

## Definitive Guide To Dax The Business Intelligence With Microsoft Excel Sql Server Analysis Services And Power Bi Business Skills

A revised and updated edition offers comprehensive coverage of ECMAScript 5 (the new JavaScript language standard) and also the new APIs introduced in HTML5, with chapters on functions and classes completely rewritten and updated to match current best practices and a new chapter on language extensions and subsets. Original.

Revised annually, the 6th edition of this insightful guide introduces Microsoft Power BI - a cloud-hosted, business intelligence and analytics platform that democratizes and opens BI to everyone. Information workers will learn how to connect to popular cloud services to derive instant insights, create interactive reports and dashboards, and view them in the browser and on the go. Data analysts will discover how to integrate and transform data from virtually everywhere and then implement sophisticated self-service models for descriptive and predictive analytics. The book teaches BI and IT pros how to establish a trustworthy environment that promotes collaboration and how to implement Power BI-centric solutions for organizational BI. Developers will find how to integrate custom applications with Power BI, embed reports, and implement custom visuals to present effectively any data. Ideal for both experienced BI practitioners or beginners, this book doesn't assume any prior data analytics experience. It's designed as an easy-to-follow guide that introduces new concepts with step-by-step instructions and hands-on demos. The book page at [prologika.com/applied-microsoft-power-bi](http://prologika.com/applied-microsoft-power-bi) provides sample chapters, source code, and discussion forum. What's Inside: Power BI for Information Workers Get instant insights from cloud services and files Explore data with interactive reports Assemble dashboards with a few clicks Access BI content on mobile devices Power BI for Data Analysts Import data from virtually anywhere Cleanse, transform and shape data Create sophisticated data models Implement business calculations Get insights from data Apply Machine Learning Power BI for Pros Enable sharing and collaboration Deploy to cloud and on premises Implement organizational BI solutions Power BI for Developers Automate Power BI Report-enable custom applications Build custom visuals and much more ...

Data Science gets thrown around in the press like it's magic. Major retailers are predicting everything from when their customers are pregnant to when they want a new pair of Chuck Taylors. It's a brave new world where seemingly meaningless data can be transformed into valuable insight to drive smart business decisions. But how does one exactly do data science? Do you have to hire one of these priests of the dark arts, the "data scientist," to extract this gold from your data? Nope. Data science is little more than using straight-forward steps to process raw data into actionable insight. And in *DataSmart*, author and data scientist John Foreman will show you how that's done within the familiar environment of a spreadsheet. Why a spreadsheet? It's comfortable! You get to look at the data every step of the way, building confidence as you learn the tricks of the trade. Plus, spreadsheets are a vendor-neutral place to learn data science without the hype. But don't let the Excel sheets fool you. This is a book for those serious about learning the analytic techniques, the math and the magic, behind big data. Each chapter will cover a different technique in a spreadsheet so you can follow along: Mathematical optimization, including non-linear programming and genetic algorithms Clustering via k-means, spherical k-means, and graph modularity Data mining in graphs, such as outlier detection Supervised AI through logistic regression, ensemble models, and bag-of-words models Forecasting, seasonal adjustments, and prediction intervals through monte carlo simulation Moving from spreadsheets into the R programming language You get your hands dirty as you work alongside John through each technique. But never fear, the topics are readily applicable and the author laces humor throughout. You'll even learn what a dead squirrel has to do with optimization modeling, which you no doubt are dying to know.

This comprehensive and authoritative guide will teach you the DAX language for business intelligence, data modeling, and analytics. Leading Microsoft BI consultants Marco Russo and Alberto Ferrari help you master everything from table functions through advanced code and model optimization. You'll learn exactly what happens under the hood when you run a DAX expression, how DAX behaves differently from other languages, and how to use this knowledge to write fast, robust code. If you want to leverage all of DAX's remarkable power and flexibility, this no-compromise "deep dive" is exactly what you need. Perform powerful data analysis with DAX for Microsoft SQL Server Analysis Services, Excel, and Power BI Master core DAX concepts, including calculated columns, measures, and error handling Understand evaluation contexts and the CALCULATE and CALCULATE TABLE functions Perform time-based calculations: YTD, MTD, previous year, working days, and more Work with expanded tables, complex functions, and elaborate DAX expressions Perform calculations over hierarchies, including parent/child hierarchies Use DAX to express diverse and unusual relationships Measure DAX query performance with SQL Server Profiler and DAX Studio

This book will show you how to use Power BI effectively to create a variety of visualizations and BI dashboards. Right from gathering data through various data sources, you will learn to perform effective visual analytics. By the end of this book, you will be able to gain unique, hidden insights into your data using Microsoft Power BI.

