Professional Asp Design Patterns

What people are saying about Search Patterns "Search Patterns is a delight to read -- very thoughtful and thought provoking. It's the most comprehensive survey of designing effective search experiences I've seen." --Irene Au, Director of User Experience, Google "I love this book! Thanks to Peter and Jeffery, I now know that search (yes, boring old yucky who cares search) is one of the coolest ways around of looking at the world." --Dan Roam, author, The Back of the Napkin (Portfolio Hardcover) "Search Patterns is a playful guide to the practical concerns of search interface design. It contains a bonanza of screenshots and illustrations that capture the best of today's design practices and presents a fresh perspective on the broader role of search and discovery." --Marti Hearst, Professor, UC Berkeley and author, Search User Interfaces (Cambridge University Press) "It's not often I come across a book that asks profound questions about a fundamental human activity, and then proceeds to answer those questions with practical observations and suggestions. Search Patterns is an expedition into the heart of the web and human cognition, and for me it was a delightful journey that delivered scores of insights." --Dave Gray, Founder and Chairman, XPLANE "Search is swiftly transforming everything we know, yet people don't understand how mavens design search: by stacking breadcrumbs, scenting widgets, and keeping eyeballs on the engine. I urge you to put your eyeballs on this unique and important book." --Bruce Sterling, Writer, Futurist, and Co-Founder, The Electronic Frontier Foundation "As one who searches a lot (and often ends up frustrated), Search Patterns is a revelation." --Nigel Holmes, Designer, Theorist, and Principal, Explanation Graphics "Search Patterns is a fabulous must-have book! Inside, you'll learn the

whys and wheres of practically every modern search design trick and technique." --Jared Spool, CEO and Founder, User Interface Engineering Search is among the most disruptive innovations of our time. It influences what we buy and where we go. It shapes how we learn and what we believe. In this provocative and inspiring book, you'll explore design patterns that apply across the categories of web, ecommerce, enterprise, desktop, mobile, social, and real-time search and discovery. Filled with colorful illustrations and examples, Search Patterns brings modern information retrieval to life, covering such diverse topics as relevance, faceted navigation, multi-touch, personalization, visualization, multi-sensory search, and augmented reality. By drawing on their own experience-as well as best practices and evidence-based research-the authors not only offer a practical guide to help you build effective search applications, they also challenge you to imagine the future of discovery. You'll find Search Patterns intriguing and invaluable, whether you're a web practitioner, mobile designer, search entrepreneur, or just interested in the topic. Discover a pattern language for search that embraces user psychology and behavior, information architecture, interaction design, and emerging technology Boost enterprise efficiency and e-commerce sales Enable mobile users to achieve goals, complete tasks, and find what they need Drive design innovation for search interfaces and applications

Become a professional .NET developer by learning expert techniques for building enterprise-grade applications Key Features Explore the advanced features of C# and .NET 5 to enhance your code and productivity Follow clear and easy instructions for building an end-to-end enterprise application Learn how to build scalable web applications and host them on the cloud Book 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 ?nally 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 di?erent 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 learn Design enterprise apps by making the most of the latest features of .NET 5 Discover di?erent layers of an app, such as the data layer, API layer, and web layer Explore end-to-end architecture, implement an enterprise web app using .NET and C# 9, and deploy the app on Azure Focus on the core concepts of web application development such as dependency injection, caching, logging, con?guration, and authentication, and implement them in .NET 5 Integrate the new .NET 5 health and performance check APIs with your app Understand how .NET 5 works and contribute to the .NET 5 platform Who 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. Until now, design patterns for the MapReduce framework have been scattered among various research papers, blogs, and books. This handy guide brings together a unique collection of valuable MapReduce patterns that will save you time and effort regardless of the domain, language, or development framework you're using. Each pattern is explained in context, with pitfalls and caveats clearly identified to help you avoid common design mistakes when modeling your big data architecture. This book also provides a complete overview of MapReduce that explains its origins and implementations, and why design patterns are so important. All code examples are written for Hadoop. Summarization patterns: get a top-level view by summarizing and grouping data Filtering patterns: view data subsets such as records generated from one user Data organization patterns: reorganize data to work with other systems, or to make MapReduce analysis easier Join patterns: analyze different datasets together to discover interesting relationships Metapatterns: piece together several patterns to solve multi-stage problems, or to perform several analytics in the same job Input and output patterns: customize the way you use Hadoop to load or store data "A clear exposition of MapReduce programs for common data processing patterns—this book is indespensible for anyone using Hadoop." --Tom White, author of Hadoop: The Definitive Guide The ASP.NET MVC 4 Framework is the latest evolution of Microsoft's ASP.NET web platform. It provides a high-productivity programming model that promotes cleaner code architecture, test-driven development, and powerful extensibility, combined with all the benefits of ASP.NET.

ASP.NET MVC 4 contains a number of significant advances over previous versions. New mobile and desktop templates (employing adaptive rendering) are included together with support for jQuery Mobile for the first time. New display modes allow your application to select views based on the browser that's making the request while Code Generation Recipes for Visual Studio help you auto-generate project-specific code for a wide variety of situtations including NuGet support. In this fourth edition, the core model-view-controller (MVC) architectural concepts are not simply explained or discussed in isolation, but are demonstrated in action. You'll work through an extended tutorial to create a working e-commerce web application that combines ASP.NET MVC with the latest C# language features and unit-testing best practices. By gaining this invaluable, practical experience, you'll discover MVC's strengths and weaknesses for yourself—and put your best-learned theory into practice. The book's authors, Steve Sanderson and Adam Freeman, have both watched the growth of ASP.NET MVC since its first release. Steve is a well-known blogger on the MVC Framework and a member of the Microsoft Web Platform and Tools team. Adam started designing and building web applications 15 years ago and has been responsible for some of the world's largest and most ambitious projects. You can be sure you are in safe hands.

