PROJECT REPORT

PROJECT - VISUALIZATION TOOL FOR ELECTRIC VEHICLES CHARGE AND RANGE ANALYSIS.

1. Introduction:

1.1. Overview:

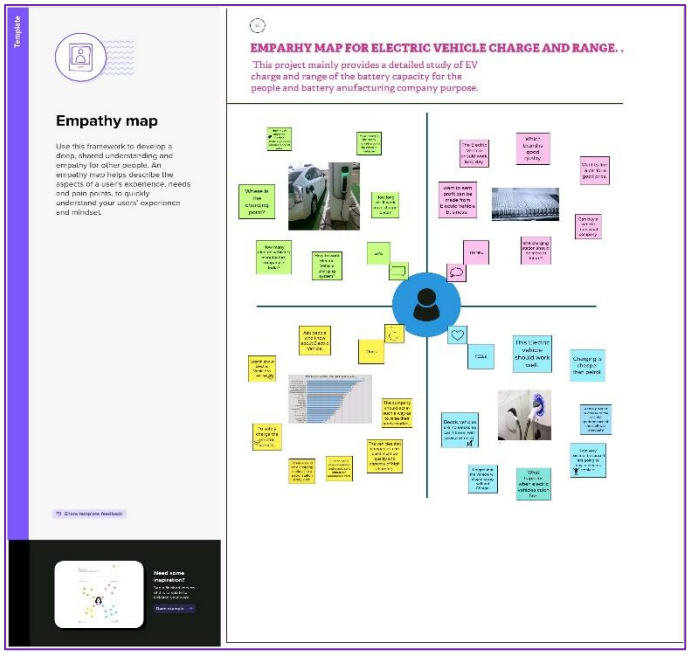
This project talks about the EV range and Charge Analytics. It's providing a Dashboard and Story about Electric Vehicles. This project can provide insights for the people who are using the EV or thinking to enter the EV market. Also, it is explained about the electric vehicles charging stations in the different regions. In India has many car brands, in this project we are published about this.

1.2. Purpose:

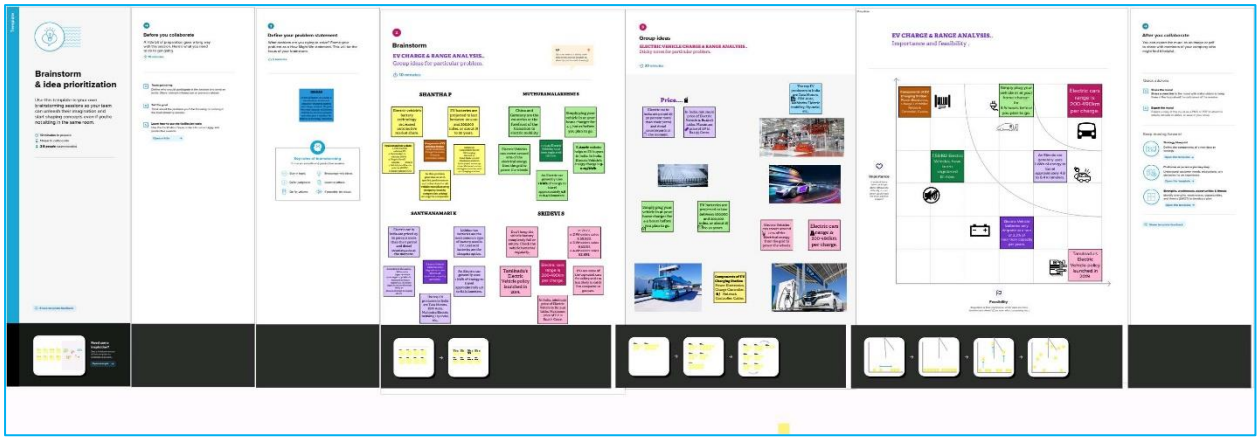
In this problem helps the public who increased about the knowledge of EV. It is solving the biggest issue in the EV market.

2. Problem Definition & Design Thinking:

2.1. Empathy Map:

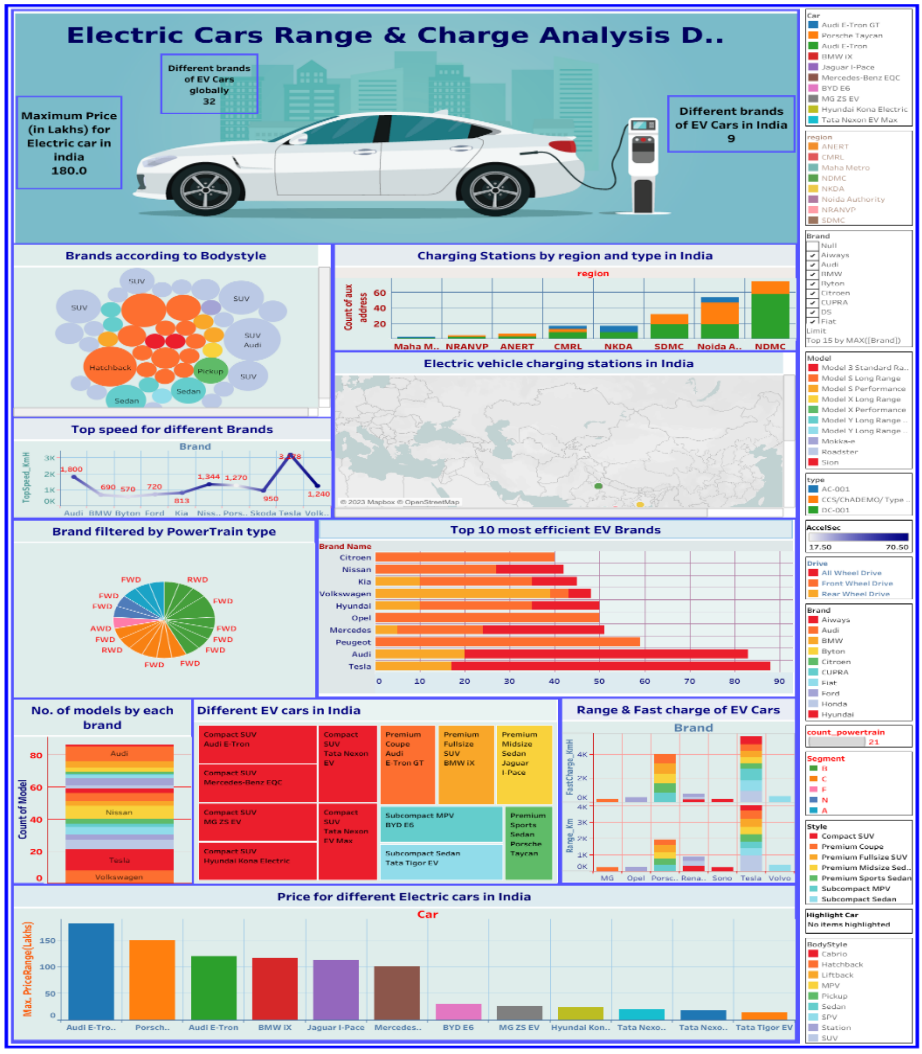


2.2. Ideation and brainstorming map:

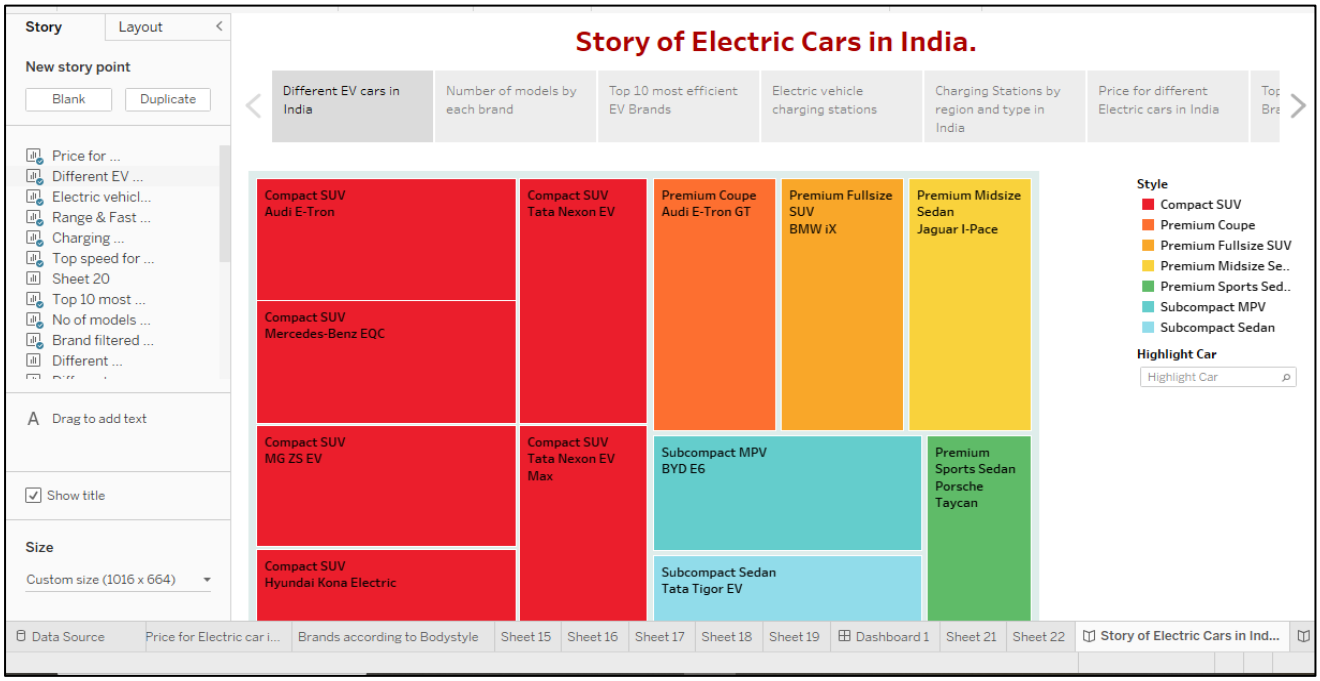


3. Result:

3.1. Dashboard:



3.2. Story:


Story
Layout
New story point
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Price for ...
Different EV ...
Electric vehicl...
Range & Fast ...
Charging ...
Top speed for ...
Sheet 20
Top 10 most ...
No of models ...
Brand filtered ...
Different ...
Drag to add text
Show title
Size
Custom size (1016 x 664)
Story of Electric Cars in India.
Different EV cars in India
Number of models by each brand
Top 10 most efficient EV Brands
Electric vehicle charging stations
Charging Stations by region and type in India
Price for different Electric cars in India
Compact SUV
Audi E-Tron
Compact SUV
Tata Nexon EV
Premium Coupe
Audi E-Tron GT
Premium Fullsize SUV
BMW iX
Premium Midsize Sedan
Jaguar I-Pace
Compact SUV
Mercedes-Benz EQC
Compact SUV
MG ZS EV
Compact SUV
Tata Nexon EV Max
Subcompact MPV
BYD E6
Premium Sports Sedan
Porsche Taycan
Compact SUV
Hyundai Kona Electric
Subcompact Sedan
Tata Tigor EV
Style
Compact SUV
Premium Coupe
Premium Fullsize SUV
Premium Midsize Se..
Premium Sports Sed..
Subcompact MPV
Subcompact Sedan
Highlight Car
Highlight Car
Data Source
Price for Electric car i...
Brands according to Bodystyle
Sheet 15
Sheet 16
Sheet 17
Sheet 18
Sheet 19
Dashboard 1
Sheet 21
Sheet 22
Story of Electric Cars in Ind...

