

Dependency Injection In Net Mark Seemann

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C# 3.0 Design Patterns - Judith Bishop 2007-12-10

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.

Parenting Matters - National Academies of Sciences, Engineering, and Medicine 2016-11-21

Decades of research have demonstrated that the parent-child dyad and the environment of the familyâ€"which includes all primary caregiversâ€"are at the foundation of children's well-being and healthy development. From birth, children are learning and rely on parents and the other caregivers in their lives to protect and care for them. The impact of parents may never be greater than during the earliest years of life, when a child's brain is rapidly developing and when nearly all of her or his experiences are created and shaped by parents and the family environment. Parents help children build and refine their knowledge and skills, charting a trajectory for their health and well-being during childhood and beyond. The experience of parenting also impacts parents themselves. For instance, parenting can enrich and give focus to parents' lives; generate stress or calm; and create any number of emotions, including feelings of happiness, sadness, fulfillment, and anger. Parenting of young children today takes place in the context of significant ongoing developments. These include: a rapidly growing body of science on early childhood, increases in funding for programs and services for families, changing demographics of the U.S. population, and greater diversity of family structure. Additionally, parenting is increasingly being shaped by technology and increased access to information about parenting. Parenting Matters identifies parenting knowledge, attitudes, and practices associated with positive developmental outcomes in children ages 0-8; universal/preventive and targeted strategies used in a variety of settings that have been effective with parents of young children and that support the identified knowledge, attitudes, and practices; and barriers to and facilitators for parents' use of practices that lead to healthy child outcomes as well as their participation in effective programs and services. This report makes recommendations directed at an array of stakeholders, for promoting the wide-scale adoption of effective programs and services for parents and on areas that warrant further research to inform policy and practice. It is meant to serve as a roadmap for the future of parenting policy, research, and practice in

the United States.

Metaprogramming in .NET - Jason Bock 2012-12-30

Summary Metaprogramming in .NET is designed to help readers understand the basic concepts, advantages, and potential pitfalls of metaprogramming. It introduces core concepts in clear, easy-to-follow language and then it takes you on a deep dive into the tools and techniques you'll use to implement them in your .NET code. You'll explore plenty of real-world examples that reinforce key concepts. When you finish, you'll be able to build high-performance, metaprogramming-enabled software with confidence. About the Technology When you write programs that create or modify other programs, you are metaprogramming. In .NET, you can use reflection as well as newer concepts like code generation and scriptable software. The emerging Roslyn project exposes the .NET compiler as an interactive API, allowing compile-time code analysis and just-in-time refactoring. About this Book Metaprogramming in .NET is a practical introduction to the use of metaprogramming to improve the performance and maintainability of your code. This book avoids abstract theory and instead teaches you solid practices you'll find useful immediately. It introduces core concepts like code generation and application composition in clear, easy-to-follow language. Written for readers comfortable with C# and the .NET framework--no prior experience with metaprogramming is 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. What's Inside Metaprogramming concepts in plain language Creating scriptable software Code generation techniques The Dynamic Language Runtime About the Authors Kevin Hazzard is a Microsoft MVP, consultant, teacher, and developer community leader in the mid-Atlantic USA. Jason Bock is an author, Microsoft MVP, and the leader of the Twin Cities Code Camp. "An excellent way to start fully using the power of metaprogramming."--From the Foreword by Rockford Lhotka, Creator of the CSLA .NET Framework Table of Contents PART 1 DEMYSTIFYING METAPROGRAMMING Metaprogramming concepts Exploring code and metadata with reflection PART 2 TECHNIQUES FOR GENERATING CODE The Text Template Transformation Toolkit (T4) Generating code with the CodeDOM Generating code with Reflection.Emit Generating code with expressions Generating code with IL rewriting PART 3 LANGUAGES AND TOOLS The Dynamic Language Runtime Languages and tools Managing the .NET Compiler Dependency Injection - Dhananjay Prasanna 2009-07-31

Dependency Injection is an in-depth guide to the current best practices focusing the Dependency Injection pattern--the key concept in Spring and the rapidly-growing Google Guice. It explores Dependency Injection, sometimes called Inversion of Control, in fine detail with numerous practical examples. Developers will learn to apply important techniques, focusing on their strengths and limitations, with a particular emphasis on pitfalls, corner-cases, and best practices. This book is written for developers and architects who want to understand Dependency Injection and successfully leverage popular DI technologies such as Spring, Google Guice, PicoContainer, and many others. The book explores many small examples of anchor concepts and unfolds a larger example to show the big picture. Written primarily from a Java point-of-view, this book is appropriate for any developer with a working knowledge of object-oriented programming in Java, Ruby, or C#. 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.

