

Data Warehouse Design: Modern Principles And Methodologies

As data management and integration continue to evolve rapidly, storing all your data in one place, such as a data warehouse, is no longer scalable. In the very near future, data will need to be distributed and available for several technological solutions. With this practical book, you'll learn how to migrate your enterprise from a complex and tightly coupled data landscape to a more flexible architecture ready for the modern world of data consumption. Executives, data architects, analytics teams, and compliance and governance staff will learn how to build a modern scalable data landscape using the Scaled Architecture, which you can introduce incrementally without a large upfront investment. Author Piethein Strengtholt provides blueprints, principles, observations, best practices, and patterns to get you up to speed. Examine data management trends, including technological developments, regulatory requirements, and privacy concerns. Go deep into the Scaled Architecture and learn how the pieces fit together. Explore data governance and data security, master data management, self-service data marketplaces, and the importance of metadata. Updated new edition of Ralph Kimball's groundbreaking book on dimensional modeling for data warehousing and

Online Library Data Warehouse Design: Modern Principles And Methodologies

businessintelligence! The first edition of Ralph Kimball's The Data WarehouseToolkit introduced the industry to dimensional modeling,and now his books are considered the most authoritative guides inthis space. This new third edition is a complete library of updateddimensional modeling techniques, the most comprehensive collectionever. It covers new and enhanced star schema dimensional modelingpatterns, adds two new chapters on ETL techniques, includes new andexpanded business matrices for 12 case studies, and more. Authored by Ralph Kimball and Margy Ross, known worldwide aseducators, consultants, and influential thought leaders in datawarehousing and business intelligence Begins with fundamental design recommendations and progressessthrough increasingly complex scenarios Presents unique modeling techniques for business applicationssuch as inventory management, procurement, invoicing, accounting,customer relationship management, big data analytics, and more Draws real-world case studies from a variety of industries,including retail sales, financial services, telecommunications,education, health care, insurance, e-commerce, and more Design dimensional databases that are easy to understand andprovide fast query response with The Data WarehouseToolkit: The Definitive Guide to Dimensional Modeling, 3rdEdition.

The concept of a big data warehouse appeared

Online Library Data Warehouse Design: Modern Principles And Methodologies

in order to store moving data objects and temporal data information. Moving objects are geometries that change their position and shape continuously over time. In order to support spatio-temporal data, a data model and associated query language is needed for supporting moving objects. Emerging Perspectives in Big Data Warehousing is an essential research publication that explores current innovative activities focusing on the integration between data warehousing and data mining with an emphasis on the applicability to real-world problems. Featuring a wide range of topics such as index structures, ontology, and user behavior, this book is ideally designed for IT consultants, researchers, professionals, computer scientists, academicians, and managers. Using Agile methods, you can bring far greater innovation, value, and quality to any data warehousing (DW), business intelligence (BI), or analytics project. However, conventional Agile methods must be carefully adapted to address the unique characteristics of DW/BI projects. In Agile Analytics, Agile pioneer Ken Collier shows how to do just that. Collier introduces platform-agnostic Agile solutions for integrating infrastructures consisting of diverse operational, legacy, and specialty systems that mix commercial and custom code. Using working examples, he shows how to manage analytics development teams with widely diverse skill sets and how to support

Online Library Data Warehouse Design: Modern Principles And Methodologies

enormous and fast-growing data volumes. Collier's techniques offer optimal value whether your projects involve "back-end" data management, "front-end" business analysis, or both. Part I focuses on Agile project management techniques and delivery team coordination, introducing core practices that shape the way your Agile DW/BI project community can collaborate toward success Part II presents technical methods for enabling continuous delivery of business value at production-quality levels, including evolving superior designs; test-driven DW development; version control; and project automation Collier brings together proven solutions you can apply right now--whether you're an IT decision-maker, data warehouse professional, database administrator, business intelligence specialist, or database developer. With his help, you can mitigate project risk, improve business alignment, achieve better results--and have fun along the way.

Expert techniques for architecting end-to-end big data solutions to get valuable insights

The Data Warehouse Toolkit

Assuring Data Content, Data Structures and Quality

Agile Data Warehouse Design

Data Architecture

A Comprehensive Guide for IT Professionals

Data Warehousing For Dummies

"Each chapter is... a practice run for the way we all ought to design our data marts and hence our

Online Library Data Warehouse Design: Modern Principles And Methodologies

data warehouses."-Ralph Kimball, from the Foreword. Let the experts show you how to customize data warehouse designs for real business needs in Data Warehouse Design Solutions. To effectively design a data warehouse, you have to understand its many business uses. This guidebook shows you how business managers in different corporate functions actually use data warehouses to make decisions. You'll get a rich set of data warehouse designs that flow from realistic business cases. Two top experts show you how to customize your data warehouse designs for real-life business needs including: * Sales and marketing * Production and inventory management * Budgeting and financial reporting * Quality control * Product delivery and fulfillment * Strategic business analysis such as determining market share, rates of return on investment, and other key analytic ratios. CD-ROM includes All sample data warehouse designs with accompanying preformatted reports in HTML for specific business uses such as marketing, sales, and financial analysis.

