

BEGINNING OBJECT-ORIENTED PROGRAMMING WITH JAVASCRIPT



Build up your JavaScript skills and embrace object-oriented development for the modern web

PRODUCT INFORMATION

FORMAT

Instructor-Led Training

DURATION

3 Days

PUBLISHED ON

22nd November, 2017

DESCRIPTION

JavaScript has now become a universal development language. Whilst offering great benefits, the complexity can be overwhelming.

In this course we show attendees how they can write robust and efficient code with JavaScript, in order to create scalable and maintainable web applications that help developers and businesses stay competitive.

LEARNING OUTCOMES

By completing this course, you will:

- Cover the new object-oriented features introduced as a part of ECMAScript 2015
- Build web applications that promote scalability, maintainability and usability
- Learn about key principles like object inheritance and JavaScript mixins
- Discover how to skilfully develop asynchronous code within larger JS applications
- Complete a variety of hands-on activities to build up your experience of real-world challenges and problems

WHO SHOULD ATTEND

This course is for existing developers who are new to object-oriented programming in the JavaScript language. They will be looking to build their understanding of modern web development, using the latest mainstream features of the ECMAScript 2015 specification.

PREREQUISITES

If you're a pragmatic developer with entry-level JavaScript experience, this course will equip you with the skills you need to succeed in a growing talent pool of full-stack web developers. Prior exposure and understanding of JS syntax is assumed.

APPROACH

This is a fast-paced, practical hands-on course aimed at experienced developers. As you progress you'll find helpful tips and tricks, as well as useful self-assessment material, exercises and activities to help benchmark your progress and reinforce what you've learned.

OUTLINE

Diving into Objects and OOP Principles

- Creating and Managing Object Literals
- Defining Object Constructors
- Using Object Prototypes and Classes
- Checking Abstraction and Modeling Support
- Analyzing OOP Principles in JavaScript

Working with Encapsulation and Information Hiding

- Setting up Strategies for Encapsulation
- Using the Meta-Closure Approach
- Using Property Descriptors
- Implementing Information Hiding in Classes

Inheriting and Creating Mixins

- Implementing Objects, Inheritance, and Prototypes
- Using and Controlling Class Inheritance
- Implementing Multiple Inheritance
- Creating and Using Mixins

Defining Contracts with Duck Typing

- Managing Dynamic Typing
- Defining Contracts and Interfaces
- Implementing Duck Typing
- Comparing Duck Typing and Polymorphism

Advanced Object Creation

- Mastering Patterns, Object Creation, and Singletons
- Implementing an Object Factory
- Exploiting the Builder Pattern

Working with Data

- Managing User Interfaces
- Implementing Presentation Patterns
- Implementing Data Binding
- Applying the Publish/Subscribe Pattern

Asynchronous Programming and Promises

- Is JavaScript Asynchronous?
- Writing Asynchronous Code
- Introducing Promises

Organizing Code

- Taking Control of the Global Scope
- Creating Namespaces
- Organizing Code with the Module Pattern
- Loading and Using Modules