Growing Object-Oriented Software, Guided by Tests - Steve Freeman 2009-10-12

Test-Driven Development (TDD) is now an established technique for delivering better software faster. TDD is

based on a simple idea: Write tests for your code before you write the code itself. However, this "simple" idea takes skill and judgment to do well. Now there's a practical guide to TDD that takes you beyond the basic concepts. Drawing on a decade of experience building real-world systems, two TDD pioneers show how to let tests guide your development and "grow" software that is coherent, reliable, and maintainable. Steve Freeman and Nat Pryce describe the processes they use, the design principles they strive to achieve, and some of the tools that help them get the job done. Through an extended worked example, you'll learn how TDD works at multiple levels, using tests to drive the features and the object-oriented structure of the code, and using Mock Objects to discover and then describe relationships between objects. Along the way, the book systematically addresses challenges that development teams encounter with TDD—from integrating TDD into your processes to testing your most difficult features. Coverage includes Implementing TDD effectively: getting started, and maintaining your momentum throughout the project Creating cleaner, more expressive, more sustainable code Using tests to stay relentlessly focused on sustaining quality Understanding how TDD, Mock Objects, and Object-Oriented Design come together in the context of a real software development project Using Mock Objects to guide object-oriented designs Succeeding where TDD is difficult: managing complex test data, and testing persistence and concurrency

Rust in Action - Tim McNamara 2021-09-07

"This well-written book will help you make the most of what Rust has to offer." - Ramnivas Laddad, author of AspectJ in Action Rust in Action is a hands-on guide to systems programming with Rust. Written for inquisitive programmers, it presents real-world use cases that go far beyond syntax and structure. Summary Rust in Action introduces the Rust programming language by exploring numerous systems programming concepts and techniques. You'll be learning Rust by delving into how computers work under the hood. You'll find yourself playing with persistent storage, memory, networking and even tinkering with CPU instructions. The book takes you through using Rust to extend other applications and teaches you tricks to write blindingly fast code. You'll also discover parallel and concurrent programming. Filled to the brim with real-life use cases and scenarios, you'll go beyond the Rust syntax and see what Rust has to offer in real-world use cases. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Rust is the perfect language for systems programming. It delivers the low-level power of C along with rock-solid safety features that let you code fearlessly. Ideal for applications requiring concurrency, Rust programs are compact, readable, and blazingly fast. Best of all, Rust's famously smart compiler helps you avoid even subtle coding errors. About the book Rust in Action is a hands-on guide to systems programming with Rust. Written for inquisitive programmers, it presents real-world use cases that go far beyond syntax and structure. You'll explore Rust implementations for file manipulation, networking, and kernel-level programming and discover awesome techniques for parallelism and concurrency. Along the way, you'll master Rust's unique borrow checker model for memory management without a garbage collector. What's inside Elementary to advanced Rust programming Practical examples from systems programming Command-line, graphical and networked applications About the reader For intermediate programmers. No previous experience with Rust required. About the author Tim McNamara uses Rust to build data processing pipelines and generative art. He is an expert in natural language processing and data engineering. Table of Contents 1 Introducing Rust PART 1 RUST LANGUAGE DISTINCTIVES 2 Language foundations 3 Compound data types 4 Lifetimes, ownership, and borrowing PART 2 DEMYSTIFYING SYSTEMS PROGRAMMING 5 Data in depth 6 Memory 7 Files and storage 8 Networking 9 Time and timekeeping 10 Processes, threads, and containers 11 Kernel 12 Signals, interrupts, and exceptions

Entity Framework Core in Action - Jon Smith 2018-03-28 Reading and storing data is a core part of any application, and .NET developers want database access to be easy and intuitive. Entity Framework Core is a .NET library designed to simplify data persistence, bridging the mismatch between the different structures of object-

oriented code and relational databases. Entity Framework Core in Action teaches developers how to add database functionality to .NET applications with EF Core. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications.

Dependency Injection Principles, Practices, and Patterns - Mark Seemann 2019-03-06

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

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

ASP.NET Core in Action, Second Edition is a comprehensive guide to creating web applications with ASP.NET Core 5.0. Go from basic HTTP concepts to advanced framework customization. Summary Fully updated to ASP.NET 5.0, ASP.NET Core in Action, Second Edition is a hands-on primer to building cross-platform web applications with your C# and .NET skills. Even if you've never worked with ASP.NET you'll start creating productive cross-platform web apps fast. And don't worry about late-breaking changes to ASP.NET Core. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Build full-stack web applications that run anywhere. Developers love ASP.NET Core for its libraries and pre-built components that maximize productivity. Version 5.0 offers new features for server-side apps, as well as background services for cross-platform development. About the book ASP.NET Core in Action, Second Edition is a comprehensive guide to creating web applications with ASP.NET Core 5.0. Go from basic HTTP concepts to advanced framework customization. Illustrations and annotated code make learning visual and easy. Master logins, dependency injection, security, and more. This updated edition covers the latest features, including Razor Pages and the new hosting paradigm. What's inside Developing apps for Windows and non-Windows servers Configuring applications Building custom components Logging, testing, and security About the reader For intermediate C# developers. About the author Andrew Lock is a Microsoft MVP who has worked with ASP.NET Core since before its first release. Table

