PROJECT REPORT

VISUALIZATION TOOL FOR ELECTRIC VEHICLE CHARGE AND RANGE ANALYSIS

1. INTRODUCTION

1.1 OVERVIEW:

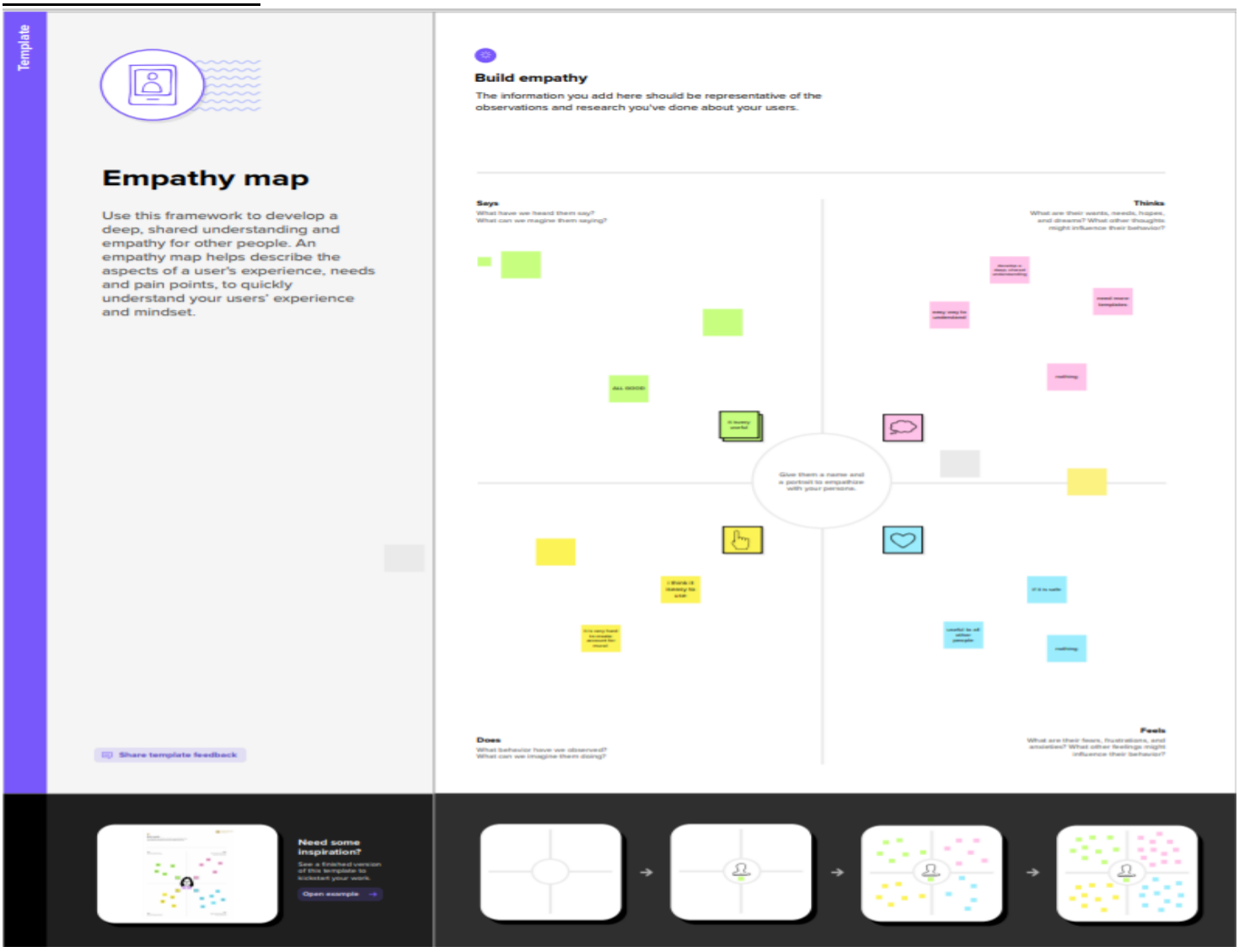
An electric vehicle (EV) is a vehicle that uses one or more electric motor for propulsion. EV's first came into existence in the late 19th century, when electricity was among the preferred methods for motor vehicle propulsion, providing a level of comfort and ease of operation that could not achieved by the gasoline cars of the time.

