# FEYNN LABS TASK 2 (EDA PEFORMANCE)

# ELECTRIC VEHICLE DATASET

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## *Introduction*

The electric vehicle market is growing rapidly, and it is important to understand the trends and patterns in this market. This report presents the results of an exploratory data analysis (EDA) of a dataset of electric vehicles.
The dataset includes information on the following labels:

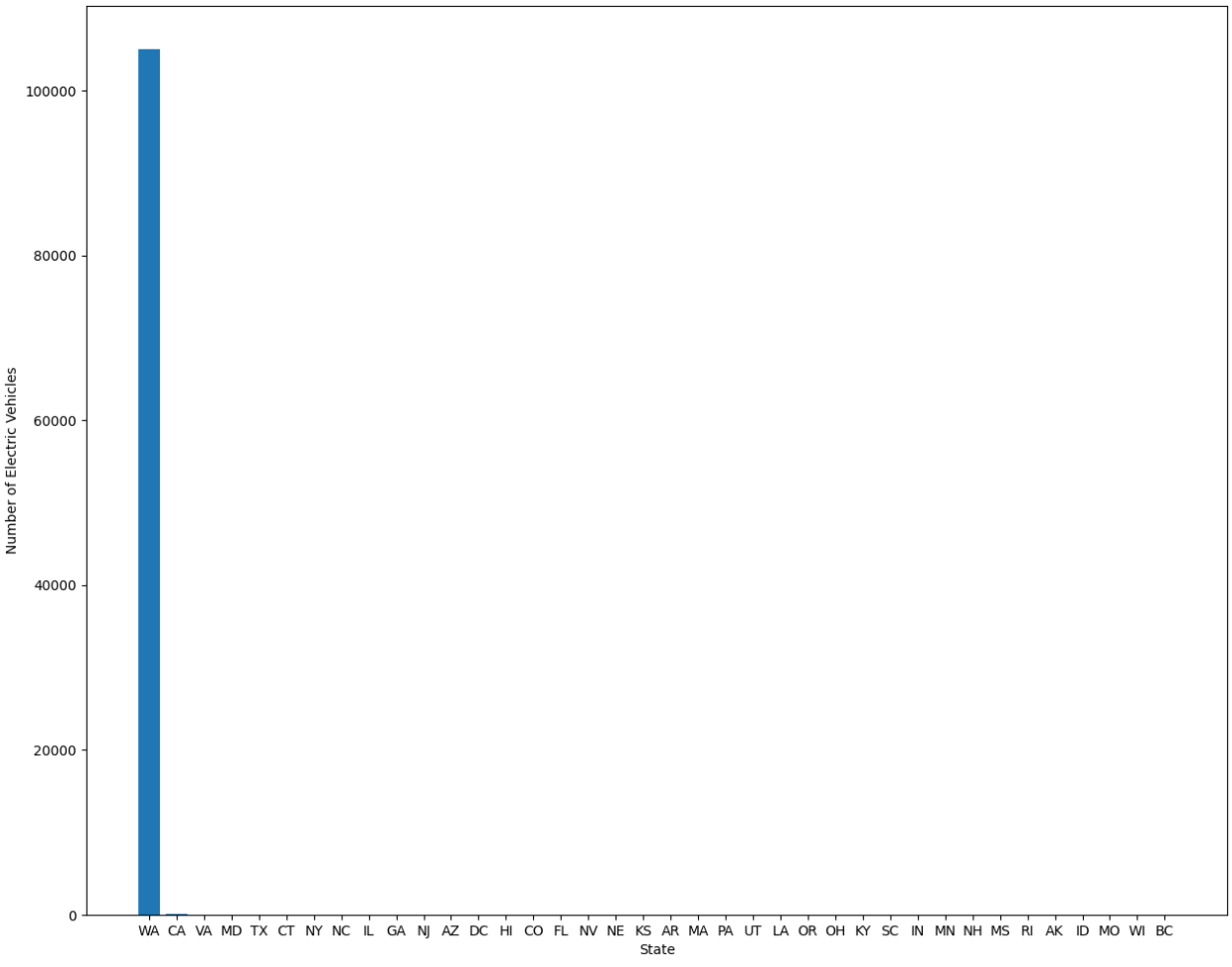
1) State
2) Postal Code
3) Model Year
4) Make
5) Model
6) Electric Vehicle Status
7) CAFV Eligibility
8) Electric Range
9) Base MSRP
10) Legislative District
11) DOL Vehicle ID
12) Vehicle Location

13) Electric Utility
14) 2020 census track of electric vehicles.

