

AZ-305 Dumps

Designing Microsoft Azure Infrastructure Solutions

<https://www.certleader.com/AZ-305-dumps.html>



NEW QUESTION 1

- (Exam Topic 4)

You need to design an architecture to capture the creation of users and the assignment of roles. The captured data must be stored in Azure Cosmos DB.

Which Azure services should you include in the design? To answer, drag the appropriate services to the correct targets. Each service may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

A. Mastered

B. Not Mastered

Answer: A

Explanation:

Diagram Description automatically generated

* 1. AAD audit log -> Event Hub (other two choices, LAW, storage, but not available in this question) <https://docs.microsoft.com/en-us/azure/active-directory/reports-monitoring/tutorial-azure-monitor-stream-logs-t>

* 2. Azure function has the Event hub trigger and Cosmos output binding

* a. Event Hub trigger for function

<https://docs.microsoft.com/en-us/azure/azure-functions/functions-bindings-event-hubs-trigger?tabs=csharp>

NEW QUESTION 2

- (Exam Topic 4)

You have an Azure subscription that contains a virtual network named VNET1 and 10 virtual machines. The virtual machines are connected to VNET1.

You need to design a solution to manage the virtual machines from the internet. The solution must meet the following requirements:

- Incoming connections to the virtual machines must be authenticated by using Azure Multi-Factor Authentication (MFA) before network connectivity is allowed.
- Incoming connections must use TLS and connect to TCP port 443.
- The solution must support RDP and SSH.

What should you include in the solution? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

NEW QUESTION 3

- (Exam Topic 4)

You plan to deploy an app that will use an Azure Storage account.

You need to deploy the storage account. The solution must meet the following requirements:

- Store the data of multiple users.
- Encrypt each user's data by using a separate key.
- Encrypt all the data in the storage account by using Microsoft keys or customer-managed keys. What should you deploy?

- A. files in a general purpose v2 storage account.
- B. blobs in an Azure Data Lake Storage Gen2 account.
- C. files in a premium file share storage account.
- D. blobs in a general purpose v2 storage account

Answer: B

NEW QUESTION 4

- (Exam Topic 4)

You have an on-premises file server that stores 2 TB of data files.

You plan to move the data files to Azure Blob Storage In the West Europe Azure region,

You need to recommend a storage account type to store the data files and a replication solution for the storage account. The solution must meet the following requirements:

- Be available if a single Azure datacenter fails.
- Support storage tiers.
- Minimize cost.

What should you recommend? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

- A. Mastered
B. Not Mastered

Answer: A

Explanation:

Account Type: StorageV2

Replication solution: Zone-redundant storage (ZRS) <https://docs.microsoft.com/en-us/azure/storage/common/storage-redundancy>

<https://docs.microsoft.com/en-us/azure/storage/common/storage-redundancy#supported-azure-storage-services> <https://docs.microsoft.com/en-us/azure/storage/common/storage-account-overview#types-of-storage-accounts>

Data must be available if a single Azure datacenter fails. It means the storage account must support ZRS replication. Also, solution should support storage tiers.

Only General-purpose V2 supports ZRS and storage tiers.

<https://docs.microsoft.com/en-us/azure/storage/blobs/storage-blob-storage-tiers>

NEW QUESTION 5

- (Exam Topic 4)

You need to deploy resources to host a stateless web app in an Azure subscription. The solution must meet the following requirements:

- Provide access to the full .NET framework.
- Provide redundancy if an Azure region fails.
- Grant administrators access to the operating system to install custom application dependencies. Solution: You deploy a web app in an Isolated App Service plan. Does this meet the goal?

- A. Yes
B. No

Answer: B

Explanation:

Instead, you should deploy an Azure virtual machine to two Azure regions, and you create a Traffic Manager profile.

