Sample Chapter 1 Manning Publications

API Security in Action teaches you how to create secure APIs for any situation. By following this hands-on guide you'll build a social network API while mastering techniques for flexible multi-user security, cloud key management, and lightweight cryptography. Summary A web API is an efficient way to communicate with an application or service. However, this convenience opens your systems to new security risks. API Security in Action gives you the skills to build strong, safe APIs you can confidently expose to the world. Inside, you'll learn to construct secure and scalable REST APIs, deliver machine-to-machine interaction in a microservices architecture, and provide protection in resource-constrained IoT (Internet of Things) environments. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology APIs control data sharing in every service, server, data store, and web client. Modern data-centric designs—including microservices and cloud-native applications—demand a comprehensive, multi-layered approach to security for both private and public-facing APIs. About the book API Security in Action teaches you how to create secure APIs for any situation. By following this hands-on guide you'll build a social network API while mastering techniques for flexible multi-user security, cloud key management, and lightweight cryptography. When you're done, you'll be able to create APIs that stand up to complex threat models and hostile environments. What's inside Authentication Authorization Audit logging Rate limiting Encryption About the reader For developers with experience building RESTful APIs. Examples are in Java. About the author Neil Madden has in-depth knowledge of applied cryptography, application security, and current API security technologies. He holds a Ph.D. in Computer Science. Table of Contents PART 1 - FOUNDATIONS 1 What is API security? 2 Secure API development 3 Securing the Natter API PART 2 - TOKEN-BASED AUTHENTICATION 4 Session cookie authentication 5 Modern token-based authentication 6 Self-contained tokens and JWTs PART 3 - AUTHORIZATION 7 OAuth2 and OpenID Connect 8 Identity-based access control 9 Capability-based security and macaroons PART 4 - MICROSERVICE APIs IN KUBERNETES 10 Microservice APIs in Kubernetes 11 Securing service-to-service APIs PART 5 - APIs FOR THE INTERNET OF THINGS 12 Securing IoT communications 13 Securing IoT APIs

Summary The Spark distributed data processing platform provides an easy-to-implement tool for ingesting, streaming, and processing data from any source. In Spark in Action, Second Edition, you'll learn to take advantage of Spark's core features and incredible processing speed, with applications including real-time computation, delayed evaluation, and machine learning. Spark skills are a hot commodity in enterprises worldwide, and with Spark's powerful and flexible Java APIs, you can reap all the benefits without first learning Scala or Hadoop. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Analyzing enterprise data starts by reading, filtering, and merging files and streams from many sources. The Spark data processing engine handles this varied volume like a champ, delivering speeds 100 times faster than Hadoop systems. Thanks to SQL support, an intuitive interface, and a straightforward multilanguage API, you can use Spark without learning a complex new ecosystem. About the book Spark in Action, Second Edition, teaches you to create end-to-end analytics applications. In this entirely new book, you'll learn from interesting Java-based examples, including a complete data pipeline for processing NASA satellite data. And you'll discover Java, Python, and Scala code samples hosted on GitHub that you can explore and adapt, plus appendixes that give you a cheat sheet for installing tools and understanding Spark-specific terms. What's inside Writing Spark applications in Java Spark application architecture Ingestion through files, databases,

streaming, and Elasticsearch Querying distributed datasets with Spark SQL About the reader This book does not assume previous experience with Spark, Scala, or Hadoop. About the author Jean-Georges Perrin is an experienced data and software architect. He is France's first IBM Champion and has been honored for 12 consecutive years. Table of Contents PART 1 - THE THEORY CRIPPLED BY AWESOME EXAMPLES 1 So, what is Spark, anyway? 2 Architecture and flow 3 The majestic role of the dataframe 4 Fundamentally lazy 5 Building a simple app for deployment 6 Deploying your simple app PART 2 - INGESTION 7 Ingestion from files 8 Ingestion from databases 9 Advanced ingestion: finding data sources and building your own 10 Ingestion through structured streaming PART 3 - TRANSFORMING YOUR DATA 11 Working with SQL 12 Transforming your data 13 Transforming entire documents 14 Extending transformations with user-defined functions 15 Aggregating your data PART 4 - GOING FURTHER 16 Cache and checkpoint: Enhancing Spark's performances 17 Exporting data and building full data pipelines 18 Exploring deployment

All films with a predominantly or entirely African American cast or that were about African Americans are detailed here. Each entry includes cast and credits, year of release, studio, distributor, type of film (feature, short or documentary) and other production details. In most cases, a brief synopsis of the film or contemporary reviews of it follow. In the appendices, film credits for over 1,850 actors and actresses are provided, along with a listing of film companies.

The Programmer's Brain unlocks the way we think about code. It offers scientifically sound techniques that can radically improve the way you master new technology, comprehend code, and memorize syntax. You'll learn how to benefit from productive struggle and turn confusion into a learning tool. Along the way, you'll discover how to create study resources as you become an expert at teaching yourself and bringing new colleagues up to speed.

Provides information on the fundamentals of Microsoft SQL Server 2005 Analysis Services.

Summary Learn Windows PowerShell in a Month of Lunches, Third Edition is an innovative tutorial designed for busy IT professionals. This updated edition covers PowerShell features that run on Windows 7, Windows Server 2008 R2 and later, PowerShell v3 and later, and includes v5 features like PowerShellGet. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology PowerShell is both a scripting language and an administrative shell that lets you control and automate nearly every aspect of Windows. It accepts and executes commands interactively and you can write scripts to manage most Windows servers like Exchange, IIS, and SharePoint, as well as online services like Azure and Office 365. About the Book Learn Windows PowerShell in a Month of Lunches, Third Edition is an innovative tutorial designed for busy IT professionals. Just set aside one hour a day - lunchtime would be perfect - for a month, and you'll be automating Windows tasks faster than you ever thought possible. This updated edition covers PowerShell features that run on Windows 7, Windows Server 2008 R2 and later, PowerShell v3 and later, and includes v5 features like PowerShellGet. What's Inside Learn PowerShell from the beginning, no experience required! Covers PowerShell v3 and up, Windows 7, and Windows Server 2008 R2 and later Each lesson takes you an hour or less About the Reader Experience with Windows administration is helpful. No programming or scripting experience needed. About the Author Veteran PowerShell MVPs Don Jones and Jeffery Hicks bring years as successful trainers to this concise, easy-to-follow book. Table of Contents Before you begin Meet PowerShell Using the help system Running commands Working with providers The pipeline: connecting commands Adding commands Objects: data by another name The pipeline, deeper Formatting - and why it's done on the right Filtering and comparisons A practical interlude Remote control: one-to-one, and one-to-many Using Windows Management Instrumentation and CIM Multitasking with background jobs Working with many objects, one at a