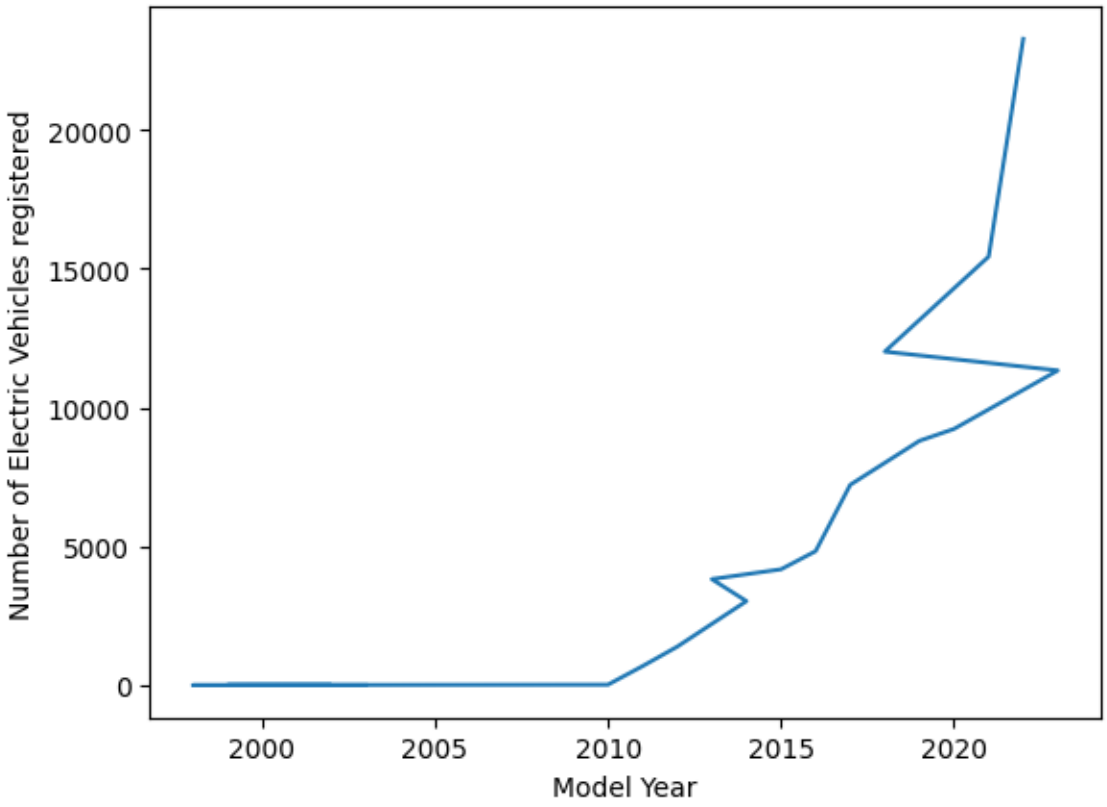
# ***Results:***

The EDA revealed several interesting trends and patterns in the electric vehicle market.
Some of them are:

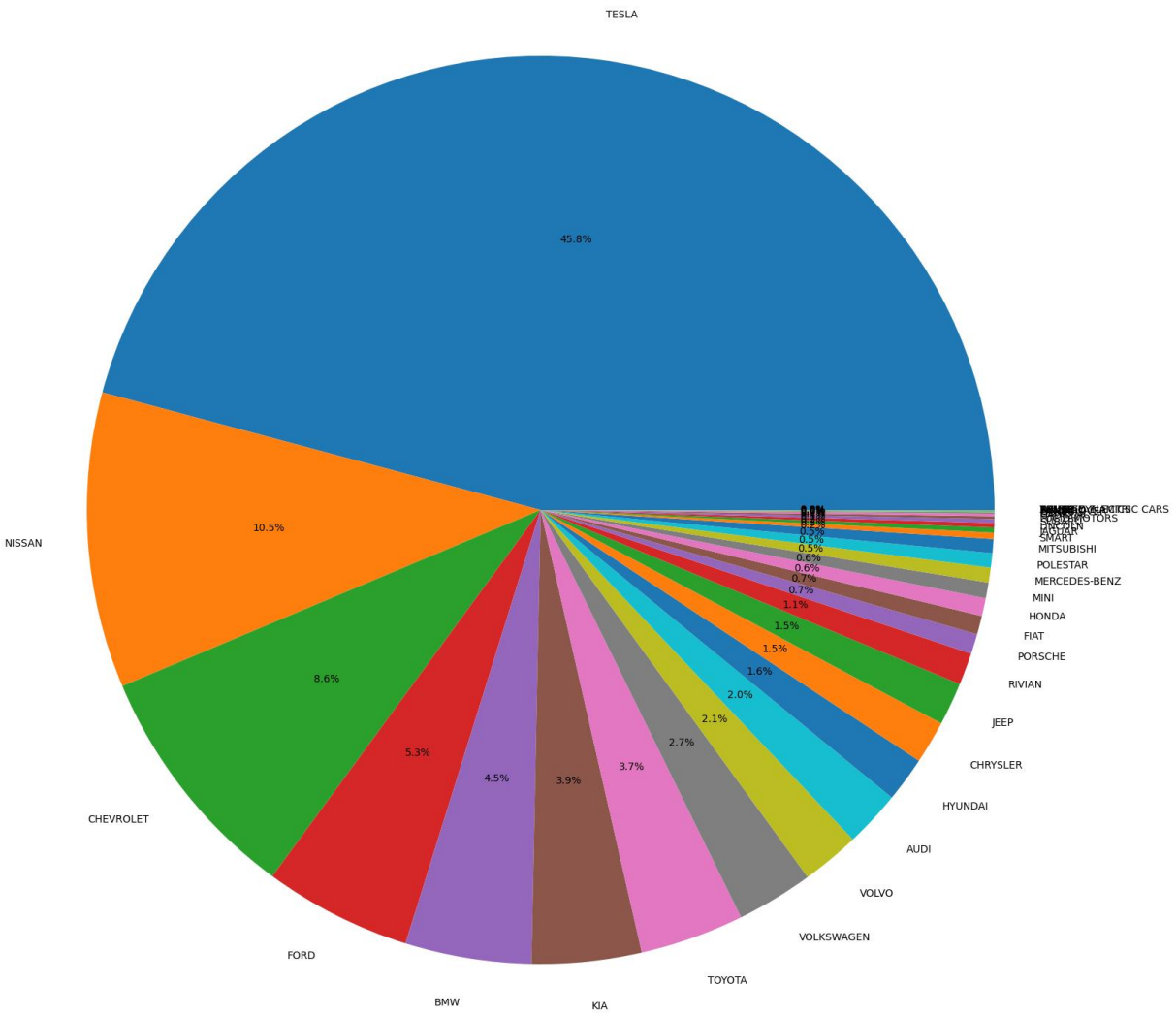
- The state with the most electric vehicles is Washington DC.



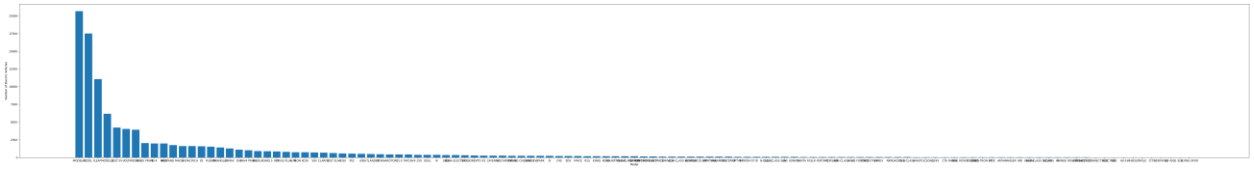
- There has been a drastic increase in electric vehicle production from around 2015 to 2020.



