

## Kanban In Action Meap V7 Chapter 1

Summary Scala in Action is a comprehensive tutorial that introduces Scala through clear explanations and numerous hands-on examples. Because Scala is a rich and deep language, it can be daunting to absorb all the new concepts at once. This book takes a "how-to" approach, explaining language concepts as you explore familiar programming challenges that you face in your day-to-day work. About the Technology Scala runs on the JVM and combines object-orientation with functional programming. It's designed to produce succinct, type-safe code, which is crucial for enterprise applications. Scala implements Actor-based concurrency through the amazing Akka framework, so you can avoid Java's messy threading while interacting seamlessly with Java. About this Book Scala in Action is a comprehensive tutorial that introduces the language through clear explanations and numerous hands-on examples. It takes a "how to" approach, explaining language concepts as you explore familiar programming tasks. You'll tackle concurrent programming in Akka, learn to work with Scala and Spring, and learn how to build DSLs and other productivity tools. You'll learn both the language and how to use it. Experience with Java is helpful but not required. Ruby and Python programmers will also find this book accessible. What's Inside A Scala tutorial How to use Java and Scala open source libraries How to use SBT Test-driven development Debugging Updated for Scala 2.10 Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Author Nilanjay Raychaudhuri is a skilled developer, speaker, and an avid polyglot programmer who works with Scala on production systems. Table of Contents PART 1 SCALA: THE BASICS Why Scala? Getting started OOP in Scala Having fun with functional data structures Functional programming PART 2 WORKING WITH SCALA Building web applications in functional style Connecting to a database Building scalable and extensible components Concurrency programming in Scala Building confidence with testing PART 3 ADVANCED STEPS Interoperability between Scala and Java Scalable and distributed applications using Akka

In Math for Programmers you'll explore important mathematical concepts through hands-on coding. Filled with graphics and more than 300 exercises and mini-projects, this book unlocks the door to interesting-and lucrative!-careers in some of today's hottest fields. As you tackle the basics of linear algebra, calculus, and machine learning, you'll master the key Python libraries used to turn them into real-world software applications. Summary To score a job in data science, machine learning, computer graphics, and cryptography, you need to bring strong math skills to the party. Math for Programmers teaches the math you need for these hot careers, concentrating on what you need to know as a developer. Filled with lots of helpful graphics and more than 200 exercises and mini-projects, this book unlocks the door to interesting-and lucrative!-careers in some of today's hottest programming fields. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Skip the mathematical jargon: This one-of-a-kind book uses Python to teach the math you need to build games, simulations, 3D graphics, and machine learning algorithms. Discover how algebra and calculus come alive when you see them in code! About the book In Math for Programmers you'll explore important mathematical concepts through hands-on coding. Filled with graphics and more than 300 exercises and mini-projects, this book unlocks the door to interesting-and lucrative!-careers in some of today's hottest fields. As you tackle the basics of linear algebra, calculus, and machine learning, you'll master the key Python libraries used to turn them into real-world software applications. What's inside Vector geometry for computer graphics Matrices and linear transformations Core concepts from calculus Simulation and optimization Image and audio processing Machine learning algorithms for regression and classification About the reader For programmers with basic skills in algebra. About the author Paul Orland is a programmer, software entrepreneur, and math enthusiast. He is co-founder of Tachyus, a start-up building predictive analytics software for the energy industry. You can find him online at www.paulor.land. Table of Contents 1 Learning math with code PART I - VECTORS AND GRAPHICS 2 Drawing with 2D vectors 3 Ascending to the 3D world 4 Transforming vectors and graphics 5 Computing transformations with matrices 6 Generalizing to higher dimensions 7 Solving systems of linear equations PART 2 - CALCULUS AND PHYSICAL SIMULATION 8 Understanding rates of change 9 Simulating moving objects 10 Working with symbolic expressions 11 Simulating force fields 12 Optimizing a physical system 13 Analyzing sound waves with a Fourier series PART 3 - MACHINE LEARNING APPLICATIONS 14 Fitting functions to data 15 Classifying data with logistic regression 16 Training neural networks

"An Airflow bible. Useful for all kinds of users, from novice to expert." - Rambabu Posa, Sai Aashika Consultancy Data Pipelines with Apache Airflow teaches you how to build and maintain effective data pipelines. A successful pipeline moves data efficiently, minimizing pauses and blockages between tasks, keeping every process along the way operational. Apache Airflow provides a single customizable environment for building and managing data pipelines, eliminating the need for a hodgepodge collection of tools, snowflake code, and homegrown processes. Using real-world scenarios and examples, Data Pipelines with Apache Airflow teaches you how to simplify and automate data pipelines, reduce operational overhead, and smoothly integrate all the technologies in your stack. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Data pipelines manage the flow of data from initial collection through consolidation, cleaning, analysis, visualization, and more. Apache Airflow provides a single platform you can use to design, implement, monitor, and maintain your pipelines. Its easy-to-use UI, plug-and-play options, and flexible Python scripting make Airflow perfect for any data management task. About the book Data Pipelines with Apache Airflow teaches you how to build and maintain effective data pipelines. You'll explore the most common usage patterns, including aggregating multiple data sources, connecting to and from data lakes, and cloud deployment. Part reference and part tutorial, this practical guide covers every aspect of the directed acyclic graphs (DAGs) that power Airflow, and how to customize them for your pipeline's needs. What's inside Build, test, and deploy Airflow pipelines as DAGs Automate moving and transforming data Analyze historical datasets using backfilling Develop custom components Set up Airflow in production environments About the reader For DevOps, data engineers, machine learning engineers, and sysadmins with intermediate Python skills. About the author Bas Harenslak and Julian de Ruyter are data engineers with extensive experience using Airflow to develop pipelines for major companies. Bas is also an Airflow committer. Table of Contents PART 1 - GETTING STARTED 1 Meet Apache Airflow 2 Anatomy of an Airflow DAG 3 Scheduling in Airflow 4 Templating tasks using the Airflow context 5 Defining dependencies between tasks PART 2 - BEYOND THE BASICS 6 Triggering workflows 7 Communicating with external systems 8 Building custom components 9 Testing 10 Running tasks in containers PART 3 - AIRFLOW IN PRACTICE 11 Best practices 12 Operating Airflow in production 13 Securing Airflow 14 Project: Finding the fastest way to get around NYC PART 4 - IN THE CLOUDS 15 Airflow in the clouds 16 Airflow on AWS 17 Airflow on Azure 18 Airflow in GCP

