The Data Warehouse Lifecycle Toolkit

Here is the ideal field guide for data warehousing implementation. This book first teaches you how to build a data warehouse, including defining the architecture, understanding the methodology, gathering the requirements, designing the data models, and creating the databases. Coverage then explains how to populate the data warehouse and explores how to present data to users using reports and multidimensional databases and how to use the data in the data warehouse for business intelligence, customer relationship management, and other purposes. It also details testing and how to administer data warehouse operation.

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.

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 progressesthrough 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.

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!

Cowritten by Ralph Kimball, the world's leading data warehousing authority 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 This book is also available as part of the Kimball's Data Warehouse Toolkit Classics Box Set (ISBN: 9780470479575) with the following 3 books: The Data Warehouse Toolkit, 2nd Edition (9780471200246) The Data Warehouse Lifecycle Toolkit, 2nd Edition

(9780470149775) The Data Warehouse ETL Toolkit (9780764567575)

Unlike popular belief, Data Warehouse is not a single tool but a collection of software tools. A data warehouse will collect data from diverse sources into a single database. Using Business Intelligence tools, meaningful insights are drawn from this data. The best thing about "Learn Data Warehousing in 1 Day" is that it is small and can be completed in a day. With this e-book, you will be enough knowledge to contribute and participate in a Data warehouse implementation project. The book covers upcoming and promising technologies like Data Lakes, Data Mart, ELT (Extract Load Transform) amongst others. Following are detailed topics included in the book Table content Chapter 1: What Is Data Warehouse? What is Data Warehouse? Types of Data Warehouse Who needs Data warehouse? Why We Need Data Warehouse? Data Warehouse Tools Chapter 2: Data Warehouse Architecture Characteristics of Data warehouse Data Warehouse Architectures Datawarehouse Components Query Tools Chapter 3: ETL Process What is ETL? Why do you need ETL? ETL Process ETL tools Chapter 4: ETL Vs ELT What is ETL? Difference between ETL vs. ELT Chapter 5: Data Modeling What is Data Modelling? Types of Data Models Characteristics of a physical data model Chapter 6: OLAP What is Online Analytical Processing? Types of OLAP systems Advantages and Disadvantages of OLAP Chapter 7: Multidimensional Olap (MOLAP) What is MOLAP? MOLAP Architecture MOLAP Tools Chapter 8: OLAP Vs OLTP What is the meaning of OLAP? What is the meaning of OLTP? Difference between OLTP and OLAP Chapter 9: Dimensional Modeling What is Dimensional Model? Elements of Dimensional Data Model Attributes Difference between Dimension table vs. Fact table Steps of Dimensional Modelling Rules for Dimensional Modelling Chapter 10: Star and SnowFlake Schema What is Multidimensional schemas? What is a Star Schema? What is a Snowflake Schema? Difference between Start Schema and Snowflake Chapter 11: Data Mart What is Data Mart? Type of Data Mart Steps in Implementing a Datamart Chapter 12: Data Mart Vs Data Warehouse What is Data Warehouse? What is Data Mart? Differences between a Data Warehouse and a Data Mart Chapter 13: Data Lake What is Data Lake? Data Lake Architecture Key Data Lake Concepts Maturity stages of Data Lake Chapter 14: Data Lake Vs Data Warehouse What is Data Warehouse? What is Data Lake? Key Difference between the Data Lake and Data Warehouse Chapter 15: What Is Business Intelligence? What is Business Intelligence Why is BI important? How Business Intelligence systems are implemented? Four types of BI users Chapter 16: Data Mining What is Data Mining? Types of Data Data Mining Process Modelling

The Data Warehouse Lifecycle ToolkitJohn Wiley & Sons

The "father of data warehousing" incorporates the latesttechnologies into his blueprint for integrated decision supportsystems Today's corporate IT and data warehouse managers are required tomake a small army of technologies work together to ensure fast andaccurate information for business managers. Bill Inmon created theCorporate Information Factory to solve the needs ofthese managers. Since the First Edition, the design of the factoryhas grown and changed dramatically. This Second Edition, revisedand expanded by 40% with five new chapters, incorporates thesechanges. This step-by-step guide will enable readers to connecttheir legacy systems with the data warehouse and deal with a hostof new and changing technologies, including Web access mechanisms,e-commerce systems, ERP (Enterprise Resource Planning) systems. Thebook also looks closely at exploration and data mining servers foranalyzing customer behavior and departmental data marts forfinance, sales, and marketing.

