

Data Warehousing Fundamentals For It Professionals 2nd Edition

Cowritten by Ralph Kimball, the world's leading data warehousing authority, whose previous books have sold more than 150,000 copies Delivers real-world solutions for the most time- and labor-intensive portion of data warehousing-data staging, or the extract, transform, load (ETL) process Delineates best practices for extracting data from scattered sources, removing redundant and inaccurate data, transforming the remaining data into correctly formatted data structures, and then loading the end product into the data warehouse Offers proven time-saving ETL techniques, comprehensive guidance on building dimensional structures, and crucial advice on ensuring data quality

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.

In recent years, the science of managing and analyzing large datasets has emerged as a critical area of research. In the race to answer vital questions and make knowledgeable decisions, impressive amounts of data are now being generated at a rapid pace, increasing the opportunities and challenges associated with the ability to effectively analyze this data.

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, Naïve 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 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.

Dyche presents the complete manager's briefing on what data warehousing technology can do today and how to achieve optimal results. Using real-world case studies from Charles Schwab, Bank of America, Qantas, 20th Century Fox, and others, she covers decision support, database marketing, and many industry-specific data warehouse applications.

Get the end-to-end instruction you need to design, develop, and deploy more effective data integration, reporting, and analysis solutions using SQL Server 2008—whether you're new to business intelligence (BI) programming or a seasoned pro. With real-world examples and insights from an expert team, you'll master the concepts, tools, and techniques for building solutions that deliver intelligence—and business value—exactly where users want it. Discover how to: Manage the development life cycle and build a BI team Dig into SQL Server Analysis Services, Integration Services, and Reporting Services Navigate the Business Intelligence Development Studio (BIDS) Write queries that rank, sort, and drill down on sales data Develop extract, transform, and load (ETL) solutions Add a source code control system Help secure packages for deployment via encryption and credentials Use MDX and DMX Query Designers to build reports based on OLAP cubes and data mining models Create and implement custom objects using .NET code View reports in Microsoft Office Excel and Office SharePoint Serverook

This is a practical, hands-on guide which explains tried-and-true techniques for developing data warehouses using relational databases and open system technology. Written in "cookbook" format, this book covers all stages of implementation from project planning and requirements analysis, through architecture and design, to administrative issues such as user access, security, and back-up/recovery.

Updated new edition of Ralph Kimball's groundbreaking book ondimensional modeling for data warehousing and 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.

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 problems with proven dimensional design patterns LawrenceCorr 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.

The purpose of this book is to provide a practical approach for IT professionals to acquire the necessary knowledge and expertise in data modeling to function effectively. It begins with an overview of basic data modeling concepts, introduces the methods and techniques, provides a comprehensive case study to present the details of the data model components, covers the implementation of the data model with emphasis on quality components, and concludes with a presentation of a realistic approach to data modeling. It clearly describes how a generic data model is created to represent truly the enterprise information requirements.

CUTTING-EDGE CONTENT AND GUIDANCE FROM A DATA WAREHOUSING EXPERT—NOW EXPANDED TO REFLECT FIELD TRENDS Data warehousing has revolutionized the way businesses in a wide variety of industries perform analysis and make strategic decisions. Since the first edition of Data Warehousing Fundamentals, numerous enterprises have implemented data warehouse systems and reaped enormous benefits. Many more are in the process of doing so. Now, this new, revised edition covers the essential fundamentals of data warehousing and business intelligence as well as significant recent trends in the field. The author provides an enhanced, comprehensive overview of data warehousing together with in-depth explanations of critical issues in planning, design, deployment, and ongoing maintenance. IT professionals eager to get into the field will gain a clear understanding of techniques for data extraction from source systems, data cleansing, data transformations, data warehouse architecture and infrastructure, and the various methods for information delivery. This practical Second Edition highlights the areas of data warehousing and business intelligence where high-impact technological progress has been made. Discussions on developments include data marts, real-time information delivery, data visualization, requirements gathering methods, multi-tier architecture, OLAP applications, Web clickstream analysis, data warehouse appliances, and data mining techniques. The book also contains review questions and exercises for each chapter, appropriate for self-study or classroom work, industry examples of real-world situations, and several appendices with valuable information. Specifically written for professionals responsible for designing, implementing, or maintaining data warehousing systems, Data Warehousing Fundamentals presents agile, thorough, and systematic development principles for the IT professional and anyone working or researching in information management.

