SELECT

COUNT(DISTINCT maker) AS number\_of\_makers

FROM ev\_sales\_db.electric\_vehicle\_sales\_by\_makers

WHERE vehicle\_category = '2-Wheelers';

SELECT

maker,

SUM(electric\_vehicles\_sold) AS total\_sold

FROM ev\_sales\_db.electric\_vehicle\_sales\_by\_makers evm

JOIN ev\_sales\_db.dim\_date dd ON evm.date = dd.date

WHERE vehicle\_category = '2-Wheelers' AND fiscal\_year IN (2023, 2024)

GROUP BY maker

ORDER BY total\_sold DESC

LIMIT 3

SELECT

ROUND(AVG(monthly\_sales.total\_vehicle\_sales), 0) AS avg\_total\_sales\_per\_month

FROM (

SELECT

EXTRACT(MONTH FROM dd.date) AS month,

SUM(evs.total\_vehicles\_sold) AS total\_vehicle\_sales

FROM ev\_sales\_db.electric\_vehicle\_sales\_by\_state evs

JOIN ev\_sales\_db.dim\_date dd

ON evs.date = dd.date

WHERE dd.fiscal\_year = 2024

GROUP BY month

) AS monthly\_sales;

SELECT

state,

round((SUM(electric\_vehicles\_sold) / SUM(total\_vehicles\_sold)) \* 100 , 2)

AS penetration\_rate

FROM ev\_sales\_db.electric\_vehicle\_sales\_by\_state evs

JOIN ev\_sales\_db.dim\_date dd ON evs.date = dd.date

WHERE fiscal\_year = 2024

AND vehicle\_category IN ('2-Wheelers', '4-Wheelers')

GROUP BY state

ORDER BY penetration\_rate DESC

LIMIT 5;

WITH state\_sales AS (

SELECT

evs.state,

SUM(evs.total\_vehicles\_sold) AS total\_vehicle\_sales

FROM ev\_sales\_db.electric\_vehicle\_sales\_by\_state evs

JOIN ev\_sales\_db.dim\_date dd

ON evs.date = dd.date

WHERE dd.fiscal\_year = 2023

GROUP BY evs.state

)

SELECT

state\_sales.state,

state\_sales.total\_vehicle\_sales

FROM state\_sales

WHERE state\_sales.total\_vehicle\_sales = (SELECT MAX(total\_vehicle\_sales) FROM state\_sales)

OR state\_sales.total\_vehicle\_sales = (SELECT MIN(total\_vehicle\_sales) FROM state\_sales);

SELECT

DATE\_FORMAT(dd.date, '%M') AS month\_name,

SUM(evs.electric\_vehicles\_sold) AS total\_ev\_sales

FROM ev\_sales\_db.electric\_vehicle\_sales\_by\_state evs

JOIN ev\_sales\_db.dim\_date dd ON evs.date = dd.date

WHERE dd.fiscal\_year BETWEEN 2022 AND 2024

GROUP BY month\_name

ORDER BY total\_ev\_sales DESC;

WITH cagr\_data AS (

SELECT

evm.maker,

SUM(CASE WHEN dd.fiscal\_year = 2022 THEN evm.electric\_vehicles\_sold ELSE 0 END) AS start\_value,

SUM(CASE WHEN dd.fiscal\_year = 2024 THEN evm.electric\_vehicles\_sold ELSE 0 END) AS end\_value

FROM ev\_sales\_db.electric\_vehicle\_sales\_by\_makers evm

JOIN ev\_sales\_db.dim\_date dd

ON evm.date = dd.date

WHERE evm.vehicle\_category = '2-Wheeler'

GROUP BY evm.maker

)

SELECT

maker,

ROUND((POWER((end\_value \* 1.0 / start\_value), 1 / 2.0) - 1) \* 100, 2) AS cagr\_percentage

FROM cagr\_data

ORDER BY cagr\_percentage DESC

LIMIT 4;

SELECT

evs.state,

SUM(evs.electric\_vehicles\_sold) AS total\_ev\_sales,

SUM(evs.total\_vehicles\_sold) AS total\_vehicles\_sold,

ROUND((SUM(evs.electric\_vehicles\_sold) / SUM(evs.total\_vehicles\_sold)) \* 100, 2) AS penetration\_rate,

CASE

WHEN (SUM(evs.electric\_vehicles\_sold) / SUM(evs.total\_vehicles\_sold)) \* 100 > 7 THEN 'Above 7%'

WHEN (SUM(evs.electric\_vehicles\_sold) / SUM(evs.total\_vehicles\_sold)) \* 100 > 5 THEN 'Above 5%'

WHEN (SUM(evs.electric\_vehicles\_sold) / SUM(evs.total\_vehicles\_sold)) \* 100 > 3 THEN 'Above 3%'

WHEN (SUM(evs.electric\_vehicles\_sold) / SUM(evs.total\_vehicles\_sold)) \* 100 > 1 THEN 'Above 1%'

ELSE 'Below 1%'

END AS penetration\_category

FROM ev\_sales\_db.electric\_vehicle\_sales\_by\_state evs

JOIN ev\_sales\_db.dim\_date dd

ON evs.date = dd.date

WHERE dd.fiscal\_year = 2024

GROUP BY evs.state;