1.2 PURPOSE:

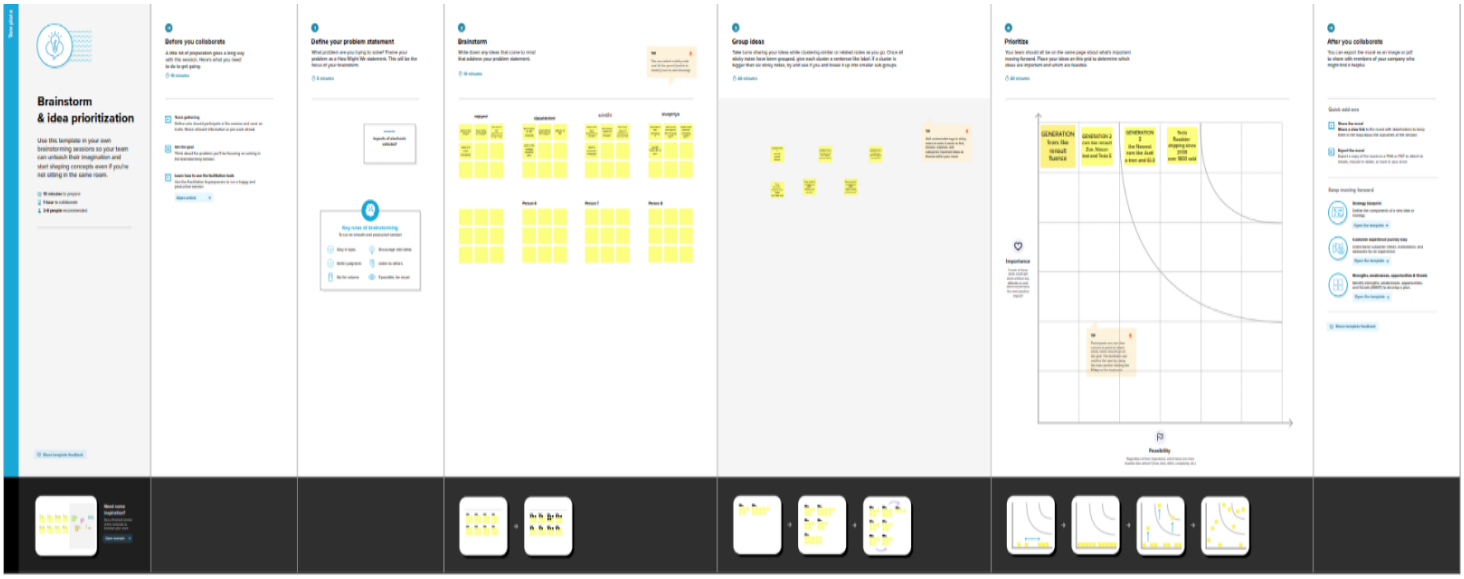
Better for our planet; No congestion charge; Lower running cost; Renewable EV tariffs; Better driving; EV grants; Free parking; Less noise.

2. PROBLEM DEFINITION & DESIGN THINKING

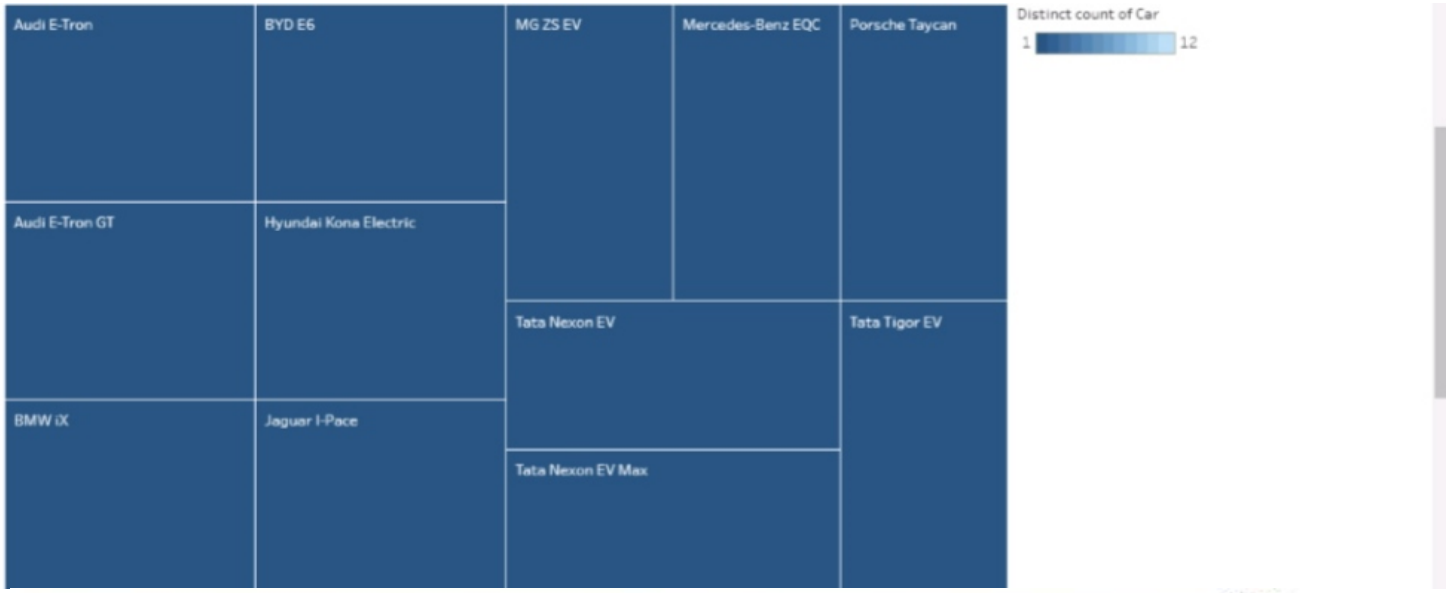
2.1 EMPATHY MAP:



