
Online Library Mongodb In Action 2011 Korea Edition

As recognized, adventure as skillfully as experience just about lesson, amusement, as without difficulty as arrangement can be gotten by just checking out a books **Mongodb In Action 2011 Korea Edition** furthermore it is not directly done, you could believe even more nearly this life, as regards the world.

We provide you this proper as skillfully as easy artifice to acquire those all. We find the money for Mongodb In Action 2011 Korea Edition and numerous ebook collections from fictions to scientific research in any way. along with them is this Mongodb In Action 2011 Korea Edition that can be your partner.

2XSU2M - MCCARTHY HILLARY

This book contains papers presented at the International Conference on Cognitive based Information Processing and Applications (CIPA) held during August 21, 2021, online conference (since COVID 19), which is divided into a 2-volume book. The papers in the second volume represent the various technological advancements in network information processing, graphics and image processing, medical care, machine learning, smart cities. It caters to postgraduate students, researchers, and practitioners specializing and working in the area of cognitive-inspired computing and information processing.

bookdown: Authoring Books and Technical Documents with R Markdown presents a much easier way to write books and technical publications than traditional tools such as LaTeX and Word. The bookdown package inherits the simplicity of syntax and flexibility for data analysis from R Markdown, and extends R Markdown for technical writing, so that you can make better use of document elements such as figures, tables, equations, theorems, citations, and refer-

ences. Similar to LaTeX, you can number and cross-reference these elements with bookdown. Your document can even include live examples so readers can interact with them while reading the book. The book can be rendered to multiple output formats, including LaTeX/PDF, HTML, EPUB, and Word, thus making it easy to put your documents online. The style and theme of these output formats can be customized. We used books and R primarily for examples in this book, but bookdown is not only for books or R. Most features introduced in this book also apply to other types of publications: journal papers, reports, dissertations, course handouts, study notes, and even novels. You do not have to use R, either. Other choices of computing languages include Python, C, C++, SQL, Bash, Stan, JavaScript, and so on, although R is best supported. You can also leave out computing, for example, to write a fiction. This book itself is an example of publishing with bookdown and R Markdown, and its source is fully available on GitHub. The software architecture landscape has evolved dramatically over the past decade. Microservices have displaced monoliths. Data and applications are in-

creasingly becoming distributed and decentralised. But composing disparate systems is a hard problem. More recently, software practitioners have been rapidly converging on event-driven architecture as a sustainable way of dealing with complexity - integrating systems without increasing their coupling. In *Effective Kafka*, Emil Koutanov explores the fundamentals of Event-Driven Architecture - using Apache Kafka - the world's most popular and supported open-source event streaming platform. You'll learn:

- The fundamentals of event-driven architecture and event streaming platforms
- The background and rationale behind Apache Kafka, its numerous potential uses and applications
- The architecture and core concepts - the underlying software components, partitioning and parallelism, load-balancing, record ordering and consistency modes
- Installation of Kafka and related tooling - using standalone deployments, clusters, and containerised deployments with Docker
- Using CLI tools to interact with and administer Kafka classes, as well as publishing data and browsing topics
- Using third-party web-based tools for monitoring a cluster and gaining insights into the event streams
- Building stream processing applications in Java 11 using off-the-shelf client libraries
- Patterns and best-practice for organising the application architecture, with emphasis on maintainability and testability of the resulting code
- The numerous gotchas that lurk in Kafka's client and broker configuration, and how to counter them
- Theoretical background on distributed and concurrent computing, exploring factors affecting their liveness and safety
- Best-practices for running multi-tenanted clusters across diverse engineering teams, how teams collaborate to build complex systems at scale and equitably share the

cluster with the aid of quotas

- Operational aspects of running Kafka clusters at scale, performance tuning and methods for optimising network and storage utilisation
- All aspects of Kafka security - including network segregation, encryption, certificates, authentication and authorization. The coverage is progressively delivered and carefully aimed at giving you a journey-like experience into becoming proficient with Apache Kafka and Event-Driven Architecture. The goal is to get you designing and building applications. And by the conclusion of this book, you will be a confident practitioner and a Kafka evangelist within your organisation - wielding the knowledge necessary to teach others.

JavaScript is at the heart of almost every modern Web application, whether it's Google Apps, Twitter, or the newest browser-based game. Though it's simple for beginners to pick up and play with, JavaScript is not a toy—it's a flexible and complex language that can be used to build full-scale applications. *Eloquent JavaScript* dives into this flourishing language and teaches you to write code that's beautiful and effective. By immersing you in example code and encouraging experimentation right from the start, the author quickly gives you the tools you need to build your own programs. As you follow along with examples like an artificial life simulation and a version of the classic game Sokoban, you'll learn to:

- Understand the essential elements of programming: syntax, control, and data
- Use object-oriented and functional programming techniques to organize and clarify your programs
- Script the browser and make basic Web applications
- Work with tools like regular expressions and XMLHttpRequest objects

And since programming is an art that's best learned by doing, all example code is

available online in an interactive sandbox for you to experiment with. With Eloquent JavaScript as your guide, you can tweak, expand, and modify the author's code, or throw it away and build your own creations from scratch. Before you know it, you'll be fluent in the language of the Web.

Expert PHP and MySQL takes you beyond learning syntax to showing you how to apply proven software development methods to building commerce-grade PHP and MySQL projects that will stand the test of time and reliably deliver on customer needs. Developers of real-world applications face numerous problems that seem trivial on the surface, but really do take some skill to get right. Error handling is about more than just the mechanics in the PHP syntax, but also about handling MySQL errors, logging those errors, and about hiding information about application internals that error messages sometimes can expose. Meet these challenges and more head-on! Author Marc Rochkind shows how to begin a project right, with a clear contract and set of written requirements. You'll learn about project organization, setting up a solid development environment, connecting with client personnel. Database design is essential, and Expert PHP and MySQL has you covered with guidance on creating a sound model and database, and on pushing functionality into the database as appropriate; not everything should be done in PHP. Error handling is covered at both the PHP and MySQL levels. Application structure is covered. Guidance is provided on reporting. And finally there is conversion. In Expert PHP and MySQL you'll explore the following: The popular and widely used combination of PHP and MySQL Commercial-grade application of language and

database features Human factors such as planning and organization Organizing a project to meet requirements and satisfy the customer Structuring an application for efficient development and future modification Coding PHP for productivity, reliability, security Generating online, downloadable, and printed reports Converting existing data to the new application