An evidence-based organizational framework for exceptional analytics team results The Analytics Lifecycle Toolkit provides managers with a practical manual for integrating data management and analytic technologies into their organization. Author Gregory Nelson has encountered hundreds of unique perspectives on analytics optimization from across industries; over the years, successful strategies have proven to share certain practices, skillsets, expertise, and structural traits. In this book, he details the concepts, people and processes that contribute to exemplary results, and shares an organizational framework for analytics team functions and roles. By merging analytic culture with data and technology strategies, this framework creates understanding for analytics leaders and a toolbox for practitioners. Focused on team effectiveness and the design thinking surrounding product creation, the framework is illustrated by real-world case studies to show how effective analytics team leadership works on the ground. Tools and templates include best practices for process improvement, workforce enablement, and leadership support, while guidance includes both conceptual discussion of the analytics life cycle and detailed process descriptions. Readers will be equipped to: Master fundamental concepts and practices of the analytics life cycle Understand the knowledge domains and best practices for each stage Delve into the details of analytical team processes and process optimization Utilize a robust toolkit designed to support analytic team effectiveness The analytics life cycle includes a diverse set of considerations involving the people, processes, culture, data, and technology, and managers needing stellar analytics performance must understand their unique role in the process of winnowing the big picture down to meaningful action. The Analytics Lifecycle Toolkit provides expert perspective and much-needed insight to managers, while providing practitioners with a new set of tools for optimizing results.

The first, step-by-step guide to building Web-enabled data warehouses The Web can be an incredibly rich source of customer data, and right now companies across industry sectors are hustling to get up and running with data warehouses capable of capturing the clickstream data from their Web sites. This allows companies to track exactly where a customer is going, or "clicking to," on their site in order to gain meaningful information about that customer's preferences. Following Ralph Kimball's The Data Webhouse Toolkit (0-471-37680-9) where he provides the blueprint, Clickstream Data Warehousing fills developers in on all the technical details that go into building a Web-enabled data warehouse. The authors review all key architectural and design issues that developers need to masterfully build a Webhouse using examples to illustrate key points. Companion Web site features code examples from the book and links to related Web sites.

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.

Three books by the bestselling authors on Data Warehousing! The most authoritative guides from the inventor of the technique all for a value price. The Data Warehouse Toolkit, 3rd Edition (9781118530801) Ralph Kimball invented a data warehousing technique called "dimensional modeling" and popularized it in his first Wiley book, The Data Warehouse Toolkit. Since this book was first published in 1996, dimensional modeling has become the most widely accepted technique for data warehouse design. Over the past 10 years, Kimball has improved on his earlier techniques and created many new ones. In this 3rd edition, he will provide a comprehensive collection of all of these techniques, from basic to advanced. The Data Warehouse Lifecycle Toolkit, 2nd Edition (9780470149775) Complete coverage of best practices from data warehouse project inception through on-going program management. Updates industry best practices to be in sync with current recommendations of Kimball Group. Streamlines the lifecycle methodology to be more efficient and user-friendly The Data Warehouse ETL Toolkit (9780764567575) shows data warehouse developers how to effectively manage the ETL (Extract, Transform, Load) phase of the data warehouse development lifecycle. The authors show developers the best methods for extracting data from scattered sources throughout the enterprise, removing obsolete, redundant, and innaccurate data, transforming the remaining data into correctly formatted data structures, and then physically loading them into the data warehouse. This book provides complete coverage of proven, time-saving ETL techniques. It begins with a quick overview of ETL fundamentals and the role of the ETL development team. It then quickly moves into an overview of the ETL data structures, both relational and dimensional. The authors show how to build useful dimensional stuctures, providing practical examples of beginning through advanced techniques.

Discusses how to use an ELT system, covering such topics as choosing an architecture, building a data cleaning subsystem, and finetuning the ELT process for optimum performance.

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 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

Erik Erikson, the man who single handedly coined the phrase identity crisis. Erikson's world fame in multiple fields includes education, psychohistory, anthropology, and psychoanalysis, all without a college degree of any kind. Erikson extends the assumptions of Freud unlike other theorists who repudiate Freud's findings offering a novel outlook in the process (Erikson, 1963). The post-Freudian theory of Erik Erikson acts as an extension to the infantile developmental stages of Freud incorporating stages of adolescence, adulthood, and old age. The suggestion of Erikson is that contributing to the formation of personality is a psychosocial struggle during each stage. This struggle takes the form of an identity crisis from adolescence on, acting as a turning point in one's life that can either weaken or strengthen one's personality. Erikson's post-Freudian theory is an extension of psychoanalysis, one that Erikson believes that in time Freud himself may have covered. Although Erikson's lifecycle approach to personality makes use of Freudian theory as the foundation, several differences exist between Freud and Erikson. Erikson places more emphasis on both historical and social influences in addition to his elaboration of psychosexual stages beyond childhood. Like those of other personality theorists, Erik Erikson's post-Freudian theory is a reflection of his personal background including a lifelong search for his identity, experiences with a variety of cultures, extensive travels, and the arts.

