

## *Richardson Maturity Model Martin Fowler*

Kafka in Action is a practical, hands-on guide to building Kafka-based data pipelines. Filled with real-world use cases and scenarios, this book probes Kafka's most common use cases, ranging from simple logging through managing streaming data systems for message routing, analytics, and more. In systems that handle batch data, streaming data, or fast data, it's important to get your data pipelines right. Apache Kafka is a wicked-fast distributed streaming platform that operates as more than just a persistent log or a flexible message queue. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications.

A strategy and implementation guide for building, deploying, and managing APIs  
Key Features  
Comprehensive, end-to-end guide to business-driven enterprise APIs  
Distills years of experience with API and microservice strategies  
Provides detailed guidance on implementing API-led architectures in any business  
Book Description  
APIs are the cornerstone of modern, agile enterprise systems. They enable access to enterprise services from a wide variety of devices, act as a platform for innovation, and open completely new revenue streams. Enterprise API Management shows how to define the right architecture, implement the right patterns, and define the right organization model for business-driven APIs. Drawing on his experience of developing API and microservice strategies for some of the world's largest companies, Luis Weir explains how APIs deliver value across an enterprise. The book explores the architectural decisions, implementation patterns, and management practices for successful enterprise APIs, as well as providing concrete, actionable advice on choosing and executing the right API strategy in your enterprise. With a relentless focus on creating business value, Luis Weir reveals an effective method for planning, building, and running business products and services with APIs. What you will learn  
Create API strategies to deliver business value  
Monetize APIs, promoting them through public marketplaces and directories  
Develop API-led architectures, applying best practice architecture patterns  
Choose between REST, GraphQL, and gRPC-style API architectures  
Manage APIs and microservices through the complete life cycle  
Deploy APIs and business products, as well as Target Operating Models  
Lead product-based organizations to embrace DevOps and focus on delivering business capabilities  
Who this book is for  
Architects, developers, and technology executives who want to deliver successful API strategies that bring business value.

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, simpler, 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, 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.

API Design for C++ provides a comprehensive discussion of Application Programming Interface (API) development, from initial design through implementation, testing, documentation, release, versioning, maintenance, and deprecation. It is the only book that teaches the strategies of C++ API development, including interface design, versioning, scripting, and plug-in extensibility. Drawing from the author's experience on large scale, collaborative software projects, the book offers practical techniques of API design that produce robust code for the long term. It presents patterns and practices that provide real value to individual developers as well as organizations. API Design for C++ explores often overlooked issues, both technical and non-technical, contributing to successful design decisions that produce high quality, robust, and long-lived APIs. It focuses on various API styles and patterns that will allow you to produce elegant and durable libraries. A discussion on testing strategies concentrates on automated API testing techniques rather than attempting to include end-user application testing techniques such as GUI testing, system testing, or manual testing. Each concept is illustrated with extensive C++ code examples, and fully functional examples and working source code for experimentation are available online. This book will be helpful to new programmers who understand the fundamentals of C++ and who want to advance their design skills, as well as to senior engineers and software architects seeking to gain new expertise to complement their existing talents. Three specific groups of readers are targeted: practicing software engineers and architects, technical managers, and students and educators. The only book that teaches the strategies of C++ API development, including design, versioning, documentation, testing, scripting, and extensibility. Extensive code examples illustrate each concept, with fully functional examples and working source code for experimentation available online. Covers various API styles and patterns with a focus on practical and efficient designs for large-scale long-term projects.

Research into the next generation of service architecture techniques has enabled the design, development, and implementation of dynamic, adaptive, and autonomic services to enable enterprises to efficiently align information technology with the

agile business requirements and foster smart services and seamless enterprise integration. Handbook of Research on Architectural Trends in Service-Driven Computing explores, delineates, and discusses recent advances in architectural methodologies and development techniques in service-driven computing. This comprehensive publication is an inclusive reference source for organizations, researchers, students, enterprise and integration architects, practitioners, software developers, and software engineering professionals engaged in the research, development, and integration of the next generation of computing.

First International Conference, MLN 2018, Paris, France, November 27-29, 2018

Revised Selected Papers

From Empirical Studies to Open Source Artifacts

Pivotal Certified Spring Web Application Developer Exam

Spring Microservices in Action, Second Edition

Fundamental Design Solutions for SOAP/WSDL and RESTful Web Services

Testable Solutions with Arquillian

Unraveling Software Maintenance and Evolution

A step-by-step guide that will help you design, develop, scale, and deploy RESTful

APIs with TypeScript 3 and Node.js Key Features Gain in-depth knowledge of

OpenAPI and Swagger to build scalable web services Explore a variety of test

frameworks and test runners such as Stryker, Mocha, and Chai Create a pipeline by

Dockerizing your environment using Travis CI, Google Cloud Platform, and

GitHubBook Description In the world of web development, leveraging data is the

key to developing comprehensive applications, and RESTful APIs help you to

achieve this systematically. This book will guide you in designing and developing

web services with the power of TypeScript 3 and Node.js. You'll design REST APIs

using best practices for request handling, validation, authentication, and

authorization. You'll also understand how to enhance the capabilities of your APIs

with ODMs, databases, models and views, as well as asynchronous callbacks. This

book will guide you in securing your environment by testing your services and

initiating test automation with different testing approaches. Furthermore, you'll get

to grips with developing secure, testable, and more efficient code, and be able to

scale and deploy TypeScript 3 and Node.js-powered RESTful APIs on cloud

platforms such as the Google Cloud Platform. Finally, the book will help you explore

microservices and give you an overview of what GraphQL can allow you to do. By

the end of this book, you will be able to use RESTful web services to create your

APIs for mobile and web apps and other platforms. What you will learn Explore

various methods to plan your services in a scalable way Understand how to handle

different request types and the response status code Get to grips with securing web

services Delve into error handling and logging your web services for improved

debugging Uncover the microservices architecture and GraphQL Create automated

CI/CD pipelines for release and deployment strategies Who this book is for If you're

a developer who has a basic understanding of REST concepts and want to learn

how to design and develop RESTful APIs, this book is for you. Prior knowledge of

TypeScript will help you make the most out of this book.