This open access book introduces MIN, a novel networking architecture to implement the sovereign equality of all countries in the cyberspace. Combining legal theory and network technology, it first discusses the historical development of sovereignty and expounds the legal basis of cyberspace sovereignty. Then, based on the high-performance blockchain, it describes a new network architecture designed to implement co-governance at the technical level. Explaining network sovereignty and including rich illustrations and tables, the book helps readers new to the field grasp the evolution and necessity of cyberspace sovereignty, gain insights into network trends and develop a preliminary understanding of complex network technologies such as blockchain, security mechanisms and routing strategies. The MIN network implements the our principles of cyberspace adopted by most nations and people: respecting cyber sovereignty; maintaining peace and protection; promoting openness and cooperation; and building good order to provide network system security. There maybe three scales of application scenario for MIN, the big one is for UN of Cyberspace, the middle one is for Smart city, the small one is for enterprise group or organizations as private network, MIN-VPN. We have developed the product of MIN-VPN, you could find its message on the preface if care about the security of your network.

Planning to deploy and maintain a public, private, or hybrid cloud service? This cookbook's handy how-to recipes help you quickly learn and install Apache CloudStack, along with several API clients, API wrappers, data architectures, and configuration management technologies that work as part of CloudStack's ecosystem. You'll learn how to use Vagrant, Ansible, Chef, Fluentd, Libcloud, and several other open source tools that let you build and operate CloudStack better and faster. If you're an experienced programmer, system administrator, or DevOps practitioner familiar with bash, Git, package management, and some Python, you're ready to go. Learn basic CloudStack installation from source, including features such as DevCloud, the CloudStack sandbox Get a step-by-step guide for installing CloudStack from packages on Ubuntu 14.04 using KVM Write your own applications on top of the CloudStack API, using CloudMonkey, Libcloud, jclouds, and CloStack Expose different APIs on CloudStack with the EC2Stack, Boto, and Eutester API wrappers Deploy applications easily, using Puppet, Salt, Ansible, Chef, and Vagrant Dive into cloud monitoring and storage with RiakCS, Fluentd, and Apache Whirr This book constitutes the proceedings of the 8th International Conference on Future Data and Security Engineering, FDSE 2021, held in Ho Chi Minh City, Vietnam, in November 2021.* The 28 full papers and 8 short were carefully reviewed and selected from 168 submissions. The selected papers are organized into the following topical headings: big data analytics and distributed systems; security and privacy engineering; industry 4.0 and smart city: data analytics and security; blockchain and access control; data analytics and healthcare systems; and short papers: security and data engineer-

ing. * The conference was held virtually due to the COVID-19 pandemic.

Big Data: Principles and Paradigms captures the state-of-the-art research on the architectural aspects, technologies, and applications of Big Data. The book identifies potential future directions and technologies that facilitate insight into numerous scientific, business, and consumer applications. To help realize Big Data's full potential, the book addresses numerous challenges, offering the conceptual and technological solutions for tackling them. These challenges include life-cycle data management, large-scale storage, flexible processing infrastructure, data modeling, scalable machine learning, data analysis algorithms, sampling techniques, and privacy and ethical issues. Covers computational platforms supporting Big Data applications Addresses key principles underlying Big Data computing Examines key developments supporting next generation Big Data platforms Explores the challenges in Big Data computing and ways to overcome them Contains expert contributors from both academia and industry

With AngularJS, you can quickly build client-side applications that run well on any desktop or mobile platform, using REST web services for backend processes. You may have heard that the learning curve for this JavaScript MVC framework is too steep, but that's not the case. This practical guide provides a hands-on approach to learning AngularJS that will have you building high-quality applications and websites in no time. Along with a conceptual understanding of the framework, you'll also gain direct experience with AngularJS by building a sample application throughout the book. If you're familiar with JavaScript, web development, and software design con-

cepts and patterns, this book is the perfect way to get started. Understand how AngularJS differs from other MVC frameworks Learn about AngularJS controllers, views, and models by diving into the book's sample project Connect your working application to public REST services Build the application's security layer with non-REST AngularJS services Explore the basics of building and testing AngularJS directives Use AngularJS as part of the MEAN stack (MongoDB, ExpressJS, AngularJS, and Node.js) Discover how search engine optimization relates to AngularJS applications and sites

This volume constitutes the proceedings of the 7th International Conference on BIGDATA 2018, held as Part of SCF 2018 in Seattle, WA, USA in June 2018. The 22 full papers together with 10 short papers published in this volume were carefully reviewed and selected from 97 submissions. They are organized in topical sections such as Data analysis, data as a service, services computing, data conversion, data storage, data centers, dataflow architectures, data compression, data exchange, data modeling, databases, and data management.

Understand the key aspects and challenges of machine learning interpretability, learn how to overcome them with interpretation methods, and leverage them to build fairer, safer, and more reliable models Key Features Learn how to extract easy-to-understand insights from any machine learning model Become well-versed with interpretability techniques to build fairer, safer, and more reliable models Mitigate risks in AI systems before they have broader implications by learning how to debug black-box models Book Description Do you want to understand your models and mitigate risks associated with poor predictions using machine learning (ML) interpretation? Inter-

pretable Machine Learning with Python can help you work effectively with ML models. The first section of the book is a beginner's guide to interpretability, covering its relevance in business and exploring its key aspects and challenges. You'll focus on how white-box models work, compare them to black-box and glass-box models, and examine their trade-off. The second section will get you up to speed with a vast array of interpretation methods, also known as Explainable AI (XAI) methods, and how to apply them to different use cases, be it for classification or regression, for tabular, time-series, image or text. In addition to the step-by-step code, the book also helps the reader to interpret model outcomes using examples. In the third section, you'll get hands-on with tuning models and training data for interpretability by reducing complexity, mitigating bias, placing guardrails, and enhancing reliability. The methods you'll explore here range from state-of-the-art feature selection and dataset debiasing methods to monotonic constraints and adversarial retraining. By the end of this book, you'll be able to understand ML models better and enhance them through interpretability tuning. What you will learn Recognize the importance of interpretability in business Study models that are intrinsically interpretable such as linear models, decision trees, and Naïve Bayes Become well-versed in interpreting models with model-agnostic methods Visualize how an image classifier works and what it learns Understand how to mitigate the influence of bias in datasets Discover how to make models more reliable with adversarial robustness Use monotonic constraints to make fairer and safer models Who this book is for This book is for data scientists, machine learning developers, and data stewards who have an increasingly

critical responsibility to explain how the AI systems they develop work, their impact on decision making, and how they identify and manage bias. Working knowledge of machine learning and the Python programming language is expected.

