

Mdx Solutions With Microsoft Sql Server Analysis Services

Understanding MDX is crucial for anyone designing or implementing a database in Microsoft's products. SAS Olap Server 9.1: MDX Guide provides the main documentation for the product. "SAS Olap Server: Concepts and Excerpts from 'MDX Solutions with Microsoft SQL Server Analysis Services'" includes the subset of information (Chapter 1, Chapter 2, and Appendix A) from "MDX Solutions with Microsoft SQL Server Analysis Services" (published by John Wiley & Sons, Inc. under the ISBN 0471-40046-7) that are applicable to using SAS Olap Server 9.1. These excerpts include basic MDX information such as the MDX data model, MDX construction, comments in MDX, and a complete MDX function and operator reference. The excerpts are delivered as PDF files on CD. 2003

Design and implement fast, scalable and maintainable cubes with Microsoft SQL Server 2008 Analysis Services with this book and eBook

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

Serving as both a tutorial and a reference guide to the MDX (Multidimensional Expressions) query language, this book shows data warehouse developers what they need to know to build effective multidimensional data warehouses After a brief overview of the MDX language and a look at how it is used to access data in sophisticated, multidimensional databases and data warehousing, the authors move directly to providing practical examples of MDX in use New material covers changes in the MDX language itself as well as major changes in its implementation with the latest software releases of Microsoft SQL Server Analysis Services 2005 and Hyperion Essbase Also covers more advanced techniques, like aggregation, query templates, and MDX optimization, and shows users what they need to know to access and analyze data to

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make better business decisions Note: CD-ROM/DVD and other supplementary materials are not included as part of eBook file.

Combine high volume data movement, complex transformations and real-time data integration with the robust capabilities of ODI in this practical guide.

Prepare for Microsoft Exam 70-768—and help demonstrate your real-world mastery of Business Intelligence (BI) solutions development with SQL Server 2016 Analysis Services (SSAS), including modeling and queries. Designed for experienced IT professionals ready to advance their status, Exam Ref focuses on the critical thinking and decision-making acumen needed for success at the MCSA level. Focus on the expertise measured by these objectives:

- Design a multidimensional BI semantic model
- Design a tabular BI semantic model
- Develop queries using Multidimensional Expressions (MDX) and Data Analysis Expressions (DAX)
- Configure and maintain SSAS

This Microsoft Exam Ref:

- Organizes its coverage by exam objectives
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- Features strategic, what-if scenarios to challenge you
- Assumes you are a database or BI professional with experience creating models, writing MDX or DAX queries, and using SSAS

Build agile and responsive Business Intelligence solutions Analyze tabular data using the BI Semantic Model (BISM) in Microsoft SQL Server 2012 Analysis Services—and discover a simpler method for creating corporate-level BI solutions. Led by three BI experts, you'll learn how to build, deploy, and query a BISM tabular model with step-by-

step guides, examples, and best practices. This hands-on book shows you how the tabular model's in-memory database enables you to perform rapid analytics—whether you're a professional BI developer new to Analysis Services or familiar with its multidimensional model. Discover how to: Determine when a tabular or multidimensional model is right for your project Build a tabular model using SQL Server Data Tools in Microsoft Visual Studio 2010 Integrate data from multiple sources into a single, coherent view of company information Use the Data Analysis eXpressions (DAX) language to create calculated columns, measures, and queries Choose a data modeling technique that meets your organization's performance and usability requirements Optimize your data model for better performance with xVelocity storage engine Manage complex data relationships, such as multicolumn, banding, and many-to-many Implement security by establishing administrative and data user roles Teach yourself to use SQL Server 2008 Analysis Services for business intelligence—one step at a time. You'll start by building your understanding of the business intelligence platform enabled by SQL Server and the Microsoft Office System, highlighting the role of Analysis Services. Then, you'll create a simple multidimensional OLAP cube and progressively add features to help improve, secure, deploy, and maintain an Analysis Services database. You'll explore core Analysis Services 2008 features and capabilities, including dimension, cube, and

aggregation design wizards; a new attribute relationship designer; designer AMO warnings; and using dynamic management views to monitor resources. And as you complete each lesson, you can hone your skills using the practice exercises from the companion CD. Plus, you can review and download code samples illustrating the author's own, professional techniques—direct from the companion Web site. For customers who purchase an ebook version of this title, instructions for downloading the CD files can be found in the ebook.

