pcsnet

MVS3-1 - MOC 20480 - PROGRAMMING IN HTML5 WITH JAVASCRIPT AND

CSS3

Categoria: Visual Studio

INFORMAZIONI SUL CORSO



Durata: 5 Giorni

Categoria: Visual Studio

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Qualifica Istruttore: Microsoft Certified Trainer



Dedicato a: Sviluppatore



Microsoft

OBIETTIVI

After completing this course, students should be able to:

- -Explain how to use Visual Studio 2017 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 Fetch API.
- -Style HTML5 pages by using CSS3.
- -Create well-structured and easily-maintainable JavaScript code.
- -Write modern JavaScript code and use babel to make it compatible to all browsers.
- -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.
- -Use WebPack to package web applications for production.

PREREQUISITI

- 1-3 months experience creating Web applications, including writing simple JavaScript code
- 1 month experience creating Windows client applications
- 1 month of experience using Visual Studio 2017

CONTENUTI



-Overview of HTML

-Overview of CSS

-Creating a Web Application by Using Visual Studio 2017

Lab : Exploring the Contoso Conference Application

-Exploring the Contoso Conference Application

-Examining and Modifying the Contoso Conference Application

Module 2: Creating and Styling HTML Pages

-Creating an HTML5 Page

-Styling an HTML5 Page

Lab : Creating and Styling HTML5 Pages

-Creating HTML5 Pages

-Styling HTML pages

Module 3: Introduction to JavaScript

-Overview of JavaScript

-Introduction to the Document Object Model

Lab : Displaying Data and Handling Events by Using JavaScript.

-Displaying Data Programmatically

-Handling Events

Module 4: Creating Forms to Collect and Validate User Input

-Creating HTML5 Forms

-Validating User Input by Using HTML5 Attributes

-Validating User Input by Using JavaScript

Lab : Creating a Form and Validating User Input

-Creating a Form and Validating User Input by Using HTML5 Attributes

-Validating User Input by Using JavaScript

Module 5: Communicating with a Remote Server

-Async programming in JavaScript

-Sending and Receiving Data by Using the XMLHttpRequest Object

-Sending and Receiving Data by Using the Fetch API

Lab : Communicating with a Remote Data Source

-Retrieving Data

-Serializing and Transmitting Data

-Refactoring the Code by Using the jQuery ajax Method

Module 6: Styling HTML5 by Using CSS3

-Styling Text by Using CSS3

-Styling Block Elements

-Pseudo-Classes and Pseudo-Elements

-Enhancing Graphical Effects by Using CSS3

Lab : Styling Text and Block Elements by Using CSS3

-Styling the Navigation Bar

-Styling the Register Link

-Styling the About Page

Module 7: Creating Objects and Methods by Using JavaScript



-Writing Well-Structured JavaScript Code

-Creating Custom Objects

-Extending Objects

Lab : Refining Code for Maintainability and Extensibility

-Object Inheritance

-Refactoring JavaScript Code to Use Objects

Module 8: Creating Interactive Pages by Using HTML5 APIs

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

Lab : Creating Interactive Pages with HTML5 APIs

-Dragging and Dropping Images

-Incorporating Video

-Using the Geolocation API to Report the User's Current Location

Module 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 Web Applications

- -Caching Offline Data by Using the Application Cache API
- -Persisting User Data by Using the Local Storage API

Module 10: Implementing an Adaptive User Interface

- -Supporting Multiple Form Factors
- -Creating an Adaptive User Interface

Lab : Implementing an Adaptive User Interface

- -Creating a Print-Friendly Style Sheet
- -Adapting Page Layout to Fit Different Form Factors

Module 11: Creating Advanced Graphics

- -Creating Interactive Graphics by Using SVG
- -Drawing Graphics by Using the Canvas API

Lab : Creating Advanced Graphics

- -Creating an Interactive Venue Map by Using SVG
- -Creating a Speaker Badge by Using the Canvas API

Module 12: Animating the User Interface

- -Applying CSS Transitions
- -Transforming Elements
- -Applying CSS Keyframe Animations

Lab : Animating the User Interface

- -Applying CSS Transitions
- -Applying Keyframe Animations

Module 13: Implementing Real-time Communication by Using Web Sockets

-Introduction to Web Sockets

-Using the WebSocket API

Lab : Performing Real-time Communication by Using Web Sockets



- -Receiving Messages from a Web Socket
- -Sending Messages to a Web Socket
- -Handling Different Web Socket Message Types

Module 14: Performing Background Processing by Using Web Workers

- -Understanding Web Workers
- -Performing Asynchronous Processing by Using Web Workers

Lab : Creating a Web Worker Process

-Improving Responsiveness by Using a Web Worker

Module 15: Packaging JavaScript for Production Deployment

- -Understanding Transpilers And Module bundling
- -Creating Separate Packages for Cross Browser Support

Lab : Setting Up Webpack Bundle for Production

-Creating and Deploying Packages using WebPack

INFO

Materiale didattico: Materiale didattico in formato digitale Costo materiale didattico: incluso nel prezzo del corso a Calendario Natura del corso: Operativo (previsti lab su PC)