

## Sql Server 2017 A Practical Guide For Beginners

Publisher's Note: Products purchased from Third Party sellers are not guaranteed by the publisher for quality, authenticity, or other product-related online entitlements included with the product. Get Up to Speed on Microsoft® SQL Server® 2019 Quickly and Easily Start working with Microsoft SQL Server 2019 in no time with help from this thoroughly revised, practical resource. Filled with real-world examples, hands-on exercises, Microsoft SQL Server 2019: A Beginner's Guide, Seventh Edition starts by explaining fundamental relational database system concepts. From there, you'll learn how to write Transact-SQL statements, execute simple and complex database queries, manage system administration and security, and use powerful analysis and reporting tools. New topics such as SQL and JSON support for databases, and support for machine learning with R and Python are also covered in this step-by-step tutorial.

- Install, configure, and customize Microsoft SQL Server 2019
- Create and modify database objects with Transact-SQL statements
- Write stored procedures and user-defined functions
- Handle backup and recovery, and automate administrative tasks
- Tune your database system for optimal performance, availability, and reliability
- Secure your system using authentication, encryption, and authorization
- Work with SQL Server Analysis Services, Reporting Services, and other BI tools
- Gain knowledge of relational storage, presentation, and retrieval of data stored in JSON format
- Manage graphs using SQL Server Graph Databases
- Learn about machine learning support for R and Python

Conquer SQL Server 2017 administration—from the inside out Dive into SQL Server 2017 administration—and really put your database administrator (DBA) expertise to work. This supremely organized reference packs hundreds of timesaving solutions, tips, and workarounds—allowing you to plan, implement, manage, and secure SQL Server 2017 in any production environment: on-premises, cloud, or hybrid. Four SQL Server experts offer a complete tour of DBA capabilities available in SQL Server 2017 Database Engine, SQL Server Data Tools, SQL Server Enterprise Management Studio, and via PowerShell. Discover how experts tackle today's essential tasks—and challenge yourself to new levels of mastery.

- Install, customize, and use SQL Server 2017's key administration and development tools
- Manage memory, storage, and virtualization, and other components
- Architect and implement database infrastructure, including IaaS, Azure SQL, and hybrid cloud configurations
- Provision SQL Server and Azure SQL databases
- Secure SQL Server via encryption, row-level security, and data loss prevention
- Safeguard Azure SQL databases using platform threat protection, firewalling, and auditing
- Establish SQL Server IaaS network configurations, subnets, groups and user-defined routes
- Administer SQL Server user security and permissions
- Efficiently design tables using keys, indexes, columns, partitioning, and views
- Utilize BLOBs and external, temporal, and memory-optimized tables
- Master powerful optimization techniques involving concurrency, indexing, parallelism, and execution plans
- Plan, deploy, and perform disaster recovery in traditional on-premises, cloud, and hybrid environments

For Experienced SQL Server Administrators and Other Database Professionals

- Your role: Intermediate to advanced level SQL Server database administrator, architect, developer, or performance tuning expert
- Prerequisites: Basic understanding of database administration procedures

This book is a guide for you on how to use SQL Server 2017. It begins by guiding you on how to get SQL Server 2017 installed on various operating systems, including the Server Core. After a successful installation of SQL Server 2017, it comes with only a

features enabled, while the other features are disabled. This is for the reduction of the features which can be attacked by an attacker. This book guides you on how to enable, disable, and perform a number of configurations on the various SQL Server. You are then guided on how to create a new database in SQL Server 2017. You will also learn how to play around with this, adding data to it, adding log files to the database, changing the size of the database, and even modifying the data contained. Note that the book guides you on how to do this by use of both SQL Server Management Studio and Transact-SQL. The process of User-defined Data Type Aliases in SQL Server 2017 is also discussed. The process of backing a SQL Server 2017 database is also discussed. You will learn the various ways to do this, as well how to restore the database. The following topics are discussed in this book:- Microsoft SQL Server 2017- Surface Area Configuration- Creating a Database- Creating User-Defined Data Type Alias- Creating Database Backup- Restoring a Database

Get well-versed with ready-to-use techniques for creating high-performance queries and applications Key Features Speed up and dramatically improve application performance by both understanding query engine internals and practical query optimization Understand how the query optimizer works Learn about intelligent query processing and what is new in SQL Server 2022 Book Description SQL Server is a relational database management system developed by Microsoft. As a database server, it is a software product with the ability of storing and retrieving data as requested by other software applications. This book starts by describing the inner workings of the optimizer, and will enable you to use this knowledge to write better queries and provide the query engine with all the information to produce efficient execution plans. As you progress, you'll get practical query optimization tips for troubleshooting underperformance. The book will also guide you through intelligent query processing and what is new in SQL Server 2022. Query performance topics like the Query Store, In-Memory OLTP and columnstore indexes are covered as well. By the end of this book, you'll be able to get the possible performance for your queries and applications. What you will learn Troubleshoot queries using methods including extended SQL Trace, and dynamic management views Understand how the execution engine and query operators work Speed up queries and app performance by creating the right indexes Detect and fix cardinality estimation errors by examining query optimizer statistics and promote both plan caching and plan reuse to improve app performance Troubleshoot and improve query performance by using Query Store Improve the performance of data warehouse queries by using columnstore indexes Handle query processor limitations with hints and other methods Who this book is for This book is for SQL Server developers who are struggling with slow query execution, database administrators who are tasked with troubleshooting slow application performance, and database architects who design databases in support of line-of-business and data warehousing applications.

How does Microsoft SQL Server integrate with other business initiatives? If substitutes have been appointed, have they been successful? How did the SQL Server 2017 goals and received regular communications as to the progress to date? How did the SQL Server 2017 management input to the development of a SQL Server 2017 improvement plan and the estimated completion dates/times of each activity? What situation(s) led to this Microsoft SQL Server Self Assessment? Will team members perform Microsoft SQL Server work when needed in a timely fashion? Defining, designing, creating, and implementing a process to solve a business challenge or meet a business

the most valuable role... In EVERY company, organization and department. Unless you are talking a one-time, single-use project business, there should be a process. Whether that process is managed and implemented by humans, AI, or a combination of the two, it needs to be designed by someone with a complex enough perspective to ask the right questions. Someone capable of asking the right questions and step back and say, 'What are we really trying to accomplish here? And is there a different way to look at it?' For more than 25 years, The Art of Service's Self-Assessments empower people who can do just that - whether their title is marketer, entrepreneur, manager, salesperson, consultant, business process manager, executive assistant, IT Manager, CxO etc... - they are the people who rule the process. They are people who watch the process as it happens, and ask the right questions to make the process work better. This book is for project managers, advisors, consultants, specialists, professionals and anyone interested in SQL Server assessment. All the tools you need for a depth SQL Server Self-Assessment. Featuring 631 new and updated case-based questions, organized into seven core areas of focus, this Self-Assessment will help you identify areas in which SQL Server improvements can be made. In using the questions you will be able to: - diagnose SQL Server projects, initiatives, organizations, businesses and processes using accepted diagnostic standards and practices - implement evidence-based best practice strategies aligned with overall goals - integrate recent advances in SQL Server process design strategies into practice according to best practice guidelines Using a Self-Assessment tool known as the SQL Server Scorecard, you will develop a clear picture of which SQL Server areas need attention. Included with your purchase of the book is a SQL Server Self-Assessment downloadable resource, which contains all questions and Self-Assessment areas of this book in a ready-to-use dashboard, including the self-assessment, graphic insights, and project planning automation - all with examples to get you started with your assessment right away. Access instructions can be found in the book. You are free to use the Self-Assessment contents in your presentations and materials for customers without asking us - we are here to help.