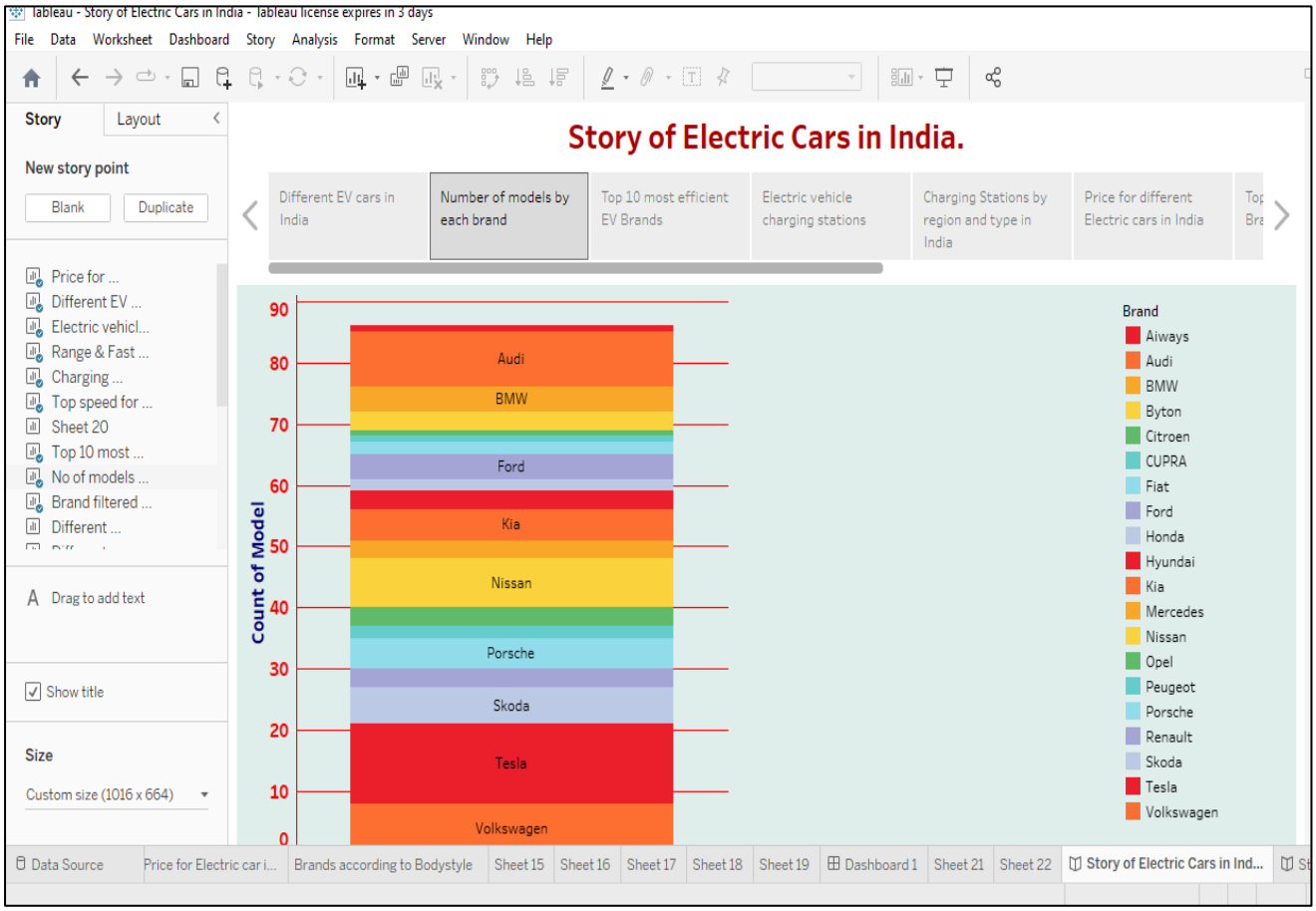
Tableau - Story of Electric Cars in India - Tableau license expires in 3 days
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Worksheet
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Story
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Server
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Price for ...
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Top speed for ...
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Story of Electric Cars in India.
Different EV cars in India
Number of models by each brand
Top 10 most efficient EV Brands
Electric vehicle charging stations
Charging Stations by region and type in India
Price for different Electric cars in India
Count of Model
90
80
70
60
50
40
30
20
10
0
Audi
BMW
Ford
Kia
Nissan
Porsche
Skoda
Tesla
Volkswagen
Brand
Aiways
Audi
BMW
Byton
Citroen
CUPRA
Fiat
Ford
Honda
Hyundai
Kia
Mercedes
Nissan
Opel
Peugeot
Porsche
Renault
Skoda
Tesla
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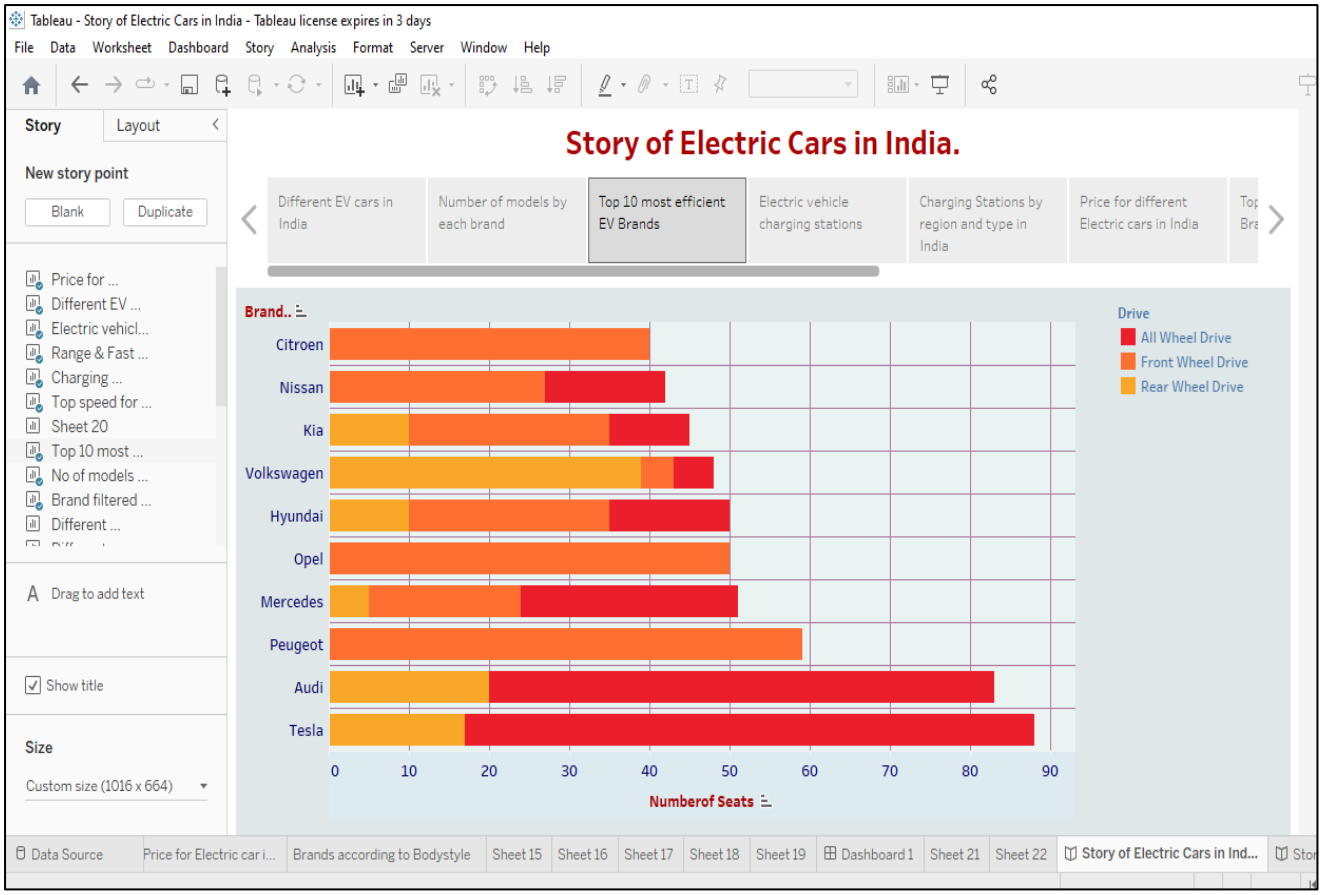
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Brand..
Citroen
Nissan
Kia
Volkswagen
Hyundai
Opel
Mercedes
Peugeot
Audi
Tesla
0 10 20 30 40 50 60 70 80 90
Numberof Seats
Drive
All Wheel Drive
Front Wheel Drive
Rear Wheel Drive
Data Source
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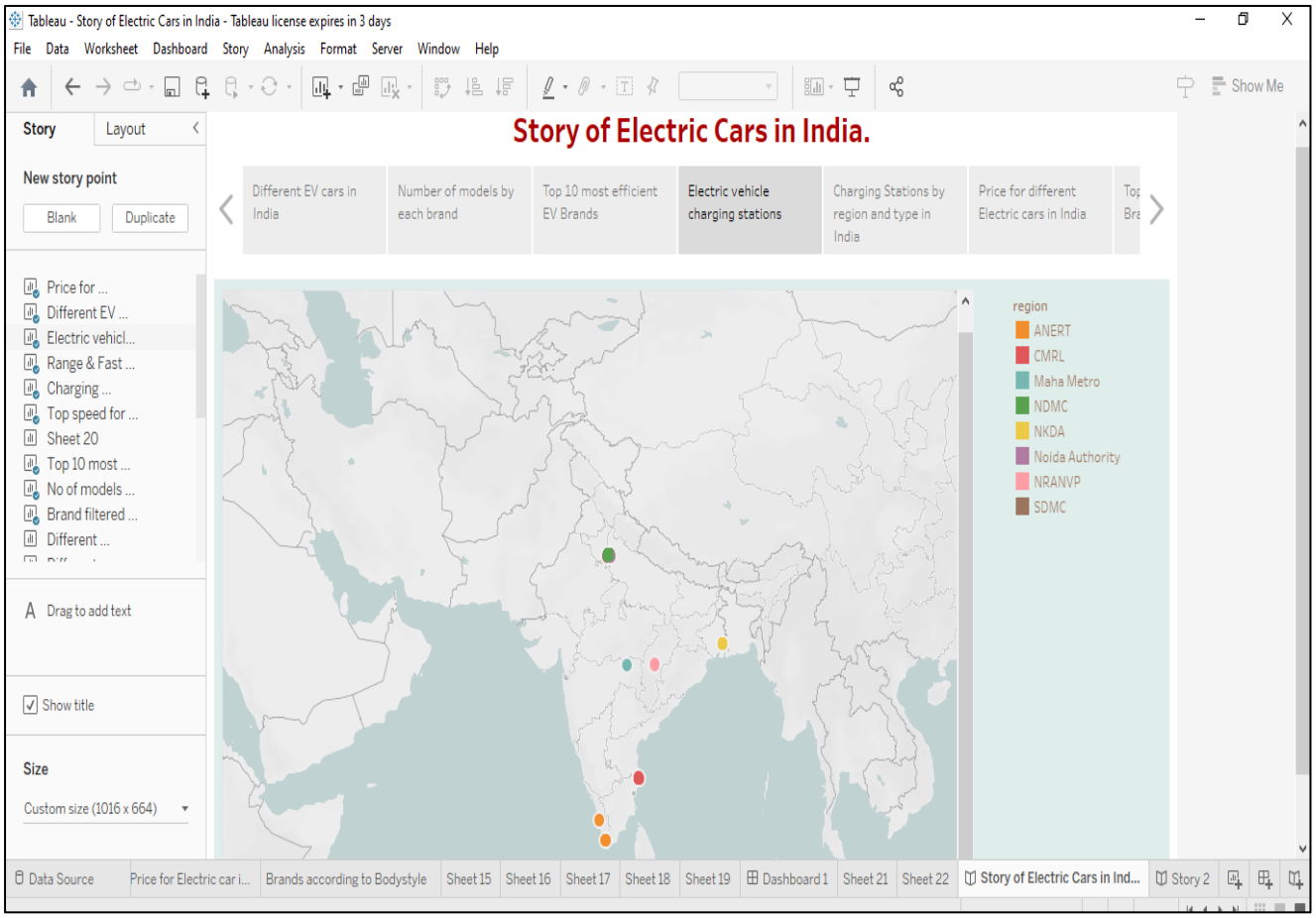
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Charging Stations by region and type in India
Price for different Electric cars in India
region