Are you doing all you can to further your career as a software developer? With today's rapidly changing and ever-expanding technologies, being successful requires more than technical expertise. To grow professionally, you also need soft skills and effective learning techniques. Honing those skills is what this book is all about. Authors Dave Hoover and Adewale Oshineye have cataloged dozens of behavior patterns to help you perfect essential aspects of your craft. Compiled from years of research, many interviews, and feedback from O'Reilly's online forum,

these patterns address difficult situations that programmers, administrators, and DBAs face every day. And it's not just about financial success. Apprenticeship Patterns also approaches software development as a means to personal fulfillment. Discover how this book can help you make the best of both your life and your career. Solutions to some common obstacles that this book explores in-depth include: Burned out at work? "Nurture Your Passion" by finding a pet project to rediscover the joy of problem solving. Feeling overwhelmed by new information? Re-explore familiar territory by building something you've built before, then use "Retreat into Competence" to move forward again. Stuck in your learning? Seek a team of experienced and talented developers with whom you can "Be the Worst" for a while. "Brilliant stuff! Reading this book was like being in a time machine that pulled me back to those key learning moments in my career as a professional software developer and, instead of having to learn best practices the hard way, I had a guru sitting on my shoulder guiding me every step towards master craftsmanship. I'll certainly be recommending this book to clients. I wish I had this book 14 years ago!"-Russ Miles, CEO, OpenCredo

Design Patterns in Java™ gives you the hands-on practice and deep insight you need to fully leverage the significant power of design patterns in any Java software project. The perfect complement to the classic Design Patterns, this learn-by-doing workbook applies the latest Java features and best practices to all of the original 23 patterns identified in that groundbreaking text. Drawing on their extensive experience as Java instructors and programmers, Steve Metsker and Bill Wake illuminate each pattern with real Java programs, clear UML diagrams, and compelling exercises. You'll move quickly from theory to application–learning how to improve new code and refactor existing code for simplicity,

manageability, and performance. Coverage includes Using Adapter to provide consistent interfaces to clients Using Facade to simplify the use of reusable toolkits Understanding the role of Bridge in Java database connectivity The Observer pattern, Model-View-Controller, and GUI behavior Java Remote Method Invocation (RMI) and the Proxy pattern Streamlining designs using the Chain of Responsibility pattern Using patterns to go beyond Java's built-in constructor features Implementing Undo capabilities with Memento Using the State pattern to manage state more cleanly and simply Optimizing existing codebases with extension patterns Providing thread-safe iteration with the Iterator pattern Using Visitor to define new operations without changing hierarchy classes If you're a Java programmer wanting to save time while writing better code, this book's techniques, tips, and clear explanations and examples will help you harness the power of patterns to improve every program you write, design, or maintain. All source code is available for download at http://www.oozinoz.com.
* Explains through case studies how design patterns can improve the design of the individual tiers in an application. * Shows how design patterns can be used in conjunction with .NET Remoting across the tiers in an application. * The emphasis throughout is on how design patterns can be used in real applications to write more robust and flexible code.
Implement design patterns in .NET Core 3 using the latest versions of the C# and F# languages. This book provides a comprehensive overview of the field of design patterns as they are used in today's developer toolbox. This new edition introduces topics such as Functional Builder, Asynchronous Factory Method, Generic Value Adapter, and new Composite Proxies, including one that attempts to solve the SoA/AoS problem. Using the C# and F# programming languages, Design Patterns in .NET Core 3 explores the classic design

pattern implementations and discusses the applicability and relevance of specific language features for implementing patterns. You will learn by example, reviewing scenarios where patterns are applicable. MVP and patterns expert Dmitri Nesteruk demonstrates possible implementations of patterns, discusses alternatives and pattern inter-relationships, and illustrates the way that a dedicated refactoring tool (ReSharper) can be used to implement design patterns with ease. What You Will Learn Become familiar with the latest pattern implementations available in C# 8 and F# 5 Know how to better reason about software architecture Understand the process of refactoring code to patterns Refer to researched and proven variations of patterns Study complete, self-contained examples, including many that cover advanced scenarios Use the latest implementations of C# and Visual Studio/Rider/ReSharper Who This Book Is For Developers who have some experience in the C# language and want to expand their comprehension of the art of programming by leveraging design approaches to solving modern problems

Architect and design highly scalable, robust, clean and highly performant applications in .NET Core About This Book Incorporate architectural soft-skills such as DevOps and Agile methodologies to enhance program-level objectives Gain knowledge of architectural approaches on the likes of SOA architecture and microservices to provide traceability and rationale for architectural decisions Explore a variety of practical use cases and code examples to implement the tools and techniques described in the book Who This Book Is For This book is for experienced .NET developers who are aspiring to become architects of enterprise-grade applications, as well as software architects

who would like to leverage .NET to create effective blueprints of applications. What You Will Learn Grasp the important aspects and best practices of application lifecycle management Leverage the popular ALM tools, application insights, and their usage to monitor performance, testability, and optimization tools in an enterprise Explore various authentication models such as social media-based authentication, 2FA and OpenID Connect, learn authorization techniques Explore Azure with various solution approaches for Microservices and Serverless architecture along with Docker containers Gain knowledge about the recent market trends and practices and how they can be achieved with .NET Core and Microsoft tools and technologies In Detail If you want to design and develop enterprise applications using .NET Core as the development framework and learn about industry-wide best practices and guidelines, then this book is for you. The book starts with a brief introduction to enterprise architecture, which will help you to understand what enterprise architecture is and what the key components are. It will then teach you about the types of patterns and the principles of software development, and explain the various aspects of distributed computing to keep your applications effective and scalable. These chapters act as a catalyst to start the practical implementation, and design and develop applications using different architectural approaches, such as layered architecture, service oriented architecture, microservices and cloud-specific solutions. Gradually, you will learn about the different approaches and models of the Security framework and explore various authentication

models and authorization techniques, such as social media-based authentication and safe storage using app secrets. By the end of the book, you will get to know the concepts and usage of the emerging fields, such as DevOps, BigData, architectural practices, and Artificial Intelligence. Style and approach Filled with examples and use cases, this guide takes a no-nonsense approach to show you the best tools and techniques required to become a successful software architect.