A Guide to Web, Mobile, and IoT Applications

SQL Server 2017 Query Performance Tuning

SQL Server 2017 Administrator's Guide

Microsoft SQL Server 2014 Unleashed

Real-World Skills for MCSA Certification and Beyond (Exams 70-461, 70-462, and 70-463)

Data exploration, modeling, and advanced analytics

*\* A completely revised edition of a book that is highly-regarded in the community (as evidenced by Amazon reviews and other customer feedback). \**

*The only comprehensive, practical guide to performance optimization techniques for SQL Server applications. \* Essential reading for any DBA or developer responsible for the performance of an existing SQL Server system, or the design of a new one.*

*SQL is a widely used to access most databases, therefore database developers and system administrators should be familiar with it. This hands-on SQL book will help beginner and intermediate users to write queries that apply complex conditions on a table. The book's unique side by side approach makes it easy for the reader to learn three major query languages in the IT industry. The author has over 20 years of experience in database design. KEY FEATURES: Contains numerous practical screenshots of Oracle SQL, T-SQL, MySQL statements and results. Shows the*

*differences between Oracle SQL, T-SQL and MySQL side by side. Gives a real world experience for SQL developers and database administrators. Sample data is available to work on (available on our website).*

*Provides information on using Microsoft Server SQL to design and implement database solutions along with material to prepare for the MCSA SQL Server certification examination.*

*A guide to the practical issues and applications in database programming with updated Visual Basic.NET SQL Server Database Programming with Visual Basic.NET offers a guide to the fundamental knowledge and practical techniques for the design and creation of professional database programs that can be used for real-world commercial and industrial applications. The author—a noted expert on the topic—uses the most current version of Visual Basic.NET, Visual Basic.NET 2017 with Visual Studio.NET 2017. In addition, he introduces the updated SQL Server database and Microsoft SQL Server 2017 Express. All sample program projects can be run in the most updated version, Visual Basic.NET 2019 with Visual Studio.NET 2019. Written in an accessible, down-to-earth style, the author explains how to build a sample database using the SQL Server management system and Microsoft SQL Server Management Studio 2018. The latest version of ASP.NET, ASP.NET 4.7, is also discussed to provide the most up-to-date Web database programming technologies. This important book: Offers illustrative practical examples and detailed descriptions to aid in comprehension of the material presented Includes both fundamental and advanced database programming techniques Integrates images into associated database tables using a DevExpress UI tools - WindowsUI Written for graduate and senior undergraduate students studying database implementations and programming courses, SQL Server Database Programming with Visual Basic.NET shows how to develop professional and practical database programs in Visual Basic.NET 2017/Visual Basic.NET 2019.*

*A guide to the practical issues and applications in database programming with updated Visual Basic.NET SQL Server Database Programming with Visual Basic.NET offers a guide to the fundamental knowledge and practical techniques for the design and creation of professional database programs that can be used for real-world commercial and industrial applications. The author—a noted expert on the topic—uses the most current version of Visual Basic.NET, Visual Basic.NET 2017 with Visual Studio.NET 2017. In addition, he introduces the updated SQL Server database and Microsoft SQL Server 2017 Express. All sample program projects can be run in the most updated version, Visual Basic.NET 2019 with Visual Studio.NET 2019. Written in an accessible, down-to-earth style, the author explains how to build a sample database using the SQL Server management system and Microsoft SQL Server Management Studio 2018. The latest version of ASP.NET, ASP.NET 4.7, is also discussed to provide the most up-to-date Web database programming technologies. This important book: • Offers illustrative practical examples and detailed descriptions to aid in comprehension of the material presented • Includes both fundamental and advanced database programming techniques • Integrates images into associated database tables using a DevExpress UI tools - WindowsUI Written for graduate and senior undergraduate students studying database implementations and programming courses, SQL Server Database Programming with Visual Basic.NET shows how to develop professional and practical database programs in Visual Basic.NET 2017/Visual Basic.NET 2019.*

*Digital Forensics and Forensic Investigations: Breakthroughs in Research and Practice*

*Comprehensive Healthcare Simulation: Operations, Technology, and Innovative Practice*

*Troubleshoot and Optimize Query Performance*

*Including Container-Based Deployment with Docker and Kubernetes*

*150+ EXAM PRACTICE QUESTIONS FOR ORACLE 1z0-071 UPDATED 2020*

*SQL Server Query Tuning and Optimization*

*The industry's most complete, useful, and up-to-date guide to SQL Server 2014. You'll find start-to-finish coverage of SQL Server's core database server and management capabilities: all the real-world information, tips, guidelines, and examples you'll need to install, monitor, maintain, and optimize the most complex database environments. The provided examples and sample code provide plenty of hands-on opportunities to learn more about SQL Server and create your own viable solutions. Four leading SQL Server experts present deep practical insights for administering SQL Server, analyzing and optimizing queries, implementing data warehouses, ensuring high availability, tuning performance, and much more. You will benefit from their behind-the-scenes look into SQL Server, showing what goes on behind the various wizards and GUI-based tools. You'll learn how to use the underlying SQL commands to fully unlock the power and capabilities of SQL Server. Writing for all intermediate-to-advanced-level SQL Server professionals, the authors draw on immense production experience with SQL Server. Throughout, they focus on successfully applying SQL Server 2014's most powerful capabilities and its newest tools and features. Detailed information on how to... Understand SQL Server 2014's new features and each edition's capabilities and licensing Install, upgrade to, and configure SQL Server 2014 for better performance and easier management Streamline and automate key administration tasks with Smart Admin Leverage powerful new backup/restore options: flexible backup to URL, Managed Backup to Windows Azure, and encrypted backups Strengthen security with new features for enforcing "least privilege" Improve performance with updateable columnstore indexes, Delayed Durability, and other enhancements Execute queries and business logic more efficiently with memoryoptimized tables, buffer pool extension, and natively-compiled stored procedures Control workloads and Disk I/O with the Resource Governor Deploy AlwaysOn Availability Groups and Failover Cluster Instances to achieve enterprise-class availability and disaster recovery Apply new Business Intelligence improvements in Master Data Services, data quality, and Parallel Data Warehouse*

*Develop and run efficient R scripts and predictive models for SQL Server 2017 Key Features Learn how you can combine the power of R and SQL Server 2017 to build efficient, cost-effective data science solutions Leverage the capabilities of R Services to perform advanced analytics--from data exploration to predictive modeling A quick primer with practical examples to help you get up- and- running with SQL Server 2017 Machine Learning Services with R, as part of database solutions with continuous integration / continuous delivery. Book Description R Services was one of the most anticipated features in SQL Server 2016, improved significantly and rebranded as SQL Server 2017 Machine Learning Services. Prior*

