

Workshop	
Name	HTML5,CSS3 and Associated APIs
Duration	4 days
Objective	<ul style="list-style-type: none"> • Learn the major benefits of HTML5 & CSS3 • Write applications using HTML5, CSS3 and JavaScript • Build applications with rich and interactive UI • Solve complex problems using HTML5 which otherwise was difficult with HTML4 • Understand how HTML 5 fits into smart phone and tablet based applications
Participants' Entry Profile	<ul style="list-style-type: none"> • Should have Knowledge of HTML & JavaScript

Setup Requirements	
Hardware and Software Requirements	<ul style="list-style-type: none"> • Windows 7 or Windows 8 • Preferred Google Chrome, Mozilla Firefox (Latest versions) and Internet Explorer 9 • Aptana Standalone Studio 3
Training Methodology	<ul style="list-style-type: none"> • Concept Visualization • Active Experimentation • Application Development. • The workshop will be 100% Hands-On with each participant having access to system during the session
Training Lab Requirements	<ul style="list-style-type: none"> • Whiteboard 6 feet by 4 feet (minimum) • Whiteboard markers – Red, Blue, Green, Black • Video Projector (1024 X 768 resolutions)

Course Contents

Day 1**➤ Introduction to HTML5**

- The State Of Browser Support
 - Browsers In Desktop & Mobile
 - Feature Detection
- Support For Legacy Browsers
 - Graceful Degradation
 - Emulation
- Developer Tools

➤ Structure Of A Web Page

- HTML5 DOCTYPE
- Page Encoding
- HTML5 Markup
 - New And Updated Elements
 - Structural Elements
 - New Attributes
 - Deprecated Elements And Attributes
- HTML5 and CSS3 together
- Browser Support

➤ CSS3 Basics

- Selective Styling
- Working with Pseudo-classes
- Working with Pseudo-elements

➤ Working with Text, Color, Background and Table

- HTML5 Text formatting Tags
- CSS3 Font and Text properties
- CSS3 Color and Background properties
- CSS3 List and Table properties

➤ Layout your Webpages

- CSS3 Box properties
- CSS3 display, float, margin, position properties
- Multi column layout

➤ CSS3 Visual Formatting, Transformation and Transition Properties

- Stacking objects
- Using shadow and Opaque properties
- Transforming an Element
- Adding Transitions Between Element States

➤ **Forms**

- Current Solutions
- New Input Types
- New Attributes
- Form Validation
- Browser Support

Day 2

➤ **Audio And Video**

- The State of Web Audio And Video Based On Plugins
- New Audio/Video Markup
- Attributes And Methods
- Understanding Audio/Video Events

➤ **HTML5 Canvas**

- Overview Of Graphics In The Browser
 - Canvas Vs. SVG
- Using a Canvas
- Context and Coordinates
- Drawing Shapes and images
- Using gradients
- Browser Support

➤ **HTML5 Geolocation**

- Introduction to Geolocation
- Mechanisms used to find geolocation
- The Position Object
- Handling Errors
- Working with GoogleMaps

Day 3

➤ **HTML5 Data Storage**

- Problems with the existing Cookie-based Model
- New Storage Options
 - Web Storage
 - Local & Session
 - Web SQL Storage
 - Index DB
- Browser Support

➤ **HTML5 Web Workers**

- The Current JavaScript Execution Model
- Introduction To Web Workers
- Usage Of Web Workers
- Communication APIs
- Handling Errors
- Dedicated & Shared Workers

➤ **HTML5 Offline Applications**

- The Need For Offline Mode
- The Manifest File
- The applicationCache Events
- Deployments And Updates
- Browser Support

Day 4

➤ **HTML5 Messaging APIs**

- Cross-document Messaging
 - Dealing With The Origin Concept
- XMLHttpRequest Level 2
 - Cross-document XMLHttpRequest
 - Progress Events
- Server-sent Event
- Browser Support

➤ **HTML5 Web Sockets**

- Overview Of Web Communication Options
- The History (Comet)
- Overview Of Web Sockets API And Protocol
- Advantages Of Web Sockets
- Developing Web socket

➤ **HTML5 and CSS3 best practices**

- HTML5 best practices
- CSS3 best practices