

Quick Look-up and Advice
Designing, Building, and Deploying Messaging Solutions
your journey to mastery, 20th Anniversary Edition
Language Implementation Patterns
Embrace Change

Agile Principles, Patterns, and Practices in C#
The Open Source Perspective

The need to handle increasingly larger data volumes is one factor driving the adoption of a new class of nonrelational “NoSQL” databases. Advocates of NoSQL databases claim they can be used to build systems that are more performant, scale better, and are easier to program. NoSQL Distilled is a concise but thorough introduction to this rapidly emerging technology. Pramod J. Sadalage and Martin Fowler explain how NoSQL databases work and the ways that they may be a superior alternative to a traditional RDBMS. The authors provide a fast-paced guide to the concepts you need to know in order to evaluate whether NoSQL databases are right for your needs and, if so, which technologies you should explore further. The first part of the book concentrates on core concepts, including schemaless data models, aggregates, new distribution models, the CAP theorem, and map-reduce. In the second part, the authors explore architectural and design issues associated with implementing NoSQL. They also present realistic use cases that demonstrate NoSQL databases at work and feature representative examples using Riak, MongoDB, Cassandra, and Neo4j. In addition, by drawing on Pramod Sadalage’s pioneering work, NoSQL Distilled shows how to implement evolutionary design with schema migration: an essential technique for applying NoSQL databases. The book concludes by describing how NoSQL is ushering in a new age of Polyglot Persistence, where multiple data-storage worlds coexist, and architects can choose the technology best optimized for each type of data access.

Would you like to use a consistent visual notation for drawing integration solutions? "Look inside the front cover." Do you want to harness the power of asynchronous systems without getting caught in the pitfalls? "See "Thinking Asynchronously" in the Introduction." Do you want to know which style of application integration is best for your purposes? "See Chapter 2, Integration Styles." Do you want to learn techniques for processing messages concurrently? "See Chapter 10, Competing Consumers and Message Dispatcher." Do you want to learn how you can track asynchronous messages as they flow across distributed systems? "See Chapter 11, Message History and Message Store." Do you want to understand how a system designed using integration patterns can be implemented using Java Web services, .NET message queuing, and a TIBCO-based publish-subscribe architecture? "See Chapter 9, Interlude: Composed Messaging." Utilizing years of practical experience, seasoned experts Gregor Hohpe and Bobby Woolf show how asynchronous messaging has proven to be the best strategy for enterprise integration success. However, building and deploying messaging solutions presents a number of problems for developers. " Enterprise Integration Patterns " provides an invaluable catalog of sixty-five patterns, with real-world solutions that demonstrate the formidable of messaging and help you to design effective messaging solutions for your enterprise. The authors also include examples covering a variety of different integration technologies, such as JMS, MSMQ, TIBCO ActiveEnterprise, Microsoft BizTalk, SOAP, and XSL. A case study describing a bond trading system illustrates the patterns in practice, and the book offers a look at emerging standards, as well as insights into what the future of enterprise integration might hold. This book provides a consistent vocabulary and visual notation framework to describe large-scale integration solutions across many technologies. It also explores in detail the advantages and limitations of asynchronous messaging architectures. The authors present practical advice on designing code that connects an application to a messaging system, and provide extensive information to help you determine when to send a message, how to route it to the proper destination, and how to monitor the health of a messaging system. If you want to know how to manage, monitor, and maintain a messaging system once it is in use, get this book. 0321200683B09122003

Write clean code that works with the help of this groundbreaking software method. Example-driven teaching is the basis of Beck's step-by-step instruction that will have readers using TDD to further their projects.

Users can dramatically improve the design, performance, and manageability of object-oriented code without altering its interfaces or behavior. "Refactoring" shows users exactly how to spot the best opportunities for refactoring and exactly how to do it, step by step.

