



DP – 300

Administering Microsoft Azure SQL Solutions

Overview

As a candidate for this certification, you should have subject matter expertise in building database solutions that are designed to support multiple workloads built with:

- SQL Server on-premises
- Azure SQL services

You're a database administrator who manages on-premises and cloud databases built with SQL Server and Azure SQL services.

As the Azure database administrator, you implement and manage the operational aspects of cloud-native and hybrid data platform solutions built on SQL Server and Azure SQL services. You use a variety of methods and tools to perform and automate day-to-day operations, including applying knowledge of using Transact-SQL (T-SQL) and other tools for administrative management purposes.

You're responsible for the following concerning database solutions:

- Management
- Availability
- Security
- Performance monitoring and optimization

You evaluate and implement migration strategies for moving databases between Azure and on-premises. Plus, you work with Azure data engineers, Azure solution architects, Azure developers, data scientists, and other professionals to manage operational aspects of data platform solutions.

- As a candidate for this certification, you should have knowledge of and experience with:
 - Azure SQL Database
 - Azure SQL Managed Instance
 - SQL Server on Azure Virtual Machines (Windows and Linux)

Prerequisites

Successful Azure Database Administrators start this role with professional experience in database management and technical knowledge of cloud technologies. Specifically:

- Working with, maintaining, and developing with SQL Server
- Experience with Azure, such as deploying and managing resources

At a minimum, you should know the information in the following courses before attending the course:

- [AZ-900T00: Microsoft Azure Fundamentals](#)
- [DP-900T00: Microsoft Azure Data Fundamentals](#)

Audience Profile

The audience for this course is data professionals managing data and databases who want to learn about administering the data platform technologies that are available on Microsoft Azure. This course is also valuable for data architects and application developers who need to understand what technologies are available for the data platform with Azure and how to work with those technologies through applications.

