

**HTML Example**

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<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
  <title>Form Demo</title>
</head>
<body>
  <form name="MyForm" action="Form.html" method="post" enctype="multipart/form-data">
    Name: <input type="text" maxlength="10" size="6" tabindex="1" name="txtName" value="Deccansoft"/><br/>
    Password: <input type="password" name="txtPassword" value="test"/><br/>
    Gender<br/>
    <input type="radio" name="rbnGender" checked="checked"/>Male
    <input type="radio" name="rbnGender"/>Female<br/>
    Hobbies<br/>
    <input type="checkbox" id="chkMusic" name="chkMusic" checked="checked" value="1"/>
    <label for="chkMusic">Music</label>
    <input type="checkbox" name="chkDance"/>Dance<br/>
    Address:<br/>
    <textarea rows="6" cols="50">This is <b>Deccansoft</b></textarea><br/>
    How do you rate my site:
    <select name="rating" size="3" multiple="multiple" >
      <option value="A">Good</option>
      <option value="B" selected="selected">Average</option>
      <option value="C">Poor</option>
    </select><br/>
    My Image:
    <input type="file" name="fileMyImage"/><br/>
    <input type="button" name="btnHello" value="Hello"/>
    <input type="reset" value="Reset Button"/>
    <input type="submit" value="Submit"/>
    <input type="image" src="demo.gif" />
    