This volume contains the Proceedings of The Third International Conference on

Software, Services & Semantic Technologies (S3T) held in Bourgas, Bulgaria on

September 1-3, 2011. It is the third S3T conference in a series of annually

organized events supported by the F7 EU SISTER Project and hosted by Sofia University. The conference is aimed at providing a forum for researchers and practitioners to discuss the latest developments in the area of Software, Services and Intelligent Content and Semantics. The conference sessions and the contents of this volume are structured according to the conference track themes: Intelligent Content and Semantics (10 papers), Knowledge Management, Business Intelligence and Innovation (4 papers), Software and Services (6 papers), and Technology Enhanced Learning (9 papers). The papers published in this volume cover a wide range of topics related to the track themes. Particular emphasis is placed on applying intelligent semantic technologies in educational and professional environments with papers in the areas of Ontologies and Semantic Web Technologies, Web Data and Knowledge, Social Networks Analysis, Information Extraction and Visualisation, Semantic Search and Retrieval, E-learning, and User Modelling and Personalization.

Over 40 recipes for creating cloud-ready Java web applications with Spring MVC  
About This Book Configure Spring MVC to build logic-less controllers that transparently support the most advanced web techniques Build an amazing social and financial application that applies microservices patterns on deployment, self-testability, interoperability, cloud architectures, and scalability Fast-paced, practical guide to learn how to set up Spring MVC to produce REST resources and templates as required by the latest front-end best practices Who This Book Is For If you are an experienced Java developer, with prior experience in web technologies, and want to step up in your career and stay up-to-date or learn more about Spring Web scalability, this book is for you. What You Will Learn Structure your project with Maven and create self-tested, domain-specific deployable web archives Generate templates for a responsive and powerful frontend with AngularJS and Bootstrap Build a high performance stateless RESTful and hypermedia application to support your multiple customer experiences Authenticate over REST with a BASIC authentication scheme and OAuth2; handle roles and permissions Document and publish your REST API using Swagger and Swagger UI Scale your Spring web application Communicate through WebSocket and STOMP messages Provide support to your application and efficiently maintain its business features with a relevant test stack In Detail Spring MVC is a lightweight application framework that comes with a great configuration by default. Being part of the Spring Framework, it naturally extended and supported it with an amazing set of recognizable annotations. External libraries can be plugged in and plugged out. It also possesses a request flow. Complete support of REST web services makes the Spring architecture an extremely consistent choice to support your front-end needs and Internet transformations. From the design of your Maven modules, you will achieve an Enterprise-standard for a stateless REST application based on Spring and Spring MVC with this book. This guide is unique in its style as it features a massive overview of practical development techniques brought together from the Spring ecosystem, the new JEE standards, the JavaScript revolution and Internet of Things. You will begin with the very first steps of Spring MVC's product design. Focused on deployment, viability, and maintainability, you will learn the use of Eclipse, Maven, and Git. You will walk through the separation of concerns driven by the microservices principles. Using Bootstrap and AngularJS, you will develop a responsive front-end, capable of interacting autonomously with a REST API. Later in the book, you will setup the Java Persistence API (JPA) within Spring; learn how to configure your Entities to reflect your domain needs, and discover Spring Data

repositories. You will analyze how Spring MVC responds to complex HTTP requests. You will implement Hypermedia and HATEOAS to guide your customer's stateless conversation with the product and see how a messaging-service based on WebSocket can be configured. Finally you will learn how to set up and organize different levels of automated-tests, including logging and monitoring. Style and approach A comprehensive, recipe-based guide to creating stunning Java apps with Spring MVC as a result of learning and implementing pro-level practices, techniques, and solutions.

This book constitutes the thoroughly refereed proceedings of the 9th Joint International Semantic Technology Conference, JIST 2019, held in Hangzhou, China, in November 2019. The 24 full papers presented were carefully reviewed and selected from 70 submissions. They present applications of semantic technologies, theoretical results, new algorithms and tools to facilitate the adoption of semantic technologies and are organized in topical sections on knowledge graphs; data management; question answering and NLP; ontology and reasoning; government open data; and semantic web for life sciences.

This book constitutes the thoroughly refereed proceedings of the First International Conference on Machine Learning for Networking, MLN 2018, held in Paris, France, in November 2018. The 22 revised full papers included in the volume were carefully reviewed and selected from 48 submissions. They present new trends in the following topics: Deep and reinforcement learning; Pattern recognition and classification for networks; Machine learning for network slicing optimization, 5G system, user behavior prediction, multimedia, IoT, security and protection; Optimization and new innovative machine learning methods; Performance analysis of machine learning algorithms; Experimental evaluations of machine learning; Data mining in heterogeneous networks; Distributed and decentralized machine learning algorithms; Intelligent cloud-support communications, resource allocation, energy-aware/green communications, software defined networks, cooperative networks, positioning and navigation systems, wireless communications, wireless sensor networks, underwater sensor networks.

