

# JavaScript Lab8

1- **Using ES 5** create a constructor function Shape as an Abstract class that contains color property , draw member function that return a string “Can't draw my self”, static property count that counts how many shapes in memory.

Then create a Rectangle class that inherits from shape and have the following properties (top,left,dim1,dim2)

a- Manage Class constructor to (default constructor or initializer constructor)

b- override draw function to draw the rectangle on the HTML page with object properties and color (Don't use HTML5)

Then create a Circle class that inherits from Shape and have the following properties (top,left,radius)

Manage Class constructor to (default constructor or initializer constructor)

b- override draw function to draw the circle on the HTML page with object properties and color (Don't use HTML5)

now create many rectangle and circle objects and draw them on screen and display how many shapes are created on console.

**2- Using ES6 create Class Engine with source property (Abstract class) and has private static count property.**

**Create Car Class (inherits from Engine class)  
Class constructor will take top, left and (image source reference) as source property value**

**Class methods:**

- a- Top-> setter for top property**
- b- Left-> setter for left property**
- c- moveLeft-> to move the ball left on page**
- d- moveRight->to move the ball right on page**
- e- ChangeStyle-> method that take css style object as input to apply it on the car.**
- f- Create moveCar(direction) that take the direction of moving car on screen and the car will start moving until it reaches the page boundreis left or right depending on the direction.**

**Now create your cars and let's play 😊**