ECMAScript Programming: The Next Generation JavaScript

Category: Software Development & Programming | **Vendor:** Various

Duration: 32.00 hours (4 days) **26.0 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

Gain knowledge of the new features added to JavaScript in the latest versions, ECMAScript 2015 and ECMAScript 2016. In this training course, you learn how to utilise extended features to create a more powerful and efficient language for enterprise development, and leverage common tools and frameworks for package management, transpiling, deployment, testing, and application development.

About This Course

Gain knowledge of the new features added to JavaScript in the latest versions, ECMAScript 2015 and ECMAScript 2016. In this training course, you learn how to utilise extended features to create a more powerful and efficient language for enterprise development, and leverage common tools and frameworks for package management, transpiling, deployment, testing, and application development.

Prerequisites & Entry Requirements

General Prerequisites:

- Web development experience
- JavaScript programming experience

Learning Outcomes

Upon successful completion of this course, participants will be able to:

- Transition from JavaScript to ECMAScript 6 (2015 and 2016)
- Maximise reusability with modules, classes, and inheritance
- Simplify asynchronous programming with Promises
- Leverage ECMAScript server-side with Node.js
- Build end-to-end enterprise applications using ECMAScript

Detailed Course Outline

Introduction and Overview

- Revisiting JavaScript history
- Incorporating ECMAScript new versions and features
- Mapping TC39 release stages
- Moving ECMAScript to the server

Advanced JavaScript Techniques

Exploring JavaScript language features

- Programming with a weakly typed language
- Exploiting JavaScript’s dynamic nature
- Working with strings, numbers, dates, arrays

Developing Functional JavaScript Code

- Comparing function definitions vs. function expressions
- Manipulating function callbacks
- Passing functions as arguments
- Immediately invoked function expressions
- Understanding closures

Building JavaScript objects

- Coding object literals
- Adding properties and methods to objects
- Instantiating objects with constructor functions
- Defining prototype methods
- Serialising data with JSON
- Requesting services with XMLHttpRequest

Transitioning to ECMAScript 2015

Writing ECMAScript that runs everywhere

- Transpiling ECMAScript with Traceurand Babel
- Exploring transpiled code
- Ensuring best practices with strict mode

Simplifying variables and strings

- Declaring block scope variables with let
- Programming constants

- Exploiting new string methods

- Formatting output with template literals

Managing collections of data

- Taking advantage of new array methods

- Enumerating collections with iterators

- Manipulating data with sets and maps

- Producing iterable data with generators and yield

Streamlining functional programming with ES6

- Making asynchronous programming easier with promises

- Defining arrow functions

- Passing arrow functions as callbacks

Exploiting ECMAScript 6 Object-Oriented Features

Classes and Inheritance

- Defining classes

- Adding properties and methods to classes

- Simulating private state with WeakMap

- Creating unique property keys with symbols

- Coding getters, setters and constructors

- Extending classes with inheritance

Reusing JavaScript

- Defining modules
- Exporting and importing classes and functions
- Importing module functionality

Running ECMAScript Server-Side

Building applications for Node.js

- Installing Node.js
- Setting up a Node.js development environment
- Managing packages with npm
- The build process with webpack

Web services

- Creating Node.js web applications with Express
- Exposing RESTful services
- Calling Node.js services

Accessing stored data

- Processing NoSQL data with MongoDB
- Providing relational database data

Crafting Enterprise ECMAScript Applications

Deploying quality code

- Unit testing ECMAScript with Jest

- Integrating code quality and analysis tools

Publishing ECMAScript applications

- Minimising download size with tree-shake

- Integrating resource hashes for cache-busting

Skills You Will Learn:

- Transition from JavaScript to ECMAScript 6 (2015 and 2016)
- Maximise reusability with modules, classes, and inheritance
- Simplify asynchronous programming with Promises
- Leverage ECMAScript server-side with Node.js
- Build end-to-end enterprise applications using ECMAScript

Frequently Asked Questions

Q: What delivery options are available for ECMAScript Programming: The Next Generation JavaScript?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: How many CPD hours does this course provide?

The 4-day ECMAScript Programming: The Next Generation JavaScript course provides up to 26.0 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the ECMAScript Programming: The Next Generation JavaScript training?

The training takes place over 4 day(s), with each day lasting approximately 32.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for ECMAScript Programming: The Next Generation JavaScript?

Yes, we provide corporate training, dedicated training, and closed classes for ECMAScript Programming: The Next Generation JavaScript. Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: What related terms do people search for?

Popular related searches include: ECMAScript Programming: The Next Generation JavaScript, Programming, NGJS

Q: Why choose Nexus Human for ECMAScript Programming: The Next Generation JavaScript?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your ECMAScript Programming: The Next Generation JavaScript training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

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