time Security alert! Variables: a place to store your stuff Input and output Sessions: remote control with less work You call this scripting? Improving your parameterized script Advanced remoting configuration Using regular expressions to parse text files Additional random tips, tricks, and techniques Using someone else's script Never the end PowerShell cheat sheet

Summary RxJS in Action gives you the development skills you need to create reactive applications with RxJS. This book is full of theory and practical examples that build on each other and help you begin thinking in a reactive manner. Foreword by Ben Lesh, Project lead, RxJS 5. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology On the web, events and messages flow constantly between UI and server components. With RxJS, you can filter, merge, and transform these streams directly, opening the world of data flow programming to browser-based apps. This JavaScript implementation of the ReactiveX spec is perfect for on-the-fly tasks like autocomplete. Its asynchronous communication model makes concurrency much, much easier. About the Book RxJS in Action is your guide to building a reactive web UI using RxJS. You'll begin with an intro to stream-based programming as you explore the power of RxJS through practical examples. With the core concepts in hand, you'll tackle production techniques like error handling, unit testing, and interacting with frameworks like React and Redux. And because RxJS builds on ideas from the world of functional programming, you'll even pick up some key FP concepts along the way. What's Inside Building clean, declarative, fault-tolerant applications Transforming and composing streams Taming asynchronous processes Integrating streams with third-party libraries Covers RxJS 5 About the Reader This book is suitable for readers comfortable with JavaScript and standard web application architectures. About the Author Paul P. Daniels is a professional software engineer with experience in .NET, Java, and JavaScript. Luis Atencio is a software engineer working daily with Java, PHP, and JavaScript platforms, and author of Manning's Functional Programming in JavaScript. Table of Contents PART 1 - UNDERSTANDING STREAMS Thinking reactively Reacting with RxJS Core operators It's about time you used RxJS PART 2 - OBSERVABLES IN PRACTICE Applied reactive streams Coordinating business processes Error handling with RxJS PART 3 MASTERING RXJS Heating up observables Toward testable, reactive programs RxJS in the wild

Summary .NET Core in Action shows .NET developers how to build professional software applications with .NET Core. Learn how to convert existing .NET code to work on multiple platforms or how to start new projects with knowledge of the tools and capabilities of .NET Core. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology .NET Core is an open source framework that lets you write and run .NET applications on Linux and Mac, without giving up on Windows. Built for everything from lightweight web apps to industrial-strength distributed systems, it's perfect for deploying .NET servers to any cloud platform, including AWS and GCP. About the Book .NET Core in Action introduces you to cross-platform development with .NET Core. This hands-on guide concentrates on new Core features as you walk through familiar tasks like testing, logging, data access, and networking. As you go, you'll explore modern architectures like microservices and cloud data storage, along with practical matters like performance profi ling, localization, and signing assemblies. What's Inside Choosing the right tools Testing, profiling, and debugging Interacting with web services Converting existing projects to .NET Core Creating and using NuGet packages About the Reader All examples are in C#. About the Author Dustin Metzgar is a seasoned developer

and architect involved in numerous .NET Core projects. Dustin works for Microsoft. Table of Contents Why .NET Core? Building your first .NET Core applications How to build with .NET Core Unit testing with xUnit Working with relational databases Simplify data access with object-relational mappers Creating a microservice Debugging Performance and profiling Building world-ready applications Multiple frameworks and runtimes Preparing for release appendix A - Frameworks and runtimes appendix B - xUnit command-line options appendix C - What's in the .NET Standard Library? appendix D - NuGet cache locations

Smart Sensors Networks: Communication Technologies and Intelligent Applications explores the latest sensor and sensor networks techniques and applications, showing how networked wireless sensors are used to monitor and gather intelligence from our surrounding environment. It provides a systematic look at the unique characteristics of wireless sensor networks through their usage in a broad range of areas, including healthcare for the elderly, energy consumption, industrial automation, intelligent transportation systems, smart homes and cities, and more. The book shows how sensor-networks work and how they are applied to monitor our surrounding environment. It explores the most important aspects of modern sensors technologies, providing insights on the newest technologies and the systems needed to operate them. Readers will find the book to be an entry point for understanding the fundamental differences between the various sensor technologies and their use in for different scenarios. Indexing: The books of this series are submitted to EI-Compendex and SCOPUS Presents numerous specific use-cases throughout, showing practical applications of concepts Contains contributions from leading experts around the globe Collects, in one place, the latest thinking on an emerging topic Addresses the security and privacy issues inherent in sensor deployment