Generate Better, Faster Results— Using Less Capital and Fewer Resources! “[The High-Velocity Edge] contains ideas that form the basis for structured continuous learning and improvement in every aspect of our lives. While this book is tailored to business leaders, it should be read by high school seniors, college students, and those already in the workforce. With the broad societal application of these ideas, we can achieve levels of accomplishment not even imagined by most people.” The Honorable Paul H. O’Neill, former CEO and Chairman, Alcoa, and Former Secretary of the Treasury “Some firms outperform competitors in many ways at once—cost, speed, innovation, service. How? Steve Spear opened my eyes to the secret of systemizing innovation: taking it from the occasional, unpredictable ‘stroke of genius’ to something you and your people do month-in, month-out to outdistance rivals.” Scott D. Cook, founder and Chairman of the Executive Committee, Intuit, Inc. “Steven Spear connects a deep study of systems with practical management insights and does it better than any organizational scholar I know. [This] is a profoundly important book that will challenge and inspire executives in all industries to think more clearly about the technical and social foundations of organizational excellence.” Donald M. Berwick, M.D., M.P.P., President and CEO, Institute for Healthcare Improvement About the Book How can some companies perform so well that their industry counterparts are competitors in name only? Although they operate in the same industry, serve the same market, and even use the same suppliers, these extraordinary, high-velocity organizations consistently outperform all the competition—and, more importantly, continually widen their leads. In The High-Velocity Edge, the reissued edition of five-time Shingo Prize winner Steven J. Spear’s critically acclaimed book Chasing the Rabbit, Spear describes what sets market-dominating companies apart and provides a detailed framework you can leverage to surge to the lead in your own industry. Spear examines the internal operations of dominant organizations across a wide spectrum of industries, from technology to design and from manufacturing to health care. While he investigates several great operational triumphs, like top-tier teaching hospitals’ fantastic improvements in quality of care, Pratt & Whitney’s competitive gains in jet engine design, and the U.S. Navy’s breakthroughs in inventing and applying nuclear propulsion, The High-Velocity Edge is not just about the adoration of success. It also takes a critical look at some of the operational missteps that have humbled even the most reputable and respected of companies and organizations. The decades-long prominence of Toyota, for example, is contrasted with the many factors leading to the automaker’s sweeping 2010 product recalls. Taken together, these multiple perspectives and in-depth case studies show how to: Build a system of “dynamic discovery” designed to reveal operational problems and weaknesses as they arise Attack and solve problems when and where they occur, converting weaknesses into strengths Disseminate knowledge gained from solving local problems throughout the company as a whole Create managers invested in developing everyone’s capacity to continually innovate and improve Whatever kind of company you operate— from technology to fi nance to healthcare— mastery of these four key capabilities will put you on the fast track to operational excellence, where you will generate faster, better results—using less capital and fewer resources. Apply the lessons of Steven J. Spear and gain a high-velocity edge over every competitor in your industry.

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

Continuous Delivery with Jenkins, Kubernetes, and Terraform

Kafka Streams in Action

The High-Velocity Edge: How Market Leaders Leverage Operational Excellence to Beat the Competition

Current Challenges in Pharmacovigilance

Data-Driven Process Discovery and Analysis

A project-based guide

Whenever Bakhtin, in his final decade, was queried about writing his memoirs, he shrugged it off. Unlike many of his Symbolist generation, Bakhtin was not fascinated by his own self-image. This reticence to tell his own story was the point of access for Viktor Duvakin, Mayakovsky scholar, fellow academic, and head of an oral history project, who in 1973 taped six interviews with Bakhtin over twelve hours. They remain our primary source of Bakhtin's personal views: on formative moments in his education and exile, his reaction to the Revolution, his impressions of political, intellectual, and theatrical figures during the first two decades of the twentieth century, and his non-conformist opinions on Russian and Soviet poets and musicians. Bakhtin's passion for poetic language and his insights into music also come as a surprise to readers of his essays on the novel. One remarkable thread running through the conversations is Bakhtin's love of poetry, masses of which he knew by heart in several languages. Mikhail Bakhtin: The Duvakin Interviews, 1973, translated and annotated here from the complete transcript of the tapes, offers a fuller, more flexible image of Bakhtin than we could have imagined beneath his now famous texts. Published by Bucknell University Press. Distributed worldwide by Rutgers University Press. Start thinking about your development pipeline as a mission-critical application. Discover techniques for implementing code-driven infrastructure and CI/CD workflows using Jenkins, Docker, Terraform, and cloud-native services. In Pipeline as Code, you will master: Building and deploying a Jenkins cluster from scratch Writing pipeline as code for cloud-native applications Automating the deployment of Dockerized and Serverless applications Containerizing applications with Docker and Kubernetes Deploying Jenkins on AWS, GCP and Azure Managing, securing and monitoring a Jenkins cluster in production Key principles for a successful DevOps culture Pipeline as Code is a practical guide to automating your development pipeline in a cloud-native, service-driven world. You'll use the latest infrastructure-as-code tools like Packer and Terraform to develop reliable CI/CD pipelines for numerous cloud-native applications. Follow this book's insightful best practices, and you'll soon be delivering software that's quicker to market, faster to deploy, and with less last-minute production bugs. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Treat your CI/CD pipeline like the real application it is. With the Pipeline as Code approach, you create a collection of scripts that replace the tedious web UI wrapped around most CI/CD systems. Code-driven pipelines are easy to use, modify, and maintain, and your entire CI pipeline becomes more efficient because you directly interact with core components like Jenkins, Terraform, and Docker. About the book In Pipeline as Code you'll learn to build reliable CI/CD pipelines for cloud-native applications. With Jenkins as the backbone, you'll programmatically control all the pieces of your pipeline via modern APIs. Hands-on examples include building CI/CD workflows for distributed Kubernetes applications, and serverless functions. By the time you're finished, you'll be able to swap manual UI-based adjustments with a fully automated approach! What's inside Build and deploy a Jenkins cluster on scale Write pipeline as code for cloud-native applications Automate the deployment of Dockerized and serverless applications Deploy Jenkins on AWS, GCP, and Azure Grasp key principles of a successful DevOps culture About the reader For developers familiar with Jenkins and Docker. Examples in Go. About the author Mohamed Labourary is the CTO and co-founder of Crev.work, a Jenkins contributor, and a DevSecOps evangelist. Table of Contents PART 1 GETTING STARTED WITH JENKINS 1 What's CI/CD? 2 Pipeline as code with Jenkins PART 2 OPERATING A SELF-HEALING JENKINS CLUSTER 3 Defining Jenkins architecture 4 Baking machine images with Packer 5 Discovering Jenkins as code with Terraform 6 Deploying HA Jenkins on multiple cloud providers PART 3 HANDS-ON CI/CD PIPELINES 7 Defining a pipeline as code for microservices 8 Running automated tests with Jenkins 9 Building Docker images within a CI pipeline 10 Cloud-native applications on Docker Swarm 11 Dockerized microservices on K8s 12 Lambda-based serverless functions PART 4 MANAGING, SCALING, AND MONITORING JENKINS 13 Collecting continuous delivery metrics 14 Jenkins administration and best practices

