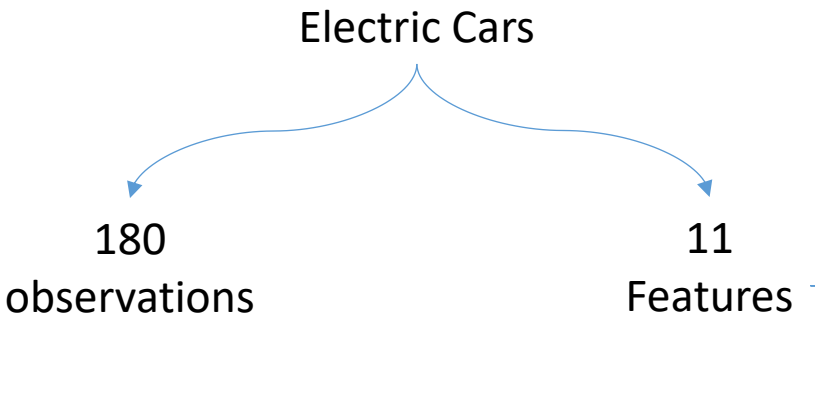
Introduction

The goal of this exploratory data analysis project is to find out if car manufacturing companies around the world are interested manufacturing electric vehicles that are designed for families

About the Data

The dataset was imported from Kaggle and originally collected from Electric Vehicles Database website



Name	:	Text
Subtitle	:	Text
Acceleration	:	Number
Top Speed	:	Number
Range	:	Number
Efficiency	:	Number
Fast Charge Speed	:	Number
Drive	:	Text
Number of Seats	:	Number
Price in Germany	:	Number
Price in UK	:	Number

Algorithm

- import our dataset and store it in a dataframe
- get rid of the measuring units after emphisizing that in the columns and them change data type of the price column to be float instead of int, so we can convert it from Euro and UK Pound to US dollars in a new different column
    - remove measuring units and them change data type of the price column to be float instead of int
    - change text elements data type to be String
    - remove commas and currency signs from our dataset and convert currency to USD
    - handle the NaN values by dropping the rows that contain them in the prices columns only and fill the ones in the fast charge speed column with the appropriate value (ie. median or mean)
- export the dataset

Family Car

EV market is huge, but here we only interested in some of them; we want to know the options that are provided from car companies to a specific chip of customers

Our target customers are families, so we created a new category called “Family Car” that represents the properties that most families look for when buying a car

Since there is no noticeable difference between Germany and UK either in options or car prices, we decided to treat them in the same way in our analysis for Family cars

Firstly: we define the characteristics of a Family Car based on the available features in the dataset

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Secondly:

we see the portion of Family Car against the others

This type of car is defined by the following characteristics:

- Name
- Acceleration
- Top Speed
- Range
- Efficiency
- Fast Charge Speed
- Number of Seats (most important)
- Price

Tools

Python:

numpy

pandas

matplotlib.pyplot

seaborn

VS Code

MS Excell

MS Powerpoint