How does the computer learn to understand what it sees? Deep Learning for Vision Systems answers that by applying deep learning to computer vision. Using only high school algebra, this book illuminates the concepts behind visual intuition. You'll understand how to use deep learning architectures to build vision system applications for image generation and facial recognition. Summary Computer vision is central to many leading-edge innovations, including self-driving cars, drones, augmented reality, facial recognition, and much, much more. Amazing new computer vision applications are developed every day, thanks to rapid advances in AI and deep learning (DL). Deep Learning for Vision Systems teaches you the concepts and tools for building intelligent, scalable computer vision systems that can identify and react to objects in images, videos, and real life. With author Mohamed Elgendy's expert instruction and illustration of real-world projects, you'll finally grok state-of-the-art deep learning techniques, so you can build, contribute to, and lead in the exciting realm of computer vision! Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology How much has computer vision advanced? One ride in a Tesla

is the only answer you'll need. Deep learning techniques have led to exciting breakthroughs in facial recognition, interactive simulations, and medical imaging, but nothing beats seeing a car respond to real-world stimuli while speeding down the highway. About the book How does the computer learn to understand what it sees? Deep Learning for Vision Systems answers that by applying deep learning to computer vision. Using only high school algebra, this book illuminates the concepts behind visual intuition. You'll understand how to use deep learning architectures to build vision system applications for image generation and facial recognition. What's inside Image classification and object detection Advanced deep learning architectures Transfer learning and generative adversarial networks DeepDream and neural style transfer Visual embeddings and image search About the reader For intermediate Python programmers. About the author Mohamed Elgendy is the VP of Engineering at Rakuten. A seasoned AI expert, he has previously built and managed AI products at Amazon and Twilio. Table of Contents PART 1 - DEEP LEARNING FOUNDATION 1 Welcome to computer vision 2 Deep learning and neural networks 3 Convolutional neural networks 4 Structuring DL projects and hyperparameter tuning PART 2 - IMAGE CLASSIFICATION AND DETECTION 5 Advanced CNN architectures 6 Transfer learning 7 Object detection with R-CNN, SSD, and YOLO PART 3 - GENERATIVE MODELS AND VISUAL EMBEDDINGS 8 Generative adversarial networks (GANs) 9 DeepDream and neural style transfer 10 Visual embeddings The design of a highway drainage channel to carry a given discharge is accomplished in two parts. The first part of the design involves the computation of a channel section which will carry the design discharge on the available slope. This chapter briefly discusses the principles of flow in open channels and the use of the Manning equation for computing the channel capacity. The second part of the design is the determination of the degree of protection required to prevent erosion in the drainage channel. This can be done by computing the velocity in the channel at the design discharge, using the Manning equation, and comparing the calculated velocity with that permissible for the type of channel lining used. A change in the type of channel lining will require a change in channel size unless both linings have the same roughness coefficient.

To keep programming productive and enjoyable, state-of-the-art practices andprinciples are essential. Object-oriented programming and design help managecomplexity by keeping components cleanly separated. Unit testing helps preventendless, exhausting debugging sessions. Refactoring keeps code supple andreadable. PHP offers all this-and more. PHP in Action shows you how to apply PHP techniques and principles to all themost common challenges of web programming, including: Web presentation and templates User interaction including the Model-View-Contoller architecture Input validation and form handling Database connection and querying and abstraction Object persistence Purchase of the print book comes with an offer of a free PDF, ePub, and Kindle eBook from Manning. Also available is all

code from the book.

More than fifty years after his death, Albert Einstein's vital engagement with the world continues to inspire others, spurring conversations, projects, and research, in the sciences as well as the humanities. Einstein for the 21st Century shows us why he remains a figure of fascination. In this wide-ranging collection, eminent artists, historians, scientists, and social scientists describe Einstein's influence on their work, and consider his relevance for the future. Scientists discuss how Einstein's vision continues to motivate them, whether in their quest for a fundamental description of nature or in their investigations in chaos theory; art scholars and artists explore his ties to modern aesthetics; a music historian probes Einstein's musical tastes and relates them to his outlook in science; historians explore the interconnections between Einstein's politics, physics, and philosophy; and other contributors examine his impact on the innovations of our time. Uniquely cross-disciplinary, Einstein for the 21st Century serves as a testament to his legacy and speaks to everyone with an interest in his work. The contributors are Leon Botstein, Lorraine Daston, E. L. Doctorow, Yehuda Elkana, Yaron Ezrahi, Michael L. Friedman, Jürg Fröhlich, Peter L. Galison, David Gross, Hanoch Gutfreund, Linda D. Henderson, Dudley Herschbach, Gerald Holton, Caroline Jones, Susan Neiman, Lisa Randall, Jürgen Renn, Matthew Ritchie, Silvan S. Schweber, and A. Douglas Stone.

Summary Camel in Action, Second Edition is the most complete Camel book on the market. Written by core developers of Camel and the authors of the highly acclaimed first edition, this book distills their experience and practical insights so that you can tackle integration tasks like a pro. Forewords by James Strachan and Dr. Mark Little Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Apache Camel is a Java framework that implements enterprise integration patterns (EIPs) and comes with over 200 adapters to third-party systems. A concise DSL lets you build integration logic into your app with just a few lines of Java or XML. By using Camel, you benefit from the testing and experience of a large and vibrant open source community. About the Book Camel in Action, Second Edition is the definitive guide to the Camel framework. It starts with core concepts like sending, receiving, routing, and transforming data. It then goes in depth on many topics such as how to develop, debug, test, deal with errors, secure, scale, cluster, deploy, and monitor your Camel applications. The book also discusses how to run Camel with microservices, reactive systems, containers, and in the cloud. What's Inside Coverage of all relevant EIPs Camel microservices with Spring Boot Camel on Docker and Kubernetes Error handling, testing, security, clustering, monitoring, and deployment Hundreds of examples in Java and XML About the Reader Readers should be familiar with Java. This book is accessible to beginners and invaluable to experts. About the Author Claus Ibsen is a senior principal engineer working for Red Hat specializing in cloud and integration. He has worked on Apache Camel for the last nine

years where he heads the project. Claus lives in Denmark. Jonathan Anstey is an engineering manager at Red Hat and a core Camel contributor. He lives in Newfoundland, Canada. Table of Contents Part 1 - First steps Meeting Camel Routing with Camel Part 2 - Core Camel Transforming data with Camel Using beans with Camel Enterprise integration patterns Using components Part 3 - Developing and testing Microservices Developing Camel projects Testing RESTful web services Part 4 - Going further with Camel Error handling Transactions and idempotency Parallel processing Securing Camel Part 5 - Running and managing Camel Running and deploying Camel Management and monitoring Part 6 - Out in the wild Clustering Microservices with Docker and Kubernetes Camel tooling Bonus online chapters Available at https://www.manning.com/books/camel-in-?action-second-edition and in electronic versions of this book: Reactive Camel Camel and the IoT by Henryk Konsek

Exposition of fourth dimension, concepts of relativity as Flatland characters continue adventures. Topics include curved space time as a higher dimension, special relativity, and shape of space-time. Includes 141 illustrations.