*to SQL Server 2016, many developers and data scientists were already using R to connect to SQL Server in siloed environments that left a lot to be desired, in order to do additional data analysis, superseding SSAS Data Mining or additional CLR programming functions. With R integrated within SQL Server 2017, these developers and data scientists can now benefit from its integrated, effective, efficient, and more streamlined analytics environment. This book gives you foundational knowledge and insights to help you understand SQL Server 2017 Machine Learning Services with R. First and foremost, the book provides practical examples on how to implement, use, and understand SQL Server and R integration in corporate environments, and also provides explanations and underlying motivations. It covers installing Machine Learning Services; maintaining, deploying, and managing code; and monitoring your services. Delving more deeply into predictive modeling and the RevoScaleR package, this book also provides insights into operationalizing code and exploring and visualizing data. To complete the journey, this book covers the new features in SQL Server 2017 and how they are compatible with R, amplifying their combined power. What you will learn*

*Get an overview of SQL Server 2017 Machine Learning Services with R*  
*Manage SQL Server Machine Learning Services from installation to configuration and maintenance*  
*Handle and operationalize R code*  
*Explore RevoScaleR R algorithms and create predictive models*  
*Deploy, manage, and monitor database solutions with R*  
*Extend R with SQL Server 2017 features*  
*Explore the power of R for database administrators*

*Who this book is for* This book is for data analysts, data scientists, and database administrators with some or no experience in R but who are eager to easily deliver practical data science solutions in their day-to-day work (or future projects) using SQL Server.

*How do we ensure that implementations of SQL Server 2017 products are done in a way that ensures safety? Risk factors: what are the characteristics of SQL Server 2017 that make it risky? Is a fully trained team formed, supported, and committed to work on the SQL Server 2017 improvements? What are the business objectives to be achieved with SQL Server 2017? Have the types of risks that may impact SQL Server 2017 been identified and analyzed? Defining, designing, creating, and implementing a process to solve a business challenge or meet a business objective is the most valuable role... In EVERY company, organization and department. Unless you are talking a one-time, single-use project within a business, there should be a process. Whether that process is managed and implemented by humans, AI, or a combination of the two, it needs to be designed by someone with a complex enough perspective to ask the right questions. Someone capable of asking the right questions and step back and say, 'What are we really trying to accomplish here? And is there a different way to look at it?' For more than twenty years, The Art of Service's Self-Assessments empower people who can do just that - whether their title is marketer, entrepreneur, manager, salesperson, consultant, business process manager, executive assistant, IT Manager, CxO etc... - they are the people who rule the future. They are people who*

*watch the process as it happens, and ask the right questions to make the process work better. This book is for managers, advisors, consultants, specialists, professionals and anyone interested in SQL Server 2017 assessment. All the tools you need to an in-depth SQL Server 2017 Self-Assessment. Featuring 618 new and updated case-based questions, organized into seven core areas of process design, this Self-Assessment will help you identify areas in which SQL Server 2017 improvements can be made. In using the questions you will be better able to: - diagnose SQL Server 2017 projects, initiatives, organizations, businesses and processes using accepted diagnostic standards and practices - implement evidence-based best practice strategies aligned with overall goals - integrate recent advances in SQL Server 2017 and process design strategies into practice according to best practice guidelines Using a Self-Assessment tool known as the SQL Server 2017 Scorecard, you will develop a clear picture of which SQL Server 2017 areas need attention. Included with your purchase of the book is the SQL Server 2017 Self-Assessment downloadable resource, which contains all questions and Self-Assessment areas of this book in a ready to use Excel dashboard, including the self-assessment, graphic insights, and project planning automation - all with examples to get you started with the assessment right away. Access instructions can be found in the book. You are free to use the Self-Assessment contents in your presentations and materials for customers without asking us - we are here to help.*

*Develop and run efficient R scripts and predictive models for SQL Server 2017 Key Features Learn how you can combine the power of R and SQL Server 2017 to build efficient, cost-effective data science solutions Leverage the capabilities of R Services to perform advanced analytics—from data exploration to predictive modeling A quick primer with practical examples to help you get up- and- running with SQL Server 2017 Machine Learning Services with R, as part of database solutions with continuous integration / continuous delivery. Book Description R Services was one of the most anticipated features in SQL Server 2016, improved significantly and rebranded as SQL Server 2017 Machine Learning Services. Prior to SQL Server 2016, many developers and data scientists were already using R to connect to SQL Server in siloed environments that left a lot to be desired, in order to do additional data analysis, superseding SSAS Data Mining or additional CLR programming functions. With R integrated within SQL Server 2017, these developers and data scientists can now benefit from its integrated, effective, efficient, and more streamlined analytics environment. This book gives you foundational knowledge and insights to help you understand SQL Server 2017 Machine Learning Services with R. First and foremost, the book provides practical examples on how to implement, use, and understand SQL Server and R integration in corporate environments, and also provides explanations and underlying motivations. It covers installing Machine Learning Services; maintaining, deploying, and managing code; and monitoring your services. Delving more deeply into predictive modeling and the RevoScaleR package, this book also provides insights into operationalizing code*

*and exploring and visualizing data. To complete the journey, this book covers the new features in SQL Server 2017 and how they are compatible with R, amplifying their combined power. What you will learn Get an overview of SQL Server 2017 Machine Learning Services with R Manage SQL Server Machine Learning Services from installation to configuration and maintenance Handle and operationalize R code Explore RevoScaleR R algorithms and create predictive models Deploy, manage, and monitor database solutions with R Extend R with SQL Server 2017 features Explore the power of R for database administrators Who this book is for This book is for data analysts, data scientists, and database administrators with some or no experience in R but who are eager to easily deliver practical data science solutions in their day-to-day work (or future projects) using SQL Server.*

*Queries not running fast enough? Wondering about the in-memory database features in 2014? Tired of phone calls from frustrated users? Grant Fritchey's book SQL Server Query Performance Tuning is the answer to your SQL Server query performance problems. The book is revised to cover the very latest in performance optimization features and techniques, especially including the newly-added, in-memory database features formerly known under the code name Project Hekaton. This book provides the tools you need to approach your queries with performance in mind. SQL Server Query Performance Tuning leads you through understanding the causes of poor performance, how to identify them, and how to fix them. You'll learn to be proactive in establishing performance baselines using tools like Performance Monitor and Extended Events. You'll learn to recognize bottlenecks and defuse them before the phone rings. You'll learn some quick solutions too, but emphasis is on designing for performance and getting it right, and upon heading off trouble before it occurs. Delight your users. Silence that ringing phone. Put the principles and lessons from SQL Server Query Performance Tuning into practice today. Covers the in-memory features from Project Hekaton Helps establish performance baselines and monitor against them Guides in troubleshooting and eliminating of bottlenecks that frustrate users*

*SQL Server Database Programming with Visual Basic.NET*

*43rd International Conference on Current Trends in Theory and Practice of Computer Science, Limerick, Ireland, January 16-20, 2017, Proceedings*

*SQL Server 2017 Developer's Guide*

*IBM Spectrum Protect Plus Practical Guidance for Deployment, Configuration, and Usage*

*SQL Server Query Performance Tuning*

*Perform end-to-end data analysis to gain efficient data insight*

*Troubleshoot query performance issues, identify anti-patterns in code, and write efficient T-SQL queries*

*Key Features Discover T-SQL functionalities and services that help you interact with relational*