Summary Akka in Action is a comprehensive tutorial on building message-oriented systems using Akka. The book takes a hands-on approach, where each new concept is followed by an example that shows you how it works, how to implement the code, and how to (unit) test it. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Akka makes it relatively easy to build applications in the cloud or on devices with many cores that efficiently use the full capacity of the computing power available. It's a toolkit that provides an actor programming model, a runtime, and required support tools for building scalable applications. About the Book Akka in Action shows you how to build message-oriented systems with Akka. This comprehensive, hands-on tutorial introduces each concept with a working example. You'll start with the big picture of how Akka works, and then quickly build and deploy a fully functional REST service out of actors. You'll explore test-driven development and deploying and scaling fault-tolerant systems. After mastering the basics, you'll discover how to model immutable messages, implement domain models, and apply techniques like event sourcing and CQRS. You'll also find a tutorial on building streaming applications using akka-stream and akka-http. Finally, you'll get practical advice on how to customize and extend your Akka system. What's Inside Getting concurrency right Testing and performance tuning Clustered and cloud-based applications Covers Akka version 2.4 About the Reader This book assumes that you're comfortable with Java and Scala. No prior experience with Akka required. About the Authors A software craftsman and architect, Raymond Roestenburg is an Akka committer. Rob Bakker specializes in concurrent back-end systems and systems integration. Rob Williams has more than 20 years of product development experience. Table of Contents Introducing Akka Up and running Test-driven development with actors Fault tolerance Futures Your first distributed Akka app Configuration, logging, and deployment Structural patterns for actors Routing messages Message channels Finite-state machines and agents System integration Streaming Clustering Actor persistence Performance tips Looking ahead

This book constitutes the revised selected papers from the 6th IFIP WG 2.6 International Symposium on Data-Driven Process Discovery and Analysis, SIMPDA 2016, held in Graz, Austria in December 2016. The 5 papers presented in this volume were carefully reviewed and selected from 18 submissions. In this edition, the presentations focused on the adoption of process mining algorithms for continuous monitoring of business process. They underline the most relevant challenges identified and propose novel solutions for their resolution.

SAP is a market leader in enterprise business application software. SAP solutions provide a rich set of composable application modules, and configurable functional capabilities that are expected from a comprehensive enterprise business application software suite. In most cases, companies that adopt SAP software remain heterogeneous enterprises running both SAP and non-SAP systems to support their business processes. Regardless of the specific scenario, in heterogeneous enterprises most SAP implementations must be integrated with a variety of non-SAP enterprise systems: Portals Messaging infrastructure Business process management (BPM) tools Enterprise Content Management (ECM) methods and tools Business analytics (BA) and business intelligence (BI) technologies Security Systems of record Systems of engagement The tooling included with SAP software addresses many needs for creating SAP-centric environments. However, the classic approach to implementing SAP functionality generally leaves the business with a rigid solution that is difficult and expensive to change and enhance. When SAP software is used in a large, heterogeneous enterprise environment, SAP clients face the dilemma of selecting the correct set of tools and platforms to implement SAP functionality, and to integrate the SAP solutions with non-SAP systems. This IBM® Redbooks® publication explains the value of integrating IBM software with SAP solutions. It describes how to enhance and extend pre-built capabilities in SAP software with best-in-class IBM enterprise software, enabling clients to maximize return on investment (ROI) in their SAP investment and achieve a balanced enterprise architecture approach. This book describes IBM Reference Architecture for SAP, a prescriptive blueprint for using IBM software in SAP solutions. The reference architecture is focused on defining the use of IBM software with SAP, and is not intended to address the internal aspects of SAP components. The chapters of this book provide a specific reference architecture for many of the architectural domains that are each important for a large enterprise to establish common strategy, efficiency, and balance. The majority of the most important architectural domain topics, such as integration, process optimization, master data management, mobile access, Enterprise Content Management, business intelligence, DevOps, security, systems monitoring, and so on, are covered in the book. However, there are several other architectural domains which are not included in the book. This is not to imply that these other architectural domains are not important or are less important, or that IBM does not offer a solution to address them. It is only reflective of time constraints, available resources, and the complexity of assembling a book on an extremely broad topic. Although more content could have been added, the authors feel confident that the scope of architectural material that has been included should provide organizations with a fantastic head start in defining their own enterprise reference architecture for many of the important architectural domains, and it is hoped that this book provides great value to those reading it. This IBM Redbooks publication is targeted to the following audiences: Client decision makers and solution architects leading enterprise transformation projects and wanting to gain further insight so that they can benefit from the integration of IBM software in large-scale SAP projects. IT architects and consultants integrating IBM technology with SAP solutions.

