**Electric Vehicle Analysis – Problem Statement**

**1. Total Vehicles**

* Understand the overall landscape of electric vehicles, encompassing both Battery Electric Vehicles (BEVs) and Plug-in Hybrid Electric Vehicles (PHEVs).
* Assess the market’s size and growth over time.

**2. Average Electric Range**

* Determine the average electric range of the electric vehicles in the dataset.
* Gauge the technological advancements and efficiency of the EVs.

**3. Total BEV Vehicles and Percentage of Total BEV Vehicles**

* Identify and analyze the total number of Battery Electric Vehicles (BEVs) in the dataset.
* Calculate the percentage of BEVs relative to the total number of electric vehicles.
* Provide insights into the dominance of fully electric models in the market.

**4. Total PHEV Vehicles and Percentage of Total PHEV Vehicles**

* Identify and analyze the total number of Plug-in Hybrid Electric Vehicles (PHEVs) in the dataset.
* Calculate the percentage of PHEVs relative to the total number of electric vehicles.
* Offer insights into the market share of plug-in hybrid models.

**5. Total Vehicles by Model Year (From 2010 Onwards)**

* **Visualization:** Line or Area Chart
* **Description:** Illustrate the distribution of electric vehicles over the years starting from 2010.
* Provide insights into growth patterns and adoption trends of EVs.

**6. Total Vehicles by State**

* **Visualization:** Map Chart
* **Description:** Showcase the geographical distribution of electric vehicles across different states.
* Identify regions with higher EV adoption rates.

**7. Top 10 Total Vehicles by Make**

* **Visualization:** Bar Chart
* **Description:** Highlight the top 10 electric vehicle manufacturers based on total vehicles.
* Provide insights into the market dominance of specific brands.

**8. Total Vehicles by CAFV Eligibility**

* **Visualization:** Pie Chart or Donut Chart
* **Description:** Illustrate the proportion of electric vehicles eligible for Clean Alternative Fuel Vehicle (CAFV) incentives.
* Aid understanding of the impact of incentives on vehicle adoption.

**9. Top 10 Total Vehicles by Model**

* **Visualization:** Tree Map
* **Description:** Highlight the top 10 electric vehicle models based on total vehicles.
* Offer insights into consumer preferences and popular models in the market.