Patterns, Principles, and Practices of Domain-Driven Design

Designing Fine-Grained Systems

Web Engineering

TORUS 1 - Toward an Open Resource Using Services

Spring MVC: Designing Real-World Web Applications

Aligning Principles, Practices, and Culture

***This book constitutes the refereed proceedings of the 19th International Conference on Web Engineering, ICWE 2019, held in Daejeon, South Korea, in June 2019. The 26 full research papers and 9 short papers presented were carefully reviewed and selected from 106 submissions. Additionally, two demonstrations, four posters, and four contributions to the PhD symposium as well as five tutorials are included in this volume. The papers cover research areas such as Web mining and knowledge extraction, Web big data and Web data analytics, social Web applications and crowdsourcing, Web user interfaces, Web security and privacy, Web programming, Web services and computing, Semantic Web and linked open data applications, and Web application modeling and engineering. The popularity of REST in recent years has led to tremendous growth in***

**almost-RESTful APIs that don't include many of the architecture's benefits. With this practical guide, you'll learn what it takes to design usable REST APIs that evolve over time. By focusing on solutions that cross a variety of domains, this book shows you how to create powerful and secure applications, using the tools designed for the world's most successful distributed computing system: the World Wide Web. You'll explore the concepts behind REST, learn different strategies for creating hypermedia-based APIs, and then put everything together with a step-by-step guide to designing a RESTful Web API. Examine API design strategies, including the collection pattern and pure hypermedia Understand how hypermedia ties representations together into a coherent API Discover how XMDP and ALPS profile formats can help you meet the Web API "semantic challenge" Learn close to two-dozen standardized hypermedia data formats Apply best practices for using HTTP in API implementations Create Web APIs with the JSON-LD standard and other the Linked Data approaches Understand the CoAP protocol for using REST in embedded systems**

**Hands-On RESTful Web Services with TypeScript 3 Design and develop scalable RESTful APIs for your applications Packt Publishing Ltd**

**"There's something for everyone here. . . . You can pick up and read this book and build an industry-standard system in a weekend: It has everything you need to get started with a new project. I also found it helpful in reviewing the structure of existing projects." —Timothy Pratley, developer**

**Developers are discovering the exceptional power of Clojure's functional programming model to quickly solve problems in domains ranging from social networking to Big Data. Clojure is fast and efficient—ideal for rapid prototyping and lean development. And it is highly expressive and extremely extensible, which makes Clojure one of today's leading tools for software innovation. Since it targets the Java Virtual Machine, Clojure also leverages the Java platform's maturity and enormous ecosystem. Clojure Recipes is a wide-ranging, up-to-date "code recipe book" for this increasingly popular language. With practical and self-contained examples, author Julian Gamble illuminates Clojure's key features and best practices, showing how to solve real-world problems one step at a time. Focusing on Clojure 1.7 and higher, Gamble fully reflects recent enhancements that ensure you're getting the most up-to-date code for your project. Gamble first walks you through the essential steps required to set up your Clojure development environment, from setting up the Leiningen build tool to packaging Clojure for Java EE environments. He then shows you how to build both basic and advanced REST servers, before turning to a wide range of increasingly sophisticated applications. In this book you will find Innovative Clojure code for diverse web, security, administration, and development tasks, from log reading and app monitoring to software testing Detailed instructions for using concurrency primitives, writing new DSLs, simplifying cloud database development, and more "Learn by doing" projects, which offer practical experience with Clojurescript, Storm, Pedestal, Datomic, and other advanced tools**

**Coverage of using Clojure with Cascalog 2.0 to write complex Hadoop queries with minimal code The breadth and quality of Gamble's examples make Clojure Recipes uniquely valuable both to developers who are exploring Clojure for the first time and to those already using it in production.**

**Prepare for the Pivotal Certified Spring Web Application Developer exam and learn about Spring MVC DispatcherServlet configuration, Spring MVC programming model essentials, Spring MVC views and form processing, Spring Web Flow essentials, and Spring Web Flow actions and configuration. The Pivotal Certified Spring Web Application Developer Exam: A Study Guide is the ideal preparation for the exam and after reading and using it, you'll be able to pass and become a certified Spring Web Developer. When you become a Pivotal Certified Spring Web Application Developer, you'll receive one of the most valuable credentials available in enterprise Java. Achieving this certification demonstrates your ability to apply Spring's web projects to develop real-world Java web applications and validates your familiarity with Spring Web. A Brief Guide to the Emerging World of Polyglot Persistence Continuous Enterprise Development in Java**

**Thinking Outside the Box**

**Semantic Technology**

**Making Java Groovy**

**Handbook of Research on Architectural Trends in Service-Driven Computing Cloud Computing for Environmental Data**

Summary Making Java Groovy is a practical handbook for developers who want to blend Groovy into their day-to-day work with Java. It starts by introducing the key differences between Java and Groovy—and how you can use them to your advantage. Then, it guides you step-by-step through realistic development challenges, from web applications to web services to desktop applications, and shows how Groovy makes them easier to put into production. About this Book You don't need the full force of Java when you're writing a build script, a simple system utility, or a lightweight web app—but that's where Groovy shines brightest. This elegant JVM-based dynamic language extends and simplifies Java so you can concentrate on the task at hand instead of managing minute details and unnecessary complexity. Making Java Groov is a practical guide for developers who want to benefit from Groovy in their work with Java. It starts by introducing the key differences between Java and Groovy and how to use them to your advantage. Then, you'll focus on the situations you face every day, like consuming and creating RESTful web services, working with databases, and using the Spring framework. You'll also explore the great Groovy tools for build processes, testing, and deployment and learn how to write Groovy-based domain-specific languages that simplify Java development. Written for developers familiar with Java. No Groovy experience required. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. What's Inside Easier Java Closures, builders, and metaprogramming Gradle for builds, Spock for testing Groovy frameworks like Grails and Griffon About the Author Ken Kousen is an independent consultant and trainer specializing in Spring, Hibernate, Groovy, and Grails. Table of Contents PART 1: UP TO SPEED WITH GROOVY Why add Groovy to Java? Groovy by example Code-level integration Using Groovy features in Java PART 2: GROOVY TOOLS Build processes Testing Groovy and Java projects PART 3: GROOVY IN THE REAL WORLD The Spring framework Database access RESTful web services Building and testing web applications

