

JavaScript

JavaScript

- JavaScript is the **Programming Language** for the Web.
- It can update and change both **HTML** and **CSS**.
- It also **calculate, manipulate and validate** data.

What is JavaScript ?

- JavaScript is *an object-based scripting language*.

- 
- It is not a compiled language.
(It is a translated language)

The JavaScript Translator which embedded in your browser is responsible for translating the JavaScript code for the web browser.

Note

- JavaScript and Java are completely different languages, both in concept and design.

What JavaScript can do ?

- It Can Change HTML Content.
- It Can Change HTML Attribute Values.
- It Can Change HTML Styles (CSS).
- It Can Hide or Show HTML Elements.
- & much more...

How to Add JavaScript ?

- JavaScript code must be inserted between `<script>` and `</script>` tags.

in `<head>` or `<body>`

First Program in JS

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

```
<script>
```

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

```
</script>
```


Output

```
Hello from JS
```

Example with function

```
<button type="button" onclick="getMessage()">Click</button>  
<p id="p1"></p>
```

```
<script>  
  function getMessage() {  
    document.getElementById("p1").innerHTML = "Hello from JS";  
  }  
</script>
```

Output

Click

Hello from JS

Where to place ?

- JS in `<head>` or `<body>`

Scripts can be placed in the `<body>`, or in the `<head>` section of an HTML page, or in both.

Placing scripts at the bottom of the `<body>` element improves the display speed.

Extension

- JavaScript files have the file extension **.js**.

innerHTML property in JS

- To access an HTML element, JavaScript can use the **document.getElementById(id)** method.
- The **id** attribute defines the HTML element.
- The innerHTML property defines the HTML content.

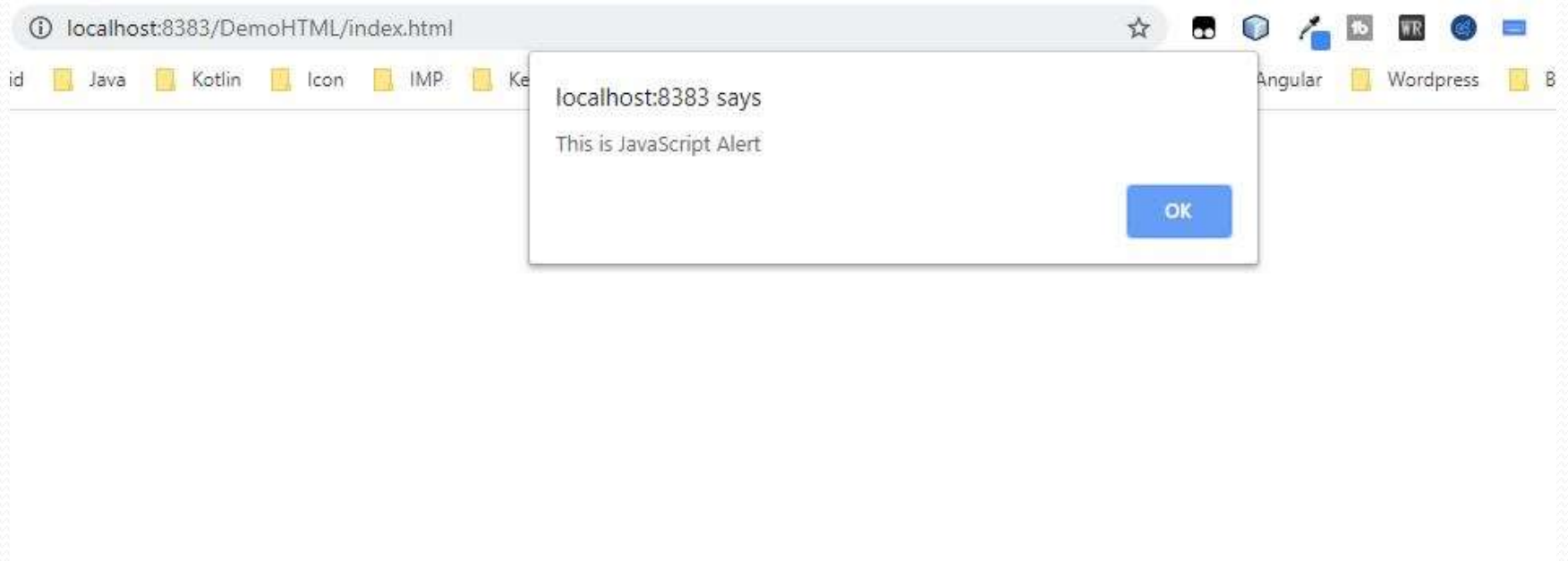
```
<p id="p1"></p>
```

```
<script>
```

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

```
</script>
```

window.alert() in JS



Get Current Get & Time

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

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


Output

Click

Fri Dec 20 2019 16:54:51 GMT+0530 (India Standard Time)

JS Can Change HTML Content

```
<p id="demo">JS can change HTML content.</p>
```

```
<button type="button"  
    onclick='document.getElementById("demo").innerHTML =  
    "Hello World"'>Click  
</button>
```

Output

JS can change HTML content.

Click

Hello World

Click

JS Can Change HTML Content with Function

```
<p id="demo">JS can change HTML content.</p>
```

```
<button type="button" onclick='myFunc()'>Click</button>
```

```
<script>
```

```
  function myFunc() {
```

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

```
  }
```

```
</script>
```

Output

JS can change HTML content.

Click

Hello World

Click

JS Can Change HTML Attribute Values

```
<button onclick="document.getElementById('demo1').src =  
'one.png'">Image 1</button>
```

```

```

```
<button onclick="document.getElementById('demo1').src =  
'two.jpeg'">Image 2</button>
```

Output



Image 1

Image 2



Image 1

Image 2

JS Can Change HTML Styles

```
<p id="demo">JS Can change CSS</p>
```

```
<button type="button" onclick="myFunction()">Click to Change Style</button>
```

```
<script>
```

```
  function myFunction() {
```

```
    document.getElementById('demo').style.fontSize = '35px';
```

```
    document.getElementById('demo').style.color = 'red';
```

```
  }
```

```
</script>
```


Output

JS Can change CSS

Click to Change Style

JS Can change CSS

Click to Change Style

JS Can Hide HTML Elements

```
<p id="demo">JS Can change CSS</p>
```

```
<button type="button" onclick="myFunction()">Click to  
Hide</button>
```

```
<script>  
  function myFunction() {  
    document.getElementById('demo').style.display = 'none';  
  }  
</script>
```

Output

JS Can change CSS

Click to Hide

External JS File

```
<script src="myScript1.js"></script>
```

Or

```
<script src="mystyle.js" type="text/javascript"></script>
```