

# Professional Microsoft Sql Server 2014 Administration

#1 bestseller SQL Server 2014 Design & Programming book. SQL Server 2014 design & programming builds on achievements of decades in advanced relational database technology. Among the new SQL Server 2014 features is prominent: in-memory OLTP tables. Disk was always the slowest part of the computer system. Since memory is abundant, it is logical to place tables into memory to gain in performance. Programming SQL Server 2014 is fun due to the host of marvelous tools available for the developer in SQL Server Management Studio and Visual Studio. Graphical query designer, for example, helps the developer to develop the JOIN structure of a complex query. SQL Server 2014 provides a highly productive environment for database software development. SQL Server 2014 introduces 3 new database design features: in-memory OLTP tables, inline index declaration in CREATE TABLE statement and updateable clustered columnstore indexes. In-memory OLTP aims to boost performance by reducing disk io as memory capacities are expanding frequently beyond the size of the database. SQL Server 2012 columnstore indexes are static. Updateable columnstore index expands the applicability of the performance feature. Inline index declaration elevates indexes to the level of PRIMARY KEY, FOREIGN KEY, CHECK constraint and DEFAULT constraint which can be declared inline.

If you are a developer who is working on data mining for large companies and would like to enhance your knowledge of SQL Server Data Mining Suite, this book is for you. Whether you

are brand new to data mining or are a seasoned expert, you will be able to master the skills needed to build a data mining solution.

This book is written for SQL Server administrators and developers who want to leverage PowerShell to work with SQL Server. Some background with scripting will be helpful but not necessary.

In-depth coverage of the major Visual Studio 2015 revamp Professional Visual Studio 2015 is the leading pro's guide to new and upgraded features of Microsoft Visual Studio. With a unique IDE-centric approach and deep dive into the software's many nooks and crannies, this book will bring you up to speed quickly on everything Visual Studio 2015 has to offer. Whether you're new to Visual Studio or just upgrading, you'll appreciate in-depth, professional explanation of updates, features, and support. Visual Studio 2015 is packed with improvements that increase productivity, and this book walks you through each one in succession to help you smooth your workflow and get more accomplished. From customization and the interface to code snippets and debugging, the Visual Studio upgrade expands your options — and this book is your fast-track guide to getting on board quickly. The Visual Studios 2015 release fixes a number of issues that deterred many professionals from adopting VS 2013. Old products have been retooled, and new features are aimed at productivity enhancement and fixes to UI. Fully aligned with VS 2015, this guide walks you through the changes and helps you incorporate helpful new features into the way you work. Discover new options for themes, displays, and settings Learn the new workflow and shortcuts to ASP.NET code Master improved debugging and unit testing support capabilities Exploit changes to Windows STORE apps, phone apps, Azure, and SharePoint

Pro SQL Server Wait Statistics is a practical guide for analyzing and troubleshooting SQL Server performance using wait statistics. Whether you are new to wait statistics, or already familiar with them, this book will help you gain a deeper understanding on how wait statistics are generated and what they can mean for your SQL Server's performance. Besides the most common wait types, Pro SQL Server Wait Statistics goes further into the more complex and performance threatening wait types. The different wait types are categorized by their area of impact, and include CPU, IO, Lock, and many more different wait type categories. Filled with clear examples, Pro SQL Server Wait Statistics helps you gain practical knowledge of why and how specific wait times increase or decrease, and how they impact your SQL Server's performance.

Optimize your database server to be fast, efficient, and highly secure using the brand new features of SQL Server 2014 with this book and ebook. Overview Design your SQL Server 2014 infrastructure by combining both onpremise and WindowsAzurebased technology Implement the new InMemory OLTP database engine feature to enhance the performance of your transaction databases This is a handson tutorial that explores the new features of SQL Server 2014 along with giving real world examples In Detail The release of SQL Server 2014 has brought with it some great new features and enhancements that database administrators can use to make their database servers faster, highly available, and protected from disaster. As the lines between on-premise and on-cloud based solutions become even more blurred, enterprise database applications such as SQL Server 2014 have evolved to allow DBAs to utilize both services to maintain their key service level agreements, ensuring that their important databases are always available. SQL Server 2014 has a strong focus on business

intelligence, making it a vital tool if you are looking to improve the performance of your processes as a relational database professional. Getting Started with SQL Server 2014 Administration will guide you through your first steps of learning SQL Server 2014 by introducing you to its new features and helping you create a hybrid environment, which is both highly available and allows you to get the best performance from your databases. This book is for anyone who wants to boost their database application performance to the next level. What you will learn from this book

- Design a SQL Server infrastructure combining on-premise servers and Windows Azure Storage
- Create a backup strategy that allows you to store your SQL Server backup in the Windows Azure cloud
- Improve database performance by using the In-Memory OLTP features
- Implement the delayed durability feature to improve transaction latency
- Use a cloud-based replica to build an AlwaysOn Availability Group
- Learn the other enhancements and new features that can help improve database performance

Approach This is an easy-to-follow hands-on tutorial that includes real world examples of SQL Server 2014's new features. Each chapter is explained in a step-by-step manner which guides you to implement the new technology.