Summary Discover how scripting is different from command-line PowerShell, as you explore concrete hands-on examples in this handy guide. The book includes and expands on many of the techniques presented in Learn PowerShell Toolmaking in a Month of Lunches. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Automate it! With Microsoft's PowerShell language, you can write scripts to control nearly every aspect of Windows. Just master a few straightforward scripting skills, and you'll be able to eliminate repetitive manual tasks, create custom reusable tools, and build effective pipelines and workflows. Once you start scripting in PowerShell, you'll be amazed at how many opportunities you'll find to save time and effort. About the Book Learn PowerShell Scripting in a Month of Lunches teaches you how to expand your command-line PowerShell skills into effective scripts and tools. In 27 bite-size lessons, you'll discover instantly useful techniques for writing efficient code, finding and squashing bugs, organizing your scripts into libraries, and much more. Advanced scripters will even learn to access the .NET Framework, store data long term, and create nice user interfaces. What's Inside Designing functions and scripts Effective pipeline usage Dealing with errors and bugs Professional-grade scripting practices About the Reader Written for devs and IT pros comfortable with PowerShell and Windows. About the Authors Don Jones is a PowerShell MVP, speaker, and trainer who has written dozens of books on information technology topics. Jeffery Hicks is a PowerShell MVP and an independent consultant, trainer, and author. Don and Jeff coauthored Manning's Learn Windows PowerShell in a Month of Lunches, Learn PowerShell Toolmaking in a Month of Lunches, and PowerShell in Depth. Table of Contents PART 1 - INTRODUCTION TO SCRIPTING Before you begin Setting up your scripting environment WWPD: what would PowerShell do? Review: parameter binding and the PowerShell pipeline Scripting

language crash course The many forms of scripting (and which to use) Scripts and security PART 2 - BUILDING A POWERSHELL SCRIPT Always design first Avoiding bugs: start with a command Building a basic function and script module Going advanced with your function Objects: the best kind of output Using all the pipelines Simple help: making a comment Dealing with errors Filling out a manifest PART 3 - GROWN-UP SCRIPTING Changing your brain when it comes to scripting Professional-grade scripting An introduction to source control with git Pestering your script Signing your script Publishing your script PART 4 - ADVANCED TECHNIQUES Squashing bugs Making script output prettier Wrapping up the .NET Framework Storing data-not in Excel! Never the end

Summary Angular in Action teaches you everything you need to build production-ready Angular applications.Thoroughly practical and packed with tricks and tips, this hands-on tutorial is perfect for web devs ready to build web applications that can handle whatever you throw at them. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Angular makes it easy to deliver amazing web apps. This powerful JavaScript platform provides the tooling to man- age your project, libraries to help handle most common tasks, and a rich ecosystem full of third-party capabilities to add as needed. Built with developer productivity in mind, Angular boosts your efficiency with a modern component architecture, well-constructed APIs, and a rich community. About the Book Angular in Action teaches you everything you need to build production-ready Angular applications. You'll start coding immediately, as you move from the basics to advanced techniques like testing, dependency injection, and performance tuning. Along the way, you'll take advantage of TypeScript and ES2015 features to write clear, well-architected code. Thoroughly practical and packed with tricks and tips, this hands-on tutorial is perfect for web devs ready to build web applications that can handle whatever you throw at them. What's Inside Spinning up your first Angular application A complete tour of Angular's features Comprehensive example projects Testing and debugging Managing large applications About the Reader Written for web developers comfortable with JavaScript, HTML, and CSS. About the Author Jeremy Wilken is a Google Developer Expert in Angular, Web Technologies, and Google Assistant. He has many years of experience building web applications and libraries for eBay, Teradata, and VMware. Table of Contents Angular: a modern web platform Building your first Angular app App essentials Component basics Advanced components Services Routing Building custom directives and pipes Forms Testing your application Angular in production

"Atwood's Law" is driven by the idea that all applications will ultimately wind up on the web and therefore must be written in JavaScript. WebAssembly may be your way out! With WebAssembly, you can write in nearly any modern language and run your code in the browser through a memory-safe, sandboxed execution environment that can be embedded in a web browser and other platforms. Getting set up and moving with WebAssembly requires you to modify your web dev

process; WebAssembly in Action will get you started quickly and guide you through real-world examples and detailed diagrams that help you create, run, and debug WebAssembly modules. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications.

All true craftsmen need the best tools to do their finest work, and programmers are no different. Java Power Tools delivers 30 open source tools designed to improve the development practices of Java developers in any size team or organization. Each chapter includes a series of short articles about one particular tool -- whether it's for build systems, version control, or other aspects of the development process -- giving you the equivalent of 30 short reference books in one package. No matter which development method your team chooses, whether it's Agile, RUP, XP, SCRUM, or one of many others available, Java Power Tools provides practical techniques and tools to help you optimize the process. The book discusses key Java development problem areas and best practices, and focuses on open source tools that can help increase productivity in each area of the development cycle, including: Build tools including Ant and Maven 2 Version control tools such as CVS and Subversion, the two most prominent open source tools Quality metrics tools that measure different aspects of code quality, including CheckStyle, PMD, FindBugs and Jupiter Technical documentation tools that can help you generate good technical documentation without spending too much effort writing and maintaining it Unit Testing tools including JUnit 4, TestNG, and the open source coverage tool Cobertura Integration, Load and Performance Testing to integrate performance tests into unit tests, load-test your application, and automatically test web services, Swing interfaces and web interfaces Issue management tools including Bugzilla and Trac Continuous Integration tools such as Continuum, Cruise Control, LuntBuild and Hudson If you are a Java developer, these tools can help improve your development practices, and make your life easier in the process. Lead developers, software architects and people interested in the wider picture will be able to gather from these pages some useful ideas about improving your project infrastructure and best practices.