The practice of enterprise application development has benefited from the emergence of many new enabling technologies. Multi-tiered object-oriented platforms, such as Java and .NET, have become commonplace. These new tools and technologies are capable of building powerful applications, but they are not easily implemented. Common failures in enterprise applications often occur because their developers do not understand the architectural lessons that experienced object developers have learned. Patterns of Enterprise Application Architecture is written in direct response to the stiff challenges that face enterprise application developers. The author, noted object-oriented designer Martin Fowler, noticed that despite changes in technology--from Smalltalk to CORBA to Java to .NET--the same basic design ideas can be adapted and applied to solve common problems. With the help of an expert group of contributors, Martin distills over forty recurring solutions into patterns. The result is an indispensable handbook of solutions that are applicable to any enterprise application platform. This book is actually two books in one. The first section is a short tutorial on developing enterprise

applications, which you can read from start to finish to understand the scope of the book's lessons. The next section, the bulk of the book, is a detailed reference to the patterns themselves. Each pattern provides usage and implementation information, as well as detailed code examples in Java or C#. The entire book is also richly illustrated with UML diagrams to further explain the concepts. Armed with this book, you will have the knowledge necessary to make important architectural decisions about building an enterprise application and the proven patterns for use when building them. The topics covered include · Dividing an enterprise application into layers · The major approaches to organizing business logic · An in-depth treatment of mapping between objects and relational databases · Using Model-View-Controller to organize a Web presentation · Handling concurrency for data that spans multiple transactions · Designing distributed object interfaces

This is the eBook version of the print title, Framework Design Guidelines, Second Edition . Access to all the samples, applications, and content on the DVD is available through the product catalog page www.informit.com/title/9780321545619 Navigate to the "Downloads" tab and click on the "DVD Contents" links - see instructions in back pages of your eBook. Framework Design Guidelines, Second Edition, teaches developers the best practices for designing reusable libraries for the Microsoft .NET Framework. Expanded and updated for .NET 3.5, this new edition focuses on the design issues that directly affect the programmability of a class library, specifically its

publicly accessible APIs. This book can improve the work of any .NET developer producing code that other developers will use. It includes copious annotations to the guidelines by thirty-five prominent architects and practitioners of the .NET Framework, providing a lively discussion of the reasons for the guidelines as well as examples of when to break those guidelines. Microsoft architects Krzysztof Cwalina and Brad Abrams teach framework design from the top down. From their significant combined experience and deep insight, you will learn The general philosophy and fundamental principles of framework design Naming guidelines for the various parts of a framework Guidelines for the design and extending of types and members of types Issues affecting–and guidelines for ensuring–extensibility How (and how not) to design exceptions Guidelines for–and examples of–common framework design patterns Guidelines in this book are presented in four major forms: Do, Consider, Avoid, and Do not. These directives help focus attention on practices that should always be used, those that should generally be used, those that should rarely be used, and those that should never be used. Every guideline includes a discussion of its applicability, and most include a code example to help illuminate the dialogue. Framework Design Guidelines, Second Edition, is the only definitive source of best practices for managed code API development, direct from the architects themselves. A companion DVD includes the Designing .NET Class Libraries video series, instructional presentations by the authors on design guidelines for developing classes and components that extend

the .NET Framework. A sample API specification and other useful resources and tools are also included.

Ajax has revolutionized the way users interact with web pages today.Gone are frustrating page refreshes, lost scroll positions andintermittent interaction with a web site. Instead, we have a newgeneration of fast, rich, and more intuitive web applications. TheASP.NET AJAX framework puts the power of Ajax into the hands of webdevelopers. ASP.NET AJAX, formerly called Atlas, is a new free frameworkfrom Microsoft designed to easily add Ajax features to ASP.NETapplications. With this technology, ASP.NET developers can easily buildmore interactive and highly-personalized web applications that workacross all most popular browsers. ASP.NET AJAX in Action is a fast-paced, example-rich tutorial designedfor ASP.NET web developers and written by ASP.NET AJAX expertsAlessandro "Garbin" Gallo, David Barkol, and Rama Krishna Vavilala. Thisbook introduces you to Ajax applications and to the ASP.NET AJAXtechnology. Beginners will appreciate the clear explanations of keyideas and terminology. Intermediate and advanced ASP.NET developers willfind a no-nonsense learning source and well-organized reference. ASP.NET AJAX in Action offers a rich set of examples and meticulousexplanations. The extensive code samples are accompanied by accurate andrigorous explanations of the concepts behind development with ASP.NETAJAX. In this book, you will discover how to use Microsoft Ajax Library Partial rendering with UpdatePanels Advanced client and server

techniques Ajax Control Toolkit If you are a web developer looking to bring your web pages to life andto enhance the user experience, this book is for you. ASP.NET AJAX in Action will give you with the knowledge and tools youneed to more easily craft the next generation of Ajax applications. Withthe help of the Microsoft ASP.NET AJAX framework, Ajax development hasnever been easier and more instinctive for both client-script developersand ASP.NET developers alike. Purchase of the print book comes with an offer of a free PDF, ePub, and Kindle eBook from Manning. Also available is all code from the book.
Professional ASP.NET Design PatternsWrox
Implement design patterns in .NET using the latest versions of the C# and F# languages. This book provides a comprehensive overview of the field of design patterns as they are used in today's developer toolbox. Using the C# programming language, Design Patterns in .NET explores the classic design pattern implementation and discusses the applicability and relevance of specific language features for the purpose of implementing patterns. You will learn by example, reviewing scenarios where patterns are applicable. MVP and patterns expert Dmitri Nesteruk demonstrates possible implementations of patterns, discusses alternatives and pattern inter-relationships, and illustrates the way that a dedicated refactoring tool (ReSharper) can be used to implement design patterns with ease. What You'll Learn Know the latest pattern implementations available in C# and F# Refer to researched and proven

variations of patterns Study complete, self-contained examples including many that cover advanced scenarios Use the latest implementations of C# and Visual Studio/ReSharper Who This Book Is For Developers who have some experience in the C# language and want to expand their comprehension of the art of programming by leveraging design approaches to solving modern problems

