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TY GARDNER

Continuous Integration
Addison-Wesley Professional
“The book’s use of real-world case study vignettes really does go to the heart of the subject matter. This stuff is real, it has real applicability to real problems, and, as with most things in life, it shows how it all comes down to real money in the final analysis. This book shows you what your peers are doing to drive costs out of integration projects and to build new

applications without re-inventing the entire wheel—just a few new spokes and off you go. This is a good book. Read it.” —Peter Rhys Jenkins, Complex Systems Architect, Candle Corporation “When you get two long-term, acknowledged experts on integration and interoperability together to lay out the current state of the IT universe you expect an immediate return on investment—and this book delivers. It’s common knowledge that 90% of total software lifecycle cost is in maintenance and integration, and that needs to drive IT decision-making. With comprehensive coverage of the integration technology landscape, and clear case studies presented at every turn, this book belongs on every IT manager’s, every system architect’s, and every software developer’s bookshelf.” —Richard Mark Soley, chairman and CEO, Object Management Group “Today’s myriad of integration technologies and alternatives can be daunting. This book presents a framework and process for the evaluation, design, and selection of the appropriate integration technologies to meet your strategic business needs. You will find the templates a particularly useful mechanism to jump-start documentation and drive your decision-making process.” —Ron Zahavi, CIO, Global Business Transformation, Unisys

Global Transformation Team; author of Enterprise Application Integration with CORBA “It is refreshing to read a book that presents a good business approach to the integration challenge facing most business leaders today, while at the same time educating them about the major components of the required technologies and management practices changes required. The narrative, examples, and templates establish a common reference point between the business and the technology organizations. A must-read for senior business leaders challenged with the complexities of business integration, as well as Senior IT Leaders challenged with shrinking budgets and lower tolerances for failures.” —Chuck Papageorgiou, managing partner, Ideasphere “Integration has, and will continue to be, one of the success indicators of any enterprise project. Failing to understand the nuances of integration is a critical mistake managers cannot afford to make.” —Marcia Robinson, author of Services Blueprint: Roadmap for Execution “A much-needed book; it ties together the business and technology aspects of information system implementation, emphasizing best practices for really getting things done. I believe that both the technical and business communities will

benefit from the in-depth material provided in this book." —Dr. Barry Horowitz, professor of systems and information engineering, University of Virginia (former CEO, Mitre Corporation) Integration of applications, information, and business process has become today's #1 IT investment priority. Most enterprise integration books simply explain the technology. This one shows exactly how to apply it. It's a step-by-step roadmap for your entire project—from the earliest exploratory stages through analysis, design, architecture, and implementation. Renowned enterprise integration experts Beth Gold-Bernstein and William Ruh present best practices and case studies that bring their methodology to life. They address every stage from the decision-maker's and implementer's point of view—showing how to align business requirements to specific solutions, systematically reduce risk, and maximize ROI throughout the entire lifecycle. Coverage includes: Supporting strategies, tactics, and business planning: enterprise integration from the business perspective Defining realistic project success indicators and metrics Establishing integration architectures: supporting near-term needs while building reusable infrastructure services for the long-

term Adopting metadata architecture and standards Implementing four essential implementation patterns: application, information, composite, and process integration Understanding service integration and implementing service-oriented architectures Providing organizational structure and governance to support effective integration The authors provide detailed plans and specification templates for application integration projects—both in the book and on the CD-ROM. These projects include identifying business drivers and requirements; establishing strategy; and integrating services, information, process, and applications. Enterprise Integration was written for every member of the integration team: business and IT leaders, strategists, architects, project managers, and technical staff. Regardless of your role, you'll discover where you fit, what to do, and how to drive maximum business value from your next integration project.

Microservices for the Enterprise John Wiley & Sons

"... Contains a catalog of 18 integration patterns, including implementations that use BizTalk Server 2004, Host Integration Server 2004, ASP.NET, Visual Studio .NET, Visio 2003 and the .Net Framework"--Preface.

Beyond Software

Architecture Addison-Wesley Professional An expert guide to solving real business problems using components This groundbreaking book gets developers up to speed on Enterprise JavaBeans, CORBA components, and other cutting edge technologies that are making it easier and cheaper than ever for companies to integrate all of their applications into unified systems to support corporate decision-making. Fred Cummins presents an overview of the integration architecture and then dives right into the details, including communications messaging techniques for integrating application components, the "publish and subscribe" mechanism for linking components and monitoring business activities, using "adapters" to integrate applications, integrating Web services, work-flow management, and he also supplies proven code solutions for an array of problems associated with integrating packaged and custom applications across the enterprise. Companion Web site features source code and updates on the EAI architecture and underlying technologies.

