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Topic 3 - Question Set 3

Question #1

Topic 3

HOTSPOT -

You are developing a solution that uses the Azure Storage Client library for .NET. You have the following code: (Line numbers are included for reference only.)

```

01 CloudBlockBlob src = null;
02 try
03 {
04     src = container.ListBlobs().OfType<CloudBlockBlob>().FirstOrDefault();
05     var id = await src.AcquireLeaseAsync(null);
06     var dst = container.GetBlockBlobReference(src.Name);
07     string cpid = await dst.StartCopyAsync(src);
08     await dst.FetchAttributeAsync();
09     return id;
10 }
11 catch (Exception e)
12 {
13     throw;
14 }
15 finally
16 {
17     if (src != null)
18         await src.FetchAttributesAsync();
19     if (src.Properties.LeaseState != LeaseState.Available)
20         await src.BreakLeaseAsync(new TimeSpan(0));
21 }

```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statement	Yes	No
The code creates an infinite lease	<input type="radio"/>	<input type="radio"/>
The code at line 06 always creates a new blob	<input type="radio"/>	<input type="radio"/>
The finally block releases the lease	<input type="radio"/>	<input type="radio"/>

Answer Area

Statement	Yes	No
Correct Answer: The code creates an infinite lease	<input checked="" type="radio"/>	<input type="radio"/>
The code at line 06 always creates a new blob	<input type="radio"/>	<input checked="" type="radio"/>
The finally block releases the lease	<input checked="" type="radio"/>	<input type="radio"/>

Box 1: Yes -

AcquireLeaseAsync does not specify leaseTime.

leaseTime is a TimeSpan representing the span of time for which to acquire the lease, which will be rounded down to seconds. If null, an infinite lease will be acquired. If not null, this must be 15 to 60 seconds.

Box 2: No -

The GetBlockBlobReference method just gets a reference to a block blob in this container.

Box 3: Yes -

The `BreakLeaseAsync` method initiates an asynchronous operation that breaks the current lease on this container.

Reference:

<https://docs.microsoft.com/en-us/dotnet/api/microsoft.azure.storage.blob.cloudblobcontainer.acquireleaseasync>

<https://docs.microsoft.com/en-us/dotnet/api/microsoft.azure.storage.blob.cloudblobcontainer.getblockblobreference>

<https://docs.microsoft.com/en-us/dotnet/api/microsoft.azure.storage.blob.cloudblobcontainer.breakleaseasync>

✉  **Tealon**  3 years, 3 months ago

I think the answer is correct:

Optional. Version 2012-02-12 and newer. For a break operation, this is the proposed duration of seconds that the lease should continue before it is broken, between 0 and 60 seconds. This break period is only used if it is shorter than the time remaining on the lease. If longer, the time remaining on the lease is used. A new lease will not be available before the break period has expired, but the lease may be held for longer than the break period. If this header does not appear with a break operation, a fixed-duration lease breaks after the remaining lease period elapses, and an infinite lease breaks immediately.

From: <https://docs.microsoft.com/en-us/rest/api/storageservices/lease-blob>

upvoted 46 times

✉  **AzureFailure** 2 years, 9 months ago

It talks about the header values only `ReleaseLeaseasync` release lease

upvoted 3 times

✉  **AzureAz204Fan** 2 years, 11 months ago

Last few words "infinite lease breaks immediately" is the key for this context.

upvoted 4 times

✉  **Figa**  3 years, 4 months ago

I think Box 3 should be no instead of yes. `BreakRelease` don't release the lease directly.

You use `ReleaseLease` to do this:

<https://docs.microsoft.com/en-us/dotnet/api/microsoft.azure.storage.blob.cloudblobcontainer.releaselease?view=azure-dotnet-legacy>

upvoted 24 times

✉  **Figa** 3 years, 4 months ago

Ah I think modele is right:

`BreakLeaseAsync (TimeSpan? breakPeriod)`

`breakPeriod`

`Nullable<TimeSpan>`

A `TimeSpan` representing the amount of time to allow the lease to remain, which will be rounded down to seconds. If null, the break period is the remainder of the current lease, or zero for infinite leases.

upvoted 4 times

✉  **Chang401** 1 year, 5 months ago

ya!!! an infinite lease breaks immediately

upvoted 1 times

✉  **jobolesonihal**  2 weeks, 6 days ago

Answer is Correct.

`BlobLease.BreakLeaseAsync`:

If the break period is not specified, the default value is 0 (immediate break).

upvoted 1 times

✉  **bgbgvfvf** 3 months, 2 weeks ago

I think the answer is correct

upvoted 2 times

✉  **dom271219** 7 months, 1 week ago

So, when you provide a `TimeSpan` value of 0, it essentially means "break the lease right now without any delay." This behavior aligns with the statement you provided: "If null, the break period is the remainder of the current lease, or zero for infinite leases." When you explicitly set it to 0, it ensures an immediate lease termination. It is a matter of knowing the English Language.

upvoted 2 times

✉  **kabbas** 9 months ago

to break the lease it will have to enter in the if block ..and since the lease jstate will be always be available since it is infinite ...it will never enter that block...so the answer is no

upvoted 1 times

✉  **Eward** 1 year, 2 months ago

Yes, No, Yes

upvoted 1 times

✉  **Eward** 1 year, 2 months ago

`AcquireLease(null)-->Creates infinite lease`

upvoted 2 times

✉ **Eward** 1 year, 2 months ago

AcquireLease(-1) will also create infinite lease
upvoted 1 times

✉ **coffecold** 1 year, 6 months ago

version 11 is legacy.
Similar code for version 12 see
<https://learn.microsoft.com/en-us/azure/storage/blobs/storage-blob-copy?tabs=dotnet>
upvoted 1 times

✉ **coffecold** 1 year, 6 months ago

This is Microsoft.Azure.Storage.Blob v11.1.0 code, it is a legacy library. Did anyone got this on the exam recently?
upvoted 2 times

✉ **strongmmc** 1 year, 7 months ago

I'm looking for an explanation on what a "lease" is, or what is intended by it, and cannot find any explanatory resource. Does anyone have a reference to it?
upvoted 3 times

✉ **strongmmc** 1 year, 7 months ago

<https://www.c-sharpcorner.com/article/implementing-blob-leasing-understanding-blob-storage-part-9/>

The Lease Blob operation establishes and manages a lock on a blob for write and delete operations. The lock duration can be 15 to 60 seconds or it can be infinite. Once you have the lease, you can update the Blob or delete the Blob without worrying about another process changing it underneath you. When a Blob is leased, other processes can still read it but any attempt to update it will fail. You can also update Blobs without taking a lease first, but you do run the chance of another process also attempting to modify it at the same time.
upvoted 4 times

✉ **winston_45** 1 year, 7 months ago

Correct answer:

YES
NO
YES

upvoted 3 times

✉ **gds03** 1 year, 7 months ago

If the finally code releases the lease, then 1st is wrong. The code doesn't create an infinite lease. Answer is NO.
upvoted 4 times

✉ **Emil_Topics** 4 months, 1 week ago

I agree. It's a bit silly to create a lease and then removing it, but that is in my opinion what is happening here. Why do people agree that the first one should be YES?
upvoted 1 times

✉ **sasha_gud** 2 years ago

Tried to execute the code sample:

- 1) If acquires lease on the blob with null parameter, means the infinite lease is acquired [1]
- 2) On line 6 it gets reference to existing source blob, so no new blob is created there
- 3) It fails on start copy operation, because it tries to copy onto itself and the lease is already acquired
- 4) Goes to catch and then finally block
- 5) In finally breaks the lease with (Zero) parameter that means the immediate lease break [2]

[1] [https://docs.microsoft.com/en-us/dotnet/api/microsoft.azure.storage.blob.cloudblobcontainer.acquireleaseasync?view=azure-dotnet-legacy#microsoft-azure-storage-blob-cloudblobcontainer-acquireleaseasync\(system-nullable\(\(system-timespan\)\)-system-string\)](https://docs.microsoft.com/en-us/dotnet/api/microsoft.azure.storage.blob.cloudblobcontainer.acquireleaseasync?view=azure-dotnet-legacy#microsoft-azure-storage-blob-cloudblobcontainer-acquireleaseasync(system-nullable((system-timespan))-system-string))

[2] [https://docs.microsoft.com/en-us/dotnet/api/microsoft.azure.storage.blob.cloudblobcontainer.breakleaseasync?view=azure-dotnet-legacy#microsoft-azure-storage-blob-cloudblobcontainer-breakleaseasync\(system-nullable\(\(system-timespan\)\)\)](https://docs.microsoft.com/en-us/dotnet/api/microsoft.azure.storage.blob.cloudblobcontainer.breakleaseasync?view=azure-dotnet-legacy#microsoft-azure-storage-blob-cloudblobcontainer-breakleaseasync(system-nullable((system-timespan))))

upvoted 15 times

✉ **Manivannan19** 2 years, 1 month ago

Answer to the third statement is 'Yes'.

BreakLeaseAsync(new TimeSpan(0)) will break/release an infinite lease (which is true in this scenario).

Source: <https://docs.microsoft.com/en-us/dotnet/api/microsoft.azure.storage.blob.cloudblobcontainer.breakleaseasync?view=azure-dotnet-legacy>

upvoted 2 times

✉ **lugospod** 2 years, 3 months ago

Regarding the third question. The answer is YES.

Here is to link: <https://github.com/Azure/azure-storage-net/blob/master/Test/WindowsRuntime/Blob/LeaseTests.cs>

Inside this file one can see a unit test at line 255 which does the same scenario and the expected result is the ID of the BROKEN infinite lease.

```
/// <summary>
/// Puts the lease on the given blob in a broken state due to a break period of zero.
/// </summary>
/// <param name="blob">The blob with the lease.</param>
/// <returns>The lease ID of the broken lease.</returns>
internal static async Task<string> SetInstantBrokenStateAsync(CloudBlob blob)
```

```
{  
    string leaseId = await SetLeasedStateAsync(blob, null /* infinite lease */);  
    await blob.BreakLeaseAsync(TimeSpan.Zero);  
    return leaseId;  
}
```

upvoted 2 times

 **lugospod** 2 years, 3 months ago

tdadadadadadad

upvoted 3 times

 **amanpritkaur** 2 years, 5 months ago

"The final block releases the lease" --> should not this be NO?

"BreakLeaseAsync", breaks the lease but "ReleaseLeaseAsync", releases the lease.

Release, to free the lease if it is no longer needed so that another client may immediately acquire a lease against the blob.
Break, to end the lease but ensure that another client cannot acquire a new lease until the current lease period has expired.

upvoted 5 times

 **Freidrich** 2 years, 1 month ago

So then, since the lease period is infinite, no other client may ever acquire a new lease?

upvoted 2 times

Question #2

You are building a website that uses Azure Blob storage for data storage. You configure Azure Blob storage lifecycle to move all blobs to the archive tier after 30 days.

Customers have requested a service-level agreement (SLA) for viewing data older than 30 days.

You need to document the minimum SLA for data recovery.

Which SLA should you use?

- A. at least two days
- B. between one and 15 hours
- C. at least one day
- D. between zero and 60 minutes

Correct Answer: B

The archive access tier has the lowest storage cost. But it has higher data retrieval costs compared to the hot and cool tiers. Data in the archive tier can take several hours to retrieve depending on the priority of the rehydration. For small objects, a high priority rehydrate may retrieve the object from archive in under 1 hour.

Reference:

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

Community vote distribution

B (100%)

✉  **homimi6115** Highly Voted 3 years, 4 months ago

Answer is correct

upvoted 44 times

✉  **surprise0011** 11 months, 4 weeks ago

received 2023-04-17 went given answer, score 926

upvoted 4 times

✉  **130nk3r5** 3 months, 1 week ago

Got this today.

Went with answer here.

Score 927

upvoted 1 times

✉  **mlantonis** Highly Voted 2 years, 10 months ago

Correct Answer: B

- Standard priority: The rehydration request will be processed in the order it was received and may take up to 15 hours.

- High priority: The rehydration request will be prioritized over Standard requests and may finish in under 1 hour for objects under ten GB in size.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/blobs/storage-blob-storage-tiers?tabs=azure-portal#archive-access-tier>

<https://docs.microsoft.com/en-us/azure/storage/blobs/storage-blob-rehydration?tabs=azure-portal>

upvoted 25 times

✉  **manopeydakon** Most Recent 3 months ago

The SLA for data recovery from the archive tier in Azure Blob storage is indeed between zero and 60 minutes. Option B ("between one and 15 hours") is not accurate in the context of Azure Blob storage archive tier recovery. The correct answer should be:

D. between zero and 60 minutes

upvoted 1 times

✉  **JH81** 9 months, 2 weeks ago

Selected Answer: B

Got this on 6/28/2023 and passed with 850. Went with answer.

upvoted 1 times

✉  **aragones** 11 months ago

Got this 2023-05-12.

Easy one.

My case:

case: You need to configure authorization.

case: You need to ensure the app does not time out and processes the blob data

case study: VanArsdel Inc Canada

upvoted 1 times

 **methkill** 4 months, 1 week ago

These are some random bot answers.

upvoted 1 times

 **Saluk_DE** 1 year ago

Question was in Exam 2023-03-30

upvoted 1 times

 **sarmaria** 1 year ago

Got this question in the exam on 16/03/2023. Went with proposed solution. Make sure to prepare for case studies. I got city and lights case study.

upvoted 2 times

 **OPT_001122** 1 year, 4 months ago

Selected Answer: B

B. between one and 15 hour

upvoted 1 times

 **elequiel** 1 year, 4 months ago

Selected Answer: B

Correct Answer: B,

upvoted 1 times

 **winston_45** 1 year, 7 months ago

This question is sooo open for interpretation: "For small objects, a high priority rehydrate may retrieve the object from archive in under 1 hour".

Where is this 15 hours coming from?

upvoted 4 times

 **AZAdam22** 1 year, 8 months ago

Selected Answer: B

B - Because it takes between one and 15 hours to recover data from the archive tier.

upvoted 2 times

 **Eltooth** 1 year, 10 months ago

Selected Answer: B

B is correct answer.

Gen 1 storage used to be up to 24 hours, now gen 2 is up to 15 hours.

<https://docs.microsoft.com/en-us/azure/storage/blobs/archive-rehydrate-overview#rehydration-priority>

upvoted 2 times

 **meoukg** 2 years ago

Got it on 03/2022, I chose B. between one and 15 hours

upvoted 1 times

 **KiranAtShinde** 2 years, 2 months ago

Selected Answer: B

Correct Answer is between 1-15 hours

upvoted 1 times

 **sertes** 2 years, 2 months ago

Selected Answer: B

Answer is correct

upvoted 1 times

 **ucsdmiami2020** 2 years, 4 months ago

Selected Answer: B

The answer is correct. Per the provided reference URL <https://docs.microsoft.com/en-us/azure/storage/blobs/access-tiers-overview?tabs=azure-portal>

Archive tier-An offline tier optimized for storing data that is rarely accessed, and that has flexible latency requirements, on the order of hours. Data in the Archive tier should be stored for a minimum of 108 days.

upvoted 1 times

 **UnknowMan** 2 years, 10 months ago

Answer is correct

upvoted 1 times

Question #3

HOTSPOT -

You are developing a ticket reservation system for an airline.

The storage solution for the application must meet the following requirements:

- ☞ Ensure at least 99.99% availability and provide low latency.
- ☞ Accept reservations even when localized network outages or other unforeseen failures occur.
- ☞ Process reservations in the exact sequence as reservations are submitted to minimize overbooking or selling the same seat to multiple travelers.
- ☞ Allow simultaneous and out-of-order reservations with a maximum five-second tolerance window.

You provision a resource group named `airlineResourceGroup` in the Azure South-Central US region.

You need to provision a SQL API Cosmos DB account to support the app.

How should you complete the Azure CLI commands? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

```
resourceGroupName='airlineResourceGroup'  
name='docdb-airline-reservations'  
databaseName='docdb-tickets-database'  
collectionName='docdb-tickets-collection'  
consistencyLevel=
```

Strong
Eventual
ConsistentPrefix
BoundedStaleness

```
az cosmosdb create \  
--name $name \  
  
--enable-virtual-network true \  
--enable-automatic-failover true \  
--kind 'GlobalDocumentDB' \  
--kind 'MongoDB' \  
  
--resource-group $resourceGroupName \  
--max-interval 5 \  
  
--locations 'southcentralus' \  
--locations 'eastus' \  
--locations 'southcentralus=0 eastus=1 westus=2' \  
--locations 'southcentralus=0'
```

```
--default-consistency-level = $consistencyLevel
```

Answer Area

```
resourceGroupName='airlineResourceGroup'
name='docdb-airline-reservations'
databaseName='docdb-tickets-database'
collectionName='docdb-tickets-collection'
consistencyLevel=
```

Strong
Eventual
ConsistentPrefix
BoundedStaleness

```
az cosmosdb create \
--name $name \
```

Correct Answer:

```
--enable-virtual-network true \
--enable-automatic-failover true \
--kind 'GlobalDocumentDB' \
--kind 'MongoDB' \
--resource-group $resourceGroupName \
--max-interval 5 \
```

--locations 'southcentralus'
--locations 'eastus'
--locations 'southcentralus=0 eastus=1 westus=2'
--locations 'southcentralus=0'

```
--default-consistency-level = $consistencyLevel
```

Box 1: BoundedStaleness -

Bounded staleness: The reads are guaranteed to honor the consistent-prefix guarantee. The reads might lag behind writes by at most "K" versions (that is,

"updates") of an item or by "T" time interval. In other words, when you choose bounded staleness, the "staleness" can be configured in two ways:

The number of versions (K) of the item

The time interval (T) by which the reads might lag behind the writes

Incorrect Answers:

Strong -

Strong consistency offers a linearizability guarantee. Linearizability refers to serving requests concurrently. The reads are guaranteed to return the most recent committed version of an item. A client never sees an uncommitted or partial write. Users are always guaranteed to read the latest committed write.

Box 2: --enable-automatic-failover true\

For multi-region Cosmos accounts that are configured with a single-write region, enable automatic-failover by using Azure CLI or Azure portal.

After you enable automatic failover, whenever there is a regional disaster, Cosmos DB will automatically failover your account.

Question: Accept reservations event when localized network outages or other unforeseen failures occur.

Box 3: --locations'southcentralus=0 eastus=1 westus=2

Need multi-region.

Reference:

<https://docs.microsoft.com/en-us/azure/cosmos-db/consistency-levels> <https://github.com/MicrosoftDocs/azure-docs/blob/master/articles/cosmos-db/manage-with-cli.md>

✉️  **sasisang**  3 years, 4 months ago

Answer is correct.

upvoted 69 times

✉️  **cbn** 3 years, 1 month ago

Last option is correct as well

<https://stackoverflow.com/questions/51197375/creating-cosmosdb-with-azure-cli-in-powershell>

upvoted 6 times

✉️  **cbn** 3 years, 1 month ago

I guess there is a typo on quotes though.

upvoted 5 times

✉ **ning** Highly Voted 2 years, 8 months ago

No need to overthink here, max-interval, indicates this must be bounded-staleness, enable-automatic-failover, indicated this must be multi-region
upvoted 58 times

✉ **OPT_001122** 1 year, 4 months ago

this is best explanation
upvoted 2 times

✉ **examtopics44556677** Most Recent 3 weeks, 6 days ago

Confused how most of the people here scored same score - 927.
I see 927 everywhere.

upvoted 2 times

✉ **jacobste** 7 months, 3 weeks ago

It's important to carefully read the entire question.
upvoted 3 times

✉ **Dianahu** 8 months, 2 weeks ago

I think that enable-automatic-failover = true option does not make any sense without other regions specified but given syntax for regions and priorities is wrong and does not work
upvoted 1 times

✉ **Dats1987** 11 months, 4 weeks ago

I think ans should be using chat gpt:
1. Eventual : maintain high availability and low latency
2. enable-automatic-failover = true
3. locations "South Central US"=0 : This is primary region
upvoted 2 times

✉ **IvanIco** 9 months, 1 week ago

Eventual is definitely not correct
upvoted 9 times

✉ **AzSimuz** 1 year, 1 month ago

BoundedStaleness doesn't guarantee the order of the order, that's session consistency. Where am I wrong?
upvoted 1 times

✉ **Eward** 1 year, 1 month ago

It was there in 13 Feb 2023 exam
upvoted 5 times

✉ **mdg3501** 1 year, 4 months ago

got this on 2022-12-7
upvoted 2 times

✉ **leandrocantiero** 2 years ago

esse aqui ta tudo errado
upvoted 3 times

✉ **glam** 2 years, 11 months ago

correct
upvoted 2 times

✉ **crepatata** 2 years, 11 months ago

The strong consistency doesn't work here:
1) there is a --max-interval property which is being used with bounded staleness only
2) there is a requirement "Accept reservations event when localized network outages or other unforeseen failures occur." which points us to multiple writes for multiple regions which is not being supported by the Strong consistency.
--locations syntax looks like obsolete as for late march 2021
upvoted 10 times

✉ **Spooky7** 2 years, 10 months ago

Ad. 2 - it is not true that it implies writes to multiple regions. In this case there is single write region with automatic failover configured (which provides write availability). Besides with write to multiple regions BoundedStaleness minimum time is 300 seconds, while requirement is 5 seconds (which is actually a minimum for BoundedStaleness with single write region)

upvoted 3 times

✉ **Ralph** 2 years, 11 months ago

Answer is wrong .. "strong" instead of "boundedStaleness"
upvoted 4 times

✉ **TakumaK** 2 years, 11 months ago

Are you sure? If then, elaborate why. Does this option --max-interval work for strong?
upvoted 7 times

✉️ [Removed] 3 years, 3 months ago

I think this should be "locations southcentralus". The requirement for 99.99% availability is covered by a single region and the syntax for providing multiple regions is wrong.

<https://docs.microsoft.com/en-us/azure/cosmos-db/high-availability>

https://docs.microsoft.com/en-us/cli/azure/cosmosdb?view=azure-cli-latest#az_cosmosdb_check_name_exists-optional-parameters

upvoted 3 times

✉️ agcertif 3 years, 2 months ago

I agree with you.... 99,99 can be reached with only one region.

Why it's not the right solution (someone can help please) ?

upvoted 3 times

✉️ Brak 3 years, 2 months ago

Because of the need for high availability during local network outages. Hence the auto failover selection.

upvoted 4 times

✉️ NikB 3 years, 1 month ago

Agreed, also according to the documentation, multiple regions have a min T of 300s:

"For a single region account, the minimum value of K and T is 10 write operations or 5 seconds. For multi-region accounts the minimum value of K and T is 100,000 write operations or 300 seconds."

upvoted 2 times

✉️ RaviKS 3 years, 3 months ago

Given Answer is Correct

upvoted 4 times

✉️ tomis 3 years, 3 months ago

--locations : Add a location to the Cosmos DB database account.

Usage: --locations KEY=VALUE [KEY=VALUE ...]

Required Keys: regionName, failoverPriority

Optional Key: isZoneRedundant

Default: single region account in the location of the specified resource group.

Failover priority values are 0 for write regions and greater than 0 for read regions. A failover priority value must be unique and less than the total number of regions.

Multiple locations can be specified by using more than one `--locations` argument.

upvoted 8 times

✉️ diligent176 3 years, 3 months ago

You are correct about this - none of the given options will work (all wrong syntax).

But I think they "meant" to use the 3 regions answer.

upvoted 4 times

✉️ Cornholioz 3 years, 3 months ago

Tried the CLI in the portal's Cloud Shell:

--locations has wrong syntax in the options.

az cosmosdb create -n myaccount4 --enable-automatic-failover true --max-interval 5 -g myRG --locations regionname=eastus --default-consistency-level=BoundedStaleness

--locations needs regionname. Because it also takes in failoverPriority and isZoneRedundant params.

So either the option with just the SouthCentralUS should work or if the rest of the regions need to be mentioned, then it's a deprecated syntax which makes no sense to answer now.

upvoted 2 times

Question #4

Topic 3

HOTSPOT -

You are preparing to deploy a Python website to an Azure Web App using a container. The solution will use multiple containers in the same container group. The Dockerfile that builds the container is as follows:

```
FROM python:3
ADD website.py
CMD [ "python", "./website.py"]
```

You build a container by using the following command. The Azure Container Registry instance named images is a private registry.

```
docker build -t images.azurecr.io/website:v1.0.0
```

The user name and password for the registry is admin.

The Web App must always run the same version of the website regardless of future builds.

You need to create an Azure Web App to run the website.

How should you complete the commands? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

```
az configure --defaults web=website
az configure --defaults group=website
az appservice plan create --name websitePlan
az webapp create --plan websitePlan
az webapp config
```

The image shows a command-line interface with three dropdown menus. The first dropdown, for 'az appservice plan create', contains the following options: '--sku SHARED', '--tags container', '--sku B1 --hyper-v', and '--sku B1 --is-linux'. The second dropdown, for 'az webapp create --plan websitePlan', contains the following options: '--deployment-source-url images.azurecr.io/website:v1.0.0', '--deployment-source-url images.azurecr.io/website:latest', '--deployment-container-image-name images.azurecr.io/website:v1.0.0', and '--deployment-container-image-name images.azurecr.io/website:latest'. The third dropdown, for 'az webapp config', contains the following options: 'set --python-version 2.7 --generic-configurations user=admin password=admin', 'set --python-version 3.6 --generic-configurations user=admin password=admin', 'container set --docker-registry-server-url https://images.azurecr.io -u admin -p admin', and 'container set --docker-registry-server-url https://images.azurecr.io/website -u admin -p admin'.

Correct Answer:

Answer Area

```
az configure --defaults web=website
az configure --defaults group=website
az appservice plan create --name websitePlan
az webapp create --plan websitePlan
az webapp config
```

Box 1: --SKU B1 --hyper-v -
--hyper-v
Host web app on Windows container.

Box 2: --deployment-source-url images.azurecr.io/website:v1.0.0
--deployment-source-url -u
Git repository URL to link with manual integration.

The Web App must always run the same version of the website regardless of future builds.

Incorrect:
--deployment-container-image-name -i
Linux only. Container image name from Docker Hub, e.g. publisher/image-name:tag.

Box 3: az webapp config container set -url https://images.azurecr.io -u admin -p admin az webapp config container set
Set a web app container's settings.

Parameter: --docker-registry-server-url -r
The container registry server url.

The Azure Container Registry instance named images is a private registry.

Example:
az webapp config container set --docker-registry-server-url https://{{azure-container-registry-name}}.azurecr.io

Reference:
<https://docs.microsoft.com/en-us/cli/azure/appservice/plan>

✉  **glam** Highly Voted 2 years, 11 months ago

```
--sku B1 --is-linux
--deployment-container-image-name images.azurecr.io/website:v1.0.0
-- container set --docker-registry-server-url https://images.azurecr.io -u admin -p admin
```

upvoted 145 times

✉  **applepie** 8 months, 2 weeks ago

got this question today, go with this answer - 7/30/2023, score 895/1000

upvoted 4 times

✉  **Esward** 1 year, 2 months ago

https://www.linkedin.com/pulse/how-quickly-create-micro-service-azure-webapp-fastapi-bonnet/?trk=pulse-article_more-articles_related-content-card

upvoted 2 times

✉  **aperez1979** Highly Voted 3 years ago

"use multiple containers in the same container group" this not is possible in windows.

Solution is:

```
--is-linux
--deployment-container-image-name
```

upvoted 43 times

✉ **azurelearner666** 2 years, 9 months ago

True! also last response is correct with
-- container set --docker-registry-server-url https://images.azurecr.io -u admin -p admin
upvoted 5 times

✉ **Tom87** 3 years ago

That's true.
"Multi-container groups are currently restricted to Linux containers."
<https://docs.microsoft.com/en-us/azure/container-instances/container-instances-multi-container-group>
upvoted 10 times

✉ **1989jay** Most Recent 3 months ago

This question was on exam. 09/01/2024. Passed 872.

upvoted 2 times

✉ **leviatas** 6 months, 2 weeks ago

Got this question in exam, went with answer. - 2023.09.25. Got Case Study Contoso
upvoted 1 times

✉ **NightshadeRC** 8 months, 2 weeks ago

Had this question today: 2023-07-26
upvoted 1 times

✉ **surprise0011** 12 months ago

microsoft promote good practices for -u and -p (^_^)
upvoted 9 times

✉ **[Removed]** 1 year ago

Got this in exam today (5 April 2023)
upvoted 5 times

✉ **uffuchs1** 1 year, 1 month ago

Received this in my exam today (22/02/2023). Selected linux, --deployment-container...:v1.0.0, and container set ... in --u admin --p admin. Score 927.
upvoted 5 times

✉ **Esward** 1 year, 1 month ago

It was there in 13 Feb 2023 exam
upvoted 4 times

✉ **Tito28** 1 year, 3 months ago

this answer are not wrong, if you must know, these question and answer are giving by microsoft , so how can it be wrong if microsoft support those answer?
upvoted 1 times

✉ **Net_IT** 1 year, 1 month ago

The answers are not provided by Microsoft but by the community/Examtopics, sometimes given answers are wrong. But the discussions are great to help you with that! In this case I believe the highest voted answers are correct (from aperez1979).
upvoted 4 times

✉ **Dani_ac7** 1 year, 9 months ago

Linux for multiple containers
upvoted 3 times

✉ **Pize** 1 year, 9 months ago

Another wrong answer - this site riddled with wrong answers
upvoted 6 times

✉ **Etooth** 1 year, 10 months ago

--sku B1 --is-linux
--deployment-container-image-name images.azurecr.io/website:v1.0.0
-- container set --docker-registry-server-url https://images.azurecr.io -u admin -p admin
upvoted 4 times

✉ **yevgen91** 2 years, 3 months ago

The suggested answer is for Windows, but Python is deprecated for Windows, as well as multiple containers are not possible in Windows. So it must be Linux, and based on this article <https://docs.microsoft.com/en-us/azure/app-service/tutorial-custom-container?pivot=container-linux>

the answer must be:

1. --sku B1 --is-linux
2. --deployment-container-image-name ... :v1.0.0
3. container set ... https://images.azurecr.io ...

upvoted 6 times

✉ **Molte** 2 years, 3 months ago

for answer 3: Can somebody tell me why its images.azurecr.io and not images.azurecr.io/website?

upvoted 4 times

✉ **ScubaDiver123456** 2 years, 2 months ago

The command requires the URL of the registry, not the image name. That is appended later.

--docker-registry-server-url

The container registry server url."

upvoted 9 times

✉ **BeshoyRomany** 2 years, 6 months ago

Hi All the Correct answer is

--sku B1 --is-linux

--deployment-container-image-name images.azurecr.io/website:v1.0.0

-- container set --docker-registry-server-url https://images.azurecr.io -u admin -p admin

Multi-container groups currently support only Linux containers. For Windows containers, Azure Container Instances only supports deployment of a single container instance. While we are working to bring all features to Windows containers, you can find current platform differences in the service

<https://docs.microsoft.com/en-us/azure/container-instances/container-instances-container-groups>

upvoted 5 times

✉ **shai0946** 2 years, 8 months ago

Multi-container groups currently support only Linux containers. For Windows containers, Azure Container Instances only supports deployment of a single container instance.

<https://docs.microsoft.com/en-us/azure/container-instances/container-instances-container-groups>

upvoted 2 times

Question #5

HOTSPOT -

You are developing a back-end Azure App Service that scales based on the number of messages contained in a Service Bus queue.

A rule already exists to scale up the App Service when the average queue length of unprocessed and valid queue messages is greater than 1000.

You need to add a new rule that will continuously scale down the App Service as long as the scale up condition is not met.

How should you configure the Scale rule? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer AreaScale rule x

Metric source

▼

- Storage queue
- Service Bus queue
- Current resource
- Storage queue (classic)

Resource type

Service Bus Namespaces ▼

Resource

MessageQueue1103 ▼

* Queues

itemqueue ▼

Criteria

* Metric name

▼

- Message Count
- Active Message Count

1 minute time grain

* Time grain statistic •

▼

- Total
- Maximum
- Average
- Count

* Operator

▼

Answer Area**Scale rule**

x

Metric source

Storage queue
Service Bus queue
 Current resource
 Storage queue (classic)

Resource type

Service Bus Namespaces

Resource

MessageQueue1103

* Queues

itemqueue

Correct Answer:**Criteria***** Metric name**
 Message Count
Active Message Count

1 minute time grain

*** Time grain statistic**
 Total
 Maximum
 Average
Count
*** Operator**
Box 1: Service bus queue -

You are developing a back-end Azure App Service that scales based on the number of messages contained in a Service Bus queue.

Box 2: ActiveMessage Count -

ActiveMessageCount: Messages in the queue or subscription that are in the active state and ready for delivery.

Box 3: Count -**Box 4: Less than or equal to -**

You need to add a new rule that will continuously scale down the App Service as long as the scale up condition is not met.

Box 5: Decrease count by

 **VijiVivek**  2 years, 11 months ago

The correct answers are

- 1) Service bus queue
- 2) Active message count
- 3) Average
- 4) Less than or equal to
- 5) Decrease count by

upvoted 118 times

 **applepie** 8 months, 2 weeks ago

got this question today, go with this answer - 7/30/2023, score 895/1000

upvoted 1 times

 **micro9000** 1 year, 5 months ago

I think the #4 is should be "Less than" only, because you don't want to trigger the Scale up and Scale down at the same time.

upvoted 7 times

 **micro9000** 1 year, 5 months ago

Here is a reference why I think it should be Less than,

<https://learn.microsoft.com/en-us/training/modules/scale-apps-app-service/5-autoscale-best-practices?ns-enrollment-type=learningpath&ns-enrollment-id=learn.wwl.create-azure-app-service-web-apps>

upvoted 1 times

✉ **JustHereToLearn** 1 year, 2 months ago

I won't trigger at same time as question says "average queue length of unprocessed and valid queue messages is greater than 1000"
upvoted 4 times

✉ **azurelearner666** 2 years, 9 months ago

this is correct (the "official" solution is wrong)
Also check the proper image https://vceguide.com/wp-content/uploads/2019/10/Microsoft-AZ-203-date-01-06-2019-00001_Page_062_Image_0001.jpg
upvoted 40 times

✉ **Evo_Morales** 1 year, 11 months ago

How often are the responses scrubbed for updates/corrections?
upvoted 1 times

✉ **mlantonis** Highly Voted 2 years, 10 months ago

Full image: https://vceguide.com/wp-content/uploads/2019/10/Microsoft-AZ-203-date-01-06-2019-00001_Page_062_Image_0001.jpg
upvoted 77 times

✉ **jay158** 2 years, 10 months ago

You are providing invaluable help, by clarifying the questions,
upvoted 11 times

✉ **mlantonis** 2 years, 10 months ago

Box 1: Service bus queue
You are developing a back-end Azure App Service that scales based on the number of messages contained in a Service Bus queue.

Box 2: ActiveMessage Count

ActiveMessageCount: Number of messages in the queue or subscription that are in the active state and ready for delivery.

Box 3: Average

For special metrics such as Storage or Service Bus Queue length metric, the threshold is the average number of messages available per current number of instances.

Box 4: Less than or equal to

You need to add a new rule that will continuously scale down the App Service, as long as the scale up condition is not met.

Box 5: Decrease count by

upvoted 38 times

✉ **mlantonis** 2 years, 10 months ago

Reference:

<https://docs.microsoft.com/en-us/azure/azure-monitor/autoscale/autoscale-best-practices#considerations-for-scaling-threshold-values-for-special-metrics>

<https://docs.microsoft.com/en-us/azure/service-bus-messaging/message-counters>

upvoted 9 times

✉ **warchoon** 1 year, 1 month ago

<https://learn.microsoft.com/en-us/azure/azure-monitor/autoscale/autoscale-best-practices#considerations-for-scaling-when-multiple-rules-are-configured-in-a-profile>
points Less than
upvoted 1 times

✉ **NightshadeRC** Most Recent 8 months, 2 weeks ago

Had this question today: 2023-07-26

upvoted 2 times

✉ **AsuraX** 1 year, 3 months ago

Got this on my exam, January 10, 2023 (I passed)

My answer:

Box 1: Service bus queue

Box 2: Active Message Count

Box 3: Average

Box 4: Less than or equal to

Box 5: Decrease count by

upvoted 3 times

✉ **Lucifer14** 1 year, 3 months ago

In 28-12-2022 exam, Answers.

Service Bus queue

active message count

count

less than equal to

decrease count

upvoted 1 times

✉ **at_sayali** 1 year, 5 months ago

Got it on 10/2022, I chose as below:
Box 1: Service bus queue
Box 2: Active Message Count
Box 3: Average
Box 4: Less than or equal to
Box 5: Decrease count by
upvoted 2 times

✉ **OPT_001122** 1 year, 6 months ago

Admin, Request to please update the full image. Current image is cut and options 4 and 5 are not visible
upvoted 4 times

✉ **meoukg** 2 years ago

Got it on 03/2022, I chose as below:
Box 1: Service bus queue
Box 2: ActiveMessage Count
Box 3: Average
Box 4: Less than or equal to
Box 5: Decrease count by
upvoted 3 times

✉ **GigaCaster** 2 years, 8 months ago

Just a question but how are you going to reduce the count if there is now count to reduce?
upvoted 2 times

✉ **glam** 2 years, 11 months ago

The correct answers are
1) Service bus queue
2) Active message count
3) Average
4) Less than or equal to
5) Decrease count by
upvoted 4 times

✉ **Phenr** 3 years ago

I believe the answers are:
1st box: as given, since we're analyzing the state of messages in the Service Bus Queue
2nd box: as given, because Active Message Count will show us just the count of messages that are in the active state and ready for delivery, while Message Count would show us all the messages.
3rd box: Average, since we should stay consistent with the Scale Up time grain, which is also "Average" - this way, when we use "average" on both, we have consistent and clear conditions when to go up and when to go down
upvoted 15 times

✉ **hobob** 3 years ago

I think the 3rd option should be "Average" since the scale up rule is based off average, it makes sense to make the scale down rule work on the same principal.
upvoted 6 times

✉ **Mike_St** 3 years ago

The image is cut so i cant see the bottom 2 dropdowns but they sound alright in the answer explanation bellow.

Also the 2nd box should be Message Count.

Reason:

In the question it is said:
"when the average queue length of unprocessed AND valid queue messages"

If it was just valid Queue messages it would have been enough to set it on Active Message Count... but they want Valid AND Unproscessed messages... so i think it should be Message Count.

(i am not 100% sure but unprosessed message should not count as an active message)

upvoted 3 times

✉ **qerem** 3 years ago

Messagecount is false because it also contains deadlettered messages among others. Unprocessed messages are active because they are "ready to delivery". So i think "Active Message Count" is correct

upvoted 3 times

Question #6

DRAG DROP -

You have an application that uses Azure Blob storage.

You need to update the metadata of the blobs.

Which three methods should you use to develop the solution? To answer, move the appropriate methods from the list of methods to the answer area and arrange them in the correct order.

Select and Place:

Methods

Metadata.Add
SetMetadataAsync
FetchAttributesAsync
UploadFileStream
SetPropertiesAsync

Answer Area**Methods**

Metadata.Add
SetMetadataAsync
SetPropertiesAsync

Answer Area

Correct Answer:

FetchAttributesAsync
UploadFileStream

Metadata.Add example:

```
// Add metadata to the dictionary by calling the Add method
metadata.Add("docType", "textDocuments");
```

SetMetadataAsync example:

```
// Set the blob's metadata.
await blob.SetMetadataAsync(metadata);
// Set the blob's properties.
await blob.SetPropertiesAsync();
```

Reference:

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

  **Phenr** Highly Voted 3 years ago

Since we're talking about updating the metadata,

- first we need to fetch it, to populate blob's properties and metadata (we want to update it - without fetching we would just set the new metadata):

FetchAttributesAsync

- second, we need to manipulate the metadatas to update them and the best fitting is

Metadata.Add

- third, we have to persist our changes. We can use a method that initiates an asynchronous operation to update the blob's metadata, which is SetMetadataAsync

upvoted 248 times

  **azurelearner666** 2 years, 9 months ago

This is the best response (the "official" response is wrong)

upvoted 4 times

  **rdeontis** 3 years ago

correct!

upvoted 2 times

  **TakumaK** 2 years, 11 months ago

nicely explained!

upvoted 3 times

✉ **zzt** 2 years, 8 months ago

Based on MS documentation referenced it should be:

```
// Get the blob's properties and metadata.
BlobProperties properties = await blob.GetPropertiesAsync();

// Add metadata to the dictionary by calling the Add method
properties.metadata.Add("docType", "textDocuments");

// Add metadata to the dictionary by using key/value syntax
properties.metadata["category"] = "guidance";

// Set the blob's metadata.
await blob.SetMetadataAsync(properties.metadata);
```

upvoted 19 times

✉ **altafpatel1984** 2 years, 4 months ago

But there is no option for GetProperties !

upvoted 2 times

✉ **coffecold** 1 year, 6 months ago

Yes there is, in version 12. The exam topic references for version 11 (legacy)

upvoted 1 times

✉ **Tom87** Highly Voted 3 years ago

I suppose there are two correct answers, depending on the version of Azure.Storage.Blobs. For v11: FetchAttributesAsync, Metadata.Add, SetMetadataAsync.

For v12: GetPropertiesAsync, Metadata.Add, SetMetadataAsync.

Just look here, there are two tabs with source code. One for v11, one for v12:

<https://docs.microsoft.com/en-us/azure/storage/blobs/storage-blob-properties-metadata?tabs=dotnet#set-and-retrieve-metadata>

upvoted 54 times

✉ **vtomy** 2 years, 9 months ago

Correct. But GetPropertiesAsync not mentioned in answer options. We can go with FetchAttributesAsync

upvoted 14 times

✉ **xRiot007** 1 year, 9 months ago

MS updated their pages.

Now, to set metadata, you need to add it either with metadata.Add, or metadata[key] = value.

After, you just need to save it, by calling SetMetadataAsync.

No other operations are required as we do not care what metadata is already on the blob set.

upvoted 1 times

✉ **macobuzi** 7 months, 3 weeks ago

Yeah, But the question forces you to pick 3 options. So FetchAttributeAsync is probably the closest one.

upvoted 1 times

✉ **alora01** Most Recent 3 weeks, 5 days ago

Sure, here are three methods you could use to update the metadata of blobs in Azure Blob storage-

SetBlobMetadata

SetMetadataAsync

SetPropertiesAsync

For more details - <https://sysconverter.com/blog/import-pst-to-shared-mailbox-office-365/>

upvoted 1 times

✉ **onlyforheros** 3 weeks, 6 days ago

Got it in exam on 13.03.2024. Score: 910.

upvoted 1 times

✉ **arunkuml** 3 months, 4 weeks ago

Got it in the exam 14/12/23. Went with given answer. All questions are from ExamTopics. Case study - VanArsdel, Ltd (11 questions)

upvoted 2 times

✉ **AndySmith** 5 months, 1 week ago

On exam 3-Nov-2023. Went with most-voted answer - 932/1000.

1) FetchAttributesAsync

2) Metadata.Add

3) SetMetadataAsync

upvoted 2 times

✉ **ENGs** 6 months, 1 week ago

On my exam 2023-10 before the Update of the Exam

upvoted 1 times

✉ **RuffBoii** 6 months, 2 weeks ago

Had this on my exam today.

upvoted 1 times

✉ **ddd111** 6 months, 3 weeks ago

I got this same question. Provided answers are correct. (Note: I failed the exam 20/Sept/23. I only scored 644 and I felt bad. I think because many questions here in Examtopics are not correct or already outdated. I suggest following the most voted answers and not rely on Examtopics answers. At the beginning of the exam, you will be asked which programming languages you want to use. C#/Python. I chose C#. Also, I just want to add that some questions here in the actual exams, but the choices are written and formatted differently. Please be aware of that. Goodluck. I feel bad for failing it, but I want to retake next month. I will try Python. T_T

upvoted 2 times

✉ **TechyNetty** 6 months, 2 weeks ago

Sorry to hear that. I have exam soon. Were all the questions from ExamTopics> Any tips you would like to share please, Thanks

upvoted 1 times

✉ **ddd111** 5 months ago

I would say 30% percent of the questions here really shown to my exam. But after I purchased contributor access, I would say 90 percent of the questions here. In my first attempt, I almost lose my hope of passing because of the case study. So, I highly recommend you review case studies. really difficult. And like I said, some question and answer format are quite different from the actual exam. Good luck. I'm gonna retake before end of Nov.2023 because of the recent update from MS. AZ-204 was updated.

upvoted 1 times

✉ **longnguyendh** 8 months, 1 week ago

It should be FetchAttributesAsync, Metadata.Add, SetMetadataAsync

upvoted 2 times

✉ **juancar** 9 months, 1 week ago

This was on the exam (July 2023). Went with fetch/metadata.add/setMetadata. Scored 917

upvoted 4 times

✉ **DonH** 9 months, 4 weeks ago

Just for information: I just had this question on my AZ204 exam - 16-jun-2023.

I barely made it (with only 767 points) so I can't inform anyone if this answer is correct or not, just stating that this is an actual exam question.

upvoted 4 times

✉ **saravanasanthosh** 1 year, 3 months ago

Got this in exam 12/30/2022

upvoted 2 times

✉ **OPT_001122** 1 year, 4 months ago

thanks to all who have mentioned the exam dates

upvoted 2 times

✉ **OPT_001122** 1 year, 4 months ago

FetchAttributesAsync

Metadata.Add

SetMetadataAsync

upvoted 3 times

✉ **elequiel** 1 year, 5 months ago

Got it in exam 20/10/2022

upvoted 2 times

✉ **coffecold** 1 year, 6 months ago

FetchAttributesAsync is version 11 (legacy)

In version 12 it would be :

1. await blob.GetPropertiesAsync();
2. metadata.Add("docType", "textDocuments");
3. await blob.SetMetadataAsync(metadata);

<https://learn.microsoft.com/en-us/azure/storage/blobs/storage-blob-properties-metadata>

upvoted 4 times

Question #7

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. You are developing an Azure solution to collect point-of-sale (POS) device data from 2,000 stores located throughout the world. A single device can produce

2 megabytes (MB) of data every 24 hours. Each store location has one to five devices that send data.

You must store the device data in Azure Blob storage. Device data must be correlated based on a device identifier. Additional stores are expected to open in the future.

You need to implement a solution to receive the device data.

Solution: Provision an Azure Event Grid. Configure the machine identifier as the partition key and enable capture.

Does the solution meet the goal?

A. Yes

B. No

Correct Answer: A

Reference:

<https://docs.microsoft.com/en-us/azure/event-grid/compare-messaging-services>

Community vote distribution

B (100%)

 **bbijls** Highly Voted 3 years ago

I don't know who gave all the answer, but that person definitely failed the exam..

upvoted 141 times

 **kondapaturi** 2 years, 9 months ago

what is the answer?

upvoted 1 times

 **Anil4Az** 2 years, 10 months ago

Good one... :)

upvoted 4 times

 **AnuSubramaniam** 2 years, 8 months ago

Its Event Hub not, Grid.

upvoted 23 times

 **basquiat** 8 months ago

I honestly think that this is on purpose so people actually discuss the questions. Reverse psychology. LOL

upvoted 5 times

 **Dinima** Highly Voted 3 years ago

I think event hub. Azure Event Hub can be used to get the messages from the various devices. Azure Event Hub capture can then be used to persist the events to Azure Blob storage.

upvoted 50 times

 **Tom87** 2 years, 11 months ago

I agree. The solution says "enable capture". I have found capture only for Event Hub, not for Event Grid.

<https://docs.microsoft.com/en-us/azure/event-hubs/event-hubs-capture-overview>

upvoted 11 times

 **Eward** 1 year, 2 months ago

Agreed

upvoted 1 times

 **zeugo** Most Recent 4 months ago

Its Eventhub, grid is primarily for event routing, allowing other resources like functions to react to changes from a blobstorage etc. Event hub is the choice for streaming telemetry data from thousands of sources to a blobstorage. Here is a digestable documentation for understanding the difference between Hub, Grid and ServiceBus: <https://arindam-das.medium.com/demystifying-azures-eventing-services-a-comparison-of-event-hub-event-grid-and-service-bus-d578693dcf16>

upvoted 2 times

 **Samuel316** 6 months ago

It should be EventHub, not EventGrid.

upvoted 1 times

 **ENGs** 6 months, 1 week ago

Had this series of questions On my exam 2023-10 before the Update of the Exam

upvoted 1 times

 **macobuzi** 7 months, 3 weeks ago

The answer is Azure Event Hub, not Event Grid.

upvoted 4 times

 **KarthikCS** 11 months, 3 weeks ago

How come almost every answer marked by examtopic is incorrect. Whats the purpose of marking answers then if you have to follow discussion thread for each question?

upvoted 7 times

 **dddddd111** 5 months ago

Yeah, it is confusing. I failed in my first attempt. scored 644 only.

upvoted 2 times

 **Kluk_Kluk** 1 year, 1 month ago

"device data from 2,000 stores located throughout the world." It is a distributed data streaming. Answer is EventHub

upvoted 4 times

 **fkaracan** 1 year, 1 month ago

Selected Answer: B

Given solution does not meet the goal because you are using Event Grid instead of Event Hubs. Event Grid does not have a capture feature and it does not store data in Blob storage. You need to use Event Hubs as your source and enable capture with Blob storage as your destination.

upvoted 4 times

 **alexein74** 1 year, 2 months ago

Selected Answer: B

B. No.

Azure Event Grid is an event routing service that allows you to handle events from various Azure services and your own applications. It can be used to send events from an application to multiple subscribers, but it is not well suited for receiving data from thousands of devices and storing them in Azure Blob storage.

Azure Event Grid is also not meant for long-term data storage and it is not a good fit for this scenario, where large amounts of data need to be stored and correlated based on a device identifier.

upvoted 4 times

 **cemergen** 1 year, 3 months ago

Selected Answer: B

B is the correct answer

upvoted 1 times

 **Knightie** 1 year, 7 months ago

Selected Answer: B

The reason for No is due to the max no. of partition. The question demands $5 \times 2000 = 10000$ partition, which is more than all tiers available.

<https://docs.microsoft.com/en-us/azure/event-hubs/event-hubs-quotas#basic-vs-standard-vs-premium-vs-dedicated-tiers>

upvoted 3 times

 **Satish_Babu** 1 year, 8 months ago

Selected Answer: B

EventHub not EventGrid

upvoted 1 times

 **sahir1** 1 year, 8 months ago

Selected Answer: B

B is the correct answer

upvoted 1 times

 **AZAdam22** 1 year, 8 months ago

Selected Answer: B

No - Capture is a feature of EventHub, not EventGrid.

upvoted 2 times

 **Dani_ac7** 1 year, 9 months ago

Selected Answer: B

is event hub, not grid

upvoted 2 times

 **xRiot007** 1 year, 9 months ago

Selected Answer: B

Event Hub is the correct option. Sensors are sending data, they aren't just notifying you that something happened.

upvoted 1 times

Question #8

You develop Azure solutions.

A .NET application needs to receive a message each time an Azure virtual machine finishes processing data. The messages must NOT persist after being processed by the receiving application.

You need to implement the .NET object that will receive the messages.

Which object should you use?

- A. QueueClient
- B. SubscriptionClient
- C. TopicClient
- D. CloudQueueClient

Correct Answer: D

A queue allows processing of a message by a single consumer. Need a CloudQueueClient to access the Azure VM.

Incorrect Answers:

B, C: In contrast to queues, topics and subscriptions provide a one-to-many form of communication in a publish and subscribe pattern. It's useful for scaling to large numbers of recipients.

Reference:

<https://docs.microsoft.com/en-us/azure/service-bus-messaging/service-bus-queues-topics-subscriptions>

Community vote distribution

A (92%) 8%

✉  **mlantonis**  2 years, 10 months ago

Correct Answer: A

Azure.Storage.Queues.QueueClient: .NET v12

Azure.Storage.Queues.CloudQueueClient: .NET v11 (Legacy)

So, the question is really about what kind of queue message tool you should use. And the key word here is that "message must NOT persist after being processed".