Agile Data Warehouse Design is a step-by-step guide for capturing data warehousing/business intelligence (DW/BI) requirements and turning them into high performance dimensional models in the most direct way: by modelstorming (data modeling] brainstorming) with BI stakeholders. This book describes BEAM, an agile approach to

dimensional modeling, for improving communication between data warehouse designers, BI stakeholders and the whole DW/BI development team. BEAM provides tools and techniques that will encourage DW/BI designers and developers to move away from their keyboards and entity relationship based tools and model interactively with their colleagues. The result is everyone thinks dimensionally from the outset! Developers understand how to efficiently implement dimensional modeling solutions. Business stakeholders feel ownership of the data warehouse they have created, and can already imagine how they will use it to answer their business questions. Within this book, you will learn: Agile dimensional modeling using Business Event Analysis & Modeling (BEAM) Modelstorming: data modeling that is quicker, more inclusive, more productive, and frankly more fun! Telling dimensional data stories using the 7Ws (who, what, when, where, how many, why and how) Modeling by example not abstraction; using data story themes, not crow's feet, to describe detail Storyboarding the data warehouse to discover conformed dimensions and plan iterative development Visual modeling: sketching timelines, charts and grids to model complex process measurement - simply Agile design documentation: enhancing star schemas with BEAM dimensional shorthand notation Solving difficult DW/BI performance and usability

Online Library Data Warehouse Design: Modern Principles And Methodologies

problems with proven dimensional design patterns Lawrence Corr is a data warehouse designer and educator. As Principal of DecisionOne Consulting, he helps clients to review and simplify their data warehouse designs, and advises vendors on visual data modeling techniques. He regularly teaches agile dimensional modeling courses worldwide and has taught dimensional DW/BI skills to thousands of students. Jim Stagnitto is a data warehouse and master data management architect specializing in the healthcare, financial services, and information service industries. He is the founder of the data warehousing and data mining consulting firm Llumino.

This book constitutes the refereed proceedings of the 15th International Conference on Data Warehousing and Knowledge Discovery, DaWaK 2013 held in Prague, Czech Republic, in August 2013. The 24 revised full papers and 8 short papers presented were carefully reviewed and selected from 89 submissions. The papers are organized in topical sections on modeling and ETL, query optimization and parallelism, spatial data warehouses and applications, text mining and OLAP, recommendation and prediction, data mining optimization and machine learning techniques, mining and processing data streams, clustering and data mining applications, social network and graph mining, and event sequence and Web mining.

Online Library Data Warehouse Design: Modern Principles And Methodologies

Data is at the center of many challenges in system design today. Difficult issues need to be figured out, such as scalability, consistency, reliability, efficiency, and maintainability. In addition, we have an overwhelming variety of tools, including relational databases, NoSQL datastores, stream or batch processors, and message brokers. What are the right choices for your application? How do you make sense of all these buzzwords? In this practical and comprehensive guide, author Martin Kleppmann helps you navigate this diverse landscape by examining the pros and cons of various technologies for processing and storing data. Software keeps changing, but the fundamental principles remain the same. With this book, software engineers and architects will learn how to apply those ideas in practice, and how to make full use of data in modern applications. Peer under the hood of the systems you already use, and learn how to use and operate them more effectively Make informed decisions by identifying the strengths and weaknesses of different tools Navigate the trade-offs around consistency, scalability, fault tolerance, and complexity Understand the distributed systems research upon which modern databases are built Peek behind the scenes of major online services, and learn from their architectures Collaborative Dimensional Modeling, from Whiteboard to Star Schema

Data Warehousing, Analytics, and Machine Learning at Scale
With SQL ServerÂ 2005 and the Microsoft Business Intelligence Toolset
DW 2.0: The Architecture for the Next Generation of Data Warehousing
Principles and Practical Techniques
How Blockchain Will Ignite the Future of Healthcare
INTRODUCTION TO DATA MINING WITH CASE STUDIES

Foreword by Mark Stephen LaRow, Vice President of Products, MicroStrategy "A unique and authoritative book that blends recent research developments with industry-level practices for researchers, students, and industry practitioners." Il-Yeol Song, Professor, College of Information Science and Technology, Drexel University

Written in lucid language, this valuable textbook brings together fundamental concepts of data mining and data warehousing in a single volume. Important topics including information theory, decision tree, Nave Bayes classifier, distance metrics, partitioning clustering, associate mining, data marts and operational data store are discussed comprehensively. The textbook is written to cater to the needs of undergraduate students of computer science, engineering

Online Library Data Warehouse Design: Modern Principles And Methodologies

and information technology for a course on data mining and data warehousing. The text simplifies the understanding of the concepts through exercises and practical examples. Chapters such as classification, associate mining and cluster analysis are discussed in detail with their practical implementation using Weka and R language data mining tools. Advanced topics including big data analytics, relational data models and NoSQL are discussed in detail. Pedagogical features including unsolved problems and multiple-choice questions are interspersed throughout the book for better understanding.