*databases Understand the roles, tasks and responsibilities of a T-SQL developer Explore solutions for carrying out database querying tasks, database administration, and troubleshooting*  
**Book Description**  
*Transact-SQL (T-SQL) is Microsoft's proprietary extension to the SQL language that is used with Microsoft SQL Server and Azure SQL Database. This book will be a useful guide to learning the art of writing efficient T-SQL code in modern SQL Server versions, as well as the Azure SQL Database. The book will get you started with query processing fundamentals to help you write powerful, performant T-SQL queries. You will then focus on query execution plans and learn how to leverage them for troubleshooting. In the later chapters, you will learn how to identify various T-SQL patterns and anti-patterns. This will help you analyze execution plans to gain insights into current performance, and determine whether or not a query is scalable. You will also learn to build diagnostic queries using dynamic management views (DMVs) and dynamic management functions (DMFs) to address various challenges in T-SQL execution. Next, you will study how to leverage the built-in tools of SQL Server to shorten the time taken to address query performance and scalability issues. In the concluding chapters, the book will guide you through implementing various features, such as Extended Events, Query Store, and Query Tuning Assistant using hands-on examples. By the end of this book, you will have the skills to determine query performance bottlenecks, avoid pitfalls, and discover the anti-patterns in use. Foreword by Conor Cunningham, Partner Architect - SQL Server and Azure SQL - Microsoft*  
*What you will learn*  
*Use Query Store to understand and easily change query performance*  
*Recognize and eliminate bottlenecks that lead to slow performance*  
*Deploy quick fixes and long-term solutions to improve query performance*  
*Implement best practices to minimize performance risk using T-SQL*  
*Achieve optimal performance by ensuring careful query and index design*  
*Use the latest performance optimization features in SQL Server 2017 and SQL Server 2019*  
*Protect query performance during upgrades to newer versions of SQL Server*  
*Who this book is for*  
*This book is for database administrators, database developers, data analysts, data scientists, and T-SQL practitioners who want to get started with writing T-SQL code and troubleshooting query performance issues, through the help of practical examples. Previous knowledge of T-SQL querying is not required to get started on this book.*

*IBM® Spectrum Protect Plus is a data protection solution that provides near-instant recovery, replication, retention management, and reuse for virtual machines, databases, and applications backups in hybrid multicloud environments. IBM Knowledge Center for IBM Spectrum® Protect Plus provides extensive documentation for installation, deployment, and usage. In addition, build and size an IBM Spectrum Protect Plus solution. The goal of this IBM Redpaper® publication is to summarize and complement the available information by providing useful hints and tips that are based on the authors' practical experience in installing and supporting IBM Spectrum Protect Plus in customer environments. Over time, our aim is to compile a set of best practices that cover all aspects of the product, from*

planning and installation to tuning, maintenance, and troubleshooting.

Leverage the power of SQL Server 2017 Integration Services to build data integration solutions with ease

**Key Features** Work with temporal tables to access information stored in a table at any time Get familiar with the latest features in SQL Server 2017 Integration Services Program and extend your packages to enhance their functionality

**Book Description** Microsoft SQL Server 2017 uses the power of R and Python for machine learning and containerization-based deployment on Windows and Linux. By learning how to use the features of SQL Server 2017 effectively, you can build scalable apps and easily perform data integration and transformation. You'll start by brushing up on the features of SQL Server 2017. This Learning Path will then demonstrate how you can use Query Store, columnstore indexes, and In-Memory OLTP in your apps. You'll also learn to integrate Python code in SQL Server and graph database implementations for development and testing. Next, you'll get up to speed with designing and building SQL Server Integration Services (SSIS) data warehouse packages using SQL server data tools. Toward the concluding chapters, you'll discover how to develop SSIS packages designed to maintain a data warehouse using the data flow and other control flow tasks. By the end of this Learning Path, you'll be equipped with the skills you need to design efficient, high-performance database applications with confidence. This Learning Path includes content from the following Packt books: *SQL Server 2017 Developer's Guide* by Miloš Radivojević, Dejan Sarka, et. al *SQL Server 2017 Integration Services Cookbook* by Christian Cote, Dejan Sarka, et. al

**What you will learn** Use columnstore indexes to make storage and performance improvements Extend database design solutions using temporal tables Exchange JSON data between applications and SQL Server Migrate historical data to Microsoft Azure by using Stretch Database Design the architecture of a modern Extract, Transform, and Load (ETL) solution Implement ETL solutions using Integration Services for both on-premise and Azure data

**Who this book is for** This Learning Path is for database developers and solution architects looking to develop ETL solutions with SSIS, and explore the new features in SSIS 2017. Advanced analysis practitioners, business intelligence developers, and database consultants dealing with performance tuning will also find this book useful. Basic understanding of database concepts and T-SQL is required to get the best out of this Learning Path.

Build smarter and efficient database application systems for your organization with SQL Server 2017

**Key Features** Build database applications by using the development features of SQL Server 2017 Work with temporal tables to get information stored in a table at any time Use adaptive querying to enhance the performance of your queries

**Book Description** Microsoft SQL Server 2017 is the next big step in the data platform history of Microsoft as it brings in the power of R and Python for machine learning and containerization-based deployment on Windows and Linux. Compared to its predecessor, SQL Server 2017 has evolved into Machine Learning with R services for statistical analysis and Python packages for analytical processing. This book prepares you for more advanced topics by starting with a quick

introduction to SQL Server 2017's new features and a recapitulation of the possibilities you may have already explored with previous versions of SQL Server. The next part introduces you to enhancements in the Transact-SQL language and new database engine capabilities and then switches to a completely new technology inside SQL Server: JSON support. We also take a look at the Stretch database, security enhancements, and temporal tables. Furthermore, the book focuses on implementing advanced topics, including Query Store, columnstore indexes, and In-Memory OLTP. Towards the end of the book, you'll be introduced to R and how to use the R language with Transact-SQL for data exploration and analysis. You'll also learn to integrate Python code in SQL Server and graph database implementations along with deployment options on Linux and SQL Server in containers for development and testing. By the end of this book, you will have the required information to design efficient, high-performance database applications without any hassle. What you will learn

Explore the new development features introduced in SQL Server 2017  
Identify opportunities for In-Memory OLTP technology  
Use columnstore indexes to get storage and performance improvements  
Exchange JSON data between applications and SQL Server  
Use the new security features to encrypt or mask the data  
Control the access to the data on the row levels  
Discover the potential of R and Python integration  
Model complex relationships with the graph databases in SQL Server 2017  
Who this book is for  
Database developers and solution architects looking to design efficient database applications using SQL Server 2017 will find this book very useful. In addition, this book will be valuable to advanced analysis practitioners and business intelligence developers. Database consultants dealing with performance tuning will get a lot of useful information from this book as well. Some basic understanding of database concepts and T-SQL is required to get the best out of this book.