Summary Portlets in Action is a comprehensive, hands-on guide to building portlet-driven applications in Java. Covers Portlet 2.0, Spring 3.0 Portlet MVC, WSRP 2.0, Portlet Bridges, Ajax, Comet, Liferay, GateIn, Spring JDBC, and Hibernate. About the Technology Portlets are the small Java applications that run within a portal. Good portlets work independently and also communicate fluently with the portal, other portlets, as well as outside servers and information sources. Using Java's Portlet 2.0 API and portal servers like Liferay, you can build flexible, stable business portals without the design overhead required by other application styles. About the Book Portlets in Action is a comprehensive guide to building portlet-driven applications in Java. It teaches portlet development hands-on as you develop a portal that incorporates most key features of the Portlet 2.0 API. And because portals and portlets are so flexible, the accompanying

source code can be easily adapted and reused. Along the way, you'll learn how to work with key web frameworks like Spring 3.0 Portlet MVC and DWR. Written for Java developers. No prior experience with portlets required Purchase of the print book comes with an offer of a free PDF, ePub, and Kindle eBook from Manning. Also available is all code from the book. What's Inside Complete coverage of the Portlet 2.0 API Spring 3.0 Portlet MVC and the Liferay portal server Portal design best practices Reusable source code ================================ Table of Contents PART 1 GETTING STARTED WITH PORTLET DEVELOPMENT Introducing portals and portlets The portlet lifecycle Portlet 2.0 API - portlet objects and container-runtime options Portlet 2.0 API - caching, security, and localization Building your own portal Using the portlet tag library PART 2 DEVELOPING PORTLETS USING SPRING AND HIBERNATE Getting started with Spring Portlet MVC Annotation-driven development with Spring Integrating portlets with databases PART 3 ADVANCED PORTLET DEVELOPMENT Personalizing portlets Communicating with other portlets Ajaxing portlets Reusable logic with portlet filters Portlet bridges Web Services for Remote Portlets (WSRP)

Summary F# Deep Dives presents a collection of real-world F# techniques, each written by expert practitioners. Each chapter presents a new use case where you'll read how the author used F# to solve a complex problem more effectively than would have been possible using a traditional approach. You'll not only see how a specific solution works in a specific domain, you'll also learn how F# developers approach problems, what concepts they use to solve them, and how they integrate F# into existing systems and environments. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology F# is an elegant, cross-platform, functional-first programming language. With F#, developers create consistent and predictable programs that are easier to test and reuse, simpler to parallelize, and less prone to bugs. The language, its tooling, and the functional programming style have proven effective in many application areas like secure financial engines, machine learning algorithms, scientific calculations, collaborative web applications, games, and more. About the Book F# Deep Dives is a selection of real-world F# techniques written by expert practitioners. Each chapter presents an important use case where you'll solve a real programming challenge effectively using F# and the functional-first approach. Not only will you see how a specific solution works in a specific domain, but you'll also learn how functional programmers think about problems, how they solve them, and how they integrate F# into existing systems and environments. Readers should have at least an introductory knowledge of the F# language. What's Inside Numerical computing Data visualization Business logic Domain-specific languages Practical solutions to real problems Information-rich programming, including LINQ and F# type providers Covers F# 3.1 and VS 2013 About the Authors Tomas Petricek contributed to the development of the F# language at Microsoft Research. Phil Trelford is an early adopter of F# and one of its most vocal advocates. They are

joined by F# experts Chris Ballard, Keith Battocchi, Colin Bull, Chao-Jen Chen, Yan Cui, Johann Deneux, Kit Eason, Evelina Gabasova, Dmitry Morozov, and Don Syme. Table of Contents Succeeding with functional-first languages in the industry PART 1 INTRODUCTION Calculating cumulative binomial distributions Parsing text-based languages PART 2 DEVELOPING ANALYTICAL COMPONENTS Numerical computing in the financial domain Understanding social networks Integrating stock data into the F# language PART 3 DEVELOPING COMPLETE SYSTEMS Developing rich user interfaces using the MVC pattern Asynchronous and agent-based programming Creating games using XNA Building social web applications PART 4 F# IN THE LARGER CONTEXT F# in the enterprise Software quality

Summary Think Like a Data Scientist presents a step-by-step approach to data science, combining analytic, programming, and business perspectives into easy-to-digest techniques and thought processes for solving real world data-centric problems. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Data collected from customers, scientific measurements, IoT sensors, and so on is valuable only if you understand it. Data scientists revel in the interesting and rewarding challenge of observing, exploring, analyzing, and interpreting this data. Getting started with data science means more than mastering analytic tools and techniques, however; the real magic happens when you begin to think like a data scientist. This book will get you there. About the Book Think Like a Data Scientist teaches you a step-by-step approach to solving real-world data-centric problems. By breaking down carefully crafted examples, you'll learn to combine analytic, programming, and business perspectives into a repeatable process for extracting real knowledge from data. As you read, you'll discover (or remember) valuable statistical techniques and explore powerful data science software. More importantly, you'll put this knowledge together using a structured process for data science. When you've finished, you'll have a strong foundation for a lifetime of data science learning and practice. What's Inside The data science process, step-by-step How to anticipate problems Dealing with uncertainty Best practices in software and scientific thinking About the Reader Readers need beginner programming skills and knowledge of basic statistics. About the Author Brian Godsey has worked in software, academia, finance, and defense and has launched several data-centric start-ups. Table of Contents PART 1 - PREPARING AND GATHERING DATA AND KNOWLEDGE Philosophies of data science Setting goals by asking good questions Data all around us: the virtual wilderness Data wrangling: from capture to domestication Data assessment: poking and prodding PART 2 - BUILDING A PRODUCT WITH SOFTWARE AND STATISTICS Developing a plan Statistics and modeling: concepts and foundations Software: statistics in action Supplementary software: bigger, faster, more efficient Plan execution: putting it all together PART 3 - FINISHING OFF THE PRODUCT AND WRAPPING UP Delivering a product After product delivery: problems and revisions Wrapping up: putting the project away