Azure.Storage.Queues.QueueClient supports "At-Most-Once" deliver mode, while Azure.Storage.Queues.CloudQueueClient doesn't.

Reference:

<https://docs.microsoft.com/en-us/dotnet/api/azure.storage.queues.queueclient?view=azure-dotnet>

<https://docs.microsoft.com/en-us/dotnet/api/microsoft.azure.storage.queue.cloudqueueclient?view=azure-dotnet-legacy>
upvoted 88 times

✉  **guchao2000** 1 year, 2 months ago

It's QueueClient of Service Bus.

upvoted 3 times

✉  **MiraA** 2 years, 6 months ago

It seems the CloudQueueClient is a legacy class and is used for creation of QueueClient instances.

<https://docs.microsoft.com/en-us/dotnet/api/microsoft.azure.storage.queue.cloudqueueclient.getqueuereference>

upvoted 2 times

✉  **SSR999** 2 months, 4 weeks ago

but when you do receive message on storage queue it wont delete message automatically

upvoted 1 times

✉  **Spooky7**  2 years, 10 months ago

First of all - question is not precise as we don't know which QueueClient they are asking about. There are two options:

- Microsoft.AzureService.Bus.QueueClient?
- Azure.Storage.Queues.QueueClient?

I would say it is about Microsoft.AzureService.Bus.QueueClient as the difference between Azure.Storage.Queues.CloudQueueClient (v12) is just a legacy version of the Azure.Storage.Queues.QueueClient (v11)

So the question is really about what kind of queue message tool you should use. And the key word here is that "message must NOT persist after being processed". So correct answer would be Microsoft.AzureService.Bus.QueueClient (A) as it supports "At-Most-Once" deliver mode while Azure.Storage.Queues.CloudQueueClient doesn't.

upvoted 19 times

✉ **basquiat** 8 months ago

I agree. Plus that Azure.Storage.Queues.QueueClient AFAIK is more appropriate for data intensive scenarios.

upvoted 1 times

✉ **ShoaibAnwar** [Most Recent] 1 month ago

Selected Answer: B

SubscriptionClient Given the requirement for messages to not persist after being processed and the implied need for a publish/subscribe model

upvoted 1 times

✉ **raymond_abcd** 2 months, 3 weeks ago

Selected Answer: A

Think it the servicebus namespace because it is messaging not the storagequeue namespace. The QueueClient is deprecated for Servicebus. It is not in the answers but it should be ServiceBusClient. So in this case I would go for the deprecated object answer A

upvoted 2 times

✉ **RikinPatel** 6 months, 1 week ago

Selected Answer: A

@Admin Please correct answer.

As per MS Doc and ChatGPT correct ans is A so please correct ans and its explanation

upvoted 2 times

✉ **alexein74** 1 year, 2 months ago

Selected Answer: A

A. QueueClient

upvoted 1 times

✉ **OPT_001122** 1 year, 4 months ago

Selected Answer: A

A. QueueClient

upvoted 1 times

✉ **gmishra88** 1 year, 6 months ago

Microsoft creates all these random naming convention showing how disorganized they are in individual islands and they dare to ask questions along this fault lines.

upvoted 6 times

✉ **Perplex** 1 year, 8 months ago

Selected Answer: A

A is correct, the new API calls it QueueClient. See also most upvoted answer.

upvoted 3 times

✉ **xRiot007** 1 year, 9 months ago

A - version 12

D - "legacy" version 11

upvoted 1 times

✉ **Bartimaeus** 2 years, 1 month ago

What about ServiceBus QueueClient in the old API?

<https://docs.microsoft.com/en-us/dotnet/api/microsoft.azure.servicebus.queueclient?view=azure-dotnet>

upvoted 1 times

✉ **idroj** 2 years, 1 month ago

Selected Answer: A

A is the correct answer

upvoted 3 times

✉ **Ccastan1** 2 years, 2 months ago

So the explanation for why A is wrong is incorrect? It states you cannot access the VM using A

upvoted 1 times

✉ **prabhjot** 2 years, 10 months ago

yes A is correct

upvoted 1 times

✉ **glam** 2 years, 11 months ago

A. QueueClient

upvoted 2 times

✉ **aperez1979** 3 years ago

Why not A?

upvoted 4 times

✉ **Shion2009** 3 years ago

See the answer information:

A queue allows processing of a message by a single consumer. Need a CloudQueueClient to access the Azure VM.

upvoted 3 times

✉ **ivan0590** 1 year, 10 months ago

I really don't know why you need to access the Azure VM, it makes no sense. Whatever the VM does, in the end, it add a message to a queue in Azure. And you don't need to access the VM to access the queue. This explanation is very awkward.

Also, is it true that CloudQueueClient can access a VM? That sounds really strange, it goes beyond the purpose of a "queue client". It's like using a fork as a screwdriver...

The only difference between CloudQueueClient and QueueClient I've found so far is that CloudQueueClient is the legacy version of the client (v11) and QueueClient is the newest version (v12).

So, I would choose A.

upvoted 2 times

✉ **MrZoom** 3 years ago

Agreed, A is the new-style API, and D is the old-style API, so IMHO, A is better.

Link (A): <https://docs.microsoft.com/en-us/dotnet/api/azure.storage.queues.queueclient?view=azure-dotnet>

Link (D): <https://docs.microsoft.com/en-us/dotnet/api/microsoft.azure.storage.queue.cloudqueueclient?view=azure-dotnet-legacy>

upvoted 18 times

✉ **vladans** 3 years ago

You're right.

new version --> .NET v12 --> QueueClient

old version --> .NET v11 --> CloudQueueClient

Link --> <https://docs.microsoft.com/en-us/azure/storage/queues/storage-dotnet-how-to-use-queues?tabs=dotnet#create-the-queue-storage-client>

Therefore, the answer is QueueClient.

upvoted 7 times

Question #9

DRAG DROP -

You are maintaining an existing application that uses an Azure Blob GPv1 Premium storage account. Data older than three months is rarely used. Data newer than three months must be available immediately. Data older than a year must be saved but does not need to be available immediately.

You need to configure the account to support a lifecycle management rule that moves blob data to archive storage for data not modified in the last year.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions	Answer Area	
Upgrade the storage account to GPv2		
Create a new GPv2 Standard account and set its default access tier level to cool	>	^
Change the storage account access tier from hot to cool	<	▼
Copy the data to be archived to a Standard GPv2 storage account and then delete the data from the original storage account		

Actions	Answer Area	
	Upgrade the storage account to GPv2	
Create a new GPv2 Standard account and set its default access tier level to cool	>	^
	<	▼
	Copy the data to be archived to a Standard GPv2 storage account and then delete the data from the original storage account	
	Change the storage account access tier from hot to cool	

Step 1: Upgrade the storage account to GPv2

Object storage data tiering between hot, cool, and archive is supported in Blob Storage and General Purpose v2 (GPv2) accounts. General Purpose v1 (GPv1) accounts don't support tiering.

You can easily convert your existing GPv1 or Blob Storage accounts to GPv2 accounts through the Azure portal.

Step 2: Copy the data to be archived to a Standard GPv2 storage account and then delete the data from the original storage account

Step 3: Change the storage account access tier from hot to cool

Note: Hot - Optimized for storing data that is accessed frequently.

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

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.

Only the hot and cool access tiers can be set at the account level. The archive access tier can only be set at the blob level.

Reference:

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

 **sien**  2 years, 12 months ago

Since we already have a premium P1 account with gpv1. Why not:

- Upgrade the existing one to GPv2
- Create a new GPv2 standard account with default access level to cool
- And then copy archive data to the GPv2 and delete the data from original storage account.

That makes sense to me.

upvoted 118 times

✉ **jay158** 2 years, 10 months ago

Is there any requirement in question, which says set default access tier to COOL?

Please clarify.

upvoted 2 times

✉ **lighting** 2 years, 9 months ago

I have 2 ideas:

1.

- One HOT for newer than 3 months

- One COOL for older than 3 months and Archive data.

2.

- One HOT for non-archived data. Can be accessed immediately. Because they just said "Older than 3 months data are rarely accessed" but didn't tell us anything about can it be accessed immediately.

- One COOL for archived data. Archived tier can just be set at blob level. "Only the hot and cool access tiers can be set at the account level. The archive access tier can only be set at the blob level" <https://docs.microsoft.com/en-us/azure/storage/blobs/storage-blob-storage-tiers>

upvoted 3 times

✉ **WillPassExam** 2 years, 11 months ago

does this mean at the end, we have 2 GPv2 storage accounts, one access level is cool (for archive data) and the other is hot?

upvoted 2 times

✉ **sien** 2 years, 11 months ago

I would say so.

upvoted 1 times

✉ **sien** 2 years, 11 months ago

Also look at this blog:

<https://www.apptio.com/blog/essential-guide-azure-blob-storage-pricing/>

Only GPv2 and Blob storage accounts support tiering. If you are using GPv1, and you want to leverage tiering, convert your account to GPv2 through the Azure portal.

upvoted 4 times

✉ **ferut** 2 years, 10 months ago

My choice as well

upvoted 1 times

✉ **Chked** 2 years, 8 months ago

I agree. But can the first step be the last?

- Create a new GPv2 standard account with default access level to cool

- And then copy archive data to the GPv2 and delete the data from original storage account.

- Upgrade the existing one to GPv2

upvoted 1 times

✉ **mlantonis** Highly Voted 2 years, 10 months ago

Step 1: Upgrade the storage account to GPv2

Object storage data tiering between hot, cool, and archive is supported in Blob Storage and General Purpose v2 (GPv2) accounts. General Purpose v1 (GPv1) accounts don't support tiering. You can easily convert your existing GPv1 or Blob Storage accounts to GPv2 accounts through the Azure portal.

Step 2: Create a new GPv2 standard account with default access level to cool

Step 3: Copy the data to be archived to a Standard GPv2 storage account and then delete the data from the original storage account

upvoted 22 times

✉ **mlantonis** 2 years, 10 months ago

Reference:

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

<https://docs.microsoft.com/en-us/azure/storage/common/storage-account-upgrade?tabs=azure-portal>

upvoted 2 times

✉ **mlantonis** 2 years, 10 months ago

Although Step 3 seems unusual and not necessary.

upvoted 4 times

✉ **ensa** 2 years, 5 months ago

every time with good explanation but step 3 needed because why not transfer the old data that needed to new one and delete the old one for saving cost

upvoted 1 times

✉ **tosm** 1 year, 9 months ago

Agreed: 1. upgrade storage account 1 from GPv1 -> v2 (hot), 2. create storage account 2 GPv2 (cool) 3. copy data from account 1 to account 2. End result: account 1 (hot), account 2(cool and archive) both accounts can set lifecycle policy

upvoted 3 times

✉ **11_NickName_11** Most Recent 4 months, 2 weeks ago

Why to upgrade the storage account to GPv2?

upvoted 1 times

✉ **AlbertoBT** 4 months, 3 weeks ago

The requirement is just: You need to configure the account to SUPPORT a lifecycle management rule.

So you only need "Upgrade the existing one to GPv2"

No more steps from the list are required

Then you could configure the lifecycle management rule.

Once you apply the rule, the files tier will be changed automatically

upvoted 1 times

✉ **narenazure** 11 months, 4 weeks ago

Azure Blob storage lifecycle management offers a rich, rule-based policy for General Purpose v2 and Blob storage accounts.

upvoted 1 times

✉ **deepak_26** 1 year ago

Create , change , copy

Data stored in a premium block blob storage account cannot be tiered to Hot, Cool, or Archive using Set Blob Tier or using Azure Blob Storage lifecycle management. To move data, you must synchronously copy blobs from the block blob storage account to the Hot tier in a different account using the Put Block From URL API or a version of AzCopy that supports this API.

upvoted 3 times

✉ **motekim** 1 year ago

Just for reference: GPv2 supports Hot, Cool, and Archive tiers

upvoted 2 times

✉ **dimsok** 1 year, 2 months ago

Upgrade-Create-Copy

upvoted 2 times

✉ **JamieS** 1 year, 2 months ago

Seems like we don't have the entire world view, and that there's already an existing standard v2 account elsewhere. If that's the case we're starting with v1 storage where the data currently is and we also have a default v2 storage that exists.

We upgrade the current v1 to v2 so we can access lifetime management

we copy the data to be archived to the standard v2 (that already existed, and by default has hot tier)
then we set the tier to be cool (where the archive data was just copied to).

I think the current answer is correct.

upvoted 2 times

✉ **micro9000** 1 year, 5 months ago

The answer doesn't make any sense to me.

in the 2nd step, it says copy the data from old storage account to new one, it means there are 2 storage accounts, why you need to upgrade the existing?

upvoted 2 times

✉ **Akiu** 1 year, 5 months ago

Upgrade to GPv2

Copy data

Change tier to cool

You can't create the second account in a cool tier because of this:

Data stored in a premium block blob storage account cannot be tiered to hot, cool, or archive using Set Blob Tier or using Azure Blob Storage lifecycle management. To move data, you must synchronously copy blobs from the block blob storage account to the hot tier in a different account using ...

<https://learn.microsoft.com/en-us/azure/storage/blobs/access-tiers-overview#blob-lifecycle-management>

upvoted 1 times

✉ **Azziet** 1 year, 9 months ago

Upgrade

Create

Copy

upvoted 7 times

✉ **Evo_Morales** 2 years ago

Agree with voting/answer, but the question itself seems flawed. Need to learn not to read anything else into the questions and not add steps/requirements that yes, would make sense.

upvoted 3 times

✉ **petitbilly** 2 years, 1 month ago

Got it in exam 03/22

upvoted 5 times

 **massnnonn** 2 years, 2 months ago

for me not have sense - Upgrade the existing one to GPv2

So:

- create ..
- change..
- copy

upvoted 1 times

 **edengoforit** 2 years, 2 months ago

Azure offers three types of storage accounts: General Purpose v2 (GPv2), General Purpose v1 (GPv1), and a dedicated object storage service—Blob Storage. GPv1 and GPv2 support the same storage types, but GPv2 supports Hot, Cool, and Archive tiers. Adopt GPv2 or Blob Storage to leverage tiering.

GPv2 offers up a variety of storage options (blob, files, queues, tables, and disks), performance tiers, and replication options not available with dedicated blob storage account types. Azure uses GPv2 to roll out new product enhancements (e.g., new redundancy options). GPv2 is the preferred storage account type if you want early access to new services. Azure storage account options are:

GPv2: Basic storage account type for blobs, files, queues, and tables. Recommended for most scenarios using Azure Storage.

GPv1: Legacy account type for blobs, files, queues, and tables. Use GPv2 accounts instead when possible.

upvoted 1 times

 **Yazhu** 2 years, 3 months ago

Confusing here

What's the right answer??

upvoted 6 times

Question #10

You develop Azure solutions.

You must connect to a No-SQL globally-distributed database by using the .NET API.

You need to create an object to configure and execute requests in the database.

Which code segment should you use?

- A. new Container(EndpointUri, PrimaryKey);
- B. new Database(EndpointUri, PrimaryKey);
- C. new CosmosClient(EndpointUri, PrimaryKey);

Correct Answer: C

Example:

```
// Create a new instance of the Cosmos Client
this.cosmosClient = new CosmosClient(EndpointUri, PrimaryKey)
```

//ADD THIS PART TO YOUR CODE

```
await this.CreateDatabaseAsync();
```

Reference:

<https://docs.microsoft.com/en-us/azure/cosmos-db/sql-api-get-started>

Community vote distribution

C (100%)

✉  **Mr2302682** Highly Voted 3 years, 7 months ago

The Answer is correct!

upvoted 48 times

✉  **mlantonis** Highly Voted 2 years, 10 months ago

Correct Answer: C

Azure Cosmos DB is a fully managed NoSQL database for modern app development. Single-digit millisecond response times, and automatic and instant scalability, guarantee speed at any scale.

```
// Create a new instance of the Cosmos Client
this.cosmosClient = new CosmosClient(EndpointUri, PrimaryKey)
//ADD THIS PART TO YOUR CODE
await this.CreateDatabaseAsync();
```

Reference:

<https://docs.microsoft.com/en-us/dotnet/api/microsoft.azure.cosmos.cosmosclient?view=azure-dotnet>

<https://docs.microsoft.com/en-us/azure/cosmos-db/sql-api-get-started>

upvoted 22 times

✉  **dimsok** Most Recent 1 year, 2 months ago

I dont get this question, Cosmos DB is a No-SQL globally-distributed database, but there are others that .NET can connect.

upvoted 1 times

✉  **Nhiendo** 1 year, 3 months ago

Correct Answer: C

upvoted 1 times

✉  **AvinashVarma** 1 year, 3 months ago

Selected Answer: C

CosmosClient(String, String, CosmosClientOptions)

<https://learn.microsoft.com/en-us/dotnet/api/microsoft.azure.cosmos.cosmosclient?view=azure-dotnet>

upvoted 1 times

✉  **OPT_001122** 1 year, 4 months ago

Selected Answer: C

C. new CosmosClient(EndpointUri, PrimaryKey);

upvoted 1 times

✉  **rohitpatil113** 1 year, 7 months ago

Selected Answer: C

The Answer is correct!

upvoted 1 times

 **Eltooth** 1 year, 10 months ago

Selected Answer: C

C is correct answer.

Global fully managed No-SQL DB = CosmosDB

upvoted 2 times

 **petitbilly** 2 years, 1 month ago

Got it in exam 03/22

upvoted 2 times

 **Freidrich** 2 years, 1 month ago

Selected Answer: C

The correct answer is C.

upvoted 1 times

 **oescm** 2 years, 2 months ago

Got this one 02/2022. Went with highly voted answer.

upvoted 5 times

 **Mev4953** 2 years, 2 months ago

Got this in the exam 01/22

upvoted 5 times

 **lugospod** 2 years, 2 months ago

Got this one 01/2022. Went with most voted (to avoid writing answers again)

upvoted 5 times

 **sanjayrawat** 2 years, 6 months ago

Answer : C

upvoted 2 times

 **debanjan10** 2 years, 6 months ago

Order:

Cosmos Client > Database > Container > Item

upvoted 3 times

 **SlavMar** 2 years, 9 months ago

But why we assume it is Cosmos?

App needs to access some No-SQL database that may already exist - maybe it is Cosmos, maybe not

upvoted 4 times

 **DParekh** 2 years, 10 months ago

There are two ways by which we can create a cosmosclient instance.

1. CosmosClient cosmosClient = new CosmosClient(connectionString);

2. CosmosClient cosmosClient = new CosmosClient(EndpointUri, PrimaryKey)

So answer C is correct.

upvoted 2 times

Question #11

You have an existing Azure storage account that stores large volumes of data across multiple containers.

You need to copy all data from the existing storage account to a new storage account. The copy process must meet the following requirements:

- ⇒ Automate data movement.
- ⇒ Minimize user input required to perform the operation.
- ⇒ Ensure that the data movement process is recoverable.

What should you use?

- A. AzCopy
- B. Azure Storage Explorer
- C. Azure portal
- D. .NET Storage Client Library

Correct Answer: A

You can copy blobs, directories, and containers between storage accounts by using the AzCopy v10 command-line utility.

The copy operation is synchronous so when the command returns, that indicates that all files have been copied.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/common/storage-use-azcopy-blobs-copy>

Community vote distribution

A (100%)

 **kondapaturi** Highly Voted 2 years, 9 months ago

Answer – AzCopy, The Azcopy tool can be used to copy data from one storage account to another. You can use the tool within automation scripts to ensure the data can be copied automatically.

upvoted 40 times

 **mlantonis** Highly Voted 2 years, 10 months ago

Correct Answer: C

Azure Storage Explorer uses AzCopy to perform all of its data transfer operations. But in this questions, there is a requirement to minimize user interaction which is why AzCopy is more appropriate.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/common/storage-use-azcopy-v10>

<https://docs.microsoft.com/en-us/azure/storage/common/storage-use-azcopy-blobs-copy>

upvoted 10 times

 **azurelearner666** 2 years, 9 months ago

AzCopy is A... please do not write confusing responses...
response is already correct, A - AzCopy

upvoted 47 times

 **altafpatel1984** 2 years, 4 months ago

But read very first requirement. It needs to be Automated. I agree with alperc, you are misanswering, even such a silly question.
upvoted 5 times

 **alperc** 2 years, 5 months ago

please stop commenting..you are always misanswering.
upvoted 8 times

 **jobolesonihal** Most Recent 2 weeks, 5 days ago

Selected Answer: A

It's no brainer. AzCopy is the answer with no or minimal human intervention.

upvoted 1 times

 **NombreFalso** 1 year, 1 month ago

Selected Answer: A

Typical AzCopy

upvoted 2 times

 **AvinashVarma** 1 year, 3 months ago

Selected Answer: A

AzCopy

Reference: <https://learn.microsoft.com/en-us/azure/storage/common/storage-use-azcopy-v10>

upvoted 2 times

OPT_001122 1 year, 4 months ago**Selected Answer: A**

A. AzCopy

upvoted 1 times

Unpredictable_m 1 year, 5 months ago

Correct answer is A

AzCopy is a command-line utility that you can use to copy blobs or files to or from a storage account

upvoted 1 times

Chaitya 1 year, 7 months ago

AzCopy

upvoted 1 times

ghuna 1 year, 7 months ago**Selected Answer: A**

AzCopy is best option to move data around in blob storage

upvoted 1 times

xRiot007 1 year, 9 months ago

You will use AzCopy. It can be automated in a script, reducing user interaction and you can also recover

upvoted 1 times

Eltooth 1 year, 10 months ago**Selected Answer: A**

A is the correct answer.

Everytime.

upvoted 1 times

meoukg 2 years ago

Got it on 03/2022, I chose the A. AzCopy

upvoted 2 times

idroj 2 years, 1 month ago**Selected Answer: A**

AzCopy is the correct answer

upvoted 3 times

Exocsinstr 2 years, 4 months ago<https://docs.microsoft.com/en-us/azure/storage/common/storage-use-azcopy-configure>

Ans: should be AzCopy. This link show you can recover the AzCopy from where it failed.

azcopy jobs resume <job-id> --source-sas="<sas-token>" --destination-sas="<sas-token>"

Azure Data Factory in the Azure portal may need much configuration by user to setup the pipeline to perform copy.

upvoted 1 times

francis6170 2 years, 10 months ago

got this in the exam :)

upvoted 6 times

jeet1985 2 years, 10 months ago

Then ? please suggest the correct answer?

upvoted 4 times

debanjan10 2 years, 6 months ago

A lot of these questions are common in the exam it seems.

upvoted 1 times

UnknowMan 2 years, 10 months ago

The Answer is correct!

upvoted 4 times

glam 2 years, 11 months ago

correct

upvoted 3 times

Question #12

DRAG DROP -

You are developing a web service that will run on Azure virtual machines that use Azure Storage. You configure all virtual machines to use managed identities.

You have the following requirements:

- ⇒ Secret-based authentication mechanisms are not permitted for accessing an Azure Storage account.
- ⇒ Must use only Azure Instance Metadata Service endpoints.

You need to write code to retrieve an access token to access Azure Storage. To answer, drag the appropriate code segments to the correct locations. Each code segment may be used 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.

Select and Place:

Code segment 1

`http://localhost:50342/oauth2/token`
`http://169.254.169.254:50432/oauth2/token`
`http://localhost/metadata/identity/oauth2/token`
`http://169.254.169.254/metadata/identity/oauth2/token`

Code segment 2

`XDocument.Parse(payload);`
`new MultipartContent(payload);`
`new NetworkCredential("Azure", payload);`
`JsonConvert.DeserializeObject<Dictionary<string, string>>(payload);`

Answer Area

`var url = "http://169.254.169.254/metadata/identity/oauth2/token" ;`
`var queryString = "...";`
`var client = new HttpClient();`
`var response = await client.GetAsync(url + queryString);`
`var payload = await response.Content.ReadAsStringAsync();`

`return JsonConvert.DeserializeObject<Dictionary<string, string>>(payload);`

Correct Answer:

Code segment 1

`http://localhost:50342/oauth2/token`
`http://169.254.169.254:50432/oauth2/token`
`http://localhost/metadata/identity/oauth2/token`

Answer Area

`var url = "http://169.254.169.254/metadata/identity/oauth2/token" ;`
`var queryString = "...";`
`var client = new HttpClient();`
`var response = await client.GetAsync(url + queryString);`
`var payload = await response.Content.ReadAsStringAsync();`

`return JsonConvert.DeserializeObject<Dictionary<string, string>>(payload);`

Code segment 2

`XDocument.Parse(payload);`
`new MultipartContent(payload);`
`new NetworkCredential("Azure", payload);`

Azure Instance Metadata Service endpoints "/oauth2/token"

Box 1: `http://169.254.169.254/metadata/identity/oauth2/token`

Sample request using the Azure Instance Metadata Service (IMDS) endpoint (recommended):

GET 'http://169.254.169.254/metadata/identity/oauth2/token?api-version=2018-02-01&resource=https://management.azure.com/' HTTP/1.1

Metadata: true

Box 2: `JsonConvert.DeserializeObject<Dictionary<string, string>>(payload);`

Deserialized token response; returning access code.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/how-to-use-vm-token>

<https://docs.microsoft.com/en-us/azure/service-fabric/how-to-managed-identity-service-fabric-app-code>

 **mlantonis**  2 years, 10 months ago

Box 1: <http://169.254.169.254/metadata/identity/oauth2/token>

Sample request using the Azure Instance Metadata Service (IMDS) endpoint (recommended):

GET 'http://169.254.169.254/metadata/identity/oauth2/token?api-version=2018-02-01&resource=https://management.azure.com/' HTTP/1.1

Metadata: true

Box 2: JsonConvert.DeserializeObject<Dictionary<string, string>>(payload);

Deserialized token response; returning access code.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/how-to-use-vm-token>

<https://docs.microsoft.com/en-us/azure/service-fabric/how-to-managed-identity-service-fabric-app-code>

upvoted 63 times

✉️ **Knightie** 1 year, 7 months ago

IMDS is a REST API that's available at a well-known, non-routable IP address (169.254.169.254). You can only access it from within the VM.
<https://docs.microsoft.com/en-us/azure/virtual-machines/windows/instance-metadata-service?tabs=windows>

upvoted 7 times

✉️ **warchoon** 1 year, 1 month ago

Powerful Words And The Magic Of Abracadabra :)

upvoted 2 times

✉️ **130nk3r5** 3 months, 1 week ago

Got this today.

Went with answer here.

Score 927

upvoted 3 times

✉️ **dddddd111** Highly Voted 6 months, 3 weeks ago

I got this same question. Provided answers are correct. (Note: I failed the exam 20/9/23. I only scored 644 and I felt bad. I think because many questions here in Examtopics are not accurate. I suggest following the most voted answers and don't just not rely on Examtopics answers. At the beginning of the exam, you will be asked which programming languages you want to use. C#/Python. I chose C#. Also, I just want to add that some questions here are really in the actual exams, but the choices are written and formatted differently. Please be aware of that. Goodluck. I feel bad for failing it, but I want to retake next month. I will try Python. T_T

upvoted 15 times

✉️ **spahno** 1 week, 5 days ago

Hey man, heads up! 644 is a decent score I'd say. Did you pass the test the 2nd time? :)

upvoted 1 times

✉️ **Kanasan** Most Recent 7 months, 1 week ago

Correct!

<https://learn.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/how-to-use-vm-token>

upvoted 2 times

✉️ **mihailos** 7 months, 1 week ago

Got it in exam 28/08/23. Went with proposed answer. Scored 912

upvoted 1 times

✉️ **macobuzi** 7 months, 3 weeks ago

Answer is correct!

upvoted 1 times

✉️ **juanckar** 9 months, 1 week ago

This was on the exam (July 2023). Went with proposed. Scored 917

upvoted 3 times

✉️ **juanckar** 9 months, 1 week ago

This was on the exam (July 2023). Went with proposed. Scored 917

upvoted 1 times

✉️ **[Removed]** 1 year ago

Got this in exam today (5 April 2023)

upvoted 4 times

✉️ **Eward** 1 year, 1 month ago

It was there in 13 Feb 2023 exam

upvoted 6 times

✉️ **martijn44** 1 year, 5 months ago

I was taught to use \$IDENTITY_ENDPOINT but indeed that always seems to refer to the 169.254.169.254 address

upvoted 1 times

✉️ **mijkol** 1 year, 9 months ago

I get confused because of the IP, I get we shouldn't go for the local one, but why is this an AIPIPA IP address?

is there a reason for that?

upvoted 2 times

 **Rini100** 1 year, 11 months ago

Got this on 20 Apr 2022

upvoted 2 times

 **kondapaturi** 2 years, 9 months ago

BOX1 - <http://169.254.169.254/metadata/identity/oauth2/token> , To get the metadata from the local service on the machine, the right URL is <http://169.254.169.254/metadata/identity/oauth2/token>

BOX2 – JsonConvert.DeserializeObject<string,string>(payload)

You can deserialize the response using the JsonConvert.DeserializeObject method. You can then get a dictionary collection and then get the access key from there.

upvoted 5 times

 **goatlord** 2 years, 9 months ago

Correct

upvoted 2 times

 **UnknowMan** 2 years, 10 months ago

Correct ! => <https://docs.microsoft.com/fr-fr/azure/active-directory/managed-identities-azure-resources/how-to-use-vm-token>

upvoted 2 times

 **glam** 2 years, 11 months ago

correct

upvoted 2 times

 **clarionprogrammer** 2 years, 12 months ago

It is correct.

<https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/how-to-use-vm-token>

upvoted 12 times

Question #13

DRAG DROP -

You are developing a new page for a website that uses Azure Cosmos DB for data storage. The feature uses documents that have the following format:

```
{  
  "name": "John",  
  "city" : "Seattle"  
}
```

You must display data for the new page in a specific order. You create the following query for the page:

```
SELECT*  
FROM People p  
ORDER BY p.name, p.city DESC
```

You need to configure a Cosmos DB policy to support the query.

How should you configure the policy? To answer, drag the appropriate JSON segments to the correct locations. Each JSON segment 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.

Select and Place:

JSON segments	Answer Area
orderBy	{ "automatic": true, "ngMode": "Consistent", "includedPaths": [{ "path": "/*" }], "excludedPaths": [], "path": [
sortOrder	 { "path": "/name", "order": "descending" }, { "path": "/city", "order": " }]
ascending	
descending	
compositeIndexes	

Correct Answer:

JSON segments	Answer Area
orderBy	{
sortOrder	"automatic": true,
ascending	"ngMode": "Consistent",
descending	"includedPaths": [
compositeIndexes	{ "path": "/**" }
], "excludedPaths": [], "compositeIndexes": [[{ "path": "/name", "order": "descending" }, { "path": "/city", "order": "descending" }]] }

Box 1: compositeIndexes -

You can order by multiple properties. A query that orders by multiple properties requires a composite index.

Box 2: descending -

Example: Composite index defined for (name ASC, age ASC):

It is optional to specify the order. If not specified, the order is ascending.

```
{
  "automatic":true,
  "indexingMode":"Consistent",
  "includedPaths":[
    {
      "path":"/**"
    }
  ],
  "excludedPaths":[],
  "compositeIndexes":[
    [
      {
        "path":"/name",
      },
      {
        "path":"/age",
      }
    ]
  ]
}
```

 **kayleena93**  3 years, 4 months ago

ORDER BY queries on multiple properties:

The composite index also supports an ORDER BY clause with the opposite order on all paths.

So I think it's about reversed index to the query. Answer should be 'ascending'. You cannot support ASC (default), DESC query with DESC, DESC index.

upvoted 87 times

 **[Removed]** 9 months ago

No. It supports, but it is not required. You can have (ASC, ASC), (DESC, DESC), (ASC, DESC), (DESC, ASC). So the answer is Descending

upvoted 1 times

✉ **john4p** 2 years, 4 months ago

The problem here is the SQL that makes many people think that "ORDER BY p.name, p.city DESC" means it's ordered by name and city both descending. But the DESC only applies to city. name is ASC - this would be less confusing: "ORDER BY p.name ASC, p.city DESC"

Thus in the JSON you can only state ascending+descending or the opposite: descending+ascending. Since descending for name is already set the answer is "ascending".

At first I had misread the SQL wrong myself and didn't understand kayleena's comment right away.

upvoted 32 times

✉ **Dobby92** 2 months, 2 weeks ago

I just tried it.

- 1) Using Indexing Policy (name -> descending, city -> descending) gives an error:
"The order by query does not have a corresponding composite index that it can be served from."
- 2) Using Indexing Policy (name -> descending, city -> ascending) works correctly, lists items.

So yes, people above have right.

- ASC is default for name, so query is equivalent to:

SELECT * FROM People p ORDER BY p.name ASC, p.city DESC

- "The composite index also supports an ORDER BY clause with the opposite order on all paths."

<https://learn.microsoft.com/en-us/azure/cosmos-db/index-policy#order-by-queries-on-multiple-properties>

upvoted 1 times

✉ **GCMan** Highly Voted 3 years, 5 months ago

"name" field should be marked ascending (default if not specified). It's mislabeled

upvoted 34 times

✉ **cloud_exam1** 3 years, 4 months ago

I think so. The answer is correct, but the name field should be marked ascending(default).

We can find an example in the following link.

<https://docs.microsoft.com/en-us/azure/cosmos-db/how-to-manage-indexing-policy?tabs=dotnetv2%2Cpythonv3>

<https://docs.microsoft.com/en-us/azure/cosmos-db/how-to-manage-indexing-policy?tabs=dotnetv2%2Cpythonv3>

upvoted 15 times

✉ **warchoon** 1 year, 1 month ago

The client wants to walk with his back to the front. Who are we to tell him what to do?

upvoted 1 times

✉ **scottmct** 3 years, 1 month ago

NO. Box 2 is "ascending"

See explanation here:

<https://docs.microsoft.com/en-us/azure/cosmos-db/index-policy#order-by-queries-on-multiple-properties>

"The composite index also supports an ORDER BY clause with the opposite order on all paths."

The table in the section also shows an example similar to this question.

upvoted 31 times

✉ **Rockm0uld** 2 years ago

the table also seems to suggest DESC followed by ASC is not supported by composite index? Confused

upvoted 2 times

✉ **Rockm0uld** 2 years ago

Looking again i think it refers to " What it will not support is non-matching clauses. if ASC, ASC or DESC, DESC will not match our question." as mentioned by edengoforit.

Has to be opposites to make any sense.

upvoted 1 times

✉ **ArturKon** 1 year, 6 months ago

I agree with you. For example index on (A asc, B asc) works for queries with ORDER BY (A asc, B asc) and (A desc, B desc).

Not working with ORDER BY (A asc, B desc), (A desc, B asc) or even (B asc, A asc).

upvoted 1 times

✉ **[Removed]** 9 months ago

No. Box 2 is Descending

upvoted 1 times

✉ **Jass1nonly** Most Recent 1 month, 2 weeks ago

Composite Index Sample ORDER BY Query Supported by Composite Index?

(name ASC, age ASC) SELECT * FROM c ORDER BY c.name ASC, c.age asc Yes

(name ASC, age ASC) SELECT * FROM c ORDER BY c.age ASC, c.name asc No

(name ASC, age ASC) SELECT * FROM c ORDER BY c.name DESC, c.age DESC Yes

The 1st and 3rd lines have opposite order-by value, but the composite index (name ASC, age ASC) still supports them.
The value for city should be ascending.

upvoted 1 times

 **Stann07** 3 months, 3 weeks ago

Got that question on my exam DEC 18. went with given answer. scored 842. Case Study : Van Arsdel inc.

upvoted 1 times

 **megp123** 4 months, 2 weeks ago

The only way to confirm the answer is to try it out.

"ascending" is the correct answer.

"descending" - will result to "Message: {"Errors": ["The order by query does not have a corresponding composite index that it can be served"]}

upvoted 2 times

 **bluetopp** 4 months, 3 weeks ago

Just tested with proposed answer. If you run the query you will get the following error:

{"Errors": ["The order by query does not have a corresponding composite index that it can be served from."]}

If you instead use "ascending" as the top voted answer here suggest, the query passes.

So correct answer is:

1. compositeIndexes
2. ascending

upvoted 3 times

 **Vukile** 5 months ago

On exam 9 Nov 2023, went with given answer, score 865. Case Study: Farmers and Distributors

upvoted 2 times

 **AndySmith** 5 months, 1 week ago

On exam 3-Nov-2023. Selected:

- 1) compositeIndexes
- 2) descending

upvoted 2 times

 **p2006** 6 months, 2 weeks ago

Got on 9/25/2023

compositeIndexes

ascending

upvoted 2 times

 **leviatas** 6 months, 2 weeks ago

Got this question in exam - 2023.09.25. Got Case Study Contoso

upvoted 1 times

 **mihailos** 7 months, 1 week ago

Got it in exam 28/08/23. Went with proposed answer. Scored 912

upvoted 1 times

 **basquiat** 8 months ago

Got this one on 2023-08-08

upvoted 1 times

 **applepie** 8 months, 2 weeks ago

got this question today, answer compositeIndex, descending - 7/30/2023, score 895/1000

upvoted 3 times

 **NightshadeRC** 8 months, 2 weeks ago

Had this question today: 2023-07-26

upvoted 1 times

 **juanckar** 9 months, 1 week ago

This was on the exam (July 2023). Went with proposed (city should be "asc"). Scored 917

upvoted 3 times

 **JH81** 9 months, 2 weeks ago

Got this on 6/28/2023 and passed with 850. Went with composite and ascending.

upvoted 2 times

 **kiro_kocha** 9 months, 3 weeks ago

According to Documentation: <https://learn.microsoft.com/en-us/azure/cosmos-db/index-policy#composite-indexes>
ORDER BY queries on multiple properties:

Composite Index Sample ORDER BY Query Supported by Composite Index?

(name ASC, age ASC) SELECT * FROM c ORDER BY c.name ASC, c.age asc Yes

(name ASC, age ASC) SELECT * FROM c ORDER BY c.age ASC, c.name asc No

(name ASC, age ASC) SELECT * FROM c ORDER BY c.name DESC, c.age DESC Yes

(name ASC, age ASC) SELECT * FROM c ORDER BY c.name ASC, c.age DESC No
(name ASC, age ASC, timestamp ASC) SELECT * FROM c ORDER BY c.name ASC, c.age ASC, timestamp ASC Yes
(name ASC, age ASC, timestamp ASC) SELECT * FROM c ORDER BY c.name ASC, c.age ASC No
So correct answer is compositeIndexes and descending
Look the table:
Composite Index: (name ASC, age ASC)
Sample ORDER BY Query: SELECT * FROM c ORDER BY c.name DESC, c.age DESC
Supported by Composite Index?: Yes
upvoted 2 times

 **RikinPatel** 6 months, 1 week ago
This perfect explanation... Thanks...
upvoted 1 times

Question #14

HOTSPOT -

You are building a traffic monitoring system that monitors traffic along six highways. The system produces time series analysis-based reports for each highway.

Data from traffic sensors are stored in Azure Event Hub.

Traffic data is consumed by four departments. Each department has an Azure Web App that displays the time series-based reports and contains a WebJob that processes the incoming data from Event Hub. All Web Apps run on App Service Plans with three instances.

Data throughput must be maximized. Latency must be minimized.

You need to implement the Azure Event Hub.

Which settings should you use? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Setting	Value
Number of partitions	<div style="border: 1px solid #ccc; padding: 5px; display: inline-block;"> <div style="border: 1px solid #ccc; padding: 2px;">3</div> <div style="border: 1px solid #ccc; padding: 2px;">4</div> <div style="border: 1px solid #ccc; padding: 2px;">6</div> <div style="border: 1px solid #ccc; padding: 2px;">12</div> </div>
Partition Key	<div style="border: 1px solid #ccc; padding: 5px; display: inline-block;"> <div style="border: 1px solid #ccc; padding: 2px;">Highway</div> <div style="border: 1px solid #ccc; padding: 2px;">Department</div> <div style="border: 1px solid #ccc; padding: 2px;">Timestamp</div> <div style="border: 1px solid #ccc; padding: 2px;">VM name</div> </div>

Answer Area

Setting	Value
Number of partitions	<div style="border: 1px solid #ccc; padding: 5px; display: inline-block;"> <div style="border: 1px solid #ccc; padding: 2px;">3</div> <div style="border: 1px solid #ccc; padding: 2px;">4</div> <div style="background-color: #90EE90; border: 1px solid #ccc; padding: 2px;">6</div> <div style="border: 1px solid #ccc; padding: 2px;">12</div> </div>
Partition Key	<div style="border: 1px solid #ccc; padding: 5px; display: inline-block;"> <div style="background-color: #90EE90; border: 1px solid #ccc; padding: 2px;">Highway</div> <div style="border: 1px solid #ccc; padding: 2px;">Department</div> <div style="border: 1px solid #ccc; padding: 2px;">Timestamp</div> <div style="border: 1px solid #ccc; padding: 2px;">VM name</div> </div>

Box 1: 6 -

The number of partitions is specified at creation and must be between 2 and 32.

There are 6 highways.

Box 2: Highway -

Reference:

<https://docs.microsoft.com/en-us/azure/event-hubs/event-hubs-features>

✉  **dantest**  3 years, 4 months ago

Partitions relate to producers - and the logical way to partition the incoming data is by the only value you have at that point, the highway name/id. So the selected answer is correct (6 Partitions, by Highway).

People are getting confused by the departments which would actually each be an event consumer with an associated Consumer Group which would have its own isolated view of each of the highway partitions.

upvoted 132 times

✉  **MiraA** 2 years, 6 months ago

One thought...

The assignment mentions "Partition Key" (not "Partition Id").

"Producers can provide a value for the event key. When they do, a hashing-based partitioner determines a hash value from the key. The event then goes to the partition associated with that hash value."

<https://docs.microsoft.com/en-us/azure/architecture/reference-architectures/event-hubs/partitioning-in-event-hubs-and-kafka#distribute-events-to-partitions>

So it is possible for 2 or more highways to be - by a chance - hashed to a single partition leaving 1 or more partitions idle at all. If really unlucky then all 6 highways would be hashed to one partition.

The very same situation is with Highway, Department and VM name used as the "Partition Key" as they are discrete values (6 highways, 4 departments, N virtual machines). The Timestamp could do a better job - but "spraying" data from one highway across all partitions...

The best job could do "Partition Id".

"Producers can specify a partition ID with an event. The event then goes to the partition with that ID." So each highway could get hardcoded its own partition preserving order of the data.

upvoted 2 times

 **PhilLI** 2 years, 4 months ago

I guess you're right, although losing maximum availability.

upvoted 1 times

 **Dani_ac7** 1 year, 7 months ago

If we have 4 groups of consumers and each consumer group, according to the theory, reads independently and isolated from the rest, highways and 6 partitions makes a lot of sense

upvoted 2 times

 **Robert12345Robert** 2 years, 9 months ago

<https://docs.microsoft.com/en-us/azure/event-hubs/event-hubs-faq>

The number of partitions in an event hub directly relates to the number of concurrent readers you expect to have

upvoted 9 times

 **PhilLI** 2 years, 4 months ago

If you read the features page you'll understand that this is not the simple answer to the question. <https://docs.microsoft.com/en-us/azure/event-hubs/event-hubs-features>

Event receivers organised in consumer groups read all partitions. Via a leasing mechanism the receiver within a consumer group can make sure they don't read duplicate data.

Partitions are more related to Event producers (can be 1-on-1)

upvoted 2 times

 **minaritochuck** 2 years, 1 month ago

it's a best practice for publishers(producers) to remain unaware of the specific partitioning model chosen for an event hub and to only specify a partition key that is used to consistently assign related events to the same partition.

upvoted 2 times

 **minaritochuck** 2 years, 1 month ago

oh nevermind, I guess it would be most effective when partitions num matches the producers num.

upvoted 1 times

 **sasisang** Highly Voted 3 years, 4 months ago

The answer should be 4 and Highway.

Exam Topics - Please provide correct answers. What is the use of buying questions on your site...if you are not sure of the answer yourself

upvoted 43 times

 **kwaazaar** 2 years, 12 months ago

But theres 6 highways, so why not 6 partitions?

upvoted 2 times

 **clarionprogrammer** 2 years, 12 months ago

There are 4 consumers.

Partitions are a data organization mechanism that relates to the downstream parallelism required in consuming applications. The number of partitions in an event hub directly relates to the number of concurrent readers you expect to have.

<https://docs.microsoft.com/en-us/azure/event-hubs/event-hubs-faq>

upvoted 2 times

 **guardna** 2 years, 11 months ago

But each department has 3 instances of the Web App/Job. So isn't there 12 consumers?

upvoted 6 times

 **warchoon** 1 year, 1 month ago

"The event publisher is only aware of its partition key, not the partition to which the events are published. This decoupling of key and partition insulates the sender from needing to know too much about the downstream processing. A per-device or user unique identity makes a good partition key, but other attributes such as geography can also be used to group related events into a single partition."

Specifying a partition key enables keeping related events together in the same partition and in the exact order in which they arrived. The partition key is some string that is derived from your application context and identifies the interrelationship of the events. A sequence of events identified by a partition key is a stream. A partition is a multiplexed log store for many such streams."

upvoted 1 times

✉ **jessicazheng** 2 years, 2 months ago

<https://www.linkedin.com/pulse/azure-event-hub-understanding-designing-partitions-unit-kamal-pathak>

upvoted 1 times

✉ **BrettusMaximus** 2 years, 11 months ago

There are 6 highways and 6 reports. Each department only needs to read one partition to produce their report on that one highway. If you had 4 partitions you would have to duplicate all the data 4 times (BAD) and then each department would need to read all the data and filter the data for one report (VERY BAD).

upvoted 11 times

✉ **BrettusMaximus** 2 years, 11 months ago

When you create the Hub it does not know either the Departments or the VMs

upvoted 3 times

✉ **Hendrikdb** Most Recent 1 month, 2 weeks ago

If your partition key is highway, no way your number can be 12. Only when your partition key is department, you can put 12 instances. Even chatgpt and bard are proposing both approaches but propose scaling it to the consumer side.

After long consideration, I still think highway and 6 instances is correct.

upvoted 1 times

✉ **11_NickName_11** 4 months, 2 weeks ago

When a client application sends events to an event hub without specifying a partition, events are automatically distributed among partitions in your event hub. If a partition isn't available for some reason, events are distributed among the remaining partitions. This behavior allows for the greatest amount of up time. For use cases that require the maximum up time, this model is preferred instead of sending events to a specific partition.

So maybe 12 & VM?

<https://learn.microsoft.com/en-us/azure/event-hubs/event-hubs-availability-and-consistency?tabs=dotnet#availability>

upvoted 1 times

✉ **AlbertoBT** 4 months, 3 weeks ago

Partition key:

Highway (Partitions relate to producers) You should not base your data on the architecture this is not scalable

Partitions: (Hub partitions not data partition this last are implicit by the Highway Partition key)

12

Partitioning allows for multiple parallel logs to be used for the same event hub and therefore multiplying the available raw IO throughput capacity.
<https://learn.microsoft.com/en-us/azure/event-hubs/event-hubs-features#advantages-of-using-partitions>

Mapping of events to partitions

The event publisher is only aware of its partition key, not the partition to which the events are published. This decoupling of key and partition insulates the sender from needing to know too much about the downstream processing. A per-device or user unique identity makes a good partition key...

<https://learn.microsoft.com/en-us/azure/event-hubs/event-hubs-features#number-of-partitions>

Then in each VM the webjob can split the processes in batches using the Highway to speed up the query.

upvoted 1 times

✉ **adilkhan** 1 year ago

6 and highway chatGPT

upvoted 1 times

✉ **macobuzi** 7 months, 3 weeks ago

Lol , i asked ChatGPT and it said 12. 4 departments * 3 instances = 12 partitionkey needed

upvoted 1 times

✉ **RealRaymond** 1 year, 1 month ago

12 (4*3) physical partitions; timestamp as partition key

upvoted 1 times

✉ **dimsok** 1 year, 2 months ago

The number of partitions to use in Azure Event Hub depends on the desired level of parallelism and the expected ingress rate. For maximum data throughput, you would want to use as many partitions as possible. Each partition allows for a separate stream of events to be processed in parallel, increasing the ingress rate. On the other hand, having too many partitions can lead to increased latency, as the events must be divided among the partitions

Answer is 12.

The partition key is a value that determines which partition an event should be sent to. The events with the same partition key are guaranteed to be ordered and processed by the same partition. In a traffic monitoring system, the partition key could be related to the highway being monitored.

Answer is highway.

upvoted 1 times

✉ **michaelfastov** 1 year, 4 months ago

<https://learn.microsoft.com/en-us/azure/event-hubs/event-hubs-features>

"Your own applications must be able to keep up with processing the volume of events that are being sent into an event hub"

In our case events are highway reports (6). 4 applications are consumers.

6 is correct.

upvoted 1 times

 **OPT_001122** 1 year, 4 months ago

selected answer is correct

upvoted 1 times

 **Alluru** 1 year, 5 months ago

Number of partitions – 6 – selected because there are 6 highways.

Partition Key – Highway – map the incoming events into specific partition. Partition-Key is sender supplied value passed into event-hub.

<https://learn.microsoft.com/en-us/azure/event-hubs/event-hubs-features#partitions>

upvoted 1 times

 **Ranzzan** 1 year, 11 months ago

got this on exam

upvoted 3 times

 **Rini100** 1 year, 11 months ago

Got this on 20 Apr 2022

upvoted 3 times

 **henry1985** 1 year, 12 months ago

Thinking this is about how to choose partitions when there's an ordered delivery requirement. The question states 'The system produces time series analysis-based reports for each highway' and there's six highways.

Event Hubs ensures that all events sharing a partition key value are stored together and delivered in order of arrival. So if 6 partitions are selected then the consumers can read the events in order and create the time series reports.

Ref. <https://docs.microsoft.com/en-us/azure/event-hubs/event-hubs-features#publishing-an-event>

upvoted 1 times

 **xRiot007** 2 years ago

Partitions - 4, because there are 4 departments. Partitioning is about slicing data for concurrent reading, it has nothing to do with duplication of data, like some silly "explanations" below.

The partition key should be the Highway because that will be your main filter when creating your reports and is also a good identifier for the event source.

upvoted 2 times

 **MohmmadFayez** 2 years, 3 months ago

To partition we will depends on the producer which is highways,

for consumers(Applications) we will use 4 "consumer groups" ,one consumer group for each application ,so each App will have his specific view for the data,each consumer group will include 3 instances of the app, no more than one instance from the same consumer group can share the same portion at the same time.

So since we will have 6 consumer groups ,then we can assign 2 portions for each instance

upvoted 1 times

 **dho** 2 years, 5 months ago

I would rather choose 12 partitions (4 dep with 3 instances = 12 readers)

<https://docs.microsoft.com/en-us/azure/event-hubs/event-hubs-faq#partitions>

The number of partitions in an event hub directly relates to the number of concurrent readers you expect to have.

and Highway

You can use a partition key to map incoming event data into specific partitions for the purpose of data organization.

upvoted 3 times

Question #15

DRAG DROP -

You are developing a microservices solution. You plan to deploy the solution to a multinode Azure Kubernetes Service (AKS) cluster.

You need to deploy a solution that includes the following features:

- ⇒ reverse proxy capabilities
- ⇒ configurable traffic routing
- ⇒ TLS termination with a custom certificate

Which components should you use? To answer, drag the appropriate components to the correct requirements. Each component 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.

Select and Place:

Answer Area

Components	Action	Component
Helm		
Draft	Deploy solution.	
Brigade	View cluster and external IP addressing.	
KubeCtl	Implement a single, public IP endpoint that is routed to multiple microservices.	
Ingress Controller		
CoreDNS		
Virtual Kubelet		

Answer Area

Components	Action	Component
Helm		
Draft	Deploy solution.	Helm
Brigade	View cluster and external IP addressing.	KubeCtl
KubeCtl	Implement a single, public IP endpoint that is routed to multiple microservices.	Ingress Controller
Ingress Controller		
CoreDNS		
Virtual Kubelet		

Correct Answer:

To create the ingress controller, use Helm to install nginx-ingress.

