Modeling The Agile Data Warehouse With Data Vault Volume 1

Data Warehouse projects fail. As an industry we have been battling with this phenomenon for decades. Though we have been getting better over the years, as an industry we still have a long way to go. Fortunately some people have found ways to beat the odds. By thinking out of the box, formulating new ideas, and creating new innovative approaches these people have each somehow unlocked the secrets of successful DW programs. Within this group there are those who have fire tested their theories with real life deployments. They have proven the merits of their ideas with perhaps the only test that really matters – actually deploying successful DW programs. Now this is a small group, a special club, and of the few members in this club, an even smaller group is willing and able to communicate and share their ideas. In this book, Integrated Data Hub™, Dario Mangano shares with us his ideas including the solution he developed and the proven architecture that he has successfully deployed in several organizations. This book is a guide to a successful data warehousing business intelligence (DWBI) program. One of the success factors is recognizing that there is no success to be found in a data warehouse project. To leverage enterprise data we have to recognize two things; first that the data warehouse is not a project with a beginning and end but rather an ongoing program, and second that this program is not technically driven but actually business and information driven. The Integrated Data Hub™ is an organizational information framework that takes into account the dynamic characteristics of the data warehouse function. Business alignment, data integration and historization are ongoing dynamic functions that need to respond to changes in the business, changes in the sources, and changes in downstream requirements. The organizational need for enterprise-wide data is an increasingly important component of enterprise management. With this increasing importance comes also an increasing need for traceability and auditability. Dario explains how the role of the business intelligence department is to manage the transformation of integrated and trusted data into understandable information with real business meaning. Dario's IDH leverages the concepts and principles of both Bill Inmon's data warehouse and corporate information factory, and of Ralph Kimball's dimensional modeling and data marts. Insofar as the goals of the IDH require an optimized modeling paradigm, Dario has specified the use of the data vault modeling approach. Dario starts by sketching the historical background and then introduces the IDH concept. Keep reading as Dario weaves the IDH components together into an effective strategy and a cohesive blueprint for enterprise information management. From a modeling perspective this book takes us from 3NF and Star Schemas to Data Vault and Dario's own Leaf Schemas. From an architectural perspective this book describes the component layers and their specific characteristics. This book is a great addition to the IP for the new age of data warehousing and information management. Data Warehouse programs using the IDH™ succeed. And perhaps that is the most compelling reason to read this book. Hans Hultgren (Author of the book: Modeling the Agile Data Warehouse with Data Vault)

What is agile data warehousing? -- Iterative development in a nutshell -- Streamlining project management -- Authoring better user stories -- Deriving initial project backlogs -- Developer stories for data integration -- Estimating and segmenting projects -- Adapting agile for data warehousing -- Starting and scaling agile data warehousing.

Information modelling and knowledge bases are now essential, not only to academics working in computer science, but also wherever information technology is applied. This book presents papers from the 26th International Conference on Information Modelling and Knowledge Bases (formerly the European Japanese Conference – EJC), which took place in Tampere, Finland, in June 2016. The conference provides a platform to bring together researchers and practitioners working with information modelling and knowledge bases, and the 33 accepted papers cover topics including: conceptual modelling; knowledge and information modelling and discovery; linguistic modelling; cross-cultural communication and social computing; environmental modelling and engineering; and multimedia data modelling and systems. All papers were improved and resubmitted for publication after the conference. Covering state-of-the-art research and practice, the book will be of interest to all those whose work involves information modelling and knowledge bases.

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.

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

As the first to focus on the issue of Data Warehouse Requirements Engineering, this book introduces a model-driven requirements process used to identify requirements granules and incrementally develop data warehouse fragments. In addition, it presents an approach to the pair-wise integration of requirements granules for consolidating multiple data warehouse fragments. The process is systematic and does away with the fuzziness associated with existing techniques. Thus, consolidation is treated as a requirements engineering issue. The notion of a decision occupies a central position in the decision-based approach. On one hand, information relevant to a decision must be elicited from stakeholders; modeled; and transformed into multi-dimensional form. On the other, decisions themselves are to be obtained from decision applications. For the former, the authors introduce a suite of information elicitation techniques specific to data warehousing. This information is subsequently converted into multi-dimensional form. For the latter, not only are decisions obtained from decision applications for managing operational businesses, but also from applications for formulating business policies and for defining rules for enforcing policies, respectively. In this context, the book presents a broad range of models, tools and techniques. For readers from academia, the book identifies the scientific/technological problems it addresses and provides cogent arguments for the proposed solutions; for readers from industry, it presents an approach for ensuring that the product meets its requirements while ensuring low lead times in delivery.