Fill the gap between planning and doing with SSIS 2014 The 2014 release of Microsoft's SQL Server Integration Services provides enhancements for managing extraction, transformation, and load operations, plus expanded in-memory capabilities, improved disaster recovery, increased scalability, and much more. The increased functionality will streamline your ETL processes and smooth out your workflow, but the catch is that your workflow must change. New tools come with new best practices, and Professional Microsoft SQL Server 2014 Integration Services will keep you ahead of the curve. SQL Server MVP Brian Knight is the

most respected name in the business, and your ultimate guide to navigating the changes to use Microsoft SQL Server Integration Services 2014 to your utmost advantage. Implement new best practices for effective use of SSIS Work through tutorials for hands-on learning of complex techniques Read case studies that illustrate the more advanced concepts Learn directly from the foremost authority on SSIS SQL Server Integration Services is a complex tool, but it's the lifeblood of your work. You need to know it inside out, and you must understand the full potential of its capabilities in order to use it effectively. You need to make sure the right architecture is in place. Professional Microsoft SQL Server 2014 Integration Services is your roadmap to understanding SSIS on a fundamental level, and setting yourself up for success. Beginning T-SQL is a performance-oriented introduction to the T-SQL language underlying the Microsoft SQL Server database engine. T-SQL is essential in writing SQL statements to get data into and out of a database. T-SQL is the foundation for business logic embedded in the database in the form of stored procedures and functions. Beginning T-SQL starts you on the path to mastering T-SQL, with an emphasis on best-practices and sound coding techniques leading to excellent performance. This new edition is updated to cover the essential features of T-SQL found in SQL Server 2014, 2012, and 2008. Beginning T-SQL begins with an introduction to databases, normalization, and to SQL Server Management Studio. Attention is given to Azure SQL Database and how to connect to remote databases in the cloud. Each subsequent chapter teaches an aspect of T-SQL, building on the skills learned in previous chapters. Exercises in most chapters provide an opportunity for the hands-on practice that leads to true learning and distinguishes the competent professional. Important techniques such as windowing functions are covered to help write fast executing queries that solve real

business problems. A stand-out feature in this book is that most chapters end with a "Thinking About Performance" section. These sections cover aspects of query performance relative to the content just presented. They'll help you avoid beginner mistakes by knowing about and thinking about performance from Day 1. Imparts best practices for writing T-SQL Helps you avoid common errors Shows how to write scalable code for good performance

An authoritative treatment of urban computing, offering an overview of the field, fundamental techniques, advanced models, and novel applications. Urban computing brings powerful computational techniques to bear on such urban challenges as pollution, energy consumption, and traffic congestion. Using today's large-scale computing infrastructure and data gathered from sensing technologies, urban computing combines computer science with urban planning, transportation, environmental science, sociology, and other areas of urban studies, tackling specific problems with concrete methodologies in a data-centric computing framework. This authoritative treatment of urban computing offers an overview of the field, fundamental techniques, advanced models, and novel applications. Each chapter acts as a tutorial that introduces readers to an important aspect of urban computing, with references to relevant research. The book outlines key concepts, sources of data, and typical applications; describes four paradigms of urban sensing in sensor-centric and human-centric categories;

introduces data management for spatial and spatio-temporal data, from basic indexing and retrieval algorithms to cloud computing platforms; and covers beginning and advanced topics in mining knowledge from urban big data, beginning with fundamental data mining algorithms and progressing to advanced machine learning techniques. Urban Computing provides students, researchers, and application developers with an essential handbook to an evolving interdisciplinary field.

Learn to take advantage of the opportunities offered by SQL Server 2014  
Microsoft's SQL Server 2014 update means big changes for database administrators, and you need to get up to speed quickly because your methods, workflow, and favorite techniques will be different from here on out. The update's enhanced support of large-scale enterprise databases and significant price advantage mean that SQL Server 2014 will become even more widely adopted across the industry. The update includes new backup and recovery tools, new AlwaysOn features, and enhanced cloud capabilities. In-memory OLTP, Buffer Pool Extensions for SSDs, and a new Cardinality Estimator can improve functionality and smooth out the workflow, but only if you understand their full capabilities. Professional Microsoft SQL Server 2014 is your comprehensive guide to working with the new environment. Authors Adam Jorgensen, Bradley

Ball, Ross LoForte, Steven Wort, and Brian Knight are the dream team of the SQL Server community, and they put their expertise to work guiding you through the changes. Improve oversight with better management and monitoring Protect your work with enhanced security features Upgrade performance tuning, scaling, replication, and clustering Learn new options for backup and recovery Professional Microsoft SQL Server 2014 includes a companion website with sample code and efficient automation utilities, plus a host of tips, tricks, and workarounds that will make your job as a DBA or database architect much easier. Stop getting frustrated with administrative issues and start taking control. Professional Microsoft SQL Server 2014 is your roadmap to mastering the update and creating solutions that work.