From Journeyman to Master
Design Principles and Patterns
Analysis Patterns
Effective Teamwork, Practical Integration
Designing, Implementing and Using Domain-specific Languages
Concurrent Programming in Java
Java Design Patterns

How do successful agile teams deliver bug-free, maintainable software—iteration after iteration? The answer is: By seamlessly combining development and testing. On such teams, the developers write testable code that enables them to verify it using various types of automated tests. This approach keeps regressions at bay and prevents “testing crunches”—which otherwise may occur near the end of an iteration—from ever happening. Writing testable code, however, is often difficult, because it requires knowledge and skills that cut across multiple disciplines. In Developer Testing, leading test expert and mentor Alexander Tarlinder presents concise, focused guidance for making new and legacy code far more testable. Tarlinder helps you answer questions like: When have I tested this enough? How many tests do I need to write? What should my tests verify? You'll learn how to design for testability and utilize techniques like refactoring, dependency breaking, unit testing, data-driven testing, and test-driven development to achieve the highest possible confidence in your software. Through practical examples in Java, C#, Groovy, and Ruby, you'll discover what works—and what doesn't. You can quickly begin using Tarlinder's technology-agnostic insights with most languages and toolsets while not getting buried in specialist details. The author helps you adapt your current programming style for testability, make a testing mindset “second nature,” improve your code, and enrich your day-to-day experience as a software professional. With this guide, you will Understand the discipline and vocabulary of testing from the developer's standpoint Base developer tests on well-established testing techniques and best practices Recognize code constructs that impact testability Effectively name, organize, and execute unit tests Master the essentials of classic and “mockist-style” TDD Leverage test doubles with or without mocking frameworks Capture the benefits of programming by contract, even without runtime support for contracts Take control of dependencies between classes, components, layers, and tiers Handle combinatorial explosions of test cases, or scenarios requiring many similar tests Manage code duplication when it can't be eliminated Actively maintain and improve your test suites Perform more advanced tests at the integration, system, and end-to-end levels Develop an understanding for how the organizational context influences quality assurance Establish well-balanced and effective testing strategies suitable for agile teams

A complete practitioner's catalog of proven domain services design solutions that can help any organization leverage SOA's full benefits * *Provides a vocabulary of proven SOA design solutions, with concrete examples and code that is easy for architects to adapt and implement. *By Rob Daigneau, one of the industry's leading experts in complex systems integration. *Helps architects and IT leaders accurately set stakeholder expectations for major SOA initiatives. Service-oriented architectures are typically called upon to deliver two general categories of services: enterprise services and domain services. Enterprise services are essentially composite services that typically leverage technologies such as message-oriented middleware. Domain services are the building blocks these composites depend upon. Each service category is best served by a distinct set of design solutions. This is the first book to systematically identify and explain best practice patterns for domain services. Rob Daigneau expands upon the Service Layer concept (covered expertly by Fowler in Patterns of Enterprise Application Architecture) domain services can be used with Enterprise Integration Patterns (made famous by Hohpe and Woolf). Daigneau begins by reviewing SOA concepts, illuminating the distinctions between enterprise and domain services, and identifying key relationships between domain services and other pattern groups. Next, he introduces each essential pattern for creating and delivering domain services, providing a vocabulary of design solutions that architects and other IT professionals can implement by referencing and adapting the concrete examples he supplies.