ANERT
CMRL
Maha Metro
NDMC
NKDA
Noida Authority
NRANVP
SDMC
Data Source
Price for Electric car i...
Brands according to Bodystyle
Sheet 15
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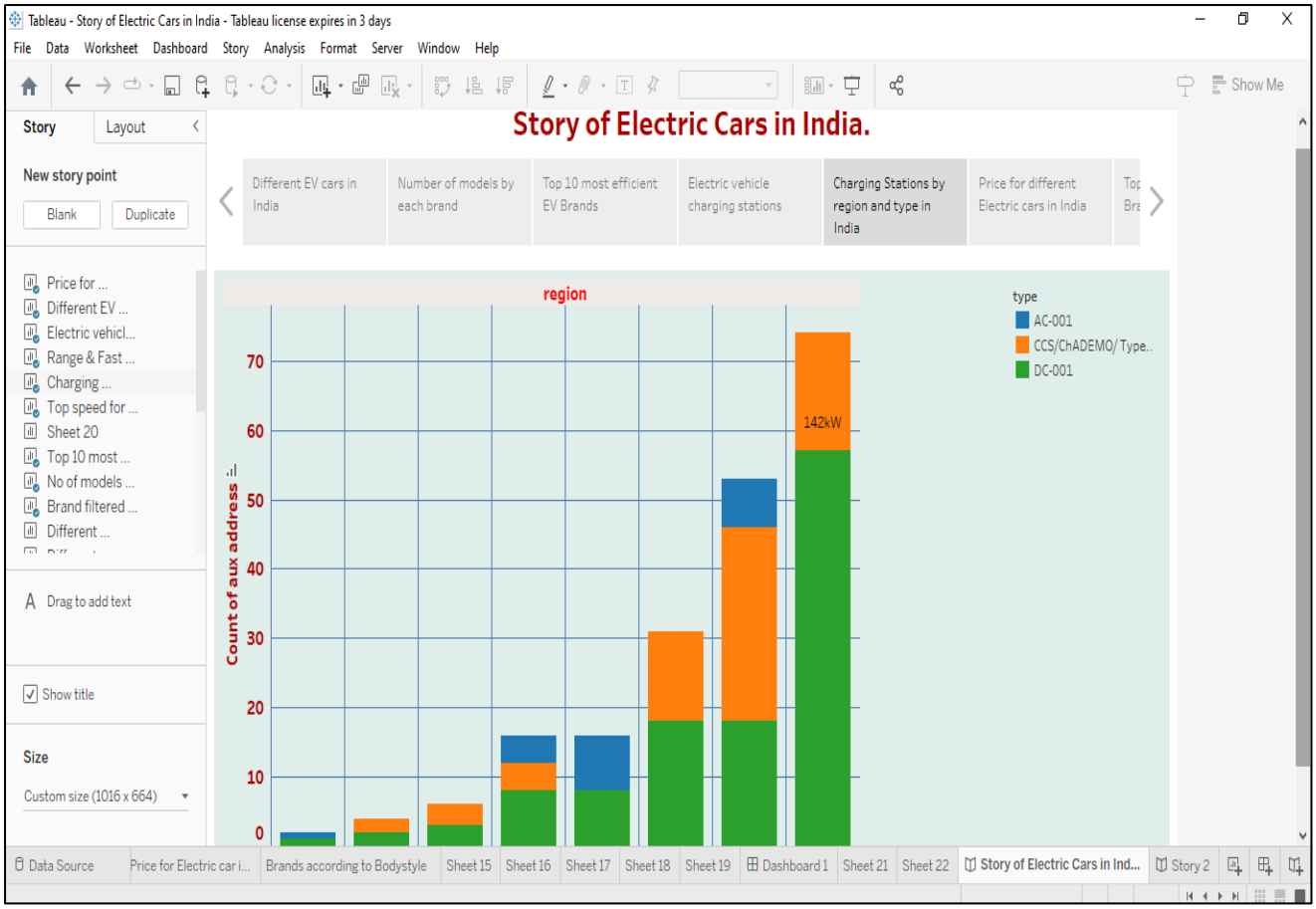
Dashboard 1
Sheet 21
Sheet 22
Story of Electric Cars in Ind...
Story 2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Price for different Electric cars in India
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Count of aux address
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Price for Electric car i...
Brands according to Bodystyle
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Porsche Taycan
Audi E-Tron
BMW iX
Jaguar I-Pace
Mercedes-Benz EQC
BYD E6
MG ZS EV
Hyundai Kona Electric
Tata Nexon EV Max
Tata Nexon EV
Tata Tigor EV
Max. PriceRange(Lakhs)
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40
60
80
100
120
140
160
180
Data Source
Price for Electric car i...
Brands according to Bodystyle
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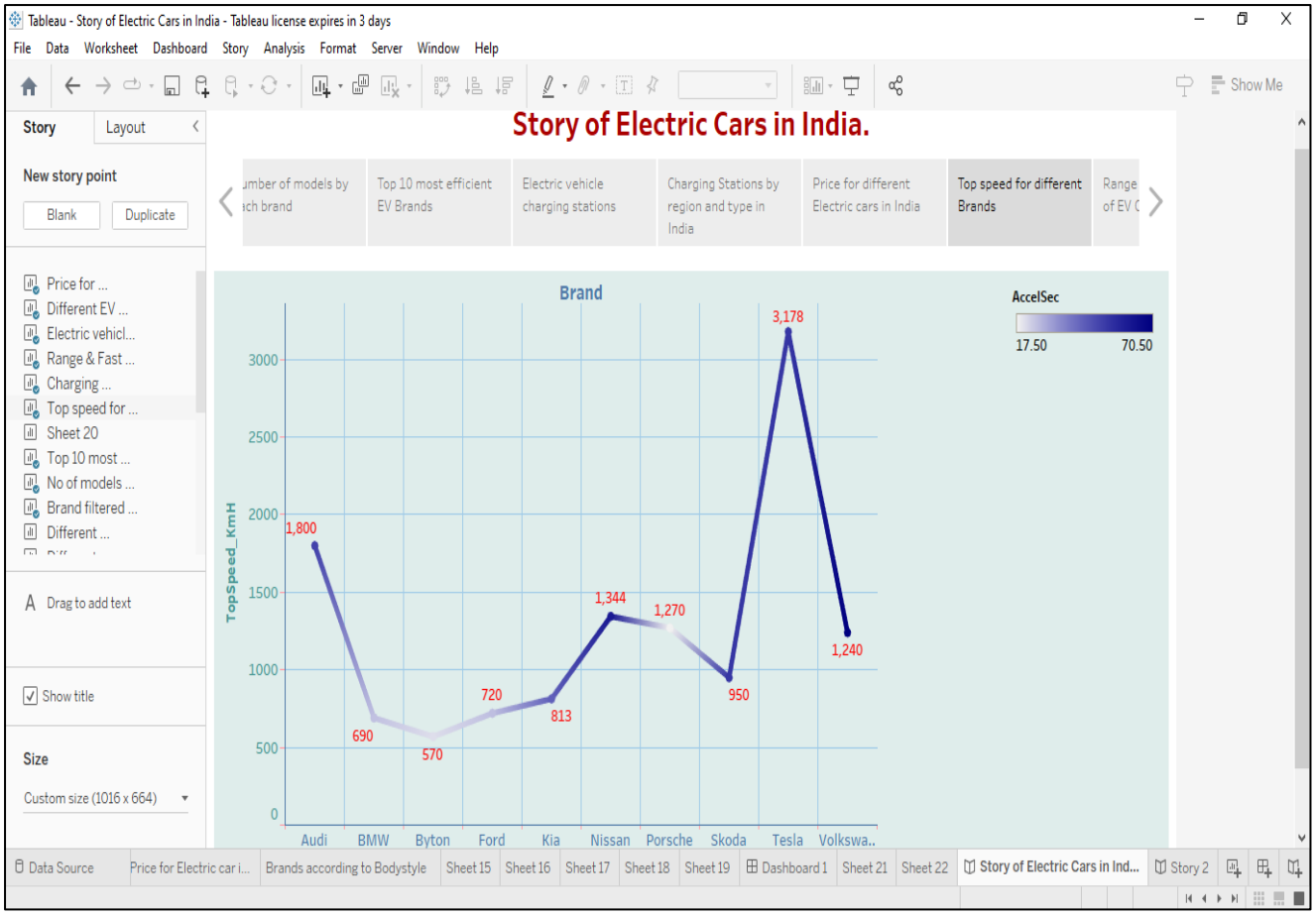
Story 2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Charging Stations by region and type in India
Price for different Electric cars in India
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Nissan
Porsche
Skoda
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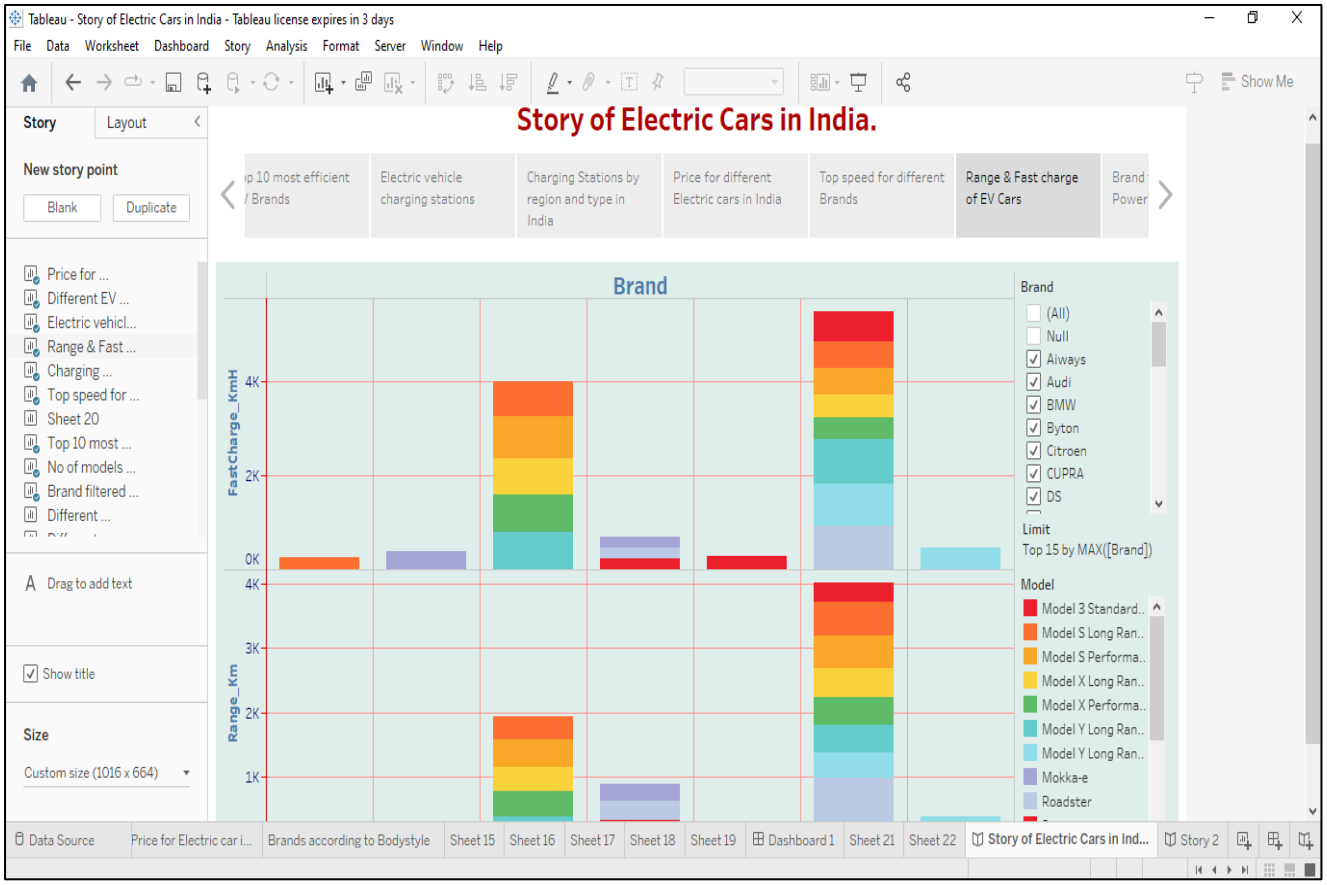
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Charging Stations by region and type in India
Price for different Electric cars in India
Top speed for different Brands