Pro SQL Server 2012 Practices is an anthology of high-end wisdom from a group of accomplished database administrators who are quietly but relentlessly pushing the performance and feature envelope of Microsoft SQL Server 2012. With an emphasis upon performance—but also branching into release management, auditing, and other issues—the book helps you deliver the most value for your company's investment in Microsoft's flagship database system. Goes beyond the manual to cover good techniques and best practices Delivers knowledge usually gained only by hard experience Focuses upon performance, scalability,

reliability Helps achieve the predictability needed to be in control at all times 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 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.

This book shows how to leverage the complete set of Microsoft tools including Microsoft Office and SQL Server to better analyze business data. It provides best practices for building complete BI solutions using the full Microsoft toolset. Topics include: how to effectively use SQL Server Analysis and Reporting Services, along with Excel, SharePoint, and other tools to provide effective and cohesive solutions for the enterprise; BI architecture; data queries; semantic models; multidimensional modeling; data analysis and visualization; performance monitoring; data mining; practical business analysis and reporting.

Over 150 real-world recipes to simplify database management, automate repetitive tasks, and enhance your productivity About This Book • This book helps you build a strong foundation to get you comfortable using PowerShell with SQL Server, empowering you to create more complex scripts for your day-to-day job • The book provides numerous guidelines, tips, and explanations on how and when to use PowerShell cmdlets, WMI, SMO, .NET classes, or other

components• It offers easy-to-follow, practical recipes to help you get the most out of SQL Server and PowerShellWho This Book Is ForIf you are a SQL Server database professional (DBA, developer, or BI developer) who wants to use PowerShell to automate, integrate, and simplify database tasks, this books is for you. Prior knowledge of scripting would be helpful, but it is not necessary.What You Will Learn• Explore database objects and execute queries on multiple servers• Manage and monitor the running of SQL Server services and accounts• Back up and restore databases• Create an inventory of database properties and server configuration settings• Maintain permissions and security for users• Work with CLR assemblies, XML, and BLOB objects in SQL• Manage and deploy SSIS packages and SSRS reportsIn DetailPowerShell can be leveraged when automating and streamlining SQL Server tasks. PowerShell comes with a rich set of cmdlets, and integrates tightly with the .NET framework. Its scripting capabilities are robust and flexible, allowing you to simplify automation and integration across different Microsoft applications and components.The book starts with an introduction to the new features in SQL Server 2014 and PowerShell v5 and the installation of SQL Server. You will learn about basic SQL Server administration tasks and then get to know about some security-related topics such as the authentication mode and assigning permissions. Moving on,

you will explore different methods to back up and restore your databases and perform advanced administration tasks such as working with Policies, Filetables, and SQL audits. The next part of the book covers more advanced HADR tasks such as log shipping and data mirroring, and then shows you how to develop your server to work with BLOB, XML, and JSON. Following on from that, you will learn about SQL Server's BI stack, which includes SSRS reports, the SSIS package, and the SSAS cmdlet and database. Snippets not specific to SQL Server will help you perform tasks quickly on SQL servers. Towards the end of the book, you will find some useful information, which includes a PowerShell tutorial for novice users, some commonly-used PowerShell and SQL Server syntax, and a few online resources. Finally, you will create your own SQL Server Sandbox VMs. All these concepts will help you to efficiently manage your administration tasks.

*Style and approach* SQL Server 2014 with PowerShell v5 Cookbook is an example-focused book that provides step-by-step instructions on how to accomplish specific SQL Server tasks using PowerShell. Each recipe is followed by an analysis of the steps or design decisions taken and additional information about the task at hand. Working scripts are provided for all examples so that you can dive in right away. You can read this book sequentially by chapter or you can pick and choose which topics you need right away.

Essential Microsoft® SQL Server® 2017 installation, configuration, and management techniques for Linux Foreword by Kalen Delaney, Microsoft SQL Server MVP This comprehensive guide shows, step-by-step, how to set up, configure, and administer SQL Server 2017 on Linux for high performance and high availability. Written by a SQL Server expert and respected author, Microsoft SQL Server 2017 on Linux teaches valuable Linux skills to Windows-based SQL Server professionals. You will get clear coverage of both Linux and SQL Server and complete explanations of the latest features, tools, and techniques. The book offers clear instruction on adaptive query processing, automatic tuning, disaster recovery, security, and much more.