Business intelligence (BI) used to be so simple—in theory anyway. Integrate and copy data from your transactional systems into a specialized relational database, apply BI reporting and query tools and add business users. Job done. No longer.

Analytics, big data and an array of diverse technologies have changed everything. More importantly, business is insisting on ever more value, ever faster from information and from IT in general.

An emerging biz-tech ecosystem demands that business and IT work together.

Business unIntelligence reflects the new reality that in today's socially complex and rapidly changing world, business

Online Library Data Warehouse Design: Modern Principles And Methodologies

decisions must be based on a combination of rational and intuitive thinking. Integrating cues from diverse information sources and tacit knowledge, decision makers create unique meaning to innovate heuristically at the speed of thought. This book provides a wealth of new models that business and IT can use together to design support systems for tomorrow's successful organizations. Dr. Barry Devlin, one of the earliest proponents of data warehousing, goes back to basics to explore how the modern trinity of information, process and people must be reinvented and restructured to deliver the value, insight and innovation required by modern businesses. From here, he develops a series of novel architectural models that provide a new foundation for holistic information use across the entire business. From discovery to analysis and from decision making to action taking, he defines a fully integrated, closed-loop business environment. Covering every aspect of business analytics, big data, collaborative working and more, this book takes over where BI ends to deliver the definitive framework for information use in the coming years. As the person who defined the conceptual framework and physical architecture for data warehousing

Online Library Data Warehouse Design: Modern Principles And Methodologies

in the 1980s, Barry Devlin has been an astute observer of the movement he initiated ever since. Now, in Business unIntelligence, Devlin provides a sweeping view of the past, present, and future of business intelligence, while delivering new conceptual and physical models for how to turn information into insights and action. Reading Devlin's prose and vision of BI are comparable to reading Carl Sagan's view of the cosmos. The book is truly illuminating and inspiring. --Wayne Eckerson, President, BI Leader Consulting Author, "Secrets of Analytical Leaders: Insights from Information Insiders"

Master the most agile and resilient design for building analytics applications: the Unified Star Schema (USS) approach. The USS has many benefits over traditional dimensional modeling. Witness the power of the USS as a single star schema that serves as a foundation for all present and future business requirements of your organization. Data warehouse legend Bill Inmon and business intelligence innovator, Francesco Puppini, explain step-by-step why the Unified Star Schema is the recommended approach for business intelligence designs today, and show through many examples how to build and use this new solution. This book contains two

Online Library Data Warehouse Design: Modern Principles And Methodologies

parts. Part I, Architecture, explains the benefits of data marts and data warehouses, covering how organizations progressed to their current state of analytics, and to the challenges that result from current business intelligence architectures. Chapter 1 covers the drivers behind and the characteristics of the data warehouse and data mart. Chapter 2 introduces dimensional modeling concepts, including fact tables, dimensions, star joins, and snowflakes. Chapter 3 recalls the evolution of the data mart. Chapter 4 explains Extract, Transform, and Load (ETL), and the value ETL brings to reporting. Chapter 5 explores the Integrated Data Mart Approach, and Chapter 6 explains how to monitor this environment. Chapter 7 describes the different types of metadata within the data warehouse environment. Chapter 8 progresses through the evolution to our current modern data warehouse environment. Part II, the Unified Star Schema, covers the Unified Star Schema (USS) approach and how it solves the challenges introduced in Part I. There are eight chapters within Part II: · Chapter 9, Introduction to the Unified Star Schema: Learn about its architecture and use cases, as well as how the USS approach

Online Library Data Warehouse Design: Modern Principles And Methodologies

differs from the traditional approach. · Chapter 10, Loss of Data: Learn about the loss of data and the USS Bridge. Understand that the USS approach does not create any join, and for this reason, it has no loss of data. · Chapter 11, The Fan Trap: Get introduced to the Oriented Data Model convention, and learn the dangers of a fan trap through an example. Differentiate join and association, and realize that an “in-memory association” is the preferred solution to the fan trap. · Chapter 12, The Chasm Trap: Become familiar with the Cartesian product, and then follow along with an example based on LinkedIn, which illustrates that a chasm trap produces unwanted duplicates. See that the USS Bridge is based on a union, which does not create any duplicates. · Chapter 13, Multi-Fact Queries: Distinguish between multiple facts “with direct connection” versus multiple facts “with no direct connection”. Explore how BI tools are capable of building aggregated virtual rows. · Chapter 14, Loops: Learn more about loops and five traditional techniques to solve them. Follow along with an implementation, which will illustrate the solution based on the USS approach. · Chapter 15, Non-Conformed Granularities: Learn about non-conformed

