Visualization Tool for Electric Vehicle Charge and Range Analysis

Team ID: NM2023TMID06868

Team members:

M. Biruntha

S. Kiruthika

R. Lakshmi

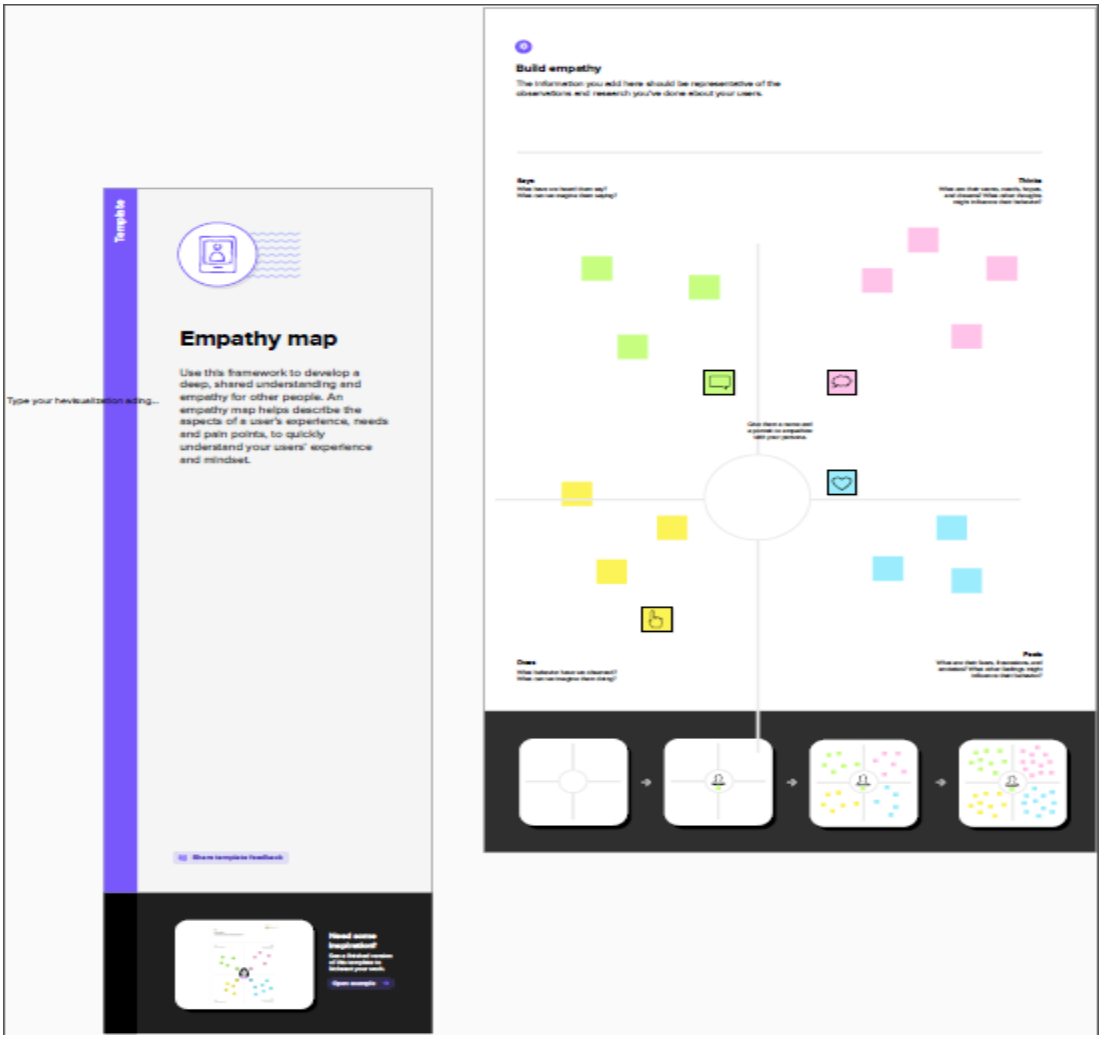
M. Muthulakshmi

Introduction:

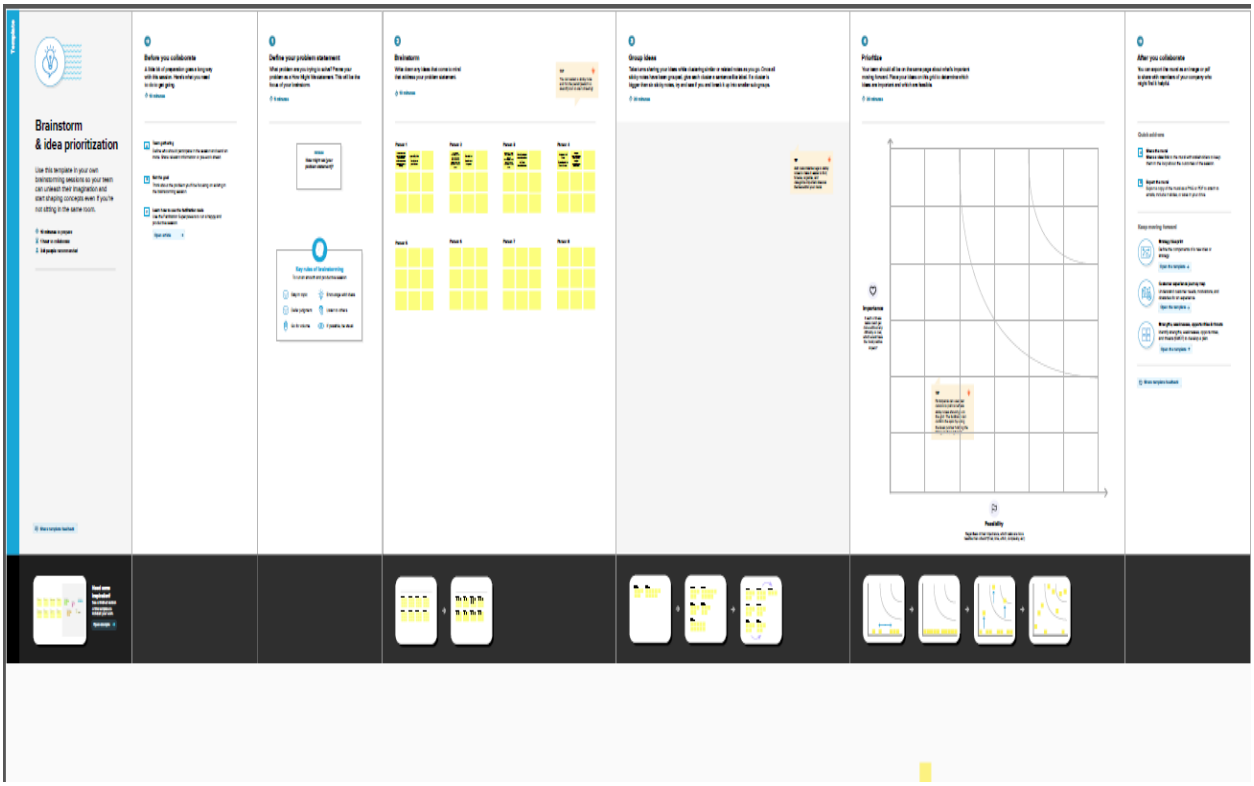
Electric vehicles use electricity to charge their batteries instead of using fossil fuels like petrol or diesel. Electric vehicles are more efficient, and that combined with the electricity cost means that charging an electric vehicle is cheaper than filling petrol or diesel for your travel requirements.

This vehicle has no internal combustion engine and is powered only by the battery and electric motor. BEVs don't use gasoline and are only charged by EVSE. A BEV has the largest battery of all the vehicle types. It's also the most energy efficient and produces zero tailpipe emissions.

Problem Definition & Design Thinking:

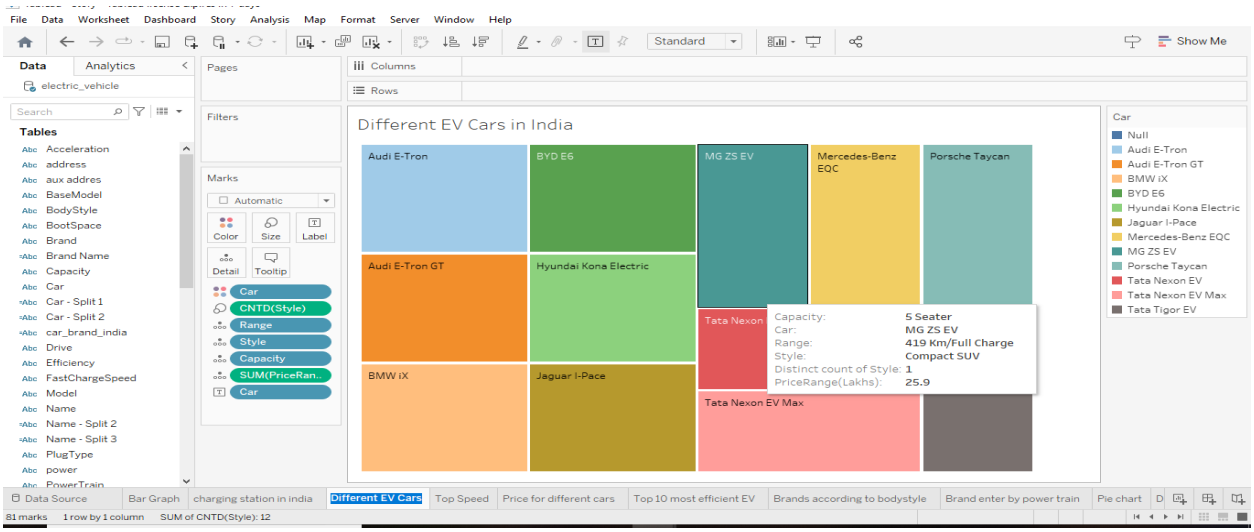


Empathy Map

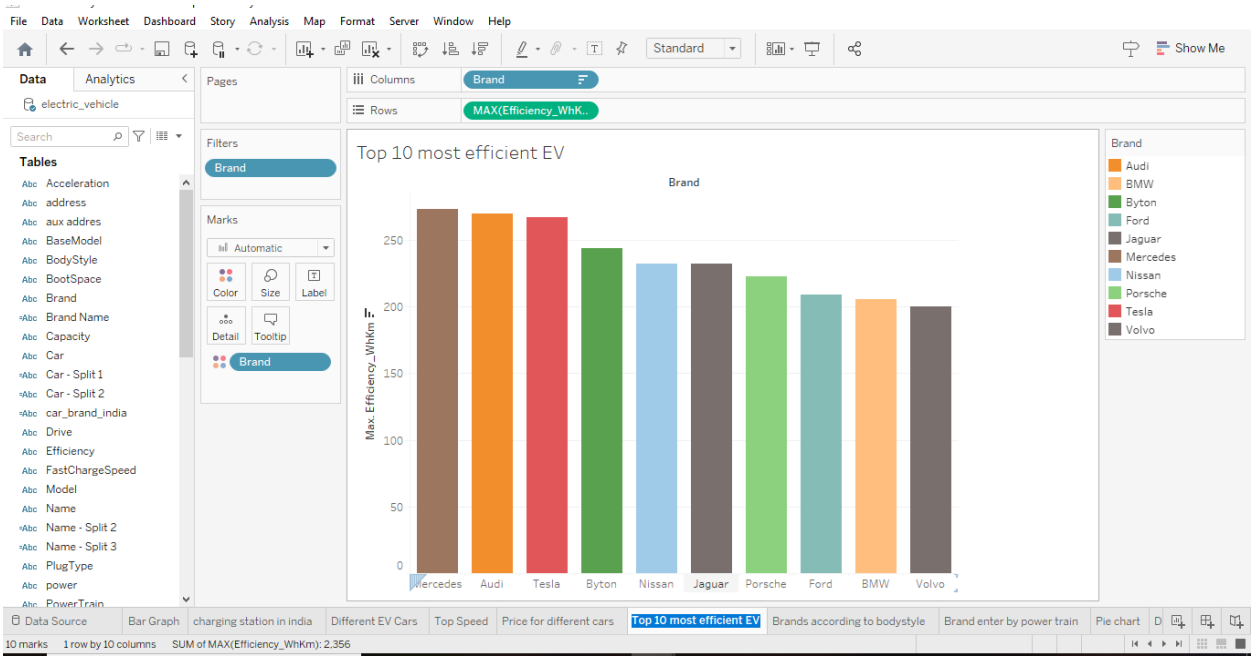


