

Dependency Injection With Unity Microsoft Patterns Practices

This is a step-by-step tutorial in which a chapter is dedicated to each Application Block of the Microsoft Enterprise Library 5.0. We will develop small applications to implement the functions in each Application Block all through the book. If you are a Programmer, Consultant, or an Associate Architect, who is interested in developing Enterprise applications, this book is for you. We assume that you already have a good knowledge of Microsoft .NET framework and the C# programming language.

Become an expert in the shiny new version of ASP.NET About This Book* Grasp the advanced concepts of MVC Core and start making professional-grade applications* Migrate from previous versions of ASP.NET MVC to ASP.NET Core* This book will take you on a journey through all the aspects of ASP.NET Core 2.0 Who This Book Is For If you are a developer who knows the basics of ASP.NET MVC and wants to build powerful applications, this book is for you. Basic C# experience and an understanding of HTML and CSS is assumed. What You Will Learn* Get to know the new features of ASP.NET Core 2.0* Find out how to configure ASP.NET Core* Configure routes to access ASP.NET Core resources* Create controllers and action methods and see how to maintain the state* Create views to display contents* Implement and validate forms and retrieve information from them* Write reusable modules for ASP.NET Core* Deploy ASP.NET Core to other environments In Detail ASP.NET is an open source web framework that builds modern web apps and services. This book is your one-stop guide to the new features of ASP.NET Core 2.0, including web APIs and MVC. We begin with a brief overview of the basics, taking you through the MVC pattern, platforms, dependencies, and frameworks. We then move on to setting up and configuring the MVC environment before talking about routing and advanced routing options. Next, we'll look at model binding, controllers and actions, filters, user authentication, and testing. Moving on, you'll learn about all the aspects of syntax and processes when working with Razor. You'll be introduced to client-side development and will get to know about the security aspects of ASP.NET Core. We will also look at microservices with ASP.NET Core. Finally, you'll find out how to deploy ASP.NET Core to new environments such as Azure, AWS, and Docker. By the end of the book, you will be well versed with development in ASP.NET Core and will have a deep understanding of how to interact with the framework and work cross-platform. Style and approach Find out how to design modern, cross-platform, business oriented web applications that serve the client needs in the age of emerging .NET framework

Network Management: Principles And Practice is a reference book that comprehensively covers various theoretical and practical concepts of network management. It is divided into four units. The first unit gives an overview of network management. The

If you have C# knowledge but now want to become truly confident in creating fully functional 2D RPG games with Unity, then this book will show you everything you need to know.

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 Agile coding with design patterns and SOLID principles As every developer knows, requirements are subject to change. But when you build adaptability into your code, you can respond to change more easily and avoid disruptive rework. Focusing on Agile programming, this book

describes the best practices, principles, and patterns that enable you to create flexible, adaptive code--and deliver better business value. Expert guidance to bridge the gap between theory and practice Get grounded in Scrum: artifacts, roles, metrics, phases Organize and manage architectural dependencies Review best practices for patterns and anti-patterns Master SOLID principles: single-responsibility, open/closed, Liskov substitution Manage the versatility of interfaces for adaptive code Perform unit testing and refactoring in tandem See how delegation and abstraction impact code adaptability Learn best ways to implement dependency interjection Apply what you learn to a pragmatic, agile coding project Get code samples at: <http://github.com/garymclean/AdaptiveCode>

