

**Introduction to Modern JavaScript Development**

**Course Number:** SCRPT-100  
**Duration:** 5 days

**Overview**

Accelebrate's Introduction to Modern JavaScript Development training class teaches attendees how to build rich client-side web applications using HTML, CSS, and JavaScript. Students develop real-world JavaScript applications and learn how to create object-oriented JavaScript applications, handle exceptions, and how to use regular expressions. Then attendees take their JavaScript skills to a more advanced level by working with events, images, timers, closures, callbacks, namespaces, and JSON.

**Prerequisites**

[Fundamentals of HTML5 and CSS3 training](file:////training/html5-css3) or equivalent experience. If attendees will not have thorough knowledge of HTML5 fundamentals, please let us know and we will precede this course with a one-day HTML5 primer. No prior programming experience is assumed, though this course can be swiftly adapted for a programming-savvy audience.

**Materials**

All JavaScript training students receive comprehensive courseware.

**Software Needed on Each Student PC**

* Windows, macOS, or Linux
* Web or text editor of your choice
* Web browsers - a recent version of one or more of the following:
  + Google Chrome
  + Mozilla Firefox
  + Microsoft Edge
  + Safari

**Objectives**

* Develop real-world JavaScript applications
* Use arrays, web storage, and JavaScript libraries
* Create object-oriented JavaScript applications
* Handle exceptions
* Use regular expressions
* Work with events, images, and timers as they build applications like slide shows
* Use closures, callbacks, namespaces, and the module pattern to secure their applications
* Use JSON to transmit and store data

**Outline**

* Introduction
* Getting Started With JavaScript
  + How to include JavaScript in an HTML document
  + Two ways to include JavaScript in the head of an HTML document
  + The JavaScript syntax
  + How to work with JavaScript data
  + Two illustrative applications
* The Essential JavaScript Statements
  + How to code the basic control statements
  + Three illustrative applications
  + How to work with arrays
  + The Test Scores application with an array
* JavaScript Objects, Functions, and Events
  + How to use objects to work with data
  + How to use functions
  + How to handle events
  + Two illustrative applications
* How To Script Forms and Controls
  + DOM scripting properties and methods
  + The FAQs application
  + How to script forms and controls
  + The Register application
  + How to add new nodes to the DOM
  + The Register application with a table
* How To Test and Debug a JavaScript Application
  + An introduction to testing and debugging
  + How to debug with Chrome’s developer tools
  + Other debugging methods
* Numbers, Strings, and Dates
  + How to work with numbers
  + The PIG application
  + How to work with strings
  + How to work with dates and times
  + The Count Down application
* How To Code Control Statements
  + How to code conditional expressions
  + How to code the selection structures
  + The Invoice application
  + How to code the iteration structures
* Arrays and Web Storage
  + How to create and use an array
  + How to use the methods of an Array object
  + Other skills for working with arrays
  + How to use web storage
  + The Task Manager application
* How To Create and Use Functions
  + Basic skills for working with functions
  + The Task Manager application
  + Object-oriented skills for working with functions
* How To Create and Use Objects
  + Basic skills for working with objects
  + What you need to know about JavaScript prototypes
  + The Task Manager application
  + Advanced skills for working with objects
  + The enhanced Task Manager application
* Using Regular Expressions, Handling Exceptions, and Validating Data
  + How to use regular expressions
  + How to handle exceptions
  + The Register application
* Events, Images, and Timers
  + How to work with events
  + The FAQs application
  + How to work with images
  + The Rollover application
  + How to use timers
  + The Slide Show application
* Closures, Callbacks, and Recursion
  + Introduction to closures
  + How to use closures
  + The Slide Show application
  + How to use callbacks
  + How to use recursion
  + The Task Manager application
* Namespaces, Modules, and Custom Properties
  + How to work with namespaces
  + The Task Manager application
  + How to work with the module pattern
  + The Slide Show application
  + How to customize properties
  + The enhanced Slide Show application
* JavaScript Object Notation (JSON)
  + An introduction to JSON
  + How to work with JSON in JavaScript
  + The Task Manager application
  + How to customize the stringify method
  + How to customize the parse method
  + The enhanced Task Manager application
* Conclusion