NEW QUESTION 6

- (Exam Topic 4)

You have an Azure subscription. The subscription has a blob container that contains multiple blobs. Ten users in the finance department of your company plan to access the blobs during the month of April. You need to recommend a solution to enable access to the blobs during the month of April only. Which security solution should you include in the recommendation?

- A. shared access signatures (SAS)
B. access keys
C. conditional access policies
D. certificates

Answer: A

Explanation:

Reference:

<https://docs.microsoft.com/en-us/azure/storage/common/storage-sas-overview>

This allows for limited-time fine grained access control to resources. So you can generate URL, specify duration (for month of April) and disseminate URL to 10 team members. On May 1, the SAS token is automatically invalidated, denying team members continued access.

NEW QUESTION 7

- (Exam Topic 4)

You need to deploy resources to host a stateless web app in an Azure subscription. The solution must meet the following requirements:

- Provide access to the full .NET framework.
- Provide redundancy if an Azure region fails.
- Grant administrators access to the operating system to install custom application dependencies.

Solution: You deploy an Azure virtual machine to two Azure regions, and you deploy an Azure Application Gateway.

Does this meet the goal?

- A. Yes
B. No

Answer: B

Explanation:

You need to deploy two Azure virtual machines to two Azure regions, but also create a Traffic Manager profile.

NEW QUESTION 8

- (Exam Topic 4)

You are planning an Azure Storage solution for sensitive data. The data will be accessed daily. The data set is less than 10 GB.

You need to recommend a storage solution that meets the following requirements:

- All the data written to storage must be retained for five years.
- Once the data is written, the data can only be read. Modifications and deletion must be prevented.
- After five years, the data can be deleted, but never modified.
- Data access charges must be minimized

What should you recommend? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

- A. Mastered
B. Not Mastered

Answer: A

Explanation:

Graphical user interface, text, application Description automatically generated

Box 1: General purpose v2 with Archive acce3ss tier for blobs

Archive - Optimized for storing data that is rarely accessed and stored for at least 180 days with flexible latency requirements, on the order of hours.

Cool - Optimized for storing data that is infrequently accessed and stored for at least 30 days. Hot - Optimized for storing data that is accessed frequently.

Box 2: Storage account resource lock

As an administrator, you can lock a subscription, resource group, or resource to prevent other users in your organization from accidentally deleting or modifying critical resources. The lock overrides any permissions the user might have.

Note: You can set the lock level to CanNotDelete or ReadOnly. In the portal, the locks are called Delete and Read-only respectively.

CanNotDelete means authorized users can still read and modify a resource, but they can't delete the resource.

ReadOnly means authorized users can read a resource, but they can't delete or update the resource.

Applying this lock is similar to restricting all authorized users to the permissions granted by the Reader role.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/blobs/storage-blob-storage-tiers>

NEW QUESTION 9

- (Exam Topic 4)

You plan to deploy 10 applications to Azure. The applications will be deployed to two Azure Kubernetes Service (AKS) clusters. Each cluster will be deployed to a separate Azure region.

The application deployment must meet the following requirements:

- Ensure that the applications remain available if a single AKS cluster fails.
- Ensure that the connection traffic over the internet is encrypted by using SSL without having to configure SSL on each container.

Which service should you include in the recommendation?

- A. AKS ingress controller
B. Azure Traffic Manager
C. Azure Front Door
D. Azure Load Balancer

Answer: C

Explanation:

"Azure Front Door, which focuses on global load-balancing and site acceleration, and Azure CDN Standard, which offers static content caching and acceleration. The new Azure Front Door brings together security with CDN technology for a cloud-based CDN with threat protection and additional capabilities. "

NEW QUESTION 10

- (Exam Topic 4)

Your company has 300 virtual machines hosted in a VMware environment. The virtual machines vary in size and have various utilization levels.

You plan to move all the virtual machines to Azure.

You need to recommend how many and what size Azure virtual machines will be required to move the current workloads to Azure. The solution must minimize administrative effort.

What should you use to make the recommendation?