Abstract This IBM® Redbooks® publication presents a general introduction to the latest IBM tape and tape library technologies. Featured tape technologies include the IBM LTO Ultrium and Enterprise 3592 tape drives, and their implementation in IBM tape libraries. This 16th edition introduces the new TS1160 tape drive with up to 20 TB capacity on JE media and the latest updates to the IBM TS4500 and TS4300 tape libraries. It includes generalized sections about Small Computer System Interface (SCSI) and Fibre Channel connections, and multipath architecture configurations. This book also covers tools and techniques for library management. It is intended for anyone who wants to understand more about IBM tape products and their implementation. It is suitable for IBM clients, IBM Business Partners, IBM specialist sales representatives, and technical specialists. If you do not have a background in computer tape storage products, you might need to read other sources of information. In the interest of being concise, topics that are generally understood are not covered in detail.

Using Continuous Delivery, you can bring software into production more rapidly, with greater reliability. A Practical Guide to Continuous Delivery is a 100% practical guide to building Continuous Delivery pipelines that automate rollouts, improve reproducibility, and dramatically reduce risk. Eberhard Wolff introduces a proven Continuous Delivery technology stack, including Docker, Chef, Vagrant, Jenkins, Graphite, the ELK stack, JBe-

have, and Gatling. He guides you through applying these technologies throughout build, continuous integration, load testing, acceptance testing, and monitoring. Wolff's start-to-finish example projects offer the basis for your own experimentation, pilot programs, and full-fledged deployments. A Practical Guide to Continuous Delivery is for everyone who wants to introduce Continuous Delivery, with or without DevOps. For managers, it introduces core processes, requirements, benefits, and technical consequences. Developers, administrators, and architects will gain essential skills for implementing and managing pipelines, and for integrating Continuous Delivery smoothly into software architectures and IT organizations. Understand the problems that Continuous Delivery solves, and how it solves them Establish an infrastructure for maximum software automation Leverage virtualization and Platform as a Service (PAAS) cloud solutions Implement build automation and continuous integration with Gradle, Maven, and Jenkins Perform static code reviews with SonarQube and repositories to store build artifacts Establish automated GUI and textual acceptance testing with behavior-driven design Ensure appropriate performance via capacity testing Check new features and problems with exploratory testing Minimize risk throughout automated production software rollouts Gather and analyze metrics and logs with Elasticsearch, Logstash, Kibana (ELK), and Graphite Manage the introduction of Continuous Delivery into your enterprise Architect software to facilitate Continuous Delivery of new capabilities

Create dynamic cloud-based websites with Amazon Web Services and this friendly guide! As the largest cloud computing platform in the world, Amazon

Web Services (AWS) provides one of the most popular web services options available. This easy-to-understand guide is the perfect introduction to the Amazon Web Services platform and all it can do for you. You'll learn about the Amazon Web Services tool set; how different web services (including S3, Amazon EC2, and Amazon Flexible Payments) and Glacier work; and how you can implement AWS in your organization. Explains how to use Amazon Web Services to store objects, take payments, manage large quantities of data, send e-mails, deploy push notifications, and more from your website Details how AWS can reduce costs, improve efficiency, increase productivity, and cut down on expensive hardware investments - and administrative headaches - in your organization Includes practical examples and helpful step-by-step lists to help you experiment with different AWS features and create a robust website that meets your needs Amazon Web Services For Dummies is exactly what you need to get your head in the cloud with Amazon Web Services!

"It's not easy to find such a generous book on big data and databases. Fortunately, this book is the one." Feng Yu. Computing Reviews. June 28, 2016. This is a book for enterprise architects, database administrators, and developers who need to understand the latest developments in database technologies. It is the book to help you choose the correct database technology at a time when concepts such as Big Data, NoSQL and NewSQL are making what used to be an easy choice into a complex decision with significant implications. The relational database (RDBMS) model completely dominated database technology for over 20 years. Today this "one size fits all" stability has been disrupted by a relatively recent explosion of new database tech-

nologies. These paradigm-busting technologies are powering the "Big Data" and "NoSQL" revolutions, as well as forcing fundamental changes in databases across the board. Deciding to use a relational database was once truly a no-brainer, and the various commercial relational databases competed on price, performance, reliability, and ease of use rather than on fundamental architectures. Today we are faced with choices between radically different database technologies. Choosing the right database today is a complex undertaking, with serious economic and technological consequences. Next Generation Databases demystifies today's new database technologies. The book describes what each technology was designed to solve. It shows how each technology can be used to solve real word application and business problems. Most importantly, this book highlights the architectural differences between technologies that are the critical factors to consider when choosing a database platform for new and upcoming projects. Introduces the new technologies that have revolutionized the database landscape Describes how each technology can be used to solve specific application or business challenges Reviews the most popular new wave databases and how they use these new database technologies