Manage and work with business data effectively by learning data modeling techniques and leveraging the latest features of Power BI Key Features Understand data modeling techniques to get the best out of data using Power BI Define the relationships between data to extract valuable insights Solve a wide variety of business challenges by building optimal data models Book Description Microsoft Power BI is one of the most popular business intelligence tools available on the market for desktop and the cloud. This book will be your guide to understanding the ins and outs of data modeling and how to create data models using Power BI confidently. You'll learn how to connect data from multiple sources, understand data, define and manage relationships between data, and shape data models. In this book, you'll explore how to use data modeling and navigation techniques to define relationships and create a data model before defining new

metrics and performing custom calculations using modeling features. As you advance through the chapters, the book will demonstrate how to create full-fledged data models, enabling you to create efficient data models and simpler DAX code with new data modeling features. With the help of examples, you'll discover how you can solve business challenges by building optimal data models and changing your existing data models to meet evolving business requirements. Finally, you'll learn how to use some new and advanced modeling features to enhance your data models to carry out a wide variety of complex tasks. By the end of this Power BI book, you'll have gained the skills you need to structure data coming from multiple sources in different ways to create optimized data models that support reporting and data analytics. What you will learn Implement virtual tables and time intelligence functionalities in DAX to build a powerful model Identify Dimension and Fact tables and implement them in Power Query Editor Deal with advanced data preparation scenarios while building Star Schema Explore best practices for data preparation and data modeling Discover different hierarchies and their common pitfalls Understand complex data models and how to decrease the level of model complexity with different data modeling approaches Who this book is for This MS Power BI book is for BI users, data analysts, and analysis developers who want to become well-versed with data modeling techniques to make the most of Power BI. Basic knowledge of Power BI and Star Schema will help you to understand the concepts covered in this book.

Master the art of bar calisthenics and forge the upper body of your dreams without the need for weights, machines, or gym memberships! Kavadlo breaks down every type of exercise you can do with a pull-up bar. From basic two arm hangs to a one arm pull-up, the "bar master" takes you step by step through everything you need to do to build the chiseled frame you've always wanted.

Microsoft Power BI Quick Start Guide, Second Edition gets you up to speed with Power BI quickly, enabling you to derive actionable insights from your data using the data visualization capabilities of Microsoft Power BI within a short span of time.

A strategy and implementation guide for building, deploying, and managing APIs Key Features Comprehensive, end-to-end guide to business-driven enterprise APIs Distills years of experience with API and microservice strategies Provides detailed guidance on implementing API-led architectures in any business Book Description APIs are the cornerstone of modern, agile enterprise systems. They enable access to enterprise services from a wide variety of devices, act as a platform for innovation, and open completely new revenue streams. Enterprise API Management shows how to define the right architecture, implement the right patterns, and define the right organization model for business-driven APIs. Drawing on his experience of developing API and microservice strategies for some of the world's largest companies, Luis Weir explains how APIs deliver value across an enterprise. The book explores the architectural decisions, implementation patterns, and management practices for successful enterprise APIs, as well as providing clear, actionable advice on choosing and executing the right API strategy in your enterprise. With a relentless focus on creating business value, Luis Weir reveals an effective method for planning, building, and running business products and services with APIs. What you will learn Create API strategies to deliver business value Monetize APIs, promoting them through public marketplaces and directories Develop API-led architectures, applying best practice architecture patterns Choose between REST, GraphQL, and gRPC-style API architectures Manage APIs and microservices through the complete life cycle Deploy APIs and business products, as well as Target Operating Models Lead product-based organizations to embrace DevOps and focus on delivering business capabilities Who this book is for Architects, developers, and technology executives who want to deliver successful API strategies that bring business value.

Architect and deploy a Power BI solution. This book will help you understand the many available options and choose the best combination for hosting, developing, sharing, and deploying a Power BI solution within your organization. Pro Power BI Architecture provides detailed examples and explains the different methods available for sharing and securing Power BI content so that only intended recipients can see it. Commonly encountered problems you will learn to handle include content unexpectedly changing while users are in the process of creating reports and building analysis, methods of sharing analyses that don't cover all the requirements of your business or organization, and inconsistent security models. The knowledge provided in this book will allow you to choose an architecture and deployment model that suits the needs of your organization, ensuring that you do not spend your time maintaining your solution but on using it for its intended purpose and gaining business value from mining and analyzing your organization's data. What You'll Learn Architect and administer enterprise-level Power BI solutions Choose the right sharing method for your Power BI solution Create and manage environments for development, testing, and production Implement row level security in multiple ways to secure your data Save money by choosing the right licensing plan Select a suitable connection type—Live Connection, DirectQuery, or Scheduled Refresh—for your use case Set up a Power BI gateway to bridge between on-premises data sources and the Power BI cloud service Who This Book Is For Data analysts, developers, architects, and managers who want to leverage Power BI for their reporting solution

Offers information on the patterns and techniques of the formula language DAX.