Never HIGHLIGHT a Book Again! Virtually all of the testable terms, concepts, persons, places, and events from the textbook are included. Cram101 Just the FACTS101 studyguides give all of the outlines, highlights, notes, and quizzes for your textbook with optional online comprehensive practice tests. Only Cram101 is Textbook Specific. Accompanys: 9780470149775 .

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.

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.

A complete guide to Pentaho Kettle, the Pentaho Data Integration toolset for ETL This practical book is a complete guide to installing, configuring, and managing Pentaho Kettle. If you're a database administrator or developer, you'll first get up to speed on Kettle basics and how to apply Kettle to create ETL solutions—before progressing to specialized concepts such as clustering, extensibility, and data vault models. Learn how to design and build every phase of an ETL solution. Shows developers and database administrators how to use the open-source Pentaho Kettle for enterprise-level ETL processes (Extracting, Transforming, and Loading data) Assumes no prior knowledge of Kettle or ETL, and

brings beginners thoroughly up to speed at their own pace Explains how to get Kettle solutions up and running, then follows the 34 ETL subsystems model, as created by the Kimball Group, to explore the entire ETL lifecycle, including all aspects of data warehousing with Kettle Goes beyond routine tasks to explore how to extend Kettle and scale Kettle solutions using a distributed "cloud" Get the most out of Pentaho Kettle and your data warehousing with this detailed guide—from simple single table data migration to complex multisystem clustered data integration tasks.

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.

Never HIGHLIGHT a Book Again Virtually all testable terms, concepts, persons, places, and events are included. Cram101 Textbook Outlines gives all of the outlines, highlights, notes for your textbook with optional online practice tests. Only Cram101 Outlines are Textbook Specific. Cram101 is NOT the Textbook. Accompanys: 9780521673761

Ralph Kimball invented a data warehousing technique called ?dimensional modelling? and popularised it in his first Wiley bestseller The Data Warehouse Toolkit. Since then dimensional modelling has become the most widely accepted technique for data warehouse design. Since the first edition, Kimball has improved on his earlier techniques and created many new ones. In this second edition, he provides a comprehensive collection of all of them, from basic to advanced, and strategies for optimising data warehouse design for common business applications. He includes examples for retail sales, inventory management, procurement, orders and invoices, customer relationship management, accounting, financial services, telecommunication and utilities, health care, insurance and more. He also presents unique modelling techniques for e-commerce and shows strategies for optimising performance. A companion Web site provides updates on dimensional modelling techniques, links to related sites and source code where appropriate. Market_Desc: · Data warehouse Designers· Data warehouse Architects· Data warehouse Developers· Data warehouse Managers Special Features: · The current first edition has sold more than 72,000 copies, generating net revenue of more than $2.5 million· The methods described in this book have been adopted by almost all leading data warehouse vendors· Ralph Kimball and his co-authors are recognized as the driving thought leaders in the data warehousing industry; there is no direct competition· The authors actively promote this methodology in training and consulting worldwide and in their writing in magazines and online About The Book: The book covers best practices from data warehouse project inception through on-going program management. About 30 to 40% of the content in the book is updated and new. This revised tutorial covers major lifecycle topics such as dimensional modeling, tech architecture, ETL, BI etc. It is targeted at both novice and experienced data warehouse professionals.