Learn how to apply functional F# design patterns to a huge range of programming challenges, and discover a smart route to building better applications About This Book This book provides a path if you are coming from imperative and object-oriented paradigms It will take you to an intermediate level of functional programming in very practical manner to write enterprise-quality idiomatic F# code Tackle complex computing problems with simple code by fully embracing the functional-first F# paradigm Packed full of practical coding examples to help you master F# programming and author optimal code Who This Book Is For This book is for .NET developers, web programmers, C# developers, and F# developers. So, if you have basic experience in F# programming and developing performance-critical applications, then this book is for you. What You Will Learn Acquire the practical knowledge to use the main functional design patterns Realign some imperative and object-oriented principles under the functional approach Develop your confidence in building and combining first-order and higher-order functions Learn to use core language pattern matching effectively Make use of native F# algebraic data types in place of custom-built classes Recognize and

measure the difference in resource consumption between sequences and materialized data collections Navigate and use F# Core libraries with ease by seeing patterns behind specific library functions Master writing generic polymorphic code In Detail Following design patterns is a well-known approach to writing better programs that captures and reuses high-level abstractions that are common in many applications. This book will encourage you to develop an idiomatic F# coding skillset by fully embracing the functional-first F# paradigm. It will also help you harness this powerful instrument to write succinct, bug-free, and cross-platform code. F# 4.0 Design Patterns will start off by helping you develop a functional way of thinking. We will show you how beneficial the functional-first paradigm is and how to use it to get the optimum results. The book will help you acquire the practical knowledge of the main functional design patterns, the relationship of which with the traditional Gang of Four set is not straightforward. We will take you through pattern matching, immutable data types, and sequences in F#. We will also uncover advanced functional patterns, look at polymorphic functions, typical data crunching techniques, adjusting code through augmentation, and generalization. Lastly, we will take a look at the advanced techniques to equip you with everything you need to write flawless code. Style and approach This book will teach you how to write F# code in an idiomatic functional-first manner, thereby improving the productivity of F# programmers. This book is ideal for an F# programmer who wants using F# in functional-first way.

Design patterns are time-tested solutions to recurring problems, letting the designer build programs on solutions that have already proved effective Provides developers with more than a dozen ASP.NET examples showing standard design patterns and how using them helpsbuild a richer understanding of ASP.NET architecture, as well as better ASP.NET applications Builds a solid understanding of ASP.NET architecture that can be used over and over again in many projects Covers ASP.NET code to implement many standard patterns including Model-View-Controller (MVC), ETL, Master-Master Snapshot, Master-Slave-Snapshot, Façade, Singleton, Factory, Single Access Point, Roles, Limited View, observer, page controller, common communication patterns, and more

This book begins with you working along as Scott Guthrie builds a complete ASP.NET MVC reference application. He begins NerdDinner by using the File->New Project menu command within Visual Studio to create a new ASP.NET MVC Application. You'll then incrementally add functionality and features. Along the way you'll cover how to create a database, build a model layer with business rule validations, implement listing/details data browsing, provide CRUD (Create, Update, Delete) data form entry support, implement efficient data paging, reuse UI using master pages and partials, secure the application using authentication and authorization, use AJAX to deliver dynamic updates and interactive map support, and implement automated unit testing. From there, the bulk of the rest of the book begins with the basic concepts around the

model view controller pattern, including the little history and the state of the MVC on the web today. We'll then go into the ways that MVC is different from ASP.NET Web Forms. We'll explore the structure of a standard MVC application and see what you get out of the box. Next we dig deep into routing and see the role URLs play in your application. We'll deep dive into controllers and views and see what role the Ajax plays in your applications. The last third of the book focuses entirely on advanced techniques and extending the framework. In some places, we assume that you're somewhat familiar with ASP.NET WebForms, at least peripherally. There are a lot of ASP.NET WebForms developers out there who are interested in ASP.NET MVC so there are a number of places in this book where we contrast the two technologies. Even if you're not already an ASP.NET developer, you might still find these sections interesting for context, as well as for your own edification as ASP.NET MVC may not be the web technology that you're looking for.

Professional ASP XML develops and expands on the introductory foundations laid by Bill Kropog in his chapter on XML and ASP in Professional Active Server Pages 3.0. Beginning with an introduction to basic XML concepts - what is XML, what are DTD's, Schemas and how to use XSL, the book then shifts to a more practical standpoint with chapters covering data stores, data transfer and server manipulation. The final chapters are a combination of more advanced topics such as centralizing content control and XML-driven administration tools, and real world case studies including an online

newspaper.

Software Expert Kent Beck Presents a Catalog of Patterns Infinitely Useful for Everyday Programming Great code doesn't just function: it clearly and consistently communicates your intentions, allowing other programmers to understand your code, rely on it, and modify it with confidence. But great code doesn't just happen. It is the outcome of hundreds of small but critical decisions programmers make every single day. Now, legendary software innovator Kent Beck—known worldwide for creating Extreme Programming and pioneering software patterns and test-driven development—focuses on these critical decisions, unearthing powerful "implementation patterns" for writing programs that are simpler, clearer, better organized, and more cost effective. Beck collects 77 patterns for handling everyday programming tasks and writing more readable code. This new collection of patterns addresses many aspects of development, including class, state, behavior, method, collections, frameworks, and more. He uses diagrams, stories, examples, and essays to engage the reader as he illuminates the patterns. You'll find proven solutions for handling everything from naming variables to checking exceptions.