**Learn to rapidly build and deploy cross-platform applications from a single codebase with practical, real-world solutions using the mature Delphi 10.4 programming environment**

**Key Features**

- Implement Delphi's modern features to build professional-grade Windows, web, mobile, and IoT applications and powerful servers
- Become a Delphi code and project guru by learning best practices and techniques for cross-platform development
- Deploy your complete end-to-end application suite anywhere

**Book Description** Delphi is a strongly typed, event-driven programming language with a rich ecosystem of frameworks and support tools. It comes with an extensive set of web and database libraries for rapid application development on desktop, mobile, and internet-enabled devices. This book will help you keep up with the latest IDE features and provide a sound foundation of project management and recent language enhancements to take your productivity to the next level. You'll discover how simple it is to support popular mobile device features such as sensors, cameras, and GPS. The book will help you feel comfortable working with FireMonkey and styles and incorporating 3D user interfaces in new ways. As you advance, you'll be able to build cross-platform solutions that not only look native but also take advantage of a wide array of device capabilities. You'll also learn how to use embedded databases, such as SQLite and InterBase ToGo, synchronizing them with your own custom backend servers or modules using the powerful RAD Server engine. The book concludes by sharing tips for testing and deploying your end-to-end application suite for a smooth user experience. By the end of this book, you'll be able to deliver modern enterprise applications using Delphi confidently. What you will learn

- Discover the latest enhancements in the Delphi IDE
- Overcome the barriers that hold you back from embracing cross-platform development
- Become fluent with FireMonkey controls, styles, LiveBindings, and 3D objects
- Build Delphi packages to extend RAD Server or modularize your applications
- Use FireDAC to get quick and direct access to any data
- Leverage IoT technologies such as Bluetooth and Beacons and learn how to put your app on a Raspberry Pi
- Enable remote apps with backend servers on Windows and Linux through REST APIs
- Develop modules for IIS and Apache web servers

**Who this book is for** This book is for Delphi developers interested in expanding their skillset beyond Windows programming by creating professional-grade applications on multiple platforms, including Windows, Mac, iOS, Android, and back-office servers. You'll also find this book useful if you're a developer looking to upgrade your knowledge of Delphi to keep up with the latest changes and enhancements in this powerful toolset. Some Delphi programming experience is necessary to make the most out of this book.

**Methods for managing complex software construction following the practices, principles and patterns of Domain-Driven Design with code examples in C#**

**This book presents the philosophy of Domain-Driven Design (DDD) in a down-to-earth and practical manner for experienced developers building applications for complex domains. A focus is placed on the principles and practices of decomposing a complex problem space as well as the implementation patterns and best practices for shaping a maintainable solution space. You will learn how to build effective domain models through the use of tactical patterns and how to retain their integrity by applying the strategic patterns of DDD. Full end-to-end coding examples demonstrate techniques for integrating a decomposed and distributed solution space while coding best practices and patterns advise you on how to architect applications for maintenance and scale. Offers a thorough introduction to the philosophy of DDD for professional developers Includes masses of code and examples of concept in action that other books have only covered theoretically Covers the patterns of CQRS, Messaging, REST, Event Sourcing and Event-Driven Architectures Also ideal for Java developers who want to better understand the implementation of DDD**

**Learn a use-case approach for developing Java enterprise applications in a continuously test-driven fashion. With this hands-on guide, authors and JBoss project leaders Andrew Lee Rubinger and Aslak Knutsen show you how to build high-level components, from persistent storage to the user interface, using the Arquillian testing platform and several other JBoss projects and tools. Through the course of the book, you'll build a production-ready software**

conference tracker called GeekSeek, using source code from GitHub. Rubinger and Knutsen demonstrate why testing is the very foundation of development—essential for ensuring that code is consumable, complete, and correct. Bootstrap an elementary Java EE project from start to finish before diving into the full-example application, GeekSeek Use both relational and NoSQL storage models to build and test GeekSeek's data persistence layers Tackle testable business logic development and asynchronous messaging with an SMTP service Expose enterprise services as a RESTful interface, using Java EE's JAX-RS framework Implement OAuth authentication with JBoss's PicketLink identity management service Validate the UI by automating interaction in the browser and reading the rendered page Perform full-scale integration testing on the final deployable archive

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.

unindo práticas para construção de código limpo e implantação que entregue valor ao cliente

API Design for C++

Kafka in Action

Pro Spring Boot

Jornada Java

Challenges in Service Oriented Architecture and Cloud Computing Environments

Hypermedia and Systems Architecture

Microservices can have a positive impact on your enterprise—just ask Amazon and Netflix—but you can fall into many traps if you don't approach them in the right way. This practical guide covers the entire microservices landscape, including the principles, technologies, and methodologies of this unique, modular style of system building. You'll learn about the experiences of organizations around the globe that have successfully adopted microservices. In three parts, this book explains how these services work and what it means to build an application the Microservices Way. You'll explore a design-based approach to microservice architecture with guidance for implementing various elements. And you'll get a set of recipes and practices for meeting practical, organizational, and cultural challenges to microservice adoption. Learn how

microservices can help you drive business objectives Examine the principles, practices, and culture that define microservice architectures Explore a model for creating complex systems and a design process for building a microservice architecture Learn the fundamental design concepts for individual microservices Delve into the operational elements of a microservices architecture, including containers and service discovery Discover how to handle the challenges of introducing microservice architecture in your organization