In just 24 sessions of one hour or less, you will be up and running with AngularJS in your Microsoft .NET environment. Using a straightforward, step-by-step approach, each lesson builds on your .NET skills and knowledge, helping you quickly learn the essentials of AngularJS, and use it to streamline any web development project. Step-by-step instructions carefully walk you through the most common questions, issues, and tasks. Q&A sections, quizzes, and exercises help you build and test your knowledge. By The Way notes present interesting pieces of information. Try it Yourself sidebars offer advice or teach an easier way to do something. Watch Out! cautions advise you about potential problems and help you steer clear of disaster. Dennis Sheppard is a Front-End Architect at NextTier Education in Chicago, IL. He has delivered enterprise solutions for the private equity, insurance, healthcare, education, and distribution industries. Christopher Miller is an Architect at West Monroe Partners. He has built solutions for the higher education, private equity, and renewable energy industries. AJ Liptak, is a Senior Consultant at West Monroe Partners specializing in modern web application development. He has delivered transformative solutions for the telecom, healthcare, finance, and distribution industries. Learn how to... Build AngularJS web apps from scratch, or integrate with existing .NET code Organize, reuse, and test JavaScript web application code far more effectively Discover key JavaScript design patterns that support AngularJS (and their similarities to C#) Use AngularJS modules, controllers, views, data-binding, and event handling Implement AngularJS services efficiently Work with directives, custom directives, and dependency injection Set up AngularJS routing Apply best practices for organizing AngularJS applications Master sophisticated AngularJS techniques, including filters, advanced patterns, and communication between controllers Deploy AngularJS code to the Microsoft Azure cloud Unit-test and debug your single page applications Integrate AngularJS with .NET Web Forms and .NET MVC Build REST APIs in .NET and consume their services in AngularJS Combine AngularJS with .NET SignalR to build real-time web apps Extend AngularJS development with bower, gulp, and webstorm Preview the future of AngularJS: Version 2.0 and beyond

This guide is focused on building highly scalable, highly available, and maintainable applications with the Command & Query Responsibility Segregation and the Event Sourcing architectural patterns. It presents a learning journey, not definitive guidance. It describes the experiences of a development team with no prior CQRS proficiency in building, deploying (to Windows Azure), and maintaining a sample real-world, complex, enterprise system to showcase various CQRS and ES concepts, challenges, and techniques. The development team did not work in isolation; we actively sought input from industry experts and from a wide group of advisors to ensure that the guidance is both detailed and practical. The CQRS pattern and event sourcing are not mere simplistic solutions to the problems associated with large-scale, distributed systems. By providing you with both a working application and written guidance, we expect you'll be well prepared to embark on your own CQRS journey.

This book introduces novice developers to a range of data access strategies for storing and retrieving data both locally and remotely. It provides you with a range of fully working data access solutions and the insight you need to know when, and how, to apply each of the

techniques to best advantage. Focussing specifically on how the Windows 8 app developer can work with the Windows Runtime (often called Windows RT) framework this book provides careful analysis of the many options you have open to you, along with a comparison of their strengths and weaknesses under different conditions. With the days of a single database being the right choice for almost all development projects long gone. You will learn that the right choice for your app now depends on a variety of factors and getting it right will be critical to your customer's end user experience. We cover a range of data access strategies ranging from storing and retrieving data locally using the JET API, to using the most popular open and closed source database products like SQLite and SQL Server. We look at how lightweight HTML and JavaScript apps work well with equally feather-weight data stores like IndexedDB. We'll also introduce you to more advanced data access techniques like REST (JSON), WCF RIA Services, ASP.NET MVC 4 Web API and Windows Azure that can hugely expand the horizons of what it is possible for your app to do as storage - and even processing - are taken beyond the confines of your user's device. By the time you have read this book you will be familiar with the key data access considerations you will need to evaluate as you build your apps and you will be able to confidently select the data access architecture that is most appropriate to the app you want to build. What you'll learn

Understand the data access capability of WinRT Explore the various data access strategies Understand local storage in Windows 8 Apps Discover how to use HTML5 indexedDB as an offline database Use SQLite and SQL Server with Windows 8 Apps Develop ASP.NET MVC 4 Web API data stores Learn how to consume data through a WCF Service Integrate your app with Public Web Services using REST See how SQL Azure can extend your Windows 8 Apps Who this book is for This book is for all the .NET, iOS, Android and Windows Phone app developers looking to develop data driven Windows 8 style apps. You should be comfortable with basic programming concepts and have worked with simple data stores previously. Table of Contents Introducing Windows 8 development from a data perspective Windows 8 Modern app data access strategies Selecting the right strategy for your app Local Data Access I : JET API Local Data Access: II: IndexedDB Dealing with Application Data WCF RIA Services ASP.NET Web API SQL Databases Windows Phone 8 Data Access