- A. Azure Cost Management
- B. Azure Pricing calculator
- C. Azure Migrate
- D. Azure Advisor

Answer: C

Explanation:

<https://docs.microsoft.com/en-us/azure/migrate/migrate-appliance#collected-data---vmware>

"Metadata discovered by the Azure Migrate appliance helps you to figure out whether servers are ready for migration to Azure, right-size servers, plans costs, and analyze application dependencies".

<https://docs.microsoft.com/en-us/learn/modules/design-your-migration-to-azure/2-plan-your-azure-migration>

NEW QUESTION 10

- (Exam Topic 4)

You have an Azure subscription named Subscription1 that is linked to a hybrid Azure Active Directory (Azure AD) tenant.

You have an on-premises datacenter that does NOT have a VPN connection to Subscription1. The datacenter contains a computer named Server1 that has Microsoft SQL Server 2016 installed. Server1 is prevented from accessing the internet.

An Azure logic app named LogicApp1 requires write access to a database on Server1.

You need to recommend a solution to provide LogicApp1 with the ability to access Server1.

What should you recommend deploying on-premises and in Azure? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Graphical user interface, text, application, chat or text message Description automatically generated

Box 1: An on-premises data gateway

For logic apps in global, multi-tenant Azure that connect to on-premises SQL Server, you need to have the on-premises data gateway installed on a local computer and a data gateway resource that's already created in Azure.

Box 2: A connection gateway resource Reference:

<https://docs.microsoft.com/en-us/azure/connectors/connectors-create-api-sqlazure>

NEW QUESTION 14

- (Exam Topic 4)

You need to design a solution that will execute custom C# code in response to an event routed to Azure Event Grid. The solution must meet the following requirements:

The executed code must be able to access the private IP address of a Microsoft SQL Server instance that runs on an Azure virtual machine.

Costs must be minimized.

What should you include in the solution?

- A. Azure Logic Apps in the integrated service environment
- B. Azure Functions in the Dedicated plan and the Basic Azure App Service plan
- C. Azure Logic Apps in the Consumption plan
- D. Azure Functions in the Consumption plan

Answer: D

Explanation:

When you create a function app in Azure, you must choose a hosting plan for your app. There are three basic hosting plans available for Azure Functions:

Consumption plan, Premium plan, and Dedicated (App Service) plan.

For the Consumption plan, you don't have to pay for idle VMs or reserve capacity in advance. Connect to private endpoints with Azure Functions

As enterprises continue to adopt serverless (and Platform-as-a-Service, or PaaS) solutions, they often need a way to integrate with existing resources on a virtual network. These existing resources could be databases, file storage, message queues or event streams, or REST APIs.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-functions/functions-scale> <https://techcommunity.microsoft.com/t5/azure-functions/connect-to-private-endpoints-with-azure-functions/ba-p> Reference:

<https://docs.microsoft.com/en-us/azure/azure-functions/functions-scale#hosting-plans-comparison>

NEW QUESTION 16

- (Exam Topic 4)

You are designing a microservices architecture that will be hosted in an Azure Kubernetes Service (AKS) cluster. Apps that will consume the microservices will be hosted on Azure virtual machines. The virtual machines and the AKS cluster will reside on the same virtual network.

You need to design a solution to expose the microservices to the consumer apps. The solution must meet the following requirements:

- Ingress access to the microservices must be restricted to a single private IP address and protected by using mutual TLS authentication.
- The number of incoming microservice calls must be rate-limited.
- Costs must be minimized.

What should you include in the solution?

- A. Azure API Management Premium tier with virtual network connection
- B. Azure Front Door with Azure Web Application Firewall (WAF)
- C. Azure API Management Standard tier with a service endpoint
- D. Azure App Gateway with Azure Web Application Firewall (WAF)

Answer: A

Explanation:

One option is to deploy APIM (API Management) inside the cluster VNet.