Find, explore, and extract big data to transform into actionable insights  
Key Features  
Perform end-to-end data analysis—from exploration to visualization  
Real-world examples, tasks, and interview queries to be a proficient data scientist  
Understand how SQL is used for big data processing using HiveQL and SparkSQL

Book Description  
SQL Server is a relational database management system that enables you to cover end-to-end data science processes using various inbuilt services and features. Hands-On Data Science with SQL Server 2017 starts with an overview of data science with SQL to understand the core tasks in data science. You will learn intermediate-to-advanced level concepts to perform analytical tasks on data using SQL Server. The book has a unique approach, covering best practices, tasks, and challenges to test your abilities at the end of each chapter. You will explore the ins and outs of performing various key tasks such as data collection, cleaning, manipulation, aggregations, and filtering techniques. As you make your way through the chapters, you will turn raw data into actionable insights by wrangling and extracting data from databases using T-SQL. You will get to grips with preparing and presenting data in a meaningful way, using Power BI to reveal hidden patterns. In the concluding chapters, you will work with SQL Server integration services to transform data into a useful format and delve into advanced

*examples covering machine learning concepts such as predictive analytics using real-world examples. By the end of this book, you will be in a position to handle the growing amounts of data and perform everyday activities that a data science professional performs. What you will learn Understand what data science is and how SQL Server is used for big data processing Analyze incoming data with SQL queries and visualizations Create, train, and evaluate predictive models Make predictions using trained models and establish regular retraining courses Incorporate data source querying into SQL Server Enhance built-in T-SQL capabilities using SQLCLR Visualize data with Reporting Services, Power View, and Power BI Transform data with R, Python, and Azure Who this book is for Hands-On Data Science with SQL Server 2017 is intended for data scientists, data analysts, and big data professionals who want to master their skills learning SQL and its applications. This book will be helpful even for beginners who want to build their career as data science professionals using the power of SQL Server 2017. Basic familiarity with SQL language will aid with understanding the concepts covered in this book.*

*Learn T-SQL Querying*

*Microsoft SQL Server 2012 Administration*

*SQL Server 2017 Machine Learning Services with R*

*Practical Automated Machine Learning on Azure*

*Practical MDX Queries: For Microsoft SQL Server Analysis Services 2008*

*Exam Ref 70-761 Querying Data with Transact-SQL*

*Prepare for the Oracle Database 12c SQL Certified Associate exam with this exclusive Oracle practice questions. This authoritative resource helps you pass the exam and also serves as an essential on-the-job reference. Here we've brought 150+ Exam practice questions for you so that you can prepare well for this exam. Unlike other online simulation practice tests, you get an eBook version that is easy to read & remember these questions. You can simply rely on these questions for successfully certifying this exam. This book constitutes revised selected papers from the 10th International Symposium on Foundations and Practice of Security, FPS 2017, held in Nancy, France in October 2017. The 20 papers presented in this volume were carefully reviewed and selected from 53 submissions. The papers were organized in topical sections named: access control; formal verification; privacy; physical security; network security, encrypted DBs and blockchain; vulnerability analysis and deception systems; and defence against attacks and anonymity. Explore the latest Azure ETL techniques both on-premises and in the cloud using Azure*

services such as SQL Server Integration Services (SSIS), Azure Data Factory, and Azure Databricks Key Features Understand the key components of an ETL solution using Azure Integration Services Discover the common and not-so-common challenges faced while creating modern and scalable ETL solutions Program and extend your packages to develop efficient data integration and data transformation solutions Book Description ETL is one of the most common and tedious procedures for moving and processing data from one database to another. With the help of this book, you will be able to speed up the process by designing effective ETL solutions using the Azure services available for handling and transforming any data to suit your requirements. With this cookbook, you'll become well versed in all the features of SQL Server Integration Services (SSIS) to perform data migration and ETL tasks that integrate with Azure. You'll learn how to transform data in Azure and understand how legacy systems perform ETL on-premises using SSIS. Later chapters will get you up to speed with connecting and retrieving data from SQL Server 2019 Big Data Clusters, and even show you how to extend and customize the SSIS toolbox using custom-developed tasks and transforms. This ETL book also contains practical recipes for moving and transforming data with Azure services, such as Data Factory and Azure Databricks, and lets you explore various options for migrating SSIS packages to Azure. Toward the end, you'll find out how to profile data in the cloud and automate service creation with Business Intelligence Markup Language (BIML). By the end of this book, you'll have developed the skills you need to create and automate ETL solutions on-premises as well as in Azure. What you will learn Explore ETL and how it is different from ELT Move and transform various data sources with Azure ETL and ELT services Use SSIS 2019 with Azure HDInsight clusters Discover how to query SQL Server 2019 Big Data Clusters hosted in Azure Migrate SSIS solutions to Azure and solve key challenges associated with it Understand why data profiling is crucial and how to implement it in Azure Databricks Get to grips with BIML and learn how it applies to SSIS and Azure Data Factory solutions Who this book is for This book is for data warehouse architects, ETL developers, or anyone who wants to build scalable ETL applications in Azure. Those looking to extend their existing on-premise ETL applications to use big data and a variety of Azure services or

others interested in migrating existing on-premise solutions to the Azure cloud platform will also find the book useful. Familiarity with SQL Server services is necessary to get the most out of this book.

Prepare for Microsoft Exam 70-761—and help demonstrate your real-world mastery of SQL Server 2016 Transact-SQL data management, queries, and database programming. Designed for experienced IT professionals ready to advance their status, Exam Ref focuses on the critical-thinking and decision-making acumen needed for success at the MCSA level. Focus on the expertise measured by these objectives:

- Filter, sort, join, aggregate, and modify data
- Use subqueries, table expressions, grouping sets, and pivoting
- Query temporal and non-relational data, and output XML or JSON
- Create views, user-defined functions, and stored procedures
- Implement error handling, transactions, data types, and nulls

This Microsoft Exam Ref:

- Organizes its coverage by exam objectives
- Features strategic, what-if scenarios to challenge you
- Assumes you have experience working with SQL Server as a database administrator, system engineer, or developer
- Includes downloadable sample database and code for SQL Server 2016 SP1 (or later) and Azure SQL Database

Querying Data with Transact-SQL About the Exam Exam 70-761 focuses on the skills and knowledge necessary to manage and query data and to program databases with Transact-SQL in SQL Server 2016. About Microsoft Certification Passing this exam earns you credit toward a Microsoft Certified Solutions Associate (MCSA) certification that demonstrates your mastery of essential skills for building and implementing on-premises and cloud-based databases across organizations. Exam 70-762 (Developing SQL Databases) is also required for MCSA: SQL 2016 Database Development certification. See full details at: [microsoft.com/learning](https://microsoft.com/learning)

SQL Server 2017A Practical Guide for Beginners

SQL Server 2017 Administration Inside Out

10th International Symposium, FPS 2017, Nancy, France, October 23-25, 2017, Revised Selected Papers

Microsoft SQL Server 2019: A Beginner's Guide, Seventh Edition

One stop solution for DBAs to monitor, manage, and maintain enterprise databases

**SQL Server Complete Self-Assessment Guide**

**ETL with Azure Cookbook**

*Ace your preparation for Microsoft® Certification Exam 70-461 with this 2-in-1 Training Kit from Microsoft Press®. Work at your own pace through a series of lessons and practical exercises, and then assess your skills with practice tests on CD—featuring multiple, customizable testing options. Maximize your performance on the exam by learning how to: Create database objects Work with data Modify data Troubleshoot and optimize queries You also get an exam discount voucher—making this book an exceptional value and a great career investment.*

