C# Intermediate | Developing ASP.Net Core MVC Web Applications (TTCN20486)

Category: Software Development & Programming | **Vendor:** Trivera Tech

Duration: 40.00 hours (5 days) **32.5 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

Developing ASP.Net Core MVC Web Applications is an intensive, hands-on training course, essential for experienced developers seeking instruction in creating web applications in C# & .Net Core In this 5-day course, the professional web developers will learn to develop advanced ASP.NET Core MVC applications using .NET Core tools and technologies. The focus will be on coding activities that enhance the performance and scalability of the Web site application

About This Course

Developing ASP.Net Core MVC Web Applications is an intensive, hands-on training course, essential for experienced developers seeking instruction in creating web applications in C# & .Net Core In this 5-day course, the professional web developers will learn to develop advanced ASP.NET Core MVC applications using .NET Core tools and technologies. The focus will be on coding activities that enhance the performance and scalability of the Web site application

Who Should Attend

This course is intended for professional web developers who use Microsoft Visual Studio in an individual-based or team-based, small-sized to large development environment.

Learning Outcomes

Upon successful completion of this course, participants will be able to:

Working in a dynamic, intensive coding environment students will learn 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.

Detailed Course Outline

Module 1: Exploring ASP.NET Core MVC

- Overview of Microsoft Web Technologies
- Overview of ASP.NET 4.x
- Introduction to ASP.NET Core MVC

Module 2: Designing ASP.NET Core MVC Web Applications

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

Module 3: Configure Middlewares and Services in ASP.NET Core

- Configuring Middlewares
- Configuring Services

Module 4: Developing Controllers

- Writing Controllers and Actions
- Configuring Routes
- Writing Action Filters

Module 5: Developing Views

- Creating Views with Razor Syntax
- Using HTML Helpers and Tag Helpers
- Reusing Code in Views

Module 6: Developing Models

- Creating MVC Models
- Working with Forms
- Validate MVC Application

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

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

- Using Layouts
- Using CSS and JavaScript
- Using jQuery

Module 9: Client-Side Development

- Applying Styles
- Using Task Runners
- Responsive design

Module 10: Testing and Troubleshooting

- Testing MVC Applications
- Implementing an Exception Handling Strategy
- Logging MVC Applications

Module 11: Managing Security

- Authentication in ASP.NET Core
- Authorization in ASP.NET Core
- Defending from Attacks

Module 12: Performance and Communication

- Implementing a Caching Strategy
- Managing State
- Two-way communication

Module 13: Implementing Web APIs

- Introducing Web APIs
- Developing a Web API
- Calling a Web API

Module 14: Hosting and Deployment

- On-premise hosting and deployment
- Deployment to Microsoft Azure
- Microsoft Azure Fundamentals

Module 15 Accessing Remote Data

- Accessing Data Across the Web
- Accessing Data by Using OData Connected Services

Module 16: Designing the User Interface for a Graphical Application

- Using XAML to Design a User Interface
- Binding Controls to Data

Module 17: Improving Application Performance and Responsiveness

- Implementing Multitasking
- Performing Operations Asynchronously
- Synchronizing Concurrent Access to Data

Module 18: Creating Reusable Types and Assemblies

- Examining Object Metadata
- Creating and Using Custom Attributes
- Generating Managed Code
- Versioning, Signing, and Deploying Assemblies

Module 19: Encrypting and Decrypting Data

- Implementing Symmetric Encryption
- Implementing Asymmetric Encryption

, Module 1: Overview of .Net (core) & ASP.Net

Explore the variety of technologies available in the Microsoft web stack.

Explore different programming models available for developers in ASP.NET.

Role of ASP.NET Core MVC in the web technologies stack, and how to use ASP.NET Core MVC to build web applications.

Differences between MVC models, MVC controllers, and MVC views.

Module 2: Review of C# and New Features

Design and implement a basic class

New features

Raw strings

Top-level statements

Global usings

Tuples

Record type specifiers

Deconstruction

Null operators & null reference types

Async/Await

Module 3: Designing ASP.NET Core MVC Web Applications

Lessons

Planning in the Project Design Phase

Designing ASP.NET Core MVC Web Applications: Plan the overall architecture of an ASP.NET Core MVC web application and consider aspects such as state management.

Designing Models, Controllers and Views: Plan the models, controllers, and views that are required to implement a given set of functional requirements.

Module 4: Configure Middleware and Services in ASP.NET Core

Configuring Middleware: Use existing middleware to set up an ASP.NET Core application.

Create your own middleware and use it to define custom behavior.

Understand the basic principles behind Dependency Injection, and how it is used in ASP.NET Core.

Configuring Services: Learn how to create a custom service, configure its scope, and inject it to both middleware and ASP.NET Core MVC controllers.