Bootstrapping Microservices with Docker, Kubernetes, and Terraform

Python Workout

API Design Patterns

Scala in Action

Think Like a Software Engineer

IBM Software for SAP Solutions

Good Code, Bad Code is a clear, practical introduction to writing code that's a snap to read, apply, and remember. With dozens of instantly-useful techniques, you'll find coding insights that normally take years of experience to master. In this fast-paced guide, Google software engineer Tom Long teaches you a host of rules to apply, along with advice on when to break them!

This book examines reference modeling from different perspectives. It discusses reference modeling languages that provide special modeling language concepts for the development and application of reference models. The book also covers reference modeling methodologies, which additionally provide procedure models for the construction and application of reference models, as well as particular reference models.

"A concept-rich book on API design patterns. Deeply engrossing and fun to read." - Satej Sahu, Honeywell API Design Patterns lays out a set of design principles for building internal and public-facing APIs. In API Design Patterns you will learn: Guiding principles for API patterns Fundamentals of resource layout and naming Handling data types for any programming language Standard methods that ensure predictability

Field masks for targeted partial updates Authentication and validation methods for secure APIs Collective operations for moving, managing, and deleting data Advanced patterns for special interactions and data transformations API Design Patterns reveals best practices for building stable, user-friendly APIs. These design patterns can be applied to solve common API problems and flexibly altered to fit specific needs. Hands-on examples and relevant cases illustrate patterns for API fundamentals, advanced functionalities, and uncommon scenarios. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology APIs are contracts that define how applications, services, and components communicate. API design patterns provide a shared set of best practices, specifications and standards that ensure APIs are reliable and simple for other developers. This book collects and explains the most important patterns from both the API design community and the experts at Google. About the book API Design Patterns lays out a set of principles for building internal and public-facing APIs. Google API expert JJ Geewax presents patterns that ensure your APIs are consistent, scalable, and flexible. You ' ll improve the design of the most common APIs, plus discover techniques for tricky edge cases. Precise illustrations, relevant examples, and detailed scenarios make every pattern clear and easy to understand. What's inside Guiding principles for API patterns Fundamentals of resource layout and naming Advanced patterns for special interactions and data transformations A detailed case-study on building an API and adding features About the reader For developers building web and internal APIs in any language. About the author JJ Geewax is a software engineer at Google, focusing on Google Cloud Platform, API design, and real-time payment systems. He is also the author of Manning ' s Google Cloud Platform in Action. Table of Contents PART 1 INTRODUCTION 1 Introduction to APIs 2 Introduction to API design patterns PART 2 DESIGN PRINCIPLES 3 Naming 4 Resource scope and hierarchy 5 Data types and defaults PART 3 FUNDAMENTALS 6 Resource identification 7 Standard methods 8 Partial updates and retrievals 9 Custom methods 10 Long-running operations 11 Renunnable jobs PART 4 RESOURCE RELATIONSHIPS 12 Singleton sub-resources 13 Cross references 14 Association resources 15 Add and remove custom methods 16 Polymorphism PART 5 COLLECTIVE OPERATIONS 17 Copy and move 18 Batch operations 19 Criteria-based deletion 20 Anonymous writes 21 Pagination 22 Filtering 23 Importing and exporting PART 6 SAFETY AND SECURITY 24 Versioning and compatibility 25 Soft deletion 26 Request deduplication 27 Request validation 28 Resource revisions 29 Request retrial 30 Request authentication

Summary The Art of Unit Testing, Second Edition guides you step by step from writing your first simple tests to developing robust test sets that are maintainable, readable, and trustworthy. You'll master the foundational ideas and quickly move to high-value subjects like mocks, stubs, and isolation, including frameworks such as Moq, FakeItEasy, and Typemock Isolator. You'll explore test patterns and organization, working with legacy code, and even "untestable" code. Along the way, you'll learn about integration testing and techniques and tools for testing databases and other technologies. About this Book You know you should be unit testing, so why aren't you doing it? If you're new to unit testing, if you find unit testing tedious, or if you're just not getting enough payoff for the effort you put into it, keep reading. The Art of Unit Testing, Second Edition guides you step by step from writing your first simple unit tests to building complete test sets that are maintainable, readable, and trustworthy. You'll move quickly to more complicated subjects like mocks and stubs, while learning to use isolation (mocking) frameworks like Moq, FakeItEasy, and Typemock Isolator. You'll explore test patterns and organization, refactor code applications, and learn how to test



OTP Guidebook gets you started writing applications with Elixir and OTP. You'll begin with the immediately comfortable Elixir language syntax, along with just enough functional programming to use it effectively. Then, you'll dive straight into several lighthearted examples that teach you to take advantage of the incredible functionality built into the OTP library. What's Inside Covers Elixir 1.2 and 1.3 Introduction to functional concurrency with actors Experience the awesome power of Erlang and OTP About the Reader Written for readers comfortable with a standard programming language like Ruby, Java, or Python. FP experience is helpful but not required. About the Author Benjamin Tan Wei Hao is a software engineer at Pivotal Labs, Singapore. He is also an author, a speaker, and an early adopter of Elixir. Table of Contents GETTING STARTED WITH ELIXIR AND OTP Introduction A whirlwind tour Processes 101 Writing server applications with GenServer FAULT TOLERANCE, SUPERVISION, AND DISTRIBUTION Concurrent error-handling and fault tolerance with links, monitors, and processes Fault tolerance with Supervisors Completing the worker-pool application Distribution and load balancing Distribution and fault tolerance Dialyzer and type specifications Property-based and concurrency testing