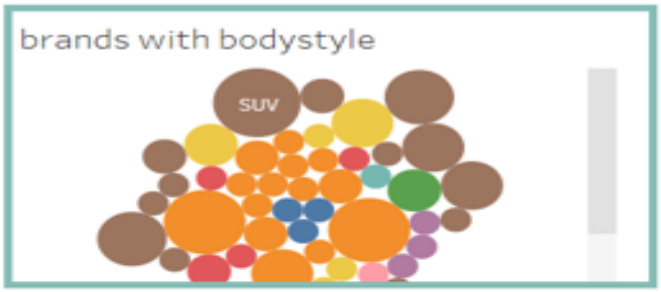
2.2 IDEATION AND BRAINSTORMING MAP:

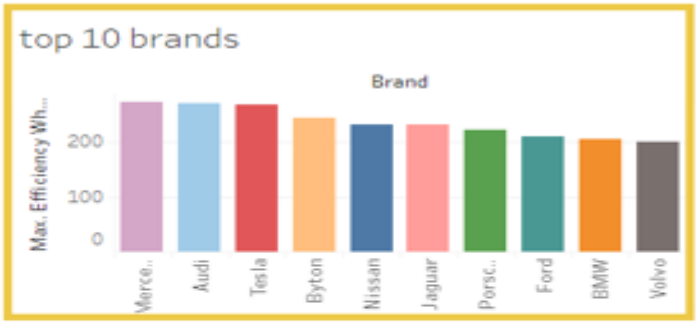

Brainstorm
& idea prioritization
Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.
Before you collaborate
Define your problem statement
Brainstorm
Group ideas
Prioritize
After you collaborate

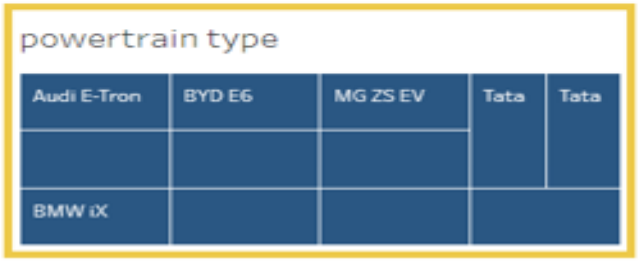
3. RESULT

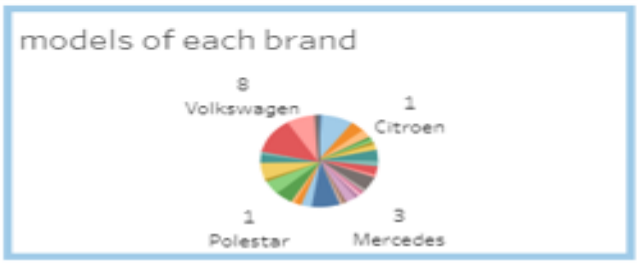

Audi E-Tron
BYD E6
MG ZS EV
Mercedes-Benz EQC
Porsche Taycan
Audi E-Tron GT
Hyundai Kona Electric
Tata Nexon EV
Tata Tigor EV
BMW iX
Jaguar I-Pace
Tata Nexon EV Max
Distinct count of Car
1
12