The AKS cluster and the applications that consume the microservices might reside within the same VNet, hence there is no reason to expose the cluster publicly as all API traffic will remain within the VNet. For these scenarios, you can deploy API Management into the cluster VNet. API Management Premium tier supports VNet deployment.

Reference:

<https://docs.microsoft.com/en-us/azure/api-management/api-management-kubernetes>

NEW QUESTION 17

- (Exam Topic 4)

You have an Azure subscription.

You need to deploy an Azure Kubernetes Service (AKS) solution that will use Windows Server 2019 nodes. The solution must meet the following requirements:

- Minimize the time it takes to provision compute resources during scale-out operations.
- Support autoscaling of Windows Server containers. Which scaling option should you recommend?

- A. horizontal pod autoscaler
- B. Kubernetes version 1.20.2 or newer
- C. cluster autoscaler
- D. Virtual nodes
- E. with Virtual Kubelet ACI

Answer: C

Explanation:

<https://docs.microsoft.com/en-us/azure/aks/cluster-autoscaler#about-the-cluster-autoscaler>

NEW QUESTION 18

- (Exam Topic 4)

You plan to import data from your on-premises environment to Azure. The data is shown in the following table.

What should you recommend using to migrate the data? To answer, drag the appropriate tools to the correct data sources-Each tool may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

References:

<https://docs.microsoft.com/en-us/azure/dms/tutorial-sql-server-to-azure-sql> <https://docs.microsoft.com/en-us/azure/cosmos-db/import-data>**NEW QUESTION 21**

- (Exam Topic 4)

You are designing an application that will use Azure Linux virtual machines to analyze video files. The files will be uploaded from corporate offices that connect to Azure by using ExpressRoute.

You plan to provision an Azure Storage account to host the files.

You need to ensure that the storage account meets the following requirements:

- Supports video files of up to 7 TB
- Provides the highest availability possible
- Ensures that storage is optimized for the large video files
- Ensures that files from the on-premises network are uploaded by using ExpressRoute

How should you configure the storage account? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

- A. Mastered
B. Not Mastered

Answer: A**Explanation:****NEW QUESTION 24**

- (Exam Topic 4)

You have an Azure subscription. The subscription contains Azure virtual machines that run Windows Server 2016 and Linux.

You need to use Azure Log Analytics design an alerting strategy for security-related events.

Which Log Analytics tables should you query? To answer, drag the appropriate tables to the correct log types. Each value may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

- A. Mastered
B. Not Mastered

Answer: A

Explanation:

Graphical user interface, table Description automatically generated with medium confidence

<https://docs.microsoft.com/en-us/azure/azure-monitor/platform/log-analytics-agent>

Windows Event logs --> Information sent to the Windows event logging system. Syslog --> Information sent to the Linux event logging system.

NEW QUESTION 25

- (Exam Topic 4)

You have an Azure subscription that contains a Basic Azure virtual WAN named Virtual/WAN1 and the virtual hubs shown in the following table.

You have an ExpressRoute circuit in the US East region.

You need to create an ExpressRoute association to VirtualWAN1. What should you do first?

- A. Upgrade VirtualWAN1 to Standard.
B. Create a gateway on Hub1.
C. Create a hub virtual network in US East.
D. Enable the ExpressRoute premium add-on.

Answer: A

Explanation:

US East and US West are in the same geopolitical region so there is no need for enabling ExpressRoute premium add-on <https://docs.microsoft.com/en-us/azure/virtual-wan/virtual-wan-about#basicstandard>

The current config of virtual WAN is only Basic as given, so it can connect to only site to site VPN, to connect to express route it needs to be upgraded from basic to standard.

<https://docs.microsoft.com/en-us/azure/virtual-wan/virtual-wan-about>

<https://docs.microsoft.com/en-us/azure/virtual-wan/virtual-wan-about>

NEW QUESTION 28

- (Exam Topic 4)

You have an Azure subscription.

