**DEPARTMENT OF INFORMATION TECHNOLOGY**

**COURSE CODE: DJS22ITL307 DATE: 3/11/23**

**COURSE NAME: Web Programming Laboratory CLASS: SY BTech**

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**EXPERIMENT NO. 5**

**CO/LO**: Develop web applications.

**AIM / OBJECTIVE:** Java Script: Form Validation using JavaScript.

**DESCRIPTION OF EXPERIMENT:**

Explain all the validations used in the experiment.

1. Full Name Validation:

   - Checks if the full name field is not empty.

2. Username Validation:

   - Ensures that the username field is not empty.

3. Email Validation:

   - Verifies if the email address is in a valid format using a regular expression.

4. Phone Number Validation:

   - Validates that the phone number consists of 10 digits using a regular expression.

5. Date of Birth Validation:

   - Requires the user to enter a date of birth.

6. Password Validation:

   - Ensures that the password field is not empty.

7. Confirm Password Validation:

   - Checks if the confirm password field is not empty and matches the password field.

8. Gender Validation:

   - Requires the user to select a gender.

9. City Validation:

   - Ensures that a city is selected from the dropdown.

10. Nationality Validation:

    - Requires the user to select a nationality from the dropdown.

11. Address Validation:

    - Validates that the address field is not empty.

12. Father's Name Validation:

    - Ensures that the father's name field is not empty.

13. Mother's Name Validation:

    - Validates that the mother's name field is not empty.

**SOURCE CODE:**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

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

    <link href="https://cdn.jsdelivr.net/npm/tailwindcss@2.2.19/dist/tailwind.min.css" rel="stylesheet">

    <title>Styled Form with Tailwind CSS</title>

</head>

<body class="bg-gray-200 flex items-center justify-center h-screen">

    <div class="max-w-md w-full bg-white p-6 rounded-md shadow-md">

        <form id="myForm" class="space-y-4">

            <h2 class="text-2xl font-semibold mb-4">User Registration</h2>

            <!-- Basic Information -->

            <div class="grid grid-cols-1 md:grid-cols-2 gap-4">

                <div>

                    <label for="fullName" class="block text-sm font-medium text-gray-600">Full Name:</label>

                    <input type="text" id="fullName" name="fullName" class="form-input mt-1">

                </div>

                <div>

                    <label for="username" class="block text-sm font-medium text-gray-600">Username:</label>

                    <input type="text" id="username" name="username" class="form-input mt-1">

                </div>

            </div>

            <div>

                <label for="email" class="block text-sm font-medium text-gray-600">Email:</label>

                <input type="email" id="email" name="email" class="form-input mt-1">

            </div>

            <div>

                <label for="phone" class="block text-sm font-medium text-gray-600">Phone No:</label>

                <input type="tel" id="phone" name="phone" class="form-input mt-1">

            </div>

            <div>

                <label for="dob" class="block text-sm font-medium text-gray-600">Date of Birth:</label>

                <input type="date" id="dob" name="dob" class="form-input mt-1">

            </div>

            <div>

                <label for="password" class="block text-sm font-medium text-gray-600">Password:</label>

                <input type="password" id="password" name="password" class="form-input mt-1">

            </div>

            <div>

                <label for="confirmPassword" class="block text-sm font-medium text-gray-600">Confirm Password:</label>

                <input type="password" id="confirmPassword" name="confirmPassword" class="form-input mt-1">

            </div>

            <div>

                <label class="block text-sm font-medium text-gray-600">Gender:</label>

                <div class="mt-1">

                    <input type="radio" id="male" name="gender" value="male" class="form-radio">

                    <label for="male" class="ml-2">Male</label>

                    <input type="radio" id="female" name="gender" value="female" class="form-radio ml-4">

                    <label for="female">Female</label>

                </div>

            </div>

            <button type="button" onclick="showNextSection()" class="bg-blue-500 text-white px-4 py-2 rounded-md mt-4">Next</button>

            <div id="additionalInfo" class="hidden mt-4">

                <div>

                    <label for="city" class="block text-sm font-medium text-gray-600">City:</label>

                    <select id="city" name="city" class="form-select mt-1">

                        <option value="" disabled selected>Select City</option>

                        <option value="city1">City 1</option>

                        <option value="city2">City 2</option>

                        <option value="city3">City 3</option>

                    </select>

                </div>

                <div>

                    <label for="nationality" class="block text-sm font-medium text-gray-600">Nationality:</label>

                    <select id="nationality" name="nationality" class="form-select mt-1">

                        <option value="" disabled selected>Select Nationality</option>

                        <option value="nationality1">Nationality 1</option>

                        <option value="nationality2">Nationality 2</option>

                        <option value="nationality3">Nationality 3</option>

                    </select>

                </div>

                <div>

                    <label for="address" class="block text-sm font-medium text-gray-600">Address:</label>

                    <textarea id="address" name="address" class="form-textarea mt-1"></textarea>

                </div>

                <div class="grid grid-cols-1 md:grid-cols-2 gap-4">

                    <div>

                        <label for="fatherName" class="block text-sm font-medium text-gray-600">Father's Name:</label>

                        <input type="text" id="fatherName" name="fatherName" class="form-input mt-1">

                    </div>

                    <div>

                        <label for="motherName" class="block text-sm font-medium text-gray-600">Mother's Name:</label>

