Exam AZ-303: Microsoft Azure Architect Technologies

Introduction

Microsoft Azure Exam AZ-303 certification course is curated for aspirants who wish to gain expertise in designing and implementing solutions that run on Microsoft Azure, including cores like compute, network, storage, and security. The AZ-303 certification exam tests the major responsibilities of a candidate including advising stakeholders and translating business requirements into secure, scalable, and reliable cloud solutions. Furthermore, the candidate gets equipped with the latest advancements of IT operations like networking, virtualization, identity, security, business continuity, disaster recovery, data platform, budgeting, and governance.

Course Outline

MODULE 1: Implement and monitor an Azure infrastructure (50-55%)

- Implement cloud infrastructure monitoring
    - monitor security
    - monitor performance
    - monitor health and availability
    - monitor cost
    - configure advanced logging
    - initiate automated responses by using Action Groups
    - configure and manage advanced alerts

- Implement storage accounts
    - select storage account options based on a use case
    - configure Azure Files and Azure Blob storage
    - configure network access to the storage account
    - implement Shared Access Signatures and access policies
    - implement Azure AD authentication for storage
    - manage access keys
    - implement Azure storage replication
    - implement Azure storage account failover

- Implement VMs for Windows and Linux
    - configure High Availability
    - configure storage for VMs
    - select virtual machine size
    - implement Azure Dedicated Hosts
    - deploy and configure scale sets
    - configure Azure Disk Encryption

- Automate deployment and configuration of resources
    - save a deployment as an Azure Resource Manager template
    - modify Azure Resource Manager template
    - evaluate the location of new resources
    - configure a VHD template
    - deploy from a template
    - manage an image library
    - create and execute an automation runbook

- Implement virtual networking
    - implement VNet to VNet connections
    - implement VNet peering

- Implement Azure Active Directory
    - add custom domains
    - configure Azure AD Identity Protection

- implement a self-service password reset
- implement Conditional Access including MFA
- configure fraud alerts
- configure verification methods
- implement and manage guest accounts
- manage multiple directories

- Implement and manage hybrid identities
  - install and configure Azure AD Connect
  - identity synchronization options
  - configure and manage password sync and password writeback
  - configure single sign-on
  - configure Azure AD Connect cloud sync
  - use Azure AD Connect Health

MODULE 2: Implement management and security solutions (25-30%)

- Manage workloads in Azure
  - migrate workloads using Azure Migrate
  - implement Azure Backup for VMs
  - implement disaster recovery
  - implement Azure Automation Update Management

- Implement load balancing and network security
  - implement Azure Load Balancer
  - implement an Azure Application Gateway
  - implement Web Application Firewall
  - implement Azure Firewall
  - implement Azure Firewall Manager
  - implement Azure Front Door
  - implement Azure Traffic Manager
  - implement Network Security Groups and Application Security, Groups
  - implement Bastion

- Implement and manage Azure governance solutions
  - create and manage a hierarchical structure that contains management groups, subscriptions, and resource groups
  - assign RBAC roles
  - create a custom RBAC role
  - configure access to Azure resources by assigning roles
  - configure management access to Azure
  - interpret effective permissions
  - set up and perform an access review
  - implement and configure Azure Policy
  - implement and configure Azure Blueprints

- Manage security for applications
  - implement and configure Key Vault
  - implement and configure Managed Identities
  - register and manage applications in Azure AD

MODULE 3: Implement solutions for apps (10-15%)

- Implement an application infrastructure
  - create and configure Azure App Service
  - create an App Service Web App for Containers
  - create and configure an App Service plan
  - configure App Service
  - configure networking for App Service
  - create and manage deployment slots
  - implement Logic Apps
  - implement Azure Functions

- Implement container-based applications
  - create a container image
  - configure Azure Kubernetes Service
  - publish and automate image management by using the Azure Container Registry

○　　deploy a solution on an Azure Container Instance

MODULE 4: Implement and manage data platforms (10-15%)

- Implement NoSQL databases
    - configure Azure Storage account tables
    - select appropriate Cosmos DB APIs
    - set up replicas in Cosmos DB

- Implement Azure SQL databases
    - configure Azure SQL database settings
    - implement Azure SQL managed instances
    - configure HA for an Azure SQL database
    - deploy an Azure SQL database

Prerequisites

Candidates who wish to take up the Microsoft Azure Architect Technologies AZ-303 certification exam should have a general knowledge of the IT architecture that includes physical, cloud, and hybrid environments.

A participant should also be familiar with IT operations, security, networking, virtualization, business continuity, disaster recovery, governance, and data management. Professionals should also have expert skills in Azure Knowledge domains such as Azure Administration, Azure Development, and DevOps processes.

Target Audience

Candidates for this exam should have subject matter expertise in designing and implementing solutions that run on Microsoft Azure, including aspects like compute, network, storage, and security. Candidates should have intermediate-level skills for administering Azure. Candidates should understand Azure development and DevOps processes.

Responsibilities for an Azure Solution Architect include advising stakeholders and translating business requirements into secure, scalable, and reliable cloud solutions.

An Azure Solution Architect partners with cloud administrators, cloud DBAs, and clients to implement solutions. A candidate for this exam should have advanced experience and knowledge of IT operations, including networking, virtualization, identity, security, business continuity, disaster recovery, data platform, budgeting, and governance–this role should manage how decisions in each area affect an overall solution. In addition, this role should have expert-level skills in Azure administration and have experience with Azure development and DevOps processes.

Duration

40 Hours