“Welcome to one of the greatest collaborations you could dream of in the world of C# books—and probably far beyond!” —From the Foreword by Mads Torgersen, C# Program Manager, Microsoft Essential C# 6.0 is a well-organized, no-fluff guide to the latest versions of C# for programmers at all levels of experience. Fully updated to reflect new C# 6.0 and .NET 4.6 features and patterns, it will help you write C# code that's simple, powerful, robust, secure, and maintainable. This book's authors are world-class C# experts: long-time Microsoft MVP and Regional Director Mark Michaelis and Eric Lippert, formerly principal developer on Microsoft's C# compiler team. Together, they cover the entire language, illustrating key constructs with succinct examples and offering a complete foundation for successful C# development. Essential C# 6.0 makes it easy to program with any version of C#, whether you're creating new code or maintaining existing systems. Separate indexes for C# versions 4, 5, and 6 help you quickly find version-specific answers with accompanying visual indicators that help you identify which language innovations will work when. This edition also includes a set of best-practice C# Coding Guidelines updated to leverage C# 6.0 constructs. Coverage includes Mastering C# data types, operators, control flow, methods, and parameters Using C# object-oriented constructs, including classes, inheritance, interfaces, and more—all with the significantly simplified syntax of C# 6.0 Working with well-formed value and reference types Implementing reliable, effective exception handling Reducing code complexity with generics, delegates, lambda

expressions, and events (including a simplified C# 6.0 syntax for triggering events) Learning dynamic programming with reflection and attributes Querying diverse data collections using LINQ with query expressions Creating custom collections that operate against business objects Using collection interfaces and standard query operators to access .NET collections Understanding the Common Language Infrastructure and C# in the context of .NET 4.6 Taking advantage of declarative programming, embedded metadata, reflection, and attributes Mastering multithreading and synchronization, including the new async/await paradigm Using P/Invoke, pointers, and direct memory manipulation to interoperate with other languages Understanding how C# programs relate to the underlying runtime For Qualified Instructors An instructor's guide, exercises, and a slide deck are available to support your courses.

Learn the basics of Microsoft Prism 4 and develop good programming practices in order to construct functional WPF applications. Follow along with three demonstration projects in order to put your skills to use while you learn. With author Eric Stitt leading the way, Prism 4 Succinctly will help you get started with Microsoft Prism 4.

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

Professional Sitecore Development offers comprehensive information for programmers learning the CMS and experienced Sitecore developers alike. This guidance can help your organization minimize implementation cost and time to web, increasing revenue while decreasing IT costs. With this book, you will learn how to implement solutions with Sitecore, how the Sitecore architecture enhances the ASP.NET development process, how to use Sitecore's extensive Application Programming Interfaces, and how to deploy the website. Professional Sitecore Development provides coverage on a range of topics including: • Installing and configuring Sitecore • Implementing an information architecture and transforming content into web pages • Using the Sitecore security infrastructure, managing errors, and testing automatically • Managing Sitecore projects, optimizing performance, and scaling Sitecore solutions • Tips, tricks, and best practices for working with the CMS • Extending Sitecore and integrating external systems, including coverage of configuration, events, pipelines, and Sitecore's user interface technology If you're looking for a solution for web content management, then Sitecore is your answer and this book will get you started using this valuable software today.

Learn how Roslyn's new code generation capability will let you write software that is more concise, runs faster, and is easier to maintain. You will learn from real-world business applications to create better software by letting the computer write its own code based on your business logic already defined in lookup tables. Code Generation with Roslyn is the first book to cover this new capability. You will learn how these techniques can be used to simplify systems integration so that if one system already defines business logic through lookup tables, you can integrate a new system and share business logic by allowing the new system to write its own business logic based on already existing table-based business logic. One of the many benefits you will discover is that Roslyn uses an innovative approach to compiler design, opening up the inner workings of the compiler process. You will learn how to see the syntax tree that Roslyn is building as it compiles your code. Additionally, you will learn to feed it your own syntax tree that you create on the fly. What You'll Learn Structure logic to be stored in database design Build complex conditional logic based on lookup data in the database Compile code that you generate programmatically Discover generated code and run it dynamically to implement new business logic Debug problems in generated code Deploy and access generated code Who This Book Is For Back end developers in very dynamic fast-paced business environments. Developers focused on integrating different systems across an enterprise should also find this information useful.

