



MICROSOFT TRAINING

Intermediate Sql Microsoft Sql Server Course

Elevate your SQL skills with Microsoft SQL Server. Master advanced queries, database design, and optimization techniques.

DURATION

2 hours

LEVEL

Intermediate

FORMAT

Instructor-Led

- Globally Recognized Certification

- Expert-Led Hands-On Training

- Flexible Scheduling

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COURSE OVERVIEW

The Intermediate Microsoft SQL Server Course is meticulously designed for IT professionals, data analysts, and developers seeking to deepen their proficiency in Transact-SQL (T-SQL) and master advanced data manipulation techniques within the Microsoft SQL Server environment. This 2-hour intensive program goes beyond basic querying, delving into complex joins, subqueries, Common Table Expressions (CTEs), window functions, and advanced data modification statements like MERGE. Participants will gain practical skills in optimizing query performance, managing transactions, and implementing robust data integrity controls. This course will significantly elevate your ability to interact with and manage data effectively, making you a more valuable asset in any data-driven organization. By completing this intermediate-level course, you will be equipped to write more efficient, scalable, and complex SQL queries, enabling you to extract deeper insights from large datasets. You'll learn to create and manage database objects such as views, stored procedures, and user-defined functions, which are crucial for developing robust database applications and automating routine tasks. The focus on practical application and best practices ensures that you can immediately apply your new skills to real-world scenarios, improving database performance, enhancing data reliability, and streamlining data-related workflows within your professional role. This is an essential step for anyone aiming for advanced data roles or database administration.

Duration	2 hours
Level	Intermediate
Vendor	Microsoft

COURSE CURRICULUM

- 01 **Module 1: Advanced Querying Techniques**
 - Complex JOIN operations (Self-JOINS, CROSS APPLY, OUTER APPLY)
 - Subqueries and correlated subqueries
 - Common Table Expressions (CTEs) for complex logic
 - Window Functions (ROW_NUMBER, RANK, LEAD, LAG, NTILE)
 - Pivoting and Unpivoting data
- 02 **Module 2: Data Manipulation and Transaction Management**
 - Advanced INSERT, UPDATE, DELETE statements
 - The MERGE statement for conditional data modification
 - Understanding and implementing ACID properties
 - Transaction control (BEGIN TRAN, COMMIT, ROLLBACK)
 - Error handling with TRY...CATCH blocks
- 03 **Module 3: Programmability with T-SQL**
 - Creating and executing Stored Procedures with parameters
 - Designing User-Defined Functions (Scalar and Table-Valued)
 - Implementing Triggers for automated actions
 - Dynamic SQL fundamentals and security considerations
- 04 **Module 4: Views and Data Integrity**
 - Creating and managing standard and indexed Views
 - Understanding schema binding and View performance
 - Implementing primary and foreign key constraints
 - CHECK and UNIQUE constraints

- Default values and NOT NULL constraints

05 Module 5: Performance Tuning Fundamentals

- Introduction to SQL Server execution plans
- Understanding indexes (Clustered, Non-Clustered)
- Basic index creation and maintenance
- Tips for writing optimized T-SQL queries
- Identifying and resolving common query performance issues

CAREER PATHWAYS

Graduates of this program are prepared for the following roles:

- > **SQL Database Developer**
- > **Data Analyst specializing in SQL Server**
- > **Junior Database Administrator (DBA)**

FREQUENTLY ASKED QUESTIONS

Q: What are the prerequisite skills or knowledge required before enrolling in this Intermediate Microsoft SQL Server course?

Participants should have a foundational understanding of SQL concepts, including basic SELECT statements, filtering data with WHERE and HAVING clauses, simple JOINS (INNER JOIN), and fundamental data definition language (DDL) commands like CREATE TABLE. Familiarity with the SQL Server Management Studio (SSMS) interface is also beneficial, as this course builds upon these core competencies.

Q: How will mastering intermediate SQL in Microsoft SQL Server directly impact my career as a Data Analyst or Developer?

This course will significantly enhance your ability to extract, transform, and analyze complex datasets, which is crucial for data analysts. For developers, it will enable you to build more efficient and robust database-driven applications, write sophisticated stored procedures and functions, and optimize database interactions, directly contributing to more scalable and performant solutions in a Microsoft SQL Server ecosystem.

Q: Does this course focus solely on T-SQL querying, or does it cover any aspects of database design and architectural principles within SQL Server?

While the primary focus of this course is on mastering intermediate T-SQL querying, data manipulation, and programmability within SQL Server, it also touches upon fundamental database design principles through the context of data integrity constraints, view creation, and the impact of indexes on performance. It aims to equip you with the T-SQL skills to implement robust and efficient designs, rather than delving into comprehensive architectural planning.

ABOUT COMPUTER PRIDE

**computerpride*****East Africa's Premier IT Training Center***

With over 15 years of excellence, Computer Pride delivers globally recognized certification programs from leading technology vendors. Located on Kenyatta Avenue in Nairobi's CBD, our state-of-the-art facilities and expert instructors have empowered thousands of professionals across East Africa.

15+

Years of Excellence

10,000+

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READY TO ENROL?

Take the next step in your technology career.

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