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3K
2K
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Audi
BMW
Byton
Citroen
CUPRA
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Top 15 by MAX([Brand])
Model
Model 3 Standard..
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Model S Performa..
Model X Long Ran..
Model X Performa..
Model Y Long Ran..
Model Y Long Ran..
Mokka-e
Roadster
Data Source
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Brands according to Bodystyle
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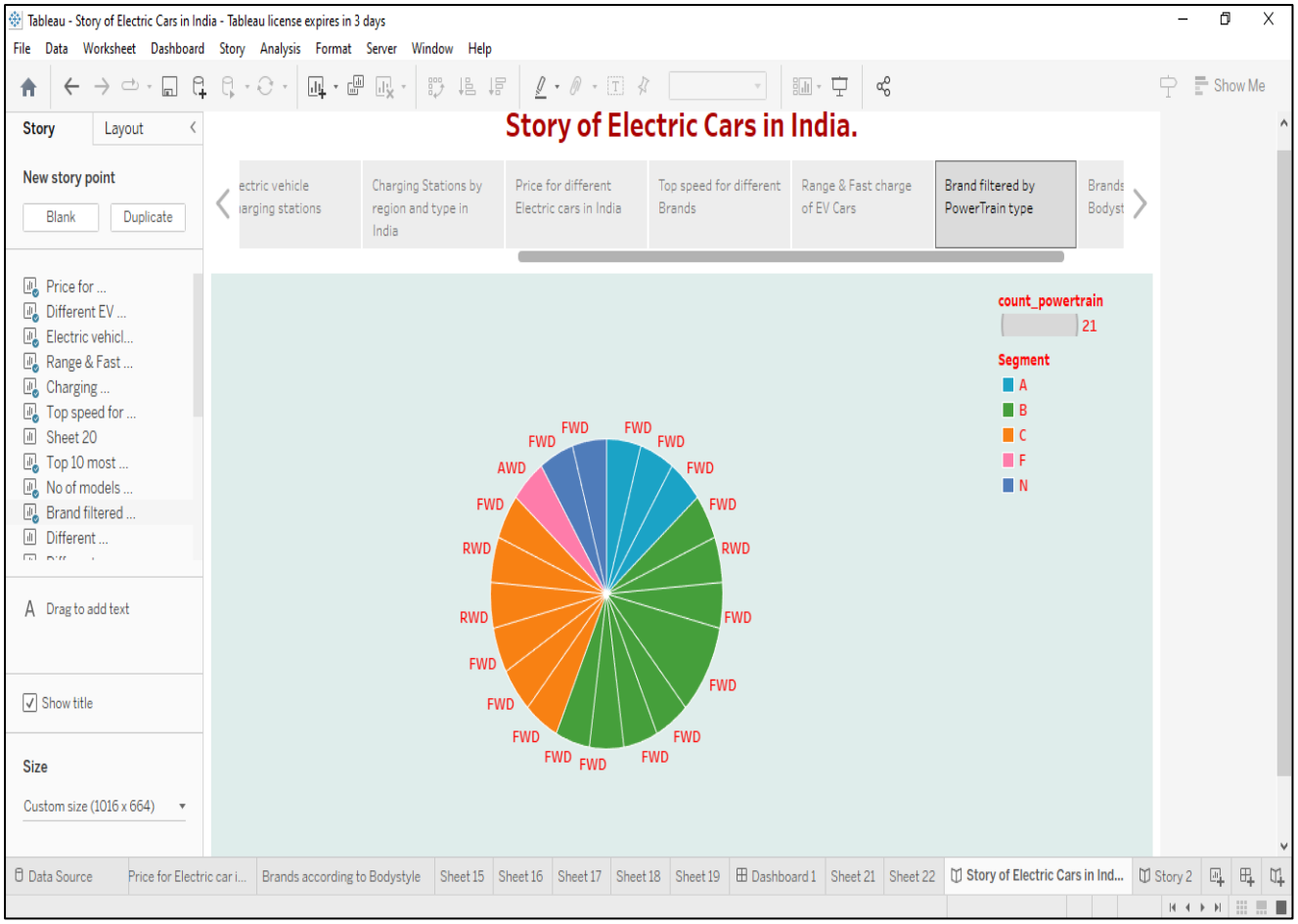
Dashboard 1
Sheet 21
Sheet 22
Story of Electric Cars in Ind...
Story 2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File Data Worksheet Dashboard Story Analysis Format Server Window Help
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Top speed for ...
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No of models ...
Brand filtered ...
Different ...
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Story of Electric Cars in India.
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Charging Stations by region and type in India
Price for different Electric cars in India
Top speed for different Brands
Range & Fast charge of EV Cars
Brand filtered by PowerTrain type
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FWD
AWD
RWD
Data Source
Price for Electric car i...
Brands according to Bodystyle
Sheet 15
Sheet 16
Sheet 17
Sheet 18
Sheet 19
Dashboard 1
Sheet 21
Sheet 22
Story of Electric Cars in Ind...
Story 2

