

# Visualization Tool for Electric Vehicle Charge & Range Analysis

Welcome to our deep dive into the world of Electric Vehicles. This report details the creation of an interactive visualization tool designed to demystify EV data for everyone.



# Project Overview & Purpose



## Project Overview

Our project developed a comprehensive Tableau dashboard and story for EV data analysis, focusing on India and global trends. It visualizes charge station distribution, vehicle specifications, price comparisons, and range analytics via an interactive web interface.

## Purpose

To build a data-driven visualization platform, empowering users to understand electric vehicle trends, infrastructure, and performance using real-world datasets.

# Ideation Phase: Understanding the Challenge



## Problem Statement

Analyze diverse electric car datasets from multiple global and Indian sources to create visual dashboards and a data story using Tableau.



## Empathy Map Canvas

Users seek easy access to EV insights amidst fragmented, complex data, driven by media and government promotion. They desire simplified, visual data to overcome technical interpretation difficulties.



## Brainstorming Ideas

Key ideas include comparing EV prices/ranges, analyzing Indian vs. global trends, locating charging stations regionally, and building interactive Tableau dashboards.

# Requirement Analysis: Mapping the Journey

1

## Data Collected

Raw EV data gathered from various sources.

2

## Cleaned

Data refined and prepared for analysis.

3

## Analyzed

Insights extracted using analytical methods.

4

## Visualized

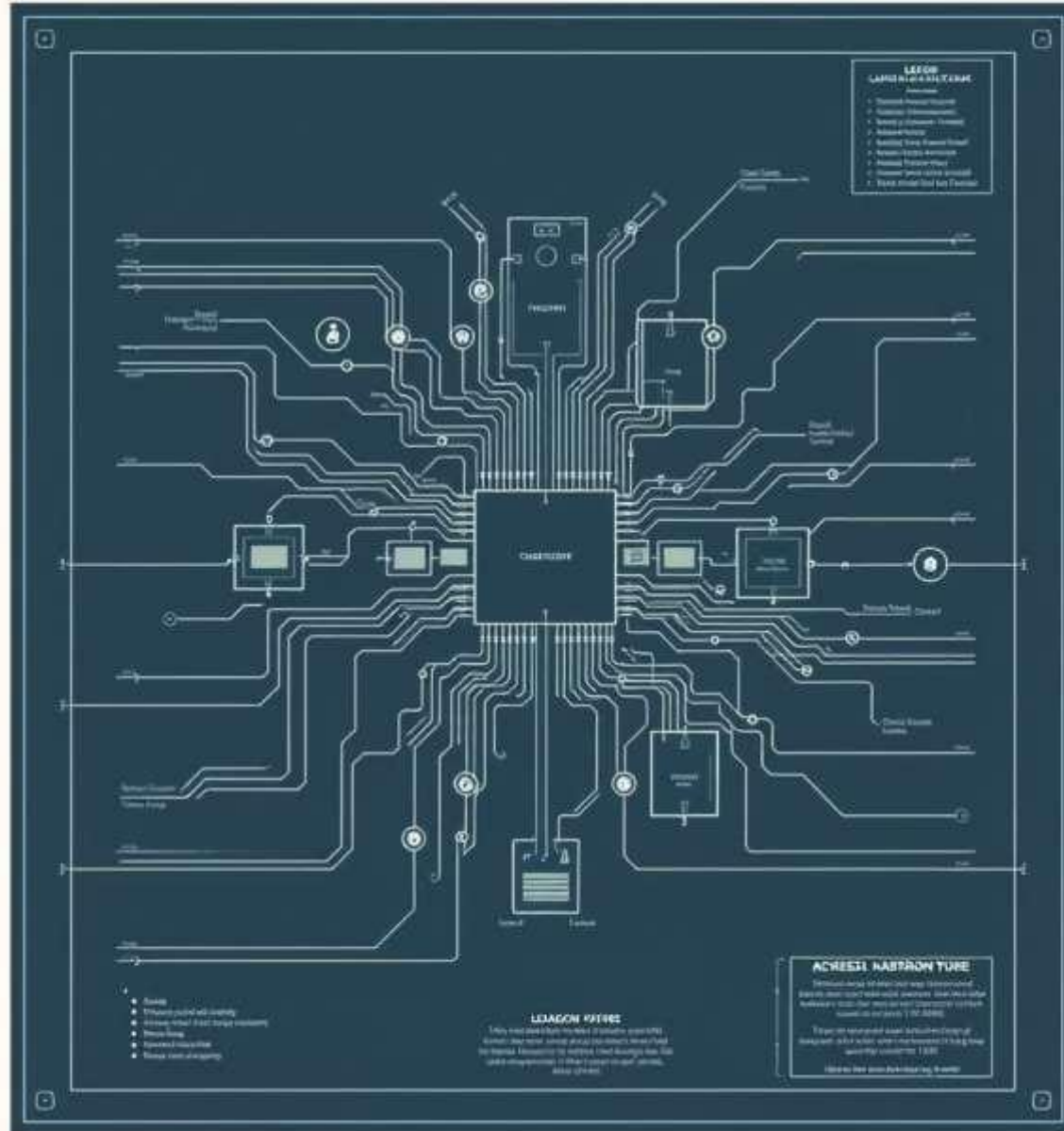
Dashboards and stories created in Tableau.

