Microsoft Azure Database Administrator DP-300 Exam Preparation Training

21 – 25 February 2027
Chicago

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Ref: 1574_216044 **Date:** 21 – 25 February 2027 **Location:** Chicago **Fees:** 12000 Euro

Overview

Microsoft Azure Database Administrator DP-300 Exam Preparation Training is a one-week course for database administrators, systems engineers, and data operations specialists who leave with an Azure SQL Administration Runbook. The course addresses operational reliability, performance degradation, and governance across cloud database instances using practical operational methods. Participants evaluate resource provisioning, configure secure access controls, monitor performance bottlenecks, and structure high-availability topologies. Agile Leaders Training Center provides Microsoft Azure Database Administrator DP-300 Exam Preparation Training to build reliable cloud data infrastructure.

Who Should Attend

- Teams responsible for deploying and maintaining relational cloud database platforms
- Engineers responsible for securing database environments and configuring access identities
- Specialists responsible for diagnosing workload bottlenecks and optimizing query performance
- Administrators responsible for automating database maintenance and disaster recovery procedures
- Infrastructure professionals responsible for business continuity and failover architectures

The course assumes participants possess working knowledge of Transact-SQL and relational database management concepts, and it leaves baseline on-premises server administration outside its scope.

Departments and Industries

The course supports departments and industries that manage critical transactional workloads and high-throughput data platforms.

- Retail banking, financial technology, and payment processing systems
- Healthcare patient registries and clinical informatics units
- Supply chain logistics and inventory management platforms
- Telecommunications billing and network provisioning teams
- Enterprise resource planning and operations technology departments

Learning Objectives

By the end of this course, participants will be able to:

- Plan and implement data platform resources across virtual machines and managed instances
- Implement a secure environment using customer-managed encryption and role-based access
- Monitor, configure, and optimize database resources with dynamic management views
- Configure and manage automation of tasks through maintenance policies and scheduled alerts
- Plan and configure a high availability and disaster recovery environment with auto-failover groups
- Diagnose query execution plans and index fragmentation to resolve latency issues

Course Agenda

Day 1: Platform Architecture and Resource Planning

- Deployment Options: SQL Server on Azure Virtual Machines and Azure SQL Managed Instance
- PaaS Sizing Models: Hyperscale Architecture and Elastic Pools
- Baseline Resource Configuration via Azure CLI and PowerShell
- Network Isolation Using Private Endpoints and Virtual Network Rules
- Storage Redundancy and Data Platform Resource Quotas

Day 2: Data Security, Identity, and Access Governance

- Microsoft Entra ID Authentication and Role-Based Access Control
- Transparent Data Encryption with Customer-Managed Keys in Azure Key Vault
- Confidential Computing through Always Encrypted and Column-Level Protection
- Data Masking Rules and Row-Level Security Configuration
- Defender for SQL Alert Integration and Audit Logging to Local SIEM

Day 3: Workload Optimization and Performance Monitoring

- Dynamic Management Views for CPU and Memory Bottleneck Analysis
- Query Store Configuration and Plan Regression Mitigation
- Index Fragmentation Analysis and Maintenance Strategy Execution
- Azure Monitor Metrics and Log Analytics Workspaces Integration
- Intelligent Insights and Automated Performance Tuning Directives

Day 4: Business Continuity, High Availability, and Automation

- Active Geo-Replication Topology Design and Failover Groups
- Point-in-Time Restore Operations and Long-Term Backup Retention
- Automated Database Maintenance Tasks via Elastic Database Jobs
- Health Checks and Alerting Automation Using PowerShell Scripts
- Disaster Recovery Testing Drills and Failover Policy Validation

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Day 5: Operational Review and Database Administration Practice

- Suggested Exercise: Deploy Secure Managed Instances with Private Endpoints
- Suggested Exercise: Troubleshoot Workload Regressions with Query Store
- Suggested Exercise: Execute Cross-Region Failover Drills with Failover Groups
- Suggested Exercise: Implement Security Policies with Role-Based Access Control
- Capstone Exercise: Azure SQL Administration Runbook

Practical Exercises

The course applies guided technical exercises to reinforce cloud database administration skills.

- Suggested activity: deploy an Azure SQL Managed Instance and secure network connectivity with private endpoints.
- Suggested activity: identify blocking queries and resolve index fragmentation using dynamic management views.
- Suggested activity: configure auto-failover groups and simulate disaster recovery failover procedures across regions.
- Suggested activity: build an Azure SQL Administration Runbook documenting provisioning templates, security controls, and recovery workflows.

FAQs

Who should attend Microsoft Azure Database Administrator DP-300 Exam Preparation Training?

Database administrators, systems engineers, and operations specialists managing cloud relational workloads benefit from this course. Participants should know Transact-SQL fundamentals and general relational concepts.

How does this course differ from general cloud infrastructure training?

General cloud administration covers compute, basic networking, and virtual machine management. This course concentrates specifically on relational database engines, query tuning, secure data access, and database disaster recovery.

What deployment models does the course cover for cloud databases?

The course addresses SQL Server on Azure Virtual Machines, Azure SQL Managed Instance, and Azure SQL Database, comparing single databases, elastic pools, and hyperscale architectures.

How are database security controls implemented during the course?

Security controls incorporate Microsoft Entra ID authentication, transparent data encryption with customer-managed keys, always encrypted, dynamic data masking, row-level security, and audit logging.

Conclusion

Participants return to their organizations with an Azure SQL Administration Runbook linking platform architecture, security controls, performance monitoring, and failover automation. This work product establishes consistent operational practices for deploying, optimizing, and safeguarding enterprise database workloads. The structured framework minimizes unplanned downtime and protects critical business data.