PartOne:

1- Using Constructor function to create Shape Base Abstract Class which contains color property

And PrintColor method and CalcArea and Calcperimeter which will return Zero in Shape Base Class Define them on Shape prototype object (***Using Prototype)***

2- Define Rect Class Which inherits from Shape Abstract Class ***Using Prototype inheritance***) Define Width and Height Properties for Rect Class

3- Define Square Class Which inherits from Rect Class - override CalcArea , calcperimeter , printColor , toString which will display color , area and perimeter in rect and square classes -

create array object which will contains set of objects from rect and square classes then display it's areas

3- Define static property and static method like following case for Rect and Square classes to get number of objects created from rect and square Types

Part Two:

1-Use a constructor function to implement A Car .

A Car has a Name and a Speed property. The Speed property is the Current Speed of the Car in Km/h

Using Prototype to:

2- Implement an 'accelerate' method will increase the car's speed by 10,and log then new speed to console;

3-Implement a 'brake' method that will decrease the car's speed by 5,and log the new speed to the console;

Create 2 car objects and experiment with calling 'accelerate' and 'brake' multiple times on each of them.

DATA Car1 : 'BMW' going at 120 km/h

DATA CARA2: 'Mercedes' going at 95 km/h

Part Three:

1-Use A constructor function to implement an Electric Car (Called EV) as a **CHILD** "class" of Car Besides a Name and Current Speed ,the EV also has the Current battery charge in % ('charge' property);

2-Implement a 'chargeBattery' method which takes an arguments 'chargeTo' and sets the battery charge to this value;

3-Implment an 'accelerate' method that will increase the car's speed by 20, and decrease the charge by 1% ,then log a message like this :

'Tesla going at 149 km/h, with a charge of 22%';

4- Create an electric car object and experiment with calling 'acceleracte ','brake' and 'chargeBattery'

(charge to 90%). Notice what happens when you ' accelerate

DATA CAR 1 :' Tesla' going at 120 km/h , with a charge of 23%

GOOD LUCK 😊