Refactoring to Patterns Springer Science & Business Media 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.

Release It! Pearson Education

"Forewords by Martin Fowler and Ian Robinson"--From front cover.

Design Patterns for Cloud Native Applications O'Reilly Media

Become a professional .NET developer by learning expert techniques for building enterprise-grade applications Key FeaturesExplore the advanced features of C# and .NET 5 to enhance your code and productivityFollow clear and easy instructions for building an end-to-end enterprise applicationLearn how to build scalable web applications and host them on the cloudBook Description .NET Core is one of the most popular programming platforms in the world for an increasingly large community of developers thanks to its excellent cross-platform support. This book will show you how to confidently use the features of .NET 5 with C# 9 to build robust enterprise applications.

Throughout the book, you'll work on creating an enterprise app and adding a key component to the app with each chapter, before ?nally getting it ready for testing and deployment. You'll learn concepts relating to advanced data structures, the Entity Framework Core, parallel programming, and dependency injection. As you progress, you'll cover various authentication and authorization schemes provided by .NET Core to make your apps and APIs secure. Next, you'll build web apps using ASP.NET Core 5 and deploy them on the cloud while working with various cloud components using Azure. The book then shows you how to use the latest Microsoft Visual Studio 2019 and C# 9 to simplify developer tasks, and also explores tips and tricks in Visual Studio 2019 to improve your productivity. Later, you'll discover various testing techniques such as unit testing and performance testing as well as di?erent methods to deploy enterprise apps. By the end of this book, you'll be able to create enterprise apps using the powerful features of .NET 5 and deploy them on the cloud. What you will learnDesign enterprise apps by making the most of the latest features of .NET 5Discover di?erent layers of an app, such as the data layer, API layer, and web layerExplore end-to-end architecture, implement an

enterprise web app using .NET and C# 9, and deploy the app on AzureFocus on the core concepts of web application development such as dependency injection, caching, logging, con?guration, and authentication, and implement them in .NET 5Integrate the new .NET 5 health and performance check APIs with your appUnderstand how .NET 5 works and contribute to the .NET 5 platformWho this book is for If you are a developer, architect, or senior programmer who wants to leverage the features of .NET 5 and the C# language, as well as grasp essential techniques to build your skills, then this C# .NET 5 book is for you. Beginner to intermediate-level knowledge of the .NET framework and C# programming is required to understand the concepts covered in this book more effectively.

Reactive Messaging Patterns with the Actor Model Pearson Education

Job titles like “Technical Architect” and “Chief Architect” nowadays abound in software industry, yet many people suspect that “architecture” is one of the most overused and least understood terms in professional software development. Gorton’s book tries to resolve this dilemma. It concisely describes the essential elements of knowledge and key skills required to be a software architect. The explanations encompass the

essentials of architecture thinking, practices, and supporting technologies. They range from a general understanding of structure and quality attributes through technical issues like middleware components and service-oriented architectures to recent technologies like model-driven architecture, software product lines, aspect-oriented design, and the Semantic Web, which will presumably influence future software systems. This second edition contains new material covering enterprise architecture, agile development, enterprise service bus technologies, RESTful Web services, and a case study on how to use the MeDICi integration framework. All approaches are illustrated by an ongoing real-world example. So if you work as an architect or senior designer (or want to someday), or if you are a student in software engineering, here is a valuable and yet approachable knowledge source for you.

Enterprise Integration

IBM Redbooks

Learn the importance of architectural and design patterns in producing and sustaining next-generation IT and business-critical applications with this guide. About This Book Use patterns to tackle communication, integration, application structure, and more Implement modern design patterns such as microservices to

build resilient and highly available applications Choose between the MVP, MVC, and MVVM patterns depending on the application being built Who This Book Is For This book will empower and enrich IT architects (such as enterprise architects, software product architects, and solution and system architects), technical consultants, evangelists, and experts. What You Will Learn Understand how several architectural and design patterns work to systematically develop multitier web, mobile, embedded, and cloud applications Learn object-oriented and component-based software engineering principles and patterns Explore the frameworks corresponding to various architectural patterns Implement domain-driven, test-driven, and behavior-driven methodologies Deploy key platforms and tools effectively to enable EA design and solutioning Implement various patterns designed for the cloud paradigm In Detail Enterprise Architecture (EA) is typically an aggregate of the business, application, data, and infrastructure architectures of any forward-looking enterprise. Due to constant changes and rising complexities in the business and technology landscapes, producing sophisticated architectures is on the rise. Architectural patterns are gaining a lot of attention these days. The book is

divided in three modules. You'll learn about the patterns associated with object-oriented, component-based, client-server, and cloud architectures. The second module covers Enterprise Application Integration (EAI) patterns and how they are architected using various tools and patterns. You will come across patterns for Service-Oriented Architecture (SOA), Event-Driven Architecture (EDA), Resource-Oriented Architecture (ROA), big data analytics architecture, and Microservices Architecture (MSA). The final module talks about advanced topics such as Docker containers, high performance, and reliable application architectures. The key takeaways include understanding what architectures are, why they're used, and how and where architecture, design, and integration patterns are being leveraged to build better and bigger systems. Style and Approach This book adopts a hands-on approach with real-world examples and use cases.

