

JavaScript Exercises

1. Write a program in Javascript to create variables to store numeric, float, string and Boolean values and show them in page with document.write() function.

```
<> q. no.1.html > ...
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title> Creation of Variables </title>
7  </head>
8
9  <body>
10
11      <script>
12          //Variables
13          var numeric = 4;
14          var float = 7.08;
15          var string = "Apekshya";
16          var boolean = True;
17
18
19          //using function document.write()
20          document.write("Numeric Value: " + numeric+ "<br>");
21          document.write("Float Value: " + float + "<br>");
22          document.write("String Value: " + string + "<br>");
23          document.write("Boolean Value: " + boolean + "<br>");
24
25      </script>
26
27  </body>
28  </html>
29
30
```

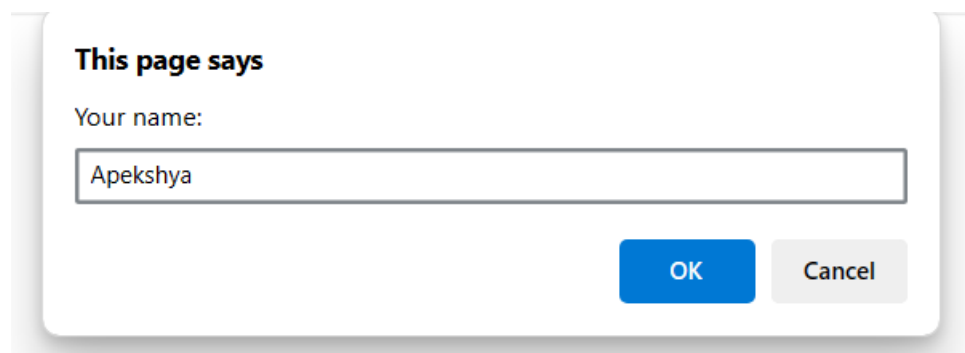
Output:

```
Numeric Value: 4
Float Value: 7.08
String Value: Apekshya
Boolean Value: true
```

2. Write a program to input two data values for Your Name and Student Id in prompt dialog boxes and show them in alert dialog box.

```
<> q. no.2.html > ...
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>Data values for Your Name and Student Id</title>
7  </head>
8
9  <body>
10     <script>
11         // input name and student ID
12         var name = prompt("Your name:");
13         var studentId = prompt("Your student ID:");
14
15         // Display in dialog box
16         alert(" Your Name is: " + name + "\n Your Student ID is: " + studentId);
17     </script>
18
19 </body>
20 </html>
21
```

Output:



This page says

Your name:

OK Cancel

This page says

Your student ID:

OK

Cancel

This page says

Your Name is: Apekshya

Your Student ID is: 7

OK

3. WAP to show the use if Else if else for following conditions:

- a. For marks ≥ 80 and marks ≤ 100 , show Distinction
- b. For marks ≥ 60 and marks < 80 , show First Division
- c. For marks ≥ 50 and marks < 60 , show Second Division
- d. For marks ≥ 40 and marks < 50 , show Third Division
- e. For marks < 40 , show Fail

```
<> q. no.3.html > html > body > script
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>Marks division</title>
7  </head>
8
9  <body>
10     <script>
11         var marks = prompt("Your marks:", "0");
12
13         if (marks >= 80 && marks <= 100) {
14             alert("Distinction");
15         } else if (marks >= 60 && marks < 80) {
16             alert("First Division");
17         } else if (marks >= 50 && marks < 60) {
18             alert("Second Division");
19         } else if (marks >= 40 && marks < 50) {
20             alert("Third Division");
21         } else if (marks < 40) {
22             alert("Fail");
23         } else {
24             alert("Invalid !");
25         }
26     </script>
27
28 </body>
29 </html>
```

Output:

This page says

Your marks:

OK Cancel

This page says

Third Division

OK

or

This page says

Your marks:

