

(Course 20486B) – Developing ASP.NET MVC 4 Web Applications

OBJECTIVE

In this course, students will learn to develop advanced ASP.NET MVC applications using .NET Framework 4.5 tools and technologies. The focus will be on coding activities that enhance the performance and scalability of the Web site application. ASP.NET MVC will be introduced and compared with Web Forms so that students know when each should/could be used. This course will also prepare the student for exam 70-486.

COURSE TOPICS

Module 1: Exploring ASP.NET MVC4

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

Module 2: Designing ASP.NET MVC 4 Web Applications

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

Module 3: Developing ASP.NET MVC 4 Models

- Creating MVC Models
- Working with Data

Module 4: Developing ASP.NET MVC 4 Controllers

- Writing Controllers and Actions
- Writing Action Filters

Module 5: Developing ASP.NET MVC 4 Views

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

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

- Unit Testing MVC Components
- Implementing an Exception Handling Strategy

Module 7: Structuring ASP.NET MVC 4 Web Applications

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

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

- 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

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

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

- Rendering and Executing JavaScript Code
- Using jQuery and jQueryUI

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

- Implementing Authentication and Authorization
- Assigning Roles and Membership

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

- Developing Secure Sites
- State Management

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

- 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

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

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

- Using HTTP Modules and HTTP Handlers
- Using Web Sockets

Module 16: Deploying ASP.NET MVC 4 Web Applications

- Deploying a Web Application
- Deploying an MVC 4 Application

PREREQUISITES

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.

TRAINING APPROACH

This course includes lectures, course notes, exercises and hands-on practice.

COURSE DURATION

24 Hours (in 3 days)

Time: 9:00am to 6:00pm

Lunch Time: 1:00pm to 2:00pm

CERTIFICATION COMPLETION

A certificate of completion is provided for all trainees attending the course