Data Warehousing in the Age of the Big Data will help you and your organization make the most of unstructured data with your existing data warehouse. As Big Data continues to revolutionize how we use data, it doesn't have to create more confusion. Expert author Krish Krishnan helps you make sense of how Big Data fits into the world of data warehousing in clear and concise detail. The book is presented in three distinct parts. Part 1 discusses Big Data, its technologies and use cases from early adopters. Part 2 addresses data warehousing, its shortcomings, and new architecture options, workloads, and integration techniques for Big Data and the data warehouse. Part 3 deals with data governance, data visualization, information life-cycle management, data scientists, and implementing a Big Data-ready data warehouse. Extensive appendixes include case studies from vendor implementations and a special segment on how we can build a healthcare information factory. Ultimately, this book will help you navigate through the complex layers of Big Data and data warehousing while providing you information on how to effectively think about using all these technologies and the architectures to design the next-generation data warehouse. Learn how to leverage Big Data by effectively integrating it into your data warehouse. Includes real-world examples and use cases that clearly demonstrate Hadoop, NoSQL, HBASE, Hive, and other Big Data technologies Understand how to optimize and tune your current data warehouse infrastructure and integrate newer infrastructure matching data processing workloads and requirements

Effective decision support systems (DSS) are quickly becoming key to businesses gaining a competitive advantage, and the effectiveness of these systems depends on the ability to construct, maintain, and extract information from data warehouses. While many still perceive data warehousing as a subdiscipline of management information systems (MIS), in fact many of its advances have and will continue to come from the computer science arena. Intelligent Data Warehousing presents the state of the art in data warehousing research and practice from a perspective that integrates business applications and computer science. It brings the intelligent techniques associated with artificial intelligence (AI) to the entire process of data warehousing, including data preparation, storage, and mining. Part I provides an overview of the main ideas and fundamentals of data mining, artificial intelligence, business intelligence, and data warehousing. Part II presents core materials on data warehousing, and Part III explores data analysis and knowledge discovery in the data warehousing environment, including how to perform intelligent data analysis and the discovery of influential association patterns. Bridging the gap between theoretical research and business applications, this book summarizes the main ideas behind recent research developments rather than setting forth technical details, and it presents case studies that show the how-to's of implementing these ideas. The result is a practical, first-of-its-kind book that brings together scattered research, unites MIS with computer science, and melds intelligent techniques with data warehousing.

The deployment of Data Warehouses as a business application has grown tremendously over the past decade. Data warehouses are today considered to be one of the key components of an organizations overall IT strategy and architecture. This is especially true in the current Knowledge based global economy. Innovation and creativity is the current buzzword as business enterprises struggle to retain their stranglehold and find new markets for their products or services. Data warehouses are being developed and deployed for all businesses irrespective of its size and nature. Foreseeing a huge growth potential major hardware and software vendors, across the world, have quickly developed products and services specifically targeting the data warehousing market. The objective of this book is to provide the reader with an insight to the world of Data Warehousing, in a lucid manner devoid of mathematical complications.

The data warehousing bible updated for the new millennium Updated and expanded to reflect the many technological advances occurring since the previous edition, this latest edition of the data warehousing "bible" provides a comprehensive introduction to building data marts, operational data stores, the Corporate Information Factory, exploration warehouses, and Web-enabled warehouses. Written by the father of the data warehouse concept, the book also reviews the unique requirements for supporting e-business and explores various ways in which the traditional data warehouse can be integrated with new technologies to provide enhanced customer service, sales, and support-both online and offline-including near-line data storage techniques.