"This remarkable book combines practical advice, ready-to-use techniques, and a deep understanding of why this is the right way to develop software. I have seen software teams transformed by the ideas in this book." --Mike Cohn, author of Agile Estimating and Planning "As a lean practitioner myself, I have loved and used their first book for years. When this second book came out, I was delighted that it was even better. If you are interested in how lean principles can be useful for software development organizations, this is the book you are looking for. The Poppendiecks offer a beautiful blend of history, theory, and practice." --Alan Shalloway, coauthor of Design Patterns Explained "I've enjoyed reading the book very much. I feel it might even be better than the first lean book by Tom and Mary, while that one was already exceptionally good! Mary especially has a lot of knowledge related to lean techniques in product development and manufacturing. It's rare that these techniques are actually translated to software. This is something no other book does well (except their first book)." --Bas Vodde "The new book by Mary and Tom Poppendieck provides a well-written and comprehensive introduction to lean principles and selected practices for software managers and engineers. It illustrates the application of the values and practices with well-suited success stories. I enjoyed reading it." --Roman Pichler "In Implementing Lean Software Development, the Poppendiecks explore more deeply the themes they introduced in Lean Software Development. They begin with a compelling history of lean thinking, then move to key areas such as value, waste, and people. Each chapter includes exercises to help you apply key points. If you want a better understanding of how lean ideas can work with software, this book is for you." --Bill Wake, independent consultant In 2003, Mary and Tom Poppendieck's Lean Software Development introduced breakthrough development techniques that leverage Lean principles to deliver unprecedented agility and value. Now their widely anticipated sequel and companion guide shows exactly how to implement Lean software development, hands-on. This new book draws on the Poppendiecks' unparalleled experience helping development organizations optimize the entire software value stream. You'll discover the right questions to ask, the key issues to focus on, and techniques proven to work. The authors present case studies from leading-edge software organizations, and offer practical exercises for jumpstarting your own Lean initiatives. Managing to extend, nourish, and leverage agile practices Building true development teams, not just groups Driving quality through rapid feedback and detailed discipline Making decisions Just-in-Time, but no later Delivering fast: How PatientKeeper delivers 45 rock-solid releases per year Making tradeoffs that really satisfy customers Implementing Lean Software Development is indispensable to anyone who wants more effective development processes—managers, project leaders, senior developers, and architects in enterprise IT and software companies alike.

Summary SOA Patterns provides architectural guidance through patterns and antipatterns. It shows you how to build real SOA services that feature flexibility, availability, and scalability. Through an extensive set of patterns, this book identifies the major SOA pressure points and provides reusable techniques to address them. Each pattern pairs the classic problem/solution format with a unique technology map, showing where specific solutions fit into the general pattern. About the Technology The idea of service-oriented architecture is an easy one to grasp and yet developers and enterprise architects often struggle with implementation issues. Here are some of them: How to get high availability and high performance How to know a service has failed How to create reports when data is scattered within multiple services How to make loose coupling looser How to solve authentication and authorization for service consumers How to integrate SOA and the UI About the Book SOA Patterns provides detailed, technology-neutral solutions to these challenges, and many others, using plain language. You'll understand the design patterns that promote and enforce flexibility, availability, and scalability. Each of the 26 patterns uses the classic problem/solution format and a unique technology map to show where specific solutions fit into the general pattern. The book is written for working developers and architects building services and service-oriented solutions. Knowledge of Java or C# 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. Table of Contents PART 1 SOA PATTERNS Solving SOA pains with patterns Foundation structural patterns Patterns for performance, scalability, and availability Security and manageability patterns Message exchange patterns Service consumer patterns Service integration patterns PART 2 SOA IN THE REAL WORLD Service antipatterns Putting it all together—a case study SOA vs. the world

Service Design Patterns
AGILE PRIN PATTS PRACTS C#_1
Software Configuration Management Patterns
Improving the Design of Existing Code
Implementing Lean Software Development
Enterprise Integration Patterns
SOA Patterns