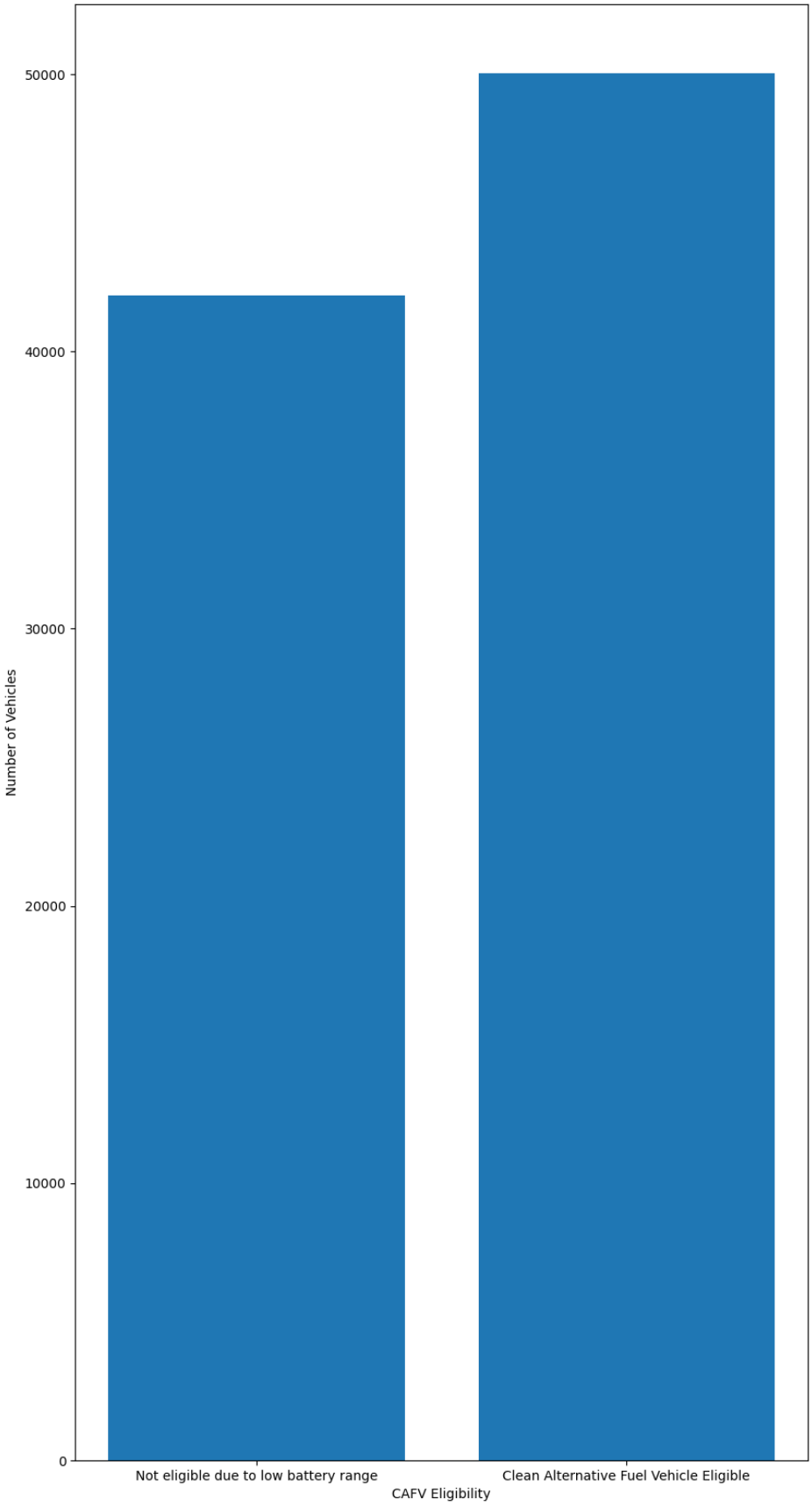

- Telsa owns around 45.8% production of electric vehicles across the world.