- Understand how SQL Server 2017 on Linux works
- Install and configure SQL Server on Linux
- Run SQL Server on Docker containers
- Learn Linux Administration
- Troubleshoot and tune query performance in SQL Server
- Learn what is new in SQL Server 2017
- Work with adaptive query processing and automatic tuning techniques
- Implement high availability and disaster recovery for SQL Server on Linux
- Learn the security features available in SQL Server

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Advance your career with SQL Server 2016 T-SQL programming. When you will learn

this book, you will also know SQL Server 2005/2008/2012/2014 since the book has frequent version references. Develop your own Transact-SQL code for querying, modifying, managing & administering data in Microsoft SQL Server 2016. You will learn data management both through visual interface and writing T-SQL scripts, stored procedures, user-defined functions & triggers. Contents at a Glance SQL Server 2016 New Features CHAPTER 1: SQL Server Sample & System Databases CHAPTER 2: Installing SQL Server 2016 CHAPTER 3: Structure of the SELECT Statement CHAPTER 4: SQL Server Management Studio CHAPTER 5: New Programming Features in SS 2012 & 2014 CHAPTER 6: JOINing Tables with INNER & OUTER JOINS CHAPTER 7: Basic SELECT Statement Syntax & Examples CHAPTER 8: Subqueries in SELECT Statements CHAPTER 9: SELECT INTO Table Creation & Population CHAPTER 10: Modify Data - INSERT, UPDATE, DELETE & MERGE CHAPTER 11: The Magic of Transact-SQL Programming CHAPTER 12: Exporting & Importing Data APPENDIX A: Job Interview Questions APPENDIX B: Job Interview Answers INDEX for Beginner SQL Programming Using Microsoft SQL Server 2016 392 This book is an easy-to-follow, comprehensive guide that is full of hands-on examples, which you can follow to successfully design, build, and deploy mission-critical database applications with SQL Server 2014. If you are a database developer, architect, or administrator who wants to learn how to design, implement, and deliver a successful database solution with SQL Server 2014, then this book is for you. Existing users of

Microsoft SQL Server will also benefit from this book as they will learn what's new in the latest version.

SQL Server T-SQL Recipes is an example-based guide to the Transact-SQL language that is at the core of SQL Server. This edition has been lightly updated for SQL Server 2014 and provides ready-to-implement solutions to common programming and database administration tasks. Learn to create databases, create in-memory tables and stored procedures, insert and update data, generate reports, secure your data, and more. Tasks and their solutions are broken down into a problem/solution format that is quick and easy to read so that you can get the job done fast when the pressure is on. Solutions in this book are divided into chapters by problem domain. Each chapter is a collection of solutions around a single facet of the language such as writing queries, managing indexes, error handling, and query performance. Each solution is presented code-first, giving you a working code example to copy from and implement immediately in your own environment. Following each example is an in-depth description of how and why the given solution works. Tradeoffs and alternative approaches are also discussed. Focused on solutions: Look up what you need to do. Learn how to do it. Do it. Current: Lightly updated for SQL Server 2014 Comprehensive: Covers all common T-SQL problem domains

Congratulations! You are going to WIN your next SQL Server interview. "SQL The One" book can guide you to achieve the success in your next interview. This book covers

Microsoft SQL Server interview experiences, questions and answers for a range of SQL DBA's and SQL Server Professionals. All of these questions have been collected from the people who attended interviews at various multinational companies across the world. It also covers "How to prepare for a SQL DBA interview?" and "How to become an expert in your career?" Salient Features of Book All interview questions are asked in various MNC Covers 1090 real time questions and answers 254 questions on SQL Server Performance Tuning Covers all SQL Server HA & DR features 316 questions on SQL Server HA & DR features Lots of scenario based questions Covers SQL Server 2005, 2008, 2008 R2, 2012, 2014 and 2016 Questions are categorized In-depth explanations An Interview Experience with Microsoft Useful as a reference guide for SQL DBA Interview preparation"

Pro SQL Server Administration brings SQL Server administration into the modern era with strong coverage of hybrid cloud environments, In-Memory OLTP, and installation on Server Core. This comprehensive guide to SQL Server Administration for today's DBA helps you to administer the new and key areas of SQL Server, including Columnstore indexes and the In-Memory OLTP feature set introduced in 2014. You will also be guided through the administration of traditional areas of SQL Server, including how to secure your instance, monitor and maintain your instance, and to use features such as AlwaysOn to make your instance highly available. Also covered is the use of SQL Server features to scale out read-only workloads. Pro SQL Server Administration

is an all-new book taking up-to-date and modern approach that you'll want and need to further your career as a SQL Server database administrator. Extensive coverage of hybrid cloud environments involving Azure SQL Database Detailed discussions on all new, key features, including AlwaysOn and in-memory support Comprehensive coverage of key skills, such as monitoring, maintenance and indexing Professional Microsoft SQL Server 2014 Integration Services John Wiley & Sons #1 bestseller Beginning Database Design & SQL Server 2014 Programming book. SQL Server 2014 follows just in 2 years after SQL Server 2012 with very exciting new features. One on the top: in-memory OLTP tables for superior performance. With abundant computer memory, why keep tables on slow disk? Developers across the world face database issues daily. While immersed in procedural languages with loops, RDBMS forces them to think in terms of sets without loops. It takes transition. It takes training. It takes experience. Developers are exposed also to Excel worksheets, or spreadsheets, as they were called in the not so distant past. So, if you know worksheets, how hard can databases be? After all, worksheets look pretty much like database tables, don't they? The big difference is the connections among well-designed tables. A database is a set of connected tables, which represent entities in the real world. A database can be 100 connected tables or 3000. The connection is very simple: row A in table Alpha has affiliated data with row B in table Beta. However, even with 200 tables and 300 connections (FOREIGN KEY references), it takes a good amount of