From the Foreword: "Big Data Management and Processing is [a] state-of-the-art book that deals with a wide range of topical themes in the field of Big Data. The book, which probes many issues related to this exciting and rapidly growing field, covers processing, management, analytics, and applications... [It] is a very valuable addition to the literature. It will serve as a source of up-to-date research in this continuously developing area. The

book also provides an opportunity for researchers to explore the use of advanced computing technologies and their impact on enhancing our capabilities to conduct more sophisticated studies." ---Sartaj Sahni, University of Florida, USA "Big Data Management and Processing covers the latest Big Data research results in processing, analytics, management and applications. Both fundamental insights and representative applications are provided. This book is a timely and valuable resource for students, researchers and seasoned practitioners in Big Data fields. --Hai Jin, Huazhong University of Science and Technology, China Big Data Management and Processing explores a range of big data related issues and their impact on the design of new computing systems. The twenty-one chapters were carefully selected and feature contributions from several outstanding researchers. The book endeavors to strike a balance between theoretical and practical coverage of innovative problem solving techniques for a range of platforms. It serves as a repository of paradigms, technologies, and applications that target different facets of big data computing systems. The first part of the book explores energy and resource management issues, as well as legal compliance and quality management for Big Data. It covers In-Memory computing and In-Memory data grids, as well as co-scheduling for high performance computing applications. The second part of the book includes comprehensive coverage of Hadoop and Spark, along with security, privacy, and trust challenges and solutions. The latter part of the book covers mining and clustering in Big Data, and includes applications in genomics, hospital big data processing, and vehicular cloud computing. The book also analyzes funding

for Big Data projects.

Completely revised and updated, this best-selling introduction to programming in JavaScript focuses on writing real applications. JavaScript lies at the heart of almost every modern web application, from social apps like Twitter to browser-based game frameworks like Phaser and Babylon. Though simple for beginners to pick up and play with, JavaScript is a flexible, complex language that you can use to build full-scale applications. This much anticipated and thoroughly revised third edition of Eloquent JavaScript dives deep into the JavaScript language to show you how to write beautiful, effective code. It has been updated to reflect the current state of JavaScript and web browsers and includes brand-new material on features like class notation, arrow functions, iterators, async functions, template strings, and block scope. A host of new exercises have also been added to test your skills and keep you on track. As with previous editions, Haverbeke continues to teach through extensive examples and immerses you in code from the start, while exercises and full-chapter projects give you hands-on experience with writing your own programs. You start by learning the basic structure of the JavaScript language as well as control structures, functions, and data structures to help you write basic programs. Then you'll learn about error handling and bug fixing, modularity, and asynchronous programming before moving on to web browsers and how JavaScript is used to program them. As you build projects such as an artificial life simulation, a simple programming language, and a paint program, you'll learn how to:

- Understand the essential elements of programming, including syntax, control, and data
- Organize and clarify your code with object-oriented and functional program-

ming techniques - Script the browser and make basic web applications - Use the DOM effectively to interact with browsers - Harness Node.js to build servers and utilities Isn't it time you became fluent in the language of the Web? * All source code is available online in an inter-active sandbox, where you can edit the code, run it, and see its output instantly.

The book aims to provide a broad overview of various topics of the Internet of Things (IoT) from the research and development priorities to enabling technologies, architecture, security, privacy, interoperability and industrial applications. It is intended to be a stand-alone book in a series that covers the Internet of Things activities of the IERC - Internet of Things European Research Cluster - from technology to international cooperation and the global "state of play." The book builds on the ideas put forward by the European Research Cluster on the Internet of Things Strategic Research and Innovation Agenda and presents views and state of the art results on the challenges facing the research, development and deployment of IoT at the global level. Today we see the integration of Industrial, Business and Consumer Internet which is bringing together the Internet of People, Internet of Things, Internet of Energy, Internet of Vehicles, Internet of Media, Services and Enterprises in forming the backbone of the digital economy, the digital society and the foundation for the future knowledge and innovation based economy. These developments are supporting solutions for the emerging challenges of public health, aging population, environmental protection and climate change, the conservation of energy and scarce materials, enhancements to safety and security and the continuation and growth of economic prosperity. Pene-

tration of smartphones and advances in nanoelectronics, cyber-physical systems, wireless communication, software, and Cloud computing technology will be the main drivers for IoT development. The IoT contribution is seen in the increased value of information created by the number of interconnections among things and the transformation of the processed information into knowledge shared into the Internet of Everything. The connected devices are part of ecosystems connecting people, processes, data, and things which are communicating in the Cloud using the increased storage and computing power while attempting to standardize communication and metadata. In this context, the next generation of Cloud computing technologies will need to be flexible enough to scale autonomously, adaptive enough to handle constantly changing connections and resilient enough to stand up to the huge flows of data that will occur. In 2025, analysts forecast that there will be six devices per human on the planet, which means around 50 billion more connected devices over the next 12 years. The Internet of Things market is connected to this anticipated device growth from industrial Machine to Machine (M2M) systems, smart meters and wireless sensors. Internet of Things technology will generate new services and new interfaces by creating smart environments and smart spaces with applications ranging from Smart Cities, Smart Transport, Buildings, Energy, Grid, to Smart Health and Life. What would happen if you optimized a data store for the operations application developers actually use? You'd arrive at MongoDB, the reliable document-oriented database. With this concise guide, you'll learn how to build elegant database applications with MongoDB and PHP. Written by the Chief Solutions Archi-

tect at 10gen—the company that develops and supports this open source database—this book takes you through MongoDB basics such as queries, read-write operations, and administration, and then dives into MapReduce, sharding, and other advanced topics. Get out of the relational database rut, and take advantage of a high-performing system optimized for operations and scale. Learn step-by-step the tools you need to build PHP applications with MongoDB Perform Create, Read, Update, and Delete (CRUD) operations, and learn how to perform queries to retrieve data Administer your database, and access and manipulate data with the MongoDB Shell Use functions to work with sets, arrays, and multiple documents to perform synchronous, asynchronous, and atomic operations Discover PHP's community tools and libraries, and why they're valuable Work with regular expressions, aggregation, MapReduce, replication, and sharding

Management Information Systems provides comprehensive and integrative coverage of essential new technologies, information system applications, and their impact on business models and managerial decision-making in an exciting and interactive manner. The twelfth edition focuses on the major changes that have been made in information technology over the past two years, and includes new opening, closing, and Interactive Session cases.