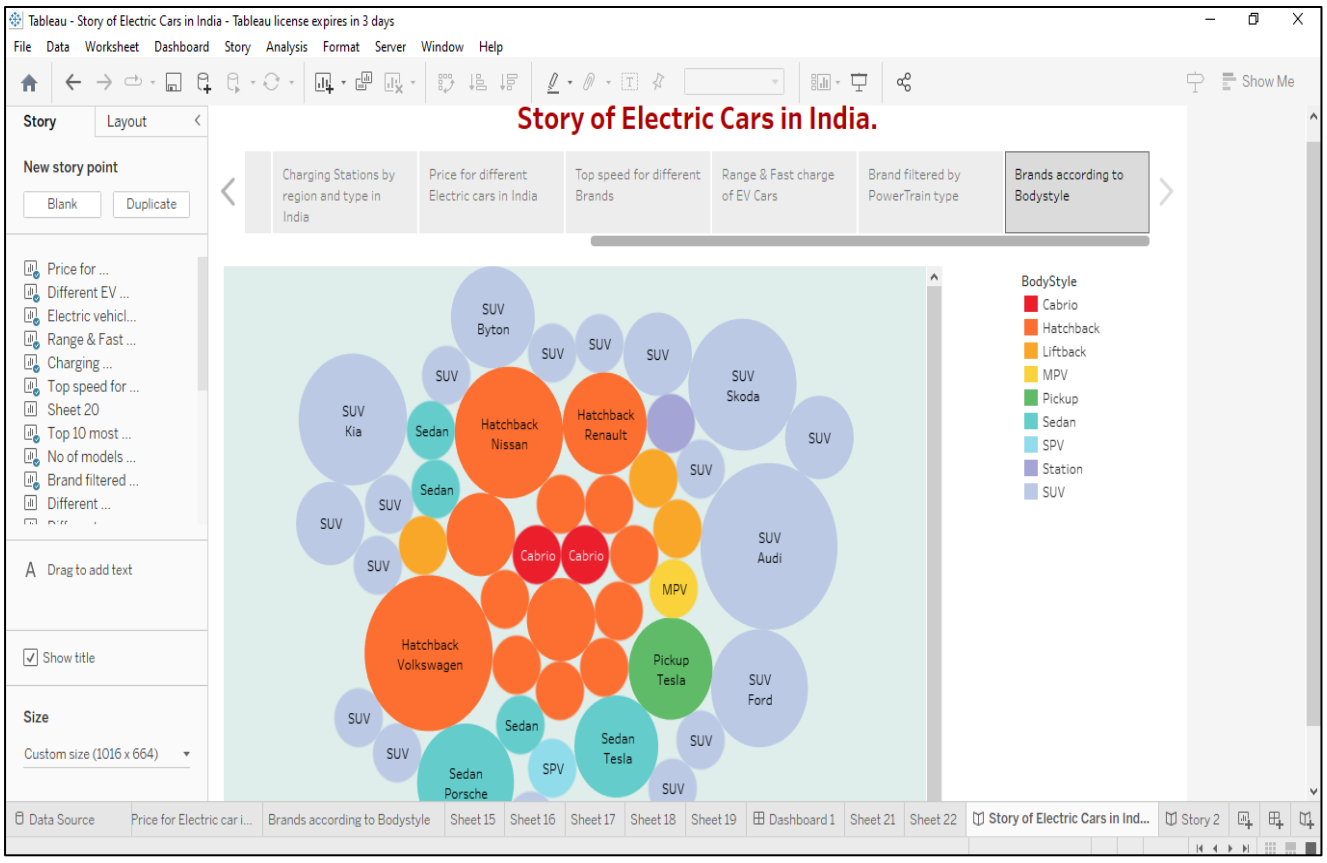
Tableau - Story of Electric Cars in India - Tableau license expires in 3 days
File Data Worksheet Dashboard Story Analysis Format Server Window Help
Show Me
Story
Layout
New story point
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Duplicate
Price for ...
Different EV ...
Electric vehicl...
Range & Fast ...
Charging ...
Top speed for ...
Sheet 20
Top 10 most ...
No of models ...
Brand filtered ...
Different ...
Drag to add text
Show title
Size
Custom size (1016 x 664)
Story of Electric Cars in India.
Charging Stations by region and type in India
Price for different Electric cars in India
Top speed for different Brands
Range & Fast charge of EV Cars