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Java 9 Dependency Injection - Nilang Patel 2018-04-26
Create clean code with Dependency Injection principles
Key Features Use DI to make your code loosely coupled to
manage and test your applications easily on Spring 5 and
Google Guice Learn the best practices and methodologies
to implement DI Write more maintainable Java code by
decoupling your objects from their implementations Book
Description Dependency Injection (DI) is a design
pattern that allows us to remove the hard-coded
dependencies and make our application loosely coupled,
extendable, and maintainable. We can implement DI to
move the dependency resolution from compile-time to
runtime. This book will be your one stop guide to write
loosely coupled code using the latest features of Java 9
with frameworks such as Spring 5 and Google Guice. We
begin by explaining what DI is and teaching you about
IoC containers. Then you'll learn about object
compositions and their role in DI. You'll find out how
to build a modular application and learn how to use DI
to focus your efforts on the business logic unique to
your application and let the framework handle the
infrastructure work to put it all together. Moving on,
you'll gain knowledge of Java 9's new features and
modular framework and how DI works in Java 9. Next,
we'll explore Spring and Guice, the popular frameworks
for DI. You'll see how to define injection keys and
configure them at the framework-specific level. After
that, you'll find out about the different types of
scopes available in both popular frameworks. You'll see
how to manage dependency of cross-cutting concerns while
writing applications through aspect-oriented
programming. Towards the end, you'll learn to integrate
any third-party library in your DI-enabled application
and explore common pitfalls and recommendations to build
a solid application with the help of best practices,
patterns, and anti-patterns in DI. What you will learn
Understand the benefits of DI and fo from a tightly
coupled design to a cleaner design organized around
dependencies See Java 9's new features and modular
framework Set up Guice and Spring in an application so
that it can be used for DI Write integration tests for
DI applications Use scopes to handle complex application
scenarios Integrate any third-party library in your DI-
enabled application Implement Aspect-Oriented
Programming to handle common cross-cutting concerns such
as logging, authentication, and transactions Understand
IoC patterns and anti-patterns in DI Who this book is
for This book is for Java developers who would like to
implement DI in their application. Prior knowledge of
the Spring and Guice frameworks and Java programming is
assumed.

Domain Modeling Made Functional - Scott Wlaschin
2018-01-25

You want increased customer satisfaction, faster
development cycles, and less wasted work. Domain-driven
design (DDD) combined with functional programming is the
innovative combo that will get you there. In this
pragmatic, down-to-earth guide, you'll see how applying
the core principles of functional programming can result
in software designs that model real-world requirements
both elegantly and concisely - often more so than an
object-oriented approach. Practical examples in the
open-source F# functional language, and examples from
familiar business domains, show you how to apply these
techniques to build software that is business-focused,

flexible, and high quality. Domain-driven design is a
well-established approach to designing software that
ensures that domain experts and developers work together
effectively to create high-quality software. This book
is the first to combine DDD with techniques from
statically typed functional programming. This book is
perfect for newcomers to DDD or functional programming -
all the techniques you need will be introduced and
explained. Model a complex domain accurately using the
F# type system, creating compilable code that is also
readable documentation--ensuring that the code and
design never get out of sync. Encode business rules in
the design so that you have "compile-time unit tests,"
and eliminate many potential bugs by making illegal
states unrepresentable. Assemble a series of small,
testable functions into a complete use case, and compose
these individual scenarios into a large-scale design.
Discover why the combination of functional programming
and DDD leads naturally to service-oriented and
hexagonal architectures. Finally, create a functional
domain model that works with traditional databases,
NoSQL, and event stores, and safely expose your domain
via a website or API. Solve real problems by focusing on
real-world requirements for your software. What You
Need: The code in this book is designed to be run
interactively on Windows, Mac and Linux. You will need a
recent version of F# (4.0 or greater), and the
appropriate .NET runtime for your platform. Full
installation instructions for all platforms at
fsharp.org.

Test-Driven iOS Development - Graham Lee 2012-04-12
As iOS apps become increasingly complex and business-
critical, iOS developers must ensure consistently
superior code quality. This means adopting best
practices for creating and testing iOS apps. Test-Driven
Development (TDD) is one of the most powerful of these
best practices. Test-Driven iOS Development is the first
book 100% focused on helping you successfully implement
TDD and unit testing in an iOS environment. Long-time
iOS/Mac developer Graham Lee helps you rapidly integrate
TDD into your existing processes using Apple's Xcode 4
and the OUnit unit testing framework. He guides you
through constructing an entire Objective-C iOS app in a
test-driven manner, from initial specification to
functional product. Lee also introduces powerful
patterns for applying TDD in iOS development, and
previews powerful automated testing capabilities that
will soon arrive on the iOS platform. Coverage includes
Understanding the purpose, benefits, and costs of unit
testing in iOS environments Mastering the principles of
TDD, and applying them in areas from app design to
refactoring Writing usable, readable, and repeatable iOS
unit tests Using OUnit to set up your Xcode project for
TDD Using domain analysis to identify the classes and
interactions your app needs, and designing it
accordingly Considering third-party tools for iOS unit
testing Building networking code in a test-driven manner
Automating testing of view controller code that
interacts with users Designing to interfaces, not
implementations Testing concurrent code that typically
runs in the background Applying TDD to existing apps
Preparing for Behavior Driven Development (BDD) The only
iOS-specific guide to TDD and unit testing, Test-Driven
iOS Development covers both essential concepts and
practical implementation.