Kubernetes Patterns

Pragmatic Bookshelf

Salary surveys worldwide regularly place software architect in the top 10 best jobs, yet no real guide exists to help developers become architects. Until now. This book provides the first comprehensive overview of software architecture’s many aspects. Aspiring and

existing architects alike will examine architectural characteristics, architectural patterns, component determination, diagramming and presenting architecture, evolutionary architecture, and many other topics. Mark Richards and Neal Ford—hands-on practitioners who have taught software architecture classes professionally for years—focus on architecture principles that apply across all technology stacks. You'll explore software architecture in a modern light, taking into account all the innovations of the past decade. This book examines: Architecture patterns: The technical basis for many architectural decisions Components: Identification, coupling, cohesion, partitioning, and granularity Soft skills: Effective team management, meetings, negotiation, presentations, and more Modernity: Engineering practices and operational approaches that have changed radically in the past few years Architecture as an engineering discipline: Repeatable results, metrics, and concrete valuations that add rigor to software architecture

The Best Software Writing I Microsoft Press

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.

Enterprise Integration Patterns Simon and Schuster

Summary Spring Integration in Action is a hands-on guide to Spring-based messaging and

integration. After addressing the core messaging patterns, such as those used in transformation and routing, the book turns to the adapters that enable integration with external systems. Readers will explore real-world enterprise integration scenarios using JMS, Web Services, file systems, and email. They will also learn about Spring Integration's support for working with XML. The book concludes with a practical guide to advanced topics such as concurrency, performance, system-management, and monitoring. The book features a foreword by Rod Johnson, Founder of the Spring Network. About the Technology Spring Integration extends the Spring Framework to support the patterns described in Gregor Hohpe and Bobby Woolf's Enterprise Integration Patterns. Like the Spring Framework itself, it focuses on developer productivity, making it easier to build, test, and maintain enterprise integration solutions. About the Book Spring Integration in Action is an introduction and guide to enterprise integration and messaging using the Spring Integration framework. The book starts off by reviewing core messaging patterns, such as those used in transformation and routing. It then drills down into real-world enterprise integration scenarios using JMS, Web Services, filesystems, email, and more. You'll find an emphasis on

testing, along with practical coverage of topics like concurrency, scheduling, system management, and monitoring. This book is accessible to developers who know Java. Experience with Spring and EIP is helpful but not assumed. 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 Realistic examples Expert advice from Spring Integration creators Detailed coverage of Spring Integration 2 features About the Authors Mark Fisher is the Spring Integration founder and project lead. Jonas Partner, Marius Bogoevici, and Iwein Fuld have all been project committers and are recognized experts on Spring and Spring Integration. Table of Contents PART 1 BACKGROUND Introduction to Spring Integration Enterprise integration fundamentals 24 PART 2 MESSAGING Messages and channels Message Endpoints Getting down to business Go beyond sequential processing: routing and filtering Splitting and aggregating messages PART 3 INTEGRATING SYSTEMS Handling messages with XML payloads Spring Integration and the Java Message Service Email-based integration Filesystem integration Spring Integration and web services Chatting and tweeting PART 4 ADVANCED TOPICS

Monitoring and management Managing scheduling and concurrency Batch applications and enterprise integration Scaling messaging applications with OSGi Testing

Spring Integration in Action "O'Reilly Media, Inc."