Data Warehousing is designed to serve as a textbook for students of Computer Science & Engineering (BE/Btech), computer applications (BCA/MCA) and computer science (B.Sc) for an

introductory course on Data Warehousing. It provides a thorough understanding of the fundamentals of Data Warehousing and aims to impart a sound knowledge to users for creating and managing a Data Warehouse. The book introduces the various features and architecture of a Data Warehouse followed by a detailed study of the Business Requirements and Dimensional Modelling. It goes on to discuss the components of a Data Warehouse and thereby leads up to the core area of the subject by providing a thorough understanding of the building and maintenance of a Data Warehouse. This is then followed up by an overview of planning and project management, testing and growth and then finishing with Data Warehouse solutions and the latest trends in this field. The book is finally rounded off with a broad overview of its related field of study, Data Mining. The text is ably supported by plenty of examples to illustrate concepts and contains several review questions and other end-chapter exercises to test the understanding of students. The book also carries a running case study that aims to bring out the practical aspects of the subject. This will be useful for students to master the basics and apply them to real-life scenario.

Market_Desc: · IT professionals· Undergraduate students specializing in information technology· Consultants Special Features: · Includes review questions and exercises· Filled with industry examples· The author has 25 years of experience in IT specializing in data warehousing About The Book: 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. This book covers the fundamentals of data warehousing specifically for the IT professionals who wants to get into the field.

PLEASE PROVIDE COURSE INFORMATION PLEASE PROVIDE

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 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.

This book targets business and IT professionals who need an introduction to business intelligence and data warehousing fundamentals through a simple question / answer format. Topics include evolution and fundamentals, characteristics and process, architecture and objects, metadata, data conversion, ETL, data storage, infrastructure, data access, data marts, implementation approaches, planning, design, Inmon vs. Kimball, multi-dimensionality, OLAP, facts and dimensions, common mistakes and tips, trends, etc.

As it is with building a house, most of the work necessary to build a data warehouse is neither visible nor obvious when looking at the completed product. While it may be easy to plan for a data warehouse that incorporates all the right concepts, taking the steps needed to create a warehouse that is as functional and user-friendly as it is theoreti

In this IBM Redbooks publication we describe and demonstrate dimensional data modeling techniques and technology, specifically focused on business intelligence and data warehousing. It is to help the reader understand how to design, maintain, and use a dimensional model for data warehousing that can provide the data access and performance required for business intelligence. Business intelligence is comprised of a data warehousing infrastructure, and a query, analysis, and reporting environment. Here we focus on the data warehousing infrastructure. But only a specific element of it, the data model - which we consider the base building block of the data warehouse. Or, more precisely, the topic of data modeling and its impact on the business and business applications. The objective is not to provide a treatise on dimensional modeling techniques, but to focus at a more practical level. There is technical content for designing and maintaining such an environment, but also business content. For example, we use case studies to demonstrate how dimensional modeling can impact the business intelligence requirements for your business initiatives. In addition, we provide a detailed discussion on the query aspects of BI and data modeling. For example, we discuss query optimization and how you can determine performance of the data model prior to implementation. You need a solid base for your data warehousing infrastructure a solid data model.

The ultimate reference guide to successful implementation of star schemas within Oracle data warehouses, this edition also covers Oracle 8i and Oracle 9i with real-world examples, sample code and benchmarks to illustrate key concepts.

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.

Data warehouses and online analytical processing (OLAP) are emerging key technologies for enterprise decision support systems. They provide sophisticated technologies from data integration, data collection and retrieval, query optimization, and data analysis to advanced user interfaces. New research and technological achievements in the area of data warehousing are implemented in commercial database management systems, and organizations are developing data warehouse systems into their information system infrastructures. Data Warehouses and OLAP: Concepts, Architectures and Solutions covers a wide range of technical, technological, and research issues. It provides theoretical frameworks, presents challenges and their possible solutions, and examines the latest empirical research findings in the area. It is a resource of possible solutions and technologies that can be applied when designing, implementing, and deploying a data warehouse, and assists in the dissemination of knowledge in this field.