If you want to learn Business Intelligence software, if you are looking for specific BI tool, or if you are trying to decide on your next new BI solution, you will love Business Intelligence Clinic. One dataset, multiple solutions: Each book is about a different BI software, and you will follow step-by-step instructions to create a professional sales dashboard with the same friendly dataset. The BI Clinic series is suitable for everyone - managers, analysts, students... - It will help you compare different Business Intelligence tools, learn the basics, and select the best for your project, company, customers, or personal needs. In this Create and Learn book, Power BI - Business Intelligence Clinic with more than 300 images B&W, you will you go through important topics of Microsoft Power BI Desktop - a Free BI tool from Microsoft. You will learn how to install Power BI Desktop, get data, model your data, work with visuals and reports, create a sales dashboard, and share your work with others. We will not go into deep theories as the purpose of this book and all Create and Learn material is to make the most of your time and to learn by doing. You will follow step-by-step instructions to create a professional sales dashboard, and eight warm-up dashboards to help you rapidly increase your Power BI knowledge. I hope this book will help you to start your journey in the Business Intelligence world and give you the right tools to start building professional reports and dashboards using Microsoft Power BI. Thank you for creating and learning. Roger F. Silva Check the Business Intelligence Clinic series One dataset, multiple solutions: Power BI - Business Intelligence Clinic Excel - Business Intelligence Clinic Tableau - Business Intelligence Clinic Qlik - Business Intelligence Clinic

Advance your everyday proficiency with Excel! And earn the credential that proves it! Demonstrate your expertise with Microsoft Excel! Designed to help you practice and prepare for Microsoft Office Specialist: Excel Associate (Excel and Excel 2019) certification, this official Study Guide delivers: In-depth preparation for each MOS objective Detailed procedures to help build the skills measured by the exam Hands-on tasks to practice what you've learned Ready-made practice files Sharpen the skills measured by these objectives: Manage Worksheets and Workbooks Manage Data Cells and Ranges Manage Tables and Table Data Perform Operations by Using Formulas and Functions Manage Charts About MOS A Microsoft Office Specialist (MOS) certification validates your proficiency with Microsoft Office programs, demonstrating that you can meet globally recognized performance standards. Hands-on experience with the technology is required to

successfully pass Microsoft Certification exams.

Microsoft PowerPivot is a free add-on to Excel from Microsoft that allows users to produce new kinds of reports and analyses that were simply impossible before, and this book is the first to tackle DAX formulas, the core capability of PowerPivot, from the perspective of the Excel audience. Written by the world's foremost PowerPivot blogger and practitioner, the book's concepts and approach are introduced in a simple, step-by-step manner tailored to the learning style of Excel users everywhere. The techniques presented allow users to produce, in hours or even minutes, results that formerly would have taken entire teams weeks or months to produce. It includes lessons on the difference between calculated columns and measures; how formulas can be reused across reports of completely different shapes; how to merge disjointed sets of data into unified reports; how to make certain columns in a pivot behave as if the pivot were filtered while other columns do not; and how to create time-intelligent calculations in pivot tables such as "Year over Year" and "Moving Averages" whether they use a standard, fiscal, or a complete custom calendar. The "pattern-like" techniques and best practices contained in this book have been developed and refined over two years of onsite training with Excel users around the world, and the key lessons from those seminars costing thousands of dollars per day are now available to within the pages of this easy-to-follow guide. This updated second edition covers new features introduced with Office 2015.

Get more out of Microsoft Power BI turning your data into actionable insights About This Book From connecting to your data sources to developing and deploying immersive, mobile-ready dashboards and visualizations, this book covers it all Over 90 hands-on, technical recipes, tips, and use cases from across the Power BI platform including the Power BI Service and Mobile Applications Proven development techniques and guidance for implementing custom solutions with DAX and M languages Who This Book Is For This book is for BI professionals who wish to enhance their knowledge of Power BI beyond and to enhance the value of the Power BI solutions they deliver to business users. Those who are looking at quick solutions to common problems while using Power BI will also find this book to be a very useful resource .Some experience with Power BI will be useful. What You Will Learn Cleanse, stage, and integrate your data sources with Power BI Abstract data complexities and provide users with intuitive, self-service BI capabilities Build business logic and analysis into your solutions via the DAX programming language and dynamic, dashboard-ready calculations Take advantage of the analytics and predictive capabilities of Power BI Make your solutions more dynamic and user specific and/or defined including use cases of parameters, functions, and row level security Understand the differences and implications of DirectQuery, Live Connections, and Import-Mode Power BI datasets and how to deploy content to the Power BI Service and schedule refreshes Integrate other Microsoft data tools such as Excel and SQL Server Reporting Services into your Power BI solution In Detail Microsoft Power BI is a business intelligence and analytics platform consisting of applications and services designed to provide coherent, visual and interactive insights of data. This book will provide thorough, technical examples of using all primary Power BI tools and features as well as demonstrate high impact end-to-end solutions that leverage and integrate these technologies and services. Get familiar with Power BI development tools and services, go deep into the data connectivity and transformation, modeling, visualization and analytical capabilities of Power BI, and see Power BI's functional programming languages of DAX and M come alive to deliver powerful solutions to address common, challenging scenarios in business intelligence. This book will excite and empower you to get more out of Power BI via detailed recipes, advanced design and development tips, and guidance on enhancing existing Power BI projects. Style and approach This book consists of practical recipes on Power BI that target novices as well as intermediate Power BI users. It goes deep into the technical issues, covers additional protocols, and many more real-live examples.

Power Query is one component of the Power BI (Business Intelligence) product from Microsoft, and "M" is the name of the programming language created by it. As more business intelligence pros begin using Power Pivot, they find that they do not have the Excel skills to clean the data in Excel; Power Query solves this problem. This book shows how to use the Power Query tool to get difficult data sets into both Excel and Power Pivot, and is solely devoted to Power Query dashboarding and reporting.

