

# EV Charge & Range Analysis Project

## 1. Project Overview

This project provides a visualization tool for analyzing electric vehicle (EV) charging behavior, range, price, and performance using interactive dashboards created in Tableau and displayed through a web interface.

## 2. Team Details

Team Leader : Irfan Shaik Zahinabdin Mohammad

Team member : Shaik Suleman

Team member : Shaik Rumeena

Team member : Sayed Muskaan

## 3. Data Preprocessing Steps

- Loaded EV dataset from CSV file.
- Checked for missing and invalid values in key columns such as range, price, and battery capacity.
- Cleaned the 'Range' column by extracting numeric values from text entries.
- Converted textual numeric fields into float data types.
- Removed or replaced records containing 'NA' or invalid values.
- Standardized units for range and price.
- Verified data consistency across columns.
- Created calculated fields such as average range and average price.
- Prepared cleaned dataset for Tableau dashboard creation.

## 4. Dashboard Description

The dashboard displays key performance indicators such as average range, average price, charging stations by region, and car model comparisons. Dashboard is created by using the different types of sheets created by using the datasets ,the sheets like the count of cars, efficient brands, and top speed of cars from each brand and their models

Dashboard Tableau Link:

[https://public.tableau.com/shared/TXFB7S72Y?:display\\_count=n&:origin=viz\\_share\\_link](https://public.tableau.com/shared/TXFB7S72Y?:display_count=n&:origin=viz_share_link)



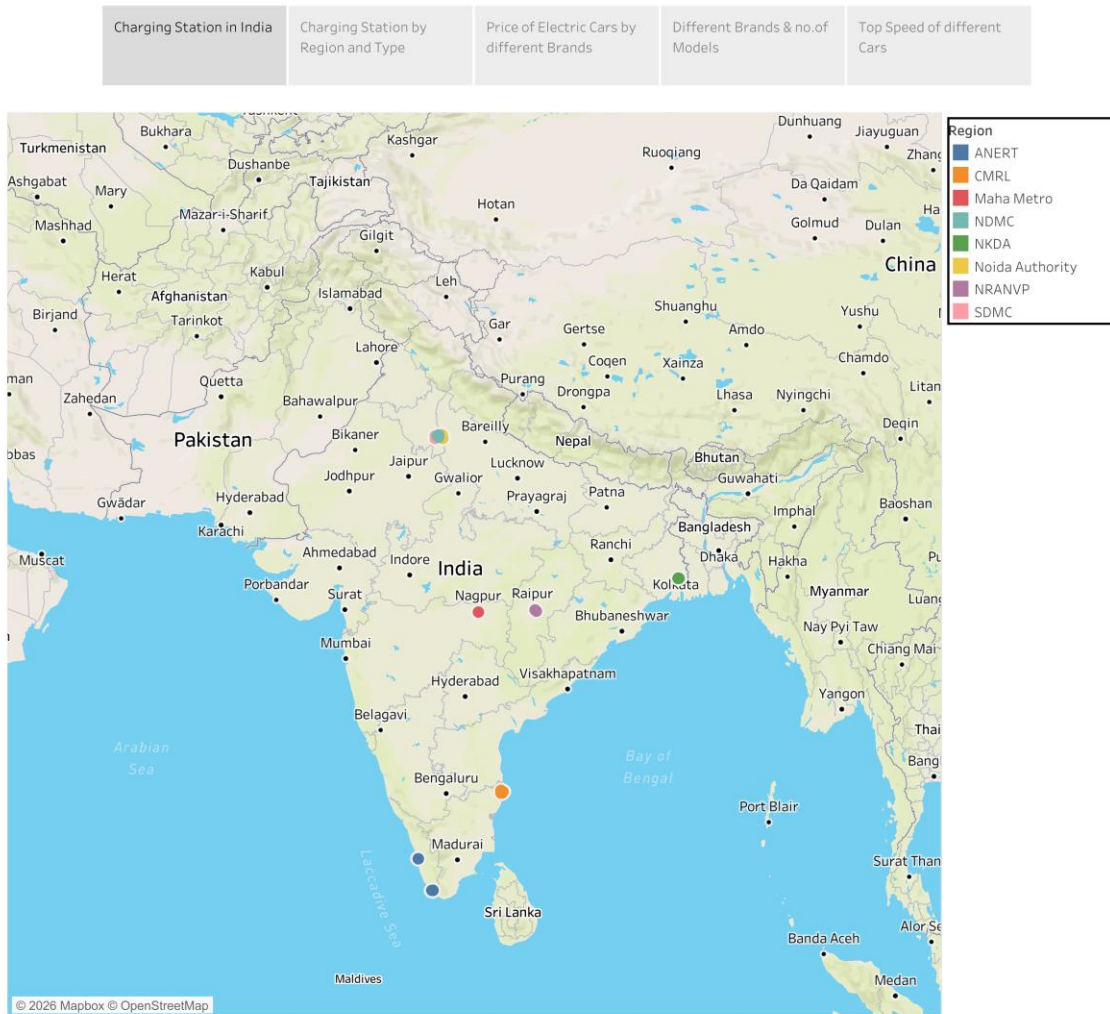
## 5. Story Description

The Tableau story explains insights such as price vs range, regional charging infrastructure, and comparison between different EV brands and models.

Story Tableau Link:

[https://public.tableau.com/views/EVCarAnalyticsstory/StoryofEVCarsinIndia?:language=en-US&publish=yes&:sid=&:redirect=auth&:display\\_count=n&:origin=viz\\_share\\_link](https://public.tableau.com/views/EVCarAnalyticsstory/StoryofEVCarsinIndia?:language=en-US&publish=yes&:sid=&:redirect=auth&:display_count=n&:origin=viz_share_link)

### Story of EV Cars in India



## 6. Conclusion

The EV Charge & Range Analysis tool helps users understand electric vehicle performance and charging infrastructure using interactive visual analytics.