

**Salesforce Certified JavaScript Developer**

**Course Number:** SF-138  
**Duration:** 5 days

**Overview**

This Salesforce Certified JavaScript Developer training teaches new and experienced developers how to apply JavaScript knowledge within (and outside of) the Salesforce environment. This course also prepares students for the [Salesforce JavaScript Developer I Certification exam](https://trailhead.salesforce.com/credentials/javascriptdeveloperi).

**Prerequisites**

* Strong computer skills
* Knowledge of computer programming concepts is recommended but not required

**Materials**

All SharePoint training students will receive comprehensive courseware.

**Software Needed on Each Student PC**

Attendees will not need to install any software on their computers for this class as the class will be conducted in a remote environment that Accelebrate will provide; students will only need a local computer with a web browser and a stable Internet connection.

**Objectives**

* Understand JavaScript basics
* Work with objects, functions, and classes
* Handle browsers and events
* Apply debugging and error handling
* Understand asynchronous programming
* Apply server-side JavaScript using Node.js
* Test JavaScript code

**Outline**

* Introduction
* JavaScript Basics
  + Getting Started with JavaScript
    - Basic Concepts
    - Syntax Rules
    - Comments
    - Best Practices
  + Data Types and Variables
    - Defining and Intializing Variables
    - Variable Scope
    - Hoisting
    - Primitive Data Types
    - Operators
    - Truthy and Falsey
  + Type Conversion (explicit and implicit)
    - Type Coercion
    - String Conversion
    - Numeric Conversion
    - Boolean Conversion
  + Collections
    - Arrays
    - Iterating Over Arrays
    - Data Manipulation
  + Working with Strings, Numbers, and Dates
    - Creating Strings
    - Common String Methods
    - Number Representation
    - Common Number Methods
    - Creating Dates
    - Common Date Methods
  + Working with JSON
    - JSON Format
    - Serialization/Deserialization
    - Parsing JSON Responses
    - Accessing and Processing JSON Responses
* Objects, Functions, and Classes
  + Objects
    - Creating Objects
    - Properties
    - Defining Methods
    - Getters and Setters
    - Object Class Methods
    - Inheritance and Prototype
  + Functions
    - Defining and Invoking
    - Types of Functions
    - Function Expressions
    - Recursion
    - Arrow Functions
    - High Order Functions
    - Apply, Call, and Bind
    - Iterators
  + Classes
    - Defining a Class
    - Creating an Instance of a Class
    - Contructor
    - Class Methods
    - Getters and Setters
    - Inheritance
  + Using JavaScript Modules
    - Importing
    - Exporting
    - Considerations
  + Decorators
    - Decorating Functions
    - Decorating Classes
    - Decorating Class Methods
* Browser and Events
  + Document Object Model
    - Window Object
    - DOM Tree
    - DOM Data Types
    - Accessing the DOM
    - DOM Manipulation
  + DOM Events
    - Standard Events
    - Custom Events
    - Event Handlers
    - Event Properties
    - Event Propagation
  + Browser Dev Tools
    - Chrome DevTools
    - Elements Panel
    - Console Panel
    - Sources Panel
    - Network Panel
  + Browser APIs
    - DOM API
    - Fetch API
    - Geolocation API
    - History API
    - Canvas API
    - URL API
    - WebStorage API
* Debugging and Error Handling
  + Throwing and Catching Errors
    - Exceptions
    - Types of Errors
    - try…catch…finally
    - Console API Methods
    - Nesting try…catch Statements
    - Throwing Exceptions
    - Error Object
  + Working with the Console
    - Using the Console
    - Console Methods
    - Debugger
    - Breakpoints
    - Stepping Through Code
    - Inspecting, Editing, and Monitoring Variables
* Asynchronous Programming
  + Asynchronous Programming Concepts
    - Defining Asynchronous Programming
    - Callback Functions
    - Promises
    - Async/Await
  + Event Loop
    - Event Loop Basics
    - Stack, Heap, and Queue
    - Event Monitor
* Server-Side JavaScript
  + Node.js
    - Implementations
    - CLI
    - Libraries
    - Modules
    - Package Management
* Testing
  + Testing JavaScript Code
    - Types of Tests
    - Testing Environment
    - Black-box vs White-box Testing
    - Building a Unit Test
    - Assertions
* Exam Prep
  + Class Survey
  + Practice Certification Exam
  + Exam Question Review
  + Questions/Answers/Wrap up
* Conclusion