

# Modern API Design With ASPNET Core 2 Building Cross Platform Back End Systems

Right here, we have countless ebook **Modern API Design With ASPNET Core 2 Building Cross Platform Back End Systems** and collections to check out. We additionally manage to pay for variant types and furthermore type of the books to browse. The pleasing book, fiction, history, novel, scientific research, as capably as various new sorts of books are readily welcoming here.

As this Modern API Design With ASPNET Core 2 Building Cross Platform Back End Systems, it ends occurring mammal one of the favored ebook Modern API Design With ASPNET Core 2 Building Cross Platform Back End Systems collections that we have. This is why you remain in the best website to see the unbelievable ebook to have.

*Beginning Visual Studio for Mac* - Alessandro Del Sole 2017-10-24

Quickly learn how to get the most out of the Visual Studio for Mac integrated development environment (IDE). Microsoft has invested heavily to deliver their very best development tools and platforms to other operating systems. Visual Studio for Mac is a powerful developer tool that reinforces Microsoft's "mobile-first", "cloud-first", and "any developer, any platform, any device" strategy. With the author's guided expertise and extensive code samples, you will understand how to leverage the most useful tools in Visual Studio for Mac, the code editor, and the powerful debugger. You also will appreciate the author's guidance on collaborating with other team members using integrated tooling for the Git source control engine. Whether you are a Mac developer interested in cross-platform development or a Windows developer using a Mac, *Beginning Visual Studio for Mac* will quickly get you up to speed! What You'll Learn Prepare, configure, and debug in the Mac development environment Create cross-platform mobile apps for Android, iOS, and Windows with Xamarin and C# in Visual Studio for Mac Build cross-platform Web applications with .NET Core using Visual Studio for Mac Customize your productive and collaborative development environment Who This Book Is For Software developers using a Mac computer who want to build mobile or web applications that run on multiple operating systems

*Building Microservices with ASP.NET Core* - Kevin Hoffman 2017-08-31

At a time when nearly every vertical, regardless of domain, seems to need software running in the cloud to make money, microservices provide the agility and drastically reduced time to market you require. This hands-on guide shows you how to create, test, compile, and deploy microservices, using the ASP.NET Core free and open-source framework. Along the way, you'll pick up good, practical habits for building powerful and robust services. Building microservices isn't about learning a specific framework or programming language; it's about building applications that thrive in elastically scaling environments that don't have host affinity, and that can start and stop at a moment's notice. This practical book guides you through the process. Learn test-driven and API-first development concepts Communicate with other services by creating and consuming backing services such as databases and queues Build a microservice that depends on an external data source Learn about event sourcing, the event-centric approach to persistence Use ASP.NET Core to build web applications designed to thrive in the cloud Build a service that consumes, or is consumed by, other services Create services and applications that accept external configuration Explore ways to secure ASP.NET Core microservices and applications

*Mastering ASP.NET Web API* - Mithun Pattankar 2017-08-11

Leverage ASP.Net Web API to build professional web services and create powerful applications. About This Book Get a comprehensive analysis of the latest specification of ASP.NET Core and all the changes to the underlying platform that you need to know to make the most of the web API See an advanced coverage of ASP.NET Core Web API to create robust models for your data, create controllers, and handle routing and security This book is packed with key theoretical and practical concepts that can be instantly applied to build professional applications using API with Angular 4, Ionic, and React Who This Book Is For This book is for .Net developers who wants to Master ASP.NET Core (Web API) and have played around with previous ASP.NET Web API a little, but don't have in-depth knowledge of it. You need to know Visual Studio and C#, and have some HTML, CSS, and JavaScript knowledge. What You Will Learn Acquire conceptual and hands-on knowledge of ASP.NET Core (MVC & Web API) Learn about HTTP methods, the structure of HTTP content,

internet media types, and how servers respond to HTTP requests and their associated HTTP codes Explore middleware, filters, routing, and unit testing Optimize Web API implementations Develop a secure Web API interface Deploy Web API projects to various platforms Consume your web API in front end application based on Angular 4, Bootstrap, and Ionic Implement and explore the current trends in service architecture In Detail Microsoft has unified their main web development platforms. This unification will help develop web applications using various pieces of the ASP.NET platform that can be deployed on both Windows and LINUX. With ASP.NET Core (Web API), it will become easier than ever to build secure HTTP services that can be used from any client. Mastering ASP.NET Web API starts with the building blocks of the ASP.NET Core, then gradually moves on to implementing various HTTP routing strategies in the Web API. We then focus on the key components of building applications that employ the Web API, such as Kestrel, Middleware, Filters, Logging, Security, and Entity Framework. Readers will be introduced to take the TDD approach to write test cases along with the new Visual Studio 2017 live unit testing feature. They will also be introduced to integrate with the database using ORMs. Finally, we explore how the Web API can be consumed in a browser as well as by mobile applications by utilizing Angular 4, Ionic and ReactJS. By the end of this book, you will be able to apply best practices to develop complex Web API, consume them in frontend applications and deploy these applications to a modern hosting infrastructure. Style and approach Using a hands-on approach, we cover both the conceptual as well as the technical aspects of the ASP.NET Core (Web API) framework.

**C# 9 and .NET 5 - Modern Cross-Platform Development** - Mark J. Price 2020-11-10

Publisher's Note: Microsoft will stop supporting .NET 5 in early May 2022. A new edition of this book is available that uses .NET 6 (an LTS release with support up until November 2024), C# 10, and Visual Studio 2022, as well as Visual Studio Code. Key Features • Explore the newest additions to C# 9, the .NET 5 class library, Entity Framework Core and Blazor • Strengthen your command of ASP.NET Core 5.0 and create professional websites and services • Build cross-platform apps for Windows, macOS, Linux, iOS, and Android Book Description In *C# 9 and .NET 5 - Modern Cross-Platform Development*, Fifth Edition, expert teacher Mark J. Price gives you everything you need to start programming C# applications. This latest edition uses the popular Visual Studio Code editor to work across all major operating systems. It is fully updated and expanded with a new chapter on the Microsoft Blazor framework. The book's first part teaches the fundamentals of C#, including object-oriented programming and new C# 9 features such as top-level programs, target-typed new object instantiation, and immutable types using the record keyword. Part 2 covers the .NET APIs, for performing tasks like managing and querying data, monitoring and improving performance, and working with the file system, async streams, serialization, and encryption. Part 3 provides examples of cross-platform apps you can build and deploy, such as websites and services using ASP.NET Core or mobile apps using Xamarin.Forms. The best type of application for learning the C# language constructs and many of the .NET libraries is one that does not distract with unnecessary application code. For that reason, the C# and .NET topics covered in Chapters 1 to 13 feature console applications. In Chapters 14 to 20, having mastered the basics of the language and libraries, you will build practical applications using ASP.NET Core, Model-View-Controller (MVC), and Blazor. By the end of the book, you will have acquired the understanding and skills you need to use C# 9 and .NET 5 to create websites, services, and mobile apps. What you will learn • Build your own types with object-oriented programming • Query and manipulate data using LINQ • Build websites and services using ASP.NET Core 5 • Create intelligent apps using machine

learning • Use Entity Framework Core and work with relational databases • Discover Windows app development using the Universal Windows Platform and XAML • Build rich web experiences using the Blazor framework • Build mobile applications for iOS and Android using Xamarin.Forms Who this book is for This book is best for C# and .NET beginners, or programmers who have worked with C# in the past but feel left behind by the changes in the past few years. This book doesn't expect you to have any C# or .NET experience; however, you should have a general understanding of programming. Students and professionals with a science, technology, engineering, or mathematics (STEM) background can certainly benefit from this book. Table of Contents • Hello, C#! Welcome, .NET Core! • Speaking C# • Controlling Flow and Converting Types • Writing, Debugging, and Testing Functions • Building Your Own Types with Object-Oriented Programming • Implementing Interfaces and Inheriting Classes • Understanding and Packaging .NET Types • Working with Common .NET Types • Working with Files, Streams, and Serialization (N.B. Please use the Look Inside option to see further chapters) Review "Mark Price's extraordinary book covers every aspect of C# 9 and .NET 5. It is filled with step-by-step demonstrations and will be of tremendous value both to those who want to learn C# and to more experienced C# programmers making the transition to C# 9. Highly recommended!" -- Jesse Liberty - author of Programming C# and Learning C# (O'Reilly Media)

**REST API Design Rulebook** - Mark Masse 2011-10-25

The basic rules of REST APIs - "many nouns, few verbs, stick with HTTP" - seem easy, but that simplicity and power require discipline to work smoothly. This brief guide provides next steps for implementing complex projects on simple and extensible foundations.