An easy-to-follow guide full of hands on examples of real-world Analysis Services cube development tasks. Each topic is explained and placed in context, and for the more inquisitive reader, there also more in-depth details of the concepts used. If you are an Analysis Services cube designer wishing to learn more advanced topic and best practices for cube design, this book is for you. You are expected to have some prior experience with Analysis Services cube development.

Over 70 practical recipes to analyze multi-dimensional data in SQL Server 2016 Analysis Services cubes About This Book Updated for SQL Server 2016, this book helps you take advantage of the new MDX commands and the new features introduced in SSAS Perform time-related, context-aware, and business related-calculations with ease to enrich your Business Intelligence solutions Collection of

techniques to write flexible and high performing MDX queries in SSAS with carefully structured examples Who This Book Is For This book is for anyone who has been involved in working with multidimensional data. If you are a multidimensional cube developer, a multidimensional database administrator, or a report developer who writes MDX queries to access multidimensional cube, this book will help you. If you are a power cube user or an experienced business analyst, you will also find this book invaluable in your data analysis. This book is for you are interested in doing more data analysis so that the management can make timely and accurate business decisions. What You Will Learn Grasp the fundamental MDX concepts, features, and techniques Work with sets Work with Time dimension and create time-aware calculations Make analytical reports compact, concise, and efficient Navigate cubes Master MDX for reporting with Reporting Services (new) Perform business analytics Design efficient cubes and efficient MDX queries Create metadata-driven calculations (new) Capture MDX queries and many other techniques In Detail If you're often faced with MDX challenges, this is a book for you. It will teach you how to solve various real-world business requirements using MDX queries and calculations. Examples in the book introduce an idea or a problem and then guide you through the process of implementing the solution in a step-by-step manner, inform you about the best

practices and offer a deep knowledge in terms of how the solution works. Recipes are organized by chapters, each covering a single topic. They start slowly and logically progress to more advanced techniques. In case of complexity, things are broken down. Instead of one, there are series of recipes built one on top of another. This way you are able to see intermediate results and debug potential errors faster. Finally, the cookbook format is here to help you quickly identify the topic of interest and in it a wide range of practical solutions, that is – MDX recipes for your success. Style and approach This book is written in a cookbook format, where you can browse through and look for solutions to a particular problem in one place. Each recipe is short, to the point and grouped by relevancy. All the recipes are sequenced in a logical progression; you will be able to build up your understanding of the topic incrementally.

Power Query for Power BI and Excel is a book for people who are tired of copying and pasting data into Excel worksheets. Power Query, part of the Microsoft Power BI suite, is a tool that automates the process of getting data into Excel and will save you hours of dull, repetitive, and error-prone work! Power Query makes it easy to extract data from many different data sources, filter that data, aggregate it, clean it and perform calculations on it, finally loading that data into either your worksheet or directly into the new Excel 2013 Data Model used

by Power Pivot. This concise, practical book provides a complete guide to Power Query and how to use it to solve all of your Excel data-loading problems. Power Query for Power BI and Excel goes well beyond the surface of what Power Query can do. The book goes deep into the underlying M language, showing you how to do amazing things that aren't going to be possible from just the GUI interface that is covered in most other books. You'll have full command of the GUI, and you'll be able to drop into the M language to go beyond what the GUI provides. The depth in this book makes it a must-have item for anyone who is pushing Power BI and Excel to their limits in the pursuit of business intelligence from data analysis. Teaches the basics of using Power Query to load data into Excel Helps you solve common, data-related problems with Power Query Shows how to write your own solutions in the powerful M language