time to become familiar to the point of having an acceptable working knowledge. "The Cemetery of Computer Languages" is expanding. You can see tombstones like PL/1, Forth, Ada, Pascal, LISP, RPG, APL, SNOBOL, JOVIAL, Algol - the list goes on. For some, the future is in question: PowerBuilder, ColdFusion, FORTRAN and COBOL. On the other hand, SQL is running strong after 3 decades of glorious existence. What is the difference? The basic difference is that SQL can handle large datasets in a consistent manner based on mathematical foundations. You can throw together a computer language easily: assignment statements, looping, if-then conditional, 300 library functions, and voila! Here is the new language: Mars/1, named after the red planet to be fashionable with NASA's new Mars robot. However, can Mars/1 JOIN a table of 1 million rows with a table of 10 million rows in a second? The success of SQL language is so compelling that other technologies are tagged onto it like XML/XQuery, which deals with semi-structured information objects. In SQL you are thinking at a high level. In C# or Java, you are dealing with details - lots of them. That is the major difference. Why is so much of the book dedicated to database design? Why not plunge into SQL coding and eventually the developer will get a hang of the design? Because high-level thinking requires thinking at the database design level. A farmer has six mules. How do we model it in the database? We design the Farmer and FarmAnimal tables, and then connect them with FarmerID FOREIGN KEY in FarmAnimal referencing the FarmerID PRIMARY KEY in the Farmer table. What is the big deal about it? It looks so

simple. In fact, how about just calling the tables Table1 and Table2 to be more generic. Ouch! Meaningful naming is the very basis of good database design. Relational database design is truly simple for simple well-understood models. The challenge starts in modeling complex objects such as financial derivative instruments, airplane passenger scheduling, or a social network website. When you need to add 5 new tables to a 1000 table database and hook them in (define FOREIGN KEY references) correctly, it is a huge challenge. To begin with, some of the five new tables may already be redundant, but you don't know that until you understand what the 1000 tables are really storing. Frequently, learning the application area is the biggest challenge for a developer when starting a new job. The SQL language is simple to program and read even when touching 10 tables. Complexities abound though. The very first one: does the SQL statement touch the right data set - 999 records and 1000 or 998? T-SQL statements are turned into Transact-SQL scripts, stored procedures, and user-defined functions, and trigger server-side database objects.

Earn over \$120,000 as an SQL database developer and/or designer! SQL Server 2016 database design & SQL programming book is an essential guide for building a bright career in Information Technology. It is sufficient to master this SQL Server 2016 book to know SQL Server 2005/2008/2012/2014 since the book has frequent version references. The relational database is a marvelous invention (thanks to IBM staff) of Computer Science to organize and manipulate data in a logical way. The SQL

(Structured Query Language) is equally magical invention which allows us to work with data - 10 rows or 10 billion rows - at ease. SQL Server 2016 is the latest and best RDBMS (Relational Database Management System) from Microsoft with a host of new enhancements. Upon mastering this book you can launch a rewarding career in SQL Server database design and programming. Good Luck! Contents at a Glance SQL Server 2016 New Features CHAPTER 1: SQL Server Sample & System Databases CHAPTER 2: Installing SQL Server 2016 CHAPTER 3: Structure of the SELECT Statement CHAPTER 4: SQL Server Management Studio CHAPTER 5: Basic Concepts of Client-Server Computing CHAPTER 6: Fundamentals of Relational Database Design CHAPTER 7: Normal Forms & Database Normalization CHAPTER 8: Functional Database Design CHAPTER 9: Advanced Database Design Concepts CHAPTER 10: New Programming Features in SS 2012 & 2014 CHAPTER 11: JOINing Tables with INNER & OUTER JOINS CHAPTER 12: Basic SELECT Statement Syntax & Examples CHAPTER 13: Subqueries in SELECT Statements CHAPTER 14: SELECT INTO Table Creation & Population CHAPTER 15: Modify Data - INSERT, UPDATE, DELETE & MERGE CHAPTER 16: The Magic of Transact-SQL Programming CHAPTER 17: Exporting & Importing Data APPENDIX A: Job Interview Questions APPENDIX B: Job Interview Answers Advance your career with SQL Server 2016 database design and T-SQL programming. When you will learn this book, you will also know SQL Server

