



HEROTEC

NETWORK PROFESSIONAL TRAINING

Developing ASP.NET MVC 4 Web Applications

Related Certificate	Microsoft Development
Course ID	20486B
Related Exams	70-486
Audience	Developers
Hours	40

Overview:

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.

Objectives:

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 2012 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 4 web application.
- Build an MVC application that resists malicious attacks and persists information about users and preferences.
- Describe how to write a Windows 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 4 web application from a development computer to a web server for staging or production.

Outlines:

- [Module 1: Exploring ASP.NET MVC 4](#)
- [Module 2: Designing ASP.NET MVC 4 Web Applications](#)
- [Module 3: Developing ASP.NET MVC 4 Models](#)
- [Module 4: Developing ASP.NET MVC 4 Controllers](#)
- [Module 5: Developing ASP.NET MVC 4 Views](#)
- [Module 6: Testing and Debugging ASP.NET MVC 4 Web Applications](#)

- [Module 7: Structuring ASP.NET MVC 4 Web Applications](#)
- [Module 8: Applying Styles to ASP.NET MVC 4 Web Applications](#)
- [Module 9: Building Responsive Pages in ASP.NET MVC 4 Web Applications](#)
- [Module 10: Using JavaScript and jQuery for Responsive MVC 4 Web Applications](#)
- [Module 11: Controlling Access to ASP.NET MVC 4 Web Applications](#)
- [Module 12: Building a Resilient ASP.NET MVC 4 Web Application](#)
- [Module 13: Using Windows Azure Web Services in ASP.NET MVC 4 Web Applications](#)
- [Module 14: Implementing Web APIs in ASP.NET MVC 4 Web Applications](#)
- [Module 15: Handling Requests in ASP.NET MVC 4 Web Applications](#)
- [Module 16: Deploying ASP.NET MVC 4 Web Applications](#)

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