8.7 jQuery Form Validation

paper towers - answered by Kevin Kenneth Daus

HTML validation

Attribute	Description	Sample code
`readonly`	- Specifies that an input field is read-only. - A read-only input field cannot be modified (however, a user can tab to it, highlight it, and copy the text from it). - The value of a read-only input field will be sent when	`<form>` `<label for="fname">First name:</label> ` `<input type="text" id="fname" name="fname" value="John" readonly>` ` ` `<label for="lname">Last name:</label> ` `<input type="text" id="lname" name="lname" value="Doe">` `</form>`

	submitting the form.	
`disabled`	• Specifies that an input field should be disabled. • A disabled input field is unusable and un-clickable. • The value of a disabled input field will not be sent when submitting the form.	`<form>` `<label for="fname">First name:</label> ` `<input type="text" id="fname" name="fname" value="John" disabled>` ` ` `<label for="lname">Last name:</label> ` `<input type="text" id="lname" name="lname" value="Doe">` `</form>`
`size`	• Specifies the visible width, in characters, of an input field. • This attribute works with the following input types: `text`, `search`, `tel`, `url`, `email`, and `password`.	`<form>` `<label for="fname">First name:</label> ` `<input type="text" id="fname" name="fname" size="50"> ` `<label for="pin">PIN:</label> ` `<input type="text" id="pin" name="pin" size="4">` `</form>`
`maxlength`	• Specifies the maximum number of characters allowed in an input field.	`<form>` `<label for="fname">First name:</label> ` `<input type="text" id="fname" name="fname" size="50"> ` `<label for="pin">PIN:</label> ` `<input type="text" id="pin" name="pin" maxlength="4" size="4">` `</form>`
`min, max`	• Specify the minimum and maximum values for an input field.	`<form>` `<label for="datemax">Enter a date before 1980-01-01:</label>` `<input type="date" id="datemax" name="datemax" max="1979-12-31">` `  `

	- The attribute work with the following input types: `number`, `range`, `date`, `datetime-local`, `month`, `time` and `week`.	`<label for="datemin">Enter a date after 2000-01-01:</label>` `<input type="date" id="datemin" name="datemin" min="2000-01-02">` `  ` `<label for="quantity">Quantity (between 1 and 5):</label>` `<input type="number" id="quantity" name="quantity" min="1" max="5">` `</form>`

`pattern`	- Specifies a regular expression that the input field's value is checked against, when the form is submitted.
	- This attribute works with the following input types: `text`, `date`, `search`, `url`, `tel`, `email`, and `password`.
		`<form>`
		`<label for="country_code">Country code:</label>`
		`<input type="text" id="country_code" name="country_code"`
		`pattern="[A-Za-z]{3}" title="Three letter country code">`
		`</form>`

`required`	- Specifies that an input field must be filled out before submitting the form.
	- This attribute works with the following input types: `text`, `search`, `url`, `tel`, `email`,
		`<form>`
		`<label for="username">Username:</label>`
		`<input type="text" id="username" name="username" required>`
		`</form>`

	`password`, `date` `pickers`, `number`, `checkbox`, `radio`, and `file`.	

`step`	- Specifies the legal number intervals for an input field. - This attribute can be used together with the `max` and `min` attributes to create a range of legal values. - The `step` attribute works with the following input types: `number`, `range`, `date`, `datetime-local`, `month`, `time` and `week`.	`<form>`
		  `<label for="points">Points:</label>`
		  `<input type="number" id="points" name="points" step="3">`
		`</form>`

Handling form submission

- The `submit` event is sent to an element when the user is attempting to submit a form.
  - It can only be attached to `<form>` elements.

- Forms can be submitted either by clicking an explicit `<input type="submit">`, `<input type="image">`, or `<button type="submit">`, or by pressing `Enter` when certain form elements have focus.

```
$("form").submit(function(){
  alert("Submitted");
});
```

```html
<!DOCTYPE html>
<html>
  <head>
    <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.6.1/jquery.min.js"></script>
    <script>
      $(document).ready(function () {
        $("form").submit(function () {
          alert($("#FirstName").val());
          alert($("#LastName").val());
        });
      });
    </script>
  </head>
  <body>
    <form action="">
      First name: <input type="text" id="FirstName" value="Mickey" /><br />
      Last name: <input type="text" id="LastName" value="Mouse" /><br />
      <input type="submit" value="Submit" />
    </form>
  </body>
</html>
```

Stopping a page from reloading

- By default, pages reload upon submitting a form.
- To prevent this, add a variable x to your submit function as an argument, then add `x.preventDefault();` at the bottom of the function.

```
$("form").submit(function (x) {
  //alert($("#first_name").val());
  let first_name = $("#first_name").val();
  let last_name = $("#last_name").val();
  $("#registrants").html(
    $("#registrants").html() +
      "<li>" +
```

```
        first_name +
        " " +
        last_name +
        "</li>"
    );
    x.preventDefault();
});
```

Method	Description	Sample code	Code explanation
`.submit()`	• Triggers the submit event or submits the form when invoked on a form element.	```<form id="registrationForm">``` ```<input type="text" id="username" placeholder="Username">``` ```<input type="email" id="email" placeholder="Email">``` ```<input type="password" id="password" placeholder="Password">``` ```<input type="submit" value="Register">``` ```</form>``` ```<script>``` ```$(document).ready(function(){``` ```$("#registrationForm").submit(function(event) {``` ```event.preventDefault();``` ```let username = $("#username").val();``` ```let email = $("#email").val();``` ```let password = $("#password").val();``` ```console.log("Registering user: " + username + " with email: " + email);``` ```});``` ```});``` ```</script>```	• Creates a simple account registration form with input fields for username, email, and password, and a submit button. • When the form is submitted, the JavaScript code prevents the default form submission, retrieves the values entered in the input fields, and logs a message to
`event.preventDefault()`	• Stops the default action of an event from happening.		

			the console indicating the user registration details, including the username and email.

Boolean form attributes

- There are a few attributes that are accessed and set as boolean values.

```
$(".select").prop("checked", false);
```

- Boolean attributes include the following:
  - `checked`
  - `required`
  - `disabled`
  - `open`

Additional Material

- **Learn more**
  - W3Schools
- **Recommended watch**

Regular Expressions (RegEx) in 100 Seconds