Brainstorming Map

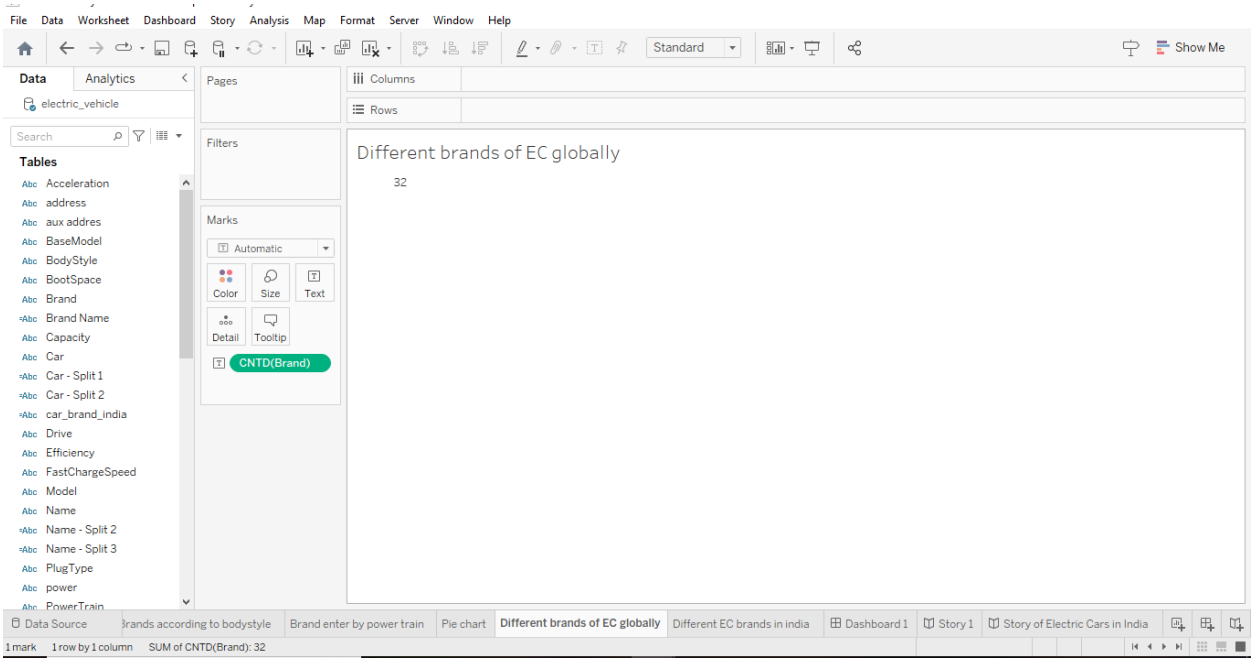
Result(Final Output)Screenshot:



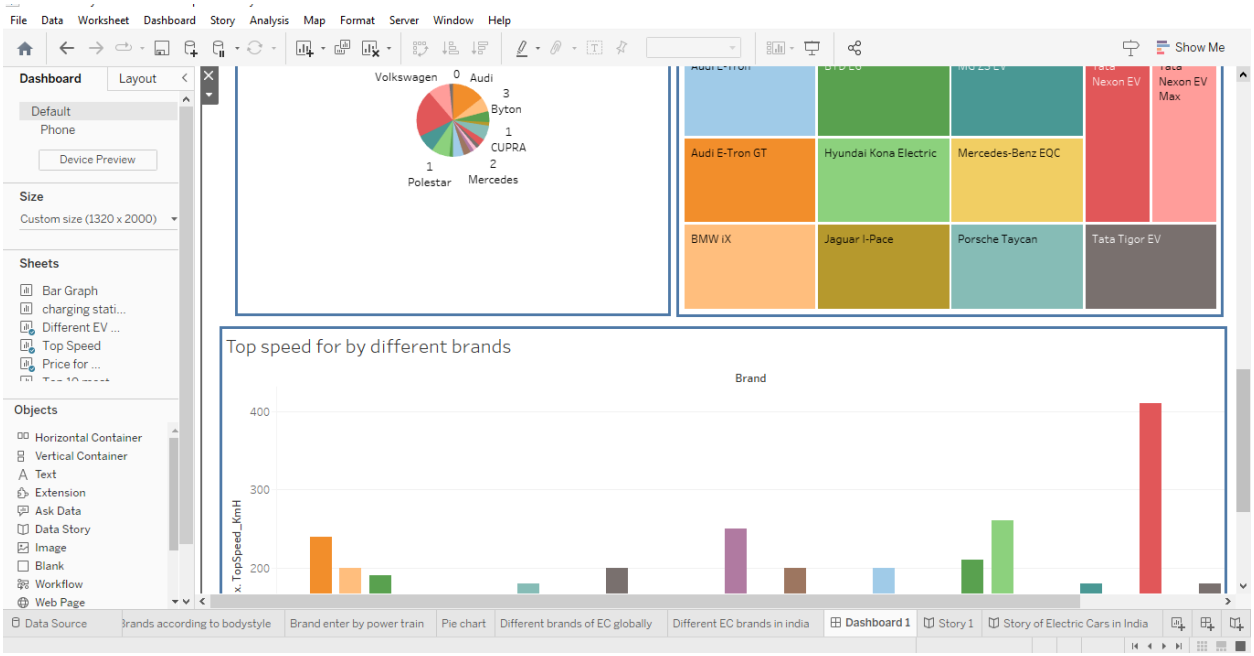
Different EV Cars in India



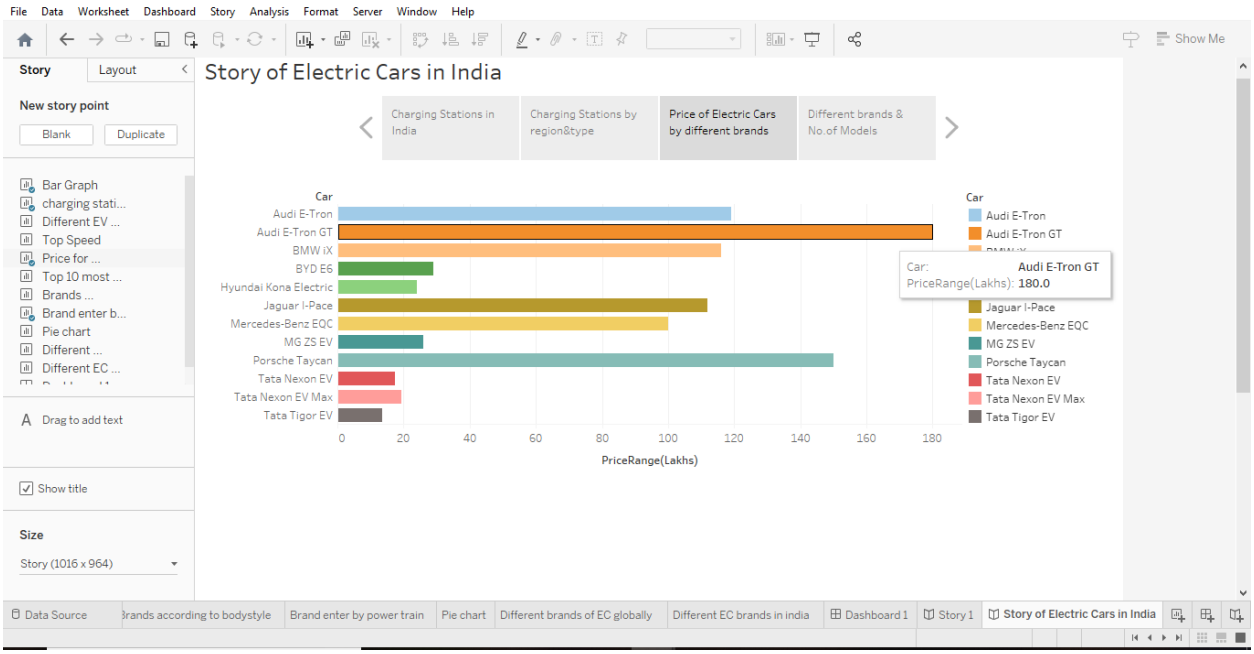
Top 10 most efficient EV



Different brands of EC globally



Different brands of EV cars



EV vehicle visualization

Advantages &Disadvantages:

Advantages:

No fuel required so you save money on gas...Environmental friendly as they do not emit pollutants…Lower maintenance due to an efficient electric motor.

Disadvantages:

Compared to regular automobiles, electric vehicles are highly pricey. A gasoline vehicle costs between three and four lakh rupees. However, you would be surprised to learn that the beginning price of an electric vehicle is merely ten to twelve lakhs.

Applications:

Unlike gas-powered vehicles, electric vehicles (EVs) do not require internal combustion engines to operate. Outfitted with an electric motor and rechargeable battery pack, EVs move along our roadways without burning up gasoline, or producing harmful exhaust emissions, while generating less noise pollution.

Conclusion:

The basic conclusion is that when it comes to climate change and air quality, electric cars are clearly preferable to petrol or diesel cars. Contrary to some public doubts and uncertainties about the environmental benefits of electric cars, the science is increasingly clear.

Future Scope:

Most Indian buyers believe that an electric vehicle will be ready by 2023, but the majority also believe that it would no longer 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.

Appendix:

Dashboard link:
https://public.tableau.com/views/Dashboard_16818362989190/Dashboard1?:language=en-US&:display_count=n&:origin=viz_share_link

Story link:

https://public.tableau.com/views/Story_16818390273130/StoryofElectricCarsinIndia?:language=en-US&:display_count=n&:origin=viz_share_link

THANK YOU!!!