Data Analysis Project on Electric
Vehicles Sales in SQL
By
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## Table Name: electric\_vehicles

- Total number of rows: 1,86,879
- This dataset contains detailed information about electric vehicles registered in a certain region.
- Each record represents an individual electric vehicle and includes various attributes such as location, vehicle specifications, and utility details.
- The dataset can be used to analyze trends in electric vehicle adoption, geographic distribution, and the characteristics of different electric vehicle models.

#### Columns Description:

➤ VIN (Vehicle Identification Number): A unique identifier for each vehicle, typically composed of 17 characters, but this dataset seems to be using the first 10 characters.

County: The county in which the vehicle is registered.

City: The city in which the vehicle is registered.

State: The state in which the vehicle is registered.

Postal Code: The postal code for the vehicle's registration address. Model Year: The year the vehicle model was manufactured. Make: The manufacturer or brand of the vehicle (e.g., Tesla, Nissan).

Model: The specific model name or number of the vehicle.

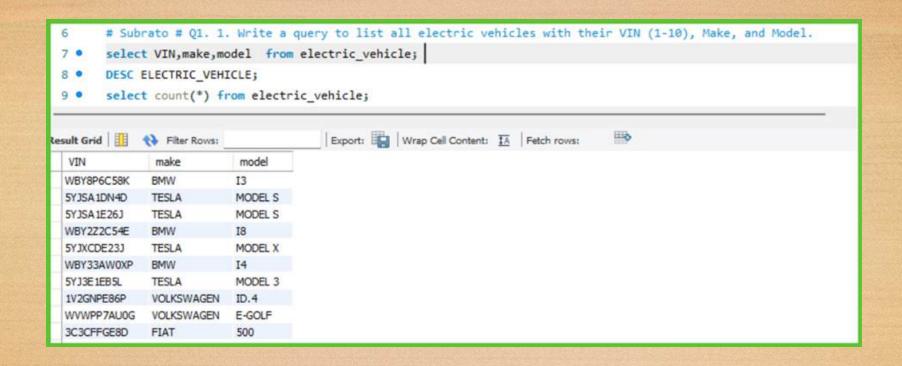
Electric Vehicle Type: The type of electric vehicle (e.g., Battery Electric Vehicle (BEV), Plugin Hybrid Electric Vehicle (PHEV)).

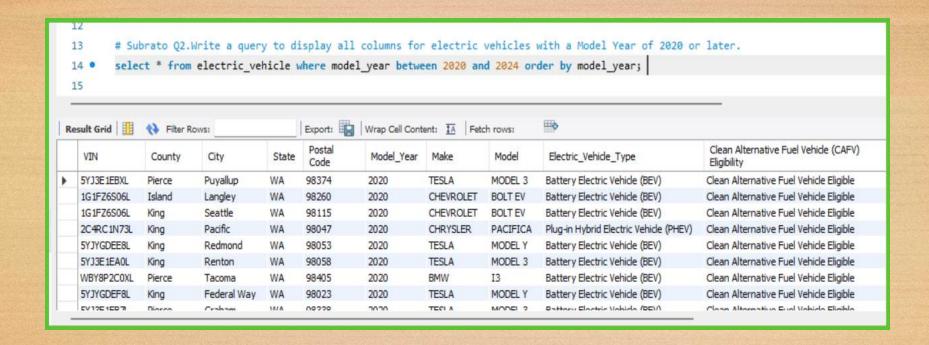
► Clean Alternative Fuel Vehicle (CAFV) Eligibility: Indicates whether the vehicle is eligible for clean alternative fuel vehicle incentives.

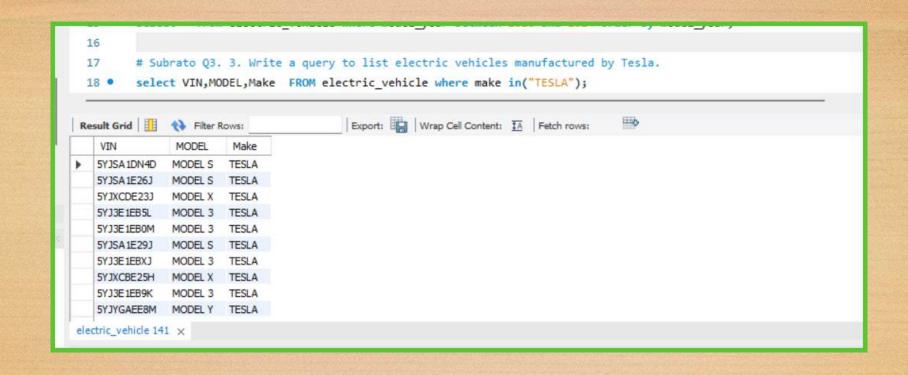
• Objective: To analyze electric vehicle sales data and derive meaningful insights using SQL.

