat_passenger_count) * 100, 2) AS '9-Trips%',  
ROUND(SUM(CASE WHEN trip_count = '10-Trips' THEN repeat_passenger_count else 0 END) / sum(repeat_passenger_count) * 100, 2) AS '10-Trips'%'  
FROM  
dim_repeat_trip_distribution r_trips  
JOIN dim_city c on c.city_id = r_trips.city_id  
GROUP BY  
c.city_name;
```

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

## Business Request - 4: Identify Cities with Highest and Lowest Total New Passengers

Generate a report that calculates the total new passengers for each city and ranks them based on this value. Identify the top 3 cities with the highest number of new passengers as well as the bottom 3 cities with the lowest number of new passengers, categorising them as "Top 3" or "Bottom 3" accordingly.

### Fields

- city\_name
- total\_new\_passengers
- city\_category ("Top 3" or "Bottom 3")

```
with new_passenger_report as (
  select city_name,sum(new_passengers) as total_new_passengers from dim_city c
  join fact_passenger_summary  fps on fps.city_id=c.city_id
  group by city_name
), ranked_cities as (
  select *,rank() over(order by total_new_passengers desc) as city_rank  from new_passenger_report
)
select *,
case
when city_rank <=3 then 'Top 3'
when city_rank >=(select max(city_rank)-2  from ranked_cities) then  'bottom 3'
else city_rank
end as city_category
from ranked_cities;
```

city_name	total_new_passengers	city_rank	city_category
Jaipur	45856	1	Top 3
Kochi	26416	2	Top 3
Chandigarh	18908	3	Top 3
Lucknow	16260	4	4
Indore	14863	5	5
Visakhapatnam	12747	6	6
Mysore	11681	7	7
Surat	11626	8	bottom 3
Vadodara	10127	9	bottom 3
Coimbatore	8514	10	bottom 3

## Business Request - 5: Identify Month with Highest Revenue for Each City

Generate a report that identifies the month with the highest revenue for each city. For each city, display the month\_name, the revenue amount for that month, and the percentage contribution of that month's revenue to the city's total revenue.

### Fields

- city\_name
- highest\_revenue\_month
- revenue
- percentage\_contribution (%)

```
with ranking_month_wise_revenue as (
  select *,row_number() over(partition by city_name order by revenue_mln desc) as revenue_rn,
  sum(revenue_mln) over(partition by city_name) as total_revenue
  from (
    select city_name,month_name,round(sum(fare_amount)/100000,2) as revenue_mln from fact_trips f_trips
    join dim_date d_date on f_trips.date=d_date.date
    join dim_city d_city on d_city.city_id=f_trips.city_id
    group by city_name,month_name
  ) as x
)
SELECT city_name,
  month_name AS highest_revenue_month,
  revenue_mln,
  round((revenue_mln / total_revenue)* 100,2) AS percentage_contribution
FROM ranking_month_wise_revenue
WHERE revenue_rn = 1;
```

city_name	highest_revenue_month	revenue_mln	percentage_contribution
Chandigarh	February	21.08	19.06
Coimbatore	January	6.12	17.37
Indore	May	13.81	18.09
Jaipur	February	77.47	20.82
Kochi	May	33.34	19.62
Lucknow	February	17.77	18.78
Mysore	May	7.45	18.37
Surat	April	11.55	17.96
Vadodara	April	7.06	18.59
Visakhapatnam	April	13.91	17.35

## Business Request - 6: Repeat Passenger Rate Analysis

Generate a report that calculates two metrics:

1. Monthly Repeat Passenger Rate: Calculate the repeat passenger rate for each city and month by comparing the number of repeat passengers to the total passengers.
2. City-wide Repeat Passenger Rate: Calculate the overall repeat passenger rate for each city, considering all passengers across months.

These metrics will provide insights into monthly repeat trends as well as the overall repeat behaviour for each city.

Fields:

- city\_name
- month
- total\_passengers
- repeat\_passengers
- monthly\_repeat\_passenger\_rate (%): Repeat passenger rate at the city and month level
- city\_repeat\_passenger\_rate (%): Overall repeat passenger rate for each city, aggregated across months

```

with month_wise as (
select city_name,month_name,sum(repeat_passenger) as total_repeat_passenger,
sum(total_passenger) as total_passenger from fact_passenger_summary fps
join dim_date d_date on fps.month=d_date.date
join dim_city dc on dc.city_id=fps.city_id
group by city_name,month_name
),
city_wise as (
select city_name,sum(total_repeat_passenger) as
city_wise_repeat_passenger,sum(total_passenger) as city_wise_total_passenger from month_wise
group by city_name
)

select cw.city_name,month_name,total_repeat_passenger,total_passenger,
round((total_repeat_passenger/total_passenger*100),2) as monthly_repeat_passenger_rate,
round((city_wise_repeat_passenger/city_wise_total_passenger*100),2) as city_repeat_passenger_rate
from month_wise
mw join city_wise cw on mw.city_name=cw.city_name

```

city_name	month_name	total_repeat_passenger	total_passenger	monthly_repeat_passenger_rate	city_repeat_passenger_rate
Visakhapatnam	January	650	3163	20.55	28.61
Visakhapatnam	February	790	3170	24.92	28.61
Visakhapatnam	March	923	3093	29.84	28.61
Visakhapatnam	April	992	2837	34.97	28.61
Visakhapatnam	May	951	2890	32.91	28.61
Visakhapatnam	June	802	2702	29.68	28.61
Chandigarh	January	720	4640	15.52	21.14
Chandigarh	February	853	4957	17.21	21.14
Chandigarh	March	872	4100	21.27	21.14
Chandigarh	April	789	3285	24.02	21.14
Chandigarh	May	969	3699	26.20	21.14
Chandigarh	June	867	3297	26.30	21.14
Surat	January	1184	3616	32.74	42.63
Surat	February	1313	3567	36.81	42.63
Surat	March	1494	3440	43.43	42.63

# Insights From Ad-Hoc Request



## Contribution to Total Trip Volume

Jaipur, Lucknow, and Surat together account for 46.03% of the total trip volume

## Passenger Trip Frequency Distribution

Across all cities, the majority of repeat passengers take 2 or 3 trips, indicating a high frequency of early repeat usage

## Surat's New Passenger Acquisition Gap

Despite contributing 12.88% to total trip volume, Surat ranks in the bottom 3 for new passengers, highlighting a need to improve customer acquisition



## Seasonal Revenue Trends Across Regions

February leads in revenue for northern cities, while April dominates in southern and select western cities, showing seasonal trends

## Addressing Low Repeat Passenger Retention in Mysore

Mysore's repeat passenger rate is the lowest at 11.23%, requiring focused efforts to boost retention.



# THANK YOU