2005/2008/2012/2014 since the book has frequent version references. Design your own relational database and develop your own Transact-SQL code for querying, modifying, managing & administering data in Microsoft SQL Server 2016. You will learn data management both through visual interface and writing T-SQL scripts, stored procedures, user-defined functions & triggers. Chapters at a glance: SQL Server 2016 New Features CHAPTER 1: SQL Server Sample & System Databases CHAPTER 2: Installing SQL Server 2016 CHAPTER 3: Structure of the SELECT Statement CHAPTER 4: SQL Server Management Studio CHAPTER 5: Basic Concepts of Client-Server Computing CHAPTER 6: Fundamentals of Relational Database Design CHAPTER 7: Normal Forms & Database Normalization CHAPTER 8: Functional Database Design CHAPTER 9: Advanced Database Design Concepts CHAPTER 10: The Art of Database Design CHAPTER 11: New Programming Features in SS 2012 & 2014 CHAPTER 12: JOINing Tables with INNER & OUTER JOINS CHAPTER 13: Basic SELECT Statement Syntax & Examples CHAPTER 14: Subqueries in SELECT Statements CHAPTER 15: SELECT INTO Table Creation & Population CHAPTER 16: Modify Data - INSERT, UPDATE, DELETE & MERGE CHAPTER 17: The Magic of Transact-SQL Programming CHAPTER 18: Exporting & Importing Data CHAPTER 19: Maintaining Data Integrity in the Enterprise

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T-SQL insiders help you tackle your toughest queries and query-tuning problems Squeeze maximum performance and efficiency from every T-SQL query you write or tune. Four leading experts take an in-depth look at T-SQL's internal architecture and offer advanced practical techniques for optimizing response time and resource usage. Emphasizing a correct understanding of the language and its foundations, the authors present unique solutions they have spent years developing and refining. All code and techniques are fully updated to reflect new T-SQL enhancements in Microsoft SQL Server 2014 and SQL Server 2012. Write faster, more efficient T-SQL code: Move from procedural programming to the language of sets and logic Master an efficient top-down tuning methodology Assess algorithmic complexity to predict performance Compare data aggregation techniques, including new grouping sets Efficiently perform data-analysis calculations Make the most of T-SQL's optimized bulk import tools Avoid date/time pitfalls that lead to buggy, poorly performing code Create optimized BI statistical queries without additional software Use programmable objects to



them in-memory OLTP tables, FileTable FILESTREAM storage and ColumnStore indexes. Relational database design teach-by-practical-diagrams-&-examples book for developers, programmers, systems analysts and project managers who are new to relational database and client/server technologies. Also for database developers, database designers and database administrators (DBA), who know some database design, and who wish to refresh & expand their RDBMS design technology horizons. Familiarity with at least one computer programming language, Windows file system & Excel is assumed. Since the book is career advancement oriented, it has a great number of 3NF database design examples with metadata explanations along with practical SQL queries (over 700 SELECT queries) and T-SQL scripts, plenty to learn indeed. Great emphasis is placed on explaining the FOREIGN KEY - PRIMARY KEY constraints among tables, the connections which make the collection of individual tables a database. The database diagrams and queries are based on historic and current SQL Server sample databases: pubs (PRIMARY KEYs 9, FOREIGN KEYs 10) , Northwind (PRIMARY KEYs 13, FOREIGN KEYs 13) and the latest AdventureWorks series. Among them: AdventureWorks, AdventureWorks2008, AdventureWorks2012 (PRIMARY KEYs 71, FOREIGN KEYs 90), & AdventureWorksDW2012 (PRIMARY KEYs 27, FOREIGN KEYs 44). The last one is a data warehouse

database which is the basis for multi-dimensional OLAP cubes. The book teaches through vivid database diagrams and T-SQL queries how to think in terms of sets at a very high level, focusing on set-based operations instead of loops like in procedural programming languages. The best way to master relational database design & T-SQL programming is to type the query in your own SQL Server Management Studio Query Editor, test it, examine it, change it and study it. Wouldn't it be easier just to copy & paste it? It would, but the learning value would diminish rapidly. You need to feel relational database design and the SQL language in your DNA. SQL queries, "CREATE TABLEs" must "pour" out from your fingers into the keyboard. Why is knowing SQL queries by heart so important? After all everything can be found on the web so why not just copy & paste? Well not exactly. If you want to be an database designer expert, it has to be in your head not on the web. Second, when your supervisor is looking over your shoulder, "Chuck, can you create a new table for our electric pumps inventory?", you have to be able to type the CREATE TABLE query without documentation or SQL forum search and explain how it will work to your superior promptly. The book was designed to be readable in any environment, even on the beach laptop around or no laptop in sight at all. All queries are followed by results row count and /or full/partial results listing in tabular (grid)

format. Screenshots are used when dealing with GUI tools such as SQL Server Management Studio (SSMS). Mastery of the relational database design book likely to be sufficient for career advancement as a database designer and database developer.

