

Programming in HTML5 with JavaScript and CSS3

20480B



Delivery Type: Classroom

Duration: 5 days

Overview:

This course provides an introduction to HTML5, CSS3, and JavaScript. This course helps students gain basic 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 using HTML5/CSS3/JavaScript to implement programming logic, define and use variables, perform looping and branching, develop user interfaces, capture and validate user input, store data, and create well-structured application.

The lab scenarios in this course are selected to support and demonstrate the structure of various application scenarios. They are intended to focus on the

principles and coding components/structures that are used to establish an HTML5 software application. This course uses Visual Studio 2012, running on Windows 8.

Audience Profile:

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).

Individuals who are interested in taking exam 70-480: Programming in HTML5 with JavaScript and CSS3, can also attend this course.

Course Completion:

After completing this course, students will be able to:

- ✓ Explain how to use Visual Studio 2012 to create and run a Web application.
- ✓ Describe the new features of HTML5, and create and style HTML5 pages.
- ✓ Add interactivity to an HTML5 page by using JavaScript.
- ✓ Create HTML5 forms by using different input types, and validate user input by using HTML5 attributes and JavaScript code.
- ✓ Send and receive data to and from a remote data source by using XMLHttpRequest objects and jQuery AJAX operations.
- ✓ Style HTML5 pages by using CSS3.
- ✓ Create well-structured and easily-maintainable JavaScript code.
- ✓ Use common HTML5 APIs in interactive Web applications.
- ✓ Create Web applications that support offline operations.
- ✓ Create HTML5 Web pages that can adapt to different devices and form factors.
- ✓ Add advanced graphics to an HTML5 page by using Canvas elements, and by using and Scalable Vector Graphics.
- ✓ Enhance the user experience by adding animations to an HTML5 page.
- ✓ Use Web Sockets to send and receive data between a Web application and a server.
- ✓ Improve the responsiveness of a Web application that performs long-running operations by using Web Worker processes.

Before attending this course, students must have:

- ✓ Understand the basic HTML document structure:
- ✓ How to use HTML tags to display text content.
- ✓ How to use HTML tags to display graphics.
- ✓ How to use HTML APIs.
- ✓ Understand how to style common HTML elements using CSS, including:
 - ✓ How to separate presentation from content
 - ✓ How to manage content flow.
 - ✓ How to control the position of individual elements.
 - ✓ How to implement basic CSS styling.
- ✓ Understand how to write JavaScript code to add functionality to a web page:
 - ✓ How to create and use variables
 - ✓ How to use:
 - ✓ arithmetic operators to perform arithmetic calculations involving one or more variables
 - ✓ relational operators to test the relationship between two variables or expressions
 - ✓ logical operators to combine expressions that contain relational operators
 - ✓ How to control the program flow by using if ... else statements.
 - ✓ How to implement iterations by using loops.
 - ✓ How to write simple functions

Prerequisites: