

**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