Pro C# 7 - Andrew Troelsen 2017-11-21

This essential classic title provides a comprehensive foundation in the C# programming language and the frameworks it lives in. Now in its 8th edition, you'll find all the very latest C# 7.1 and .NET 4.7 features here, along with four brand new chapters on Microsoft's lightweight, cross-platform framework, .NET Core, up to and including .NET Core 2.0. Coverage of ASP.NET Core, Entity Framework (EF) Core, and more, sits alongside the latest updates to .NET, including Windows Presentation Foundation (WPF), Windows Communication Foundation (WCF), and ASP.NET MVC. Dive in and discover why Pro C# has been a favorite of C# developers worldwide for over 15 years. Gain a solid foundation in object-oriented development techniques, attributes and reflection, generics and collections as well as numerous advanced topics not found in other texts (such as CIL opcodes and emitting dynamic assemblies). With the help of this book you'll have the confidence to put C# into practice and explore the .NET universe on your own terms. What You Will Learn Discover the latest C# 7.1 features, from tuples to pattern matching Hit the ground running with Microsoft's lightweight, open source .NET Core platform, including ASP.NET Core MVC, ASP.NET Core web services, and Entity Framework Core Find complete coverage of XAML, .NET 4.7, and Visual Studio 2017 Understand the philosophy behind .NET and the new, cross-platform alternative, .NET Core

Pro Entity Framework Core 2 for ASP.NET Core MVC - Adam Freeman 2018-04-18

Model, map, and access data effectively with Entity Framework Core 2, the latest evolution of Microsoft's object-relational mapping framework. You will access data utilizing .NET objects via the most common data access layer used in ASP.NET Core MVC 2 projects. Best-selling author Adam Freeman explains how to get the most from Entity Framework Core 2 in MVC projects. He begins by describing the different ways that Entity Framework Core 2 can model data and the different types of databases that can be used. He then shows you how to use Entity Framework Core 2 in your own MVC projects, starting from the nuts and bolts and building up to the most advanced and sophisticated features, going in-depth to give you the knowledge you need. Chapters include common problems and how to avoid them. What You'll Learn Gain a solid architectural understanding of Entity Framework Core 2 Create databases using your MVC data model Create MVC models using an existing database Access data in an MVC application using Entity Framework Core 2 Use Entity Framework in RESTful Web Services Who This Book Is For ASP.NET Core MVC 2 developers who want to use Entity Framework Core 2 as the data access layer in their projects

**Designing Web APIs** - Brenda Jin 2018-08-29

Using a web API to provide services to application developers is one of the more satisfying endeavors that software engineers undertake. But building a popular API with a thriving developer ecosystem is also one of the most challenging. With this practical guide, developers, architects, and tech leads will learn how to

navigate complex decisions for designing, scaling, marketing, and evolving interoperable APIs. Authors Brenda Jin, Saurabh Sahni, and Amir Shevat explain API design theory and provide hands-on exercises for building your web API and managing its operation in production. You'll also learn how to build and maintain a following of app developers. This book includes expert advice, worksheets, checklists, and case studies from companies including Slack, Stripe, Facebook, Microsoft, Cloudfire, Oracle, and GitHub. Get an overview of request-response and event-driven API design paradigms Learn best practices for designing an API that meets the needs of your users Use a template to create an API design process Scale your web API to support a growing number of API calls and use cases Regularly adapt the API to reflect changes to your product or business Provide developer resources that include API documentation, samples, and tools

**ASP.NET Core 3 and React** - Carl Rippon 2019-12-27

Build modern, scalable, and cloud-ready single-page applications using ASP.NET Core, React, TypeScript, and Azure Key FeaturesExplore the full potential and latest features of .NET Core 3.0, TypeScript 3, and ReactLearn how to manage data, application design, and packaging, and secure your web appsDiscover best practices for using React and TypeScript to build a scalable frontend that interacts with REST APIsBook Description Microsoft's ASP.NET Core is a robust and high-performing cross-platform web API framework, and Facebook's React uses declarative JavaScript to drive a rich, interactive user experience on the client-side web. Together, they can be used to build full stack apps with enhanced security and scalability at each layer. This book will start by taking you through React and TypeScript components to build an intuitive single-page application. You'll understand how to design scalable REST APIs that can integrate with a React-based frontend. You'll get to grips with the latest features, popular patterns, and tools available in the React ecosystem, including function-based components, React Router, and Redux. The book shows how you can use TypeScript along with React to make the frontend robust and maintainable. You'll then cover important .NET Core features such as API controllers, attribute routing, and model binding to help you build a sturdy backend. Additionally, you'll explore API security with ASP.NET Core identity and authorization policies, and write reliable unit tests using both .NET Core and React before you deploy your app to the Azure cloud. By the end of the book, you'll have gained all the knowledge you need to enhance your C# and JavaScript skills and build full stack, production-ready applications with ASP.NET Core and React. What you will learnBuild RESTful APIs with .NET Core using API controllersCreate strongly typed, interactive, and function-based React components using HooksBuild forms efficiently using reusable React componentsPerform client-side state management with Redux and the React Context APISecure REST APIs with ASP.NET identity and authorization policiesRun a range of automated tests on the frontend and backendImplement continuous integration (CI) and continuous delivery (CD) processes into Azure using Azure DevOpsWho this book is for If you're a web developer looking to build solid full-stack web applications with .NET Core and React, this book is for you. Although this book does not assume any knowledge of React, you're expected to have a basic understanding of .NET Core.

**ASP.NET Core 5 for Beginners** - Andreas Helland 2020-12-18

Learn how to build web applications efficiently using ASP.NET Core 5 with the C# programming language and related frameworks Key FeaturesBuild web apps and services and cross-platform applications using .NET and C#Understand different web programming concepts with the help of real-world examplesExplore the new features and APIs in ASP.NET Core 5, EF Core, Visual Studio, and BlazorBook Description ASP.NET Core 5 for Beginners is a comprehensive introduction for those who are new to the framework. This condensed guide takes a practical and engaging approach to cover everything that you need to know to start using ASP.NET Core for building cloud-ready, modern web applications. The book starts with a brief introduction to the ASP.NET Core framework and highlights the new features in its latest release, ASP.NET Core 5. It then covers the improvements in cross-platform support, the view engines that will help you to understand web development, and the new frontend technologies available with Blazor for building interactive web UIs. As you advance, you'll learn the fundamentals of the different frameworks and capabilities that ship with ASP.NET Core. You'll also get to grips with securing web apps with identity implementation, unit testing, and the latest in containers and cloud-native to deploy them to AWS and Microsoft Azure. Throughout the book, you'll find clear and concise code samples that illustrate each concept along with the strategies and techniques that will help to develop scalable and robust web apps. By the end of this book, you'll have

learned how to leverage ASP.NET Core 5 to build and deploy dynamic websites and services in a variety of real-world scenarios. What you will learnExplore the new features and APIs introduced in ASP.NET Core 5 and BlazorPut basic ASP.NET Core 5 concepts into practice with the help of clear and simple samplesWork with Entity Framework Core and its different workflows to implement your application's data accessDiscover the different web frameworks that ASP.NET Core 5 offers for building web appsGet to grips with the basics of building RESTful web APIs to work with real dataDeploy your web apps in AWS, Azure, and Docker containersWork with SignalR to add real-time notifications to your appWho this book is for This book is for developers who want to learn how to develop web-based applications using the ASP.NET Core framework. Familiarity with the C# language and a basic understanding of HTML and CSS is required to get the most out of this book.

*Modern API Design with ASP.NET Core 2* - Fanie Reynders 2018-03-08

Use ASP.NET Core 2 to create durable and cross-platform web APIs through a series of applied, practical scenarios. Examples in this book help you build APIs that are fast and scalable. You'll progress from the basics of the framework through to solving the complex problems encountered in implementing secure RESTful services. The book is packed full of examples showing how Microsoft's ground-up rewrite of ASP.NET Core 2 enables native cross-platform applications that are fast and modular, allowing your cloud-ready server applications to scale as your business grows. Major topics covered in the book include the fundamentals and core concepts of ASP.NET Core 2. You'll learn about building RESTful APIs with the MVC pattern using proven best practices and following the six principles of REST. Examples in the book help in learning to develop world-class web APIs and applications that can run on any platform, including Windows, Linux, and MacOS. You can even deploy to Microsoft Azure and automate your delivery by implementing Continuous Integration and Continuous Deployment pipelines. What You Will Learn Incorporate automated API tooling such as Swagger from the OpenAPI specification Standardize query and response formats using Facebook's GraphQL query language Implement security by applying authentication and authorization using ASP.NET Identity Ensure the safe storage of sensitive data using the data protection stack Create unit and integration tests to guarantee code quality Who This Book Is For Developers who build server applications such as web sites and web APIs that need to run fast and cross platform; programmers who want to implement practical solutions for real-world problems; those who want in-depth knowledge of the latest bits of ASP.NET Core 2.0