In spite of recent progress in the harmonization of terminology and processes affecting work on the clinical safety of medicines consensus is needed on standards for many difficult aspects of day-to-day pharmacovigilance that continue to pose problems for both the pharmaceutical industry and drug regulators. The CIOMS V Working Group has generated proposals for pragmatic approaches to dealing with such issues as: classification and handling of individual safety case reports from a variety of sources (spontaneous consumer reports solicited reports literature the Internet observational studies and secondary data bases disease and other registries regulatory ADR databases and licensor-licensee interactions); new approaches to case management and regulatory reporting practices (proper clinical evaluation of cases incidental vs other events patient and reporter identifiability seriousness criteria expectedness criteria case follow-up criteria and the role and structure of case narratives); improvements and efficiencies in the format content and reporting of periodic safety update reports (PSURs) (including results of an industry survey on PSUR workloads and practices); proposals for high case volume and long time-period reports simplification of certain PSURs summary bridging reports addendum reports license renewal reports for EU and Japan dealing with old products and other technical details); determination and use of population exposure (denominator) data (sources of data and a guide to analytical approaches for a variety of circumstances).The Group has also taken stock of the current state of expedited and periodic clinical safety reporting requirements around the world with summary data on regulations from more than 60 countries. Recommendations are made for enhancing the harmonization steps already taken as a result of previous CIOMS publications and the ICH process. In addition to dealing with unfinished and unresolved issues from previous CIOMS initiatives the report covers many emerging topics such as those involving new technologies. Its 20 Appendices provide a wealth of detailed explanations and reference information. It is the most comprehensive and recent treatment of difficult pharmacovigilance issues affecting the working practices and systems of drug safety and other pharmaceutical professionals.

Scala in ActionSimon and Schuster

Object Design Style Guide

Best Practices for Experienced Grails Developers

Unit Testing Principles, Practices, and Patterns

What to do when irreconcilable differences, lawyer fees, and your ex's Hollywood wife make you miserable

Data Pipelines with Apache Airflow

Rust in Action

Radically improve your testing practice and software quality with new testing styles, good patterns, and reliable automation. Key Features A practical and results-driven approach to unit testing Refine your existing unit tests by implementing modern best practices Learn the four pillars of a good unit test Safely automate your testing process to save time and money Spot which tests need refactoring, and which need to be deleted entirely Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About The Book Great testing practices maximize your project quality and delivery speed by identifying bad code early in the development process. Wrong tests will break your code, multiply bugs, and increase time and costs. You owe it to yourself—and your projects—to learn how to do excellent unit testing. Unit Testing Principles, Patterns and Practices teaches you to design and write tests that target key areas of your code including the domain model. In this clearly written guide, you learn to develop professional-quality tests and test suites and integrate testing throughout the application life cycle. As you adopt a testing mindset, you'll be amazed at how better tests cause you to write better code. What You Will Learn Universal guidelines to assess any unit test Testing to identify and avoid anti-patterns Refactoring tests along with the production code Using integration tests to verify the whole system This Book Is Written For For readers who know the basics of unit testing. Examples are written in C# and can easily be applied to any language. About the Author Vladimir Khorikov is an author, blogger, and Microsoft MVP. He has mentored numerous teams on the ins and outs of unit testing. Table of Contents: PART 1 THE BIGGER PICTURE 1 | The goal of unit testing 2 | What is a unit test? 3 | The anatomy of a unit test PART 2 MAKING YOUR TESTS WORK FOR YOU 4 | The four pillars of a good unit test 5 | Mocks and test fragility 6 | Styles of unit testing 7 | Refactoring toward valuable unit tests PART 3 INTEGRATION TESTING 8 | Why integration testing? 9 | Mocking best practices 10 | Testing the database PART 4 UNIT TESTING ANTI-PATTERNS 11 | Unit testing anti-patterns

Testing JavaScript Applications teaches you how to implement an automated testing plan for JavaScript-based web applications. Summary Automated testing will help you write high-quality software in less time, with more confidence, fewer bugs, and without constant manual oversight. Testing JavaScript Applications is a guide to building a comprehensive and reliable JS application testing suite, covering both how to write tests and how JS testing tools work under the hood. You'll learn from Lucas de Costa, a core contributor to popular JS testing libraries, as he shares a quality mindset for making testing decisions that deliver a real contribution to your business. You'll benefit from informative explanations and diagrams, easily-transferable code samples, and useful tips on using the latest and most consolidated libraries and frameworks of the JavaScript ecosystem. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Automated testing is essential to delivering good JavaScript applications every time. A complete testing strategy needs to cover functions in isolation, integration between different parts of your code, and correctness from the end user's perspective. This book will teach you how to deliver reliable software quickly and confidently. About the book Testing JavaScript Applications teaches you how to implement an automated testing plan for JavaScript-based web applications. It describes practical testing strategies, covers useful tools and libraries, and explains how to foster a culture of quality. In this clearly-written, example-rich book, you'll explore approaches for both backend and frontend applications and learn how to validate your software much more quickly and reliably. What's inside Unit, end-to-end, and integration testing Managing test cost and complexity Practicing test-driven development Dealing with external dependencies Tools like Jest and Cypress About the reader For junior JavaScript developers. About the author Lucas da Costa is a core maintainer of Chai and Sinon.JS, two of the most popular testing tools in the JavaScript ecosystem, and contributed to numerous other open-source projects, including Jest. Table of Contents PART 1 - TESTING JAVASCRIPT APPLICATIONS 1 An introduction to automated testing 2 What to test and when? Part 2 - WRITING TESTS 3 Testing techniques 4 Testing backend applications 5 Advanced backend testing techniques 6 Testing frontend applications 7 The React testing ecosystem 8 Testing React applications 9 Test-driven development 10 UI-based end-to-end testing 11 Writing UI-based end-to-end tests PART 3 - BUSINESS IMPACT 12 Continuous integration and continuous delivery 13 A culture of quality