Box 1: Helm -

To find the cluster IP address of a Kubernetes pod, use the kubectl get pod command on your local machine, with the option -o wide .

Box 3: Ingress Controller -

An ingress controller is a piece of software that provides reverse proxy, configurable traffic routing, and TLS termination for Kubernetes services. Kubernetes ingress resources are used to configure the ingress rules and routes for individual Kubernetes services.

Incorrect Answers:

Virtual Kubelet: Virtual Kubelet is an open-source Kubernetes kubelet implementation that masquerades as a kubelet. This allows Kubernetes nodes to be backed by Virtual Kubelet providers such as serverless cloud container platforms.

CoreDNS: CoreDNS is a flexible, extensible DNS server that can serve as the Kubernetes cluster DNS. Like Kubernetes, the CoreDNS project is hosted by the CNCF.

Reference:

<https://docs.microsoft.com/bs-cyrl-ba/azure/aks/ingress-basic> <https://www.digitalocean.com/community/tutorials/how-to-inspect-kubernetes-networking>

✉  **mlantonis**  2 years, 10 months ago

Box 1: Helm

Helm helps you manage Kubernetes applications — Helm Charts help you define, install, and upgrade even the most complex Kubernetes application. To create the ingress controller, use Helm to install nginx-ingress.

Box 2: Kubectl

The Kubernetes command-line tool, kubectl, allows you to run commands against Kubernetes clusters. To find the cluster IP address of a Kubernetes pod, use the kubectl get pod command on your local machine, with the option -o wide.

Box 3: Ingress Controller

An ingress controller is a piece of software that provides reverse proxy, configurable traffic routing, and TLS termination for Kubernetes services. Kubernetes ingress resources are used to configure the ingress rules and routes for individual Kubernetes services. Using an ingress controller and ingress rules, a single IP address can be used to route traffic to multiple services in a Kubernetes cluster.

upvoted 72 times

✉  **robin1337** 2 years ago

Correct, I am a certified CKA and CKAD. The question isn't that well written though as you could also deploy a solution with kubectl...

upvoted 10 times

✉  **mlantonis** 2 years, 10 months ago

Reference:

<https://helm.sh>

<https://kubernetes.io/docs/tasks/tools/>

<https://kubernetes.io/docs/concepts/services-networking/ingress-controllers>

<https://docs.microsoft.com/bs-cyrl-ba/azure/aks/ingress-basic>

<https://www.digitalocean.com/community/tutorials/how-to-inspect-kubernetes-networking>

upvoted 9 times

✉  **Leandromellor**  3 years, 5 months ago

I believe there is no AKS question in the exam:

<https://query.prod.cms.rt.microsoft.com/cms/api/am/binary/RE4oZ7B>

upvoted 18 times

✉  **cherylm** 3 years, 2 months ago

I've also seen a lot of people mentioned in facebook groups they got kubernetes questions on the real exam az-204

upvoted 4 times

✉  **RockmOuld** 2 years ago

I'm pretty sure I got this question on the exam, they be messin' with us

upvoted 1 times

✉  **matejka** 3 years, 4 months ago

Haven't done the exam yet, but found many comments (eg. on Udemy tutorials) that Kuberentes actually IS part of the exam.

upvoted 6 times

✉  **luppittegui** 3 years, 4 months ago

It's not: <https://query.prod.cms.rt.microsoft.com/cms/api/am/binary/RE4oZ7B>

"Azure Kubernetes Service (AKS) is out of scope"

upvoted 4 times

✉  **daveonplanetearth** 3 years, 1 month ago

I also thought AKS was excluded but people say they have had AKS questions in the exam. I don't understand why they would want to exclude it.

upvoted 1 times

✉️  **Cornholioz** 3 years, 3 months ago

And yet, here we are with this question. I'm guessing it has appeared in the exam and hence here. I am wondering what's actually "excluded" from Azure in this weird exam. Can't say it for many, but this one is a poorly constructed exam.

upvoted 7 times

✉️  **DaveOla** Most Recent 4 weeks, 1 day ago

Kubernetes is no longer covered in the exam

upvoted 1 times

✉️  **bgbgfvf** 3 months, 2 weeks ago

It is correct.

upvoted 1 times

✉️  **wrak** 1 year, 1 month ago

out-of-the-scope for the AZ-204 Exam; please remove from the Question Bank

upvoted 7 times

✉️  **macobuzi** 7 months, 3 weeks ago

Microsoft doesn't give a f about the scope. Better safe than sorry!

upvoted 4 times

✉️  **nvtienanh** 1 year, 6 months ago

Box 1: Kubectl or Helm

upvoted 2 times

✉️  **azurelearner666** 2 years, 9 months ago

It is correct.

Helm

KubeCtl

Ingress

simple as that.

upvoted 5 times

✉️  **mlantonis** 2 years, 10 months ago

Answer seems legit, but it's weird getting Kubernetes questions, when AKS is out of the scope of the exam.

upvoted 8 times

✉️  **glam** 2 years, 11 months ago

correct.

upvoted 1 times

✉️  **Frakandel** 2 years, 11 months ago

Answer:

1. KubeCtl or Helm

2. KubeCtl

3. Ingress Controller

upvoted 4 times

✉️  **Annamarie0408** 3 years ago

Just took this test last week (last week of March) AKS -- WAS IN FACT -- In the test.

upvoted 7 times

✉️  **i_ra** 2 years, 11 months ago

Is these questions still valid? I'm taking the exam this week can I depend on these?? please answer me

upvoted 2 times

✉️  **kwaazaar** 3 years ago

helm and kubectl can both be used to deploy.

upvoted 4 times

✉️  **svaza** 3 years, 2 months ago

Answer is right

upvoted 2 times

Question #16

DRAG DROP -

You are implementing an order processing system. A point of sale application publishes orders to topics in an Azure Service Bus queue. The Label property for the topic includes the following data:

Property	Description
ShipLocation	the country/region where the order will be shipped
CorrelationId	a priority value for the order
Quantity	a user-defined field that stores the quantity of items in an order
AuditedAt	a user-defined field that records the date an order is audited

The system has the following requirements for subscriptions:

Subscription type	Comments
FutureOrders	This subscription is reserved for future use and must not receive any orders
HighPriorityOrders	Handle all high priority orders and international orders
InternationalOrders	Handle orders where the country/region is not United States
HighQuantityOrders	Handle only orders with quantities greater than 100 units
AllOrders	This subscription is used for auditing purposes. This subscription must receive every single order. AllOrders has an Action defined that updates the AuditedAt property to include the date and time it was received by the subscription.

You need to implement filtering and maximize throughput while evaluating filters.

Which filter types should you implement? To answer, drag the appropriate filter types to the correct subscriptions. Each filter type 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.

Select and Place:

Filter types	Answer Area
SQLFilter	Subscription: FutureOrders Filter type: filter type
CorrelationFilter	Subscription: HighPriorityOrders Filter type: filter type
No Filter	Subscription: InternationalOrders Filter type: filter type
	Subscription: HighQuantityOrders Filter type: filter type
	Subscription: AllOrders Filter type: filter type

Filter types	Answer Area
SQLFilter	Subscription: FutureOrders Filter type: SQLFilter
CorrelationFilter	Subscription: HighPriorityOrders Filter type: CorrelationFilter
No Filter	Subscription: InternationalOrders Filter type: SQLFilter
	Subscription: HighQuantityOrders Filter type: SQLFilter
Correct Answer:	Subscription: AllOrders Filter type: No Filter

FutureOrders: SQLFilter -

HighPriorityOrders: CorrelationFilter

CorrelationID only -

InternationalOrders: SQLFilter -

Country NOT USA requires an SQL Filter

HighQuantityOrders: SQLFilter -

Need to use relational operators so an SQL Filter is needed.

AllOrders: No Filter -

SQL Filter: SQL Filters - A SqlFilter holds a SQL-like conditional expression that is evaluated in the broker against the arriving messages' user-defined properties and system properties. All system properties must be prefixed with sys. in the conditional expression. The SQL-language subset for filter conditions tests for the existence of properties (EXISTS), as well as for null-values (IS NULL), logical NOT/AND/OR, relational operators, simple numeric arithmetic, and simple text pattern matching with LIKE.

Correlation Filters - A CorrelationFilter holds a set of conditions that are matched against one or more of an arriving message's user and system properties. A common use is to match against the CorrelationId property, but the application can also choose to match against ContentType, Label, MessageId, ReplyTo,

ReplyToSessionId, SessionId, To, and any user-defined properties. A match exists when an arriving message's value for a property is equal to the value specified in the correlation filter. For string expressions, the comparison is case-sensitive. When specifying multiple match properties, the filter combines them as a logical

AND condition, meaning for the filter to match, all conditions must match.

Boolean filters - The TrueFilter and FalseFilter either cause all arriving messages (true) or none of the arriving messages (false) to be selected for the subscription.

Reference:

<https://docs.microsoft.com/en-us/azure/service-bus-messaging/topic-filters>

✉  **stylebc** Highly Voted 3 years, 4 months ago

I think that it should be

-Correlation Filter (with the not existing value of any filed to avoid getting any message)

-SQL filter (as we need to get all high priority AND international orders, but for Correlation filter: A match exists when an arriving message's value for a property is equal to the value specified in the correlation filter and we need not equal)

-SQL filter

-SQL filter

-No Filter

upvoted 140 times

✉  **ferut** 2 years, 10 months ago

FutureOrder, not based on the property -> Correlation Filter.

AllOrders, it's clear.. no filter.

The rest is based on one or more properties --> SQL filter

I agree with @stylebc

upvoted 16 times

✉  **Mal22002** 1 year, 10 months ago

How do you justify No Filter for All Orders when you need to take action?

Each newly created topic subscription has an initial default subscription rule. If you don't explicitly specify a filter condition for the rule, the applied filter is the true filter that enables all messages to be selected into the subscription. The default rule has no associated annotation action

<https://docs.microsoft.com/en-us/azure/service-bus-messaging/topic-filters>

upvoted 1 times

✉  **Mal22002** 1 year, 10 months ago

Check this example with Action which is a requirement for AllOrders.

<https://docs.microsoft.com/en-us/azure/service-bus-messaging/service-bus-filter-examples#net-example-for-creating-subscription-filters>

upvoted 1 times

✉  **Mal22002** 1 year, 10 months ago

FutureOrders should be SQLFilter as you can check with the condition on AuditedAt user's property or EnqueuedTimeUtc system property but that is required a greater than condition but correlation filter condition needs to be matched.

Correlation Filters - A CorrelationFilter holds a set of conditions that are matched against one or more of an arriving message's user and system properties.

<https://docs.microsoft.com/en-us/azure/service-bus-messaging/topic-filters>

upvoted 2 times

✉  **Mal22002** 1 year, 10 months ago

HighPriorityOrders: CorrelationFilter

You can apply to multiple system or user-defined properties and when multiple properties then filter combined them with AND logical operator.

<https://docs.microsoft.com/en-us/azure/service-bus-messaging/topic-filters>

Correlation Filters - A CorrelationFilter holds a set of conditions that are matched against one or more of an arriving message's user and system properties. A common use is to match against the CorrelationId property, but the application can also choose to match against the following properties:

ContentType

Label

MessageId

ReplyTo

ReplyToSessionId

SessionId

To

any user-defined properties.

A match exists when an arriving message's value for a property is equal to the value specified in the correlation filter. For string expressions, the comparison is case-sensitive. When specifying multiple match properties, the filter combines them as a logical AND condition, meaning for the filter to match, all conditions must match.

upvoted 2 times

✉ **TEMPKAKAM** Highly Voted 3 years, 4 months ago

The Correct answers are:

No Filter

Correlation Filter

SQL filter

SQL filter

SQL filter

upvoted 40 times

✉ **rashjan** 3 years, 4 months ago

Why a filter for all orders?

upvoted 3 times

✉ **MrNair007** 3 years, 4 months ago

See the basic is subscription does not have filter then does not receive any data. And since all orders needs all the orders it should have SQL filter with 1=1 so that all orders are passed to it.

upvoted 2 times

✉ **brtx** 3 years, 4 months ago

<https://docs.microsoft.com/en-us/azure/service-bus-messaging/topic-filters>

"If you don't explicitly specify a filter condition for the rule, the applied filter is the true filter that enables all messages to be selected into the subscription."

upvoted 23 times

✉ **danielcr** 3 years, 2 months ago

So.. The answer is correct.

upvoted 3 times

✉ **TakumaK** 2 years, 11 months ago

if no filter explicitly specified, the true filter will be assigned which enables ALL messages. So your comment is wrong and makes confused.

upvoted 11 times

✉ **JustHereToLearn** 1 year, 3 months ago

I somewhat agree with this answer after going through lot of resources. The only thing that bothers me is answer for the first and last question. When you create a subscription by default a SQL filter is added which is 1=1 i.e. always evaluates to true.

So my source of confusion is how "No Filter" is treated. I have two interpretations either "No Filter" is we don't add any filter or the other is absence of a filter.

Mostly I believe it is treated as absence of a filter in which case the this answer looks correct.

upvoted 2 times

✉ **cbn** 3 years, 1 month ago

How do you justify Correlation Filter for HighPriorityOrders, when it involves Region < US ?

I think it should be SQL filter as well.

upvoted 13 times

✉ **jobolesonihal** Most Recent 2 weeks, 5 days ago

Given answer is correct.

upvoted 1 times

✉ **raymond_abcd** 2 months, 2 weeks ago

Missing the Boolean filter option in the possible answers. Because that would be the one to choose for the future order rule. Otherwise I think you can choose SQL filter or correlation filter for the future order by making the condition always filter out all messages.

The other ones I agree with the given answers.

upvoted 1 times

✉ **emysa341** 3 months, 2 weeks ago

- No Filter

- Correlation

- Correlation

- SQL Filter

- SQL Filter

upvoted 1 times

✉ **lednari** 4 months, 1 week ago

Just tested this in azure portal

- No filter (if default sql 1=1 filter is removed) results in no messages

- sql filter 1=0 can be used for same purpose
- sql filter 1=1 will match everything and is the default when adding a subscription

Therefore:

No filter

Sql (need to match hi pri AND international orders)

Sql

Sql

Sql (default 1=1)

upvoted 4 times

✉ **leviatas** 6 months, 2 weeks ago

Got this question in exam, went with answer. - 2023.09.25. Got Case Study Contoso

upvoted 3 times

✉ **longnguyendh** 8 months, 1 week ago

It should be SQL, Correlation, SQL, SQL and NO Filter

upvoted 2 times

✉ **applepie** 8 months, 2 weeks ago

got this question today, go with answer -

Correlation

Correlation

SQL

SQL

No filter

7/30/2023, score 895/1000

upvoted 2 times

✉ **NightshadeRC** 8 months, 2 weeks ago

Had this question today: 2023-07-26

I went:

- Correlation Filter
- SQL Filter
- SQL Filter
- SQL Filter
- No Filter

Every question on the exam was on ExamTopics. I entered every recommended answer and got 940

upvoted 9 times

✉ **Ciupaz** 4 months, 2 weeks ago

How do you remember all 375 questions?

upvoted 1 times

✉ **DavidDev** 1 year ago

CorrelationFilter

SqlFilter

SqlFilter

SqlFilter

filterType

upvoted 1 times

✉ **Videira** 1 year, 1 month ago

On my exam 2023-02-25

upvoted 3 times

✉ **kandrew5** 1 year, 1 month ago

Priority should have a Correlation filter according to the example in Microsoft documentation: <https://learn.microsoft.com/en-us/azure/service-bus-messaging/topic-filters>

upvoted 2 times

✉ **narenazure** 1 year, 2 months ago

A SqlFilter holds a SQL-like conditional expression that is "evaluated" in the broker against the arriving messages' user-defined properties and system properties.

A CorrelationFilter holds a set of conditions that are "matched" against one or more of an arriving message's user and system properties. So, for evaluation cases go for SQL Filter and "match exists" case go for Correlation filter

upvoted 2 times

✉ **dgcc97** 1 year, 3 months ago

Based on the documentation:

<https://learn.microsoft.com/en-us/azure/service-bus-messaging/topic-filters>

My understanding is that Boolean Filters are a subset of SQL Filters -> as such the first is SQL Filter

Correlation Filter is used when you can check a property for a determined value (equality only - meaning that != is not included) and if you want to check more than one property, it is through a logical AND operation (both equalities must be present) -> as such, it can't be applied any.

SQL Filters are applied for all other validation types -> as such, is applied to the 2^o, 3^o and 4^o - and permit to use actions that annotate the message by adding, removing, or replacing properties and their values -> and as such the AllOrders is also a SQL Filter.

upvoted 3 times

 **BennyJai** 1 year, 3 months ago

I got this in 5 dec test. Confused on no filter .

upvoted 1 times

 **mdg3501** 1 year, 4 months ago

got this on 2022-12-7

upvoted 2 times

Question #17

DRAG DROP -

Your company has several websites that use a company logo image. You use Azure Content Delivery Network (CDN) to store the static image.

You need to determine the correct process of how the CDN and the Point of Presence (POP) server will distribute the image and list the items in the correct order.

In which order do the actions occur? To answer, move all actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions

If no edge servers in the POP have the image in cache, the POP requests the file from the origin server.

A user requests the image from the CDN URL. The DNS routes the request to the best performing POP location.

Subsequent requests for the file may be directed to the same POP using the CDN logo image URL. The POP edge server returns the file from cache if the TTL has not expired.

The origin server returns the logo image to an edge server in the POP. An edge server in the POP caches the logo image and returns the image to the client.

Answer Area



Correct Answer:

Actions

If no edge servers in the POP have the image in cache, the POP requests the file from the origin server.

A user requests the image from the CDN URL. The DNS routes the request to the best performing POP location.

Subsequent requests for the file may be directed to the same POP using the CDN logo image URL. The POP edge server returns the file from cache if the TTL has not expired.

The origin server returns the logo image to an edge server in the POP. An edge server in the POP caches the logo image and returns the image to the client.

Answer Area

A user requests the image from the CDN URL. The DNS routes the request to the best performing POP location.

If no edge servers in the POP have the image in cache, the POP requests the file from the origin server.

The origin server returns the logo image to an edge server in the POP. An edge server in the POP caches the logo image and returns the image to the client.

Subsequent requests for the file may be directed to the same POP using the CDN logo image URL. The POP edge server returns the file from cache if the TTL has not expired.

Step 1: A user requests the image..

A user requests a file (also called an asset) by using a URL with a special domain name, such as <endpoint name>.azureedge.net. This name can be an endpoint hostname or a custom domain. The DNS routes the request to the best performing POP location, which is usually the POP that is geographically closest to the user.

Step 2: If no edge servers in the POP have the..

If no edge servers in the POP have the file in their cache, the POP requests the file from the origin server. The origin server can be an Azure Web App, Azure

Cloud Service, Azure Storage account, or any publicly accessible web server.

Step 3: The origin server returns the..

The origin server returns the file to an edge server in the POP.

An edge server in the POP caches the file and returns the file to the original requestor (Alice). The file remains cached on the edge server in the POP until the time-to-live (TTL) specified by its HTTP headers expires. If the origin server didn't specify a TTL, the default TTL is seven days.

Step 4: Subsequent requests for..

Additional users can then request the same file by using the same URL that the original user used, and can also be directed to the same POP.

If the TTL for the file hasn't expired, the POP edge server returns the file directly from the cache. This process results in a faster, more responsive user experience.

Reference:

<https://docs.microsoft.com/en-us/azure/cdn/cdn-overview>

✉  **Ash111**  3 years, 4 months ago

Given ans is correct

upvoted 91 times

✉  **KhabibcandefeatGSP** 2 years, 9 months ago

It feels so good when there are no debates on what is the correct answer.

upvoted 61 times

✉  **TonyMel** 1 year ago

correct, in 2023Mar24, score: 904/1000

upvoted 5 times

✉  **Tealon**  3 years, 3 months ago

The given answer is correct.

upvoted 10 times

✉  **Tarajee**  7 months ago

Got on my exam 2023sept

upvoted 2 times

✉  **warchoon** 1 year, 1 month ago

"... returns the file directly from the cache. This process results in a faster, more responsive user experience" - last in order.

Hmmm. Fine

upvoted 1 times

✉  **kyawlearning** 1 year, 8 months ago

Given answer is correct.

upvoted 2 times

✉  **Eltooth** 1 year, 10 months ago

Answer is correct.

upvoted 2 times

✉  **gursimran_s** 1 year, 11 months ago

Got it in April 2023

upvoted 2 times

✉  **OPT_001122** 1 year, 4 months ago

time travel!!

upvoted 10 times

✉  **meoukg** 2 years ago

Got it on 03/2022, chose the same as the given answer.

upvoted 2 times

✉  **silva_831** 2 years, 9 months ago

The given answer is correct

upvoted 2 times

✉  **mlantonis** 2 years, 10 months ago

The Answer is correct

Reference:

<https://docs.microsoft.com/en-us/azure/cdn/cdn-overview>

upvoted 5 times

✉  **warchoon** 1 year, 1 month ago

"How it works" does not exactly represent the order.

"returns the file from cache if" should be before "if no ... image in cache"

upvoted 1 times

✉  **warchoon** 1 year, 1 month ago

I know that "Subsequent" is the bad word for this choice and the author could be stupid enough to use wrong order.

upvoted 1 times

✉  **prabhjot** 2 years, 10 months ago

correct ans

upvoted 1 times

✉  **UnknowMan** 2 years, 10 months ago

The given answer is correct.

upvoted 2 times

✉  **glam** 2 years, 11 months ago

correct.

upvoted 1 times

 **Fr3ddy** 3 years, 2 months ago

The az-204 exam voucher costs 100 euros.

This value includes Study material + dump

upvoted 5 times

 **azurelearner666** 2 years, 9 months ago

And? this comment is silly and does not help.

It's like saying: the sky is blue, except when it is clouded (or dark).

Admin: can you delete this useless message above? (and mine)

upvoted 11 times

 **Saurabh_Kulkarni** 2 years, 6 months ago

Lol...

upvoted 4 times

 **coffecold** 1 year, 6 months ago

Admin, can you delete all "this answer is correct" minus one, and not delete the comment of Fr3ddy?

upvoted 2 times

 **mmdex** 1 year, 1 month ago

Admin, can you delete this whole discussion? I don't see any comment that would have any value whatsoever.

upvoted 2 times

 **pac1311** 3 years, 2 months ago

correct!

upvoted 2 times

 **sndp** 3 years, 3 months ago

Answer is correct.

upvoted 5 times

Question #18

You are developing an Azure Cosmos DB solution by using the Azure Cosmos DB SQL API. The data includes millions of documents. Each document may contain hundreds of properties.

The properties of the documents do not contain distinct values for partitioning. Azure Cosmos DB must scale individual containers in the database to meet the performance needs of the application by spreading the workload evenly across all partitions over time.

You need to select a partition key.

Which two partition keys can you use? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. a single property value that does not appear frequently in the documents
- B. a value containing the collection name
- C. a single property value that appears frequently in the documents
- D. a concatenation of multiple property values with a random suffix appended
- E. a hash suffix appended to a property value

Correct Answer: DE

You can form a partition key by concatenating multiple property values into a single artificial partitionKey property. These keys are referred to as synthetic keys.

Another possible strategy to distribute the workload more evenly is to append a random number at the end of the partition key value. When you distribute items in this way, you can perform parallel write operations across partitions.

Note: It's the best practice to have a partition key with many distinct values, such as hundreds or thousands. The goal is to distribute your data and workload evenly across the items associated with these partition key values. If such a property doesn't exist in your data, you can construct a synthetic partition key.

Reference:

<https://docs.microsoft.com/en-us/azure/cosmos-db/synthetic-partition-keys>

Community vote distribution

DE (93%) 7%

✉  **TEMPKAKAM**  3 years, 4 months ago

The given answer is correct

upvoted 73 times

✉  **mlantonis**  2 years, 10 months ago

D and E

Reference:

<https://docs.microsoft.com/en-us/azure/cosmos-db/synthetic-partition-keys>

upvoted 17 times

✉  **jobolesonihal**  2 weeks, 5 days ago

Selected Answer: CE

Copilot says C and E

With D - random suffice for each item may be an overkill.

upvoted 1 times

✉  **JoseManel** 4 months, 2 weeks ago

Selected Answer: DE

D. a concatenation of multiple property values with a random suffix appended **Most Voted**

E. a hash suffix appended to a property value **Most Voted**

upvoted 2 times

✉  **[Removed]** 9 months ago

Given answer is incorrect. Correct answer: AE

upvoted 1 times

✉  **Net_IT** 5 months, 3 weeks ago

That is not the given answer? It is D and E.

upvoted 1 times

✉  **narenazure** 1 year, 2 months ago

Selected Answer: DE

It's the best practice to have a partition key with many distinct values, such as hundreds or thousands. The goal is to distribute your data and workload evenly across the items associated with these partition key values. If such a property doesn't exist in your data, you can construct a synthetic partition key

upvoted 2 times

 **mdg3501** 1 year, 4 months ago

got this on 2022-12-7

upvoted 5 times

 **OPT_001122** 1 year, 4 months ago

Selected Answer: DE

D. a concatenation of multiple property values with a random suffix appended Most Voted

E. a hash suffix appended to a property value Most Voted

upvoted 2 times

 **TheExamMaster2020** 1 year, 4 months ago

Did my exam on 15th November 2022. This question was on it.

upvoted 3 times

 **coffecold** 1 year, 5 months ago

at option E : a hash value will always deliver the same result on the same data. It is not a random value as stated in the proposed solution. Since A,B and C fall off, and two answers must be chosen still I would go for D,E.

upvoted 2 times

 **xRiot007** 1 year, 9 months ago

Selected Answer: DE

If no property in the document data will have unique values, you need to make one.

This is called a synthetic partition key.

These sorts of keys are made by adding a unique suffix at the end of some property.

One other way is to create a property that will have the hashed data + a random suffix.

The objective is to have a property that is random enough so that you can rely on it to be your key.

upvoted 6 times

 **Eltooth** 1 year, 10 months ago

Selected Answer: DE

D & E are the correct answers.

upvoted 1 times

 **Rini100** 1 year, 11 months ago

Got this on 20 Apr 2022

upvoted 2 times

 **oescm** 2 years, 2 months ago

Got this one 02/2022. Went with highly voted answer.

upvoted 6 times

 **Mev4953** 2 years, 2 months ago

Got this in the exam 01/22

upvoted 6 times

 **tramlong888** 2 years, 3 months ago

the given answer is correct.

upvoted 1 times

 **sanjayrawat** 2 years, 6 months ago

seems, the given answer is correct.

upvoted 1 times

Question #19

HOTSPOT -

You are developing an Azure-hosted e-commerce web application. The application will use Azure Cosmos DB to store sales orders. You are using the latest SDK to manage the sales orders in the database.

You create a new Azure Cosmos DB instance. You include a valid endpoint and valid authorization key to an appSettings.json file in the code project.

You are evaluating the following application code: (Line number are included for reference only.)

```

01 using System;
02 using System.Threading.Tasks;
03 using Microsoft.Azure.Cosmos;
04 using Microsoft.Extensions.Configuration;
05 using Newtonsoft.Json;
06 namespace SalesOrders
07 {
08     public class SalesOrder
09     {
10         ...
11     }
12     internal class ManageSalesOrders
13     {
14         private static async Task GenerateSalesOrders()
15         {
16             IConfigurationRoot configuration = new ConfigurationBuilder().AddJsonFile("appSettings.json").Build();
17             string endpoint = configuration["EndPointUrl"];
18             string authKey = configuration["AuthorizationKey"];
19             using CosmosClient client = new CosmosClient(endpoint, authKey);
20             Database database = null;
21             using (await client.GetDatabase("SalesOrders").DeleteStreamAsync()) { }
22             database = await client.CreateDatabaseIfNotExistsAsync("SalesOrders");
23             Container container1 = await database.CreateContainerAsync(id: "Container1", partitionKeyPath: "/AccountNumber");
24             Container container2 = await database.CreateContainerAsync(id: "Container2", partitionKeyPath: "/AccountNumber");
25             SalesOrder salesOrder1 = new SalesOrder() { AccountNumber = "123456" };
26             await container1.CreateItemAsync(salesOrder1, new PartitionKey(salesOrder1.AccountNumber));
27             SalesOrder salesOrder2 = new SalesOrder() { AccountNumber = "654321" };
28             await container1.CreateItemAsync(salesOrder2, new PartitionKey(salesOrder2.AccountNumber));
29             SalesOrder salesOrder3 = new SalesOrder() { AccountNumber = "109876" };
30             await container2.CreateItemAsync(salesOrder3, new PartitionKey(salesOrder3.AccountNumber));
31             _ = await database.CreateUserAsync("User1");
32             User user1 = database.GetUser("User1");
33             _ = await user1.ReadAsync();
34         }
35     }
36 }
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
A database named SalesOrders is created. The database will include two containers.	<input type="radio"/>	<input type="radio"/>
Container1 will contain two items.	<input type="radio"/>	<input type="radio"/>
Container2 will contain one item.	<input type="radio"/>	<input type="radio"/>

Answer Area

	Statements	Yes	No
Correct Answer:	A database named SalesOrders is created. The database will include two containers.	<input checked="" type="radio"/>	<input type="radio"/>
	Container1 will contain two items.	<input checked="" type="radio"/>	<input type="radio"/>
	Container2 will contain one item.	<input checked="" type="radio"/>	<input type="radio"/>

Box 1: Yes -

The `createDatabaseIfNotExistsAsync` method checks if a database exists, and if it doesn't, create it.

The `Database.CreateContainerAsync` method creates a container as an asynchronous operation in the Azure Cosmos service.

Box 2: Yes -

The `CosmosContainer.CreateItemAsync` method creates an item as an asynchronous operation in the Azure Cosmos service.

Box 3: Yes -

Reference:

<https://docs.microsoft.com/en-us/dotnet/api/microsoft.azure.cosmos.cosmosclient.createdatabaseifnotexistsasync>

<https://docs.microsoft.com/en-us/dotnet/api/microsoft.azure.cosmos.database.createcontainerasync> <https://docs.microsoft.com/en-us/dotnet/api/azure.cosmos.cosmoscontainer.createitemasync>

 **mlantonis** Highly Voted  2 years, 10 months ago

Box 1: Yes

The `createDatabaseIfNotExistsAsync` method checks if a database exists, and if it doesn't, create it. (Line 22)

The `Database.CreateContainerAsync` method creates a container as an asynchronous operation in the Azure Cosmos service. (Line 23 and 24)

Box 2: Yes

The `CosmosContainer.CreateItemAsync` method creates an item as an asynchronous operation in the Azure Cosmos service. (Line 26 and 28)

Box 3: Yes

The `CosmosContainer.CreateItemAsync` method creates an item as an asynchronous operation in the Azure Cosmos service. (Line 30)

upvoted 86 times

 **Eward** 1 year, 2 months ago

Agreed

upvoted 1 times

 **chettir01** 1 year, 3 months ago

The first box is not correct, the name of database is database and not salesOrder !

upvoted 1 times

 **chettir01** 1 year, 3 months ago

`SalesOrders` is the `databaseID`, not the name !

upvoted 1 times

 **chettir01** 1 year, 3 months ago

```
// New instance of Database class referencing the server-side database
// The name of instance is database2, and we need an ID to create it !
Database database2 = await client.CreateDatabaseIfNotExistsAsync(
    id: "adventureworks-2"
);
```

upvoted 1 times

 **Vladimir_Gajinov** 7 months ago

You are right but in Azure Cosmos DB, the database name is typically the same as the database ID, but spaces in the ID are replaced with hyphens ("").

upvoted 1 times

 **Vladimir_Gajinov** 7 months ago

So, this answer is correct one.

upvoted 1 times

 **mlantonis** 2 years, 10 months ago

Reference:

<https://docs.microsoft.com/en-us/dotnet/api/microsoft.azure.cosmos.cosmosclient.createdatabaseifnotexistsasync>

<https://docs.microsoft.com/en-us/dotnet/api/microsoft.azure.cosmos.database.createcontainerasync>

<https://docs.microsoft.com/en-us/dotnet/api/azure.cosmos.cosmoscontainer.createitemasync>

upvoted 7 times

 **AOE** Highly Voted 2 years, 7 months ago

Line 21 is tricky, it assumes the database is already created as it calls DeleteStreamAsync. I'm confused.

upvoted 7 times

 **warchoon** 1 year, 1 month ago

It returns ResponseMessage which is IDisposable

upvoted 1 times

 **Knightie** 1 year, 7 months ago

```
// Delete a Database resource where database_id is the ID property of the Database resource you wish to delete.  
Database database = this.cosmosClient.GetDatabase(database_id);  
await database.DeleteStreamAsync();
```

That is deleted so the create if not exist will surely create the DB

upvoted 1 times

 **coffecold** 1 year, 6 months ago

"using" is equal to a "try-finally" with noting in finally so the null exception is already been taken care of .

<https://stackoverflow.com/questions/2522822/will-dispose-be-called-in-a-using-statement-with-a-null-object>

upvoted 2 times

 **ReyPirata** Most Recent 7 months, 3 weeks ago

On my exam 2023-08-20. Scored 925

Yes

Yes

Yes

upvoted 3 times

 **ks321** 8 months, 3 weeks ago

Box 1: Yes

Box 2: Yes

Box 3: No - container2.Create is called only once

upvoted 1 times

 **macobuzi** 7 months, 3 weeks ago

I think you are confused! It said container2 has 1 item. So box3 - Yes is correct

upvoted 2 times

 **Videira** 1 year, 1 month ago

On my exam 2023-02-25

upvoted 1 times

 **Lucifer14** 1 year, 3 months ago

In 28-12-2022 exam

upvoted 3 times

 **TheExamMaster2020** 1 year, 4 months ago

Did my exam on 15th November 2022. This question was on it.

upvoted 2 times

 **sam5678** 1 year, 6 months ago

yes yes yes

upvoted 1 times

 **chettir01** 1 year, 3 months ago

No, it's not correct, The first box is not correct, the name of database on the code is database and not salesOrder !

upvoted 1 times

 **chettir01** 1 year, 3 months ago

SalesOrders is the databaseID, not the name !

upvoted 1 times

 **Eltooth** 1 year, 10 months ago

Answer is correct:

Yes

Yes

Yes

upvoted 1 times

✉ **chettir01** 1 year, 3 months ago

No, it's not correct, The first box is not correct, the name of database on the code is database and not salesOrders !
SalesOrders is the ID of the database not it's name !

upvoted 1 times

✉ **AymanAkk** 1 year, 3 months ago

there is no name of database, that s a variable called database of type Database and it will receive the newly created database with name salesOrder !

upvoted 4 times

✉ **nargzul** 2 years, 9 months ago

I'm just curious, how do you know that Container 1 contains 2 items and container2 contains 1 item and not the opposite? I see that we are partitionning on the account number, but not sure to understand how the partition is made?

upvoted 2 times

✉ **BroGood** 2 years, 9 months ago

see Lines 26 & 28 contain items for Container 1
Only Line 30 containers an item for Container 2

upvoted 5 times

✉ **ariel_dev** 2 years, 9 months ago

container1 is called two times adding the items, container2 just one.

upvoted 6 times

✉ **Knightie** 1 year, 7 months ago

container 1 will have 2 partitions, container 2 only 1 partition because partition key is the account number. But container 1 will still have 2 items, 1 item per partition. Hope this help.

upvoted 1 times

✉ **AlokSingh** 2 years, 9 months ago

Correct Answer

upvoted 1 times

Question #20

DRAG DROP -

You develop an Azure solution that uses Cosmos DB.

The current Cosmos DB container must be replicated and must use a partition key that is optimized for queries.

You need to implement a change feed processor solution.

Which change feed processor components should you use? To answer, drag the appropriate components to the correct requirements. Each component 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 the content.

NOTE: Each correct selection is worth one point.

Select and Place:

Components

- Host
- Delegate
- Lease container
- Monitored container

Answer Area**Requirement**

Store the data from which the change feed is generated.

Coordinate processing of the change feed across multiple workers.

Use the change feed processor to listen for changes.

Handle each batch of changes.

Component

- Component
- Component
- Component
- Component

Correct Answer:**Components**

-
-
-
-

Answer Area**Requirement**

Store the data from which the change feed is generated.

Coordinate processing of the change feed across multiple workers.

Use the change feed processor to listen for changes.

Handle each batch of changes.

Component

- Monitored container
- Lease container
- Host
- Delegate

Box 1: The monitored container -

The monitored container has the data from which the change feed is generated. Any inserts and updates to the monitored container are reflected in the change feed of the container.

Box 2: The lease container -

The lease container acts as a state storage and coordinates processing the change feed across multiple workers. The lease container can be stored in the same account as the monitored container or in a separate account.

Box 3: The host: A host is an application instance that uses the change feed processor to listen for changes. Multiple instances with the same lease configuration can run in parallel, but each instance should have a different instance name.

Box 4: The delegate -

The delegate is the code that defines what you, the developer, want to do with each batch of changes that the change feed processor reads.

Reference:

<https://docs.microsoft.com/en-us/azure/cosmos-db/change-feed-processor>

✉  **MattXu**  2 years, 9 months ago

The given answer is correct.

upvoted 60 times

✉  **TakumaK** 2 years, 9 months ago

You are right. The given answer is correct.

upvoted 11 times

✉  **john4p** 2 years, 4 months ago

And your given answer, that MattXu is right, is also correct.

upvoted 19 times

✉  **dbobspurfpoo** 2 years, 3 months ago

that observation is correct, john
upvoted 15 times

✉  **Stann07** 4 months, 2 weeks ago

dbobspurfpoo, you are right to say that the observation of john is correct.
upvoted 2 times

✉  **gmishra88** Highly Voted  1 year, 6 months ago

Microsoft has obscure names in documentation and has nothing to do with the azure component itself. "Delegate", "Host component", "Compute instance". How's remembering this from one page they wrote mean anything. We do not call any of them these when we implement the change feed processor

upvoted 12 times

✉  **Dixavado** Most Recent  6 months, 2 weeks ago

It was on my exam today (2023-09-26) I went with the examtopics answer - score 850
upvoted 3 times

✉  **shekhar11** 6 months, 2 weeks ago

Question in my exam 22sept 2023
upvoted 2 times

✉  **nikipediaa** 6 months, 2 weeks ago

me too today
upvoted 1 times

✉  **Tarajee** 7 months ago

On my exam 2023sept
upvoted 2 times

✉  **kayvg** 7 months, 4 weeks ago

1. Monitored container
> You want to track changes of the data you store
2. Lease container
> A lease container is responsible for maintaining information about which workers are processing which data from the Monitored Container
3. Host
> They represent the worker instances responsible for processing changes from the change feed
4. Delegates
> Methods you define to handle actual changes detected by the change feed (so when the change feed receives changes, it invokes delegate methods)

The difference between a monitored container and a host is that a host actually distributes work to delegates, while a monitored container tracks changes in data and gives that info to the change feed processor.

upvoted 4 times

✉  **KrishTeam** 8 months, 1 week ago

please provide correct answers
upvoted 1 times

✉  **unravel** 8 months, 2 weeks ago

The discussions are meant to help prepare for the exam so please try to be helpful
upvoted 2 times

✉  **unravel** 8 months, 2 weeks ago

People are commenting here to be funny, but can they care to provide an explanation?
upvoted 2 times

✉  **Chris2349** 9 months, 4 weeks ago

Received this on 15th of June 2023. Went with the given answer.
upvoted 2 times

✉  **Videira** 1 year, 1 month ago

On my exam 2023-02-25
upvoted 3 times

✉  **mdg3501** 1 year, 4 months ago

got this on 2022-12-7
upvoted 3 times

✉  **TheExamMaster2020** 1 year, 4 months ago

Did my exam on 15th November 2022. This question was on it.
upvoted 5 times

✉ **BennyJai** 1 year, 3 months ago

I also Got same in 5 dec exam.
upvoted 2 times

✉ **sam5678** 1 year, 6 months ago

dzzdvz
upvoted 1 times

✉ **herrmutig** 2 years ago

Answer is correct.

*Note that the "Host" Component should be called Compute Instance instead.

<https://docs.microsoft.com/en-us/azure/cosmos-db/change-feed-processor>

upvoted 5 times

✉ **petibilly** 2 years, 1 month ago

Got it in exam 03/22
upvoted 2 times

✉ **oescm** 2 years, 2 months ago

Got this one 02/2022. Went with the given answer
upvoted 5 times

Question #21

HOTSPOT -

You are developing a web application that will use Azure Storage. Older data will be less frequently used than more recent data.

You need to configure data storage for the application. You have the following requirements:

- ☞ Retain copies of data for five years.
- ☞ Minimize costs associated with storing data that is over one year old.
- ☞ Implement Zone Redundant Storage for application data.

What should you do? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Requirement	Solution
Configure an Azure Storage account	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <input checked="" type="checkbox"/> Implement Blob Storage <input type="checkbox"/> Implement Azure Cosmos DB <input type="checkbox"/> Implement Storage (general purpose v1) <input type="checkbox"/> Implement StorageV2 (general purpose v2) </div>
Configure data retention	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <input type="checkbox"/> Snapshot blobs and move them to the archive tier <input type="checkbox"/> Set a lifecycle management policy to move blobs to the cool tier <input type="checkbox"/> Use AzCopy to copy the data to an on-premises device for backup <input type="checkbox"/> Set a lifecycle management policy to move blobs to the archive tier </div>

Correct Answer:

Answer Area

Requirement	Solution
Configure an Azure Storage account	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <input checked="" type="checkbox"/> Implement Blob Storage <input type="checkbox"/> Implement Azure Cosmos DB <input type="checkbox"/> Implement Storage (general purpose v1) <input checked="" type="checkbox"/> Implement StorageV2 (general purpose v2) </div>
Configure data retention	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <input type="checkbox"/> Snapshot blobs and move them to the archive tier <input checked="" type="checkbox"/> Set a lifecycle management policy to move blobs to the cool tier <input type="checkbox"/> Use AzCopy to copy the data to an on-premises device for backup <input type="checkbox"/> Set a lifecycle management policy to move blobs to the archive tier </div>

Reference:

<https://docs.microsoft.com/en-us/azure/storage/blobs/storage-blob-storage-tiers> <https://docs.microsoft.com/en-us/azure/storage/common/storage-redundancy?toc=/azure/storage/blobs/toc.json>

✉  **gmishra88** Highly Voted 1 year, 6 months ago

So, because it is ZRS, and that does not support archive tier, it cannot be moved to archive tier even though the questions mention the red-herring key-word "infrequently accessed" (which triggers feelings for archive tier). For no logically apparent reason Microsoft decided not to support archive tier in ZRS and unfortunately I have to remember that Microsoft "feature"?

upvoted 34 times

✉  **OPT_001122** 1 year, 4 months ago

ZRS, and that does not support archive tier - this is key point, Thanks

upvoted 11 times

✉  **surprise0011** 12 months ago

also GZRS and RA-GZRS does not support archive tier

<https://learn.microsoft.com/en-us/azure/storage/blobs/access-tiers-overview#archive-access-tier>

upvoted 2 times

✉ **jakobste** 7 months, 3 weeks ago

I assume they wanted to charge people more money for ZRS and thus no Archive tier.
upvoted 1 times

✉ **18Marks** Highly Voted 1 year, 4 months ago

Got in exam. go with given answer
upvoted 10 times

✉ **TonyMel** 1 year ago

correct, in 2023Mar24, score: 904/1000
upvoted 3 times

✉ **adilkhan** 1 year ago

were all the questions from the exam topic?
upvoted 3 times

✉ **Mick1z8** Most Recent 3 months, 1 week ago

Correct answer. Got this in exam on 30/12/2023.
Case study: Contoso Ltd.
Total questions: 46
Time: 1:40 minutes
Score: 940

43 questions from Exam Topics. Just 3 questions outside of it.

upvoted 6 times

✉ **Dixavado** 6 months, 2 weeks ago

It was on my exam today (2023-09-26) I went with the examtopics answer - score 850
upvoted 1 times

✉ **applepie** 8 months, 2 weeks ago

got this question today, go with the provided answer - 7/30/2023, score 895/1000
upvoted 1 times

✉ **Priya0703** 1 year, 1 month ago

On exam 20-02-2023
upvoted 3 times

✉ **Eward** 1 year, 2 months ago

1. Implement storage V2
2. Set lifecycle management policy to move to cool tier

which means given answers are correct

upvoted 2 times

✉ **Hasti123** 6 months, 3 weeks ago

Why not Blob storage ?
upvoted 2 times

✉ **Woksi** 2 months ago

Blob Storage is not a type of *Account*
upvoted 1 times

✉ **Alluru** 1 year, 5 months ago

Given answer is correct. Data retention policy relay on cool tier
upvoted 4 times

✉ **gmishra88** 1 year, 6 months ago

Microsoft plays on the unfortunate choice of words in their documentation: "Rarely used", "Infrequently used". The difference I cannot find
upvoted 4 times

✉ **OPT_001122** 1 year, 6 months ago

Given answer is correct or not?
upvoted 1 times

✉ **micro9000** 1 year, 5 months ago

Yup, the answer is correct

Based on this: <https://learn.microsoft.com/en-us/azure/storage/blobs/access-tiers-overview?source=recommendations>

Only storage accounts that are configured for LRS, GRS, or RA-GRS support moving blobs to the archive tier. The archive tier isn't supported for ZRS, GZRS, or RA-GZRS accounts. For more information about redundancy configurations for Azure Storage, see Azure Storage redundancy.

upvoted 4 times

✉ **Enigma__** 1 year, 6 months ago

Only storage accounts that are configured for LRS, GRS, or RA-GRS support moving blobs to the Archive tier. The Archive tier isn't supported for ZRS, GZRS, or RA-GZRS accounts.

<https://learn.microsoft.com/en-us/azure/storage/blobs/access-tiers-overview?source=recommendations>
upvoted 3 times

 **finnishr** 1 year, 7 months ago
Correct. Can't pick the archive option since ZRS needs to be used.
upvoted 2 times

 **RochaG2** 1 year, 7 months ago
Data in all tiers, including the Archive tier, is always copied from the primary to the secondary during geo-replication. The Archive tier for Blob Storage is currently supported for LRS, GRS, and RA-GRS accounts, but not for ZRS, GZRS, or RA-GZRS accounts.

<https://docs.microsoft.com/en-us/azure/storage/common/storage-redundancy>
upvoted 2 times

 **sghaha** 1 year, 11 months ago
<https://docs.microsoft.com/ko-kr/azure/storage/common/storage-account-overview>
upvoted 1 times

 **CellCS** 1 year, 3 months ago
here is en-us link : <https://learn.microsoft.com/en-us/azure/storage/common/storage-account-overview>
upvoted 1 times

Question #22

HOTSPOT -

A company develops a series of mobile games. All games use a single leaderboard service.

You have the following requirements:

- ⇒ Code must be scalable and allow for growth.
- ⇒ Each record must consist of a playerId, gameId, score, and time played.
- ⇒ When users reach a new high score, the system will save the new score using the SaveScore function below.

Each game is assigned an Id based on the series title.

You plan to store customer information in Azure Cosmos DB. The following data already exists in the database:

PartitionKey	RowKey	Email
Harp	Walter	wharp@contoso.com
Smith	Steve	ssmith@contoso.com
Smith	Jeff	jsmith@contoso.com

You develop the following code to save scores in the data store. (Line numbers are included for reference only.)

```

01 public void SaveScore(string gameId, string playerId, int score, long timePlayed)
02 {
03     CloudStorageAccount storageAccount = CloudStorageAccount.Parse(connectionString);
04     CloudTableClient tableClient = storageAccount.CreateCloudTableClient();
05     CloudTable table = tableClient.GetTableReference("scoreTable");
06     table.CreateIfNotExists();
07     var scoreRecord = new PlayerScore(gameId, playerId, score, timePlayed);
08     TableOperation insertOperation = TableOperation.Insert(scoreRecord);
09     table.Execute(insertOperation);
10 }
```

You develop the following code to query the database. (Line numbers are included for reference only.)

```

01 CloudTableClient tableClient = account.CreateCloudTableClient();
02 CloudTable table = tableClient.GetTableReference("people");
03 TableQuery<CustomerEntity> query = new TableQuery<CustomerEntity>()
04     .Where(TableQuery.CombineFilters(
05         TableQuery.GenerateFilterCondition("PartitionKey", QueryComparisons.Equal, "Smith"),
06         TableOperators.And,
07         TableQuery.GenerateFilterCondition("Email", QueryComparisons.Equal, "ssmith@contoso.com")
08     ));
09 await table.ExecuteQuerySegmentedAsync<CustomerEntity>(query, null);
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
SaveScore will work with Cosmos DB.	<input type="radio"/>	<input type="radio"/>
SaveScore will update and replace a record if one already exists with the same playerId and gameId.	<input type="radio"/>	<input type="radio"/>
Leader board data for the game will be automatically partitioned using gameId.	<input type="radio"/>	<input type="radio"/>
SaveScore will store the values for the gameId and playerId parameters in the database.	<input type="radio"/>	<input type="radio"/>

Answer Area

Statements	Yes	No
SaveScore will work with Cosmos DB.	<input checked="" type="radio"/>	<input type="radio"/>
Correct Answer: SaveScore will update and replace a record if one already exists with the same playerId and gameId.	<input type="radio"/>	<input checked="" type="radio"/>
Leader board data for the game will be automatically partitioned using gameId.	<input type="radio"/>	<input checked="" type="radio"/>
SaveScore will store the values for the gameId and playerId parameters in the database.	<input checked="" type="radio"/>	<input type="radio"/>

Box 1: Yes -

Create a table.

A CloudTableClient object lets you get reference objects for tables and entities. The following code creates a CloudTableClient object and uses it to create a new

CloudTable object, which represents a table

// Retrieve storage account from connection-string.

CloudStorageAccount storageAccount =

CloudStorageAccount.parse(storageConnectionString);

// Create the table client.

CloudTableClient tableClient = storageAccount.createCloudTableClient();

// Create the table if it doesn't exist.

String tableName = "people";

CloudTable cloudTable = tableClient.getTableReference(tableName); cloudTable.createIfNotExists();

Box 2: No -

New records are inserted with TableOperation.insert. Old records are not updated.

To update old records TableOperation.insertOrReplace should be used instead.

Box 3: No -

Box 4: Yes -

Reference:

<https://docs.microsoft.com/en-us/azure/cosmos-db/table-storage-how-to-use-java>

✉  **yukkki** Highly Voted 1 year, 3 months ago

given answer is correct.

upvoted 11 times

✉  **Eward** 1 year, 2 months ago

yes, you are correct! given answers are correct

upvoted 3 times

✉  **[Removed]** 9 months ago

Incorrect. First one is "No"

upvoted 2 times

✉  **OPT_001122** Highly Voted 1 year, 5 months ago

the given answer seems correct

upvoted 7 times

✉  **Woksi** Most Recent 2 months ago

Is the implementation of the PlayerScore viewable in the exam? Wouldn't questions about partition/row key be settled there?

upvoted 1 times

✉  **raymond_abcd** 2 months, 2 weeks ago

See: <https://learn.microsoft.com/en-us/dotnet/api/overview/azure/data.tables-readme?view=azure-dotnet>

upvoted 3 times

✉  **raymond_abcd** 2 months, 2 weeks ago

CloudStorageClient is deprecated for CosmosDb it is now changed to TableServiceClient and then you have TableClient to store the data. So probably this question wil be different in the upcoming exam

upvoted 1 times

Azr0112 6 months, 2 weeks ago

Yes, SaveScore will work with CosmosDb.

This is an example of Azure Cosmos DB for Table.

