PROJECT REPORT

1.1 Overview

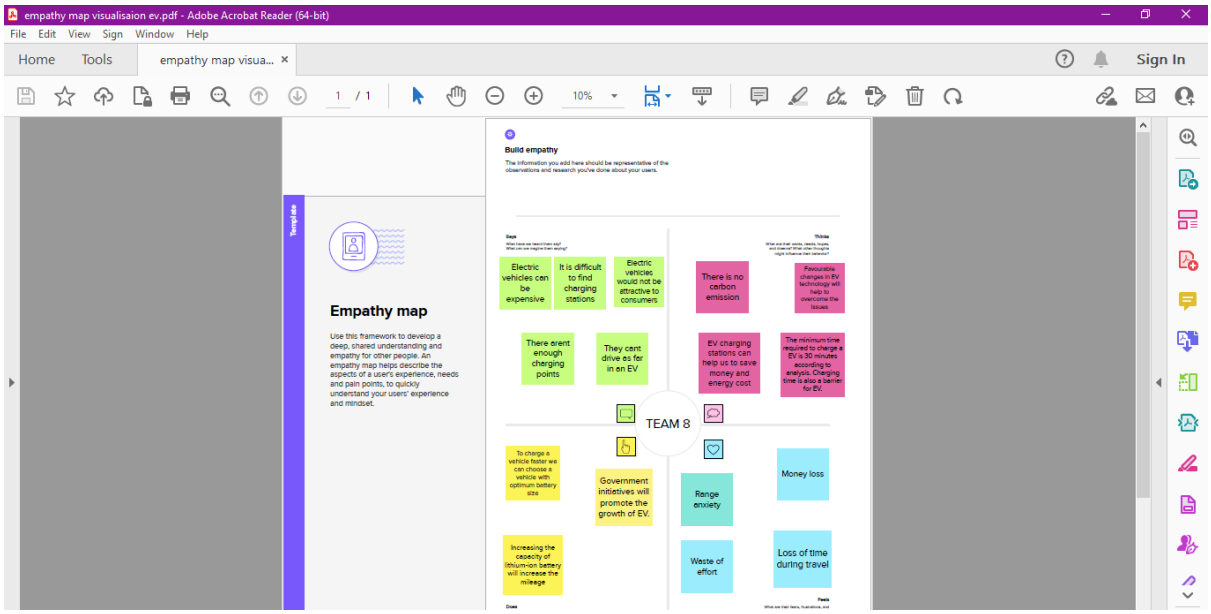
In this project, we analyze and visualize the range and charge of electric vehicles in India.

1.2 Purpose

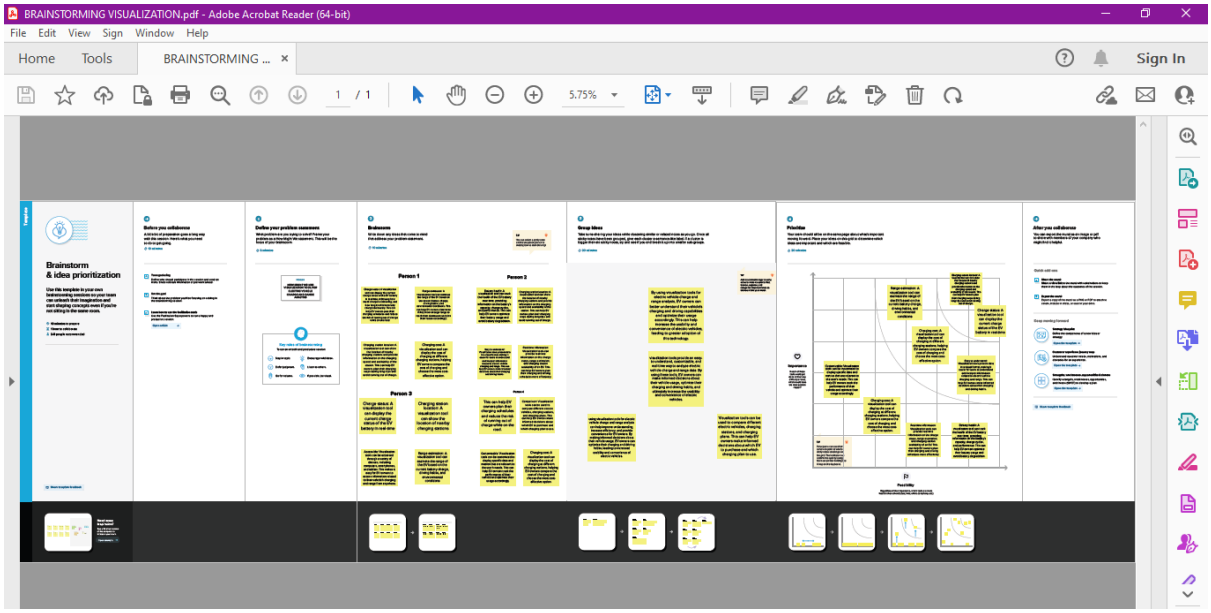
The uses of visualizations of electric vehicles in India could help to reduce emission and depletion of natural resources.

