Data4Every1

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MS-AZ305T00: DESIGN MICROSOFT AZURE INFRASTRUCTURE SOLUTIONS

DURATION	LEVEL	TECHNOLOGY	DELIVERY METHOD	CERTIFICATION
4 Days	Advanced	Azure	Instructor-led	AZ-305 Exam

INTRODUCTION

This course teaches Azure Solution Architects how to design infrastructure solutions. Course topics cover governance, compute, application architecture, storage, data integration, authentication, networks, business continuity, and migrations. The course combines lecture with case studies to demonstrate basic architect design principles.

AUDIENCE PROFILE

This course is ideal for:

- Azure Solution Architects, Cloud Architects, and Infrastructure Engineers who design complex Azure environments
- Individuals with experience in IT operations, including networking, virtualization, identity/security, business continuity, disaster recovery, data platforms, and governance

PREREQUISITES

Before attending this course, delegates must have knowledge of the following:

- Azure compute technologies such as VMs, containers and serverless solutions
- Azure virtual networking to include load balancers
- Azure Storage technologies (unstructured and databases)
- General application design concepts such as messaging and high availability

COURSE OBJECTIVES

After completing this course, students will be able to:

- Design secure, scalable, and reliable Azure infrastructure solutions that meet business and technical requirements.
- Implement identity, governance, and monitoring strategies, including authentication, authorization, RBAC, compliance, and observability.
- Architect data storage solutions for structured, semi-structured, and unstructured data, ensuring performance, durability, and cost optimization.
- Plan and implement business continuity and disaster recovery strategies for high availability across compute and data workloads.
- Design compute and application architectures, including VMs, containers, serverless, messaging, and API integration.
- Recommend network connectivity and security solutions, including load balancing, routing, and hybrid connectivity.
- Develop migration strategies for on-premises workloads to Azure, leveraging Microsoft's Cloud Adoption Framework.

COURSE CONTENT

Module 1: Microsoft Azure Architect Design Prerequisites

Learn the basic Azure concepts you'll need to know as an Azure infrastructure architect. This path gives you the knowledge to be successful as you begin studying for AZ-305: Designing Microsoft Azure Infrastructure Solutions.

Module 1.1: Describe the core architectural components of Azure

This module explains the basic infrastructure components of Microsoft Azure. You'll learn about the physical infrastructure, how resources are managed, and have a chance to create an Azure resource.

Module 1.2: Describe Azure compute and networking services

This module focuses on some of the computer services and networking services available within Azure.

Module 1.3: Describe Azure storage services

This module introduces you to storage in Azure, including things such as different types of storage and how a distributed infrastructure can make your data more resilient.

Module 1.4: Describe Azure identity, access, and security

This module covers some of the authorization and authentication methods available with Azure.

Module 1.5: Introduction to the Microsoft Cloud Adoption Framework

This module covers the basics of how to use the Cloud Adoption Framework, which is a set of documentation, implementation guidance, best practices, and tools that help you align your strategy for business, people, and technology.

Module 1.6: Introduction to the Microsoft Azure Well-Architected Framework

You want to build great things on Azure, but you're not sure exactly what that means. Using key principles throughout your architecture, regardless of technology choice, can help you design, build, and continuously improve your architecture.

Module 2: Design identity, governance, and monitor solutions

Design identity, governance, and monitor solutions including authentication.

Module 2.1: Design governance

Azure Architects design and recommend governance solutions.

Module 2.2: Design authentication and authorization solutions

Azure Architects design and recommend authentication and authorization solutions.

Module 2.3: Design a solution to log and monitor Azure resources

Azure Architects design and recommend logging and monitoring solutions.

Module 3: Design business continuity solutions

Design business continuity solutions including high availability, backup, and disaster recovery.

Module 3.1: Describe high availability and disaster recovery strategies

Plan an appropriate high availability and disaster recovery strategy based on recovery time objective and recovery point objective. Choose the best solution for IaaS or PaaS deployments or hybrid workloads.

Module 3.2: Design a solution for backup and disaster recovery

Learn how to select appropriate backup solutions and disaster recovery solutions for Azure workloads.

Module 4: Design data storage solutions

Design data storage solutions including non-relational storage, relational storage, and data integration.

Module 4.1: Design a data storage solution for non-relational data

Azure Architect's design and recommend nonrelational data storage solutions.

Module 4.2: Design a data storage solution for relational data

Azure Architect's design and recommend relational data storage solutions.

Module 4.3: Design data integration

Azure Architects design and recommend data integration solutions.

Module 5: Design infrastructure solutions

Design Infrastructure Solutions including compute, applications, networking and migrations.

Module 5.1: Design an Azure compute solution

Azure Architects design and recommend Azure compute solutions.

Module 5.2: Design an application architecture

Azure Architects are responsible to design and recommend application architectures.

Module 5.3: Design network solutions

Azure Architects need to design and recommend network solutions

Module 5.4: Design migrations

Azure Architect's design and recommend migration solutions.

Module 6: Build great solutions with the Microsoft Azure Well-Architected Framework

Learn how to design and build secure, scalable, high-performing solutions in Azure using the pillars of the Microsoft Azure Well-Architected Framework.

Module 6.1: Introduction to the Microsoft Azure Well-Architected Framework

You want to build great things on Azure, but you're not sure exactly what that means. Using key principles throughout your architecture, regardless of technology choice, can help you design, build, and continuously improve your architecture.

Module 6.2: Microsoft Azure Well-Architected Framework - Reliability

Apply reliability guidance in your architecture to improve your workload's availability and resilience.

Module 6.3: Microsoft Azure Well-Architected Framework - Security

Learn how to incorporate security into your architecture design and discover the tools that Azure provides to help you create a secure environment through all the layers of your architecture.

Module 6.4: Microsoft Azure Well-Architected Framework - Cost Optimization

Apply cost optimization guidance in your architecture to sustain and improve your return on investment (ROI).

Module 6.5: Microsoft Azure Well-Architected Framework - Operational Excellence

Learn how to design an Azure architecture that uses modern practices and gives you full visibility into what's happening in your environment.

Module 6.6: Microsoft Azure Well-Architected Framework - Performance Efficiency

To give users the best experience, it's important to scale your system to handle load, identify any network slowdowns, and optimize your storage performance. The tasks help your application run at its best.

ASSOCIATED CERTIFICATIONS & EXAM

This course will prepare delegates to write the AZ-305 Microsoft Certified: Azure Solutions Architect Expert.