Module 5: Developing Controllers

Writing Controllers and Actions

Add a controller to a web application that responds to user actions that are specified in the project design.

Configuring Routes

Add routes to the ASP.NET Core routing engine and ensure that URLs are user-friendly in an MVC web application.

Module 6: Developing Views

Creating Views with Razor Syntax: Create an MVC view and add Razor markup to it to display data to users.

Using HTML Helpers and Tag Helpers: Use HTML helpers and tag helpers in a view.

Reusing Code in Views: Reuse Razor markup in multiple locations throughout an application.

Module 7: Using Layouts, CSS and JavaScript in ASP.NET Core MVC

Using Layouts: Apply a consistent layout to ASP.NET Core MVC applications.

Using CSS and JavaScript: Add JavaScript code to your web application.

Module 8: Developing Models

Creating MVC Models: Add a model to an MVC application and write code in it to implement the business logic.

Working with Forms

Use display and edit data annotations.

Validating user input server and client-side with data annotations.

Module 9: Using Entity Framework Core in ASP.NET Core

Introduction to Entity Framework Core

Working with Entity Framework Core

Connect an application to a database to access and store data.

Use Entity Framework Core to connect to Microsoft SQL Server

Module 10: Testing and Troubleshooting

Run unit tests against the Model€œView€œController (MVC) components, such as model classes and controllers, and locate potential bugs.

Build a Microsoft ASP.NET Core MVC application that handles exceptions smoothly and robustly.

Run logging providers that benefit your applications and run them by using a common logging API.

Testing MVC Applications

Implementing an Exception Handling Strategy

Logging MVC Applications

Module 11: Managing Security

Add basic authentication to your application.

Configure Microsoft ASP.NET Core Identity.

Add basic authorization to your application.

Know how security exploits work and how to better defend against them.

Authentication in ASP.NET Core

Authorization in ASP.NET Core

Module 12: Performance and Communication

Managing State: 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

Create services by using ASP.NET Core Web API.

Call a Web API from server-side code and jQuery.

Module 14: Hosting and Deployment

On-premise hosting and deployment

How to Host and Deploy an ASP.NET Core MVC application on IIS.

Module 15 Accessing Remote Data

Accessing Data Across the Web

Send data to and receive data from restful services and other remote data sources.

Module 16: Overview of Blazor

Module 17: Improving Application Performance and Responsiveness

Implementing Multitasking: Use the async/await to implement multitasking.

Performing Operations Asynchronously

Module 18: Creating Reusable Types and Assemblies

Examining Object Metadata

Use reflection to inspect and execute assemblies.

Create and consume custom attributes.

Additional Course Details

Nexus Humans C# Intermediate | Developing ASP.Net Core MVC Web Applications (TTCN20486) training program is a workshop that presents an invigorating mix of sessions, lessons, and masterclasses meticulously crafted to propel your learning expedition forward.

This immersive bootcamp-style experience boasts interactive lectures, hands-on labs, and collaborative hackathons, all strategically designed to fortify fundamental concepts.

Guided by seasoned coaches, each session offers priceless insights and practical skills crucial for honing your expertise. Whether you're stepping into the realm of professional skills or a seasoned professional, this comprehensive course ensures you're equipped with the knowledge and prowess necessary for success.

While we feel this is the best course for the C# Intermediate | Developing ASP.Net Core MVC Web Applications (TTCN20486) course and one of our Top 10 we encourage you to read the course outline to make sure it is the right content for you.

Additionally, private sessions, closed classes or dedicated events are available both live online and at our training centres in Dublin and London, as well as at your offices anywhere in the UK, Ireland or across EMEA.

Frequently Asked Questions

Q: What delivery options are available for C# Intermediate | Developing ASP.Net Core MVC Web Applications (TTCN20486)?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: How many CPD hours does this course provide?

The 5-day C# Intermediate | Developing ASP.Net Core MVC Web Applications (TTCN20486) course provides up to 32.5 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the C# Intermediate | Developing ASP.Net Core MVC Web Applications (TTCN20486) training?

The training takes place over 5 day(s), with each day lasting approximately 40.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for C# Intermediate | Developing ASP.Net Core MVC Web Applications (TTCN20486)?

Yes, we provide corporate training, dedicated training, and closed classes for C# Intermediate | Developing ASP.Net Core MVC Web Applications (TTCN20486). Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: What related terms do people search for?

Popular related searches include: C# / .Net; ASP.Net

Q: Why choose Nexus Human for C# Intermediate | Developing ASP.Net Core MVC Web Applications (TTCN20486)?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your C# Intermediate | Developing ASP.Net Core MVC Web Applications (TTCN20486) training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

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