

PROJECT DEVELOPMENT PHASE

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| DATE | 02 March 2026 |
| TEAM ID | LTVIP2026TMIDS43283 |
| PROJECT TITLE | Visualization Tool for Electric Vehicle Charge and Range Analysis |
| MAXIMUM MARKS | 15Marks |

1. Data Connectivity

The data required for this project is collected from publicly available sources and stored in CSV file format. The datasets include electric vehicle specifications and charging station details. These CSV files are directly connected to Tableau for visualization and analysis.

Links of Data Sets:

1. https://drive.google.com/file/d/1rMhNvFitXodY-zuPbxJ60dy4s2zaYGyR/view?usp=drive_link
2. https://drive.google.com/file/d/1mv1GcOzwShlv4vYyXF82kBfLtZMqIDoN/view?usp=drive_link
3. https://drive.google.com/file/d/1-rTANUsWxe2Et5vF6ik0SWjUTUTNoZhP/view?usp=drive_link
4. https://drive.google.com/file/d/1f8hcispK439nJNgc-Ab13tBEsCx2vTcv/view?usp=drive_link

2. Data Preparation

Data preparation is an important step to ensure accuracy and consistency. The following preprocessing steps were performed before visualization:

- Removed missing and null values
- Removed duplicate records
- Renamed column headers for better understanding
- Converted units such as range(km) and battery capacity(kWh) into standard formats
- Filtered unnecessary attributes
- Checked data consistency and corrected errors

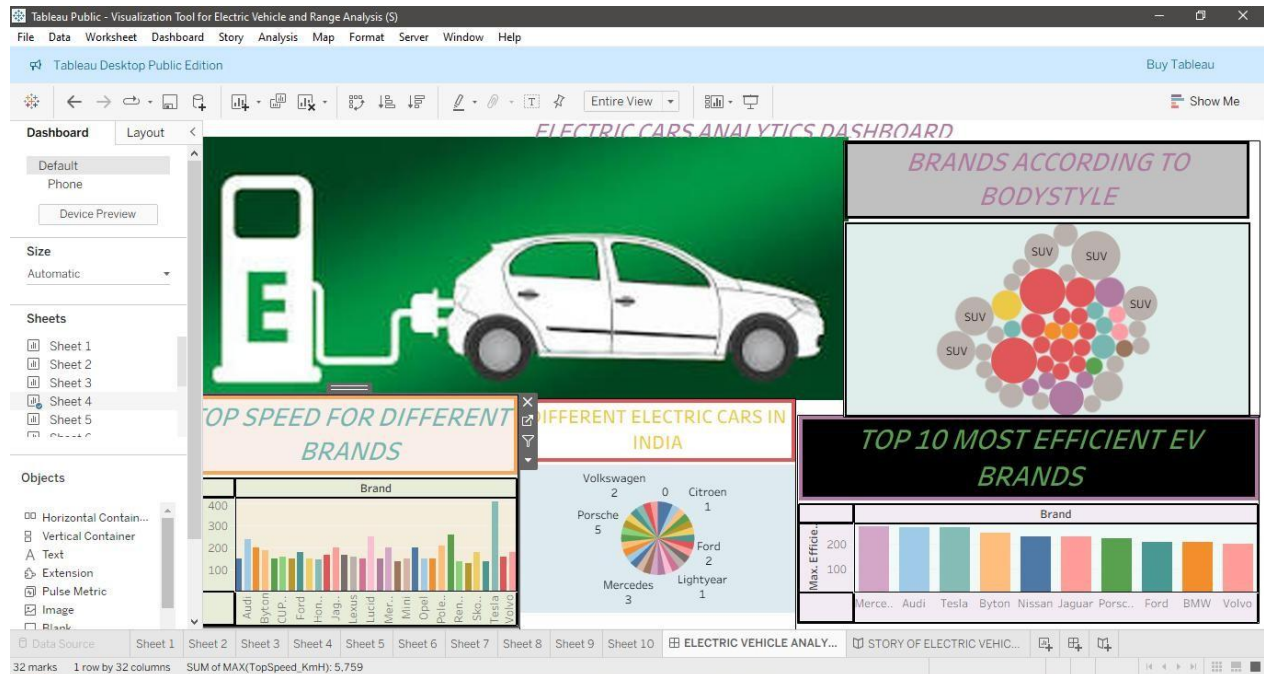
After pre-processing, the cleaned data was used for creating dashboards and stories.

