

Sql Data Modeling Guide Marklogic

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It is your no question own mature to play-act reviewing habit. in the course of guides you could enjoy now is **Sql Data Modeling Guide Marklogic** below.

Graph Data Management Sherif Sakr 2012 "This book is a central reference source for different data management techniques for graph data structures and their applications, discussing graphs for modeling complex structured and schemaless data from the Semantic Web, social networks, protein networks, chemical compounds, and multimedia databases"-- Provided by publisher.

An Introduction to XML Query Processing and Keyword Search Jiaheng Lu 2013-03-15 "An Introduction to XML Query Processing and Keyword Search" systematically and comprehensively covers the latest advances in XML data searching. It presents an extensive overview of the current query processing and keyword search techniques on XML data, including XML labeling schemes, indexing, processing on order and un-order XML tree patterns, XML query optimization, results estimation, and XML keyword searches, which are elaborated in separate chapters. Graduate students and researchers in the field of XML data searching will find this book an invaluable resource. Prof. Jiaheng Lu is an associate professor at Renmin University of China's School of Information.

Developing Time-oriented Database Applications in SQL Richard T. Snodgrass 2000 Whether you're a database designer, programmer, analyst, or manager, you've probably encountered some of the challenges-and experienced some of the frustrations-associated with time-varying data. Where do you turn to fix the problem and see that it doesn't happen again? In *Developing Time-Oriented Database Applications in SQL*, a

leading SQL researcher teaches you effective techniques for designing and building database applications that must integrate past and current data. Written to meet a pervasive, enduring need, this book will be indispensable if you happen to be part of the flurry of activity leading up to Y2K. The enclosed CD-ROM contains all of the code fragments-implemented for Oracle8 Server, IBM DB2 Universal Database, Microsoft SQL Server, and other systems-and evaluation copies of the programs discussed in the book. * Offers incisive advice on recording temporal data using SQL data types, defining appropriate integrity constraints, updating temporal tables, and querying temporal tables with interactive and embedded SQL. * Provides case studies detailing real-world problems and solutions in areas such as event data, state-based data, partitioned data, and audit logs. * Contains over 400 code fragments with detailed explanations. *CouchDB: The Definitive Guide* J. Chris Anderson 2010-01-19 Three of CouchDB's creators show you how to use this document-oriented database as a standalone application framework or with high-volume, distributed applications. With its simple model for storing, processing, and accessing data, CouchDB is ideal for web applications that handle huge amounts of loosely structured data. That alone would stretch the limits of a relational database, yet CouchDB offers an open source solution that's reliable, scales easily, and responds quickly. CouchDB works with self-contained data that has loose or ad-hoc connections. It's a model that fits many real-world items, such as contacts, invoices, and receipts, but you'll discover that this database can easily handle data of any kind. With this

book, you'll learn how to work with CouchDB through its RESTful web interface, and become familiar with key features such as simple document CRUD (create, read, update, delete), advanced MapReduce, deployment tuning, and more. Understand the basics of document-oriented storage and manipulation Interact with CouchDB entirely through HTTP using its RESTful interface Model data as self-contained JSON documents Handle evolving data schemas naturally Query and aggregate data in CouchDB using MapReduce views Replicate data between nodes Tune CouchDB for increased performance and reliability

AWS Certified Developer - Associate Guide

Vipul Tankariya 2017-09-27 An effective guide to becoming an AWS Certified Developer About This Book This fast-paced guide will help you clear the exam with confidence Learn to design, develop, and deploy cloud-based solutions using AWS Enhance your AWS skills with practice questions and mock tests Who This Book Is For This book is for IT professionals and developers looking to clear the AWS Certified Developer - Associate 2017 exam. Developers looking to develop and manage their applications on the AWS platform will also find this book useful. No prior AWS experience is needed. What You Will Learn Create and manage users, groups, and permissions using AWS Identity and Access Management services Create a secured Virtual Private Cloud (VPC) with Public and Private Subnets, Network Access Control, and Security groups Get started with Elastic Compute Cloud (EC2), launching your first EC2 instance, and working with it Handle application traffic with Elastic Load Balancing (ELB) and monitor AWS resources with CloudWatch Work with AWS storage services such as Simple Storage Service (S3), Glacier, and CloudFront Get acquainted with AWS DynamoDB - a NoSQL database service Coordinate work across distributed application components using Simple Workflow Service (SWF) In Detail AWS Certified Developer - Associate Guide starts with a quick introduction to AWS and the prerequisites to get you started. Then, this book gives you a fair understanding of core AWS services and basic architecture. Next, this book will describe about getting familiar with Identity and Access Management (IAM) along with Virtual private cloud (VPC). Moving ahead

you will learn about Elastic Compute cloud (EC2) and handling application traffic with Elastic Load Balancing (ELB). Going ahead you we will talk about Monitoring with CloudWatch, Simple storage service (S3) and Glacier and CloudFront along with other AWS storage options. Next we will take you through AWS DynamoDB - A NoSQL Database Service, Amazon Simple Queue Service (SQS) and CloudFormation Overview. Finally, this book covers understanding Elastic Beanstalk and overview of AWS lambda. At the end of this book, we will cover enough topics, tips and tricks along with mock tests for you to be able to pass the AWS Certified Developer - Associate exam and develop as well as manage your applications on the AWS platform. Style and approach This step-by-step guide includes exercises and mock tests to clear the AWS certification exam and become a successful AWS developer.