Building software is harder than ever. As a developer, you not only have to chase ever-changing technological trends but also need to understand the business domains behind the software. This practical book provides you with a set of core patterns,

principles, and practices for analyzing business domains, understanding business strategy, and, most importantly, aligning software design with its business needs. Author Vlad Khononov shows you how these practices lead to robust implementation of business logic and help to future-proof software design and architecture. You'll examine the relationship between domain-driven design (DDD) and other methodologies to ensure you make architectural decisions that meet business requirements. You'll also explore the real-life story of implementing DDD in a startup company. With this book, you'll learn how to: Analyze a company's business domain to learn how the system you're building fits its competitive strategy Use DDD's strategic and tactical tools to architect effective software solutions that address business needs Build a shared understanding of the business domains you encounter Decompose a system into bounded contexts Coordinate the work of multiple teams Gradually introduce DDD to brownfield projects

The way developers design, build, and run software has changed significantly with the evolution of microservices and containers. These modern architectures use new primitives that require a different set of practices than most developers, tech leads, and architects are accustomed to. With this focused guide, Bilgin Ibryam and Roland Huß from Red Hat provide common reusable elements, patterns, principles, and practices for designing and implementing cloud-native applications on Kubernetes. Each pattern includes a description of the problem and a proposed solution with Kubernetes specifics. Many patterns are also backed by concrete code examples. This book is ideal for developers already familiar with basic Kubernetes concepts who want to learn common cloud-native patterns. You'll learn about the following pattern categories: Foundational patterns cover the core principles and practices for building container-based cloud-native applications. Behavioral patterns explore finer-grained concepts for managing various types of container and platform interactions. Structural patterns help you organize containers within a pod, the atom of the Kubernetes platform. Configuration patterns provide insight into how application configurations can be handled in Kubernetes. Advanced patterns cover more advanced topics such as extending the platform with operators.

Summary Manning's bestselling and highly recommended Unity book has been fully revised! Unity in Action, Second Edition teaches you to write and deploy games with the Unity game development platform. You'll master the Unity toolset from the ground up, adding the skills you need to go from application coder to game developer. Foreword by Jesse Schell, author of The Art of Game Design Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Build your next game without sweating the low-level details. The Unity game development platform handles the heavy lifting, so you can focus on game play, graphics, and user experience. With support for C# programming, a huge ecosystem of production-quality prebuilt assets, and a strong dev community, Unity can get your next great game idea off the drawing board and onto the screen! About the Book Unity in Action, Second Edition teaches you to write and deploy games with Unity. As you explore the many interesting examples, you'll get hands-on practice with Unity's intuitive workflow tools and state-of-the-art rendering engine. This practical guide exposes every aspect of the game dev process, from the initial groundwork to creating custom AI scripts and building easy-to-read UIs. And because you asked for it, this totally revised Second Edition includes

a new chapter on building 2D platformers with Unity's expanded 2D toolkit. What's Inside Revised for new best practices, updates, and more! 2D and 3D games Characters that run, jump, and bump into things Connect your games to the internet About the Reader You need to know C# or a similar language. No game development knowledge is assumed. About the Author Joe Hocking is a software engineer and Unity expert specializing in interactive media development. Table of Contents PART 1 - First steps Getting to know Unity Building a demo that puts you in 3D space Adding enemies and projectiles to the 3D game Developing graphics for your game PART 2 - Getting comfortable Building a Memory game using Unity's 2D functionality Creating a basic 2D Platformer Putting a GUI onto a game Creating a third-person 3D game: player movement and animation Adding interactive devices and items within the game PART 3 - Strong finish Connecting your game to the internet Playing audio: sound effects and music Putting the parts together into a complete game Deploying your game to players' devices

If you need help building web applications with the Lift framework, this cookbook provides scores of concise, ready-to-use code solutions. You'll find recipes for everything from setting up a coding environment to creating REST web services and deploying your application to production. Built on top of the Scala JVM programming language, Lift takes a different—yet ultimately easier—approach to development than MVC frameworks such as Rails. Each recipe in this book includes a discussion of how and why each solution works, not only to help you complete the task at hand, but also to illustrate how Lift works. Set up an environment and run your first Lift application Generate HTML, using Lift's View First approach Submit forms and work with form elements Build REST web services with the framework's RestHelper trait Take advantage of Lift's support for Ajax and Comet Get examples for modifying Lift's request pipeline Convert Scala classes into tables, rows, and columns in a relational database Send email, call URLs, and schedule tasks from your application Package and deploy your application to various hosted services Learn advanced analytical techniques and leverage existing tool kits to make your analytic applications more powerful, precise, and efficient. This book provides the right combination of architecture, design, and implementation information to create analytical systems that go beyond the basics of classification, clustering, and recommendation. Pro Hadoop Data Analytics emphasizes best practices to ensure coherent, efficient development. A complete example system will be developed using standard third-party components that consist of the tool kits, libraries, visualization and reporting code, as well as support glue to provide a working and extensible end-to-end system. The book also highlights the importance of end-to-end, flexible, configurable, high-performance data pipeline systems with analytical components as well as appropriate visualization results. You'll discover the importance of mix-and-match or hybrid systems, using different analytical components in one application. This hybrid approach will be prominent in the examples. What You'll Learn Build big data analytic systems with the Hadoop ecosystem Use libraries, tool kits, and algorithms to make development easier and more effective Apply metrics to measure performance and efficiency of components and systems Connect to standard relational databases, noSQL data sources, and more Follow case studies with example components to create your own systems Who This Book Is For Software engineers, architects, and data scientists with an interest in the design and implementation of big data analytical systems using Hadoop, the Hadoop ecosystem, and other associated technologies.