The rise of the internet and mobile telecommunications has created the possibility of using large datasets to understand behavior at unprecedented levels of temporal and geographic resolution. Online social networks attract the most users, though users of these new technologies provide their data through multiple

sources, e.g. call detail records, blog posts, web forums, and content aggregation sites. These data allow scholars to adjudicate between competing theories as well as develop new ones, much as the microscope facilitated the development of the germ theory of disease. Of those networks, Twitter presents an ideal combination of size, international reach, and data accessibility that make it the preferred platform in academic studies. Acquiring, cleaning, and analyzing these data, however, require new tools and processes. This Element introduces these methods to social scientists and provides scripts and examples for downloading, processing, and analyzing Twitter data.

Whether you're building a social media site or an internal-use enterprise application, this hands-on guide shows you the connection between MongoDB and the business problems it's designed to solve. You'll learn how to apply MongoDB design patterns to several challenging domains, such as ecommerce, content management, and online gaming. Using Python and JavaScript code examples, you'll discover how MongoDB lets you scale your data model while simplifying the development process. Many businesses launch NoSQL databases without understanding the techniques for using their features most effectively. This book demonstrates the benefits of document embedding, polymorphic schemas, and other MongoDB patterns for tackling specific big data use cases, including: Operational intelligence: Perform real-time analytics of business data Ecommerce: Use MongoDB as a product catalog master or inventory management system Content management: Learn methods for storing content nodes, binary assets, and discussions Online advertising networks: Apply techniques for frequency capping ad im-

pressions, and keyword targeting and bidding Social networking: Learn how to store a complex social graph, modeled after Google+ Online gaming: Provide concurrent access to character and world data for a multiplayer role-playing game Sue Polanka brings together a variety of professionals to share their expertise about e-books with librarians and publishers. Providing forward-thinking ideas while remaining grounded in practical information that can be implemented in all kinds of libraries, the topics explored include an introduction to e-books and their different types, an overview of their history and development, e-book technology, why e-books are good for learning, and how librarians can market them to a wide range of users.--[backcover]

Updated for the latest database management systems -- including MySQL 6.0, Oracle 11g, and Microsoft's SQL Server 2008 -- this introductory guide will get you up and running with SQL quickly. Whether you need to write database applications, perform administrative tasks, or generate reports, *Learning SQL, Second Edition*, will help you easily master all the SQL fundamentals. Each chapter presents a self-contained lesson on a key SQL concept or technique, with numerous illustrations and annotated examples. Exercises at the end of each chapter let you practice the skills you learn. With this book, you will: Move quickly through SQL basics and learn several advanced features Use SQL data statements to generate, manipulate, and retrieve data Create database objects, such as tables, indexes, and constraints, using SQL schema statements Learn how data sets interact with queries, and understand the importance of subqueries Convert and manipulate data with SQL's built-in functions, and use conditional log-

ic in data statements Knowledge of SQL is a must for interacting with data. With *Learning SQL*, you'll quickly learn how to put the power and flexibility of this language to work.

WHAT'S IN IT FOR ME? Information technology lives all around us—in how we communicate, how we do business, how we shop, and how we learn. Smart phones, iPods, PDAs, and wireless devices dominate our lives, and yet it's all too easy for students to take information technology for granted. Rainer and Turban's *Introduction to Information Systems, 2nd edition* helps make Information Technology come alive in the classroom. This text takes students where IT lives—in today's businesses and in our daily lives while helping students understand how valuable information technology is to their future careers. The new edition provides concise and accessible coverage of core IT topics while connecting these topics to Accounting, Finance, Marketing, Management, Human resources, and Operations, so students can discover how critical IT is to each functional area and every business. Also available with this edition is WileyPLUS - a powerful online tool that provides instructors and students with an integrated suite of teaching and learning resources in one easy-to-use website. The WileyPLUS course for *Introduction to Information Systems, 2nd edition* includes animated tutorials in Microsoft Office 2007, with iPod content and podcasts of chapter summaries provided by author Kelly Rainer.

A riveting, deeply personal account of history in the making—from the president who inspired us to believe in the power of democracy #1 NEW YORK TIMES BESTSELLER • NAACP IMAGE AWARD NOMINEE • NAMED ONE OF THE TEN BEST BOOKS OF THE YEAR BY THE NEW YORK TIMES BOOK REVIEW NAMED

ONE OF THE BEST BOOKS OF THE YEAR BY The Washington Post • Jennifer Szalai, The New York Times • NPR • The Guardian • Marie Claire In the stirring, highly anticipated first volume of his presidential memoirs, Barack Obama tells the story of his improbable odyssey from young man searching for his identity to leader of the free world, describing in strikingly personal detail both his political education and the landmark moments of the first term of his historic presidency—a time of dramatic transformation and turmoil. Obama takes readers on a compelling journey from his earliest political aspirations to the pivotal Iowa caucus victory that demonstrated the power of grassroots activism to the watershed night of November 4, 2008, when he was elected 44th president of the United States, becoming the first African American to hold the nation’s highest office. Reflecting on the presidency, he offers a unique and thoughtful exploration of both the awesome reach and the limits of presidential power, as well as singular insights into the dynamics of U.S. partisan politics and international diplomacy. Obama brings readers inside the Oval Office and the White House Situation Room, and to Moscow, Cairo, Beijing, and points beyond. We are privy to his thoughts as he assembles his cabinet, wrestles with a global financial crisis, takes the measure of Vladimir Putin, overcomes seemingly insurmountable odds to secure passage of the Affordable Care Act, clashes with generals about U.S. strategy in Afghanistan, tackles Wall Street reform, responds to the devastating Deepwater Horizon blowout, and authorizes Operation Neptune’s Spear, which leads to the death of Osama bin Laden. *A Promised Land* is extraordinarily intimate and introspective—the story of one man’s bet with history, the faith

