**Lecture-7**

## 20 –JAVA SCRPT Events-

HTML events are **"things"** that happen to HTML elements.

When JavaScript is used in HTML pages, JavaScript can **"react"** on these events.

## Example-1

## <!DOCTYPE html>

## <html>

## <body>

## <button

## onclick="document.getElementById('demo').innerHTML=Date()">The

## time is?</button>

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

## </body>

## </html>

## Example-2

## <!DOCTYPE html>

## <html>

## <body>

## <button onclick="this.innerHTML=Date()">The

## time is?</button>

## </body>

## </html>

## Example-3

<!DOCTYPE html>

<html>

<body>

<p>Click the button to display the date.</p>

<button onclick="displayDate()">The time is?</button>

<script>

function displayDate() {

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

}

</script>

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

</body>

</html>

##  21 –JAVA SCRPT Arrays-

 JavaScript arrays are used to store multiple values in a single variable.

 An array is a special variable, which can hold more than one value at a time.

## Creating an Array-

Using an array literal is the easiest way to create a JavaScript Array.

## Example-

## <!DOCTYPE html>

## <html>

## <body>

## <h2>JavaScript Arrays</h2>

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

## <script>

## var cars = ["Saab", "Volvo", "BMW"];

## document.getElementById("demo").innerHTML = cars;

## </script>

## </body>

## </html>

## Access the Elements of an Array-

## You refer to an array element by referring to the index number.

## Example-

<!DOCTYPE html>

<html>

<body>

<h2>JavaScript Arrays</h2>

<p>JavaScript array elements are accesses using numeric indexes (starting from 0).</p>

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

<script>

var cars = ["Saab", "Volvo", "BMW"];

document.getElementById("demo").innerHTML = cars[0];

</script>

</body>

</html>

## Access the Full Array-

## With JavaScript, the full array can be accessed by referring to the array name:

## Example-

<!DOCTYPE html>

<html>

<body>

<h2>JavaScript Arrays</h2>

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

<script>

var cars = ["Saab", "Volvo", "BMW"];

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

</script>

</body>

</html>

**Lecture-8**

22 **–**JAVA SCRPT Math Object-

The JavaScript Math object allows you to perform mathematical tasks on numbers.

##  Example-

## <!DOCTYPE html>

## <html>

## <body>

## <h2>JavaScript Math.PI</h2>

## <p>Math.PI returns the ratio of a circle's circumference to its diameter:</p>

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

## <script>

## document.getElementById("demo").innerHTML = Math.PI;

## </script>

## </body>

## </html>

## Math.round()

## Math.round(x) returns the value of x rounded to its nearest integer:

## Example-

## <!DOCTYPE html>

## <html>

## <body>

## <h2>JavaScript Math.round()</h2>

## <p>Math.round(x) returns the value of x rounded to its nearest integer:</p>

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

## <script>

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

## Math.round(4.4);

## </script>

## </body>

## </html>

## Math.pow()

## Math.pow(x, y) returns the value of x to the power of y:

## Example-

## .

## <!DOCTYPE html>

## <html>

## <body>

## <h2>JavaScript Math.pow()</h2>

## <p>Math.pow(x,y) returns the value of x to the power of y:</p>

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

## <script>

## document.getElementById("demo").innerHTML = Math.pow(8,2);

## </script>

## </body>

## </html>

## Math.sqrt()

## Math.sqrt(x) returns the square root of x.

## Example-

<!DOCTYPE html>

<html>

<body>

<h2>JavaScript Math.sqrt()</h2>

<p>Math.sqrt(x) returns the square root of x:</p>

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

<script>

document.getElementById("demo").innerHTML = Math.sqrt(64);

</script>

</body>

</html>

## Math.abs()

## Math.abs(x) returns the absolute (positive) value of x.

## Example-

## <!DOCTYPE html>

## <html>

## <body>

## <h2>JavaScript Math.abs()</h2>

## <p>Math.abs(x) returns the absolute (positive) value of x:</p>

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

## <script>

## document.getElementById("demo").innerHTML = Math.abs(-4.4);

## </script>

## </body>

## </html>