“One of the most significant books in my life.” –Obie Fernandez, Author, The Rails Way “Twenty years ago, the first edition of The Pragmatic Programmer completely changed the trajectory of my career. This new edition could do the same for yours.” –Mike Cohn, Author of Succeeding with Agile, Agile Estimating and Planning, and User Stories Applied “. . . filled with practical advice, both technical and professional, that will serve you and your projects well for years to come.” –Andrea Goulet, CEO, Corgibytes, Founder, LegacyCode.Rocks “. . . lightning does strike twice, and this book is proof.” –VM (Vicky) Brasseur, Director of Open Source Strategy, Juniper Networks The Pragmatic Programmer is one of those rare tech books you'll read, re-read, and read again over the years. Whether you're new to the field or an experienced practitioner, you'll come away with fresh insights each and every time. Dave Thomas and Andy Hunt wrote the first edition of this influential book in 1999 to help their clients create better software and rediscover the joy of coding. These lessons have helped a generation of programmers examine the very essence of software development, independent of any particular language, framework, or methodology, and the Pragmatic philosophy has spawned hundreds of books, screencasts, and audio books, as well as thousands of careers and success stories. Now, twenty years later, this new edition re-examines what it means to be a modern programmer. Topics range from personal responsibility and career development to architectural techniques for keeping your code flexible and easy to adapt and reuse. Read this book, and you'll learn how to: Fight software rot Learn continuously Avoid the trap of duplicating knowledge Write flexible, dynamic, and adaptable code Harness the power of basic tools Avoid programming by coincidence Learn real requirements Solve the underlying problems of concurrent code Guard against security vulnerabilities Build teams of Pragmatic Programmers Take responsibility for your work and career Test ruthlessly and effectively, including property-based testing Implement the Pragmatic Starter Kit Delight your users Written as a series of self-contained sections and filled with classic and fresh anecdotes, thoughtful examples, and interesting analogies, The Pragmatic Programmer illustrates the best approaches and major pitfalls of many different aspects of software development. Whether you're a new coder, an experienced programmer, or a manager responsible for software projects, use these lessons daily, and you'll quickly see improvements in personal productivity, accuracy, and job satisfaction. You'll learn skills and develop habits and attitudes that form the foundation for long-term success in your career. You'll become a Pragmatic Programmer. Register your book for convenient access to downloads, updates, and/or corrections as they become available. See inside book for details.

When carefully selected and used, Domain-Specific Languages (DSLs) may simplify complex code, promote effective communication with customers, improve productivity, and unclog development bottlenecks. In Domain-Specific Languages , noted software development expert Martin Fowler first provides the information software professionals need to decide if and when to utilize DSLs. Then, where DSLs prove suitable, Fowler presents effective techniques for building them, and guides software engineers in choosing the right approaches for their applications. This book's techniques may be utilized with most modern object-oriented languages; the author provides numerous examples in Java and C#, as well as selected examples in Ruby. Wherever possible, chapters are organized to be self-standing, and most reference topics are presented in a familiar patterns format. Armed with this wide-ranging book, developers will have the knowledge they need to make important decisions about DSLs—and, where appropriate, gain the significant technical and business benefits they offer. The topics covered include: How DSLs compare to frameworks and libraries, and when those alternatives are sufficient Using parsers and parser generators, and parsing external DSLs Understanding, comparing, and choosing DSL language constructs Determining whether to use code generation, and comparing code generation strategies Previewing new language workbench tools for creating DSLs 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.

This is the eBook of the printed book and may not include any media, website access codes, or print supplements that may come packaged with the bound book. The Fast, Focused, Practical Guide to Excellence with Scrum The Great ScrumMaster: #ScrumMasterWay is your complete guide to becoming an exceptionally effective ScrumMaster and using Scrum to dramatically improve team and organizational performance. Easy to digest and highly visual, you can read it in a weekend...and use it for an entire career. Drawing on 15 years of pioneering experience implementing Agile and Scrum and helping others do so, Zuzana Sochová guides you step by step through all key facets of success as a ScrumMaster in any context. Sochová reviews the ScrumMaster's responsibilities, introduces her powerful State of Mind model and #ScrumMasterWay approach, and teaches crucial metaskills that every ScrumMaster needs. Learn how to build more effective teams, manage change in Agile environments, and take full advantage of the immensely powerful ScrumMaster toolbox. Throughout, Sochová illuminates each concept with practical, proven examples that show how to move from idea to successful execution. Understand the ScrumMaster's key role in creating high-performance self-organizing teams Master all components of the ScrumMaster State of Mind: teaching/mentoring, removing impediments, facilitation, and coaching Operate effectively as a ScrumMaster at all levels: team,

relationships, and the entire system Sharpen key ScrumMaster cognitive strategies and core competencies Build great teams, and improve teams that are currently dysfunctional Drive deeper change in a safer environment with better support for those affected Make the most of Shu Ha Ri, System Rule, Root Cause Analysis, Impact Mapping, and other ScrumMaster tools Whether you're a long-time Certified ScrumMaster (CSM) or participating in your first Scrum project, this guide will help you leverage world-class insight in all you do and get the outstanding results you're looking for.