*This practical guide provides a focus on the implementation of healthcare simulation operations, as well as the type of professional staff required for developing effective programs in this field. Though there is no single avenue in which a person pursues the career of a healthcare simulation technology specialist (HSTS), this book outlines the extensive knowledge and variety of skills one must cultivate to be effective in this role. This book begins with an introduction to healthcare simulation, including personnel, curriculum, and physical space. Subsequent chapters address eight knowledge/skill domains core to the essential aspects of an HSTS. To conclude, best practices and innovations are provided, and the benefits of developing a collaborative relationship with industry stakeholders are discussed. Expertly written text throughout the book is supplemented with dozens of high-quality color illustrations, photographs, and tables. Written and edited by leaders in the field, Comprehensive Healthcare Simulation: Operations, Technology, and Innovative Practice is optimized for a variety of learners, including healthcare educators, simulation directors, as well as those looking to pursue a career in simulation operations as healthcare simulation technology specialists.*

*Will team members perform SQL Server 2017 work when assigned and in a timely fashion? Are there SQL Server 2017 Models? How do you assess your SQL Server 2017 workforce capability and capacity needs, including skills, competencies, and staffing levels? How do we go about Comparing SQL Server 2017 approaches/solutions? Have you identified your SQL Server 2017 key performance indicators? Defining, designing, creating, and implementing a process to solve a business challenge or meet a business objective is the most valuable role... In EVERY company, organization and department. Unless you are talking a one-time, single-use project within a business, there should be a process. Whether that process is managed and implemented by humans, AI, or a combination of the two, it needs to be designed by*

*someone with a complex enough perspective to ask the right questions. Someone capable of asking the right questions and step back and say, 'What are we really trying to accomplish here? And is there a different way to look at it?' This Self-Assessment empowers people to do just that - whether their title is entrepreneur, manager, consultant, (Vice-)President, CxO etc... - they are the people who rule the future. They are the person who asks the right questions to make SQL Server 2017 investments work better. This SQL Server 2017 All-Inclusive Self-Assessment enables You to be that person. All the tools you need to an in-depth SQL Server 2017 Self-Assessment. Featuring 721 new and updated case-based questions, organized into seven core areas of process design, this Self-Assessment will help you identify areas in which SQL Server 2017 improvements can be made. In using the questions you will be better able to: - diagnose SQL Server 2017 projects, initiatives, organizations, businesses and processes using accepted diagnostic standards and practices - implement evidence-based best practice strategies aligned with overall goals - integrate recent advances in SQL Server 2017 and process design strategies into practice according to best practice guidelines Using a Self-Assessment tool known as the SQL Server 2017 Scorecard, you will develop a clear picture of which SQL Server 2017 areas need attention. Your purchase includes access details to the SQL Server 2017 self-assessment dashboard download which gives you your dynamically prioritized projects-ready tool and shows your organization exactly what to do next. Your exclusive instant access details can be found in your book.*

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



*Indicators (KPIs) Deliver MDX query results to end users*

*This book constitutes the refereed proceedings of the 43rd International Conference on Current Trends in Theory and Practice of Computer Science, SOFSEM 2017, held in Limerick, Ireland, in January 2017. The 34 papers presented in this volume were carefully reviewed and selected from 41 submissions. They were organized in topical sections named: foundations in computer science; semantics, specification and compositionality; theory of mobile and distributed systems; verification and automated system analysis; petri nets, games and relaxed data structures; graph theory and scheduling algorithms; quantum and matrix algorithms; planar and molecular graphs; coloring and vertex covers; algorithms for strings and formal languages; data, information and knowledge engineering; and software engineering: methods, tools, applications.*

*Nursing Informatics for the Advanced Practice Nurse, Third Edition*

*Practical Data Science with SAP*

*Concepts, Designs and Implementations*

*Practical recipes for building modern ETL solutions to load and transform data from any source*

*Practical Guide for Oracle SQL, T-SQL and MySQL*

*Hands-On Data Science with SQL Server 2017*

**Develop smart applications without spending days and weeks building machine-learning models. With this practical book, you'll learn how to apply automated machine learning (AutoML), a process that uses machine learning to help people build machine learning models. Deepak Mukunthu, Parashar Shah, and Wee Hyong Tok provide a mix of technical depth, hands-on examples, and case studies that show how customers are solving real-world problems with this technology. Building machine-learning models is an iterative and time-consuming process. Even those who know how to create ML models may be limited in how much they can explore. Once you complete this book, you'll understand how to apply AutoML to your data right away. Learn how companies in different industries are benefiting from AutoML Get started with AutoML using Azure Explore aspects such as algorithm selection, auto featurization, and hyperparameter tuning Understand how data analysts, BI professions, developers can use AutoML in their familiar tools and experiences Learn how to get started using AutoML for use cases including classification, regression, and forecasting.**

**Harness the power of SQL Server 2017 Integration Services to build your data integration solutions with ease About This Book**

**Acquaint yourself with all the newly introduced features in SQL Server 2017 Integration Services Program and extend your packages to enhance their functionality This detailed, step-by-step guide covers everything you need to develop efficient data integration and data transformation solutions for your organization Who This Book Is For This book is ideal for software engineers, DW/ETL architects, and ETL developers who need to create a new, or enhance an existing, ETL implementation with SQL Server 2017**

**Integration Services.** This book would also be good for individuals who develop ETL solutions that use SSIS and are keen to learn the new features and capabilities in SSIS 2017. **What You Will Learn** Understand the key components of an ETL solution using SQL Server 2016-2017 **Integration Services** Design the architecture of a modern ETL solution Have a good knowledge of the new capabilities and features added to Integration Services **Implement ETL solutions using Integration Services** for both on-premises and Azure data **Improve the performance and scalability of an ETL solution** Enhance the ETL solution using a custom framework **Be able to work on the ETL solution with many other developers and have common design paradigms or techniques** Effectively use scripting to solve complex data issues **In Detail SQL Server Integration Services** is a tool that facilitates data extraction, consolidation, and loading options (ETL), SQL Server coding enhancements, data warehousing, and customizations. With the help of the recipes in this book, you'll gain complete hands-on experience of SSIS 2017 as well as the 2016 new features, design and development improvements including SCD, Tuning, and Customizations. At the start, you'll learn to install and set up SSIS as well other SQL Server resources to make optimal use of this Business Intelligence tools. We'll begin by taking you through the new features in SSIS 2016/2017 and implementing the necessary features to get a modern scalable ETL solution that fits the modern data warehouse. Through the course of chapters, you will learn how to design and build SSIS data warehouses packages using SQL Server Data Tools. Additionally, you'll learn to develop SSIS packages designed to maintain a data warehouse using the Data Flow and other control flow tasks. You'll also be demonstrated many recipes on cleansing data and how to get the end result after applying different transformations. Some real-world scenarios that you might face are also covered and how to handle various issues that you might face when designing your packages. At the end of this book, you'll get to know all the key concepts to perform data integration and transformation. You'll have explored on-premises Big Data integration processes to create a classic data warehouse, and will know how to extend the toolbox with custom tasks and transforms. **Style and approach** This cookbook follows a problem-solution approach and tackles all kinds of data integration scenarios by using the capabilities of SQL Server 2016 Integration Services. This book is well supplemented with screenshots, tips, and tricks. Each recipe focuses on a particular task and is written in a very easy-to-follow manner.

