Module III — Form object

Form Object

- The Form object represents an HTML form.

- For each <form> tag in an HTML document, a Form object is created.

- Forms are used to collect user input, and contain input elements like text fields, checkboxes, radio-buttons, submit buttons and more. A form can also contain select menus, textarea, fieldset, legend, and label elements.

- Forms are used to pass data to a server.

Form Object Collections

- elements[] →Returns an array of all elements in a form

Form Object Properties

- acceptCharset → Sets or returns the value of the accept-charset attribute in a form.

  Eg: Character encoding for Unicode (UTF-8) , Latin alphabet (ISO-8859-1)

- action → Sets or returns the value of the action attribute in a form

- enctype → Sets or returns the value of the enctype attribute in a form

- length → Returns the number of elements in a form

- method → Sets or returns the value of the method attribute in a form (get or post)

- name → Sets or returns the value of the name attribute in a form

- target → Sets or returns the value of the target attribute in a form (_blank,_top,_parent,_self, framename)

Form Object Methods

1. reset()→Resets a form

   Eg : document.getElementById("form1").reset();

1. submit()→Submits a form

Form Object Events

1. onreset→ The reset button is clicked

2. onsubmit→The submit button is clicked

```
<form onreset="alert('The form will be reset')">
Firstname: <input type="text" name="fname" value="Vijayan" ><br >
Lastname: <input type="text" name="lname" value="R" ><br ><br>
<input type="reset" value="Reset" >
</form>
```

The elements collection returns an array of all the elements in a form

```
<html> <body>
<form id="form1" action="">
   First name: <input type="text" name="fname" value="vijayan"> <br>
   Last name: <input type="text" name="lname" value="R"><br>
   <input type="button" value="Submit" name="submitbutton" > </form>
<script type="text/javascript">
   var x=document.getElementById("form1");
   for (var i=0;i<x.length;i++)
 {
document.write(x.elements[i].name+":"+x.elements[i].value + "<br>");
   } </script> </body> </html>
```

```html
<html> <head>
<script type="text/javascript">
function greeting()
{
alert("Welcome " + document.forms["form1"]["fname"].value + "!"); }
</script> </head> <body>
What is your name?<br>
<form  name="form1"  action="image.html"  onsubmit="greeting()">
<input type="text" name="fname">
<input type="submit" value="Submit">
</form> </body> </html>
```

Form – reset () method

```html
<html>  <head>
<script type="text/javascript">
function formReset()
{ document.getElementById("frm1").reset();  }
</script> </head> <body>
<p>Enter some text in the fields below, then press the "Reset form"
   button to reset the form.</p>
<form id="frm1">
First name: <input type="text" name="fname" ><br >
Last name: <input type="text" name="lname" ><br ><br >
<input type="button" onclick="formReset()" value="Reset form" >
</form> </body> </html>
```

Registration Form

User id: [Required and must be of length 5 to 12.]

Password: [Required and must be of length 7 to 12.]

Name: [Required and alphabates only.]

Address: [Optional.]

Country: [(Please select a country) ▾] Required. Must select a country.

ZIP Code: [Required. Must be numeric only.]

Email: [Required. Must be a valid email.]

Sex: ○ Male ○ Female   Required.

Language: ☑ English ☐ Non English   Required.

About: [Optional.]

[Submit]

How would we set those validations

1. We will create JavaScript functions (one for each input field whose value is to validated) which checks whether a value submitted by user passes the validation.

