APPLIED TECHNOLOGY ACADEMY

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Microsoft Azure SQL Solutions Training

Microsoft Authorized Training · Applied Technology Academy

This course trains professionals to administer scalable SQL-based databases in both IaaS (Azure VMs) and PaaS (Azure SQL Database/Managed Instance) environments. It covers critical administration topics, including security implementation with Microsoft Defender, performance optimization using Intelligent Query Processing (IQP), High Availability and Disaster Recovery (HA/DR) planning with AG and WSFC, and automation using PowerShell and Azure CLI. This course is ideal for those preparing for the Administering Microsoft Azure SQL Solutions Exam (DP-300).

LEVEL	DURATION	EXPERIENCE	AVERAGE SALARY	LABS
Intermediate	**4 Days**	**1 year: IT business-level professionals**	**$140,000**	**Yes**

Course Overview

Students will learn to:

- Plan, deploy and configure Azure SQL offerings
- Monitor database performance and tune a database and queries for optimum performance
- Plan and configure a High Availability Solution

Course Outline

- **Module 1: Planning and Implementing Data Platform Resources**
  - Prepare to Maintain SQL Server-based Databases on Azure
  - Deploy IaaS Solutions with Azure SQL
  - Deploy PaaS Solutions with Azure SQL
  - Migrate SQL Server Workloads to Azure SQL Database
  - Migrate SQL Server Workloads to Azure SQL Managed Instance
- **Module 2: Implementing a Secure Database Environment**
  - Configure Database Authentication and Authorization
  - Protect Data In-Transit and At Rest
  - Implement Compliance Controls for Sensitive Data
- **Module 3: Monitoring and Optimization**
  - Describe Performance Monitoring
  - Configure SQL Server Resources for Optimal Performance
  - Configure Databases for Optimal Performance
- **Module 4: Optimizing Query Performance in Azure SQL**
  - Explore Query Performance Optimization

  - Explore Performance-Based Database Design
  - Evaluate Performance Improvements
- **Module 5: Automating Database Tasks for Azure SQL**
  - Automate Database Deployment
  - Create and Manage SQL Agent Jobs
  - Manage Azure PaaS Tasks Using Automation
- **Module 6: High Availability and Disaster Recovery**
  - Describe HA/DR Strategies
  - Explore IaaS and PaaS Solutions for HA/DR
  - Back Up and Restore Databases
- **Module 7: Lab Outline**
  - Provision SQL Server on an Azure Virtual Machine
  - Provision an Azure SQL Database
  - Authorize access with Microsoft Entra ID and configure firewall rules
  - Enable Microsoft Defender for SQL and Data classification
  - Isolate performance problems through monitoring and fix fragmentation/blocking issues
  - Identify database design issues and isolate problem areas in poorly performing queries
  - Deploy Azure SQL Database using ARM template
  - Create a CPU status alert for a SQL Server
  - Deploy an automation runbook to automatically rebuild indexes
  - Configure geo-replication and implement Backup to/Restore from URL

Intended Audience

Database Administrators who manage and maintain on-premises or cloud-based SQL Server databases and are looking to migrate to or work within Azure.

Data Engineers and IT Professionals involved in planning, deploying, configuring, optimizing, and securing Azure SQL environments.

Cloud Database Professionals seeking to expand their cloud database management skills, especially in IaaS and PaaS scenarios with Azure SQL Database and SQL Managed Instances.

Candidates preparing for the Microsoft DP-300 Certification Exam as part of earning the Microsoft Certified: Azure Database Administrator Associate credential.

Prerequisites

- · Working with, maintaining, and developing with SQL Serve
- · Experience with Azure, such as deploying and managing resources
- · Recommended Prior Course: DP-900T00: Introduction to Microsoft Azure Data

Follow-On Course

- AZ-104: Microsoft Azure Administrator
- AZ-305: Designing Microsoft Azure Infrastructure Solutions
- PL-300: Microsoft Power BI Data Analyst

Ready to enroll? Call 800.674.3550 or email Info@AppliedTechAc.com — private team cohorts, GSA MAS purchasing, military credentialing funding, VA GI Bill and VR&E and student financing available.