The four-volume set LNCS 8517, 8518, 8519 and 8520 constitutes the proceedings of the Third International Conference on Design, User Experience, and Usability, DUXU 2014, held as part of the 16th International Conference on Human-Computer Interaction, HCII 2014, held in Heraklion, Crete, Greece in June 2014, jointly with 13 other thematically similar conferences. The total of 1476 papers and 220 posters presented at the HCII 2014 conferences were carefully reviewed and selected from 4766 submissions. These papers address the latest research and development efforts and highlight the human aspects of design and use of computing systems. The papers accepted for presentation thoroughly cover the entire field of Human-Computer Interaction, addressing major advances in knowledge and effective use of computers in a variety of application areas.

The total of 256 contributions included in the DUXU proceedings were carefully reviewed and selected for inclusion in this four-volume set. The 76 papers included in this volume are organized in topical sections on design for the web, design for the mobile experience, design of visual information, design for novel interaction techniques and realities, games and gamification.

Master Java EE design pattern implementation to improve your design skills and your application's architecture

Professional Java EE Design Patterns is the perfect companion for anyone who wants to work more effectively with JavaEE, and the only resource that covers both the theory and application of design patterns in solving real-world problems. The authors guide readers through both the fundamental and advanced features of Java EE 7, presenting patterns throughout, and demonstrating how they are used in day-to-day problem solving. As the most popular programming language in community-driven enterprise software, Java EE provides an API and runtime environment that is a superset of Java SE. Written for the junior and experienced Java EE developer seeking to improve design quality and effectiveness, the book covers areas including: Implementation and problem-solving with design patterns Connection between existing Java SE design patterns and new Java EE concepts Harnessing the power of Java EE in design patterns Individually-based focus that fully

explores each pattern Colorful war-stories showing how patterns were used in the field to solve real-life problems Unlike most Java EE books that simply offer descriptions or recipes, this book drives home the implementation of the pattern to real problems to ensure that the reader learns how the patterns should be used and to be aware of their pitfalls. For the programmer looking for a comprehensive guide that is actually useful in the everyday workflow, Professional Java EE Design Patterns is the definitive resource on the market.

Annotation Over the past 10 years, distributed systems have become more fine-grained. From the large multi-million line long monolithic applications, we are now seeing the benefits of smaller self-contained services. Rather than heavy-weight, hard to change Service Oriented Architectures, we are now seeing systems consisting of collaborating microservices. Easier to change, deploy, and if required retire, organizations which are in the right position to take advantage of them are yielding significant benefits. This book takes an holistic view of the things you need to be cognizant of in order to pull this off. It covers just enough understanding of technology, architecture, operations and organization to show you how to move towards finer-grained systems.

Build straightforward and maintainable APIs to create services that are usable and maintainable. Although this book focuses on distributed services, it also emphasizes how the core principles apply even to pure OOD and OOP constructs. The overall context of Creating Maintainable APIs is to classify the topics into four main areas: classes and interfaces, HTTP REST APIs, messaging APIs, and message payloads (XML, JSON and JSON API as well as Apache Avro). What You Will Learn Use object-oriented design constructs and their APIs Create and manage HTTP REST APIs Build and manage maintainable messaging APIs, including the use of Apache Kafka as a principal messaging hub Handle message payloads via JSON Who This Book Is For Any level software engineers and very experienced programmers.

Aligning Enterprise, System, and Software Architectures

Web Development with Go

Third International Conference on Software, Services & Semantic Technologies S3T 2011

Spring MVC Cookbook

Creating Maintainable APIs

A Study Guide

API Management

"This book presents a closer look at the partnership between service oriented architecture and cloud computing environments while analyzing potential solutions to challenges related to the migration of legacy applications"--Provided by publisher.

The recent explosion of digital media, online networking, and e-commerce has generated great new opportunities for those Internet-savvy individuals who see potential in new technologies and can turn those possibilities into reality. It is vital for such forward-thinking innovators to stay abreast of all the latest technologies. *Web-Based Services: Concepts, Methodologies, Tools, and Applications* provides readers with comprehensive coverage of some of the latest tools and technologies in the digital industry. The chapters in this multi-volume book describe a diverse range of applications and methodologies made possible in a world connected by the global network, providing researchers, computer scientists, web developers, and digital experts with the latest knowledge and developments in Internet technologies.

Take a deep dive into web development using the Go programming language to build web apps and RESTful services to create reliable and efficient software. *Web Development with Go* provides Go language fundamentals and then moves on to advanced web development concepts and successful deployment of Go web apps to the cloud. *Web Development with Go* will teach you how to develop scalable real-world web apps, RESTful services, and backend systems with Go. The book starts off by covering Go programming language fundamentals as a prerequisite for web development. After a thorough understanding of the basics, the book delves into web development using the built-in package, `net/http`. With each chapter you'll be introduced to new concepts for gradually building a real-world web system. The book further shows you how to integrate Go with other technologies. For example, it provides an overview of using MongoDB as a means of persistent storage, and provides an end-to-end REST API sample as well. The book then moves on to demonstrate how to deploy web apps to the cloud using the Google Cloud platform. *Web Development with Go* provides: Fundamentals for building real-world web apps in Go Thorough coverage of prerequisites and practical code examples Demo web apps for attaining a deeper understanding of web development A reference REST API app which can be used to build scalable real-world backend services in Go A thorough demonstration of deploying web apps to the Cloud using the Google Cloud platform Go is a high-performance language while providing greater level of developer productivity, therefore *Web Development with Go* equips you with the necessary skills and knowledge required for effectively building robust and efficient web apps by leveraging the features of Go.