<https://learn.microsoft.com/en-us/azure/cosmos-db/table/quickstart-dotnet?tabs=azure-cli%2Cwindows>

upvoted 1 times

[Removed] 9 months ago

No, No, No, Yes

upvoted 2 times

[Removed] 1 year, 2 months ago

Inserting will fail, this would require InsertOrReplace to work

upvoted 3 times

bbq598 1 year, 3 months ago

For box 2 there will be an exception if the same partition key and row key already exist.

upvoted 2 times

warchoon 1 year, 1 month ago

So you need to answer box 3 first ;)

upvoted 1 times

Yumi21 1 year, 4 months ago

It seems that in the code no partition key for scoreTable is specified, which means that here we are using a single-partition collection. I would say in this case 3rd option is No, so no automatical partitioning will happen.

upvoted 2 times

TheExamMaster2020 1 year, 5 months ago

Y,N,Y,Y

upvoted 1 times

coffecold 1 year, 6 months ago

What code should be there if doing automatic partitioning (C) remains a total secret to me. Should be somewhere on the table level...

upvoted 3 times

DivyaRajkumar 1 year, 6 months ago

The given answer looks right to me,

<https://docs.microsoft.com/en-us/dotnet/api/microsoft.azure.cosmos.table?view=azure-dotnet>

upvoted 2 times

azurepaul 1 year, 7 months ago

CloudTableClient is for Table storage - CosmosClient is for Cosmos DB I don't think it will work with Cosmos

upvoted 5 times

ArturKon 1 year, 6 months ago

<https://learn.microsoft.com/en-us/dotnet/api/microsoft.azure.cosmos.table.cloudtableclient?view=azure-dotnet>

upvoted 1 times

ArturKon 1 year, 6 months ago

Cosmos DB offers Table API, you can use CosmosClient to connect to this.

upvoted 2 times

Enigma__ 1 year, 6 months ago

Please do a simple bing search and you'll see it is Cosmos Db

<https://learn.microsoft.com/en-us/dotnet/api/microsoft.azure.cosmos.table.cloudtableclient?view=azure-dotnet>

upvoted 1 times

PrepX 9 months, 3 weeks ago

A = No

SaveScore() method uses a storage account connectionString:

CloudStorageAccount storageAccount = CloudStorageAccount.Parse(connectionString);

and uses storageAccount to create CloudTableClient.

This is not a CosmosDB connection string, CosmosDB requires a Uri + credential (not given in given code!) So given code wil not work 100% to connect to CosmosDB even though it uses a compatible API.

upvoted 3 times

finnisher 1 year, 7 months ago

Correct 100%!

upvoted 2 times

BogdanG 1 year, 11 months ago

Answer is Correct.
upvoted 3 times

Question #23

Topic 3

You develop and deploy a web application to Azure App Service. The application accesses data stored in an Azure Storage account. The account contains several containers with several blobs with large amounts of data. You deploy all Azure resources to a single region.

You need to move the Azure Storage account to the new region. You must copy all data to the new region.

What should you do first?

- A. Export the Azure Storage account Azure Resource Manager template
- B. Initiate a storage account failover
- C. Configure object replication for all blobs
- D. Use the AzCopy command line tool
- E. Create a new Azure Storage account in the current region
- F. Create a new subscription in the current region

Correct Answer: A

To move a storage account, create a copy of your storage account in another region. Then, move your data to that account by using AzCopy, or another tool of your choice and finally, delete the resources in the source region.

To get started, export, and then modify a Resource Manager template.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/common/storage-account-move?tabs=azure-portal>

Community vote distribution

A (100%)

✉  **BhavikaSNN**  1 year, 11 months ago

Selected Answer: A

We can create a new Storage account in the new region, using the existing storage account ARM template. All we need to do is change the region name after exporting the ARM of existing account..

upvoted 11 times

✉  **gmishra88** 1 year, 6 months ago

And the name of the storage account which needs to be unique. I think all these questions are about some sentence in some azure documentation.

upvoted 4 times

✉  **BogdanG**  1 year, 11 months ago

Answer is correct.

upvoted 10 times

✉  **Nhiendo**  1 year, 3 months ago

Step One is always "Export"

upvoted 8 times

✉  **OPT_001122** 1 year, 4 months ago

Selected Answer: A

A. Export the Azure Storage account Azure Resource Manager template

upvoted 3 times

✉  **TheExamMaster2020** 1 year, 4 months ago

Did my exam on 15th November 2022. This question was on it.

upvoted 5 times

Question #24

Topic 3

HOTSPOT -

You are developing an application to collect the following telemetry data for delivery drivers: first name, last name, package count, item id, and current location coordinates. The app will store the data in Azure Cosmos DB.

You need to configure Azure Cosmos DB to query the data.

Which values should you use? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Configuration Parameter	Value
Azure Cosmos DB API	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"><p>▼</p><p>Gremlin</p><p>Table API</p><p>Core (SQL)</p></div>
Azure Cosmos DB partition key	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"><p>▼</p><p>first name</p><p>last name</p><p>package count</p><p>item id</p></div>

Answer Area

Configuration Parameter	Value
Azure Cosmos DB API	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"><p>▼</p><p>Gremlin</p><p>Table API</p><p>Core (SQL)</p></div>
Azure Cosmos DB partition key	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"><p>▼</p><p>first name</p><p>last name</p><p>package count</p><p>item id</p></div>

Box 1: Core (SQL)

Core(SQL) API stores data in document format. It offers the best end-to-end experience as we have full control over the interface, service, and

the SDK client libraries. SQL API supports analytics and offers performance isolation between operational and analytical workloads.

Box 2: item id -

item id is a unique identifier and is suitable for the partition key.

Reference:

<https://docs.microsoft.com/en-us/azure/cosmos-db/choose-api>

<https://docs.microsoft.com/en-us/azure/cosmos-db/partitioning-overview>

✉  **[Removed]**  1 year, 6 months ago

Without knowing the functionality or the usage pattern or what it is for. Good lord, Microsoft
upvoted 32 times

✉  **serpevi**  1 year, 7 months ago

Got this in 09/22 , went with SQL and Item Id, score 927.
upvoted 22 times

✉  **130nk3r5**  3 months, 1 week ago

Got this today.
Went with answer here.
Score 927
upvoted 3 times

✉  **Tarajee** 7 months ago

On my exam 2023sept
upvoted 8 times

✉  **NightshadeRC** 8 months, 2 weeks ago

Had this question in today's exam: 2023-07-26
upvoted 5 times

✉  **[Removed]** 9 months ago

Answer seems correct, but the question is very bad. It doesn't even tell about the usage, so it could be Table API as well
upvoted 7 times

✉  **sarmaria** 1 year ago

Got this question in the exam on 16/03/2023. Went with SQL and Item Id . Make sure to prepare for case studies. I got city and lights case study.
upvoted 5 times

✉  **MarcoStewart** 10 months ago

where can one find these case studies?
upvoted 3 times

✉  **CarlosTheBoldest** 4 months, 1 week ago

Page 32 and above
upvoted 1 times

✉  **Puja079888** 1 month, 1 week ago

did contributor access is needed to pass the exam?
upvoted 1 times

✉  **warchoon** 1 year, 1 month ago

They changed names again. "Core (SQL)" is "Api for NoSQL" now. Its wonderful to choose "SQL" for "NoSQL".

<https://www.c-sharpcorner.com/article/road-to-az-2044/#:~:text=Core%20SQL%20API%2C%20default%20API%20for%20using%20Azure%20Cosmos%20DB%20enables%20querying%20you>

r%20data%20with%20a%20language%20very%20close%20to%20SQL%3B

<https://learn.microsoft.com/en-us/azure/cosmos-db/choose-api#coresql-api>

api:~:text=API%20for%20NoSQL%20is%20native%20to%20Azure%20Cosmos%20DB.

upvoted 10 times

✉  **Eward** 1 year, 2 months ago

given answers are correct
upvoted 2 times

✉  **OPT_001122** 1 year, 4 months ago

SQL and Item Id
upvoted 2 times

✉  **rol204** 1 year, 5 months ago

correct
upvoted 2 times

✉  **kampatra** 1 year, 7 months ago

Answer is correct:

<https://docs.microsoft.com/en-us/azure/cosmos-db/choose-api>

upvoted 4 times

 **dtctx** 1 year, 11 months ago

Received this in test on 4/29 and passed the test.

Went with Table API and Item ID. I do not know if Table API is correct, but I am confident that Item ID is.

upvoted 4 times

 **CarlosTheBoldest** 4 months, 1 week ago

Table API is for manage tables, SQL is for queries

upvoted 1 times

 **sghaha** 1 year, 11 months ago

<https://docs.microsoft.com/ko-kr/azure/cosmos-db/choose-api>

upvoted 1 times

Question #25

DRAG DROP -

You are implementing an Azure solution that uses Azure Cosmos DB and the latest Azure Cosmos DB SDK. You add a change feed processor to a new container instance.

You attempt to read a batch of 100 documents. The process fails when reading one of the documents. The solution must monitor the progress of the change feed processor instance on the new container as the change feed is read. You must prevent the change feed processor from retrying the entire batch when one document cannot be read.

You need to implement the change feed processor to read the documents.

Which features should you use? To answer, drag the appropriate features to the cored requirements. Each feature 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 cored selection is worth one point.

Select and Place:

Features	Answer Area	
Change feed estimator		
Dead-letter queue	Monitor the progress of the change feed processor	
Deployment unit	Prevent the change feed processor from retrying the entire batch when one document cannot be read	
Lease container		

Correct Answer:

Features	Answer Area	
Change feed estimator		
Dead-letter queue	Monitor the progress of the change feed processor	
Deployment unit	Prevent the change feed processor from retrying the entire batch when one document cannot be read	
Lease container		

Box 1: Change feed estimator -

You can use the change feed estimator to monitor the progress of your change feed processor instances as they read the change feed or use the life cycle notifications to detect underlying failures.

Box 2: Dead-letter queue -

To prevent your change feed processor from getting "stuck" continuously retrying the same batch of changes, you should add logic in your delegate code to write documents, upon exception, to a dead-letter queue. This design ensures that you can keep track of unprocessed changes while still being able to continue to process future changes. The dead-letter queue might be another Cosmos container. The exact data store does not matter, simply that the unprocessed changes are persisted.

Reference:

<https://docs.microsoft.com/en-us/azure/cosmos-db/sql/change-feed-processor>

👤  **finnishr** Highly Voted 1 year, 7 months ago

The answer is correct.

upvoted 15 times

👤  **sarmaria** Highly Voted 1 year ago

Got this on 16/03/23. Went with proposed solution. Make sure to prepare for case study. I got city and lights case study. No Kubernetes, Search, Logic Apps questions for me.

upvoted 10 times

👤  **Stann07** Most Recent 3 months, 3 weeks ago

On my exam Dec 18. went with the given answer. scored 842

upvoted 2 times

AndySmith 5 months, 1 week ago

On exam 3-Nov-2023. Went with proposed answer - 932/1000.

1) Change feed estimator

2) Dead letter queue

upvoted 3 times

ddd111 6 months, 3 weeks ago

I got this same question. Provided answers are correct. (Note: I failed the exam 20/9/23. I only scored 644 and I felt bad. I think because many questions here in Examtopics are not accurate. I suggest following the most voted answers and don't just rely on Examtopics answers. At the beginning of the exam, you will be asked which programming languages you want to use. C#/Python. I chose C#. Also, I just want to add that some questions here are really in the actual exams, but the choices are written and formatted differently. Please be aware of that. Goodluck. I feel bad for failing it, but I want to retake next month. I will try Python. T_T

upvoted 7 times

Nitin23 6 months, 3 weeks ago

this is a bad site

upvoted 2 times

kayvg 7 months, 4 weeks ago

The answer is correct

A change feed estimator is used to monitor the progress of your change feed processor instances as they read the change feed

A dead-letter queue is holding a queue for messages that cannot be delivered to their destination

A deployment unit is to provide a container for an application or service, which is not relevant

The lease container is used to coordinate processing the change feed, which is not relevant as well

upvoted 1 times

kvtborad 8 months ago

I got this question on 6th August 2023. chose highly voted. passed with 904. I got Case study: city and Lights. All questions are from ExamTopics.

upvoted 1 times

JH81 9 months, 2 weeks ago

Got this on 6/28/2023 and passed with 850. Went with answer.

upvoted 1 times

aragones 11 months ago

Got this 2023-05-12.

My case:

case: You need to configure authorization.

case: You need to ensure the app does not time out and processes the blob data

case study: VanArsdel Inc Canada

upvoted 1 times

narenazure 1 year, 2 months ago

The answer is correct.

To prevent your change feed processor from getting "stuck" continuously retrying the same batch of changes, you should add logic in your delegate code to write documents, upon exception, to an errored-message queue. This design ensures that you can keep track of unprocessed changes while still being able to continue to process future changes. The errored-message queue might be another Azure Cosmos DB container. The exact data store does not matter, simply that the unprocessed changes are persisted.

Error handling section - <https://learn.microsoft.com/en-us/azure/cosmos-db/nosql/change-feed-processor?tabs=dotnet>

upvoted 1 times

Eward 1 year, 2 months ago

Given answers are correct!

upvoted 1 times

Eward 1 year, 2 months ago

To prevent your change feed processor from getting "stuck" continuously retrying the same batch of changes, you should add logic in your delegate code to write documents, upon exception, to an errored-message queue. This design ensures that you can keep track of unprocessed changes while still being able to continue to process future changes. The errored-message queue might be another Azure Cosmos DB container. The exact data store does not matter, simply that the unprocessed changes are persisted.

In addition, you can use the change feed estimator to monitor the progress of your change feed processor instances as they read the change feed or use the life cycle notifications to detect underlying failures.

upvoted 2 times

Sreedharc 1 year, 4 months ago

got in 11/11/2022

upvoted 3 times

 **vcfvct** 1 year, 5 months ago

Got this on 10/21/2022

upvoted 3 times

 **OPT_001122** 1 year, 5 months ago

thanks for mentioning the date

upvoted 1 times

 **gmishra88** 1 year, 6 months ago

Sure, this is also taken from a certification. But where does a dead letter queue come in change feed processor. If this comes, yes, this is the correct answer. But it all doesn't make any sense

upvoted 1 times

 **coffecold** 1 year, 6 months ago

It is do-it-yourself stuff:

"To prevent your change feed processor from getting "stuck" continuously retrying the same batch of changes, you should add logic in your delegate code to write documents, upon exception, to a dead-letter queue "

<https://learn.microsoft.com/en-us/azure/cosmos-db/sql/change-feed-processor?tabs=dotnet>

upvoted 3 times

 **Pentagon** 1 year, 5 months ago

If just for saving the last position, I think it should be lease container.

"When the delegate finishes processing the changes successfully, update the lease store with the latest processed point in time and go to #1"

Dead-letter queue seems to be prevent re-trying too much instead of resuming at the last done position.

upvoted 1 times

Question #26

HOTSPOT -

You are developing an application that uses a premium block blob storage account. The application will process a large volume of transactions daily. You enable Blob storage versioning.

You are optimizing costs by automating Azure Blob Storage access tiers. You apply the following policy rules to the storage account. (Line numbers are included for reference only.)

```

01 {
02   "rules" : [
03     {
04       "name" : "versionRule",
05       "enabled" : true,
06       "type" : "Lifecycle",
07       "definition" : {
08         "actions" : {
09           "version" : {
10             "tierToCool" : {
11               "daysAfterCreationGreaterThan" : 60
12             },
13             "delete" : {
14               "daysAfterCreationGreaterThan" : 365
15             }
16           }
17         },
18         "filters" : {
19           "blobTypes" : [ "blockBlob" ], "prefixMatch" : [ "transactions" ]
20         }
21       }
22     }
23   ]
24 }
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
Block blobs prefixed with transactions will transition blobs that have not been modified in over 60 days to cool storage, and delete blobs not modified in 365 days	<input type="radio"/>	<input type="radio"/>
Blobs are moved to cool storage if they have not been accessed for 60 days	<input type="radio"/>	<input type="radio"/>
The policy rule tiers previous versions within a container named transactions that are 60 days or older to the cool tier and deletes previous versions that are 365 days or older	<input type="radio"/>	<input type="radio"/>
Blobs will automatically be tiered from cool back to hot if accessed again after being tiered to cool	<input type="radio"/>	<input type="radio"/>

Correct Answer:

Answer Area

Statements	Yes	No
Block blobs prefixed with transactions will transition blobs that have not been modified in over 60 days to cool storage, and delete blobs not modified in 365 days	<input type="radio"/>	<input checked="" type="radio"/>
Blobs are moved to cool storage if they have not been accessed for 60 days	<input type="radio"/>	<input checked="" type="radio"/>
The policy rule tiers previous versions within a container named transactions that are 60 days or older to the cool tier and deletes previous versions that are 365 days or older	<input checked="" type="radio"/>	<input type="radio"/>
Blobs will automatically be tiered from cool back to hot if accessed again after being tiered to cool	<input checked="" type="radio"/>	<input type="radio"/>

Box 1: No -

Would be true if daysAfterModificationGreaterThan was used, but here daysAfterCreationGreaterThan

Box 2: No -

Would need to use the daysAfterLastAccessTimeGreaterThan predicate.

Box 3: Yes -

Box 4: Yes -

With the lifecycle management policy, you can:

Transition blobs from cool to hot immediately when they are accessed, to optimize for performance.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/blobs/lifecycle-management-overview>

 **Dani_ac7**  1 year, 7 months ago

With this image, all answers are NO:

- Container named transaction is not in code
 - is no present line "enableAutoTierToHotFromCool": true
- upvoted 22 times

 **Tenk14** 1 year, 7 months ago

I guess, third statement (The policy rule tiers..) result is Yes.
Container name "transactions" is in prefixMatch.

<https://docs.microsoft.com/en-us/azure/storage/blobs/lifecycle-management-overview#archive-data-after-ingest>

Solution is:

- No
 - No
 - Yes
 - No
- upvoted 53 times

 **ChiragShah4885** 1 year, 6 months ago

Container name "transactions" is in prefixMatch means its name must start from "transactions". Its name is not "transactions". Dani_ac7's answer looks correct

upvoted 2 times

 **ArturKon** 1 year, 6 months ago

Looks like 3rd is NO, according to filter's guide:

"Filter blobs by name or first letters. To find items in a specific container, enter the name of the container followed by a forward slash, then the blob name or first letters. For example, to show all blobs starting with "a", type: "mycontainer/a"."

So it looks like we are searching blobs with "transactions" prefix in all containers in 3rd.

upvoted 1 times

 **cwn53066** 1 year, 6 months ago

But name "transactions" satisfies rule `name must start from "transactions"`, why it doesn't fit?

upvoted 5 times

✉  **Esward** 1 year, 2 months ago

Correct: if you want to match the blobs within a specific container, you should mention the container name/blob name

```
{
  "rules": [
    {
      "name": "agingRule",
      "enabled": true,
      "type": "Lifecycle",
      "definition": {
        "filters": {
          "blobTypes": [ "blockBlob" ],
          "prefixMatch": [ "sample-container/blob1", "container2/blob2" ]
        },
        "actions": {
          "baseBlob": {
            "tierToCool": { "daysAfterModificationGreaterThan": 30 },
            "tierToArchive": { "daysAfterModificationGreaterThan": 90 }
          }
        }
      }
    }
  ]
}
```

upvoted 1 times

✉  **Hendrikdb** 1 month, 3 weeks ago

wrong:

An array of strings for prefixes to be matched. Each rule can define up to 10 case-sensitive prefixes. A prefix string must start with a container name. For example, if you want to match all blobs under <https://myaccount.blob.core.windows.net/sample-container/blob1/>... for a rule, the prefixMatch is sample-container/blob1

upvoted 1 times

✉  **baroo1**  1 year, 1 month ago

No - Not modified, created.

No - Not accessed, created.

Yes - Rules are matching the statement. The prefix "transactions" can be applicable for containers as well. "container" / "container/blob" or "blob" can be used under this context.

Source: <https://learn.microsoft.com/en-us/azure/storage/blobs/lifecycle-management-overview#archive-data-after-ingest>

No - "enableAutoTierToHotFromCool": "true" should be enabled.

upvoted 20 times

✉  **jobolesonihal**  2 weeks, 4 days ago

policy doesn't mention baseblob.

Solution is:

- No
- No
- Yes
- No

upvoted 2 times

✉  **SSR999** 1 month, 3 weeks ago

Premium Block Blobs won't support access tiers and Lifecycle management policies (tiering)

<https://learn.microsoft.com/en-us/azure/storage/blobs/storage-feature-support-in-storage-accounts#premium-block-blob-accounts>

upvoted 2 times

✉  **NPE_** 5 months, 1 week ago

3rd is YES, check the reference:

<https://learn.microsoft.com/en-us/azure/storage/blobs/lifecycle-management-overview>

On the page it says: "A prefix string must start with a container name. For example, if you want to match all blobs under <https://myaccount.blob.core.windows.net/sample-container/blob1/>... for a rule, the prefixMatch is sample-container/blob1." This means that the container name is "transactions"

So the only one that makes me confused is the 4th. According to the discussion, you have to manually enable "enableAutoTierToHotFromCool". And it is also mentioned above in the link that "The enableAutoTierToHotFromCool action is available only when used with the daysAfterLastAccessTimeGreater Than run condition." As in our case, the prerequisite for the auto tier to hot from cool is not even fulfilled, so it is not possible to expect an "AutoTierToHotFromCool" effect.

I would go with a NO for the 4th.

upvoted 3 times

✉  **nikipediaa** 6 months, 2 weeks ago

Question was on exam 2023-09-26

upvoted 1 times

✉  **nikipediaa** 6 months, 2 weeks ago

sorry, not this one, but similar with containers and numbers :)

upvoted 1 times

✉ **aragones** 11 months ago

Got this 2023-05-12.

Without 4th question.

my cases also:

case: You need to configure authorization.

case: You need to ensure the app does not time out and processes the blob data

case study: VanArsdel Inc Canada

upvoted 2 times

✉ **aragones** 11 months ago

Got this 2023-05-12.

My case:

case: You need to configure authorization.

case: You need to ensure the app does not time out and processes the blob data

case study: VanArsdel Inc Canada

upvoted 1 times

✉ **surprise0011** 11 months, 4 weeks ago

received 2023-04-17 went N,N,Y, score 926

last box was not there only first three

upvoted 8 times

✉ **surprise0011** 1 year ago

premium block blob storage does not support access tiers. This is confusing

upvoted 4 times

✉ **Saluk_DE** 1 year ago

Question was in Exam 2023-03-30

upvoted 1 times

✉ **sarmaria** 1 year ago

Got this on 16/03/23. Make sure to prepare for case study. I got city and lights case study. No Kubernetes, Search, Logic Apps questions for me.

upvoted 4 times

✉ **rasojol523** 1 year, 1 month ago

Box 3: No ?

'DayAfterCreationGreater Than 60' does not include 'just 60 days'. Therefore, if something has been made for 60 days, it would not be included in '60 days or later', so box 3 would be NO ?

upvoted 2 times

✉ **Ayman99** 1 year, 1 month ago

Was on the exam 27.02.2023

Went with NNYN.

Score 870

upvoted 3 times

✉ **warchoon** 1 year, 1 month ago

Box 1, 2: No - this is about past versions, not about blobs

Box 3: Yes - exactly policy description

Box 4: No - first this is about past version not blob, second even blob moving back needs enableAutoTierToHotFromCool

upvoted 2 times

✉ **Adiu** 1 year, 1 month ago

One important thing - the rule is for version and according to MS:

The baseBlob element in a lifecycle management policy refers to the current version of a blob. The version element refers to a previous version.

upvoted 2 times

✉ **Michael2023** 1 year, 2 months ago

Dani_ac7 is right I guess, but I think because we have here an Premium Block Blob Account/Storage which doesn't support Access Tier (Hot, Cool, Archive)... Access Tier is only supported in Standard general-purpose v2 Accounts

<https://learn.microsoft.com/en-us/azure/storage/blobs/storage-feature-support-in-storage-accounts#premium-block-blob-accounts>

upvoted 4 times

Question #27

An organization deploys Azure Cosmos DB.

You need to ensure that the index is updated as items are created, updated, or deleted.

What should you do?

- A. Set the indexing mode to Lazy.
- B. Set the value of the automatic property of the indexing policy to False.
- C. Set the value of the EnableScanInQuery option to True.
- D. Set the indexing mode to Consistent.

Correct Answer: D

Azure Cosmos DB supports two indexing modes:

Consistent: The index is updated synchronously as you create, update or delete items. This means that the consistency of your read queries will be the consistency configured for the account.

None: Indexing is disabled on the container.

Reference:

<https://docs.microsoft.com/en-us/azure/cosmos-db/index-policy>

Community vote distribution

D (100%)

 **finnishr** Highly Voted 1 year, 7 months ago

Correct !!!

upvoted 13 times

 **kayvg** Most Recent 7 months, 4 weeks ago

Answer: D (consistent)

Setting indexing mode to consistent ensures that index is updated in sync with data

Setting it to lazy means index is updated async, meaning you may not get latest version of data

Setting the value of the automatic property to false means you have to manually manage indexing of data

Setting EnableScanInQuery to true allows query operations to perform scans across all documents, this is not really relevant + it provides poor performance

upvoted 4 times

 **lyggwtwtczxnhznebw** 9 months ago

Selected Answer: D

Setting the indexing mode to Consistent ensures that the index is always kept up to date with the changes made to the items in Azure Cosmos DB. With this mode, whenever an item is created, updated, or deleted, the index is automatically updated in real-time to reflect those changes.

upvoted 1 times

 **[Removed]** 1 year ago

Selected Answer: D

D indexing mode ensures that the index is always up-to-date with the data stored in the container and changes are immediately reflected in the index.

upvoted 1 times

 **Eward** 1 year, 2 months ago

Given answer is correct.

Consistent: The index is updated synchronously as you create, update or delete items. This means that the consistency of your read queries will be the consistency configured for the account.

None: Indexing is disabled on the container. This mode is commonly used when a container is used as a pure key-value store without the need for secondary indexes. It can also be used to improve the performance of bulk operations. After the bulk operations are complete, the index mode can be set to Consistent and then monitored using the IndexTransformationProgress until complete.

upvoted 3 times

 **OPT_001122** 1 year, 4 months ago

Selected Answer: D

D. Set the indexing mode to Consistent.

upvoted 3 times

Question #28

You are developing a .Net web application that stores data in Azure Cosmos DB. The application must use the Core API and allow millions of reads and writes.

The Azure Cosmos DB account has been created with multiple write regions enabled. The application has been deployed to the East US2 and Central US regions.

You need to update the application to support multi-region writes.

What are two possible ways to achieve this goal? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Update the ConnectionPolicy class for the Cosmos client and populate the PreferredLocations property based on the geo-proximity of the application.
- B. Update Azure Cosmos DB to use the Strong consistency level. Add indexed properties to the container to indicate region.
- C. Update the ConnectionPolicy class for the Cosmos client and set the UseMultipleWriteLocations property to true.
- D. Create and deploy a custom conflict resolution policy.
- E. Update Azure Cosmos DB to use the Session consistency level. Send the SessionToken property value from the FeedResponse object of the write action to the end-user by using a cookie.

Correct Answer: CD

C: The UseMultipleWriteLocations of the ConnectionPolicy class gets or sets the flag to enable writes on any locations (regions) for geo-replicated database accounts in the Azure Cosmos DB service.

Note: Once an account has been created with multiple write regions enabled, you must make two changes in your application to the ConnectionPolicy for the

Cosmos client to enable the multi-region writes in Azure Cosmos DB. Within the ConnectionPolicy, set UseMultipleWriteLocations to true and pass the name of the region where the application is deployed to ApplicationRegion. This will populate the PreferredLocations property based on the geo-proximity from location passed in. If a new region is later added to the account, the application does not have to be updated or redeployed, it will automatically detect the closer region and will auto-home on to it should a regional event occur.

Azure core API application " ConnectionPolicy class" cosmos db multiple write regions enabled

D: With multi-region writes, when multiple clients write to the same item, conflicts may occur. When a conflict occurs, you can resolve the conflict by using different conflict resolution policies.

Note: Conflict resolution policy can only be specified at container creation time and cannot be modified after container creation.

Reference:

<https://docs.microsoft.com/en-us/dotnet/api/microsoft.azure.documents.client.connectionpolicy> <https://docs.microsoft.com/en-us/azure/cosmos-db/sql/how-to-multi-master> <https://docs.microsoft.com/en-us/azure/cosmos-db/sql/how-to-manage-conflicts>

Community vote distribution

AC (82%)

CD (18%)

 **coffecold**  1 year, 6 months ago

The goal is

"You need to update the application to support multi-region writes",

that is enable multi-region writes (bool, option C) and add the regions (option A)

Then you have to apply the Conflict resolution policies. This can be LLW(default, not mentioned) or custom (option D).

Hence : there is only ONE way to support multi-region writes (both apply C AND A) and there are subsequently TWO ways to apply the Conflict resolution policies (@ SQL) to solve write, update and delete conflicts of which one is mentioned in the question (D).

To support multi-region writes I would answer A and C , but they have to be set both, not one or the other.

See <https://learn.microsoft.com/en-us/azure/cosmos-db/sql/how-to-multi-master?tabs=api-async> and <https://learn.microsoft.com/en-us/azure/cosmos-db/conflict-resolution-policies>

upvoted 18 times

 **dgcc97** 1 year, 3 months ago

From the documentation you provided:

Within the ConnectionPolicy, set UseMultipleWriteLocations to true and pass the name of the region where the application is deployed to ApplicationRegion. This will populate the PreferredLocations property based on the geo-proximity from location passed in. If a new region is later added to the account, the application does not have to be updated or redeployed, it will automatically detect the closer region and will auto-home on to it should a regional event occur.

I take that paragraph to mean that it automatically updates the PreferredLocations property, when you set the UseMultipleWriteLocations property with true and pass the region name.

That means you actually only need to update UseMultipleWriteLocations, thus C.

And as you mentioned, apply the Conflict resolution policies (D).

upvoted 4 times

 **warchoon** 1 year, 1 month ago

It's a trick. "you must make two changes in your application to the ConnectionPolicy" "pass the name of the region where the application is deployed to ApplicationRegion. This will populate the PreferredLocations property". I think this is an "update"
<https://learn.microsoft.com/en-us/azure/cosmos-db/nosql/how-to-multi-master?tabs=api-async#:~:text=you%20must%20make%20two%20changes%20in%20your%20application%20to%20the%20ConnectionPolicy>

upvoted 1 times

 **baroo1** Highly Voted  1 year, 1 month ago

Selected Answer: AC

A + C =

Clearly stated in documentation that both are required: <https://learn.microsoft.com/en-us/azure/cosmos-db/nosql/how-to-multi-master?tabs=api-async>.

And according to the question "Each correct answer presents part of the solution". "Part"

Not D -> "Custom conflict resolution policy is available only for API for NoSQL accounts and can be set only at creation time." The question states the account was already created.

Source: <https://learn.microsoft.com/en-us/azure/cosmos-db/conflict-resolution-policies>

upvoted 11 times

 **singhdamodar3** Most Recent  3 months, 2 weeks ago

Selected Answer: CD

C. Setting the UseMultipleWriteLocations property to true allows the Cosmos DB SDK to automatically route write operations to the closest available write region, improving write latency. This is a key configuration for enabling multi-region writes.

D - is relevant in scenarios where conflict resolution needs customization,

upvoted 1 times

 **applepie** 8 months, 2 weeks ago

got this question today, answer A,C - 7/30/2023, score 895/1000

upvoted 1 times

 **JH81** 9 months, 2 weeks ago

Selected Answer: AC

Got this on 6/28/2023 and passed with 850. Went with A, C.

upvoted 2 times

 **deathRac3** 10 months, 3 weeks ago

Selected Answer: AC

A&C to support multi-region writes

upvoted 2 times

 **nekkilodeon** 11 months, 3 weeks ago

Selected Answer: AC

A & C

<https://learn.microsoft.com/en-us/azure/cosmos-db/sql/how-to-multi-master?tabs=api-async>

upvoted 2 times

 **adilkhan** 12 months ago

A,C chat gpt

upvoted 2 times

 **vikas4239** 1 year, 1 month ago

A&C

ConnectionPolicy, set UseMultipleWriteLocations to true and pass the name of the region where the application is deployed to ApplicationRegion. This will populate the PreferredLocations property based on the geo-proximity from location passed in

<https://learn.microsoft.com/en-us/azure/cosmos-db/nosql/how-to-multi-master?tabs=api-async>

upvoted 1 times

 **AkhiRk** 1 year, 2 months ago

Answer should be CD

The questions mentions .NET web application and if you check below link you can see for .net the option C goes

And for multi write scenarios conflict might arise and hence option D

<https://learn.microsoft.com/en-us/azure/cosmos-db/nosql/how-to-multi-master?tabs=api-async>

upvoted 2 times

 **Eward** 1 year, 2 months ago

AC are the correct answers as per microsoft docs

<https://learn.microsoft.com/en-us/azure/cosmos-db/nosql/how-to-multi-master?tabs=api-async>

upvoted 1 times

 **imanonion** 1 year, 3 months ago

Selected Answer: AC

Option C: Update the ConnectionPolicy class for the Cosmos client and set the UseMultipleWriteLocations property to true. This will enable the application to use multiple write regions when storing data in Azure Cosmos DB.

Option A: Update the ConnectionPolicy class for the Cosmos client and populate the PreferredLocations property based on the geo-proximity of the application. This will allow the application to use the closest write region to the application's location, improving performance and reducing latency.

Other options, such as updating the consistency level or creating a custom conflict resolution policy, are not directly related to enabling multi-region writes and are not necessary for this goal.

upvoted 4 times

 **rotimislaw** 1 year, 3 months ago

Selected Answer: AC

As stated by others

upvoted 2 times

 **Siepie** 1 year, 3 months ago

Correct answers should be A and C

```
ConnectionPolicy policy = new ConnectionPolicy
{
    ConnectionMode = ConnectionMode.Direct,
    ConnectionProtocol = Protocol.Tcp,
    UseMultipleWriteLocations = true ----> C
};
policy.SetCurrentLocation("West US 2"); ----> A
```

upvoted 4 times

 **Siepie** 1 year, 3 months ago

Sorry SetCurrentLocation is only the region in which the application is being deployed and where Azure Cosmos DB is replicated. But the ConnectionPolicy class does also have a property PreferredLocations: Gets and sets the preferred locations (regions) for geo-replicated database accounts in the Azure Cosmos DB service. For example, "East US" as the preferred location.

upvoted 1 times

 **OPT_001122** 1 year, 6 months ago

C and D are the correct answers?

upvoted 1 times

 **POOOJAAAAAA** 1 year, 3 months ago

IMO C and D

upvoted 1 times

 **[Removed]** 1 year, 6 months ago

The documentation says: " To enable multi-region writes in your application, set ApplicationRegion to the region in which the application is being deployed and where Cosmos DB is replicated"

Now the option to use that property is in .Net SDK V2. Microsoft says I do not need to know .Net for this exam and they ask questions from V2? So, I should try this in both v2 and v3 to be able to pass this exam.

upvoted 2 times

 **finnishr** 1 year, 7 months ago

Correct!!!

upvoted 1 times

Question #29

HOTSPOT -

You are developing a solution to store documents in Azure Blob storage. Customers upload documents to multiple containers. Documents consist of PDF, CSV,

Microsoft Office format and plain text files.

The solution must process millions of documents across hundreds of containers. The solution must meet the following requirements:

- ⇒ Documents must be categorized by a customer identifier as they are uploaded to the storage account.
- ⇒ Allow filtering by the customer identifier.
- ⇒ Allow searching of information contained within a document
- ⇒ Minimize costs.

You create and configure a standard general-purpose v2 storage account to support the solution.

You need to implement the solution.

What should you implement? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area**Requirement**

Search and filter by customer identifier

Solution

▼
Azure Cognitive Search
Azure Blob index tags
Azure Blob inventory policy
Azure Blob metadata

Search information inside documents

▼
Azure Cognitive Search
Azure Blob index tags
Azure Blob inventory policy
Azure Blob metadata

Correct Answer:

Answer Area**Requirement**

Search and filter by customer identifier

Solution

▼
Azure Cognitive Search
Azure Blob index tags
Azure Blob inventory policy
Azure Blob metadata

Search information inside documents

▼
Azure Cognitive Search
Azure Blob index tags
Azure Blob inventory policy
Azure Blob metadata

Box 1: Azure Blob index tags -

As datasets get larger, finding a specific object in a sea of data can be difficult. Blob index tags provide data management and discovery capabilities by using key-value index tag attributes. You can categorize and find objects within a single container or across all containers in your storage account. As data requirements change, objects can be dynamically categorized by updating their index tags. Objects can remain in-place with their current container organization.

Box 2: Azure Cognitive Search -

Only index tags are automatically indexed and made searchable by the native Blob Storage service. Metadata can't be natively indexed or searched. You must use a separate service such as Azure Search.

Azure Cognitive Search is the only cloud search service with built-in AI capabilities that enrich all types of information to help you identify and explore relevant content at scale. Use cognitive skills for vision, language, and speech, or use custom machine learning models to uncover insights from all types of content.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/blobs/storage-manage-find-blobs> <https://azure.microsoft.com/en-us/services/search/>

✉  **jeanfmc** Highly Voted 1 year, 7 months ago

right

Azure Blob Index tags: <https://docs.microsoft.com/en-us/azure/storage/blobs/storage-blob-index-how-to?tabs=azure-portal>

Azure Cognitive Search: Search inside documents

upvoted 19 times

✉  **TheExamMaster2020** Highly Voted 1 year, 4 months ago

Did my exam on 15th November 2022. This question was on it.

upvoted 7 times

✉  **raymond_abcd** Most Recent 2 months, 2 weeks ago

Answer is correct but keep in mind that Azure Cognitive Search is renamed to Azure AI Search. See: <https://learn.microsoft.com/en-us/azure/search/search-what-is-azure-search>

upvoted 2 times

✉  **Vukile** 5 months ago

On exam 9 Nov 2023, went with given answer, score 865. Case Study: Farmers and Distributors

upvoted 4 times

✉  **dddddd111** 5 months ago

Farmers and Distributors is that a new case study?

upvoted 5 times

✉  **Ciupaz** 2 months, 2 weeks ago

Yes, now is present in ExamTopics.

upvoted 1 times

✉  **RikinPatel** 6 months, 1 week ago

As per Google Bard this is correct ans.

Azure Blob index tags

Azure Cognitive Search

upvoted 1 times

✉  **[Removed]** 9 months ago

1. metadata
2. cognitive search

upvoted 2 times

✉  **MysticalSam** 10 months ago

This question was in today's exam on 10-June-2023

upvoted 3 times

✉  **Videira** 1 year, 1 month ago

On my exam 2023-02-25

upvoted 3 times

✉  **trini99** 1 year, 1 month ago

This question was on the 24/02/2023

upvoted 2 times

✉  **tmuras** 1 year, 1 month ago

This question was on exam on 17/02/23.

upvoted 3 times

✉  **Eward** 1 year, 2 months ago

Given answers are correct
Azure blob index tags
Cognitive serach
<https://learn.microsoft.com/en-us/azure/search/search-blob-storage-integration>
upvoted 4 times

✉ **ks1586** 1 year, 3 months ago

Did my exam on 17th December 2022. This question was on it.

upvoted 3 times

✉ **uditrm12** 1 year, 3 months ago

examtopic questions are enough to pass ?

upvoted 2 times

✉ **Ciupaz** 6 months, 2 weeks ago

Also follow some course on Udemy (or Pluralsight), just to see actions, and read all the discussions here on ExamTopics. Then, if you have time/energy, study Microsoft docs.

upvoted 1 times

✉ **HellBaby** 1 year, 3 months ago

No - you need a lot of other resources in order to get a better chance. The Microsoft exams are no joke.

upvoted 4 times

✉ **OPT_001122** 1 year, 4 months ago

1. index tag
2. cognitive search

upvoted 2 times

Question #30

HOTSPOT -

You are developing a web application by using the Azure SDK. The web application accesses data in a zone-redundant BlockBlobStorage storage account.

The application must determine whether the data has changed since the application last read the data. Update operations must use the latest data changes when writing data to the storage account.

You need to implement the update operations.

Which values should you use? To answer, select the appropriate option in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Code evaluation	Value
HTTP Header value	<input type="checkbox"/> ETag <input type="checkbox"/> Last Modified <input type="checkbox"/> VersionId
Conditional header	<input type="checkbox"/> If-Match <input type="checkbox"/> If-Modified-Since <input type="checkbox"/> If-None-Match

Answer Area

Code evaluation	Value
HTTP Header value	<input type="checkbox"/> ETag <input checked="" type="checkbox"/> Last Modified <input type="checkbox"/> VersionId
Conditional header	<input type="checkbox"/> If-Match <input checked="" type="checkbox"/> If-Modified-Since <input type="checkbox"/> If-None-Match

Box 1: Last Modified -

The Last-Modified response HTTP header contains a date and time when the origin server believes the resource was last modified. It is used as a validator to determine if the resource is the same as the previously stored one. Less accurate than an ETag header, it is a fallback mechanism.

Box 2: If-Modified-Since -

Conditional Header If-Modified-Since:

A DateTime value. Specify this header to perform the operation only if the resource has been modified since the specified time.

Incorrect:

Not ETag/If-Match -

Conditional Header If-Match:

An ETag value. Specify this header to perform the operation only if the resource's ETag matches the value specified. For versions 2011-08-18 and newer, the

ETag can be specified in quotes.

Reference:

<https://developer.mozilla.org/en-US/docs/Web/HTTP/Headers/Last-Modified> <https://docs.microsoft.com/en-us/rest/api/storageservices/specifying-conditional-headers-for-blob-service-operations>

 **tcybu** Highly Voted 1 year, 7 months ago

I think it should be:

- ETag - server returns this tag for a resource to ensure we operate on the same version of the resource in subsequent API calls
- If-Match - update is processed by the server only if the ETag provided matches the latest resource version ETag

The reason for that is we want to make sure we update the latest version of a resource:

"Update operations must use the latest data changes when writing"

So, when using Last-Modified with If-Modified-Since, the operation executes only when another client modifies the resource between our READ and WRITE operations.

If we wanted to use Last-Modified instead, we would need If-Unmodified-Since instead.

upvoted 35 times

 **Tenk14** 1 year, 7 months ago

I agree with you. (ETag + If-Match)

<https://developer.mozilla.org/en-US/docs/Web/HTTP/Headers/If-Match>

upvoted 4 times

 **[Removed]** Highly Voted 1 year, 6 months ago

I referred to the documentation also and I cannot convince my mind I care enough to even understand this because there is no chance I will ever have to know these options in details unless I have to use it. Who reads and understands all these information when this is available as documentation and with Microsoft documentation it is all about trial and error and hoping for the best

upvoted 19 times

 **richardc7** Most Recent 6 months, 2 weeks ago

Got examn 28/09/23

upvoted 3 times

 **Nitin23** 6 months, 2 weeks ago

both are wrong in given solution.

Correct anser - etag and If-match

upvoted 2 times

 **LxstInNxght** 7 months, 3 weeks ago

It's ETag and If-Match.

The ETag (Entity Tag) is an HTTP header that represents a unique identifier for a version of the resource. When sending an update request, you can include the If-Match header with the ETag value of the data you previously read. If the current ETag of the resource matches the provided ETag, it means the data hasn't changed.

upvoted 2 times

 **[Removed]** 9 months ago

Correct answer

upvoted 1 times

 **calmriver44** 11 months, 1 week ago

It is Etag and If-Match

check this page <https://learn.microsoft.com/en-us/rest/api/storageservices/specifying-conditional-headers-for-blob-service-operations> for conditional header "If-Match" - We can specify ETag value. Specify this header to perform the operation only if the resource's ETag matches the value specified.

upvoted 2 times

 **adilkhan** 1 year ago

Etag and if-match ChatGPT

upvoted 1 times

 **kandrew5** 1 year, 1 month ago

Since we also need the update to work which is a PUT operation the correct answer is ETag/If-Match

upvoted 1 times

 **mmdex** 1 year, 1 month ago

ETag

If-Match

There are 2 possible options to validate an update against unwanted changes:

- ETag + If-Match
- Last-Modified + If-Unmodified-Since

The second option is not available here, so it must be the first one. Besides, even if it was available, it would still be better to check ETag, because Last-Modified is weaker (it has only 1-second resolution, so it does not detect 2 changes within 1 second, so you cannot ensure you have the latest version) and I guess the zone-redundancy may also play some role in how Last-Modified is handled.

upvoted 2 times

 **tmndungu** 1 year, 1 month ago

For those who have taken AZ-204 test, should I trust ExamTopics answers or the Community's answers?

upvoted 5 times

 **rgullini** 1 year ago

You should trust the discussions and other users experiences. The default answers in the questions might be right or wrong.

upvoted 6 times

 **Eward** 1 year, 2 months ago

Etag, If-Match are correct answers as per MS docs

Optimistic concurrency: An application performing an update will, as part of its update, determine whether the data has changed since the application last read that data. For example, if two users viewing a wiki page make an update to that page, then the wiki platform must ensure that the second update does not overwrite the first update. It must also ensure that both users understand whether their update was successful. This strategy is most often used in web applications.

<https://learn.microsoft.com/en-us/azure/storage/blobs/concurrency-manage?tabs=dotnet>

upvoted 4 times

 **Dotar** 1 year, 2 months ago

I think it should be E-tag and if-none-match.

See the following source on how e-tag works: https://en.wikipedia.org/wiki/HTTP_ETag

upvoted 1 times

 **Skelletcz** 1 year, 3 months ago

I think the answer is correct. The question is asking explicitly if "data changed since the application last read the data", so we must evaluate against the date, hence If-Modified-Since.

upvoted 2 times

 **AsuraX** 1 year, 3 months ago

Answer is correct - in my opinion.

- ETag - The ETag (or entity tag) HTTP response header is an identifier for a specific version of a resource. (Version!)

- Last-Modified - The Last-Modified response HTTP header contains a date and time when the origin server believes the resource was last modified. (Date and Time!)

(Source: <https://developer.mozilla.org/en-US/docs/Web/HTTP/Headers>)

In Question: The application must determine whether the data has changed since the application last read the data.

My understanding: We are working on dates, not versions! So, Last-Modified and If-Modified-Since are better options.

PS: I honestly have no idea why I need to know this for Azure Certification Exam :((

upvoted 7 times

 **capable** 1 year, 4 months ago

Got this question in the exam 27/11/2022, anyone, please mention the correct answer and explain

upvoted 1 times

 **OPT_001122** 1 year, 5 months ago

(ETag + If-Match) is correct?

upvoted 1 times

 **Ciupaz** 2 months, 2 weeks ago

Correct.

upvoted 1 times

Question #31

HOTSPOT -

An organization deploys a blob storage account. Users take multiple snapshots of the blob storage account over time.

You need to delete all snapshots of the blob storage account. You must not delete the blob storage account itself.

How should you complete the code segment? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

```
Delete (Azure.Storage.Blobs.Models.DeleteSnapshotsOption
```

```
snapshotsOption = Azure.Storage.Blobs.Models.
```

DeleteIfExists
DeleteSnapshotsOption
WithSnapshot
WithSnapshotCore

IncludeSnapshots
None
OnlySnapshots

Correct Answer:

Answer Area

```
Delete (Azure.Storage.Blobs.Models.DeleteSnapshotsOption
```

```
snapshotsOption = Azure.Storage.Blobs.Models.
```

DeleteIfExists
DeleteSnapshotsOption
WithSnapshot
WithSnapshotCore

IncludeSnapshots
None
OnlySnapshots

Box 1: DeleteSnapshotsOption -

Sample code in powershell:

```
//dont forget to add the include snapshots :)
```

```
await batchClient.DeleteBlobsAsync(listofURIforBlobs,
```

```
Azure.Storage.Blobs.Models.DeleteSnapshotsOption.IncludeSnapshots);
```

Sample code in .Net:

```
// Create a batch with three deletes
```

```
BlobBatchClient batchClient = service.GetBlobBatchClient();
```

```
BlobBatch batch = batchClient.CreateBatch();
```

```
batch.DeleteBlob(foo.Uri, DeleteSnapshotsOption.IncludeSnapshots); batch.DeleteBlob(bar.Uri, DeleteSnapshotsOption.OnlySnapshots);
```

```
batch.DeleteBlob(baz.Uri);
```

```
// Submit the batch
```

```
batchClient.SubmitBatch(batch);
```

Box 2: OnlySnapshots -

Reference:

<https://docs.microsoft.com/en-us/dotnet/api/overview/azure/storage.blobs.batch-readme>

<https://stackoverflow.com/questions/39471212/programmatically-delete-azure-blob-storage-objects-in-bulks>

 **coffecold** Highly Voted 1 year, 6 months ago

it is DeleteSnapshotsOption.OnlySnapshots but the explanation in the answer is bogus as usual.

see <https://learn.microsoft.com/en-us/dotnet/api/azure.storage.blobs.models.deletesnapshotoption?view=azure-dotnet>

upvoted 19 times

 **micro9000** 1 year, 5 months ago

Yeah, we can ignore the explanation on this one,

We can use OnlySnapshots

upvoted 3 times

 **Eward** Highly Voted 1 year, 1 month ago

It was there in 13 Feb 2023 exam

upvoted 7 times

 **harbox** Most Recent 4 weeks ago

Is correct, <https://learn.microsoft.com/en-us/azure/storage/blobs/storage-blob-delete>

```
public static async Task DeleteBlobSnapshotsAsync(BlobClient blob)
{
    // Delete a blob and all of its snapshots
    await blob.DeleteAsync(snapshotsOption: DeleteSnapshotsOption.IncludeSnapshots);