Ladybugs, snails, and butterflies! Oh my! This charming introduction to ten garden bugs, paired with friendly text and bold, basic patterns, provides a great high-contrast experience for young developing eyes. Newborns cannot fully recognize colors, so the sharp contrast between black and white patterns and illustrations allows babies to follow along and make connections to the real world, an important building block for communication skills. Using simple greetings like "Hello, bumblebee" and "Good to see you, dragonfly" alongside black-and-white art by Julissa Mora, Hello, Garden Bugs is the perfect board book for babies just beginning to look around and learn about their world. Featured in Omnivorous. Also available: Hello, Baby Animals and Hello, Ocean Friends. Coming soon: Hello, My World.

Learn data science with Python by building five real-world projects! Experiment with card game predictions, tracking disease outbreaks, and more, as you build a flexible and intuitive understanding of data science. In Data Science Bookcamp you will learn: - Techniques for computing and plotting probabilities - Statistical analysis using Scipy - How to organize datasets with clustering algorithms - How to visualize complex multi-variable datasets - How to train a decision tree machine learning algorithm In Data Science Bookcamp you'll test and build your knowledge of Python with the kind of open-ended problems that professional data scientists work on every day. Downloadable data sets and thoroughly-explained solutions help you lock in what you've learned, building your confidence and making you ready for an exciting new data science career. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology A data science project has a lot of moving parts, and it takes practice and skill to get all the code, algorithms, datasets, formats, and visualizations working together harmoniously. This unique book guides you through five realistic projects, including tracking disease outbreaks from news headlines, analyzing social networks, and finding relevant patterns in ad click data. About the book Data Science Bookcamp doesn't stop with surface-level theory and toy examples. As you work through each project, you'll learn how to troubleshoot common problems like missing data, messy data, and algorithms that don't quite fit the model you're building. You'll appreciate the detailed setup instructions and the fully explained solutions that highlight common failure points. In the end, you'll be confident in your skills because you can see the results. What's inside - Web scraping - Organize datasets with clustering algorithms - Visualize complex multi-variable datasets - Train a decision tree machine learning algorithm About the reader For readers who know the basics of Python. No prior data science or machine learning skills required. About the author Leonard Apeltin is the Head of Data Science at Anomaly, where his team applies advanced analytics to uncover healthcare fraud, waste, and abuse. Table of Contents CASE STUDY 1 FINDING THE WINNING STRATEGY IN A CARD GAME 1 Computing probabilities using Python 2 Plotting probabilities using Matplotlib 3 Running random simulations in NumPy 4 Case study 1 solution CASE STUDY 2 ASSESSING ONLINE AD CLICKS FOR SIGNIFICANCE 5 Basic probability and statistical analysis using SciPy 6 Making predictions using the central limit theorem and SciPy 7 Statistical hypothesis testing 8 Analyzing tables using Pandas 9 Case study 2 solution CASE STUDY 3 TRACKING DISEASE OUTBREAKS USING NEWS HEADLINES 10 Clustering data into groups 11 Geographic location visualization and analysis 12 Case study 3 solution CASE STUDY 4 USING ONLINE JOB POSTINGS TO IMPROVE YOUR DATA SCIENCE RESUME 13 Measuring text similarities 14 Dimension reduction of matrix data 15 NLP analysis of large text datasets 16 Extracting text from web pages 17 Case study 4 solution CASE STUDY 5 PREDICTING FUTURE FRIENDSHIPS FROM SOCIAL NETWORK DATA 18 An introduction to graph theory and network analysis 19 Dynamic graph theory techniques for node ranking and social network analysis 20 Network-driven supervised machine learning 21 Training linear classifiers with logistic regression 22 Training nonlinear classifiers with decision tree techniques 23 Case study 5 solution

Dig deeper into Grails architecture and discover how this application framework works its magic. Written by a core developer on the Grails team, this practical guide takes you behind the curtain to reveal the inner workings of its 2.0 feature set. You'll learn best practices for building and deploying Grails applications, including performance, security, scaling, tuning, debugging, and monitoring. Understand how Grails integrates with Groovy, Spring, Hibernate, and other JVM technologies, and learn how to create and use plugins to augment your application's functionality. Once you know how Grails adds behavior by convention, you can solve problems more easily and develop applications more intuitively. Write simpler, more powerful code with the Groovy language Manage persistence in Grails, using Hibernate or a NoSQL datastore Learn how Grails uses Spring's functionality and optional modules Discover how Hibernate handles details for storing and retrieving data Integrate technologies for messaging, mail, creating web services, and other JEE technologies Bypass convention and configure Grails manually Learn a general approach to upgrading applications and plugins Use Grails to develop and deploy IaaS and PaaS applications