Unleash the power of Spring MVC and build enterprise-grade, lightning-fast web applications About This Book Configure Spring MVC to build logic-less controllers that transparently support the most advanced web techniques Secure your developments with easy-to-write, reliable unit and end-to-end tests Get this fast-paced, practical guide to produce REST resources and templates as required by the latest front-end best practices Who This Book Is For This Learning Path is for Java developers who want to exploit Spring MVC and its features to build web applications. It will help you step up in your career and stay up to date or learn more about Spring's web scalability. What You Will Learn Set up and build standalone and web-based projects using Spring Framework with Maven or Gradle Develop RESTful API applications for XML and JSON data transfers Investigate Spring data access mechanisms with Spring Data Repositories Generate templates for a responsive and powerful front end with AngularJS and Bootstrap Authenticate over REST with a BASIC authentication scheme and OAuth2; handle roles and permissions Communicate through WebSocket and STOMP messages Design complex advanced-level forms and validate the model Create maintainable unit and acceptance tests to secure the apps Deploy the web application to the cloud in a snap In Detail Spring MVC helps you build flexible and loosely coupled web applications. The Spring MVC Framework is designed in such a way that every piece of logic and functionality is highly configurable. This Learning Path aims to make you an expert in designing web applications with Spring MVC 4. In our first module, we'll begin with an introduction to the Spring framework. You'll then learn aspect-oriented programming. Packed with real-world examples,

you'll get an insight into how you can use Spring Expression Language in your applications to make them easier to manage and maintain. In the second module, you'll learn everything you need to build modern Spring-based enterprise web applications. From practical development techniques and useful tools from the wider Spring ecosystem, to the new JEE standards, the impact of JavaScript, and even the Internet of Things, you'll feel confident that you can deploy Spring for an impressive range of creative purposes. In the final module, you'll find out how to take advantage of Spring MVC's advanced features - essential if you are to properly master the framework. To do this you'll investigate the inner mechanics of Spring MVC, and how they tie into to the broader principles that inform many modern web architectures. With further guidance on how to test, secure, and optimize your application, as well as designing RESTful services, you'll very quickly be ready to use Spring in your next web project. This Learning Path combines some of the best that Packt has to offer in one complete, curated package. It includes content from the following Packt products: Spring Essentials by Shameer Kunjumohamed, Hamidreza Sattari Spring MVC Cookbook by Alex Bretet Mastering Spring MVC 4 by Geoffroy Warin Style and approach This is a hands-on, practical guide based on logical modules of the whole Spring framework family, employing a combination of theory and examples with pro-level practices, techniques, and solutions.

Maximize the impact of your assets and business services by providing APIs for developers and other users. The journey described in this book starts with identifying business assets. As part of the API team, you then need to identify and define the requirements of traffic management, security, mediation, and orchestration. You also must define metrics for the analytics to measure the success of the overall API program. API documentation and the ease of developer onboarding also determine the success of the APIs. Finally, monetization of these APIs leads to revenue generation for the enterprise. Author De — an expert in building and managing API solutions — provides enterprise architects, designers, and technologists with insight into the world of APIs and the various technical aspects of building and managing an effective API management solution. API Management: Developing and Managing APIs for your Organization: Introduces the basics of APIs and highlights their value Provides an overview of technologies for building an API management solution and defines the requirements, including how to build a RESTful API Offers design principles for building developer-friendly APIs Explains how to secure your APIs Shows how to use API analytics to measure the success of your APIs Demonstrates how to monetize APIs Finally, API Management touches on various technical nuances of creating, distributing, and managing an API. This book will not only help you learn how to design, build, deploy, and manage an API for an enterprise scale, but also generate revenue for your organization. What You'll Learn Discover the API life cycle Design and develop APIs Implement API security Test your APIs Deploy and monitor your APIs Who This Book Is For Enterprise architects, technology enthusiasts, security architects, and operations specialists.

Essential Skills for Using and Securing Networks

Migrating Legacy Applications: Challenges in Service Oriented Architecture and Cloud Computing Environments

16th International Conference, ICWE 2016, Lugano, Switzerland, June 6-9, 2016. Proceedings Enterprise API Management

Professional Java EE Design Patterns

Design, User Experience, and Usability: User Experience Design for Diverse Interaction Platforms and Environments

REST in Practice

*REST continues to gain momentum as the best method for building Web services, and this down-to-earth book delivers techniques and examples that show how to design and implement integration solutions using the REST architectural style.*

*This book constitutes the refereed proceedings of the 16th International Conference on Web Engineering, ICWE 2016, held in Lugano, Switzerland, in June 2016. The 19 full research papers, 13 short papers, 3 vision papers, 11 demonstrations, 5 posters, 6 PhD Symposium and 4 tutorials presented were carefully reviewed and selected from 120 submissions. The 16th edition of ICWE accepted contributions related to different research areas revolving around Web engineering, including: Web application modelling and engineering, Human computation and crowdsourcing, Web applications composition and mashups, SocialWeb applications, SemanticWeb, and, for the first time, also the Web of Things.*