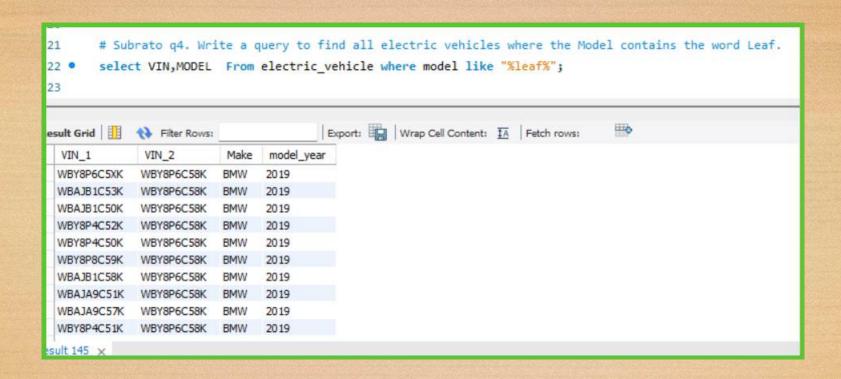
# • Scope:

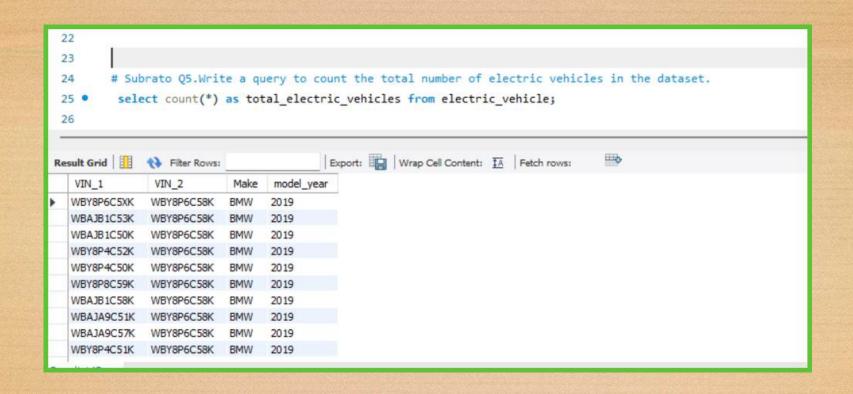
- Data Extraction and Transformation
- Sales Trends and Growth Analysis
- Top Models and Manufacturers
- Range Analysis
- Tools Used: SQL