5

## Shared

Insights distributed via web interface.

# Project Design: Crafting the Solution



## Problem-Solution Fit

Users often face information overload when researching EVs. Our Tableau-based solution offers a straightforward, interactive platform to process and visualize this complex data effectively.

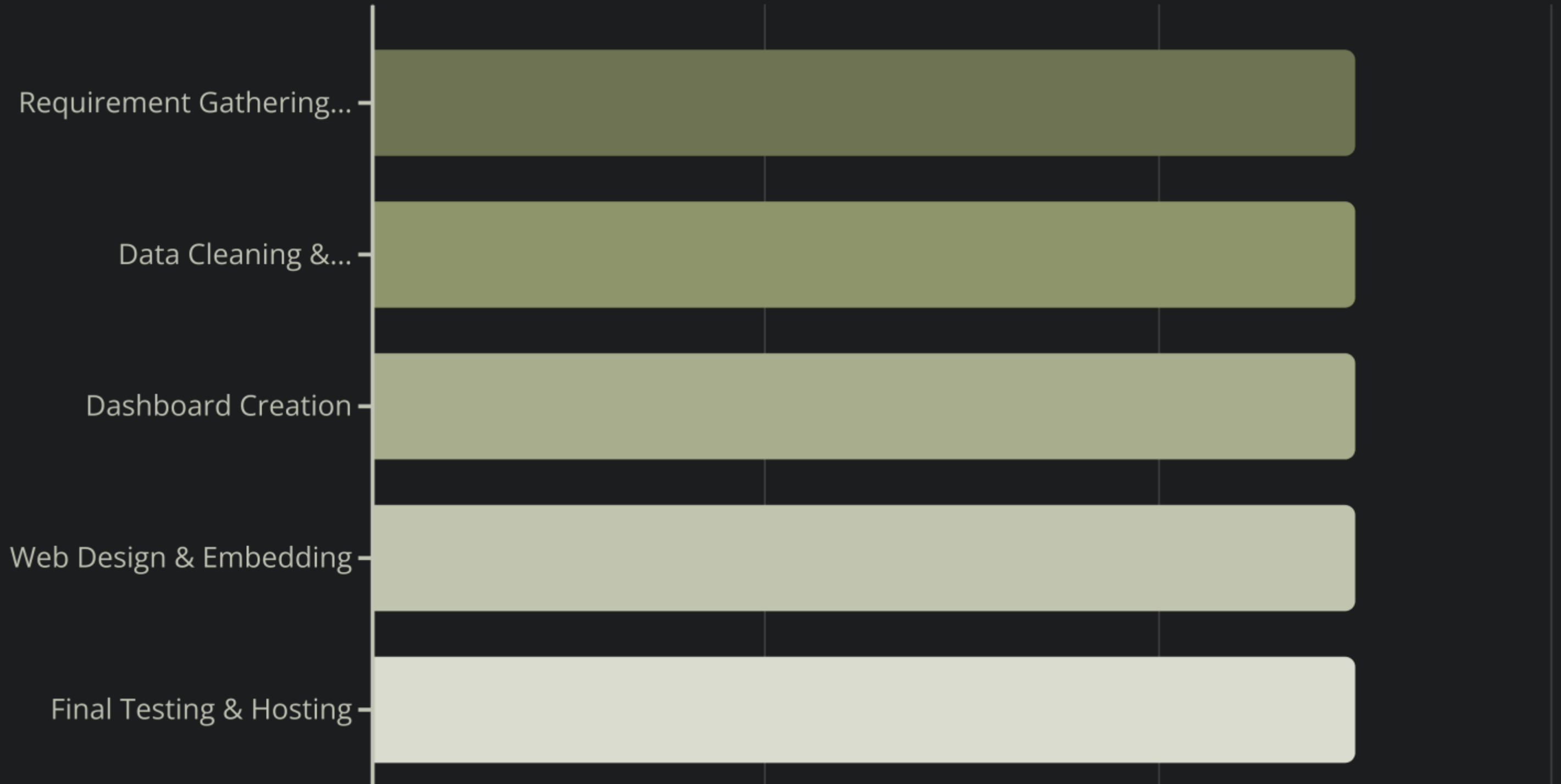
## Proposed Solution

Develop a Bootstrap-based webpage that seamlessly embeds the Tableau dashboard and story. This enables stakeholders to easily interact with and gain insights from the EV data.

## Solution Architecture

CSV Files -> Tableau Dashboards & Story -> Embedded HTML Web Page -> Hosted Online.

