**LAB NO.2**

**JavaScript Forms and Validation**

**What is JavaScript**

JavaScript is a dynamic computer programming language. It is lightweight and most commonly used as a part of web pages, whose implementations allow client-side script to interact with the user and make dynamic pages. It is an interpreted programming language with object-oriented capabilities.

## **Advantages of JavaScript**

* **Less server interaction −** You can validate user input before sending the page off to the server. This saves server traffic, which means less load on your server.
* **Immediate feedback to the visitors −** They don't have to wait for a page reload to see if they have forgotten to enter something.
* **Increased interactivity −** You can create interfaces that react when the user hovers over them with a mouse or activates them via the keyboard.

**HTML with JavaScript Form**

Forms are used in web pages for the user to enter their required details that are further sends it to the server for processing. A form is also known as web form or HTML form. Examples of form use are prevalent in e-commerce websites, online banking, online surveys.

## **JavaScript Form Validation**

* HTML form validation can be done by JavaScript.
* If a form field (fname) is empty, this function alerts a message, and returns false, to prevent the form from being submitted:

### **JavaScript Validation Syntax Example**

function validateForm() {

var x = document.forms["myForm"]["fname"].value;

if (x == "") {

alert("Name must be filled out");

return false;

}

} This validation function applied to the HTML form to validate the fields given in Form if field remain empty then browser will alert to fill the required field and **Return false** :execution stopped

**HTML FORM**

<body>

<h1 style="text-align: center"> REGISTRATION FORM </h1>

<form name="RegForm" action="/submit.php" onsubmit="return ValidateForm()" method="post"> On submit, send the form-data to a file named "/action\_page.php" (to process the input):**POST** is used to send data to a server to create/update a resource.

<p>Name: <input type="text" size=65 name="Name"> </p><br>

<p> Address: <input type="text" size=65 name="Address"> </p><br>

<p>E-mail Address: <input type="text" size=65 name="EMail"> </p><br>

<p>Password: <input type="text" size=65 name="Password"> </p><br>

<p>Telephone: <input type="text" size=65 name="Telephone"> </p><br>

<p>SELECT YOUR COURSE

<select type="text" value="" name="Subject">

<option>BTECH</option>

<option>BBA</option>

<option>BS</option>

<option>B.COM</option>

<option>B.E</option>

</select></p><br><br>

<p>Comments: <textarea cols="55" name="Comment"> </textarea></p>

<p><input type="submit" value="send" name="Submit">

<input type="reset" value="Reset" name="Reset">

</p>

</form>

</body>

**Validating a form**

The data entered into a form needs to be in the right format and certain fields need to be filled in order to effectively use the submitted form. Username, password, contact information are some details that are mandatory in forms and thus need to be provided by the user.

**Form validation**

<script>

function ValidateForm()

{

var name = document.forms["RegForm"]["Name"];

var email = document.forms["RegForm"]["EMail"];

var phone = document.forms["RegForm"]["Telephone"];

var what = document.forms["RegForm"]["Subject"];

var password = document.forms["RegForm"]["Password"];

var address = document.forms["RegForm"]["Address"];

if (name.value == "")

{

window.alert("Please enter your name.");

name.focus();The focus() method is used to give focus to an element (if it can be focused).

return false;

}

if (address.value == "")

{

window.alert("Please enter your address.");

name.focus();

return false;

}

if (email.value == "")

{

window.alert("Please enter a valid e-mail address.");

email.focus();

return false;

}

if (email.value.indexOf("@", 0) < 0) E-mail must be as this format: Abc@gmail.com

{

window.alert("Please enter a valid e-mail address.");

email.focus();

return false;

}

if (email.value.indexOf(".", 0) < 0)

{

window.alert("Please enter a valid e-mail address.");

email.focus();

return false;

}

if (phone.value == "")

{

window.alert("Please enter your telephone number.");

phone.focus();

return false;

}

if (password.value == "")

{

window.alert("Please enter your password");

password.focus();

return false;

}

if (what.selectedIndex < 1)

{

alert("Please enter your course.");

what.focus();

return false;

}

return true;

}</script>

**Styling the form**

ValidateForm {

margin-left: 70px;

font-weight: bold ;

float: left;

clear: left;

width: 100px;

text-align: left;

margin-right: 10px;

font-family:sans-serif,bold, Arial, Helvetica;

font-size:14px;

}

div {

box-sizing: border-box;

width: 100%;

border: 100px solid black;

float: left;

align-content: center;

align-items: center;

}

form {

margin: 0 auto;

width: 600px;

}</style>

**COMBINED CODE**

<html>

<head>

<script>

function ValidateForm()

{

var name = document.forms["RegForm"]["Name"];

var email = document.forms["RegForm"]["EMail"];

var phone = document.forms["RegForm"]["Telephone"];

var what = document.forms["RegForm"]["Subject"];

var password = document.forms["RegForm"]["Password"];

var address = document.forms["RegForm"]["Address"];

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{

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}

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</html>

**LAB TASKS**

1. Create a simple Registration Form for Admission in SSUET also validate it .Also apply CSS where necessary.