

# HTML 5 Fundamentals Course outline

## Session 1

### Section A: Introduction to HTML 5

- HTML Defined
- HTML History
- New Features of HTML 5
- HTML 5 and the W3C
- HTML 5 Coding Technologies
- HTML 5 Browser Support
- Tools Needed to Write HTML 5 Code
- Example Coding Environment
- My First HTML 5 Page
- Role of JavaScript in HTML 5

### Section B: HTML Text Markup

- Basic Document Structure
- Creating a Basic Document Template
- Creating HTML Comments
- Classic HTML Paragraph Tags
- Classic HTML Heading Tags
- Unordered Lists
- Ordered Lists
- Attributes
- Hyperlinks
- Image Tag

### Section C: HTML 5 Text Markup

- Article Tag
- Aside Tag
- Article/Aside Example
- Details Tag
- Figure Tag
- Header and Footer Tags
- Nav Tag
- Section and Summary Tags
- Global Attributes

### Section D: HTML 5 Forms

- Form Tag
- Input Text
- Input E-mail
- Input URL
- Input Numbers
- Input Range
- Input Date
- Input List with Datalist
- Option Groups
- Input Radio Buttons
- Input Check Boxes
- Regular Expression Pattern Matching

- Required Fields

## **Session 2**

### **Section A: HTML 5 Audio and Video**

- Add Audio Objects to the Page
- Determining the Audio Source
- Add Video Objects to the Page
- Video Tag Browser Support
- Accepted File Formats/Codecs
- Multi-File Support
- Setting the Preload Attribute

### **Section B: HTML 5 Canvas and SVG**

- Creating the Canvas
- Stylizing the Canvas Element
- Cartesian Grid Defined
- Drawing a Circle using JavaScript
- Drawing a Rectangle using JavaScript
- Drawing a Line using JavaScript
- Drawing Gradients
- Applying Opacity Drawing Objects
- Placing Images on the Canvas

### **Section C: HTML 5 Communication APIs**

- AJAX Defined
- Disadvantages of AJAX
- Posting Results via innerHTML
- Creating an XMLHttpRequest Object
- Sending an XMLHttpRequest
- Monitoring Server Communication
- Interacting with a Remote Server
- Send Parameters to the Server with GET
- Send Parameters to the Server with POST

### **Section D: HTML 5 Web Workers**

- Web Workers Defined
- Web Worker Features
- Web Worker Limitations
- Creating a Web Worker Object
- Writing the Web Worker Code

### **Section E: HTML 5 Geolocation**

- Understanding Geolocation
- getCurrentPosition API
- Geolocation Callback Function
- Getting Additional Position Data
- Trapping Geolocation Errors
- Creating and Displaying a Map
- watchPosition API

## **Section F: HTML 5 Data Storage**

- Understanding HTML 5 Storage
- Storing Data on the Client
- Retrieving Data from localStorage
- Retrieving Data from sessionStorage