2. PROBLEM DEFINITION AND DESIGN THINKING

2.1 Empathy map

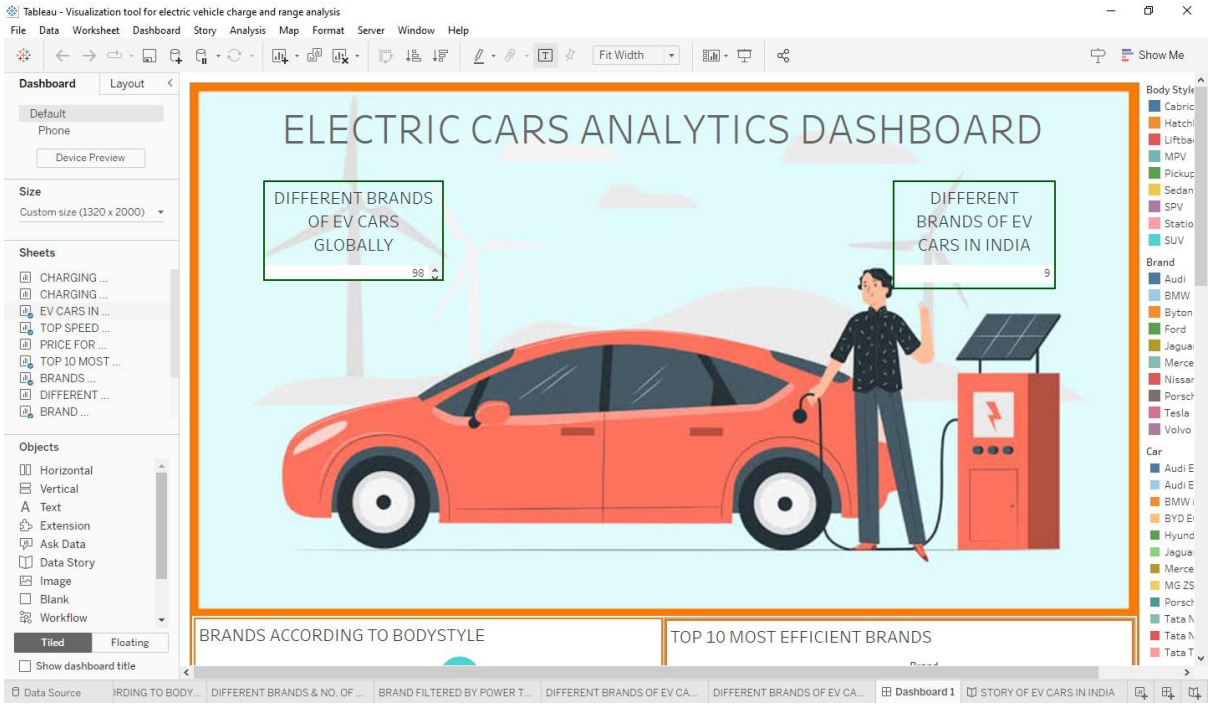


2.2 Ideation and Brainstorming Map



3. RESULT

DASHBOARD



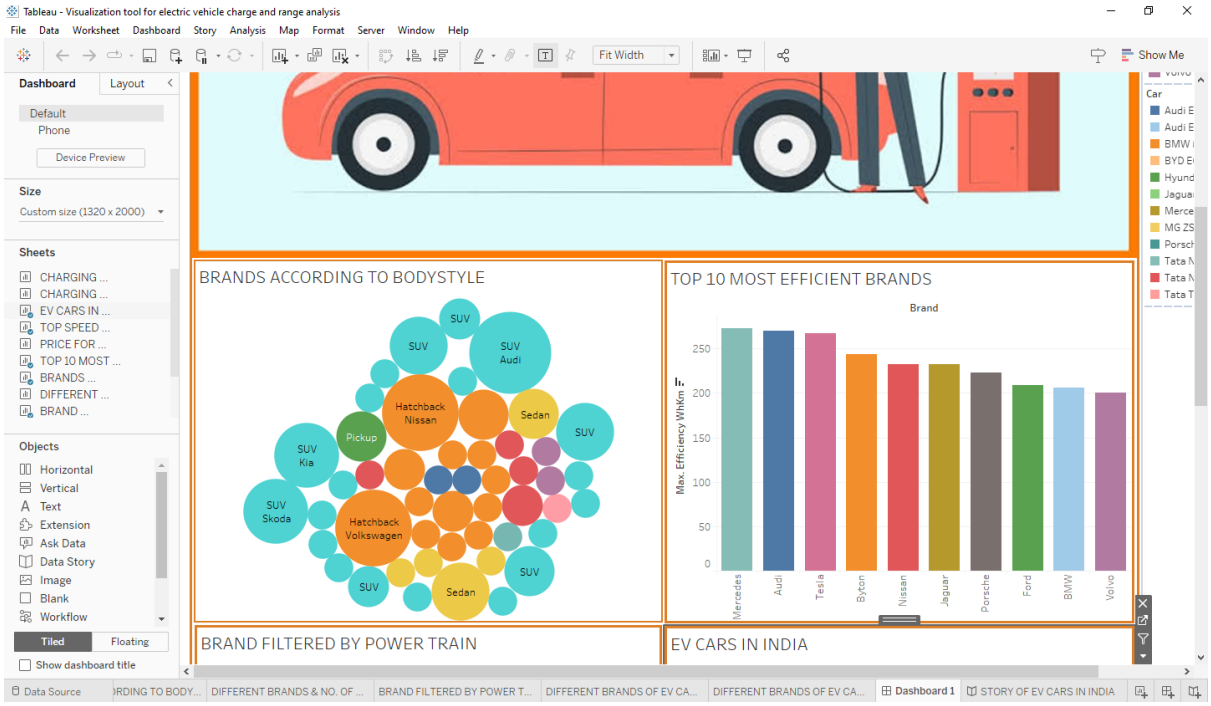


Tableau - Visualization tool for electric vehicle charge and range analysis
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
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Show Me
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Device Preview
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TOP 10 MOST ...
BRANDS ...
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Data Story
Image
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Workflow
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Floating
Show dashboard title
BRANDS ACCORDING TO BODYSTYLE
SUV
SUV Audi
Hatchback Nissan
Sedan
SUV
Pickup
SUV Kia
