JavaScript Events

The change in the state of an object is known as an **Event**. In html, there are various events which represents that some activity is performed by the user or by the browser. When [javascript](https://www.javatpoint.com/javascript-tutorial)code is included in [HTML](https://www.javatpoint.com/html-tutorial)

, js react over these events and allow the execution. This process of reacting over the events is called **Event Handling**. Thus, js handles the HTML events via **Event Handlers**.

**For example**, when a user clicks over the browser, add js code, which will execute the task to be performed on the event.

Some of the HTML events and their event handlers are:

**Mouse events:**

**Event Handler Description**

**onclick🡺When mouse click on an element**

**onmouseover 🡺When the cursor of the mouse comes over   
the element**

**onmouseout🡺 When the cursor of the mouse leaves an  
element**

**onmousedown🡺 When the mouse button is pressed  
 over theelement**

**onmouseup🡺 When the mouse button is released   
over the element**

**onmousemove🡺 When the mouse movement takes place.**

**Onclick Event**

**Example**

**<html>**

**<head>**

**<script>**

**function** verify(){

**var** no;

no=Number(document.getElementById("age").value);

**if**(no<18)

{

alert("Under 18");

}

**else**

{

alert("You are Adult");

}

}

**</script>**

**</head>**

**<body>**

Enter your age:**<input**id="age"**><br/>**

**<button**onclick="verify()"**>**Click me**</button>**

**</body>**

**</html>**

**onmouseover Event**

**onmouseout event**

**Example**

**<html>**

**<head>**

**<h1>Javascript Events </h1>**

**</head>**

**<body>**

**<script>**

**functionmouseoverevent()**

**{**

**document.getElementById("ch").innerHTML="Welcome to Web Program";**

**}**

**functionmouseout()**

**{**

**document.getElementById("ch").innerHTML="Hello EveryBody";**

**}**

**</script>**

**<p onmouseover="mouseoverevent()" onmouseout="mouseout()" id="ch"> Hello EveryBody</p>**

**</body>**

**</html>**

**onmousemoveevent**

**Example**

**<!DOCTYPE html>**

**<html>**

**<head>**

**<style>**

**div {**

**width: 200px;**

**height: 100px;**

**border: 1px solid black;**

**}**

**</style>**

**</head>**

**<body>**

**<div onmousemove="myFunction(event)" onmouseout="clearpara()"></div>**

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

**<script>**

**functionmyFunction(e)**

**{**

**var x = e.clientX;**

**var y = e.clientY;**

**varcoor = "Coordinates: (" + x + "," + y + ")";**

**document.getElementById("demo").innerHTML = coor;**

**}**

**functionclearpara()**

**{**

**document.getElementById("demo").innerHTML = "";**

**}**

**</script>**

**</body>**

**</html>**

**onmousedown event**

**onmouseup event**

**Example**

**<!DOCTYPE html>**

**<html>**

**<body>**

**<p id="myP" onmousedown="mouseDown()" onmouseup="mouseUp()">**

**Hello everybody<br>**

**welcome to web program**

**</p>**

**<script>**

**functionmouseDown() {**

**document.getElementById("myP").style.color = "red";**

**}**

**functionmouseUp() {**

**document.getElementById("myP").style.color = "blue";**

**}**

**</script>**

**</body>**

**</html>**

**Keyboard events:**

**Event Handler:**

**onkeydown&onkeyup🡺When the user press and then  
 release the key**