81.5

OK

Cancel

This page says

Distinction

OK

-
4. WAP to get number input with prompt dialog box and show the Day using switch case
- a. For Case 1, show Sunday
 - b. For Case 2, show Monday
 - c. For Case 3, show Tuesday
 - d. For Case 4, show Wednesday
 - e. For Case 5, show Thursday
 - f. For Case 6, show Friday
 - g. For Case 7, show Saturday
 - h. For default, show Invalid

```
<> q. no.4.html > html > body > script
1  <html>
2    <head>
3      <title>Weekdays</title>
4    </head>
5      <body>
6        <script>
7          //input a number of the week
8          var userInput = prompt("Enter a number of the week:");
9          var dayNumber = parseInt(userInput);
10         var day;
11         switch (dayNumber) {
12           case 1:
13             day = "Sunday";
14             break;
15           case 2:
16             day = "Monday";
17             break;
18           case 3:
19             day = "Tuesday";
20             break;
21           case 4:
22             day = "Wednesday";
23             break;
24           case 5:
25             day = "Thursday";
26             break;
27           case 6:
28             day = "Friday";
29             break;
30           case 7:
31             day = "Saturday";
32             break;
33           default:
34             day = "Invalid";
35         }
36         // output
37         alert("Day of the week: " + day);
38       </script>
39     </body>
40   </html>
```

Output:

This page says

Enter a number of the week:

OK

Cancel

This page says

Day of the week: Wednesday

OK

5. WAP in javascript using for loop to display 4 images with image name as 1.jpg, 2.jpg, 3.jpg and 4.jpg.

```
<> q. no.5.html X
C: > Users > ASUS > OneDrive > Desktop > HTML > js unit10 > <> q. no.5.html > ...
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>Loop to display 4 images </title>
7  </head>
8  <body>
9      <script>
10         var body = document.body;
11         for (var i = 1; i <= 4; i++)
12         {
13             var img = document.createElement('img');
14             img.src = i + '.jpg';
15             body.appendChild(img);
16         }
17     </script>
18
19 </body>
20 </html>
21
```

Output:



6. WAP to display multiplication number of 5 as follows:

$$5 * 1 = 5$$

$$5 * 2 = 10$$

$$5 * 3 = 15$$

.....

.....

$$5 * 10 = 50$$


```

<> q. no.6.html > html
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4  |   <meta charset="UTF-8">
5  |   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6  |   <title>Multiplication of 5</title>
7  </head>
8  <body>
9  |   <script>
10 |       for (var i = 1; i < 11; i++) {
11 |           document.write("5 * " + i + " = " + 5 * i + "<br>");
12 |       }
13 |   </script>
14 </body>
15 </html>

```

Output:

```

5 * 1 = 5
5 * 2 = 10
5 * 3 = 15
5 * 4 = 20
5 * 5 = 25
5 * 6 = 30
5 * 7 = 35
5 * 8 = 40
5 * 9 = 45
5 * 10 = 50

```

7. WAP in javascript using loop to display following table layout and with alternate background color on data rows

q. no.7.html > html > body > table > thead > tr > th

```
1 <html>
2 <head>
3 <title>Table</title>
4 <style>
5     table {
6         border-collapse: collapse;
7         width: 50%;
8     }
9
10    th, td {
11        border: 1px solid white;
12        padding: 10px;
13        text-align: center;
14    }
15
16    th {
17        background-color: #3891A7;
18        color: white;
19    }
20
21    .even-row {
22        background-color: #8DC0CC;
23    }
24
25    .odd-row {
26        background-color: #CEE4E9;
27    }
28 </style>
29 </head>
30
```

```

31 <body>
32 <table>
33   <thead>
34     <tr>
35       <th>S.N.</th>
36       <th>Name</th>
37       <th>Image</th>
38     </tr>
39   </thead>
40   <tbody>
41     <tr class="odd-row">
42       <td>1</td>
43       <td>Name 1</td>
44       <td>1.jpg</td>
45     </tr>
46     <tr class="even-row">
47       <td>2</td>
48       <td>Name 2</td>
49       <td>2.jpg</td>
50     </tr>
51     <tr class="odd-row">
52       <td>3</td>
53       <td>Name 3</td>
54       <td>3.jpg</td>
55     </tr>
56     <tr class="even-row">
57       <td>4</td>
58       <td>Name 4</td>
59       <td>4.jpg</td>
60     </tr>
61   </tbody>
62 </table>
63
64
65 </body>
66 </html>