**Enterprise Application Development with C# 9 and .NET 5** - Ravindra Akella 2021-03-19

Become a professional .NET developer by learning expert techniques for building enterprise-grade applications Key FeaturesExplore the advanced features of C# and .NET 5 to enhance your code and productivityFollow clear and easy instructions for building an end-to-end enterprise applicationLearn how to build scalable web applications and host them on the cloudBook Description .NET Core is one of the most popular programming platforms in the world for an increasingly large community of developers thanks to its excellent cross-platform support. This book will show you how to confidently use the features of .NET 5 with C# 9 to build robust enterprise applications. Throughout the book, you'll work on creating an enterprise app and adding a key component to the app with each chapter, before finally getting it ready for testing and deployment. You'll learn concepts relating to advanced data structures, the Entity Framework Core, parallel programming, and dependency injection. As you progress, you'll cover various authentication and authorization schemes provided by .NET Core to make your apps and APIs secure. Next, you'll build web apps using ASP.NET Core 5 and deploy them on the cloud while working with various cloud components using Azure. The book then shows you how to use the latest Microsoft Visual Studio 2019 and C# 9 to simplify developer tasks, and also explores tips and tricks in Visual Studio 2019 to improve your productivity. Later, you'll discover various testing techniques such as unit testing and performance testing as well as different methods to deploy enterprise apps. By the end of this book, you'll be able to create enterprise apps using the powerful features of .NET 5 and deploy them on the cloud. What you will learnDesign enterprise apps by making the most of the latest features of .NET 5Discover different layers of an app, such as the data layer, API layer, and web layerExplore end-to-end architecture, implement an enterprise web app using .NET and C# 9, and deploy the app on AzureFocus on the core concepts of web application development such as dependency injection, caching, logging, configuration, and authentication, and implement them in .NET 5Integrate the new .NET 5 health and performance check APIs with your appUnderstand how .NET 5 works

and contribute to the .NET 5 platformWho this book is for If you are a developer, architect, or senior programmer who wants to leverage the features of .NET 5 and the C# language, as well as grasp essential techniques to build your skills, then this C# .NET 5 book is for you. Beginner to intermediate-level knowledge of the .NET framework and C# programming is required to understand the concepts covered in this book more effectively.

**Modern API Design with ASP.NET Core 2** - Fanie Reynders 2018-03-07

Use ASP.NET Core 2 to create durable and cross-platform web APIs through a series of applied, practical scenarios. Examples in this book help you build APIs that are fast and scalable. You'll progress from the basics of the framework through to solving the complex problems encountered in implementing secure RESTful services. The book is packed full of examples showing how Microsoft's ground-up rewrite of ASP.NET Core 2 enables native cross-platform applications that are fast and modular, allowing your cloud-ready server applications to scale as your business grows. Major topics covered in the book include the fundamentals and core concepts of ASP.NET Core 2. You'll learn about building RESTful APIs with the MVC pattern using proven best practices and following the six principles of REST. Examples in the book help in learning to develop world-class web APIs and applications that can run on any platform, including Windows, Linux, and MacOS. You can even deploy to Microsoft Azure and automate your delivery by implementing Continuous Integration and Continuous Deployment pipelines. What You Will Learn Incorporate automated API tooling such as Swagger from the OpenAPI specification Standardize query and response formats using Facebook's GraphQL query language Implement security by applying authentication and authorization using ASP.NET Identity Ensure the safe storage of sensitive data using the data protection stack Create unit and integration tests to guarantee code quality Who This Book Is For Developers who build server applications such as web sites and web APIs that need to run fast and cross platform; programmers who want to implement practical solutions for real-world problems; those who want in-depth knowledge of the latest bits of ASP.NET Core 2.0

**C# 7 and .NET Core: Modern Cross-Platform Development** - Mark J. Price 2017-03-24

Modern Cross-Platform Development About This Book Build modern, cross-platform applications with .NET Core Get up to speed with C#, and up to date with all the latest features of C# 7 Start creating professional web applications with ASP.NET Core Who This Book Is For This book is targeted towards readers who have some prior programming experience or have a science, technology, engineering, or mathematics (STEM) background, and want to gain a solid foundation with C# and to be introduced to the types of applications they could build and will work cross-platform on Windows, Linux, and macOS. What You Will Learn Build cross-platform applications using C# 7 and .NET Core Explore ASP.NET Core and learn how to create professional web applications Improve your application's performance using multitasking Use Entity Framework Core and find out how to build code-first databases Master object-oriented programming with C# to increase code reuse and efficiency Familiarize yourself with cross-device app development using the Universal Windows Platform and XAML Query and manipulate data using LINQ Protect your data by using encryption and hashing In Detail If you want to build powerful cross-platform applications with C# 7 and .NET Core, then this book is for you. First, we'll run you through the basics of C#, as well as object-oriented programming, before taking a quick tour through the latest features of C# 7 such as tuples, pattern matching, out variables, and so on. After quickly taking you through C# and how .NET works, we'll dive into the .NET Standard 1.6 class libraries, covering topics such as performance, monitoring, debugging, serialization and encryption. The final section will demonstrate the major types of application that you can build and deploy cross-device and cross-platform. In this section, we'll cover Universal Windows Platform (UWP) apps, web applications, mobile apps, and web services. Lastly, we'll look at how you can package and deploy your applications so that they can be hosted on all of today's most popular platforms, including Linux and Docker. By the end of the book, you'll be armed with all the knowledge you need to build modern, cross-platform applications using C# and .NET Core. Style and approach This book takes a step-by-step approach and is filled with exciting projects and fascinating theory. It uses three high-impact sections to equip you with all the tools you'll need to build modern, cross-platform applications using C# and .NET Core.

**ASP.NET Core 5 and Angular** - Valerio De Sanctis 2021-01-29

Build robust modern web applications using .NET 5, Entity Framework Core, and Angular 11 Key FeaturesUpdated with the latest features and additions in ASP.NET Core 5 and Angular 11Design, build, and

deploy a Single Page Application or Progressive Web App Adopt a full stack approach to handle data management, Web APIs, application design, testing, SEO, security, and deployment Book Description Learning full-stack development calls for knowledge of both front-end and back-end web development. ASP.NET Core 5 and Angular, Fourth Edition will enhance your ability to create, debug, and deploy efficient web applications using ASP.NET Core and Angular. This revised edition includes coverage of the Angular routing module, expanded discussion on the Angular CLI, and detailed instructions for deploying apps on Azure, as well as both Windows and Linux. Taking care to explain and challenge design choices made throughout the text, Valerio teaches you how to build a data model with Entity Framework Core, alongside utilizing the Entity Core Fluent API and EntityTypeConfiguration class. You'll learn how to fetch and display data and handle user input with Angular reactive forms and front-end and back-end validators for maximum effect. Later, you will perform advanced debugging and explore the unit testing features provided by xUnit.net (.NET 5) and Jasmine, as well as Karma for Angular. After adding authentication and authorization to your apps, you will explore progressive web applications (PWAs), learning about their technical requirements, testing, and converting SWAs to PWAs. By the end of this book, you will understand how to tie together the front end and back end to build and deploy secure and robust web applications. What you will learn Implement a web API interface with ASP.NET Core and consume it with Angular using RxJS observables Set up an SQL database server using a local instance or a cloud data store Perform C# and TypeScript debugging using Visual Studio 2019 Create TDD and BDD unit tests using xUnit, Jasmine, and Karma Perform DBMS structured logging using third-party providers such as SeriLog Deploy web apps to Windows and Linux web servers, or Azure App Service, using IIS, Kestrel, and nginx Who this book is for This book is for experienced ASP.NET developers who already possess some familiarity with ASP.NET Core and Angular and are looking to learn how to use them effectively together. The fully documented code samples (also available on GitHub) and the step-by-step implementation tutorials make this book easy to follow.