Implement business intelligence (BI), data modeling, and data analytics within Microsoft products such as Power BI, SQL Server, and Excel Key Features Understand the ins and outs of DAX expressions and querying functions with the help of easy-to-follow examples Manipulate data of varying complexity and optimize BI workflows to extract key insights Create, monitor, and improve the performance of models by writing clean and robust DAX queries Book Description Data Analysis Expressions (DAX) is known for its ability to increase efficiency by extracting new information from data that is already present in your model. With this book, you'll learn to use DAX's functionality and flexibility in the BI and data analytics domains. You'll start by learning the basics of DAX, along with understanding the importance of good data models, and how to write efficient DAX formulas by using variables and formatting styles. You'll then explore how DAX queries work with the help of examples. The book will guide you through optimizing the BI workflow by writing powerful DAX queries. Next, you'll learn to manipulate and load data of varying complexity within Microsoft products such as Power BI, SQL Server, and Excel Power Pivot. You'll then discover how to build and extend your data models to gain additional insights, before covering progressive DAX syntax and functions to understand complex relationships in DAX. Later, you'll focus on important DAX functions, specifically those related to tables, date and time, filtering, and statistics. Finally, you'll delve into advanced topics such as how the formula and storage engines work to optimize queries. By the end of this book, you'll have gained hands-on experience in employing DAX to enhance your data models by extracting new information and gaining deeper insights. What you will learn Understand DAX, from the basics through to advanced topics, and learn to build effective data models Write and use DAX functions and expressions with the help of hands-on examples Discover how to handle errors in your DAX code, and avoid unwanted results Load data into a data model using Power BI, Excel Power Pivot, and SSAS Tabular Cover DAX functions such as date, time, and time intelligence using code examples Gain insights into data by using DAX to create new information Understand the DAX VertiPaq engine and how it can help you optimize data models Who this book is for This book is for data analysts, business analysts, BI developers, or SQL users who want to make the best use of DAX in the BI and data analytics domain with the help of examples. Some understanding of BI concepts is mandatory to fully understand the concepts covered in the book.

Shows readers how to perform complex data analysis, create reports with the data analysis expressions language, and add hierarchies to data models to enable faster browsing.

Renowned DAX experts Alberto Ferrari and Marco Russo teach you how to design data models for maximum efficiency and effectiveness. How can you use Excel and Power BI to gain real insights into your information? As you examine your data, how do you write a formula that provides the numbers you need? The answers to both of these questions lie with the data model. This book introduces the basic techniques for shaping data models in Excel and Power BI. It's meant for readers who are new to data modeling as well as for experienced data modelers looking for tips from the experts. If you want to use Power BI or Excel to analyze data, the many real-world examples in this book will help you look at your reports in a different way—like experienced data modelers do. As you'll soon see, with the right data model, the correct answer is always a simple one! By reading this book, you will:

- Gain an understanding of the basics of data modeling, including tables, relationships, and keys
- Familiarize yourself with

star schemas, snowflakes, and common modeling techniques • Learn the importance of granularity • Discover how to use multiple fact tables, like sales and purchases, in a complex data model • Manage calendar-related calculations by using date tables • Track historical attributes, like previous addresses of customers or manager assignments • Use snapshots to compute quantity on hand • Work with multiple currencies in the most efficient way • Analyze events that have durations, including overlapping durations • Learn what data model you need to answer your specific business questions About This Book • For Excel and Power BI users who want to exploit the full power of their favorite tools • For BI professionals seeking new ideas for modeling data Solve real-world business problems by learning how to create common industry key performance indicators and other calculations using DAX within Microsoft products such as Power BI, SQL Server, and Excel. Key Features Learn to write sophisticated DAX queries to solve business intelligence and data analytics challenges Handle performance issues and optimization within the data model, DAX calculations and more Solve business issues with Microsoft Excel, Power BI, and SQL Server using DAX queries Book Description DAX provides an extra edge by extracting key information from the data that is already present in your model. Filled with examples of practical, real-world calculations geared toward business metrics and key performance indicators, this cookbook features solutions that you can apply for your own business analysis needs. You'll learn to write various DAX expressions and functions to understand how DAX queries work. The book also covers sections on dates, time, and duration to help you deal with working days, time zones, and shifts. You'll then discover how to manipulate text and numbers to create dynamic titles and ranks, and deal with measure totals. Later, you'll explore common business metrics for finance, customers, employees, and projects. The book will also show you how to implement common industry metrics such as days of supply, mean time between failure, order cycle time and overall equipment effectiveness. In the concluding chapters, you'll learn to apply statistical formulas for covariance, kurtosis, and skewness. Finally, you'll explore advanced DAX patterns for interpolation, inverse aggregators, inverse slicers, and even forecasting with a deseasonalized correlation coefficient. By the end of this book, you'll have the skills you need to use DAX's functionality and flexibility in business intelligence and data analytics. What you will learn Understand how to create common calculations for dates, time, and duration Create key performance indicators (KPIs) and other business calculations Develop general DAX calculations that deal with text and numbers Discover new ideas and time-saving techniques for better calculations and models Perform advanced DAX calculations for solving statistical measures and other mathematical formulas Handle errors in DAX and learn how to debug DAX calculations Understand how to optimize your data models Who this book is for Business users, BI developers, data analysts, and SQL users who are looking for solutions to the challenges faced while solving analytical operations using DAX techniques and patterns will find this book useful. Basic knowledge of the DAX language and Microsoft services is mandatory.