Code That Fits in Your Head - Mark Seemann 2021-09-30
The latest title in Addison Wesley's world-renowned
Robert C. Martin Series on better software development,
Code That Fits in Your Head offers indispensable
practical advice for writing code at a sustainable pace,
and controlling the complexity that causes too many
software projects to spin out of control. Reflecting
decades of experience consulting on software projects
and helping development teams succeed, Mark Seemann
shares proven practices and heuristics, supported by
realistic advice. His guidance ranges from checklists to
teamwork, encapsulation to decomposition, API design to
unit testing and troubleshooting. Throughout, Seemann
illuminates his insights with up-to-date code examples
drawn from a start to finish sample project. Seemann's
examples are written in C#, and designed to be clear
and useful to every object-oriented enterprise
developer, whether they use C#, Java, or another
language. Code That Fits in Your Head is accompanied by
the complete code base for this sample application,
organized in a Git repository to facilitate further
exploration of details that don't fit in the text.

C# 10 and .NET 6 - Modern Cross-Platform Development -

Mark J. Price 2021-11-09

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

Pro ASP.NET MVC 5 - Adam Freeman 2014-02-28

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.

Unit Testing Principles, Practices, and Patterns -

Vladimir Khorikov 2020-01-06

Radically improve your testing practice and software quality with new testing styles, good patterns, and reliable automation. Key Features A practical and results-driven approach to unit testing Refine your existing unit tests by implementing modern best practices Learn the four pillars of a good unit test Safely automate your testing process to save time and money Spot which tests need refactoring, and which need to be deleted entirely Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About The Book Great testing practices maximize your project quality and delivery speed by identifying bad code early in the development process. Wrong tests will break your code, multiply bugs, and increase time and costs. You owe it to yourself—and your projects—to learn how to do excellent unit testing. Unit Testing Principles, Patterns and

Practices teaches you to design and write tests that target key areas of your code including the domain model. In this clearly written guide, you learn to develop professional-quality tests and test suites and integrate testing throughout the application life cycle. As you adopt a testing mindset, you'll be amazed at how better tests cause you to write better code. What You Will Learn Universal guidelines to assess any unit test Testing to identify and avoid anti-patterns Refactoring tests along with the production code Using integration tests to verify the whole system This Book Is Written For For readers who know the basics of unit testing. Examples are written in C# and can easily be applied to any language. About the Author Vladimir Khorikov is an author, blogger, and Microsoft MVP. He has mentored numerous teams on the ins and outs of unit testing. Table of Contents: PART 1 THE BIGGER PICTURE 1 | The goal of unit testing 2 | What is a unit test? 3 | The anatomy of a unit test PART 2 MAKING YOUR TESTS WORK FOR YOU 4 | The four pillars of a good unit test 5 | Mocks and test fragility 6 | Styles of unit testing 7 | Refactoring toward valuable unit tests PART 3 INTEGRATION TESTING 8 | Why integration testing? 9 | Mocking best practices 10 | Testing the database PART 4 UNIT TESTING ANTI-PATTERNS 11 | Unit testing anti-patterns

Modeling and Role-Modeling - Helen Cook Erickson 2008-12 This extant nursing theory and paradigm is recognized by the American Holistic Nurses Association. It provides guidelines for nurses interested in application of a mind-body-spirit approach to client care. Modeling is the process of building a mirror image of the client's world. Role-modeling is the process of designing and implementing care that nurtures client growth and healing and facilitates clients fulfilling their personally chosen life-roles.

Refactoring to Patterns - Joshua Kerievsky 2004-08-05

In 1994, Design Patterns changed the landscape of object-oriented development by introducing classic solutions to recurring design problems. In 1999, Refactoring revolutionized design by introducing an effective process for improving code. With the highly anticipated Refactoring to Patterns, Joshua Kerievsky has changed our approach to design by forever uniting patterns with the evolutionary process of refactoring. This book introduces the theory and practice of pattern-directed refactorings: sequences of low-level refactorings that allow designers to safely move designs to, towards, or away from pattern implementations. Using code from real-world projects, Kerievsky documents the thinking and steps underlying over two dozen pattern-based design transformations. Along the way he offers insights into pattern differences and how to implement patterns in the simplest possible ways. Coverage includes: A catalog of twenty-seven pattern-directed refactorings, featuring real-world code examples Descriptions of twelve design smells that indicate the need for this book's refactorings General information and new insights about patterns and refactoring Detailed implementation mechanics: how low-level refactorings are combined to implement high-level patterns Multiple ways to implement the same pattern—and when to use each Practical ways to get started even if you have little experience with patterns or refactoring Refactoring to Patterns reflects three years of refinement and the insights of more than sixty software engineering thought leaders in the global patterns, refactoring, and agile development communities. Whether you're focused on legacy or "greenfield" development, this book will make you a better software designer by helping you learn how to make important design changes safely and effectively.

Dependency Injection with Unity - Dominic Betts 2013-08

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.

The Search for a Nonviolent Future - Michael N. Nagler
2010-10-01

Beginning with the achievements of Mahatma Gandhi, and following the legacy of nonviolence through the struggles against Nazism in Europe, racism in America, oppression in China and Latin America, and ethnic conflicts in Africa and Bosnia, Michael Nagler unveils a hidden history. Nonviolence, he proposes, has proven its power against arms and social injustice wherever it has been correctly understood and applied. Nagler's approach is not only historical but also spiritual, drawing on the experience of Gandhi and other activists and teachers. Individual chapters include A Way Out of Hell, The Sweet Sound of Order, and A Clear Picture of Peace. The last chapter includes a five-point blueprint for change and "study circle" guide. The foreword by Arun Gandhi, the grandson of Mahatma Gandhi, is new to this edition.