*Modern Web Development with ASP.NET Core 3* - Ricardo Peres 2020-06-25

Explore the tools and techniques to build scalable and secured RESTful web services and web applications using C# 8 and ASP.NET Core 3.1 Key Features Delve into MVC patterns, configuration, routing, and deployment to build professional-grade applications Learn how to integrate ASP applications with the JavaScript frameworks React, Vue, and Angular Improve the performance of applications and the development team by implementing advanced ASP.NET Core concepts Book Description ASP.NET has been the preferred choice of web developers for a long time. With ASP.NET Core 3, Microsoft has made internal changes to the framework along with introducing new additions that will change the way you approach web development. This second edition has been thoroughly updated to help you make the most of the latest features in the framework, right from gRPC and conventions to Blazor, which has a new chapter dedicated to it. You'll begin with an overview of the essential topics, exploring the Model-View-Controller (MVC) pattern, various platforms, dependencies, and frameworks. Next, you'll learn how to set up and configure the MVC environment, before delving into advanced routing options. As you advance, you'll get to grips with controllers and actions to process requests, and later understand how to create HTML inputs for models. Moving on, you'll discover the essential aspects of syntax and processes when working with Razor. You'll also get up to speed with client-side development and explore the testing, logging, scalability, and security aspects of ASP.NET Core. Finally, you'll learn how to deploy ASP.NET Core to several environments, such as Azure, Amazon Web Services (AWS), and Docker. By the end of the book, you'll be well versed in development in ASP.NET Core and will have a deep understanding of how to interact with the framework and work cross-platform. What you will learn Understand the new capabilities of ASP.NET Core 3.1 Become well versed in how to configure ASP.NET Core to use it to its full potential Create controllers and action methods, and understand how to maintain state Implement and validate forms and retrieve information from them Improve productivity by enforcing reuse, process forms, and effective security measures Delve into the new Blazor development model Deploy ASP.NET Core applications to new environments, such as Microsoft Azure, AWS, and Docker Who this book is for If you are a developer with basic knowledge of ASP.NET MVC and want to build powerful applications, then this book is for you. Developers who want to explore the latest changes in ASP.NET Core 3.1 to build professional-level applications will also find this book useful. Familiarity with C#, ASP.NET Core, HTML, and CSS is expected to get the most out of this book.

*Clean Architecture* - Robert C. Martin 2017-09-12

Practical Software Architecture Solutions from the Legendary Robert C. Martin ("Uncle Bob") By applying universal rules of software architecture, you can dramatically improve developer productivity throughout the life of any software system. Now, building upon the success of his best-selling books Clean Code and The Clean Coder, legendary software craftsman Robert C. Martin ("Uncle Bob") reveals those rules and helps you apply them. Martin's Clean Architecture doesn't merely present options. Drawing on over a half-century of experience in software environments of every imaginable type, Martin tells you what choices to make and why they are critical to your success. As you've come to expect from Uncle Bob, this book is packed with direct, no-nonsense solutions for the real challenges you'll face—the ones that will make or break your projects. Learn what software architects need to achieve—and core disciplines and practices for achieving it Master essential software design principles for addressing function, component separation, and data management See how programming paradigms impose discipline by restricting what developers can do Understand what's critically important and what's merely a "detail" Implement optimal, high-level structures for web, database, thick-client, console, and embedded applications Define appropriate boundaries and layers, and organize components and services See why designs and architectures go wrong, and how to prevent (or fix) these failures Clean Architecture is essential reading for every current or aspiring software architect, systems analyst, system designer, and software manager—and for every programmer who must execute someone else's designs. Register your product for convenient access to downloads, updates, and/or corrections as they become available.

*Designing Evolvable Web APIs with ASP.NET* - Glenn Block 2014-03-13

Design and build Web APIs for a broad range of clients—including browsers and mobile devices—that can adapt to change over time. This practical, hands-on guide takes you through the theory and tools you need to build evolvable HTTP services with Microsoft's ASP.NET Web API framework. In the process, you'll learn how design and implement a real-world Web API. Ideal for experienced .NET developers, this book's sections on basic Web API theory and design also apply to developers who work with other development stacks such as Java, Ruby, PHP, and Node. Dig into HTTP essentials, as well as API development concepts and styles Learn ASP.NET Web API fundamentals, including the lifecycle of a request as it travels through the framework Design the Issue Tracker API example, exploring topics such as hypermedia support with collection+json Use behavioral-driven development with ASP.NET Web API to implement and enhance the application Explore techniques for building clients that are resilient to change, and make it easy to consume hypermedia APIs Get a comprehensive reference on how ASP.NET Web API works under the hood, including security and testability

**C# 8.0 and .NET Core 3.0 - Modern Cross-Platform Development** - Mark J. Price 2019-10-31

Publisher's Note: Microsoft ceased support for .NET Core 3.0 in March 2020. A new edition of this book is available that uses .NET 6 (an LTS release with support up until November 2024), C# 10, and Visual Studio 2022, as well as Visual Studio Code. Key Features Build modern, cross-platform applications with .NET Core 3.0 Get up to speed with C#, and up to date with all the latest features of C# 8.0 Start creating professional web applications with ASP.NET Core 3.0 Book Description In C# 8.0 and .NET Core 3.0 - Modern Cross-Platform Development, Fourth Edition, expert teacher Mark J. Price gives you everything you need to start programming C# applications. This latest edition uses the popular Visual Studio Code editor to work across all major operating systems. It is fully updated and expanded with new chapters on Content Management Systems (CMS) and machine learning with ML.NET. The book covers all the topics you need. Part 1 teaches the fundamentals of C#, including object-oriented programming, and new C# 8.0 features such as nullable reference types, simplified switch pattern matching, and default interface methods. Part 2 covers the .NET Standard APIs, such as managing and querying data, monitoring and improving performance, working with the filesystem, async streams, serialization, and encryption. Part 3 provides examples of cross-platform applications you can build and deploy, such as web apps using ASP.NET Core or mobile apps using Xamarin.Forms. The book introduces three technologies for building Windows desktop applications including Windows Forms, Windows Presentation Foundation (WPF), and Universal Windows Platform (UWP) apps, as well as web applications, web services, and mobile apps. What you will learn Build cross-platform applications for Windows, macOS, Linux, iOS, and Android Explore application development with C# 8.0 and .NET Core

3.0 Explore ASP.NET Core 3.0 and create professional web applications  
Learn object-oriented programming and C# multitasking  
Query and manipulate data using LINQ  
Use Entity Framework Core and work with relational databases  
Discover Windows app development using the Universal Windows Platform and XAML  
Build mobile applications for iOS and Android using Xamarin.Forms  
Who this book is for Readers with some prior programming experience or with a science, technology, engineering, or mathematics (STEM) background, who want to gain a solid foundation with C# 8.0 and .NET Core 3.0.

**Pro ASP.NET Core 3** - Adam Freeman 2020-06-06

Now in its 8th edition, Pro ASP.NET Core has been thoroughly updated for ASP.NET Core 3 and online for ASP.NET Core 5 and .NET 5.0. This comprehensive, full-color guide is the only book you need to learn ASP.NET Core development. Professional developers get ready to produce leaner applications for the ASP.NET Core platform. This edition puts ASP.NET Core 3 into context, and takes a deep dive into the tools and techniques required to build modern, extensible web applications. New features and capabilities such as MVC 3, Razor Pages, Blazor Server, and Blazor WebAssembly are covered, along with demonstrations of how they can be applied in practice. Following the same popular format and style found in previous editions, author Adam Freeman explains how to get the most out of ASP.NET Core 3. Starting with the nuts-and-bolts topics, he teaches readers about middleware components, built-in services, request model binding, and more. Moving along, he introduces increasingly more complex topics and advanced features, including endpoint routing and dependency injection. Written for professionals wanting to incorporate the latest functionality of ASP.NET Core 3 into their projects, this book also serves as a complete reference on ASP.NET Core. Beginners with some background in Microsoft web development will also greatly benefit from the in-depth coverage provided throughout. What You Will Learn: Build a solid foundation and skill set for working with the entire ASP.NET Core platform  
Apply ASP.NET Core 3 and ASP.NET Core 5 features in your developer environment; plentiful reusable templates  
See how to create RESTful web services, web applications, and client-side applications  
Leverage existing knowledge to efficiently get up and running with new programming models  
Adam Freeman is an experienced IT professional who has held senior positions in a range of companies, most recently serving as chief technology officer and chief operating officer of a global bank. Now retired, he spends his time writing and long-distance running. "The Rolls-Royce of ASP.NET books, (or if you're American, the Cadillac). Very thorough!" Les Jackson, MCS D, DotNet Playbook "The author's instruction is direct, easy to understand and supplemented with clear code examples... Whether you are a beginner learning ASP.NET Core 3.1 app development, or an experienced professional ready to master advanced concepts, I consider this book a 'must have' for you!" Jeremy Likness, Senior Program Manager, Microsoft "...the best single resource for teaching MVC web apps using ASP.NET." Charles Carter, MSCS, MSwE, JD, Cloud Application Development Instructor, Microsoft Software and Systems Academy