  </form>
</body></html>

```

**Javascript**

1. Javascript is an Interpreted language and it's executed by the interpreter built in within the web browser on all platforms.
2. It is Object based (doesn't support inheritance) and is case sensitive language.
3. It is very loosely typed, i.e it doesn't have any datatypes.
4. It's a specification by initially Netscape and is acknowledge by ECMA (European Computer Manufacturers Association)
5. Javascript language together with **HTML DOM** (Document Object Model) API is used to make the web page dynamic or interactive. Also we can do client side validations of data before the form is submitted to server.

**Embedding Javascript in Page BODY**

Write the below in <body> of HTML page

<pre> 2. &lt;table border="1"&gt;   &lt;script type="text/javascript"&gt;     var n;     n = prompt("Please enter a number", 10);     if (!isNaN(n))       for(i=1;i&lt;=10;i++)       {         document.write("&lt;tr&gt;")         document.write("  &lt;td&gt;" + n + "&lt;/td&gt;")         document.write("  &lt;td&gt;*&lt;/td&gt;")         document.write("  &lt;td&gt;" + i + "&lt;/td&gt;")         document.write("  &lt;td&gt;=&lt;/td&gt;")         document.write("  &lt;td&gt;" + n*i + "&lt;/td&gt;")         document.write("&lt;/tr&gt;")       }   &lt;/script&gt; &lt;/table&gt; </pre>	<pre> 1. Add to &lt;body&gt; &lt;script type="text/javascript"&gt;   var i;   for(i=0;i&lt;100;i++)     document.write("This is line number: " + i + "&lt;br&gt;"); &lt;/script&gt;  3. &lt;select name="day"&gt;   &lt;script type="text/javascript"&gt;     var dt = new Date(); //dt is set to system data of client.     for(i=1; i&lt;=31; i++)       if (dt.getDate() == i) //True for today.         document.write("&lt;option SELECTED value=\"\" + i           + \"\"&gt;\" + i + \"&lt;/option&gt;")       else         document.write("&lt;option value=\"\" + i + \"\"&gt;\" + i +           \"&lt;/option&gt;")   &lt;/script&gt; &lt;/select&gt; </pre>
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## Handling Events in Javascript

<pre>&lt;html&gt; &lt;head&gt;   &lt;title&gt;General Examples&lt;/title&gt;   &lt;script language="javascript" type="text/javascript"&gt;     function SayHello()     {       window.alert("Hello " +         document.forms[0].txtName.value);     }   &lt;/script&gt; &lt;/head&gt;</pre>	<pre>&lt;body&gt;   &lt;form name="form1"&gt;     Name: &lt;input type="text" name="txtName"&gt;     &lt;input type="button" value="Say Hello"       onclick="javascript:SayHello()"&gt;   &lt;/form&gt; &lt;/body&gt; &lt;/html&gt;</pre>
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## Using Dropdown List (Select tag)

<pre>&lt;script type="text/javascript"&gt;   function Calculate()   {     var n1 = document.form1.txtN1.value;     var n2 = document.form1.txtN2.value;     var ddl = document.form1.selOperation     var opt = ddl.options[ddl.selectedIndex]; //returns selected option     switch (opt.value)     {       case "+":         document.form1.txtResult.value = parseInt(n1) + parseInt(n2);         break;       case "-":         document.form1.txtResult.value = n1 - n2;         break;       case "*":         document.form1.txtResult.value = n1 * n2;         break;       case "/":         document.form1.txtResult.value = n1 / n2;         break;     }   } &lt;/script&gt; &lt;/head&gt;</pre>	<pre>&lt;body&gt;   &lt;form name="form1"&gt;     &lt;input type="text" name="txtN1" /&gt;     &lt;select name="selOperation"       onchange="Calculate()"&gt;       &lt;option value="+"&gt;+&lt;/option&gt;       &lt;option value="-"&gt;-&lt;/option&gt;       &lt;option value="*"&gt;*&lt;/option&gt;       &lt;option value="/"&gt;/&lt;/option&gt;     &lt;/select&gt;     &lt;input type="text" name="txtN2" /&gt;     &lt;input type="text" name="txtResult"       readonly="readonly" /&gt;   &lt;/form&gt; &lt;/body&gt; &lt;/html&gt;</pre>
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## Example to Show Image Changing and using "this"

<pre>&lt;head&gt; &lt;title&gt;Image Page&lt;/title&gt; &lt;script type="text/javascript"&gt;   function changeImage()   {     document.images["img1"].src = "Hover.jpg"   }   function restoreImage()   {     document.images[0].src = "Main.jpg"   } &lt;/script&gt; &lt;/head&gt;</pre>	<pre>&lt;body&gt;   &lt;img src="Main.jpg"     alt="Demo" name="img1"     onmouseover="changeImage()"     onmouseout="restoreImage()"     width="100" height="100" /&gt;   &lt;img src="Main.jpg"     alt="Demo"     onmouseover="this.src='Hover.jpg'"     onmouseout="this.src='Main.jpg'"     width="100" height="100" /&gt; &lt;/body&gt;</pre>
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## Steps for Debugging Javascript

1. Browser → Tools → Internet Options... → Advanced → Uncheck - Disable Script Debugging (Internet Explorer) → OK
3. Close the browser and start a new instance.
4. In javascript code, to start debugging write the statement: "debugger;"
5. Open the page in browser
6. When the statement "debugger" is executed, browser shows a dialog for selecting the debugger...
7. Select the already existing Visual Studio Instance --> OK

## 8. Continue Debugging using Debug toolbar (right click on menubar and select debug)

To Show / Hide a Block Using Style	
<pre> &lt;html&gt; &lt;head&gt; &lt;title&gt;JS Demo&lt;/title&gt; &lt;script type="text/javascript"&gt; function r1_click() {   if (document.form1.r1[0].checked)     document.getElementById("spn").style["display"] = "";   else     document.getElementById("spn").style["display"] = "none"; } function ShowHTMLOutput(ta) {   spn.innerHTML = ta.value } &lt;/script&gt; &lt;/head&gt; </pre>	<pre> &lt;body&gt;   &lt;form name="form1" action=""&gt;     &lt;input type="radio" name="r1" value="show"       checked="checked" onclick="r1_click()" /&gt;Show     &lt;input type="radio" name="r1" value="hide"       onclick="r1_click()" /&gt;Hide     &lt;span id="spn"&gt;This is some text...&lt;/span&gt;     &lt;textarea name="taDemo" rows="5" cols="20"       onchange="ShowHTMLOutput(this)"&gt;&lt;/textarea&gt;   &lt;/form&gt; &lt;/body&gt; &lt;/html&gt; </pre> <p><b>Note:</b> If we have more than one element with same name, automatically an array with name of that element is created in form. In the example, "r1" array is created in form.</p>

Performing Client side validations before the form is submitted to server	
<pre> &lt;html&gt; &lt;head&gt; &lt;title&gt;Validation On Submit&lt;/title&gt; &lt;script language="javascript"&gt;   function validate()   {     n1 = document.Form1.txtN1.value     n2 = document.Form1.txtN2.value     if (n1 == ""    n2 == "")     {       alert("Please enter all the values")       return false; //Form is not Submitted     }     return true; //Form is Submitted   }   function div_Click()   {     if (document.Form1.txtN2.value == "0")     {       alert("Denominator cannot be zero");       return false; //Form is not Submitted     }     return true; //Form is Submitted   } &lt;/script&gt; &lt;/head&gt; </pre>	<pre> &lt;body&gt;   &lt;form name="Form1" onsubmit="return validate()"&gt;     N1 &lt;input type="text" name="txtN1" /&gt;&lt;br /&gt;     N2 &lt;input type="text" name="txtN2" /&gt;&lt;br /&gt;     &lt;input type="submit" value="Add" /&gt;     &lt;input type="submit" value="Sub" /&gt;     &lt;input type="submit" value="Mul" /&gt;     &lt;input type="submit" value="Div"       onclick="return div_Click()" /&gt;     &lt;input type="submit" value="Delete"       onclick="return confirm('Are you sure')" /&gt;   &lt;/form&gt; &lt;/body&gt; &lt;/html&gt; </pre> <p><b>Note:</b> If either <b>OnSubmit</b> event handler of Form or <b>OnClick</b> event handler of Submit button <b>returns false</b>, then the form is not submitted to server.</p> <p>Only if onclick of submit button return true, onsubmit of form is executed.</p>

Timer Demo	
<pre> &lt;script language="javascript"&gt;   function showClientTime ()   {     var dt = new Date()     spnTime.innerHTML = dt.toLocaleTimeString();     setTimeout("showClientTime ()",1000);   } &lt;/script&gt; </pre>	<pre> &lt;body onload="showClientTime()"&gt;   &lt;span id="spnTime"&gt;&lt;/span&gt; &lt;/body&gt; </pre>

**To Show and Close the Window**

```
var win;  
function ShowWindow()  
{  
    win = window.open("JS1.htm","win1","menubar=no,scrollbars=no,width=400,height=500,location=no,resizable=yes")  
}  
function CloseWindow()  
{  
    win.close();  
}
```

**ShowTime.js**

```
document.write("<span id='spnTime'></span>")  
function setClientTime()  
{  
    document.getElementById("spnTime").innerHTML = new Date().toString();  
    setTimeout("setClientTime()",1000)  
}  
setClientTime()
```

In any HTML Page...Add the following to show System time.  
<script type="text/javascript" src="ShowTime.js"></script>