You need to recommend an Azure Kubernetes service (AKS) solution that will use Linux nodes. The solution must meet the following requirements:

- Minimize the time it takes to provision compute resources during scale-out operations.
- Support autoscaling of Linux containers.
- Minimize administrative effort.

Which scaling option should you recommend?

- A. Virtual Kubetet
B. cluster autoscaler
C. virtual nodes
D. horizontal pod autoscaler

Answer: C

Explanation:

<https://docs.microsoft.com/en-us/azure/aks/virtual-nodes>

NEW QUESTION 30

- (Exam Topic 4)

You have 100 servers that run Windows Server 2012 R2 and host Microsoft SQL Server 2012 R2 instances. The instances host databases that have the following characteristics:

The largest database is currently 3 TB. None of the databases will ever exceed 4 TB.

Stored procedures are implemented by using CLR.

You plan to move all the data from SQL Server to Azure.

You need to recommend an Azure service to host the databases. The solution must meet the following requirements:

Whenever possible, minimize management overhead for the migrated databases.

Minimize the number of database changes required to facilitate the migration.

Ensure that users can authenticate by using their Active Directory credentials.

What should you include in the recommendation?

- A. Azure SQL Database single databases
- B. Azure SQL Database Managed Instance
- C. Azure SQL Database elastic pools
- D. SQL Server 2016 on Azure virtual machines

Answer: B

Explanation:

References:

<https://docs.microsoft.com/en-us/azure/sql-database/sql-database-managed-instance>

SQL Managed Instance allows existing SQL Server customers to lift and shift their on-premises applications to the cloud with minimal application and database changes. At the same time, SQL Managed Instance preserves all PaaS capabilities (automatic patching and version updates, automated backups, high availability) that drastically reduce management overhead and TCO.

<https://docs.microsoft.com/en-us/azure/azure-sql/managed-instance/transact-sql-tsql-differences-sql-server#clr> <https://docs.microsoft.com/en-gb/azure/azure-sql/database/transact-sql-tsql-differences-sql-server#transact-sql-s>

NEW QUESTION 31

- (Exam Topic 4)

You need to recommend an Azure Storage Account configuration for two applications named Application1 and Applications. The configuration must meet the following requirements:

- Storage for Application1 must provide the highest possible transaction rates and the lowest possible latency.
- Storage for Application2 must provide the lowest possible storage costs per GB.
- Storage for both applications must be optimized for uploads and downloads.
- Storage for both applications must be available in an event of datacenter failure.

What should you recommend ? To answer, select the appropriate options in the answer area NOTE: Each correct selection is worth one point

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Graphical user interface, text, application Description automatically generated

Box 1: BlobBlobStorage with Premium performance and Zone-redundant storage (ZRS) replication.

BlockBlobStorage accounts: Storage accounts with premium performance characteristics for block blobs and append blobs. Recommended for scenarios with high transactions rates, or scenarios that use smaller objects or require consistently low storage latency.

Premium: optimized for high transaction rates and single-digit consistent storage latency. Box 2: General purpose v2 with Standard performance..

General-purpose v2 accounts: Basic storage account type for blobs, files, queues, and tables. Recommended for most scenarios using Azure Storage.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/common/storage-account-overview>

<https://docs.microsoft.com/en-us/azure/storage/common/storage-redundancy>

NEW QUESTION 32

- (Exam Topic 4)

A company plans to implement an HTTP-based API to support a web app. The web app allows customers to check the status of their orders.

The API must meet the following requirements:

Implement Azure Functions

Provide public read-only operations

Do not allow write operations

You need to recommend configuration options.

What should you recommend? To answer, configure the appropriate options in the dialog box in the answer area.

NOTE: Each correct selection is worth one point.

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Graphical user interface, table Description automatically generated

Allowed authentication methods: GET only Authorization level: Anonymous

The option is Allow Anonymous requests. This option turns on authentication and authorization in App Service, but defers authorization decisions to your application code. For authenticated requests, App Service also passes along authentication information in the HTTP headers.

