

# **VISUALIZATION TOOL FOR ELECTRIC VEHICLE CHARGE AND RANGE ANALYSIS**

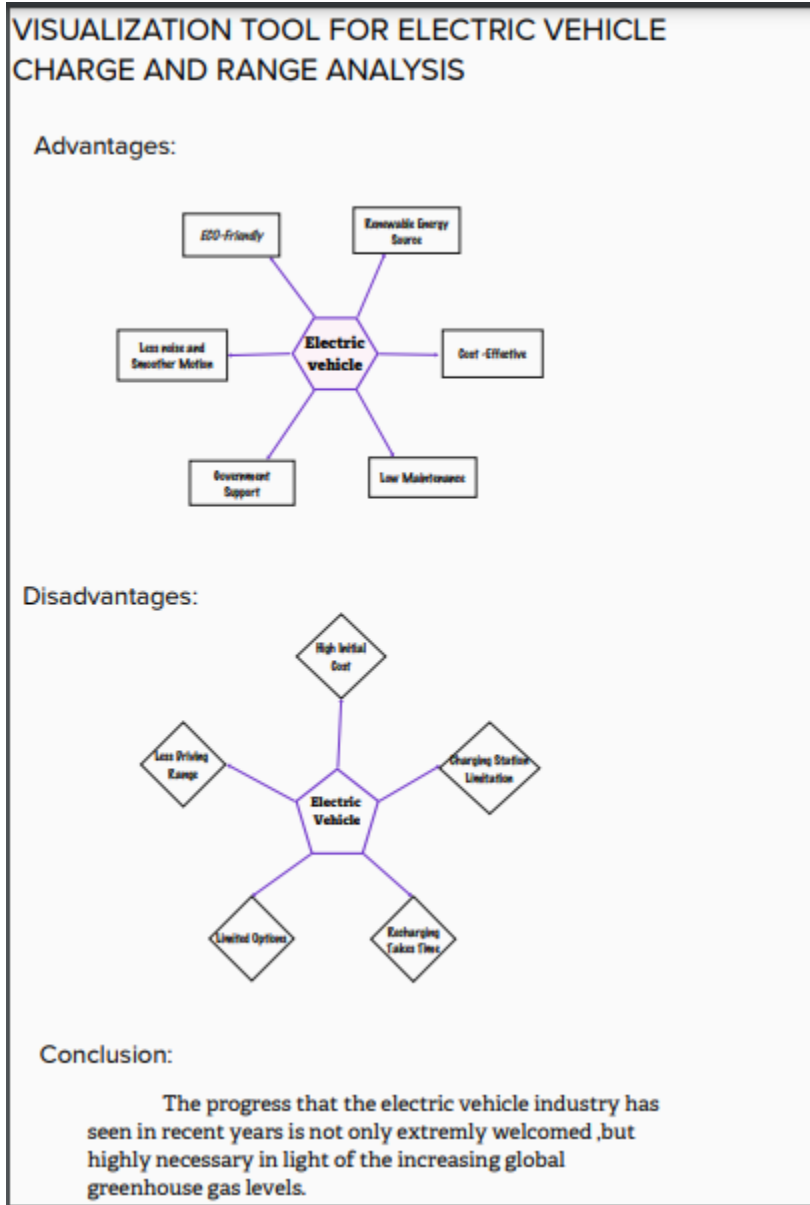
## **Introduction:**

An EV is a shortened acronym for an electric vehicle. EVs are vehicles that are either partially or fully powered on electric power. Electric vehicles have low running costs as they have less moving parts for maintaining and also very environmentally friendly as they use little or no fossil fuels (petrol or diesel).