Brand filtered by PowerTrain type
Brands according to Bodystyle
BodyStyle
Cabrio
Hatchback
Liftback
MPV
Pickup
Sedan
SPV
Station
SUV
SUV Byton
SUV Kia
Sedan
Hatchback Nissan
Hatchback Renault
SUV Skoda
SUV Audi
Cabrio
MPV
Hatchback Volkswagen
Pickup Tesla
SUV Ford
Sedan Porsche
SPV
Sedan Tesla
Data Source
Price for Electric car i...
Brands according to Bodystyle
Sheet 15
Sheet 16
Sheet 17
Sheet 18
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Dashboard 1
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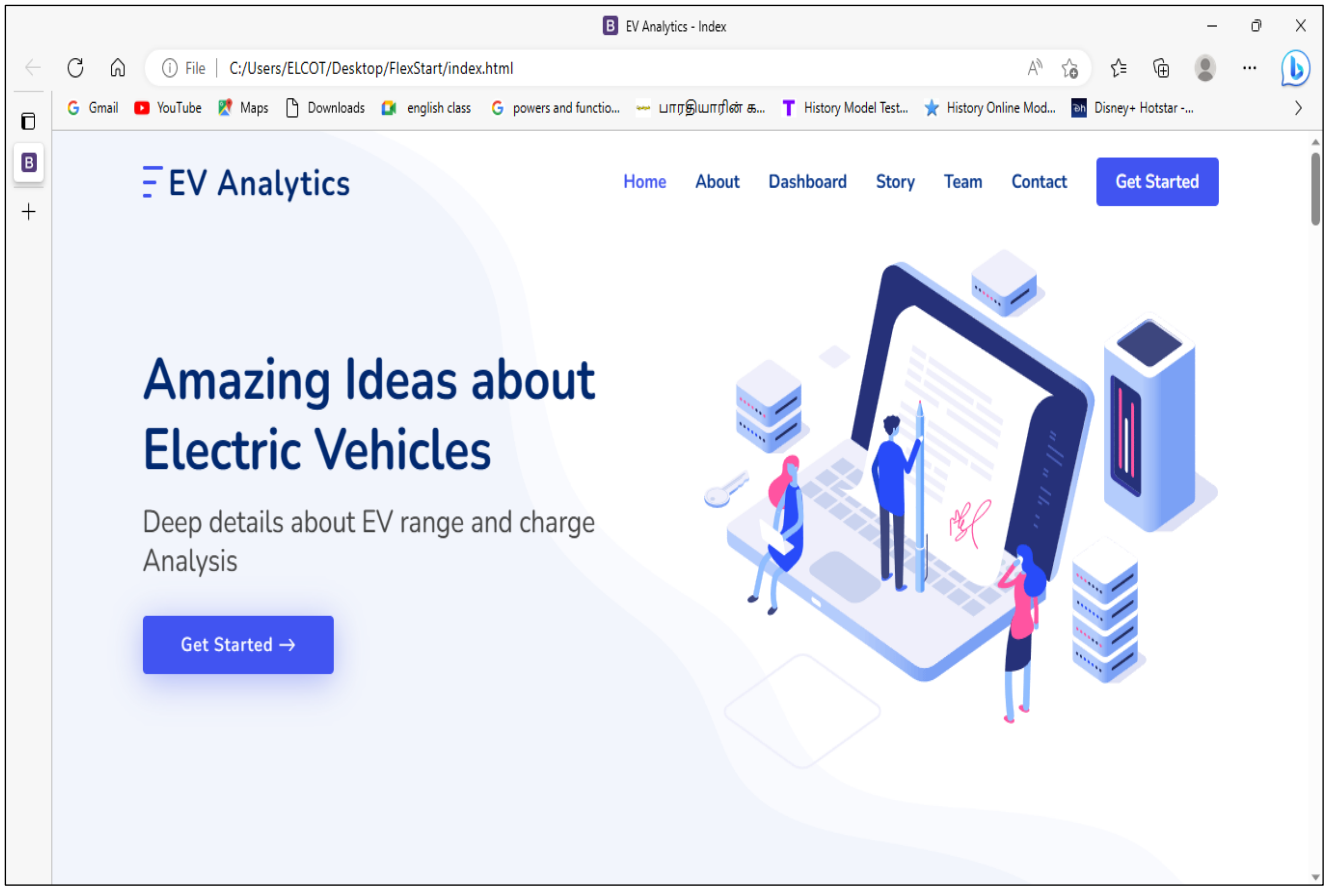
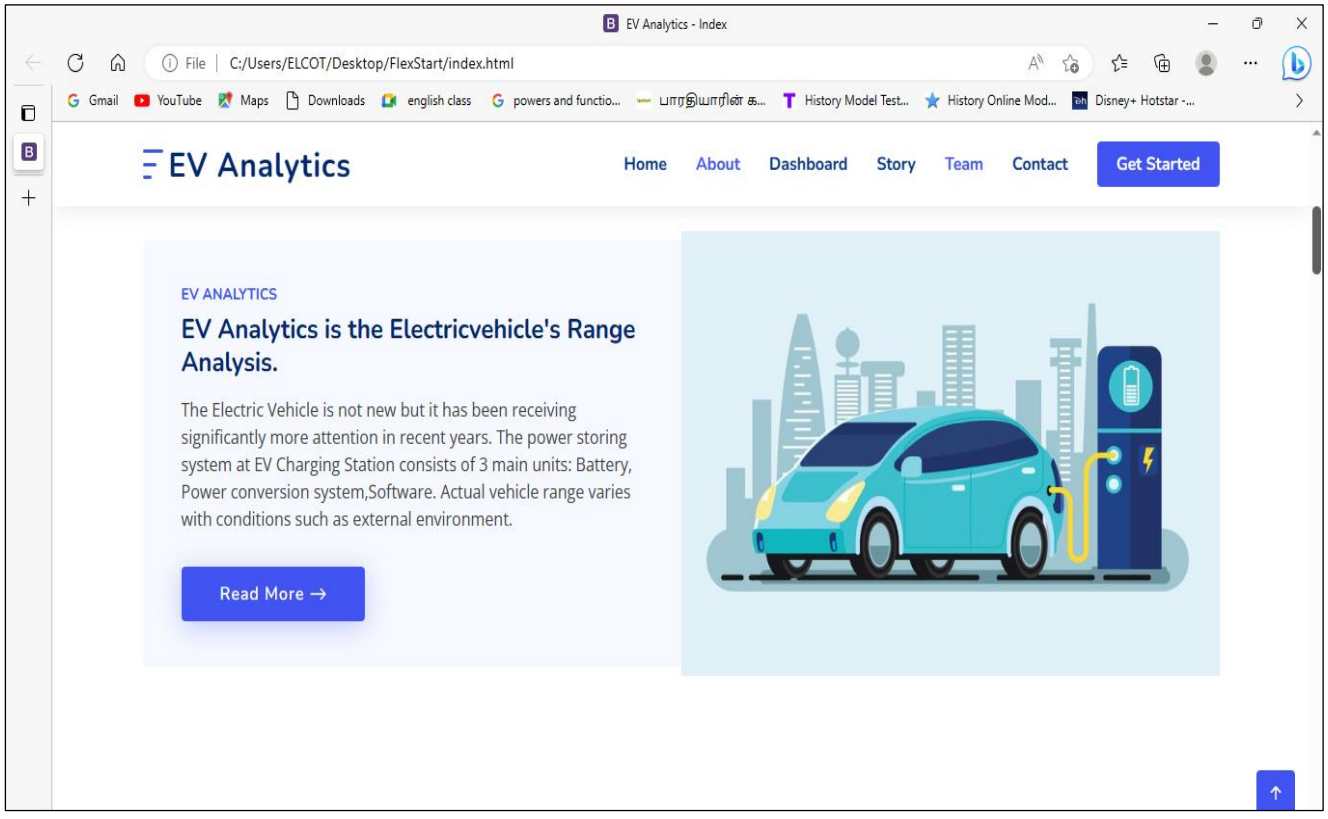
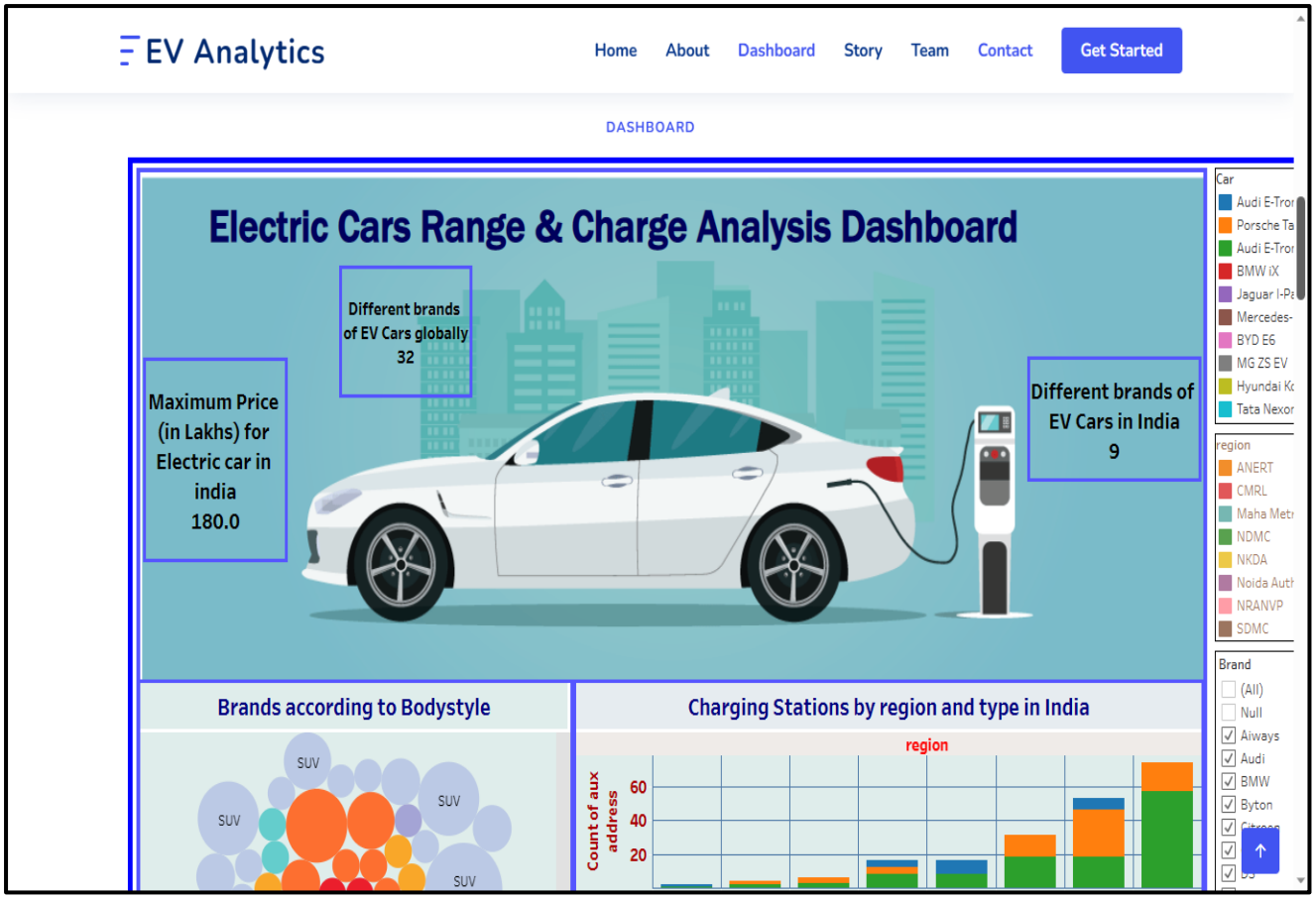
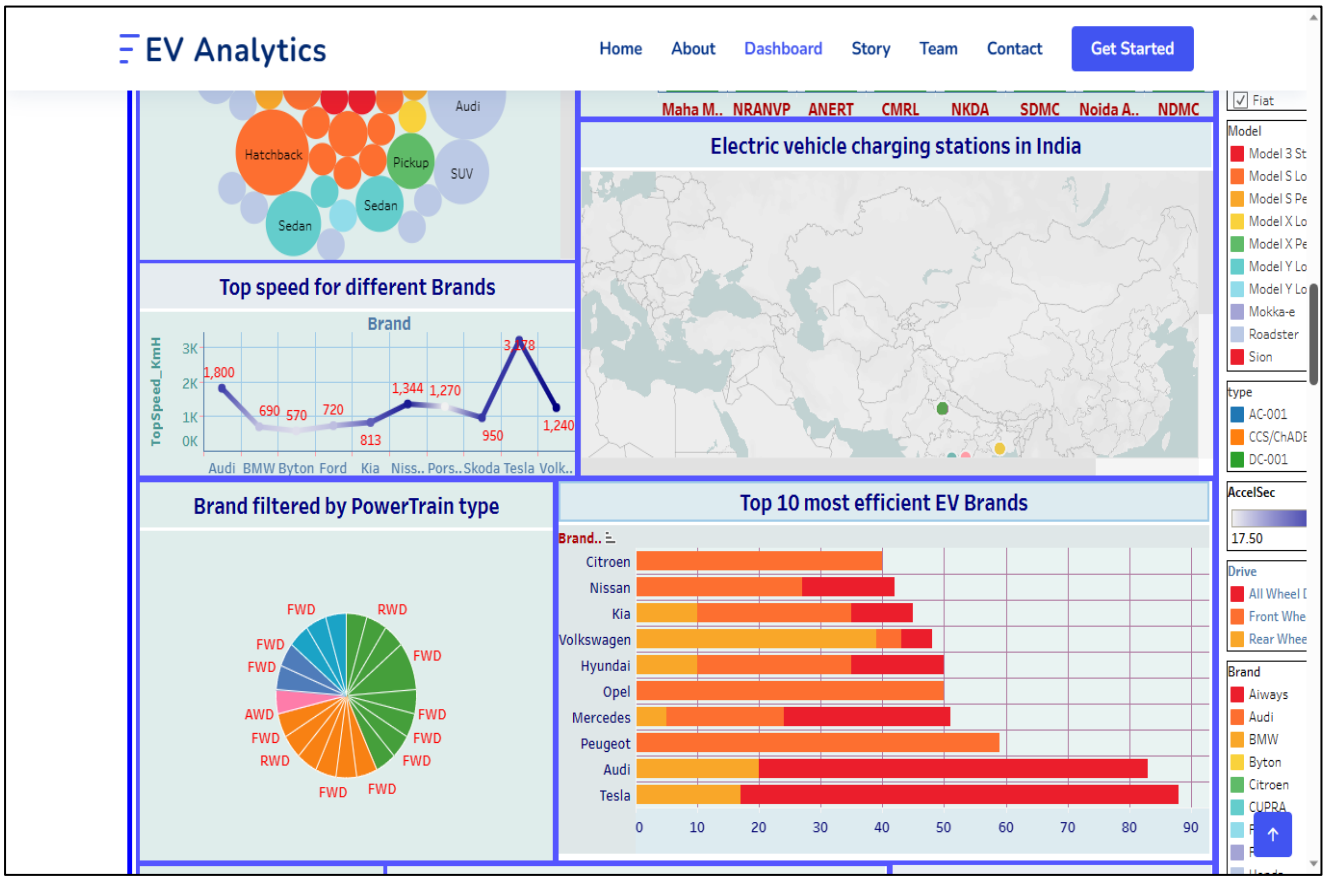
Sheet 22
Story of Electric Cars in Ind...
Story 2