2. All those functions are called from another function.

3. It sets the focus to the input field until the user supplies a valid value.

4. When user does so, they may proceed and can supply value to the next available field.

5. The later JavaScript function created is called on onsubmit event of the form.

```html
<html lang="en">
<head>  <meta charset="utf8">
 <title>JavaScript Form Validation using a sample registration form</title>
<link rel='stylesheet' href='js-form-validation.css' type='text/css' />
 <script src="sample-registration-form validation.js">
</script>  </head>
<body onload="document.registration.userid.focus();">
<h1>Registration Form</h1>
<p>Use tab keys to move from one input field to the next.</p>
<form name='registration' onSubmit="return formValidation();">
<ul>  <li><label for="userid">User id:</label></li><li><input type="text" name="useri
   d" size="12" />
</li>
<li><label for="passid">Password:</label></li><li><input type="password" name="p
   assid" size="12" /></li>
<li><label for="username">Name:</label></li>  <li><input type="text" name="usern
   ame" size="50"/></li>
<li><label for="address">Address:</label></li>  <li><input type="text" name="addre
   ss" size="50" /></li>
```

```html
<li><label for="country">Country:</label></li>  <li><select name="country">
<option selected="" value="Default">(Please select a country)</option>  <option value="AF">Australia</option>  <option value="AL">Canada</option>  <option value="DZ">India</option>  <option value="AS">Russia</option>  <option value="AD">USA</option>  </select></li>
<li><label for="zip">ZIP Code:</label></li>  <li><input type="text" name="zip" /></li>
<li><label for="email">Email:</label></li>  <li><input type="text" name="emai" size="50" /></li>
<li><label id="gender">Gender:</label></li>  <li><input type="radio" name="gender" value="Male" /><span>Male</span></li>
<li><input type="radio" name="gender" value="Female" /><span>Female</span></li>  <li><label>Language:</label></li>
<li><input type="checkbox" name="en" value="en" checked /><span>English</span></li>  <li><input type="checkbox" name="nonen" value="noen" /><span>Non English</span></li>
<li><label for="desc">About:</label></li>  <li><textarea name="desc" id="desc"></textarea></li>
<li><input type="submit" name="submit" value="Submit" /></li> </ul> </form> </body>  </html>
```

js-form-validation.css

h1 { margin-left: 70px; }

form li { list-style: none; margin-bottom: 5px; }

form ul li label{ float: left; clear: left; width: 100px; text-align: right; margin-right: 10px; font-family:Verdana, Arial, Helvetica, sans-serif; font-size:14px; }

form ul li input, select, span { float: left; margin-bottom: 10px; }

form textarea { float: left; width: 350px; height: 150px; }

[type="submit"] { clear: left; margin: 20px 0 0 230px; font-size:18px }

p { margin-left: 70px; font-weight: bold; }

JavaScript function which is called on onSubmit

```
function formValidation()
{
var uid = document.registration.userid;
var passid = document.registration.passid;
var uname = document.registration.username;
var uadd = document.registration.address;
var ucountry = document.registration.country;
var uzip = document.registration.zip;
var uemail = document.registration.email;
var ugender = document.getElementsByName("gender");
if(userid_validation(uid,5,12)) {
if(passid_validation(passid,7,12)) {
if(allLetter(uname))
{
if(alphanumeric(uadd))
{
if(countryselect(ucountry))
{
if(allnumeric(uzip))
{
if(ValidateEmail(uemail))
{
if(validgender(ugender))
{
 return true;
} } } } } } } }
return false; }
```

JavaScript function for validating userid

```javascript
function userid_validation(uid,mx,my)
{
var uid_len = uid.value.length;
if (uid_len == 0 || uid_len >= my || uid_len < mx) {
alert("User Id should not be empty / length be between "+mx+" to "+
    my);
uid.focus();
return false;
}
return true;
}
```

JavaScript function for validating password

```javascript
function passid_validation(passid,mx,my)
{
var passid_len = passid.value.length;
if (passid_len == 0 ||passid_len >= my || passid_len < mx)
{
alert("Password should not be empty / length be between "+mx+" to
    "+my);
passid.focus();
return false;
}
return true;
}
```

JavaScript code for validating user name

```javascript
function allLetter(uname)
{
var letters = /^[A-Za-z]+$/;
if(uname.value.match(letters))
{
return true;
}
else  {
alert('Username must have alphabet characters only');
uname.focus();
return false;  }  }
```

JavaScript code for validating user address

```javascript
function alphanumeric(uadd)
 {
var letters = /^[0-9a-zA-Z]+$/;
if(uadd.value.match(letters))
{
return true;
} else
{
alert('User address must have alphanumeric characters only');
uadd.focus();
return false;  }  }
```

