

Microsoft Certified: Azure Developer Associate – Skills Measured

Develop Azure Infrastructure as a Service compute solutions

Implement solutions that use virtual machines (VM)

- provision VMs
- create ARM templates
- configure Azure Disk Encryption for VMs

Implement batch jobs by using Azure Batch Services

- manage batch jobs by using Batch Service API
- run a batch job by using Azure CLI, Azure portal, and other tools
- write code to run an Azure Batch Services batch job

Create containerized solutions

- create an Azure Managed Kubernetes Service (AKS) cluster
- create container images for solutions
- publish an image to the Azure Container Registry
- run containers by using Azure Container Instance or AKS

Develop Azure Platform as a Service compute solutions

Create Azure App Service Web Apps

- create an Azure App Service Web App
- create an Azure App Service background task by using WebJobs
- enable diagnostics logging
- create an Azure Web App for containers

Create Azure App Service mobile apps

- add push notifications for mobile apps
- enable offline sync for mobile app
- implement a remote instrumentation strategy for mobile devices

Create Azure App Service API apps

- create an Azure App Service API app
- create documentation for the API by using open source and other tools

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
- create Azure Function apps by using Visual Studio

Develop for Azure storage

Develop solutions that use storage tables

- design and implement policies for tables
- query table storage by using code
- implement partitioning schemes

Develop solutions that use Cosmos DB storage

- create, read, update, and delete data by using appropriate APIs
- implement partitioning schemes
- set the appropriate consistency level for operations

Develop solutions that use a relational database

- provision and configure relational databases
- configure elastic pools for Azure SQL Database
- create, read, update, and delete data tables by using code
- provision and configure Azure SQL Database serverless instances
- provision and configure Azure SQL and Azure PostgreSQL Hyperscale instances

Develop solutions that use blob storage

- move items in blob storage between storage accounts or containers
- set and retrieve properties and metadata
- implement blob leasing
- implement data archiving and retention

Implement Azure security

Implement authentication

- implement authentication by using certificates, forms-based authentication, or tokens

- implement multi-factor or Windows authentication by using Azure AD
- implement OAuth2 authentication
- implement Managed identities/Service Principal authentication
- implement Microsoft identity platform

Implement access control

- implement CBAC (Claims-Based Access Control) authorization
- implement RBAC (Role-Based Access Control) authorization
- create shared access signatures

Implement secure data solutions

- encrypt and decrypt data at rest and in transit
- create, read, update, and delete keys, secrets, and certificates by using the KeyVault API

Monitor, troubleshoot, and optimize solutions

Develop code to support scalability of apps and services

- implement autoscaling rules and patterns (schedule, operational/system metrics, singleton applications)
- implement code that handles transient faults
- implement AKS scaling strategies

Integrate caching and content delivery within solutions

- store and retrieve data in Azure Redis cache
- develop code to implement CDNs in solutions
- invalidate cache content (CDN or Redis)

Instrument solutions to support monitoring and logging

- configure instrumentation in an app or service by using Application Insights
- analyze and troubleshoot solutions by using Azure Monitor
- implement Application Insights Web Test and Alerts

Connect to and consume Azure 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

Integrate Azure Search within solutions

- create an Azure Search index
- import searchable data
- query the Azure Search index
- implement cognitive search
- 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