3. Dashboard

A Tableau dashboard was created by combining multiple visualizations to provide a clear understanding of electric vehicle charge and range analysis. The dashboard includes:

- Comparison of EV range across different models
- Analysis of battery capacity vs charging time
- Distribution of charging stations using map visualization
- Price vs range comparison

The dashboard is interactive and allows users to filter data based on EV model, brand, and range.

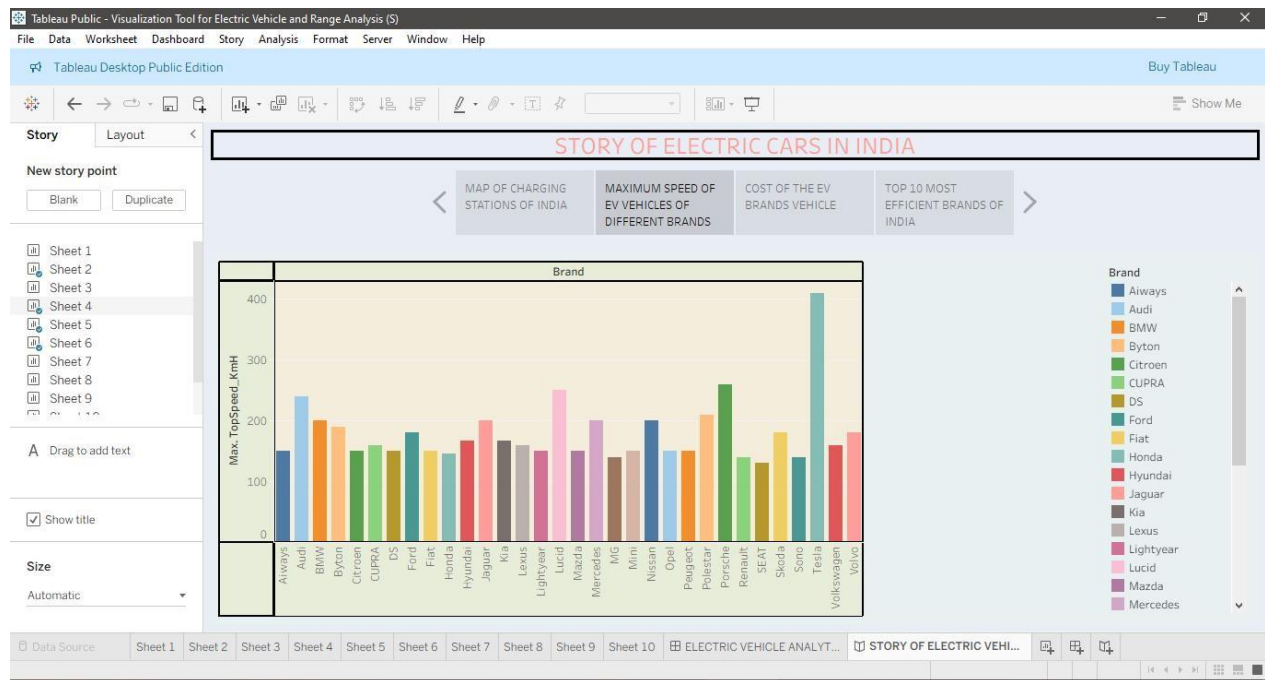


4. Story

A Tableau story was created to present insights in a step-by-step manner. The story consists of multiple story points that guide the user through the analysis:

1. Overview of electric vehicle range
2. Comparison of charging time and battery capacity
3. Availability of charging stations
4. Key insights and observations

The story helps users easily understand trends and make informed decisions.



5. Creativity(FontandStyle)

The project document is designed using a clean and professional layout. Consistent fonts, proper headings, and structured sections are used throughout the document. Visual elements such as charts and dashboards are clearly labeled and aligned. The overall design improves readability and makes the project easy to understand.

- Applied clear headings and sub headings to separate sections
- Used bullet points instead of long paragraphs to improve clarity
- Maintained proper spacing and alignment across all pages
- Used meaningful titles and captions for dashboards and stories
- Applied color the in dashboard story visually differentiate data categories