Online Library Data Warehouse Design: Modern Principles And Methodologies

granularities, and learn that the Unified Star Schema introduces a solution called “re-normalization”. · Chapter 16, Northwind Case Study. Witness how easy it is to detect the pitfalls of Northwind using the ODM convention. Follow along with an implementation of the USS approach on the Northwind database with various BI tools.

Logical Database Design Principles

Principles of Data Integration

From Zen to Reality

The Enterprise Big Data Lake

Insight and Innovation beyond Analytics and Big Data

The Kimball Group Reader

Data Management at Scale

This book constitutes the refereed proceedings of the 11th International Conference entitled Beyond Databases, Architectures and Structures, BDAS 2015, held in Ustroń, Poland, in May 2015. This book consists of 53 carefully revised selected papers that are assigned to 8 thematic groups: database architectures and performance; data integration, storage and data warehousing; ontologies and semantic web; artificial intelligence, data mining and knowledge discovery; image analysis and multimedia mining; spatial data analysis; database systems development; application of database systems.

The field of data mining provides techniques for automated discovery of valuable information from the

Online Library Data Warehouse Design: Modern Principles And Methodologies

accumulated data of computerized operations of enterprises. This book offers a clear and comprehensive introduction to both data mining theory and practice. It is written primarily as a textbook for the students of computer science, management, computer applications, and information technology. The book ensures that the students learn the major data mining techniques even if they do not have a strong mathematical background. The techniques include data pre-processing, association rule mining, supervised classification, cluster analysis, web data mining, search engine query mining, data warehousing and OLAP. To enhance the understanding of the concepts introduced, and to show how the techniques described in the book are used in practice, each chapter is followed by one or two case studies that have been published in scholarly journals. Most case studies deal with real business problems (for example, marketing, e-commerce, CRM). Studying the case studies provides the reader with a greater insight into the data mining techniques. The book also provides many examples, review questions, multiple choice questions, chapter-end exercises and a good list of references and Web resources especially those which are easy to understand and useful for students. A number of class projects have also been included.

There are more than one billion documents on the Web, with the count continually rising at a pace of over one million new documents per day. As information increases, the motivation and interest in data warehousing and mining research and practice remains high in organizational

Online Library Data Warehouse Design: Modern Principles And Methodologies

interest. The Encyclopedia of Data Warehousing and Mining, Second Edition, offers thorough exposure to the issues of importance in the rapidly changing field of data warehousing and mining. This essential reference source informs decision makers, problem solvers, and data mining specialists in business, academia, government, and other settings with over 300 entries on theories, methodologies, functionalities, and applications.

This book constitutes the refereed proceedings of the 13th International Conference on Data Warehousing and Knowledge Discovery, DaWak 2011 held in Toulouse, France in August/September 2011. The 37 revised full papers presented were carefully reviewed and selected from 119 submissions. The papers are organized in topical sections on physical and conceptual data warehouse models, data warehousing design methodologies and tools, data warehouse performance and optimization, pattern mining, matrix-based mining techniques and stream, sensor and time-series mining.

The Definitive Guide to Dimensional Modeling

Designing Data-Intensive Applications

Relational and Dimensional Techniques

Agile Analytics

Design and Implementation

Beyond Databases, Architectures and Structures

Encyclopedia of Data Warehousing and Mining, Second Edition

DW 2.0: The Architecture for the Next Generation of Data Warehousing is the first book on the new generation of data

Online Library Data Warehouse Design: Modern Principles And Methodologies

warehouse architecture, DW 2.0, by the father of the data warehouse. The book describes the future of data warehousing that is technologically possible today, at both an architectural level and technology level. The perspective of the book is from the top down: looking at the overall architecture and then delving into the issues underlying the components. This allows people who are building or using a data warehouse to see what lies ahead and determine what new technology to buy, how to plan extensions to the data warehouse, what can be salvaged from the current system, and how to justify the expense at the most practical level. This book gives experienced data warehouse professionals everything they need in order to implement the new generation DW 2.0. It is designed for professionals in the IT organization, including data architects, DBAs, systems design and development professionals, as well as data warehouse and knowledge management professionals.

* First book on the new generation of data warehouse architecture, DW 2.0. * Written by the "father of the data warehouse", Bill Inmon, a columnist and newsletter editor of The Bill Inmon Channel on the Business Intelligence Network.