    // Delete only the blob's snapshots
    //await blob.DeleteAsync(snapshotsOption: DeleteSnapshotsOption.OnlySnapshots);
}
```

upvoted 1 times

✉ **Vukile** 5 months ago

On exam 9 Nov 2023, went with given answer, score 865. Case Study: Farmers and Distributors

upvoted 2 times

✉ **chsiri** 3 months ago

Where can I find the case studies on this site.

upvoted 1 times

✉ **Ciupaz** 2 months, 2 weeks ago

Now is present.

upvoted 1 times

✉ **Pulk** 5 months, 2 weeks ago

correct.

upvoted 1 times

✉ **MysticalSam** 10 months ago

This question was in today's exam on 10-June-2023

upvoted 2 times

✉ **[Removed]** 1 year ago

Got this in exam today (5 April 2023)

upvoted 4 times

✉ **Eward** 1 year, 2 months ago

Given options are correct

<https://learn.microsoft.com/en-us/dotnet/api/azure.storage.blobs.models.deletesnapshotoption?view=azure-dotnet>

upvoted 1 times

✉ **OPT_001122** 1 year, 3 months ago

DeleteSnapshotsOption.OnlySnapshots

upvoted 4 times

✉ **finnishr** 1 year, 7 months ago

Correct!!

upvoted 5 times

Question #32

HOTSPOT -

An organization deploys a blob storage account. Users take multiple snapshots of the blob storage account over time.

You need to delete all snapshots of the blob storage account. You must not delete the blob storage account itself.

How should you complete the code segment? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

`delete_blob (`

`delete_container`
`delete_snapshots`
`snapshot_blob`
`snapshots_present`

`=`

`False`
`Include`
`Only`

Correct Answer:

Answer Area

`delete_blob (`

`delete_container`
`delete_snapshots`
`snapshot_blob`
`snapshots_present`

`=`

`False`
`Include`
`Only`

Box 1: `delete_snapshots` -

Delete only the snapshot (blob itself is retained)
`blob_client.delete_blob(delete_snapshots="only")`

Box 2: `only` -

Reference:

https://github.com/Azure/azure-sdk-for-python/blob/main/sdk/storage/azure-storage-blob/samples/blob_samples_common.py

 **[Removed]**  1 year, 6 months ago

So, according to Microsoft a developer has to remember how the Microsoft guy chose to write in the .Net library and also how the python person thought and the unfortunate inconsistencies they built into these APIs?

upvoted 35 times

 **Jarynpl** 5 months, 1 week ago

I've read somewhere that before starting an exam you select in which language you are programming. Based on that you will get customize language questions/answers.

upvoted 3 times

 **toysky731** 1 year, 3 months ago

or you can retake the exam?

upvoted 4 times

 **bbq598** 1 year, 3 months ago

haha I think you are right

upvoted 1 times

 **ElectricPants**  1 year, 6 months ago

The answer looks correct and the link proves it:

Link to exact line with comment:

https://github.com/Azure/azure-sdk-for-python/blob/main/sdk/storage/azure-storage-blob/samples/blob_samples_common.py#L65

upvoted 16 times

 **bgbgfvf**  3 months, 2 weeks ago

I think given answer is correct.

upvoted 1 times

 **Pulk** 5 months, 2 weeks ago

given answers are correct.

upvoted 1 times

 **Eward** 1 year, 2 months ago

Given answers are correct

https://github.com/Azure/azure-sdk-for-python/blob/main/sdk/storage/azure-storage-blob/samples/blob_samples_common.py

upvoted 1 times

 **gvasilev** 1 year, 3 months ago

Ah yes my favorite thing as developer - to remember what is something doing instead of google it.. lmao nice "exam" micro\$oft

upvoted 3 times

 **Enigma___** 1 year, 6 months ago

Correct

Required if the blob has associated snapshots. Values include:

"only": Deletes only the blobs snapshots.

"include": Deletes the blob along with all snapshots.

<https://learn.microsoft.com/en-us/azure/developer/python/sdk/storage/azure-storage-blob/azure.storage.blob.containerclient?view=storage-py-v12>

upvoted 4 times

 **LucasSomeone1** 1 year, 6 months ago

Weird comments. When there is only 1 or 2 comments, everyone is saying examtopics is correct...

upvoted 5 times

 **kampatra** 1 year, 6 months ago

Correct!

upvoted 2 times

Question #33

HOTSPOT

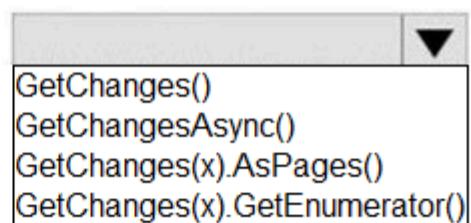
You are developing an application that monitors data added to an Azure Blob storage account.

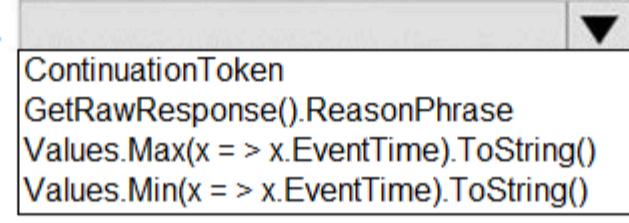
You need to process each change made to the storage account.

How should you complete the code segment? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

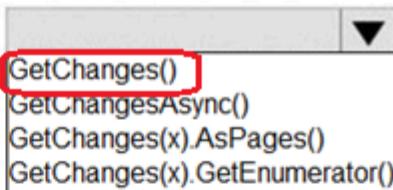
Answer Area

```
var changeFeedClient = new BlobServiceClient("...").GetChangeFeedClient();
var x = default(string);
while (true)
{
    var changeFeed = changeFeedClient. 
        GetChanges()
        GetChangesAsync()
        GetChanges(x).AsPages()
        GetChanges(x).GetEnumerator()

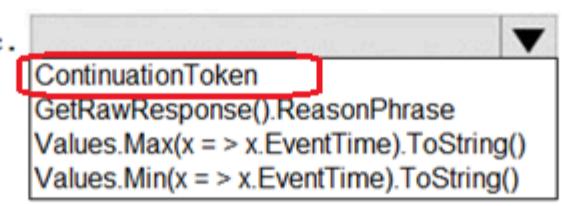
    foreach (var c in changeFeed)
    {
        x = c. 
            ContinuationToken
            GetRawResponse().ReasonPhrase
            Values.Max(x => x.EventTime).ToString()
            Values.Min(x => x.EventTime).ToString()

        ProcessChanges(c.Values);
    }
}
```

Answer Area

```
var changeFeedClient = new BlobServiceClient("...").GetChangeFeedClient();
var x = default(string);
while (true)
{
    var changeFeed = changeFeedClient. 
        GetChanges()
        GetChangesAsync()
        GetChanges(x).AsPages()
        GetChanges(x).GetEnumerator()
```

Correct Answer:

```
foreach (var c in changeFeed)
{
    x = c. 
        ContinuationToken
        GetRawResponse().ReasonPhrase
        Values.Max(x => x.EventTime).ToString()
        Values.Min(x => x.EventTime).ToString()

    ProcessChanges(c.Values);
}
```

 **tcybu** Highly Voted  1 year, 2 months ago

I've tried the code in VS. Here's some thoughts:

1. box:

- GetChanges() - wrong - var c in the foreach would be BlobChangeFeedEvent which doesn't contain Values property used in ProcessChanges(c.Values) line below

- GetChangesAsync - wrong - code won't compile because it would require await foreach loop instead

- GetChanges(x).AsPages() - correct - it's the only option to make this code even compile

- GetChanges(x).GetEnumerator() - wrong - you cannot use IEnumarator type as foreach source

2. box:

- x = c.ContinuationToken - right - variable x was used as continuationToken parameter in changeFeedClient.GetChanges(x).AsPages() above
- c.GetRawResponse().ReasonPhrase - wrong - that does not make sense to use this value as continuation token

- x = c.Values.Min - wrong - continuation token is a number not date
- x = c.Values.Max - wrong - as above

So to sum up

1. changeFeedClient.GetChanges(x).AsPages()
2. x = c.ContinuationToken;

You can find more about Continuation Token here:

<https://jessehouwing.net/azure-devops-accessing-apis-with-large-volumes-of-data/>

upvoted 65 times

✉ **applepie** 8 months, 2 weeks ago

got this question today, go with this answer - 7/30/2023, score 895/1000

upvoted 2 times

✉ **Elbanna** 6 months, 2 weeks ago

Does all questions came from exam topics ?

upvoted 2 times

✉ **Net_IT** 5 months, 3 weeks ago

The majority of the questions

upvoted 1 times

✉ **DP_Bhatt** 1 year, 2 months ago

Agree.

Box 1. GetChanges(x).AsPages()

Box 2. ContinuationToken

upvoted 2 times

✉ **Michael2023** 1 year, 2 months ago

you are right...

1. changeFeedClient.GetChanges(x).AsPages() -> returns an `IEnumerable<Page<BlobChangeFeedEvent>>` ... when you loop through these pages "Page<BlobChangeFeedEvent>" you will get the options "page.ContinuationToken" and page.Values which are used in this example 100% Correct...

found the code here

<https://github.com/Azure/azure-sdk-for-net/tree/main/sdk/storage/Azure.Storage.Blobs.ChangeFeed#resume-with-continuationtoken>

upvoted 4 times

✉ **warchoon** 1 year, 1 month ago

var x = default(string);

so, x is string

ContinuationToken is not string

upvoted 3 times

✉ **Nihilist11** Most Recent ⓘ 2 months, 2 weeks ago

Jan-21-2024 - This was in my exam - Score 740, just border :) Didn't purchase contributor access.

Contoso case study [Couldn't find here]

upvoted 1 times

✉ **1989jay** 3 months ago

This question was on exam. 09/01/2024. Passed 872.

upvoted 1 times

✉ **leviatas** 6 months, 2 weeks ago

Got this question in exam - 2023.09.25. Got Case Study Contoso

upvoted 2 times

✉ **kajal2205** 3 months, 3 weeks ago

What answer you selected?

upvoted 1 times

✉ **NightshadeRC** 8 months, 2 weeks ago

Had this question in today's exam: 2023-07-26

upvoted 1 times

✉ **Videira** 1 year, 1 month ago

On my exam 2023-02-25

upvoted 2 times

✉ **tmuras** 1 year, 1 month ago

This question was on exam on 17/02/23.

upvoted 1 times

✉ **red0400** 1 year, 1 month ago

what answer do you put ?

upvoted 1 times

 **Eward** 1 year, 2 months ago

As per Microsoft docs:
GetchangesAsync(), contiuationtoken are correct

<https://learn.microsoft.com/en-us/azure/storage/blobs/storage-blob-change-feed-how-to>

upvoted 2 times

 **drjakiell** 1 year, 2 months ago

for GetchangesAsync you need the async await approach

upvoted 3 times

 **AfPham** 1 year, 1 month ago

Async option can be ignore, it requires 'await', which is not there in this situation

upvoted 5 times

 **frks** 1 year, 3 months ago

I believe it should be await... getchangesasync.... then getrawresponse, as x is a string. I don't see the connection to cancellationtoken.

upvoted 1 times

 **chettir01** 1 year, 3 months ago

i think the fisrt box must be : getChangesAsync()

the second one is correct

source : <https://learn.microsoft.com/en-us/azure/storage/blobs/storage-blob-change-feed-how-to>

upvoted 3 times

 **MikeSantos** 1 year ago

I don't agree. There is no await statement before the method

upvoted 2 times

Question #34

HOTSPOT

You develop an application that sells AI generated images based on user input. You recently started a marketing campaign that displays unique ads every second day.

Sales data is stored in Azure Cosmos DB with the date of each sale being stored in a property named 'whenFinished'.

The marketing department requires a view that shows the number of sales for each unique ad.

You need to implement the query for the view.

How should you complete the query? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

```
SELECT
    max(c.whenFinished)
    sum(c.whenFinished)
    count(c.whenFinished)

    DateTimeBin(c.whenFinished, 'day', 2)
    DateTimePart(c.whenFinished, 'day', 2)
    DateTimeBin(c.whenFinished, 'hour', 12)
    DateTimePart(c.whenFinished, 'hour', 12)

FROM c
group by

    DateTimeBin(c.whenFinished, 'day', 2)
    DateTimePart(c.whenFinished, 'day', 2)
    DateTimeBin(c.whenFinished, 'hour', 12)
    DateTimePart(c.whenFinished, 'hour', 12)
```

Correct Answer:

```
SELECT
    max(c.whenFinished)
    sum(c.whenFinished)
    count(c.whenFinished)

    DateTimeBin(c.whenFinished, 'day', 2)
    DateTimePart(c.whenFinished, 'day', 2)
    DateTimeBin(c.whenFinished, 'hour', 12)
    DateTimePart(c.whenFinished, 'hour', 12)

FROM c
group by

    DateTimeBin(c.whenFinished, 'day', 2)
    DateTimePart(c.whenFinished, 'day', 2)
    DateTimeBin(c.whenFinished, 'hour', 12)
    DateTimePart(c.whenFinished, 'hour', 12)
```

 **tcybu** Highly Voted  1 year, 2 months ago

Correct!

Can't be DateTimePart as it takes two args only, see <https://learn.microsoft.com/en-us/azure/cosmos-db/nosql/query/date-time-functions>

upvoted 23 times

✉ **Dotar** 1 year, 2 months ago

You are right good sir I stand corrected.

upvoted 2 times

✉ **MysticalSam** Highly Voted 10 months ago

This question was in today's exam on 10-June-2023

upvoted 5 times

✉ **sekelsenmat** Most Recent 1 month, 3 weeks ago

On exam 2024, went with given answer, score 872 or something. Case Study: Farmers and Distributors

upvoted 1 times

✉ **Vukile** 5 months ago

On exam 9 Nov 2023, went with given answer, score 865. Case Study: Farmers and Distributors

upvoted 4 times

✉ **Ciupaz** 4 months, 2 weeks ago

This question was inside that Case Study?

upvoted 1 times

✉ **richardc7** 6 months, 2 weeks ago

got today in 28-09-23

upvoted 1 times

✉ **janzak** 11 months, 2 weeks ago

why count and not sum?

upvoted 2 times

✉ **kgy01** 10 months, 3 weeks ago

[...]The marketing department requires a view that shows the "number of sales" [...]

upvoted 1 times

✉ **MDWPartners** 6 months, 3 weeks ago

the field is a date, not a number, so you cannot sum it.

upvoted 1 times

✉ **Eward** 1 year, 2 months ago

Given answers Count, DateTimeBin are correct answers as per MS docs

DateTimebin takes 3 and 4 parameters but DateTimepart takes only 2 args

<https://learn.microsoft.com/en-us/azure/cosmos-db/nosql/query/date-time-functions>

upvoted 4 times

✉ **DP_Bhatt** 1 year, 2 months ago

Correct!

upvoted 1 times

✉ **Dotar** 1 year, 2 months ago

Anyone have an idea as to why it says day and not hour?

upvoted 2 times

✉ **plusJoyed** 10 months, 4 weeks ago

It says every second day, so 12 hours would be twice a day. It might work if hours was 48

upvoted 1 times

✉ **Dotar** 1 year, 2 months ago

Pretty sure it has to be DateTimePart(...day) option.

<https://learn.microsoft.com/en-us/azure/cosmos-db/nosql/query/datetimepart>

upvoted 1 times

Question #35

HOTSPOT

You implement an Azure solution to include Azure Cosmos DB, the latest Azure Cosmos DB SDK, and the Core (SQL) API. You also implement a change feed processor on a new container instance by using the Azure Functions trigger for Azure Cosmos DB.

A large batch of documents continues to fail when reading one of the documents in the batch. The same batch of documents is continuously retried by the triggered function and a new batch of documents must be read.

You need to implement the change feed processor to read the documents.

Which feature should you implement? To answer, select the appropriate features in the answer area.

NOTE: Each correct selection is worth one point.

Requirement

Read a new batch of documents while keeping track of the failing batch of documents.

Feature

Lease container
Dead-letter queue
Life-cycle notifications
Change feed estimator

Handle errors in the change feed processor.

Lease container
Dead-letter queue
Life-cycle notifications
Change feed estimator

Requirement

Read a new batch of documents while keeping track of the failing batch of documents.

Feature

Lease container
Dead-letter queue
Life-cycle notifications
Change feed estimator

Correct Answer:

Handle errors in the change feed processor.

Lease container
Dead-letter queue
Life-cycle notifications
Change feed estimator

 **sarmaria** Highly Voted  1 year ago

Got this on 16/03/23. Went with proposed solution. Make sure to prepare for case study. I got city and lights case study. No Kubernetes, Search, Logic Apps questions for me.

upvoted 12 times

 **ReyPirata** 7 months, 3 weeks ago

Agreed.

This was on the exam (08/20/2023). Scored 925

Change feed estimator

Dead-letter queue

upvoted 4 times

 **Mattfusa** 1 month, 2 weeks ago

For case study's though dont they block by contributor access now? How did you prepare for those?

upvoted 1 times

 **imanonion** Highly Voted  1 year, 3 months ago

I agree with the answer!

1. Change feed estimators monitor change feed processors' progress

2. Dead-letter queues handle errors and are able to monitor failed attempts, require failed attempts and even trigger a follow-up action (remediation or response)

upvoted 10 times

azpardha Most Recent 1 day, 19 hours ago

Got this on 04/07/2024, Went with highly voted answer, score:820
upvoted 1 times

Hendrikdb 1 month, 3 weeks ago

The correct answer seems to me:
- Change feed estimator
- Life cycle notifications

You also can use the change feed estimator to monitor the progress of your change feed processor instances as they read the change feed, or you can use life cycle notifications to detect underlying failures.

Life cycle notifications literally says:

Register a handler for `WithErrorNotification` to be notified when the current host encounters an exception during processing. You need to be able to distinguish whether the source is the user delegate (an unhandled exception) or an error that the processor encounters when it tries to access the monitored container (for example, networking issues).

upvoted 2 times

Hendrikdb 1 month, 2 weeks ago

Correction, change feed estimator does nothing in this question. I do not know why people pick this answer and I blindly followed. Change feed estimator only tracks changes between read operations.

Life cycle notifications tracks everything, and you can use a dead letter queue to process the failed documents.

upvoted 1 times

Woksi 2 months ago

Got on 07/02/2024

upvoted 1 times

Ciupaz 4 months, 2 weeks ago

The answers should be reversed.

upvoted 3 times

AndySmith 5 months, 1 week ago

On exam 3-Nov-2023. Went with proposed answer - 932/1000.

- 1) change feed estimator
- 2) dead-letter queue

upvoted 2 times

dom271219 7 months ago

1/ "Change feed estimator" solely estimates the rate of changes, number of shards, and distribution of the feed, but not read or process documents.

There's an error because by confusing with "Change feed processor".

2/ Dead-letter queue

upvoted 2 times

[Removed] 9 months ago

should be vice versa

upvoted 4 times

juanckar 9 months, 1 week ago

This was on the exam (July 2023). Unsure about solution....

upvoted 2 times

aragones 11 months ago

Got this on 2023may12.

my cases also:

case: You need to configure authorization.

case: You need to ensure the app does not time out and processes the blob data

case study: VanArsdel Inc Canada

upvoted 1 times

Defa 1 year, 1 month ago

From: <https://learn.microsoft.com/en-us/azure/cosmos-db/nosql/change-feed-processor?tabs=dotnet#error-handling>

"To prevent your change feed processor from getting "stuck" continuously retrying the same batch of changes, you should add logic in your delegate code to write documents, upon exception, to an errored-message queue. This design ensures that you can keep track of unprocessed changes while still being able to continue to process future changes. The errored-message queue might be another Azure Cosmos DB container. The exact data store does not matter, simply that the unprocessed changes are persisted."

In addition, you can use the change feed estimator to monitor the progress of your change feed processor instances as they read the change feed or use the life cycle notifications to detect underlying failures."

As the question says 'keeping track' I'd go for feed estimator.

upvoted 2 times

Videira 1 year, 1 month ago

On my exam 2023-02-25

upvoted 2 times

✉ **Ayman99** 1 year, 1 month ago

Was on the exam 27.02.2023

Went for Lifecycle notifications and dead letter queue.

Score 870

upvoted 3 times

✉ **mabdo** 1 year, 2 months ago

was on exam 02/2023

upvoted 3 times

✉ **alekomar** 1 year, 2 months ago

1. Life-cycle notifications

<https://learn.microsoft.com/en-us/azure/cosmos-db/nosql/change-feed-processor?tabs=dotnet#life-cycle-notifications>

Register a handler for WithErrorNotification to be notified when the current host encounters an exception during processing

2. Dead-letter queue

<https://learn.microsoft.com/en-us/azure/cosmos-db/nosql/change-feed-processor?tabs=dotnet#error-handling>

To prevent your change feed processor from getting "stuck" continuously retrying the same batch of changes, you should add logic in your delegate code to write documents, upon exception, to an errored-message queue.

upvoted 4 times

✉ **warchoon** 1 year, 1 month ago

Correct

<https://learn.microsoft.com/en-us/azure/cosmos-db/nosql/change-feed-processor?tabs=dotnet#error-handling#:~:text=use%20the%20life%20cycle%20notifications%20to%20detect%20underlying%20failures>

upvoted 2 times

✉ **warchoon** 1 year, 1 month ago

but

1. (about the stuck) - Dead-letter and 2. (about error handling) - notifications

upvoted 3 times

✉ **Esward** 1 year, 2 months ago

Given answers are correct.

upvoted 2 times

✉ **Esward** 1 year, 2 months ago

<https://thegreenerman.medium.com/at-least-once-delivery-using-the-azure-cosmos-db-change-feed-processor-6dd4130b59e3>

upvoted 2 times

Question #36

You are developing an application to store business-critical data in Azure Blob storage.

The application must meet the following requirements:

- Data must not be modified or deleted for a user-specified interval.
- Data must be protected from overwrites and deletes.
- Data must be written once and allowed to be read many times.

You need to protect the data in the Azure Blob storage account.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Configure a time-based retention policy for the storage account.
- B. Create an account shared-access signature (SAS).
- C. Enable the blob change feed for the storage account.
- D. Enable version-level immutability support for the storage account.
- E. Enable point-in-time restore for containers in the storage account.
- F. Create a service shared-access signature (SAS).

Correct Answer: AF*Community vote distribution*

AD (85%)

Other

✉  **linhbg** Highly Voted 1 year, 3 months ago

I think the answer should be AD

A. Configure a time-based retention policy for the storage account

- A time-based retention policy stores blob data in a Write-Once, Read-Many (WORM) format for a specified interval. When a time-based retention policy is set, clients can create and read blobs, but can't modify or delete them. After the retention interval has expired, blobs can be deleted but not overwritten.

<https://learn.microsoft.com/en-us/azure/storage/blobs/immutable-time-based-retention-policy-overview>

D. Before you can apply a time-based retention policy to a blob version, you must enable support for version-level immutability.

<https://learn.microsoft.com/en-us/azure/storage/blobs/immutable-policy-configure-version-scope?tabs=azure-portal>

upvoted 32 times

✉  **Esward** 1 year, 2 months ago

I Agree with you A and D are correct answers

upvoted 3 times

✉  **surprise0011** 11 months, 4 weeks ago

received 2023-04-17 went with above answer, score 926

upvoted 4 times

✉  **Pulk** Most Recent 5 months, 2 weeks ago

correct answer is AD

upvoted 1 times

✉  **AashirwadSinha** 7 months, 4 weeks ago

A and D are the correct answers

upvoted 1 times

✉  **andrewnm** 8 months, 3 weeks ago

Selected Answer: AD

A is clearly a correct answer and this documentation confirms <https://learn.microsoft.com/en-us/azure/storage/blobs/immutable-policy-configure-version-scope?tabs=azure-portal> that D is also required.

upvoted 1 times

✉  **deathRac3** 10 months, 3 weeks ago

Selected Answer: AF

Feels correct

upvoted 1 times

✉ **aragones** 11 months ago

Got this type 2023-05-12.

My case:

case: You need to configure authorization.

case: You need to ensure the app does not time out and processes the blob data

case study: VanArsdel Inc Canada

upvoted 2 times

✉ **adilkhan** 1 year ago

A,D chatgpt

upvoted 2 times

✉ **Saluk_DE** 1 year ago

Question was in Exam 2023-03-30

upvoted 1 times

✉ **sarmaria** 1 year ago

Got this on 16/03/23. Went with AD Make sure to prepare for case study. I got city and lights case study. No Kubernetes, Search, Logic Apps questions for me.

upvoted 2 times

✉ **Ayman99** 1 year, 1 month ago

Was on the exam 27.02.2023

Went for A and D.

Score 870

upvoted 2 times

✉ **trini99** 1 year, 1 month ago

Which resources did you use to study?

upvoted 2 times

✉ **uffuchs1** 1 year, 1 month ago

Selected Answer: AD

100% A and D, other options don't fit into this question (i.e., don't solve it)

upvoted 1 times

✉ **mabdo** 1 year, 2 months ago

on exam 02/2023

upvoted 1 times

✉ **alexein74** 1 year, 2 months ago

Selected Answer: AD

A. Configuring a time-based retention policy for the storage account would ensure that the data in the storage account cannot be modified or deleted for a user-specified interval. This would meet the requirement that data must not be modified or deleted for a user-specified interval.

D. Enabling version-level immutability support for the storage account would ensure that the data in the storage account is protected from overwrites and deletes. This would meet the requirement that data must be protected from overwrites and deletes, and written once and allowed to be read many times.

upvoted 1 times

✉ **DP_Bhatt** 1 year, 2 months ago

Selected Answer: AD

Should be A and D

upvoted 2 times

✉ **menlapwa** 1 year, 2 months ago

Selected Answer: AD

Should be A and D

upvoted 2 times

✉ **Idenouter** 1 year, 3 months ago

Selected Answer: AD

Answer should be AD

upvoted 2 times

✉ **imanonion** 1 year, 3 months ago

Selected Answer: AD

See linhbg's answer

upvoted 2 times

Question #37

You are updating an application that stores data on Azure and uses Azure Cosmos DB for storage. The application stores data in multiple documents associated with a single username.

The application requires the ability to update multiple documents for a username in a single ACID operation.

You need to configure Azure Cosmos DB.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Create a collection sharded on username to store documents.
- B. Configure Azure Cosmos DB to use the Gremlin API.
- C. Create an unsharded collection to store documents.
- D. Configure Azure Cosmos DB to use the MongoDB API.

Correct Answer: CD

Community vote distribution

CD (100%)

 **imanonion** Highly Voted 1 year, 3 months ago

Selected Answer: CD

Agreed!

To update multiple documents for a username in a single ACID operation in Azure Cosmos DB, you need to ensure that the documents are stored in the same logical partition.

To do this, you should perform the following actions:

Create an unsharded collection to store documents. This will ensure that all documents are stored in the same logical partition.

Configure Azure Cosmos DB to use the MongoDB API. The MongoDB API supports multi-document ACID transactions, which allow you to update multiple documents in a single atomic operation.

upvoted 21 times

 **Dotar** 1 year, 2 months ago

How do you know that the documents should be stored in the same logical partition. Is this a requirement for MongoDB API?

upvoted 2 times

 **surprise0011** 12 months ago

all operations like executing stored procedures or udf are effecting only items within single partition regardless of used API

upvoted 1 times

 **raymond_abcd** Most Recent 2 months, 2 weeks ago

Forget previous comment, not correct

upvoted 2 times

 **raymond_abcd** 2 months, 2 weeks ago

I think it is AD because you need to shard across partitions on username to be able to process all documents with that user name in one transactional batch. You have to create a shard key for this in the cosmos db container based on the username.

upvoted 1 times

 **[Removed]** 9 months ago

Correct answer is AD

upvoted 3 times

 **Bokomi** 11 months, 1 week ago

Selected Answer: CD

To update multiple documents for a username in a single ACID operation in Azure Cosmos DB, you should perform the following actions:

- C. Create an unsharded collection to store documents, since sharded collections do not support multi-document transactions.
- D. Configure Azure Cosmos DB to use the MongoDB API, since it is the only API that supports multi-document transactions.

Therefore, the correct actions are C and D.

upvoted 4 times

 **Xin0613** 11 months, 2 weeks ago

Agreed!

upvoted 1 times

 **[Removed]** 1 year ago

Got this in exam today (5 April 2023)

upvoted 4 times

 **Eward** 1 year, 1 month ago

It was there in 13 Feb 2023 exam

upvoted 3 times

 **Eward** 1 year, 2 months ago

CD are correct

update multiple documents for a username in a single ACID operation.

upvoted 3 times

 **Eward** 1 year, 2 months ago

<https://learn.microsoft.com/en-us/azure/cosmos-db/mongodb/use-multi-document-transactions#requirements>

upvoted 3 times

 **g2000** 1 year, 2 months ago

Selected Answer: CD

multi-document transaction is only supported within unsharded collection.

<https://learn.microsoft.com/en-us/azure/cosmos-db/mongodb/use-multi-document-transactions#requirements>

upvoted 2 times

Question #38

You develop Azure solutions.

You must connect to a No-SQL globally-distributed database by using the .NET API.

You need to create an object to configure and execute requests in the database.

Which code segment should you use?

A. database_name = 'MyDatabase'

```
database = client.create_database_if_not_exists(id=database_name)
```

B. client = CosmosClient(endpoint, key)

C. container_name = 'MyContainer'

```
container = database.create_container_if_not_exists(
```

```
id=container_name, partition_key=PartitionKey(path="/lastName"), offer_throughput=400 )
```

Correct Answer: C

Community vote distribution

B (100%)

✉  **imanonion** Highly Voted 1 year, 3 months ago

Selected Answer: B

CosmosClient has to be created before you can do option A and C to create databases and execute requests.

```
client = CosmosClient(endpoint, key)
database_name = 'MyDatabase'
database = client.create_database_if_not_exists(id=database_name)
container_name = 'MyContainer'
container = database.create_container_if_not_exists(
    id=container_name, partition_key=PartitionKey(path="/lastName"), offer_throughput=400 )
upvoted 15 times
```

✉  **[Removed]** 9 months ago

It doesn't matter. Question is asking about .NET API. A and C are not .NET code

upvoted 7 times

✉  **tempacc4nk** Most Recent 7 months, 1 week ago

I think its B, but its missing new keyword.

```
CosmosClient cosmosClient = new CosmosClient(
    "connection-string-from-portal",
    new CosmosClientOptions()
{
    ApplicationRegion = Regions.EastUS2,
});
```

upvoted 1 times

✉  **[Removed]** 9 months ago

B is only one .NET code here. So, B is a correct answer

upvoted 3 times

✉  **kabbas** 10 months ago

Selected Answer: B

You need to create the client before anything else

upvoted 4 times

✉  **deathRac3** 10 months, 3 weeks ago

Selected Answer: B

correct

upvoted 1 times

✉  **rcardenas72** 1 year, 1 month ago

The correct code segment to configure and execute requests in the No-SQL globally-distributed database by using the .NET API would be option B:

```
client = CosmosClient(endpoint, key)
```

This code initializes the CosmosClient class and connects to the database with the specified endpoint and key parameters. This is the first step in creating a client to communicate with the Azure Cosmos DB.

Option A shows how to create a database, and option C shows how to create a container inside a database, but they do not create the client object that is needed to communicate with the database. Therefore, they are not correct options for this scenario.

upvoted 4 times

 **uffuchsi** 1 year, 1 month ago

Has to be B - How could you do either A or C before B?

upvoted 2 times

 **BrettusMaximus** 1 year, 1 month ago

A

You need to "create an object" to configure and execute requests in the "database".

Not B

Sure B must be done before A, but A is the actual database Object

Not C

C is the container and not the database object

upvoted 2 times

 **LeolT** 1 year, 2 months ago

B as "by using the .NET API"

upvoted 2 times

 **Eward** 1 year, 2 months ago

B is the correct answer

<https://learn.microsoft.com/en-us/python/api/azure-cosmos/azure.cosmos.cosmosclient?view=azure-python>

upvoted 1 times

 **AmitPaul** 1 year, 2 months ago

Selected Answer: B

CosmosClient has to be created first

upvoted 2 times

 **Kavin235** 1 year, 3 months ago

Selected Answer: B

I believe Cosmos client type object can be used to configure and execute requests in the Azure Cosmos DB database service.

<https://learn.microsoft.com/en-us/dotnet/api/microsoft.azure.cosmos.cosmosclient?view=azure-dotnet>

upvoted 1 times

 **Skelletcz** 1 year, 3 months ago

Selected Answer: B

I vote for CosmosClient, which can connect to No-SQL database

upvoted 3 times

 **Nhiendo** 1 year, 3 months ago

i think answer B

upvoted 2 times

 **chettir01** 1 year, 3 months ago

i don't think so, in my point of view, cosmos client can be used to create your datababe, but not to manipulate it.
to do that, you have to create a container from this database, and use this object to do some requests !

upvoted 1 times

Question #39

You develop a web application that provides access to legal documents that are stored on Azure Blob Storage with version-level immutability policies. Documents are protected with both time-based policies and legal hold policies. All time-based retention policies have the `AllowProtectedAppendWrites` property enabled.

You have a requirement to prevent the user from attempting to perform operations that would fail only when a legal hold is in effect and when all other policies are expired.

You need to meet the requirement.

Which two operations should you prevent? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. adding data to documents
- B. deleting documents
- C. creating documents
- D. overwriting existing documents

Correct Answer: BD

Community vote distribution

BD (100%)

 **minYoongi** Highly Voted 11 months, 3 weeks ago

The legal hold policies prevent the deletion of the legal documents that are stored on Azure Blob Storage, but they do not prevent other types of operations such as read, write, or update. Therefore, you need to prevent the following two operations that would fail only when a legal hold is in effect and when all other policies are expired:

Delete operation: When a legal hold is in effect and all other policies are expired, attempting to delete the document will fail. Therefore, you should prevent the user from attempting to delete a document.

Overwrite operation: When a legal hold is in effect and all other policies are expired, attempting to overwrite the document with a new version will fail. Therefore, you should prevent the user from attempting to overwrite a document with a new version.

By preventing these two operations, you can ensure that the legal documents are not accidentally deleted or overwritten when they are protected by legal hold policies.

CHatgpt answer. Is this correct?

upvoted 12 times

 **mihailos** 7 months, 1 week ago

Got it in exam 28/08/23. Went with this answer. Scored 912

upvoted 2 times

 **IvanIco** 9 months, 3 weeks ago

ty for the comment made it much clearer

upvoted 1 times

 **juanckar** Highly Voted 9 months, 1 week ago

This was on the exam (July 2023). Went with BD. Scored 917

upvoted 6 times

 **b1992** 9 months ago

What was your casestudy?

upvoted 1 times

 **macobuzi** 7 months, 3 weeks ago

What does it mean casestudy?

upvoted 1 times

 **jobolesonihal** Most Recent 2 weeks, 4 days ago

Selected Answer: BD

When a legal hold is applied to a container, all existing blobs move into an immutable WORM state in less than 30 seconds. All new blobs that are uploaded to that policy-protected container will also move into an immutable state. Once all blobs are in an immutable state, overwrite or delete operations in the immutable container aren't allowed.

upvoted 1 times

 **Woksi** 2 months ago

Got on 07/02/2024

upvoted 1 times

 **AndySmith** 5 months, 1 week ago

On exam 3-Nov-2023. Wend with proposed answer - 932/1000.

B & D

upvoted 4 times

 **Ciupaz** 3 months, 1 week ago

How do you remember all questions?

upvoted 1 times

 **training_bit2bit** 6 months, 2 weeks ago

legal hold policies: prevents delete and overwrite actions.

the question said that "legal hold" is in effect an the others expired, we should prevent other operations from user. so the answer should not be: A and C ?

B and D are already prevented with the legal hold policies, right?

upvoted 1 times

 **[Removed]** 9 months ago

I don't really understand this question

upvoted 5 times

 **adilkhan** 11 months, 3 weeks ago

b,d IS CORRECT

upvoted 3 times

 **halfway** 11 months, 3 weeks ago

Selected Answer: BD

BD. Ref: <https://learn.microsoft.com/en-us/azure/storage/blobs/immutable-legal-hold-overview>

upvoted 3 times

Question #40

HOTSPOT

You provisioned an Azure Cosmos DB for NoSQL account named account1 with the default consistency level.

You plan to configure the consistency level on a per request basis. The level needs to be set for consistent prefix for read and write operations to account1.

You need to identify the resulting consistency level for read and write operations.

Which levels should you configure? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Operation type	Resulting consistency level
Read operations	<input type="checkbox"/> strong <input type="checkbox"/> session <input type="checkbox"/> consistent prefix
Write operations	<input type="checkbox"/> strong <input type="checkbox"/> session <input type="checkbox"/> consistent prefix

Answer Area

Operation type	Resulting consistency level
Read operations	<input type="checkbox"/> strong <input type="checkbox"/> session <input checked="" type="checkbox"/> consistent prefix
Write operations	<input type="checkbox"/> strong <input checked="" type="checkbox"/> session <input type="checkbox"/> consistent prefix

Correct Answer:

 **adilkhan** Highly Voted 11 months, 2 weeks ago

Just passed the exam 26/04/2023. All the questions were from Exam topics. Got 970 marks!

upvoted 26 times

 **[Removed]** 9 months ago

useless comment

upvoted 10 times

✉ **LucreziaB** 8 months, 4 weeks ago

Still more useful than yours :)

upvoted 31 times

✉ **UzrShkl** 10 months, 3 weeks ago

Bro you had the contributor access?

upvoted 4 times

✉ **Rodikito** 7 months, 1 week ago

of course

upvoted 1 times

✉ **Ciupaz** 5 months ago

Never seen a score so high.

upvoted 4 times

✉ **adilkhan** Highly Voted 11 months, 3 weeks ago

both should be consistent prefix

upvoted 15 times

✉ **b1992** 9 months ago

could you explain why?

upvoted 2 times

✉ **Makonee** 8 months, 3 weeks ago

Wrong. The Given answer is correct. Only Read Consistency can be set by client. Write stays at server setting which is session by default.
<https://learn.microsoft.com/en-us/azure/cosmos-db/nosql/how-to-manage-consistency?tabs=portal%2Cdotnetv2%2Capi-async#override-the-default-consistency-level>

upvoted 12 times

✉ **Vladimir_Gajinov** 7 months, 2 weeks ago

You are right, the given answer is correct.

Microsoft documentation states:

Overriding the default consistency level only applies to **reads** within the SDK client. **An account configured for strong consistency by default will still write and replicate data synchronously to every region in the account.** When the SDK client instance or request overrides this with Session or weaker consistency, reads will be performed using a single replica.

upvoted 1 times

✉ **1989jay** Most Recent 3 months ago

This question was on exam. 09/01/2024. Passed 872.

upvoted 3 times

✉ **CarlosTheBoldest** 4 months ago

I got this question on my exam, 2023Dec, go with what I remember was the most voted answer. Score 902, most of the questions were here, slightly different on wording because the Azure Ad <-> Entra Id change. Case was City Power & Light. Good luck!
Important tip, you have access to microsoft learn during the exam!

upvoted 6 times

✉ **LittleBean** 3 months, 3 weeks ago

Hi, does all question were from exam topic? Did you bought contributor access? And what does it mean by case study city power and light. In free version I haven't came across thus term/ farmer case study

upvoted 1 times

✉ **richardc7** 6 months, 2 weeks ago

got in 28/09/2023

upvoted 1 times

✉ **seanzhenxiao** 7 months, 3 weeks ago

Sorry, my first cmmnt is error

I think should be :

read: consistent prefix,
write: session

1. default level is session
2. override only work for read
3. To move from weaker to stronger consistency, update the default consistency for the Azure Cosmos DB account

strong > boundary > session > consistent prefix > eventually

<https://learn.microsoft.com/en-us/azure/cosmos-db/nosql/how-to-manage-consistency?tabs=portal%2Cdotnetv2%2Capi-async#override-the-default-consistency-level>

upvoted 4 times

✉ **seanzhenxiao** 7 months, 3 weeks ago

I think should be session, session

1. default level is session

2. override only work for read

3. To move from weaker to stronger consistency, update the default consistency for the Azure Cosmos DB account

<https://learn.microsoft.com/en-us/azure/cosmos-db/nosql/how-to-manage-consistency?tabs=portal%2Cdotnetv2%2Capi-async#override-the-default-consistency-level>

upvoted 1 times

✉️ **Dianahu** 9 months ago

answer is here: <https://learn.microsoft.com/en-us/azure/cosmos-db/nosql/how-to-manage-consistency?tabs=portal%2Cdotnetv2%2Capi-async#override-the-default-consistency-level>

Overriding the default consistency level only applies to reads within the SDK client.

default consistency is session

upvoted 6 times

✉️ **[Removed]** 8 months, 4 weeks ago

Now I get it! Appreciated.

upvoted 2 times

✉️ **Mark16** 9 months, 3 weeks ago

stupid question xD

upvoted 2 times

✉️ **dy0917** 11 months, 2 weeks ago

Any explanation?

For read operations with the requirement of consistent prefix, the resulting consistency level option is C. Consistent prefix.

Following is what ChatGPT said, but I am not convinced.

For write operations, there is no consistency level option called "Consistent prefix". The available options are Strong, Bounded staleness, Session, and Eventual. If you want to ensure consistency prefix for write operations, you should choose Strong consistency level.

upvoted 2 times

Question #41

DRAG DROP

You are developing an application to store millions of images in Azure blob storage. The images are uploaded to an Azure blob storage container named companyimages contained in an Azure blob storage account named companymedia. The stored images are uploaded with multiple blob index tags across multiple blobs in the container.

You must find all blobs whose tags match a search expression in the container. The search expression must evaluate an index tag named status with a value of final.

You need to construct the GET method request URI.

How should you complete the URI? To answer, drag the appropriate parameters to the correct request URI targets. Each parameter 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.

Parameters	Answer Area
Status='Final'	<code>https://</code> <input type="text"/> <code>.blob.core.windows.net/</code> <input type="text"/> <code>?restype=container&comp=blobs&where=</code> <input type="text"/>
Status<='Final'	
companymedia	
companyimages	

Correct Answer:

Answer Area
<code>https://</code> <input type="text"/> <code>.blob.core.windows.net/</code> <input type="text"/> <code>?restype=container&comp=blobs&where=</code> <input type="text"/> <code>Status='Final'</code>

 **adilkhan** Highly Voted 11 months, 3 weeks ago

Answer is correct!

upvoted 21 times

 **DonH** Highly Voted 9 months, 4 weeks ago

Just for information: I just had this question on my AZ204 exam - 16-jun-2023.

I barely made it (with only 767 points) so I can't inform anyone if this answer is correct or not, just stating that this is an actual exam question.

upvoted 5 times

 **NavinD** 9 months ago

Do you have contributor access? what other websites did you study from?

upvoted 1 times

 **kysmf0100101** Most Recent 2 months, 3 weeks ago

no its not

upvoted 1 times

 **Dixavado** 6 months, 2 weeks ago

It was on my exam today (2023-09-26) I went with the examtopics answer - score 850

upvoted 1 times

 **lyggwtwtczxnhznebw** 9 months ago

Correct

upvoted 2 times

 **WorkFromHome** 10 months, 2 weeks ago

Got this question on the exam at 2023/05/31

upvoted 3 times

Question #42

HOTSPOT

You develop two Python scripts to process data.

The Python scripts must be deployed to two, separate Linux containers running in an Azure Container Instance container group. The containers must access external data by using the Server Message Block (SMB) protocol. Containers in the container group must run only once.

You need to configure the Azure Container Instance.

Which configuration value should you use? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area**Configuration Setting Configuration Value**

External data volume

Secret
Empty directory
Cloned git repo
Azure file share

Container restart policy

Never
Always
OnFailure

Answer Area**Configuration Setting Configuration Value**

External data volume

Secret
Empty directory
Cloned git repo
Azure file share

Correct Answer:

Never
Always
OnFailure

✉  **junix_**  9 months ago

I believe the answer is correct.

Azure file share: <https://learn.microsoft.com/en-us/azure/storage/files/files-smb-protocol?tabs=azure-portal>
upvoted 13 times

✉  **ay_m**  8 months ago

Azure File Share is the only option that supports SMB
upvoted 9 times

✉  **Vladimir_Gajinov** 7 months, 2 weeks ago

You are right
upvoted 1 times

 **bgbgvfvf** Most Recent 3 months, 2 weeks ago

I think given answer is correct.

upvoted 1 times

 **arpannaprap** 8 months, 2 weeks ago

Answer is correct.

upvoted 4 times

 **[Removed]** 8 months, 3 weeks ago

Incorrect

Correct Answer: Empty Directory, Never

upvoted 1 times

 **yusuf_eb** 4 months, 2 weeks ago

this guy is wrong

upvoted 1 times

 **Ciupaz** 5 months ago

Is not Empty Directory, but Azure File Share.

upvoted 2 times

 **Papee** 8 months, 1 week ago

why Empty Directory ?

upvoted 2 times

 **Rithikk** 5 months, 1 week ago

Whyyyy?????????????????

upvoted 2 times

Question #43

HOTSPOT

You are developing a static website hosted on Azure Blob Storage. You create a storage account and enable static website hosting.

The website must support the following requirements:

- Custom domain name
- Custom header values for all responses
- Custom SSL certificate

You need to implement the static website.

What should you configure? To answer, select the appropriate values in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Requirement	Configuration Value
Custom domain name	<input type="checkbox"/> Blob index tags <input type="checkbox"/> Azure Content Delivery Network (CDN) <input type="checkbox"/> Cross-Origin Resource Sharing (CORS) <input type="checkbox"/> Azure Storage Service Encryption (SSE)
Custom header values	<input type="checkbox"/> Blob index tags <input type="checkbox"/> Azure Content Delivery Network (CDN) <input type="checkbox"/> Cross-Origin Resource Sharing (CORS) <input type="checkbox"/> Azure Storage Service Encryption (SSE)
Custom SSL certificate	<input type="checkbox"/> Blob index tags <input type="checkbox"/> Azure Content Delivery Network (CDN) <input type="checkbox"/> Cross-Origin Resource Sharing (CORS) <input type="checkbox"/> Azure Storage Service Encryption (SSE)

Answer Area

Requirement	Configuration Value
Custom domain name	<ul style="list-style-type: none"> blob index tags Azure Content Delivery Network (CDN) Cross-Origin Resource Sharing (CORS) Azure Storage Service Encryption (SSE)
Custom header values Correct Answer:	<ul style="list-style-type: none"> blob index tags Azure Content Delivery Network (CDN) Cross-Origin Resource Sharing (CORS) Azure Storage Service Encryption (SSE)
Custom SSL certificate	<ul style="list-style-type: none"> blob index tags Azure Content Delivery Network (CDN) Cross-Origin Resource Sharing (CORS) Azure Storage Service Encryption (SSE)

✉  **AbidooKing**  9 months, 1 week ago

Answer seems correct.

"Static websites have some limitations. For example, If you want to configure headers, you'll have to use Azure Content Delivery Network (Azure CDN)" and " To enable HTTPS, you'll have to use Azure CDN because Azure Storage doesn't yet natively support HTTPS with custom domains"

<https://learn.microsoft.com/en-us/azure/storage/blobs/storage-blob-static-website>

upvoted 15 times

✉  **Vukile**  5 months ago

On exam 9 Nov 2023, went with given answer, score 865. Case Study: Farmers and Distributors

upvoted 3 times

✉  **Ciupaz** 5 months ago

"Farmers and Distributors" is a new one (not present here on ExamTopics).

upvoted 3 times

✉  **dom271219** 2 months, 3 weeks ago

it's in there : Munson's Pickles and preserves farms Topic 4, Q69, T5 ..., T6...

upvoted 1 times

✉  **priomkhan** 3 months ago

I am also looking for this case study.

upvoted 1 times

✉  **ericguo2020** 7 months, 1 week ago

Using Azure CDN to Specify Custom HTTP Headers for an Azure Static Website Hosted SPA: <https://medium.com/datadigest/using-azure-cdn-to-specify-custom-http-headers-for-an-azure-static-website-hosted-spa-41a9b9ec1674>

upvoted 1 times

✉  **Vladimir_Gajinov** 7 months, 2 weeks ago

The answers are correct.

The most appropriate answer is Azure CDN, as it can fulfill all three requirements: custom domain name, custom header values, and a custom SSL certificate.

upvoted 3 times

✉  **Papee** 8 months ago

1. Custom Domain Name:

- Configuration: Azure Content Delivery Network (CDN)

Azure CDN can be configured to map your custom domain name (e.g., www.yourdomain.com) to the Azure Blob Storage static website endpoint.

This allows you to access your static website using your custom domain.

2. Custom Header Values for All Responses:

- Configuration: Blob index tag

You can use blob index tags to set custom header values for all responses from your static website. Blob index tags allow you to define metadata at the container or blob level that can be used as headers for the website content.

3. Custom SSL Certificate:

- Configuration: Azure Content Delivery Network (CDN)

To use a custom SSL certificate for your custom domain, you can configure Azure CDN to use the custom SSL certificate. This will enable secure communication between the user's browser and the CDN endpoint serving your static website content.

upvoted 3 times

 **NightshadeRC** 8 months, 2 weeks ago

Had this question in today's exam: 2023-07-26

upvoted 2 times

Question #44

You are developing an inventory tracking solution. The solution includes an Azure Function app containing multiple functions triggered by Azure Cosmos DB. You plan to deploy the solution to multiple Azure regions.

The solution must meet the following requirements:

- Item results from Azure Cosmos DS must return the most recent committed version of an item.
- Items written to Azure Cosmos DB must provide ordering guarantees.

You need to configure the consistency level for the Azure Cosmos DB deployments.

Which consistency level should you use?

- A. consistent prefix
- B. eventual
- C. bounded staleness
- D. strong
- E. session

Correct Answer: D

Community vote distribution

D (78%)

C (22%)

 **Xardas** Highly Voted 8 months, 4 weeks ago

I believe its C 'bounded staleness'

Because strong consistency is not supported for multiple regions

upvoted 11 times

 **manopeydakon** 2 months, 4 weeks ago

Yes, the Strong consistency level is supported in Azure Cosmos DB for multiple regions. When you configure Azure Cosmos DB with multiple regions, you have the option to choose the consistency level that fits your application's requirements. The Strong consistency level ensures that, regardless of the region being accessed, each read operation returns the most recent committed version of an item and maintains ordering guarantees. This is achieved by synchronously replicating writes across all regions before acknowledging the write operation.

upvoted 2 times

 **tarek0811** 8 months, 2 weeks ago

Azure Cosmos DB accounts configured with multiple write regions can't be configured for strong consistency as it isn't possible for a distributed system to provide an RPO of zero and an RTO of zero

<https://learn.microsoft.com/en-us/azure/cosmos-db/consistency-levels>

upvoted 5 times

 **oskx2** 1 month ago

That is true but there is no mention of "multiple write regions" mentioned in the question.

You can have strong consistency and multiple regions (notice it is not multiple write regions): <https://learn.microsoft.com/en-us/azure/cosmos-db/consistency-levels#write-latency-and-strong-consistency>

upvoted 2 times

 **LuchoGonzalez** Highly Voted 9 months, 1 week ago

Strong consistency offers a linearizability guarantee. Linearizability refers to serving requests concurrently. The reads are guaranteed to return the most recent committed version of an item. A client never sees an uncommitted or partial write. Users are always guaranteed to read the latest committed write.

Source: <https://learn.microsoft.com/en-us/azure/cosmos-db/consistency-levels>

upvoted 10 times

 **jobolesonihai** Most Recent 2 weeks, 1 day ago

Selected Answer: D

The problem doesn't specify any condition (versions or time lag) which may allow bounded staleness.

Only Strong consistency guarantees the reading the more recent commit.

upvoted 1 times

 **FeriAZ** 1 month, 2 weeks ago

Selected Answer: D

Item results from Azure Cosmos DB must return the most recent committed version of an item: Strong consistency ensures that once a write operation is acknowledged, all subsequent read operations will return the most recent committed version of the data. This means that any read operation will see the effects of the latest write operation.

Items written to Azure Cosmos DB must provide ordering guarantees: Strong consistency also ensures ordering guarantees. It means that if one write operation is acknowledged before another, then the order of these operations is preserved for all subsequent read operations.

upvoted 1 times

lednari 4 months ago

Selected Answer: D

Strong - doesn't mention multi-region writes - the multi-region functions are triggered hence reads

upvoted 2 times

CarlosTheBoldest 4 months, 1 week ago

Selected Answer: C

The key is the multiple regions

upvoted 2 times

Jarynpl 5 months, 1 week ago

Selected Answer: C

Azure Cosmos DB accounts configured with multiple write regions can't be configured for strong consistency as it isn't possible for a distributed system to provide an RPO of zero and an RTO of zero. Additionally, there are no write latency benefits on using strong consistency with multiple write regions because a write to any region must be replicated and committed to all configured regions within the account. This scenario results in the same write latency as a single write region account.

<https://learn.microsoft.com/en-us/azure/cosmos-db/consistency-levels#strong-consistency-and-multiple-write-regions>

upvoted 1 times

Weam 5 months ago

but the question didn't mention that there will be multiple WRITE regions ?

upvoted 3 times

RikinPatel 6 months, 1 week ago

Selected Answer: D

strong is correct ans.:

Strong consistency: Strong consistency offers a linearizability guarantee. Linearizability refers to serving requests concurrently. The reads are guaranteed to return the most recent committed version of an item. A client never sees an uncommitted or partial write. Users are always guaranteed to read the latest committed write.

Bounded staleness consistency:

With Bounded Staleness consistency, reads issued against a non-primary region may not necessarily return the most recent version of the data globally, but are guaranteed to return the most recent version of the data in that region, which will be within the maximum staleness boundary globally.

<https://learn.microsoft.com/en-us/azure/cosmos-db/consistency-levels>

upvoted 3 times

tamer 7 months ago

Selected Answer: D

I think it's D.

Strong consistency is not supported for multiple WRITE regions, and I don't see any such requirements in the question.

<https://learn.microsoft.com/en-us/azure/cosmos-db/high-availability#multiple-write-regions>

upvoted 2 times

RikinPatel 6 months, 1 week ago

as per Que.: You plan to deploy the solution to multiple Azure regions.

upvoted 1 times

Vladimir_Gajinov 7 months, 2 weeks ago

Selected Answer: C

I think it's Bounded Staleness because it's not mentioned that read is executed right after write operation so I think it's acceptable to have small latency between write and read operations. I would go with this!

upvoted 1 times

drkpns 7 months, 4 weeks ago

But for Strong consistency, it also says Bounded Staleness in a multi-write account is an anti-pattern. So I really don't understand what the correct answer is.

Bounded Staleness or Strong?

upvoted 2 times

Papee 8 months, 1 week ago

C. bounded staleness

Item results return the most recent committed version of an item: Bounded staleness ensures that reads are served from a version of the data that is within a specified lag from the current write operation. This means that you can read the most recent committed version of an item while still providing a level of consistency.

Items written to Azure Cosmos DB must provide ordering guarantees: Bounded staleness guarantees that writes are ordered and committed before being read.

While other consistency levels like "Strong" and "Consistent prefix" also provide strong consistency, "Bounded staleness" offers a balance between consistency and availability, which is suitable for scenarios where the most recent data is needed with some level of delay.

upvoted 3 times

 **ay_m** 8 months ago

"Reads when using Bounded Staleness returns the latest data available in that region by reading from two available replicas in that region."

With bounded staleness there is a certain amount of lag, so it does not return the most recently committed write

upvoted 1 times

 **Xardas** 8 months, 1 week ago

Correct answer is C 'bounded staleness'

Question mentions deployment to multiple regions, and strong consistency is not supported for that.

upvoted 3 times

 **junix** 9 months ago

Selected Answer: D

I believe 'Strong' consistency is correct.

upvoted 3 times

 **75daltonic** 9 months, 1 week ago

Selected Answer: D

I think is strong

upvoted 2 times

Question #45

HOTSPOT

You are developing an application that runs in several customer Azure Kubernetes Service clusters. Within each cluster, a pod runs that collects performance data to be analyzed later. A large amount of data is collected so saving latency must be minimized.

The performance data must be stored so that pod restarts do not impact the stored data. Write latency should be minimized.

You need to configure blob storage.

How should you complete the YAML configuration? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