Mastering Ninject for Dependency Injection - Daniel Baharestani
2013-09-25

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.

The Art of Unit Testing - Roy Osherove
2013-11-24

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

C# in Depth - Jonathan Skeet
2019-03-07

Effective techniques and experienced insights to maximize your C# 6 and 7 programming skills Key Features Written by C# legend and top StackOverflow contributor Jon Skeet Unlock the new features of C# 6 and 7 Insights on the future of the C# language Master asynchronous functions, interpolated strings, tuples, and more Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. "An excellent overview of C# with helpful and realistic examples that make learning the newest features of C# easy." -Meredith Godar About The Book C# is the foundation of .NET development. New features added in C# 6 and 7 make it easier to take on big data applications, cloud-centric web development, and cross-platform software using .NET Core. Packed with deep insight from C# guru Jon Skeet, this book takes you deep into concepts and features other C# books ignore. C# in Depth, Fourth Edition is an authoritative and engaging guide that reveals the full potential of the language, including the new features of C# 6 and 7. It combines deep dives into the C# language with practical techniques for enterprise development, web applications, and systems programming. As you absorb the wisdom and techniques in this book, you'll write better code, and become an exceptional troubleshooter and problem solver. What You Will Learn Comprehensive guidance on the new features of C# 6 and 7 Important legacies and greatest hits of C# 2-5 Expression-bodied members Extended pass-by-reference functionality Writing asynchronous C# code String interpolation Composition with tuples Decomposition and pattern matching This Book Is Written For For intermediate C# developers. About The Author Jon Skeet is a senior software engineer at Google. He studied mathematics and computer science at Cambridge, is a recognized authority in Java and C#, and maintains the position of top contributor to Stack Overflow. Table of Contents 1. Survival of the sharpest 2. C# 2 3. C# 3: LINQ and everything that comes with it 4. C# 4: Improving interoperability 5. Writing asynchronous code 6. Async implementation 7. C# 5 bonus features 8. Super-sleek properties and expression-bodied members 9. Stringy features 10. A smörgåsbord of features for concise code 11. Composition using tuples 12. Deconstruction and pattern matching 13. Improving efficiency with more pass by reference 14. Concise code in C# 7 15. C# 8 and beyond PART 1 C# IN CONTEXT PART 2 C# 2-5 PART 3 C# 6 PART 4 C# 7 AND BEYOND

Real-World Functional Programming - Tomas Petricek
2009-11-30

Functional programming languages like F#, Erlang, and Scala are attracting attention as an efficient way to handle the new requirements for programming multi-processor and high-availability applications. Microsoft's new F# is a true functional language and C# uses functional language features for LINQ and other recent advances. Real-World Functional Programming is a unique tutorial that explores the functional programming model through the F# and C# languages. The clearly presented ideas and examples teach readers how functional programming differs from other approaches. It explains how ideas look in F# - a functional language - as well as how they can be successfully used to solve programming problems in C#. Readers build on what they know about .NET and learn where a functional approach makes the most sense and how to apply it effectively in those cases. The reader should have a good working knowledge of C#. No prior exposure to F# or functional

programming is 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.

Embedded Linux Development Using Yocto Project Cookbook
- Alex González 2018-01-25

Over 79 hands-on recipes for professional embedded Linux developers to optimize and boost their Yocto Project know-how Key Features Optimize your Yocto setup to speed up development and debug build issues Use what is quickly becoming the standard embedded Linux product builder framework—the Yocto Project Recipe-based implementation of best practices to optimize your Linux system Book Description The Yocto Project has become the de facto distribution build framework for reliable and robust embedded systems with a reduced time to market. You'll get started by working on a build system where you set up Yocto, create a build directory, and learn how to debug it. Then, you'll explore everything about the BSP layer, from creating a custom layer to debugging device tree issues. In addition to this, you'll learn how to add a new software layer, packages, data, scripts, and configuration files to your system. You will then cover topics based on application development, such as using the Software Development Kit and how to use the Yocto project in various development environments. Toward the end, you will learn how to debug, trace, and profile a running system. This second edition has been updated to include new content based on the latest Yocto release. What you will learn Optimize your Yocto Project setup to speed up development and debug build issues Use Docker containers to build Yocto Project-based systems Take advantage of the user-friendly Toaster web interface to the Yocto Project build system Build and debug the Linux kernel and its device trees Customize your root filesystem with already-supported and new Yocto packages Optimize your production systems by reducing the size of both the Linux kernel and root filesystems Explore the mechanisms to increase the root filesystem security Understand the open source licensing requirements and how to comply with them when cohabiting with proprietary programs Create recipes, and build and run applications in C, C++, Python, Node.js, and Java Who this book is for If you are an embedded Linux developer with the basic knowledge of Yocto Project, this book is an ideal way to broaden your knowledge with recipes for embedded development.

