



Web Development 2 with HTML5,CSS3 and JavaScript

Duration: 5 Days Course Code: WEBDEV2 Delivery Method: Company Event

Overview:

The Web Development 2 with HTML5,CSS3 and JavaScript course comprises sessions dealing with HTML5,CSS3 and JavaScript. It builds on the skills and knowledge gained by attendance on the Web Development 1 course by covering that which is new in HTML version 5 and CSS version 3,and advanced JavaScript topics.

Exercises and examples are used throughout the course to give practical hands-on experience with the techniques covered.

Company Events

These events can be delivered exclusively for your company at our locations or yours, specifically for your delegates and your needs. The Company Events can be tailored or standard course deliveries.

Target Audience:

The Web Development 2 with HTML5,CSS3 and JavaScript course is designed for developers familiar with HTML,CSS,and JavaScript,but whom are unfamiliar with the features introduced with HTML5 and CSS3,and are similarly unfamiliar with advanced JavaScript topics and modern approaches such as functional and reactive programming.

The course will also benefit those JavaScript developers who are familiar with JavaScript as it relates to ECMAScript version 5,and want to learn about what's new in ECMAScript version 6 (ES2015).

Objectives:

- This course aims to provide the delegate with the knowledge to be able to integrate into a website HTML5 and CSS3 features such as audio and video,media queries,drag and drop,and web sockets. It also aims to enable the delegate to be able to interpret,write,and troubleshoot complex JavaScript code exploiting strict mode,closures,IIFEs,ES6,functional programming,asynchronous JavaScript,and reactive programming.
-

Prerequisites:

Delegates should be able to:

- Build and style simple web pages using HTML & CSS
- Build JavaScript applications that exploit all fundamental elements of the language including variables and expressions,conditions and loops,functions,objects,arrays,the DOM,and event handling

This knowledge can be obtained by attendance on the pre-requisite HTML & CSS and JavaScript 1 courses.

Follow-on-Courses:

- jQuery Web Development (JQWD)
 - Bootstrap (BOOTS)
 - React (REACT)
 - Angular Development (ANGDEV)
 - Aurelia Framework (AUR)
-



Content:

Web Development 2 with HTML5,CSS3 and JavaScript Training Course Course Contents - DAY 1

Course Introduction

- Administration and Course Materials
- Course Structure and Agenda
- Delegate and Trainer Introductions

Session 1: INTRODUCTION

- What is HTML5
- What is CSS3
- Browser Support

Session 2: HTML5 ELEMENTS ; ATTRIBUTES

- Form Fields
- PForm Validation
- Semantic Elements
- iFrame
- Audio and Video
- Canvas and SVG

Session 3: CSS3 STYLES

- Generic Styles
- Transforms
- Transitions
- Animations

Session 4: CSS3 RESPONSIVE

- Responsive Web Design (Review)
- Responsive Grid Layout
- Media Queries
- Images and Videos
- Responsive Web Design Frameworks
Web Development 2 with HTML5,CSS3 and JavaScript Training Course Course Contents - DAY 2

Session 5: GEOLOCATION

- Information Sources
- The navigator Object
- Request Parameters
- Position Data
- Error Handling

Session 6: DRAG ; DROP

- Source and Target Elements
- Draggable Attributes
- Drag Events
- The dataTransfer object

Session 7: OFFLINE STORAGE

- Local/Session Storage vs. Cookies
- The localStorage and sessionStorage Objects
- Local/sessionStorage methods
- The applicationCache object and events

Session 8: WEBSOCKET

- WebSocket vs. HTTP
- WebSocket (ws://) Protocol
- The WebSocket constructor function
- WebSocket Object Methods
- WebSocket Events

Session 9: SERVER SENT EVENTS

- Server Sent Events
- The EventSource constructor function
- EventSource Events

Session 10: CROSS DOMAIN MESSAGING

- Same Origin Policy (SOP)
- Cross Domain Messaging
- Message Posting
- Message Receiving
Web Development 2 with HTML5,CSS3 and JavaScript Training Course Course Contents - DAY 3

Session 11: VALUES ; REFS

- Primitive and Reference Types
- Equality Tests
- Deletion and Dereferencing
- Undefined,null,and NaN

Session 12: STRICT MODE

- What is Strict Mode
- Invocation
- Mistakes to Errors
- Variable Simplification
- Eval
- Security

Session 13: ARRAYS

- Associative Arrays
- for vs. for in
- delete and length

Session 14: SCOPE

- Hoisting (Review)
- Lexical Scope
- The Scope Chain
- Closures
- IIFEs
Web Development 2 with HTML5,CSS3 and JavaScript Training Course Course Contents - DAY 4

Session 15: ES6 (ES2015)

- Multi-line Strings
- Template Literals
- Destructuring
- Spread and Rest Operators
- let and const
- Default Parameters
- Arrow Functions
- Iterators and Generators
- Decorators (ES7)
- Maps and Sets
- Classes and Modules
- Exports and Imports

Session 16: FUNCTIONAL JAVASCRIPT

- Higher Order Functions
- Pure Functions
- Immutability
- Currying
- Array Methods
- Arrow Functions (again)
- Method Chaining
- Function Composition and Pipelines
Web Development 2 with HTML5,CSS3 and JavaScript Training Course Course Contents - DAY 5

Session 17: ASYNCHRONOUS JAVASCRIPT

- Synchronous vs. Asynchronous
- setTimeout
- AJAX
- Callbacks
- Common Problems
- Async.js
- Promises (ES6)

Session 18: REACTIVE JAVASCRIPT

- About RxJS
- Streams
- Observables
- Observers and Subscriptions
- Sequencing

- Handling user input and asynchronous calls
- Combining Streams
- Buffering
- Error Handling

Session 19: UNIT TESTING

- What is Unit Testing
- Test Driven Development
- Unit Testing with Jasmine

Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

info@globalknowledge.co.uk

www.globalknowledge.com/en-gb/

Global Knowledge, Mulberry Business Park, Fishponds Road, Wokingham Berkshire RG41 2GY UK