The professional's guide to C# 7, with expert guidance on the newest features Professional C# 7 and .NET Core 2.0 provides experienced programmers with the information they need to work effectively with the world's leading programming language. The latest C# update added many new features that help you get more done in less time, and this book is your ideal guide for getting up to speed quickly. C# 7 focuses on data consumption, code simplification, and performance, with new support for local functions, tuple types, record types, pattern matching, non-nullable reference types, immutable types, and better support for variables. Improvements to Visual Studio will bring significant changes to the way C# developers interact with the space, bringing .NET to

non-Microsoft platforms and incorporating tools from other platforms like Docker, Gulp, and NPM. Guided by a leading .NET expert and steeped in real-world practicality, this guide is designed to get you up to date and back to work. With Microsoft speeding up its release cadence while offering more significant improvement with each update, it has never been more important to get a handle on new tools and features quickly. This book is designed to do just that, and more—everything you need to know about C# is right here, in the single-volume resource on every developer's shelf. Tour the many new and enhanced features packed into C# 7 and .NET Core 2.0 Learn how the latest Visual Studio update makes developers' jobs easier Streamline your workflow with a new focus on code simplification and performance enhancement Delve into improvements made for localization, networking, diagnostics, deployments, and more Whether you're entirely new to C# or just transitioning to C# 7, having a solid grasp of the latest features allows you to exploit the language's full functionality to create robust, high-quality apps. Professional C# 7 and .NET Core 2.0 is the one-stop guide to everything you need to know.

The biggest challenge facing many game programmers is completing their game. Most game projects fizzle out, overwhelmed by the complexity of their own code. Game Programming Patterns tackles that exact problem. Based on years of experience in shipped AAA titles, this book collects proven patterns to untangle and optimize your game, organized as independent recipes so you can pick just the patterns you need. You will learn how to write a robust game loop, how to organize your entities using components, and take advantage of the CPU's cache to improve your performance. You'll dive deep into how scripting engines encode behavior, how quadtrees and other spatial partitions optimize your engine, and how other classic design patterns can be used in games.

Describes ways to incorporate domain modeling into software development.

Over the years software systems have evolutionarily become more and more complex. One of the techniques for dealing with this inherent complexity of software systems is dependency injection - a design pattern that allows the removal of hard-coded dependencies and makes it possible to assemble a service by changing dependencies easily, whether at run-time or compile-time. It promotes code reuse and loosely-coupled design which leads to more easily maintainable and flexible code. The guide you are holding in your hands is a primer on using dependency injection with Unity - a lightweight extensible dependency injection container built by the Microsoft patterns & practices team. It covers various styles of dependency injection and also additional capabilities of Unity container, such as object lifetime management, interception, and registration by convention. It also discusses the advanced topics of enhancing Unity with your custom extensions. The guide contains plenty of trade-off discussions and tips and tricks for managing your application cross-cutting concerns and making the most out of both dependency injection and Unity. These are accompanied by a real world example that will help you master the techniques. Keep in mind that Unity can be used in a wide range of application types such as desktop, web, services, and cloud. We encourage you to experiment with the sample code and think beyond the scenarios discussed in the guide. In addition, the guide includes the Tales from the Trenches - a collection of case studies that offer a different perspective through the eyes of developers working on the real world projects and

sharing their experiences. These chapters make clear the range of scenarios in which you can use Unity, and also highlight its ease of use and flexibility. Whether you are a seasoned developer or just starting your development journey, we hope this guide will be worth your time studying it. We hope you discover that Unity container adds significant benefits to your applications and helps you to achieve the goals of maintainability, testability, flexibility, and extensibility in your own projects.

This updated and expanded second edition of the *Dependency Injection with Unity (Microsoft patterns & practices)* provides a user-friendly introduction to the subject. Taking a clear structural framework, it guides the reader through the subject's core elements. A flowing writing style combines with the use of illustrations and diagrams throughout the text to ensure the reader understands even the most complex of concepts. This succinct and enlightening overview is a required reading for all those interested in the subject. We hope you find this book useful in shaping your future career & Business.