```
apiVersion: storage.k8s.io/v1
```

```
kind: 
```

PodStorage
StorageClass
PersistentVolume
PersistentVolumeClaim

```
metadata:
```

```
  name: data-store
```

```
provisioner: kubernetes.io/ 
```

azure-disk
azure-file
portworx-volume
scaleio

```
parameters:
```

```
  skuName: Premium_LRS
```

```
  reclaimPolicy: 
```

local
retain
delete

Answer Area

```
apiVersion: storage.k8s.io/v1
```

```
kind: 
```

```
PodStorage
```

```
StorageClass 
```

```
PersistentVolume
```

```
PersistentVolumeClaim
```

```
metadata:
```

```
  name: data-store
```

Correct Answer: provisioner: kubernetes.io/

```
azure-disk
```

```
azure-file
```

```
portworx-volume
```

```
scaleio
```

```
parameters:
```

```
  skuName: Premium_LRS
```

```
  reclaimPolicy: 
```

```
local
```

```
retain 
```

```
delete
```

⊕ **richardc7** Highly Voted 6 months, 2 weeks ago

got in 28/09/23, totally out of scope

upvoted 8 times

⊕ **Evoila_TrainingMaterial** Highly Voted 7 months, 3 weeks ago

Sadly got this question 08/17/23 in the exam

upvoted 7 times

⊕ **macobuzi** 7 months, 1 week ago

Thanks for mentioning, so this question is definitely not out of scope! In fact, I don't even believe "scope" is in Microsoft's dictionary

upvoted 13 times

⊕ **sekelsenmat** Most Recent 1 month, 3 weeks ago

On exam 2024, went with given answer, score 872 or something. Case Study: Farmers and Distributors. I don't understand the question. The question states "configure blob", and then there is no option for blob configuration, but instead you configure Azure Files or Azure Disks?

And the worse of all, the configuration given is so obsolete that:

*it was already removed from Kubernetes, as stated here: <https://kubernetes.io/docs/concepts/storage/storage-classes/#azure-disk>

*it is only available in an example outside MS Learn (so unavailable during the exam)

Anyway, I'm still not sure what the right answer would be, but I went with azure-disk because it supports retentionPolicy, maybe it should be azure-files like some are saying, but its examples don't use retentionPolicy.

upvoted 1 times

⊕ **lednari** 4 months ago

StorageClass / azure-file / retain

upvoted 1 times

⊕ **oCaio** 8 months ago

Out of scope. Suggested answer seems correct. Ref:

<https://learn.microsoft.com/en-us/azure/aks/azure-csi-disk-storage-provision>

<https://kubernetes.io/docs/concepts/storage/storage-classes/#azure-disk>

Ref azure-file

<https://learn.microsoft.com/en-us/azure/aks/azure-csi-files-storage-provision#create-a-storage-class>
(Create a storage class)

<https://kubernetes.io/docs/concepts/storage/storage-classes/#azure-file>

Ref PodStorage / Persistent Volume / PersistentVolumeClaim

<https://kubernetes.io/docs/tasks/configure-pod-container/configure-persistent-volume-storage/>

Ref portworx-volume

<https://docs.portworx.com/portworx-enterprise/operations/operate-kubernetes/storage-operations/kubernetes-storage-101/volumes>

Ref Reclaim Policy

<https://kubernetes.io/docs/concepts/storage/storage-classes/#reclaim-policy>

upvoted 4 times

 **macobuzi** 7 months, 3 weeks ago

As someone mentioned to received this question recently, it is not out of scope. Actually, I am no longer care if it is out of scope because Microsoft doesn't give a f about it!

upvoted 2 times

 **Mpho7** 8 months, 1 week ago

Crazy that people are getting out-of-scope questions in the official exam. Perhaps its not counted in the final score. We wont know

upvoted 4 times

 **macobuzi** 7 months, 3 weeks ago

Or maybe, "out-of-scope" is not within Microsoft dictionary!

upvoted 4 times

 **BaoNguyen2411** 8 months, 2 weeks ago

Got this question 29/06/2023

upvoted 3 times

 **[Removed]** 9 months ago

Out of scope! Nevertheless, seems to be correct.

upvoted 3 times

Question #46

Topic 3

HOTSPOT

-

Case study

-

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study.

At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

To start the case study

-

To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. When you are ready to answer a question, click the Question button to return to the question.

Background

-

VanArsdel, Ltd. is a global office supply company. The company is based in Canada and has retail store locations across the world. The company is developing several cloud-based solutions to support their stores, distributors, suppliers, and delivery services.

Current environment

-

Corporate website

-

The company provides a public website located at <http://www.vanarsdelltd.com>. The website consists of a React JavaScript user interface, HTML, CSS, image assets, and several APIs hosted in Azure Functions.

Retail Store Locations

-

The company supports thousands of store locations globally. Store locations send data every hour to an Azure Blob storage account to support inventory, purchasing and delivery services. Each record includes a location identifier and sales transaction information.

Requirements

-

The application components must meet the following requirements:

Corporate website

- Secure the website by using SSL.
- Minimize costs for data storage and hosting.
- Implement native GitHub workflows for continuous integration and continuous deployment (CI/CD).
- Distribute the website content globally for local use.
- Implement monitoring by using Application Insights and availability web tests including SSL certificate validity and custom header value verification.
- The website must have 99.95 percent uptime.

Retail store locations

- Azure Functions must process data immediately when data is uploaded to Blob storage. Azure Functions must update Azure Cosmos DB by using native SQL language queries.
- Audit store sale transaction information nightly to validate data, process sales financials, and reconcile inventory.

Delivery services

- Store service telemetry data in Azure Cosmos DB by using an Azure Function. Data must include an item id, the delivery vehicle license plate, vehicle package capacity, and current vehicle location coordinates.
- Store delivery driver profile information in Azure Active Directory (Azure AD) by using an Azure Function called from the corporate website.

Inventory services

The company has contracted a third-party to develop an API for inventory processing that requires access to a specific blob within the retail store storage account for three months to include read-only access to the data.

Security

- All Azure Functions must centralize management and distribution of configuration data for different environments and geographies, encrypted by using a company-provided RSA-HSM key.
- Authentication and authorization must use Azure AD and services must use managed identities where possible.

Issues

Retail Store Locations

- You must perform a point-in-time restoration of the retail store location data due to an unexpected and accidental deletion of data.
- Azure Cosmos DB queries from the Azure Function exhibit high Request Unit (RU) usage and contain multiple, complex queries that exhibit high point read latency for large items as the function app is scaling.

You need to implement the delivery service telemetry data.

How should you configure the solution? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Azure Cosmos DB Value

API	Value
Core (SQL)	
Gremlin	
Table	
MongoDB	

Partition Key	Value
Item id	
Vehicle license plate	
Vehicle package capacity	
Vehicle location coordinates	

Answer Area

Azure Cosmos DB Value

Correct Answer:	API	Value
	Core (SQL)	
	Gremlin	
	Table	
	MongoDB	

Partition Key	Value
Item id	
Vehicle license plate	
Vehicle package capacity	
Vehicle location coordinates	

✉  **devex**  7 months, 4 weeks ago

API: "Core (SQL)"

Partition Key: "Item id"

See: <https://learn.microsoft.com/en-us/azure/cosmos-db/partitioning-overview#use-item-id-as-the-partition-key>
upvoted 22 times

✉  **lyggwtwtczxnhznebw** 7 months, 4 weeks ago

That makes a lot more sense, thanks for the link

upvoted 1 times

✉  **AndySmith**  5 months, 1 week ago

On exam 3-Nov-2023. Went with most-voted answer - 932/1000:

1) Core SQL

2) Item Id

Note: all 11 Qs from VanArsdel case study were on Exam.

upvoted 10 times

✉  **Expandable** 1 month, 1 week ago

Why can I see only 1 question here
is it because I dont have contributors access?

upvoted 2 times

✉  **vkalynenko** 2 days, 16 hours ago

I have this access, but I still see only one question...

upvoted 1 times

✉  **shahid204** 1 month ago

yeah, even i just see 1 question, cases study has usually 10 questions

upvoted 1 times

✉  **Karunan** Most Recent 4 months, 3 weeks ago

Why its not License plate?

upvoted 1 times

✉  **Geirebass** 7 months, 3 weeks ago

This should be Core(SQL) and Partition Key (item.id) i belive ?

upvoted 3 times

✉  **WH16** 8 months ago

Why item.id is not used for Partition Key?

upvoted 9 times

Question #47

Topic 3

You create and publish a new Azure App Service web app.

User authentication and authorization must use Azure Active Directory (Azure AD).

You need to configure authentication and authorization.

What should you do first?

- A. Add an identity provider.
- B. Map an existing custom DNS name.
- C. Create and configure a new app setting.
- D. Add a private certificate.
- E. Create and configure a managed identity.

Correct Answer: A

Community vote distribution

A (85%)

E (15%)

✉️  **Firo**  8 months, 2 weeks ago

Selected Answer: A

A- Add an identity provider is correct

<https://learn.microsoft.com/en-us/azure/app-service/scenario-secure-app-authentication-app-service#3-configure-authentication-and-authorization>

upvoted 8 times

✉️  **Vladimir_Gajinov** 7 months, 2 weeks ago

Correct - step 3

upvoted 1 times

✉️  **22312ce**  1 month, 1 week ago

Select Answer : E

upvoted 1 times

✉️  **huuphong91** 6 months ago

I think E is right

upvoted 2 times

✉️  **nerojd** 6 months, 3 weeks ago

Selected Answer: E

Why not E. Create and configure a managed identity??

upvoted 2 times

✉️  **cldmcp** 6 months ago

I think it is because you need to implement user authentication and authorization. Managed identity is used to authenticate Azure resources

upvoted 6 times

✉️  **lyggwtwtczxnhznebw** 8 months, 2 weeks ago

Selected Answer: A

Answer seems correct based on <https://learn.microsoft.com/en-us/azure/app-service/configure-authentication-provider-aad?tabs=workforce-tenant>

upvoted 3 times

Question #48

DRAG DROP

You have an Azure Cosmos DB for NoSQL account.

You plan to develop two apps named App1 and App2 that will use the change feed functionality to track changes to containers. App1 will use the pull model and App2 will use the push model.

You need to choose the method to track the most recently processed change in App1 and App2.

Which component should you use? To answer, drag the appropriate components to the correct apps. Each component 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.

Components	Answer Area	
	App	Component
Lease container	App1	
Integrated cache	App1	
Continuation token	App2	

Answer Area		
	App	Component
Correct Answer:	App1	Continuation token
	App2	Lease container

 **oCaio** Highly Voted 8 months ago

Seems correct.

App2 Push Model - Lease container

"When reading from the Azure Cosmos DB change feed, we usually recommend using a push model because you won't need to worry about: ... Storing state for the last processed change. If you are reading from the change feed processor, state is automatically stored in a lease container.

Ref:

<https://learn.microsoft.com/en-us/azure/cosmos-db/nosql/read-change-feed#reading-change-feed-with-a-push-model>"

upvoted 7 times

 **FeriAZ** Most Recent 2 months, 3 weeks ago

Correct.

App1 (Pull Model): This model involves explicitly querying the change feed and managing the state of what has been read.

Best Component: Continuation Token. The pull model typically relies on continuation tokens to keep track of where the last read operation ended and to resume from that point.

App2 (Push Model): In this model, the change feed processor pushes changes to the application, and the application logic processes these changes.

Best Component: Lease Container. The push model, especially when using the change feed processor, leverages a lease container to maintain state and ensure reliable processing.

upvoted 4 times

 **thecrash** 6 months, 1 week ago

Correct!

The change feed pull model allows you to consume the change feed at your own pace. Changes must be requested by the client and there's no automatic polling for changes. If you want to permanently "bookmark" the last processed change (similar to the push model's lease container), you'll need to save a continuation token.

<https://learn.microsoft.com/en-us/azure/cosmos-db/nosql/read-change-feed>

upvoted 4 times

 **Ayaz_b** 6 months, 2 weeks ago

Correct

upvoted 1 times

 **mario_no_code** 8 months, 2 weeks ago

The answer is correct. Link: <https://learn.microsoft.com/en-us/azure/cosmos-db/nosql/change-feed-pull-model?tabs=dotnet#compare-to-the-change-feed-processor>

upvoted 3 times

Question #49

You have a Linux container-based console application that uploads image files from customer sites all over the world. A back-end system that runs on Azure virtual machines processes the images by using the Azure Blobs API.

You are not permitted to make changes to the application.

Some customer sites only have phone-based internet connections.

You need to configure the console application to access the images.

What should you use?

- A. Azure BlobFuse
- B. Azure Disks
- C. Azure Storage Network File System (NFS) 3.0 support
- D. Azure Files

Correct Answer: C*Community vote distribution*

A (100%)

✉  **130nk3r5** Highly Voted 3 months, 3 weeks ago

Selected Answer: A

The correct answer is:

A. Azure BlobFuse

Azure BlobFuse allows you to access Azure Blob Storage from Linux and Azure services as if it were a local file system, without changing the application. This is particularly useful for your scenario where you can't modify the application and need to process images stored in Azure Blob Storage. BlobFuse provides the necessary interface between the application and Azure Blob Storage.

upvoted 6 times

✉  **Jass1nonly** 1 month, 1 week ago

That's a chatGPT answer?

upvoted 2 times

✉  **Hendrikdb** Most Recent 1 month, 2 weeks ago

Azure files is the selected answers according to google bboard and chatgpt.

upvoted 1 times

✉  **kysmf0100101** 2 months, 3 weeks ago

Linux is unbased. we should ff

upvoted 2 times

✉  **Sakhana88** 4 months, 1 week ago

Selected Answer: A

<https://learn.microsoft.com/en-us/azure/storage/blobs/blobfuse2-what-is>

upvoted 3 times

✉  **Razvan_C** 4 months, 3 weeks ago

Is this still a valid question for AZ-204? I don't see those resources in study guide.

upvoted 2 times

✉  **DaveOla** 4 weeks ago

Microsoft is just crazy

upvoted 1 times

✉  **SachinV** 4 months, 4 weeks ago

Azure BlobFuse, as

Azure Disks are block storage devices that are not designed to be accessed directly by applications.

Azure Storage NFS 3.0 support is still in preview and is not yet available for all accounts.

Azure Files is a managed file share service that is not designed to be used with slow and unreliable internet connections.

upvoted 4 times

✉  **junkz** 5 months, 1 week ago

not completely clear on what "access the images" really means, but seeing that the application in VM uses blob API, stands to reason that the console application will interact with blob storage, not files. given that the console application is uploading images, it reasonably means that uploads via blobfuse, as this is a virtual file system driver for azure blob storage

upvoted 1 times

✉  **Ciupaz** 5 months, 1 week ago

Selected Answer: A

Azure BlobFuse is the correct answer in this scenario.

upvoted 3 times

✉  **dasunl** 5 months, 1 week ago

Hi what is this?

upvoted 1 times

Question #50

DRAG DROP

You are developing several microservices named serviceA, serviceB, and serviceC. You deploy the microservices to a new Azure Container Apps environment.

You have the following requirements:

- The microservices must persist data to storage.
- serviceA must persist data only visible to the current container and the storage must be restricted to the amount of disk space available in the container.
- serviceB must persist data for the lifetime of the replica and allow multiple containers in the replica to mount the same storage location.
- serviceC must persist data beyond the lifetime of the replica while allowing multiple containers to access the storage and enable per object permissions.

You need to configure storage for each microservice.

Which storage type should you use? To answer, drag the appropriate storage types to the correct microservices. Each storage type 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.

Storage types

Azure Blob Storage

Azure Files storage

Ephemeral volume

Container file system

Answer Area**Microservice**

serviceA

serviceB

serviceC

Storage type**Answer Area****Microservice****Storage type**

Correct Answer:

serviceA

Container file system

serviceB

Ephemeral volume

serviceC

Azure Files storage

 **jobolesonihal** 2 weeks ago

The options are tricky. Container File System is essentially an Ephemeral Storage. Ephemeral Storage has both the options Container Scoped and Replica Scoped. :)

The given answer is the most appropriate choice.

upvoted 1 times

 **130nk3r5** 3 months, 3 weeks ago

Given these options, the storage types for each microservice should be:

serviceA: Container file system The container file system is local to the container and is only visible to the current container. It is restricted to the amount of disk space available in the container.

serviceB: Ephemeral Storage Ephemeral Storage is temporary storage that persists for the lifetime of the replica. It allows multiple containers in the replica to mount the same storage location.

serviceC: Azure Blob Storage Azure Blob Storage is a highly scalable and durable object storage service that persists data beyond the lifetime of the replica. It allows multiple containers to access the storage and supports per-object permissions.

upvoted 4 times

 **Jarynpl** 5 months, 1 week ago

Answer looks correct.

upvoted 4 times

 **Jarynpl** 5 months, 1 week ago

Sorry. I'm mean:

ServiceA: Container file system

ServiceB: Ephemeral volumes (it lives as long as replica lives)

ServiceC: Azure Blob Storage (it lives outside of replica. So it's beyond the lifetime. And we want to have blob instead of file)

upvoted 4 times

 **AlbertoBT** 4 months, 3 weeks ago

C: Azure Files storage

Azure Blob Storage don't allow: per object permissions

upvoted 1 times

 **junkz** 5 months, 1 week ago

ACA does not mount to blob storage(<https://learn.microsoft.com/en-us/azure/container-apps/storage-mounts>), AKS I believe it does. so original answer is right

upvoted 5 times

Question #51

DRAG DROP

You are developing a web service that will run on Azure virtual machines that use Azure Storage. You configure all virtual machines to use managed identities.

You have the following requirements:

- Secret-based authentication mechanisms are not permitted for accessing an Azure Storage account.
- Must use only Azure Instance Metadata Service endpoints.

You need to write code to retrieve an access token to access Azure Storage. To answer, drag the appropriate code segments to the correct locations. Each code segment may be used 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.

Code segment 1

`http://localhost:50342/oauth2/token`
`http://169.254.169.254:50432/oauth2/token`
`http://localhost/metadata/identity/oauth2/token`
`http://169.254.169.254/metadata/identity/oauth2/token`

Answer Area

```
import urllib.request
url = "http://169.254.169.254/metadata/identity/oauth2/token"
queryString = ""
response = urllib.request.urlopen(url + queryString)
```

Code segment 2

`import xml.etree.ElementTree as e
e.parse(response.read())`
`import csv
csv.DictReader(response.read())`
`import yaml
return yaml.load(response.read())`
`import json
return json.loads(response.read())`

Correct Answer:

Answer Area
`import urllib.request
url = "http://169.254.169.254/metadata/identity/oauth2/token"
queryString = ""
response = urllib.request.urlopen(url + queryString)`
`import json
return json.loads(response.read())`

 **abhishekgraphs** 1 month, 1 week ago

I asked Google AI tool the following question: How do I retrieve an access token using Azure Instance Metadata Service endpoints ?
I think the given answer here is correct!

upvoted 1 times

 **manopeydakon** 2 months, 3 weeks ago

Not relevant question and answer!
upvoted 2 times

Question #52

HOTSPOT

You are developing an Azure Function app.

The Azure Function app must enable a WebHook to read an image from Azure Blob Storage and create a new Azure Cosmos DB document.

You need to implement the Azure Function app.

Which configuration should you use? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Trigger	Input binding	Output binding
HTTP	HTTP	HTTP
Timer	Timer	Timer
Blob Storage	Blob Storage	Blob Storage
Azure Cosmos DB	Azure Cosmos DB	Azure Cosmos DB

Answer Area

Correct Answer:

Trigger	Input binding	Output binding
HTTP	HTTP	HTTP
Timer	Timer	Timer
Blob Storage	Blob Storage	Blob Storage
Azure Cosmos DB	Azure Cosmos DB	Azure Cosmos DB

 **sky_may** 2 months, 3 weeks ago

provided answer is correct: <https://learn.microsoft.com/en-us/azure/azure-functions/functions-bindings-http-webhook-trigger?tabs=python-v2%2Cisolated-process%2Cnodejs-v4%2Cfunctions-v2&pivots=programming-language-csharp>

upvoted 2 times

 **AzDeveloper** 2 months, 4 weeks ago

Answer is correct because you can route storage events to webhook

<https://learn.microsoft.com/en-us/azure/storage/blobs/storage-blob-event-quickstart?toc=%2Fazure%2Fevent-grid%2Ftoc.json>

upvoted 1 times

 **Neckbread** 3 months ago

Given Answer is Correct:

A- HTTP Trigger for webhook

B- Input binding for blob storage to read image

C- Output binding to output a document to Cosmos DB

<https://learn.microsoft.com/en-us/azure/azure-functions/functions-bindings-storage-blob-input?tabs=python-v2%2Cisolated-process%2Cnodejs-v4&pivots=programming-language-csharp>

<https://learn.microsoft.com/en-us/azure/azure-functions/functions-bindings-cosmosdb-v2-output?tabs=python-v2%2Cisolated-process%2Cnodejs-v4%2Cextensionv4&pivots=programming-language-csharp>

upvoted 3 times

 **4cca361** 3 months ago

Given answer is false:

Blob storage, Blob storage, Azure Cosmos DB

upvoted 3 times

Question #53

You create an Azure Cosmos DB for NoSQL database.

You plan to use the Azure Cosmos DB .NET SDK v3 API for NoSQL to upload the following files:

File Name	File Size
File1	1MB
File2	2MB
File3	3MB
File4	4MB
File5	5MB

You receive the following error message when uploading the files: "413 Entity too large".

You need to determine which files you can upload to the Azure Cosmos DB for NoSQL database.

Which files can you upload?

- A. File1, File2, File3, File4, and File5
- B. File1 and File2 only
- C. File1, File2, and File3 only
- D. File1, File2, File3, and File4 only
- E. File1 only

Correct Answer: B

Community vote distribution

B (91%)

9%

 **Jedi** Highly Voted 3 months ago

Selected Answer: B

Correct - 2MB limit -<https://learn.microsoft.com/en-us/azure/cosmos-db/concepts-limits#per-item-limits>
upvoted 5 times

 **jobolesonihal** Most Recent 2 weeks ago

Selected Answer: B

2 GB it is.
Maximum size of an item = 2 MB (UTF-8 length of JSON representation)¹
¹ Large document sizes up to 16 MB are supported with Azure Cosmos DB for MongoDB only.
upvoted 2 times

 **Ushakanth** 1 month, 4 weeks ago

Selected Answer: B

Option B is correct. Each file has a maximum size of 2 MB. So File 1, File 2 Only can be uploaded.
upvoted 2 times

 **harbox** 3 weeks, 5 days ago

this correct: <https://learn.microsoft.com/en-us/answers/questions/692455/actual-document-size-limit-for-azure-cosmos-db-s-a>

While it is possible to store more than 2MB
upvoted 1 times

 **emysa341** 2 months, 3 weeks ago

Selected Answer: B

B is correct
upvoted 1 times

 **manopeydakon** 2 months, 3 weeks ago

E, because the total of files in the batch will exceed 2 MB
upvoted 1 times

✉️ **sky_may** 2 months, 3 weeks ago

Correct Answer is E: Azure Cosmos DB limits single request's size to 2MB. The formula is Request Size = Single Document Size * Write Batch Size. If you hit error saying "Request size is too large.", reduce the writeBatchSize value in copy sink configuration

<https://learn.microsoft.com/en-us/azure/data-factory/connector-azure-cosmos-db?tabs=data-factory>

upvoted 2 times

✉️ **AzDeveloper** 3 months ago

Selected Answer: E

I think the correct answer is E not B because the total size for File1 and File2 will be 3 MB

upvoted 1 times

✉️ **Woksi** 1 month, 2 weeks ago

The requirements do not specify that they MUST be uploaded in one batch

upvoted 2 times

Topic 4 - Question Set 4

Question #1

Topic 4

You are developing a Java application that uses Cassandra to store key and value data. You plan to use a new Azure Cosmos DB resource and the Cassandra API in the application. You create an Azure Active Directory (Azure AD) group named Cosmos DB Creators to enable provisioning of Azure Cosmos accounts, databases, and containers.

The Azure AD group must not be able to access the keys that are required to access the data. You need to restrict access to the Azure AD group. Which role-based access control should you use?

- A. DocumentDB Accounts Contributor
- B. Cosmos Backup Operator
- C. Cosmos DB Operator
- D. Cosmos DB Account Reader

Correct Answer: C

Azure Cosmos DB now provides a new RBAC role, Cosmos DB Operator. This new role lets you provision Azure Cosmos accounts, databases, and containers, but can't access the keys that are required to access the data. This role is intended for use in scenarios where the ability to grant access to Azure Active Directory service principals to manage deployment operations for Cosmos DB is needed, including the account, database, and containers.

Reference:

<https://azure.microsoft.com/en-us/updates/azure-cosmos-db-operator-role-for-role-based-access-control-rbac-is-now-available/>

Community vote distribution

C (100%)

✉  **mlantonis** Highly Voted 2 years, 10 months ago

Correct Answer: C

DocumentDB Account Contributor: Can manage Azure Cosmos DB accounts.

Cosmos Backup Operator: Can submit a restore request for Azure portal for a periodic backup enabled database or a container. Can modify the backup interval and retention on the Azure portal. Cannot access any data or use Data Explorer.

Cosmos DB Operator: Can provision Azure Cosmos accounts, databases, and containers. Cannot access any data or use Data Explorer.

Cosmos DB Account Reader: Can read Azure Cosmos DB account data.

CosmosRestoreOperator: Can perform restore action for Azure Cosmos DB account with continuous backup mode.

Reference:

<https://docs.microsoft.com/en-us/azure/cosmos-db/role-based-access-control>

upvoted 55 times

✉  **OPT_001122** 1 year, 7 months ago

very good and helpful explanation

upvoted 2 times

✉  **SachinV** 4 months, 3 weeks ago

looks correct, in Nov182023, scored 962

upvoted 1 times

✉  **RaviKS** Highly Voted 3 years, 3 months ago

Answer is correct

upvoted 38 times

✉  **azpardha** Most Recent 1 day, 19 hours ago

Got this on 04/07/2024, Went with highly voted answer, scored:820

upvoted 1 times

✉  **Woksi** 2 months ago

Got on 07/02/2024

upvoted 1 times

⊕ **richardc7** 6 months, 2 weeks ago

got 28/09/2023

upvoted 1 times

⊕ **richardc7** 6 months, 2 weeks ago

got on 28/09/2023

upvoted 1 times

⊕ **mihailos** 7 months, 1 week ago

Got it in exam 28/08/23. Went with proposed answer. Scored 912

upvoted 2 times

⊕ **basquiat** 8 months ago

Got this one in 2023-08-08

upvoted 3 times

⊕ **JH81** 9 months, 2 weeks ago

Selected Answer: C

Got this on 6/28/2023 and passed with 850. Went with answer.

upvoted 3 times

⊕ **aragones** 11 months ago

Got this 2023-05-12.

My case:

case: You need to configure authorization.

case: You need to ensure the app does not time out and processes the blob data

case study: VanArsdel Inc Canada

upvoted 1 times

⊕ **[Removed]** 1 year ago

Got this in exam today (5 April 2023)

upvoted 1 times

⊕ **Eward** 1 year, 2 months ago

Given answer is correct

<https://azure.microsoft.com/en-us/updates/azure-cosmos-db-operator-role-for-role-based-access-control-rbac-is-now-available/>

upvoted 1 times

⊕ **kkop** 1 year, 4 months ago

DocumentDB Account Contributor Can manage Azure Cosmos DB accounts.

Cosmos DB Account Reader Can read Azure Cosmos DB account data.

CosmosBackupOperator Can submit a restore request in the Azure portal for a periodic backup enabled database or a container. Can modify the backup interval and retention in the Azure portal. Cannot access any data or use Data Explorer.

CosmosRestoreOperator Can perform a restore action for an Azure Cosmos DB account with continuous backup mode.

Cosmos DB Operator Can provision Azure Cosmos DB accounts, databases, and containers. Cannot access any data or use Data Explorer.

So correct C

upvoted 1 times

⊕ **capable** 1 year, 4 months ago

got in exam 27/11/2022

upvoted 1 times

⊕ **OPT_001122** 1 year, 4 months ago

Selected Answer: C

C. Cosmos DB Operator

upvoted 1 times

⊕ **DP_Bhatt** 1 year, 5 months ago

Selected Answer: C

Correct

upvoted 1 times

⊕ **elequiel** 1 year, 5 months ago

Got it in exam 20/10/2022

upvoted 2 times

⊕ **OPT_001122** 1 year, 5 months ago

Thanks for mentioning date

upvoted 1 times

Question #2

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. You are developing a website that will run as an Azure Web App. Users will authenticate by using their Azure Active Directory (Azure AD) credentials.

You plan to assign users one of the following permission levels for the website: admin, normal, and reader. A user's Azure AD group membership must be used to determine the permission level.

You need to configure authorization.

Solution: Configure the Azure Web App for the website to allow only authenticated requests and require Azure AD log on.

Does the solution meet the goal?

A. Yes

B. No

Correct Answer: B

Instead in the Azure AD application's manifest, set value of the groupMembershipClaims option to All.

Reference:

<https://blogs.msdn.microsoft.com/waws/2017/03/13/azure-app-service-authentication-aad-groups/>

Community vote distribution

B (75%)

A (25%)

 **fadikh** Highly Voted 3 years, 1 month ago

Answer is correct. The proposed solution lacks the authorization part.

upvoted 33 times

 **ferut** 2 years, 10 months ago

Agree. Setting up the access on AD is one thing. The application should be set up to differentiate different roles and access.

upvoted 5 times

 **edengoforit** 2 years, 2 months ago

Answer is NO

upvoted 3 times

 **kondapaturi** Highly Voted 2 years, 9 months ago

Answer – No, Here you need to create an application in Azure AD. Then set the groupMembershipClaims claims. Then inspect the token in the application to see if the user is part of that group.

Hence - B is correct

upvoted 13 times

 **Dixavado** Most Recent 6 months, 2 weeks ago

It was on my exam today (2023-09-26) I went with the examtopics answer - score 850

upvoted 2 times

 **Tarajee** 7 months ago

On my exam 2023sept

upvoted 1 times

 **MysticalSam** 10 months ago

This question was in today's exam on 10-June-2023

upvoted 4 times

 **sarmaria** 1 year ago

Got this on 16/03/23. Chosen No. Make sure to prepare for case study. I got city and lights case study. No Kubernetes, Search, Logic Apps questions for me.

upvoted 3 times

 **Eward** 1 year, 2 months ago

Given answer is correct

<https://docs.microsoft.com/en-us/archive/blogs/waws/azure-app-service-authentication-aad-groups>

upvoted 1 times

 **capable** 1 year, 4 months ago

Got this case study in my exam 27/11/2022

upvoted 2 times

 **gmishra88** 1 year, 6 months ago

If you think about it having the groups claim is also not enough. You need to check for it. So, even if the group claims was there it could be no. Because of that reason it could have been yes, because you need to do that step as well as groups claim and also check if the claim is authorized. These kind of questions are just Microsoft way of confusion

upvoted 2 times

 **bhakk** 1 year, 9 months ago

Answer is B

upvoted 1 times

 **Eltooth** 1 year, 10 months ago

Selected Answer: B

B is correct answer

upvoted 1 times

 **pradipbobhate** 2 years, 1 month ago

Selected Answer: A

correct Answer

upvoted 1 times

 **Freidrich** 2 years, 1 month ago

Selected Answer: B

The correct answer is B: No.

upvoted 1 times

 **edengoforit** 2 years, 2 months ago

This is the correct answer:

Solution:

- ☞ Create a new Azure AD application. In the application's manifest, set value of the groupMembershipClaims option to All.
- ☞ In the website, use the value of the groups claim from the JWT for the user to determine permissions.

upvoted 5 times

 **edengoforit** 2 years, 2 months ago

Provided answer and explanation is correct.

upvoted 1 times

 **ehurfheiz** 2 years, 2 months ago

Selected Answer: B

B seems to be the correct answer

upvoted 1 times

 **tramlong888** 2 years, 3 months ago

Correct Answer is No

upvoted 1 times

Question #3

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. You are developing a website that will run as an Azure Web App. Users will authenticate by using their Azure Active Directory (Azure AD) credentials.

You plan to assign users one of the following permission levels for the website: admin, normal, and reader. A user's Azure AD group membership must be used to determine the permission level.

You need to configure authorization.

Solution:

- ☞ Create a new Azure AD application. In the application's manifest, set value of the groupMembershipClaims option to All.
- ☞ In the website, use the value of the groups claim from the JWT for the user to determine permissions.

Does the solution meet the goal?

A. Yes

B. No

Correct Answer: A

To configure Manifest to include Group Claims in Auth Token

1. Go to Azure Active Directory to configure the Manifest. Click on Azure Active Directory, and go to App registrations to find your application:
2. Click on your application (or search for it if you have a lot of apps) and edit the Manifest by clicking on it.
3. Locate the `groupMembershipClaims` setting. Set its value to either `SecurityGroup` or `All`. To help you decide which:
 - ☞ `SecurityGroup` - groups claim will contain the identifiers of all security groups of which the user is a member.
 - ☞ `All` - groups claim will contain the identifiers of all security groups and all distribution lists of which the user is a member

Now your application will include group claims in your manifest and you can use this fact in your code.

Reference:

<https://blogs.msdn.microsoft.com/waws/2017/03/13/azure-app-service-authentication-aad-groups/>

Community vote distribution

A (100%)

✉  **mlantonis**  2 years, 10 months ago

Correct Answer: Yes

Reference:

<https://docs.microsoft.com/en-us/archive/blogs/waws/azure-app-service-authentication-aad-groups>

upvoted 44 times

✉  **kondapaturi**  2 years, 9 months ago

Answer – Yes, this is the correct approach. The Application manifest has a setting for groupMembershipClaims. By setting this to all, the Azure AD groups that the user belongs to will be returned as part of the claims in the JWT token.

upvoted 9 times

✉  **Dixavado**  6 months, 2 weeks ago

Selected Answer: A

It was on my exam today (2023-09-26) I went with the examtopics answer - score 850

upvoted 1 times

✉  **Tarajee** 7 months ago

On my exam 2023sept

upvoted 1 times

✉  **NightshadeRC** 8 months, 2 weeks ago

Had this question in today's exam: 2023-07-26

upvoted 2 times

✉  **MysticalSam** 10 months ago

This question was in today's exam on 10-June-2023

upvoted 2 times

✉  **sarmaria** 1 year ago

Got this on 16/03/23. Chosen yes. Make sure to prepare for case study. I got city and lights case study. No Kubernetes, Search, Logic Apps questions for me.

upvoted 2 times

 **BrettusMaximus** 1 year, 1 month ago

B

Sure, A would technically work but not the best solution as unauthorized users can hit the website.

Best practice is to use groupMembershipClaims in the App Registration to restrict access at the App level.

upvoted 2 times

 **Eward** 1 year, 2 months ago

Given answer A is correct as per MS docs

<https://docs.microsoft.com/en-us/archive/blogs/waws/azure-app-service-authentication-aad-groups>

upvoted 2 times

 **serpevi** 1 year, 7 months ago

Got this in 09/22 , went just with this as YES, score 927.

upvoted 4 times

 **Eltooth** 1 year, 10 months ago

Selected Answer: A

A is correct answer.

upvoted 3 times

 **PieroFranco** 2 years ago

Selected Answer: A

The answer is correct. If you do not add the groupMembershipClaims to the manifest you wont see any AD group in the auth token.

upvoted 2 times

 **Freidrich** 2 years, 1 month ago

Selected Answer: A

The answer is correct.

upvoted 1 times

 **sujitwarrier11** 2 years, 9 months ago

I think the answer is no. group claims are at Azure Ad tenant level. The question mentions that the authorization should be for the app. So roles would be the better option here.

upvoted 1 times

 **ZodiaC** 2 years, 8 months ago

thats not true, look link plz: <https://docs.microsoft.com/en-us/archive/blogs/waws/azure-app-service-authentication-aad-groups>

upvoted 1 times

 **UnknowMan** 2 years, 10 months ago

Answer is correct

upvoted 1 times

 **glam** 2 years, 10 months ago

A. Yes

upvoted 1 times

 **clarionprogrammer** 2 years, 12 months ago

A. Yes

Note: Azure AD caps at 200 the number of groups that can be sent via JWT format.

<https://docs.microsoft.com/en-us/archive/blogs/waws/azure-app-service-authentication-aad-groups>

upvoted 5 times

Question #4

Topic 4

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. You are developing a website that will run as an Azure Web App. Users will authenticate by using their Azure Active Directory (Azure AD) credentials.

You plan to assign users one of the following permission levels for the website: admin, normal, and reader. A user's Azure AD group membership must be used to determine the permission level.

You need to configure authorization.

Solution:

- ☞ Create a new Azure AD application. In the application's manifest, define application roles that match the required permission levels for the application.
- ☞ Assign the appropriate Azure AD group to each role. In the website, use the value of the roles claim from the JWT for the user to determine permissions.

Does the solution meet the goal?

- A. Yes
- B. No

Correct Answer: B

To configure Manifest to include Group Claims in Auth Token

1. Go to Azure Active Directory to configure the Manifest. Click on Azure Active Directory, and go to App registrations to find your application:
2. Click on your application (or search for it if you have a lot of apps) and edit the Manifest by clicking on it.
3. Locate the `groupMembershipClaims` setting. Set its value to either `SecurityGroup` or `All`. To help you decide which:
 - ☞ `SecurityGroup` - groups claim will contain the identifiers of all security groups of which the user is a member.
 - ☞ `All` - groups claim will contain the identifiers of all security groups and all distribution lists of which the user is a member

Now your application will include group claims in your manifest and you can use this fact in your code.

Reference:

<https://blogs.msdn.microsoft.com/waws/2017/03/13/azure-app-service-authentication-aad-groups/>

Community vote distribution

A (53%) B (47%)

✉ [Removed] Highly Voted 3 years, 3 months ago

I agree that this solution should work as well. The roles get assigned by AD groups, so the requirement "A user's Azure AD group membership must be used to determine the permission level" is met.

This solution should be answered with "yes".

This scenario has 2 solutions provided as the approach using the "groupMembershipClaims" is possible as well.

That's OK as it says "Some question sets might have more than one correct solution, while others might not have a correct solution."

upvoted 59 times

✉ [Mal22002] 2 years ago

There are many solutions when you're writing the code but the question is whether provided solution works or not and it will not work. The second part of the solution failed the requirement "A user's Azure AD group membership must be used to determine the permission level." as it's saying "use the value of roles claim".

The answer is No.

upvoted 9 times

✉ [Adiu] 1 year, 1 month ago

But AD groups are used to assign correct roles to them. So the roles claim is based on user's AD groups membership.

upvoted 2 times

✉ [Adrian1405] Highly Voted 3 years, 4 months ago

This should be the correct answer: <https://docs.microsoft.com/en-us/azure/active-directory/develop/howto-add-app-roles-in-azure-ad-apps>

upvoted 18 times

✉ [ALittleBunny] 3 years, 3 months ago

You're totally right. It's just managing permissions in two different ways, `groupMembershipClaims` and assigning the appropriate Azure AD group to each role, which are both correct.

upvoted 6 times

✉  **iiiihhhh** 3 years, 3 months ago

I think that without the "groupMembershipClaims" setting you will not be able to obtain group membership information and so the proposal doesn't meet the goal.

upvoted 7 times

✉  **bugimachi** 3 years, 3 months ago

I am not too sure about this. "groupMembershipClaims" will include AAD groups' IDs in the JWT "group" array, which is one way to go. The other way would be to add a app role in the manifest (which is not necessary for the first approach!) and then add groups to this role. This will include the app roles (but not the group IDs) in the JWT's "roles" array (but not in the "groups" array!).

I liked this blog post to understand the difference: <https://joonasw.net/view/using-groups-vs-using-app-roles-in-azure-ad-apps>

upvoted 12 times

✉  **clarionprogrammer** 2 years, 12 months ago

Excellent post! A. Yes.

Final answer.

upvoted 6 times

✉  **FatSeal** 1 year, 7 months ago

A user's Azure AD group membership must be used to determine the permission level!!!!!!!!!!

upvoted 2 times

✉  **warchoon** 1 year, 1 month ago

You can use gropes for roles

<https://learn.microsoft.com/en-us/azure/active-directory/develop/howto-add-app-roles-in-azure-ad-apps#:~:text=In%20the%20Create%20app%20role%20pane%2C%20enter%20the%20settings%20for%20the%20role>.

upvoted 1 times

✉  **ahadjithoma** 3 years, 3 months ago

Requirement: A user's Azure AD group membership must be used to determine the permission level.

Does that solution meets the above requirement?

upvoted 3 times

✉  **bugimachi** 3 years, 3 months ago

I think so; you can add groups to app roles defined in manifest.

upvoted 4 times

✉  **rdemontis** 3 years ago

I think you can't instead, because AppRoles are intended for RBAC access control and not AAD group membership as required in the question. See this for more info: <https://docs.microsoft.com/en-us/azure/active-directory/develop/howto-add-app-roles-in-azure-ad-apps>

upvoted 2 times

✉  **Jass1nonly** Most Recent 1 month, 1 week ago

This seems a valid approach from the links shared in the discussions.

My answer is Yes. The given solution meets the goal.

upvoted 1 times

✉  **FeriAZ** 1 month, 3 weeks ago

Selected Answer: A

This approach is a standard practice for implementing role-based access control (RBAC) in applications that use Azure AD for authentication. It leverages Azure AD's built-in capabilities for managing users, groups, and roles, providing a scalable and manageable method for handling authorization based on group membership.

upvoted 1 times

✉  **AlbertoBT** 4 months, 3 weeks ago

Selected Answer: B

"Azure AD group membership must be used"

<https://learn.microsoft.com/en-us/entra/identity-platform/howto-add-app-roles-in-apps#app-roles-vs-groups>

App roles -> Provided in the roles claim

Groups -> Provided in groups claim.

Simple as that

upvoted 2 times

✉  **Weam** 5 months ago

I will go for (NO)

because while adding app roles, we don't have to apply any changes in the manifest file. The answer would be correct if it didn't state that we will apply changes in the manifest file. So the correct answer for this case study is to use group claims and apply change to manifest file to set group claims to (ALL) or (Security Group) or whatever option

upvoted 1 times

✉  **Dixavado** 6 months, 2 weeks ago

Selected Answer: B

It was on my exam today (2023-09-26) I went with the examtopics answer - score 850

upvoted 1 times

ayush66203 5 months, 3 weeks ago

These examtopics questions were sufficient for you to score 850? or you prepared from other sources too?
upvoted 1 times

MysticalSam 10 months ago

This question was in today's exam on 10-June-2023
upvoted 2 times

Zoriark 1 year ago

ChatGPT
A. Yes, the solution meets the goal.

The solution correctly suggests creating a new Azure AD application and defining application roles that match the required permission levels. By assigning the appropriate Azure AD groups to each role, the application can determine a user's permission level based on their group membership. The roles claim from the JWT token can then be used in the website to determine the user's permissions. This approach allows for granular access control and ensures that users are assigned the correct permission level based on their group membership.

upvoted 2 times

70PineApple 1 year, 1 month ago

Got this in exam today..20/02/23
upvoted 1 times

Jeeaak 1 year, 1 month ago

does the answer is yes
upvoted 2 times

Neckbread 3 months ago

yes answer is the does
upvoted 1 times

Eward 1 year, 2 months ago

yes is the correct answer

<https://docs.microsoft.com/en-us/azure/active-directory/develop/howto-add-app-roles-in-azure-ad-apps>

upvoted 1 times

andrvelich 1 year, 11 months ago

Selected Answer: A
should work as well
upvoted 1 times

Azprep 2 years ago

Answer should be yes
upvoted 1 times

Mal22002 2 years ago

Selected Answer: B
The answer is No, the explanation is useless though.

Requirement: A user's Azure AD group membership must be used to determine the permission level.

The solution that failed the requirement: Assign the appropriate Azure AD group to each role. In the website, use the value of the roles claim from the JWT for the user to determine permissions.

Azure AD group membership can be accessed in groups claim not in roles claim.

Reference: <https://docs.microsoft.com/en-us/azure/active-directory/develop/howto-add-app-roles-in-azure-ad-apps>
upvoted 4 times

mmdex 1 year, 1 month ago

Read carefully: "A user's Azure AD group membership must be used to determine the permission level."

You are not trying to determine user's group membership. You are trying to determine their permission level. You don't need groups claim, roles is enough.

upvoted 1 times

Freidrich 2 years, 1 month ago

Selected Answer: A

I think the correct answer is A: Yes.
upvoted 3 times

idroj 2 years, 1 month ago

Selected Answer: A

The correct answer is yes
upvoted 3 times

Elemta 2 years, 2 months ago

Yes. I agree with "melli": The roles get assigned by AD groups, so the requirement "A user's Azure AD group membership must be used to determine the permission level" is met.

This scenario has 2 solutions provided as the approach using the "groupMembershipClaims" is possible as well.

upvoted 1 times

Question #5

DRAG DROP -

You are developing an application to securely transfer data between on-premises file systems and Azure Blob storage. The application stores keys, secrets, and certificates in Azure Key Vault. The application uses the Azure Key Vault APIs.

The application must allow recovery of an accidental deletion of the key vault or key vault objects. Key vault objects must be retained for 90 days after deletion.

You need to protect the key vault and key vault objects.

Which Azure Key Vault feature should you use? To answer, drag the appropriate features to the correct actions. Each feature 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.

Select and Place:

Features	Answer Area	Action	Feature
Access policy		Enable retention period and accidental deletion.	Feature
Purge protection		Enforce retention period and accidental deletion.	Feature
Soft delete			
Shared access signature			

Correct Answer:

Features	Answer Area	Action	Feature
Access policy		Enable retention period and accidental deletion.	Soft delete
Purge protection		Enforce retention period and accidental deletion.	Purge protection
Soft delete			
Shared access signature			

Box 1: Soft delete -

When soft-delete is enabled, resources marked as deleted resources are retained for a specified period (90 days by default). The service further provides a mechanism for recovering the deleted object, essentially undoing the deletion.

Box 2: Purge protection -

Purge protection is an optional Key Vault behavior and is not enabled by default. Purge protection can only be enabled once soft-delete is enabled.

When purge protection is on, a vault or an object in the deleted state cannot be purged until the retention period has passed. Soft-deleted vaults and objects can still be recovered, ensuring that the retention policy will be followed.

Reference:

<https://docs.microsoft.com/en-us/azure/key-vault/general/soft-delete-overview>

✉  **andsol**  3 years ago

The answer is correct.

upvoted 61 times

✉  **mlantonis**  2 years, 10 months ago

Box 1: Soft delete

When soft-delete is enabled, resources marked as deleted resources are retained for a specified period (90 days by default). The service further provides a mechanism for recovering the deleted object, essentially undoing the deletion.

This can be achieved with the help of the soft-delete feature of the key vault.

Box 2: Purge protection

Purge protection is an optional Key Vault behavior and is not enabled by default. Purge protection can only be enabled once soft-delete is enabled.

When purge protection is on, a vault or an object in the deleted state cannot be purged until the retention period has passed. Soft-deleted vaults and objects can still be recovered, ensuring that the retention policy will be followed.

This can be achieved with the help of the purge protection feature of the key vault.

Reference:

<https://docs.microsoft.com/en-us/azure/key-vault/general/soft-delete-overview>

upvoted 41 times

✉  **minh1302** 1 year, 8 months ago

Thank mlantonis, learn from you a lot (AZ-104, AZ-204)

upvoted 4 times

✉ **leviatas** Most Recent 6 months, 2 weeks ago

Got this question in exam. 2023.09.25

upvoted 1 times

✉ **applepie** 8 months, 2 weeks ago

got this question today, go with the provided answer - 7/30/2023, score 895/1000

upvoted 3 times

✉ **NightshadeRC** 8 months, 2 weeks ago

Had this question in today's exam: 2023-07-26

upvoted 2 times

✉ **murat12345** 8 months, 3 weeks ago

If Box 1 is about having a retention period (meaning: you can't hard delete before the 90 days pass), what additional advantage does box 2 / purge protection give?

upvoted 1 times

✉ **basquiat** 8 months ago

The first is related to key vault secrets and the second to the keyvault itself, from what I understood.

upvoted 1 times

✉ **Juhi_Az204** 1 year ago

Got this on 26 March, 2023

upvoted 1 times

✉ **Eward** 1 year, 2 months ago

Given answers are correct

<https://learn.microsoft.com/en-us/azure/key-vault/general/soft-delete-overview>

upvoted 1 times

✉ **Lucifer14** 1 year, 3 months ago

In 28-12-2022 exam

upvoted 1 times

✉ **xRiot007** 1 year, 9 months ago

You use Soft delete to *enable* and Purge protection to *enforce*

upvoted 3 times

✉ **Eltooth** 1 year, 10 months ago

Soft delete

Purge protection

upvoted 1 times

✉ **Rini100** 1 year, 11 months ago

Got this on 20 Apr 2022

upvoted 3 times

✉ **meoukg** 2 years ago

got it on 03/2022, I chose Soft delete => Purge protection

upvoted 4 times

✉ **francis6170** 2 years, 10 months ago

got this in the exam :)

upvoted 7 times

✉ **UnknowMan** 2 years, 10 months ago

The answer is correct.

upvoted 2 times

✉ **glam** 2 years, 10 months ago

correct

upvoted 3 times

Question #6

You provide an Azure API Management managed web service to clients. The back-end web service implements HTTP Strict Transport Security (HSTS).

Every request to the backend service must include a valid HTTP authorization header.

You need to configure the Azure API Management instance with an authentication policy.

Which two policies can you use? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. Basic Authentication
- B. Digest Authentication
- C. Certificate Authentication
- D. OAuth Client Credential Grant

Correct Answer: CD

Community vote distribution

AC (63%)

AD (37%)

✉  **Nielson**  3 years, 2 months ago

A, C

<https://www.examtopics.com/exams/microsoft/az-203/view/15/>

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

upvoted 101 times

✉  **fadikh** 3 years, 1 month ago

but client certificate does not use the authorization header

upvoted 6 times

✉  **vb3d** 3 years ago

I think this means correct answer is A and D

upvoted 7 times

✉  **vb3d** 3 years ago

Client certificate does use the x-arr-clientcert header

As Kitkit pointed out below, check this link

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

upvoted 10 times

✉  **BrettusMaximus** 2 years, 11 months ago

Must be A,C As the API documentation only allows 3 options. It states: >>>

Authentication policies

Authenticate with Basic - Authenticate with a backend service using Basic authentication.

Authenticate with client certificate - Authenticate with a backend service using client certificates.

Authenticate with managed identity - Authenticate with the managed identity for the API Management service.

upvoted 21 times

✉  **BrettusMaximus** 2 years, 11 months ago

It can't be D as we need to authenticate to the backend and not from client.

upvoted 8 times

✉  **hobob**  3 years, 1 month ago

A, D

The question states that the solution MUST use the HTTP authorization header. The only two options that do are Basic Authentication (where the header would be "Authorization: Basic <auth-base64-encoded-string> or "Bearer <bearer-token-string>").

upvoted 38 times

✉  **pmsiva** 3 years ago

AD is correct. Certificate authentication will not send http auth header

<https://docs.microsoft.com/en-us/azure/api-management/api-management-authentication-policies#Basic>

upvoted 6 times

✉  **syfool** 2 years, 7 months ago

D is not the answer, as that is not even an AUTHENTICATION POLICY!!!

The link below lists 3 authentication policies:

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

upvoted 5 times

 **MiraA** 2 years, 6 months ago

It seems "OAuth Client Credential Grant" exists and could be considered as the specific type of "Authenticate with managed identity" which sends the authorization header?

<https://oauth.net/2/grant-types/client-credentials/>

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

upvoted 5 times

 **FeriAZ** Most Recent 1 month, 3 weeks ago

Selected Answer: AD

A. Basic Authentication: You can use this policy to add the Authorization header with Basic credentials.

D. OAuth Client Credential Grant: You can use this policy to acquire an OAuth token and add it to the Authorization header.

While Certificate Authentication (C) does indeed provide a method of authentication, it does not directly involve setting an HTTP Authorization header in the way Basic Authentication and OAuth Client Credential Grant do.

upvoted 1 times

 **raymond_abcd** 2 months, 2 weeks ago

It is A and C

A. Basic Authentication: the Base64 encoded username and password are in the authentication header

C. Certificate base authentication: the client certificate is in the authentication header

upvoted 1 times

 **Ser1** 3 months, 1 week ago

Selected Answer: AD

.....

upvoted 1 times

 **ENGs** 6 months, 2 weeks ago

Selected Answer: AD

OAuth Client Credentials Grant (D), when used, will use an Authorization header being sent containing a bearer token.

Basic Authentication (A) will send an Authorization header.

--

Client Certificate (C) could be passed through an HTTP header but not necessarily the Authorization header.

upvoted 2 times

 **ck_malviya** 7 months ago

Selected Answer: AD

AD. The solution must use Authorization header

Basic auth and OAUTH user Bearer token auth header.

upvoted 1 times

 **Vladimir_Gajinov** 7 months, 2 weeks ago

Selected Answer: AD

I would go with A and D.

A: allows you to require clients to include a valid username and password in the HTTP authorization header. While it's a simple method, it might not be the most secure option for modern applications, as the credentials are sent with each request in base64-encoded format.

D: OAuth Client Credential Grant is a flow where a client (in this case, your API Management instance) uses its own credentials (client ID and client secret) to obtain an access token from an OAuth authorization server. This access token can be included in the authorization header of requests to the backend service. This method is more secure than Basic Authentication and provides better control over authentication and authorization.

B: is a challenge-response mechanism that involves a server-provided nonce. It doesn't directly match the requirement for sending an HTTP authorization header with each request.

C: Certificate Authentication involves using client certificates to authenticate the client to the server. While this can be secure, it's not the same as sending an HTTP authorization header.

upvoted 1 times

 **applepie** 8 months, 2 weeks ago

got this question today, answer C,D without confidence - 7/30/2023, score 895/1000

upvoted 1 times

 **uncledana** 9 months ago

I believe it is:

A - Sets the HTTP Authorization header to a corresponding value in the policy request

D - Authenticates to the backend with a valid HTTP authorization header

<https://learn.microsoft.com/en-us/azure/api-management/authentication-managed-identity-policy>

upvoted 1 times

 **MysticalSam** 10 months ago

This question was in today's exam on 10-June-2023

upvoted 1 times

minYoongi 11 months, 3 weeks ago

AD is correct. <https://learn.microsoft.com/en-us/azure/api-management/api-management-howto-protect-backend-with-aad#configure-a-jwt-validation-policy-to-pre-authorize-requests>

The following example policy, when added to the <inbound> policy section, checks the value of the audience claim in an access token obtained from Azure AD that is presented in the Authorization header. Straight from the documentation

upvoted 2 times

Zoriark 1 year ago

ChatGPT

A. Basic Authentication and D. OAuth Client Credential Grant are the two policies that can be used.

Basic Authentication policy can be used to require an HTTP Basic authentication header with each request. This policy requires a username and password to be sent in the Authorization header with each request.

OAuth Client Credential Grant policy can be used to require an OAuth access token with each request. This policy is useful when calling a web service that requires authentication and you want to validate the identity of the client making the request.

Digest Authentication policy cannot be used as it is not supported by the Azure API Management instance.

Certificate Authentication policy can be used to require a client certificate with each request. However, this policy is not applicable in this scenario as the back-end web service does not implement certificate-based authentication.

upvoted 2 times

Ciupaz 5 months ago

Now ChatGPT gives C and D as answers.

upvoted 1 times

rcardenas72 1 year, 1 month ago

to configure the Azure API Management instance with an authentication policy to enforce the requirement that every request to the backend service includes a valid HTTP authorization header, you can use the following two policies:

A. Basic Authentication: This policy allows you to require that clients include a valid HTTP authorization header that contains a username and password. This policy can be used to authenticate users against a user store, such as Azure AD, or an external system.

C. Certificate Authentication: This policy allows you to require that clients present a valid client certificate as part of their request. This policy can be used to authenticate clients that possess a valid client certificate signed by a trusted authority.

Both of these policies can be used to enforce the requirement that every request to the backend service includes a valid HTTP authorization header. The choice between them would depend on the specific requirements and constraints of the scenario

upvoted 1 times

baroo1 1 year, 1 month ago

Selected Answer: AD

A + D;

A: as clear as <https://learn.microsoft.com/en-us/azure/api-management/authentication-basic-policy>

D: EAI can use client credentials grant type that use OAuth 2.0. Which grants an authorization header.

Source: <https://learn.microsoft.com/en-us/azure/api-management/authorizations-overview>.

upvoted 1 times

Eward 1 year, 2 months ago

A,C are the correct answers

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

upvoted 2 times

rolling_potato_ 1 year, 3 months ago

Was on my exam today (03-01-2023)

upvoted 3 times

Question #7

DRAG DROP -

You are developing an ASP.NET Core website that can be used to manage photographs which are stored in Azure Blob Storage containers.

Users of the website authenticate by using their Azure Active Directory (Azure AD) credentials.

You implement role-based access control (RBAC) role permissions on the containers that store photographs. You assign users to RBAC roles.

You need to configure the website's Azure AD Application so that user's permissions can be used with the Azure Blob containers.

How should you configure the application? To answer, drag the appropriate setting to the correct location. Each setting can 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.

Select and Place:

Settings	Answer Area	API	Permission	Type
client_id		Azure Storage	Setting	Setting
profile		Microsoft Graph	User.Read	Setting
delegated				
application				
user_impersonation				

Correct Answer:

Settings	Answer Area	API	Permission	Type
client_id		Azure Storage	user_impersonation	delegated
profile		Microsoft Graph	User.Read	delegated
delegated				
application				
user_impersonation				

Box 1: user_impersonation -

Box 2: delegated -

Example:

1. Select the API permissions section
2. Click the Add a permission button and then:
Ensure that the My APIs tab is selected
3. In the list of APIs, select the API TodoListService-aspnetcore.
4. In the Delegated permissions section, ensure that the right permissions are checked: user_impersonation.
5. Select the Add permissions button.

Box 3: delegated -

Example -

1. Select the API permissions section
2. Click the Add a permission button and then,
Ensure that the Microsoft APIs tab is selected
3. In the Commonly used Microsoft APIs section, click on Microsoft Graph
4. In the Delegated permissions section, ensure that the right permissions are checked: User.Read. Use the search box if necessary.
5. Select the Add permissions button

Reference:

<https://docs.microsoft.com/en-us/samples/azure-samples/active-directory-dotnet-webapp-webapi-openidconnect-aspnetcore/calling-a-web-api-in-an-aspnet-core-web-application-using-azure-ad/>

 **aswqe338**  3 years ago

The given answer is correct.

upvoted 46 times

- ✉ **TONyMeL** 1 year ago
correct, in 2023Mar24, score: 904/1000
upvoted 10 times
- ✉ **mlantonis** Highly Voted 2 years, 10 months ago
Box 1: user_impersonation
The built-in user_impersonation scope indicates that the token is being requested on behalf of the user. Azure Storage exposes a single delegation scope named user_impersonation that permits applications to take any action allowed by the user.
Box 2: delegated
Box 3: delegated
Reference:
<https://stackoverflow.com/questions/31404128/azure-ad-app-application-permissions-vs-delegated-permissions>
<https://docs.microsoft.com/en-us/azure/active-directory/develop/v2-permissions-and-consent>
<https://docs.microsoft.com/en-us/azure/storage/common/storage-auth-aad-app?tabs=dotnet>
<https://docs.microsoft.com/en-us/rest/api/storageservices/authorize-with-azure-active-directory>
upvoted 34 times
- ✉ **p2006** Most Recent 6 months, 3 weeks ago
<https://learn.microsoft.com/en-us/information-protection/develop/concept-api-permissions#delegated-permissions>
upvoted 1 times
- ✉ **Dianahu** 8 months, 2 weeks ago
<https://www.andrew-best.com/posts/please-sir-can-i-have-some-auth/> first image
upvoted 1 times
- ✉ **Dats1987** 11 months, 4 weeks ago
That's Correct.
upvoted 1 times
- ✉ **Priya0703** 1 year, 1 month ago
On exam today 20-02-2023
upvoted 1 times
- ✉ **Eward** 1 year, 2 months ago
Given answers are correct
<https://stackoverflow.com/questions/31404128/azure-ad-app-application-permissions-vs-delegated-permissions>
upvoted 1 times
- ✉ **serpevi** 1 year, 7 months ago
Got this in 09/22 , went with the most voted answers, score 927.
upvoted 6 times
- ✉ **Eltooth** 1 year, 9 months ago
User
Delegated
Delegated
upvoted 3 times
- ✉ **petitbilly** 2 years, 1 month ago
Got it in exam 03/22
upvoted 3 times
- ✉ **monaindia** 1 year, 9 months ago
what answer you have chosen
upvoted 1 times
- ✉ **edengoforit** 2 years, 4 months ago
Application Permissions: Your application needs to access the web API directly as itself (no user context). This type of permission requires administrator consent and is also not available for native client applications.
Delegation Permissions: Your application needs to access the web API as the signed-in user, but with access limited by the selected permission. This type of permission can be granted by a user unless the permission is configured as requiring administrator consent.
upvoted 4 times
- ✉ **lugospod** 2 years, 3 months ago
Nope, it explicitly states that user is given RBAC permissions, and that each users permissions need to be used to access storage. So Application is not an option.
upvoted 1 times
- ✉ **jungaster** 2 years, 10 months ago
the answer is correct.
upvoted 1 times

✉  **roybunt** 2 years, 10 months ago

The answer is correct. For granting registered app permissions to Azure Storage, find in reference: <https://docs.microsoft.com/en-us/azure/storage/common/storage-auth-aad-app?tabs=dotnet#grant-your-registered-app-permissions-to-azure-storage>

upvoted 4 times

✉  **glam** 2 years, 10 months ago

correct

upvoted 2 times

✉  **kwaazaar** 3 years ago

why Graph API?

upvoted 4 times

✉  **Sachini** 2 years, 1 month ago

"Permissions are granted to Microsoft Graph automatically when you first register your app with Azure AD."

upvoted 2 times

Question #8

HOTSPOT -

You are developing an ASP.NET Core app that includes feature flags which are managed by Azure App Configuration. You create an Azure App Configuration store named AppFeatureFlagStore that contains a feature flag named Export.

You need to update the app to meet the following requirements:

- ☞ Use the Export feature in the app without requiring a restart of the app.
- ☞ Validate users before users are allowed access to secure resources.
- ☞ Permit users to access secure resources.

How should you complete the code segment? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