Register your product at informit.com/register for convenient access to downloads, updates, and corrections as they become available

Smalltalk Best Practice Patterns

Building Effective Algorithms and Analytics for Hadoop and Other Systems

Leading Lean Software Development

Refactoring

Unlocking Agility

Planning Extreme Programming

Developer Testing

Java developers know that design patterns offer powerful productivity benefits but few books have been specific enough to address their programming challenges. With "Java Design Patterns", there's finally a hands-on guide focused specifically on real-world Java development. The book covers three main categories of design patterns--creational, structural, and behavioral--and the example programs and usef ul variations can be found on the accompanying CD-ROM.

CD-ROM contains cross-referenced code.

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

Practical, Step-by-Step Scrum Techniques for Improving Processes, Actions, and Outcomes The widespread adoption and success of Scrum can be attributed in large part to its perceived intuitiveness and simplicity. But when new Scrum practitioners attempt to apply Scrum theory and high-level approaches in actual projects, they often find it surprisingly difficult. In

Scrum Shortcuts without Cutting Corners, Scrum expert Ilan Goldstein helps you translate the Scrum framework into reality to meet the Scrum challenges your formal training never warned you about. Drawing on his extensive agile experience in a wide range of projects and environments, Goldstein presents thirty proven, flexible shortcuts for optimizing Scrum processes, actions, and outcomes. Each shortcut walks you through applying a Scrum approach to achieve a tangible output. These easy-to-digest, actionable patterns address a broad range of topics including getting started, quality and metrics, team members and roles, managing stakeholders, estimation, continuous improvement and much more. Whatever your role, Scrum Shortcuts without Cutting Corners will help you take your Scrum skills to the next level and achieve better results in any project you participate in.

Code Quality

A New Perspective on Object-Oriented Design

#ScrumMasterWay

Design Patterns

Design Patterns Explained

ATDD by Example

Enterprise Integration Patterns provides an invaluable catalog of sixty-five patterns, with real-world solutions that demonstrate the formidable of messaging and help you to design effective messaging solutions for your enterprise. The authors also include examples covering a variety of different integration technologies, such as JMS, MSMQ, TIBCO ActiveEnterprise, Microsoft BizTalk, SOAP, and XSL. A case study describing a bond trading system illustrates the patterns in practice, and the book offers a look at emerging standards, as well as insights into what the future of enterprise integration might hold. This book provides a consistent vocabulary and visual notation framework to describe large-scale integration solutions across many technologies. It also explores in detail the advantages and limitations of asynchronous messaging architectures. The authors present practical advice on designing code that connects an application to a messaging system, and provide extensive information to help you determine when to send a message, how to route it to the proper destination, and how to monitor the health of a messaging system. If you want to know how to manage, monitor, and maintain a messaging system once it is in use, get this book.

Thoroughly reviewed and eagerly anticipated by the agile community, User Stories Applied offers a requirements process that saves time, eliminates rework, and leads directly to better software. The best way to build software that meets users' needs is to begin with "user stories": simple, clear, brief descriptions of functionality that will be valuable to real users. In User Stories Applied, Mike Cohn provides you with a front-to-back blueprint for writing these user stories and weaving them into your development lifecycle. You'll learn what makes a great user story, and what makes a bad one. You'll discover practical ways to gather user stories, even when you can't speak with your users. Then, once you've compiled your user stories, Cohn shows how to organize them, prioritize them, and use them for planning, management, and testing. User role modeling: understanding what users have in common, and where they differ Gathering stories: user interviewing, questionnaires, observation, and workshops Working with managers, trainers, salespeople and other "proxies" Writing user stories for acceptance testing Using stories to prioritize, set schedules, and estimate release costs Includes end-of-chapter practice questions and exercises User Stories Applied will be invaluable to every software developer, tester, analyst, and manager working with any agile method: XP, Scrum... or even your own home-grown approach.

