**EXPERIMENT NO. 07**

|  |  |
| --- | --- |
| **DATE OF PERFORMANCE:** | **GRADE:** |
| **DATE OF ASSESSMENT:** | **SIGNATURE OF LECTURER/ TTA:** |

**AIM: Implementation of Events in Java Script.**

**THEORY:**

**HTML events are "things" that happen to HTML elements. When JavaScript is used in HTML pages, JavaScript can "react" on these events.**

**JavaScript's interaction with HTML is handled through events that occur when the user or the browser manipulates a page.**

**HTML EVENTS:**

**An HTML event can be something the browser does, or something a user does.**

**Here are some examples of HTML events:**

* **An HTML web page has finished loading**
* **An HTML input field was changed**
* **An HTML button was clicked**

**Often, when events happen, you may want to do something.**

**JavaScript lets you execute code when events are detected.**

**HTML allows event handler attributes, with JavaScript code, to be added to HTML elements.**

**With single quotes:**

**<*some-HTML-element* *some-event*='*some JavaScript*'>**

**With double quotes:**

**<*some-HTML-element* *some-event*="*some JavaScript*">**

**EXAMPLE OF ONCLICK():**

**<!DOCTYPE html>**

**<html>**

**<body>**

**<button onclick="document.getElementById('demo').innerHTML=Date()">The time is?</button>**

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

**</body>**

**</html>**

**In the example above, the JavaScript code changes the content of the element with id="demo".**

**COMMON HTML EVENTS:**

|  |  |
| --- | --- |
| **EVENT** | **DESCRIPTION** |
| **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** |

**PROGRAM 1: USE OF ONLOAD EVENT.**

**<!DOCTYPE html>**

**<html>**

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

**<h1>Hello World!</h1>**

**<script>**

**function myFunction() {**

**alert("Page is loaded");**

**}**

**</script>**

**</body>**

**</html>**

**OUTPUT:**

**PROGRAM 2: USE OF ONLOAD EVENT IN IFRAME.**

**<!DOCTYPE html>**

**<html>**

**<body>**

**<p>This example uses the HTML DOM to assign an "onload" event to an iframe element.</p>**

**<iframe id="myFrame" src="/default.asp"></iframe>**

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

**<script>**

**document.getElementById("myFrame").onload = function() {myFunction()};**

**function myFunction() {**

**document.getElementById("demo").innerHTML = "Iframe is loaded.";**

**}**

**</script>**

**</body>**

**</html>**

**OUTPUT:**

**PROGRAM 3: USE OF ONMOUSEOUT EVENT.**

**<!DOCTYPE html>**

**<html>**

**<body>**

**<img onmouseover="bigImg(this)" onmouseout="normalImg(this)" border="0" src="smiley.gif" alt="Smiley" width="32" height="32">**

**<p>The function bigImg() is triggered when the user moves the mouse pointer over the image.</p>**

**<p>The function normalImg() is triggered when the mouse pointer is moved out of the image.</p>**

**<script>**

**function bigImg(x) {**

**x.style.height = "64px";**

**x.style.width = "64px";**

**}**

**function normalImg(x) {**

**x.style.height = "32px";**

**x.style.width = "32px";**

**}**

**</script>**

**</body>**

**</html>**

**OUTPUT:**

**PROGRAM 4: USE OF ONMOUSEOVER EVENT.**

**<!DOCTYPE html>**

**<html>**

**<body>**

**<img onmouseover="bigImg(this)" onmouseout="normalImg(this)" border="0" src="smiley.gif" alt="Smiley" width="32" height="32">**

**<p>The function bigImg() is triggered when the user moves the mouse pointer over the image.</p>**

**<p>The function normalImg() is triggered when the mouse pointer is moved out of the image.</p>**

**<script>**

**function bigImg(x) {**

**x.style.height = "64px";**

**x.style.width = "64px";**

**}**

**function normalImg(x) {**

**x.style.height = "32px";**

**x.style.width = "32px";**

**}**

**</script>**

**</body>**

**</html>**

**OUTPUT:**

**PROGRAM 5: USE OF KEYPRESS EVENT.**

**<!DOCTYPE html>**

**<html>**

**<body>**

**<p>A function is triggered when the user is pressing a key in the input field.</p>**

**<input type="text" onkeypress="myFunction()">**

**<script>**

**function myFunction() {**

**alert("You pressed a key inside the input field");**

**}**

**</script>**

**</body>**

**</html>**

**OUTPUT:**

**PROGRAM 6: USE OF KEYDOWN AND KEYUP EVENT.**

**<!DOCTYPE html>**

**<html>**

**<body>**

**<p>Press and hold down a key inside the text field to set a red background color. Release the key to set a green background color.</p>**

**<input type="text" id="demo" onkeydown="keydownFunction()" onkeyup="keyupFunction()">**

**<script>**

**function keydownFunction() {**

**document.getElementById("demo").style.backgroundColor = "red";**

**}**

**function keyupFunction() {**

**document.getElementById("demo").style.backgroundColor = "green";**

**}**

**</script>**

**</body>**

**</html>**

**OUTPUT:**

**PROGRAM 7: USE OF ONCHANGE EVENT.**

**<!DOCTYPE html>**

**<html>**

**<body>**

**<p>Select a new car from the list.</p>**

**<select id="mySelect" onchange="myFunction()">**

**<option value="Audi">Audi**

**<option value="BMW">BMW**

**<option value="Mercedes">Mercedes**

**<option value="Volvo">Volvo**

**</select>**

**<p>When you select a new car, a function is triggered which outputs the value of the selected car.</p>**

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

**<script>**

**function myFunction() {**

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

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

**}**

**</script>**

**</body>**

**</html>**

**OUTPUT:**