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 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 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 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.

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 first book to cover Agile Modeling, a new modeling techniquecreated specifically for XP projects eXtreme Programming (XP) hascreated a buzz in the software development community-much likeDesign Patterns did several years ago. Although XP presents amethodology for faster software development, many developers findthat XP does not allow for modeling time, which is critical toensure that a project meets its proposed requirements. They havealso found that standard modeling techniques that use the UnifiedModeling Language (UML) often do not work with this methodology. Inthis innovative book, Software Development columnist Scott Amblerpresents Agile Modeling (AM)-a technique that he created formodeling XP projects using pieces of the UML and Rational's UnifiedProcess (RUP). Ambler clearly explains AM, and shows readers how toincorporate AM, UML, and RUP into their development projects withthe help of numerous case studies integrated throughout the book. AM was created by the author for modeling XP projects-anelement lacking in the original XP design The XP community and its creator have embraced AM, which shouldgive this book strong market acceptance Companion Web site at www.agilemodeling.com features updates,links to XP and AM resources, and ongoing case studies about agilemodeling.

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 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.

Agile Data Warehouse DesignCollaborative Dimensional Modeling, from Whiteboard to Star SchemaDecisionOne Consulting

"This all day workshop will provide you the background and principles to use agile in your data warehouse and business intelligence projects. It will introduce you to a modern method for agile data modeling, Data Vault 2.0, and provide you with a detailed, real world case study. At the end we will talk about how the cloud has changed everything and how you can enable your agile data warehouse by using a modern data warehouse as a service (DWaaS) built in the cloud, for the cloud."--Resource description page.

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.

Information modeling plays an important role in every level of the enterprise information system’s architecture. Modeling allows organizations to adapt and become more efficient, helping top managers and engineers outline tactics to reach strategic objectives, understand organizational needs, and design information systems that are aligned with business goals. New Perspectives on Information Systems Modeling and Design is an essential reference source that discusses organizational adaptation through the integration of new information technologies into existing processes and underlying supporting applications. Featuring research on topics such as application integration, change management, and mobile process activities, this book is ideally designed for managers, researchers, system developers, entrepreneurs, graduate-level students, business professionals, information system engineers, and academicians seeking coverage on emerging technological developments and practical solutions for system modeling and design.

"As we move more and more towards the need for everyone to do Agile Data Warehousing, we need a data modeling method that can be agile with us. Data Vault Data Modeling is an agile data modeling technique for designing highly flexible, scalable, and adaptable data structures for enterprise data warehouse repositories. It is a hybrid approach using the best of 3NF and dimensional modeling. It is not a replacement for star schema data marts (and should not be used as such). This approach has been used in projects around the world (Europe, Australia, USA) for over 10 years but is still not widely known or understood. The purpose of this presentation is to provide attendees with an introduction to the components of the Data Vault Data Model, what they are for and how to build them."--Resource description page.

Develop a custom, agile data warehousing and business intelligence architecture Empower your users and drive better decision making

across your enterprise with detailed instructions and best practices from an expert developer and trainer. The Data Warehouse Mentor: Practical Data Warehouse and Business Intelligence Insights shows how to plan, design, construct, and administer an integrated end-to-end DW/BI solution. Learn how to choose appropriate components, build an enterprise data model, configure data marts and data warehouses, establish data flow, and mitigate risk. Change management, data governance, and security are also covered in this comprehensive guide. Understand the components of BI and data warehouse systems Establish project goals and implement an effective deployment plan Build accurate logical and physical enterprise data models Gain insight into your company's transactions with data mining Input, cleanse, and normalize data using ETL (Extract, Transform, and Load) techniques Use structured input files to define data requirements Employ top-down, bottom-up, and hybrid design methodologies Handle security and optimize performance using data governance tools Robert Laberge is the founder of several Internet ventures and a principle consultant for the IBM Industry Models and Assets Lab, which has a focus on data warehousing and business intelligence solutions.

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.

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 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.

Data mining provides a set of new techniques to integrate, synthesize, and analyze tdata, uncovering the hidden patterns that exist within. Traditionally, techniques such as kernel learning methods, pattern recognition, and data mining, have been the domain of researchers in areas such as artificial intelligence, but leveraging these tools, techniques, and concepts against your data asset to identify problems early, understand interactions that exist and highlight previously unrealized relationships through the combination of these different disciplines can provide significant value for the investigator and her organization.