Grails in Action

Testing JavaScript Applications

Five real-world Python projects

with examples in C#

Cloud Native Patterns

Kaizen Bursts

*Five Lines of Code teaches refactoring that's focused on concrete rules and getting any method down to five lines or less! There's no jargon or tricky automated-testing skills required, just easy guidelines and patterns illustrated by detailed code samples. In Five Lines of Code you will learn: The signs of bad code Improving code safely, even when you don't understand it Balancing optimization and code generality Proper compiler practices The Extract method, introducing Strategy pattern, and many other refactoring patterns Writing stable code that enables change-by-addition Writing code that needs no comments Real-world practices for great refactoring Improving existing code—refactoring—is one of the most common tasks you'll face as a programmer. Five Lines of Code teaches you clear and actionable refactoring rules that you can apply without relying on intuitive judgements such as “code smells.” Following the author's expert perspective—that refactoring and code smells can be learned by following a concrete set of principles—you'll learn when to refactor your code, what patterns to apply to what problem, and the code characteristics that indicate it's time for a rework. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Every codebase includes mistakes and inefficiencies that you need to find and fix. Refactor the right way, and your code becomes elegant, easy to read, and easy to maintain. In this book, you'll learn a unique approach to refactoring that implements any method in five lines or fewer. You'll also discover a secret most senior devs know: sometimes it's quicker to hammer out code and fix it later! About the book Five Lines of Code is a fresh look at refactoring for developers of all skill levels. In it, you'll master author Christian Clausen's innovative approach, learning concrete rules to get any method down to five lines—or less! You'll learn when to refactor, specific refactoring patterns that apply to most common problems, and characteristics of code that should be deleted altogether. What's inside The signs of bad code Improving code safely, even when you don't understand it Balancing optimization and code generality Proper compiler practices About the reader For developers of all skill levels. Examples use easy-to-read Typescript, in the same style as Java and C#. About the author Christian Clausen works as a Technical Agile Coach, teaching teams how to refactor code. Table of Contents 1 Refactoring refactoring 2 Looking under the hood of refactoring PART 1 LEARN BY REFACTORING A COMPUTER GAME 3 Shatter long function 4 Make type codes work 5 Fuse similar code together 6 Defend the data PART 2 TAKING WHAT YOU HAVE LEARNED INTO THE REAL WORLD 7 Collaborate with the compiler 8 Stay away from comments 9 Love deleting code 10 Never be afraid to add code 11 Follow the structure in the code 12 Avoid optimizations and generality 13 Make bad code look bad 14 Wrapping up*

Summary Angular Development with TypeScript, Second Edition is an intermediate-level tutorial that introduces Angular and TypeScript to developers comfortable with building web applications using other frameworks and tools. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Whether you're building lightweight web clients or full-featured SPAs, Angular is a clear choice. The Angular framework is fast, efficient, and widely adopted. Add the benefits of developing in the statically typed, fully integrated TypeScript language, and you get a programming experience other JavaScript frameworks just can't match. About the Book Angular Development with TypeScript, Second Edition teaches you how to build web applications with Angular and TypeScript. Written in an accessible, lively style, this illuminating guide covers core concerns like state management, data, forms, and server communication as you build a full-featured online auction app. You'll get the skills you need to write type-aware classes, interfaces, and generics with TypeScript, and discover time-saving best practices to use in your own work. What's inside Code samples for Angular 5, 6, and 7 Dependency injection Reactive programming The Angular Forms API About the Reader Written for intermediate web developers familiar with HTML, CSS, and JavaScript. About the Author Yakov Fain and Anton Moiseev are experienced trainers and web application developers. They have coauthored several books on software development. Table of Contents Introducing Angular The main artifacts of an Angular app Router basics Router advanced Dependency injection in Angular Reactive programming in Angular Laying out pages with Flex Layout Implementing component communications Change detection and component lifecycle Introducing the Forms API Validating forms Interacting with servers using HTTP Interacting with servers using the WebSocket protocol Testing Angular applications Maintaining app state with ngx

Summary Grails in Action, Second Edition is a comprehensive introduction to Grails 2 focused on making you super-productive fast. In this totally revised new edition, you'll master Grails 2.3 core skills as you apply TDD techniques to developing a full-scale Twitter clone. Along the way you'll learn the latest single-page web app UI techniques, work with NoSQL backends, integrate with enterprise messaging, and implement a complete RESTful API for your services. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology It may be time for you to stop reconfiguring, rewriting, and recompiling your Java web apps. Grails, a Groovy-powered web framework, hides all that busy work so you can concentrate on what your applications do, not how they're built. In addition to its famously intuitive dev environment and seamless integration with Spring and Hibernate, the new Grails 2.3 adds improved REST support, better protection against attacks from the web, and better dependency resolution. About the Book Grails in Action, Second Edition is a comprehensive introduction to Grails 2. In this totally revised edition you'll master Grails as you apply TDD techniques to a full-scale example (a Twitter clone). Along the way you'll learn single-page web app techniques, work with NoSQL back ends, integrate with enterprise messaging, implement a RESTful API ... and more. No Java or Groovy knowledge is required. Some web development and OOP experience is helpful. What's Inside Covers Grails 2.3 from the ground up Agile delivery and testing using Spock How to use and manage plugins Tips and tricks from the trenches About the Authors There's no substitute for experience: Glen Smith and Peter Ledbrook have been fixtures in the Grails community, contributing code, blogging, and speaking at conferences worldwide, since Grails 0.2. Table of Contents PART 1 INTRODUCING GRAILS Grails in a hurry The Groovy essentials PART 2 CORE GRAILS Modeling the domain 63 Creating the initial UI Retrieving the data you need Controlling application flow Services and data binding Developing tasty forms, views, and layouts PART 3 EVERYDAY GRAILS Building reliable applications Using plugins: just add water Protecting your application Exposing your app to other programs Single-page web applications (and other UI stuff) Understanding Spring and transactions PART 4 ADVANCED GRAILS Understanding events, messaging, and scheduling NoSQL and Grails Beyond compile, test, run Grails in the cloud BONUS ONLINE CHAPTERS Advanced GORM kung fu Developing plugins

