

Exercise on Event Handling in JavaScript

1. Write a simple JS in your HTML to display Welcome message once the page is loaded.

Hints: Use alert() in head or body

2. Write a simple JS in your HTML to display Welcome message once a button is clicked.

Hints: in head write a function display(){

alert("Welcome");

};

then call the function on button click.

Note:- function can be called on many events.

3. Write two different function and call them on different events. (onclick, onload)

4. a) Write a JS function to add two numbers and display it in a alert window.

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<h1> Use Variables</h1>
```

```
<p id="add"></p>
```

```
<script>
```

```
var num1 = 5;
```

```
var num2 = 6;
```

```
var total =num1+num2;
```

```
document.getElementById("add").innerHTML =
```

```
"The Summation is: " + total;
```

```
alert(total);
```

```
</script>
```

```
</body>
```

```
</html>
```

b) Write a program to take two numbers as input and add them. Show in alert and html page.

5. a. Create a button and once it will be clicked it should show the current date and time.

Hints: use `getElementById('time').innerHTML=Date()` ; you can write this in onclick .

Solution :

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<button onclick="getElementById('time').innerHTML=Date()">ShowTime</button>
```

```
<p id="time"></p>
```

```
</body>
```

```
</html>
```

b. Use this operator to change the button content with the current date and time

Hints: `<button onclick="this.innerHTML=Date()">ShowTime?</button>`

6. Write an application to use condition

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<p>Display "Good day!" if the hour is less than 18:00:</p>
```

```
<p id="demo">Good Evening!</p>
<script>
if (new Date().getHours() < 18) {
    document.getElementById("demo").innerHTML = "Good day!";
}
</script>
</body>
</html>
```

7. Write application to use switch

```
<!DOCTYPE html>
<html>
<body>
<p>Say Hi if the hour is less than 17:00:</p>
<p id="time">Hello All</p>
<script>
if (new Date().getHours() < 17) {
    document.getElementById("time").innerHTML = "Hi";
} else{
    document.getElementById("time").innerHTML = "Bye";
}
</script>
</body>
</html>
```

8. Create a Person object with person name, age and city. Now show the name and city in your page.

```
<!DOCTYPE html>
<html>
```

```

<body>
<p> JavaScript Object Creation</p>
<p id="p1"></p>
<script>
var person = {
firstName:"Sachin",
lastName:"Tendulkar",
age:42,
eyeColor:"blue"};
document.getElementById("p1").innerHTML =
person.firstName + " is " + person.age + " years old.";
</script>
</body>
</html>

```

Exercise on Using Regular Expressions

1. Write a JavaScript program to test the first character of a string is uppercase or not.
2. Write a JavaScript program to check a credit card number.
3. Write a pattern that matches e-mail addresses.
 - Uppercase (A-Z) and lowercase (a-z) English letters.
 - Digits (0-9).
 - Characters ! # \$ % & ' * + - / = ? ^ _ ` { | } ~
 - Character . (period, dot or fullstop) provided that it is not the first or last character and it will not come one after the other.
4. Write a JavaScript function to print an integer with commas as thousands separators.

5. Write a JavaScript function to check whether a given value is an valid url or not.

Exercise on Working with Strings, Numbers and Arrays

1. Write a JavaScript function to convert a number from one base to another.

Note : Both bases must be between 2 and 36.

Test Data :

```
console.log(base_convert('E164',16,8));  
console.log(base_convert(1000,2,8));  
"160544"  
"10"
```

2. Write a JavaScript function to find the highest value in an array. *Test Data*

```
:  
console.log(max([12,34,56,1]));  
console.log(max([-12,-34,0,-56,-1]));  
56  
0
```

3. Write a JavaScript function to round a number to a given decimal places.

Test Data :

```
console.log(precise_round(12.375,2));  
console.log(precise_round(12.37499,2));  
console.log(precise_round(-10.3079499, 3));
```

Output :

```
"12.38"  
"12.37"  
"-10.308"
```

4. Write a JavaScript function to clone an array. *Test Data* :

```
console.log(array_Clone([1, 2, 4, 0]));  
console.log(array_Clone([1, 2, [4, 0]]));  
[1, 2, 4, 0]  
[1, 2, [4, 0]]
```

5. 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"