In the last three decades, a brand of black conservatism espoused by a controversial group of African American intellectuals has become a fixture in the nation's political landscape, its proponents having shaped policy debates over some of the most pressing matters that confront contemporary American society. Their ideas, though, have been neglected by scholars of the African American experience—and much of the responsibility for explaining black conservatism's historical and contemporary significance has fallen to highly partisan journalists. Typically, those pundits have addressed black conservatives as an undifferentiated mass, proclaiming them good or bad, right or wrong, color-blind visionaries or Uncle Toms. In Black Conservative Intellectuals in Modern America, Michael L. Ondaatje delves deeply into the historical archive to chronicle the origins of black conservatism in the United States from the early 1980s to the present. Focusing on three significant policy issues—affirmative action, welfare, and education—Ondaatje critically engages with the ideas of nine of the most influential black conservatives. He further documents how their ideas were received, both by white conservatives eager to capitalize on black support for their ideas and by activists on the left who too often sought to impugn the motives of black conservatives instead of challenging the merits of their claims. While Ondaatje's investigation uncovers the themes and issues that link these voices together, he debunks the myth of a monolithic black conservatism. Figures such as Supreme Court Justice Clarence Thomas, the Hoover Institution's Thomas Sowell and Shelby Steele, and cultural theorist John McWhorter emerge as individuals with their own distinct understandings of and relationships to the conservative political tradition.

AI as a Service is a practical handbook to building and implementing serverless AI applications, without bogging you down with a lot of theory. Instead, you'll find easy-to-digest instruction and two complete hands-on serverless AI builds in this must-have guide! Summary Companies everywhere are moving everyday business processes over to the cloud, and AI is increasingly being given the reins in these tasks. As this massive digital transformation continues, the combination of serverless computing and AI promises to become the de facto standard for business-to-consumer platform development—and developers who can design, develop, implement, and maintain these systems will be in high demand! AI as a Service is a practical handbook to building and implementing serverless AI applications, without bogging you down with a lot of theory. Instead, you'll find easy-to-digest instruction and two complete hands-on serverless AI builds in this must-have guide! Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Cloud-based AI services can automate a variety of labor intensive business tasks in areas such as customer service, data analysis, and financial reporting. The secret is taking advantage of pre-built tools like Amazon Rekognition for image analysis or AWS Comprehend for natural language processing. That way, there's no need to build expensive custom software. Artificial Intelligence (AI), a machine's ability to learn and make predictions based on patterns it identifies, is already being leveraged by businesses around the world in areas like targeted product recommendations, financial forecasting and resource planning, customer service chatbots, healthcare diagnostics, data security, and more. With the exciting combination of serverless computing and AI, software developers now have enormous power to improve their businesses' existing systems and rapidly deploy new AI-enabled platforms. And to get on this

fast-moving train, you don't have to invest loads of time and effort in becoming a data scientist or AI expert, thanks to cloud platforms and the readily available off-the-shelf cloud-based AI services! About the book AI as a Service is a fast-paced guide to harnessing the power of cloud-based solutions. You'll learn to build real-world apps—such as chatbots and text-to-speech services—by stitching together cloud components. Work your way from small projects to large data-intensive applications. What's inside - Apply cloud AI services to existing platforms - Design and build scalable data pipelines - Debug and troubleshoot AI services - Start fast with serverless templates About the reader For software developers familiar with cloud basics. About the author Peter Elger and Eóin Shanaghy are founders and CEO/CTO of fourTheorem, a software solutions company providing expertise on architecture, DevOps, and machine learning. Table of Contents PART 1 - FIRST STEPS 1 A tale of two technologies 2 Building a serverless image recognition system, part 1 3 Building a serverless image recognition system, part 2 PART 2 - TOOLS OF THE TRADE 4 Building and securing a web application the serverless way 5 Adding AI interfaces to a web application 6 How to be effective with AI as a Service 7 Applying AI to existing platforms PART 3 - BRINGING IT ALL TOGETHER 8 Gathering data at scale for real-world AI 9 Extracting value from large data sets with AI

Chapter 1 of this book is now available online: bit.ly/2z8ErGg 4th Edition reflects changes to Spring 5, and includes new chapters on Functional and Reactive application development. Reactive application development chapters cover Reactive Streams specification, RxJava 2, Reactor, Spring WebFlux, and reactive support in Spring Data and Spring Security. The examples (consisting of 88 sample projects) that accompany this book are based on Spring 5.0.1 and Java 9. You can download the examples described in this book from the following GitHub project: github.com/getting-started-with-spring/4thEdition This book covers: - Spring Framework basics - Aspect-oriented programming - Database interaction using Spring and Hibernate/JPA - Spring Data JPA - Spring Data MongoDB - Messaging, emailing and caching support - Spring Web MVC - Developing RESTful web services using Spring Web MVC - Functional programming using lambdas and method references - Stream API - Reactive programming using RxJava 2 and Reactor - Spring WebFlux - Reactive support in Spring Data MongoDB and Spring Security - Developing reactive RESTful web services using Spring WebFlux, Spring Security and Spring Data MongoDB

Applied Microsoft Analysis Services 2005 and Microsoft Business Intelligence PlatformPrologika Press

In Functional Programming in Kotlin you will learn: Functional programming techniques for real-world applications Write combinator libraries Common structures and idioms in functional design Simplicity and modularity (and fewer bugs!) Functional Programming in Kotlin is a reworked version of the bestselling Functional Programming in Scala, with all code samples, instructions, and exercises translated into the powerful Kotlin language. In this authoritative guide, you'll take on the challenge of learning functional programming from first principles. Complex concepts are demonstrated through exercises that you'll love to test yourself against. You'll start writing Kotlin code that's easier to read, easier to reuse, better for concurrency, and less prone to bugs and errors. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Improve performance, increase maintainability, and eliminate bugs! How? By programming the functional