Learn the intricate workings of DAX and the mechanics that are necessary to solve advanced Power BI challenges. This book is all about DAX (Data Analysis Expressions), the formula language used in Power BI—Microsoft's leading self-service business intelligence application—and covers other products such as PowerPivot and SQL Server Analysis Services Tabular. You will learn how to leverage the advanced applications of DAX to solve complex tasks. Often a task seems complex due to a lack of understanding, or a misunderstanding of core principles, and how certain components interact with each other. The authors of this book use solutions and examples to teach you how to solve complex problems. They explain the intricate workings of important concepts such as Filter Context and Context Transition. You will learn how Power BI, through combining DAX building blocks (such as measures, table filtering, and data lineage), can yield extraordinary analytical power. Throughout Pro Dax with Power BI these building blocks are used to create and compose solutions for advanced DAX problems, so you can independently build solutions to your own complex problems, and gain valuable insight from your data. What You Will Learn Understand the intricate workings of DAX to solve advanced problems Deconstruct problems into manageable parts in order to create your own recipes Apply predefined solutions for addressing problems, and link back step-by-step to the mechanics of DAX, to know the foundation of this powerful query language Get fully on board with DAX, a new and evolving language, by learning best practices Who This Book Is For Anyone who wants to use Power BI to build advanced and complex models. Some experience writing DAX is helpful, but not essential if you have experience with other data query languages such as MDX or SQL.

This is the eBook of the printed book and may not include any media, website access codes, or print supplements that may come packaged with the bound book. Introducing Microsoft Power BI enables you to evaluate when and how to use Power BI. Get inspired to improve business processes in your company by leveraging the available analytical and collaborative features of this environment. Be sure to watch for the publication of Alberto Ferrari and Marco Russo's upcoming retail book, Analyzing Data with Power BI and Power Pivot for Excel (ISBN 9781509302765). Go to the book's page at the Microsoft Press Store here for more details:<http://aka.ms/analyzingdata/details>. Learn more about Power BI at <https://powerbi.microsoft.com/>.

Power BI is a powerful self-service (and enterprise) business intelligence (BI) tool that was first made generally available by Microsoft in July 2015. Power BI is a complete BI package that covers the end to end BI process including data acquisition (get data), data modelling (prepare/model the data) and data visualisation (analyse the data). And there is a lot of good news about this tool including the fact that the skills needed to succeed with Power BI are fully transferable to Microsoft Excel. There are 3 learning areas required to master everything Power BI Desktop has to offer.1. The M Language - used for data acquisition2. The DAX Language - used to prepare and model data3. Visualisation and analysis - used to present data in a compelling wayPower BI is probably the first commercial grade software product that brings all of these areas into a single software package that is completely accessible to a business user (you don't need to be an IT pro). This book focuses on number 2 above, the DAX language (Data Analysis Expressions). Super Charge Power BI Desktop is the second book written by Matt Allington and is a sister book to his first book Learn to Write DAX (first released Dec 2015). Super Charge Power BI Desktop uses the same learning and practice exercise framework as used in Learn to Write DAX however the entire book is written using the Power BI Desktop user interface. Unfortunately simply reading a book is normally not enough for Excel users wanting to get the most out of Power BI Desktop and to learn the DAX language - most people will also need some practice. Super Charge Power BI Desktop is different to other books - it is written in such a way to clearly explain the concepts of Power BI data modelling while at the same time giving hands-on practice to deeply engage the reader to help the new knowledge and concepts stick. The book first presents the theory, then provides worked through sample exercises demonstrating each of the concepts, and finally it provides the reader with practice exercises and answers to maximize learning retention.

Written by a Microsoft MVP, this book teaches you the practical skills to take the most of DAX from whatever angle you'd like to approach it. It's written for data analysts using Power BI or Power Pivot, BI developers targeting Analysis Services Tabular, and in

general anyone who's interested in DAX. You'll learn DAX methodically with self-paced lessons that build upon your previous knowledge to introduce progressively more challenging concepts. Each lesson starts with providing the necessary theoretical background, followed by step-by-step exercises. Most lessons are five to six pages long, and it should take you no more than 15 minutes to complete the practices. Do one lesson per day and become a DAX expert in a month! The book page at <https://prologika.com/daxbook> provides sample chapters, source code, and a discussion forum where the author welcomes your feedback and questions. WHAT'S INSIDE: CALCULATED COLUMNS Create custom columns Navigate relationships Assemble dashboards with a few clicks Aggregate and rank data Implement groups and bins Create calculated tables MEASURES Implicit and explicit measures Work with user selection Create variables Overwrite filter context Group data Apply time intelligence QUERIES Create and test DAX queries Implement query measures Analyze query performance Implement paginated reports ADVANCED TOPICS Recursive relationships Many-to-many relationships Virtual relationships Different join types Data security patterns and much more ...

