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YOUR COURSE, YOUR WAY - MORE EFFECTIVE IT TRAINING

JavaScript: The Definitive Guide

Duration: 5 days

Overview:

JavaScript: The Definitive Guide provides delegates with a programmer's guide to the core language and to the client-side JavaScript APIs defined by web browsers.

This course covers HTML5 and ECMAScript 5, and brings developers in line with today's best web development practices.

Prerequisites:

Delegates should have a working knowledge of HTML and CSS.

Topics:

1 - Introduction to JavaScript

Core JavaScript

Client-Side JavaScript

Core JavaScript

2 - Lexical Structure

Character Set

Comments

Literals

Identifiers and Reserved Words

Optional Semicolons

3 - Types, Values, and Variables

Numbers

Text

Boolean Values

null and undefined

The Global Object

Wrapper Objects
Immutable Primitive Values and Mutable Object References
Type Conversions
Variable Declaration
Variable Scope
4 - Expressions and Operators
Primary Expressions
Object and Array Initializers
Function Definition Expressions
Property Access Expressions
Invocation Expressions
Object Creation Expressions
Operator Overview
Arithmetic Expressions
Relational Expressions
Logical Expressions
Assignment Expressions
Evaluation Expressions
Miscellaneous Operators
5 - Statements
Expression Statements
Compound and Empty Statements
Declaration Statements
Conditionals
Loops
Jumps
Miscellaneous Statements
Summary of JavaScript Statements
6 - Objects
6 - Objects Creating Objects
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Creating Objects
Creating Objects Querying and Setting Properties
Creating Objects Querying and Setting Properties Deleting Properties

Object Attributes
Serializing Objects
Object Methods
7 - Arrays
Creating Arrays
Reading and Writing Array Elements
Sparse Arrays
Array Length
Adding and Deleting Array Elements
Iterating Arrays
Multidimensional Arrays
Array Methods
ECMAScript 5 Array Methods
Array Type
Array-Like Objects
Strings As Arrays
8 - Functions
Defining Functions
Invoking Functions
Function Arguments and Parameters
Functions As Values
Functions As Namespaces
Turcuous As Namespaces
Closures
Closures
Closures Function Properties, Methods, and Constructor
Closures Function Properties, Methods, and Constructor
Closures Function Properties, Methods, and Constructor Functional Programming
Closures Function Properties, Methods, and Constructor Functional Programming 9 - Classes and Modules
Closures Function Properties, Methods, and Constructor Functional Programming 9 - Classes and Modules Classes and Prototypes

Classes and Types

Object-Oriented Techniques in JavaScript

Property Getters and Setters

Property Attributes

Classes in ECMAScript 5	
Modules	
10 - Pattern Matching with Regular Expression	ons
Defining Regular Expressions	
String Methods for Pattern Matching	
The RegExp Object	
11 - JavaScript Subsets and Extensions	
JavaScript Subsets	
Constants and Scoped Variables	
Destructuring Assignment	
Iteration	
Shorthand Functions	
Multiple Catch Clauses	
E4X: ECMAScript for XML	
12 - JavaScript in Web Browsers	
Client-Side JavaScript	
Embedding JavaScript in HTML	
Execution of JavaScript Programs	
Compatibility and Interoperability	
Accessibility	
Security	
Client-Side Frameworks	
12. The Wester Of 1	
13 - The Window Object	
Timers	
Browser Location and Navigation	
Browsing History	
Browser and Screen Information	
Dialog Boxes	
Error Handling	
Document Elements As Window Properties	
Multiple Windows and Frames	

Overview of the DOM

Attributes
Element Content
Creating, Inserting, and Deleting Nodes
Example: Generating a Table of Contents
Document and Element Geometry and Scrolling
HTML Forms
Other Document Features
15 - Scripting CSS
Overview of CSS
Important CSS Properties
Scripting Inline Styles
Querying Computed Styles
Scripting CSS Classes
Scripting Stylesheets
16 - Handling Events
Types of Events
Registering Event Handlers
Event Handler Invocation
Document Load Events
Mouse Events
Mousewheel Events
Drag and Drop Events
Text Events
Keyboard Events
17 - Scripted HTTP
Using XMLHttpRequest
HTTP by <script>: JSONP</td></tr><tr><td>Comet with Server-Sent Events</td></tr><tr><th>18 - The jQuery Library</th></tr><tr><td>jQuery Basics</td></tr><tr><td>jQuery Getters and Setters</td></tr><tr><td>Altering Document Structure</td></tr></tbody></table></script>

Selecting Document Elements

Document Structure and Traversal

Handling Events with jQuery
Animated Effects
Ajax with jQuery
Utility Functions
jQuery Selectors and Selection Methods
Extending jQuery with Plug-ins
The jQuery UI Library
19 - Client-Side Storage
localStorage and sessionStorage
Cookies
IE userData Persistence
Application Storage and Offline Webapps
20 - Scripted Media and Graphics
Scripting Images
Scripting Audio and Video
SVG: Scalable Vector Graphics
Graphics in a <canvas></canvas>
21 - HTML5 APIs
Geolocation
History Management
Cross-Origin Messaging
Web Workers
Typed Arrays and ArrayBuffers
Blobs
The Filesystem API
Client-Side Databases
Web Sockets
Core JavaScript Reference
Client-Side JavaScript Reference