Object_Handling

1. Write a JavaScript program to list the properties of a JavaScript object

var student = {

name : "David Rayy",

sclass : "VI",

rollno : 12 };

Sample Output: name, sclass, rollno

2. Write a JavaScript program to delete the rollno property from the following object. Also print the object before or after deleting the property.

Sample object:

var student = {

name : "David Rayy",

sclass : "VI",

rollno : 12 };

3. Write a JavaScript program to get the length of a JavaScript object.

Sample object :

var student = {

name : "David Rayy",

sclass : "VI",

rollno : 12 };

4. Write a JavaScript program to display the reading status (i.e. display book name, author name and reading status) of the following books.

var library = [

  {

    author: 'Bill Gates',

    title: 'The Road Ahead',

    readingStatus: true },

```
  {

    author: 'Steve Jobs',

    title: 'Walter Isaacson',

    readingStatus: true

  },


  {

    author: 'Suzanne Collins',

    title:  'Mockingjay: The Final Book of The Hunger Games',

    readingStatus: false

  }];
```

5. Write a JavaScript program to get the volume of a Cylinder with four decimal places using object classes.

Volume of a cylinder : $V = \pi r2h$

where r is the radius and h is the height of the cylinder.

6. Write a Bubble Sort algorithm in JavaScript.

Note : Bubble sort is a simple sorting algorithm that works by repeatedly stepping through the list to be sorted,

Sample Data: [6,4,0, 3,-2,1]

Expected Output : [-2, 0, 1, 3, 4, 6]

7. Write a JavaScript program which returns a subset of a string.

Sample Data: dog

Expected Output: ["d", "do", "dog", "o", "og", "g"]

8. Write a JavaScript program to create a Clock.

Note: The output will come every second.

Expected Console Output :

"14:37:42"

"14:37:43"

"14:37:44"

"14:37:45"

"14:37:46"

"14:37:47"

9. Write a JavaScript program to calculate the area and perimeter of a circle.

Note : Create two methods to calculate the area and perimeter. The radius of the circle will be supplied by the user.

10. Write a JavaScript program to sort an array of JavaScript objects.

Sample Object :

```javascript
var library = [
  {
    title:  'The Road Ahead',
    author: 'Bill Gates',
    libraryID: 1254
  },
```

```
    {
        title: 'Walter Isaacson',
        author: 'Steve Jobs'
        libraryID: 4264
    },


    {
        title: 'Mockingjay: The Final Book of The Hunger Games',
        author: 'Suzanne Collins',
        libraryID: 3245
    }];
```

Expected Output:

```
[[object Object] {
  author: "Walter Isaacson",
  libraryID: 4264,
  title: "Steve Jobs"
},
[object Object] {
  author: "Suzanne Collins",
  libraryID: 3245,
  title: "Mockingjay: The Final Book of The Hunger Games"
},
 [object Object] {
  author: "The Road Ahead"
  libraryID: 1254,
  title: "Bill Gates"
}]
```

11. Write a JavaScript function to print all the methods in an JavaScript object.

Test Data :

console.log(all_properties(Array));

["length", "name", "arguments", "caller", "prototype", "isArray", "observe", "unobserve"]

12. Write a JavaScript function to parse an URL.

13. Write a JavaScript function to retrieve all the names of object's own and inherited properties.

14. Write a JavaScript function to retrieve all the values of an object's properties.

15. Write a JavaScript function to convert an object into a list of `[key, value]` pairs.

16. Write a JavaScript function to get a copy of the object where the keys have become the value and the values the keys.

17. Write a JavaScript function to check whether an object contains given property.

Submission

Submit your code here:

https://forms.gle/HbV9NCkHgNVfU7kZ8

Due Date:

12-April-2023.