SUV Skoda
Hatchback Volkswagen
SUV
Sedan
SUV
TOP 10 MOST EFFICIENT BRANDS
Brand
Max. Efficiency WhKm
250
200
150
100
50
0
Mercedes
Audi
Tesla
Byton
Nissan
Jaguar
Porsche
Ford
BMW
Volvo
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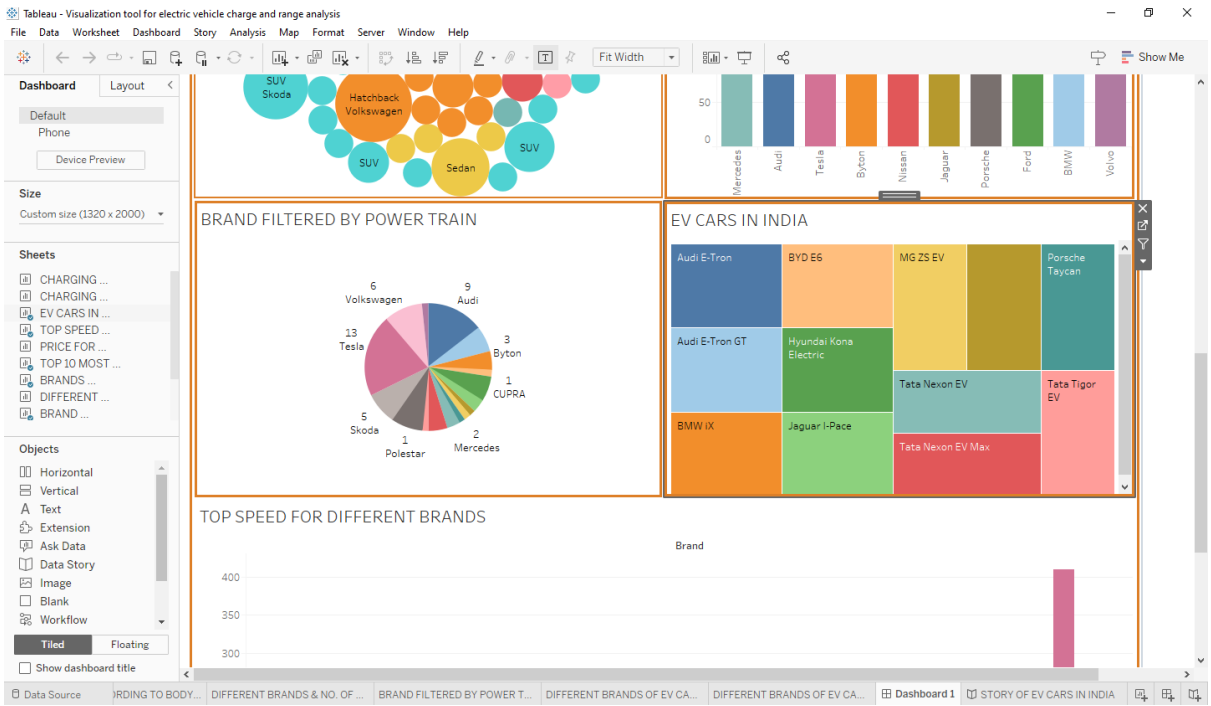
STORY OF EV CARS IN INDIA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BMW
Volvo
BRAND FILTERED BY POWER TRAIN
6 Volkswagen
9 Audi
13 Tesla
3 Byton
1 CUPRA
5 Skoda
1 Polestar
2 Mercedes
EV CARS IN INDIA
Audi E-Tron
BYD E6
MG ZS EV
Porsche Taycan
Audi E-Tron GT
Hyundai Kona Electric
Tata Nexon EV
Tata Tigor EV
BMW iX
Jaguar I-Pace
Tata Nexon EV Max
TOP SPEED FOR DIFFERENT BRANDS
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Data Source
DIFFERENT BRANDS & NO. OF ...
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Dashboard 1
STORY OF EV CARS IN INDIA