Analyze tabular data using the BI Semantic Model (BISM) in SQL Server 2012 Analysis Services--and discover a simpler method for creating corporate-level BI solutions. Led by three BI experts, you'll learn how to build, deploy, and query a BISM tabular model with step-by-step guides, examples, and best practices. This hands-on book shows you how the tabular model's in-memory database enables you to perform rapid analytics--whether you're a professional BI developer new to Analysis Services or already familiar with its multidimensional model --

This book will expand your ability to deliver meaningful, performant solutions to your organization. You'll learn how to use an analytical engine for decision making and business analytics. With the help of this practical guide, you'll also be able to work confidently with data and analytics.

300+ ready-to-use, powerful MDX queries This hands-on guide shows you how to use Multi-Dimensional Expressions (MDX) to extract business intelligence from multi-dimensional cubes. Practical MDX Queries contains more than 300 downloadable MDX queries that can be applied across a wide variety of business intelligence-related problems. The use, syntax, and results of each query are described in detail. The book emphasizes MDX for use with SSAS within SSMS, but the techniques and queries also apply to SSRS, SSIS, MDX in SQL, MDX in DMX, MDX in XMLA, WinForms, WebForms, PerformancePoint Server, ProClarity, and many third-party applications. Work with dimensions, hierarchies, levels, and members Navigate both horizontally and vertically across dimensions and hierarchies Sort the results of your queries Access subsets of dimension members and measure values using the Where clause and Filter function Use MDX query calculations Extract and manipulate dates and times Produce totals, subtotals, and changes cross time using aggregate and other functions Create, visualize, and manipulate sets Work with perspectives, subselects, and subcubes

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Display and hide empty cells Use, modify, format, and create Key Performance Indicators (KPIs) Deliver MDX query results to end users

Teach yourself the Multidimensional Expressions (MDX) query language—one step at a time. With this practical, learn-by-doing tutorial, you'll build the core techniques for using MDX with Analysis Services to deliver high-performance business intelligence solutions. Discover how to: Construct and execute MDX queries Work with tuples, sets, and expressions Build complex sets to retrieve the exact data users need Perform aggregation functions and navigate data hierarchies Assemble time-based business metrics Customize an Analysis Services cube through the MDX script Implement dynamic security to control data access Develop MDX-driven reports in SQL Server Reporting Services CD features: Practice exercises Database and code samples Fully searchable eBook

400+ ready-to-use, powerful SQL queries Learn powerful techniques for surfacing and delivering actionable business intelligence using SQL. Practical SQL Queries for Microsoft SQL Server 2008 R2 contains more than 400 downloadable SQL queries you can use to extract meaningful insights from large amounts of data. The application, syntax, and results of each query are described in detail. The book emphasizes SQL for use in SSMS, but the queries also apply to SSRS, WinForms, WebForms, and many other applications. Enter, maintain, and retrieve database data Search records using the Where clause Sort SQL query results with the Order By clause Create tables and

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perform joins on tables Perform set operations using Union, Intersect, and Except Group data and produce totals with the Group By clause Manipulate and transform data using built-in functions Create reusable views and user-defined functions Use stored procedures to change SQL dynamically based on conditional factors Create, maintain, and secure database objects with DDL and DCL Deliver SQL query results to end users Shows users and developers how to use MDX to effectively to provide relevant business information.

The next wave of business intelligence, Self-Service BI, seeks to meet the demands of powerful hardware and shorter decision time frames. This book introduces PowerPivot for Excel and SharePoint, showing you how to use this innovative software for self-service analytics and reporting. Authored by key members of the Microsoft team that built the product, this book will guide you through the use of in-memory BI server technology, data analytics eXpressions, and report gallery. The book also discusses how to deploy and manage sandbox servers, and a companion website provides sample reports and applications.

