# Virtual Machines

## Provision VM

## ARM template

## Azure Disk Encryption Configuration

# Batch jobs

## Manage Batch Jobs via Batch Service API

## Run batch job with CLI, Portal, other tools

## Write code to run as Azure Batch Services batch job

# Containerized solutions

## Create AKS cluster

## Create container images

## Publish to Azure Container Registry

## Run containers - Azure Container Instances

## Run containers – AKS

# Azure App Service – Web Apps

## Create Web App

## Create WebJobs

## Enable diagnostics logging

## Create Web App for containers

## Azure Monitor

# Azure App Service – Mobile Apps

## Add push notification to Mobile App

## Enable offline sync

## Implement remote instrumentation strategy for mobile devices

# Azure App Service – API Apps

## Create app

## Create documentation for the API by using open source and other tools

# Azure Functions

## Implement input/output bindings

## Implement triggers by using data operations, timers, webhooks

## Implement Azure Durable Functions

## Create Azure Function app by Visual Studio

## Implement Python Azure functions

# Storage Tables

## Design and implement policies

Query table storage by code

Implement partitioning schemes

# Cosmos DB

CRUD data by APIs

Implement partitioning schemes

Set appropriate consistency level for operations

# Relational DB

Provision and configure DBs

Configure elastic pools for Azure SQL DB

CRUD data by code

Provision and configure Azure SQL DB serverless instances

Provision and configure Azure SQL and Azure PostreSQL Hyperscale instances

# Blob Storage

Move items between storage accounts or containers

Set and retrieve properties, metadata

Implement blob leasing

Implement data archiving and retention

Implement Geo Zone Redundant storage

# Authentication

## Implement auth by certifications, form-based authentications, tokens

## Implement multifactor/Windows authentication via Azure AD

## Implement OAuth2 authentication

## Implement Managed identities/Service Principal authentication

## Implement Microsoft identity platform

# Access Control

## Implement CBAC authorization (Claims-Based Access Control)

## Implement RBAC authorization (Role-Based Access Control)

## Create SAS (shared access signatures)

# Implement secure data solution

## Encrypt/decrypt data at rest, and in transit

## CRUD keys, secrets and certificates via KeyVault API

# 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 (Redis/CDN)

# Instrument solutions to support monitoring and logging

## Configure instrumentation in app or service by Application Insights

## Analyze and troubleshoot solutions by using Azure Monitor

## Implement Application Insights Web Test and Alerts

# 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

## 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

## Azure Event Grid

## Azure Notification Hubs

## Azure Event Hub

# Develop message-based solutions

## Azure Service Bus

## Azure Queue Storage queues