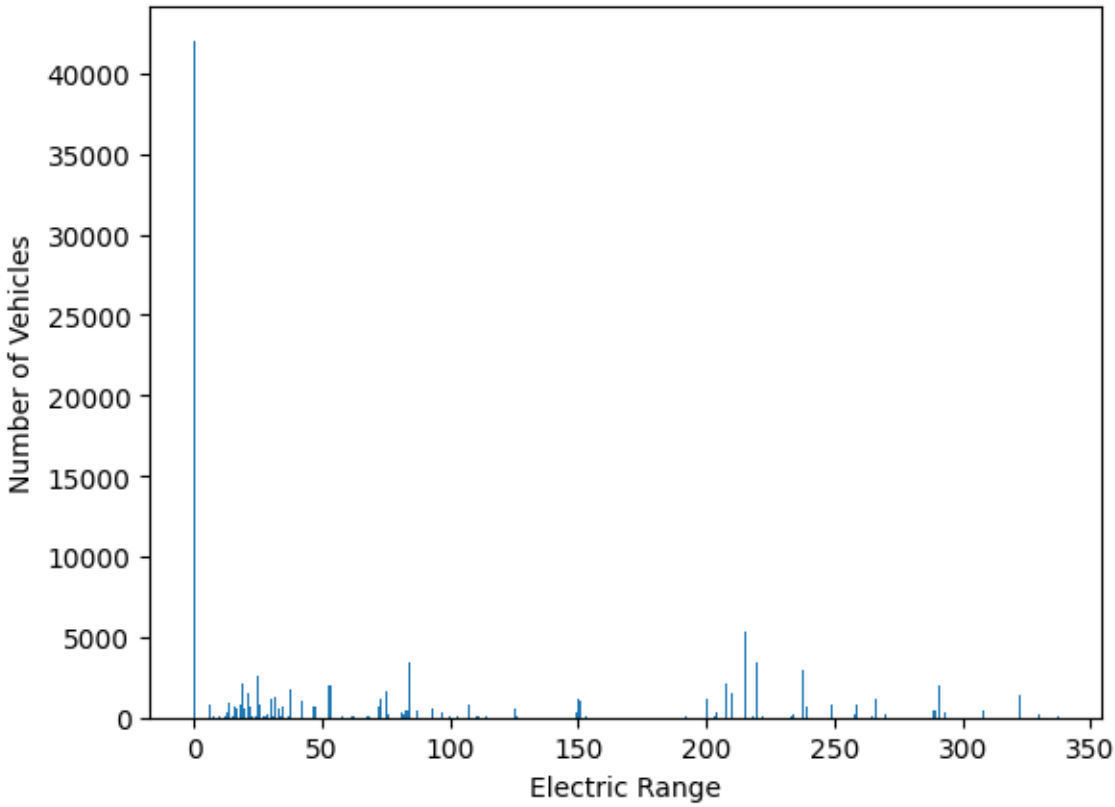

- Model 3 has been the most popular and widely used in the EV market.