JavaScript code for validating country

```javascript
function countryselect(ucountry)
{
if(ucountry.value == "Default")
{
alert('Select your country from the list');
ucountry.focus();
return false;
}
else
{
return true;  }  }
```

JavaScript code for validating ZIP code

```javascript
function allnumeric(uzip)
{
var numbers = /^[0-9]+$/;
if(uzip.value.match(numbers))
{
return true;
}
else
{
alert('ZIP code must have numeric characters only');
uzip.focus();
return false;
}
}
```

JavaScript code for validating email format

```javascript
function ValidateEmail(uemail)
{
var mailformat = /^([a-zA-Z0-9_\.\-])+\@(([a-zA-Z0-9\-])+\.)+([a-zA-Z0-9]{2,4})+$/;
if(uemail.value.match(mailformat))
{
return true;  }
else  {
alert("You have entered an invalid email address!");
uemail.focus();
return false;  }  }
```

JavaScript code for validating gender

```javascript
function validgender(ugender)
{
var isChecked = false;
  for (var i = 0; i < ugender.length; i++) {
    if (ugender[i].checked) {
      isChecked = true;  // found one element checked
          break;
    }
  }
  if(isChecked==false)
  {
  alert("Select male/female");
  }
  return isChecked;  }
```

Registration Form

Use tab keys to move from one input field to the next.

User id:

Password:

Name:

Address:

Message from webpage

⚠ User Id should not be empty / length be between 5 to 12

OK

Country:

ZIP Code

Email:

Sex: ○ Male
       ○ Female

Language: ☑ English
           ☐ Non English

About:

Submit

Registration Form

Use tab keys to move from one input field to the next.

User id: kjlkjlj

Password: •••••••

Name: kkkkk

Address: adfdf

Country: (Please sel

ZIP Code:

Email:

Message from webpage

⚠️ Select your country from the list

OK

Sex: ○ Male
○ Female

Language: ☑ English
☐ Non English

About:

Submit

The Computer Gal Account Sign Up

First Name

Last Name

User Name
(4 to 15 letters)

Password
(up to 10 letters)

Email Address

Sign Up!

Home

Write validation functions and modify the onSubmit event Handler in the form code to validate the following form fields:

- Member number
  - Must be entered
  - Must be a number

- Password
  - Must be entered
  - Must be longer than 4 characters

- If an error occurs, use an alert box to display an error message for the first field in error and place the cursor in the first field in error.

Logon to Discount Delight's

Logon to our secure Web server to access Discount Delight's amazing deals!

The current date is: 11/14/2008

Member Number (from your membership card)

Password

Submit   Reset

1.   Create a form that includes 2 textboxes (one for name, one for email address), a textarea, a dropdown box (<select> tag), a set of radio buttons, a set of checkboxes, and a button that submits the form input and a button that clears it. Format the form using a table. The ACTION attribute of the form tag should be to email the form results to your email address.

2.   Add a JavaScript event handler to the form to determine whether the user input on the form is valid in the following ways. Feel free to do add additional criteria. Form validation should occur when the user clicks the button to submit the user input.

   a)   Validate that an entry has been made in each form element - textbox, textarea, dropdown box , radio buttons, checkboxes

   b)   If the user input for a particular form element fails the test in part 2, display a message in red text in the page (not a separate window) indicating the problem. When the user clicks the submit button, all the deficiencies in the form should be displayed.

   c)   If there are deficiencies in the form, the form input should not be emailed.

   d)   If the user changes the form input and clicks the submit button again, the validation described in part two above should occur again, with only the remaining deficiencies displayed.

Form with Name Validation

Please enter your name: [_____]

Please enter your birth year: [_____]

Where do you live? [Choose one ▼]

What is your class year?
- ○ 2010
- ○ 2011
- ○ 2012
- ○ 2013

What were your favorite things about Wellesley? (Choose 1 to 3):

0. ☐ close friends
1. ☐ awesome professors
2. ☐ exciting classes
3. ☐ great sports teams
4. ☐ clubs, orgs, and other extra-curriculars
5. ☐ proximity to Boston (Harvard, MIT ...)
6. ☐ women's college

[Reset] [Click Here to Submit]

R.Vijayan/ Associate Professor / SITE /VIT University