MVS3-14 - MOC 20486D - DEVELOPING ASP.NET CORE MVC 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.
- Configure the pipeline of ASP.NET Core web applications using middleware, and leverage dependency injection across MVC application.
- Add Controllers to an MVC Application to manage user interaction, update models, and select and return Views.
- Develop a web application that uses the ASP.NET Core routing engine to present friendly URLs and a logical navigation hierarchy to users.
- Create Views in an MVC application that display and edit data and interact with Models and Controllers.
- Create MVC Models and write code that implements business logic within Model methods, properties, and events.
- Connect an ASP.NET Core application to a database using Entity Framework Core.
- Implement a consistent look and feel across an entire MVC web application.
- Write JavaScript code that runs on the client-side and utilizes the jQuery script library to optimize the responsiveness of an MVC web application.
- Add client side packages and configure Task Runners.
- Run unit tests and debugging tools against a web application in Visual Studio 2017.
- Write an MVC application that authenticates and authorizes users to access content securely using Identity.
- Build an MVC application that resists malicious attacks.
- Use caching to accelerate responses to user requests.
- Use SignalR to enable two-way communication between client and server.
- Describe what a Web API is and why developers might add a Web API to an application.
- Describe how to package and deploy an ASP.NET Core MVC web application from a development computer to a web server.

PREREQUISITI

Before attending this course, students must have:

- Experience with Visual Studio 2017.

-Experience with C# programming, and concepts such as Lambda expressions, LINQ, and anonymous types.
-Experience in using the .NET Framework.
-Experience with HTML, CSS and JavaScript.
-Experience with querying and manipulating data with ADO.NET.
-Knowledge of XML and JSON data structures.

CONTENUTI

Module 1: Exploring ASP.NET Core MVC
-Overview of Microsoft Web Technologies
-Overview of ASP.NET 4.x
-Introduction to ASP.NET Core MVC
Lab : Exploring ASP.NET Core MVC
-Exploring a Razor Pages Application
-Exploring a Web API Application
-Exploring an MVC Application

Module 2: Designing ASP.NET Core MVC Web Applications
-Planning in the Project Design Phase
-Designing Models, Controllers and Views
Lab : Designing ASP.NET Core MVC Web Applications
-Planning Model Classes
-Planning Controllers
-Planning Views
-Architecting and MVC Web Application

Module 3: Configure Middlewares and Services in ASP.NET Core
-Configuring Middlewares
-Configuring Services
Lab : Configuring Middleware and Services in ASP.NET Core
-Working with Static Files
-Creating custom middleware
-Using dependency injection
-Injecting a service to a controller

Module 4: Developing Controllers
-Writing Controllers and Actions
-Configuring Routes
-Writing Action Filters
Lab : Developing Controllers
-Adding controllers and actions to an MVC application
-Configuring routes by using the routing table
-Configuring routes using attributes
-Adding an action filer

Module 5: Developing Views
-Creating Views with Razor Syntax
-Using HTML Helpers and Tag Helpers

-Reusing Code in Views

Lab : Developing Views

-Adding Views to an MVC Application

-Adding a partial view

-Adding a view component

Module 6: Developing Models

-Creating MVC Models

-Working with Forms

-Validate MVC Application

Lab : Developing Models

-Adding a model

-Working with Forms

-Add Validation

Module 7: Using Entity Framework Core in ASP.NET Core

-Introduction to Entity Framework Core

-Working with Entity Framework Core

-Use Entity Framework Core to connect to Microsoft SQL Server

Lab : Using Entity Framework Core in ASP.NET Core

-Adding Entity Framework Core

-Use Entity Framework Core to retrieve and store data

-Use Entity Framework Core to connect to Microsoft SQL Server

Module 8: Using Layouts, CSS and JavaScript in ASP.NET Core MVC

-Using Layouts

-Using CSS and JavaScript

-Using jQuery

Lab : Using Layouts, CSS and JavaScript in ASP.NET Core

-Applying a layout and link views to it

-Using CSS

-Using JavaScript

-Using jQuery

Module 9: Client-Side Development

-Applying Styles

-Using Task Runners

-Responsive design

Lab : Client-Side Development

-Use gulp to run tasks

-Styling using Sass

-Using Bootstrap

Module 10: Testing and Troubleshooting

-Testing MVC Applications

-Implementing an Exception Handling Strategy

-Logging MVC Applications

Lab : Testing and troubleshooting

-Testing a Model

-Testing a controller using a fake repository

-Implementing a repository in MVC project

-Add exception handling

-Add logging

Module 11: Managing Security

-Authentication in ASP.NET Core

-Authorization in ASP.NET Core

-Defending from Attacks

Lab : Managing Security

-Use Identity

-Add Authorization

-Avoid the Cross-Site Request Forgery Attack

Module 12: Performance and Communication

-Implementing a Caching Strategy

-Managing State

-Two-way communication

Lab : Performance and Communication

-Implementing a Caching Strategy

-Managing state

-Two-Way communication

After completing this module, students will be able to:

-Implement caching in a Microsoft ASP.NET Core application.

-Use state management technologies to improve the client experience, by providing a consistent experience for the user.

-Implement two-way communication by using SignalR, allowing the server to notify the client when important events occur.

Module 13: Implementing Web APIs

-Introducing Web APIs

-Developing a Web API

-Calling a Web API

Lab : Implementing Web APIs

-Adding Actions and Call Them Using Microsoft Edge

-Calling a Web API using server-side code

-Calling a Web API using jQuery

Module 14: Hosting and Deployment

-On-premise hosting and deployment

-Deployment to Microsoft Azure

-Microsoft Azure Fundamentals

Lab : Hosting and Deployment

-Deploying a Web Application to Microsoft Azure

-Upload an Image to Azure Blob Storage

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)