of a community organizer tested on the world stage. Obama is candid about the balancing act of running for office as a Black American, bearing the expectations of a generation buoyed by messages of “hope and change,” and meeting the moral challenges of high-stakes decision-making. He is frank about the forces that opposed him at home and abroad, open about how living in the White House affected his wife and daughters, and unafraid to reveal self-doubt and disappointment. Yet he never wavers from his belief that inside the great, ongoing American experiment, progress is always possible. This beautifully written and powerful book captures Barack Obama’s conviction that democracy is not a gift from on high but something founded on empathy and common understanding and built together, day by day. This book is published open access under a CC BY 4.0 license. Over the past decades, rapid developments in digital and sensing technologies, such as the Cloud, Web and Internet of Things, have dramatically changed the way we live and work. The digital transformation is revolutionizing our ability to monitor our planet and transforming the way we access, process and exploit Earth Observation data from satellites. This book reviews these megatrends and their implications for the Earth Observation community as well as the wider data economy. It provides insight into new paradigms of Open Science and Innovation applied to space data, which are characterized by openness, access to large volume of complex data, wide availability of new community tools, new techniques for big data analytics such as Artificial Intelligence, unprecedented level of computing power, and new types of collaboration among researchers, innovators, entrepreneurs and citizen scientists. In addition, this

book aims to provide readers with some reflections on the future of Earth Observation, highlighting through a series of use cases not just the new opportunities created by the New Space revolution, but also the new challenges that must be addressed in order to make the most of the large volume of complex and diverse data delivered by the new generation of satellites.

This book reflects the author's years of hands-on experience as an academic and practitioner. It is primarily intended for executives, managers and practitioners who want to redefine the way they think about artificial intelligence (AI) and other exponential technologies. Accordingly the book, which is structured as a collection of largely self-contained articles, includes both general strategic reflections and detailed sector-specific information. More concretely, it shares insights into what it means to work with AI and how to do it more efficiently; what it means to hire a data scientist and what new roles there are in the field; how to use AI in specific industries such as finance or insurance; how AI interacts with other technologies such as blockchain; and, in closing, a review of the use of AI in venture capital, as well as a snapshot of acceleration programs for AI companies.

Sensor Technologies: Healthcare, Wellness and Environmental Applications explores the key aspects of sensor technologies, covering wired, wireless, and discrete sensors for the specific application domains of healthcare, wellness and environmental sensing. It discusses the social, regulatory, and design considerations specific to these domains. The book provides an application-based approach using real-world examples to illustrate the application of sensor technolo-

gies in a practical and experiential manner. The book guides the reader from the formulation of the research question, through the design and validation process, to the deployment and management phase of sensor applications. The processes and examples used in the book are primarily based on research carried out by Intel or joint academic research programs. "Sensor Technologies: Healthcare, Wellness and Environmental Applications provides an extensive overview of sensing technologies and their applications in healthcare, wellness, and environmental monitoring. From sensor hardware to system applications and case studies, this book gives readers an in-depth understanding of the technologies and how they can be applied. I would highly recommend it to students or researchers who are interested in wireless sensing technologies and the associated applications." Dr. Benny Lo Lecturer, The Hamlyn Centre, Imperial College of London "This timely addition to the literature on sensors covers the broad complexity of sensing, sensor types, and the vast range of existing and emerging applications in a very clearly written and accessible manner. It is particularly good at capturing the exciting possibilities that will occur as sensor networks merge with cloud-based 'big data' analytics to provide a host of new applications that will impact directly on the individual in ways we cannot fully predict at present. It really brings this home through the use of carefully chosen case studies that bring the overwhelming concept of 'big data' down to the personal level of individual life and health." Dermot Diamond Director, National Centre for Sensor Research, Principal Investigator, CLARITY Centre for Sensor Web Technologies, Dublin City University "Sensor Technologies: Healthcare, Wellness and

Environmental Applications takes the reader on an end-to-end journey of sensor technologies, covering the fundamentals from an engineering perspective, introducing how the data gleaned can be both processed and visualized, in addition to offering exemplar case studies in a number of application domains. It is a must-read for those studying any undergraduate course that involves sensor technologies. It also provides a thorough foundation for those involved in the research and development of applied sensor systems. I highly recommend it to any engineer who wishes to broaden their knowledge in this area!" Chris Nugent Professor of Biomedical Engineering, University of Ulster

The recent pursuits emerging in the realm of big data processing, interpretation, collection and organization have emerged in numerous sectors including business, industry and government organizations. Data sets such as customer transactions for a mega-retailer, weather monitoring, intelligence gathering, quickly outpace the capacities of traditional techniques and tools of data analysis. The 3V (volume, variability and velocity) challenges led to the emergence of new techniques and tools in data visualization, acquisition, and serialization. Soft Computing being regarded as a plethora of technologies of fuzzy sets (or Granular Computing), neurocomputing and evolutionary optimization brings forward a number of unique features that might be instrumental to the development of concepts and algorithms to deal with big data. This carefully edited volume provides the reader with an updated, in-depth material on the emerging principles, conceptual underpinnings, algorithms and practice of Computational Intelligence in the realization of concepts and implementation of big data architectures, analysis,

and interpretation as well as data analytics. The book is aimed at a broad audience of researchers and practitioners including those active in various disciplines in which big data, their analysis and optimization are of genuine relevance. One focal point is the systematic exposure of the concepts, design methodology, and detailed algorithms. In general, the volume adheres to the top-down strategy starting with the concepts and motivation and then proceeding with the detailed design that materializes in specific algorithms and representative applications. The material is self-contained and provides the reader with all necessary prerequisites and augments some parts with a step-by-step explanation of more advanced concepts supported by a significant amount of illustrative numeric material and some application scenarios to motivate the reader and make some abstract concepts more tangible.