A .NET developer's guide to crafting robust, maintainable, and flexible web apps by leveraging C# 9 and .NET 5 features and component-scale and application-scale design patterns Key Features Apply software design patterns effectively, starting small and progressing to cloud-scale Discover modern application architectures such as

vertical slice, clean architecture, and event-driven microservices Explore ASP.NET design patterns, from options to full-stack web development using Blazor Book Description Design patterns are a set of solutions to many of the common problems occurring in software development. Knowledge of these design patterns helps developers and professionals to craft software solutions of any scale. ASP.NET Core 5 Design Patterns starts by exploring basic design patterns, architectural principles, dependency injection, and other ASP.NET Core mechanisms. You'll explore the component scale as you discover patterns oriented toward small chunks of the software, and then move to application-scale patterns and techniques to understand higher-level patterns and how to structure the application as a whole. The book covers a range of significant GoF (Gangs of Four) design patterns such as strategy, singleton, decorator, facade, and composite. The chapters are organized based on scale and topics, allowing you to start small and build on a strong base, the same way that you would develop a program. With the help of use cases, the book will show you how to combine design patterns to display alternate usage and help you feel comfortable working with a variety of design patterns. Finally, you'll advance to the client side to connect the dots and make ASP.NET Core a viable full-stack alternative. By the end of the book, you'll be able to mix and match design patterns and have learned how to think about architecture and how it works. What You Will Learn Apply the SOLID principles for building flexible and maintainable software Get to grips with .NET 5

dependency injection Work with GoF design patterns such as strategy, decorator, and composite Explore the MVC patterns for designing web APIs and web applications using Razor Discover layering techniques and tenets of clean architecture Become familiar with CQRS and vertical slice architecture as an alternative to layering Understand microservices, what they are, and what they are not Build ASP.NET UI from server-side to client-side Blazor Who this book is for ?This design patterns book is for beginners as well as intermediate-level software and web developers with some knowledge of .NET who want to write flexible, maintainable, and robust code for building scalable web applications. Knowledge of C# programming and an understanding of web concepts like HTTP is necessary.

With Learning JavaScript Design Patterns, you'll learn how to write beautiful, structured, and maintainable JavaScript by applying classical and modern design patterns to the language. If you want to keep your code efficient, more manageable, and up-to-date with the latest best practices, this book is for you. Explore many popular design patterns, including Modules, Observers, Facades, and Mediators. Learn how modern architectural patterns—such as MVC, MVP, and MVVM—are useful from the perspective of a modern web application developer. This book also walks experienced JavaScript developers through modern module formats, how to namespace code effectively, and other essential topics. Learn the structure of design patterns and how they are written Understand different pattern categories, including creational, structural,

and behavioral Walk through more than 20 classical and modern design patterns in JavaScript Use several options for writing modular code—including the Module pattern, Asyncronous Module Definition (AMD), and CommonJS Discover design patterns implemented in the jQuery library Learn popular design patterns for writing maintainable jQuery plug-ins "This book should be in every JavaScript developer's hands. It's the go-to book on JavaScript patterns that will be read and referenced many times in the future."—Andrée Hansson, Lead Front-End Developer, presis! Professional ASP.NET Design Patterns is all about showing you how to use the power of design patterns and core design principles in real ASP.NET applications. The goal of this book is to educate developers on the fundamentals of object oriented programming, design patterns, principles, and methodologies that can help you become a better programmer. Design patterns and principles enable loosely coupled and highly cohesive code, which will improve your code's readability, flexibility, and maintenance. Each chapter addresses a layer in an enterprise ASP.NET application and shows how proven patterns, principles, and best practices can be leveraged to solve problems and improve the design of your code. In addition, a professional-level, end-to-end case study is used to show how to use best practice design patterns and principles in a real website. Professional ASP.NET Design Patterns is for ASP.NET developers who are comfortable with the .NET framework but are looking to improve how they code and understand why design patterns, design principles, and best practices will make their

code more maintainable and adaptable. Readers who have had experience with design patterns before may wish to skip Part 1 of the book, which acts as an introduction to the Gang of Four design patterns and common design principles, including the S.O.L.I.D. principles and Martin Fowler's enterprise patterns. All code samples are written in C# but the concepts can be applied very easily to VB.NET. This book covers well-known patterns and best practices for developing enterprise-level ASP.NET applications. The patterns used can be applied to any version of ASP.NET from 1.0 to 4.0. The patterns themselves are language agnostic and can be applied to any object oriented programming language. Professional ASP.NET Design Patterns can be used both as a step-by-step guide and as a continuous source of reference to dip into at your leisure. The book is broken into three distinct sections. Part 1 is an introduction to patterns and design principles. Part 2 examines how patterns and principles can be used in the various layers of an ASP.NET application. Part 3 represents an end-to-end case study showcasing many of the patterns covered in the book. You may find it useful to work through the chapters before reading the case study, or you may find it easier to see the patterns in action by reading the case study section first and referring back to Part 2 for a more detailed view on the patterns and principles used. Within those parts the coverage includes: The origins of the Gang of Four design patterns, their relevance in today's world, and their decoupling from specific programming languages. An overview of some common design principles and the S.O.L.I.D. design principles follows, and the

chapter ends with a description of Fowler's enterprise patterns. Layering Your Application and Separating Your Concerns A description of the Transaction Script pattern followed by the Active Record, with an exercise to demonstrate the pattern using the Castle Windsor project. The Domain Model pattern demonstrated in an exercise with NHibernate and a review of the domain-driven design (DDD) methodology Patterns and principles that can be used construct your objects and how to make sure that you are building your application for scalability and maintainability: Factory, Decorator, Template, State, Strategy, Composite, Specification and Layer Supertype. Design principles that can improve your code's maintainability and flexibility; these include Dependency Injection, Interface Segregation, and Liskov Substitution Principle Service Oriented Architecture, the Facade design pattern, messaging patterns such as Document Message, Request-Response, Reservation, and the Idempotent pattern The Data Access Layer: Two data access strategies are demonstrated to help organize your persistence layer: Repository and Data Access Objects. Enterprise patterns and principles that will help you fulfill your data access requirement needs elegantly, including Lazy Loading, Identity Map, Unit of Work, and the Query Object. An introduction to Object Relational Mappers and the problems they solve. An enterprise Domain Driven exercise with POCO business entities utilizing both NHibernate and the MS Entity Framework. The Presentation Layer: how you can tie your loosely coupled code together Structure Map and an Inversion of Control container. Presentation