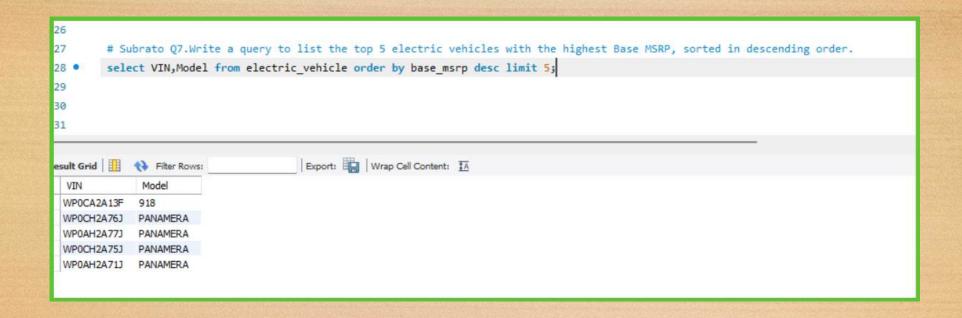


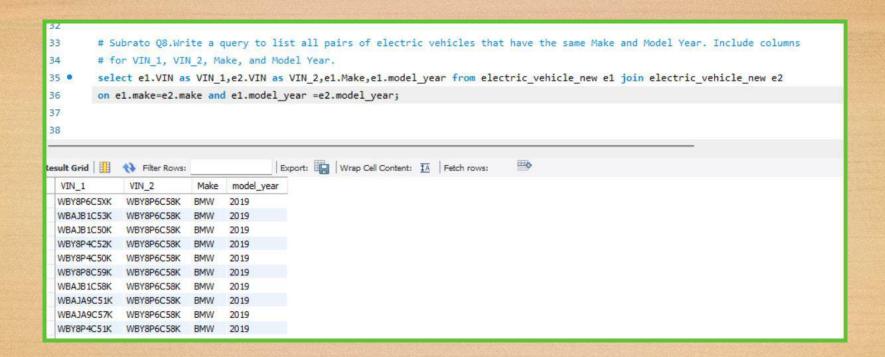


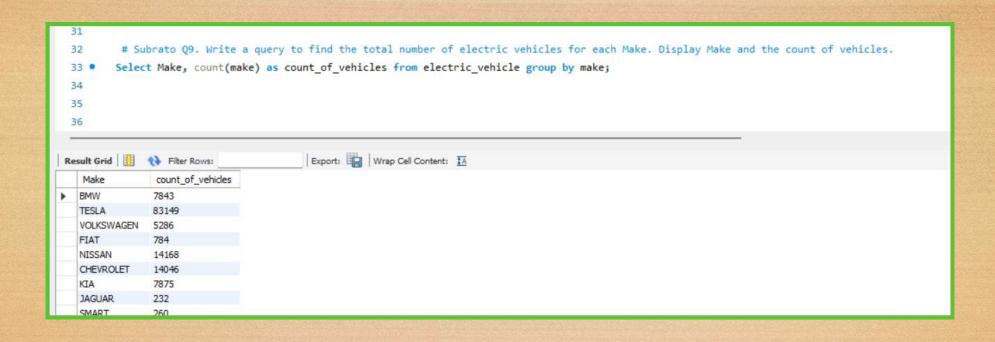


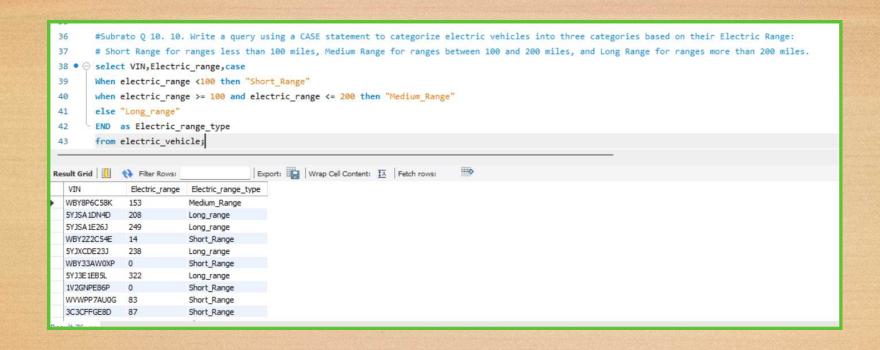


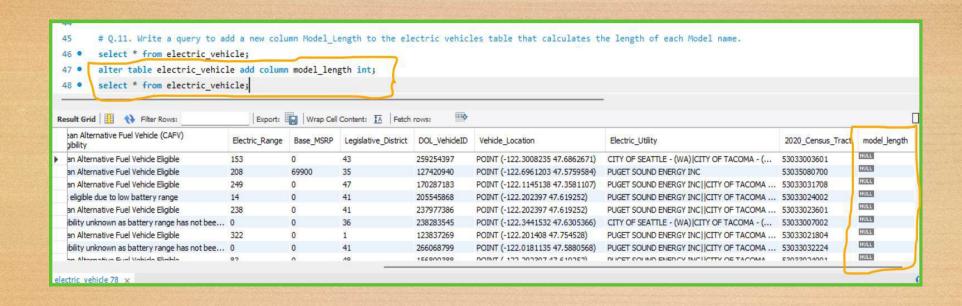
23		
24	Subrato Q6.Write a query to find the average Electric Range of all electric vehicles.	
25 •	elect Round(AVG(Electric_range),2) as Average_Electric_Range from electric_vehicle;	
26	· · · · · · · · · · · · · · · · · · ·	
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Averag	ectric_Range	
56.68		