```
public void Configure(IApplicationBuilder app, IWebHostEnvironment env)
{
    if (env.IsDevelopment())
    {
        app.UseDeveloperExceptionPage();
    }
    else
    {
        app.UseExceptionHandler("/Error");
    }

    app.(); // Options: UseAuthentication, UseStaticFiles, UseSession, UseCookiePolicy

    app.(); // Options: UseAuthorization, UseHttpsRedirection, UseSession, UseCookiePolicy

    app.(); // Options: UseAzureAppConfiguration, UseRequestLocalization, UseCors, UseStaticFiles

    app.UseEndpoint(endpoints =>
    {
        endpoints.MapRazorPages();
    });
}
```

Answer Area

```

public void Configure(IApplicationBuilder app, IWebHostEnvironment env)
{
    if (env.IsDevelopment())
    {
        app.UseDeveloperExceptionPage();
    }
    else
    {
        app.UseExceptionHandler("/Error");
    }

    app. (); // Box 1: UseAuthentication

    app. (); // Box 2: UseAuthorization

    app. (); // Box 3: UseStaticFiles

    app.UseEndpoint(endpoints =>
    {
        endpoints.MapRazorPages();
    });
}

```

Correct Answer:

app. (); // Box 1: UseAuthentication

app. (); // Box 2: UseAuthorization

app. (); // Box 3: UseStaticFiles

Box 1: UseAuthentication -

Need to validate users before users are allowed access to secure resources.

UseAuthentication adds the AuthenticationMiddleware to the specified IApplicationBuilder, which enables authentication capabilities.

Box 2: UseAuthorization -

Need to permit users to access secure resources.

UseAuthorization adds the AuthorizationMiddleware to the specified IApplicationBuilder, which enables authorization capabilities.

Box 3: UseStaticFiles -

Need to use the Export feature in the app without requiring a restart of the app.

UseStaticFiles enables static file serving for the current request path

Reference:

<https://docs.microsoft.com/en-us/dotnet/api/microsoft.aspnetcore.builder.iapplicationbuilder?view=aspnetcore-5.0>

✉  **hobob**  3 years, 1 month ago

UseAuthentication, Use Authorization, UseAzureAppConfiguration.

The last option allows dynamic configuration to be reloaded without an app restart.

<https://docs.microsoft.com/en-us/azure/azure-app-configuration/enable-dynamic-configuration-aspnet-core?tabs=core5x>

upvoted 159 times

✉  **Pooochie** 3 years ago

According to the site provided by you it should be

1. UseAzureAppConfiguration

2. UseAuthentication

3. Use Authorization

upvoted 12 times

✉  **xRiot007** 1 year, 9 months ago

It is irrelevant in this case, the boxes only have ONE correct option each and those are, box1: authentication, box2: authorization, box3: app config.

upvoted 2 times

✉ **hobob** 3 years ago

And that's what I said. Just in a different order.

upvoted 9 times

✉ **avanthasiriwardana** 3 years ago

Order matters

upvoted 11 times

✉ **Kerrits** 3 years ago

The UseAzureAppConfiguration is not available in the first list of options, only the last list of options.

Also, for configuring the app the order only matters sometimes. It doesn't in this case.

upvoted 7 times

✉ **OPT_001122** 1 year, 7 months ago

i have doubt regarding UseAuthentication

UseAuthentication - this is not in the code snippet in the above link

```
public void Configure(IApplicationBuilder app, IWebHostEnvironment env)
{
    .....
    app.UseAzureAppConfiguration();

    app.UseHttpsRedirection();

    app.UseStaticFiles();

    app.UseRouting();

    app.UseAuthorization();
}
```

upvoted 1 times

✉ **rdemontis** 3 years ago

correct, you're right!

upvoted 4 times

✉ **mlantonis** Highly Voted 2 years, 10 months ago

Box 1: UseAuthentication

Need to validate users before users are allowed access to secure resources.

UseAuthentication adds the AuthenticationMiddleware to the specified IApplicationBuilder, which enables authentication capabilities. To verify users, we need to use the Authentication middleware.

Box 2: UseAuthorization

Need to permit users to access secure resources.

UseAuthorization adds the AuthorizationMiddleware to the specified IApplicationBuilder, which enables authorization capabilities. To authorize users to access resources, we need to use the Authorization middleware.

Box 3: UseAzureAppConfiguration

Adding the UseAzureAppConfiguration middleware to allow the configuration settings registered for refresh to be updated while the ASP.NET Core web app continues to receive requests. For using feature flags, you need to make use of the Azure App Configuration service. To ensure the configuration settings are refreshed without the need to restart the web app, you can use the middleware of UseAzureAppConfiguration();

upvoted 57 times

✉ **mlantonis** 2 years, 10 months ago

Reference:

<https://docs.microsoft.com/en-us/azure/azure-app-configuration/enable-dynamic-configuration-aspnet-core?tabs=core5x>

<https://docs.microsoft.com/en-us/dotnet/api/microsoft.aspnetcore.builder.iapplicationbuilder?view=aspnetcore-5.0>

upvoted 12 times

✉ **raymond_abcd** Most Recent 2 months, 2 weeks ago

Answer is: UseAuthentication, UseAuthorization, UseAzureAppConfiguration. You need to use the feature flags for the requirement to enable the export feature. For that you have to call UseAzureAppConfiguration. See: <https://learn.microsoft.com/en-us/azure/azure-app-configuration/use-feature-flags-dotnet-core?tabs=core6x>

The UseStaticFiles should normally be called first before authentication, but it does not meet any requirement to choose this as an option.

upvoted 1 times

✉ **HimGarg** 6 months, 1 week ago

Why no one from ExamTopics bother to correct the answers?

upvoted 4 times

✉ **Ciupaz** 2 months, 2 weeks ago

This is the real mystery.

upvoted 1 times

✉ **gmishra88** 1 year, 6 months ago

And Microsoft claims this exam does not require specific knowledge of .Net SDK.

upvoted 6 times

✉ **macobuzi** 7 months, 3 weeks ago

I doubt it ever stated that

upvoted 1 times

✉ **tushar1812** 1 year, 8 months ago

Drop down 1 UseAuthentication

Drop down 2 Use Authorization

Drop down 3 UseAzureAppConfiguration.

The last option allows dynamic configuration to be reloaded without an app restart.

Refer

<https://docs.microsoft.com/en-us/azure/azure-app-configuration/enable-dynamic-configuration-aspnet-core?tabs=core5x>

upvoted 2 times

✉ **Eltooth** 1 year, 9 months ago

Authentication

Authorisation

Appconfig

upvoted 3 times

✉ **tramlong888** 2 years, 3 months ago

the correct answer should be UseAuthentication, Use Authorization, UseAzureAppConfiguration.

upvoted 3 times

✉ **doudou123** 2 years, 6 months ago

according Udemy,

1. UseAuthentication

2. Use Authorization

3. UseAzureAppConfiguration

upvoted 5 times

✉ **burakcive** 1 year, 10 months ago

Which course on udemy?

upvoted 1 times

✉ **kondapaturi** 2 years, 9 months ago

app.UseAuthentication(); - To verify users ,we need to use the Authentication middleware.

app.UseAuthorization(); -To authorize users to access resources , we need to use the Authorization middleware.

app.UseAzureAppConfiguration(); -For using feature flags, you need to make use of the Azure App Configuration service. To ensure the configuration settings are refreshed without the need to restart the web app, you can use the middleware of UseAzureAppConfiguration();

upvoted 2 times

✉ **UnknowMan** 2 years, 10 months ago

1.UseAuthentication, -> Login

2.Use Authorization, -> Authorization

3.UseAzureAppConfiguration. -> Dynamic App settings

upvoted 3 times

✉ **glam** 2 years, 10 months ago

UseAuthentication, Use Authorization, UseAzureAppConfiguration.

upvoted 3 times

✉ **pavan555manjunath** 2 years, 11 months ago

Any one please confirm the answer is correct

1.UseAuthentication,

2.Use Authorization,

3.UseAzureAppConfiguration.

upvoted 6 times

Question #9

You have an application that includes an Azure Web app and several Azure Function apps. Application secrets including connection strings and certificates are stored in Azure Key Vault.

Secrets must not be stored in the application or application runtime environment. Changes to Azure Active Directory (Azure AD) must be minimized.

You need to design the approach to loading application secrets.

What should you do?

- A. Create a single user-assigned Managed Identity with permission to access Key Vault and configure each App Service to use that Managed Identity.
- B. Create a single Azure AD Service Principal with permission to access Key Vault and use a client secret from within the App Services to access Key Vault.
- C. Create a system assigned Managed Identity in each App Service with permission to access Key Vault.
- D. Create an Azure AD Service Principal with Permissions to access Key Vault for each App Service and use a certificate from within the App Services to access Key Vault.

Correct Answer: C

Use Key Vault references for App Service and Azure Functions.

Key Vault references currently only support system-assigned managed identities. User-assigned identities cannot be used.

Reference:

<https://docs.microsoft.com/en-us/azure/app-service/app-service-key-vault-references>

Community vote distribution

A (75%)

C (25%)

✉  **AssiAbdulrahim**  3 years ago

I think the answer is A. Create a single user-assigned Managed Identity with permission to access Key Vault and configure each App Service to use that Managed Identity.

Because we have more than one App (Web App and other Function Apps) , So we agree it is going to be a managed identity but should I create one for each app or one for all apps?

If I create system MI then there should be one for each App.

If I create user MI then I can re-use it for any App I want with minimum change to AD

upvoted 113 times

✉  **Basu525** 3 years ago

Yes exactly. The question emphasizes on having multiple resources having to access Key vault. So using User Assigned MI is more pragmatic.

upvoted 4 times

✉  **SlavMar** 2 years, 9 months ago

Well from security standpoint you could assign different secrets to different parts of application (if they are using system managed identity) so if one component is compromised - not all secrets are available to hackers

upvoted 4 times

✉  **midhy** 3 years ago

User assigned cannot be used Look at the link provided.

upvoted 4 times

✉  **vb3d** 3 years ago

I think that note in the link is only for the usage of key vault references, which is a new thing in key vaults. I think a user assigned identity should still have access to the key vault.

upvoted 3 times

✉  **Zsolt72** 3 years ago

Yes, key vault reference is an App Configuration feature referencing a secret from key vault.

upvoted 1 times

✉  **Tom87** 3 years ago

That's true.

<https://kasunkodagoda.com/2019/06/09/using-user-assigned-managed-identity-to-access-azure-key-vault-from-azure-app-service/>

upvoted 1 times

✉  **vb3d** 3 years ago

I just tried this, I was able to give access to a user assigned managed identity to a key vault.

upvoted 8 times

✉  **vtomy** 2 years, 9 months ago

User assigned MI is not supported for keyvault.
System assigned MI is correct.

upvoted 6 times

✉  **PhilLI** 2 years, 3 months ago

I don't read this on that page t.b.h.
upvoted 1 times

✉  **zzt** 2 years, 8 months ago

This is not true: see: <https://kasunkodagoda.com/2019/06/09/using-user-assigned-managed-identity-to-access-azure-key-vault-from-azure-app-service/>
upvoted 6 times

✉  **ferut** 2 years, 10 months ago

<https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/overview>
The lifecycle of user-assigned managed identity is manually managed by the user and can be used (not assigned) to several services.
The lifecycle of the system-assigned managed identity is tightly coupled with the service, it's assigned to a service. When the service is deleted, the identity will also be gone.

To minimize changes to AD, user-assigned is more suitable.

upvoted 8 times

✉  **mlantonis**  2 years, 10 months ago

Correct Answer: C

Key Vault references currently only support system-assigned managed identities. User-assigned identities cannot be used.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/overview#managed-identity-types>

<https://docs.microsoft.com/en-us/azure/app-service/app-service-key-vault-references>

upvoted 39 times

✉  **zzt** 2 years, 8 months ago

Not correct: see link <https://kasunkodagoda.com/2019/06/09/using-user-assigned-managed-identity-to-access-azure-key-vault-from-azure-app-service/>

upvoted 5 times

✉  **altafpatel1984** 2 years, 4 months ago

Don't misguide people. In the same link you give, this statement exists "Some apps need to reference secrets at creation time, when a system-assigned identity would not yet be available. In these cases, a user-assigned identity can be created and given access to the vault in advance."

Your given reference: <https://docs.microsoft.com/en-us/azure/app-service/app-service-key-vault-references>

upvoted 8 times

✉  **eX900** 1 year, 5 months ago

Granting your app access to Key Vault

2.Create a managed identity for your application.

"Key Vault references will use the app's system assigned identity by default, but you can specify a user-assigned identity."

Your second reference:

<https://docs.microsoft.com/en-us/azure/app-service/app-service-key-vault-references>.

So, the answer is : A

upvoted 4 times

✉  **TakumaK** 2 years, 9 months ago

You are wrong. your second link OBVIOUSLY says

"Key Vault references will use the app's system assigned identity by default, but you can specify a user-assigned identity."

upvoted 19 times

✉  **jobolesonihal**  1 week, 6 days ago

Selected Answer: A

Key vault references use the app's system-assigned identity by default, but you can specify a user-assigned identity.

Even for KeyVault References - "Key vault references use the app's system-assigned identity by default, but you can specify a user-assigned identity."

upvoted 1 times

✉  **Zhenyuan_Zhang** 2 months ago

Selected Answer: A

I think the answer is A.

<https://learn.microsoft.com/en-us/entra/identity/managed-identities-azure-resources/overview#management-identity-types>
<https://docs.microsoft.com/en-us/20/azure/app-service/app-service-key-vault-references>

upvoted 1 times

✉  **junkz** 5 months, 3 weeks ago

there is a saying in my country: one fool throws a rock in the pond, and 10 good people do their best to pull it out. this is exactly how i feel looking at all of us trying to "guess" what "minimizing AD changes" realy means in this context...

upvoted 4 times

✉ **drkpsh** 7 months, 4 weeks ago

I think in the past, you cannot use the user-assigned identity to access to the Azure Key-Vault. But it is possible now: "Key vault references use the app's system-assigned identity by default, but you can specify a user-assigned identity."

<https://learn.microsoft.com/en-us/azure/app-service/app-service-key-vault-references?tabs=azure-cli>

So I think the answer should be A.

upvoted 2 times

✉ **Dianahu** 8 months, 2 weeks ago

if I want to add an user-assigned managed identity I need to create it so I wouldnt say that it is minimum change to AD and it is not a good pattern to have the same identity for all of them

upvoted 1 times

✉ **AzSimuz** 1 year ago

Managed identities are of the following two types:

System-assigned -- this is activated directly on the Azure cloud service. For example, you can create a managed identity for your web app that will be automatically deleted once the web app instance is deleted

User-assigned -- this is a stand-alone Azure resource that is created independent of the actual service instance. You can assign this identifier to one or more Azure resources simultaneously. As an example, you can set this identity to both an Azure Web App and an Azure Function at the same time

- <https://www.loginradius.com/blog/engineering/guest-post/using-azure-key-vault-with-an-azure-web-app-in-c-sharp/>

upvoted 2 times

✉ **maqsoodshah** 1 year ago

Correct Answer: A

System-assigned -- this is activated directly on the Azure cloud service. For example, you can create a managed identity for your web app that will be automatically deleted once the web app instance is deleted

User-assigned -- this is a stand-alone Azure resource that is created independent of the actual service instance. You can assign this identifier to one or more Azure resources simultaneously. As an example, you can set this identity to both an Azure Web App and an Azure Function at the same time

upvoted 1 times

✉ **JamieS** 1 year, 1 month ago

I would have thought it was system assigned identity, but it says we have multiple Azure Function apps, and one of the requirements is to minimise changes to AD.

Only the user identity has a one to many mapping (<https://learn.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/overview#managed-identity-types>).

upvoted 3 times

✉ **manopeydakon** 1 year, 1 month ago

Key Vault references will use the app's system assigned identity by default, but you can specify a user-assigned identity.

User-assigned managed identity Can be shared!

The same user-assigned managed identity can be associated with more than one Azure resource.

So A and C both works but less work with A in this case.

upvoted 1 times

✉ **Eward** 1 year, 2 months ago

User assigned Identity

<https://thecodeblogger.com/2020/06/13/user-assigned-managed-identity-with-azure-key-vault/>

upvoted 1 times

✉ **Eward** 1 year, 2 months ago

Also refer

<https://yourazurecoach.com/2022/02/04/use-app-service-key-vault-references-with-user-assigned-identities/>

upvoted 1 times

✉ **Eward** 1 year, 2 months ago

<https://stackoverflow.com/questions/55101525/how-can-i-give-access-to-key-vault-to-a-user-assigned-identity>

upvoted 1 times

✉ **daothanhyen** 1 year, 2 months ago

Selected Answer: C

C.

Because user assigned will take more codes and configurations for the key.

System assigned for each app service more security and noneed to have any configuration and the same code

upvoted 4 times

 **imanonion** 1 year, 3 months ago

Selected Answer: C

By creating a system-assigned Managed Identity for each App Service, you can avoid storing secrets in the application or runtime environment, as the Managed Identity provides a way for the App Service to authenticate to Key Vault without the need for hard-coded credentials. Additionally, using a separate Managed Identity for each App Service allows for fine-grained access control to the secrets stored in Key Vault, as you can assign permissions to specific identities rather than granting broad permissions to a single identity.

upvoted 1 times

 **imanonion** 1 year, 3 months ago

Option A, "Create a single user-assigned Managed Identity with permission to access Key Vault and configure each App Service to use that Managed Identity" also can be a good solution, But it can't provide fine-grained access control as all App Service using the same identity.

Option B "Create a single Azure AD Service Principal with permission to access Key Vault and use a client secret from within the App Services to access Key Vault" would not be the recommended approach, as it would involve storing the client secret in the App Services, which is a violation of the requirement to avoid storing secrets in the application or runtime environment.

Option D "Create an Azure AD Service Principal with Permissions to access Key Vault for each App Service and use a certificate from within the App Services to access Key Vault" is also a valid approach but it is more difficult to manage the certificate in each App Service and need more code to handle the certificate in the code.

upvoted 1 times

 **warchoon** 1 year, 1 month ago

User-assigned Managed Identity is an additional resource. System-assigned is not

upvoted 2 times

 **oceane0316** 1 year, 3 months ago

The correct answer is A.

Source : <https://learn.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/managed-identity-best-practice-recommendations#using-user-assigned-identities-to-reduce-administration>

Read the article but in summary "When a user-assigned identity is associated with the four virtual machines, only two role assignments are required, compared to eight with system-assigned identities. If the virtual machines' identity requires more role assignments, they'll be granted to all the resources associated with this identity."

The key here is "Changes to Azure Active Directory (Azure AD) must be minimized" and the paragraph is called "Using user-assigned identities to reduce administration".

So A is the correct answer because of the "change must be minimized". C would work but it means you have much more changes.

upvoted 3 times

 **OPT_001122** 1 year, 4 months ago

Selected Answer: A

A. Create a single user-assigned Managed Identity with permission to access Key Vault and configure each App Service to use that Managed Identity.

upvoted 2 times

 **micro9000** 1 year, 5 months ago

The answer should be A,

we have this requirements: Changes to Azure Active Directory (Azure AD) must be minimized.

If A, we only need to create single User Assigned MI, and allow that MI to access KV, then assign that MI to App Service and Function Apps

upvoted 3 times

 **hubekpeter** 1 year, 4 months ago

Ask yourself please what kind of change in AD you are doing in C vs A. C is the most correct secure and straightforward answer. You don't need to touch AD at all.

upvoted 1 times

Question #10

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. You are developing a medical records document management website. The website is used to store scanned copies of patient intake forms. If the stored intake forms are downloaded from storage by a third party, the contents of the forms must not be compromised. You need to store the intake forms according to the requirements.

Solution:

1. Create an Azure Key Vault key named skey.
2. Encrypt the intake forms using the public key portion of skey.
3. Store the encrypted data in Azure Blob storage.

Does the solution meet the goal?

A. Yes

B. No

Correct Answer: A

Community vote distribution

A (94%) 6%

 **pac1311** Highly Voted 3 years, 2 months ago

Correct!

upvoted 37 times

 **bingohah** Highly Voted 3 years, 1 month ago

The answer is right, but not good. Because we should use symmetric key to encrypt file, instead of public key. The best practise is: encrypt file by symmetric key, and the symmetric key is protected by public key.

upvoted 27 times

 **vb3d** 3 years ago

Not sure what do you mean, but check the link below.

Symmetric key means the same key is used for encryption and decryption. When you use an Asymmetric key, you encrypt with the public key and decrypt with a secret key, which is what the solution is talking about and is better.

<https://www.ssl2buy.com/wiki/symmetric-vs-asymmetric-encryption-what-are-differences#:~:text=Symmetric%20encryption%20uses%20a%20single,and%20decrypt%20messages%20when%20communicating.>

upvoted 11 times

 **aarrtturas** 2 years, 10 months ago

We should use symmetric key not asymmetric key. Asymmetric key is used for small amount's of data to encrypt. Usually asymmetric key encrypts symmetric key, and symmetric key encrypts data

upvoted 5 times

 **fearoffree** 2 years, 1 month ago

The asymmetric key is used to sign the intake so it could not be compromised!

upvoted 1 times

 **richardc7** Most Recent 6 months, 2 weeks ago

Selected Answer: A

Got 29/09/2023

upvoted 3 times

 **notedo** 6 months, 2 weeks ago

Selected Answer: A

Correct

upvoted 1 times

 **MysticalSam** 10 months ago

This question was in today's exam on 10-June-2023

upvoted 3 times

 **Saluk_DE** 1 year ago

Selected Answer: A

Question was in Exam 2023-03-30

upvoted 2 times

 **sarmaria** 1 year ago

Got this on 16/03/23. Chosen yes. Make sure to prepare for case study. I got city and lights case study. No Kubernetes, Search, Logic Apps questions for me.

upvoted 1 times

 **Bear_Polar** 1 year, 4 months ago

Selected Answer: A

AZ-900, is that you? :))

upvoted 1 times

 **OPT_001122** 1 year, 4 months ago

Selected Answer: A

A. Yes

upvoted 2 times

 **OPT_001122** 1 year, 4 months ago

Selected Answer: A

A. Yes

upvoted 2 times

 **coffecold** 1 year, 6 months ago

The anwser is B (NO)

This is a business case of digital signing.

In digital signing the sender's private key encrypts the data -- this is the digital signature -- and the receiver uses the public key to decrypt it and verify it matches the attachment.

"2. Encrypt the intake forms using the public key portion of skey."

must be

"2. Encrypt the intake forms using the private key portion of skey."

Digital signing is opposed to encryption : Encryption uses a public key to ensure the ciphertext cannot be deciphered by anyone but the authorized recipient with the private key.

upvoted 3 times

 **gmishra88** 1 year, 6 months ago

Client side encryption is a valid method to do this. Asymmetric key can be used (RSA in keyvault). If using Asymmetric key then client side encryption should be done with the public key because it can only be decrypted with a private key (which other people do not have). One will encrypt with private key only as a signature to prove she has the private key so that it can be verified with the public key. But still a difficult question in a certification exam with a time limit if you used their SDK to do the encryption and decryption.

upvoted 1 times

 **gmishra88** 1 year, 6 months ago

And, I will always use a symmetric key for client side encryption. But god knows what Microsoft want as an answer and what the question creator experienced in life.

upvoted 1 times

 **Dani_ac7** 1 year, 7 months ago

Selected Answer: A

Correct

upvoted 1 times

 **Knightie** 1 year, 7 months ago

Selected Answer: B

"If the stored intake forms are downloaded from storage by a third party,"

The third party can not access the decrypted format of the content if you encrypt with keys from your vault.... next question is the correct solution.

upvoted 1 times

 **FatSeal** 1 year, 7 months ago

"If the stored intake forms are downloaded from storage by a third party, the contents of the forms must NOT be compromised"

according to the whole sentence, the third party should not be able to decrypt it

upvoted 2 times

 **Eltooth** 1 year, 9 months ago

Selected Answer: A

A is correct answer.

upvoted 2 times

 **xRiot007** 1 year, 9 months ago

Selected Answer: A

The answer is Yes. Encrypted content will remain encrypted upon storing it and will be delivered as encrypted to anyone who requests it.

upvoted 1 times

 **Rini100** 1 year, 11 months ago

Got this on 20 Apr 2022

upvoted 2 times

Question #11

Topic 4

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. You are developing a medical records document management website. The website is used to store scanned copies of patient intake forms. If the stored intake forms are downloaded from storage by a third party, the contents of the forms must not be compromised.

You need to store the intake forms according to the requirements.

Solution:

1. Create an Azure Cosmos DB database with Storage Service Encryption enabled.
2. Store the intake forms in the Azure Cosmos DB database.

Does the solution meet the goal?

A. Yes

B. No

Correct Answer: B

Instead use an Azure Key vault and public key encryption. Store the encrypted from in Azure Storage Blob storage.

Community vote distribution

B (83%)

A (17%)

✉  **cbn** Highly Voted 3 years, 1 month ago

I think the rationale is Azure Cosmos is not the best place to store blob data, like scanned patient intake forms.

<https://stackoverflow.com/questions/49343675/how-can-i-store-images-in-azure-cosmos-db>

upvoted 30 times

✉  **pieronegri** 3 years, 1 month ago

agreed

upvoted 2 times

✉  **iamstudying** 2 years ago

Although it's not ideal, it is still a valid solution (sort of)... media files are stored in blob storage <https://docs.microsoft.com/en-us/azure/cosmos-db/database-encryption-at-rest>

The key thing to point here is that the solution requires encrypted files when downloaded, but the solution here is only encryption at rest

upvoted 10 times

✉  **gmishra88** 1 year, 6 months ago

One of those typical Microsoft questions that punishes people who know something. If you do not understand the question then you will answer No, correctly (don't store images in cosmos), but if you know encryption to the next level you think it is encrypted so it is Yes. But one more level if you think then server side encryption (at rest) is not enough if it is already downloaded.

upvoted 3 times

✉  **mlantonis** Highly Voted 2 years, 10 months ago

Correct Answer: B - No

If storage is encrypted by default but you need to encrypt the content so when downloaded, its useless to unauthorised party.

Instead use an Azure Key vault and public key encryption. Store the encrypted from in Azure Storage Blob storage.

upvoted 29 times

✉  **TMakki** 1 year, 7 months ago

Absolutely right. Data is encrypted at rest but when downloaded it is not.

upvoted 3 times

✉  **jobolesonihal** Most Recent 1 week, 6 days ago

Selected Answer: B

Azure Storage Service Encryption, also known as server-side encryption (SSE), is a form of transparent data encryption¹. This means that data is automatically encrypted when it is written to Azure Storage, and automatically decrypted when it is read¹.

upvoted 1 times

✉  **MysticalSam** 10 months ago

This question was in today's exam on 10-June-2023

upvoted 3 times

✉ **Saluk_DE** 1 year ago

Selected Answer: B

Question was in Exam 2023-03-30

upvoted 1 times

✉ **sarmaria** 1 year ago

Got this on 16/03/23. Chosen No. Make sure to prepare for case study. I got city and lights case study. No Kubernetes, Search, Logic Apps questions for me.

upvoted 2 times

✉ **hubekpeter** 1 year, 4 months ago

Selected Answer: B

For a god sake. This is an encryption at rest, where you are encrypting the underlying storage doesn't matter if it's with a azure or customer managed keys instead of encrypting each document itself on an upper layer.

upvoted 1 times

✉ **OPT_001122** 1 year, 4 months ago

Selected Answer: B

No - correct ans

upvoted 1 times

✉ **eX900** 1 year, 5 months ago

If I have any doubts about the question, I would check these users (who are the top commenters) to be sure:

- Eltooth
- mlantonis
- glam

Thank you guys. 

upvoted 4 times

✉ **Ciupaz** 3 months, 3 weeks ago

Good tip, thanks.

upvoted 1 times

✉ **TMakki** 1 year, 7 months ago

Selected Answer: B

Data is encrypted at rest but when downloaded it is not. So when downloaded by third party it is not encrypted so instead use an Azure Key vault and public key encryption

upvoted 3 times

✉ **Knightie** 1 year, 7 months ago

Selected Answer: A

It is encrypted at rest, but available (not encrypted) for third party to download the copy, so the third party can read, come on. regarding encryption on transfer, it's the job of https.. so that's the way for third party to get the scanned copy, right?

upvoted 2 times

✉ **alcideus** 1 year, 7 months ago

Then why did you put A as your answer lol

upvoted 3 times

✉ **xRiot007** 1 year, 9 months ago

The answer is No. Encrypting the storage itself only. If someone requests it, they will get plain data.

upvoted 3 times

✉ **Eltooth** 1 year, 10 months ago

Selected Answer: B

B is correct answer.

upvoted 3 times

✉ **petitbilly** 2 years, 1 month ago

Got it in exam 03/22

upvoted 2 times

✉ **altafpatel1984** 2 years, 4 months ago

I guess Cosmos DB is for semi-structured data, not for unstructured data. Here scanned copies of forms are pdf/image files which are unstructured files, hence they cannot be stored in CosmosDB. Instead should be stored in Blob Storage which also supports security for data in-transit and data at rest. And because of this B - No is correct.

upvoted 2 times

✉ **glam** 2 years, 10 months ago

B. No..

upvoted 5 times

✉ **Frakandel** 2 years, 11 months ago

Question is unclear... However, if I interpret the question as a third part trying to hack the database by directly downloading (outside of the Cosmos environment) the stored documents-, the answer is Yes. because the data is encrypted at rest/is stored encrypted...

upvoted 3 times

Question #12

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. You are developing a medical records document management website. The website is used to store scanned copies of patient intake forms. If the stored intake forms are downloaded from storage by a third party, the contents of the forms must not be compromised. You need to store the intake forms according to the requirements.

Solution: Store the intake forms as Azure Key Vault secrets.

Does the solution meet the goal?

- A. Yes
- B. No

Correct Answer: B

Instead use an Azure Key vault and public key encryption. Store the encrypted from in Azure Storage Blob storage.

Community vote distribution

B (100%)

 **clarionprogrammer** Highly Voted 2 years, 12 months ago

B. No
You'd definitely not want to store "data" in Azure Key Vault.
upvoted 27 times

 **mlantonis** Highly Voted 2 years, 10 months ago

Correct Answer: B - No

You'd definitely not want to store "data" in Azure Key Vault.

Instead use an Azure Key vault and public key encryption. Store the encrypted from in Azure Storage Blob storage.

upvoted 17 times

 **Ciupaz** Most Recent 5 months ago

"Azure Blob Storage", not "Azure Storage Blob Storage".
upvoted 1 times

 **richardc7** 6 months, 2 weeks ago

Selected Answer: B
Got 28/09/2023
No
upvoted 1 times

 **MysticalSam** 10 months ago

This question was in today's exam on 10-June-2023
upvoted 2 times

 **Saluk_DE** 1 year ago

Selected Answer: B
Question was in Exam 2023-03-30
upvoted 1 times

 **sarmaria** 1 year ago

Got this on 16/03/23. Chosen No. Make sure to prepare for case study. I got city and lights case study. No Kubernetes, Search, Logic Apps questions for me.
upvoted 2 times

 **NombreFalso** 1 year, 1 month ago

No, that's crazy.
upvoted 3 times

 **OPT_001122** 1 year, 4 months ago

Selected Answer: B
B. No -blob can not be stored in azure key vault
upvoted 1 times

 **Eltooth** 1 year, 10 months ago

Selected Answer: B

B is correct answer.

upvoted 5 times

 **Rini100** 1 year, 11 months ago

Got this on 20 Apr 2022

upvoted 3 times

 **Freidrich** 2 years, 1 month ago

Selected Answer: B

The correct answer is B: No.

upvoted 1 times

 **Kvm1** 2 years, 9 months ago

B. No

Technically possible.. but KeyValut is intended to store securely Application secrets, certificates etc. and not to store application data like the Intake forms and other documents.

upvoted 7 times

 **glam** 2 years, 10 months ago

B. No...

upvoted 3 times

 **jokergester** 3 years ago

Technically possible but the documentation insists on using the Key Vault as storage for Application data or config not user data.

upvoted 3 times

Question #13

HOTSPOT -

You plan to deploy a new application to a Linux virtual machine (VM) that is hosted in Azure.

The entire VM must be secured at rest by using industry-standard encryption technology to address organizational security and compliance requirements.

You need to configure Azure Disk Encryption for the VM.

How should you complete the Azure CLI commands? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

```
az provider register -n Microsoft.KeyVault
resourcegroup="myResourceGroup"
az group create --name $resourcegroup --location westus
keyvault_name=myvaultname$RANDOM

az [▼] create \
  

|               |
|---------------|
| vm            |
| keyvault      |
| keyvault key  |
| vm encryption |



--name $keyvault_name \
--resource-group $resourcegroup \
--location eastus \
--enabled-for-disk-encryption True

az [▼] create \
  

|               |
|---------------|
| vm            |
| keyvault      |
| keyvault key  |
| vm encryption |



--vault-name $keyvault_name \
--name Name1 \
--protection software

az [▼] create \
  

|               |
|---------------|
| vm            |
| keyvault      |
| keyvault key  |
| vm encryption |



--resource-group $resourcegroup \
--name Name2 \
--image Canonical:UbuntuServer:16.04-LTS:latest \
--admin-username azureuser \
--generate-ssh-keys \
--data-disk-sizes-gb 5

az [▼] enable \
  

|               |
|---------------|
| vm            |
| keyvault      |
| keyvault key  |
| vm encryption |



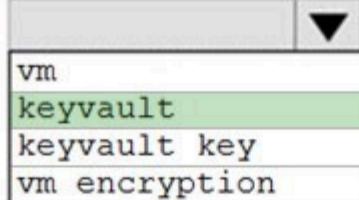
--resource-group $resourcegroup \
--name Name2 \
--disk-encryption-keyvault $keyvault_name \
--key-encryption-key Name1 \
--volume-type
  

|      |
|------|
| all  |
| data |
| os   |

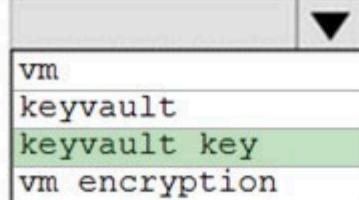

```

Answer Area

```
az provider register -n Microsoft.KeyVault
resourcegroup="myResourceGroup"
az group create --name $resourcegroup --location westus
keyvault_name=myvaultname$RANDOM
```

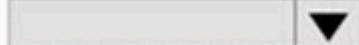
az  create \

```
--name $keyvault_name \
--resource-group $resourcegroup \
--location eastus \
--enabled-for-disk-encryption True
```

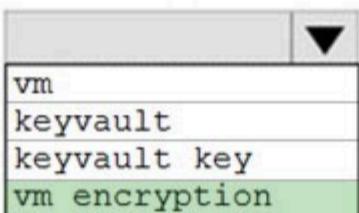
az  create \

```
--vault-name $keyvault_name \
--name Name1 \
--protection software
```

Correct Answer:

az  create \

```
--resource-group $resourcegroup \
--name Name2 \
--image Canonical:UbuntuServer:16.04-LTS:latest \
--admin-username azureuser \
--generate-ssh-keys \
--data-disk-sizes-gb 5
```

az  enable\

```
--resource-group $resourcegroup \
--name Name2 \
--disk-encryption-keyvault $keyvault_name \
--key-encryption-key Name1 \
--volume-type 
```

Box 1: keyvault -

Create an Azure Key Vault with az keyvault create and enable the Key Vault for use with disk encryption. Specify a unique Key Vault name for keyvault_name as follows: keyvault_name=myvaultname\$RANDOM az keyvault create \

```
--name $keyvault_name \
--resource-group $resourcegroup \
--location eastus \
--enabled-for-disk-encryption True
```

Box 2: keyvault key -

The Azure platform needs to be granted access to request the cryptographic keys when the VM boots to decrypt the virtual disks. Create a cryptographic key in your Key Vault with az keyvault key create. The following example creates a key named myKey: az keyvault key create \

```
--vault-name $keyvault_name \
--name myKey \
--protection software
```

Box 3: vm -

Create a VM with `az vm create`. Only certain marketplace images support disk encryption. The following example creates a VM named `myVM` using an Ubuntu

16.04 LTS image:

```
az vm create \
--resource-group $resourcegroup \
--name myVM \
--image Canonical:UbuntuServer:16.04-LTS:latest \
--admin-username azureuser \
--generate-ssh-keys \
```

Box 4: vm encryption -

Encrypt your VM with `az vm encryption enable`:

```
az vm encryption enable \
--resource-group $resourcegroup \
--name myVM \
--disk-encryption-keyvault $keyvault_name \
--key-encryption-key myKey \
--volume-type all \
```

Note: seems to an error in the question. Should have enable instead of create.

Box 5: all -

Encrypt both data and operating system.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-machines/linux/disk-encryption-cli-quickstart>

✉️  **Tom87** Highly Voted 3 years ago

The answer is correct.

Other possibilities doesn't make sense. Although it seems strange to me to create the VM when the question says that we already have one.

upvoted 59 times

✉️  **Tom87** 3 years ago

Ok, now I see that the question doesn't say that the VM is already created. Sorry for that :)

upvoted 7 times

✉️  **glam** Highly Voted 2 years, 10 months ago

correct

upvoted 7 times

✉️  **Juhi_Az204** Most Recent 1 year ago

Got this on 26March,2023

upvoted 5 times

✉️  **sarmaria** 1 year ago

Got this on 16/03/23. Went with proposed solution. Make sure to prepare for case study. I got city and lights case study. No Kubernetes, Search, Logic Apps questions for me.

upvoted 3 times

✉️  **Eward** 1 year, 2 months ago

VM

Keyvault

Keyvault key

VM Enryption

ALL

Refer: <https://learn.microsoft.com/en-us/azure/virtual-machines/linux/disk-encryption-cli-quickstart>

upvoted 3 times

✉️  **manopeydakon** 1 year, 1 month ago

Look at the whole picture son! Answer is correct

upvoted 2 times

✉️  **rolling_potato_** 1 year, 3 months ago

Was on my exam today (03-01-2023)

upvoted 6 times

✉️  **Lucifer14** 1 year, 3 months ago

In 28-12-2022 exam

upvoted 2 times

 **OPT_001122** 1 year, 4 months ago

Key vault

Key vault key

VM

VM encryption

All

upvoted 3 times

 **at_sayali** 1 year, 5 months ago

The answer is correct.

Got this in 10/2022

upvoted 2 times

 **gmishra88** 1 year, 6 months ago

The documentation here does not mention the step to create the keyvault key.

<https://learn.microsoft.com/en-us/azure/virtual-machines/linux/disk-encryption-cli-quickstart>.

But it is okay

upvoted 1 times

 **serpevi** 1 year, 7 months ago

Got this in 09/22 , went with the most voted answers, score 927.

upvoted 2 times

 **Eltooth** 1 year, 9 months ago

Answer is correct.

Keyvault

Keyvault key

VM

VM encryption

All

upvoted 4 times

 **Baskman** 2 years, 1 month ago

Got this in the exam 03/22

upvoted 5 times

 **oescm** 2 years, 2 months ago

Got this one 02/2022. Went with the given answer

upvoted 5 times

 **lugospod** 2 years, 2 months ago

Got this one 01/2022. Went with most voted (to avoid writing answers again)

upvoted 5 times

 **tramlong888** 2 years, 3 months ago

The answer is correct.

upvoted 1 times

 **debanjan10** 2 years, 6 months ago

Order: keyvault > keyvault key > vm > vm encryption

upvoted 4 times

Question #14

Topic 4

Your company is developing an Azure API hosted in Azure.

You need to implement authentication for the Azure API to access other Azure resources. You have the following requirements:

- ⇒ All API calls must be authenticated.
- ⇒ Callers to the API must not send credentials to the API.

Which authentication mechanism should you use?

- A. Basic
- B. Anonymous
- C. Managed identity
- D. Client certificate

Correct Answer: C

Azure Active Directory Managed Service Identity (MSI) gives your code an automatically managed identity for authenticating to Azure services, so that you can keep credentials out of your code.

Note: Use the authentication-managed-identity policy to authenticate with a backend service using the managed identity. This policy essentially uses the managed identity to obtain an access token from Azure Active Directory for accessing the specified resource. After successfully obtaining the token, the policy will set the value of the token in the Authorization header using the Bearer scheme.

Incorrect Answers:

A: Use the authentication-basic policy to authenticate with a backend service using Basic authentication. This policy effectively sets the HTTP Authorization header to the value corresponding to the credentials provided in the policy.

B: Anonymous is no authentication at all.

D: Your code needs credentials to authenticate to cloud services, but you want to limit the visibility of those credentials as much as possible. Ideally, they never appear on a developer's workstation or get checked-in to source control. Azure Key Vault can store credentials securely so they aren't in your code, but to retrieve them you need to authenticate to Azure Key Vault. To authenticate to Key Vault, you need a credential! A classic bootstrap problem.

Reference:

<https://azure.microsoft.com/en-us/blog/keep-credentials-out-of-code-introducing-azure-ad-managed-service-identity/>

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

Community vote distribution

C (100%)

✉  **clarionprogrammer**  3 years ago

C is correct.

upvoted 28 times

✉  **nvvuf**  2 years, 10 months ago

A and D will send credential to the API.

B is not meet the requirement.

only C can be selected

upvoted 18 times

✉  **OPT_001122**  1 year, 4 months ago

Selected Answer: C

C. Managed identity

upvoted 2 times

✉  **gmishra88** 1 year, 6 months ago

Another pointless requirement made up with some answer in mind and it is impossible to guess what the Microsoft guy had in his mind at that point in time (of course nobody reviews relevance of the questions once created). The requirement that the credentials are not sent is weird. It depends on whether a client certificate is seen as a credential. That gets in conflict with whether the API is called from a client that does not have a managed identity. For example, from postman or curl or a Single Page Application. You cannot use Managed identity in that case. So, depending on how much an unfortunate question taker knows there is 50% chance (excuse my probability knowledge) that he can make a mistake or not. Microsoft guy wins

upvoted 4 times

✉  **gmishra88** 1 year, 6 months ago

My mistake, the requirement did say one azure resource to access another azure resource. In that case Managed Identity is clearly a winner. One must really read the question properly

upvoted 4 times

✉ **Nokaido** 1 year, 7 months ago

Selected Answer: C

Tested it with a App Service running my C# code while using the Azure identity packages.

upvoted 1 times

✉ **Eltooth** 1 year, 10 months ago

Selected Answer: C

C is the correct answer.

upvoted 2 times

✉ **Eltooth** 1 year, 9 months ago

<https://docs.microsoft.com/en-us/azure/api-management/api-management-policies#authentication-policies>

upvoted 1 times

✉ **AZ204Cert** 1 year, 12 months ago

Got this on 04/05/22 (selected Managed Identity)

upvoted 7 times

✉ **petibilly** 2 years, 1 month ago

Got it in exam 03/22

upvoted 2 times

✉ **ning** 2 years, 8 months ago

Question is about from APIM to other azure resource, C is correct managed identity. Question is NOT about how end users access APIM

upvoted 6 times

✉ **francis6170** 2 years, 10 months ago

got this in the exam :)

upvoted 5 times

✉ **businesskasper** 2 years, 10 months ago

Managed identity only works for internal api calls. The requirement is "all api calls must be authenticated". Certificate would meet that requirement?

upvoted 4 times

✉ **glam** 2 years, 10 months ago

correct

upvoted 3 times

✉ **MrZoom** 3 years ago

D would work though, and it meets all the criteria (the private key of the certificate is never sent to the server during https handshake). If multiple answers are possible, I'd go for C and D, but if only one answer is possible, C is better for the reason stated in the answer explanation section.

upvoted 2 times

✉ **MrZoom** 3 years ago

Also, using certificates for authentication isn't typical use with API's hosted in Azure (which _is_ part of the question).

upvoted 2 times

✉ **Spooky7** 2 years, 10 months ago

How ClientCertificate would help Azure API to authenticate in other Azure resources? The question is not about client authentication but Azure API authentication to use other Azure resources.

upvoted 4 times

Question #15

DRAG DROP -

You are developing an application. You have an Azure user account that has access to two subscriptions.

You need to retrieve a storage account key secret from Azure Key Vault.

In which order should you arrange the PowerShell commands to develop the solution? To answer, move all commands from the list of commands to the answer area and arrange them in the correct order.

Select and Place:

Powershell commands**Answer Area**

```
$secretvalue = ConvertTo-SecureString
$storAcctkey -AsPlainText
-Force
    Set-AzKeyVaultSecret -VaultName
    $vaultName -Name $secretName
    -SecretValue $secretvalue
```

```
Get-AzStorageAccountKey -
    ResourceGroupName $resGroup -Name
    $storAcct
```

```
Set-AzContext -SubscriptionId
    $subscriptionID
```



```
Get-AzKeyVaultSecret -VaultName
    $vaultName
```

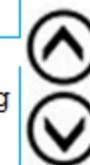
```
Get-AzSubscription
```

Correct Answer:

Powershell commands**Answer Area**

```
$secretvalue = ConvertTo-SecureString
$storAcctkey -AsPlainText
-Force
    Set-AzKeyVaultSecret -VaultName
    $vaultName -Name $secretName
    -SecretValue $secretvalue
```

```
Get-AzStorageAccountKey -
    ResourceGroupName $resGroup -Name
    $storAcct
```



```
Set-AzContext -SubscriptionId
    $subscriptionID
```

```
Get-AzSubscription
```

```
Set-AzContext -SubscriptionId
    $subscriptionID
```

```
Get-AzStorageAccountKey -
    ResourceGroupName $resGroup -Name
    $storAcct
```

```
$secretvalue = ConvertTo-SecureString
$storAcctkey -AsPlainText
-Force
    Set-AzKeyVaultSecret -VaultName
    $vaultName -Name $secretName
    -SecretValue $secretvalue
```

```
Get-AzKeyVaultSecret -VaultName
    $vaultName
```

Step 1: Get-AzSubscription -

If you have multiple subscriptions, you might have to specify the one that was used to create your key vault. Enter the following to see the subscriptions for your account:

Get-AzSubscription -

Step 2: Set-AzContext -SubscriptionId

To specify the subscription that's associated with the key vault you'll be logging, enter:

```
Set-AzContext -SubscriptionId <subscriptionID>
```

Step 3: Get-AzStorageAccountKey -

You must get that storage account key.

