



20480 Programming in HTML5 with JavaScript and CSS3

Duration: Five Days

Overview: This course provides an introduction to HTML5, CSS3, and JavaScript. This course helps students gain basic HTML5/CSS3/JavaScript programming skills.

Who Should Attend: This course is intended for professional developers who have 6-12 months of programming experience and who are interested in developing applications using HTML5 with JavaScript and CSS3 (either Windows Store apps for Windows 8 or web applications).

Outline

Lesson 1: Overview of HTML and CSS

- Overview of HTML
- Overview of CSS
- Creating a Web Application by Using Visual Studio 2012
- Lab : Exploring the Contoso Conference Application

Lesson 2: Creating and Styling HTML5 Pages

- Creating an HTML5 Page
- Styling an HTML5 Page
- Lab : Creating and Styling HTML5 Pages

Lesson 3: Introduction to JavaScript

- Overview of JavaScript Syntax
- Programming the HTML DOM with JavaScript
- Introduction to jQuery
- Lab : Displaying Data and Handling Events by Using JavaScript

Lesson 4: Creating Forms to Collect Data and Validate User Input

- Overview of Forms and Input Types
- Validating User Input by Using HTML5 Attributes
- Validating User Input by Using JavaScript
- Lab : Creating a Form and Validating User Input

Lesson 5: Communicating with a Remote Data Source

- Sending and Receiving Data by Using XMLHttpRequest
- Sending and Receiving Data by Using jQuery AJAX operations
- Lab : Communicating with a Remote Data Source

Lesson 6: Styling HTML5 by Using CSS3

- Styling Text
- Styling Block Elements
- CSS3 Selectors
- Enhancing Graphical Effects by Using CSS3
- Lab : Styling Text and Block Elements using CSS3

Lesson 7: Creating Objects and Methods by Using JavaScript

- Writing Well-Structured JavaScript

Creating Custom Objects
Extending Objects
Lab : Refining Code for Maintainability and Extensibility

Lesson 8: Creating Interactive Pages using HTML5 APIs

Interacting with Files
Incorporating Multimedia
Reacting to Browser Location and Context
Debugging and Profiling a Web Application
Lab : Creating Interactive Pages by Using HTML5 APIs

Lesson 9: Adding Offline Support to Web Applications

Reading and Writing Data Locally
Adding Offline Support by Using the Application Cache
Lab : Adding Offline Support to a Web Application

Lesson 10: Implementing an Adaptive User Interface

Supporting Multiple Form Factors
Creating an Adaptive User Interface
Lab : Implementing an Adaptive User Interface

Lesson 11: Creating Advanced Graphics

Creating Interactive Graphics by Using Scalable Vector Graphics
Programmatically Drawing Graphics by Using a Canvas
Lab : Creating Advanced Graphics

Lesson 12: Animating the User Interface

Applying CSS Transitions
Transforming Elements
Applying CSS Key-frame Animations
Lab : Animating User Interface Elements

Lesson 13: Implementing Real-Time Communications by Using Web Sockets

Introduction to Web Sockets
Sending and Receiving Data by Using Web Sockets
Lab : Implementing Real-Time Communications by Using Web Sockets

Lesson 14: Creating a Web Worker Process

Introduction to Web Workers
Performing Asynchronous Processing by Using a Web Worker
Lab : Creating a Web Worker Process

To register or for more information call
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