

Alphonz George

T11-03

ASSIGNMENT 7

1. AIM

To design an HTML5 form and validate it using JavaScript, ensuring proper input handling and feedback.

2. LABOUTCOME

Design an HTML5 form with various input types.

Apply JavaScript to validate the form.

Understand clientside validation and improve user experience.

3. THEORY

HTML5 Forms: HTML5 introduces new form elements and attributes, such as `

Validation: Validation helps in controlling user input to ensure the data's accuracy. HTML5 supports some builtin validation (like `required`, `min`, `max`, `pattern`), but JavaScript can provide more complex validation logic to check conditions such as password strength, email format, etc.

4. PROGRAM

```
<!DOCTYPE html>

<html lang="en">

<head>

  <meta charset="UTF-8">

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

  <title>HTML5 Form Validation</title>

  <style>

    /* Basic reset and body styling */

    * {
```

```
    box-sizing: border-box;

    margin: 0;

    padding: 0;

    font-family: Arial, sans-serif;
}
```

```
body {

    background-color: #f0f2f5;

    display: flex;

    justify-content: center;

    align-items: center;

    height: 100vh;

    margin: 0;
}
```

```
.form-container {

    background: #fff;

    padding: 30px;

    border-radius: 10px;

    box-shadow: 0 4px 10px rgba(0, 0, 0, 0.2);

    max-width: 400px;

    width: 100%;

    margin-top: 20px;
}
```

```
h2 {

    text-align: center;

    color: #333;

    margin-bottom: 20px;
}
```

```
}
```

```
label {
```

```
    display: block;
```

```
    font-size: 14px;
```

```
    color: #555;
```

```
    margin-top: 10px;
```

```
}
```

```
input[type="text"], input[type="email"], input[type="password"], input[type="date"] {
```

```
    width: 100%;
```

```
    padding: 12px;
```

```
    margin-top: 5px;
```

```
    border: 1px solid #ddd;
```

```
    border-radius: 5px;
```

```
    font-size: 14px;
```

```
}
```

```
    input[type="text"]:focus, input[type="email"]:focus, input[type="password"]:focus,  
input[type="date"]:focus {
```

```
        border-color: #00aaff;
```

```
        outline: none;
```

```
}
```

```
button {
```

```
    width: 100%;
```

```
    padding: 12px;
```

```
    background-color: #28a745;
```

```
    color: #fff;
```

```
border: none;

border-radius: 5px;

font-size: 16px;

cursor: pointer;

margin-top: 20px;

}
```

```
button:hover {

    background-color: #218838;

}
```

```
.error {

    color: red;

    font-size: 0.9em;

    margin-top: 5px;

}
```

```
</style>
```

```
</head>
```

```
<body>
```

```
<div class="form-container">
```

```
<form id="registrationForm" onsubmit="return validateForm()">
```

```
<h2>Registration Form</h2>
```

```
<label for="name">Full Name:</label>
```

```
<input type="text" id="name" placeholder="Enter your name" required>
```

```
<span id="nameError" class="error"></span>
```

```
<label for="email">Email:</label>
```

```
<input type="email" id="email" placeholder="Enter your email" required>
```

```
<span id="emailError" class="error"></span>
```

```
<label for="password">Password:</label>
```

```
<input type="password" id="password" placeholder="Enter your password" required>
```

```
<span id="passwordError" class="error"></span>
```

```
<label for="dob">Date of Birth:</label>
```

```
<input type="date" id="dob" required>
```

```
<span id="dobError" class="error"></span>
```

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

```
</form>
```

```
</div>
```

```
<script>
```

```
function validateForm() {
```

```
    let isValid = true;
```

```
    const name = document.getElementById('name').value;
```

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

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

```
    const dob = document.getElementById('dob').value;
```

```
    const nameError = document.getElementById('nameError');
```

```
    const emailError = document.getElementById('emailError');
```

```
    const passwordError = document.getElementById('passwordError');
```

```
    const dobError = document.getElementById('dobError');
```

```
    // Reset error messages
```

```
    nameError.innerText = '';
```

```
emailError.innerText = "";
passwordError.innerText = "";
dobError.innerText = "";

// Validate name
if (name.length < 3) {
    nameError.innerText = 'Name must be at least 3 characters long';
    isValid = false;
}

// Validate email
const emailPattern = /^[^ ]+@[^ ]+\.[a-z]{2,3}$/;
if (!emailPattern.test(email)) {
    emailError.innerText = 'Enter a valid email';
    isValid = false;
}

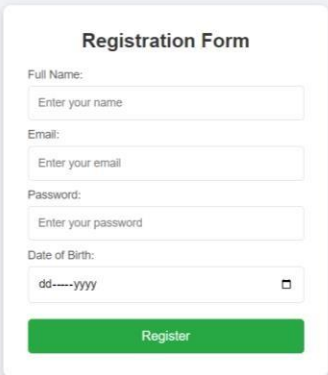
// Validate password
if (password.length < 6) {
    passwordError.innerText = 'Password must be at least 6 characters long';
    isValid = false;
}

// Validate date of birth
if (new Date(dob) > new Date()) {
    dobError.innerText = 'Date of birth cannot be in the future';
    isValid = false;
}
```