**Mobile Development with .NET** - Can Bilgin 2021-04-09

A mobile applications development masterclass for .NET and C# developers  
Key Features  
Uncover the new features and capabilities of the .NET 5 framework in this updated and improved second edition  
Optimize the time required to develop highly performant cross-platform applications  
Understand the architectural patterns and best practices for mobile application development  
Book Description  
Are you a .NET developer who wishes to develop mobile solutions without delving into the complexities of a mobile development platform? If so, this book is a perfect solution to help you build professional mobile apps without leaving the .NET ecosystem. Mobile Development with .NET will show you how to design, architect, and develop robust mobile applications for multiple platforms, including iOS, Android, and UWP using Xamarin, .NET Core, and Azure. With the help of real-world scenarios, you'll explore different phases of application development using Xamarin, from environment setup, design, and architecture to publishing. Throughout the book, you'll learn how to develop mobile apps using Xamarin and .NET Standard. You'll even be able to implement a web-based backend composed of microservices with .NET Core using various Azure services including, but not limited to, Azure Active Directory, Azure Functions. As you advance, you'll create data stores using popular database technologies such as Cosmos DB and data models such as the relational model and NoSQL. By the end of this mobile application development book, you'll be able to create cross-platform mobile applications that can be deployed as cloud-based PaaS and SaaS. What you will learn  
Discover the latest features of .NET 5 that can be used in mobile application development  
Explore Xamarin.Forms Shell for building cross-platform

mobile UIs  
Understand the technical design requirements of a consumer mobile app  
Get to grips with advanced mobile development concepts such as app data management, push notifications, and graph APIs  
Manage app data with Entity Framework Core  
Use Microsoft's Project Rome for creating cross-device experiences with Xamarin  
Become well-versed with implementing machine learning in your mobile apps  
Who this book is for This book is for ASP.NET Core developers who want to get started with mobile development using Xamarin and other Microsoft technologies. Working knowledge of C# programming is necessary to get started.

**Real-Time Web Application Development** - Rami Vemula 2017-12-01

Design, develop, and deploy a real-world web application by leveraging modern open source technologies. This book shows you how to use ASP.NET Core to build cross-platform web applications along with SignalR to enrich the application by enabling real-time communication between server and clients. You will use Docker to containerize your application, integrate with GitHub to package the application, and provide continuous deployment to Azure's IaaS platform. Along the way, Real-Time Web Application Development covers topics including designing a Materialize CSS theme, using a test-driven development approach with xUnit.net, and securing your application with the OAuth 2.0 protocol. To further your understanding of the technology, you will learn logging and exception handling; navigation using view components; and how to work with forms and validations. The rich code samples from this book can be used to retrofit or upgrade existing ASP.NET Core applications. What You Will Learn  
Design and develop a real-world web application  
Implement security and data storage with OAuth2 and Azure Table Storage  
Orchestrate real-time notifications through SignalR  
Use GitHub and Travis CI for continuous integration of code  
Master Docker containerization and continuous deployment with Docker Cloud to Azure Linux virtual machines  
Who This Book Is For Developers and software engineers interested in learning an end-to-end approach to application development using Microsoft technologies.

**C# 10 and .NET 6 - Modern Cross-Platform Development** - Mark J. Price 2021-11-09

A comprehensive guide for beginners to learn the key concepts, real-world applications, and latest features of C# 10 and .NET 6 with hands-on exercises using Visual Studio 2022 and Visual Studio Code. Purchase of the print or Kindle book includes a free eBook in the PDF format. Key Features  
Explore the newest additions to C# 10, the .NET 6 class library, and Entity Framework Core 6  
Create professional websites and services with ASP.NET Core 6 and Blazor  
Build cross-platform apps for Windows, macOS, Linux, iOS, and Android  
Book Description  
Extensively revised to accommodate all the latest features that come with C# 10 and .NET 6, this latest edition of our comprehensive guide will get you coding in C# with confidence. You'll learn object-oriented programming, writing, testing, and debugging functions, implementing interfaces, and inheriting classes. The book covers the .NET APIs for performing tasks like managing and querying data, monitoring and improving performance, and working with the filesystem, async streams, and serialization. You'll build and deploy cross-platform apps, such as websites and services using ASP.NET Core. Instead of distracting you with unnecessary application code, the first twelve chapters will teach you about C# language constructs and many of the .NET libraries through simple console applications. In later chapters, having mastered the basics, you'll then build practical applications and services using ASP.NET Core, the Model-View-Controller (MVC) pattern, and Blazor. What you will learn  
Build rich web experiences using Blazor, Razor Pages, the Model-View-Controller (MVC) pattern, and other features of ASP.NET Core  
Build your own types with object-oriented programming  
Write, test, and debug functions  
Query and manipulate data using LINQ  
Integrate and update databases in your apps using Entity Framework Core, Microsoft SQL Server, and SQLite  
Build and consume powerful services using the latest technologies, including gRPC and GraphQL  
Build cross-platform apps using XAML  
Who this book is for Designed for both beginners and C# and .NET programmers who have worked with C# in the past and want to catch up with the changes made in the past few years, this book doesn't need you to have any C# or .NET experience. However, you should have a general understanding of programming before you jump in.

**Hands-On RESTful Web Services with ASP.NET Core 3** - Samuele Resca 2019-12-27

Get up to speed with the latest features of C# 8, ASP.NET Core 3 and .NET Core 3.1 LTS to create robust and maintainable web services  
Key Features  
Apply design patterns and techniques to achieve a reactive, scalable web service  
Document your web services using the OpenAPI standard and test them using Postman  
Explore

mechanisms to implement a secure web service using client-side SSL and token authentication

**Description** In recent times, web services have evolved to play a prominent role in web development. Applications are now designed to be compatible with any device and platform, and web services help us keep their logic and UI separate. Given its simplicity and effectiveness in creating web services, the RESTful approach has gained popularity, and this book will help you build RESTful web services using ASP.NET Core. This REST book begins by introducing you to the basics of the REST philosophy, where you'll study the different stages of designing and implementing enterprise-grade RESTful web services. You'll also gain a thorough understanding of ASP.NET Core's middleware approach and learn how to customize it. The book will later guide you through improving API resilience, securing your service, and applying different design patterns and techniques to achieve a scalable web service. In addition to this, you'll learn advanced techniques for caching, monitoring, and logging, along with implementing unit and integration testing strategies. In later chapters, you will deploy your REST web services on Azure and document APIs using Swagger and external tools such as Postman. By the end of this book, you will have learned how to design RESTful web services confidently using ASP.NET Core with a focus on code testability and maintainability. What you will learn

**Gain a comprehensive working knowledge of ASP.NET Core**

**Integrate third-party tools and frameworks to build maintainable and efficient services**

**Implement patterns using dependency injection to reduce boilerplate code and improve flexibility**

**Use ASP.NET Core's out-of-the-box tools to test your applications**

**Use Docker to run your ASP.NET Core web service in an isolated and self-contained environment**

**Secure your information using HTTPS and token-based authentication**

**Integrate multiple web services using resiliency patterns and messaging techniques**

**Who this book is for** This book is for anyone who wants to learn how to build RESTful web services with the ASP.NET Core framework to improve the scalability and performance of their applications. Basic knowledge of C# and .NET Core will help you make the best use of the code samples included in the book.

**ASP.NET Core 2 and Vue.js** - Stuart Ratcliffe 2018-07-30

Leverage ASP.NET core 2.0 web API and the power of Vue.js at the client side to create modern applications from scratch

**Key Features** Create fast, rich and reactive client side applications with Vue.js and ASP.NET Core. Leverage Vue components efficiently to build state of the art user interfaces. Work with Vuex and Nuxt.js to build ASP.NET Core based applications that are powerful, consistent, and maintainable

**Book Description** This book will walk you through the process of developing an e-commerce application from start to finish, utilizing an ASP.NET Core web API and Vue.js Single-Page Application (SPA) frontend. We will build the application using a featureslice approach, whereby in each chapter we will add the required frontend and backend changes to complete an entire feature. In the early chapters, we'll keep things fairly simple to get you started, but by the end of the book, you'll be utilizing some advanced concepts, such as server-side rendering and continuous integration and deployment. You will learn how to set up and configure a modern development environment for building ASP.NET Core web APIs and Vue.js SPA frontends. You will also learn about how ASP.NET Core differs from its predecessors, and how we can utilize those changes to our benefit. Finally, you will learn the fundamentals of building modern frontend applications using Vue.js, as well as some of the more advanced concepts, which can help make you more productive in your own applications in the future. What you will learn

**Setup a modern development environment for building both client-side and server-side code**

**Use Vue CLI to scaffold front-end applications**

**Build and compose a set of Vue.js components**

**Setup and configure client-side routing to introduce multiple pages into a SPA**

**Integrate popular CSS frameworks with Vue.js to build a product catalogue**

**Build a functioning shopping cart that persists its contents across browser sessions**

**Build client-side forms with immediate validation feedback using an open-source library dedicated to Vue.js form validation**

**Refactor backend application to use the OpenIddict library**

**Who this book is for** This book is aimed at ASP.NET developers who are looking for an entry point in learning how to build a modern client-side SPA with Vue.js, or those with a basic understanding of Vue.js who are looking to build on their knowledge and apply it to a real-world application. Knowledge of JavaScript is not necessary, but would be an advantage.