Continuous improvements in data analysis and cloud computing have allowed more opportunities to develop systems with user-focused designs. This not only leads to higher

success in day-to-day usage, but it increases the overall probability of technology adoption. *Advancing Cloud Database Systems and Capacity Planning With Dynamic Applications* is a key resource on the latest innovations in cloud database systems and their impact on the daily lives of people in modern society. Highlighting multidisciplinary studies on information storage and retrieval, big data architectures, and artificial intelligence, this publication is an ideal reference source for academicians, researchers, scientists, advanced level students, technology developers and IT officials.

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 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.

"Ralph's latest book ushers in the second wave of the Internet. . . . Bottom line, this book provides the insight to help companies combine Internet-based business intelligence with the bounty of customer data generated from the internet."--William Schmarzo, Director World Wide Solutions, Sales, and Marketing, IBM NUMA-Q. Receiving over 100 million hits a day, the most popular commercial Websites have an excellent opportunity to collect valuable customer data that can help create better service and improve sales. Companies can use this information to determine buying habits, provide customers with recommendations on new products, and much more. Unfortunately, many companies fail to take full advantage of this deluge of information because they lack the necessary resources to effectively analyze it. In this groundbreaking guide, data warehousing's bestselling author, Ralph Kimball, introduces readers to the Data Webhouse--the marriage of the data warehouse and the Web. If designed and deployed correctly, the Webhouse can become the linchpin of the modern, customer-focused company, providing competitive information essential to managers and strategic decision makers. In this book, Dr. Kimball explains the key elements of the Webhouse and provides detailed guidelines for designing, building, and managing the Webhouse. The results are a business better positioned to stay healthy and competitive. In this book, you'll learn methods for: - Tracking Website user actions - Determining whether a customer is about to switch to a competitor - Determining whether a particular Web ad is working - Capturing data points about customer behavior - Designing the Website to support Webhousing - Building clickstream datamarts - Designing the Webhouse user interface - Managing and scaling the Webhouse The companion Website at www.wiley.com/compbooks/kimball provides updates on Webhouse technologies and techniques, as well as links to related sites and resources.

Data Warehousing in Action provides the tools to harness data and transform it into useful customized bytes of information. This book is a fully comprehensive account of how to proceed with the data warehouse project in a clear step-by-step fashion. It reviews the marketplace, the technology, the design issues, and the management issues. It includes real company experiences from research carried out in 30 countries. It focuses on the topics needed to design and implement a meaningful data warehousing architecture including: Identifying industrial applications for data warehouses; Frameworks for building a data warehouse; Choosing the right architecture and technologies; Outline methodologies for managing the project; and future proofing the design. · Planning the Data Warehouse · Integrating the Data--The Data Warehouse Infrastructure · Exploiting the Data--The Data Warehouse Applications · Looking to the Future--Next Generation Data Warehouse

Data warehousing is one of the hottest business topics, and there's more to understanding data warehousing technologies 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 Second 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 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!

Websites are a central part of today's business world; however, with the vast amount of information that constantly changes and the frequency of required updates, this can come at a high cost to modern businesses. *Web Data Mining and the Development of Knowledge-Based Decision Support Systems* is a key reference source on decision support systems in view of end user accessibility and identifies methods for extraction and analysis of useful information from web documents. Featuring extensive coverage across a range of relevant perspectives and topics, such as semantic web, machine learning, and expert systems, this book is ideally designed for web developers, internet users, online application developers, researchers, and faculty.

Aimed at helping business and IT managers clearly communicate with each other, this helpful book addresses concerns straight-on and provides practical methods to building a collaborative data warehouse . You'll get clear explanations of the goals and objectives of each stage of the data warehouse lifecycle while learning the roles that both business

managers and technicians play at each stage. Discussions of the most critical decision points for success at each phase of the data warehouse lifecycle help you understand ways in which both business and IT management can make decisions that best meet unified objectives.

This is the first book to provide in-depth coverage of star schema aggregates used in dimensional modeling—from selection and design, to loading and usage, to specific tasks and deliverables for implementation projects. Covers the principles of aggregate schema design and the pros and cons of various types of commercial solutions for navigating and building aggregates.

