

G Motors India EV-SALES

SQL ANALYTIC REPORT



FROM

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1. List the top 3 and bottom 3 makers for the fiscal years 2023 and 2024 in terms of the number of 2-wheelers sold.

#top

select maker , sum(electric\_vehicles\_sold) as TotalSold

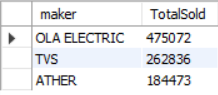
from dim\_date inner join electric\_vehicle\_sales\_by\_makers on dim\_date.ï»¿date = electric\_vehicle\_sales\_by\_makers.ï»¿date

WHERE vehicle\_category = '2-Wheelers'

AND fiscal\_year IN (2023 ,2024)

GROUP BY maker

ORDER BY TotalSold DESC limit 3;



#BOTTOM

select maker , sum(electric\_vehicles\_sold) as TotalSold

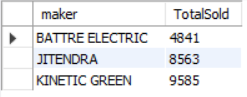
from dim\_date inner join electric\_vehicle\_sales\_by\_makers on dim\_date.ï»¿date = electric\_vehicle\_sales\_by\_makers.ï»¿date

WHERE vehicle\_category = '2-Wheelers'

AND fiscal\_year IN(2023,2024)

GROUP BY maker

ORDER BY TotalSold asc limit 3;



1. Find the overall penetration rate in India

SELECT (sum(electric\_vehicles\_sold) /

sum(total\_vehicles\_sold)) \* 100 AS penetration\_rate

FROM electric\_vehicle\_sales\_by\_state ;



1. Identify the top 5 states with the highest penetration rate in 2-wheeler and 4-wheeler EV sales in FY 2024.

select state,

sum(electric\_vehicles\_sold)/

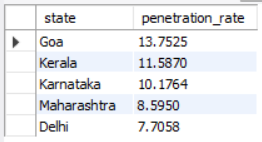
sum(total\_vehicles\_sold) \* 100 as penetration\_rate

from `dim\_date` inner join `electric\_vehicle\_sales\_by\_state` on dim\_date.ï»¿date = electric\_vehicle\_sales\_by\_state.ï»¿date

where fiscal\_year = 2024

group by state

order by penetration\_rate desc limit 5 ;



1. List the top 5 states having highest number of EVs sold in 2023

SELECT YEAR(ï»¿date) AS fiscal\_year,state,SUM(total\_vehicles\_sold) AS total\_sold

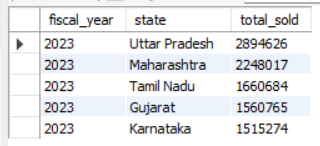
FROM electric\_vehicle\_sales\_by\_state

WHERE YEAR(ï»¿date) = 2023

GROUP BY fiscal\_year, state

ORDER BY total\_sold DESC

LIMIT 5;



1. Which are the Top 5 EV makers in India?

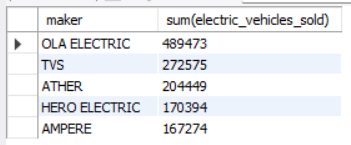
select maker , sum(electric\_vehicles\_sold)

from `electric\_vehicle\_sales\_by\_makers`

group by maker

order by sum(electric\_vehicles\_sold) desc

limit 5 ;

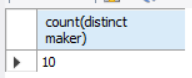


1. How many EV makers sell 4-wheelers in India?

select count(distinct maker)

from `electric\_vehicle\_sales\_by\_makers`

where vehicle\_category = '4-Wheelers';



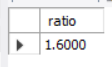
1. What is ratio of 2-wheeler makers to 4-wheeler makers?

SELECT

(select count(distinct maker)from `electric\_vehicle\_sales\_by\_makers` where vehicle\_category = '2-Wheelers')/

(select count(distinct maker)from `electric\_vehicle\_sales\_by\_makers` where vehicle\_category = '4-Wheelers')

as ratio ;



1. What are the quarterly trends based on sales volume for the top 5 EV makers (4-wheelers) from 2022 to 2024?

WITH top5M AS (

SELECT maker

FROM dim\_date

INNER JOIN electric\_vehicle\_sales\_by\_makers

ON dim\_date.ï»¿date = electric\_vehicle\_sales\_by\_makers.ï»¿date

WHERE vehicle\_category = '4-Wheelers' AND fiscal\_year BETWEEN 2022 AND 2024

GROUP BY maker

ORDER BY SUM(electric\_vehicles\_sold) DESC

LIMIT 5 )