The definitive resource on domain-specific languages: based on years of real-world experience, relying on modern language workbenches and full of examples. Domain-Specific Languages are programming languages specialized for a particular application domain. By incorporating knowledge about that domain, DSLs can lead to more concise and more analyzable programs, better code quality and increased development speed. This book provides a thorough introduction to DSL, relying on today's state of the art language workbenches. The book has four parts: introduction, DSL design, DSL implementation as well as the role of DSLs in various aspects of software engineering. Part I Introduction: This part introduces DSLs in general and discusses their advantages and drawbacks. It also defines important terms and concepts and introduces the case studies used in the most of the remainder of the book. Part II DSL Design: This part discusses the design of DSLs - independent of implementation techniques. It reviews seven design dimensions, explains a number of reusable language paradigms and points out a number of process-related issues. Part III DSL Implementation: This part provides details about the implementation of DSLs with lots of code. It uses three state-of-the-art but quite different language workbenches: JetBrains MPS, Eclipse Xtend and TU Delft's Spoofox. Part IV DSLs and Software Engineering: This part discusses the use of DSLs for requirements, architecture, implementation and product line engineering, as well as their roles as a developer utility and for implementing business logic. The book is available as a printed version (the one your are looking at) and as a PDF. For details see the book's companion website at <http://dslbook.org>

Practical Guidance and Inspiration for Launching, Sustaining, or Improving Any Agile Enterprise Transformation Initiative As long-time competitive advantages disappear, astute executives and change agents know they must achieve true agile transformation. In Unlocking Agility, Jorgen Hesselberg reveals what works, what doesn't, and how to overcome the daunting obstacles. Distilling 10+ years of experience leading agile transformation in the enterprise, Hesselberg guides you on jumpstarting change, sustaining momentum, and executing superbly on customer commitments as you move forward. He helps you identify appropriate roles for consultants, optimize organizational structures, set realistic expectations, and measure against them. He shares first-hand accounts from pioneering transformation leaders at firms including Intel, Nokia, Salesforce.com, Spotify, and many more. •Balance building the right thing, the right way, at the right speed •Design a holistic transformation strategy using five dimensions of agility: Technology, Organizational Design, People, Leadership, and Culture •Promote agile skills, knowledge, and abilities throughout your workforce •Incorporate powerful leadership models, including Level 5, Teal, and Beyond Budgeting •Leverage business agility metrics to affect norms and change organizational culture •Establish your Agile Working Group, the engine of agile transformation •Define operating models and strategic roadmaps for unlocking agility, and track your progress You already know agile transformation is essential. Now, discover how to customize your strategy, execute on it in your environment, and achieve it.

JUnit Pocket Guide

A Tutorial

An Insider's Guide to Agile Enterprise Transformation

By Example

Test-driven Development

Refactoring to Patterns

Agile Tactics, Tools, & Tips

"One of the great things about the book is the way the authors explain concepts very simply using analogies rather than programming examples--this has been very inspiring for a product I'm working on: an audio-only introduction to OOP and software development." --Bruce Eckel "...I would expect that readers with a basic understanding of object-oriented programming and design would find this book useful, before approaching design patterns completely. Design Patterns Explained complements the existing design patterns texts and may perform a very useful role, fitting between introductory texts such as UML Distilled and the more advanced patterns books." --James Noble Leverage the quality and productivity benefits of patterns--without the complexity! Design Patterns Explained, Second Edition is the field's simplest, clearest, most practical introduction to patterns. Using dozens of updated Java examples, it shows programmers and architects exactly how to use patterns to design, develop, and deliver software far more effectively. You'll start with a complete overview of the fundamental principles of patterns, and the role of object-oriented analysis and design in contemporary software development. Then, using easy-to-understand sample code, Alan Shalloway and James Trott illuminate dozens of today's most useful patterns: their underlying concepts, advantages, tradeoffs, implementation techniques, and pitfalls to avoid. Many patterns are accompanied by UML diagrams. Building on their best-selling First Edition, Shalloway and Trott have thoroughly updated this book to reflect new software design trends, patterns, and implementation techniques. Reflecting extensive reader feedback, they have deepened and clarified coverage throughout, and reorganized content for even greater ease of understanding. New and revamped coverage in this edition includes Better ways to start "thinking in patterns" How design patterns can facilitate agile development using eXtreme Programming and other methods How to use commonality and variability analysis to design application architectures The key role of testing into a patterns-driven development process How to use factories to instantiate and manage objects more effectively The Object-Pool Pattern--a new pattern not identified by the "Gang of Four" New study/practice questions at the end of every chapter Gentle yet thorough, this book assumes no patterns experience whatsoever. It's the ideal "first book" on patterns, and a perfect complement to Gamma's classic Design Patterns. If you're a programmer or architect who wants the clearest possible understanding of design patterns--or if you've struggled to make them work for you--read this book.