Design, develop, and master efficient Power BI solutions for impactful business insights Key Features Get to grips with the fundamentals of Microsoft Power BI Combine data from multiple sources, create visuals, and publish reports across platforms Understand Power BI concepts with real-world use cases Book Description Microsoft Power BI Complete Reference Guide gets you started with business intelligence by showing you how to install the Power BI toolset, design effective data models, and build basic dashboards and visualizations that make your data come to life. In this Learning Path, you will learn to create powerful interactive reports by visualizing your data and learn visualization styles, tips and tricks to bring your data to life. You will be able to administer your organization's Power BI environment to create and share dashboards. You will also be able to streamline deployment by implementing security and regular data refreshes. Next, you will delve deeper into the nuances of Power BI and handling projects. You will get acquainted with planning a Power BI project, development, and distribution of content, and deployment. You will learn to connect and extract data from various sources to create robust datasets, reports, and dashboards. Additionally, you will learn how to format reports and apply custom visuals, animation and analytics to further refine your data. By the end of this Learning Path, you will learn to implement the various Power BI tools such as on-premises gateway together along with staging and securely distributing content via apps. This Learning Path includes content from the following Packt products: Microsoft Power BI Quick Start Guide by Devin Knight et al. Mastering Microsoft Power BI by Brett Powell What you will learn Connect to data sources using both import and DirectQuery options Leverage built-in and custom visuals to design effective reports Administer a Power BI cloud tenant for your organization Deploy your Power BI Desktop files into the Power BI Report Server Build efficient data retrieval and transformation processes Who this book is for Microsoft Power BI Complete Reference Guide is for those who want to learn and use the Power BI features to extract maximum information and make intelligent decisions that boost their business. If you have a basic understanding of BI concepts and want to learn how to apply them using Microsoft Power BI, then Learning Path is for you. It consists of real-world examples on Power BI and goes deep into the technical issues, covers additional protocols, and much more.

Learn how to translate the "language" of volume! Mark Leibovit, a leading market strategist and technical analyst with more than 35 years of trading experience, possesses a solid track record of predicting important movements in the financial market—including Black Monday of 1987, the bear markets of 2000 and 2008, and the "flash crash" of May 2010. Now, with *The Trader's Book of Volume*, his secrets are yours! Focusing exclusively on volume technical analysis, *The Trader's Book of Volume* describes the basics of volume, explains how to use it to identify and assess the strength of trade-worthy trends, and provides in-depth techniques and strategies for trading volume indicators for profit. With more than 400 charts and graphs, *The Trader's Book of Volume* also exhaustively illustrates how readers can profit from a wide array of volume indicators, including: Broad Market Volume Indicators—Cumulative Volume Index, ARMS Index, Upside-Downside Volume, Nasdaq/ NYSE Volume Ratio, Yo-Yo Indicator Volume Indicators—Accumulation/ Distribution, Intraday Intensity, Negative Volume Index, On-Balance Volume, Open Interest Volume Oscillators—Klinger Oscillator, Chaikin Money Flow, Ease of Movement, Volume Oscillator Leibovit Volume Reversal Indicator™, the author's proprietary methodology Under the author's expert guidance, you can seamlessly incorporate Volume Analysis into your day-to-day trading program. Without a proper approach to Volume Analysis, Leibovit asserts, you're essentially trading in the "land of the blind." Use *The Trader's Book of Volume* to gain the clearest view possible of market trends and react to them with the confidence and smarts for consistent trading success—and avoid every market crash the future holds.

Prepare for Microsoft Exam 70-778—and help demonstrate your real-world mastery of Power BI data analysis and visualization. Designed for experienced BI professionals and data analysts 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: Consume and transform data by using Power BI Desktop Model and visualize data Configure dashboards, reports, and apps in the Power BI Service This Microsoft Exam Ref: Organizes its coverage by exam objectives Features strategic, what-if scenarios to challenge you Assumes you have experience consuming and transforming data, modeling and visualizing data, and configuring dashboards using Excel and Power BI

A guide to PowerPivot and Power Query no data cruncher should be without! Want to familiarize yourself with the rich set of Microsoft Excel tools and reporting capabilities available from PowerPivot and Power Query? Look no further! *Excel PowerPivot & Power Query For Dummies* shows you how this powerful new set of tools can be leveraged to more effectively source and incorporate 'big data' Business Intelligence and Dashboard reports. You'll discover how PowerPivot and Power Query not only allow you to save time and simplify your processes, but also enable you to substantially enhance your data analysis and reporting capabilities. Gone are the days of relatively small amounts of data—today's data environment demands more from business analysts than ever before. Now, with the help of this friendly, hands-on guide, you'll learn to use PowerPivot and Power Query to expand your skill-set from the one-dimensional spreadsheet to new territories, like relational databases, data integration, and multi-dimensional reporting. Demonstrates how Power Query is used to discover, connect to, and import your data Shows you how to use PowerPivot to model data once it's been imported Offers guidance on using these tools to make analyzing data easier Written by a Microsoft MVP in the lighthearted, fun style you've come to expect from the For Dummies brand If you spend your days analyzing data, *Excel PowerPivot & Power Query For Dummies* will get you up and running with the rich set of Excel tools and reporting capabilities that will make your life—and work—easier.