**Pro ASP.NET Core MVC 2** - Adam Freeman 2017-10-24

Now in its 7th edition, the best selling book on MVC is updated for ASP.NET Core MVC 2. It contains detailed explanations of the Core MVC functionality which enables developers to produce leaner, cloud optimized and

mobile-ready applications for the .NET platform. This book puts ASP.NET Core MVC into context and dives deep into the tools and techniques required to build modern, cloud optimized extensible web applications. All the new MVC features are described in detail and the author explains how best to apply them to both new and existing projects. The ASP.NET Core MVC Framework is the latest evolution of Microsoft's ASP.NET web platform, built on a completely new foundation. It represents a fundamental change to how Microsoft constructs and deploys web frameworks and is free of the legacy of earlier technologies such as Web Forms. ASP.NET Core MVC provides a "host agnostic" framework and a high-productivity programming model that promotes cleaner code architecture, test-driven development, and powerful extensibility. Best-selling author Adam Freeman has thoroughly revised this market-leading book and explains how to get the most from ASP.NET Core MVC. He starts with the nuts-and-bolts and shows you everything through to advanced features, going in-depth to give you the knowledge you need. The book includes a fully worked case study of a functioning web application that readers can use as a template for their own projects. What's New in This Edition Fully updated for Visual Studio 2017, C# 7 and .NET Core 2 Coverage of new features such as view filters Wider platform and tooling coverage than ever before, with more on Visual Studio Code and working with .NET Core on non-Windows platforms Docker-based application deployment What You Will Learn Gain a solid architectural understanding of ASP.NET Core MVC Explore the entire ASP.NET MVC Framework as a cohesive whole See how MVC and test-driven development work in action Learn what's new in ASP.NET Core MVC 2 and how best to apply these new features to your own work See how to create RESTful web services and Single Page Applications Build on your existing knowledge of previous MVC releases to get up and running with the new programming model quickly and effectively Who This Book Is For This book is for web developers with a basic knowledge of ASP.NET and C# who want to incorporate the latest improvements and functionality in the ASP.NET Core MVC 2 Framework.

**Entity Framework Core in Action** - Jon Smith 2018-07-15

Summary Entity Framework Core in Action teaches you how to access and update relational data from .NET applications. Following the crystal-clear explanations, real-world examples, and around 100 diagrams, you'll discover time-saving patterns and best practices for security, performance tuning, and unit testing. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology There's a mismatch in the way OO programs and relational databases represent data. Entity Framework is an object-relational mapper (ORM) that bridges this gap, making it radically easier to query and write to databases from a .NET application. EF creates a data model that matches the structure of your OO code so you can query and write to your database using standard LINQ commands. It will even automatically generate the model from your database schema. About the Book Using crystal-clear explanations, real-world examples, and around 100 diagrams, Entity Framework Core in Action teaches you how to access and update relational data from .NET applications. You'll start with a clear breakdown of Entity Framework, long with the mental model behind ORM. Then you'll discover time-saving patterns and best practices for security, performance tuning, and even unit testing. As you go, you'll address common data access challenges and learn how to handle them with Entity Framework. What's Inside Querying a relational database with LINQ Using EF Core in business logic Integrating EF with existing C# applications Applying domain-driven design to EF Core Getting the best performance out of EF Core Covers EF Core 2.0 and 2.1 About the Reader For .NET developers with some awareness of how relational databases work. About the Author Jon P Smith is a full-stack developer with special focus on .NET Core and Azure. Table of Contents Part 1 - Getting started Introduction to Entity Framework Core Querying the database Changing the database content Using EF Core in business logic Using EF Core in ASP.NET Core web applications Part 2 - Entity Framework in depth Configuring nonrelational properties Configuring relationships Configuring advanced features and handling concurrency conflicts Going deeper into the DbContext Part 3 - Using Entity Framework Core in real-world applications Useful software patterns for EF Core applications Handling database migrations EF Core performance tuning A worked example of performance tuning Different database types and EF Core services Unit testing EF Core applications Appendix A - A brief introduction to LINQ Appendix B - Early information on EF Core version 2.1

**Essential Angular for ASP.NET Core MVC** - Adam Freeman 2017-07-26

Angular 5 and .NET Core 2 updates for this book are now available. Follow the Download Source Code link for

this book on the Apress website. Discover Angular, the leading client-side web framework, from the point of view of an ASP.NET Core MVC developer. Best-selling author Adam Freeman brings these two key technologies together and explains how to use ASP.NET Core MVC to provide back-end services for Angular applications. This fast-paced, practical guide starts from the nuts and bolt and gives you the knowledge you need to combine Angular (from version 2.0 up) and ASP.NET Core MVC in your projects. What You'll Learn Gain a solid understanding of how ASP.NET Core MVC and Angular can work together Use Visual Studio 2017 to develop Angular/ASP.NET Core MVC projects Create ASP.NET Core RESTful web services to support Angular applications Expose data from Entity Framework Core to Angular applications Use ASP.NET Core Identity to provide security services to Angular applications Each topic is covered clearly and concisely and is packed with the essential details you need to learn to be truly effective. Who This Book Is For This book is for developers with a knowledge of ASP.NET Core MVC who are introducing Angular into their projects.

*Microservices in .NET Core* - Christian Horsdal Gammelgaard 2017-02-03

Summary Microservices in .NET Core provides a complete guide to building microservice applications. After a crystal-clear introduction to the microservices architectural style, the book will teach you practical development skills in that style, using OWIN and Nancy. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Microservice applications are built by connecting single-capability, autonomous components that communicate via APIs. These systems can be challenging to develop because they demand clearly defined interfaces and reliable infrastructure. Fortunately for .NET developers, OWIN (the Open Web Interface for .NET), and the Nancy web framework help minimize plumbing code and simplify the task of building microservice-based applications. About the Book Microservices in .NET Core provides a complete guide to building microservice applications. After a crystal-clear introduction to the microservices architectural style, the book will teach you practical development skills in that style, using OWIN and Nancy. You'll design and build individual services in C# and learn how to compose them into a simple but functional application back end. Along the way, you'll address production and operations concerns like monitoring, logging, and security. What's Inside Design robust and ops-friendly services Build HTTP APIs with Nancy Expose events via feeds with Nancy Use OWIN middleware for plumbing About the Reader This book is written for C# developers. No previous experience with microservices required. About the Author Christian Horsdal Gammelgaard is a Nancy committer and a Microsoft MVP. Table of Contents PART 1 - GETTING STARTED WITH MICROSERVICES Microservices at a glance A basic shopping cart microservice PART 2 - BUILDING MICROSERVICES Identifying and scoping microservices Microservice collaboration Data ownership and data storage Designing for robustness Writing tests for microservices PART 3 - HANDLING CROSS-CUTTING CONCERNS: BUILDING A REUSABLE MICROSERVICE PLATFORM Introducing OWIN: writing and testing OWIN middleware Cross-cutting concerns: monitoring and logging Securing microservice-to-microservice communication Building a reusable microservice platform PART 4 - BUILDING APPLICATIONS Creating applications over microservices Building RESTful Web Services with .NET Core - Gaurav Arora 2018-05-31

Building Complete E-commerce/Shopping Cart Application Key Features Follow best practices and explore techniques such as clustering and caching to achieve a reactive, scalable web service Leverage the .NET Framework to quickly implement RESTful endpoints. Learn to implement a client library for a RESTful web service using ASP.NET Core. Book Description REST is an architectural style that tackles the challenges of building scalable web services. In today's connected world, APIs have taken a central role on the web. APIs provide the fabric through which systems interact, and REST has become synonymous with APIs. The depth, breadth, and ease of use of ASP.NET Core makes it a breeze for developers to work with for building robust web APIs. This book takes you through the design of RESTful web services and leverages the ASP.NET Core framework to implement these services. This book begins by introducing you to the basics of the philosophy behind REST. You'll go through the steps of designing and implementing an enterprise-grade RESTful web service. This book takes a practical approach, that you can apply to your own circumstances. This book brings forth the power of the latest .NET Core release, working with MVC. Later, you will learn about the use of the framework to explore approaches to tackle resilience, security, and scalability concerns. You will explore the steps to improve the performance of your applications. You'll also learn techniques to deal with security in web APIs and discover how to implement unit and integration test strategies. By the end of the

book, you will have a complete understanding of Building a client for RESTful web services, along with some scaling techniques. What you will learn Add basic authentication to your RESTful API Create a Carts Controller and Orders Controller to manage and process Orders Intercept HTTP requests and responses by building your own middleware Test service calls using Postman and Advanced REST Client Secure your data/application using annotations Who this book is for This book is intended for those who want to learn to build RESTful web services with the latest .NET Core Framework. To make best use of the code samples included in the book, you should have a basic knowledge of C# and .NET Core.

