



MICROSOFT TRAINING

Microsoft Sql 2014 Development Training Certification Courses

Master Microsoft SQL Server 2014 development. Build, optimize, and manage robust database solutions for enterprise applications.

DURATION

2 hours

LEVEL

Intermediate

FORMAT

Instructor-Led

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- Globally Recognized Certification
 - Expert-Led Hands-On Training
 - Flexible Scheduling

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COURSE OVERVIEW

This Microsoft SQL Server 2014 Development Training Certification course provides a comprehensive deep dive into the core technologies and techniques required to develop robust and efficient database solutions using SQL Server 2014. Participants will master Transact-SQL (T-SQL) for querying, manipulating, and managing data, along with advanced programming constructs like stored procedures, functions, triggers, and views. The course emphasizes practical, hands-on application, enabling learners to design and implement database objects effectively, enforce data integrity, and optimize query performance to support various application requirements.

Upon completion, you will possess the foundational skills necessary to build and maintain high-performance relational databases. This certification is invaluable for aspiring database developers, data analysts, and IT professionals looking to solidify their expertise in the Microsoft SQL Server ecosystem. By focusing on SQL Server 2014, participants gain a thorough understanding of a widely deployed database platform, preparing them for roles where data integrity, efficient data access, and secure database programmability are paramount, ultimately boosting career prospects in data-driven environments.

Duration	2 hours
Level	Intermediate
Vendor	Microsoft

COURSE CURRICULUM

01 Module 1: SQL Server 2014 Fundamentals & T-SQL Basics

- Introduction to SQL Server 2014 Architecture
- Understanding Relational Database Concepts
- Basic T-SQL Queries: SELECT, FROM, WHERE, ORDER BY
- Data Manipulation Language (DML): INSERT, UPDATE, DELETE
- Introduction to Data Definition Language (DDL): CREATE TABLE, ALTER TABLE, DROP TABLE
- Working with Data Types and NULL Values

02 Module 2: Advanced T-SQL Programming & Database Objects

- Implementing Stored Procedures for Reusability
- Creating User-Defined Functions (UDFs) – Scalar and Table-Valued
- Designing and Implementing Views for Data Abstraction
- Working with Triggers for Automated Actions
- Controlling Program Flow with IF, WHILE, and CASE Statements
- Error Handling with TRY-CATCH Blocks

03 Module 3: Database Design Principles & Data Integrity

- Understanding Normalization Forms (1NF, 2NF, 3NF)
- Implementing Primary Keys and Foreign Keys
- Using UNIQUE, CHECK, and DEFAULT Constraints
- Creating and Managing Indexes (Clustered and Non-Clustered)
- Understanding Transaction Management (COMMIT, ROLLBACK, SAVEPOINT)
- Designing Effective Database Schemas

04 Module 4: Query Optimization & Performance Tuning for Developers

- Analyzing Query Execution Plans

- Identifying Performance Bottlenecks
- Optimizing T-SQL Statements and Joins
- Using Common Table Expressions (CTEs) and Derived Tables
- Understanding Indexing Strategies for Performance
- Introduction to SQL Server Profiler and Database Engine Tuning Advisor

05 Module 5: Data Integration and Advanced Features for Developers

- Introduction to SQL Server Integration Services (SSIS) for Data Import/Export
- Using XML and JSON Data in SQL Server 2014 (Basic)
- Implementing Full-Text Search
- Introduction to SQL Server Reporting Services (SSRS) for Report Consumption
- Securing Database Objects and Permissions
- Best Practices for SQL Server Development

CAREER PATHWAYS

Graduates of this program are prepared for the following roles:

- > **SQL Server Database Developer (Specializing in T-SQL Programming and Object Creation)**
- > **Junior Data Engineer (Focus on ETL Scripting and Data Transformation using SQL Server 2014)**
- > **Application Developer with Database Focus (Integrating Applications with SQL Server 2014 Backends)**

FREQUENTLY ASKED QUESTIONS

Q: What specific T-SQL programming skills will I master that are directly applicable to building business applications using SQL Server 2014?

This course focuses heavily on practical T-SQL development. You will master creating complex queries, developing stored procedures for business logic encapsulation, crafting user-defined functions for modularity, implementing triggers for data integrity, and designing views for data abstraction. These skills are essential for building robust back-end database components that support enterprise applications, ensuring data accuracy and efficient processing within a SQL Server 2014 environment.

Q: What are the recommended prerequisites for enrolling in this Microsoft SQL 2014 Development course?

While this course is designed to be comprehensive, a basic understanding of relational database concepts and fundamental computer literacy is highly recommended. Prior experience with any programming language or a foundational understanding of SQL syntax (e.g., simple SELECT statements) would be beneficial but is not strictly required, as Module 1 covers foundational T-SQL basics. The course builds progressively from intermediate concepts.

Q: How does this certification prepare me for roles that involve data extraction, transformation, and loading (ETL) or business intelligence (BI) development with SQL Server 2014?

This course provides a strong foundation for ETL and BI roles by equipping you with advanced T-SQL skills crucial for data manipulation, transformation, and cleansing. You'll learn to write efficient queries and stored procedures that are the backbone of many ETL processes. Additionally, Module 5 introduces you to SQL Server Integration Services (SSIS) fundamentals for data import/export and SQL Server Reporting Services (SSRS) for report consumption, giving you a practical starting point for specialized ETL and BI development roles.

ABOUT COMPUTER PRIDE



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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Vendor Certifications

READY TO ENROL?

Take the next step in your technology career.

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