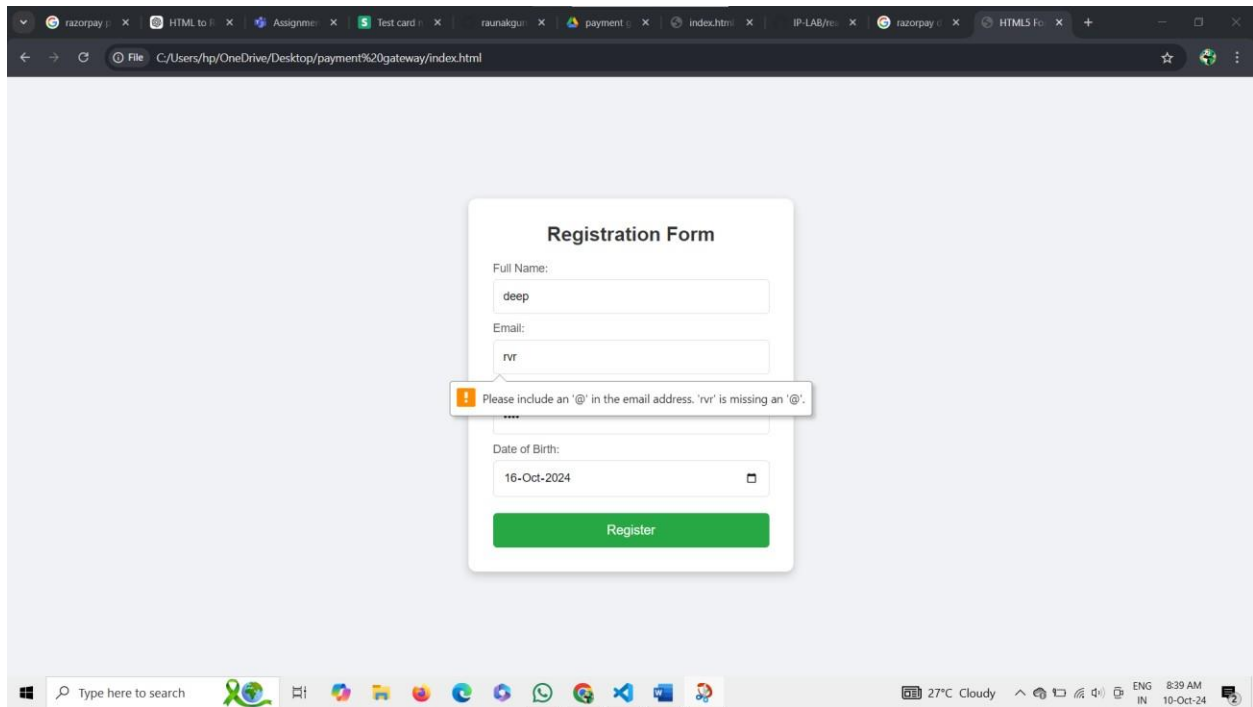
```
        return isValid;
    }
</script>
</body>
</html>
```

5. OUTPUT

Upon loading, the form will prompt the user to enter their Full Name, Email, Password, and Date of Birth. If the input does not meet validation criteria, error messages will be displayed beneath the relevant fields.



The image shows a registration form titled "Registration Form" centered on a light gray background. The form is a white card with rounded corners and a subtle shadow. It contains four input fields, each with a label above it: "Full Name:" with a placeholder "Enter your name", "Email:" with a placeholder "Enter your email", "Password:" with a placeholder "Enter your password", and "Date of Birth:" with a placeholder "dd-----yyyy" and a calendar icon. At the bottom of the form is a green button labeled "Register".



6. CONCLUSION

By creating this HTML5 form and implementing JavaScript for validation, we have enhanced user experience by ensuring data integrity directly within the client browser.

This approach reduces the chances of incorrect data submission, improves form usability, and showcases the benefits of integrating HTML5 and JavaScript for interactive web applications.