Pro T-SQL Programmer's Guide is your guide to making the best use of the powerful, Transact-SQL programming language that is built into Microsoft SQL Server's database engine. This edition is updated to cover the new, in-memory features that are part of SQL Server 2014. Discussing new and existing features, the book takes you on an expert guided tour of Transact-SQL functionality. Fully functioning examples and downloadable source code bring technically accurate and engaging treatment of Transact-SQL into your own hands. Step-by-step explanations ensure clarity, and an advocacy of best-practices will steer you down the road to success. Transact-SQL is the language developers and DBAs use to interact with SQL Server. It's used for everything from querying data, to writing stored procedures, to managing the database. Support for in-memory stored procedures running queries against in-memory tables is new in the language and gets coverage in this edition. Also covered are must-know features such as window functions and data paging that help in writing fast-performing database queries. Developers and DBAs alike can benefit from the expressive

power of T-SQL, and Pro T-SQL Programmer's Guide is your roadmap to success in applying this increasingly important database language to everyday business and technical tasks. Covers the newly-introduced, in-memory database features Shares the best practices used by experienced professionals Goes deeply into the subject matter ? an advanced book for the serious reader What you'll learn Gain massive performance boosts from the in-memory database features Apply window functions to write reporting queries with unparalleled ease Move business logic into the database via procedures and functions Develop using advanced features such as encryption and full-text search Store and retrieve XML data using XQuery and XPath Debug and Optimize T-SQL Execution Build ADO.NET Client Applications Who this book is for Pro T-SQL Programmer's Guide is written for SQL Server and T-SQL developers with a desire to write advanced-level code and take full advantage of all that SQL Server has to offer. Microsoft .NET programmers will find the book helpful in showing how to run .NET code within SQL Server. Database administrators who need to write triggers and the occasional stored procedure will also benefit from the book. Table of Contents1. Foundations of T-SQL 2. Tools of the Trade 3. Procedural Code and CASE Expressions 4. User Defined Functions 5. Stored Procedures 6. In-memory Database Programming 7. Triggers 8. Encryption 9.

Common Table Expressions 10. Advanced Features 11. Integrated Full-Text Search 12. XML 13. XQuery and XPath 14. Catalog Views and Dynamic Management Views 15. SQL CLR Programming 16. .NET Client Programming 17. Data Services 18. Error Handling and Dynamic SQL 19. Performance Monitoring and Tuning 20. Appendix A 21. Appendix B 22. Appendix C 23. Appendix D

Written in an easy-to-follow, example-driven format, there are plenty of step-by-step instructions to help get you started! The book has a friendly approach, with the opportunity to learn by experimenting. If you are a BI and Data Warehouse developer new to Microsoft Business Intelligence, and looking to get a good understanding of the different components of Microsoft SQL Server for Business Intelligence, this book is for you. It's assumed that you will have some experience in databases systems and T-SQL. This book is will give you a good upshot view of each component and scenarios featuring th.

This updated and expanded second edition of the Introducing Microsoft SQL Server 2014 provides a user-friendly introduction to the subject, Taking a clear structural framework, it guides the reader through the subject's core elements. A flowing writing style combines with the use of illustrations and diagrams throughout the text to ensure the reader understands even the most complex of

concepts. This succinct and enlightening overview is a required reading for all those interested in the subject . We hope you find this book useful in shaping your future career & Business. Feel free to send us your inquiries related to our publications to [info@pwpublishers.pw](mailto:info@pwpublishers.pw)

SQL Server Integration Services Design Patterns is newly-revised for SQL Server 2014, and is a book of recipes for SQL Server Integration Services (SSIS). Design patterns in the book help to solve common problems encountered when developing data integration solutions. The patterns and solution examples in the book increase your efficiency as an SSIS developer, because you do not have to design and code from scratch with each new problem you face. The book's team of expert authors take you through numerous design patterns that you'll soon be using every day, providing the thought process and technical details needed to support their solutions. SQL Server Integration Services Design Patterns goes beyond the surface of the immediate problems to be solved, delving into why particular problems should be solved in certain ways. You'll learn more about SSIS as a result, and you'll learn by practical example. Where appropriate, the book provides examples of alternative patterns and discusses when and where they should be used. Highlights of the book include sections on ETL Instrumentation, SSIS Frameworks, Business Intelligence Markup

Language, and Dependency Services. Takes you through solutions to common data integration challenges Provides examples involving Business Intelligence Markup Language Teaches SSIS using practical examples

#1 bestseller Beginning SQL Server 2014 Programming book. Beginning yet practical SQL (Structured Query Language) programming teach-by-practical-diagrams-&-examples illustrated book for database developers, programmers, systems analysts and project managers who are new to relational database and client/server technologies. Also for database developers, database designers and database administrators (DBA), who know some SQL programming and database design, and who wish to refresh & expand their RDBMS development technology horizons. Familiarity with at least one computer programming language, Windows file system & Excel is assumed. Since the book is career advancement oriented, it has a great number of practical SQL queries (over 1,100 SELECT queries) and T-SQL scripts, plenty to learn indeed. The queries are based on historic and current SQL Server sample databases: pubs (PRIMARY KEYs 9, FOREIGN KEYs 10) , Northwind (PRIMARY KEYs 13, FOREIGN KEYs 13) and the latest AdventureWorks series. Among them: AdventureWorks, AdventureWorks2008, AdventureWorks2012 (PRIMARY KEYs 71, FOREIGN KEYs 90), & AdventureWorksDW2012 (PRIMARY KEYs 27,