Discusses how to include aggregates in data warehouse development projects that focus on incremental development, iterative builds, and early data loads.

Reviews planning and designing architecture and implementing the data warehouse. Includes discussions on how and why to apply IBM tools. Offers tips, tricks, and workarounds to ensure maximum performance. Companion Web site includes technical notes, product updates, corrections, and links to relevant material and training.

Do you enjoy completing puzzles? Perhaps one of the most challenging (yet rewarding) puzzles is delivering a successful data warehouse suitable for data mining and analytics. The Analytical Puzzle describes an unbiased, practical, and comprehensive approach to building a data warehouse which will lead to an increased level of business intelligence within your organization. New technologies continuously impact this approach and therefore this book explains how to leverage big data, cloud computing, data warehouse appliances, data mining, predictive analytics, data visualization and mobile devices. Here are the main objectives for each of the book's 19 chapters: • Chapter 1: Develop a foundational knowledge of data warehousing, business intelligence and analytics • Chapter 2: Build the business case needed to sell your data warehousing project, and then produce a project plan that avoids common pitfalls • Chapter 3: Elicit and organize business intelligence and data warehousing business requirements • Chapter 4: Specify the technical architecture of the data warehousing system, including software and infrastructure components, technology stack, and non-functional requirements. Gain an understanding of cloud based data warehousing and data warehouse appliances • Chapter 5: Learn about data attributes including metrics and key performance indicators (KPIs), the raw material of data warehousing and business intelligence • Chapter 6: Learn about data modeling and how to apply design patterns for each part of the data warehouse • Chapter 7: Speak the dimensional modeling language of measures, dimensions, facts, cubes, stars, and snowflakes • Chapter 8: Organize a successful data governance program. Learn how to manage metadata for your data warehousing and business intelligence project • Chapter 9: Identify useful data sources and implement a data quality program • Chapter 10: Use database technology for your data warehousing project, and understand the impact of data warehouse appliances, big data, in memory databases, columnar databases and OnLine Analytical Processing (OLAP) • Chapter 11: Apply data integration and understand the role data mapping, data cleansing, data transformation, and loading data play in a successful data warehouse • Chapter 12: Use the business intelligence (BI) operations of slice, dice, drill down, roll up, and pivot to analyze and present data • Chapter 13: Learn about descriptive and predictive statistics, and calculate mean, median, mode, variance and standard deviation • Chapter 14: Harness analytical methods such as regression analysis, data mining, and statistics to make profitable decisions and anticipate the future • Chapter 15: Appreciate the components and design patterns that compose a successful analytic application • Chapter 16: Gain an understanding of the uses and benefits of scorecards and dashboards including support of mobile device users • Chapter 17: Gain insight into applications of business intelligence that could profit your organization, including risk management, finance, marketing, government, healthcare, science and sports • Chapter 18: Perform customer analytics to better understand and segment your customers • Chapter 19: Test, roll out, and sustain the data warehouse.

This book presents the first comparative review of the state of the art and the best current practices of data warehouses. It covers source and data integration, multidimensional aggregation, query optimization, metadata management, quality assessment, and design optimization. A conceptual framework is presented by which the architecture and quality of a data warehouse can be assessed and improved using enriched metadata management combined with advanced techniques from databases, business modeling, and artificial intelligence.

Data Warehousing Fundamentals A Comprehensive Guide for IT Professionals John Wiley & Sons

The first comparative review of the state of the art and best current practice in data warehousing. It covers source and data integration, multidimensional aggregation, query optimisation, update propagation, metadata management, quality assessment, and design optimisation. Also, based on results of the European DWQ project, it offers a conceptual framework by which the architecture and quality of data warehousing efforts can be assessed and improved using enriched metadata management combined with advanced techniques from databases, business modelling, and artificial intelligence. An excellent introduction to the issues of quality and metadata usage for researchers and database professionals in academia and industry. XXXXXX

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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 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.

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