

20480BC	Programming in HTML5 with JavaScript and CSS3	5 DAYS	SATV : YES
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Course Description

This course helps students gain intermediate and advanced HTML5/CSS3/JavaScript programming skills. This course is an entry point into both the Web application and Windows Store apps training paths. The course focuses on program structure, defining and using variables, looping and branching, programming logic, adaptive UI development, capturing input, storing data, basics of application lifecycle, etc.. The intended student customer for this training is a developer who has at least six months of professional experience. This student is expected to have little or no HTML5 coding experience but should have experience with HTML4. Students choosing to attend this training without a developer background should pay special attention to the training prerequisites.

Course Outline

Module 1: Overview of HTML and CSS

- Overview of HTML
- Overview of CSS
- Creating a Web Application by Using Visual Studio 2012

Module 2: Creating and Styling HTML5 Pages

- Creating an HTML5 Page
- Styling an HTML5 Page

Module 3: Introduction to JavaScript

- Overview of JavaScript Syntax
- Programming the HTML DOM with JavaScript
- Introduction to jQuery

Module 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

Module 5: Communicating with a Remote Data Source

- Sending and Receiving Data by Using XMLHttpRequest
- Sending and Receiving Data by Using jQuery AJAX operations Reusing Code in Views

Module 6: Styling HTML5 by Using CSS3 Unit Testing MVC Components

- Styling Text
- Styling Block Elements
- CSS3 Selectors
- Enhancing Graphical Effects by Using CSS3

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Module 7: Creating Objects and Methods by Using JavaScript

- Writing Well-Structured JavaScript
- Creating Custom Objects
- Extending Objects

Module 8: Creating Interactive Pages using HTML5 APIs

- Interacting with Files
- Incorporating Multimedia
- Reacting to Browser Location and Context
- Debugging and Profiling a Web Application

Module 9: Adding Offline Support to Web Applications

- Reading and Writing Data Locally
- Adding Offline Support by Using the Application Cache

Module 10: Implementing an Adaptive User Interface

- Supporting Multiple Form Factors
- Creating an Adaptive User Interface

Module 11: Creating Advanced Graphics

- Implementing Authentication and Authorization
- Assigning Roles and Membership

Module 12: Animating the User Interface

- Applying CSS Transitions
- Transforming Elements
- Applying CSS Key-frame Animations

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

- Introduction to Web Sockets
- Sending and Receiving Data by Using Web Sockets

Module 14: Creating a Web Worker Process

- Introduction to Web Workers
- Performing Asynchronous Processing by Using a Web Worker