Inject dependencies and write highly maintainable and flexible code

About This Book*

- Identify when to use the Constructor, Parameter, Setter, or Interface Injection, for best results
- Build dependencies not only for MVC within .NET but also for other front-end tools such as Angular
- Create specific components or services to cover discrete and separate pieces of functionality and call them when needed.

Who This Book Is For

C# and .NET developers who have no idea what DI is and would like to understand how to implement it in their applications.

What you will learn*

- Understand the concept of DI and its implications in modern software construction
- Learn how DI is already implemented in today's frameworks.
- Analyze how DI can be used with current software to improve maintainability and scalability.
- Learn the use of DI available in .NET Core
- Get used to the possibilities that DI offers to the ASP.NET Core developer in different scenarios.

Learn about good practices and refactoring legacy code.

In Detail

.NET Core provides more control than ever over web application architecture. Under this view of software architecture, one key point is that it's based on the use of Dependency Injection, as a way to properly implement the Dependency Inversion principle proposed in the SOLID principles established by Robert C. Martin.

With the advent of .NET Core, things have become much simpler with DI built into the system. This book aims to give you a profound insight into writing loosely-coupled code using the latest features available in .NET Core. It will talk about Constructor, Parameter, Setter, and Interface Injection, explaining in detail, with the help of examples, which type of injection to use in which situation. It will show you how to implement a class that creates other classes with associated dependencies, also called IoC containers, and then create dependencies for each of the MVC components of ASP.NET Core. You'll learn to distinguish between IoC containers, the use of Inversion of Control, and DI itself, since DI is just a way of implementing IoC via these containers. You'll also learn how to build dependencies for any other front-end tool such as Angular. You will get to use the in-built services offered by .NET Core

and create your own custom dependencies. Towards the end, we'll talk about some patterns and anti-patterns for Dependency Injection along with some techniques to refactor legacy applications and inject dependencies.

"Dependency Injection in .NET" is a comprehensive guide that introduces DI to .NET developers. It covers core concepts and patterns, and introduces important DI frameworks, such as StructureMap, Windsor, and Spring.NET.

Microsoft's ASP.NET Core is a powerful web framework full of hidden features that this book will help you to understand. You'll get hands-on with customizing ASP.NET Core to suit your application development needs with the help of practical examples and best practices.

Refactor with Microsoft Visual Studio 2010 and evolve your software system to support new and ever-changing requirements by updating your C# code base with patterns and principles with this book and eBook.

Get the latest coverage of the newest features in C#9 and .NET 5 In Professional C# and .NET: 2021 Edition, Microsoft MVP for Visual Studio and Development Technologies and veteran developer, Christian Nagel, delivers a comprehensive tour of the new features and capabilities of C#9 and .NET 5. Experienced programmers making the transition to C# will benefit from the author's in-depth explorations to create Web- and Windows applications using ASP.NET Core, Blazor, and WinUI using modern application patterns and new features offered by .NET including Microservices deployed to Docker images, GRPC, localization, asynchronous streaming, and much more. The book also offers: Discussions of the extension of .NET to non-Microsoft platforms like OSX and Linux Explanations of the newest features in C#9, including support for record types, and enhanced support for tuples, pattern matching, and nullable reference types Integrating .NET applications with Microsoft Azure services such as Azure App Configuration, Azure Key Vault, Azure Functions, the Azure Active Directory, and others Downloadable code examples from wrox.com and github.com with online updates for C# 10 and .NET 6 Perfect for programmers with a background in C#, Visual Basic, Java, or C/C++, Professional C# and .NET: 2021 Edition will also earn a place in the libraries of software architects seeking an up-to-date and fulsome treatment of the latest C# and .NET releases.

Learn how to leverage the features of the new Entity Framework Core APIs and use them to build pure .NET Core applications. About This Book Learn how to effectively manage your database to make it more productive and maintainable. Write simplified queries using LINQ to acquire the desired data easily Raise the abstraction level from data to objects so teams can function independently, resulting in easily maintainable code Who This Book Is For This book is for .NET Core developers who would like to integrate EF Core in their application. Prior knowledge of .NET Core and C# is assumed. What You Will Learn Create databases and perform CRUD operations on them Understand and build relationships (related to entities, keys, and properties) Understand in-built, custom, and remote validation (both client and