Learning Neo4j 3.x Jerome Baton 2017-10-20 Run blazingly fast queries on complex graph datasets with the power of the Neo4j graph database About This Book Get acquainted with graph database systems and apply them in real-world use cases Use Cypher query language, APOC and other Neo4j extensions to derive meaningful analysis from complex data sets. A practical guide filled with ready to use examples on querying, graph processing and visualizing information to build smarter spatial applications. Who This Book Is For This book is for developers who want an alternative way to store and process data within their applications. No previous graph database experience is required; however, some basic database knowledge will help you understand the concepts more easily. What You Will Learn Understand the science of graph theory, databases and its advantages over traditional databases. Install Neo4j, model data and learn the most common practices of traversing data Learn the Cypher query language and tailor-made procedures to analyze and derive meaningful representations of data Improve graph techniques with the help of precise procedures in the APOC library Use Neo4j advanced extensions and plugins for performance optimization. Understand how Neo4j's new security features and clustering architecture are used for large scale deployments. In Detail Neo4j is a graph database that allows traversing huge amounts of data with

ease. This book aims at quickly getting you started with the popular graph database Neo4j. Starting with a brief introduction to graph theory, this book will show you the advantages of using graph databases along with data modeling techniques for graph databases. You'll gain practical hands-on experience with commonly used and lesser known features for updating graph store with Neo4j's Cypher query language. Furthermore, you'll also learn to create awesome procedures using APOC and extend Neo4j's functionality, enabling integration, algorithmic analysis, and other advanced spatial operation capabilities on data. Through the course of the book you will come across implementation examples on the latest updates in Neo4j, such as in-graph indexes, scaling, performance improvements, visualization, data refactoring techniques, security enhancements, and much more. By the end of the book, you'll have gained the skills to design and implement modern spatial applications, from graphing data to unraveling business capabilities with the help of real-world use cases. Style and approach A step-by-step approach of adopting Neo4j, the world's leading graph database. This book includes a lot of background information, helps you grasp the fundamental concepts behind this radical new way of dealing with connected data, and will give you lots of examples of use cases and environments where a graph database would be a great fit

The Future of FinTech Bernardo Nicoletti
2017-03-02 This book provides an introduction to the state of the art in financial technology (FinTech) and the current applications of FinTech in digital banking. It is a comprehensive guide to the various technologies, products, processes, and business models integral to the FinTech environment. Covering key definitions and characteristics, models and best practice, as well as presenting relevant case studies related to FinTech and e-Business, this book helps build a theoretical framework for future discussion.

Java Servlet Programming Jason Hunter
2001-04-03 Servlets are an exciting and important technology that ties Java to the Web, allowing programmers to write Java programs that create dynamic web content. Java Servlet Programming covers everything Java developers need to know to write effective servlets. It

explains the servlet lifecycle, showing how to use servlets to maintain state information effortlessly. It also describes how to serve dynamic web content, including both HTML pages and multimedia data, and explores more advanced topics like integrated session tracking, efficient database connectivity using JDBC, applet-servlet communication, interservlet communication, and internationalization. Readers can use the book's numerous real-world examples as the basis for their own servlets. The second edition has been completely updated to cover the new features of Version 2.2 of the Java Servlet API. It introduces chapters on servlet security and advanced communication, and also introduces several popular tools for easier integration of servlet technology with dynamic web pages. These tools include JavaServer Pages (JSP), Tea, XMLC, and the Element Construction Set. In addition to complete coverage of 2.2 specification, Java Servlet programming, 2nd Edition, also contains coverage of the new 2.3 final draft specification.

Jumpstart Snowflake Dmitry Anoshin 2019-12-20
Explore the modern market of data analytics platforms and the benefits of using Snowflake computing, the data warehouse built for the cloud. With the rise of cloud technologies, organizations prefer to deploy their analytics using cloud providers such as Amazon Web Services (AWS), Microsoft Azure, or Google Cloud Platform. Cloud vendors are offering modern data platforms for building cloud analytics solutions to collect data and consolidate into single storage solutions that provide insights for business users. The core of any analytics framework is the data warehouse, and previously customers did not have many choices of platform to use. Snowflake was built specifically for the cloud and it is a true game changer for the analytics market. This book will help onboard you to Snowflake, present best practices to deploy, and use the Snowflake data warehouse. In addition, it covers modern analytics architecture and use cases. It provides use cases of integration with leading analytics software such as Matillion ETL, Tableau, and Databricks. Finally, it covers migration scenarios for on-premise legacy data warehouses. What You Will Learn Know the key functionalities of Snowflake Set up security and access with cluster Bulk load data into Snowflake using the COPY

command Migrate from a legacy data warehouse to Snowflake integrate the Snowflake data platform with modern business intelligence (BI) and data integration tools Who This Book Is For Those working with data warehouse and business intelligence (BI) technologies, and existing and potential Snowflake users

Introduction to Environmental Data

Analysis and Modeling Moses Eterigho Emeteri 2020-01-03 This book introduces numerical methods for processing datasets which may be of any form, illustrating adequately computational resolution of environmental alongside the use of open source libraries. This book solves the challenges of misrepresentation of datasets that are relevant directly or indirectly to the research. It illustrates new ways of screening datasets or images for maximum utilization. The adoption of various numerical methods in dataset treatment would certainly create a new scientific approach. The book enlightens researchers on how to analyse measurements to ensure 100% utilization. It introduces new ways of data treatment that are based on a sound mathematical and computational approach.

