



MICROSOFT TRAINING

Microsoft Secure Database Db Developer Course

Secure Microsoft databases and optimize performance. Master DBA and development skills to build robust, protected data solutions.

DURATION

2 hours

LEVEL

Intermediate

FORMAT

Instructor-Led

- Globally Recognized Certification

- Expert-Led Hands-On Training

- Flexible Scheduling

Computer Pride | 1st Floor, ICEA Building, Kenyatta Avenue, Nairobi | www.computer-pride.co.ke

COURSE OVERVIEW

The Microsoft Secure Database DBA Developer Course is meticulously designed to equip IT professionals with the essential skills to develop, deploy, and manage highly secure database solutions within the Microsoft ecosystem. This intermediate-level course dives deep into the intricacies of securing data at rest, in transit, and in use, leveraging advanced features of Microsoft SQL Server and Azure SQL Database. You will master critical aspects such as implementing robust authentication and authorization mechanisms, encrypting sensitive data, auditing database activities, and ensuring compliance with industry regulations, all while maintaining optimal database performance and availability.

Participants will gain practical expertise in identifying and mitigating common database vulnerabilities, configuring advanced security features like Always Encrypted, Transparent Data Encryption (TDE), and Row-Level Security (RLS), and implementing secure development practices. This course goes beyond basic administration, integrating developer-centric security considerations to ensure that applications interact with databases securely from the ground up. By completing this program, you will not only enhance your technical proficiency but also significantly boost your value to organizations grappling with increasingly complex data security challenges, positioning you as a crucial asset in safeguarding critical business information.

Duration	2 hours
Level	Intermediate
Vendor	Microsoft

COURSE CURRICULUM

01 Module 1: Foundations of Database Security in Microsoft SQL Server

- Understanding Data Security Principles and Threats
- Introduction to SQL Server Security Architecture
- Authentication Methods: Windows vs. SQL Server Authentication
- Authorization Concepts: Logins, Users, Roles, and Permissions
- Securing Endpoints and Network Connectivity

02 Module 2: Advanced Data Protection and Encryption Techniques

- Implementing Transparent Data Encryption (TDE)
- Understanding Always Encrypted: Configuration and Application
- Dynamic Data Masking for Sensitive Data Protection
- Row-Level Security (RLS) for Granular Access Control
- Column-Level Encryption Strategies

03 Module 3: Auditing, Monitoring, and Compliance

- Configuring SQL Server Audit for Security Monitoring
- Understanding and Implementing Change Data Capture (CDC)
- Leveraging Extended Events for Security Monitoring
- Compliance Standards and Regulations (e.g., GDPR, HIPAA) in Database Security
- Incident Response and Recovery Planning for Security Breaches

04 Module 4: Secure Database Development Practices

- Secure Coding Principles for Database Interactions
- Preventing SQL Injection Attacks and Other Common Vulnerabilities
- Implementing Parameterized Queries and Stored Procedures for Security

- Managing Application Permissions and Service Accounts Securely
- Database Link Security and Cross-Database Access

05 Module 5: Azure SQL Database Security

- Security Best Practices for Azure SQL Database
- Implementing Azure Active Directory Authentication
- Configuring Azure SQL Firewall Rules and Virtual Network Service Endpoints
- Advanced Threat Protection and Vulnerability Assessment in Azure SQL
- Auditing and Monitoring Azure SQL Database Security

CAREER PATHWAYS

Graduates of this program are prepared for the following roles:

- > **Secure SQL Database Administrator**
- > **Database Security Specialist**
- > **Application Developer with Advanced Database Security Expertise**

FREQUENTLY ASKED QUESTIONS

Q: What specific advanced security features of SQL Server will I be able to implement after completing this course?

Upon completion of this course, you will be proficient in implementing a range of advanced security features, including Transparent Data Encryption (TDE) for data at rest, Always Encrypted for client-side data encryption with key management, Dynamic Data Masking to obscure sensitive data, and Row-Level Security (RLS) for fine-grained access control based on user attributes. You'll also gain expertise in configuring robust auditing and vulnerability assessments.

Q: How does this course address secure development practices for applications interacting with Microsoft databases?

This course dedicates a full module to secure database development practices. You will learn critical techniques such as preventing SQL injection through parameterized queries and stored procedures, securely managing application service accounts, and designing robust authorization models. The curriculum emphasizes integrating security considerations from the ground up, ensuring that applications interact with SQL Server and Azure SQL Database in the most secure manner possible to protect against common development-related vulnerabilities.

Q: What are the prerequisites for the Microsoft Secure Database DBA Developer Course, given its intermediate level?

While this is an intermediate-level course, it assumes a foundational understanding of SQL Server administration and T-SQL querying. Familiarity with basic database concepts, experience in managing SQL Server instances, and a general understanding of networking and operating system fundamentals (Windows Server) will be highly beneficial. This course builds upon existing knowledge to specialize in security, so prior exposure to database management is key.

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+

Professionals Trained

50+

Vendor Certifications

READY TO ENROL?

Take the next step in your technology career.

Location

1st Flr, ICEA Building
Kenyatta Ave, Nairobi

Email

info@computer-pride.co.ke

Phone

+254 705 900 900

www.computer-pride.co.ke