server side) You will learn to handle concurrency to build responsive applications You will handle transactions and multi-tenancy while also improving performance In Detail Being able to create and maintain data-oriented applications has become crucial in modern programming. This is why Microsoft came up with Entity Framework so architects can optimize storage requirements while also writing efficient and maintainable application code. This book is a comprehensive guide that will show how to utilize the power of the Entity Framework to build efficient .NET Core applications. It not only teaches all the fundamentals of Entity Framework Core but also demonstrates how to use it practically so you can implement it in your software development. The book is divided into three modules. The first module focuses on building entities and relationships. Here you will also learn about different mapping techniques, which will help you choose the one best suited to your application design. Once you have understood the fundamentals of the Entity Framework, you will move on to learn about validation and querying in the second module. It will also teach you how to execute raw SQL queries and extend the Entity Framework to leverage Query Objects using the Query Object Pattern. The final module of the book focuses on performance optimization and managing the security of your application. You will learn to implement failsafe mechanisms using concurrency tokens. The book also explores row-level security and multitenant databases in detail. By the end of the book, you will be proficient in implementing Entity Framework on your .NET Core applications. Style and approach This book is filled with various examples that will help you use Entity Framework Core 2.0 to write efficient software.

Get definitive guidance on SignalR, a new library for ASP.NET developers that simplifies the process of adding real-time web functionality to your applications. Real-time web functionality enables server-side code to push content to connected clients instantly as it becomes available. With this book, Microsoft .NET developers familiar with HTML and JavaScript will gain the skills to add real-time and async communication features for web, desktop, and mobile phone applications. Topics include: Introduction to async development; HTTP and real-time communications; SignalR technology fundamentals; persistent connections and hubs; multiplatform real-time applications; advanced topics Learn how SignalR uses Websockets when supported by the browser and the server and falls back to other techniques and technologies when it is not Use the simple ASP.NET API in SignalR for creating server-to-client remote procedure calls (RPC) that call JavaScript functions in client browsers from server-side .NET code. Exploit the API for connection management (e.g. connect and disconnect events), grouping connections, and authorization.

Learn the details of the most highly recommended practices of software development using the latest version of Visual Studio 2015. Recommended practices are grouped by development phase and explained in far more detail than the typical tips and tricks compilations. This book also contains detailed coverage of recognized patterns and practices used

to create software in a timely manner with expected quality in the context of using specific Visual Studio 2015 features. Creating software is part defined process and part empirical process. While there is no single “best” process to employ in all development scenarios, MVP author Peter Ritchie helps readers navigate the complexity of development options and decide which techniques and Visual Studio 2015 features to use based on the needs of their particular project. Readers will learn practices such as those related to working in teams, design and architecture, refactoring, source code control workflows, unit testing, performance testing, coding practices, use of common patterns, code analysis, IDE extensions, and more. What You Will Learn Use patterns and practices within Visual Studio Implement practices of software creation Work in teams Develop workflows for software projects Who This Book Is For Beginning and intermediate software developers and architects

Object-oriented programming is the de facto programming paradigm for many programming languages. Object-Oriented Programming in C# Succinctly provides an introduction to OOP for C# developers. Author Sander Rossel provides overviews and numerous samples to guide readers towards OOP mastery.

If you look at a SharePoint application you'll find that most of its active components are Web Parts. SharePoint 2010 includes dozens of prebuilt Web Parts that you can use. It also provides an API that lets you build custom Web Parts using C# or VB.NET. SharePoint 2010 Web Parts in Action is a comprehensive guide to deploying, customizing, and creating Web Parts. Countless examples walk you through everything from design, to development, deployment, troubleshooting, and upgrading. Because Web Parts are ASP.NET controls, you'll learn to use Visual Studio 2010 to extend existing Web Parts and to build custom components from scratch. What's Inside Using and configuring Web Parts Web Part and portal best practices Custom use cases, like mobile and international apps Web Part design patterns This book is written for application developers working with SharePoint 2010. Knowing Visual Studio 2010 is helpful but not required. 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.