Making data portability more effective for the digital economy

Jan Krämer 2020-06-15 This study provides recommendations on how to make personal data portability more effective. This will truly empower consumers to use the services they want and share their data with whoever they wish and stimulate innovation in Europe. With the entry into force of the GDPR, European citizens gained new rights, notably with data portability. But two years later, there is still little sign of people exercising this right, and of companies offering an easy and convenient service for data portability. While the European Commission is finalising its evaluation of the GDPR and closes its consultation on the European data strategy, the authors, professors Jan Krämer, Pierre Senellart and Alexandre de Streel*, warn that the current legal framework requires clarifications to better empower European citizens in a data-driven society. In this study, they identify barriers to data portability, including the lack of possibilities to import data as well as the lack of common standards and tools to access data as easy as the click of a button. The ability to provide users with a

centralised dashboard for monitoring and controlling the flow of their data is also critically missing. “Today, consumers do not widely use data portability for reasons that can and should be overcome. Making data portability more effective is better for competition, for innovation and to empower users,” stress the authors. “There should be no second-guessing on whether to make data portability more effective, the time to act is now.” The current EU framework encourages data portability, but there are legal gaps that the EU should fill. The authors insist on the need for detailed guidance on how data portability can be facilitated and on which data is subject to data portability without violating privacy rights. They advocate that data provided by users when using a service, such as search history (i.e. “observed data”) should clearly be included under the scope of data portability. The authors consider it essential that the obligation to offer standardised Application Programming Interfaces (APIs) be much more widespread to enable consumers to continuously port their data. “We believe that standardised APIs that enable continuous data portability is a prerequisite for encouraging more organisations to import personal data, and for encouraging more consumers to initiate such transfers,” explain the authors. Projects, such as the Data Transfer Project have highlighted that continuous data portability is technically feasible. The authors argue that Personal Management Information Systems (PIMs) facilitate the complex consent management and offer users a centralised dashboard for monitoring and controlling the flow of their data will have a crucial role to play for the wider adoption of data portability. “It must be as easy as clicking a button for consumers to continuously share data they created with one provider to another provider. This may also require educating and informing users on their rights through information campaigns alongside clear policy measures,” explain the authors. Nevertheless, they stress that PIMs are not likely to find a sustainable business model, and thus, policy makers should support the emergence of open-source projects by setting common standards for data transfers, consent management, and identity management.

Programming Hive Edward Capriolo 2012-09-26

Describes the features and functions of Apache Hive, the data infrastructure for Hadoop.

Clinical Research Computing Prakash Nadkarni 2016-04-29 *Clinical Research Computing: A Practitioner's Handbook* deals with the nuts-and-bolts of providing informatics and computing support for clinical research. The subjects that the practitioner must be aware of are not only technological and scientific, but also organizational and managerial. Therefore, the author offers case studies based on real life experiences in order to prepare the readers for the challenges they may face during their experiences either supporting clinical research or supporting electronic record systems. Clinical research computing is the application of computational methods to the broad field of clinical research. With the advent of modern digital computing, and the powerful data collection, storage, and analysis that is possible with it, it becomes more relevant to understand the technical details in order to fully seize its opportunities. Offers case studies, based on real-life examples where possible, to engage the readers with more complex examples Provides studies backed by technical details, e.g., schema diagrams, code snippets or algorithms illustrating particular techniques, to give the readers confidence to employ the techniques described in their own settings Offers didactic content organization and an increasing complexity through the chapters

Big Data Imperatives Soumendra Mohanty 2013-06-24 *Big Data Imperatives*, focuses on resolving the key questions on everyone's mind: Which data matters? Do you have enough data volume to justify the usage? How you want to process this amount of data? How long do you really need to keep it active for your analysis, marketing, and BI applications? Big data is emerging from the realm of one-off projects to mainstream business adoption; however, the real value of big data is not in the overwhelming size of it, but more in its effective use. *Big Data Imperatives* describes the complementary nature of traditional data warehouses and big-data analytics platforms and how they feed each other. This book aims to bring the big data and analytics realms together with a greater focus on architectures that leverage the scale and power of big data and the ability to integrate and apply

analytics principles to data which earlier was not accessible. This book can also be used as a handbook for practitioners; helping them on methodology, technical architecture, analytics techniques and best practices. At the same time, this book intends to hold the interest of those new to big data and analytics by giving them a deep insight into the realm of big data.

Driving Digital Transformation through Data and AI Alexander Borek 2020-11-03 Leading tech companies such as Netflix, Amazon and Uber use data science and machine learning at scale in their core business processes, whereas most traditional companies struggle to expand their machine learning projects beyond a small pilot scope. This book enables organizations to truly embrace the benefits of digital transformation by anchoring data and AI products at the core of their business. It provides executives with the essential tools and concepts to establish a data and AI portfolio strategy as well as the organizational setup and agile processes that are required to deliver machine learning products at scale. Key consideration is given to advancing the data architecture and governance, balancing stakeholder needs and breaking organizational silos through new ways of working. Each chapter includes templates, common pitfalls and global case studies covering industries such as insurance, fashion, consumer goods, finance, manufacturing and automotive. Covering a holistic perspective on strategy, technology, product and company culture, *Driving Digital Transformation through Data and AI* guides the organizational transformation required to get ahead in the age of AI.

