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| **Exp no: 02**  **Date:** | **Client-Side Form Validation Using JavaScript for a User Registration Page** |

**Aim:**

To write JavaScript code that performs client-side validation for the fields of a registration page, ensuring the user inputs correct and complete information before form submission.

**Algorithm:**

Start the HTML document with a form containing input fields such as:

* Name
* Email
* Password
* Confirm Password
* Phone Number
* Gender (radio buttons)
* Terms & Conditions (checkbox)
* Assign a unique id or name to each input field.
* Create a JavaScript function (e.g., validateForm()) that:
* Retrieves input values using document.getElementById() or form.field.value.
* Checks:
  + If Name is not empty.
  + If Email matches a valid format using a regex.
  + If Password meets minimum length (e.g., 6+ characters).
  + If Confirm Password matches the Password.
  + If Phone number contains exactly 10 digits.
  + If Gender is selected.
  + If Terms and Conditions are accepted.
* If any validation fails:
* Display an error message using alert() or inner HTML.
* Prevent form submission using return false.
* Attach the validateForm() function to the form’s onsubmit event.
* Test the form in a browser with various input cases.
* End.

**HTML CODE:**

Index.html:

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Registration Form</title>

    <link rel="stylesheet" href="styles.css">

    <script src="script.js" defer></script>

</head>

<body>

    <div class="container">

        <h2>Registration Form</h2>

        <form onsubmit="return validateForm()">

            <input type="text" id="firstName" placeholder="First Name">

            <div class="error" id="firstNameError"></div>

            <input type="text" id="lastName" placeholder="Last Name">

            <div class="error" id="lastNameError"></div>

            <input type="password" id="password" placeholder="Password">

            <div class="error" id="passwordError"></div>

            <input type="email" id="email" placeholder="Email">

            <div class="error" id="emailError"></div>

            <input type="text" id="mobile" placeholder="Mobile Number">

            <div class="error" id="mobileError"></div>

            <input type="text" id="address" placeholder="Address">

            <div class="error" id="addressError"></div>

            <button type="submit">Register</button>

        </form>

    </div>

</body>

</html>

**CSS CODE:**

body {

    font-family: Arial, sans-serif;

    background-color: #f4f4f9;

    display: flex;

    justify-content: center;

    align-items: center;

    height: 100vh;

    margin: 0;

    color: #333;

}

.container {

    background-color: #ffffff;

    padding: 30px;

    border-radius: 15px;

    box-shadow: 0 8px 16px rgba(0, 0, 0, 0.2);

    max-width: 400px;

    width: 100%;

    text-align: center;

    transition: transform 0.3s;

}

.container:hover {

    transform: translateY(-5px);

}

h2 {

    margin-bottom: 20px;

    color: #4a4a4a;

    font-size: 1.8em;

    font-weight: 600;

}

input {

    width: 100%;

    padding: 12px;

    margin: 10px 0;

    box-sizing: border-box;

    border: 1px solid #ccc;

    border-radius: 8px;

    outline: none;

    transition: border-color 0.3s, box-shadow 0.3s;

    font-size: 1em;

    color: #333;

}

input:focus {

    border-color: #28a745;

    box-shadow: 0 0 8px rgba(40, 167, 69, 0.3);

}

button {

    background-color: #28a745;

    color: white;

    padding: 12px;

    width: 100%;

    border: none;

    border-radius: 8px;

    cursor: pointer;

    font-size: 1em;

    margin-top: 15px;

    transition: background-color 0.3s, transform 0.3s;

}

button:hover {

    background-color: #218838;

    transform: translateY(-2px);

}

button:active {

    background-color: #1e7e34;

    transform: translateY(0);

}

.error {

    color: red;

    font-size: 0.9em;

    margin-top: -8px;

    margin-bottom: 8px;

    text-align: left;

    padding-left: 5px;

}

**Java Script Code:**

body {

    font-family: Arial, sans-serif;

    background-color: #f4f4f9;

    display: flex;

    justify-content: center;

    align-items: center;

    height: 100vh;

    margin: 0;

    color: #333;

}

.container {

    background-color: #ffffff;

    padding: 30px;

    border-radius: 15px;

    box-shadow: 0 8px 16px rgba(0, 0, 0, 0.2);

    max-width: 400px;

    width: 100%;

    text-align: center;

    transition: transform 0.3s;

}

.container:hover {

    transform: translateY(-5px);

}

h2 {

    margin-bottom: 20px;

    color: #4a4a4a;

    font-size: 1.8em;

    font-weight: 600;

}

input {

    width: 100%;

    padding: 12px;

    margin: 10px 0;

    box-sizing: border-box;

    border: 1px solid #ccc;

    border-radius: 8px;

    outline: none;

    transition: border-color 0.3s, box-shadow 0.3s;

    font-size: 1em;

    color: #333;

}

input:focus {

    border-color: #28a745;

    box-shadow: 0 0 8px rgba(40, 167, 69, 0.3);