A must-have guide for the latest updates to the new release of Reporting Services SQL Server Reporting Services allows you to create reports and business intelligence (BI) solutions. With this updated resource, a team of experts shows you how Reporting Services makes reporting faster, easier and more powerful than ever in web, desktop, and portal solutions. New coverage discusses the new reporting tool called Crescent, BI semantic model's impact on report design and creation, semantic model design, and more. You'll explore the major enhancements to Report Builder and benefit from best practices shared by the authors. Builds on the previous edition while also providing coverage of the new features introduced with SQL Server 2012 Explains Reporting Services architecture and BI fundamentals Covers advanced report design and filtering techniques, walking you through each design, discussing its purpose and the conditions where it could be more efficient Discusses semantic model design, Report Builder, Crescent, and more Targets business analysts and report designers as well as BI solution developers Professional Microsoft SQL Server 2012 Reporting Services is mandatory reading if you are eager to start using the newest version of SQL Server Reporting Services.

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online entitlements included with the product. Explore, create, and manage highly interactive data visualizations using Microsoft Power BI Extract meaningful business insights from your disparate enterprise data using the detailed information contained in this practical guide. Written by a recognized BI expert and bestselling author, Data Analysis with Microsoft Power BI teaches you the skills you need to interact with, author, and maintain robust visualizations and custom data models. Hands-on exercises based on real-life business scenarios clearly demonstrate each technique. Publishing your results to the Power BI Service (PowerBI.com) and Power BI Report Server are also fully covered. Inside, you will discover how to:

- Understand Business Intelligence and self-service analytics
- Explore the tools and features of Microsoft Power BI
- Create and format effective data visualizations
- Incorporate advanced interactivity and custom graphics
- Build and populate accurate data models
- Transform data using the Power BI Query Editor
- Work with measures, calculated columns, and tabular models
- Write powerful DAX language scripts
- Share content on the PowerBI Service (PowerBI.com)
- Store your visualizations on the Power BI Report Server

Now expanded and updated with modern best practices, this is the most complete guide to Microsoft's DAX language for business intelligence, data modeling, and analytics. Expert Microsoft BI consultants Marco Russo and Alberto Ferrari help you master everything from table functions through advanced code and model optimization. You'll learn exactly what happens under the hood when you run a DAX expression, and use this knowledge to write fast, robust code. This edition focuses on examples you can build and run with the free Power BI Desktop, and helps you make the most of the powerful syntax of variables (VAR) in Power BI, Excel, or Analysis Services. Want to leverage all of DAX's remarkable capabilities? This no-compromise "deep dive" is exactly what you need. Perform powerful data analysis with DAX for Power BI, SQL Server, and Excel · Master core DAX concepts, including calculated columns, measures, and calculation groups · Work efficiently with basic and advanced table functions · Understand evaluation contexts and the CALCULATE and CALCULATETABLE functions · Perform time-based calculations · Use calculation groups and calculation items · Use syntax of variables (VAR) to write more readable, maintainable code · Express diverse and unusual relationships with DAX, including many-to-many relationships and bidirectional filters · Master advanced optimization techniques, and improve performance in aggregations · Optimize data models to achieve better compression · Measure DAX query performance with DAX Studio and learn how to optimize your DAX

Helping tech-savvy marketers and data analysts solve real-world business problems with Excel Using data-driven business analytics to understand customers and improve results is a great idea in theory, but in today's busy offices, marketers and analysts need simple, low-cost ways to process and make the most of all that data. This expert book offers the perfect solution. Written by data analysis expert Wayne L. Winston, this practical resource shows you how to tap a simple and cost-effective tool, Microsoft Excel, to solve specific business problems using powerful analytic techniques—and achieve optimum results. Practical exercises in each chapter help you apply and reinforce techniques as you learn. Shows you how to perform sophisticated business analyses using the cost-effective and widely available Microsoft Excel instead of expensive, proprietary analytical tools Reveals how to target and retain profitable customers and avoid high-risk customers Helps you forecast sales and improve response rates for marketing campaigns Explores how to optimize price points for products and services, optimize store layouts, and improve online advertising Covers social media, viral marketing, and how to exploit both effectively Improve your marketing results with Microsoft Excel and the invaluable techniques and ideas in Marketing Analytics: Data-Driven Techniques with Microsoft Excel.