Managing Data in Motion April Reeve 2013-02-26 *Managing Data in Motion* describes techniques that have been developed for significantly reducing the complexity of managing system interfaces and enabling scalable architectures. Author April Reeve brings over two decades of experience to present a vendor-neutral approach to moving data between computing environments and systems. Readers will learn the techniques, technologies, and best practices for managing the passage of data between computer systems and integrating disparate data together in an enterprise environment. The average enterprise's computing environment is comprised of hundreds

to thousands computer systems that have been built, purchased, and acquired over time. The data from these various systems needs to be integrated for reporting and analysis, shared for business transaction processing, and converted from one format to another when old systems are replaced and new systems are acquired. The management of the "data in motion" in organizations is rapidly becoming one of the biggest concerns for business and IT management. Data warehousing and conversion, real-time data integration, and cloud and "big data" applications are just a few of the challenges facing organizations and businesses today. Managing Data in Motion tackles these and other topics in a style easily understood by business and IT managers as well as programmers and architects. Presents a vendor-neutral overview of the different technologies and techniques for moving data between computer systems including the emerging solutions for unstructured as well as structured data types Explains, in non-technical terms, the architecture and components required to perform data integration Describes how to reduce the complexity of managing system interfaces and enable a scalable data architecture that can handle the dimensions of "Big Data"

Vert.x in Action Julien Ponge 2020-10-30 Vert.x in Action teaches you how to build production-quality reactive applications in Java. This book covers core Vert.x concepts, as well as the fundamentals of asynchronous and reactive programming. Learn to develop microservices by using Vert.x tools for database communications, persistent messaging, and test app resiliency. The patterns and techniques included here transfer to reactive technologies and frameworks beyond Vert.x. Summary As enterprise applications become larger and more distributed, new architectural approaches like reactive designs, microservices, and event streams are required knowledge. The Vert.x framework provides a mature, rock-solid toolkit for building reactive applications using Java, Kotlin, or Scala. Vert.x in Action teaches you to build responsive, resilient, and scalable JVM applications with Vert.x using well-established reactive design patterns. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology

Vert.x is a collection of libraries for the Java virtual machine that simplify event-based and asynchronous programming. Vert.x applications handle tedious tasks like asynchronous communication, concurrent work, message and data persistence, plus they're easy to scale, modify, and maintain. Backed by the Eclipse Foundation and used by Red Hat and others, this toolkit supports code in a variety of languages. About the book Vert.x in Action teaches you how to build production-quality reactive applications in Java. This book covers core Vert.x concepts, as well as the fundamentals of asynchronous and reactive programming. Learn to develop microservices by using Vert.x tools for database communications, persistent messaging, and test app resiliency. The patterns and techniques included here transfer to reactive technologies and frameworks beyond Vert.x. What's inside Building reactive services Responding to external service failures Horizontal scaling Vert.x toolkit architecture and Vert.x testing Deploying with Docker and Kubernetes About the reader For intermediate Java web developers. About the author Julien Ponge is a principal software engineer at Red Hat, working on the Eclipse Vert.x project. Table of Contents PART 1 - FUNDAMENTALS OF ASYNCHRONOUS PROGRAMMING WITH VERT.X 1 Vert.x, asynchronous programming, and reactive systems 2 Verticles: The basic processing units of Vert.x 3 Event bus: The backbone of a Vert.x application 4 Asynchronous data and event streams 5 Beyond callbacks 6 Beyond the event bus PART 2 - DEVELOPING REACTIVE SERVICES WITH VERT.X 7 Designing a reactive application 8 The web stack 9 Messaging and event streaming with Vert.x 10 Persistent state management with databases 11 End-to-end real-time reactive event processing 12 Toward responsiveness with load and chaos testing 13 Final notes: Container-native Vert.x

Learn Power BI Greg Deckler 2022-02-18 Learn how to use Power BI to deliver the insights needed to help your enterprise survive and thrive Key Features Learn simple through to advanced Power BI features in a clear, concise way using real-world examples Develop powerful analytical models and reports that extract key business insights Publish, share and collaborate on impressive reports, dashboards, apps, and

goalsBook Description To succeed in today's transforming business world, organizations need business intelligence capabilities to make smarter decisions faster than ever before. This updated second edition of Learn Power BI takes you on a journey of data exploration and discovery, using Microsoft Power BI to ingest, cleanse, and organize data in order to unlock key business insights that can then be shared with others. This newly revised and expanded edition of Learn Power BI covers all of the latest features and interface changes and takes you through the fundamentals of business intelligence projects, how to deploy, adopt, and govern Power BI within your organization, and how to leverage your knowledge in the marketplace and broader ecosystem that is Power BI. As you progress, you will learn how to ingest, cleanse, and transform your data into stunning visualizations, reports, and dashboards that speak to business decision-makers. By the end of this Power BI book, you will be fully prepared to be the data analysis hero of your organization - or even start a new career as a business intelligence professional. What you will learnGet up and running quickly with Power BIUnderstand and plan your business intelligence projectsConnect to and transform data using Power QueryCreate data models optimized for analysis and reportingPerform simple and complex DAX calculations to enhance analysisDiscover business insights and create professional reportsCollaborate via Power BI dashboards, apps, goals, and scorecardsDeploy and govern Power BI, including using deployment pipelinesWho this book is for If you're an IT manager, data analyst, or BI user new to using Power BI for solving business intelligence problems, this book is for you. You'll also find this book helpful if you want to migrate from other BI tools to create powerful and interactive dashboards. No experience of working with Power BI is expected.