patterns, including letting the view be in charge with the Model-View-Presenter pattern and ASP.NET web forms, the Front Controller presentation pattern utilizing the Command and Chain of Responsibility patterns, as well as the Model-View-Controller Pattern implemented with the ASP.NET MVC framework and Windsor's Castle Monorail framework. The final presentation pattern covered is PageController as used in ASP.NET web forms. A pattern that can be used with organizational patterns, namely the ViewModel pattern and how to automate domain entities to ViewModel mapping with AutoMapper The User Experience Layer: AJAX, JavaScript libraries, including jQuery. AJAX patterns: Ajax Periodic Refresh and Timeout patterns, maintaining history with the Unique URL pattern, client side data binding with JTemplate, and the Ajax Predictive Fetch pattern An end-to-end e-commerce store case study with ASP.NET MVC, NHibernate, jQuery, Json, AutoMapper, ASP.NET membership provider and a second 3rd party authentication method, and PayPal as a payment merchant A catalog of solutions to commonly occurring design problems, presenting 23 patterns that allow designers to create flexible and reusable designs for object-oriented software. Describes the circumstances in which each pattern is applicable, and discusses the consequences and trade-offs of using the pattern within a larger design. Patterns are compiled from real systems, and include code for implementation in object-oriented programming languages like C++ and Smalltalk. Includes a bibliography. Annotation copyright by Book News, Inc., Portland, OR

Explore the world of .NET design patterns and bring the benefits that the right patterns can offer to your toolkit today About This Book Dive into the powerful fundamentals of .NET framework for software development The code is explained piece by piece and the application of the pattern is also showcased. This fast-paced guide shows you how to implement the patterns into your existing applications Who This Book Is For This book is for those with familiarity with .NET development who would like to take their skills to the next level and be in the driver's seat when it comes to modern development techniques. Basic object-oriented C# programming experience and an elementary familiarity with the .NET framework library is required. What You Will Learn Put patterns and pattern catalogs into the right perspective Apply patterns for software development under C#/.NET Use GoF and other patterns in real-life development scenarios Be able to enrich your design vocabulary and well articulate your design thoughts Leverage object/functional programming by mixing OOP and FP Understand the reactive programming model using Rx and RxJs Writing compositional code using C# LINQ constructs Be able to implement concurrent/parallel programming techniques using idioms under .NET Avoiding pitfalls when creating compositional, readable, and maintainable code using imperative, functional, and reactive code. In Detail Knowing about design patterns enables developers to improve their code base, promoting code reuse and making their design more robust. This book focuses on the practical aspects of programming in .NET. You will learn about some of the relevant design patterns (and

their application) that are most widely used. We start with classic object-oriented programming (OOP) techniques, evaluate parallel programming and concurrency models, enhance implementations by mixing OOP and functional programming, and finally to the reactive programming model where functional programming and OOP are used in synergy to write better code. Throughout this book, we'll show you how to deal with architecture/design techniques, GoF patterns, relevant patterns from other catalogs, functional programming, and reactive programming techniques. After reading this book, you will be able to convincingly leverage these design patterns (factory pattern, builder pattern, prototype pattern, adapter pattern, facade pattern, decorator pattern, observer pattern and so on) for your programs. You will also be able to write fluid functional code in .NET that would leverage concurrency and parallelism! Style and approach This tutorial-based book takes a step-by-step approach. It covers the major patterns and explains them in a detailed manned along with code examples. Hands-On Design Patterns with C# and .NET Core covers all the essential design patterns that help .NET developers build effective applications. The book will add to your skills by showing you how these patterns can be implemented easily in everyday programming, enabling you to develop robust applications with optimal performance.

Automated testing is a cornerstone of agile development. An effective testing strategy will deliver new functionality more aggressively, accelerate user feedback, and improve quality. However, for many developers, creating effective automated tests is a unique and unfamiliar challenge. xUnit Test Patterns is the definitive guide to writing automated tests using xUnit, the

most popular unit testing framework in use today. Agile coach and test automation expert Gerard Meszaros describes 68 proven patterns for making tests easier to write, understand, and maintain. He then shows you how to make them more robust and repeatable--and far more cost-effective. Loaded with information, this book feels like three books in one. The first part is a detailed tutorial on test automation that covers everything from test strategy to in-depth test coding. The second part, a catalog of 18 frequently encountered "test smells," provides trouble-shooting guidelines to help you determine the root cause of problems and the most applicable patterns. The third part contains detailed descriptions of each pattern, including refactoring instructions illustrated by extensive code samples in multiple programming languages.

Summary Dependency Injection Principles, Practices, and Patterns teaches you to use DI to reduce hard-coded dependencies between application components. You'll start by learning what DI is and what types of applications will benefit from it. Then, you'll work through concrete scenarios using C# and the .NET framework to implement DI in your own projects. As you dive into the thoroughly-explained examples, you'll develop a foundation you can apply to any of the many DI libraries for .NET and .NET Core. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Dependency Injection (DI) is a great way to reduce tight coupling between software components. Instead of hard-coding dependencies, such as specifying a database driver, you make those connections through a third party. Central to application frameworks like ASP.NET Core, DI enables you to better manage changes and other complexity in your software. About the Book Dependency Injection Principles, Practices, and Patterns is a revised and expanded edition of the

bestselling classic Dependency Injection in .NET. It teaches you DI from the ground up, featuring relevant examples, patterns, and anti-patterns for creating loosely coupled, well-structured applications. The well-annotated code and diagrams use C# examples to illustrate principles that work flawlessly with modern object-oriented languages and DI libraries. What's Inside Refactoring existing code into loosely coupled code DI techniques that work with statically typed OO languages Integration with common .NET frameworks Updated examples illustrating DI in .NET Core About the Reader For intermediate OO developers. About the Authors Mark Seemann is a programmer, software architect, and speaker who has been working with software since 1995, including six years with Microsoft. Steven van Deursen is a seasoned .NET developer and architect, and the author and maintainer of the Simple Injector DI library. Table of Contents PART 1 Putting Dependency Injection on the map The basics of Dependency Injection: What, why, and how Writing tightly coupled code Writing loosely coupled code PART 2 Catalog DI patterns DI anti-patterns Code smells PART 3 Pure DI Application composition Object lifetime Interception Aspect-Oriented Programming by design Tool-based Aspect-Oriented Programming PART 4 DI Containers DI Container introduction The Autofac DI Container The Simple Injector DI Container The Microsoft.Extensions.DependencyInjection DI Container

Discover the essential design and architectural patterns with ASP.NET Core to solve common software design problems. With this book, you'll learn how to use a combination of design patterns and build fault-tolerant and robust full-stack apps and microservices with ASP.NET Core and C#.