While Robotic Process Automation (RPA) has been around for about 20 years, it has hit an inflection point because of the convergence of cloud computing, big data and AI. This book shows you how to leverage RPA effectively in your company to automate repetitive and rules-based processes, such as scheduling, inputting/transferring data, cut and paste, filling out forms, and search. Using practical aspects of implementing the technology (based on case studies and industry best practices), you'll see how companies have been able to realize substantial ROI (Return On Investment) with their implementations, such as by lessening the need for hiring or outsourcing. By understanding the core concepts of RPA, you'll also see that the technology significantly increases compliance - leading to fewer issues with regulations - and minimizes costly errors. RPA software revenues have recently soared by over 60

percent, which is the fastest ramp in the tech industry, and they are expected to exceed \$1 billion by the end of 2019. It is generally seamless with legacy IT environments, making it easier for companies to pursue a strategy of digital transformation and can even be a gateway to AI. The Robotic Process Automation Handbook puts everything you need to know into one place to be a part of this wave. What You'll Learn Develop the right strategy and plan Deal with resistance and fears from employees Take an in-depth look at the leading RPA systems, including where they are most effective, the risks and the costs Evaluate an RPA system Who This Book Is For IT specialists and managers at mid-to-large companies

Explore the theory and practical applications of artificial intelligence (AI) and machine learning in healthcare. This book offers a guided tour of machine learning algorithms, architecture design, and applications of learning in healthcare and big data challenges. You'll discover the ethical implications of healthcare data analytics and the future of AI in population and patient health optimization. You'll also create a machine learning model, evaluate performance and operationalize its outcomes within your organization. Machine Learning and AI for Healthcare provides techniques on how to apply machine learning within your organization and evaluate the efficacy, suitability, and efficiency of AI applications. These are illustrated through leading case studies, including how chronic disease is being redefined through patient-led data learning and the Internet of Things. What You'll Learn Gain a deeper understanding of key machine learning algorithms and their use and implementation within wider healthcare Implement

machine learning systems, such as speech recognition and enhanced deep learning/AI Select learning methods/algorithms and tuning for use in healthcare Recognize and prepare for the future of artificial intelligence in healthcare through best practices, feedback loops and intelligent agents Who This Book Is For Health care professionals interested in how machine learning can be used to develop health intelligence - with the aim of improving patient health, population health and facilitating significant care-payer cost savings.

A hands-on guide to leveraging NoSQL databases NoSQL databases are an efficient and powerful tool for storing and manipulating vast quantities of data. Most NoSQL databases scale well as data grows. In addition, they are often malleable and flexible enough to accommodate semi-structured and sparse data sets. This comprehensive hands-on guide presents fundamental concepts and practical solutions for getting you ready to use NoSQL databases. Expert author Shashank Tiwari begins with a helpful introduction on the subject of NoSQL, explains its characteristics and typical uses, and looks at where it fits in the application stack. Unique insights help you choose which NoSQL solutions are best for solving your specific data storage needs. Professional NoSQL: Demystifies the concepts that relate to NoSQL databases, including column-family oriented stores, key/value databases, and document databases. Delves into installing and configuring a number of NoSQL products and the Hadoop family of products. Explains ways of storing, accessing, and querying data in NoSQL databases through examples that use MongoDB, HBase, Cassandra, Redis, CouchDB, Google App Engine Datastore and more. Looks at architecture and in-

ternals. Provides guidelines for optimal usage, performance tuning, and scalable configurations. Presents a number of tools and utilities relating to NoSQL, distributed platforms, and scalable processing, including Hive, Pig, RRDtool, Nagios, and more.

Manage the huMONGOus amount of data collected through your web application with MongoDB. This authoritative introduction—written by a core contributor to the project—shows you the many advantages of using document-oriented databases, and demonstrates how this reliable, high-performance system allows for almost infinite horizontal scalability. This updated second edition provides guidance for database developers, advanced configuration for system administrators, and an overview of the concepts and use cases for other people on your project. Ideal for NoSQL newcomers and experienced MongoDB users alike, this guide provides numerous real-world schema design examples. Get started with MongoDB core concepts and vocabulary Perform basic write operations at different levels of safety and speed Create complex queries, with options for limiting, skipping, and sorting results Design an application that works well with MongoDB Aggregate data, including counting, finding distinct values, grouping documents, and using MapReduce Gather and interpret statistics about your collections and databases Set up replica sets and automatic failover in MongoDB Use sharding to scale horizontally, and learn how it impacts applications Delve into monitoring, security and authentication, backup/restore, and other administrative tasks

This volume constitutes refereed proceedings of the Third International Conference on Smart Applications and Data Analysis, SADASC 2020, held in Mar-

rakesh, Morocco. Due to the COVID-19 pandemic the conference has been postponed to June 2020. The 24 full papers and 3 short papers presented were thoroughly reviewed and selected from 44 submissions. The papers are organized according to the following topics: ontologies and meta modeling; cyber physical systems and block-chains; recommender systems; machine learning based applications; combinatorial optimization; simulations and deep learning.

Publisher's Note: This edition from 2019 is outdated and is not compatible with the latest version of Go. A new third edition, updated for 2021 and featuring the latest in Go programming, has now been published. Key Features • Second edition of the bestselling guide to advanced Go programming, expanded to cover machine learning, more Go packages and a range of modern development techniques • Completes the Go developer's education with real-world guides to building high-performance production systems • Packed with practical examples and patterns to apply to your own development work • Clearly explains Go nuances and features to remove the frustration from Go development Book Description Often referred to (incorrectly) as Golang, Go is the high-performance systems language of the future. Mastering Go, Second Edition helps you become a productive expert Go programmer, building and improving on the groundbreaking first edition. Mastering Go, Second Edition shows how to put Go to work on real production systems. For programmers who already know the Go language basics, this book provides examples, patterns, and clear explanations to help you deeply understand Go's capabilities and apply them in your programming work. The book covers the nuances of Go, with

in-depth guides on types and structures, packages, concurrency, network programming, compiler design, optimization, and more. Each chapter ends with exercises and resources to fully embed your new knowledge. This second edition includes a completely new chapter on machine learning in Go, guiding you from the foundation statistics techniques through simple regression and clustering to classification, neural networks, and anomaly detection. Other chapters are expanded to cover using Go with Docker and Kubernetes, Git, WebAssembly, JSON, and more. If you take the Go programming language seriously, the second edition of this book is an essential guide on expert techniques. What you will learn

- Clear guidance on using Go for production systems
- Detailed explanations of how Go internals work, the design choices behind the language, and how to optimize your Go code
- A full guide to all Go data types, composite types, and data structures
- Master packages, reflection, and interfaces for effective Go programming
- Build high-performance systems networking code, including server and client-side applications
- Interface with other systems using WebAssembly, JSON, and gRPC
- Write reliable, high-performance concurrent code
- Build machine learning systems in Go, from simple statistical regression to complex neural networks

Who this book is for Mastering Go, Second Edition is for Go programmers who already know the language basics, and want to become expert Go practitioners.