With the award-winning book Agile Software Development: Principles, Patterns, and Practices, Robert C. Martin helped bring Agile principles to tens of thousands of Java and C++ programmers. Now .NET programmers have a definitive guide to agile methods with this completely updated volume from Robert C. Martin and Micah Martin, Agile Principles, Patterns, and Practices in C#. This book presents a series of case studies illustrating the fundamentals of Agile development and Agile design, and moves quickly from UML models to real C# code. The introductory chapters lay out the basics of the agile movement, while the later chapters show proven techniques in action. The book includes many source code examples that are also available for download from the authors' Web site. Readers will come away from this book understanding Agile principles, and the fourteen practices of Extreme Programming Spiking, splitting, velocity, and planning iterations and releases Test-driven development, test-first design, and acceptance testing Refactoring with unit testing Pair programming Agile design and design smells The five types of UML diagrams and how to use them effectively Object-oriented package design and design patterns How to put all of it together for a real-world project Whether you are a C# programmer or a Visual Basic or Java programmer learning C#, a software development manager, or a business analyst, Agile Principles, Patterns, and Practices in C# is the first book you should read to understand agile software and how it applies to programming in the .NET Framework.

This innovative book recognizes the need within the object-oriented community for a book that goes beyond the tools and techniques of the typical methodology book. In Analysis Patterns: Reusable Object Models, Martin Fowler focuses on the end result of object-oriented analysis and design--the models themselves. He shares with you his wealth of object modeling experience and his keen eye for identifying repeating problems and transforming them into reusable models. Analysis Patterns provides a catalogue of patterns that have emerged in a wide range of domains including trading, measurement, accounting and organizational relationships. Recognizing that conceptual patterns cannot exist in isolation, the author also presents a series of "support patterns" that discuss how to turn conceptual models into software that in turn fits into an architecture for a large information system. Included in each pattern is the reasoning behind their design, rules for when they should and should not be used, and tips for implementation. The examples presented in this book comprise a cookbook of useful models and insight into the skill of reuse that will improve analysis, modeling and implementation.

Building on their breakthrough bestsellers Lean Software Development and Implementing Lean Software Development, Mary and Tom Poppendieck's latest book shows software leaders and team members exactly how to drive high-value change throughout a software organization--and make it stick. They go far beyond generic implementation guidelines, demonstrating exactly how to make lean work in real projects, environments, and companies. The Poppendiecks organize this book around the crucial concept of frames, the unspoken mental constructs that shape our perspectives and control our behavior in ways we rarely notice. For software leaders and team members, some frames lead to long-term failure, while others offer a strong foundation for success. Drawing on decades of experience, the authors present twenty-four frames that offer a coherent, complete framework for leading lean software development. You'll discover powerful new ways to act as competency leader, product champion, improvement mentor, front-line leader, and even visionary. Systems thinking: focusing on customers, bringing predictability to demand, and revamping policies that cause inefficiency Technical excellence: implementing low-dependency architectures, TDD, and evolutionary development processes, and promoting deeper developer expertise Reliable delivery: managing your biggest risks more effectively, and optimizing both workflow and schedules Relentless improvement: seeing problems, solving problems, sharing the knowledge Great people: finding and growing professionals with purpose, passion, persistence, and pride Aligned leaders: getting your entire leadership team on the same page From the world's number one experts in Lean software development, Leading Lean Software Development will be indispensable to everyone who wants to transform the promise of lean into reality--in enterprise IT and software companies alike.

Domain-Specific Languages

Building Quality into Software

Create Your Own Domain-Specific and General Programming Languages

Implementation Patterns

From Concept to Cash