

CHAPTER 9 - JS FORMS & EVENTS

JS Form Validation

HTML Form Validation can be done by JavaScript.

```
i.e.- function validateForm() {  
    let x = document.forms["myForm"]["fname"].value;  
    if (x == "") {  
        alert("Name must be filled out");  
        return false;  
    }  
}
```

HTML Form Example

```
<form name="myForm" action="/action_page.php"  
onsubmit="return validateForm()" method="post">  
Name: <input type="text" name="fname">  
<input type="submit" value="Submit">  
</form>
```

Note – HTML form validation can be performed automatically by the browser.

Data Validation

Data Validation is the process of ensuring that user input is clean, correct, and useful. Typical Validation tasks are:

- Has the user filled in all required fields?
- Has the user entered a valid date?
- Has the user entered text in numeric field?

Validation can be defined by many different methods, & deployed in many different ways.

- Server side validation is performed by a web server, after input has been sent to the server.
- Client side validation is performed by a web browser, before input is sent to a web server.

JS HTML DOM Events

HTML DOM allows JS to react to HTML events:

Examples of HTML events:

- When a user clicks the mouse.
- When a web page has loaded.
- When an image has been loaded.
- When the mouse moves over an element.
- When an input field is changed.
- When an HTML form is submitted.
- When a user strokes a key

e.g.- `<!DOCTYPE html>`

`<html>`

`<body>`

`<h1 onclick="this.innerHTML = 'Oops!'">Click on this text!</h1>`

`</body>`

`</html>`

Assign Events Using the HTML DOM

- ✓ The onload & onunload Events.
- ✓ The onchange Event
- ✓ The onmouseover & onmouseout Events.
- ✓ The onmousedown, onmouseup and onclick Events.

JS HTML DOM EventListener

▪ The addEventListener() method

e.g.- `document.getElementById("myBtn").addEventListener("click", displayDate);`

▪ The removeEventListener() method

e.g.- `element.removeEventListener("mousemove", myFunction);`