**Implement and administer successful database solution with SQL Server 2017** **About This Book** Master the required skills to successfully set up, administer, and maintain your SQL Server 2017 database solution **Design and configure, manage, and secure a rock-solid SQL server** Comprehensive guide in keeping your SQL server disaster proof and all-time availability **Who This Book Is For** This book targets database administrators with an interest in SQL Server 2017 administration. Readers are expected to have some experience with previous SQL Server versions. **What You Will Learn** Learn about the new features of SQL Server 2017 and how to implement them **Build a stable and fast SQL Server environment** Fix performance issues by optimizing queries and making use of indexes **Perform a health check of an existing troublesome database environment** Design and use an optimal database management strategy **Implement efficient backup and recovery techniques in-line with security policies** Combine SQL Server 2017 and Azure and manage your solution by various automation techniques **Perform data migration, cluster upgradation and server consolidation** **In Detail** Take advantage of the real power of SQL Server 2017 with all its new features, in addition to covering core database

administration tasks. This book will give you a competitive advantage by helping you quickly learn how to design, manage, and secure your database solution. You will learn how to set up your SQL Server and configure new (and existing) environments for optimal use. After covering the designing aspect, the book delves into performance-tuning aspects by teaching you how to effectively use indexes. The book will also teach you about certain choices that need to be made about backups and how to implement a rock-solid security policy and keep your environment healthy. Finally, you will learn about the techniques you should use when things go wrong, and other important topics - such as migration, upgrading, and consolidation - are covered in detail. Integration with Azure is also covered in depth. Whether you are an administrator or thinking about entering the field, this book will provide you with all the skills you need to successfully create, design, and deploy databases using SQL Server 2017. Style and approach A comprehensive guide for database professionals, covering a wide range of topics from installation, maintenance, and configuration to managing systems for operational efficiency and high availability; best practices for maintaining a highly reliable database solution are also supplied from industry experts.

Conquer SQL Server 2019 administration—from the inside out Dive into SQL Server 2019 administration—and really put your SQL Server DBA expertise to work. This supremely organized reference packs hundreds of timesaving solutions, tips, and workarounds—all you need to plan, implement, manage, and secure SQL Server 2019 in any production environment: on-premises, cloud, or hybrid. Six experts thoroughly tour DBA capabilities available in SQL Server 2019 Database Engine, SQL Server Data Tools, SQL Server Management Studio, PowerShell, and Azure Portal. You'll find extensive new coverage of Azure SQL, big data clusters, PolyBase, data protection, automation, and more. Discover how experts tackle today's essential tasks—and challenge yourself to new levels of mastery. Explore SQL Server 2019's toolset, including the improved SQL Server Management Studio, Azure Data Studio, and Configuration Manager Design, implement, manage, and govern on-premises, hybrid, or Azure database infrastructures Install and configure SQL Server on Windows and Linux Master modern maintenance and monitoring with extended events, Resource Governor, and the SQL Assessment API Automate tasks with maintenance plans, PowerShell, Policy-Based Management, and more Plan and manage data recovery, including hybrid backup/restore, Azure SQL Database recovery, and geo-replication Use availability groups for high availability and disaster recovery Protect data with Transparent Data Encryption, Always Encrypted, new Certificate Management capabilities, and other advances Optimize databases with SQL Server 2019's advanced performance and indexing features Provision and operate Azure SQL Database and its managed instances Move SQL Server workloads to Azure: planning, testing, migration, and post-migration

Get SQL Server up and running on the Linux operating system and containers. No database professional managing or developing SQL Server on Linux will want to be without this deep and authoritative guide by one of the most respected experts on SQL Server in the industry. Get an inside look at how SQL Server for Linux works through the eyes of an engineer on the team that made it possible. Microsoft SQL Server is one of the leading database platforms in the industry, and SQL Server 2017 offers developers and administrators the ability to run a database management system on Linux, offering proven support for enterprise-level features and

without onerous licensing terms. Organizations invested in Microsoft and open source technologies are now able to run a unified database platform across all their operating system investments. Organizations are further able to take full advantage of containerization through popular platforms such as Docker and Kubernetes. Pro SQL Server on Linux walks you through installing and configuring SQL Server on the Linux platform. The author is one of the principal architects of SQL Server for Linux, and brings a corresponding depth of knowledge that no database professional or developer on Linux will want to be without. Throughout this book are internals of how SQL Server on Linux works including an in depth look at the innovative architecture. The book covers day-to-day management and troubleshooting, including diagnostics and monitoring, the use of containers to manage deployments, and the use of self-tuning and the in-memory capabilities. Also covered are performance capabilities, high availability, and disaster recovery along with security and encryption. The book covers the product-specific knowledge to bring SQL Server and its powerful features to life on the Linux platform, including coverage of containerization through Docker and Kubernetes. What You'll Learn Learn about the history and internal of the unique SQL Server on Linux architecture. Install and configure Microsoft's flagship database product on the Linux platform Manage your deployments using container technology through Docker and Kubernetes Know the basics of building databases, the T-SQL language, and developing applications against SQL Server on Linux Use tools and features to diagnose, manage, and monitor SQL Server on Linux Scale your application by learning the performance capabilities of SQL Server Deliver high availability and disaster recovery to ensure business continuity Secure your database from attack, and protect sensitive data through encryption Take advantage of powerful features such as Failover Clusters, Availability Groups, In-Memory Support, and SQL Server's Self-Tuning Engine Learn how to migrate your database from older releases of SQL Server and other database platforms such as Oracle and PostgreSQL Build and maintain schemas, and perform management tasks from both GUI and command line Who This Book Is For Developers and IT professionals who are new to SQL Server and wish to configure it on the Linux operating system. This book is also useful to those familiar with SQL Server on Windows who want to learn the unique aspects of managing SQL Server on the Linux platform and Docker containers. Readers should have a grasp of relational database concepts and be comfortable with the SQL language.

**SQL Server 2017 Complete Self-Assessment Guide**

**Machine Learning Techniques for Enterprise Data**

**SQL Server Query Performance Tuning Distilled**

**A guide to developing efficient and elegant T-SQL code**

**Oracle Database 12c SQL Certified Associate 1Z0-071 Exam Practice Questions & Dumps**

**Using Azure Machine Learning to Quickly Build AI Solutions**

*Start developing Azure Functions and building simple solutions for serverless computing without worrying about infrastructure. With the increased need for deploying serverless computing, Azure Functions integrates with other Azure resources. This book is a quick reference and consists of a practical and problem-driven approach with the latest technology. Guided by step-by-step explanations and sample projects, you'll set up, build, and*

*deploy Azure Functions to get the most out of this compute-on-demand service. After a foundational introduction to Azure Functions you'll prepare a development environment to serve and process an IoT Telemetry system, create Microservices, and monitor Azure Functions services to get application insights. What You'll Learn Review the Interaction between Azure Functions and Azure data services Apply Azure Functions in web applications and build interaction systems for mobile applications Develop a serverless micro-service Serve and process IoT Telemetry systems Monitor Azure Functions services and get application insights Who This Book Is For Developers, students, professionals and anyone interested in Azure Function technology and the Azure platform.*