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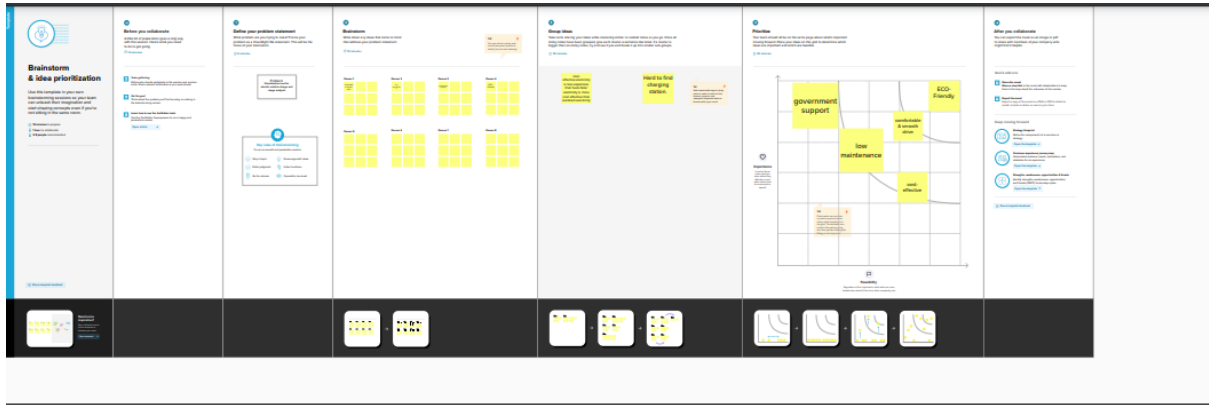
## Problem Definition & Design Thinking:

### Empathy Map:



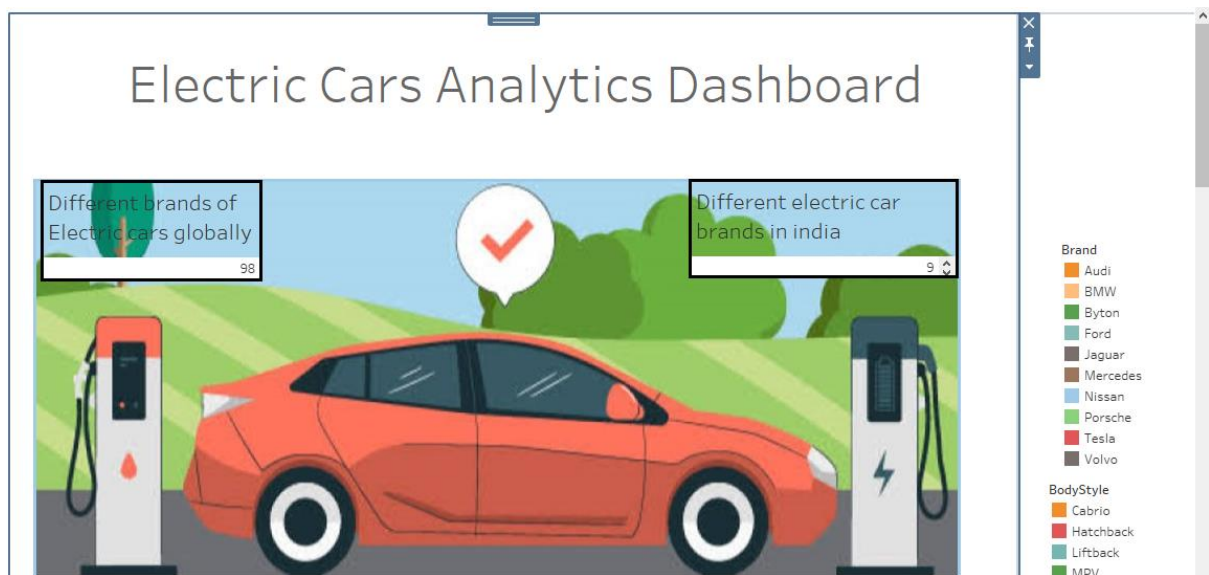
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## Ideation & Brainstorming Map:

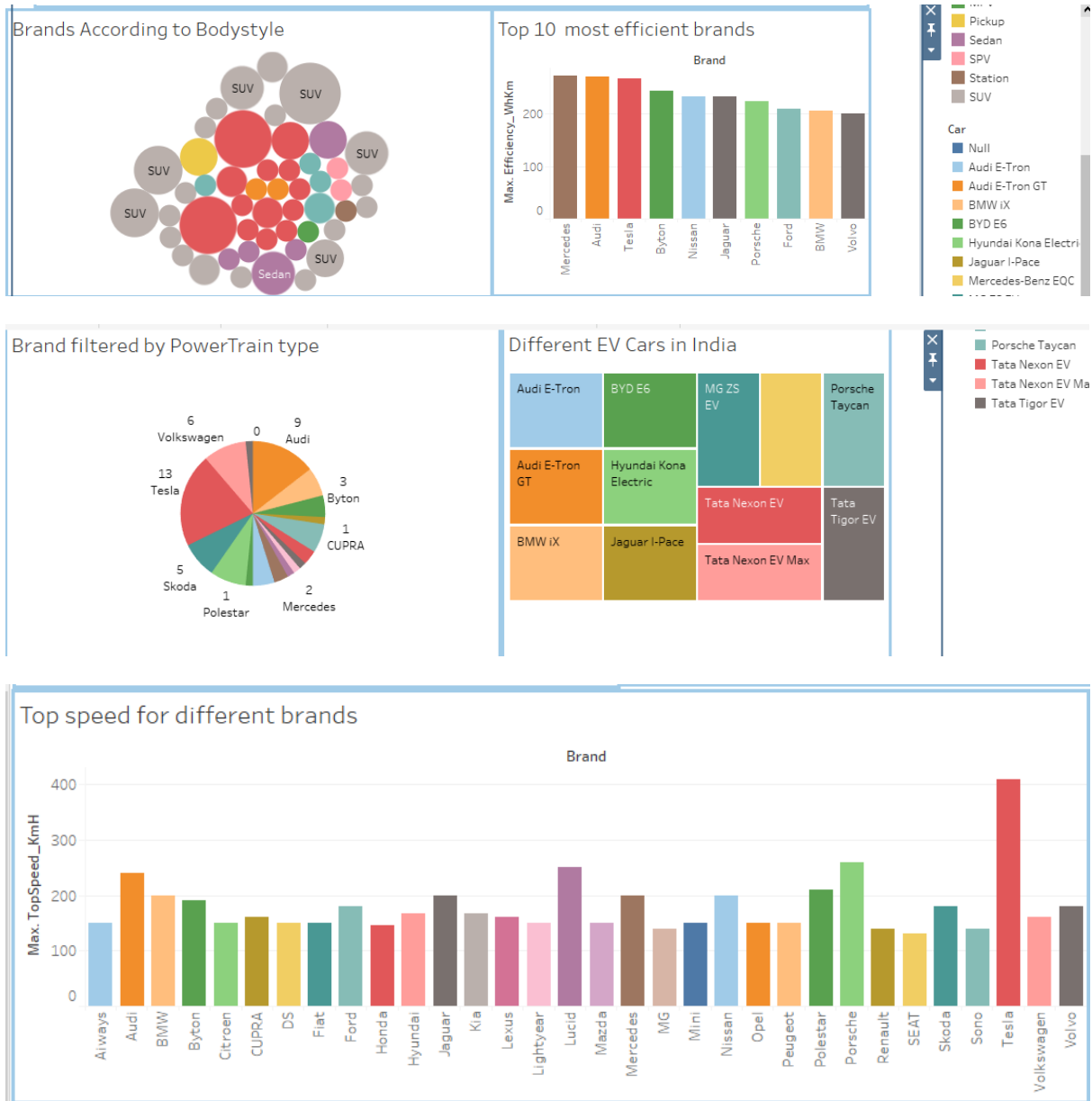


## Results:

### Dashboard:



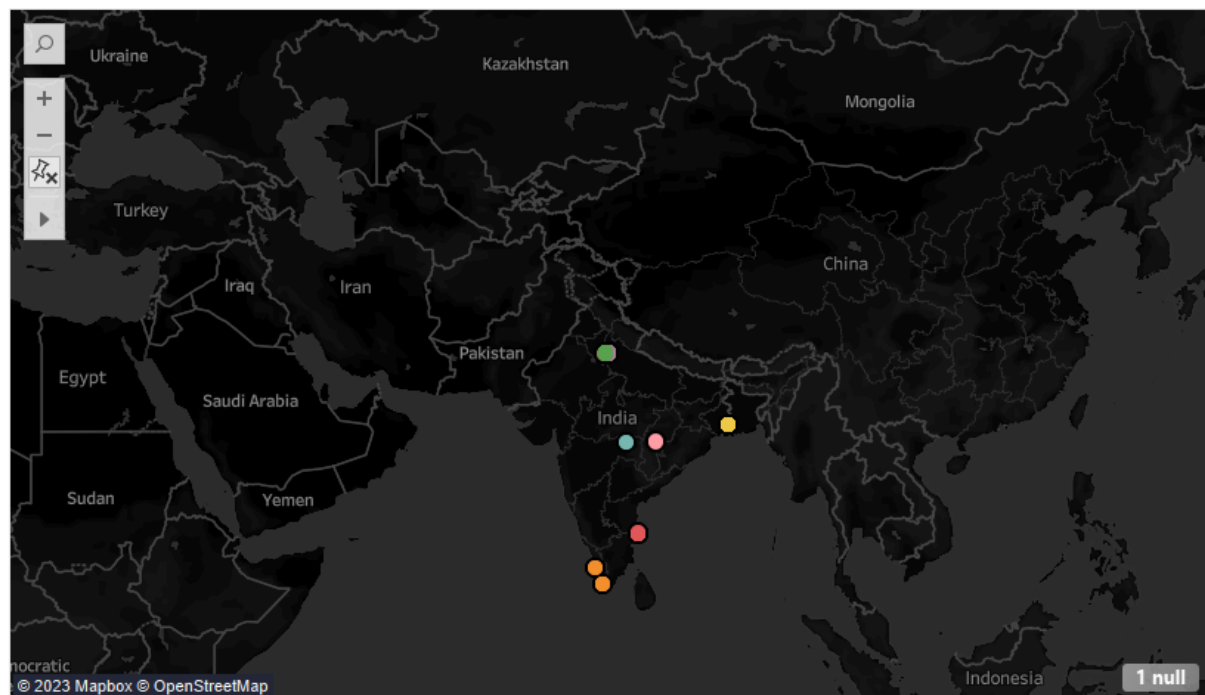
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Story:

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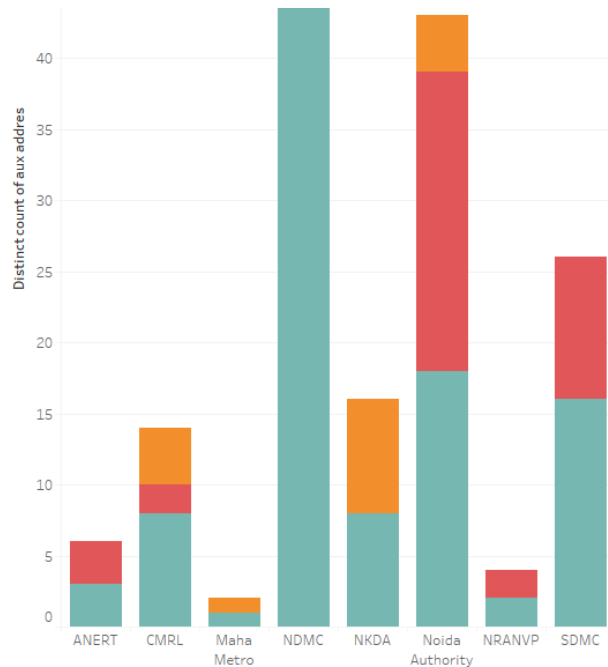
Charging stations in india



