

Creating, Styling and Validating Web Forms (3 Days)

This course is all about creating and processing web forms. It starts with using the latest HTML standards to create and provide basic validation for an HTML form. Then it covers styling forms using CSS. This includes showing the validation status of form fields. You'll then learn to write clean, real-time client-side form validation with JavaScript and regular expressions. Finally, you'll learn to validate forms on the server with Node.js, JSON, and Ajax.

Goals

- Learn to create HTML forms using the latest HTML standards.
- Learn to style forms with CSS.
- Learn to validate forms on the client with JavaScript and regular expressions.
- Learn to validate forms on the server with Node.js.
- Learn to use Ajax techniques to do server-side validation on specific form fields without refreshing the entire page.

Class Prerequisites

Experience in the following *is required* for this JavaScript class:

- Basic HTML
- Basic CSS
- Basic JavaScript

Outline

HTML Forms

How HTML Forms Work
The <form> Tag
Form Elements
Buttons
Checkboxes
Radio Buttons
Fieldsets
Select Menus
Textareas

JavaScript Form Validation

Server-side Form Validation
HTML Form Validation
Accessing Form Data
Form Validation with JavaScript
Checking Validity on Input and Submit Events
Adding Error Messages
Validating Textareas
Validating Checkboxes
Validating Radio Buttons
Validating Select Menus
Giving the User a Chance

Styling Forms with CSS

- General Form Layout
- Form-field Pseudo-Classes
- Applying Pseudo-Classes to Forms
- Radio Buttons, Checkboxes, and Fieldsets

Regular Expressions

- Getting Started
- Regular Expression Syntax
- Backreferences
- Form Validation with Regular Expressions
- Cleaning Up Form Entries
- A Slightly More Complex Example

Node.js and Server-side Form Validation

- Welcome to the Server-side
- Google Chrome DevTools: Network Tab
- Welcome to Node.js
- Our First Web App
- Fat-arrow Functions
- Sending a Response with HTML
- The favicon.ico Icon
- Simple Routing and 404 Pages
- Express - Node.js Web Application Framework
- Favicon Middleware
- Static Files
- Processing a Simple Form
- Form Validation
- Validators
- Ajax

JSON

- Review of Object Literals
- Arrays
- Objects
- Arrays in Objects
- Objects in Arrays
- Back to JSON
- JSON Syntax