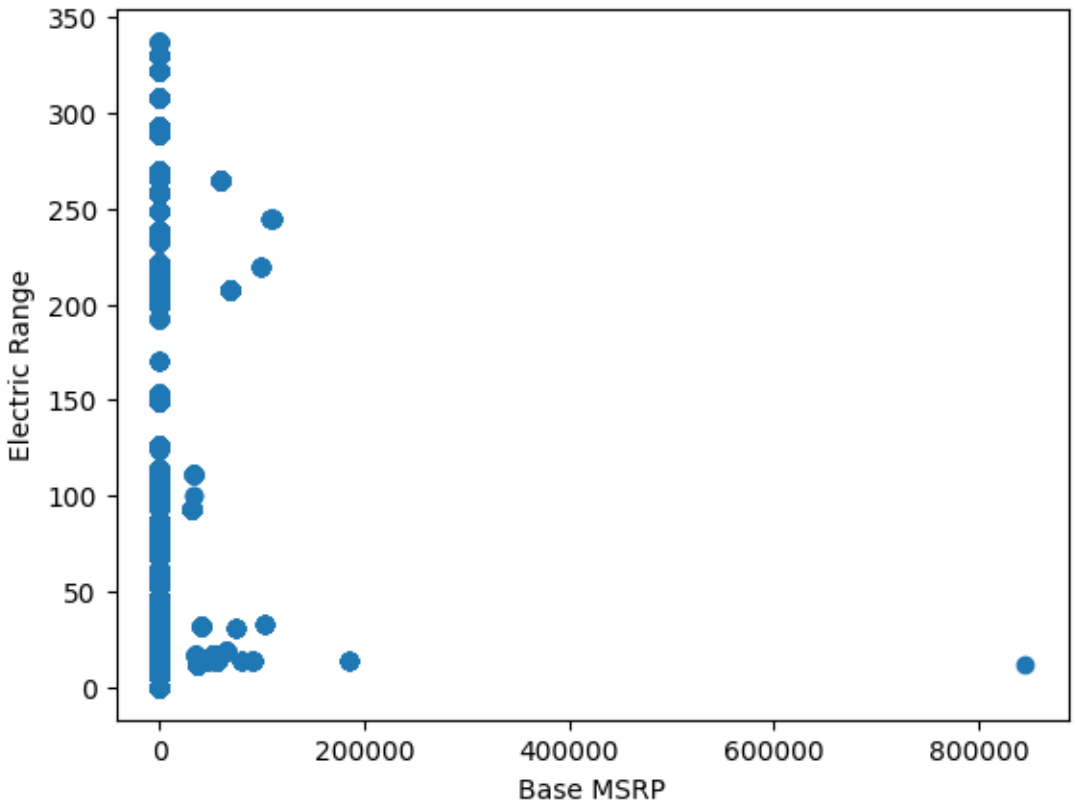
- Around 42k vehicles in the dataset are not eligible for CAFV due to low battery range and around 50k are eligible.


50000
40000
30000
20000
10000
0
Number of Vehicles
Not eligible due to low battery range
Clean Alternative Fuel Vehicle Eligible
CAFV Eligibility

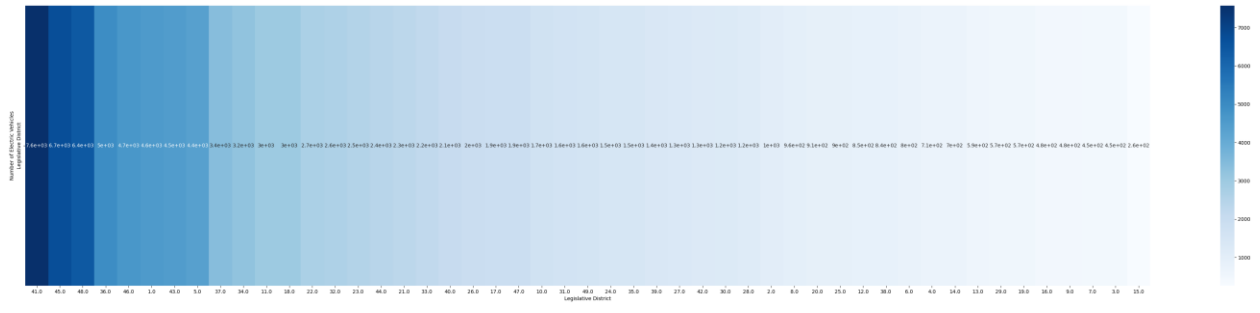
- Maximum vehicles have the electric range between 200 – 250 miles.




- There is a constant relation between the Electric Range and Base MSRP




- The maximum number of Electric Vehicles are present in the 41 Legislative District.



## ***RECOMMENDATIONS***

Based on the findings of the EDA, the following recommendations are made:

- Marketers should focus their efforts on the states with the most electric vehicles, such as Washington DC and California.
- Product developers should focus on developing electric vehicles, such as Washington DC.
- Public policymakers should consider focusing on providing incentives for the purchase of electric vehicles.
- Stock investors should maybe consider investing in Tesla as it is the leading company for Electric Vehicles.
- Since the range of majority of the vehicles is limited, product developers should improve that while keeping the price of the electric vehicle same.

## *CONCLUSION*

The EDA is based on a limited dataset, so the findings may not be generalizable to the entire Electric Vehicle Market. Additionally, the dataset does not include information on all electric vehicles, so the findings may not be comprehensive.