way. Kotlin provides strong support for functional programming, taking a pragmatic approach that integrates well with OO codebases. By applying the techniques you'll learn in this book, your code will be safer, less prone to errors, and much easier to read and reuse. About the book Functional Programming in Kotlin teaches you how to design and write Kotlin applications using typed functional programming. Offering clear examples, carefully-presented explanations, and extensive exercises, it moves from basic subjects like types and data structures to advanced topics such as stream processing. This book is based on the bestseller Functional Programming in Scala by Rúnar Bjarnason and Paul Chiusano. What's inside Functional programming techniques for real-world situations Common structures and idioms in functional design Simplicity, modularity, and fewer bugs! About the reader For Kotlin developers. No functional programming experience required. About the author Marco Vermeulen has two decades of programming experience on the JVM. Rúnar Bjarnason and Paul Chiusano are the authors of Functional Programming in Scala. Tabel of Contents PART 1 INTRODUCTION TO FUNCTIONAL PROGRAMMING 1 What is functional programming? 2 Getting started with functional programming in Kotlin 3 Functional data structures 4 Handling errors without exceptions 5 Strictness and laziness 6 Purely functional state PART 2 FUNCTIONAL DESIGN AND COMBINATOR LIBRARIES 7 Purely functional parallelism 8 Property-based testing 9 Parser combinators PART 3 COMMON STRUCTURES IN FUNCTIONAL DESIGN 10 Monoids 11 Monads and functors 12 Applicative and traversable functors PART 4 EFFECTS AND I/O 13 External effects and I/O 14 Local effects and mutable state 15 Stream processing and incremental I/O

Summary Machine learning (ML) is a collection of programming techniques for discovering relationships in data. With ML algorithms, you can cluster and classify data for tasks like making recommendations or fraud detection and make predictions for sales trends, risk analysis, and other forecasts. Once the domain of academic data scientists, machine learning has become a mainstream business process, and tools like the easy-to-learn R programming language put high-quality data analysis in the hands of any programmer. Machine Learning with R, the tidyverse, and mlr teaches you widely used ML techniques and how to apply them to your own datasets using the R programming language and its powerful ecosystem of tools. This book will get you started! Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the book Machine Learning with R, the tidyverse, and mlr gets you started in machine learning using R Studio and the awesome mlr machine learning package. This practical guide simplifies theory and avoids needlessly complicated statistics or math. All core ML techniques are clearly explained through graphics and easy-to-grasp examples. In each engaging chapter, you'll put a new algorithm into action to solve a quirky predictive analysis problem, including Titanic survival odds, spam email filtering, and poisoned wine investigation. What's inside Using the tidyverse packages to process and plot your data Techniques for supervised and unsupervised learning Classification, regression, dimension reduction, and clustering algorithms Statistics primer to fill gaps in your knowledge About the reader For newcomers to machine learning with basic skills in R. About the author Hefin I. Rhys is a senior laboratory research scientist at the Francis Crick Institute. He runs his own YouTube channel of screencast tutorials for R and RStudio. Table of contents: PART 1 - INTRODUCTION 1.Introduction to machine learning 2. Tidying, manipulating, and

plotting data with the tidyverse PART 2 - CLASSIFICATION 3. Classifying based on similarities with k-nearest neighbors 4. Classifying based on odds with logistic regression 5. Classifying by maximizing separation with discriminant analysis 6. Classifying with naive Bayes and support vector machines 7. Classifying with decision trees 8. Improving decision trees with random forests and boosting PART 3 - REGRESSION 9. Linear regression 10. Nonlinear regression with generalized additive models 11. Preventing overfitting with ridge regression, LASSO, and elastic net 12. Regression with kNN, random forest, and XGBoost PART 4 - DIMENSION REDUCTION 13. Maximizing variance with principal component analysis 14. Maximizing similarity with t-SNE and UMAP 15. Self-organizing maps and locally linear embedding PART 5 - CLUSTERING 16. Clustering by finding centers with k-means 17. Hierarchical clustering 18. Clustering based on density: DBSCAN and OPTICS 19. Clustering based on distributions with mixture modeling 20. Final notes and further reading

JUnit in Action, Third Edition has been completely rewritten for this release. The book is full of examples that demonstrate JUnit's modern features, including its new architecture; nested, tagged, and dynamic tests; and dependency injection. Summary JUnit is the gold standard for unit testing Java applications. Filled with powerful new features designed to automate software testing, JUnit 5 boosts your productivity and helps avoid debugging nightmares. Whether you're just starting with JUnit or you want to ramp up on the new features, JUnit in Action, Third Edition has you covered. Extensively revised with new code and new chapters, JUnit in Action, Third Edition is an up-to-date guide to smooth software testing. Dozens of hands-on examples illustrate JUnit 5's innovations for dependency injection, nested testing, parameterized tests, and more. Throughout, you'll learn how to use JUnit 5 to automate your testing, for a process that consumes less resources, and gives you more time for developing. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology The JUnit framework is the gold standard for unit testing Java applications—and knowing it is an essential skill for Java developers. The latest version, JUnit 5, is a total overhaul, now supporting modern Java features like Lambdas and Streams. About the book JUnit in Action, Third Edition has been completely rewritten for this release. The book is full of examples that demonstrate JUnit's modern features, including its new architecture; nested, tagged, and dynamic tests; and dependency injection. You'll benefit from author Catalin Tudose's unique "pyramid" testing strategy, which breaks the testing process into layers and sets you on the path to bug-free code creation. What's inside Migrating from JUnit 4 to 5 Effective test automation Test-driven development and behavior-driven development Using mocks for test isolation Connecting JUnit 5 with Maven or Gradle About the reader For intermediate Java developers. About the author Catalin Tudose has a Ph.D. in Computer Science, and over 15 years of experience as a Senior Java Developer and Technical Team Lead. Previous editions were authored by Petar Tahchiev, Felipe Leme, Gary Gregory, and Vincent Massol. Table of Contents PART 1 - JUNIT 1 JUnit jump-start 2 Exploring core JUnit 3 JUnit architecture 4 Migrating from JUnit 4 to JUnit 5 5 Software testing principles PART 2 - DIFFERENT TESTING STRATEGIES 6 Test quality 7 Coarse-grained testing with stubs 8 Testing with mock objects 9 In-container testing PART 3 - WORKING WITH JUNIT 5 AND OTHER TOOLS 10 Runing JUnit tests from Maven 3 11 Running JUnit tests from Gradle 6 12 JUnit 5 IDE support 13 Coninuous integration with JUnit

Copyright: 27ab17804e98d8bf07b2b7d0c84b33f0