

LEARN BY CODING

ASP.NET CORE 2.0 MVC & RAZOR PAGES FOR BEGINNERS

THE TACTICAL GUIDEBOOK

JONAS FAGERBERG



csharp.school.com

ASP.NET Core 2.0 MVC & Razor Pages for Beginners

How to Build a Video Course Website

Overview.....	1
Setup.....	2
Book Version.....	2
Other Books by the Author.....	3
Video Courses Produced by the Author	4
MVC 5 – How to Build a Membership Website (video course)	4
Store Secret Data in .NET Core Web App with Azure Key Vault (video course).....	4
Source Code.....	4
Disclaimer – Who Is This Book for?	5
Rights	5
About the Author	5
Part 1: ASP.NET Core 2.0 MVC Your First Application	7
1. Your First ASP.NET Core Application	9
The Project Layout and the File System	11
Important Files	12
Compiling the Solution	14
The Startup.cs File	15
Adding a Configuration Service	16
Creating a Service	18
Example	19
Adding the IMessageService Interface	20
Adding the HardcodedMessageService Class.....	20
Configure and Use the HardcodedMessageService Class	21
Add and Use the ConfigurationMessageService Class	23
Summary.....	25
2. Middleware	27

How Does Middleware Work?	27
IAApplicationBuilder	28
Handling Exceptions	30
Serving Up Static Files	33
Setting Up ASP.NET MVC.....	34
Summary.....	37
3. MVC Controllers	39
Routing	40
Convention-Based Routing	41
Implement Routing.....	41
Adding Another Controller	42
Attribute Routing.....	43
ActionResult	47
Implementing ContentResult	47
Using a Model Class and ObjectResult	48
Introduction to Views.....	50
A View with a Data Collection	52
Adding a Data Service.....	54
Summary.....	59
4. Models.....	61
View Model Example.....	62
Changing the Folder Structure	62
Adding the View Model	62
Using the View Model	63
Adding a Details View	64
Adding a Create View	69
Refactoring the Application.....	70

Adding the HTTP GET Create Action and the Create View	72
Adding the VideoEditViewModel Class	75
Adding the HTTP POST Create Action	76
Data Annotations	81
Preparing the Create View for Validation	82
Adding Validation to the Create View	82
Validating the Model on the Server	83
Adding Data Annotations in the Video Entity and VideoEditViewModel Class	84
Summary	87
5. Entity Framework	89
Adding the VideoDbContext Class	89
Configuration in the Startup Class	91
Adding the Initial Migration and Creating the Database	93
Adding the SqlVideoData Service Component	95
Implementing the SqlVideoData Service Component Class	95
Summary	99
6. Razor Views	101
Layout Views	101
Adding the _Layout View	102
Altering the Content Views	102
The _ViewStart file	106
The _ViewImports file	107
Tag Helpers	108
Altering the Index View	109
Adding an Edit View and Its Actions	111
Refactoring the IVideoData Service	113
Partial Views	117

View Components	120
Adding a View Component for the IMessageService Service	120
Summary	123
7. Forms Authentication	125
Adding the Authorize and AllowAnonymous Attributes	126
Configuring the Identity Framework	127
Creating the ASP.NET Identity Database Tables	129
User Registration	130
Login and Logout	137
Adding the _Login Partial View	137
Adding the Logout Action	140
Adding the LoginViewModel Class	141
Adding the HTTP GET Login Action	142
Adding the HTTP POST Login Action	142
Adding the Login View	144
Summary	147
8. Front-End Frameworks	149
Installing Bower and the Frameworks	149
Styling with Bootstrap	152
Adding a Navigation Bar	153
Styling the Index View	155
Adding Client-Side Validation	157
Summary	159
Part 2: MVC How to Build a Video Course Website	161
9. The Use Case	163
Introduction	163
The Use Case	163

The User Interface (MVC)	164
Login and Register User	164
The Administrator Interface (Razor Pages)	165
Conclusion	165
Login and Register	165
The User Dashboard View	166
The Course View	167
The Video View	168
The Administrator Dashboard Razor Page	169
A Typical Administrator Index Razor Page	170
A Typical Administrator Create Razor Page	171
A Typical Administrator Edit Razor Page	172
A Typical Administrator Delete Razor Page	173
10. Setting Up the Solution	175
Introduction	175
Technologies Used in This Chapter	175
Overview	175
Creating the Solution	175
Installing AutoMapper	178
Creating the Database	179
Adding the Database Project	180
Adding the User Class	180
Adding the Database Context	180
Summary	183
11. Login	185
Introduction	185
Technologies Used in This Chapter	185

Redirecting to the Login View	185
Styling the Login View	187
Adding the login.css Stylesheet	188
Changing the Layout of the Login View	189
Styling the Login View	193
Summary	195
12. Register User	197
Introduction	197
Technologies Used in This Chapter	197
Overview	197
Changing the Layout of the Register View	198
Styling the Register View	200
Changing the Register Action	202
Testing the Registration Form	202
Summary	204
13. Modifying the Navigation Bar	205
Introduction	205
Technologies Used in This Chapter	205
Overview	205
Styling the Navigation Bar	206
Remove the Register and Login Links	208
Add the Drop-Down Menu	208
Style the Drop-Down Menu	210
Summary	211
14. Data Transfer Objects	213
Introduction	213
Technologies Used in This Chapter	213

Overview.....	213
The DTOs	213
Adding the DTOs.....	218
The View Models	221
Adding the View Models	222
Summary.....	223
15. Entity Classes	225
Introduction.....	225
Technologies Used in This Chapter.....	225
Overview.....	225
The Entities	225
The Video Entity	225
The Download Entity	226
The Instructor Entity	227
The Course Entity	228
The Module Entity	228
The UserCourse Entity	229
Adding the Entity Classes	230
Summary.....	233
16. Mock Data Repository	235
Introduction.....	235
Technologies Used in This Chapter.....	235
Overview.....	235
Add the IReadRepository Interface and MockReadRepository Class.....	235
Add Data to the MockReadRepository Class.....	236
The Course List	236
The UserCourses List	237