Introduction to HTML5, CSS3 & JavaScript

Code: TT4003
Length: 3 days
URL: View Online

Introduction to HTML5, CSS3 & JavaScript is an in-depth HTML5, CSS3 and JavaScript training course geared for developers who need to understand what the latest in web technologies and responsive design practices that are central to targeting the entire spectrum of user platforms and browsers. This comprehensive course provides a balanced mixture of theory and practical labs designed to take students through HTML5, CSS3 and JavaScript. Students who attend this course will leave this course armed with the new skills to design, implement, and deploy robust, flexible, and safe web applications.

Skills Gained

Working within in a dynamic, hands-on learning environment, guided by our expert team, attendees will learn:

- HTML5:
- How to effectively meet requirements using the full range of HTML5 semantic and structural elements
- To work with technologies such as web storage, application caching, and cross-domain messaging to improve performance and the user experience
- CSS:
- What features CSS3 supports and how they can be effectively used with HTML5 and other technologies
- To adapt to varying degrees of browser support for HTML5 and CSS3
- JavaScript:
- What JavaScript is, how it relates to other programming languages, and how to script your web pages with it
- To traverse and manipulate the DOM and handle events in ways that work in all browsers
- To work with closures and prototypes and other exotic features of JavaScript
- Debugging
- What is needed to effectively debug these web technologies
- How to use both browser-based and proxy-based debuggers and tools

Who Can Benefit

This is an introductory level course, designed for web developers that need to upgrade core skills leveraging modern scripting and web development languages and standards. This course provides an excellent foundation for continued learning to gain in-demand skills in in-demand skills and technologies such as Angular, React, NodeJS, JQuery and more.

Course Details

Session: HTML Refresher
Lesson: HTML Review

- Define HTML and review its history
- Look at XHTML and its relationship to HTML
- Identify HTML limitations and improvements
- Lab: Working with HTML

Lesson: Introduction to HTML5

- HTML5 Overview
- HTML5 Semantic Structure
- HTML5 Forms
- HTML5 Media Delivery

- Lab: Writing a Valid HTML5 Document
- Lab: Writing HTML5 Forms

Session: Introduction to CSS
Lesson: CSS Basics

- Learn the basics of CSS
- Meaning of cascading in CSS
- Declaring CSS within your HTML page
- Creating styles in an external CSS file
- Control how to display and position HTML elements
- Overriding standard tag behavior
- Adding new classes
- Using custom classes in your page
- Lab: Working with CSS

Lesson: CSS3 Overview

- What is new in CSS3
- The Advantages of CSS3
- Browser Support for CSS3
- Lab: Working with CSS3

Lesson: CSS3 Advanced Selectors

- Selecting Using Attributes
- Selecting Using DOM Structure
- Complex Selecting using Pseudo-Classes
- Selecting Using UI Components and State
- Lab: Using Attribute Selectors

Lesson: CSS3 Visual Effects

- Font Options, Opacity, and Color
- Distributing Content Across Columns
- Working with Borders and Boxes
- Working with Vendor Prefixes
- Functional Techniques
- Lab: Using Improved CSS3 Techniques
- Lab: Applying CSS3 Functional Techniques

Session: Introduction to JavaScript
Lesson: JavaScript Basics

- JavaScript Defined
- Variables and Operators
- Flow Control and Conditionals
- Lab: JavaScript Basics

Lesson: Debugging Tools

- Using the strict mode and setting breakpoints
- Browser debugging tools
- Monitoring resource usage and performance
- Emulating devices Exceptions in JavaScript
- Lab: JavaScript Debugging

Lesson: JavaScript Functions

- Functions in JavaScript

- Invoking Functions
- Function Constructor
- Function Scope and Closures

Lesson: JavaScript Arrays, Math and Date

- JavaScript Literals
- JavaScript Arrays
- Working with Numbers and Dates
- Lab: JavaScript Built-in Objects

Lesson: JavaScript Event Handling and the DOM

- Events and Event Handling
- HTML Document Object Model
- Accessing the DOM
- Dynamically Working with the DOM
- DOM Challenges
- Lab: Using Events and the DOM

Lesson: Object-Oriented JavaScript

- JavaScript "Objects" and "Classes"
- Constructors and Prototypes
- Prototypes
- Extending Classes with Prototype
- Reusable, Flexible Classes
- Lab: Working with Classes