3.3. Web Integration:






EV Analytics
Home
About
Dashboard
Story
Team
Contact
Get Started
DASHBOARD
Electric Cars Range & Charge Analysis Dashboard
Different brands of EV Cars globally 32
Maximum Price (in Lakhs) for Electric car in india 180.0
Different brands of EV Cars in India 9
Brands according to Bodystyle
SUV
Charging Stations by region and type in India
region
Count of aux address
60
40
20
Car
Audi E-Tron
Porsche Ta
Audi E-Tron
BMW iX
Jaguar I-Pa
Mercedes-
BYD E6
MG ZS EV
Hyundai Ko
Tata Nexon
region
ANERT
CMRL
Maha Metr
NDMC
NKDA
Noida Auth
NRANVP
SDMC
Brand
(All)
Null
Aiways
Audi
BMW
Byton


EV Analytics
Home
About
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Get Started
Audi
Hatchback
Pickup
SUV
Sedan
Sedan
Maha M..
NRANVP
ANERT
CMRL
NKDA
SDMC
Noida A..
NDMC
Electric vehicle charging stations in India
Top speed for different Brands
Brand
TopSpeed_KmH
3K
2K
1K
0K
1,800
690
570
720
813
1,344
1,270
950
3,478
1,240
Audi
BMW
Byton
Ford
Kia
Niss..
Pors..
Skoda
Tesla
Volk..
Brand filtered by PowerTrain type
FWD
RWD
AWD
Top 10 most efficient EV Brands
Brand..
Citroen
Nissan
Kia
Volkswagen
Hyundai
Opel
Mercedes
Peugeot
Audi
Tesla
0
10
20
30
40
50
60
70
80
90
Fiat
Model
Model 3 St
Model S Lo
Model S Pe
Model X Lo
Model X Pe
Model Y Lo
Model Y Lo
Mokka-e
Roadster
Sion
type
AC-001
CCS/ChADE
DC-001
AccelSec
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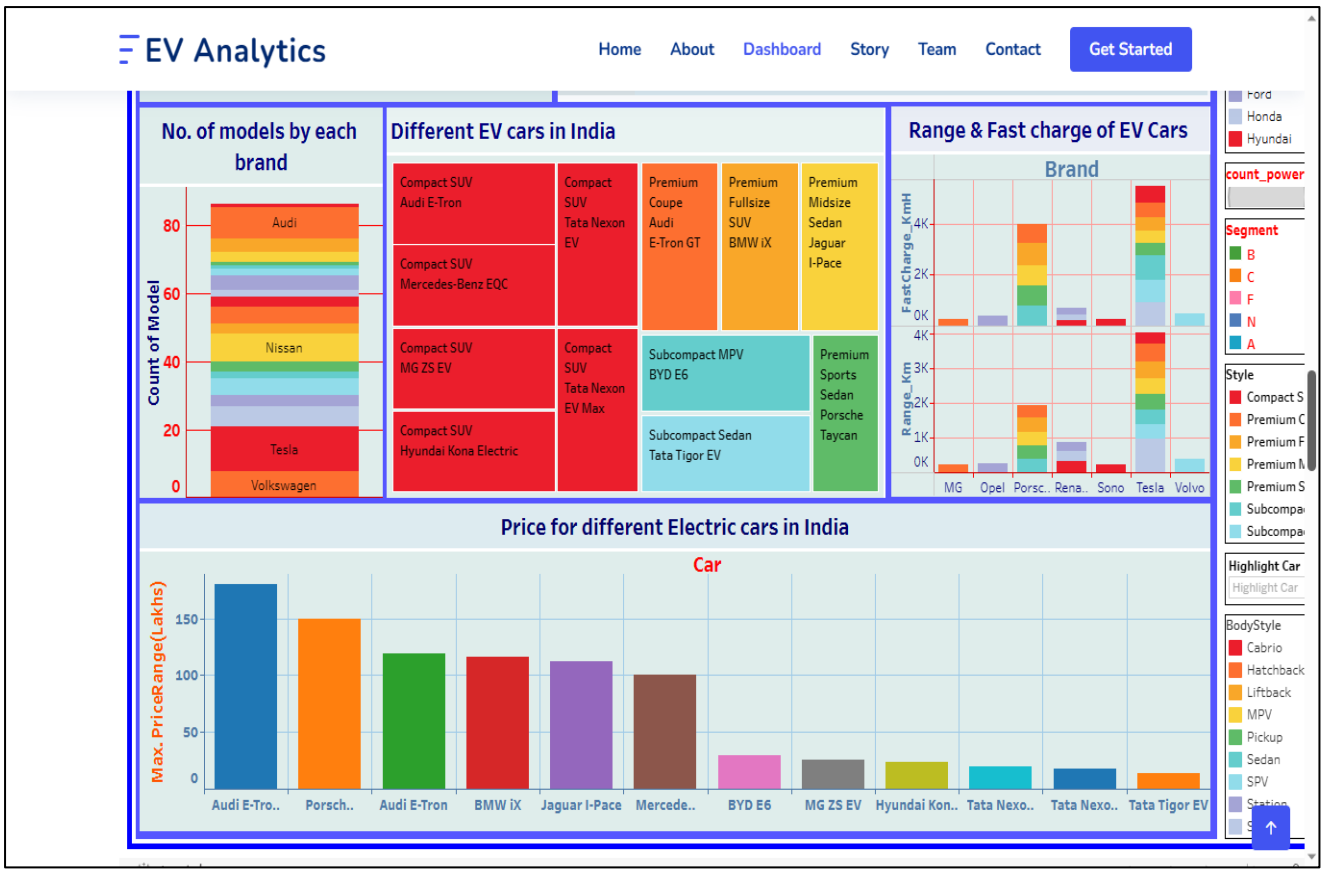
Drive
All Wheel D
Front Whe
Rear Whee
Brand
Aiways
Audi
BMW
Byton
Citroen
CUPRA