**Example1**

**<!DOCTYPE html>**

**<html>**

**<body>**

**Enter your name:**

**<input type="text" id="fname" onkeyup="myFunction()"><br>**

**<script>**

**functionmyFunction()**

**{**

**var x = document.getElementById("fname");**

**x.value = x.value.toUpperCase();**

**}**

**</script>**

**</body>**

**</html>**

**Example2**

**<!doctype html>**

**<html>**

**<head>**

**<script>**

**functionchangeBackground()**

**{**

**var a = 200;**

**var b = 150;**

**var c = 56;**

**var x = document.getElementById('bg');**

**x.style.backgroundColor = 'rgb('+a+', '+b+', '+c+')';**

**document.getElementById('nm').value="";**

**}**

**function change()**

**{**

**var a=255;**

**var b=255;**

**var c=255;**

**var x = document.getElementById('bg');**

**x.style.backgroundColor = 'rgb('+a+', '+b+', '+c+')';**

**document.getElementById('nm').value="";**

**}**

**</script>**

**</head>**

**<body id="bg">**

**<input id="nm" onkeyup="changeBackground()" onkeydown="change()">**

**</body>**

**</html>**

**Window/Document events**

**onload🡺 when the browser finishes the loading  
 of the page**

**onunload🡺When the visitor leaves the current   
webpage, the browser unloads it**

**onresize🡺 When the visitor resizes the window   
of the browser**

**onload event**

**Example1**

**<html>**

**<head>**

**<script type="text/javascript">**

**function time()**

**{**

**var d = new Date();**

**varty = d.getHours() + ":"+d.getMinutes()+":"+d.getSeconds();**

**document.frmty.timetxt.value=ty;**

**setInterval("time()",1000)**

**}**

**</script>**

**</head>**

**<body onload="time()">**

**<center><h2>Displaying Time</h2>**

**<form name="frmty">**

**<input type=text name=timetxt size="8">**

**</form>**

**</center>**

**</body>**

**</html>**

**Example2**

**<html>**

**<head>**

**<script type="text/javascript">**

**function time()**

**{**

**var currentDate = new Date();**

**var date = currentDate.getDate();**

**var month = currentDate.getMonth();**

**var year = currentDate.getFullYear();**

**varmonthDateYear = (month+1) + "/" + date + "/" + year;**

**document.frmty.timetxt.value=monthDateYear;**

**}**

**</script>**

**</head>**

**<body onload="time()">**

**<center><h2>Displaying Time</h2>**

**<form name="frmty">**

**<input type=text name=timetxt size="8">**

**</form>**

**</center>**

**</body>**

**</html>**

**onresize event**

**<!DOCTYPE html>**

**<html>**

**<body onresize="myFunction()">**

**<p>Try to resize the browser window to display the windows height and width.</p>**

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

**<script>**

**functionmyFunction() {**

**var w = window.outerWidth;**

**var h = window.outerHeight;**

**var txt = "Window size: width=" + w + ", height=" + h;**

**document.getElementById("demo").innerHTML = txt;**

**}**

**</script>**

**</body>**

**</html>**

**Form events:**

**onfocus🡺 When the user focuses on an element**

**onsubmit🡺When the user submits the form**

**onblur🡺 When the focus is away from a form  
 element**

**onchange🡺When the user modifies or changes the   
value of a form element**

**onfocus and onblur event**

**Example**

**<!DOCTYPE html>**

**<html>**

**<body>**

**Enter Name: &nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;<input type="text" onfocus="func1(this)" onblur="func2(this)"><br>**

**Enter MobileNo:<input type="text" onfocus="func1(this)" onblur="func2(this)">**

**<script>**

**function func1(x) {**

**x.style.background ="cyan";**

**}**

**function func2(x) {**

**x.style.background ="white";**

**}**

**</script>**

**</body>**

**</html>**

**onchange event**

**Example**

**<!DOCTYPE html>**

**<html>**

**<body>**

**<p><h1>Select a course from the list.</p>**

**<select id="ch" onchange="func()">**

**<option value="CSE-ML">CSE(ML)</option>**

**<option value="CSE-DS">CSE(DS)</option>**

**<option value="CSE-CC&IS">CSE(CC&IS)</option>**

**<option value="CSE-CORE">CSE(CORE)</option>**

**</select>**

**<p style="color:red" id="demo"></p>**

**<script>**

**functionfunc()**

**{**

**var x = document.getElementById("ch").value;**

**document.getElementById("demo").innerHTML = "You selected: " + x;**

**}**

**</script>**

**</body>**

**</html>**