* Long overdue comprehensive coverage of the implementation of technology and tools that enable the new generation of the DW: metadata, temporal data, ETL, unstructured data, and data quality control.

The world of data warehousing is changing. Big Data & Agile are hot topics. But companies still need to collect, report, and analyze their data. Usually this requires some form of data warehousing or business intelligence system. So how do we do that in the modern IT landscape in a way that allows us to be agile and either deal directly or indirectly with unstructured and semi structured data?The Data Vault System of Business

Online Library Data Warehouse Design: Modern Principles And Methodologies

Intelligence provides a method and approach to modeling your enterprise data warehouse (EDW) that is agile, flexible, and scalable. This book will give you a short introduction to Agile Data Engineering for Data Warehousing and Data Vault 2.0. I will explain why you should be trying to become Agile, some of the history and rationale for Data Vault 2.0, and then show you the basics for how to build a data warehouse model using the Data Vault 2.0 standards. In addition, I will cover some details about the Business Data Vault (what it is) and then how to build a virtual Information Mart off your Data Vault and Business Vault using the Data Vault 2.0 architecture. So if you want to start learning about Agile Data Engineering with Data Vault 2.0, this book is for you.

Geared to IT professionals eager to get into the all-important field of data warehousing, this book explores all topics needed by those who design and implement data warehouses. Readers will learn about planning requirements, architecture, infrastructure, data preparation, information delivery, implementation, and maintenance. They'll also find a wealth of industry examples garnered from the author's 25 years of experience in designing and implementing databases and data warehouse applications for major corporations.

Market: IT Professionals, Consultants.

An unparalleled collection of recommended guidelines for data warehousing and business intelligence pioneered by Ralph Kimball and his team of colleagues from the Kimball Group. Recognized and respected throughout the world as the most influential leaders in the data warehousing industry, Ralph Kimball and the Kimball Group have written articles covering more than 250 topics that define the field of data warehousing. For the first time, the Kimball Group's

Online Library Data Warehouse Design: Modern Principles And Methodologies

incomparable advice, design tips, and best practices have been gathered in this remarkable collection of articles, which spans a decade of data warehousing innovation. Each group of articles is introduced with original commentaries that explain their role in the overall lifecycle methodology developed by the Kimball Group. These practical, hands-on articles are fully updated to reflect current practices and terminology and cover the complete lifecycle—including project planning, requirements gathering, dimensional modeling, ETL, and business intelligence and analytics. This easily referenced collection is nothing less than vital if you are involved with data warehousing or business intelligence in any capacity.

Data Warehousing and Knowledge Discovery

Data Warehouse Systems

Better Data Modeling

The Big Ideas Behind Reliable, Scalable, and Maintainable Systems

15th International Conference, DaWaK 2013, Prague, Czech Republic, August 26-29, 2013, Proceedings

The Power of Blockchain for Healthcare

Emerging Perspectives in Big Data Warehousing

With this textbook, Vaisman and Zimányi deliver excellent coverage of data warehousing and business intelligence technologies ranging from the most basic principles to recent findings and applications. To this end, their work is structured into three parts. Part I describes “Fundamental Concepts” including multi-dimensional models; conceptual and logical data warehouse design and MDX and SQL/OLAP.

Subsequently, Part II details “Implementation and Deployment,” which includes physical data warehouse

Online Library Data Warehouse Design: Modern Principles And Methodologies

design; data extraction, transformation, and loading (ETL) and data analytics. Lastly, Part III covers “Advanced Topics” such as spatial data warehouses; trajectory data warehouses; semantic technologies in data warehouses and novel technologies like Map Reduce, column-store databases and in-memory databases. As a key characteristic of the book, most of the topics are presented and illustrated using application tools. Specifically, a case study based on the well-known Northwind database illustrates how the concepts presented in the book can be implemented using Microsoft Analysis Services and Pentaho Business Analytics. All chapters are summarized using review questions and exercises to support comprehensive student learning. Supplemental material to assist instructors using this book as a course text is available at <http://cs.ulb.ac.be/DWSDIbook/>, including electronic versions of the figures, solutions to all exercises, and a set of slides accompanying each chapter. Overall, students, practitioners and researchers alike will find this book the most comprehensive reference work on data warehouses, with key topics described in a clear and educational style.

Data Warehouse Design: Modern Principles and Methodologies McGraw Hill Professional

This book presents unique techniques to conquer different Big Data processing and analytics challenges using Hadoop. Practical examples are provided to boost your understanding of Big Data concepts and their implementation. By the end of the book, you will have all the knowledge and skills you need to become a true Big

Online Library Data Warehouse Design: Modern Principles And Methodologies

Data expert.