NoSQL Data Models Olivier Pivert 2018-08-14 The topic of NoSQL databases has recently emerged, to face the Big Data challenge, namely the ever increasing volume of data to be handled. It is now recognized that relational databases are not appropriate in this context, implying that new database models and techniques are needed. This book presents recent research works, covering the following basic aspects: semantic

data management, graph databases, and big data management in cloud environments. The chapters in this book report on research about the evolution of basic concepts such as data models, query languages, and new challenges regarding implementation issues.

Next Generation Databases Guy Harrison 2015 "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 technologies. 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.

Querying Graphs Angela Bonifati 2018-10-01 Graph data modeling and querying arises in many practical application domains such as social and biological networks where the primary focus is on concepts and their relationships and the rich patterns in these complex webs of interconnectivity. In this book, we present a concise unified view on the basic challenges which arise over the complete life cycle of formulating and processing queries on graph databases. To that purpose, we present all major concepts relevant to this life cycle, formulated in terms of a common and unifying ground: the property graph data model—the pre-dominant data model adopted by modern graph database systems. We aim especially to give a coherent and in-depth perspective on current graph querying and an outlook for future developments. Our presentation is self-contained, covering the relevant topics from: graph data models, graph query languages and graph query specification, graph constraints, and graph query processing. We conclude by indicating major open research challenges towards the next generation of graph data management systems.

Semantic Web for the Working Ontologist Dean Allemang 2011-07-05 Semantic Web for the Working Ontologist: Effective Modeling in RDFS and OWL, Second Edition, discusses the capabilities of Semantic Web modeling languages, such as RDFS (Resource Description Framework Schema) and OWL (Web Ontology Language). Organized into 16 chapters, the book provides examples to illustrate the use of Semantic Web technologies in solving common modeling problems. It uses the life and works of William Shakespeare to demonstrate some of the most basic capabilities of the Semantic Web. The book first provides an overview of the Semantic Web and aspects of the Web. It then discusses semantic modeling and how it can support the development from chaotic information gathering to one characterized by information sharing, cooperation, and collaboration. It also explains the use of RDF to implement the Semantic Web by allowing information to be distributed over the Web, along with the use of SPARQL to access RDF data. Moreover, the reader is introduced to components that make up a Semantic Web deployment and how they fit together, the

concept of inferencing in the Semantic Web, and how RDFS differs from other schema languages. Finally, the book considers the use of SKOS (Simple Knowledge Organization System) to manage vocabularies by taking advantage of the inferencing structure of RDFS-Plus. This book is intended for the working ontologist who is trying to create a domain model on the Semantic Web. Updated with the latest developments and advances in Semantic Web technologies for organizing, querying, and processing information, including SPARQL, RDF and RDFS, OWL 2.0, and SKOS Detailed information on the ontologies used in today's key web applications, including ecommerce, social networking, data mining, using government data, and more Even more illustrative examples and case studies that demonstrate what semantic technologies are and how they work together to solve real-world problems

Learning Neo4j Rik Van Bruggen 2014-08-25

This book is for developers who want an alternative way to store and process data within their applications. No previous graph database experience is required; however, some basic database knowledge will help you understand the concepts more easily.

XQuery Priscilla Walmsley 2015-12-02 Designed for query writers who have some knowledge of XML basics, but not necessarily advanced knowledge of XML-related technologies, this book is ideal as both a tutorial and a reference. You'll find background information for namespaces, schemas, built-in types, and regular expressions that are relevant to writing XML queries.

NoSQL For Dummies Adam Fowler 2015-02-24

Get up to speed on the nuances of NoSQL databases and what they mean for your organization This easy to read guide to NoSQL databases provides the type of no-nonsense overview and analysis that you need to learn, including what NoSQL is and which database is right for you. Featuring specific evaluation criteria for NoSQL databases, along with a look into the pros and cons of the most popular options, NoSQL For Dummies provides the fastest and easiest way to dive into the details of this incredible technology. You'll gain an understanding of how to use NoSQL databases for mission-critical enterprise architectures and projects, and real-world examples reinforce the

primary points to create an action-oriented resource for IT pros. If you're planning a big data project or platform, you probably already know you need to select a NoSQL database to complete your architecture. But with options flooding the market and updates and add-ons coming at a rapid pace, determining what you require now, and in the future, can be a tall task. This is where *NoSQL For Dummies* comes in! Learn the basic tenets of NoSQL databases and why they have come to the forefront as data has outpaced the capabilities of relational databases. Discover major players among NoSQL databases, including Cassandra, MongoDB, MarkLogic, Neo4J, and others. Get an in-depth look at the benefits and disadvantages of the wide variety of NoSQL database options. Explore the needs of your organization as they relate to the capabilities of specific NoSQL databases. Big data and Hadoop get all the attention, but when it comes down to it, NoSQL databases are the engines that power many big data analytics initiatives. With *NoSQL For Dummies*, you'll go beyond relational databases to ramp up your enterprise's data architecture in no time.