}

button {

    background-color: #28a745;

    color: white;

    padding: 12px;

    width: 100%;

    border: none;

    border-radius: 8px;

    cursor: pointer;

    font-size: 1em;

    margin-top: 15px;

    transition: background-color 0.3s, transform 0.3s;

}

button:hover {

    background-color: #218838;

    transform: translateY(-2px);

}

button:active {

    background-color: #1e7e34;

    transform: translateY(0);

}function validateForm() {

    let valid = true;

    // First Name Validation

    const firstName = document.getElementById('firstName').value;

    if (!/^[A-Za-z]{6,}$/.test(firstName)) {

        document.getElementById('firstNameError').innerText = 'First name must be at least 6 alphabets.';

        valid = false;

    } else {

        document.getElementById('firstNameError').innerText = '';

    }

    // Last Name Validation

    const lastName = document.getElementById('lastName').value;

    if (lastName === '') {

        document.getElementById('lastNameError').innerText = 'Last name cannot be empty.';

        valid = false;

    } else {

        document.getElementById('lastNameError').innerText = '';

    }

    // Password Validation

    const password = document.getElementById('password').value;

    if (password.length < 6) {

        document.getElementById('passwordError').innerText = 'Password must be at least 6 characters long.';

        valid = false;

    } else {

        document.getElementById('passwordError').innerText = '';

    }

    // Email Validation

    const email = document.getElementById('email').value;

    const emailPattern = /^[a-zA-Z0-9.\_%+-]+@[a-zA-Z0-9.-]+\.[a-zA-Z]{2,}$/;

    if (!emailPattern.test(email)) {

        document.getElementById('emailError').innerText = 'Invalid email format.';

        valid = false;

    } else {

        document.getElementById('emailError').innerText = '';

    }

    // Mobile Number Validation

    const mobile = document.getElementById('mobile').value;

    if (!/^[0-9]{10}$/.test(mobile)) {

        document.getElementById('mobileError').innerText = 'Mobile number must be 10 digits.';

        valid = false;

    } else {

        document.getElementById('mobileError').innerText = '';

    }

    // Address Validation

    const address = document.getElementById('address').value;

    if (address === '') {

        document.getElementById('addressError').innerText = 'Address cannot be empty.';

        valid = false;

    } else {

        document.getElementById('addressError').innerText = '';

    }

    return valid;

}

.error {

    color: red;

    font-size: 0.9em;

    margin-top: -8px;

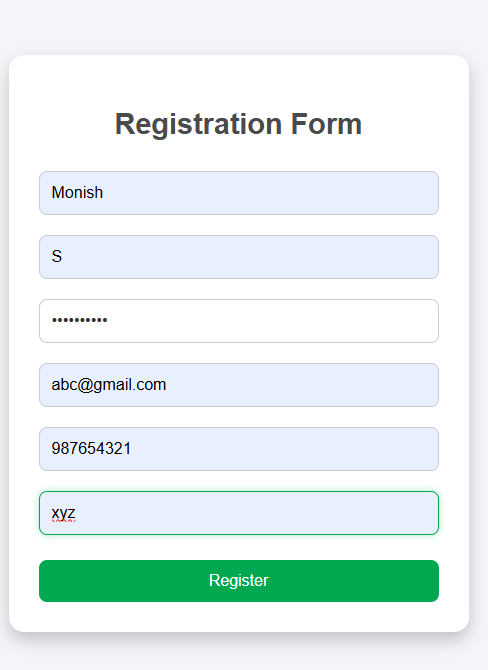
    margin-bottom: 8px;

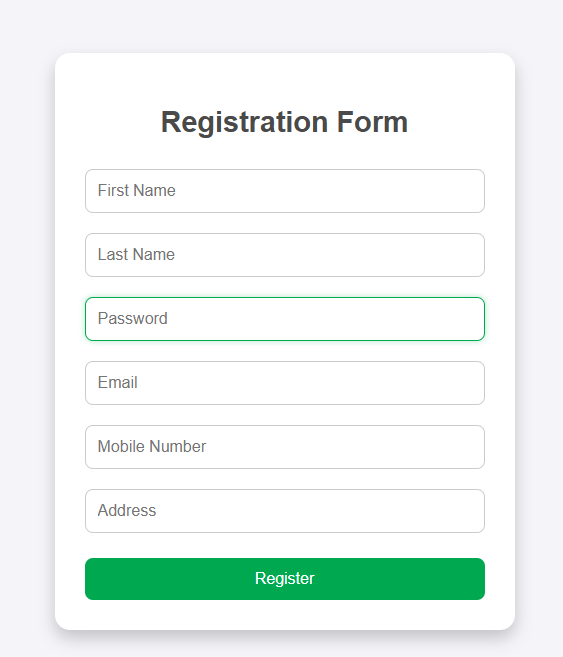
    text-align: left;

    padding-left: 5px;

}

**Output:**





**Result:**

Thus the required web page has been successfully implemented using HTML and CSS.