

HTML5 Fast Track Training Course

Course Summary

Description

This instructor-led training course provides you with an extremely efficient way to learn about HTML5 and discover how to incorporate its countless features in your web pages and applications. With this training, you will quickly go from a basic what?, why?, and when? (now!) of HTML to deep dives into advanced topics like layouts, forms, offline support, geolocation, audio and video, graphics, communication APIs, storage, new JavaScript web-workers, and so on. You'll be surprised, not only by how much you'll learn, but also by how much you'll end up unlearning (based on how we used to do things) and wonder how we ever survived without HTML5.

Objectives

At the end of this course, students will be able to:

- Know how to use HTML5 Markup
- Know how to use the HTML5 JavaScript APIs
- Understand current browser support for the various HTML5 features
- Understand how to emulate certain HTML5 features in older browsers
- Learn about best practices for using HTML5

Topics

- History, Vision And Future Of HTML5
- Getting Started With HTML5
- Structure Of A Web Page
- Forms
- CSS3
- HTML5 Canvas
- Data Storage
- HTML5 Offline Applications
- HTML5 Geolocation
- HTML5 Web Workers
- HTML5 Messaging APIs
- HTML5 Web Sockets

Audience

This HTML5 course is designed for software developers interested in designing, creating, and deploying HTML5 web applications. It is valuable to both beginners and advanced developers that already have experience in developing web applications.

Prerequisites

To get the most out of the course, you should be somewhat familiar with HTML, CSS, and JavaScript. Prior exposure to XML and Ajax is helpful, but not required

Duration

Two days

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Course Outline

- I. History, Vision And Future Of HTML5**
 - A. What Is HTML5?
 - B. History And Major Actors
 - C. A Little Retrospective
 - D. What Is The W3C?
 - E. What Is The WHATWG?
 - F. Vision And Philosophy Behind HTML5
 - G. Compatibility
 - H. Utility
 - I. Interoperability
 - J. Universal Access
 - K. Future Of HTML5
 - L. Timeline
- II. Getting Started With HTML5**
 - A. The State Of Browser Support
 - B. Feature Detection
 - C. Support For Legacy Browsers
 - D. Graceful Degradation
 - E. Emulation
 - F. Developer Tools
- III. Structure Of A Web Page**
 - A. HTML5 DOCTYPE
 - B. Page Encoding
 - C. HTML5 Markup
 - D. New And Updated Elements
 - E. Structural Elements
 - F. New Attributes
 - G. Deprecated Elements And Attributes
 - H. HTML5 And CSS3
 - I. Browser Support
- IV. Forms**
 - A. What Are The Needs For Web Applications?
 - B. Current Solutions
 - C. New Input Types
 - D. New Attributes
 - E. Form Validation
 - F. Browser Support
 - G. Audio And Video
 - H. The State Of Web Audio And Video Based On Plugins
 - I. The State Of Audio And Video Codecs (e.g. H.264, WebM, etc.)
 - J. Video/Audio Codecs And Browser Support
 - K. New Audio/Video Markup
 - L. Attributes And Methods
 - M. Understanding Audio/Video Events
- V. CSS3**
 - A. CSS3 Effects
 - B. Rounded Corners
 - C. Drop and Inset Shadows
 - D. Text Shadows
 - E. Gradients
 - F. Transforms (rotate, scale, translate)
 - G. Animating with CSS3
 - H. Transitions
 - I. Keyframe Animations
- VI. HTML5 Canvas**
 - A. Overview Of Graphics In The Browser
 - B. Canvas Vs. SVG
 - C. Accessibility
 - D. Using A Canvas
 - E. Context And Coordinates
 - F. Drawing Shapes
 - G. Working With Paths
 - H. Drawing Straight Lines
 - I. Drawing Circles Or Arcs
 - J. Drawing Text
 - K. Drawing Images
 - L. Working With Pixels
 - M. Understanding Transforms
 - N. Translation
 - O. Rotation
 - P. Scaling
 - Q. Browser Support
- VII. Data Storage**
 - A. Problems With The Existing Cookie-based Model
 - B. Hacks Prior To HTML5
 - C. New Storage Options
 - D. Web Storage
 - E. Web SQL Storage
 - F. Browser Support
- VIII. HTML5 Offline Applications**
 - A. The Need For Offline Mode
 - B. The Manifest File
 - C. The applicationCache Events
 - D. Deployments And Updates
 - E. Browser Support
- N. Customizing Audio/Video Controls**

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Course Outline (cont'd)

IX. HTML5 Geolocation

- A. Introduction To Geolocation
- B. Privacy Considerations
- C. Many Ways To Get User Location
- D. Two Main Methods
- E. The Position Object
- F. Handling Errors
- G. The PositionOptions Object
- H. Browser Support

X. HTML5 Web Workers

- A. The Current JavaScript Execution Model
- B. Introduction To Web Workers
- C. Usage Of Web Workers
- D. Communication APIs
- E. Handling Errors
- F. Browser Support

XI. HTML5 Messaging APIs

- A. Cross-document Messaging
- B. Dealing With The Origin Concept
- C. XMLHttpRequest Level 2
- D. Cross-document XMLHttpRequest
- E. Progress Events
- F. Server-sent Event
- G. Browser Support

XII. HTML5 Web Sockets

- A. Overview Of Web Communication Options
- B. The History (Comet)
- C. Overview Of Web Sockets API And Protocol
- D. Advantages Of Web Sockets
- E. Browser Support