

HTML 5 for Web Developers *(2 Day)*

Class Overview

In this HTML5 training class, you'll start by getting your hands dirty and jumping right into HTML5 code. You'll learn about the new HTML5 structural, semantic, and form tags, how to use Canvas to create drawings natively in the browser, how to work with HTML5 audio and video, the new methods for storing variables client-side, and how you build applications that work offline. Along the way, you'll learn about the current state of browser support for HTML5 and the theory behind all the changes that have been made.

Class Goals

- Learn how to start building HTML5 pages today.
- Learn the major benefits of HTML5.
- Understand the difference between HTML5 and HTML 4.
- Become familiar with HTML5's new elements and attributes.
- Learn to work with audio and video in HTML5.
- Learn to work with HTML5's new Canvas element to create code-based drawings.
- Learn to use Web Storage for offline applications.
- Learn to use all the cool new HTML5 form elements.
- Learn the current state of browser support for HTML5 and how to make your HTML5 sites degrade gracefully.

Class Prerequisites

Experience in the following areas is required:

- HTML 4
- Basic CSS
- Basic JavaScript

Experience in the following areas would be beneficial:

- JSON
- DOM
- Ajax

Course Outline

Laying out a Page with HTML5

- Page Structure
 - Laying out a Page with HTML 4 - the "old" way
 - Laying out a Page with HTML5
- New HTML5 Structural Tags
- Page Simplification

HTML5 - How We Got Here

- The Problems HTML 4 Addresses
- The Problems XHTML Addresses
- The New More Flexible Approach of HTML5 - Paving the Cowpaths
- New Features of HTML5
 - HTML5 and JavaScript
 - Additional Changes
 - Modernizr
- The HTML5 Spec(s)
- Current State of Browser Support

Sections and Articles

- The section Tag
 - The HTML 4 Way
 - The HTML5 Way
 - Display of HTML5 Structural Elements
- The article Tag
- Outlining
 - Sectioning
- Accessibility

HTML5 Audio and Video

- Supported Media Types
- The audio Element
 - Audio Formats
 - Multiple Sources
 - Audio Tag Attributes
 - Getting and Creating Audio Files
- The video Element
 - Video Tag Attributes
 - Creating and Converting Video Files
- Accessibility
- Scripting Media Elements
- Dealing with Non-Supporting Browsers
 - Graceful Degradation

HTML5 Forms

- Modernizr
- New Input Types
 - search
 - tel
 - url and email
 - date/time input types
 - number
 - range

- min, max, and step attributes
- color
- HTML5 New Form Attributes
 - autocomplete
 - novalidate
- Some Other New Form Field Attributes
 - required
 - placeholder
 - autofocus
 - autocomplete
 - form
 - pattern
- New Form Elements
 - datalist
 - progress and meter

HTML5 Web Storage

- Overview of HTML5 Web Storage
- Web Storage
 - Browser Support
 - Local Storage
 - Session Storage
 - Prefixing your Keys
- Other Storage Methods
 - Web Database Storage
 - Indexed Database API

HTML5 Canvas

- Getting Started with Canvas
 - Context
- Drawing Lines
 - Multiple Sub-Paths
 - The Path Drawing Process
 - The fill() Method
- Color and Transparency
- Rectangles
- Circles and Arcs
 - Radians
- Quadratic and Bézier Curves
- Images
 - drawImage() - Basic
 - drawImage() - Sprites
- Text
 - Text Properties

Integrated APIs

- Offline Application API
 - Cache Manifest File
 - The HTML File
 - Managing ApplicationCache with JavaScript
 - A Sample Application
- Drag and Drop API