

## ADS 505

### Assignment 7.1: Tableau Dashboard

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#### **Business Problem:**

This dashboard's objective is to understand the adoption and distribution of electric vehicles (EVs) across various regions, with a focus on identifying trends over time, popular vehicle models, and regional preferences. The insights generated can help stakeholders understand the growth of EV adoption, which is crucial for infrastructure planning and identifying potential areas for market growth.

#### **Analytic Approaches:**

The approach involves analyzing historical data related to electric vehicles, focusing on the year of manufacture, vehicle make, model, and geographic distribution. The data was visualized through various charts to highlight the adoption trends, popular makes and models, and geographic spread of electric vehicles. Key metrics, such as the total number of cars by year and distribution by location, were used to derive insights.

The Data source was Catalog.Data.gov and for this analysis, I used the Electric\_Vehicle\_Population file which contains details about the electric vehicles, including vehicle make and model, year of manufacture, vehicle type, and location information. The dataset was sourced from a publicly available repository.

The dashboard consists of multiple visualizations designed to provide insights into the adoption of electric vehicles. Users can use the filters available on the right side of the dashboard to select specific years, vehicle makes, or regions to focus on. The map visualization provides a geographic overview of electric vehicle distribution, while bar charts provide insights into the most popular makes and models. Tooltips are available to provide additional information when hovering over data points. Screenshots of the dashboard are included to provide a quick overview of the main features and visualizations.

Calculated fields were created to summarize metrics such as the number of electric vehicles by different attributes (e.g., by year, city). Filters were added to the dashboard to provide an interactive experience, allowing users to explore the data by year, vehicle make, and model. The dashboard also includes interactive features like global filters, highlight actions, and tooltips to enhance user engagement.

[ADS505 Tjavaherpour Electric Vehicle Population | Tableau Public](#)