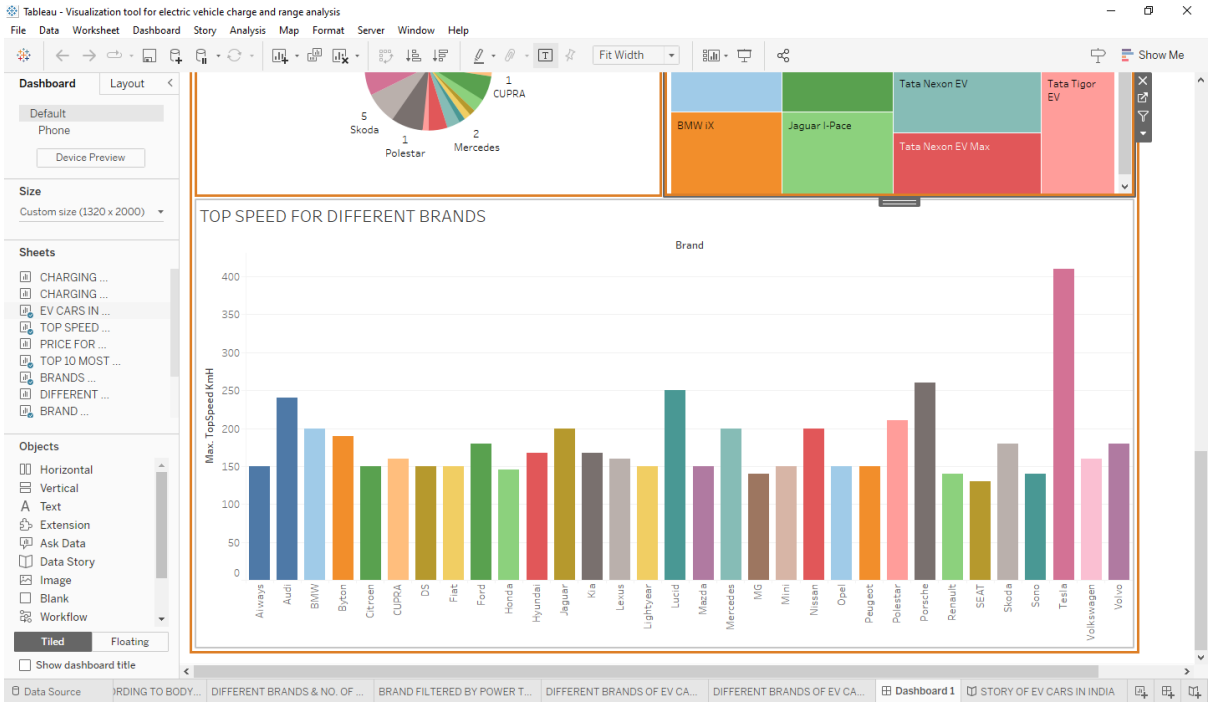
Tableau - Visualization tool for electric vehicle charge and range analysis
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1 CUPRA
5 Skoda
1 Polestar
2 Mercedes
BMW iX
Jaguar I-Pace
Tata Nexon EV
Tata Nexon EV Max
Tata Tigor EV
TOP SPEED FOR DIFFERENT BRANDS
Brand
Max. TopSpeed KmH
Aiways Audi BMW Byton Citroen CUPRA DS Fiat Ford Honda Hyundai Jaguar Kia Lexus Lightyear Lucid Mazda Mercedes MG Mini Nissan Opel Peugeot Polestar Porsche Renault SEAT Skoda Sono Tesla Volkswagen Volvo
Data Source
Dashboard 1
STORY OF EV CARS IN INDIA