MongoDB: The Definitive Guide Kristina Chodorow 2013-05-10 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.

Advanced Data Management Lena Wiese 2015-10-29 Advanced data management has always been at the core of efficient database and information systems. Recent trends like big data and cloud computing have aggravated the need for sophisticated and flexible data storage and processing solutions. This book provides a comprehensive coverage of the principles of data management developed in the last decades with a focus on data structures and query languages. It treats a wealth of different data models and surveys the foundations of structuring, processing, storing and querying data according to these models. Starting off with the topic of database design, it further discusses weaknesses of the relational data model, and then proceeds to convey the basics of graph data, tree-structured XML data, key-value pairs and nested, semi-structured JSON data, columnar and record-oriented data as well as object-oriented data. The final chapters round the book off with an analysis of fragmentation, replication and consistency strategies for data management in distributed databases as well as recommendations for handling polyglot persistence in multi-model databases and multi-database architectures. While primarily geared towards students of Master-level courses in Computer Science and related areas, this book may also be of benefit to practitioners looking for a reference book on data modeling and query processing. It provides both theoretical depth and a concise treatment of open source technologies currently on the market.

Cassandra: The Definitive Guide Jeff Carpenter 2016-06-29 Imagine what you could do if scalability wasn't a problem. With this hands-on guide, you'll learn how the Cassandra database management system handles hundreds of terabytes of data while remaining highly available across multiple data centers. This expanded second edition—updated for Cassandra 3.0—provides the technical details and practical examples you need to put this database to work in a production environment. Authors Jeff

Carpenter and Eben Hewitt demonstrate the advantages of Cassandra's non-relational design, with special attention to data modeling. If you're a developer, DBA, or application architect looking to solve a database scaling issue or future-proof your application, this guide helps you harness Cassandra's speed and flexibility. Understand Cassandra's distributed and decentralized structure Use the Cassandra Query Language (CQL) and cqlsh—the CQL shell Create a working data model and compare it with an equivalent relational model Develop sample applications using client drivers for languages including Java, Python, and Node.js Explore cluster topology and learn how nodes exchange data Maintain a high level of performance in your cluster Deploy Cassandra on site, in the Cloud, or with Docker Integrate Cassandra with Spark, Hadoop, Elasticsearch, Solr, and Lucene

Handbook of Big Data Technologies Albert Y. Zomaya 2017-02-25 This handbook offers comprehensive coverage of recent advancements in Big Data technologies and related paradigms. Chapters are authored by international leading experts in the field, and have been reviewed and revised for maximum reader value. The volume consists of twenty-five chapters organized into four main parts. Part one covers the fundamental concepts of Big Data technologies including data curation mechanisms, data models, storage models, programming models and programming platforms. It also dives into the details of implementing Big SQL query engines and big stream processing systems. Part Two focuses on the semantic aspects of Big Data management including data integration and exploratory ad hoc analysis in addition to structured querying and pattern matching techniques. Part Three presents a comprehensive overview of large scale graph processing. It covers the most recent research in large scale graph processing platforms, introducing several scalable graph querying and mining mechanisms in domains such as social networks. Part Four details novel applications that have been made possible by the rapid emergence of Big Data technologies such as Internet-of-Things (IOT), Cognitive Computing and SCADA Systems. All parts of the book discuss open research problems, including potential opportunities, that have arisen from the rapid

progress of Big Data technologies and the associated increasing requirements of application domains. Designed for researchers, IT professionals and graduate students, this book is a timely contribution to the growing Big Data field. Big Data has been recognized as one of leading emerging technologies that will have a major contribution and impact on the various fields of science and varies aspect of the human society over the coming decades. Therefore, the content in this book will be an essential tool to help readers understand the development and future of the field.

eXist Erik Siegel 2014-12-11 Get a head start with eXist, the open source NoSQL database and application development platform built entirely around XML technologies. With this hands-on guide, you'll learn eXist from the ground up, from using this feature-rich database to work with millions of documents to building complex web applications that take advantage of eXist's many extensions. If you're familiar with XML—as a student, professor, publisher, or developer—you'll find that eXist is ideal for all kinds of documents. This book shows you how to store, query, and search documents with XQuery and other XML technologies, and how to construct applications on top of the database with tools such as eXide and eXist's built-in development environment. Manage both data-oriented and text-oriented markup documents securely Build a sample application that analyzes and searches Shakespeare's plays Go inside the architecture and learn how eXist processes documents Learn how to work with eXist's internal development environment Choose among various indexes, including a full-text index based on Apache Lucene Dive into eXist's APIs for integrating or interacting with the database Extend eXist by building your own Triggers, Scheduled Tasks, and XQuery extension modules

