

Unit-5

Event Handling and Validating Forms

Event Handling

- A JavaScript can be executed when an event occurs, like when a user clicks on an HTML element.
- List of Events
 - Onchange()
 - Onclick()
 - Onmouseover()
 - Onmouseout()
 - Onkeydown()
 - onload()
 - Onblur()
 - Onfocus()
 - onselect()

Onchange()

- The onchange event is often used in combination with validation of input fields.

OnClick()

- The user clicks an HTML element, onclick() event will call.

Onmouseover() & onmouseout()

- Execute a JavaScript when moving the mouse pointer onto an element.

onkeydown()

- The onkeydown event occurs when the user is pressing a key (on the keyboard).
- The order of events related to the onkeydown event
 - onkeydown
 - onkeypress
 - Onkeyup
- Syntax

In HTML:

```
<element onkeydown="myScript">
```

In JavaScript:

```
object.onkeydown=function(){myScript};
```

onload()

- The onload event occurs when an object has been loaded.
- onload is most often used within the <body> element to execute a script once a web page has completely loaded all content (including images, script files, CSS files, etc.).
- The onload event can be used to check the visitor's browser type and browser version, and load the proper version of the web page based on the information.

Onfocus() & onblur()

- The onfocus event occurs when an element gets focus.
- The onfocus event is most often used with `<input>`, `<select>`, and `<a>`.
- The onblur event occurs when an object loses focus.
- The onblur event is most often used with form validation code (e.g. when the user leaves a form field).

Onselect()

- The onselect event occurs after some text has been selected in an element.
- The onselect event is mostly used on `<input type="text">` or `<textarea>` elements.

Form Used by Website

- An HTML Form object provides data gathering functionality to a web page.
- HTML Form provide a full rang of GUI controls. Additionally HTML forms can automatically submit data collected in its controls to a web server.
- The data submitted can be processed at the web server by CGI programs.
- Java Script allows the validation of data entered into a form at the client side.
- Java Script can be used to ensure that only valid data is returned to a web server for further processing.

Form Object

- An HTML Form object provides data gathering functionality to a web page.
- In interactive web page, user input is captured in a **Form**.
- HTML provides the `<Form> </Form>` tags with which an HTML form can be created to capture user input.
- As soon as the `<Form>...</Form>` tags are encountered in a HTML program by a Java Script enabled browser, the browser creates a '*forms array*' in memory.
- The first form object described in the HTML file being held as array index[0], the second form object described in the HTML file being held in the array index[1] and so on.
- Common HTML objects used are **Text**, **TextArea**, **Radio Buttons** etc.

TEXT ELEMENT

- Text element are data entry fields used in HTML forms
- Properties
 - Name
 - value
- Methods / Event
 - onFocus()
 - onBlur()
 - onSelect()
 - onChange()
- Syntax

```
<input Name="txt_age" Type="Text" Value="20"/>
```

PASSWORD ELEMENT

- Password element is a unique type of text entry field. All keystrokes for this field are displayed as an asterisk[*]
- Properties
 - Default Value
 - Name
 - value
- Methods / Event
 - onFocus()
 - onBlur()
 - onSelect()
 - onChange()
- Syntax

```
<input Name="txt_age" Type="password"/>
```

BUTTON ELEMENT

- Button element is a commonly used form object. It is a generally used to trigger appropriate form level processing.
- Properties
 - Name
 - value
- Methods / Event
 - onClick()
- Syntax

```
<input Name="txt_age" Type="Button" Value="Click Me"/>
```

SUBMIT BUTTON ELEMENT

- Submit button is a special purpose button. The submit button submits the current data held in each form element to a web server for further processing.
- Properties
 - Name
 - value
- Methods / Event
 - onClick()
- Syntax

```
<input Name="txt_age" Type="Submit" Value="Click Me"/>
```

RESET BUTTON ELEMENT

- Submit button is a special purpose button. When reset button pressed each data aware form object will be reset to their default values. All user input values will be initialized.
- Properties
 - Name
 - value
- Methods / Event
 - onClick()
- Syntax

```
<input Name="txt_age" Type="reset" Value="Click Me"/>
```


CHECK BOX ELEMENT

- A check box is an HTML form object that behaves as a toggle switch.
- Properties
 - Name
 - value
- Methods / Event
 - onClick()
- Syntax

```
<input Name="txt_age" Type="checkbox" Value="yes"/>
```

RADIO ELEMENT

- The radio button element has two states and can toggle between them.
- Properties
 - Checked
 - Index
 - Length
 - name
- Methods / Event
 - onClick()
- Syntax

```
<input      Name="txt_age"      Type="radio"      value="1"  
checked="checked"/>
```

TEXT AREA ELEMENT

- The texarea from element provides a way to create a multiple line can be placed on an HTML form.
- Properties
 - Default checked
 - Name
 - value
- Methods / Event
 - onFocus()
 - onBlur()
 - onSelect()
- Syntax

```
<input Name="txt_age" Type="TextArea" row="10" cols="25"/>
```

SELECT & OPTION ELEMENT

- A Select object on an HTML form appears as drop down list or a scrollable list of selectable items.
- Properties
 - selectedIndex
 - defaultSelected
 - index
 - selected
 - text
 - value
- Methods / Event
 - onFocus()
 - onBlur()
 - onChange()