This option provides more flexibility in handling anonymous requests. References:

<https://docs.microsoft.com/en-us/azure/app-service/overview-authentication-authorization>

NEW QUESTION 37

- (Exam Topic 4)

You have an Azure subscription that contains a storage account.

An application sometimes writes duplicate files to the storage account.

You have a PowerShell script that identifies and deletes duplicate files in the storage account. Currently, the script is run manually after approval from the operations manager.

You need to recommend a serverless solution that performs the following actions:

Runs the script once an hour to identify whether duplicate files exist
Processes an email response from the operations manager specifying whether the deletion was approved
Runs the script if the deletion was approved
What should you include in the recommendation?

- A. Azure Logic Apps and Azure Functions
- B. Azure Pipelines and Azure Service Fabric
- C. Azure Logic Apps and Azure Event Grid
- D. Azure Functions and Azure Batch

Answer: A

Explanation:

You can schedule a powershell script with Azure Logic Apps.

When you want to run code that performs a specific job in your logic apps, you can create your own function by using Azure Functions. This service helps you create Node.js, C#, and F# functions so you don't have to build a complete app or infrastructure to run code. You can also call logic apps from inside Azure functions. Azure Functions provides serverless computing in the cloud and is useful for performing tasks such as these examples:

Reference:

<https://docs.microsoft.com/en-us/azure/logic-apps/logic-apps-azure-functions>

NEW QUESTION 41

- (Exam Topic 3)

You are evaluating whether to use Azure Traffic Manager and Azure Application Gateway to meet the connection requirements for App1.

What is the minimum numbers of instances required for each service? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

NEW QUESTION 43

- (Exam Topic 1)

You plan to migrate App1 to Azure.

You need to estimate the compute costs for App1 in Azure. The solution must meet the security and compliance requirements.

What should you use to estimate the costs, and what should you implement to minimize the costs? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Text Description automatically generated

Box 1: The Azure Total Cost of Ownership (TCO) Calculator

The Total Cost of Ownership (TCO) Calculator estimates the cost savings you can realize by migrating your workloads to Azure.

Note: The TCO Calculator recommends a set of equivalent services in Azure that will support your applications. Our analysis will show each cost area with an estimate of your on-premises spend versus your spend in Azure. There are several cost categories that either decrease or go away completely when you move workloads to the cloud.

Box 2: Azure Hybrid Benefit

Azure Hybrid Benefit is a licensing benefit that helps you to significantly reduce the costs of running your workloads in the cloud. It works by letting you use your on-

premises Software Assurance-enabled Windows Server and SQL Server licenses on Azure. And now, this benefit applies to RedHat and SUSE Linux subscriptions, too.

Scenario:

Litware identifies the following security and compliance requirements:

Once App1 is migrated to Azure, you must ensure that new data can be written to the app, and the modification of new and existing data is prevented for a period of three years.

On-premises users and services must be able to access the Azure Storage account that will host the data in App1.

Access to the public endpoint of the Azure Storage account that will host the App1 data must be prevented.

All Azure SQL databases in the production environment must have Transparent Data Encryption (TDE) enabled.

App1 must not share physical hardware with other workloads.

Reference:

<https://azure.microsoft.com/en-us/pricing/tco/> <https://azure.microsoft.com/en-us/pricing/hybrid-benefit/>

NEW QUESTION 45

- (Exam Topic 1)

You need to implement the Azure RBAC role assignments for the Network Contributor role. The solution must meet the authentication and authorization requirements.

What is the minimum number of assignments that you must use?

- A. 1
- B. 2
- C. 5
- D. 10
- E. 15

Answer: A

Explanation:

Scenario: The Network Contributor built-in RBAC role must be used to grant permissions to the network administrators for all the virtual networks in all the Azure subscriptions.

RBAC roles must be applied at the highest level possible.

NEW QUESTION 48

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