Microsoft Power BI Quick Start Guide Devin Knight 2020-10-30 An accessible fast paced introduction to all aspects of Power BI for new or aspiring BI professionals, data analysts, and data visualizers Key Features Updated with the latest features in Power BI including Dataflow, AI insights, visuals and row level security Get faster and more intuitive data insights using Microsoft Power BI and its business intelligence capabilities Build accurate analytical models,

reports, and dashboards

Book Description This revised edition has been fully updated to reflect the latest enhancements to Power BI. It includes a new chapter dedicated to dataflow, and covers all the essential concepts such as installation, designing effective data models, as well as building basic dashboards and visualizations to help you and your organization make better business decisions. You'll learn how to obtain data from a variety of sources and clean it using Power BI Query Editor. You'll then find out how you can design your data model to navigate and explore relationships within it and build DAX formulas to make your data easier to work with. Visualizing your data is a key element in this book, and you'll get to grips rapidly with data visualization styles and enhanced digital storytelling techniques. In addition, you will acquire the skills to build your own dataflows, understand the Common Data Model, and automate data flow refreshes to eradicate data cleansing inefficiency. This guide will help you understand how to administer your organization's Power BI environment so that deployment can be made seamless, data refreshes can run properly, and security can be fully implemented. By the end of this Power BI book, you'll have a better understanding of how to get the most out of Power BI to perform effective business intelligence. What you will learn

Connect to data sources using import and DirectQuery options
Use Query Editor for data transformation and data cleansing processes, including writing M and R scripts and dataflows to do the same in the cloud
Design optimized data models by designing relationships and DAX calculations
Design effective reports with built-in and custom visuals
Adopt Power BI Desktop and Service to implement row-level security
Administer a Power BI cloud tenant for your organization
Use built-in AI capabilities to enhance Power BI data transformation techniques
Deploy your Power BI desktop files into the Power BI Report Server

Who this book is for
Aspiring business intelligence professionals who want to learn Power BI will find this book useful. If you have a basic understanding of BI concepts and want to learn how to apply them using Microsoft Power BI, this book is for you.

Advances in Data Science and Management
Samarjeet Borah 2020-01-13 This book includes

high-quality papers presented at the International Conference on Data Science and Management (ICDSM 2019), organised by the Gandhi Institute for Education and Technology, Bhubaneswar, from 22 to 23 February 2019. It features research in which data science is used to facilitate the decision-making process in various application areas, and also covers a wide range of learning methods and their applications in a number of learning problems. The empirical studies, theoretical analyses and comparisons to psychological phenomena described contribute to the development of products to meet market demands.

Making Sense of NoSQL Ann Kelly 2013-09-02
Summary Making Sense of NoSQL clearly and concisely explains the concepts, features, benefits, potential, and limitations of NoSQL technologies. Using examples and use cases, illustrations, and plain, jargon-free writing, this guide shows how you can effectively assemble a NoSQL solution to replace or augment the traditional RDBMS you have now. About this Book
If you want to understand and perhaps start using the new data storage and analysis technologies that go beyond the SQL database model, this book is for you. Written in plain language suitable for technical managers and developers, and using many examples, use cases, and illustrations, this book explains the concepts, features, benefits, potential, and limitations of NoSQL. Making Sense of NoSQL starts by comparing familiar database concepts to the new NoSQL patterns that augment or replace them. Then, you'll explore case studies on big data, search, reliability, and business agility that apply these new patterns to today's business problems. You'll see how NoSQL systems can leverage the resources of modern cloud computing and multiple-CPU data centers. The final chapters show you how to choose the right NoSQL technologies for your own needs. Managers and developers will welcome this lucid overview of the potential and capabilities of NoSQL technologies. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. What's Inside
NoSQL data architecture patterns
NoSQL for big data
Search, high availability, and security
Choosing an architecture
About the Authors Dan McCreary and Ann Kelly lead an independent

training and consultancy firm focused on NoSQL solutions and are cofounders of the NoSQL Now! Conference. Table of Contents PART 1 INTRODUCTION NoSQL: It's about making intelligent choices NoSQL concepts PART 2 DATABASE PATTERNS Foundational data architecture patterns NoSQL data architecture patterns Native XML databases PART 3 NOSQL SOLUTIONS Using NoSQL to manage big data Finding information with NoSQL search Building high-availability solutions with NoSQL Increasing agility with NoSQL PART 4 ADVANCED TOPICS NoSQL and functional programming Security: protecting data in your NoSQL systems Selecting the right NoSQL solution

NoSQL for Mere Mortals Dan Sullivan 2015-04-06 The Easy, Common-Sense Guide to Solving Real Problems with NoSQL The Mere Mortals® tutorials have earned worldwide praise as the clearest, simplest way to master essential database technologies. Now, there's one for today's exciting new NoSQL databases. NoSQL for Mere Mortals guides you through solving real problems with NoSQL and achieving unprecedented scalability, cost efficiency, flexibility, and availability. Drawing on 20+ years of cutting-edge database experience, Dan Sullivan explains the advantages, use cases, and terminology associated with all four main categories of NoSQL databases: key-value, document, column family, and graph databases. For each, he introduces pragmatic best practices for building high-value applications. Through step-by-step examples, you'll discover how to choose the right database for each task, and use it the right way. Coverage includes --Getting started: What NoSQL databases are, how they differ from relational databases, when to use them, and when not to Data management principles and design criteria: Essential knowledge for creating any database solution, NoSQL or relational --Key-value databases: Gaining more utility from data structures -- Document databases: Schemaless databases, normalization and denormalization, mutable documents, indexing, and design patterns -- Column family databases: Google's BigTable design, table design, indexing, partitioning, and Big Data Graph databases: Graph/network modeling, design tips, query methods, and traps to avoid Whether you're a database developer,

data modeler, database user, or student, learning NoSQL can open up immense new opportunities. As thousands of database professionals already know, For Mere Mortals is the fastest, easiest route to mastery.

