

## Lecture-7

### 20 –JAVA SCRIPT 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 accessed 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>
```