Understand Microsoft's dramatically updated new release of its premier toolset for business intelligence The first major update to Microsoft's state-of-the-art, complex toolset for business intelligence (BI) in years is now available and what better way to master it than with this detailed book from key members of the product's development team? If you're a database or data warehouse developer, this is the expert resource

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you need to build full-scale, multi-dimensional, database applications using Microsoft's new SQL Server 2012 Analysis Services and related tools. Discover how to solve real-world BI problems by leveraging a slew of powerful new Analysis Services features and capabilities. These include the new DAX language, which is a more user-friendly version of MDX; PowerPivot, a new tool for performing simplified analysis of data; BISM, Microsoft's new Business Intelligence Semantic Model; and much more. Serves as an authoritative guide to Microsoft's new SQL Server 2012 Analysis Services BI product and is written by key members of the Microsoft Analysis Services product development team Covers SQL Server 2012 Analysis Services, a major new release with a host of powerful new features and capabilities Topics include using the new DAX language, a simplified, more user-friendly version of MDX; PowerPivot, a new tool for performing simplified analysis of data; BISM, Microsoft's new Business Intelligence Semantic Model; and a new, yet-to-be-named BI reporting tool Explores real-world scenarios to help developers build comprehensive solutions Get thoroughly up to speed on this powerful new BI toolset with the timely and authoritative Professional Microsoft SQL Server 2012 Analysis Services with MDX.

Describes how to build data warehouses and multidimensional databases using Microsoft Analysis Services.

More than 80 recipes for enriching your Business Intelligence solutions with high-performance MDX calculations and flexible MDX queries in this book and eBook.

SQL Server 2012 is packed with powerful new Analysis Services features that will dramatically enhance business intelligence. Written by key members to Microsoft's product team, this book shows you how to apply these new capabilities to create sophisticated BI solutions. In order to accomplish this, you'll learn how to design, build, and work with the multidimensional and tabular Business Intelligence Semantic Model (BISM) using SQL Server Analysis Services. You'll then use MDX and DAX to query those databases so you can provide advanced analysis of business problems and build end-to-end solutions to meet your needs.

The massive amount of data collected by businesses often creates a lot of work without doing much good. To make data work for them, businesses need solutions that summarize and organize it in ways that will influence the decisions they make each day. With *SQL Server Analysis Services Succinctly* by Stacia Misner, you will learn how to implement a business intelligence solution through SQL Server Analysis Services. You'll start with developing a database, and learn which architecture is most appropriate for the database's end use. You will then learn how to design practical dimensions and cubes, and how to store business logic within the cubes through MDX. Finally, you will learn how to deploy a working solution to the tool of your choice in Microsoft's business intelligence

stack, including Excel, SQL Server Reporting Services, and SharePoint. Optimize reporting and BI with Microsoft SQL Server 2016 Professional Microsoft SQL Server 2016 Reporting Services and Mobile Reports provides a comprehensive lesson in business intelligence (BI), operational reporting and Reporting Services architecture using a clear, concise tutorial approach. You'll learn effective report solution design based upon many years of experience with successful report solutions. Improve your own reports with advanced, best-practice design, usability, query design, and filtering techniques. Expert guidance provides insight into common report types and explains where each could be made more efficient, while providing step-by step instruction on Microsoft SQL Server 2016. All changes to the 2016 release are covered in detail, including improvements to the Visual Studio Report Designer (SQL Server Data Tools) and Report Builder, Mobile Dashboard Designer, the new Report Portal Interface, HTML-5 Rendering, Power BI integration, Custom Parameters Pane, and more. The Microsoft SQL Server 2016 release will include significant changes. New functionality, new capabilities, re-tooled processes, and changing support require a considerable update to existing knowledge. Whether you're starting from scratch or simply upgrading, this book is an essential guide to report design and business intelligence solutions. Understand BI fundamentals and Reporting

Services architecture Learn the ingredients to a successful report design Get up to speed on Microsoft SQL Server 2016 Grasp the purpose behind common designs to optimize your reporting Microsoft SQL Server Reporting Services makes reporting faster, easier, and more powerful than ever in web, desktop and portal solutions. Compatibility with an extensive variety of data sources makes it a go-to solution for organizations across the globe. The 2016 release brings some of the biggest changes in years, and the full depth and breadth of these changes can create a serious snag in your workflow. For a clear tutorial geared toward the working professional, Professional Microsoft SQL Server 2016 Reporting Services and Mobile Reports is the ideal guide for getting up to speed and producing successful reports.