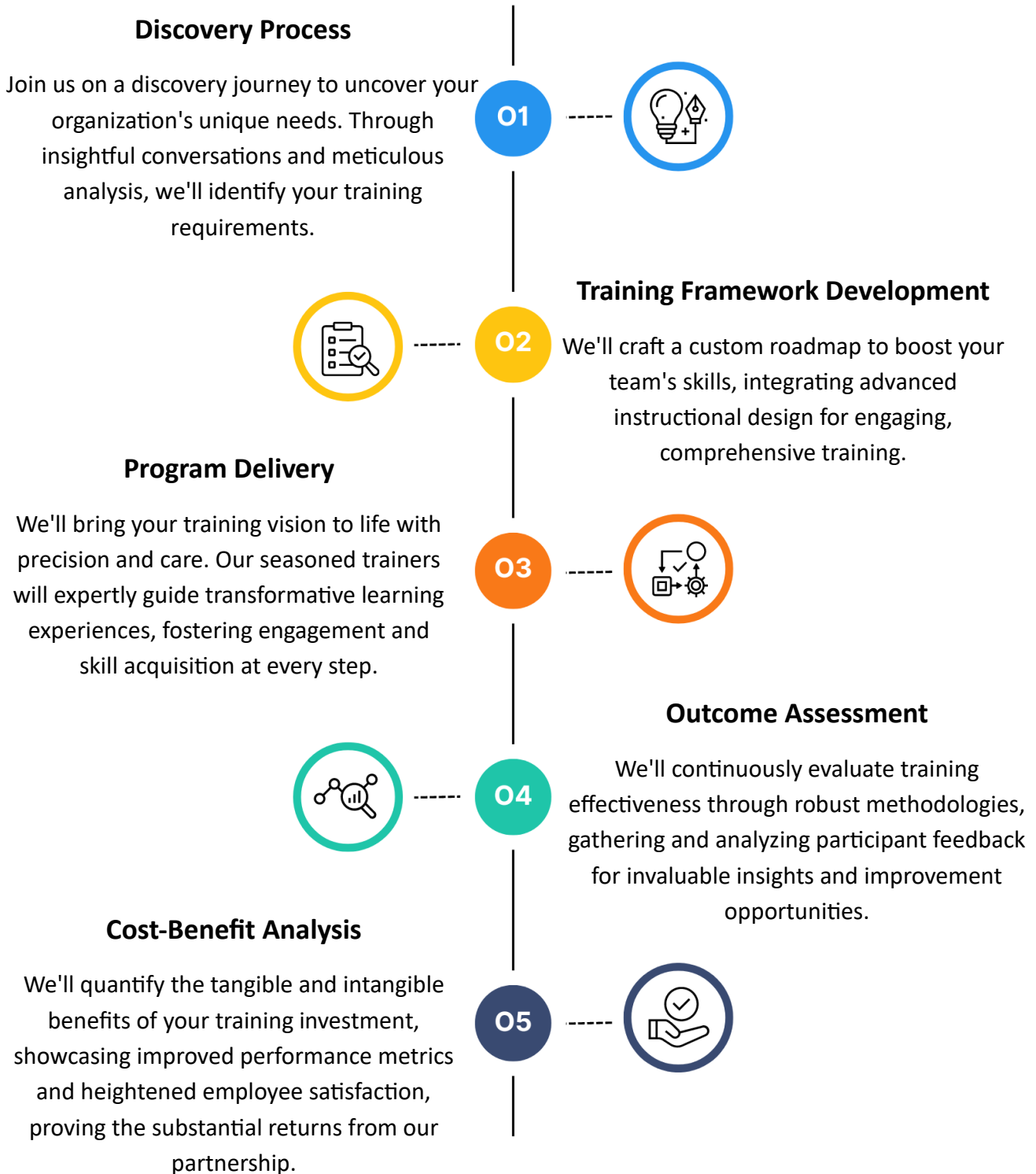
Course Level

- Intermediate

Course Duration

- 4 Day – 32 Hours

Creating Tailor - Made Training Programs to Meet Your **Specific Goals**



Course Outline

This course provides students with the knowledge and skills to administer a SQL Server database infrastructure for cloud, on-premises and hybrid relational databases and who work with the Microsoft PaaS relational database offerings. Additionally, it will be of use to individuals who develop applications that deliver content from SQL-based relational databases.

Module 1: Introduction to Azure Database Administration

- Lesson: Understand the role of Azure Database Administrator as it fits in with other data platform roles
- Lesson: Describe the key differences between the SQL Server-based database options in Azure
- Lesson: Describe the main features available on Azure SQL offerings

Module 2: Plan and Implement Data Platform Resources

- Lesson: Deploy resources using manual methods
- Lesson: Recommend an appropriate database offering based on requirements
- Lesson: Configure Azure SQL resources
- Lesson: Evaluate and implement a strategy for moving a database to Azure SQL
- **Instructor-led labs:** Provision a SQL Server on an Azure Virtual Machine
- **Instructor-led labs:** Provision an Azure SQL Database

Module 3: Implement a secure environment for a database service

- Lesson: Understand the differences between Windows, SQL Server, and Microsoft Entra authentication
- Lesson: Describe and configure both data-at-rest encryption solutions as well as data-in-transit encryption solutions
- Lesson: Implement a data sensitivity solution
- **Instructor-led labs:** Authorize Access to Azure SQL Database with Microsoft Entra ID
- **Instructor-led labs:** Configure a server-based firewall rule using the Azure portal
- **Instructor-led labs:** Enable Microsoft Defender for SQL and Data Classification

Module 4: Monitor and optimize operational resources in Azure SQL

- Lesson: Monitor activity and compare to a baseline
- Lesson: Explore maintenance tasks related to performance
- Lesson: Identify major causes of performance problems
- Lesson: Configure databases and resources for optimal performance
- **Instructor-led labs:** Isolate performance problems through monitoring
- **Instructor-led labs:** Detect and correct fragmentation issues

