

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

Categoria: **Visual Studio**

## INFORMAZIONI SUL CORSO



Durata:  
5 Giorni



Categoria:  
Visual Studio



Qualifica Istruttore:  
Microsoft Certified  
Trainer



Dedicato a:  
Sviluppatore



Produttore:  
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 an 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 Application
- 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)