                        <input type="text" id="motherName" name="motherName" class="form-input mt-1">

                    </div>

                </div>

                <div class="flex justify-between mt-4">

                    <button type="button" onclick="showPreviousSection()" class="bg-gray-400 text-white px-4 py-2 rounded-md">Back</button>

                    <button type="submit" class="bg-green-500 text-white px-4 py-2 rounded-md">Submit</button>

                </div>

            </div>

        </form>

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

    </div>

</body>

</html>

**Script.js**function showNextSection() {

    document.getElementById('additionalInfo').classList.remove('hidden');

}

function showPreviousSection() {

    document.getElementById('additionalInfo').classList.add('hidden');

}

document.getElementById('myForm').addEventListener('submit', function (event) {

    var isValid = validateForm();

    if (!isValid) {

        event.preventDefault();

    }

});

function validateForm() {

    var fullName = document.getElementById('fullName').value;

    var username = document.getElementById('username').value;

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

    var phone = document.getElementById('phone').value;

    var dob = document.getElementById('dob').value;

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

    var confirmPassword = document.getElementById('confirmPassword').value;

    var gender = document.querySelector('input[name="gender"]:checked');

    var city = document.getElementById('city').value;

    var nationality = document.getElementById('nationality').value;

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

    var fatherName = document.getElementById('fatherName').value;

    var motherName = document.getElementById('motherName').value;

    if (fullName === '') {

        alert('Please enter your full name.');

        return false;

    }

    if (username === '') {

        alert('Please enter a username.');

        return false;

    }

    var emailRegex = /^[^\s@]+@[^\s@]+\.[^\s@]+$/;

    if (!emailRegex.test(email)) {

        alert('Please enter a valid email address.');

        return false;

    }

    var phoneRegex = /^\d{10}$/;

    if (!phoneRegex.test(phone)) {

        alert('Please enter a valid 10-digit phone number.');

        return false;

    }

    if (dob === '') {

        alert('Please enter your date of birth.');

        return false;

    }

    if (password === '') {

        alert('Please enter a password.');

        return false;

    }

    if (confirmPassword === '' || confirmPassword !== password) {

        alert('Passwords do not match.');

        return false;

    }

    if (!gender) {

        alert('Please select your gender.');

        return false;

    }

    if (city === '') {

        alert('Please select your city.');

        return false;

    }

    if (nationality === '') {

        alert('Please select your nationality.');

        return false;

    }

    if (address === '') {

        alert('Please enter your address.');

        return false;

    }

    if (fatherName === '') {

        alert('Please enter your father\'s name.');

        return false;

    }

    if (motherName === '') {

        alert('Please enter your mother\'s name.');

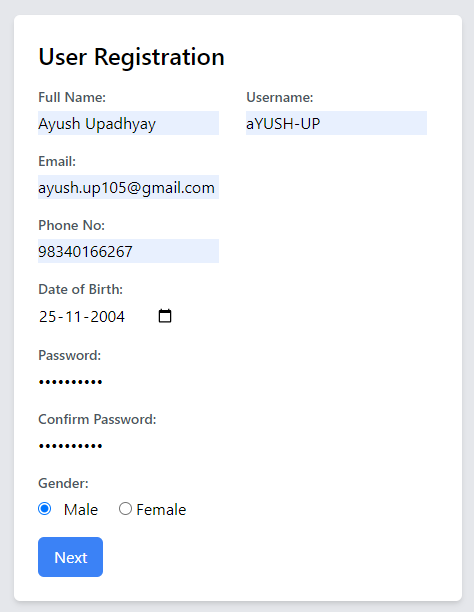
        return false;

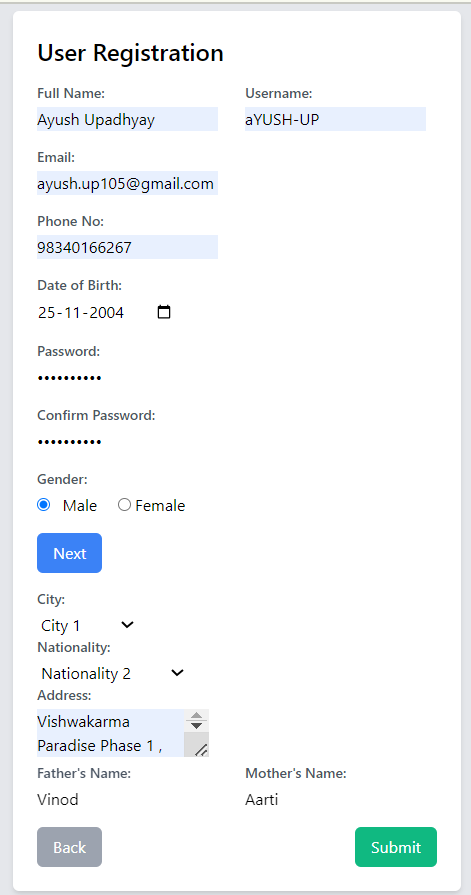
    }

    return true;

}

**OUTPUT:**

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**CONCLUSIONS:** In this assignment, I learned the essential aspects of form validation using JavaScript. I gained hands-on experience implementing validations for various input fields such as text, email, phone number, and password. Understanding the importance of both client-side and server-side validation became evident, and I realized the significance of providing clear and user-friendly error messages. Moreover, the assignment highlighted the need for a systematic and organized approach to validating different types of user inputs, ensuring data integrity and enhancing the overall user experience on web forms.

**REFERENCE:** MDN, W3Schools, Stack Overflow, Tailwind docs