STORY

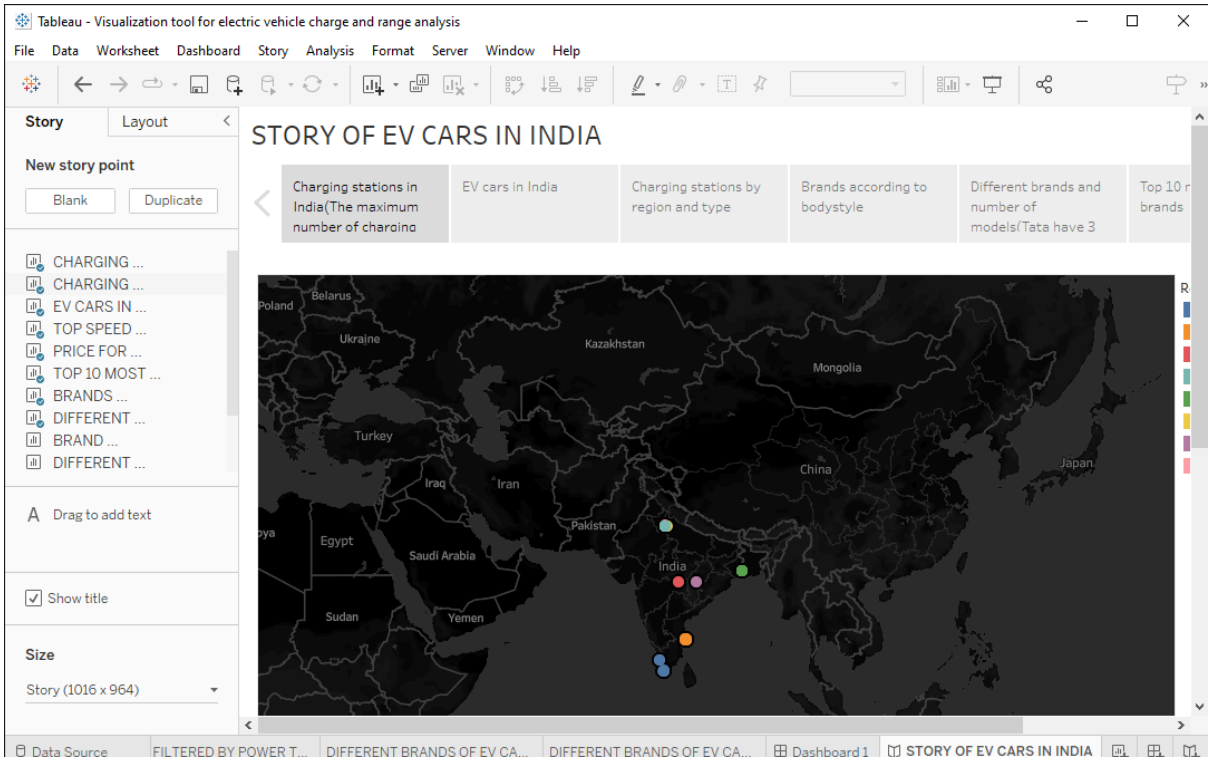
Tableau - Visualization tool for electric vehicle charge and range analysis
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Story
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New story point
Blank
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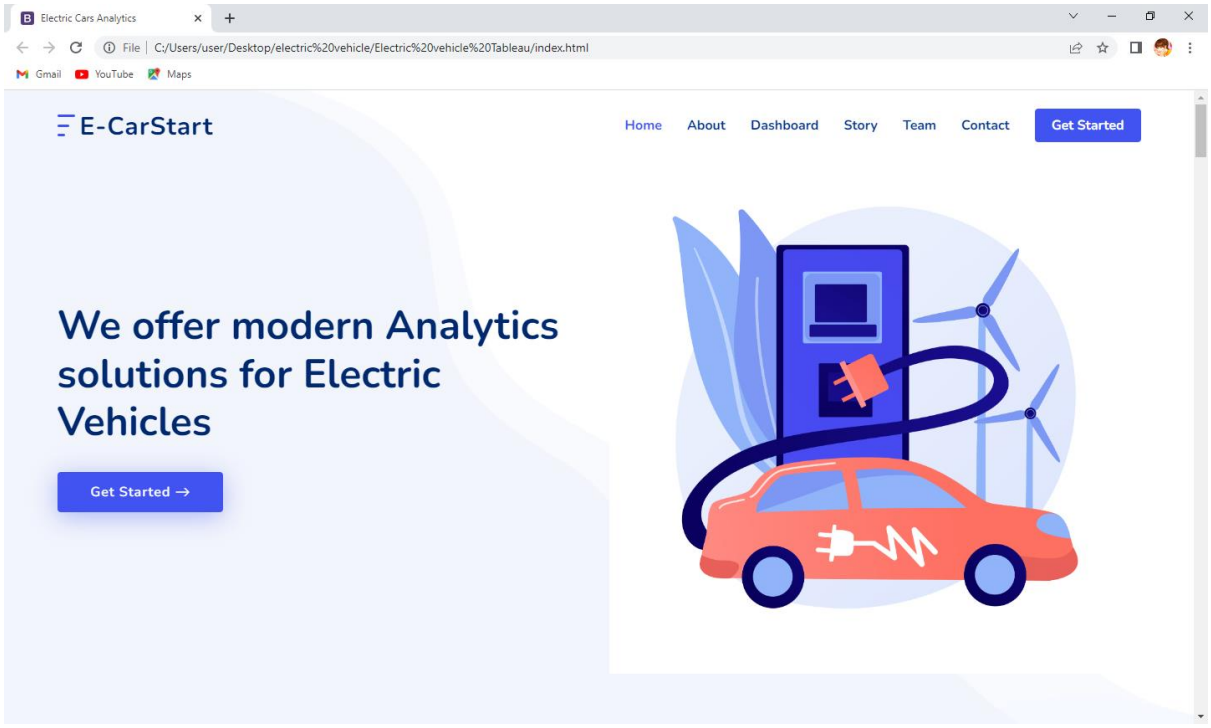
CHARGING ...
EV CARS IN ...
TOP SPEED ...
PRICE FOR ...
TOP 10 MOST ...
BRANDS ...
DIFFERENT ...
BRAND ...
DIFFERENT ...
Drag to add text
Show title
Size
Story (1016 x 964)
STORY OF EV CARS IN INDIA
Charging stations in India(The maximum number of charging
EV cars in India
Charging stations by region and type
Brands according to bodystyle
Different brands and number of models(Tata have 3
Top 10 brands
Belarus
Poland
Ukraine
Kazakhstan
Mongolia
Turkey
Iraq
Iran
China
Japan
Pakistan
Egypt
Saudi Arabia
India
Sudan
Yemen
Data Source
FILTERED BY POWER T...
DIFFERENT BRANDS OF EV CA...
DIFFERENT BRANDS OF EV CA...
Dashboard 1
STORY OF EV CARS IN INDIA