Implement a Robust BI Solution with Microsoft SQL Server 2012 Equip your organization for informed, timely decision making using the expert tips and best practices in this practical guide. Delivering Business Intelligence with Microsoft SQL Server 2012, Third Edition explains how to effectively develop, customize, and distribute meaningful information to users enterprise-wide. Learn how to build data marts and create BI Semantic Models, work with the MDX and DAX languages, and share insights using Microsoft client tools. Data mining and forecasting are also covered in this comprehensive resource. Understand the

goals and components of successful BI Design, deploy, and manage data marts and OLAP cubes Load and cleanse data with SQL Server Integration Services Manipulate and analyze data using MDX and DAX scripts and queries Work with SQL Server Analysis Services and the BI Semantic Model Author interactive reports using SQL Server Data Tools Create KPIs and digital dashboards Use data mining to identify patterns, correlations, and clusters Implement time-based analytics Embed BI reports in custom applications using ADOMD.NET

A hands-on tutorial on building and using multidimensional data warehouses The SQL query language is used to access data in most simple databases. But for multidimensional (or OLAP) data warehouses, Microsoft developed MDX. The MDX query language has become essential know-how for developers and users alike, whether for data warehouses or for budgeting and planning systems. This tutorial/reference guide shows developers and users how to use MDX to access and analyze data for decision support. Both the standard language and Microsoft's own extensive additions to MDX are explained. The authors provide practical examples of MDX in use, and explain both standard usage and more advanced techniques, such as optimization, cube design, and Pareto analysis. Finally, the appendices provide a handy reference guide that users can rely on. This book is written in a recipe-based style packed full of practical tips and

techniques to help you analyse multidimensional data stored in SSAS 2012 cubes. If you need to master MDX queries in SSAS, then this book is for you! If you are a Microsoft SQL Server Analysis Services developer and want to improve your solutions using MDX, then this book is for you. This book is also an essential resource for report developers who need to access the multidimensional cubes through the MDX language. The book assumes you have some basic working knowledge of MDX and a basic understanding of dimensional modelling and cube design.

80 recipes for enriching your Business Intelligence solutions with high-performance MDX calculations and flexible MDX queries Enrich your BI solutions by implementing best practice MDX calculations Master a wide range of time-related, context-aware, and business-related calculations Enhance your solutions by combining MDX with utility dimensions Become skilled in making reports concise Learn how to optimize, dissect, and debug your MDX calculations Maximize your learning with detailed explanations following each solution Packed with practical, hands-on cookbook recipes, illustrating the techniques to enrich your Business Intelligence solutions In Detail Microsoft SQL Server is an enterprise database platform that contains a multitude of technologies, Analysis Services being one of them. SQL Server Analysis Services (SSAS) provides

OLAP and data mining capabilities and allows users to analyze multidimensional data stored in cubes using the MDX query language. This cookbook contains over 80 practical, task-based recipes that show how Microsoft SQL Server 2008 R2 Analysis Services solutions can be taken further by enriching them with high-performance MDX calculations and flexible MDX queries. Packed with immediately usable, real-world recipes, the book starts with elementary techniques that lay the foundation for designing further MDX calculations and queries. Here you will find topics such as iterations on a set, Boolean logic, and dissecting and optimizing MDX calculations. In the first half of the book you will learn how to efficiently work with time, strings, metadata, calculated members and sets in general, and how to implement MDX solutions that are appropriate in a particular context: a time-aware calculation, a concise report, a calculation relative to another. You will also learn how to implement various types of conditional formatting, how to perform typical MDX calculations like ranks, percentages and average