Book of F# - Dave Fancher 2014-03-01

F# brings the power of functional-first programming to the .NET Framework, a platform for developing software in the Microsoft Windows ecosystem. If you're a traditional .NET developer used to C# and Visual Basic, discovering F# will be a revelation that will change how you code, and how you think about coding. In The Book of F#, Microsoft MVP Dave Fancher shares his expertise and teaches you how to wield the power of F# to write succinct, reliable, and predictable code. As you learn to take advantage of features like default immutability, pipelining, type inference, and pattern matching, you'll be amazed at how efficient and elegant your code can be. You'll also learn how to: * Exploit F#'s functional nature using currying, partial application, and delegation * Streamline type creation and safety with record types and discriminated unions * Use collection types and modules to handle data sets more effectively * Use pattern matching to decompose complex types and branch your code within a single expression * Make your software more responsive with parallel programming and asynchronous workflows * Harness object orientation to develop rich frameworks and interact with code written in other .NET languages * Use query expressions and type providers to access and manipulate data sets from disparate sources Break free of that old school of programming. The Book of F# will show you how to unleash the expressiveness of F# to create smarter, leaner code.

Functional Programming in C# - Enrico Buonanno
2017-08-12

Summary Functional Programming in C# teaches you to apply functional thinking to real-world problems using the C# language. The book, with its many practical examples, is written for proficient C# programmers with no prior FP experience. It will give you an awesome new perspective. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Functional programming changes the way you think about code. For C#

developers, FP techniques can greatly improve state management, concurrency, event handling, and long-term code maintenance. And C# offers the flexibility that allows you to benefit fully from the application of functional techniques. This book gives you the awesome power of a new perspective. About the Book Functional Programming in C# teaches you to apply functional thinking to real-world problems using the C# language. You'll start by learning the principles of functional programming and the language features that allow you to program functionally. As you explore the many practical examples, you'll learn the power of function composition, data flow programming, immutable data structures, and monadic composition with LINQ. What's Inside Write readable, team-friendly code Master async and data streams Radically improve error handling Event sourcing and other FP patterns About the Reader Written for proficient C# programmers with no prior FP experience. About the Author Enrico Buonanno studied computer science at Columbia University and has 15 years of experience as a developer, architect, and trainer.

Table of Contents PART 1 - CORE CONCEPTS Introducing functional programming Why function purity matters Designing function signatures and types Patterns in functional programming Designing programs with function composition PART 2 - BECOMING FUNCTIONAL Functional error handling Structuring an application with functions Working effectively with multi-argument functions Thinking about data functionally Event sourcing: a functional approach to persistence PART 3 - ADVANCED TECHNIQUES Lazy computations, continuations, and the beauty of monadic composition Stateful programs and stateful computations Working with asynchronous computations Data streams and the Reactive Extensions An introduction to message-passing concurrency

Code Like a Pro in C# - Jort Rodenburg 2021-07-27

Critical business applications worldwide are written in the versatile C# language and the powerful .NET platform, running on desktops, cloud systems, and Windows or Linux servers. Code Like a Pro in C# makes it easy to turn your existing abilities in C# or another OO language (such as Java) into practical C# mastery.

Adaptive Code via C# - Gary McLean Hall 2014-10-10

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>

TASER® Conducted Electrical Weapons: Physiology, Pathology, and Law - Mark W. Kroll 2009-02-27

TASER® Conducted Electrical Weapons are rapidly replacing the club for law-enforcement control of violent subjects within many countries around the globe. A TASER CEW is a hand-held device that delivers a 400-volt pulse with a duration tuned to control the skeletal muscles without affecting the heart at a distance of up to 6.5 meters over tiny wires. If necessary, it begins with an arcing voltage of 50,000 V to penetrate thick clothing; the 50,000 V is never delivered to the body itself. Due to the widespread usage of these devices and the widespread misconceptions surrounding their operation, this book will have significant utility. This volume is written for cardiologists, emergency physicians, pathologists, law enforcement management, corrections personnel, and attorneys.

Guide to NoSQL with Azure Cosmos DB - Gaston C. Hillar
2018-09-28

Create scalable applications by taking advantage of NoSQL document databases on the cloud with .NET Core Key Features Work with the latest available tools related to Cosmos DB Learn to work with the latest version of the .NET Core SDK, C# and the SQL API Work with a database

service that doesn't require you to use an ORM and provides flexibility Book Description Cosmos DB is a NoSQL database service included in Azure that is continuously adding new features and has quickly become one of the most innovative services found in Azure, targeting mission-critical applications at a global scale. This book starts off by showing you the main features of Cosmos DB, their supported NoSQL data models and the foundations of its scalable and distributed architecture. You will learn to work with the latest available tools that simplify your tasks with Cosmos DB and reduce development costs, such as the Data Explorer in the Azure portal, Microsoft Azure Storage Explorer, and the Cosmos DB Emulator. Next, move on to working with databases and document collections. We will use the tools to run schema agnostic queries against collections with the Cosmos DB SQL dialect and understand their results. Then, we will create a first version of an application that uses the latest .NET Core SDK to interact with Cosmos DB. Next, we will create a second version of the application that will take advantage of important features that the combination of C# and the .NET Core SDK provides, such as POCOs and LINQ queries. By the end of the book, you will be able to build an application that works with a Cosmos DB NoSQL document database with C#, the .NET Core SDK, LINQ, and JSON. What you will learn Understand the supported NoSQL data models and the resource hierarchy Learn the latest tools to work with Cosmos DB accounts and collections Reduce your development costs by working with the Cosmos DB Emulator Understand request units, automatic indexing, partitioning, and billing Build an application with C#, Cosmos DB, .NET Core SDK, and the SQL API Perform asynchronous operations with databases, and documents in C# Work with models, and customize serialization of LINQ queries Who this book is for This book is for C# developers. You do not require any knowledge of Azure Cosmos DB, but familiarity with the Azure platform is expected.