**Hands-On Full-Stack Web Development with ASP.NET Core** - Tamir Dresher 2018-10-31

Become a full-stack developer by learning popular Microsoft technologies and platforms such as .NET Core, ASP.NET Core, Entity Framework, and Azure Key Features Bring static typing to web development with features compatible in TypeScript 3 Implement a slim marketplace single page application (SPA) in Angular, React, and Vue Modernize your web apps with Microsoft Azure, Visual Studio, and Git Book Description Today, full-stack development is the name of the game. Developers who can build complete solutions, including both backend and frontend products, are in great demand in the industry, hence being able to do so a desirable skill. However, embarking on the path to becoming a modern full-stack developer can be overwhelmingly difficult, so the key purpose of this book is to simplify and ease the process. This comprehensive guide will take you through the journey of becoming a full-stack developer in the realm of the web and .NET. It begins by implementing data-oriented RESTful APIs, leveraging ASP.NET Core and Entity Framework. Afterward, it describes the web development field, including its history and future horizons. Then, you'll build web-based Single-Page Applications (SPAs) by learning about numerous popular technologies, namely TypeScript, Angular, React, and Vue. After that, you'll learn about additional related concerns involving deployment, hosting, and monitoring by leveraging the cloud; specifically, Azure. By the end of this book, you'll be able to build, deploy, and monitor cloud-based, data-oriented, RESTful APIs, as well as modern web apps, using the most popular frameworks and technologies. What you will learn Build RESTful APIs in C# with ASP.NET Core, web APIs, and Entity Framework See the history and future horizons of the web development field Bring static-typing to web apps using TypeScript Build web applications using Angular, React, and Vue Deploy your application to the cloud Write web applications that scale, can adapt to changes, and are easy to maintain Discover best practices and real-world tips and tricks Secure your backend server with Authentication and Authorization using OAuth 2.0 Who this book is for This book is for developers who are keen on strengthening their skills in the field of cloud-based full-stack web development. You need basic knowledge of web-related pillars, including HTML, CSS, and JavaScript, as well as C# and REST. This book targets novice developers in the realm of Web development and ASP.NET who desire to advance to modern Web and ASP.NET Core development and leverage the Cloud to manage and bring everything together.

**Learning ASP.NET Core 3.0 - Second Edition** - Kenneth Yamikani Fukizi 2019-12-27

A beginner's guide to building fully functioning web applications from scratch using the latest features of ASP.NET Core 3 and C# 8 Key Features Get to grips with the new features and APIs in ASP.NET Core 3, EF Core 3, and Blazor Create web APIs that integrate your applications with other systems and services Learn to deploy your web applications in new environments such as the cloud and Docker containers Book Description ASP.NET Core is an open source framework from Microsoft that makes it easy to build highly efficient and dynamic cross-platform web applications. Updated for the latest features of ASP.NET Core 3, this second edition will equip you with the skills you need to build powerful web applications. The book starts with an introduction to ASP.NET Core and its features, giving you a complete understanding of the framework. You will also learn how to set up your development environment with Visual Studio 2019 and build a fully functioning application from scratch. You'll then understand core concepts for building web applications such as Model View Controller (MVC), dependency injection, and WebSockets. As you advance, you'll discover how to use Entity Framework Core 3 to automate all database-related activities for your application. You will then build and document secure web APIs using security best practices to protect your web applications from threats and vulnerabilities. Finally, you will learn how to use Azure DevOps as a CI/CD tool to deploy and monitor your applications using Microsoft Azure, Amazon Web Services (AWS), and Docker. By the end of this book, you'll have the skills you need to develop efficient and robust web applications in ASP.NET Core 3. What you will learn Delve into basic and advanced ASP.NET Core 3 concepts with the help of examples Build

an MVC web application and use Entity Framework Core 3 to access data Add web APIs to your web applications using RPC, REST, and HATEOAS Create a fully automated continuous integration and continuous delivery (CI/CD) pipeline using Azure DevOps Use Azure, Amazon Web Services, and Docker to deploy and monitor your applications Secure your web application from common attacks such as Cross-Site Scripting and SQL injection Explore client-side development using C# Razor components Who this book is for This book is for developers who want to build modern web applications with ASP.NET Core. The book will also be helpful for anyone working in infrastructure engineering and operations to monitor and diagnose problems during the runtime of ASP.NET Core 3.0 web applications. Although no prior understanding of ASP.NET or .NET Core is required, basic C# programming knowledge is assumed.

**Programming ASP.NET Core, Programming ASP.NET Core** - Dino Esposito 2018-05-10

The complete, pragmatic guide to building high-value solutions with ASP.NET Core Programming ASP.NET Core is the definitive guide to practical web-based application development with Microsoft's new ASP.NET Core framework. Microsoft MVP Dino Esposito introduces proven techniques and well-crafted example code for solving real problems with ASP.NET Core. Step by step, he guides you through using all key ASP.NET Core technologies, including MVC for HTML generation, .NET Core, EF Core, ASP.NET Identity, dependency injection, and much more. Esposito thoroughly covers ASP.NET Core's cross-platform capabilities and what's changed from older ASP.NET versions, but he doesn't stop there: he offers a complete learning path for every developer who wants to build production solutions, including mobile-specific solutions. Microsoft MVP Dino Esposito shows how to:

- Create new projects and understand their structure
- Set up and use the familiar MVC application model in ASP.NET Core
- Write controller class code to govern all stages of request processing
- Serve HTML from controllers, or directly via Razor Pages
- Master the Razor language for quickly defining the layout of HTML views
- Manage cross-cutting concerns such as global configuration data, error and exception handling, controller class design, and dependency injection
- Secure applications with user authentication and ASP.NET Core's policy-based user authorization API
- Design for efficient data access, and choose the right option for reading and writing data
- Build ASP.NET Core Web APIs that return JSON, XML, or other data
- Use data binding to programmatically update visual components with fresh information
- Build device-friendly web views for iOS and Android
- Explore the radically new ASP.NET Core runtime environment and Dependency Injection (DI) infrastructure

**ASP.NET Core in Action** - Andrew Lock 2021-03-18

ASP.NET Core in Action, Second Edition is a comprehensive guide to creating web applications with ASP.NET Core 5.0. Go from basic HTTP concepts to advanced framework customization. Summary Fully updated to ASP.NET 5.0, ASP.NET Core in Action, Second Edition is a hands-on primer to building cross-platform web applications with your C# and .NET skills. Even if you've never worked with ASP.NET you'll start creating productive cross-platform web apps fast. And don't worry about late-breaking changes to ASP.NET Core. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Build full-stack web applications that run anywhere. Developers love ASP.NET Core for its libraries and pre-built components that maximize productivity. Version 5.0 offers new features for server-side apps, as well as background services for cross-platform development. About the book ASP.NET Core in Action, Second Edition is a comprehensive guide to creating web applications with ASP.NET Core 5.0. Go from basic HTTP concepts to advanced framework customization. Illustrations and annotated code make learning visual and easy. Master logins, dependency injection, security, and more. This updated edition covers the latest features, including Razor Pages and the new hosting paradigm. What's inside Developing apps for Windows and non-Windows servers Configuring applications Building custom components Logging, testing, and security About the reader For intermediate C# developers. About the author Andrew Lock is a Microsoft MVP who has worked with ASP.NET Core since before its first release. Table of Contents PART 1 - GETTING STARTED WITH ASP.NET CORE 1 Getting started with ASP.NET Core 2 Your first application 3 Handling requests with the middleware pipeline 4 Creating a website with Razor Pages 5 Mapping URLs to Razor Pages using routing 6 The binding model: Retrieving and validating user input 7 Rendering HTML using Razor views 8 Building forms with Tag Helpers 9 Creating a Web API for mobile and client applications using MVC PART 2 - BUILDING COMPLETE APPLICATIONS 10 Service configuration with dependency injection 11 Configuring an ASP.NET Core application 12 Saving data with Entity Framework Core 13 The MVC and Razor

Pages filter pipeline 14 Authentication: Adding users to your application with Identity 15 Authorization: Securing your application 16 Publishing and deploying your application PART 3 - EXTENDING YOUR APPLICATIONS 17 Monitoring and troubleshooting errors with logging 18 Improving your application's security 19 Building custom components 20 Building custom MVC and Razor Pages components 21 Calling remote APIs with IHttpConnectionFactory 22 Building background tasks and services 23 Testing your application *ASP.NET Core 5 and React* - Carl Rippon 2021-01-08