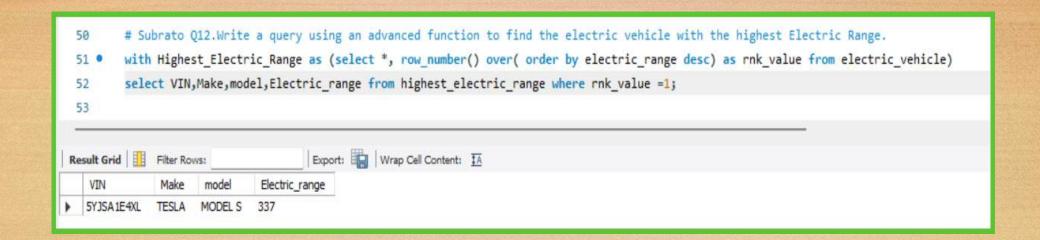


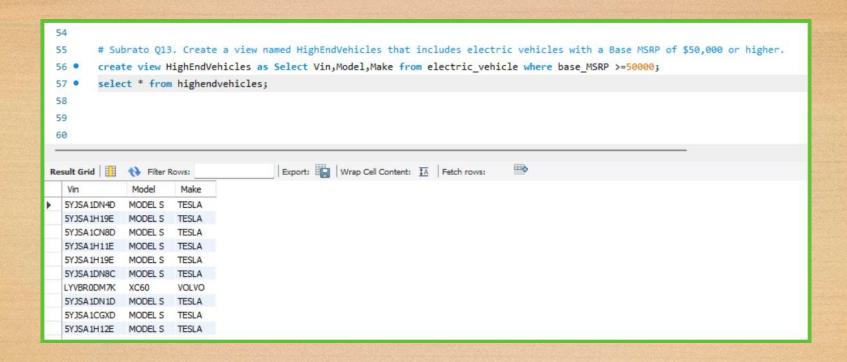


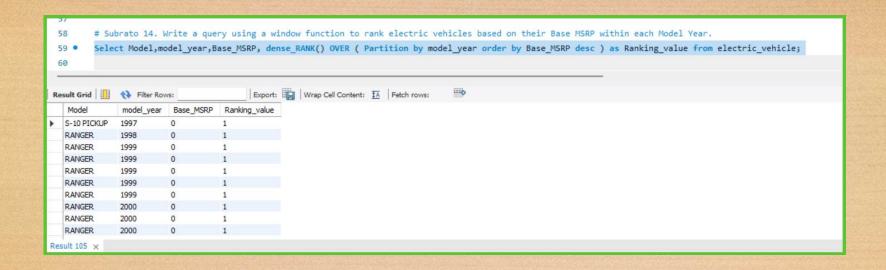


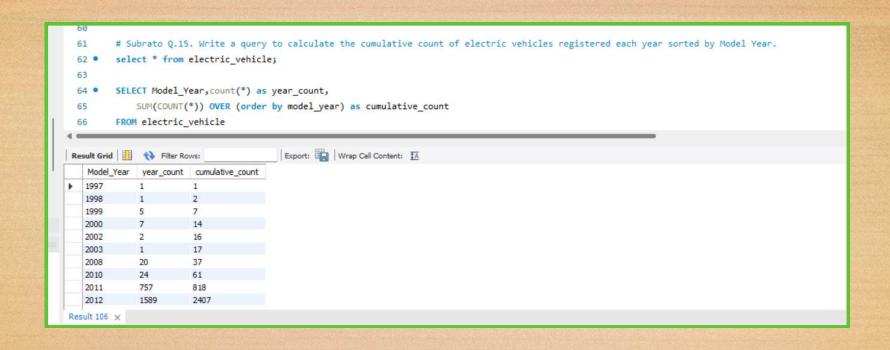






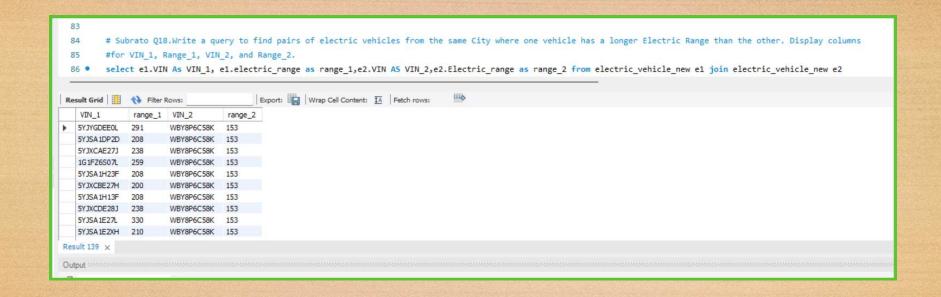






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# Q16. 16. Write a stored procedure to update the Base MSRP of a vehicle given its VIN (1-10) and new Base MSRP.
69
       Delimiter //
70
       Create procedure base_update ( in a Text , in b int)
    ⊖ begin
72
       update electric_vehicle set Base_msrp= b where VIN = a;
73
       end //
74
75
       delimiter;
       call base_update("upknbcf",477890 );
76 •
77
78
```

78 79 •	# Subrato Q17 Write a query to find the county with the highest average Base MSRP for electric vehicles. Use subqueries and aggregate functions to achieve this.  select * from electric_vehicle;	
80 •	select county, average_ from ( select county,avg(base_msrp) as average_ from electric_vehicle group by county ) as t order by average_ desc limit 1;	
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82		
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_		
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cour	nty average_	
▶ Colur	mbia 4992.8571	



### Conclusion and Future Work

- Key Insights:
- Significant growth in electric vehicle registrations over recent years.
- Top models and manufacturers driving the market.
- Highest electric ranges achieved by leading models.

- Next Steps:
- Incorporate more detailed demographic data for deeper insights.
- Explore predictive analytics for future sales trends.
- Enhance data visualization for more interactive analysis

# Thank You