Use your SQL Server skills to create and manage key data reports Deliver interactive business intelligence reports using SQL Server 2012 Reporting Services, and help facilitate real-time decision making throughout the enterprise. SQL Server expert Stacia Misner shows you in detail how to design, manage,

and access custom reports that capture data from multiple sources. This book is ideal for experienced SQL Server developers, whether you're new to Reporting Services or upgrading from an earlier version. Discover how to: Use the latest features, including the Power View ad hoc reporting tool Design reports by understanding how your audience accesses and uses data Add interactive features to help end users sort and filter data Create rich data visualization with charts, gauges, indicators, and data maps Configure your report server, provide security, and monitor report contents Use SharePoint or Report Manager to search and access reports online Create a library of report parts that clients can use for ad hoc reporting Build and manage reports using Reporting Services as a development platform

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.

Business intelligence projects do not need to cost multi-millions of dollars or take months or even years to complete! Using rapid application development (RAD) techniques along with Microsoft SQL Server 2012, this book guides database administrators, SQL programmers, and report specialists in creating practical, cost-effective business intelligence solutions for their companies and departments. Pro SQL Server 2012 BI Solutions provides practical examples of cost-effective business intelligence projects. Readers will be guided through several complete projects that build a foundation for real-world solutions. Even with limited experience using Microsoft's SQL Server, Integration Server, Analysis Server, and Reporting Server, you can leverage your existing

knowledge of SQL programming and database design to provide users with the business intelligence reports they need. Provides recipes for multiple business intelligence scenarios Progresses from simple to advanced projects using several examples Shows Microsoft SQL Server technology used to complete real-world business intelligence projects

This book introduces OLAP with progressive lessons to help readers begin creating solutions quickly and is the only self-paced training manual about Microsoft OLAP Services for the non-programmer and Excel super user.

Build agile and responsive business intelligence solutions Create a semantic model and analyze data using the tabular model in SQL Server 2016 Analysis Services to create corporate-level business intelligence (BI) solutions. Led by two BI experts, you will learn how to build, deploy, and query a tabular model by following detailed examples and best practices. This hands-on book shows you how to use the tabular model's in-memory database to perform rapid analytics—whether you are new to Analysis Services or already familiar with its multidimensional model. Discover how to:

- Determine when a tabular or multidimensional model is right for your project
- Build a tabular model using SQL Server Data Tools in Microsoft Visual Studio 2015
- Integrate data from multiple sources into a single, coherent view of company information
- Choose a data-

modeling technique that meets your organization's performance and usability requirements • Implement security by establishing administrative and data user roles • Define and implement partitioning strategies to reduce processing time • Use Tabular Model Scripting Language (TMSL) to execute and automate administrative tasks • Optimize your data model to reduce the memory footprint for VertiPaq • Choose between in-memory (VertiPaq) and pass-through (DirectQuery) engines for tabular models • Select the proper hardware and virtualization configurations • Deploy and manipulate tabular models from C# and PowerShell using AMO and TOM libraries Get code samples, including complete apps, at: <https://aka.ms/tabular/downloads> About This Book • For BI professionals who are new to SQL Server 2016 Analysis Services or already familiar with previous versions of the product, and who want the best reference for creating and maintaining tabular models. • Assumes basic familiarity with database design and business analytics concepts.

When used with the MDX query language, SQL Server Analysis Services allows developers to build full-scale database applications to support such business functions as budgeting, forecasting, and market analysis. Shows readers how to build data warehouses and multi-dimensional databases, query databases, and use Analysis Services and other components of SQL Server to provide end-to-

end solutions Revised, updated, and enhanced, the book discusses new features such as improved integration with Office and Excel 2007; query performance enhancements; improvements to aggregation designer, dimension designer, cube and dimension wizards, and cell writeback; extensibility and personalization; data mining; and more

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