Fully updated for ASP.NET MVC 3. Delve into the features, principles, and pillars of the ASP.NET MVC framework—deftly guided by web development luminary Dino Esposito. ASP.NET MVC forces developers to think in terms of distinct components—Model, View, Controller—that make it easier to manage application complexity, while allowing strict control over the markup. Plunge into the framework's internal mechanics and gain perspectives on how to use this programming model versus Web Forms, and begin building your own MVC-based applications quickly.

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.

Learn how Microsoft Unity can help improve the speed with which you develop enterprise applications. Author Ricardo Peres will guide you from a conceptual understanding of Microsoft Unity to fully incorporating it into your development process. With Microsoft Unity Succinctly, you'll be on your way to better practices.

Dependency Injection with Unity Microsoft Patterns & Practices

Mastering Ninject for Dependency Injection teaches you the most powerful concepts of Ninject in a simple and easy-to-understand format using lots of practical examples, diagrams, and illustrations. Mastering Ninject for Dependency Injection is aimed at software developers and architects who wish to create maintainable, extensible, testable, and loosely coupled applications. Since Ninject targets the .NET platform, this book is not suitable for software developers of other platforms. Being familiar with design patterns such as singleton or factory would be beneficial, but no knowledge of dependency injection or IoC is assumed.

Summary The Art of Unit Testing, Second Edition guides you step by step from writing your first simple tests to developing robust test sets that are maintainable, readable, and trustworthy. You'll master the foundational ideas and quickly move to high-value subjects like mocks, stubs, and isolation, including frameworks such as Moq, FakeItEasy, and Typemock Isolator. You'll explore

test patterns and organization, working with legacy code, and even "untestable" code. Along the way, you'll learn about integration testing and techniques and tools for testing databases and other technologies. About this Book You know you should be unit testing, so why aren't you doing it? If you're new to unit testing, if you find unit testing tedious, or if you're just not getting enough payoff for the effort you put into it, keep reading. The Art of Unit Testing, Second Edition guides you step by step from writing your first simple unit tests to building complete test sets that are maintainable, readable, and trustworthy. You'll move quickly to more complicated subjects like mocks and stubs, while learning to use isolation (mocking) frameworks like Moq, FakeItEasy, and Typemock Isolator. You'll explore test patterns and organization, refactor code applications, and learn how to test "untestable" code. Along the way, you'll learn about integration testing and techniques for testing with databases. The examples in the book use C#, but will benefit anyone using a statically typed language such as Java or C++. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. What's Inside Create readable, maintainable, trustworthy tests Fakes, stubs, mock objects, and isolation (mocking) frameworks Simple dependency injection techniques Refactoring legacy code About the Author Roy Osherove has been coding for over 15 years, and he consults and trains teams worldwide on the gentle art of unit testing and test-driven development. His blog is at ArtOfUnitTesting.com. Table of Contents PART 1 GETTING STARTED The basics of unit testing A first unit test PART 2 CORE TECHNIQUES Using stubs to break dependencies Interaction testing using mock objects Isolation (mocking) frameworks Digging deeper into isolation frameworks PART 3 THE TEST CODE Test hierarchies and organization The pillars of good unit tests PART 4 DESIGN AND PROCESS Integrating unit testing into the organization Working with legacy code Design and testability

A software architect's digest of core practices, pragmatically applied Designing effective architecture is your best strategy for managing project complexity—and improving your results. But the principles and practices of software architecting—what the authors call the “science of hard decisions”—have been evolving for cloud, mobile, and other shifts. Now fully revised and updated, this book shares the knowledge and real-world perspectives that enable you to design for success—and deliver more successful solutions. In this fully updated Second Edition, you will: Learn how only a deep understanding of domain can lead to appropriate architecture Examine domain-driven design in both theory and implementation Shift your approach to code first, model later—including multilayer architecture Capture the benefits of prioritizing software maintainability See how readability, testability, and extensibility lead to code quality Take a user experience (UX) first approach, rather than designing for data Review patterns for organizing business logic Use event sourcing and CQRS together to model complex business domains more effectively Delve inside the persistence layer, including patterns and implementation.

