Course
JavaScript Programming Language and jQuery

Module 2.
Object. Arrays. Array Object. Strings. String Object. Date Object. Math Object. Introduction to OOP

Task 1

Implement a class that describes a simple marker. The class should have the following components:

- field that stores color of the marker
- field that stores amount of ink in the market (in percent)
- method for printing (method takes a string and outputs a text with the appropriate color, the text is displayed as long as there is ink in the marker, one non-whitespace character is 0.5% of the ink in the marker)

Implement a class describing the refilling marker inheriting it from a simple marker and adding a method for refilling the marker.

Demonstrate the work of the written methods.

Task 2

Implement the `ExtendedDate` class by inheriting it from the standard `Date` class and adding the following features:

- method for displaying date (day and month) with text
- method for checking if the date is past or future (if past, then the method returns `false`, if future or current, then `true`)
- method for checking whether the year is leap or not
- method returning the next date

Create an object of the `ExtendedDate` class and display the results of new methods.

Task 3

Implement the Employee class describing an employee and create an array of bank employees.

Implement the EmpTable class to generate an html table code with a list of bank employees. Pass the array of employees through the constructor, and get html code using the getHtml() method.

Create an object of the EmpTable class and display the result of the getHtml() method.

Task 4

Implement the StyledEmpTable class, which inherits from the EmpTable class. Add the getStyles() method, which returns a string with styles for a table in the style tags. Override the getHtml() method, which adds styles to what the getHtml() method returns from the parent class.

Create an object of the StyledEmpTable class and display the result of the getHtml() method.