

# HTML and CSS

## HTML5 and CSS3 Course Overview

HTML5 is everywhere, and is a technology that can no longer be ignored or treated as a mere extension of HTML4. HTML5 is a vast umbrella term for modern Front End Engineering, namely **JavaScript**, Markup, DeviceAPIs, and Styles. Almost anything you see in **App Stores** can now be created with pure HTML5.

Although we will cover some of the most exciting features of HTML5 such as geo location, web sockets, local storage, Real Time Communications(Web Workers, Web Socket), File / Hardware Access(Native Drag and Drop, FileSystem APIs, Geolocation, Device Orientation and Speech Input), Semantics and Markup, Multimedia, Graphics (2D and 3D Effects) SVG and Canvas, the focus of the course will be to help people understand the core principles and best practices for creating websites and apps.

CSS3 is split up into “modules”. The old specification has been split into smaller pieces, and new ones are also added. Some of the most important CSS3 modules are Selectors, Box Model, Backgrounds and Borders, Text Effects, 2D/3D Transformations, Animations, Multiple Column Layout and **User Interface**

## HTML5 and CSS3 Training Course Prerequisite

- HTML, CSS and **JavaScript**

## HTML5 and CSS3 Training Course Objectives

- As we jump into the course, let me just give you the course objectives, the things that I’m trying accomplish here, and the first thing is to introduce you to HTML5, and really quite honestly, one of my objectives, HTML5 like everything that has to do with the web.
- HTML5 is the ubiquitous platform for the web. Whether you’re a mobile web developer, an enterprise with specific business needs, or a serious game dev looking to explore the web as a new platform, HTML5 has something for you! HTML5 is making the web platform more powerful in a number of different areas.

## HTML5 and CSS3 Course Duration

- 30 Working days, daily one and half hours

## HTML5 and CSS3 Course Content

### Introduction to WEB

- W3C and W3C Members
- Why WHATWG?
- What is Web?

### HTML Basics

- Introduction
- Parts in HTML Document
- Editors
- Basic

# HTML and CSS

- Elements
- Attributes
- Headings
- Basics
- Paragraphs
- Formatting
- Links
- Head
- CSS
- Images
- Tables
- JavaScript
- HTML XHTML
- HTML4 Drawbacks

## HTML5 Introduction

- HTML5 HISTORY
- New Features and groups
- Backward Compatibility
- Why HTML5?
- Power of HTML5:
- m or mobi or touch domains
- Common Terms in HTML5

## HTML5 Syntax

- The DOCTYPE:
- Character Encoding:

## Obsolete Elements/Deprecated Elements

- <acronym>
- <applet>
- <basefont>
- <big>
- <center>
- <dir>
- <font>
- <frame>
- <frameset>
- <isindex>
- <noframes>
- <s>
- <strike>
- <tt>
- <u>
- <xmp>

## HTML5 New Elements

# HTML and CSS

- New Semantic/Structural Elements
- <article>
- <aside>
- <bdi>
- <command>
- <details>
- <dialog>
- <summary>
- <figure>
- <figcaption>
- <footer>
- <header>
- <mark>
- <meter>
- <nav>
- <progress>
- <ruby>
- <rt>
- <rp>
- <section>
- <time>
- <wbr>

## HTML5 Canvas

- What is Canvas?
- Create a Canvas
- Canvas Coordinates
- Canvas – Paths
- Canvas – Text
- Canvas – Gradients
- Canvas – Images

## HTML5 SVG

- What is SVG?
- SVG Advantages
- Differences Between SVG and Canvas
- Comparison of Canvas and SVG

## HTML5 Drag/Drop

- Introduction
- Make an Element Draggable
- What to Drag?Where to Drop?

## HTML5 Geo location

- Introduction
- Locate the User's Position+
- Handling Errors and Rejections

# HTML and CSS

- The `getCurrentPosition()`
- Geolocation object

## HTML5 Video

- Introduction
- Video on the Web
- How It Works?
- Video Formats and Browser Support
- HTML5 Video Tags

## HTML5 Audio

- Introduction
- Audio on the Web
- How It Works?
- Audio Formats and Browser Support
- HTML5 Audio Tags

## HTML5 Input Types

- Introduction
- `color`
- `date`
- `datetime`
- `datetime-local`
- `email`
- `month`
- `number`
- `range`
- `search`
- `tel`
- `time`
- `url`
- `week`

## HTML5 Form Elements

- `<datalist>`
- `<keygen>`
- `<output>`

## HTML5 Form Attributes

- New attributes for `<form>` and `<input>` New attributes for `<form>`:
- `autocomplete`
- `novalidate`

## New attributes for `<input>`

# HTML and CSS

- autocomplete
- autofocus
- form, formaction
- formenctype, formmethod
- formnovalidate
- formtarget
- height and width
- list, min and max
- multiple
- pattern (regexp)
- placeholder
- required, step

## HTML5 Semantic

- Introduction
- What are Semantic Elements?
- non-semantic elements: <div> and <span>
- semantic elements: <form>, <table>, and <img>
- New Semantic Elements in HTML5
- <header>
- <nav>
- <section>
- <article>
- <aside>
- <figcaption>
- <figure>
- <footer>

## HTML5 Web Storage

- What is HTML5 Web Storage?
- Browser Support
- The localStorage Object
- The sessionStorage Object

## HTML5 App Cache

- What is Application Cache?
- Cache Manifest Basics
- HTML5 Cache Manifest

## HTML5 Web Workers

- What is a Web Worker?
- Check Web Worker Support
- Create a Web Worker File
- Terminate a Web Worker

## HTML5 SSE

# HTML and CSS

- One Way Messaging
- Browser Support
- The EventSource Object

## HTML Media

- New Media Elements
- <audio>
- <video>
- <source>
- <embed>
- <track>

## HTML Multimedia

- What is Multimedia?
- Browser Support
- Multimedia Formats
- Video Formats
- Sound Formats

## HTML5 – MathML

- Introduction
- Using MathML Characters
- Matrix Presentation
- Math Formulas

## CSS 1.0 and 2.0

- CSS Basics
- CSS Introduction
- CSS Syntax, CSS Id, Class and CSS Styling, Styling Backgrounds
- Styling Text, Styling Fonts, Links, Styling Lists and Styling Tables
- CSS Border

## CSS3

- Introduction
- CSS3 Modules
- Selectors
- Box Model
- Backgrounds and Borders
- Text Effects
- 2D/3D Transformations
- Animations
- Multiple Column Layout
- User Interface

## Borders

# HTML and CSS

- border-radius
- box-shadow
- border-image

## CSS3 Backgrounds

- background-size
- background-origin

## CSS3 Text Effects

- text-shadow
- word-wrap

## CSS3 Fonts

- @font-face Rule
- font-stretch
- font-weight

## CSS3 2D Transforms

- How Does it Work?
- Browser Support
- 2D Transforms
- translate()
- rotate()
- scale()
- skew()
- matrix()

## CSS3 3D Transforms

- rotateX()
- rotateY()

## CSS3 Transitions

- How does it work?
- transition-property, duration and delay

## CSS3 Animations

- CSS3 @keyframes Rule
- Browser Support
- Animation, animation-duration

## CSS3 Multiple Columns

# HTML and CSS

- column-count
- column-gap
- column-rule

## CSS3 User Interface

- resize
- box-sizing
- outline-offset