

AZ-203: Developing Solutions for Microsoft Azure

Develop Azure Infrastructure as a Service compute solution

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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 solution

Create Azure App Service Web Apps

- Create an Azure App Service Web App
- Create an Azure App Service background task by using web jobs
- Enable diagnostics logging
- Create an Azure Web App for containers
- Monitor service health by using Azure Monitor

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 web hooks
- Implement Azure Durable Functions
- Create Azure Function apps by using Visual Studio
- Implement Python Azure functions

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 Geo Zone Redundant storage

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 key vault API

Monitor, troubleshoot, and optimize Azure solutions

Develop code to support scalability of apps and services

- Implement auto scaling 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 CDN 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 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

Integrate Azure Search within solutions

- Create an Azure Search index
- Import searchable data
- Query the Azure Search index

- Implement cognitive search

Implement API Management

- Establish API Gateways
- 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