Module 5: Optimize Query Performance in Azure SQL

- Lesson: Analyze query plans and identify problem areas
- Lesson: Evaluate potential query improvements
- Lesson: Review table and index design
- Lesson: Determine whether query or design changes have had a positive effect
- **Instructor-led labs:** Identify and resolve blocking issues
- **Instructor-led labs:** Identify database design issues
- **Instructor-led labs:** Isolate problem areas in poorly performing queries in a SQL Database

Module 6: Automate Database Tasks for Azure SQL

- Lesson: Automate deployments
- Lesson: Create Scheduled Tasks in SQL Server
- Lesson: Create notifications for failures and performance alerts
- Lesson: Configure automation for PaaS Services
- **Instructor-led labs:** Deploy an Azure SQL Database using an Azure Resource Manager template
- **Instructor-led labs:** Create a CPU status alert for an SQL Server
- **Instructor-led labs:** Deploy an Automation runbook to automatically rebuild indexes

Module 7: Planning and Implementing a High Availability and Disaster Recovery Environment

- Lesson: The difference between recovery time and recovery point objectives
- Lesson: The available HADR options
- Lesson: The considerations for planning and configuring HADR solutions including how backup and restore fits in
- Lesson: The factors that comprise a HADR strategy
- **Instructor-led labs:** Configure geo-replication for Azure SQL Database
- **Instructor-led labs:** Backup to URL and Restore from URL

Indus Tech Services

Who We Are....

Indus Tech Services is an IT company that specializes in providing comprehensive training, consulting & implementation services for software solutions designed to address the diverse business challenges faced by organizations today. With a passion for technology and a deep understanding of business processes, Indus Tech is committed to empowering businesses to optimize their operations, boost productivity, and drive sustainable growth.

Indus Tech Services and Microsoft Partnership

As a proud **Microsoft Partner**, **Indus Tech Services** is uniquely equipped to deliver top-tier training and certification programs designed to meet the evolving needs of today's workforce. Our partnership with Microsoft allows us to offer direct access to the latest tools, resources, and industry insights, ensuring that our courses are aligned with the most current technology trends. This collaboration enables us to provide unparalleled support to our students, helping them gain the skills and knowledge required to excel in their careers. By choosing Indus Tech Services, you're not just learning; you're gaining a competitive edge with Microsoft-backed expertise and certification.

Why Choose Us...

From time to time, life serves up a profound nudge, urging us to step beyond our routines and make a difference in the world. Indus Tech Services emerged from one such compelling wake-up call. We are not just a company; we are a dedicated force with a belief in providing solutions to organizations, regardless of their size, and we infuse a human touch into everything we do.

Our Expertise

With over 25 years of collective experience navigating the intricacies of daily business transactions, irrespective of geographical, cultural, time zone, or language barriers, our team has honed their expertise to meet any challenge head-on. This wealth of experience has armed our resources with an unparalleled understanding and skill set to tackle a broad spectrum of obstacles.

Training

With two decades of unwavering commitment and a global footprint, our company is a true pioneer in the fields of linguistic, transactional, technical, and behavioural training for some of the world's largest corporate entities. Our unparalleled expertise has been refined through years of dedication and innovation, making us the go-to choice for businesses seeking transformative training solutions.

Consulting

Our company has been at the forefront of providing world-class IT consulting services to organizations spanning the globe. With an extensive and proven track record, we have honed our expertise to meet the ever-evolving technological needs and challenges faced by businesses, regardless of their scale or industry.

Implementation

Our experience covers a broad spectrum of IT implementation services, including system integration, software deployment, network architecture, cloud migration, and infrastructure setup. We understand that the successful execution of IT projects is pivotal to an organization's growth and efficiency. Therefore, we bring a depth of knowledge and a commitment to delivering results that set us apart.

To know more contact us at info@industechservices.com or call us at +91 - 99961 61170.