Once you've learned the fundamentals of C#, understanding Design Patterns is essential for

writing clear, concise and effective code. This book gives you a step-by-step guide to object-oriented development, using tried and trusted techniques. The examples have been kept simple, enabling you to concentrate on understanding the concepts and application of each pattern. All examples have been designed around a common theme, making it easier to see how they relate to each other and how you can adapt them to your applications. While the book assumes a basic knowledge of C# you don't need to be a guru. This book is perfect for the programmer wishing to take their skills to the next level, and feel confident about using C# in real applications. Coverage includes all 23 of the patterns from the "Gang of Four" work, additional patterns including Model-View-Controller, and simple UML diagrams.

What is this book about? Written by a high-profile team of ASP.NET experts, this fully updated Professional guide enables you to take full advantage of the power and possibilities of ASP.NET 1.1. You travel beyond the basics of ASP.NET Web pages, server controls, and data management to a complete understanding of Web services, debugging, performance, migration, and real-world applications. All code has been rechecked and verified to work correctly with ASP.NET 1.1, and enhancements like improved security and better performance are thoroughly examined and reviewed. This comprehensive, in-depth, practical guidebook enables you to master new levels of Web application development with the .NET Framework. What does this book cover? Here's what you will learn from this book: How to get started with ASP.NET and the .NET Framework Ways to create ASP.NET pages, work with server controls, and manage data Methods for developing, securing, and configuring Web applications Basics of base class libraries, components, and extensibility Security and performance improvements inherent in version 1.1 How Web services and ASP.NET function

in the mobile arena Debugging, performance, migration, and interoperability Processes for applying this knowledge in real-world development contexts Who is this book for? This book is for programmers who have a solid understanding of ASP and want to develop sophisticated ASP.NET 1.1 applications using the .NET Framework. You should be familiar with VB or C-based syntax (C++, JavaTM, or C#).

What is this book about? This comprehensive compendium provides a broad and thorough investigation of all aspects of programming with ASP.NET. Entirely revised and updated for the 1.0 Release of .NET, this book will give you the information you need to master ASP.NET and build dynamic, successful, enterprise Web applications. What does this book cover? Here are just a few of the topics covered in this book: What ASP.NET is, and how it makes building applications even easier How easy it is to work with ASP.NET pages and server-side controls Accessing data of all kinds in your ASP.NET pages An introduction to ADO.NET Getting started with ASP.NET and the .NET Framework Creating ASP.NET pages, working with server controls, and data management Developing, securing, and configuring web applications Exploring Base class libraries, components, and extensibility Working with Web Services and ASP.NET in the mobile arena Debugging, performance, migration, and interoperability Integrating this knowledge in real world development contexts Who is this book for? This book is aimed at experienced ASP developers working at the leading edge — rather than the casual ASP developer or beginner. We do not cover the basics of COM, ASP, or the .NET programming languages. This book is also ideal for Visual Basic developers who want to move into Web application design. What do you need to use this book? Here's what you need to know in order to use this book: A solid understanding of ASP Familiarity with VB or C-based

syntax (C++, Java(TM), or C#) A desire to develop sophisticated ASP.NET applications using the .NET Framework A desire for a comprehensive and in-depth guide to this exciting new technology

Provides information on building an Ajax-based Web site using ASP.NET 3.5.

If you want to speed up the development of your .NET applications, you're ready for C# design patterns -- elegant, accepted and proven ways to tackle common programming problems. This practical guide offers you a clear introduction to the classic object-oriented design patterns, and explains how to use the latest features of C# 3.0 to code them. C# Design Patterns draws on new C# 3.0 language and .NET 3.5 framework features to implement the 23 foundational patterns known to working developers. You get plenty of case studies that reveal how each pattern is used in practice, and an insightful comparison of patterns and where they would be best used or combined. This well-organized and illustrated book includes: An explanation of design patterns and why they're used, with tables and guidelines to help you choose one pattern over another Illustrated coverage of each classic Creational, Structural, and Behavioral design pattern, including its representation in UML and the roles of its various players C# 3.0 features introduced by example and summarized in sidebars for easy reference Examples of each pattern at work in a real .NET 3.5 program available

for download from O'Reilly and the author's companion web site Quizzes and exercises to test your understanding of the material. With C# 3.0 Design Patterns, you learn to make code correct, extensible and efficient to save time up front and eliminate problems later. If your business relies on efficient application development and quality code, you need C# Design Patterns.

The ASP.NET MVC 5 Framework is the latest evolution of Microsoft's ASP.NET web platform. It provides a high-productivity programming model that promotes cleaner code architecture, test-driven development, and powerful extensibility, combined with all the benefits of ASP.NET. ASP.NET MVC 5 contains a number of advances over previous versions, including the ability to define routes using C# attributes and the ability to override filters. The user experience of building MVC applications has also been substantially improved. The new, more tightly integrated, Visual Studio 2013 IDE has been created specifically with MVC application development in mind and provides a full suite of tools to improve development times and assist in reporting, debugging and deploying your code. The popular Bootstrap JavaScript library has also now been included natively within MVC 5 providing you, the developer, with a wider range of multi-platform CSS and HTML5 options than ever before without the penalty of having to load-in third party libraries.