GraphQL in Action gives you the tools to get comfortable with the GraphQL language, build and optimize a data API service, and use it in a front-end client application. Summary Reduce bandwidth demands on your APIs by getting only the results you need—all in a single request! The GraphQL query language simplifies interactions with web servers, enabling smarter API queries that can hugely improve the efficiency of data requests. In GraphQL in Action, you'll learn how to bring those benefits to your own APIs, giving your clients the power to ask for exactly what they need from your server, no more, no less. Practical and example-driven, this book teaches everything you need to get started with GraphQL—from design principles and syntax right through to performance optimization. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology GraphQL APIs are fast, efficient, and easy to maintain. They reduce app latency and server cost while boosting developer productivity. This powerful query layer offers precise control over API requests and returns, making apps faster and less prone to error. About the book GraphQL in Action gives you the tools to get comfortable with the GraphQL language, build and

optimize a data API service, and use it in a front-end client application. By working through set up, security, and error handling you'll learn to create a complete GraphQL server. You'll also unlock easy ways to incorporate GraphQL into your existing codebase so you can build simple, scalable data APIs. What's inside Define a GraphQL schema for relational and document databases Implement GraphQL types using both the schema language and object constructor methods Optimize GraphQL resolvers with data caching and batching Design GraphQL fragments that match UI components' data requirements Consume GraphQL API queries, mutations, and subscriptions with and without a GraphQL client library About the reader For web developers familiar with client-server applications. About the author Samer Buna has over 20 years of experience in software development including front-ends, back-ends, API design, and scalability. Table of Contents PART 1- EXPLORING GRAPHQL 1 Introduction to GraphQL 2 Exploring GraphQL APIs 3 Customizing and organizing GraphQL operations PART 2 - BUILDING GRAPHQL APIs 4 Designing a GraphQL schema 5 Implementing schema resolvers 6 Working with database models and relations 7 Optimizing data fetching 8 Implementing mutations PART 3 - USING GRAPHQL APIs 9 Using GraphQL APIs without a client library 10 Using GraphQL APIs with Apollo client

Summary Functional Programming in Scala is a serious tutorial for programmers looking to learn FP and apply it to the everyday business of coding. The book guides readers from basic techniques to advanced topics in a logical, concise, and clear progression. In it, you'll find concrete examples and exercises that open up the world of functional programming. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Functional programming (FP) is a style of software development emphasizing functions that don't depend on program state. Functional code is easier to test and reuse, simpler to parallelize, and less prone to bugs than other code. Scala is an emerging JVM language that offers strong support for FP. Its familiar syntax and transparent interoperability with Java make Scala a great place to start learning FP. About the Book Functional Programming in Scala is a serious tutorial for programmers looking to learn FP and apply it to their everyday work. The book guides readers from basic techniques to advanced topics in a logical, concise, and clear progression. In it, you'll find concrete examples and exercises that open up the world of functional programming. This book assumes no prior experience with functional programming. Some prior exposure to Scala or Java is helpful. What's Inside Functional programming concepts The whys and hows of FP How to write multicore programs Exercises and checks for understanding About the Authors Paul Chiusano and Rúnar Bjarnason are recognized experts in functional programming with Scala and are core contributors to the Scalaz library. Table of Contents PART 1 INTRODUCTION TO FUNCTIONAL PROGRAMMING What is functional programming? Getting started with functional programming in Scala Functional data structures Handling errors without exceptions Strictness and laziness Purely functional state PART 2 FUNCTIONAL DESIGN AND COMBINATOR LIBRARIES Purely functional parallelism Property-based testing Parser combinators PART 3 COMMON STRUCTURES IN FUNCTIONAL DESIGN Monoids Monads Applicative and traversable functors PART 4 EFFECTS AND I/O External effects and I/O Local effects and mutable state Stream processing and incremental I/O

3D graphics, machine learning, and simulations with Python

Pragmatic Approaches

Akka in Action

Hello, Garden Bugs

Growing self-organizing teams

50 ten-minute exercises

**Summary Elastic leadership is a framework and philosophy that can help you as you manage day-to-day and long-term challenges and strive to create the elusive self-organizing team. It is about understanding that your leadership needs to change based on which phase you discover that your team is in. This book provides you with a set of values, techniques, and practices to use in your leadership role. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Your team looks to you for guidance. You have to mediate heated debates. The team is constantly putting out fires instead of doing the right things, the right way. Everyone seems to want to do things correctly, but nobody seems to be doing so. This is where leaders get stuck. It's time to get unstuck! Elastic leadership is a novel approach that helps you adapt your leadership style to the phase your team is in, so you can stay in step as things change. About the Book Elastic Leadership is a practical, experience-driven guide to team leadership. In it, you'll discover a set of values, techniques, and practices to lead your team to success. First, you'll learn what elastic leadership is and explore the phases of this results-oriented framework. Then, you'll see it in practice through stories, anecdotes, and advice provided by successful leaders in a variety of disciplines, all annotated by author and experienced team leader, Roy Osherove. What's Inside Understanding why people do what they do Effective coaching Influencing team members and managers Advice from industry leaders About the Reader This book is for anyone with a year or more of experience working on a team as a lead or team member. About the Author Roy Osherove is the DevOps process lead for the West Coast at EMC, based in California. He is also the author of The Art of Unit Testing (Manning, 2013) and Enterprise DevOps. He consults and trains teams worldwide on the gentle art of leadership, unit testing, test-driven development, and continuous-delivery automation. He frequently speaks at international conferences on these topics and others. Table of Contents PART 1 - UNDERSTANDING ELASTIC LEADERSHIP Striving toward a Team Leader Manifesto Matching leadership styles to team phases Dealing with bus factors PART 2 - SURVIVAL MODE Dealing with survival mode PART 3 - LEARNING MODE Learning to learn Commitment language Growing people PART 4 - SELF-ORGANIZATION MODE Using clearing meetings to advance self-organization Influence patterns The Line Manager Manifesto PART 5 - NOTES TO A SOFTWARE TEAM LEADER Feeding back Channel conflict into learning It's probably not a technical problem Review the code Document your air, food, and water Appraisals and agile don't play nicely Leading through learning: the responsibilities of a team leader Introduction to the Core Protocols Change your mind: your product is your team Leadership and the mature team Spread your workload Making your team manage their own work Go see, ask why, show respect Keep developers happy, reap high-quality work Stop doing their work Write code, but not too much Evolving from manager to leader Affecting the pace of change Proximity management Babel Fish You're the lead, not the know-it-all Actions speak louder than words**

**Dependency Injection Principles, Practices, and Patterns**

**After School Nightmare**

**Good Code, Bad Code**

**Math for Programmers**

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