The current work provides CIOs, software architects, project managers, developers, and cloud strategy initiatives with a set of architectural patterns that offer nuggets of advice on how to achieve common cloud computing-related goals. The cloud computing patterns capture knowledge and experience in an abstract format that is independent of concrete vendor products. Readers are provided with a toolbox to structure cloud computing strategies and design cloud application architectures. By using this book cloud-native applications can be implemented and best suited cloud vendors and tooling for individual usage scenarios can be selected. The cloud computing patterns offer a unique blend of academic knowledge and practical experience due to the mix of authors. Academic knowledge is brought in by Christoph Fehling and Professor Dr. Frank Leymann who work on cloud research at the University of Stuttgart. Practical experience in building cloud applications, selecting cloud vendors, and designing enterprise architecture as a cloud

customer is brought in by Dr. Ralph Retter who works as an IT architect at T-Systems, Walter Schupeck, who works as a Technology Manager in the field of Enterprise Architecture at Daimler AG,and Peter Arbitter, the former head of T Systems' cloud architecture and IT portfolio team and now working for Microsoft.
Voices on Cloud Computing Patterns
Cloud computing is especially beneficial for large companies such as Daimler AG. Prerequisite is a thorough analysis of its impact on the existing applications and the IT architectures. During our collaborative research with the University of Stuttgart, we identified a vendor-neutral and structured approach to describe properties of cloud offerings and requirements on cloud environments. The resulting Cloud Computing Patterns have profoundly impacted our corporate IT strategy regarding the adoption of cloud computing. They help our architects, project managers and developers in the refinement of architectural guidelines and communicate requirements to our integration partners and software suppliers.
Dr. Michael Gorriz – CIO Daimler AG Ever since 2005 T-Systems has provided a flexible and reliable cloud platform with its "Dynamic Services". Today these cloud services cover a huge variety of corporate applications, especially enterprise resource

planning, business intelligence, video, voice communication, collaboration, messaging and mobility services. The book was written by senior cloud pioneers sharing their technology foresight combining essential information and practical experiences. This valuable compilation helps both practitioners and clients to really understand which new types of services are readily available, how they really work and importantly how to benefit from the cloud. Dr. Marcus Hacke – Senior Vice President, T-Systems International GmbH This book provides a conceptual framework and very timely guidance for people and organizations building applications for the cloud. Patterns are a proven approach to building robust and sustainable applications and systems. The authors adapt and extend it to cloud computing, drawing on their own experience and deep contributions to the field. Each pattern includes an extensive discussion of the state of the art, with implementation considerations and practical examples that the reader can apply to their own projects. By capturing our collective knowledge about building good cloud applications and by providing a format to integrate new insights, this book provides an important tool not just for individual practitioners and teams, but for the

cloud computing community at large. Kristof Kloeckner – General Manager,Rational Software, IBMSoftware Group
Designing Distributed Systems Springer Science & Business Media
“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.

Building Microservices
Pearson Deutschland GmbH

Without established design patterns to guide them, developers have had to build distributed systems from scratch, and most of these systems are very unique indeed. Today, the increasing use of containers has paved the way for core distributed system patterns and reusable containerized components. This practical guide presents a collection of repeatable, generic patterns to help make the development of reliable distributed systems far more approachable and efficient. Author Brendan Burns—Director of Engineering at Microsoft Azure—demonstrates how you can adapt existing software

design patterns for designing and building reliable distributed applications. Systems engineers and application developers will learn how these long-established patterns provide a common language and framework for dramatically increasing the quality of your system. Understand how patterns and reusable components enable the rapid development of reliable distributed systems Use the side-car, adapter, and ambassador patterns to split your application into a group of containers on a single machine Explore loosely coupled multi-node distributed patterns for replication, scaling, and communication between the components Learn distributed system patterns for large-scale batch data processing covering work-queues, event-based processing, and coordinated workflows

Essential Software Architecture "O'Reilly Media, Inc."

The penultimate installment in the bestselling French graphic memoir series—hailed as “exquisitely illustrated” and “irresistible”—covering the years of Riad Sattouf’s adolescence, from 1987-1992. In the fourth volume of The Arab of the Future, little Riad has grown into a teenager. In the previous books, his childhood was complicated by the pull of his two cultures—French and Syrian—and his

parents' deteriorating relationship. Now his father, Adbel-Razak, has left to take a job in Saudi Arabia, and after making a pilgrimage to Mecca, turns increasingly towards religion. But after following him from place to place and living for years under the harsh conditions of his impoverished village, Riad's mother Clementine has had enough. Refusing to live in a country where women have no rights, she returns with her children to live in France with her own mother... until Abdel-Razak shows up unexpectedly to drag the family on yet another journey. As the series builds to a climax, we see Riad struggle with problems both universal (bullies at school) and specific (his mother's sudden illness, the judgment of his religious relatives). And as Abdel-Razak returns again to the same fantastical dreams he pursued in previous books, we see him become more and more unhinged, until ultimately he crosses the line from idealism to fanaticism, leading to a dramatic breaking point. Full of the same gripping storytelling and lush visual style for which Sattouf's previous works have won numerous awards, The Arab of the Future 4 continues the saga of the Sattouf family and their peripatetic life in France and the Middle East.