Best practices and invaluable advice from world-renowned data warehouse experts In this book, leading data warehouse experts from the Kimball Group share best practices for using the upcoming "Business Intelligence release" of SQL Server, referred to as SQL Server 2008 R2. In this new edition, the authors explain how SQL Server 2008 R2 provides a collection of powerful new tools that extend the power of its BI toolset to Excel and SharePoint users and they show how to use SQL Server to build a successful data warehouse that supports the business intelligence requirements that are common to most organizations. Covering the complete suite of data warehousing and BI tools that are part of SQL Server 2008 R2, as well as Microsoft Office, the authors walk you through a full project lifecycle, including design, development, deployment and maintenance. Features more than 50 percent new and revised material that covers the rich new feature set of the SQL Server 2008 R2 release, as well as the Office 2010 release Includes brand new content that focuses on PowerPivot for Excel and SharePoint, Master Data Services, and discusses updated capabilities of SQL Server Analysis, Integration, and Reporting Services Shares detailed case examples that clearly illustrate how to best apply the techniques described in the book The accompanying Web site contains all code samples as well as the sample database used throughout the case studies The Microsoft Data Warehouse Toolkit, Second Edition provides you with the knowledge of how and when to use BI tools such as Analysis Services and Integration Services to accomplish your most essential data warehousing tasks.

The final edition of the incomparable data warehousing and business intelligence reference, updated and expanded The Kimball Group Reader, Remastered Collection is the essential reference for data warehouse and business intelligence design, packed with best practices, design tips, and valuable insight from industry pioneer Ralph Kimball and the Kimball Group. This Remastered Collection represents decades of expert advice and mentoring in data warehousing and business intelligence, and is the final work to be published by the Kimball Group. Organized for quick navigation and easy reference, this book contains nearly 20 years of experience on more than 300 topics, all fully up-to-date and expanded with 65 new articles. The discussion covers the complete data warehouse/business intelligence lifecycle, including project planning, requirements gathering, system architecture, dimensional modeling, ETL, and business intelligence analytics, with each group of articles prefaced by original commentaries explaining their role in the overall Kimball Group methodology. Data warehousing/business intelligence industry's current multi-billion dollar value is due in no small part to the contributions of Ralph Kimball and the Kimball Group. Their publications are the standards on which the industry is built, and nearly all data warehouse hardware and software vendors have adopted their methods in one form or another. This book is a compendium of Kimball Group expertise, and an essential reference for anyone in the field. Learn data warehousing and business intelligence from the field's pioneers Get up to date on best practices and essential design tips Gain valuable knowledge on every stage of the project lifecycle Dig into the Kimball Group methodology with hands-on guidance Ralph Kimball and the Kimball Group have continued to refine their methods and techniques based on thousands of hours of consulting and training. This Remastered Collection of The Kimball Group Reader represents their final body of knowledge, and is

nothing less than a vital reference for anyone involved in the field.

Ralph Kimball's three data warehousing books, The Data Warehouse Toolkit, The Data Warehouse Lifecycle Toolkit, and The Data Webhouse Toolkit, provide you with everything you will need to create, manage, and use your data warehouse. His first book, The Data Warehouse Toolkit, is the definitive guide to building a data warehouse. Kimball uses actual case studies of existing data warehouses developed for specific types of business applications such as retail, manufacturing, banking, insurance, subcriptions and airline reservations. Using the techniques learned in Kimball's first book, The Data Warehouse Lifecycle Toolkit carries them to the larger issues of delivering complete data marts and data warehouses. The book shows you all the practical details involved in planning, designing, developing, deploying, and growing data warehouses. The Data Webhouse Toolkit is a groundbreaking guide which introduces the Webhouse, a powerful new way of capturing valuable information flowing into a Web site and ordering it in ways that are useful to managers, strategic decision-makers, and customers.

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.

A cutting-edge response to Ralph Kimball's challenge to thedata warehouse community that answers some tough questions aboutthe effectiveness of the relational approach to datawarehousing Written by one of the best-known exponents of the Bill Inmonapproach to data warehousing Addresses head-on the tough issues raised by Kimball andexplains how to choose the best modeling technique for solvingcommon data warehouse design problems Weighs the pros and cons of relational vs. dimensional modelingtechniques Focuses on tough modeling problems, including creating andmaintaining keys and modeling calendars, hierarchies, transactions,and data quality

Building upon his earlier book that detailed agile data warehousing programming techniques for the Scrum master, Ralph's latest work illustrates the agile interpretations of the remaining software engineering disciplines: Requirements management benefits from streamlined templates that not only define projects quickly, but ensure nothing essential is overlooked. Data engineering receives two new "hyper modeling" techniques, yielding data warehouses that can be easily adapted when requirements change without having to invest in ruinously expensive data-conversion programs. Quality assurance advances with not only a stereoscopic top-down and bottom-up planning method, but also the incorporation of the latest in automated test engines. Use this step-by-step guide to deepen your own application development skills through self-study, show your teammates the world's fastest and most reliable techniques for creating business intelligence systems, or ensure that the IT department working for you is building your next decision support system the right way. Learn how to quickly define scope and architecture before programming starts Includes techniques of process and data engineering that enable iterative and incremental delivery Demonstrates how to plan and execute quality assurance plans and includes a guide to continuous integration and automated regression testing Presents program management strategies for coordinating multiple agile data mart projects so that over time an enterprise data warehouse emerges Use the provided 120-day road map to establish a robust, agile data warehousing program

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

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 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.