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.

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 coursebook for the Certified Data Vault Data Modeler CDVDM course. Data Vault modeling is a form of Data Modeling optimized for Agile Data Warehousing and Business Intelligence DWBI programs. As a form of Ensemble Modeling, the Data Vault approach is based on the Unified Decomposition pattern. This pattern models Core Business Concepts (main business entities, similar to business dimensions or enterprise business concepts) using multiple component parts. This separates the things that change (context, descriptions, states, ratings and status for example) from the things that don't change (business keys, static descriptors and core relationships for example). The result is a highly scalable, adaptable, and traceable data store that can capture all data over time with complete historization.

Today, the world is trying to create and educate data scientists because of the phenomenon of Big Data. And everyone is looking deeply into this technology. But no one is looking at the larger architectural picture of how Big Data needs to fit within the existing systems (data warehousing systems). Taking a look at the larger picture into which Big Data fits gives the data scientist the necessary context for how pieces of the puzzle should fit together. Most references on Big Data look at only one tiny part of a much larger whole. Until data gathered can be put into an existing framework or architecture it can’t be used to its full potential. Data Architecture a Primer for the Data Scientist addresses the larger architectural picture of how Big Data fits with the existing information infrastructure, an essential topic for the data scientist. Drawing upon years of practical experience and using numerous examples and an easy to understand framework. W.H. Inmon, and Daniel Linstedt define the importance of data architecture and how it can be used effectively to harness big data within existing systems. You’ll be able to: Turn textual information into a form that can be analyzed by standard tools. Make the connection between analytics and Big Data Understand how Big Data fits within an existing systems environment Conduct analytics on repetitive and non-repetitive data Discusses the value in Big Data that is often overlooked, non-repetitive data, and why there is significant business value in using it Shows how to turn textual information into a form that can be analyzed by standard tools Explains how Big Data fits within an existing systems environment Presents

new opportunities that are afforded by the advent of Big Data Demystifies the murky waters of repetitive and non-repetitive data in Big Data

Contains a six-stage plan for starting new warehouse projects and guiding programmers step-by-step until they become a world-class, Agile development team. It describes also how to avoid or contain the fierce opposition that radically new methods can encounter from the traditionally-minded IS departments found in many large companies.

This book constitutes the refereed proceedings of the 14th International Conference on Data Warehousing and Knowledge Discovery, DaWaK 2012 held in Vienna, Austria, in September 2012. The 36 revised full papers presented were carefully reviewed and selected from 99 submissions. The papers are organized in topical sections on data warehouse design methodologies, ETL methodologies and tools, multidimensional data processing and management, data warehouse and OLAP extensions, data warehouse performance and optimization, data mining and knowledge discovery techniques, data mining and knowledge discovery applications, pattern mining, data stream mining, data warehouse confidentiality and security, and distributed paradigms and algorithms.

This book constitutes the refereed proceedings of seven workshops and a symposium, held at the 34th International Conference on Conceptual Modeling, ER 2015, in Stockholm, Sweden. The 26 revised full and 8 invited papers were carefully reviewed and selected out of 52 submissions to the following events: Conceptual Modelling for Ambient Assistance and Healthy Ageing, AHA-2015; Conceptual Modelling of Services, CMS-2015; Event Modelling and Processing in Business Process Management, EMoV-2015; Modelling and Management of Big Data, MoBID-2015; Modelling and Reasoning for Business Intelligence, MORE-BI-2015; Conceptual Modelling in Requirements Engineering and Business Analysis, MREBA-2015; Quality of Modelling and Modelling of Quality, QMMQ-2015; and the Symposium on Conceptual Modelling Education, SCME-2015.

Though traditionally information systems have been centralized, these systems are now distributed over the web. This requires a re-investigation into the way information systems are modeled and designed. Because of this new function, critical problems, including security, never-fail systems, and quality of service have begun to emerge. Novel Approaches to Information Systems Design is an essential publication that explores the most recent, cutting-edge research in information systems and exposes the reader to emerging but relatively mature models and techniques in the area. Highlighting a wide range of topics such as big data, business intelligence, and energy efficiency, this publication is ideally designed for managers, administrators, system developers, information system engineers, researchers, academicians, and graduate-level students seeking coverage on critical components of information systems.

?????AM??????????,????????????????,????????????????,??,????????