Get hands-on experience with each Gang of Four design pattern using C#. For each of the patterns, you'll see at least one real-world scenario, a coding example, and a complete implementation including output. In the first part of Design Patterns in C#, you will cover the 23 Gang of Four (GoF) design patterns, before moving onto some alternative design patterns, including the Simple Factory Pattern, the Null Object Pattern, and the MVC Pattern. The final part winds up with a conclusion and criticisms of design patterns with chapters on anti-patterns and memory leaks. By working through easy-to-follow examples, you will understand the concepts in depth and have a collection of programs to port over to your own projects. Along the way, the author discusses the different creational, structural, and behavioral patterns and why such classifications are useful. In each of these chapters, there is a Q&A session that clears up any doubts and covers the pros and cons of each of these patterns.He finishes the book with FAQs that will help you consolidate your knowledge. This book presents the topic of design patterns in C# in such a way that anyone can grasp the idea. What You Will Learn Work with each of the design patterns Implement the design patterns in real-world applications Select an alternative to these patterns by comparing their pros and cons Use Visual Studio Community Edition 2017 to write code and generate output Who This Book Is For Software developers, software testers,

and software architects.

This book teaches you all the essential knowledge required to learn and apply time-proven SOLID principles of object-oriented design and important design patterns in ASP.NET Core 1.0 (formerly ASP.NET 5) applications. You will learn to write server-side as well as client-side code that makes use of proven practices and patterns. SOLID is an acronym popularized by Robert Martin used to describe five basic principles of good object-oriented design--Single Responsibility, Open/Closed, Liskov Substitution, Interface Segregation and Dependency Inversion. This book covers all five principles and illustrates how they can be used in ASP.NET Core 1.0 applications. Design Patterns are time proven solutions to commonly occurring software design problems. The most well-known catalog of design patterns comes from Erich Gamma, Richard Helm, Ralph Johnson and John Vlissides, the so-called as GoF patterns (Gang of Four patterns). This book contains detailed descriptions of how to apply Creational, Structural and Behavioral GoF design patterns along with some Patterns of Enterprise Application Architecture. Popular JavaScript patterns are covered, along with working examples of all these patterns in ASP.NET Core 1.0 and C# are included. What You Will Learn: How to apply SOLID principles to ASP.NET applications How to use Gang of Four (GoF) design patterns in ASP.NET

applications Techniques for applying Patterns of Enterprise Application Architecture cataloged by Martin Fowler in ASP.NET applications How to organize code and apply design patterns in JavaScript Who This Book Is For:This book is for ASP.NET developers familiar with ASP.NET Core 1.0, C# and Visual Studio.

Implement robust applications by applying efficient Design Patterns with .NET 5 and C# KEY FEATURES ? Detailed theoretical concepts covered, including the use of encapsulation, interfaces, and inheritance. ? Access to solutions applied for software strategy and final product output. ? Simplified demonstration of real applications implementing numerous design patterns. DESCRIPTION This book covers detailed aspects of Design Patterns and Object-Oriented Programming concepts using the most modern version of the C# language and .NET platform, including many real-world examples and good practice guidelines that help developers in building robust and extensible applications. The book begins with the essential concepts of C# programming and the .NET platform. You get your foundation strong by understanding SOLID Principles and the actual implementation of reliable applications. You will be working on most common Design Patterns such as Abstract Factory, Adapter, Composite, Proxy, Command, Strategy, Observer, Factory Method, Singleton, Builder, Interpreter,

Mediator, and many other patterns that will help you to create solid enterprise applications. You will also witness the performance of these design patterns in a real software development environment with the help of practical examples. After learning the most common Design Patterns practiced in .NET enterprise applications, the reader will be able to understand and apply good practices of software development based on the object-oriented paradigm to develop complex enterprise applications efficiently and simply. WHAT YOU WILL LEARN ? Fine-tune your knowledge about interfaces, polymorphism, and encapsulation. ? Learn to practice implementing design patterns in enterprise applications. ? Implement rich design patterns: Observer, Strategy, Command, Proxy, and more. ? Get to learn the latest additional design patterns such as Builder, Bridge, and Decorator. ? Includes illustrations, examples, and real use-cases of .NET 5.0 applications. WHO THIS BOOK IS FOR This book is for .NET developers, application developers, and software engineers who want to develop .NET applications with proven techniques and build error-free applications. This book also attracts fresh graduates and entry-level developers as long as basic knowledge about .NET is known to them. TABLE OF CONTENTS 1. C# Fundamentals 2. Introduction to .NET 5 3. Basic Concepts of Object-Oriented Programming 4. Interfaces in C# 5. Encapsulation and Polymorphism in C# 6.

SOLID Principles in C# 7. Abstract Factory 8. Abstract Factory 9. Prototype 10. Factory Method 11. Adapter 12. Composite 13. Proxy 14. Command 15. Strategy 16. Observer 17. Good Practices and Additional Design Patterns
Methods for managing complex software construction following the practices, principles and patterns of Domain-Driven Design with code examples in C# This book presents the philosophy of Domain-Driven Design (DDD) in a down-to-earth and practical manner for experienced developers building applications for complex domains. A focus is placed on the principles and practices of decomposing a complex problem space as well as the implementation patterns and best practices for shaping a maintainable solution space. You will learn how to build effective domain models through the use of tactical patterns and how to retain their integrity by applying the strategic patterns of DDD. Full end-to-end coding examples demonstrate techniques for integrating a decomposed and distributed solution space while coding best practices and patterns advise you on how to architect applications for maintenance and scale. Offers a thorough introduction to the philosophy of DDD for professional developers Includes masses of code and examples of concept in action that other books have only covered theoretically Covers the patterns of CQRS, Messaging, REST, Event Sourcing and Event-Driven Architectures Also ideal for Java developers who

want to better understand the implementation of DDD
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 IHttpClientFactory 22 Building background tasks and services

23 Testing your application