MVS3-9 - MOC 20486C - DEVELOPING ASP.NET MVC 5 WEB APPLICATIONS

Categoria: **Visual Studio**

INFORMAZIONI SUL CORSO

Durata:	Categoria:	Qualifica Istruttore:	Dedicato a:	Produttore:
5 Giorni	Visual Studio	Microsoft Certified Trainer	Sviluppatore	Microsoft

OBIETTIVI

After completing this course, students will be able to:

- Describe the Microsoft Web Technologies stack and select an appropriate technology to use to develop any given application.
- Design the architecture and implementation of a web application that will meet a set of functional requirements, user interface requirements, and address business models.
- Create MVC Models and write code that implements business logic within Model methods, properties, and events.
- Add Controllers to an MVC Application to manage user interaction, update models, and select and return Views.
- Create Views in an MVC application that display and edit data and interact with Models and Controllers.
- Run unit tests and debugging tools against a web application in Visual Studio and configure an application for troubleshooting.
- Develop a web application that uses the ASP.NET routing engine to present friendly URLs and a logical navigation hierarchy to users.
- Implement a consistent look and feel, including corporate branding, across an entire MVC web application.
- Use partial page updates and caching to reduce the network bandwidth used by an application and accelerate responses to user requests.
- Write JavaScript code that runs on the client side and utilizes the jQuery script library to optimize the responsiveness of an MVC web application.
- Implement a complete membership system in an MVC web application.
- Build an MVC application that resists malicious attacks and persists information about users and preferences.
- Describe how to write a Microsoft Azure web service and call it from and MVC application.
- Describe what a Web API is and why developers might add a Web API to an application.
- Modify the way browser requests are handled by an MVC application.
- Describe how to package and deploy an ASP.NET MVC web application from a development computer to a web server for staging or production.

PREREQUISITI

Before attending this course, students must have:
A minimum of two to three years of experience developing web-based applications by using Microsoft Visual Studio and Microsoft ASP.NET, proficiency in using the .NET Framework, and some familiarity with the C# language.

CONTENUTI

Module 1: Exploring ASP.NET MVC 5

- -Overview of Microsoft Web Technologies
- -Overview of ASP.NET
- -Introduction to ASP.NET MVC 5

Lab : Exploring ASP.NET MVC 5

- -Exploring a Photo Sharing Application
- -Exploring a Web Pages Application
- -Exploring a Web Forms Application
- -Exploring an MVC Application

Module 2: Designing ASP.NET MVC 5 Web Applications

- -Planning in the Project Design Phase
- -Designing Models, Controllers, and Views

Lab : Designing ASP.NET MVC 5 Web Applications

- -Planning Model Classes
- -Planning Controllers
- -Planning Views
- -Architecting an MVC Web Application

Module 3: Developing ASP.NET MVC 5 Models

- -Creating MVC Models
- -Working with Data

Lab : Developing ASP.NET MVC 5 Models

- -Creating an MVC Project and Adding a Model
- -Adding Properties to MVC Models
- -Using Data Annotations in MVC Models
- -Creating a New Microsoft Azure SQL Database

Module 4: Developing ASP.NET MVC 5 Controllers

- -Writing Controllers and Actions
- -Writing Action Filters

Lab : Developing ASP.NET MVC 5 Controllers

- -Adding an MVC Controller and Writing the Actions
- -Optional—Writing the Action Filters in a Controller

Module 5: Developing ASP.NET MVC 5 Views

- -Creating Views with Razor Syntax
- -Using HTML Helpers
- -Re-using Code in Views

Lab : Developing ASP.NET MVC 5 Views

- -Adding a View for Photo Display
- -Adding a View for New Photos
- -Creating and Using a Partial View
- -Adding a Home View and Testing the Views

Module 6: Testing and Debugging ASP.NET MVC 5 Web Applications

- -Unit Testing MVC Components
- -Implementing an Exception Handling Strategy

Lab : Testing and Debugging ASP.NET MVC 5 Web Applications

- -Performing Unit Tests
- -Optional – Configuring Exception Handling

Module 7: Structuring ASP.NET MVC 5 Web Applications

- -Analyzing Information Architecture
- -Configuring Routes
- -Creating a Navigation Structure

Lab : Structuring ASP.NET MVC 5 Web Applications

- -Using the Routing Engine
- -Optional—Building Navigation Controls

Module 8: Applying Styles to ASP.NET MVC 5 Web Applications

- -Using Layouts
- -Applying CSS Styles to an MVC Applicaiton
- -Creating an Adaptive User Interface

Lab : Applying Styles to ASP.NET MVC 5 Web Applications

- -Creating and Applying Layouts
- -Applying Styles to an MVC Web Application
- -Optional—Adapting Webpages for Mobile Browsers

Module 9: Building Responsive Pages in ASP.NET MVC 5 Web Applications

- -Using AJAX and Partial Page Updates
- -Implementing a Caching Strategy

Lab : Building Responsive Pages in ASP.NET MVC 5 Web Applications

- -Using Partial Page Updates
- -Optional—Configuring the ASP.NET Caches

Module 10: Using JavaScript and jQuery for Responsive MVC 5 Web Applications

- -Rendering and Executing JavaScript Code
- -Using jQuery and jQueryUI

Lab : Using JavaScript and jQuery for Responsive MVC 5 Web Applications

- -Creating and Animating the Slideshow View
- -Optional—Adding a jQueryUI ProgressBar Widget

Module 11: Controlling Access to ASP.NET MVC 5 Web Applications

- -Implementing Authentication and Authorization
- -Assigning Roles and Membership

Lab : Controlling Access to ASP.NET MVC 5 Web Applications

- -Configuring Authentication and Membership Providers
- -Building the Logon and Register Views
- -Authorizing Access to Resources
- -Optional—Building a Password Reset View

Module 12: Building a Resilient ASP.NET MVC 5 Web Application

- -Developing Secure Sites
- -State Management

Lab : Building a Resilient ASP.NET MVC 5 Web Application

- -Creating Favorites Controller Actions
- -Implementing Favorites in Views

Module 13: Implementing Web APIs in ASP.NET MVC 5 Web Applications

- -Developing a Web API
- -Calling a Web API from Mobile and Web Applications

Lab : Implementing Web APIs in ASP.NET MVC 5 Web Applications

- -Adding a Web API to the Photo Sharing Application
- -Using the Web API for a Bing Maps Display

Module 14: Handling Requests in ASP.NET MVC 5 Web Applications

- -Using HTTP Modules and HTTP Handlers
- -Using Web Sockets

Lab : Handling Requests in ASP.NET MVC 5 Web Applications

- -Creating a SignalR Hub
- -Creating a Photo Chat View

Module 15: Deploying ASP.NET MVC 5 Web Applications

- -Deploying a Web Application
- -Deploying an ASP.NET MVC 5 Web Application

Lab : Deploying ASP.NET MVC 5 Web Applications

- -Deploying a Web Application to Microsoft Azure
- -Testing the Completed Application

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)