Integration Patterns

"O'Reilly Media, Inc." "Domain-Driven Design" incorporates numerous examples in Java-case studies taken

from actual projects that illustrate the application of domain-driven design to real-world software development.

Designing Microservices Platforms with NATS

Simon and Schuster

A single dramatic software failure can cost a company millions of dollars - but can be avoided with simple changes to design and architecture. This new edition of the best-selling industry standard shows you how to create systems that run longer, with fewer failures, and recover better when bad things happen. New coverage includes DevOps, microservices, and cloud-native architecture. Stability antipatterns have grown to include systemic problems in large-scale systems. This is a must-have pragmatic guide to engineering for production systems. If you're a software developer, and you don't want to get alerts every night for the rest of your life, help is here. With a combination of case studies about huge losses - lost revenue, lost reputation, lost time, lost opportunity - and practical, down-to-earth advice that was all gained through painful experience, this book helps you avoid the pitfalls that cost companies millions of dollars in downtime and reputation. Eighty percent of project life-cycle cost is in production, yet few books address this topic. This updated edition deals with the

production of today's systems - larger, more complex, and heavily virtualized - and includes information on chaos engineering, the discipline of applying randomness and deliberate stress to reveal systematic problems. Build systems that survive the real world, avoid downtime, implement zero-downtime upgrades and continuous delivery, and make cloud-native applications resilient. Examine ways to architect, design, and build software - particularly distributed systems - that stands up to the typhoon winds of a flash mob, a Slashdotting, or a link on Reddit. Take a hard look at software that failed the test and find ways to make sure your software survives. To skip the pain and get the experience...get this book.

Enterprise Integration Patterns

Apress

* Will appeal to the same (large) audience as Joel on Software * Contains exclusive commentary by Joel * Lots of free publicity both because of Joel’s influence in the community and the influence of the contributors

Java Message Service

Lulu.com

Understand the key challenges and solutions around building microservices in the enterprise application environment. This book provides a comprehensive understanding of microservices architectural principles

and how to use microservices in real-world scenarios. Architectural challenges using microservices with service integration and API management are presented and you learn how to eliminate the use of centralized integration products such as the enterprise service bus (ESB) through the use of composite/integration microservices. Concepts in the book are supported with use cases, and emphasis is put on the reality that most of you are implementing in a “brownfield” environment in which you must implement microservices alongside legacy applications with minimal disruption to your business. Microservices for the Enterprise covers state-of-the-art techniques around microservices messaging, service development and description, service discovery, governance, and data management technologies and guides you through the microservices design process. Also included is the importance of organizing services as core versus atomic, composite versus integration, and API versus edge, and how such organization helps to eliminate the use of a central ESB and expose services through an API gateway. What You'll LearnDesign and develop microservices architectures with confidence Put into practice the most modern techniques around messaging

technologies Apply the Service Mesh pattern to overcome inter-service communication challenges Apply battle-tested microservices security patterns to address real-world scenarios Handle API management, decentralized data management, and observability Who This Book Is For Developers and DevOps engineers responsible for implementing applications around a microservices architecture, and architects and analysts who are designing such systems

Cloud Computing Patterns Addison-Wesley

The practice of enterprise application development has benefited from the emergence of many new enabling technologies. Multi-tiered object-oriented platforms, such as Java and .NET, have become commonplace. These new tools and technologies are capable of building powerful applications, but they are not easily implemented. Common failures in enterprise applications often occur because their developers do not understand the architectural lessons that experienced object developers have learned. Patterns of Enterprise Application Architecture is written in direct response to the stiff challenges that face enterprise application developers. The author, noted object-oriented designer Martin Fowler, noticed that despite changes in technology-

-from Smalltalk to CORBA to Java to .NET--the same basic design ideas can be adapted and applied to solve common problems. With the help of an expert group of contributors, Martin distills over forty recurring solutions into patterns. The result is an indispensable handbook of solutions that are applicable to any enterprise application platform. This book is actually two books in one. The first section is a short tutorial on developing enterprise applications, which you can read from start to finish to understand the scope of the book's lessons. The next section, the bulk of the book, is a detailed reference to the patterns themselves. Each pattern provides usage and implementation information, as well as detailed code examples in Java or C#. The entire book is also richly illustrated with UML diagrams to further explain the concepts. Armed with this book, you will have the knowledge necessary to make important architectural decisions about building an enterprise application and the proven patterns for use when building them. The topics covered include · Dividing an enterprise application into layers · The major approaches to organizing business logic · An in-depth treatment of mapping between objects and relational databases · Using Model-View-Controller to organize a Web presentation · Handling concurrency

for data that spans multiple transactions · Designing distributed object interfaces