

Exam AZ-204: Developing Solutions for Microsoft Azure

Introduction

Microsoft Azure (AZ-204 Exam) certification course is designed to make individuals specialists in different subject matters including, designing, building, testing, and maintaining cloud applications and services on Microsoft Azure. Moreover, the candidate gets industry-ready training in Azure Developer. Practical exposure of participation in different phases of cloud development, development, deployment, maintenance, and optimization, is also ensured.

Course Outline

MODULE 1: Develop Azure compute solutions (25-30%)

- Implement IaaS solutions
 - provision virtual machines (VMs)
 - configure, validate, and deploy ARM templates
 - configure container images for solutions
 - publish an image to the Azure Container Registry
 - run containers by using Azure Container Instance
- Create Azure App Service Web Apps
 - create an Azure App Service Web App
 - enable diagnostics logging
 - deploy code to a web app
 - configure web app settings including SSL, API settings, and connection strings
 - implement autoscaling rules including scheduled autoscaling and autoscaling by operational or system metrics
- Implement Azure functions
 - create and deploy Azure Functions apps
 - implement input and output bindings for a function
 - implement function triggers by using data operations, timers, and webhooks
 - implement Azure Durable Functions
 - implement custom handlers

MODULE 2: Develop for Azure storage (15-20%)

- Develop solutions that use Cosmos DB storage
 - select the appropriate API and SDK for a solution
 - implement partitioning schemes and partition keys
 - perform operations on data and Cosmos DB containers
 - set the appropriate consistency level for operations
 - manage change feed notifications
- Develop solutions that use blob storage
 - move items in Blob storage between storage accounts or containers
 - set and retrieve properties and metadata
 - perform operations on data by using the appropriate SDK
 - implement storage policies, and data archiving and retention

MODULE 3: Implement Azure security (20-25%)

- Implement user authentication and authorization
 - authenticate and authorize users by using the Microsoft Identity platform
 - authenticate and authorize users and apps by using Azure Active Directory
 - create and implement shared access signatures

- Implement secure cloud solutions
 - secure app configuration data by using App Configuration Azure Key Vault
 - develop code that uses keys, secrets, and certificates stored in Azure Key Vault
 - implement Managed Identities for Azure resources
 - implement solutions that interact with Microsoft Graph

MODULE 4: Monitor, troubleshoot, and optimize Azure solutions (15-20%)

- Integrate caching and content delivery within solutions
 - configure cache and expiration policies for Azure Redis Cache
 - implement secure and optimized application cache patterns including data sizing, connections, encryption, and expiration
- Instrument solutions to support monitoring and logging
 - configure an app or service to use Application Insights
 - analyze and troubleshoot solutions by using Azure Monitor
 - implement Application Insights web tests and alerts

MODULE 5: Connect to and consume Azure services and third-party services (15-20%)

- Implement API Management
 - create an APIM instance
 - configure authentication for APIs
 - define policies for APIs
- Develop event-based solutions
 - implement solutions that use Azure Event Grid
 - implement solutions that use Azure Event Hubs
- Develop message-based solutions
 - implement solutions that use Azure Service Bus
 - implement solutions that use Azure Queue Storage queues

Prerequisites

- Candidates who wish to take up the Developing Solutions for Microsoft Azure AZ-204 certification exam should have at least 1-2 years of experience with Microsoft Azure.
- Participants should also have knowledge in various programming languages that are supported by Azure. One should also be proficient in Azure SDKs, Azure CLI, Azure PowerShell, APIs, data storage connections and options, container deployment, debugging, monitoring, and more.

Target Audience

Candidates for the Azure Developer Associate certification should have subject matter expertise in designing, building, testing, and maintaining cloud applications and services on Microsoft Azure.

Responsibilities for this role include participating in all phases of cloud development from requirements, definition, and design; to development, deployment, and maintenance; to performance tuning and monitoring.

Azure Developers partner with cloud solution architects, cloud DBAs, cloud administrators, and clients to implement solutions.

A candidate for this certification should have 1-2 years of professional development experience and experience with Microsoft Azure. In addition, the role should have the ability to program in a language supported by Azure and proficiency in Azure SDKs, Azure PowerShell, Azure CLI, data storage options, data connections, APIs, app authentication and authorization, compute and container deployment, debugging, performance tuning, and monitoring.

Duration

40 Hours