

KOENIG SOLUTIONS • COURSE OUTLINE

AZ-204 Exam Prep

Learn to design, build and secure cloud applications and services on Microsoft Azure, from compute and storage to messaging and monitoring.

5

MODULES

52

TOPICS

COURSE OVERVIEW

This course covers developing Azure compute solutions, including IaaS deployments, App Service Web Apps, and Azure Functions. It then addresses Azure storage development with Cosmos DB and Blob storage, followed by implementing security through authentication, authorization, and secure configuration with Key Vault and Managed Identities. It also covers monitoring, troubleshooting, and optimizing solutions using caching, CDNs, and Application Insights, and concludes with connecting to Azure and third-party services through Logic Apps, API Management, and event- and message-based solutions such as Event Grid, Service Bus, and Queue Storage.

WHO THIS COURSE IS FOR

Candidates for this exam should have subject matter expertise designing, building, testing, and maintaining cloud applications and services on Microsoft Azure

Responsibilities for an Azure Developer include participating in all phases of cloud development from requirements definition and design, to development, deployment, and maintenance, performance tuning, and monitoring

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

A candidate for this exam should have 1-2 years professional development experience and experience with Microsoft Azure. In addition, the role should have ability programming 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.

What You Will Learn

- Implement IaaS solutions using VMs, ARM templates and containers
- Develop Azure App Service Web Apps and configure autoscaling
- Implement Azure Functions with bindings, triggers and durable functions
- Develop solutions using Cosmos DB and Blob storage
- Implement user authentication and authorization with OAuth2 and RBAC
- Secure app configuration using App Configuration and Key Vault
- Instrument solutions using Application Insights and Azure Monitor
- Develop event-based and message-based solutions with Service Bus

COURSE SYLLABUS

5 Modules, 52 Topics

01

25-30%

Develop Azure Compute Solutions

IMPLEMENT IAAS SOLUTIONS

- provision VMs
- configure VMs for remote access
- create ARM templates
- create container images for solutions by using Docker
- publish an image to the Azure Container Registry
- run containers by using Azure Container Instance
- Azure Kubernetes Service (AKS) is out of scope

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, and connection strings
- implement autoscaling rules, including scheduled autoscaling, and scaling by operational or system metrics

IMPLEMENT AZURE FUNCTIONS

- implement input and output bindings for a function
- implement function triggers by using data operations, timers, and webhooks
- implement Azure Durable Functions

Develop for Azure Storage

DEVELOP SOLUTIONS THAT USE COSMOS DB STORAGE

- select the appropriate API for your solution
- implement partitioning schemes
- interact with data using the appropriate SDK
- set the appropriate consistency level for operations
- create Cosmos DB containers
- implement scaling (partitions, containers)
- implement server-side programming including stored procedures, triggers, and 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
- interact with data using the appropriate SDK
- implement data archiving and retention
- implement hot, cool, and archive storage

Implement Azure Security

IMPLEMENT USER AUTHENTICATION AND AUTHORIZATION

- implement OAuth2 authentication
- create and implement shared access signatures
- register apps and use Azure Active Directory to authenticate users
- control access to resources by using role-based access controls (RBAC)

IMPLEMENT SECURE CLOUD SOLUTIONS

- secure app configuration data by using the App Configuration and KeyVault API
- manage keys, secrets, and certificates by using the KeyVault API
- implement Managed Identities for Azure resources

04**10-15%**

Monitor, Troubleshoot, and Optimize Azure Solutions

INTEGRATE CACHING AND CONTENT DELIVERY WITHIN SOLUTIONS

- develop code to implement CDNs in solutions
- configure cache and expiration policies for FrontDoor, CDNs, or Redis caches
- store and retrieve data in Azure Redis cache

INSTRUMENT SOLUTIONS TO SUPPORT MONITORING AND LOGGING

- configure instrumentation in an app or service by using Application Insights
- analyze log data and troubleshoot solutions by using Azure Monitor
- implement Application Insights Web Test and Alerts
- implement code that handles transient faults

05**25-30%**

Connect to and Consume Azure Services and Third-Party Services

DEVELOP AN APP SERVICE LOGIC APP

- create a Logic App
- create a custom connector for Logic Apps
- create a custom template for Logic Apps

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 Notification Hubs
- implement solutions that use Azure Event Hub

DEVELOP MESSAGE-BASED SOLUTIONS

- implement solutions that use Azure Service Bus
- implement solutions that use Azure Queue Storage queues

NOTES

- The bullets that appear below each of the skills measured are intended to illustrate how the assessment covers that skill; the list is not definitive or exhaustive.
- In most cases, exams do not cover preview features, and some features will only be added to an exam when they are GA (General Availability).
- This exam was updated on May 18, 2020; the skills measured below reflect the current (post-update) exam guide, with the final skills percentages as revised on that date.

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

FLEXIBLE DELIVERY

Learn the Way That Suits You

Classroom Training

Live Online Classes (ILO)

Fly-Me-A-Trainer (FMAT)

Flexi (Self-Paced)

1-on-1 Training

Ready to Get Started?

Talk to a learning advisor about schedules, group training and customised delivery.

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