Table of Contents

- Go and the Operating System
- Understanding Go Internals
- Working with Basic Go Data Types
- The Uses of Composite Types
- How to Enhance Go Code with Data Structures
- What You Might Not Know About Go Packages and functions
- Reflection and Interfaces for All

- Seasons
- Telling a Unix System What to Do
- Concurrency in Go: Goroutines, Channels, and Pipelines
- Concurrency in Go: Advanced Topics
- Code Testing, Optimization, and Profiling
- The Foundations of Network Programming in Go
- Network Programming: Building Your Own Servers and Clients
- Machine Learning in Go Review "Mastering Go - Second Edition is a must-read for developers wanting to expand their knowledge of the language or wanting to pick it up from scratch" -- Alex Ellis - Founder of OpenFaaS Ltd, CNCF Ambassador

Learning the new system's programming language for all Unix-type systems About This Book Learn how to write system's level code in Golang, similar to Unix/Linux systems code Ramp up in Go quickly Deep dive into Goroutines and Go concurrency to be able to take advantage of Go server-level constructs Who This Book Is For Intermediate Linux and general Unix programmers. Network programmers from beginners to advanced practitioners. C and C++ programmers interested in different approaches to concurrency and Linux systems programming. What You Will Learn Explore the Go language from the standpoint of a developer conversant with Unix, Linux, and so on Understand Goroutines, the lightweight threads used for systems and concurrent applications Learn how to translate Unix and Linux systems code in C to Golang code How to write fast and lightweight server code Dive into concurrency with Go Write low-level networking code In Detail Go is the new systems programming language for Linux and Unix systems. It is also the language in which some of the most prominent cloud-level systems have been written, such as Docker. Where C programmers used to rule, Go programmers are in demand to write highly optimized systems programming

code. Created by some of the original designers of C and Unix, Go expands the systems programmers toolkit and adds a mature, clear programming language. Traditional system applications become easier to write since pointers are not relevant and garbage collection has taken away the most problematic area for low-level systems code: memory management. This book opens up the world of high-performance Unix system applications to the beginning Go programmer. It does not get stuck on single systems or even system types, but tries to expand the original teachings from Unix system level programming to all types of servers, the cloud, and the web. Style and approach This is the first book to introduce Linux and Unix systems programming in Go, a field for which Go has actually been developed in the first place.

This book constitutes the proceedings of the 13th European Conference on Technology Enhanced Learning, EC-TEL 2018, held in Leeds, UK, in September 2018. The 42 full and short papers, 7 demo papers, and 23 poster papers presented in this volume were carefully reviewed and selected from 142 submissions. This year, the European Conference on Technology-Enhanced Learning (EC-TEL) will engage researchers, practitioners, educational developers, entrepreneurs and policy makers in a joint discussion on how to put science, technology and practice at the service of learning to embrace these challenges on the topic: Lifelong technology enhanced learning: Dealing with the complexity of 21st century challenges. /div Chapter "" is available open access under a Creative Commons Attribution 4.0 International License via link.springer.com.

Congratulations! You completed the MongoDB application within the given tight timeframe and there is a party to cele-

brate your application's release into production. Although people are congratulating you at the celebration, you are feeling some uneasiness inside. To complete the project on time required making a lot of assumptions about the data, such as what terms meant and how calculations are derived. In addition, the poor documentation about the application will be of limited use to the support team, and not investigating all of the inherent rules in the data may eventually lead to poorly-performing structures in the not-so-distant future. Now, what if you had a time machine and could go back and read this book. You would learn that even NoSQL databases like MongoDB require some level of data modeling. Data modeling is the process of learning about the data, and regardless of technology, this process must be performed for a successful application. You would learn the value of conceptual, logical, and physical data modeling and how each stage increases our knowledge of the data and reduces assumptions and poor design decisions. Read this book to learn how to do data modeling for MongoDB applications, and accomplish these five objectives: Understand how data modeling contributes to the process of learning about the data, and is, therefore, a required technique, even when the resulting database is not relational. That is, NoSQL does not mean NoDataModeling! Know how NoSQL databases differ from traditional relational databases, and where MongoDB fits. Explore each MongoDB object and comprehend how each compares to their data modeling and traditional relational database counterparts, and learn the basics of adding, querying, updating, and deleting data in MongoDB. Practice a streamlined, template-driven approach to performing conceptual, logical, and physical data modeling. Recognize that

data modeling does not always have to lead to traditional data models! Distinguish top-down from bottom-up development approaches and complete a top-down case study which ties all of the modeling techniques together. This book is written for anyone who is working with, or will be working with MongoDB, including business analysts, data modelers, database administrators, developers, project managers, and data scientists. There are three sections: In Section I, Getting Started, we will reveal the power of data modeling and the tight connections to data models that exist when designing any type of database (Chapter 1), compare NoSQL with traditional relational databases and where MongoDB fits (Chapter 2), explore each MongoDB object and comprehend how each compares to their data modeling and traditional relational database counterparts (Chapter 3), and explain the basics of adding, querying, updating, and deleting data in MongoDB (Chapter 4). In Section

II, Levels of Granularity, we cover Conceptual Data Modeling (Chapter 5), Logical Data Modeling (Chapter 6), and Physical Data Modeling (Chapter 7). Notice the “ing” at the end of each of these chapters. We focus on the process of building each of these models, which is where we gain essential business knowledge. In Section III, Case Study, we will explain both top down and bottom up development approaches and go through a top down case study where we start with business requirements and end with the MongoDB database. This case study will tie together all of the techniques in the previous seven chapters. Nike Senior Data Architect Ryan Smith wrote the foreword. Key points are included at the end of each chapter as a way to reinforce concepts. In addition, this book is loaded with hands-on exercises, along with their answers provided in Appendix A. Appendix B contains all of the book’s references and Appendix C contains a glossary of the terms used throughout the text.