*Dive into key topics in network architecture and Go, such as data serialization, application level protocols, character sets and encodings. This book covers network architecture and gives an overview of the Go language as a primer, covering the latest Go release. Beyond the fundamentals, Network Programming with Go covers key networking and security issues such as HTTP and HTTPS, templates, remote procedure call (RPC), web sockets including HTML5 web sockets, and more. Additionally, author Jan Newmarch guides you in building and connecting to a complete web server based on Go. This book can serve as both as an essential learning guide and reference on Go networking. What You Will Learn Master network programming with Go Carry out data serialization Use application-level protocols Manage character sets and encodings Deal with HTTP(S) Build a complete Go-based web server Work with RPC, web sockets, and more Who This Book Is For Experienced Go programmers and other programmers with some experience with the Go language.*

*Spring Microservices in Action, Second Edition teaches you to build microservice-based applications using Java and Spring. Summary By dividing large applications into separate self-contained units, Microservices are a great step toward reducing complexity and increasing flexibility. Spring Microservices in Action, Second Edition teaches you how to build microservice-based applications using Java and the Spring platform. This second edition is fully updated for the latest version of Spring, with expanded coverage of API routing with Spring Cloud Gateway, logging with the ELK stack, metrics with Prometheus and Grafana, security with the Hashicorp Vault, and modern deployment practices with Kubernetes and Istio. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Building and deploying microservices can be easy in Spring! Libraries like Spring Boot, Spring Cloud, and Spring Cloud Gateway reduce the boilerplate code in REST-based services. They provide an effective toolbox to get your microservices up and running on both public and private clouds. About the book Spring Microservices in Action, Second Edition teaches you to build microservice-based applications using Java and Spring. You'll start by creating basic services, then move to efficient logging and monitoring. Learn to refactor Java applications with Spring's intuitive tooling, and master API management with Spring Cloud Gateway. You'll even deploy Spring Cloud applications with AWS and Kubernetes. What's inside Microservice design principles and best practices Configuration with Spring Cloud Config and Hashicorp Vault Client-side resiliency with Resilience4j, and Spring Cloud Load Balancer Metrics monitoring with Prometheus and Grafana Distributed tracing with Spring Cloud Sleuth, Zipkin, and*

*ELK Stack About the reader For experienced Java and Spring developers. About the author John Carnell is a senior cloud engineer with 20 years of Java experience. Illary Huaylupo Sánchez is a software engineer with over 13 years of experience. Table of Contents 1 Welcome to the cloud, Spring 2 Exploring the microservices world with Spring Cloud 3 Building microservices with Spring Boot 4 Welcome to Docker 5 Controlling your configuration with the Spring Cloud Configuration Server 6 On service discovery 7 When bad things happen: Resiliency patterns with Spring Cloud and Resilience4j 8 Service routing with Spring Cloud Gateway 9 Securing your microservices 10 Event-driven architecture with Spring Cloud Stream 11 Distributed tracing with Spring Cloud Sleuth and Zipkin 12 Deploying your microservices*

*Research and Evidence in Software Engineering: From Empirical Studies to Open Source Artifacts introduces advanced software engineering to software engineers, scientists, postdoctoral researchers, academicians, software consultants, management executives, doctoral students, and advanced level postgraduate computer science students. This book contains research articles addressing numerous software engineering research challenges associated with various software development-related activities, including programming, testing, measurements, human factors (social software engineering), specification, quality, program analysis, software project management, and more. It provides relevant theoretical frameworks, empirical research findings, and evaluated solutions addressing the research challenges associated with the above-mentioned software engineering activities. To foster collaboration among the software engineering research community, this book also reports datasets acquired systematically through scientific methods and related to various software engineering aspects that are valuable to the research community. These datasets will allow other researchers to use them in their research, thus improving the quality of overall research. The knowledge disseminated by the research studies contained in the book will hopefully motivate other researchers to further innovation in the way software development happens in real practice.*

*Hands-On RESTful Web Services with TypeScript 3*

*9th Joint International Conference, JIST 2019, Hangzhou, China, November 25-27, 2019, Proceedings*

*A Practical, Case-Study Approach*

*Services for a Changing World*

*Research and Evidence in Software Engineering*

*Emerging Research and Opportunities*

*Network Programming with Go*

**> Conteúdo criado por 32 pessoas com grande atuação no mercado e experiências complementares > Prefácios escritos pelos Java Champions Bruno Souza e Edson Yanaga, grandes referências no mundo Java Considerando que as empresas dependem cada vez mais de software para sobreviver e prosperar em um mercado tão competitivo e acelerado, nosso time de organizadores e coautores tem a convicção de que cada leitor será beneficiado em sua carreira com a aplicação deste suprasumo para desenvolvedores**

comprometidos em entregar soluções para seus clientes e sociedade. A Jornada Colaborativa é uma comunidade apaixonada por pessoas e tecnologia que escreve livros unindo experiências diversificadas dos coautores e curadoria dos organizadores selecionados para manter o alto padrão de qualidade. Os royalties dos livros ficam reservados com a editora para ajudar na compra dos exemplares que usamos na Jornada Summit e a receita é doada para instituições carentes (doamos R\$ 137 mil para 12 instituições em 2019 e 2020). Parabenizamos a dedicação dos organizadores e coautores para concretizar esta obra e agradecemos às organizações que apoiam a Jornada Summit para transformar cada vez mais vidas. Antonio Muniz Fundador da Jornada Colaborativa e JornadaCast Bruno Kaufmann e Rodrigo Moutinho Líderes do time organizador e curadoria Coautores: Alison Medeiros Allan Rodrigo Leite André Felipe Joriatti Antonio Muniz Bárbara Cabral da Conceição Bruno Kaufmann Bruno Souza Diego de Medeiros Rocha Dorival Querino Edson Yanaga Eduardo Costa Fábio Braga Gabriela Moraes Jonas Santos Kamila Santos Leonardo de Moura Rocha Lima Luca Fenris Elert Marcelo Henrique Diniz de Araujo Marcos Paulo Otavio Santana Rafael Buzzi de Andrade Raphael Vitorino da Silva Rhuan Henrique Rinaldo Pitzer Júnior Roan Brasil Monteiro Rodrigo Moutinho Rodrigo Sobral Sandro Giacomozzi Silvio Buss Tatiana Escovedo Vitor Vieira Zair Ramos

"This book covers both theoretical approaches and practical solutions in the processes for aligning enterprise, systems, and software architectures"--Provided by publisher.

