What is client-side form validation in HTML forms, and what are some examples?

When a user fills out a form on your website, it is important that they fill out all of the necessary information in the correct format. HTML form controls, like inputs, have a lot of built-in validation that you can use to check for invalid data. This will help ensure that the user fixes these mistakes before the information is submitted and processed by the server.

The term "client-side" refers to everything that happens on the user's computer or device, like the part of a website or app you interact with directly. This includes the layout, design, and any interactive features.

The term "server-side" refers to everything that happens on the server, the computer, or system, that hosts the website or app. This includes processing data, running applications, and handling requests that come from the user's device.

While client-side validation is important, you also need server-side validation for added security. Malicious users can bypass client-side checks, so robust server-side measures are essential. You'll learn more about this in a later module. For now, let's take a look at some examples of client-side form validation.

One common example of built-in form validation is to use the required attribute in inputs. The required attribute specifies that the user needs to fill out that portion of the form before it gets submitted. Here is an example of using the required attribute in an email input:

<form action="">

<label for="email">Email Address (Required field):</label>

<input required type="email" name="email" id="email" />

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

</form>

When the user clicks on the Submit Form button without supplying an email address, they will be alerted that the field is required and the form will not be submitted. Each browser will have its own set of styles for showing this alert message. Another advantage of using the email input, is that email inputs have some basic validation to ensure correctly formatted email addresses. It is important to note that browsers only check for basic validation for standard email addresses. It is up to you to add additional layers of validation, which you will learn about in later modules.

Other forms of validation for email inputs are to use the minlength and maxlength attributes. Here is an example using the extra validation:

<form action="">

<label for="email">Email Address (Required field):</label>

<input

required

type="email"

name="email"

id="email"

minlength="4"

maxlength="64"

/>

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

</form>

The minlength and maxlength attributes are used to set the minimum and maximum length in characters for the email input. If you don't include the minimum length or exceed the max length of characters, the browser will show an alert message.