# Project Planning & Scheduling: Our Agile Approach





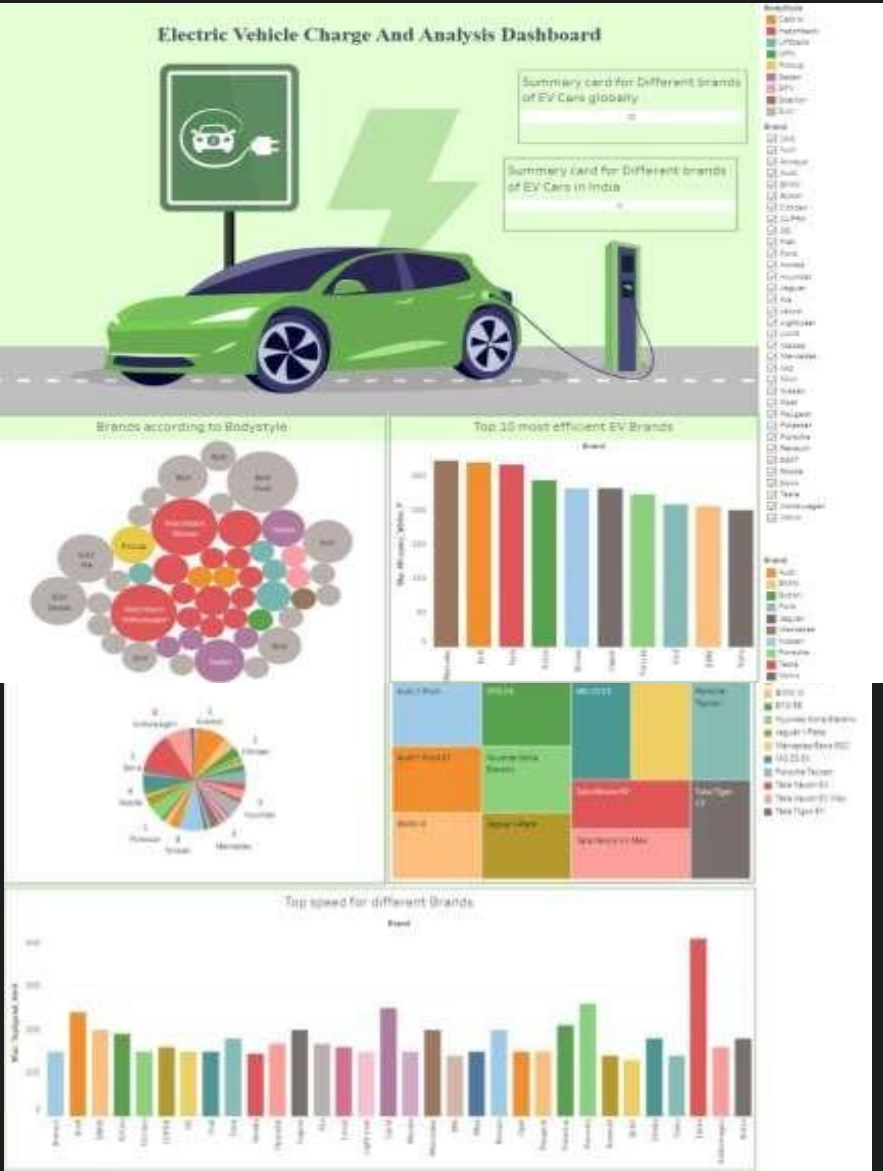
# Results & Key Insights



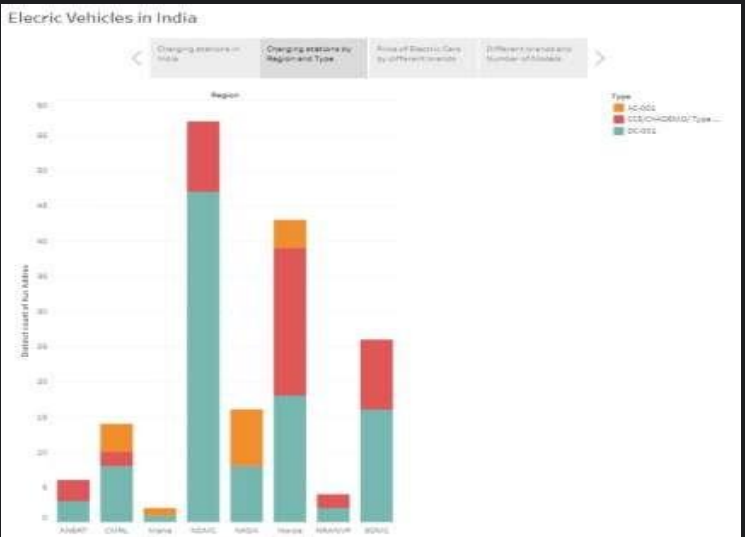
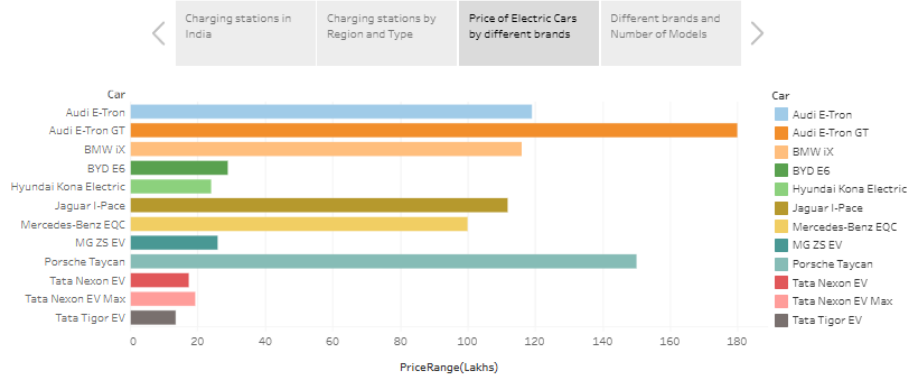
Our project successfully analyzed multiple datasets, providing key insights through interactive visualizations. The dashboard summarizes global and Indian EV data, showcasing top electric cars, specifications, price comparisons, and range analytics.

The story visualization highlights state-wise EV distribution and charging infrastructure in India, revealing progress and gaps. This tool supports decision-making for EV enthusiasts, government bodies, and businesses, offering customized insights via interactive filters and charts.

# Images Of the Solutions



Electric Vehicles in India





# Thank You!

For more insights, visit: <https://prasanna1945.github.io/ev-analysis/>