"In this Agile Data Warehouse Design training course, expert author Michael Blaha will teach you how to model and design a data warehouse. This course is designed for users that are already familiar with data warehouses. You will start with a data warehouse overview, then jump into learning about data sources, such as customer order, customer account, and vendor procurement. From there, Michael teaches you about staging tables, basic data warehouse modeling, recurrent dimensions, and advanced dimension data warehouse modeling. This video tutorial also covers data warehouse design, data warehouse data, and end user access. Finally, you will learn about metadata management. Once you have completed this computer based training course, you will be fully capable of modeling and designing your own data warehouse."--Resource description page.

This book constitutes the refereed proceedings of the 28th International Conference on Conceptual Modeling, ER 2009, held in Gramado, Brazil, in November 2009. The 31 revised full papers presented together with 18 demo papers were carefully reviewed and selected from 162 submissions. The papers are organized in topical sections on conceptual modeling, requirements engineering, query approaches, space and time modeling, schema matching and integration, application contexts, process and service modeling, and industrial session.

Do your business intelligence (BI) projects take too long to deliver? Is the value of the deliverables less than satisfactory? Do these projects propagate poor data management practices? If you screamed “yes” to any of these questions, read this book to master a proven approach to building your enterprise data warehouse and BI initiatives. Extreme Scoping, based on the Business Intelligence Roadmap, will show you how to build analytics applications rapidly yet not sacrifice data management and enterprise architecture. In addition, all of the roles required to deliver all seven steps of this agile methodology are explained along with many real-world examples. From Wayne Eckerson’s Foreword I’ve read many books about data warehousing and business intelligence (BI). This book by Larissa Moss is one of the best. I should not be surprised. Larissa has spent years refining the craft of designing, building, and delivering BI applications. Over the years, she has developed a keen insight about what works and doesn’t work in BI. This book brings to light the wealth of that development experience. Best of all, this is not some dry text that laboriously steps readers through a technical methodology. Larissa expresses her ideas in a clear, concise, and persuasive manner. I highlighted so many beautifully written and insightful paragraphs in her manuscript that it became comical. I desperately wanted the final, published book rather than the manuscript so I could dog-ear it to death and place it front-and-center in my office bookshelf! From David Well’s Foreword Extreme Scoping is rich with advice and guidance for virtually every aspect of BI projects from planning and requirements to deployment and from back-end data management to front-end information and analytics services. Larissa is both a pragmatist and an independent thinker. Those qualities come through in the style of this book. Extreme Scoping is a well-written book that is easy to absorb. It is not full of surprises. It is filled with a lot of common sense and lessons learned through experience.

"This book provides the latest ideas and research on advancing the understanding and implementation of business intelligence within organizations"--Provided by publisher.

You have to make sense of enormous amounts of data, and while the notion of “agile data warehousing might sound tricky, it can yield as much as a 3-to-1 speed advantage while cutting project costs in half. Bring this highly effective technique to your organization with the wisdom of agile data warehousing expert Ralph Hughes. Agile Data Warehousing Project Management will give you a thorough introduction to the method as you would practice it in the project room to

build a serious “data mart. Regardless of where you are today, this step-by-step implementation guide will prepare you to join or even lead a team in visualizing, building, and validating a single component to an enterprise data warehouse. Provides a thorough grounding on the mechanics of Scrum as well as practical advice on keeping your team on track Includes strategies for getting accurate and actionable requirements from a team’s business partner Revolutionary estimating techniques that make forecasting labor far more understandable and accurate Demonstrates a blends of Agile methods to simplify team management and synchronize inputs across IT specialties Enables you and your teams to start simple and progress steadily to world-class performance levels

This book constitutes the refereed proceedings of the 37th International Conference on Conceptual Modeling, ER 2018, held in XI'an, China, in October 2018. The 30 full and 13 short papers presented together with 3 keynotes were carefully reviewed and selected from 151 submissions. This events covers a wide range of following topics: Conceptual modeling studies, ontological modeling, semi-structured data modeling, process modeling and management, spatio-temporal modeling, cloud-based modeling, schema and view modeling,languages and models, NoSQL modeling, conceptual modeling for machine learning and reasoning, applications of conceptual modeling.

Data Modeling for Agile Data Warehouse using Data Vault Modeling Approach. Includes Enterprise Data Warehouse Architecture. This is a complete guide to the data vault data modeling approach. The book also includes business and program considerations for the agile data warehousing and business intelligence program. There are over 200 diagrams and figures concerning modeling, core business concepts, architecture, business alignment, semantics, and modeling comparisons with 3NF and Dimensional modeling.