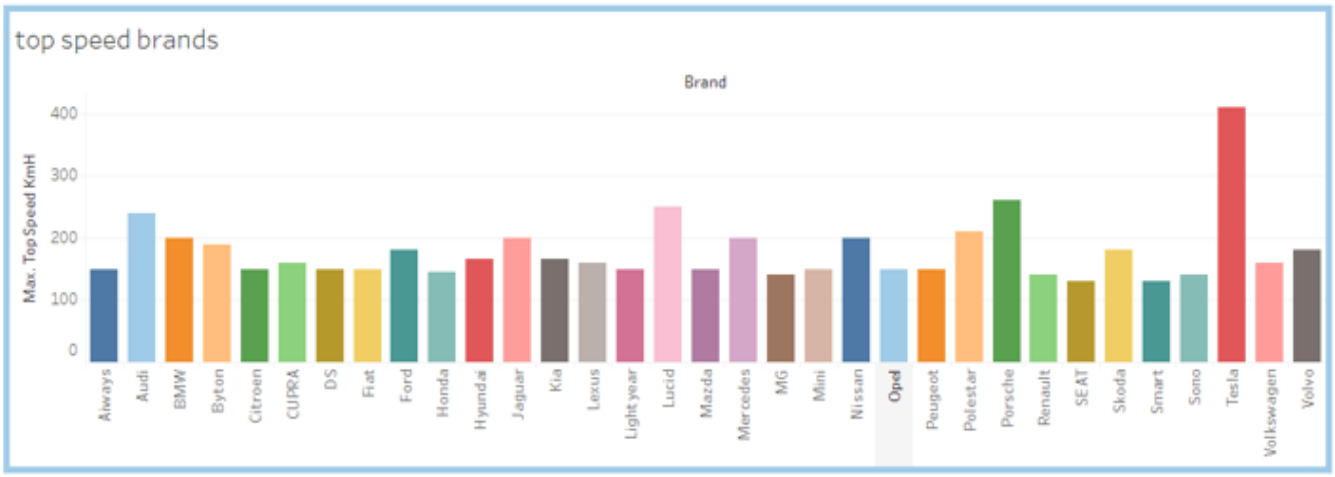

electric car
dhashboard
different car brands
different car brands in india
A book is a gift you can open
again and again."
— GARRISON KEILLOR











4. ADVANTAGES & DISADVANTAGES

Advantages of Electric Vehicles:

It is always cheaper to charge your electric car than spend money on gas for a regular car.

Calculate Your Savings

You can find real-time comparison of average gas prices and electric car charging prices on the e-Gallon website.

Electric vehicles have other advantages over those powered by combustion engines:

No fuel required so you save money on gas
Paying $0.10 per kW is the equivalent of driving on gasoline that costs less than $1 per gallon. On average, drivers save about $700 in fuel costs per year while driving electric cars.
Environmental friendly as they do not emit pollutants
Drivers of electric vehicles have reduced CO2 emissions by more than 177,758,804 kg
Lower maintenance due to an efficient electric motor
Electric motors have less parts that lead to less damage than a traditional non electric vehicle which means you save on operating cost!

Better Performance
Electric cars are not only lighter but have faster acceleration

Disadvantages of electric cars:

Electric cars can travel less distance. AEVs on average have a shorter range than gas-powered cars.
Electric cars can take a long time to recharge. Fueling an all-electric car can also be an issue.
Electric cars can be expensive.

5. 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.

6. 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. As demonstrated within the economic, social, and environmental analysis sections of this webpage, the benefits of electric vehicles far surpass the costs. The biggest obstacle to the widespread adoption of electric-powered transportation is cost related, as gasoline and the vehicles that run on it are readily available, convenient, and less costly. As is demonstrated in our timeline, we hope that over the course of the next decade technological advancements and policy changes will help ease the transition from traditional fuel-powered vehicles. Additionally, the realization and success of this industry relies heavily on the global population, and it is our hope that through mass marketing and environmental education programs people will feel incentivized and empowered to drive an electric-powered vehicle. Each person can make a difference, so go electric and help make a difference!

7. FUTURE SCOPE

The Economic Survey 2023 predicts that India's domestic electric vehicle market will see a 49 percent compound annual growth rate (CAGR) between 2022 and 2030, with 10 million annual sales by 2030. Additionally, the electric vehicle industry is projected to create around 50 million direct and indirect jobs by 2030.