Principles of Database Management Wilfried Lemahieu 2018-07-12 Introductory, theory-practice balanced text teaching the fundamentals of databases to advanced undergraduates or graduate students in information systems or computer science. Learning SPARQL Bob DuCharme 2013-07-03 Gain hands-on experience with SPARQL, the RDF query language that's bringing new possibilities to semantic web, linked data, and big data projects. This updated and expanded edition shows you how to use SPARQL 1.1 with a variety of tools to retrieve, manipulate, and federate data from the public web as well as from private sources. Author Bob DuCharme has you writing simple queries right away before providing background on how SPARQL fits into RDF technologies. Using short examples that you can run yourself with open source software, you'll learn how to update, add to, and delete data in RDF datasets. Get the big picture on RDF, linked data, and the semantic web Use SPARQL to find bad data and create new data from existing data Use datatype metadata and functions in your queries Learn techniques and tools to help your queries run more efficiently Use RDF Schemas and OWL ontologies to extend the power of your queries Discover the roles that SPARQL can play in your applications

Learn Power BI Greg Deckler 2019-09-13 Solve business challenges with Microsoft Power BI's advanced visualization and data analysis techniques Key Features Create effective storytelling reports by implementing simple-to-intermediate Power BI features Develop powerful analytical models to extract key insights for changing business needs Build, publish, and share impressive dashboards for your organization Book Description To succeed in today's transforming business world, organizations need business intelligence capabilities to make smarter decisions faster than ever before. This Power BI book is an entry-level guide that will get you up and running with data modeling, visualization, and analytical techniques from scratch. You'll find this book

handy if you want to get well-versed with the extensive Power BI ecosystem. You'll start by covering the basics of business intelligence and installing Power BI. You'll then learn the wide range of Power BI features to unlock business insights. As you progress, the book will take you through how to use Power Query to ingest, cleanse, and shape your data, and use Power BI DAX to create simple to complex calculations. You'll also be able to add a variety of interactive visualizations to your reports to bring your data to life. Finally, you'll gain hands-on experience in creating visually stunning reports that speak to business decision makers, and see how you can securely share these reports and collaborate with others. By the end of this book, you'll be ready to create simple, yet effective, BI reports and dashboards using the latest features of Power BI.

What you will learn

- Explore the different features of Power BI to create interactive dashboards
- Use the Query Editor to import and transform data
- Perform simple and complex DAX calculations to enhance analysis
- Discover business insights and tell a story with your data using Power BI
- Explore data and learn to manage datasets, dataflows, and data gateways
- Use workspaces to collaborate with others and publish your reports

Who this book is for

If you're an IT manager, data analyst, or BI user new to using Power BI for solving business intelligence problems, this book is for you. You'll also find this book useful if you want to migrate from other BI tools to create powerful and interactive dashboards. No experience of working with Power BI is expected.

NoSQL Distilled Pramod J. Sadalage 2012-08-08

The need to handle increasingly larger data volumes is one factor driving the adoption of a new class of nonrelational "NoSQL" databases. Advocates of NoSQL databases claim they can be used to build systems that are more performant, scale better, and are easier to program. *NoSQL Distilled* is a concise but thorough introduction to this rapidly emerging technology. Pramod J. Sadalage and Martin Fowler explain how NoSQL databases work and the ways that they may be a superior alternative to a traditional RDBMS. The authors provide a fast-paced guide to the concepts you need to know in order to evaluate whether NoSQL databases are right for your needs and, if so, which technologies you should explore further. The first part of the book

concentrates on core concepts, including schemaless data models, aggregates, new distribution models, the CAP theorem, and map-reduce. In the second part, the authors explore architectural and design issues associated with implementing NoSQL. They also present realistic use cases that demonstrate NoSQL databases at work and feature representative examples using Riak, MongoDB, Cassandra, and Neo4j. In addition, by drawing on Pramod Sadalage's pioneering work, *NoSQL Distilled* shows how to implement evolutionary design with schema migration: an essential technique for applying NoSQL databases. The book concludes by describing how NoSQL is ushering in a new age of Polyglot Persistence, where multiple data-storage worlds coexist, and architects can choose the technology best optimized for each type of data access.

Team of Teams General Stanley McChrystal 2015-11-26

What if you could combine the agility, adaptability, and cohesion of a small team with the power and resources of a giant organization? When General Stanley McChrystal took command of the Joint Special Operations Task Force in Iraq in 2003, he quickly realized that conventional military tactics were failing. The allied forces had a huge advantage in numbers, equipment and training - but none of the enemy's speed and flexibility. McChrystal and his colleagues discarded a century of conventional wisdom to create a 'team of teams' that combined extremely transparent communication with decentralized decision-making authority. Faster, flatter and more flexible, the task force beat back al-Qaeda. In this powerful book, McChrystal and his colleagues show how the challenges they faced in Iraq can be relevant to any leader. Through compelling examples, the authors demonstrate that the 'team of teams' strategy has worked everywhere from hospital emergency rooms to NASA and has the potential to transform organizations large and small. 'A bold argument that leaders can help teams become greater than the sum of their parts' Charles Duhigg, author of *The Power of Habit* 'An indispensable guide to organizational change' Walter Isaacson, author of *Steve Jobs*

The Dublin Core Metadata Element Set National Information Standards Organization (U.S.) 2001

This document defines fifteen metadata elements

for resource description in a cross-disciplinary information environment.