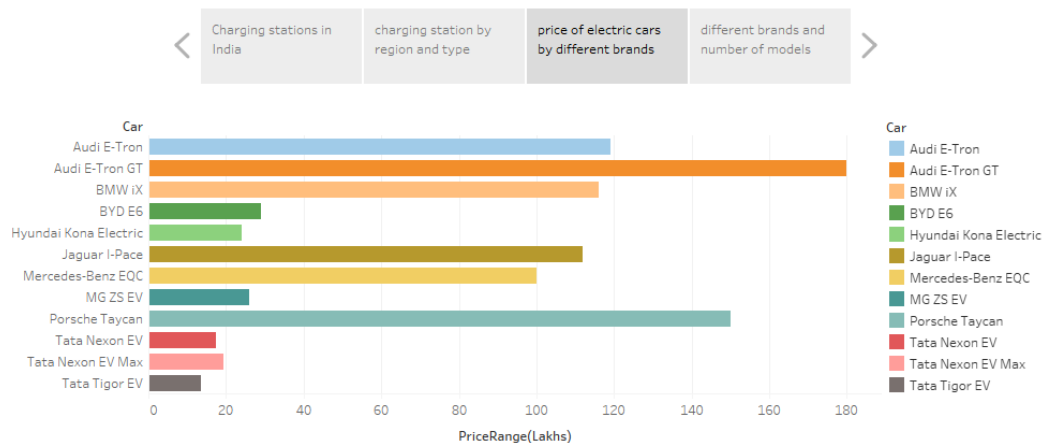
story of electric cars in India



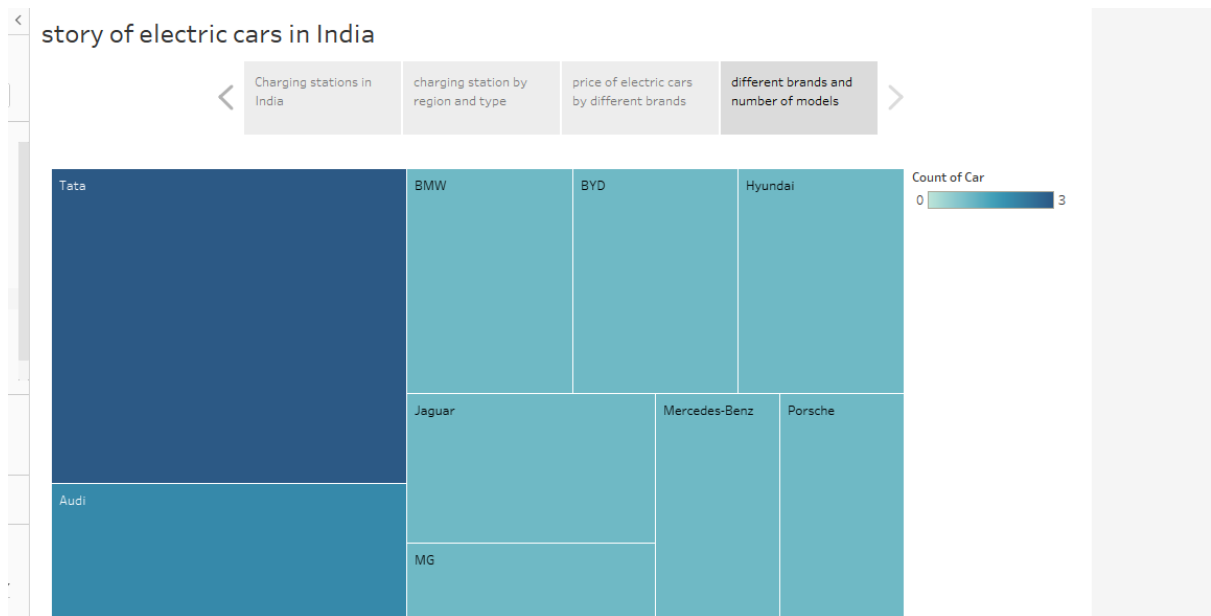
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## story of electric cars in India



# VISUALIZATION TOOL FOR ELECTRIC VEHICLE CHARGE AND RANGE ANALYSIS



## Advantages :

**Eco-Friendly:** Because electric vehicles do not utilize fuel for Combustion, there are no emission or gas exhaust.

**Renewable energy source:** Electric vehicles run on renewable power, which reduces the world's fossil-fuel stocks.

**Less noise and Smoother motion:** Driving an electric car is significantly smoother and they are quieter.

**Cost-effective:**Electricity is far less expensive than fuels and solar electricity is more cost –effective than regular electricity

**Low maintenace:** repairs are also simpler and less expensive than combustion engines

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## **Disadvantage:**

### **High initial cost:**

electric vehicle continue to be quite expensive, and many buyers they are not as inexpensive as traditional automobiles.

### **Charging station limitations:**

people who need to travel long distances are concerned about finding adequate charging stations in the middle of their journey, which are not always accessible.

### **Recharging takes time:**

unlike conventional automobiles, which require only a few minutes to replenish their gas tanks, charging an electric vehicle takes many hours.

### **Limited options:**

currently, there aren't many electric car models to pick from in terms of appearance, style or customized variations

### **less driving range:**

when compared to conventional automobiles. electric vehicles have a shorter driving range. electric cars can be convenient for short-distance travel but are inconvenient for long-distance travel.



# VISUALIZATION TOOL FOR ELECTRIC VEHICLE CHARGE AND RANGE ANALYSIS

## **Applications:**

Electric vehicles use electricity to charge their batteries instead of using fossil fuels like petrol or diesel. Electric vehicles are more efficient, and that combined with the electricity cost means that charging an electric vehicle is cheaper than filling petrol or diesel for your travel requirements.

## **Conclusion:**

The progress that the electric vehicle industry has seen in recent years is not only extremely welcomed, but highly necessary in light of the increasing global greenhouse gas levels.

## **Futures scope:**

Most Indian buyers believe that an electric vehicle will be ready by 2023, but the majority also believe that it would not be available until 2025. Consumers in India are looking for a lower price for EVs than those in other countries, with the global average tipping price for EVs being \$36,000.