Build fully functional, cloud-ready, and professional web applications using the latest features in the .NET 5 framework and React.js with Microsoft Azure Key Features Explore the new features of .NET 5 with this updated edition of ASP.NET Core 5 and React Discover strategies for adopting a full-stack development approach, clean architecture techniques, and development best practices Learn how to manage data, design and package applications, and secure your web apps Book Description Microsoft's .NET framework is a robust server-side framework, now even more powerful thanks to the recent unification of the Microsoft ecosystem with the .NET 5 framework. This updated second edition addresses these changes in the .NET framework and the latest release of React. The book starts by taking you through React and TypeScript components for building an intuitive single-page application and then shows you how to design scalable REST APIs that can integrate with a React-based frontend. Next, you'll get to grips with the latest features, popular patterns, and tools available in the React ecosystem, including function-based components, React Router, and Redux. As you progress through the chapters, you'll learn how to use React with TypeScript to make the frontend robust and maintainable and cover key ASP.NET 5 features such as API controllers, attribute routing, and model binding to build a sturdy backend. In addition to this, you'll explore API security with ASP.NET 5 identity and authorization policies and write reliable unit tests using both .NET and React, before deploying your app on Azure. By the end of this book, you'll have gained the knowledge you need to enhance your C# and JavaScript skills and build full-stack, production-ready applications with ASP.NET 5 and React. What you will learn Build RESTful APIs with .NET 5 using API controllers Secure REST APIs with identity and authorization policies Create strongly typed, interactive, and function-based React components using Hooks Understand how to style React components using Emotion.js Perform client-side state management with Redux Run a range of automated tests on the frontend and backend Implement continuous integration and continuous delivery (CI/CD) processes in Azure using Azure DevOps Who this book is for If you're a web developer looking to get up to speed with full-stack web application development with .NET Core and React, this book is for you. Although the book does not assume any knowledge of React, a basic understanding of .NET Core will help you to get to grips with the concepts covered.

**ASP.NET Core Application Development** - James Chambers 2016-11-29

This is the eBook of the printed book and may not include any media, website access codes, or print supplements that may come packaged with the bound book. Through four complete sprints, this book takes you through every step needed to build brand new cross-platform web apps with ASP.NET Core, and make them available on the Internet. You won't just master Microsoft's revolutionary open source ASP.NET Core technology: you'll learn how to integrate the immense power of MVC, Docker, Azure Web Apps, Visual Studio and Visual Studio Code, C#, JavaScript, TypeScript, and Entity Framework. Working through the authors' carefully designed sprints, you'll start with a blank canvas, move through software architecture and design, adjusting to user feedback, recovering from mistakes, builds, testing, deployment, maintenance, refactoring, and more. Along the way, you'll learn techniques for delivering state-of-the-art software to users more rapidly and repeatably than ever before.

**Modern Data Access with Entity Framework Core** - Holger Schwichtenberg 2018-06-27

C# developers, here's your opportunity to learn the ins-and-outs of Entity Framework Core, Microsoft's recently redesigned object-relational mapper. Benefit from hands-on learning that will teach you how to tackle frustrating database challenges, such as workarounds to missing features in Entity Framework Core, and learn how to optimize the performance of your applications, head-on! Modern Data Access with Entity Framework Core teaches best practices, guidance, and shortcuts that will significantly reduce the amount of resources you internally dedicate to programming data access code. The proven methods and tools taught in this book, such as how to get better performance, and the ability to select the platform of your choice, will save you valuable time and allow you to create seamless data access. Dive into succinct guidance that

Covers the gamut-- from installing Entity Framework Core, reverse engineering, forward engineering (including schema migrations), and data reading and modification with LINQ, Dynamic LINQ, SQL, Stored Procedures, and Table Valued Functions- to using third-party products such as LINQPad, Entity Developer, Entity Framework Profiler, EFPlus, and AutoMapper. You'll also appreciate excerpts of conceptual software architecture discussion around Entity Framework Core that might otherwise take years to learn. What You'll Learn Understand the core concepts of Entity Framework Core, as well process models for existing databases (reverse engineering) and the generation of database schemas from object models (forward engineering) Study real-world case studies for hands-on EF Core instruction Get up to speed with valuable database access scenarios and code samples Discover workarounds to augment missing features in Entity Framework Core Use Entity Framework Core to write mobile apps Bonus online appendix covers Entity Framework Core 2.1 release updates Who This Book Is For Software developers who have basic experience with .NET and C#, as well as some understanding of relational databases. Knowledge of predecessor technologies such as ADO.NET and the classic ADO.NET Entity Framework is not necessary to learn from this book.

**.NET Core in Action** - Dustin Metzgar 2018-07-12

Summary .NET Core in Action shows .NET developers how to build professional software applications with .NET Core. Learn how to convert existing .NET code to work on multiple platforms or how to start new projects with knowledge of the tools and capabilities of .NET Core. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology .NET Core is an open source framework that lets you write and run .NET applications on Linux and Mac, without giving up on Windows. Built for everything from lightweight web apps to industrial-strength distributed systems, it's perfect for deploying .NET servers to any cloud platform, including AWS and GCP. About the Book .NET Core in Action introduces you to cross-platform development with .NET Core. This hands-on guide concentrates on new Core features as you walk through familiar tasks like testing, logging, data access, and networking. As you go, you'll explore modern architectures like microservices and cloud data storage, along with practical matters like performance profiling, localization, and signing assemblies. What's Inside Choosing the right tools Testing, profiling, and debugging Interacting with web services Converting existing projects to .NET Core Creating and using NuGet packages About the Reader All examples are in C#. About the Author Dustin Metzgar is a seasoned developer and architect involved in numerous .NET Core projects. Dustin works for Microsoft. Table of Contents Why .NET Core? Building your first .NET Core applications How to build with .NET Core Unit testing with xUnit Working with relational databases Simplify data access with object-relational mappers Creating a microservice Debugging Performance and profiling Building world-ready applications Multiple frameworks and runtimes Preparing for release appendix A - Frameworks and runtimes appendix B - xUnit command-line options appendix C - What's in the .NET Standard Library? appendix D - NuGet cache locations

[Front-end Development with ASP.NET Core, Angular, and Bootstrap](#) - Simone Chiazza 2018-03-07

Stay ahead of the web evolution with elegant combination front-end development Front-End Development with ASP.NET Core, Angular, and Bootstrap is the professional's guide to fast, responsive web development. Utilizing the most popular combination of web technologies for Microsoft developers, this guide provides the latest best practices and ASP.NET MVP guidance to get you up to speed quickly. The newest ASP.NET - now called ASP.NET Core - is leaner, easier to use, and less bound to the operating system and IDE, giving you the perfect opportunity to leverage third-party frameworks and libraries that provide functionalities not native to ASP.NET Core and Visual Studio. This book shows you how to integrate ASP.NET Core with Angular, Bootstrap, and similar frameworks, with a bit of jQuery Mobile, Nuget, continuous deployment, Bower dependencies, and Gulp/Grunt build systems, including development beyond Windows on Mac and Linux. With clear, concise instruction and expert insight, this guide is an invaluable resource for meeting the demands of modern web development. Combine ASP.NET Core with different tools, frameworks, and libraries Utilize third-party libraries with non-native functionalities Adopt the most up-to-date best practices for front-end development Develop flexible, responsive design sites The world of web development is evolving faster than ever before, and the trend is toward small, focused frameworks with modular capabilities. Microsoft has noticed, and upgraded ASP.NET Core to align with the latest industry expectations. Front-End Development with ASP.NET Core, Angular, and Bootstrap helps you elegantly integrate these technologies to develop the sites that the industry demands.

[Go Web Programming](#) - Sau Sheong Chang 2016-07-05

Summary Go Web Programming teaches you how to build scalable, high-performance web applications in Go using modern design principles. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology The Go language handles the demands of scalable, high-performance web applications by providing clean and fast compiled code, garbage collection, a simple concurrency model, and a fantastic standard library. It's perfect for writing microservices or building scalable, maintainable systems. About the Book Go Web Programming teaches you how to build web applications in Go using modern design principles. You'll learn how to implement the dependency injection design pattern for writing test doubles, use concurrency in web applications, and create and consume JSON and XML in web services. Along the way, you'll discover how to minimize your dependence on external frameworks, and you'll pick up valuable productivity techniques for testing and deploying your applications. What's Inside Basics Testing and benchmarking Using concurrency Deploying to standalone servers, PaaS, and Docker Dozens of tips, tricks, and techniques About the Reader This book assumes you're familiar with Go language basics and the general concepts of web development. About the Author Sau Sheong Chang is Managing Director of Digital Technology at Singapore Power and an active contributor to the Ruby and Go communities. Table of Contents PART 1 GO AND WEB APPLICATIONS Go and web applications Go ChatChat PART 2 BASIC WEB APPLICATIONS Handling requests Processing requests Displaying content Storing data PART 3 BEING REAL Go web services Testing your application Leveraging Go concurrency Deploying Go