5 Days | 20486: Developing ASP.NET MVC 4 Web Applications

Developing ASP. NET MVC 4 Web Applications Training is a five-day expert level that qualifies an individual as an MCSD: SharePoint Applications. This course delivers the necessary knowledge to develop advanced ASP.NET MVC applications using .NET Framework 4.5 tools and technologies.

The course majorly focuses on coding activities that increase the performance and scalability of a web application.

This course is a prerequisite for qualifying the exam of MCSD: SharePoint Applications (70-486).

Course Details

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Course Outline

Module 1: Explore ASP.NET MVC4

This module will help students to outline the components of the Microsoft Web Technologies stack, which can be used to host a completed web application.

Lessons

- ASP.NET MVC 4 Introduction
- Overview of Microsoft Web Technologies
- Overview of ASP.NET 4.5

Module 2: Designing ASP.NET MVC 4 Web Applications

This module introduces students to the typical design process that architects must complete when they plan an MVC 4 application.

Lessons

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

Module 3: Developing ASP.NET MVC 4 Models

This module enables the students to create Models within an MVC application that implement the business logic necessary to satisfy business requirements.

Lessons

- Creating MVC Models

- Working with Data

Module 4: Developing ASP.NET MVC 4 Controllers

This module enables students to add Controllers to MVC applications and to implement actions that respond to user input and other events.

Lessons

- Writing Controllers and Actions

- Writing Action Filters

Module 5: Developing ASP.NET MVC 4 Views

This module describes the role of Views in an MVC web application and enable users to create and code them.

Lessons

- Creating Views with Razor Syntax

- Using HTML Helpers

- Reusing Code in Views

Module 6: Testing and Debugging ASP.NET MVC 4 Web Applications

This module enables students to increase the resilience and quality of an application by locating and correcting code errors, bugs, and other unexpected results.

Lessons

- Implementing an Exception Handling Strategy

- Unit Testing MVC Components

Module 7: Structuring ASP.NET MVC 4 Web Applications

This module enables students to structure a web application in such a way that users can rapidly locate the information they need.

Lessons

- Analyzing Information Architecture

- Configuring Routes

- Creating a Navigation Structure

Module 8: Applying Styles to ASP.NET MVC 4 Web Applications

This module discusses how students can impose a consistent look and feel to an MVC application and share other common components.

Lessons

- Using Template Views

- Applying CSS to an MVC Application

- Creating an Adaptive User Interface

Module 9: Building Responsive Pages in ASP.NET MVC 4 Web Applications

This module describes how partial page updates and caching can optimize the responsiveness of a web application.

Lessons

- Using AJAX and Partial Page Updates

- Implementing a Caching Strategy

Module 10: Using JavaScript and jQuery for Responsive MVC 4 Web Applications

This module teaches the students techniques that run code on the browser.

Lessons

- Rendering and Executing JavaScript Code

- Using jQuery and jQuery UI

Module 11: Controlling Access to ASP.NET MVC 4 Web Applications

This module ensures good security in terms of strong authentication and authorization for access.

Lessons

- Implementing Authentication and Authorization

- Assigning Roles and Membership

Module 12: Building a Resilient ASP.NET MVC 4 Web Application

This module enables the students to build applications that are stable and reliable.

Lessons

- Developing Secure Sites

- State Management

Module 13: Using Windows Azure Web Services in ASP.NET MVC 4 Web Applications

This module introduces Windows Azure to the students and explain why a developer would write a Windows Azure service instead of code in a web application.

Lessons

- Introducing Windows Azure

- Designing and Writing Windows Azure Services

- Consuming Windows Azure Services in a Web Application

Module 14: Implementing Web APIs in ASP.NET MVC 4 Web Applications

This module introduces the concept of a Web API to students and to describe how to make an application's core functionality more broadly available for integration into other web and mobile applications.

Lessons

- Developing a Web API

- Calling a Web API from Mobile and Web Applications

Module 15: Handling Requests in ASP.NET MVC 4 Web Applications

This module describes how to write components that intercept requests from browsers before they are received by MVC Controllers.

Lessons

- Using HTTP Modules and HTTP Handlers

- Using Web Sockets

Module 16: Deploying ASP.NET MVC 4 Web Applications

This module introduces enables students to deploy a completed MVC application to a web server or Windows Azure.

Lessons

- Deploy a Web Application

- Deploy an ASP.NET MVC 4 Web Application

Who Should Attend

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

Those Candidates who are interested in developing advanced web applications and want to manage the rendered HTML comprehensively.

Pre Requisite

A minimum of two-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.

Exams

Microsoft Certified Professional (MCP) [70-486]

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