

Task 4: Complex Form Validation and Dynamic DOM Manipulation.

Objective : Extend form validation and implement dynamic updates to the DOM.

Code :

```
<!DOCTYPE html>

<html lang="en">

<head>

  <meta charset="UTF-8">

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

  <title>Complex Form Validation</title>

  <style>

    body {

      font-family: Arial, sans-serif;

      display: flex;

      flex-direction: column;

      align-items: center;

      justify-content: center;

      height: 100vh;

    }

    form {

      border: 1px solid #ccc;

      padding: 20px;

      width: 300px;

      border-radius: 10px;
```

```

        background-color: #f9f9f9;
    }
    input {
        width: 100%;
        padding: 8px;
        margin: 5px 0;
    }
    .error {
        color: red;
        font-size: 12px;
    }
    .success {
        color: green;
    }
</style>
</head>
<body>

<h2>Form Validation Example</h2>
<form id="signupForm">
    <label for="email">Email:</label>
    <input type="email" id="email" required>
    <p id="emailError" class="error"></p>

    <label for="password">Password:</label>
    <input type="password" id="password" required>

```

```
<p id="passwordStrength" class="error"></p>
```

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

```
</form>
```

```
<p id="message"></p>
```

```
<script>
```

```
document.getElementById("signupForm").addEventListener("submit",  
function(event) {
```

```
    event.preventDefault(); // Prevent page refresh
```

```
    let email = document.getElementById("email").value;
```

```
    let password = document.getElementById("password").value;
```

```
    let emailError = document.getElementById("emailError");
```

```
    let passwordStrength =  
document.getElementById("passwordStrength");
```

```
    let message = document.getElementById("message");
```

```
    emailError.textContent = "";
```

```
    passwordStrength.textContent = "";
```

```
    message.textContent = "";
```

```
    // Email validation
```

```
    if (!email.includes("@") || !email.includes(".")) {
```

```
        emailError.textContent = "Invalid email address!";
```

```

        return;
    }

    // Password validation

    let strongPassword = /^(?=.*[a-z])(?=.*[A-Z])(?=.*\d)(?=.*[@$!%*?&])[A-Za-z\d@$!%*?&]{8,}$/;

    if (!strongPassword.test(password)) {

        passwordStrength.textContent = "Password must be 8+
characters, include uppercase, number, and symbol.";

        return;
    }

    // If valid, update DOM dynamically

    message.textContent = "Form submitted successfully!";
    message.className = "success";
});

// Real-time password strength checker

document.getElementById("password").addEventListener("input",
function() {

    let password = this.value;

    let passwordStrength =
document.getElementById("passwordStrength");

    if (password.length < 8) {

        passwordStrength.textContent = "Weak password";

    } else {


```

```
        passwordStrength.textContent = "Strong password";  
        passwordStrength.className = "success";  
    }  
});  
</script>  
  
</body>  
</html>
```


Output :

Form Validation

Email

 Enter your email

Password

 Enter your password

Submit



Success!

Your form has been submitted successfully.

[Submit Another](#)