This book, presented in three volumes, examines environmental disciplines in relation to major players in contemporary science: Big Data, artificial intelligence and cloud computing. Today, there is a real sense of urgency regarding the evolution of computer technology, the ever-increasing volume of data, threats to our climate and the sustainable development of our planet. As such, we need to reduce technology just as much as we need to bridge the global socio-economic gap between the North and South; between universal free access to data (open data) and free software (open source). In this book, we pay particular attention to certain environmental subjects, in order to enrich our understanding of cloud computing. These subjects are: erosion; urban air pollution and atmospheric pollution in Southeast Asia; melting permafrost (causing the accelerated release of soil organic carbon in the atmosphere); alert systems of environmental hazards (such as forest fires, prospective modeling of socio-spatial practices and land use); and web fountains of geographical data. Finally, this book asks the question: in order to find a pattern in the data, how do we move

from a traditional computing model-based world to pure mathematical research? After thorough examination of this topic, we conclude that this goal is both transdisciplinary and achievable.

Quickly and productively develop complex Spring applications and microservices - out of the box - with minimal fuss on things like configurations. This book will show you how to fully leverage the Spring Boot productivity suite of tools and how to apply them through the use of case studies. Pro Spring Boot is your authoritative hands-on practical guide for increasing your Spring Framework-based enterprise Java and cloud application productivity while decreasing development time using the Spring Boot productivity suite of tools. It's a no nonsense guide with case studies of increasing complexity throughout the book. This book is written by Felipe Gutierrez, a Spring expert consultant who works with Pivotal, the company behind the popular Spring Framework. What You Will Learn Write your first Spring Boot application Configure Spring Boot Use the Spring Boot Actuator Carry out web development with Spring Boot Build microservices with Spring Boot Handle databases and messaging with Spring Boot Test and deploy with Spring Boot Extend Spring Boot and its available plug-ins Who This Book Is For Experienced Spring and Java developers seeking increased productivity gains and decreased complexity and development time in their applications and software services.

In today's modernized environment, a growing number of software companies are changing their traditional engineering approaches in response to the rapid development of computing technologies. As these businesses adopt modern software engineering practices, they face various challenges including the integration of current methodologies and contemporary design models and the refactoring of existing systems using advanced approaches. Applications and Approaches to Object-Oriented Software Design: Emerging Research and Opportunities is a pivotal reference source that provides vital research on the development of modern software practices that impact maintenance, design, and developer productivity. While highlighting topics such as augmented reality, distributed computing, and big data processing, this publication explores the current infrastructure of software systems as well as future advancements. This book is ideally designed for software engineers, IT specialists, data scientists, business professionals, developers, researchers, students, and academicians seeking current research on contemporary software engineering methods.

An Architect's Guide to Developing and Managing APIs for Your Organization

## **NoSQL Distilled**

**Expand your Delphi skills to build a new generation of Windows, web, mobile, and IoT applications**

**Building Scalable Web Apps and RESTful Services**

**Third International Conference, DUXU 2014, Held as Part of HCI International 2014, Heraklion, Crete, Greece, June 22-27, 2014, Proceedings, Part II**

**Design and deliver valuable business APIs**

## **RESTful Web APIs**

Software maintenance work is often considered a dauntingly rigid activity - this book proves the opposite: it demands high levels of creativity and thinking outside the box. Highlighting the creative aspects of software maintenance and combining analytical and systems thinking in a holistic manner, the book motivates readers not to blithely follow the beaten tracks of "technical rationality". It delivers the content in a pragmatic fashion using case studies which are woven into long running story lines. The book is organized in four parts, which can be read in any order, except for the first chapter, which introduces software maintenance and evolution and presents a number of case studies of software failures. The "Introduction to Key Concepts" briefly introduces the major elements of software maintenance by highlighting various core concepts that are vital in order to see the forest for the trees. Each such concept is illustrated with a worked example. Next, the "Forward Engineering" part debunks the myth that being fast and successful during initial development is all that matters. To this end, two categories of forward engineering are considered: an inept initial project with a multitude of hard evolutionary phases and an effective initial project with multiple straightforward future increments.

"Reengineering and Reverse Engineering" shows the difficulties of dealing with a typical legacy system, and tackles tasks such as retrofitting tests, documenting a system, restructuring a system to make it amenable for further improvements, etc. Lastly, the "DevOps" section focuses on the importance and benefits of crossing the development versus operation chasm and demonstrates how the DevOps paradigm can turn a loosely coupled design into a loosely deployable solution. The book is a valuable resource for readers familiar with the Java programming language, and with a basic understanding and/or experience of software

construction and testing. Packed with examples for every elaborated concept, it offers complementary material for existing courses and is useful for students and professionals alike.

Applications and Approaches to Object-Oriented Software Design: Emerging Research and Opportunities

Building Microservices

Web-Based Services: Concepts, Methodologies, Tools, and Applications

Machine Learning for Networking

Microservice Architecture

Design and develop scalable RESTful APIs for your applications

Fearless Cross-Platform Development with Delphi