Electric Vehicle Population
Power BI Dash Boarding Project Proposal

Executive Summary:

The **Electric Vehicle Population** aims to analyze and visualize data on electric vehicle adoption and distribution across regions. Using Power BI, this project will provide insights into EV demographics, market trends, range performance, and economic factors, aiding policymakers, businesses, and stakeholders in strategic planning**.**

Problem Statement:

Electric vehicles (EVs) are a cornerstone of sustainable transportation. However, understanding the dynamics of EV adoption, including geographic distribution, vehicle range, cost factors, and legislative support, is crucial for fostering growth in this sector. This project addresses these needs by consolidating and analyzing EV-related data to identify trends and opportunities.

Data Sources:

- County, City, and State demographics.
- Vehicle specifications (Make Model, Year, and Electric Range).
- Economic data (Base MSRP and legislative support).
- Infrastructure support (Electric Utility and Vehicle Locations).

Methodology:

- **Data Integration:** Combine the dataset with geographic maps and census data for enriched analysis.
- **Dashboard Design:** Create user-friendly dashboards with clear visuals like maps, bar charts, and KPIs.
- **Interactivity:** Allow exploration of data through filters (e.g., by region, EV type, and price).

Expected Outcomes:

- Interactive dashboards showcasing EV distribution, trends in vehicle types, and regional adoption patterns.
- Insights into economic impacts and affordability through MSRP analysis.
- Identification of regions with high growth potential for EV adoption.
- Support for policy formulation and strategic investments.

Tools and Technologies:

- **Power BI Desktop & Service:** For analysis and sharing.
- **Excel:** For data preprocessing.

Risks and Challenges:

- **Data Completeness:** Addressing missing values or inconsistencies in the dataset**.**
- **Data Privacy:** Safeguarding any sensitive location-based data.
- **User Adoption:** Ensuring effective use of dashboards by training stakeholders.

Conclusion:

The Electric Vehicle Analysis Dashboard leverages data visualization to empower decision-making in the EV sector. This project highlights trends and opportunities, facilitating data-driven strategies for a sustainable transportation future.