The Design of Web APIs - Arnaud Lauret 2019-10-08

Web APIs are everywhere, giving developers an efficient way to interact with applications, services, and data. Well-designed APIs are a joy to use; poorly-designed APIs are cumbersome, confusing, and frustrating. The Design of Web APIs is a practical, example packed guide to crafting extraordinary web APIs. Author Arnaud Lauret demonstrates fantastic design principles and techniques you can apply to both public and private web APIs. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications.

Modern Java in Action - Raoul-Gabriel Urma 2018-09-26

Summary Manning's bestselling Java 8 book has been revised for Java 9! In Modern Java in Action, you'll build on your existing Java language skills with the newest features and techniques. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Modern applications take advantage of innovative designs, including microservices, reactive architectures, and streaming data. Modern Java features like lambdas, streams, and the long-awaited Java Module System make implementing these designs significantly easier. It's time to upgrade your skills and meet these challenges head on! About the Book Modern Java in Action connects new features of the Java language with their practical applications. Using crystal-clear examples and careful attention to detail, this book respects your time. It will help you expand your existing knowledge of core Java as you master modern additions like the Streams API and the Java Module System, explore new approaches to concurrency, and learn how functional concepts can help you write code that's easier to read and maintain. What's inside Thoroughly revised edition of Manning's bestselling Java 8 in Action New features in Java 8, Java 9, and beyond Streaming data and reactive programming The Java Module System About the Reader Written for developers familiar with core Java features. About the Author Raoul-Gabriel Urma is CEO of Cambridge Spark. Mario Fusco is a senior software engineer at Red Hat. Alan Mycroft is a University of Cambridge computer science professor; he cofounded the Raspberry Pi Foundation. Table of Contents PART 1 - FUNDAMENTALS Java 8, 9, 10, and 11: what's happening? Passing code with behavior parameterization Lambda expressions PART 2 - FUNCTIONAL-STYLE DATA PROCESSING WITH STREAMS Introducing streams Working with streams Collecting data with streams Parallel data processing

and performance PART 3 - EFFECTIVE PROGRAMMING WITH STREAMS AND LAMBDA Collection API enhancements Refactoring, testing, and debugging Domain-specific languages using lambdas PART 4 - EVERYDAY JAVA Using Optional as a better alternative to null New Date and Time API Default methods The Java Module System PART 5 - ENHANCED JAVA CONCURRENCY Concepts behind CompletableFuture and reactive programming CompletableFuture: composable asynchronous programming Reactive programming PART 6 - FUNCTIONAL PROGRAMMING AND FUTURE JAVA EVOLUTION Thinking functionally Functional programming techniques Blending OOP and FP: Comparing Java and Scala Conclusions and where next for Java **ASP.NET 4.0 IN PRACTICE** - Daniele Boichicchio.Stefano Mostarda 2011-07-01

About The Book: Look it up in Petzold remains the decisive last word in answering questions about Windows development. And in PROGRAMMING WINDOWS, FIFTH EDITION, the esteemed Windows Pioneer Award winner revises his classic text with authoritative coverage of the latest versions of the Windows operating system—once again drilling down to the essential API heart of Win32 programming. Packed as always with definitive examples, this newest Petzold delivers the ultimate sourcebook and tutorial for Windows programmers at all levels working with Microsoft® Windows 95, Windows 98, or Microsoft Windows NT®. No aspiring or experienced developer can afford to be without it.

Windows Internals - Mark E. Russinovich 2012-03-15

Delve inside Windows architecture and internals—and see how core components work behind the scenes. Led by three renowned internals experts, this classic guide is fully updated for Windows 7 and Windows Server 2008 R2—and now presents its coverage in two volumes. As always, you get critical insider perspectives on how Windows operates. And through hands-on experiments, you'll experience its internal behavior firsthand—knowledge you can apply to improve application design, debugging, system performance, and support. In Part 1, you will:

Understand how core system and management mechanisms work—including the object manager, synchronization, Wow64, Hyper-V, and the registry Examine the data structures and activities behind processes, threads, and jobs Go inside the Windows security model to see how it manages access, auditing, and authorization Explore the Windows networking stack from top to bottom—including APIs, BranchCache, protocol and NDIS drivers, and layered services Dig into internals hands-on using the kernel debugger, performance monitor, and other tools [The Leprechauns of Software Engineering](#) - Laurent Bossavit 2015-06-28

The software profession has a problem, widely recognized but which nobody seems willing to do anything about; a variant of the well known "telephone game", where some trivial rumor is repeated from one person to the next until it has become distorted beyond recognition and blown up out of all proportion. Unfortunately, the objects of this telephone game are generally considered cornerstone truths of the discipline, to the point that their acceptance now seems to hinder further progress. This book takes a look at some of those "ground truths" the claimed 10x variation in productivity between developers; the "software crisis"; the cost-of-change curve; the "cone of uncertainty"; and more. It assesses the real weight of the evidence behind these ideas - and confronts the scary prospect of moving the state of the art forward in a discipline that has had the ground kicked from under it.