A cutting-edge response to Ralph Kimball's challenge to the data warehouse community that answers some tough questions about the effectiveness of the relational approach to data warehousing Written by one of the best-known exponents of the Bill Inmon approach to data warehousing *Addresses head-on the tough issues raised by Kimball and explains how to choose the best modeling technique for solving common data warehouse design problems* *Weighs the pros and cons of relational vs. dimensional modeling techniques* *Focuses on tough modeling problems, including creating and maintaining keys and modeling calendars, hierarchies, transactions, and data quality*

Building a Scalable Data Warehouse with Data Vault 2.0

The Data Warehouse Lifecycle Toolkit

Principles of Database Management

Star Schema The Complete Reference

Data Warehousing Fundamentals

Data Warehouse Design: Modern Principles and Methodologies

Testing the Data Warehouse Practicum

The "father of data warehousing" incorporates the latest technologies into his blueprint for integrated decision support systems Today's corporate IT and data warehouse managers are required to make a small army of technologies work together to ensure fast and accurate information for business managers. Bill Inmon created the Corporate Information Factory to solve the needs of these managers. Since the

Online Library Data Warehouse Design: Modern Principles And Methodologies

First Edition, the design of the factory has grown and changed dramatically. This Second Edition, revised and expanded by 40% with five new chapters, incorporates these changes. This step-by-step guide will enable readers to connect their legacy systems with the data warehouse and deal with a host of new and changing technologies, including Web access mechanisms, e-commerce systems, ERP (Enterprise Resource Planning) systems. The book also looks closely at exploration and data mining servers for analyzing customer behavior and departmental data marts for finance, sales, and marketing.

Enterprises are experimenting with using Hadoop to build Big Data Lakes, but many projects are stalling or failing because the approaches that worked at Internet companies have to be adopted for the enterprise. This practical handbook guides managers and IT professionals from the initial research and decision-making process through planning, choosing products, and implementing, maintaining, and governing the modern data lake. You'll explore various approaches to starting and growing a Data Lake, including Data Warehouse off-loading, analytical sandboxes, and "Data Puddles." Author Alex Gorelik shows you methods for setting up different tiers of data, from raw untreated landing areas to carefully managed and summarized data. You'll learn how to enable self-service to help users find,

Online Library Data Warehouse Design: Modern Principles And Methodologies

understand, and provision data; how to provide different interfaces to users with different skill levels; and how to do all of that in compliance with enterprise data governance policies.

Until now, almost all books on logical database design focused exclusively on relational design. However, modern database management systems have added powerful features that have driven a movement away from truly normalized database design. Logical Database Design Principles reflects these recent changes. The book begins by covering traditional lo

The definitive guide to dimensional design for your data warehouse Learn the best practices of dimensional design. Star Schema: The Complete Reference offers in-depth coverage of design principles and their underlying rationales.

Organized around design concepts and illustrated with detailed examples, this is a step-by-step guidebook for beginners and a comprehensive resource for experts. This all-inclusive volume begins with dimensional design fundamentals and shows how they fit into diverse data warehouse architectures, including those of W.H. Inmon and Ralph Kimball. The book progresses through a series of advanced techniques that help you address real-world complexity, maximize performance, and adapt to the requirements of BI and ETL software products. You are furnished with design tasks and deliverables that can be incorporated into

Online Library Data Warehouse Design: Modern Principles And Methodologies

any project, regardless of architecture or methodology. Master the fundamentals of star schema design and slow change processing Identify situations that call for multiple stars or cubes Ensure compatibility across subject areas as your data warehouse grows Accommodate repeating attributes, recursive hierarchies, and poor data quality Support conflicting requirements for historic data Handle variation within a business process and correlation of disparate activities Boost performance using derived schemas and aggregates Learn when it's appropriate to adjust designs for BI and ETL tools

Business unIntelligence

The Microsoft® Data Warehouse Toolkit

Relentlessly Practical Tools for Data

Warehousing and Business Intelligence

Mastering Data Warehouse Design

11th International Conference, BDAS 2015,

Ustroń, Poland, May 26-29, 2015, Proceedings

A Value-driven Approach to Business Intelligence and Data Warehousing

The Data Vault was invented by Dan Linstedt at the U.S. Department of Defense, and the standard has been successfully applied to data warehousing projects at organizations of different sizes, from small to large-size corporations. Due to its simplified design, which is adapted from nature, the Data Vault 2.0 standard helps prevent