Direct from Microsoft, this Exam Ref is the official study guide for the new Microsoft DA-100 Analyzing Data with Microsoft Power BI certification exam. Exam Ref DA-100 Analyzing Data with Microsoft Power BI offers professional-level preparation that helps candidates maximize their exam performance and sharpen their skills on the job. It focuses on specific areas of expertise modern IT professionals need to demonstrate real-world mastery of Power BI data analysis and visualization. Coverage includes: Preparing data: acquiring, profiling, cleaning, transforming, and loading data Modeling data: designing and developing data models, creating measures with DAX, and optimizing model performance Visualizing data: creating reports and dashboards, and enriching reports for usability Analyzing data: enhancing reports to expose insights, and performing advanced analysis Deploying and maintaining deliverables: managing datasets; creating and managing workspaces Microsoft Exam Ref publications stand apart from third-party study guides because they: Provide guidance from Microsoft, the creator of Microsoft certification exams Target IT professional-level exam candidates with content focused on their needs, not "one-size-fits-all" content Streamline study by organizing material according to the exam's objective domain (OD), covering one functional group and its objectives in each chapter Feature Thought Experiments to guide candidates through a set of "what if?" scenarios, and prepare them more effectively for Pro-level style exam questions Explore big picture thinking around the planning and design aspects of the IT pro's job role For more information on Exam DA-100 and the Microsoft Certified: Data Analyst Associate credential, visit <https://docs.microsoft.com/en-us/learn/certifications/data-analyst-associate>.

Excel® 2016 PIVOT TABLE DATA CRUNCHING CRUNCH DATA FROM ANY SOURCE, QUICKLY AND EASILY, WITH EXCEL 2016 PIVOT TABLES! Use Excel 2016 pivot tables and pivot charts to produce powerful, dynamic reports in minutes instead of hours... understand exactly what's going on in your business... take control, and stay in control! Even if you've never created a pivot table before, this book will help you leverage all their amazing flexibility and analytical power. Drawing on more than 40 combined years of Excel experience, Bill Jelen and Michael Alexander offer practical "recipes" for solving real business problems, help you avoid common mistakes, and present tips and tricks you'll find nowhere else!

- Create, customize, and change pivot tables
- Transform huge data sets into clear summary reports
- Analyze data faster with Excel 2016's new recommended pivot tables
- Instantly highlight your most profitable customers, products, or regions
- Quickly import, clean, and shape data with Power Query
- Build geographical pivot tables with Power Map
- Use Power View dynamic dashboards to see where your business stands
- Revamp analyses on the fly by dragging and dropping fields
- Build dynamic self-service reporting systems
- Combine multiple data sources into one pivot table
- Use Auto grouping to build date/time-based pivot tables faster
- Create data mashups with Power Pivot
- Automate pivot tables with macros and VBA

About MrExcel Library Every book in the MrExcel Library pinpoints a specific set of crucial Excel tasks and presents focused skills and examples for performing them rapidly and effectively. Selected by Bill Jelen, Microsoft Excel MVP and mastermind behind the leading Excel solutions website MrExcel.com, these books will

- Dramatically increase your productivity—saving you 50 hours a year or more
- Present proven, creative strategies for solving real-world problems
- Show you how to get great results, no matter how much data you have
- Help you avoid critical mistakes that even experienced users make

Bill Jelen is MrExcel, the world's #1 spreadsheet wizard. Jelen hosts MrExcel.com, the premier Excel solutions site, with more than 20 million page views

annually. A Microsoft MVP for Excel, his best-sellers include Excel 2016 In Depth. Michael Alexander, Microsoft Certified Application Developer (MCAD) and Microsoft MVP, is author of several books on advanced business analysis with Excel and Access. He has more than 15 years of experience developing Office solutions. CATEGORY: Spreadsheets  
COVERS: Microsoft Excel 2016

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.

Attention all SQL Pros, DAX is not just for writing Excel-based formulas! Get hands-on learning and expert advice on how to use the vast capabilities of the DAX language to solve common data modeling challenges. Beginning DAX with Power BI teaches key concepts such as mapping techniques from SQL to DAX, filtering, grouping, joining, pivoting, and using temporary tables, all aimed at the SQL professional. Join author Philip Seamark as he guides you on a journey through typical business data transformation scenarios and challenges, and teaches you, step-by-step, how to resolve challenges using DAX. Tips, tricks, and shortcuts are included and explained, along with examples of the SQL equivalent, in order to accelerate learning. Examples in the book range from beginner to advanced, with plenty of detailed explanation when walking through each scenario. What You'll Learn Turbocharge your Power BI model by adding advanced DAX programming techniques Know when to use calculated measures versus calculated columns Generate new tables on the fly from existing data Optimize, monitor, and tune Power BI to improve performance of your models Discover new ideas, tricks, and time-saving techniques for better models Who This Book Is For Business intelligence developers, business analysts, or any SQL user who wants to use Power BI as a reporting tool. A solid understanding of SQL is recommended, as examples throughout the book include the DAX equivalents to SQL problem/solution scenarios.

Your hands-on guide to building effective Power BI dashboards Expand your expertise—and teach yourself how to create world-class Power BI business analysis dashboards that bring data to life for better decision-making. If you're an experienced business intelligence professional or manager, you'll get all the guidance, examples, and code you need to succeed—even if you've never used Power BI before. Successfully design, architect, and implement Power BI in your organization Take full advantage of any Microsoft Power BI platform, including Power BI Premium Make upfront decisions that position your Power BI project for success Build rich, live dashboards to monitor crucial data from across your organization Aggregate data and data elements from numerous internal and external data sources Develop dynamic visualizations, including charts, maps, and graphs Bring data to life with stunning interactive reports Ensure dashboard security and compliance Drive user adoption through effective training

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