# Analysis of the Electric Vehicle Dashboard:

1. **Total Vehicles:**

   o **A total of 1,50,437 electric vehicles (EVs) are analysed in the dataset.**

2. **Electric Range:**

   o **The average electric range of vehicles is approximately 67.86 miles.**

3. **Vehicle Distribution:**

   o **Battery Electric Vehicles (BEVs):** Constitute **77.62%** of the total, with **1,16,766 vehicles**.

   o **Plug-in Hybrid Electric Vehicles (PHEVs):** Make up **22.38%**, with **33,671 vehicles**.

4. **Trend Over Time:**

   o A significant rise in EV adoption is observed over the years, especially from **2019 onward**, with the highest number of vehicles recorded in **2023 (37,080 vehicles)**.

   o There is a steep decline in the number of vehicles for 2024, likely due to incomplete or limited data for the year.

5. **State-Wise Distribution:**

   o Most EV registrations are concentrated in specific states, with **California (1,50,106 vehicles)** leading by a large margin, indicating its proactive approach toward EV adoption and incentives.

6. **Top Vehicle Models and Manufacturers:**

- **Tesla dominates the market**, with the **Model Y** (28,501 vehicles, 18.95%) and **Model 3** (27,708 vehicles, 18.42%) being the top-selling models.

- Other significant players include **Nissan (13,187 vehicles)**, **Chevrolet**, and **BMW**.

7. **CAFE Eligibility:**

- Around **41.82% (62,911 vehicles)** are **CAFE (Corporate Average Fuel Economy) eligible**, showcasing a significant share of fuel-efficient and environment-friendly vehicles.

- **46.33% (69,697 vehicles)** fall under the "CAFE Unknown" category, which might indicate missing or ambiguous data.

# Conclusion:

- **Growth in EV Adoption:** The dashboard highlights the increasing adoption of electric vehicles, with Tesla being a market leader in terms of vehicle count and brand recognition.

- **Geographical Insights:** California is the leading state in EV adoption, indicating a strong emphasis on sustainable transportation initiatives.

- **Market Opportunities:** Other states show lower EV counts, presenting an opportunity for manufacturers and policymakers to promote EV adoption through incentives, infrastructure development, and awareness campaigns.

- **Data Limitations:** The "CAFE Unknown" category and the sharp drop in 2024 data suggest the need for better data completeness and updates.

This dashboard provides a clear picture of the EV market and serves as a useful tool for analysing trends and making strategic decisions for manufacturers and policymakers.