```

Output:

S.N.	Name	Image
1	Name 1	1.jpg
2	Name 2	2.jpg
3	Name 3	3.jpg
4	Name 4	4.jpg

8. Write a simple JavaScript program to join all elements of the following array into a string. Sample array : `myColor = ["Red", "Green", "White", "Black"];`

Expected Output :

"Red,Green,White,Black"

"Red,Green,White,Black"

"Red+Green+White+Black"

Hint: Use these array functions

`myColor.toString();`

`myColor.join();`

`myColor.join('+');`

```

<> q. no.8.html > ...
1  <html>
2    <head>
3      <title>All elements in array into a string. </title>
4    </head>
5    <body>
6      <script>
7        var myColor = ["Red", "Green", "White", "Black"];
8        // toString() method
9        var str1= myColor.toString();
10       document.write(str1 + "<br>");
11
12       // join() method
13       var str2= myColor.join();
14       document.write(str2 + "<br>");
15
16       // join(+) method
17       var str3= myColor.join('+');
18       document.write(str3 + "<br>");
19     </script>
20   </body>
21 </html>
22

```

Output:

```

Red,Green,White,Black
Red,Green,White,Black
Red+Green+White+Black

```

9. Write a JavaScript program to compute the sum and product of an array of integers.

```
<> q. no.9.html > ...
1  <html>
2  <head>
3  |   <title>Sum and product of an array of integers.</title>
4  </head>
5
6  <body>
7  |   <script>
8  |       var array = [2,7,6,4,8,5];
9  |       // Initialize sum and product
10 |       var sum = 0;
11 |       var product = 1;
12
13 |       // Compute sum and product
14 |       for (var i = 0; i < array.length; i++) {
15 |           sum += array[i];
16 |           product *= array[i];
17 |       }
18 |       document.write("Sum: " + sum + "<br>");
19 |       document.write("Product: " + product);
20
21 |   </script>
22 | </body>
23 </html>
24 |
```

Output:

```
Sum: 32
Product: 13440
```

10. Write a Javascript function to calculate area of rectangle which accepts two parameters
– length and breadth.

```
<> q. no.10.html > ...
1  <html>
2  <head>
3  |   <title>Calling length and breadth parameters.</title>
4  </head>
5  <body>
6  |   <script>
7  |     function calculateArea(length, breadth) {    // Function to calculate area of rectangle
8  |       return length * breadth;
9  |     }
10 |   var length = 8;
11 |   var breadth = 12;
12 |   var area = calculateArea(length, breadth);      // area
13 |   document.write("Area of rectangle is: " + area);
14 | </script>
15 </body>
16 </html>
17
```

Output:

Area of rectangle is: 96

11. Write a JavaScript program to add items in an blank array and display the items using function.

```

<> q. no.11.html > ...
1  <html>
2  <head>
3  |   <title>To add items in an blank array and display the items using function.</title>
4  | </head>
5  <body>
6  |   <input type="text" id="text1"></input>
7  |   <input type="button" id="button1" value="Add" onclick="add_item_to_array();"></input>
8  |   <input type="button" id="button2" value="Display" onclick="display_array();"></input>
9  |   <div id="Result"></div>
10 |
11 |   <script>
12 |   var array = [];
13 |   var x = 0;
14 |
15 |   function add_item_to_array()
16 |   {
17 |       array[x] = document.getElementById("text1").value;
18 |       alert("Element: " + array[x] + " Added at index " + x);
19 |       x++;
20 |       document.getElementById("text1").value = "";
21 |   }
22 |
23 |   function display_array()
24 |   {
25 |       var e = "<hr/>";
26 |       for (var y=0; y<array.length; y++)
27 |       {
28 |           e += "Element " + y + " = " + array[y] + "<br/>";
29 |       }
30 |       document.getElementById("Result").innerHTML = e;
31 |   }
32 | </script>
33 | </body>
34 | </html>
35

```

Output:

Element 0 = 23

Element 1 = 12

Element 2 = 25