

Programming ASP.NET Core

Professional





Dino Esposito

Contents

- 1. Cover Page
- 2. Title Page
- 3. Copyright Page
- 4. Contents at a Glance
- 5. Contents
- 6. About the Author
- 7. Introduction
- 8. Who should read this book
 - 1. Assumptions
 - 2. This might not be for you if
- 9. Organization of this book
- 10. System requirements
- 11. Downloads: Code samples
- 12. Errata, updates, & book support
- 13. Stay in touch
- 14. PART I THE NEW ASP.NET AT A GLANCE
 - 1. Chapter 1 Why Another ASP.NET?
 - 1. The Current .NET Platform
 - 1. Highlights of the .NET Platform
 - 2. The .NET Framework
 - 3. The ASP.NET Framework
 - 4. The Web API Framework
 - 5. The Need for Super-Simple Web Services
 - 2. .NET Fifteen Years Later
 - 1. A More Compact .NET Framework
 - 2. Decoupling ASP.NET from the Host
 - 3. The New ASP.NET Core
 - 3. .NET Core Command-line Tools
 - 1. Installing CLI Tools
 - 2. The dotnet Driver Tool
 - 3. Predefined dotnet Commands
 - 4. Summary
 - 2. Chapter 2 The First ASP.NET Core Project

- 1. Anatomy of an ASP.NET Core Project
 - 1. Structure of the Project
 - 2. Interacting with the Runtime Environment
- 2. The Dependency Injection Subsystem
 - 1. Dependency Injection at a Glance
 - 2. Dependency Injection in ASP.NET Core
 - 3. Integrating with External DI Libraries
- 3. Building a Mini Website
 - 1. Creating a Single Endpoint Website
 - 2. Accessing Files on the Web Server
- 4. Summary

15. PART II THE ASP.NET MVC APPLICATION MODEL

- 1. Chapter 3 Bootstrapping ASP.NET MVC
 - 1. Enabling the MVC Application Model
 - 1. Registering the MVC Service
 - 2. Enabling Conventional Routing
 - 2. Configuring the Routing Table
 - 1. Anatomy of a Route
 - 2. Advanced Aspects of Routing
 - 3. Map of ASP.NET MVC Machinery
 - 1. The Action Invoker
 - 2. Processing Action Results
 - 3. Action Filters
 - 4. Summary
- 2. Chapter 4 ASP.NET MVC Controllers
 - 1. Controller Classes
 - 1. Discovering the Controller Name
 - 2. Inherited Controllers
 - 3. POCO Controllers
 - 2. Controller Actions
 - 1. Mapping Actions to Methods
 - 2. Attribute-based Routing
 - 3. Implementation of Action Methods
 - 1. Basic Data Retrieval
 - 2. Model Binding
 - 3. Action Results

4. Action Filters

- 1. Anatomy of Action Filters
- 2. Little Gallery of Action Filters
- 5. Summary

3. Chapter 5 ASP.NET MVC Views

- 1. Serving HTML Content
 - 1. Serving HTML from Terminating Middleware
 - 2. Serving HTML from Controllers
 - 3. Serving HTML from Razor Pages
- 2. The View Engine
 - 1. Invoking the View Engine
 - 2. The Razor View Engine
 - 3. Adding a Custom View Engine
 - 4. Structure of a Razor View
- 3. Passing Data to a View
 - 1. Built-in Dictionaries
 - 2. Strongly Typed View Models
 - 3. Injecting Data through the DI System
- 4. Razor Pages
 - 1. Discovering the Rationale behind Razor Pages
 - 2. Implementation of Razor Pages
 - 3. Posting Data from a Razor Page
- 5. Summary
- 4. Chapter 6 The Razor Syntax
 - 1. Elements of the Syntax
 - 1. Processing Code Expressions
 - 2. Layout Templates
 - 3. Partial Views
 - 2. Razor Tag Helpers
 - 1. Using Tag Helpers
 - 2. Built-in Tag Helpers
 - 3. Writing Custom Tag Helpers
 - 3. Razor View Components
 - 1. Writing a View Component
 - 2. The Composition UI Pattern
 - 4. Summary

16. PART III CROSS-CUTTING CONCERNS

- 1. Chapter 7 Design Considerations
 - 1. The Dependency Injection Infrastructure
 - 1. Refactoring to Isolate Dependencies
 - 2. Generalities of the ASP.NET Core DI System
 - 3. Aspects of the DI Container
 - 4. Injecting Data and Services in Layers
 - 2. Collecting Configuration Data
 - 1. Supported Data Providers
 - 2. Building a Configuration Document Object Model
 - 3. Passing Configuration Data Around
 - 3. The Layered Architecture
 - 1. The Presentation Layer
 - 2. The Application Layer
 - 3. The Domain Layer
 - 4. The Infrastructure Layer
 - 4. Dealing with Exceptions
 - 1. Exception Handling Middleware
 - 2. Exception Filters
 - 3. Logging Exceptions
 - 5. Summary
- 2. Chapter 8 Securing the Application
 - 1. Infrastructure for Web Security
 - 1. The HTTPS Protocol
 - 2. Dealing with Security Certificates
 - 3. Applying Encryption to HTTPS
 - 2. Authentication in ASP.NET Core
 - 1. Cookie-based Authentication
 - 2. Dealing with Multiple Authentication Schemes
 - 3. Modeling the User Identity
 - 4. External Authentication
 - 3. Authenticating Users via ASP.NET Identity
 - 1. Generalities of ASP.NET Identity
 - 2. Working with the User Manager
 - 4. Authorization Policies
 - 1. Role-based Authorization
 - 2. Policy-based Authorization