SELECT fiscal\_year, quarter, top5M.maker,

SUM(electric\_vehicles\_sold) AS sales\_volume

FROM dim\_date

INNER JOIN electric\_vehicle\_sales\_by\_makers

ON dim\_date.ï»¿date = electric\_vehicle\_sales\_by\_makers.ï»¿date

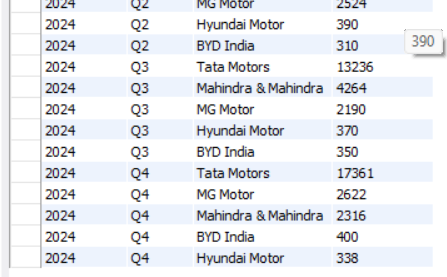
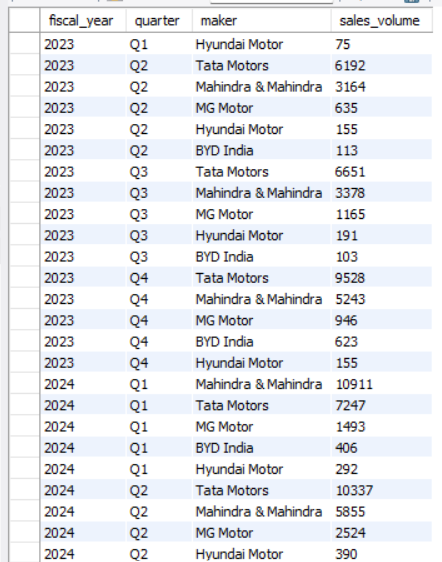
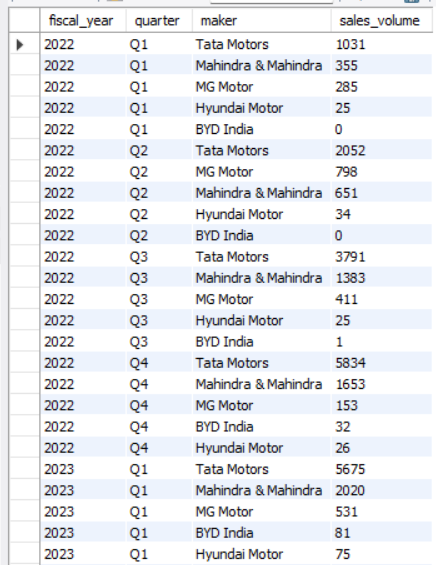
join Top5M on electric\_vehicle\_sales\_by\_makers.maker = Top5M.maker

WHERE vehicle\_category = '4-Wheelers'

AND fiscal\_year BETWEEN 2022 AND 2024

GROUP BY fiscal\_year, top5M.maker, quarter

ORDER BY fiscal\_year, quarter, sales\_volume DESC;



1. How do the EV sales and penetration rates in Maharashtra compare to Tamil Nadu for 2024?

select state,sum(electric\_vehicles\_sold) as EV\_SALES,

sum(electric\_vehicles\_sold)/

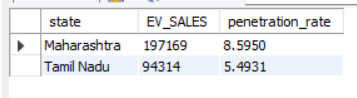
sum(total\_vehicles\_sold) \* 100 as penetration\_rate

from `dim\_date` inner join `electric\_vehicle\_sales\_by\_state` on dim\_date.ï»¿date = electric\_vehicle\_sales\_by\_state.ï»¿date

where state in ('Maharashtra' , 'Tamil Nadu')

and fiscal\_year = 2024

group by state ;



1. What are the peak and low season months for EV sales based on the data from 2022 to 2024?

#peak season months

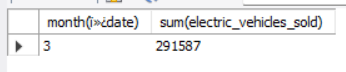
select month(ï»¿date) ,sum(electric\_vehicles\_sold)

from `electric\_vehicle\_sales\_by\_makers`

where year(ï»¿date) between 2022 and 2024

group by month(ï»¿date)

order by sum(electric\_vehicles\_sold) desc ;



#low season months

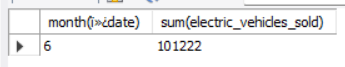
select month(ï»¿date) ,sum(electric\_vehicles\_sold)

from `electric\_vehicle\_sales\_by\_makers`

where year(ï»¿date) between 2022 and 2024

group by month(ï»¿date)

order by sum(electric\_vehicles\_sold) asc ;



1. Estimate the revenue growth rate of 4-wheeler and 2-wheelers EVs in India for 2022 vs 2024 and 2023 vs 2024, assuming an average unit price.

# 2-Wheelers

with revenue\_per\_year AS (

SELECT vehicle\_category, fiscal\_year,

SUM(electric\_vehicles\_sold \*85000 ) AS total\_revenue

FROM electric\_vehicle\_sales\_by\_makers

JOIN dim\_date ON electric\_vehicle\_sales\_by\_makers.ï»¿date = dim\_date.ï»¿date

where vehicle\_category = '2-Wheelers'

GROUP BY vehicle\_category, fiscal\_year),

pivot\_revenue AS (

SELECT

MAX(CASE WHEN fiscal\_year = 2022 THEN total\_revenue ELSE 0 END) AS revenue\_2022,

MAX(CASE WHEN fiscal\_year = 2023 THEN total\_revenue ELSE 0 END) AS revenue\_2023,

MAX(CASE WHEN fiscal\_year = 2024 THEN total\_revenue ELSE 0 END) AS revenue\_2024

FROM revenue\_per\_year)

SELECT

((revenue\_2024 - revenue\_2022) / revenue\_2022) \* 100 AS growth\_rate\_2022\_vs\_2024,

((revenue\_2024 - revenue\_2023) / revenue\_2023) \* 100 AS growth\_rate\_2023\_vs\_2024

FROM pivot\_revenue ;



# 4-WHEELERS

with revenue\_per\_year AS (

SELECT vehicle\_category, fiscal\_year,

SUM(electric\_vehicles\_sold \*1500000 ) AS total\_revenue

FROM electric\_vehicle\_sales\_by\_makers

JOIN dim\_date ON electric\_vehicle\_sales\_by\_makers.ï»¿date = dim\_date.ï»¿date

where vehicle\_category = '4-Wheelers'

GROUP BY vehicle\_category, fiscal\_year),

pivot\_revenue AS (

SELECT

MAX(CASE WHEN fiscal\_year = 2022 THEN total\_revenue ELSE 0 END) AS revenue\_2022,

MAX(CASE WHEN fiscal\_year = 2023 THEN total\_revenue ELSE 0 END) AS revenue\_2023,

MAX(CASE WHEN fiscal\_year = 2024 THEN total\_revenue ELSE 0 END) AS revenue\_2024

FROM revenue\_per\_year)

SELECT

((revenue\_2024 - revenue\_2022) / revenue\_2022) \* 100 AS growth\_rate\_2022\_vs\_2024,

((revenue\_2024 - revenue\_2023) / revenue\_2023) \* 100 AS growth\_rate\_2023\_vs\_2024

FROM pivot\_revenue ;