Dependency Injection In .Net - Mark Seemann

Dependency Injection in .NET is a comprehensive guide than 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.

[Hands-On Design Patterns with Swift](#) - Florent Vilmart

2018-12-24

From learning about the most sought-after design patterns to a comprehensive coverage of architectural patterns and code testing, this book is all you need to write clean, reusable code. Key Features: Write clean, reusable and maintainable code, and make the most of the latest Swift version. Analyze case studies of some of the popular open source projects and give your workflow a huge boost. Choose patterns such as MVP, MVC, and MVVM depending on the application being built. Book Description: Swift keeps gaining traction not only amongst Apple developers but also as a server-side language. This book demonstrates how to apply design patterns and best practices in real-life situations, whether that's for new or already existing projects. You'll begin with a quick refresher on Swift, the compiler, the standard library, and the foundation, followed by the Cocoa design patterns - the ones at the core of many Cocoa libraries - to follow up with the creational, structural, and behavioral patterns as defined by the GoF. You'll get acquainted with application architecture, as well as the most popular architectural design patterns, such as MVC and MVVM, and learn to use them in the context of Swift. In addition, you'll walk through dependency injection and functional reactive programming. Special emphasis will be given to techniques to handle concurrency, including callbacks, futures and promises, and reactive programming. These techniques will help you adopt a test-driven approach to your workflow in order to use Swift Package Manager and integrate the framework into the original code base, along with Unit and UI testing. By the end of the book, you'll be able to build applications that are scalable, faster, and easier to maintain. What you will learn: Work efficiently with Foundation and Swift Standard library. Understand the most critical GoF patterns and use them efficiently. Use Swift 4.2 and its unique capabilities (and limitations) to implement and improve GoF patterns. Improve your application architecture and optimize for maintainability and performance. Write efficient and clean concurrent programs using futures and promises, or reactive programming techniques. Use Swift Package Manager to refactor your program into reusable components. Leverage testing and other techniques for writing robust code. Who this book is for: This book is for intermediate developers who want to apply design patterns with Swift to structure and scale their applications. You are expected to have basic knowledge of iOS and Swift.

Working Effectively with Legacy Code - Michael Feathers
2004-09-22

Get more out of your legacy systems: more performance, functionality, reliability, and manageability. Is your code easy to change? Can you get nearly instantaneous feedback when you do change it? Do you understand it? If the answer to any of these questions is no, you have legacy code, and it is draining time and money away from your development efforts. In this book, Michael Feathers offers start-to-finish strategies for working more

effectively with large, untested legacy code bases. This book draws on material Michael created for his renowned Object Mentor seminars: techniques Michael has used in mentoring to help hundreds of developers, technical managers, and testers bring their legacy systems under control. The topics covered include: Understanding the mechanics of software change: adding features, fixing bugs, improving design, optimizing performance. Getting legacy code into a test harness. Writing tests that protect you against introducing new problems. Techniques that can be used with any language or platform—with examples in Java, C++, C, and C#. Accurately identifying where code changes need to be made. Coping with legacy systems that aren't object-oriented. Handling applications that don't seem to have any structure. This book also includes a catalog of twenty-four dependency-breaking techniques that help you work with program elements in isolation and make safer changes.

Advanced iOS App Architecture (Third Edition) - Josh Berlin
2020-09

Apply Different Architectures to Your Codebase! Advanced iOS App Architecture guides you through building one real-world app written in different architectures to give you hands-on and practical experience working in different architectures. This book will also guide you through the theory you need to gain a solid foundation of architecture concepts so that you can make your own informed decisions on how to use them in your codebase. Who This Book Is For: This book is for intermediate iOS developers who already know the basics of iOS and are looking to build apps using defined architectures, making apps cleaner and easier to maintain. Topics Covered in Advanced iOS App Architecture: Navigating Architecture Topics: Learn the theory behind various architectures to help inform which works best for you in different situations you may face. Managing Dependencies: Learn how to manage dependencies both internally and externally within your app. MVVM Architecture: Explore the history of the MVVM architecture and begin building KOOBER - the book's project app - using MVVM principles. Redux Architecture: Explore the history of the Redux architecture and continue building KOOBER using Redux principles. Elements Architecture: Explore the history of the Elements architecture and continue building KOOBER using Elements principles. SwiftUI: Explore SwiftUI and find out how to adapt existing application architectures for use with SwiftUI. After reading this book, you'll have the knowledge to decide which types of architecture components suit your apps and you'll have a deep understanding of the covered architectures. About the iOS Architecture Team: The architecture team is a group of seasoned developers who work for large multi-national companies who deal with large and diverse code bases on a daily basis. The knowledge procured over years of development is now being transferred to you through this book. We hope you enjoy the book and, hopefully, you'll apply some of the architectures you've learned to your own apps.