

JavaScript

Function

- Function is a block of code designed to perform a particular task.
- Function is executed when calls it.

Function Syntax

- Function is defined with the function keyword.

```
function name(parameter1, parameter2, parameter3) {  
    // code to be executed  
}
```

Example

```
<p id="p1">Hello World</p>
```

```
<button type="button" onclick="changeText()">Click here</button>
```

```
<script>
```

```
  function changeText() {
```

```
    document.getElementById("p1").innerHTML = "Hello from JS";
```

```
  }
```

```
</script>
```

Output

Hello from JS

[Click here](#)

Why we use functions ?

- Reuse code.

You can define the code once, and use it many times.

Exmaple

```
<p id="p1">Hello World</p>
```

```
<button type="button" onclick="sum(10,10)">Click to sum</button>
```

```
<button type="button" onclick="sum(20,20)">Click sum</button>
```

```
<script>
```

```
    function sum(a,b) {
```

```
        return document.getElementById("p1").innerHTML = a+b;
```

```
    }
```

```
</script>
```

Output

20

Click to sum

Click sum

Local Variables

- Variables declared within a function, become **local** to the function.
- This variables can only be accessed within the function.



Events

- HTML event can be something the browser does, or something a user does (like button click - event).

Web page has finished loading is event

Input field was changed is event

Button click is event

When events happen, you may want to do something.

JS execute code when events are detected.

Example

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

```
<button type="button"  
onclick="document.getElementById('demo').innerHTML=Date()">
```

Click

```
</button>
```

Output

Wed Jan 22 2020 13:11:02 GMT+0530 (India Standard Time)

Click

Example

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

```
<button type="button"  
onclick="this.innerHTML=Date()">Click</button>
```

Output

Wed Jan 22 2020 13:12:17 GMT+0530 (India Standard Time)

Output

Wed Jan 22 2020 13:16:00 GMT+0530 (India Standard Time)

[Click](#)

HTML Events

onchange	An HTML element has been changed
onclick	The user clicks an HTML element
onmouseover	The user moves the mouse over an HTML element
onmouseout	The user moves the mouse away from an HTML element
onkeydown	The user pushes a keyboard key
onload	The browser has finished loading the page

References

- <https://developer.mozilla.org/en-US/docs/Web/API/Element>
- https://www.w3schools.com/jsref/dom_obj_event.asp



Strings

Find length of string

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

```
<script>
```

```
    var string = "Welcome to Felix ITs ";
```

```
    document.getElementById("demo").innerHTML = string.length;
```

```
</script>
```

Output

21

String Concat

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

```
<script>
```

```
  var s1 = "Hello ";
```

```
  var s2 = "World"
```

```
  document.getElementById("demo").innerHTML = s1 + " " + s2;
```

```
</script>
```

Output

```
Hello World
```

Search String

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

```
<script>
```

```
    var s1 = "Hello from JavaScript";
```

```
    var s2 = s1.search('Java');
```

```
    document.getElementById("demo").innerHTML = s2;
```

```
</script>
```


Output

11

slice() Method

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

```
<script>
```

```
    var s1 = "Hello from JavaScript";
```

```
    var s2 = s1.slice(6,10);
```

```
    document.getElementById("demo").innerHTML = s2;
```

```
</script>
```

Replace String

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

```
<script>
```

```
    var s1 = "Hello from JavaScript";
```

```
    var s2 = s1.replace("Hello", "HELLO");
```

```
    document.getElementById("demo").innerHTML = s2;
```

```
</script>
```

Output

```
HELLO from JavaScript
```

Lowercase, Uppercase

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

```
<script>
```

```
    var s1 = "Hello from JavaScript";
```

```
    var s2 = s1.toLowerCase();
```

```
    var s3 = s1.toUpperCase();
```

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

```
    s2 + "<br>" + s3;
```

```
</script>
```

Output

```
hello from javascript  
HELLO FROM JAVASCRIPT
```

trim() method

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

```
<script>
```

```
    var s1 = "    Hello    from JavaScript    ";
```

```
    var s2 = s1.trim();
```

```
    document.getElementById("demo").innerHTML = s2;
```

```
</script>
```

Output

```
Hello from JavaScript
```




Dates()

Example

```
<p id="p1"></p>
```

```
<script>
```

```
    var date = new Date();
```

```
    document.getElementById("p1").innerHTML = date;
```

```
</script>
```

Output

Wed Jan 22 2020 14:31:19 GMT+0530 (India Standard Time)

String Methods

```
<p id="p1"></p>
<p id="p2"></p>
<p id="p3"></p>
<p id="p4"></p>
<p id="p5"></p>
<p id="p6"></p>
<p id="p7"></p>
<p id="p8"></p>
```

```
<script>
    var date = new Date();
    document.getElementById("p1").innerHTML = date.getTime();
    document.getElementById("p2").innerHTML = date.getFullYear();
    document.getElementById("p3").innerHTML = date.getMonth() + 1;
    document.getElementById("p4").innerHTML = date.getDate();
    document.getElementById("p5").innerHTML = date.getHours();
    document.getElementById("p6").innerHTML = date.getMinutes();
    document.getElementById("p7").innerHTML = date.getSeconds();
    document.getElementById("p8").innerHTML = date.getDay();
</script>
```

Output

```
1579685398687
```

```
2020
```

```
1
```

```
22
```

```
14
```

```
59
```

```
58
```

```
3
```