Develop next-generation web applications with ASP.NET MVC Go deep into the architecture and features of ASP.NET MVC 5, and learn how to build web applications that work well on both the desktop and mobile devices. Web development expert Dino Esposito takes you through the web framework's Model-View-Controller (MVC) design model, and covers the tools you need to cleanly separate business logic from the user interface. If you're an experienced web

developer new to ASP.NET MVC, this practical guide will get you going. Discover how to: Build web applications that are easy to test and maintain Dive into the functions of controllers—the heart of an MVC site Explore the structure and behavior of a view engine Process a variety of input data using a custom model binder Automate the writing of input forms, and streamline validation Design websites for mobile devices, localization, and error handling Provide security by implementing a membership system Inject script code into your site using JavaScript and jQuery Use Responsive Web Design to make sites mobile-friendly

Dependency Injection in .NET is a comprehensive guide that introduces DI and provides an in-depth look at applying DI practices to .NET apps. In it, you will also learn to integrate DI together with such technologies as Windows Communication Foundation, ASP.NET MVC, Windows Presentation Foundation and other core .NET components. Building on your existing knowledge of C# and the .NET platform, this book will be most beneficial for readers who have already built at least a few software solutions of intermediate complexity. Most examples are in plain C# without use of any particular DI framework. Later, the book introduces several well-known DI frameworks, such as StructureMap, Windsor and Spring.NET. For each framework, it presents examples of its particular usage, as well as examines how the framework relates to the common patterns presented earlier in the book.

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 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 learn Design

enterprise apps by making the most of the latest features of .NET 5 Discover different 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, configuration, 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.

Deep dive into C# and .NET architecture to build efficient, powerful applications About This Book Uniquely structured content to help you understand what goes on under the hood of .NET's managed code platform to master .NET programming Deep dive into C# programming and how the code executes via the CLR Packed with hands-on practical examples, you'll understand how to write applications to make full use of the new features of .NET 4.6, .NET Core and C# 6/7 Who This Book Is For This book was written exclusively for .NET developers. If you've been creating C# applications for your clients, at work or at home, this book will help you develop the skills you need to create modern, powerful, and efficient applications in C#. No knowledge of C# 6/7 or .NET 4.6 is needed to follow along—all the latest features are included to help you start writing cross-platform applications immediately. You will need to be familiar with Visual Studio, though all the new features in Visual Studio 2015 will also be covered. What You Will Learn Understand C# core concepts in depth, from sorting algorithms to the Big O notation Get up to speed with the latest changes in C# 6/7 Interface SQL Server and NoSQL databases with .NET Learn SOLID principles and the most relevant GoF Patterns with practical examples in C# 6.0 Defend C# applications against attacks Use Roslyn, a self-hosted framework to compile and advanced edition in both C# and Visual basic .NET languages Discern LINQ and associated Lambda expressions, generics, and delegates Design a .NET application from the ground up Understand the internals of a .NET assembly Grasp some useful advanced features in optimization and parallelism In Detail Mastering C# and .NET Framework will take you in to the depths of C# 6.0/7.0 and .NET 4.6, so you can understand how the platform works when it runs your code, and how you can use this knowledge to write efficient applications. Take full advantage of the new revolution in .NET development, including open source status and cross-platform capability, and get to grips with the architectural changes of CoreCLR. Start with how the CLR executes code, and discover the niche and advanced aspects of C# programming – from delegates and generics, through to asynchronous programming. Run through new forms of type

declarations and assignments, source code callers, static using syntax, auto-property initializers, dictionary initializers, null conditional operators, and many others. Then unlock the true potential of the .NET platform. Learn how to write OWASP-compliant applications, how to properly implement design patterns in C#, and how to follow the general SOLID principles and its implementations in C# code. We finish by focusing on tips and tricks that you'll need to get the most from C# and .NET. This book also covers .NET Core 1.1 concepts as per the latest RTM release in the last chapter. Style and approach This book uses hands-on practical code examples that will take you into the depths of C# and .NET.

Packed with hands-on practical examples, it is great as a tutorial, or as a reference guide.

Get the definitive guide on designing applications on the Microsoft application platform—straight from the Microsoft patterns & practices team. Learn how to choose the most appropriate architecture and the best implementation technologies that the Microsoft application platform offers applications developers. Get critical design recommendations and guidelines organized by application type—from Web, mobile, and rich Internet applications to Office Business Applications. You™ll also get links to additional technical resources that can help with your application development.

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