WEB INTEGRATION



4.ADVANTAGES AND DISADVANTAGES

ADVANTAGES

Data visualization can help identify patterns and trends that may not be immediately apparent in raw data. It can also help in communicating with complex information in more accessible way.

DISADVANTAGES

Visualizations can be limited by the data that is available. If the data does not capture all relevant aspects of EV charging and range analysis, then the visualizations may not provide a complete picture of the situation. With the large amounts of data that are generated during EV charging and range analysis, it can be easy to overwhelm viewers with too much information. This can make it difficult for users to identify important trends and patterns.

5. APPLICATIONS

This visualization can help to improve range estimates and identify factors that impact range, such as driving speed and temperature. This information can be used to provide more accurate range estimates to drivers and to inform vehicle design and battery technology improvements. Visualization can be used to educate consumers about the benefits of electric vehicles and to dispel common myths about electric vehicle performance.

6. CONCLUSION

In conclusion, the use of visualization in electric vehicle charge and range analysis can help to unlock the full potential of electric vehicles, improve their performance and range, and support their continued growth and adoption.

7. FUTURE SCOPE

The future scope of visualization of electric vehicle charge and range analysis is vast with the increasing popularity of electric vehicles, there is a growing need for better charging infrastructure. The visualization tool can help to identify patterns in charging behavior that can be used to optimize charging infrastructure.