

JAVASCRIPT/JQUERY Introduction



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Course Description

JavaScript is the programming language of the web. It runs everywhere, letting you add behaviour to your web pages. In this introductory course, we'll start from basics and explain JavaScript language fundamentals, giving you a strong understanding of how to write your own code. We'll then introduce the jQuery library, which will enable you to write concise, cross-browser JavaScript. We'll also demonstrate animation, interactivity, dynamic creation of HTML, and AJAX.

This training course is bespoke, giving you the opportunity to tailor the content to your exact requirements. If you need a starting point, use the course outline below as a guide. The important thing to remember is that it's your course - tell us your goals and we'll help you achieve them.

Who should attend?

Graphic Designers, Web Designers, and anyone familiar with HTML and CSS, but new to programming.

Should you wish to take your knowledge to a more advanced level, we recommend our Advanced JavaScript 1 day course.

The course runs from 9.30 am to approximately 4.30 pm.

JavaScript Fundamentals

JavaScript in the browser: the DOM
Variables
Objects
Arrays
Functions
Conditional Statements
Loops

jQuery

Software Library
Selecting elements on the page
Events and interactivity
Animation
Creating HTML using jQuery
Combining Javascript & jQuery
Chaining commands together
AJAX: reading JSON data

Templates

Mustache
Merging JSON data with templates

JavaScript Projects

Understanding Scope
Techniques for organising your code
Errors and debugging
JavaScript and responsive projects

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JAVASCRIPT Advanced



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Course Description

JavaScript has become the most widely used programming language on the web. It's used in both simple web pages and complex web applications, like Gmail. This course provides an understanding of advanced JavaScript topics. Coverage includes object, scope, encapsulation, closure, and working with a prototypal language. Techniques for structuring and testing JavaScript projects are also covered.

This training course is bespoke, giving you the opportunity to tailor the content to your exact requirements. If you need a starting point, use the course outline below as a guide. The important thing to remember is that it's your course - tell us your goals and we'll help you achieve them.

Who should attend?

Experienced web developers, who are familiar with JavaScript fundamentals (variables, objects, arrays and functions).

The course runs from 9.30 am to approximately 4.30 pm.

Introduction

Primitives
Null-undefined
Equality
Truthy/Falsy

Objects

Object basics
Copying & comparison of objects
Object literals
LocalStorage

Scope

Hosting
Functions: function expressions,
IIFEs, anonymous functions,
modules
Closure
Module Patterns
The meaning of keyword THIS

Prototype Constructors

Prototype constructors
Object.create

Frameworks

An overview/comparison of
JavaScript frameworks

Tools

Modules using Require.JS
Testing using Jasmine

Future

Future developments for ECMA 6
JavaScript

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ANGULAR Javascript framework



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Course Description

A two-day course on the Javascript framework. Build structured, testable applications with less code.

This training course is bespoke, giving you the opportunity to tailor the content to your exact requirements. If you need a starting point, use the course outline below as a guide. The important thing to remember is that it's your course - tell us your goals and we'll help you achieve them.

Who should attend?

Developers/Web Designers, anyone that needs to understand why Angular is such a core part of any website development these days.

The course runs from 9.30 am to approximately 4.30 pm.

Angular concepts and jargon:

modules
binding
controllers
routing
directives
filters

Objects that manage the view with one and two-way binding

Services
factories
and providers

:objects that maintain state

Mapping changes in the URL to changes in application state

Talking to servers
AJAX calls
promises
interceptors

Writing tests with Jasmine and Protractor

Communicating between objects, and best practice

A review of the awkward corners of Javascript : Module patterns, IIFEs, scope, keyword THIS

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Introducing ECMAScript 6 (the next JavaScript)



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Course Description

JavaScript is evolving and the latest version brings many differences in how to write and structure your code. This course explores why the changes are happening and what is currently or soon to be supported. We explore Traceur as a means to use un-supported features now, even on browsers and devices which don't yet understand ECMAScript 6.

This training course is bespoke, giving you the opportunity to tailor the content to your exact requirements. If you need a starting point, use the course outline below as a guide. The important thing to remember is that it's your course - tell us your goals and we'll help you achieve them.

Who should attend?

Developers/Web Designers, anyone that needs to understand why ECMAScript 6 is such a core part of any website development these days.

The course runs from 9.30 am to approximately 4.30 pm.

Introducing Modern JavaScript

Controlling access, type and mutability
Functions, scope, namespaces and closure
Object serialization
Overview of AJAX principles
JavaScript security
Client Side Event handling
Client Side data persistence

Current and Imminent Support

Features which are already supported in some browsers and devices
Forthcoming built-in support
Polyfills
Legacy: where support will never happen

ECMAScript 6 objects, properties and methods

Classes, subclasses and constructors: Object-Oriented techniques in JavaScript

JavaScript Design Patterns

(focussing on ECMAScript 6)
Modular JavaScript principles
MVC, MVVM, Service, Factory etc.

Building the User Experience:

overview of modern JavaScript frameworks
The jQuery family
Angular, Bootstrap and Dart
AtScript and TypeScript
Other JavaScript frameworks and libraries

ECME-262 6th Edition

The 2015 ECMAScript Language Specification
Already some support in some browsers/devices
Enable Harmony in Chrome

Need for software development capabilities

Components and Modules
Single-threaded 'blocking' problem

Reduce use of 'function' keyword

Traceur

JavaScript.next-to-JavaScript-of-today converter
Converting offline
Online Read-Eval-Print-Loop for exploring ES6
Impact on performance

Sugar Syntax

Make a language easier to understand and more readable
Some features of ES6 are not really new
All methods are still added to the prototype

ES6 Language Features

Number and Math Improvements
Maps, Sets and Weak Maps
Iterators and for-of loops
Object Literal Enhancements
Arrow Functions
Let and Const for Block Scoped Binding

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Introducing ECMAScript 6

Our bespoke onsite courses run from 9:30am to 4:30pm with an hour for lunch. The trainer will arrive in time to check and help with your set up. If you need to amend these timings just let us know in advance and we will work around what suits you.

Default and Rest Parameters
Template Literals
Promises

Classes

Property Method Assignment
Object Initializer Shorthand
class definition and name
class prototype
instance property and class
property

Shadow DOM

shadow root and shadow host

Module syntax

Named exports and Default
exports
Importing modules

ECMAScript language types

Undefined, Null, Boolean, String,
Symbol, Number, and Object
Testing
Overview of current JavaScript

Testing

NodeJS (optional content)

Configuring Node for non-browser
JavaScript
Node packages
Running scripts