Market_Desc: · Data Warehouse Developers and Administrators Special Features: · Ralph Kimball, the author of this book, is far-and-away the best-selling author on data warehousing· His new book covers the most difficult, time-consuming, and labor-intensive phase of building a data warehouse; this is essential information that data warehouse developers and managers need to know· Kimball can be expected to actively promote this book through his column in Intelligent Enterprise magazine, through classes offered by his training organization, Kimball University, and online About The Book: The Data Warehouse ETL Toolkit shows data warehouse developers how to effectively manage the ETL (Extract, Transform, and Load) phase of the data warehouse development lifecycle. The authors show developers the best methods for extracting data from scattered sources throughout the enterprise, removing obsolete, redundant, and inaccurate data, transforming the remaining data into correctly formatted data structures, and then physically loading them into the data warehouse.

Market_Desc: · Database/Data Warehouse Developer· Designer or Manager Special Features: · Covers how to design data marts that are well integrated with the overall data warehouse design· Includes CD-

ROM with useful checklists· CD-ROM includes useful checklists and an upgraded version of StarTracker software About The Book: In its simplest terms, this book is a step-by-step methodology for designing, developing, and deploying data marts and data warehouses. It shows how dimensional design fits in the overall lifecycle of planning, designing, developing, and deploying data marts and data warehouses. In other words, it covers ALL of the steps a developer needs to go through to guarantee a successful enterprise-wide data warehousing solution. It also covers how to design data marts that are well integrated with the overall data warehouse architecture.

This book constitutes the refereed proceedings of the 6th International Conference on Data Warehousing and Knowledge Discovery, DaWaK 2004, held in Zaragoza, Spain, in September 2004. The 40 revised full papers presented were carefully reviewed and selected from over 100 submissions. The papers are organized in topical sections on data warehouse design; knowledge discovery framework and XML data mining, data cubes and queries; multidimensional schema and data aggregation; inductive databases and temporal rules; industrial applications; data clustering; data visualization and exploration; data classification, extraction, and interpretation; data semantics, association rule mining; event sequence mining; and pattern mining.

Step-by-step guide to build high performing predictive applications Key Features Use the Python data analytics ecosystem to implement end-to-end predictive analytics projects Explore advanced predictive modeling algorithms with an emphasis on theory with intuitive explanations Learn to deploy a predictive model's results as an interactive application Book Description Predictive analytics is an applied field that employs a variety of quantitative methods using data to make predictions. It involves much more than just throwing data onto a computer to build a model. This book provides practical coverage to help you understand the most important concepts of predictive analytics. Using practical, step-by-step examples, we build predictive analytics solutions while using cutting-edge Python tools and packages. The book's step-by-step approach starts by defining the problem and moves on to identifying relevant data. We will also be performing data preparation, exploring and visualizing relationships, building models, tuning, evaluating, and deploying model. Each stage has relevant practical examples and efficient Python code. You will work with models such as KNN, Random Forests, and neural networks using the most important libraries in Python's data science stack: NumPy, Pandas, Matplotlib, Seaborn, Keras, Dash, and so on. In addition to hands-on code examples, you will find intuitive explanations of the inner workings of the main techniques and algorithms used in predictive analytics. By the end of this book, you will be all set to build high-performance predictive analytics solutions using Python programming. What you will learn Get to grips with the main concepts and principles of predictive analytics Learn about the stages involved in producing complete predictive analytics solutions Understand how to define a problem, propose a solution, and prepare a dataset Use visualizations to explore relationships and gain insights into the dataset Learn to build regression and classification models using scikit-learn Use Keras to build powerful neural network models that produce accurate predictions Learn to serve a model's predictions as a web application Who this book is for This book is for data analysts, data scientists, data engineers, and Python developers who want to learn about predictive modeling and would like to implement predictive analytics solutions using Python's data stack. People from other backgrounds who would like to enter this exciting field will greatly benefit from reading this book. All you need is to be proficient in Python programming and have a basic understanding of statistics and college-level algebra. Focus your efforts on the best opportunities --