FOREIGN KEYs 44). The last one is a data warehouse database. The book teaches through vivid T-SQL queries how to think in terms of sets at a very high level, focusing on set-based operations instead of loops like in procedural programming languages. The best way to master T-SQL programming is to type the query in your own SQL Server Management Studio Query Editor, test it, examine it, change it and study it. Wouldn't it be easier just to copy & paste it? It would, but the learning value would diminish rapidly. You need to feel the SQL language in your DNA. SQL queries must "pour" out from your fingers into the keyboard. Why is knowing SQL queries by heart so important? After all everything can be found on the web so why not just copy & paste? Well not exactly. If you want to be an database development expert, it has to be in your head not on the web. Second, when your supervisor is looking over your shoulder, "Charlie, can you tell me what is the total revenue for March?", you have to be able to type the query without documentation or SQL forum search and provide the results to your superior promptly. The book was designed to be readable in any environment, even on the beach laptop around or no laptop in sight at all. All queries are followed by results row count and /or full/partial results listing in tabular (grid) format. Screenshots are used when dealing with GUI tools such as SQL Server Management Studio. SQL Server 2014 installation, new

programming functions, data export and data import presented step by step. Mastery of SQL programming book likely to be sufficient for career advancement as a database developer. SQL Server 2014 programming builds on achievements of decades in advanced relational database technology. Among the new SQL Server 2014 features is prominent: in-memory OLTP tables. Disk was always the slowest part of the computer system. Since memory is abundant, it is logical to place tables into memory to gain in performance. Programming SQL Server 2014 is fun due to the host of marvelous tools available for the developer in SQL Server Management Studio and Visual Studio. Graphical query designer, for example, helps the developer to develop the JOIN structure of a complex query. SQL Server 2014 provides a highly productive environment for database software development.

This updated and expanded second edition of the Professional Microsoft SQL Server 2014 Integration Services (Wrox Programmer to provides a user-friendly introduction to the subject Taking a clear structural framework, it guides the reader through the subject's core elements. A flowing writing style combines with the use of illustrations and diagrams throughout the text to ensure the reader understands even the most complex of concepts. This succinct and enlightening overview is a required reading for all those interested in the subject . We hope

you find this book useful in shaping your future career & Business.

This book is a deep dive into perhaps the single-most important facet of good performance: indexes, and how to best use them. The book begins in the shallow waters with explanations of the types of indexes and how they are stored in databases. Moving deeper into the topic, and further into the book, you will look at the statistics that are accumulated both by indexes and on indexes. You'll better understand what indexes are doing in the database and what can be done to mitigate and improve their effect on performance. The final destination is a guided tour through a number of real life scenarios showing approaches you can take to investigate, mitigate, and improve the performance of your database.

Defines the types of indexes and their implementation options  
Provides use cases and common patterns in applying indexing  
Describes and explain the index metadata and statistics  
Provides a framework of strategies and approaches for indexing databases

Pro T–SQL Programmer's Guide is your guide to making the best use of the powerful, Transact-SQL programming language that is built into Microsoft SQL Server's database engine. This edition is updated to cover the new, in-memory features that are part of SQL Server 2014. Discussing new and existing features, the book takes you on an expert guided tour of Transact–SQL functionality. Fully

functioning examples and downloadable source code bring technically accurate and engaging treatment of Transact-SQL into your own hands. Step-by-step explanations ensure clarity, and an advocacy of best-practices will steer you down the road to success. Transact-SQL is the language developers and DBAs use to interact with SQL Server. It's used for everything from querying data, to writing stored procedures, to managing the database. Support for in-memory stored procedures running queries against in-memory tables is new in the language and gets coverage in this edition. Also covered are must-know features such as window functions and data paging that help in writing fast-performing database queries. Developers and DBAs alike can benefit from the expressive power of T-SQL, and Pro T-SQL Programmer's Guide is your roadmap to success in applying this increasingly important database language to everyday business and technical tasks. Covers the newly-introduced, in-memory database features Shares the best practices used by experienced professionals Goes deeply into the subject matter ? an advanced book for the serious reader This is an easytofollow handson tutorial that includes real world examples of SQL Server 2014's new features. Each chapter is explained in a stepbystep manner which guides you to implement the new technology. If you want to create an highly efficient database server then this book is for you. This book is for

database professionals and system administrators who want to use the added features of SQL Server 2014 to create a hybrid environment, which is both highly available and allows you to get the best performance from your databases.

This book is intended for system administrators and other IT professionals who need to both design and implement an Azure-based cloud solution. With the help of this book, you will soon master the basic tasks needed to build a cloud-based solution.

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