*Winner of two first place AJN Book of the Year Awards! This award-winning resource uniquely integrates national goals with nursing practice to achieve safe, efficient quality of care through technology management. The heavily revised third edition emphasizes the importance of federal policy in digitally transforming the U.S. healthcare delivery system, addressing its evolution and current policy initiatives to engage consumers and promote interoperability of the IT infrastructure nationwide. It focuses on ways to optimize the massive U.S. investment in HIT infrastructure and examines usability, innovative methods of workflow redesign, and challenges with electronic clinical quality measures (eCQMs). Additionally, the text stresses documentation challenges that relate to usability issues with EHRs and sub-par adoption and implementation. The third edition also explores data science, secondary data analysis, and advanced analytic methods in greater depth, along with new information on robotics, artificial intelligence, and ethical considerations. Contributors include a broad array of notable health professionals, which reinforces the book's focus on interprofessionalism. Woven throughout are the themes of point-of-care applications, data management, and analytics, with an emphasis on the interprofessional team. Additionally, the text fosters an understanding of compensation regulations and factors. New to the Third Edition: Examines current policy initiatives to engage consumers and promote nationwide interoperability of the IT infrastructure Emphasizes usability, workflow redesign, and challenges with electronic clinical quality measures Covers emerging challenge proposed by CMS to incorporate social determinants of health Focuses on data science, secondary data analysis, citizen science, and advanced analytic methods Revised chapter on robotics with up-to-date content relating to the impact on nursing practice New information on artificial intelligence and ethical considerations New case studies and exercises to reinforce learning and specifics for managing public health during and after a pandemic COVID-19 pandemic-related lessons learned from data availability, data quality, and data use when trying to predict its impact on the health of communities Analytics that focus on health inequity and how to address it Expanded and more advanced coverage of interprofessional practice and education (IPE) Enhanced instructor package Key Features: Presents national standards and healthcare initiatives as a guiding structure throughout Advanced analytics is reflected in several chapters such as cybersecurity, genomics, robotics, and specifically exemplify how artificial intelligence (AI) and machine learning (ML) support related professional practice Addresses the new re-envisioned AACN essentials Includes chapter objectives, case studies, end-of-chapter exercises, and questions to reinforce understanding Aligned with QSEN graduate-level competencies and the expanded TIGER (Technology Informatics Guiding Education Reform) competencies.*

*As computer and internet technologies continue to advance at a fast pace, the rate of cybercrimes is increasing. Crimes employing mobile devices, data embedding/mining systems, computers, network communications, or any malware impose a huge threat to data security, while cyberbullying, cyberstalking, child pornography, and trafficking crimes are made easier through the anonymity of the internet. New developments in digital forensics tools and an understanding of current criminal activities can greatly assist in minimizing attacks on individuals, organizations, and society as a whole. Digital Forensics and Forensic Investigations: Breakthroughs in Research and Practice addresses current challenges and issues emerging in cyber forensics and new investigative tools and methods that can be adopted and implemented to address these issues and counter security breaches within various organizations. It also examines a variety of topics such as advanced techniques for forensic developments in computer and communication-link*

*environments and legal perspectives including procedures for cyber investigations, standards, and policies. Highlighting a range of topics such as cybercrime, threat detection, and forensic science, this publication is an ideal reference source for security analysts, law enforcement, lawmakers, government officials, IT professionals, researchers, practitioners, academicians, and students currently investigating the up-and-coming aspects surrounding network security, computer science, and security engineering.*

*Identify and fix causes of poor performance. You will learn Query Store, adaptive execution plans, and automated tuning on the Microsoft Azure SQL Database platform. Anyone responsible for writing or creating T-SQL queries will find valuable the insight into bottlenecks, including how to recognize them and eliminate them. This book covers the latest in performance optimization features and techniques and is current with SQL Server 2017. If your queries are not running fast enough and you're tired of phone calls from frustrated users, then this book is the answer to your performance problems. SQL Server 2017 Query Performance Tuning is about more than quick tips and fixes. You'll learn to be proactive in establishing performance baselines using tools such as Performance Monitor and Extended Events. You'll recognize bottlenecks and defuse them before the phone rings. You'll learn some quick solutions too, but emphasis is on designing for performance and getting it right. The goal is to head off trouble before it occurs. What You'll Learn Use Query Store to understand and easily change query performance Recognize and eliminate bottlenecks leading to slow performance Deploy quick fixes when needed, following up with long-term solutions Implement best practices in T-SQL to minimize performance risk Design in the performance that you need through careful query and index design Utilize the latest performance optimization features in SQL Server 2017 Protect query performance during upgrades to the newer versions of SQL Server Who This Book Is For Developers and database administrators with responsibility for application performance in SQL Server environments. Anyone responsible for writing or creating T-SQL queries will find valuable the insight into bottlenecks, including how to recognize them and eliminate them.*

*Here is a practical guide for analyzing and troubleshooting SQL Server performance using wait statistics. Learn to identify precisely why your queries are running slowly. Measure the amount of time consumed by each bottleneck so that you can focus attention on making the largest improvements first. This edition is updated to cover analysis of wait statistics inside Query Store, the CXCONSUMER wait event, and to be current with SQL Server 2019. Whether you are new to wait statistics, or already familiar with them, this book provides a deeper understanding on how wait statistics are generated and what they can mean for your SQL Server instance's performance. Pro SQL Server 2019 Wait Statistics goes beyond the most common wait types into the more complex and performance-threatening wait types. You'll learn about per-query wait statistics and session-based wait statistics, and the types of problems they each can help you solve. The different wait types are categorized by their area of impact, including CPU, IO, Lock, and many more. The book presents clear examples to help you gain practical knowledge of why and how specific wait times increase or decrease, and how they impact your SQL Server's performance. After reading this book you won't want to be without the valuable information that wait statistics provide regarding where you should be spending your limited tuning time to maximize performance and value to your business. What You'll Learn Identify resource bottlenecks in a running SQL Server instance Locate wait statistics information inside DMVs and Query Store Analyze the root cause of sub-optimal performance Diagnose I/O contention and locking contention Benchmark SQL Server performance Lower the wait time of the most popular wait types Who This Book Is For Database administrators who want to identify and resolve performance bottlenecks, those who want to learn more about how the SQL Server engine accesses and uses resources inside SQL Server, and administrators concerned with achieving—and knowing they have achieved—optimal performance*

*Mastering SQL Server 2017*

*Pro SQL Server on Linux*

*SQL Server 2017 Integration Services Cookbook*

*A Practical Guide for Beginners*

*Breakthroughs in Research and Practice*

*Patient Safety, Quality, Outcomes, and Interprofessionalism*

*Learn how to fuse today's data science tools and techniques with your SAP enterprise resource planning (ERP) system. With this practical guide, SAP veterans Greg Foss and Paul Modderman demonstrate how to use several data analysis tools to solve interesting problems with your SAP data. Data engineers and scientists will explore ways to add SAP data to their analysis processes, while SAP business analysts will learn practical methods for answering questions about the business. By focusing on grounded explanations of both SAP processes and data science tools, this book gives data scientists and business analysts powerful methods for discovering deep data truths. You'll explore: Examples of how data analysis can help you solve several SAP challenges Natural language processing for unlocking the secrets in text Data science techniques for data clustering and segmentation Methods for detecting anomalies in your SAP data Data visualization techniques for making your data come to life*

*SQL Server 2017*

*A Practical Guide to Analyzing Performance in SQL Server*

*Build smart and efficient database applications for your organization with SQL Server 2017*

*Pro SQL Server 2019 Wait Statistics*

*Training Kit (Exam 70-461): Querying Microsoft SQL Server 2012*