Exam Alert: Develop Azure Compute Solutions

PREPARING FOR THE EXAM

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Objectives for the Exam

Develop Azure Compute Solutions

25-30%

Implement IaaS Solutions	**Create Azure App Service Web Apps**	**Implement Azure Functions**

Implement IaaS Solutions

Provision virtual machines (VM's)

Configure, validate, and deploy ARM templates

Create container images for solutions

Publish an image to the Azure Container Registry

Run containers by using Azure Container Instance

Azure Kubernetes Service (AKS) is out of scope for this certification exam.

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

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

Review Implementing IaaS Solutions

Be Sure to Review

Managed Identities
(System and User)

**Backup & Restore
Approaches**

**Accelerated
Networking**

**When Not to Use
an Azure VM**

Review Creating Azure App Service Web Apps

Azure App Service

- Understand capabilities of each pricing tier

- Know the order of steps to create and deploy an application

- Fully understand deployment slots and slot swapping

- Know how to configure scaling and which tiers support which options

- Know what uses cases require the isolated tier

- Understand the process of deploying containers

Reviewing App Service Tiers

Free (F)

Shared (D)

Basic (B)

Standard (S)

Premium (P)

Isolated (I)

Additional Items to Review

Accessing Logs
(Historical and Real-time)

Review CLI Commands
(Arguments not required)

Azure App Service Environment (ASE)

Custom Warm-up for Deployment Slots

Review Implementing Azure Functions

Azure Functions

Understand the configuration of input and output bindings

Know the role they fill architecturally

Review integrations with other services

Know what uses cases Durable Functions are the best fit for

Know how to access function metrics and logging information

Durable Functions App Patterns

Function Chaining	**Fan-out / Fan-in**	**Async HTTP API's**
Monitoring	**Human Interaction**	**Aggregator** (Stateful Entities)

Example Scenarios

Scenario 1

Sylvia's company is in the process of moving multiple web apps to Azure

The web applications themselves are deployed as containers

Application demand varies, and they have struggled with uptime in the past

What is the most cost effective approach Sylvia's company could take?

Scenario 2

Edward has created a document processing service for his company

After his app uploads a document to blob storage, it calls an API

The API triggers the document processing on a VM

Is this the most efficient and cost effective approach for this solution?

Scenario 3

Cindy's company provides a digital asset management SaaS solution

They are trying to find more cost effective ways to process large videos

Cindy has read about Durable Functions and believes this could be a solution

Is this problem solved by using Durable Functions?

Scenario 4

William's company currently runs a fantasy football platform

Currently they perform multiple actions on a VM when a new user is added

William is afraid to move it to a single Azure function due to a possible timeout

Is this problem solved by using Durable Functions?

Scenario 5

Oscar's company is deploying a new web application using App Service

Oscar will be deploying the app using the CLI

Oscar will be deploying into a brand new account that is currently empty

What is the correct order of the steps Oscar will need to follow?

Scenario 5

az appservice create

az appservice plan create

az webapp create

az group create

az webapp deploy

az appservice plan deploy

Select 3

Scenario 6

James's company has multiple Windows VM's deployed in a VNet

They need high-speed communication to analyze shared streaming data

Currently they are experiencing higher than desired lag between their VM's

Which solution could reduce the latency between VM's?

Scenario 6

Azure Front Door	**App Service Environment** (ASE)
Accelerated Networking	**VNet Peering**

Scenario Answers

Scenario 1

Sylvia's company is in the process of moving multiple web apps to Azure

The web applications themselves are deployed as containers

Application demand varies, and they have struggled with uptime in the past

What is the most cost effective approach Sylvia's company could take?

Solution: Azure App Service for Containers - Standard Tier with Linux Runtime

Scenario 2

Edward has created a document processing service for his company

After his app uploads a document to blob storage, it calls an API

The API triggers the document processing on a VM

Is this the most efficient and cost effective approach for this solution?

Solution: No - Use an Azure Function with a trigger based on Blob Storage

Scenario 3

Cindy's company provides a digital asset management SaaS solution

They are trying to find more cost effective ways to process large videos

Cindy has read about Durable Functions and believes this could be a solution

Is this problem solved by using Durable Functions?

Solution: No - processing of large files is not an identified use case.

Scenario 4

William's company currently runs a fantasy football platform

Currently they perform multiple actions on a VM when a new user is added

William is afraid to move it to a single Azure function due to a possible timeout

Is this problem solved by using Durable Functions?

Solution: Yes - function chaining is a valid Durable Functions use case

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Scenario 5

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az appservice plan create	az group create
az webapp create	az appservice plan create
az group create	az webapp create
az webapp deploy	
az appservice plan deploy	

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Accelerated Networking	VNet Peering