Online Library Data Warehouse Design: Modern Principles And Methodologies

typical data warehousing failures. "Building a Scalable Data Warehouse" covers everything one needs to know to create a scalable data warehouse end to end, including a presentation of the Data Vault modeling technique, which provides the foundations to create a technical data warehouse layer. The book discusses how to build the data warehouse incrementally using the agile Data Vault 2.0 methodology. In addition, readers will learn how to create the input layer (the stage layer) and the presentation layer (data mart) of the Data Vault 2.0 architecture including implementation best practices. Drawing upon years of practical experience and using numerous examples and an easy to understand framework, Dan Linstedt and Michael Olschimke discuss: How to load each layer using SQL Server Integration Services (SSIS), including automation of the Data Vault loading processes. Important data warehouse technologies and practices. Data Quality Services (DQS) and Master Data Services (MDS) in the context of the Data Vault architecture. Provides a complete introduction to data warehousing, applications, and the business context so readers can get-up and running fast Explains theoretical concepts and provides hands-on instruction on how to build and implement a data warehouse Demystifies data vault modeling with beginning, intermediate, and advanced techniques Discusses the advantages of the data vault approach over other techniques, also

Online Library Data Warehouse Design: Modern Principles And Methodologies

including the latest updates to Data Vault 2.0 and multiple improvements to Data Vault 1.0

Work with petabyte-scale datasets while building a collaborative, agile workplace in the process.

This practical book is the canonical reference to Google BigQuery, the query engine that lets you conduct interactive analysis of large datasets.

BigQuery enables enterprises to efficiently store, query, ingest, and learn from their data in a convenient framework. With this book, you'll

examine how to analyze data at scale to derive insights from large datasets efficiently. Valliappa Lakshmanan, tech lead for Google Cloud Platform, and Jordan Tigani, engineering director for the BigQuery team, provide best practices for modern data warehousing within an autoscaled, serverless public cloud. Whether you want to explore parts of BigQuery you're not familiar with or prefer to focus on specific tasks, this reference is indispensable.

Introductory, theory-practice balanced text teaching the fundamentals of databases to advanced undergraduates or graduate students in information systems or computer science.

Written by a team of global experts, this book explains how to design next-generation data warehouses using a structured approach inspired by the modern principles of software engineering. All of the design techniques featured in the book are placed within a practical framework so that solutions can be applied immediately.

Online Library Data Warehouse Design: Modern Principles And Methodologies

Warehouse Design: Modern Principles and Methodologies explains how to transform databases into data warehouses, allowing organizations to integrate and analyze data across the enterprise in order to make informed business decisions. Readers can access a CASE (computer aided software engineering) tool developed by the authors from www.qbx-tool.com which implements the discussed methodologies in a practical way.

Data Warehouse Design Solutions

13th International Conference, DaWaK 2011, Toulouse, France, August 29- September 2, 2011, Proceedings

Google BigQuery: The Definitive Guide

An Introduction to Agile Data Engineering Using Data Vault 2. 0

The Practical Guide to Storing, Managing and Analyzing Big and Small Data

Data Warehousing and Analytics

The Complete Guide to Dimensional Modeling

The quality of a data warehouse (DWH) is the elusive aspect of it, not because it is hard to achieve [once we agree what it is], but because it is difficult to describe. We propose the notion that quality is not an attribute or a feature that a product has to possess, but rather a relationship between that product and each and every stakeholder. More specifically, the relationship between the

software quality and the organization that produces the products is explored. Quality of data that populates the DWH is the main concern of the book, therefore we propose a definition for data quality as: "fitness to serve each and every purpose". Methods are proposed throughout the book to help readers achieve data warehouse quality.

How do you approach answering queries when your data is stored in multiple databases that were designed independently by different people? This is first comprehensive book on data integration and is written by three of the most respected experts in the field. This book provides an extensive introduction to the theory and concepts underlying today's data integration techniques, with detailed, instruction for their application using concrete examples throughout to explain the concepts. Data integration is the problem of answering queries that span multiple data sources (e.g., databases, web pages). Data integration problems surface in multiple contexts, including enterprise information integration, query processing on the Web, coordination between government agencies and collaboration between scientists. In some cases, data integration is the key bottleneck to making progress in a field. The authors

provide a working knowledge of data integration concepts and techniques, giving you the tools you need to develop a complete and concise package of algorithms and applications. Offers a range of data integration solutions enabling you to focus on what is most relevant to the problem at hand Enables you to build your own algorithms and implement your own data integration applications

A thorough update to the industry standard for designing, developing, and deploying data warehouse and business intelligence systems The world of data warehousing has changed remarkably since the first edition of The Data Warehouse Lifecycle Toolkit was published in 1998. In that time, the data warehouse industry has reached full maturity and acceptance, hardware and software have made staggering advances, and the techniques promoted in the premiere edition of this book have been adopted by nearly all data warehouse vendors and practitioners. In addition, the term "business intelligence" emerged to reflect the mission of the data warehouse: wrangling the data out of source systems, cleaning it, and delivering it to add value to the business. Ralph Kimball and his colleagues have refined the original set of

Lifecycle methods and techniques based on their consulting and training experience. The authors understand first-hand that a data warehousing/business intelligence (DW/BI) system needs to change as fast as its surrounding organization evolves. To that end, they walk you through the detailed steps of designing, developing, and deploying a DW/BI system. You'll learn to create adaptable systems that deliver data and analyses to business users so they can make better business decisions.