EV Analytics
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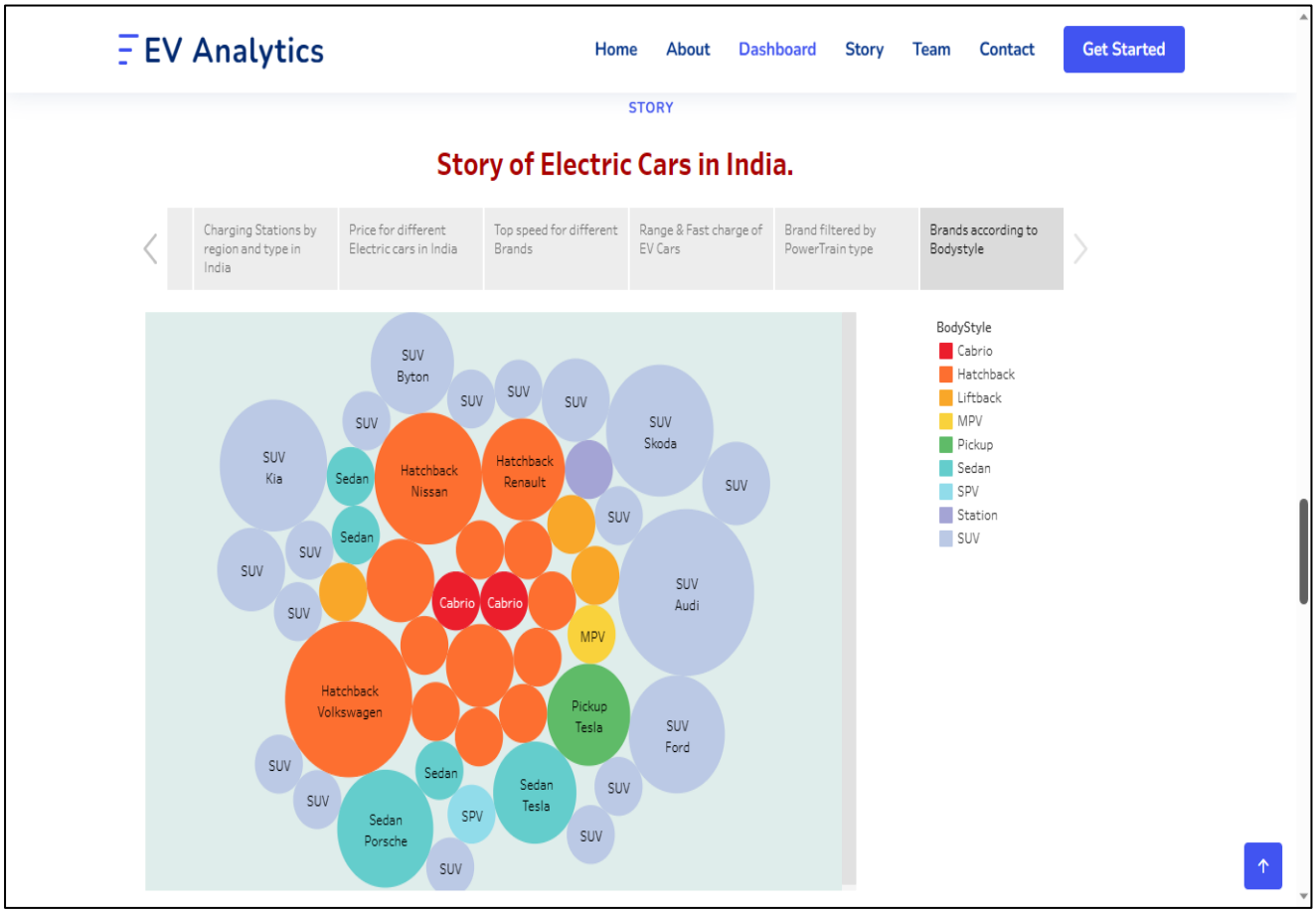
Get Started
No. of models by each brand
Count of Model
Audi
Nissan
Tesla
Volkswagen
Different EV cars in India
Compact SUV Audi E-Tron
Compact SUV Mercedes-Benz EQC
Compact SUV MG ZS EV
Compact SUV Hyundai Kona Electric
Compact SUV Tata Nexon EV
Compact SUV Tata Nexon EV Max
Premium Coupe Audi E-Tron GT
Premium Fullsize SUV BMW iX
Premium Midsize Sedan Jaguar I-Pace
Subcompact MPV BYD E6
Subcompact Sedan Tata Tigor EV
Premium Sports Sedan Porsche Taycan
Range & Fast charge of EV Cars
Brand
FastCharge_KmH
Range_Km
MG
Opel
Porsc..
Rena..
Sono
Tesla
Volvo
Price for different Electric cars in India
Car
Max. PriceRange(Lakhs)
Audi E-Tro..
Porsch..
Audi E-Tron
BMW iX
Jaguar I-Pace
Mercede..
BYD E6
MG ZS EV
Hyundai Kon..
Tata Nexo..
Tata Nexo..
Tata Tigor EV
Ford
Honda
Hyundai
count_power
Segment
Style
Highlight Car
BodyStyle
Cabrio
Hatchback
Liftback
MPV
Pickup
Sedan
SPV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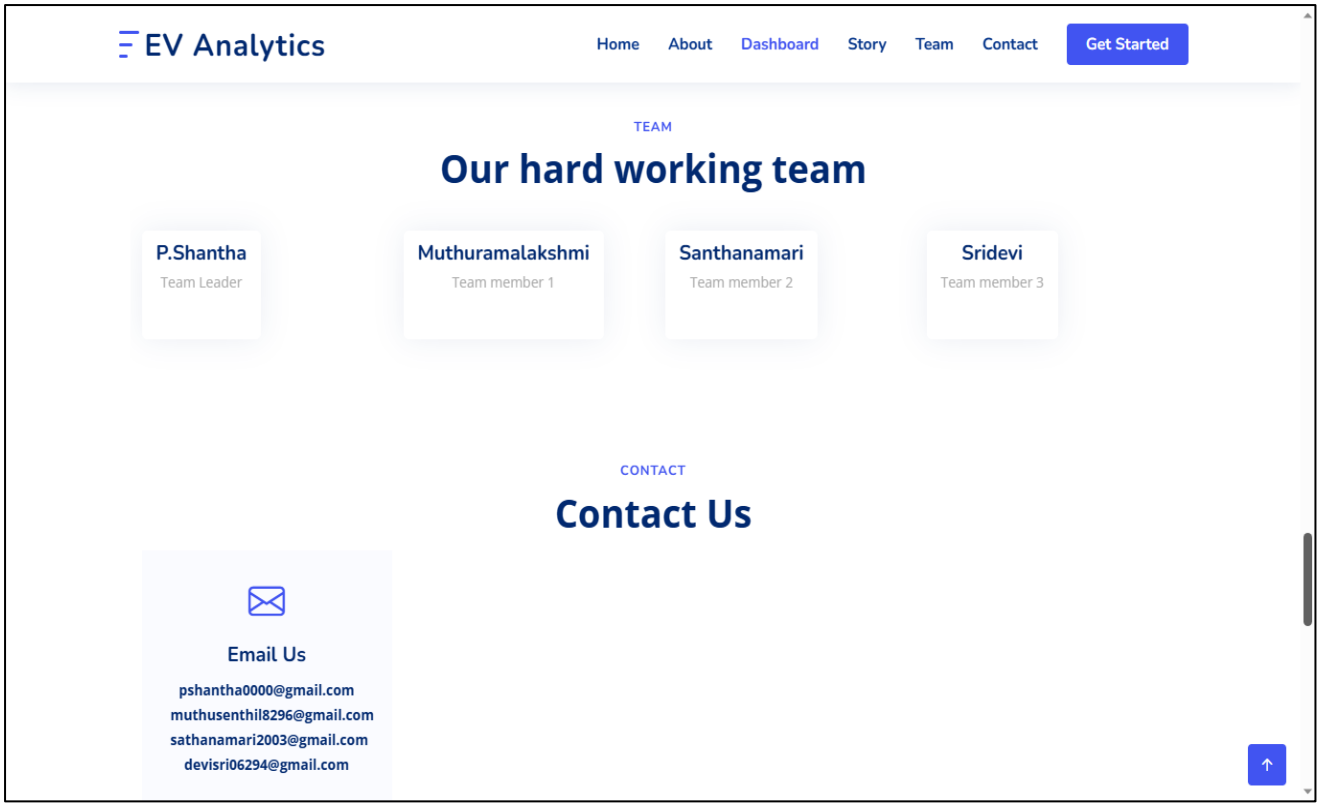
Brand filtered by PowerTrain type
Brands according to Bodystyle
SUV Byton
SUV Kia
SUV Skoda
Hatchback Nissan
Hatchback Renault
Sedan
Cabrio
SUV Audi
MPV
Hatchback Volkswagen
Pickup Tesla
SUV Ford
Sedan Porsche
Sedan Tesla
SPV
BodyStyle
Cabrio
Hatchback
Liftback
MPV
Pickup
Sedan
SPV
Station
SUV


EV Analytics
Home
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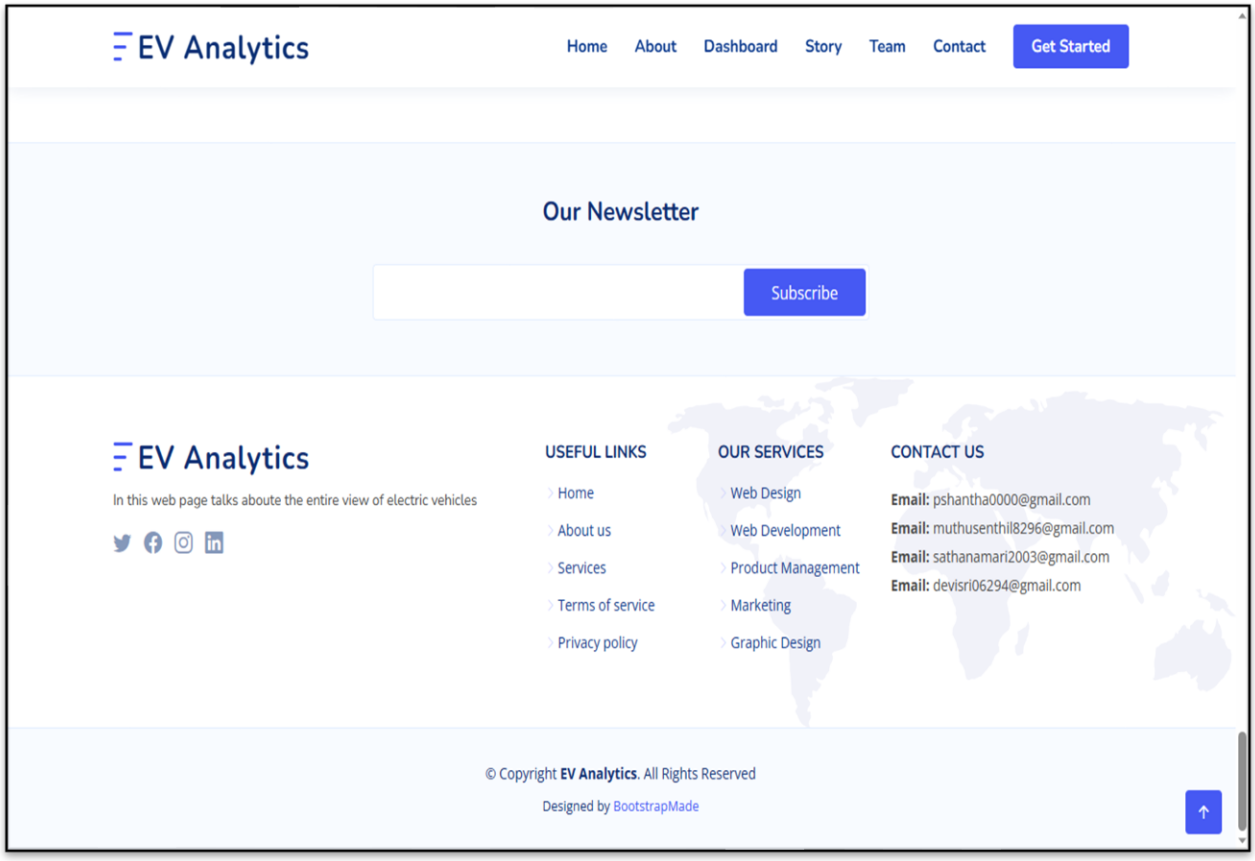
Team
Contact
Get Started
TEAM
Our hard working team
P.Shantha
Team Leader
Muthuramalakshmi
Team member 1
Santhanamari
Team member 2
Sridevi
Team member 3
CONTACT
Contact Us
Email Us
pshantha0000@gmail.com
muthusenthil8296@gmail.com
sathanamari2003@gmail.com
devisri06294@gmail.com


EV Analytics
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4. Advantages & Disadvantages of the project:

4.1. Advantages:

- This project provides useful information to people who are going to buy electric vehicles.
- It tells about the Electric Vehicles range and capacity. Therefore, business companies benefit.
- It can be used to generate more data.

4.2. Disadvantages:

- Information about Electric Vehicles charging stations in Tamil Nādu is less.
- There is no Top model and Base model data for some vehicles.

5. Applications:

- This project provides information about EV infrastructure, motor, charge port for public awareness.
- As this project provides as with quality, performance and other data of EV manufacturing companies, healthy competition is arising among the companies.
- It shows the location of the charging station. So it helps to build a charging station where needed.

6.Conclusions:

- We are creating Dashboard and Story about electric Vehicles. Also, create a Web Application for EV Analytics.
- This project provides an entire view of Electric Vehicles.

7. Future Scope:

The future scope is to gain insights about EV and improve performance of EV through this project. This data will create more awareness among people in the future than it is now.

8.APPENDIX:

SOURCE CODE:

https://drive.google.com/file/d/1wzYNbUn9mttM7hiEP9iYhf2ZDAlAtRB7/view?usp=sharing