

JavaScript Form Validation

- It is important to validate the form submitted by the user because it can have inappropriate values. So, validation is must to authenticate user.
- JavaScript provides facility to validate the form on the client-side so data processing will be faster than server-side validation. Most of the web developers prefer JavaScript form validation.
- Through JavaScript, we can validate name, password, email, date, mobile numbers and more fields.

Before submitting data to the server, it is important to ensure all required form controls are filled out, in the correct format. This is called **client-side form validation**, and helps ensure data submitted matches the requirements set forth in the various form controls.

Data Validation

Data validation is the process of ensuring that user input is clean, correct, and useful.

Typical validation tasks are:

- has the user filled in all required fields?
- has the user entered a valid date?
- has the user entered text in a numeric field?

Most often, the purpose of data validation is to ensure correct user input.

Validation can be defined by many different methods, and deployed in many different ways.

- **Server side validation** is performed by a web server, after input has been sent to the server.
- **Client side validation** is performed by a web browser, before input is sent to a web server.

Some of the Attributes are,

Attribute	Description
disabled	Specifies that the input element should be disabled
max	Specifies the maximum value of an input element
min	Specifies the minimum value of an input element
pattern	Specifies the value pattern of an input element
required	Specifies that the input field requires an element
type	Specifies the type of an input element

Example,

```
<!DOCTYPE html>
<html>
<head>
  <title>Registration Form</title>
  <script>
    function validateForm() {
      var name = document.getElementById("name").value;
      var password = document.getElementById("password").value;
      var repassword = document.getElementById("repassword").value;
      var phone = document.getElementById("phone").value;

      // Validate name
      if (name === "") {
        alert("Name cannot be empty");
        return false;
      }

      // Validate password
      if (!/[A-Z]/.test(password) || !/\d/.test(password)) {
        alert("Password must contain at least one uppercase letter and one number");
        return false;
      }

      // Validate password and repassword match
      if (password !== repassword) {
        alert("Passwords do not match");
        return false;
      }

      // Validate phone number
      if (!/^([6-9]\d{9})$/.test(phone)) {
        alert("Invalid phone number. It should start with 6, 7, 8, or 9 and have a total of 10
digits.");
        return false;
      }

      return true;
    }
  </script>
</head>
<body>

<h2>Registration Form</h2>

<form action="submit.php" method="post" onsubmit="return validateForm()">
  <label for="name">Name:</label>
  <input type="text" id="name" name="name" required><br><br>

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

```
<input type="password" id="password" name="password" required><br><br>

<label for="repassword">Re-enter Password:</label>
<input type="password" id="repassword" name="repassword" required><br><br>

<label for="phone">Phone Number:</label>
<input type="tel" id="phone" name="phone" required><br><br>

<label for="email">Email:</label>
<input type="email" id="email" name="email" required><br><br>

<label for="country">Country:</label>
<select id="country" name="country">
  <option value="USA">USA</option>
  <option value="UK">UK</option>
  <option value="INDIA">INDIA</option>
</select><br><br>

<input type="submit" value="Submit">
</form>

</body>
</html>
```

Output,

Registration Form

Name:

Password:

Re-enter Password:

Phone Number:

Email:

Country: 