Data Architecture: From Zen to Reality explains the principles underlying data architecture, how data evolves with organizations, and the challenges organizations face in structuring and managing their data. Using a holistic approach to the field of data architecture, the book describes proven methods and technologies to solve the complex issues dealing with data. It covers the various applied areas of data, including data modelling and data model management, data quality, data governance, enterprise information management, database design, data warehousing, and warehouse design. This text is a core resource for anyone customizing or aligning data management

systems, taking the Zen-like idea of data architecture to an attainable reality. The book presents fundamental concepts of enterprise architecture with definitions and real-world applications and scenarios. It teaches data managers and planners about the challenges of building a data architecture roadmap, structuring the right team, and building a long term set of solutions. It includes the detail needed to illustrate how the fundamental principles are used in current business practice. The book is divided into five sections, one of which addresses the software-application development process, defining tools, techniques, and methods that ensure repeatable results. Data Architecture is intended for people in business management involved with corporate data issues and information technology decisions, ranging from data architects to IT consultants, IT auditors, and data administrators. It is also an ideal reference tool for those in a higher-level education process involved in data or information technology management. Presents fundamental concepts of enterprise architecture with definitions and real-world applications and scenarios Teaches data managers and planners about the challenges

of building a data architecture roadmap, structuring the right team, and building a long term set of solutions Includes the detail needed to illustrate how the fundamental principles are used in current business practice

Modern Big Data Processing with Hadoop Fueling the Data Engine

The Unified Star Schema: An Agile and Resilient Approach to Data Warehouse and Analytics Design

Data Warehouse Design

Delivering the Promise of Big Data and Data Science

Data Mining and Data Warehousing

Corporate Information Factory

Did you hear about blockchain technology, and how it impacts finance but were more interested in blockchain's impact on healthcare? The biggest opportunities for blockchain, still undiscovered-that is until now. In fact, investors, entrepreneurs, innovators, and executives are searching to identify the changes that will result from the introduction of blockchain technology to healthcare. Previously, a book did not exist that comprehensively covered the impact of blockchain for healthcare in a practical and fun discussion. Today, we will step outside the headlines and into the unchained world of blockchain technology. In *The Power of Blockchain for Healthcare*, author Peter B. Nichol highlights where blockchain is emerging with the potential to transform the patient experience-from payers to providers to patients-

Online Library Data Warehouse Design: Modern Principles And Methodologies

embracing blockchain to create sustainable competitive advantages. Nichol magnifies the principles and use cases pioneering a new frontier to revolutionize the healthcare experience. Based on his articles, blogs, and musings, the book shows what is required to transform healthcare from inside. It explains practical uses for blockchain in a straightforward conversation by answering: What can blockchain do? How will it impact our health? Why should you care as a business leader? Within these parts, you'll learn: * How blockchain can help patients.* How to unchain existing models to rebuild trust in healthcare.* How pocket innovation will energize healthcare.* How curiosity will uncover new value for our healthcare ecosystem .This book also includes a practical enterprise readiness assessment to aid in the transformation of your organization into a blockchain leader.The Power of Blockchain for Healthcare is the must-read guide to reframe your thinking and to help your organization excel in the new age of healthcare transformation. The blockchain revolution is here.

Data warehousing is one of the hottest business topics, and there's more to understanding data warehousing technology than you might think. Find out the basics of data warehousing and how it facilitates data mining and business intelligence with *Data Warehousing For Dummies, 2nd Edition*. Data is probably your company's most important asset, so your data warehouse should serve your needs. The fully updated *Seventh Edition of Data Warehousing For Dummies* helps you understand, develop, implement, and use data warehouses and offers a sneak peek into their future. You'll learn to: Analyze top-down and bottom-up data warehouse designs Understand the structure and technologies of data

Online Library Data Warehouse Design: Modern Principles And Methodologies

warehouses, operational data stores, and data marts Choose your project team and apply best development practices to your data warehousing projects Implement a data warehouse step by step, and involve end-users in the process Review and upgrade existing data storage to make it serve your needs Comprehend OLAP, column-wise databases, hardware-assisted databases, and middleware Use data mining intelligently and find what you need Make informed choices about consultants and data warehousing products Data Warehousing For Dummies, 2nd Edition also shows you how to involve users in the testing process and gain valuable feedback, what it takes to successfully manage a data warehouse project, and how to tell if your project is on track You'll find it's the most useful source of data on the topic