```
Step 4: $secretvalue = ConvertTo-SecureString <storageAccountKey> -AsPlainText -Force
```

```
Set-AzKeyVaultSecret -VaultName <vaultName> -Name <secretName> -SecretValue $secretvalue
```

After retrieving your secret (in this case, your storage account key), you must convert that key to a secure string, and then create a secret with that value in your key vault.

Step 5: Get-AzKeyVaultSecret -

Next, get the URI for the secret you created. You'll need this URI in a later step to call the key vault and retrieve your secret. Run the following PowerShell command and make note of the ID value, which is the secret's URI:

```
Get-AzKeyVaultSecret -VaultName <vaultName>
```

Reference:

<https://docs.microsoft.com/bs-latn-ba/Azure/key-vault/key-vault-key-rotation-log-monitoring>

✉  **AnonymousJhb** Highly Voted 3 years, 3 months ago

Answer looks correct

upvoted 56 times

✉  **Bear_Polar** 1 year, 4 months ago

Correct! Reference: <https://learn.microsoft.com/bs-latn-ba/azure/key-vault/secrets/tutorial-rotation-dual?tabs=azurepowershell#add-the-storage-account-access-keys-to-key-vault-secrets>

upvoted 3 times

✉  **Frakandel** Highly Voted 2 years, 11 months ago

Question does not explain where the variables come from... Assuming I set the variables myself (as a "side effect" of the command), the solution below does make sense:

1. Get-AzSubscription
 2. Set-AzContext -SubscriptionId \$subscriptionID
 3. Get-AzKeyVaultSecret -VaultName \$vaultName
 4. Get-AzStorageAccountKey -ResourceGroupName \$resGroup -Name \$storAcct
 5. \$secretvalue = ConvertTo-SecureString \$storAcctkey -AsPlainText -Force
- ```
Set-AzKeyVaultSecret -VaultName $vaultName -Name $secretName -SecretValue $secretvalue
```

upvoted 41 times

✉  **p2006** Most Recent 6 months, 3 weeks ago

<https://learn.microsoft.com/en-us/azure/key-vault/secrets/tutorial-rotation-dual?tabs=azurepowershell#add-storage-account-access-key-to-key-vault-secrets>

upvoted 4 times

✉  **suku555** 1 year, 10 months ago

Given Answer is correct only. "Get-AzKeyVaultSecret -VaultName \$vaultName" is just to make sure that we stored the key in vault (verification/double check). Placing this command anywhere else in the order does not make any sense.

upvoted 3 times

✉  **suku555** 1 year, 10 months ago

Also the main purpose of "Get-AzKeyVaultSecret -VaultName \$vaultName" at last is for the future usage..

upvoted 2 times

✉  **Azprep** 2 years ago

Given answer us correct

upvoted 2 times

✉  **MiraA** 2 years, 6 months ago

I believe the assignment wants to select a proper subscription, then to retrieve the storage account key, then to store this key into the KeyVault and finally to check the secret was inserted properly. So:

1. Get-AzSubscription (\$subscriptionID = (...).SubscriptionName)
2. Set-AzContext
3. Get-AzStorageAccountKey (\$storAcctkey = "...[0].Value")
4. ConvertTo-SecureString, Set-AzKeyVaultSecret
5. Get-AzKeyVaultSecret (list the secrets stored in the KeyVault - check only)

upvoted 29 times

✉  **NPE\_** 5 months ago

Thank you so much for the explanation!!! I was totally lost after seeing the answer.

upvoted 1 times

✉  **ning** 2 years, 8 months ago

Does the question miss some part? Why it has to save the key before retrieval? No where in the question mentioned that ... First two Get-AzSubscription

Set-AzContext -SubscriptionId \$subscriptionID

are absolutely correct, since there are two subscriptions, you have to point to the correct one ... but I am confused with 3, 4, 5 steps, what are those?

upvoted 12 times

✉ **glam** 2 years, 10 months ago

correct.

upvoted 3 times

✉ **sushikid112** 3 years, 2 months ago

Agree with some people saying the question and picture does not make sense. The question only says how to retrieve the secret from Key Vault. Based on the options, we also have to retrieve the value and insert it to Key Vault first. The question/picture lacks information based on what we have.

upvoted 9 times

✉ **Rodashar** 3 years, 3 months ago

Is this question actually on the exam? Even the url provided to explain the answer says this code is meant to cycle the storage keys stored in the vault not retrieve a key from the vault. Either the question is wrong or the answer is wrong.

upvoted 6 times

✉ **Tealon** 3 years, 3 months ago

I agree, the question does not match the options to give the answer. If the question was to store the account key to the key vault and then retrieve it from the key vault, the answer would be correct.

upvoted 5 times

✉ **iiiihhhh** 3 years, 3 months ago

There is another discussion for this question: <https://www.examtopics.com/discussions/microsoft/view/22272-exam-az-204-topic-3-question-5-discussion/>

upvoted 2 times

✉ **iiiihhhh** 3 years, 4 months ago

The question is: How to get secret from key vault, when there are two subscriptions available?

Available components(in order of boxes):

1. converting \$storageAcctkey to secure string and storing az secret with name \$secretName
2. getting storage account key from storage account (but without storing to variable \$storageAcctkey)
3. setting subscription context for use in current session (<https://docs.microsoft.com/en-us/powershell/module/az.accounts/set-azcontext?view=azps-5.1.0>)
4. list secrets in the vault
5. list subscriptions available

So for retrieving secret we (I think) need 5,3,4 and we need also SecureStringToBSTR (<https://docs.microsoft.com/cs-cz/azure/key-vault/secrets/quick-create-powershell>).

However the question seems to require using all actions available.

Is the question text really matching the picture?

upvoted 7 times

## Question #16

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. You develop Azure solutions.

You must grant a virtual machine (VM) access to specific resource groups in Azure Resource Manager.

You need to obtain an Azure Resource Manager access token.

Solution: Use an X.509 certificate to authenticate the VM with Azure Resource Manager.

Does the solution meet the goal?

A. Yes

B. No

**Correct Answer: B**

Instead run the `Invoke-RestMethod` cmdlet to make a request to the local managed identity for Azure resources endpoint.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/tutorial-windows-vm-access-arm>

*Community vote distribution*

B (100%)

 **KeerthiKP** Highly Voted 3 years, 6 months ago

No is the right answer:

Explanation :

Using the `Invoke-WebRequest` cmdlet, make a request to the local managed identity for Azure resources endpoint to get an access token for Azure Resource Manager.

link : <https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/tutorial-windows-vm-access-arm>

upvoted 31 times

 **clarionprogrammer** 2 years, 12 months ago

Using `Invoke-WebRequest` vs `Invoke-RestMethod` doesn't matter. The point is that using a certificate is wrong for Identity Management.

upvoted 13 times

 **mlantonis** Highly Voted 2 years, 10 months ago

Correct Answer: B - No

A certificate cannot be used to authenticate.

Instead run the `Invoke-RestMethod` or `Invoke-WebRequest` cmdlet to make a request to the local managed identity for Azure resources endpoint.

Reference:

<https://docs.microsoft.com/en-us/azure/role-based-access-control/overview>

<https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/tutorial-windows-vm-access-arm>

upvoted 16 times

 **Razvan\_C** Most Recent 4 months, 3 weeks ago

Is this still a valid question for the exam? I remember VMs are not in the study guide anymore.

upvoted 4 times

 **Eward** 1 year, 2 months ago

Correct Answer: B - No

Azure RBAC is an authorization system built on Azure Resource Manager that provides fine-grained access management of Azure resources. Here we need to authenticate.

Here we need to make use of managed identities for the virtual machine. Role-based access control is used for authorization and not authentication.

Instead run the `Invoke-RestMethod` or `Invoke-WebRequest` cmdlet to make a request to the local managed identity for Azure resources endpoint.

Reference:

<https://docs.microsoft.com/en-us/azure/role-based-access-control/overview>

<https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/tutorial-windows-vm-access-arm>

upvoted 3 times

✉ **OPT\_001122** 1 year, 4 months ago

**Selected Answer: B**

Correct Answer: B

upvoted 1 times

✉ **Eltooth** 1 year, 10 months ago

**Selected Answer: B**

B is the correct answer.

upvoted 1 times

✉ **glam** 2 years, 10 months ago

B. No...

upvoted 2 times

✉ **Frakandel** 2 years, 11 months ago

Yes, because a certificate can be used to authenticate... See also: <https://devblogs.microsoft.com/premier-developer/centralized-vm-certificate-deployment-across-multiple-regions-with-arm-templates/>

upvoted 1 times

✉ **TakumaK** 2 years, 10 months ago

Yes, your right. But can you explain this part in the question?

"You need to obtain an Azure Resource Manager access token"

upvoted 2 times

✉ **130nk3r5** 3 months, 3 weeks ago

Sure, I'd be happy to explain.

An Azure Resource Manager access token is a type of security token that is used to authenticate requests to the Azure Resource Manager API. This API is used to manage resources in Azure, such as virtual machines, storage accounts, and databases.

When you make a request to the Azure Resource Manager API, you need to include an access token in the Authorization header of your HTTP request. This token proves that you are who you say you are and that you have permission to perform the requested operation.

You can obtain an access token by authenticating with Azure Active Directory (Azure AD). There are several ways to do this, including using a client secret, a certificate, or a managed identity.

Once you have an access token, you can use it to authenticate requests to the Azure Resource Manager API. This allows you to manage resources in Azure programmatically, without needing to manually log in through the Azure portal.

upvoted 1 times

✉ **RahulKate** 3 years, 3 months ago

Using the Invoke-WebRequest cmdlet, make a request to the local managed identity for Azure resources endpoint to get an access token for Azure Resource Manager.

upvoted 1 times

✉ **Tealon** 3 years, 3 months ago

The given answer is correct.

upvoted 5 times

✉ **cyberbull** 3 years, 6 months ago

No , is the correct Answer

upvoted 8 times

## Question #17

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. You develop Azure solutions.

You must grant a virtual machine (VM) access to specific resource groups in Azure Resource Manager.

You need to obtain an Azure Resource Manager access token.

**Solution:** Use the Reader role-based access control (RBAC) role to authenticate the VM with Azure Resource Manager.

Does the solution meet the goal?

A. Yes

B. No

**Correct Answer: B**

Instead run the `Invoke-RestMethod` cmdlet to make a request to the local managed identity for Azure resources endpoint.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/tutorial-windows-vm-access-arm>

*Community vote distribution*

B (80%)

A (20%)

✉  **mlantonis**  2 years, 10 months ago

Correct Answer: B - No

Azure RBAC is an authorization system built on Azure Resource Manager that provides fine-grained access management of Azure resources. Here we need to authenticate.

Here we need to make use of managed identities for the virtual machine. Role-based access control is used for authorization and not authentication.

Instead run the `Invoke-RestMethod` or `Invoke-WebRequest` cmdlet to make a request to the local managed identity for Azure resources endpoint.

Reference:

<https://docs.microsoft.com/en-us/azure/role-based-access-control/overview>

<https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/tutorial-windows-vm-access-arm>

upvoted 36 times

✉  **KeerthiKP**  3 years, 6 months ago

ITs not a `Invoke-RestMethod` , it is: `Invoke-WebRequest` cmdlet

<https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/tutorial-windows-vm-access-arm>

upvoted 20 times

✉  **oversio** 3 years, 5 months ago

Yes! you all right

upvoted 2 times

✉  **Tom87** 3 years ago

Both `Invoke-RestMethod` and `Invoke-WebRequest` can be used. Their behaviour is very similar.

<https://blog.truesec.com/2020/07/29/Invoke-WebRequest-vs-Invoke-RestMethod/>

upvoted 5 times

✉  **clarionprogrammer** 2 years, 12 months ago

Agreed. The real reason it is wrong is RBAC can't be used for Identity Management.

upvoted 2 times

✉  **clarionprogrammer** 2 years, 12 months ago

It's true that the Reader role is required so the VM can read/access the Azure Resource Manager. But, it's not used to authenticate the VM with the Azure Resource Manager.

<https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/tutorial-windows-vm-access-arm>

upvoted 3 times

✉  **hubekpeter**  1 year, 4 months ago

Grant access to specific resource groups in Azure Resource Manager - resource based access control is perfectly usable, but a key here is to limit the access to a specific group, which is not possible through reader role, you need to implement ABAC policy in this case. So the answer is NO.

upvoted 1 times

 **coffecold** 1 year, 6 months ago

**Selected Answer: A**

Answer A - because this particular setup is appropriate to get the token (among others).

User-assigned managed identity with RBAC is just one way to obtain an Azure Resource Manager access token. Having done that still you have to get the access token by an Invoke-WebRequest.

step 1 : get the access token

```
$response = Invoke-WebRequest -Uri 'http://169.254.169.254/metadata/identity/oauth2/token?api-version=2018-02-01&client_id=<value of the user-assigned managed identity>&resource=https://management.azure.com/' -Method GET -Headers @{'Metadata="true"}
```

step 2 : access Azure Resource Manager with the access token

See <https://learn.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/tutorial-windows-vm-ua-arm>

upvoted 1 times

 **coffecold** 1 year, 6 months ago

although ... the Reader role-based access control (RBAC) role is not used here to get the token, it's the client ID in the invoke web-request. So to be save : answer B

upvoted 1 times

 **Eltooth** 1 year, 10 months ago

**Selected Answer: B**

B is correct answer.

upvoted 3 times

 **sawipef270** 2 years, 3 months ago

**Selected Answer: B**

correct

upvoted 1 times

 **glam** 2 years, 10 months ago

B. No...

upvoted 2 times

 **ccinetto** 3 years, 4 months ago

<https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/tutorial-windows-vm-access-arm>

Here it says that you first need to go to the Resource Group, and in the IAM tab grant access to the VM as a Reader Role

Then, when you are inside the VM, you can use the command Invoke-WebRequest cmdlet in order to get the Token

4 is Correct because it is the first step you need to do in order to get the Token

and question 5 is correct too

upvoted 4 times

 **azahran** 3 years, 2 months ago

The question is you need an access token? Q 4 is preparation step and did not retrieve an access token.

upvoted 3 times

 **bugimachi** 3 years, 3 months ago

I'm not sure. What you do in IAM / RBAC is authorizing (!) the VM to access the resource group. You do NOT use IAM / RBAC for authentication.

I mean, you are right in saying that it is needed to grant access for the VM. But strictly speaking, the question asks for authentication only.

upvoted 4 times

 **Gathix444** 3 years, 2 months ago

Yes you do. <https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/tutorial-linux-vm-access-arm>

upvoted 1 times

 **27close** 3 years, 4 months ago

Using the Invoke-WebRequest cmdlet, make a request to the local managed identity for Azure resources endpoint to get an access token for Azure Resource Manager. answer is NO

upvoted 2 times

 **blueturtle** 3 years, 5 months ago

Yup the updated version is to use Invoke-WebRequest cmdlet.

upvoted 1 times

## Question #18

## HOTSPOT -

You are building a website that is used to review restaurants. The website will use an Azure CDN to improve performance and add functionality to requests.

You build and deploy a mobile app for Apple iPhones. Whenever a user accesses the website from an iPhone, the user must be redirected to the app store.

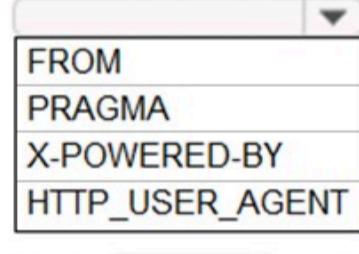
You need to implement an Azure CDN rule that ensures that iPhone users are redirected to the app store.

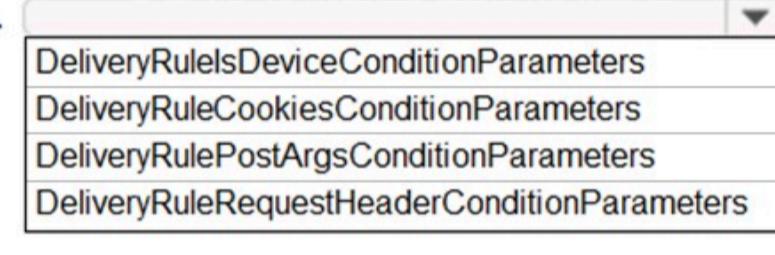
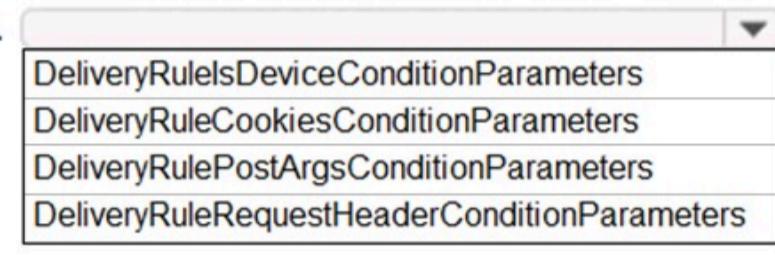
How should you complete the Azure Resource Manager template? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

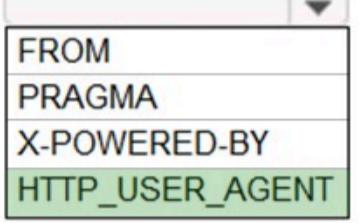
**Answer Area**

```
"conditions": [{
 "name": "IsDevice",
 "parameters": {
 "@odata.type": "#Microsoft.Azure.Cdn.Models.
 "operator": "Equal",
 "matchValues": [" "
 
 " "
 }
},
{
 "name": "RequestHeader",
 "parameters": {
 "@odata.type": "#Microsoft.Azure.Cdn.Models.
 "operator": "Contains",
 "selector": " "
 
 " "
 }
}
]
}
 "matchValues": ["
 
 " "
]
```



**Correct Answer:****Answer Area**

```

"conditions": [{
 "name": "IsDevice",
 "parameters": {
 "@odata.type": "#Microsoft.Azure.Cdn.Models.
 "operator": "Equal",
 "matchValues": [" "
 
 " "
]
 }
},
{
 "name": "RequestHeader",
 "parameters": {
 "@odata.type": "#Microsoft.Azure.Cdn.Models.
 "operator": "Contains",
 "selector": "
 
 "
 "
 }
}
]
 "matchValues": ["
 
 "
]
]

```

|                                              |
|----------------------------------------------|
| DeliveryRuleIsDeviceConditionParameters      |
| DeliveryRuleCookiesConditionParameters       |
| DeliveryRulePostArgsConditionParameters      |
| DeliveryRuleRequestHeaderConditionParameters |

|                                              |
|----------------------------------------------|
| DeliveryRuleIsDeviceConditionParameters      |
| DeliveryRuleCookiesConditionParameters       |
| DeliveryRulePostArgsConditionParameters      |
| DeliveryRuleRequestHeaderConditionParameters |

Box 1: iOS -

Azure AD Conditional Access supports the following device platforms:

- Android
- iOS
- Windows Phone
- Windows
- macOS
- 

Box 2: DeliveryRuleIsDeviceConditionParameters

The DeliveryRuleIsDeviceCondition defines the IsDevice condition for the delivery rule. parameters defines the parameters for the condition.

Box 3: HTTP\_USER\_AGENT -

Incorrect Answers:

- The Pragma HTTP/1.0 general header is an implementation-specific header that may have various effects along the request-response chain. It is used for backwards compatibility with HTTP/1.0 caches.
- "X-Powered-By" is a common non-standard HTTP response header (most headers prefixed with an 'X-' are non-standard).

Box 4: DeliveryRuleRequestHeaderConditionParameters

DeliveryRuleRequestHeaderCondition defines the RequestHeader condition for the delivery rule. parameters defines the parameters for the condition.

Box 5: iOS -

The Require approved client app requirement only supports the iOS and Android for device platform condition.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/conditional-access/concept-conditional-access-conditions><https://docs.microsoft.com/en-us/azure/active-directory/conditional-access/concept-conditional-access-grant>

✉  **Zidimirite**  3 years ago

First box: Mobile

<https://docs.microsoft.com/en-us/python/api/azure-mgmt-cdn/azure.mgmt.cdn.models.isdevicematchconditionparametersmatchvaluesitem>

Third box: iPhone. We are not looking for other Apple devices running iOS. It's the iPhone we're looking for.

upvoted 93 times

✉  **titombo** 3 years ago

You are right, also the HTTP\_USER\_AGENT can be iPhone, iPad, etc... There isn't iOS. Even because iPhone and iPad I believe both could have iOS running in it.

upvoted 3 times

✉ **atomicicebreaker** 3 years ago

I agree, question is about CDN and answer explanation is all about Azure AD...

upvoted 3 times

✉ **minaritochuck** 2 years ago

yes for example:

HTTP\_USER\_AGENT=Mozilla/5.0 (iPhone; U; CPU like Mac OS X; en)

upvoted 3 times

✉ **baroo1** 1 year, 1 month ago

First box: Mobile as per documentation provided by this user.

Yup! Confirmed.

Third box: iPhone.

HTTP\_USER\_AGENT for iPhones is like the one below. iOS does not exist.

Mozilla/5.0 (iPhone; U; CPU like Mac OS X; en) AppleWebKit/420+ (KHTML, like Gecko) Version/3.0 Mobile/1A543a Safari/419.3

upvoted 6 times

✉ **kondapaturi** Highly Voted 2 years, 9 months ago

1 DeliveryRuleDeviceConditionParameters - we are first checking for a device condition, hence we need to use the condition of DeliveryRuleDeviceConditionParameters

2.Mobile - The devices can be either Desktop or Mobile. These are the two accepted values. Here since we need to route requests based on mobile devices, we need to choose the value of Mobile.

3.DeliveryRequestHeaderConditionParameters. we need to understand the type of operating system running on the device. We can get this information from the request headers. Hence, we need to use the parameter of DeliveryRequestHeaderConditionParameters.

4.HTTP\_USER\_AGENT - we can check the HTTP\_USER\_AGENT property in the request header. In the user agent property of the request header, you will normally get information about the environment where the request is originating from. An example is given below where I am showing the request header from my own machine when I browse to a site.

5.iOS - we need to check the operating system which will be iOS.

upvoted 41 times

✉ **Knightie** 1 year, 7 months ago

Only this one is correct, the value only takes Desktop/Mobile, last one is iOS, Linux...etc

upvoted 1 times

✉ **ivan0590** 1 year, 11 months ago

I agree on the first four points, but the fifth point is incorrect.

The correct answer is iPhone.

Here you can see lots of iOS User Agent examples:

[https://developers.whatismybrowser.com/useragents/explore/operating\\_system\\_name/ios/](https://developers.whatismybrowser.com/useragents/explore/operating_system_name/ios/)

"iPhone" appears all the time and "Mac OS X" is used instead of "iOS"

Example:

Mozilla/5.0 (iPhone; CPU iPhone OS 9\_3\_1 like Mac OS X) AppleWebKit/601.1.46 (KHTML, like Gecko) Version/9.0 Mobile/13E238 Safari/601.1

upvoted 7 times

✉ **CarlosTheBoldest** Most Recent 4 months ago

I got this question on my exam, 2023Dec, go with what I remember was the most voted answer. Score 902, most of the questions were here, slightly different on wording because the Azure Ad <-> Entra Id change. Case was City Power & Light. Good luck!

Important tip, you have access to microsoft learn during the exam!

upvoted 3 times

✉ **kotireddy4120** 4 months, 2 weeks ago

3rd box is iphone

upvoted 1 times

✉ **methkill** 4 months, 1 week ago

5th - the last one

upvoted 1 times

✉ **Dixavado** 6 months, 2 weeks ago

It was on my exam today (2023-09-26) I used the examtopics answer, but the last one I choose iPhone - score 850

upvoted 1 times

✉ **Dixavado** 6 months, 2 weeks ago

It was on my exam today (2023-09-26) I used the examtopics answer - score 850

upvoted 1 times

✉ **nikipediaa** 6 months, 2 weeks ago

Question was on exam 2023-09-26

upvoted 1 times

✉ **Saluk\_DE** 1 year ago

1. DeliveryRuleDeviceConditionParameters
2. Mobile
3. DeliveryRequestHeaderConditionParameters
4. HTTP\_USER\_AGENT
5. iPhone

Question was on exam 2023-03-30

upvoted 10 times

✉ **sarmaria** 1 year ago

Got this on 16/03/23. Chosen DeviceRule, Mobile, Header, HTTP Request, iOS. Got 846. Make sure to prepare for case study. I got city and lights case study. No Kubernetes, Search, Logic Apps questions for me.

upvoted 2 times

✉ **mabdo** 1 year, 1 month ago

was on exam 02/2023

upvoted 1 times

✉ **mabdo** 1 year, 2 months ago

on exam 02/23

upvoted 1 times

✉ **kociuba** 1 year, 3 months ago

got it on my exam 30-12-2022

score: 818

upvoted 1 times

✉ **vcfvct** 1 year, 5 months ago

Got this question on 10/21/2022

upvoted 3 times

✉ **CloudixExamTopics** 1 year, 4 months ago

Answer ?

upvoted 1 times

✉ **gmishra88** 1 year, 6 months ago

Really, I should know this to be a developer? This is so specific, Microsoft

upvoted 10 times

✉ **DonH** 9 months, 4 weeks ago

I agree this is insane.. how could they ask us to remember all this specific stuff.. I mean look at this table alone:  
<https://learn.microsoft.com/en-us/dotnet/api/microsoft.azure.management.cdn.models?view=azure-dotnet>

and that's only a single question.. :(

upvoted 1 times

✉ **Eltooth** 1 year, 9 months ago

DeviceConditions

Mobile

HeaderConditions

HTTP

IOS

upvoted 4 times

✉ **tosm** 1 year, 9 months ago

reference: <https://docs.microsoft.com/en-us/azure/cdn/cdn-standard-rules-engine-match-conditions> the filter rule for device may only accept the value of mobile and desktop. So mobile/iphone is my vote.

upvoted 1 times

✉ **SivajiTheBoss** 2 years ago

Correct Answer:

DeliveryRuleIsDeviceConditionParameters

Mobile

DeliveryRuleRequestHeaderConditionParameters

HTTP\_USER\_AGENT

iPhone

upvoted 8 times

✉ **michaelfastov** 1 year, 4 months ago

Your link doesn't relate to this question as it describes Azure AD, not CDN.

<https://docs.microsoft.com/en-us/python/api/azure-mgmt-cdn/azure.mgmt.cdn.models.isdevicematchconditionparametersmatchvaluesitem?view=azure-python>

upvoted 1 times

## Question #19

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. You are developing a website that will run as an Azure Web App. Users will authenticate by using their Azure Active Directory (Azure AD) credentials.

You plan to assign users one of the following permission levels for the website: admin, normal, and reader. A user's Azure AD group membership must be used to determine the permission level.

You need to configure authorization.

Solution:

- ☞ Configure and use Integrated Windows Authentication in the website.
- ☞ In the website, query Microsoft Graph API to load the groups to which the user is a member.

Does the solution meet the goal?

A. Yes

B. No

**Correct Answer: B**

Microsoft Graph is a RESTful web API that enables you to access Microsoft Cloud service resources.

Instead in the Azure AD application's manifest, set value of the groupMembershipClaims option to All. In the website, use the value of the groups claim from the

JWT for the user to determine permissions.

Reference:

<https://blogs.microsoft.com/waws/2017/03/13/azure-app-service-authentication-aad-groups/>

*Community vote distribution*

B (78%)

A (22%)

✉  **mlantonis**  2 years, 10 months ago

Correct Answer: B - No

Reference:

<https://docs.microsoft.com/en-us/archive/blogs/waws/azure-app-service-authentication-aad-groups>

<https://github.com/AzureAD/microsoft-authentication-library-for-dotnet/wiki/Integrated-Windows-Authentication>

<https://docs.microsoft.com/en-us/graph/api/resources/azure-ad-overview?view=graph-rest-1.0>

upvoted 36 times

✉  **lugospod** 2 years, 2 months ago

I would say yes. Because if you have AD federation, then just by enabling WINDOWS authentication in your web app you gain access to Azure AD... so it is feasible

upvoted 1 times

✉  **mattvasc** 2 years, 1 month ago

Authentication isn't the same as authorization, what about the roles? The answer is No.

upvoted 3 times

✉  **Tom87**  3 years ago

I would say the solution meets the goal, according to this:

<https://github.com/AzureAD/microsoft-authentication-library-for-dotnet/wiki/Integrated-Windows-Authentication>

upvoted 10 times

✉  **coffecold** 1 year, 6 months ago

No, that is only for desktop or mobile application that runs on Windows. This is a web app in Azure.

upvoted 4 times

✉  **warchoon** 1 year, 1 month ago

The browser is such an application

upvoted 1 times

✉  **MysticalSam**  10 months ago

This question was in today's exam on 10-June-2023

upvoted 5 times

 **hubekpeter** 1 year, 4 months ago

**Selected Answer: A**

It's perfectly doable. Voting for A.

upvoted 1 times

 **OPT\_001122** 1 year, 4 months ago

**Selected Answer: B**

Correct Answer: B. No

upvoted 1 times

 **Eltooth** 1 year, 9 months ago

**Selected Answer: B**

B is the correct answer.

No.

upvoted 2 times

 **vavra** 1 year, 10 months ago

I think it's B, because of this:

<https://github.com/AzureAD/microsoft-authentication-library-for-dotnet/wiki/Integrated-Windows-Authentication>

Federated users only, i.e. those created in an Active Directory and backed by Azure Active Directory. Users created directly in AAD, without AD backing - managed users - cannot use this auth flow. This limitation does not affect the Username/Password flow.

upvoted 2 times

 **minaritochuck** 1 year, 11 months ago

Integrated Windows authentication is for "Intranet Application" (Although AD manages it) so don't use it on website

upvoted 2 times

 **minaritochuck** 2 years ago

It makes sense for app to use Integrated Windows Authentication (Implicit grant) for authentication and authorized by Microsoft Graph to access AD resources.

<https://docs.microsoft.com/en-us/graph/api/resources/directoryrole?view=graph-rest-1.0>

upvoted 1 times

 **EwanoE** 2 years, 1 month ago

**Selected Answer: B**

Question says "website that will run as an Azure Web App" and there's no Integrated Windows Authentication in Azure Web App (aka App Service)

upvoted 2 times

 **Freidrich** 2 years, 1 month ago

**Selected Answer: B**

The correct answer is B: No.

upvoted 1 times

 **mattdober** 2 years, 2 months ago

**Selected Answer: B**

I think its B

upvoted 1 times

 **ScubaDiver123456** 2 years, 2 months ago

**Selected Answer: A**

The answer is YES, assuming the application is hosted on a domain-joined VM. This document shows you how to set it up  
<https://github.com/AzureAD/microsoft-authentication-library-for-dotnet/wiki/Integrated-Windows-Authentication>

upvoted 1 times

 **ScubaDiver123456** 2 years, 2 months ago

Sorry. It does say it is an Azure Web App which can only run on Azure App Service. You can't join the underlying VMs to Active Directory. Therefore, I'm changing my vote to NO

upvoted 9 times

 **ning** 2 years, 8 months ago

No, windows integrated authentication is NOT azure AD, you need app registration to get Azure AD

upvoted 7 times

 **kondapaturi** 2 years, 9 months ago

Answer – No, Here you need to create an application in Azure AD. Then set the groupMembershipClaims claims. Then inspect the token in the application to see if the user is part of that group.

upvoted 5 times

 **Idkhow** 2 years, 9 months ago

seriously what's the real answer??  
in my opinion i think it's a yesn't

Configure and use Integrated Windows Authentication in the website.  
(what does it have to do with the Integrated Windows Authentication)

In the website, query Microsoft Graph API to load the group to which the user is a member.  
(like what the explanation said that it works)

upvoted 1 times

 **glam** 2 years, 10 months ago

A. Yes

upvoted 1 times

## Question #20

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. You develop Azure solutions.

You must grant a virtual machine (VM) access to specific resource groups in Azure Resource Manager.

You need to obtain an Azure Resource Manager access token.

Solution: Run the `Invoke-RestMethod` cmdlet to make a request to the local managed identity for Azure resources endpoint.

Does the solution meet the goal?

A. Yes

B. No

**Correct Answer: A**

Get an access token using the VM's system-assigned managed identity and use it to call Azure Resource Manager

You will need to use PowerShell in this portion.

1. In the portal, navigate to Virtual Machines and go to your Windows virtual machine and in the Overview, click Connect.
2. Enter in your Username and Password for which you added when you created the Windows VM.
3. Now that you have created a Remote Desktop Connection with the virtual machine, open PowerShell in the remote session.
4. Using the `Invoke-WebRequest` cmdlet, make a request to the local managed identity for Azure resources endpoint to get an access token for Azure Resource Manager.

Example:

```
$response = Invoke-WebRequest -Uri 'http://169.254.169.254/metadata/identity/oauth2/token?api-version=2018-02-01&resource=https://management.azure.com/' -Method GET -Headers @{Metadata="true"}
```

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/tutorial-windows-vm-access-arm>

*Community vote distribution*

|         |     |
|---------|-----|
| A (90%) | 10% |
|---------|-----|

✉  **mlantonis**  2 years, 10 months ago

Correct Answer: Yes

Using the `Invoke-WebRequest` cmdlet, make a request to the local managed identity for Azure resources endpoint to get an access token for Azure Resource Manager.

I believe we can use `Invoke-RestMethod` too.

<https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/tutorial-windows-vm-access-arm>

upvoted 32 times

✉  **princesskay**  3 years, 7 months ago

This does make sense since a web-request can be a rest call!

In the link below, it explains how web-request supports HTML content while Rest-Method supports JSON and XML content. The link provided for the solution is correct as well.

<https://superuser.com/questions/1235349/what-is-the-difference-between-invoke-webrequest-and-invoke-restmethod>

upvoted 25 times

✉  **carlosghosn**  1 year, 4 months ago

Got this in the exam today ! Nov 25, 2022

upvoted 2 times

✉  **OPT\_001122** 1 year, 4 months ago

**Selected Answer: A**

Answer: Yes

upvoted 1 times

✉  **Mousavi** 1 year, 6 months ago

**Selected Answer: A**

Absolutely the correct answer is A

upvoted 2 times

✉  **Perplex** 1 year, 8 months ago

**Selected Answer: A**

Answer A - The 2 most upvoted comments say this is correct and they are right.  
upvoted 3 times

 **Azprep** 2 years ago

Answer is Yes  
upvoted 2 times

 **SivajiTheBoss** 2 years, 1 month ago

**Selected Answer: B**

Need to use Invoke-WebRequest cmdlet not Invoke-RestMethod

Correct Answer: B

Get an access token using the VM's system-assigned managed identity and use it to call Azure Resource Manager

You will need to use PowerShell in this portion.

1. In the portal, navigate to Virtual Machines and go to your Windows virtual machine and in the Overview, click Connect.
2. Enter in your Username and Password for which you added when you created the Windows VM.
3. Now that you have created a Remote Desktop Connection with the virtual machine, open PowerShell in the remote session.
4. Using the Invoke-WebRequest cmdlet, make a request to the local managed identity for Azure resources endpoint to get an access token for Azure Resource

Manager.

Example:

```
$response = Invoke-WebRequest -Uri 'http://169.254.169.254/metadata/identity/oauth2/token?api-version=2018-02-01&resource=https://management.azure.com/' -Method GET -Headers @{Metadata="true"}
```

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/tutorial-windows-vm-access-arm>

upvoted 1 times

 **mabusalma** 2 years, 2 months ago

**Selected Answer: A**

The answer is Yes correct

Invoke-WebRequest or Invoke-RestMethod will do the same job but the response in RestMethod will be much simpler.

upvoted 3 times

 **LauraGF** 2 years, 7 months ago

The answer is no

Invoke-RestMethod: Grant your VM access to a secret stored in a Key Vault

<https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/tutorial-windows-vm-access-nonaad>

Invoke-WebRequest: Grant your VM access to a Resource Group in Azure Resource Manager

<https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/tutorial-windows-vm-access-arm>

upvoted 3 times

 **kondapaturi** 2 years, 9 months ago

Answer is YES, you can make use of the PowerShell commands to make a request to managed identity service of the virtual machine. The Invoke-RestMethod is a generic call that is available in PowerShell for making a call to a web service.

upvoted 4 times

 **Spooky7** 2 years, 10 months ago

In order to grant VM access to ARM you need to:

- assign VM user/system managed identity
- configure permission to ARM for that identity
- and then you can access token by Invoke-WebRequest cmdlet and use to to authenticate in ARM.

There is nothing in the question which indicates that those 2 previous steps are already done, so I would say it is not a correct answer.

upvoted 4 times

 **glam** 2 years, 11 months ago

A. Yes

upvoted 2 times

 **clarionprogrammer** 2 years, 12 months ago

A. Yes

Invoke-RestMethod is merely a rapper commandlet around Invoke-WebRequest.

upvoted 2 times

 **ferut** 2 years, 10 months ago

roflol... do you mean wrapper?

upvoted 2 times

 **businesskasper** 2 years, 10 months ago

I'm pretty sure its a rapper cmdlet

upvoted 1 times

 **Santileo** 3 years ago

I code in powershell regularly and Invoke-RestMethod is the correct one to fetch these tokens.

upvoted 4 times

 **kwaazaar** 3 years ago

Where does it say the code is running on the VM itself?

upvoted 1 times

 **Gathix444** 3 years, 2 months ago

Question 4 is "yes", Question 5 is "No". This is because the question ask you how to "grant a VM access to specific resource groups in Azure Resource Manager". Question 5 is only "yes" if you assigned the VM with role-base access control first. So Question 4 is more correct then Question 5

upvoted 2 times

 **brainwave15** 3 years, 2 months ago

last line literally says "You need to obtain an Azure Resource Manager access token."  
the only way to obtain is to use the invoke method...

upvoted 5 times

## Question #21

## HOTSPOT -

You are building a website to access project data related to teams within your organization. The website does not allow anonymous access. Authentication is performed using an Azure Active Directory (Azure AD) app named internal.

The website has the following authentication requirements:

- ⇒ Azure AD users must be able to login to the website.
- ⇒ Personalization of the website must be based on membership in Active Directory groups.

You need to configure the application's manifest to meet the authentication requirements.

How should you configure the manifest? To answer, select the appropriate configuration in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

```
{
 ...
 "appId": "d61126e3-089b-4adb-b721-d5023213df7d",
 "displayName": "internal",

"optionalClaims" : "All",
 "groupMembershipClaims"

"allowPublicClient"
 "oauth2Permissions"
 "requiredResourceAccess"
 "oauth2AllowImplicitFlow"

 ...
}
```

**Answer Area**

Correct Answer:

```
{
 ...
 "appId": "d61126e3-089b-4adb-b721-d5023213df7d",
 "displayName": "internal",

"optionalClaims" : "All",
 "groupMembershipClaims"

"allowPublicClient"
 "oauth2Permissions" : true
 "requiredResourceAccess"
 "oauth2AllowImplicitFlow"

 ...
}
```

Box 1: groupMembershipClaims -

Scenario: Personalization of the website must be based on membership in Active Directory groups.

Group claims can also be configured in the Optional Claims section of the Application Manifest.

Enable group membership claims by changing the groupMembershipClaim

The valid values are:

- "All"
- "SecurityGroup"
- "DistributionList"
- "DirectoryRole"

Box 2: oauth2Permissions -

Scenario: Azure AD users must be able to login to the website. oauth2Permissions specifies the collection of OAuth 2.0 permission scopes that the web API (resource) app exposes to client apps. These permission scopes may be granted to client apps during consent.

Incorrect Answers:

oauth2AllowImplicitFlow. oauth2AllowImplicitFlow specifies whether this web app can request OAuth2.0 implicit flow access tokens. The

default is false. This flag is used for browser-based apps, like Javascript single-page apps.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/hybrid/how-to-connect-fed-group-claims>

✉  **AakashNeedsEmAll** Highly Voted 3 years, 5 months ago

Second answer is incorrect. Well, oauth2Permissions can only accept collections value like an array not a boolean. It should be oauth2AllowImplicitFlow.

upvoted 171 times

✉  **Juanlu** 3 years, 2 months ago

I Agree with you:

- 1) groupMembershipClaims
- 2) oauth2AllowImplicitFlow

upvoted 19 times

✉  **cbn** 3 years, 1 month ago

Agree.

oauth2permissions:

<https://docs.microsoft.com/en-us/azure/active-directory/develop/reference-app-manifest#oauth2permissions-attribute>

oauth2allowimplicitflow:

<https://docs.microsoft.com/en-us/azure/active-directory/develop/reference-app-manifest#oauth2allowimplicitflow-attribute>

upvoted 13 times

✉  **Asteriz** 2 years, 2 months ago

Agreed

upvoted 1 times

✉  **Esward** 1 year, 2 months ago

Agreed

upvoted 1 times

✉  **cloud\_exam1** 3 years, 4 months ago

I think so. oauth2Permissions is a list. Should be oauth2AllowImplicitFlow.

<https://docs.microsoft.com/en-us/azure/active-directory/develop/reference-app-manifest>

upvoted 11 times

✉  **iiiihhhh** 3 years, 4 months ago

The problem is that oauth2AllowImplicitFlow is for browser-based apps(SPA), what is not mentioned in the question.

upvoted 1 times

✉  **Tealon** 3 years, 3 months ago

OAuth2 can also be used in this scenario. It does not matter if you use the normal grant or implicit flow.

upvoted 4 times

✉  **AfroYeti** 3 years, 2 months ago

It is "You are building a WEBSITE to access project data related to teams within your organization."

I would imagine that, that website would run in a browser

upvoted 9 times

✉  **mlantonis** Highly Voted 2 years, 10 months ago

Box 1: groupMembershipClaims

Personalization of the website must be based on membership in Active Directory groups.

Group claims can also be configured in the Optional Claims section of the Application Manifest. Enable group membership claims by changing the groupMembershipClaim

The valid values are:

- "All"
- "SecurityGroup"
- "DistributionList"
- "DirectoryRole"

Here we need to mention that we want to get the groups for the users. Hence we need to mention to set the groupMembershipClaims property to All.

Box 2: oauth2AllowImplicitFlow

Azure AD users must be able to login to the website.

auth2Permissions can only accept collections value like an array, not a boolean. oauth2AllowImplicitFlow accepts boolean value.

Here from the list of options given, if we want the application to fetch the required tokens , we would need to allow Implicit Flow.

upvoted 42 times

✉  **mlantonis** 2 years, 10 months ago

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/develop/reference-app-manifest#groupmembershipclaims-attribute>

<https://docs.microsoft.com/en-us/azure/active-directory/develop/reference-app-manifest#oauth2permissions-attribute>  
<https://docs.microsoft.com/en-us/azure/active-directory/develop/reference-app-manifest#oauth2allowimplicitflow-attribute>  
<https://docs.microsoft.com/en-us/azure/active-directory/hybrid/how-to-connect-fed-group-claims>  
<https://docs.microsoft.com/en-us/azure/active-directory/develop/v2-oauth2-implicit-grant-flow>  
 upvoted 8 times

✉ **kotireddy4120** Most Recent 4 months, 2 weeks ago

I Agree with :  
 1) groupMembershipClaims  
 2) oauth2AllowImplicitFlow  
 upvoted 3 times

✉ **Karunan** 4 months, 3 weeks ago

If its implicitflow, why answer not yet changed?  
 upvoted 2 times

✉ **richardc7** 6 months, 2 weeks ago

Got this question on 28/09/2023  
 upvoted 1 times

✉ **BaoNguyen2411** 8 months, 2 weeks ago

got this question on 06-29-2023  
 upvoted 3 times

✉ **MysticalSam** 10 months ago

This question was in today's exam on 10-June-2023  
 upvoted 4 times

✉ **adilkhan** 1 year ago

ChatGPT  
 1) groupMembershipClaims  
 2) oauth2AllowImplicitFlow  
 {  
 "signInAudience": "AzureADMyOrg",  
 "groupMembershipClaims": "SecurityGroup",  
 "appId": "<app ID>",  
 "appRoles": [],  
 "availableToOtherTenants": false,  
 "displayName": "<app name>",  
 "oauth2AllowImplicitFlow": false,  
 "optionalClaims": {  
 "idToken": [],  
 "accessToken": []  
 },  
 "publisherDomain": "<your domain>",  
 "requiredResourceAccess": []  
 }  
 upvoted 2 times

✉ **carlosghosn** 1 year, 4 months ago

Got this in the exam today ! Nov 25, 2022  
 upvoted 1 times

✉ **DusanS** 1 year, 6 months ago

It must be oauth2AllowImplicitFlow because it is boll type in contrast to collection type. Look carefully picture.  
 upvoted 1 times

✉ **Eltooth** 1 year, 9 months ago

1) groupMembershipClaims  
 2) oauth2AllowImplicitFlow  
 upvoted 4 times

✉ **Evo\_Morales** 2 years ago

Check Point - how many folks knew the correct answer before reading/researching?  
 upvoted 1 times

✉ **ReniRechner** 2 years, 1 month ago

According to  
<https://docs.microsoft.com/en-us/azure/active-directory/develop/reference-app-manifest>

optionalClaims => "All" might not be allowed  
 groupMembershipClaims => "None", ... "All"

allowPublicClient => boolean  
 oauth2Permissions => collection

requiredResourceAccess => collection  
oauth2AllowImplicitFlow => boolean

So first has to be "groupMembershipClaims" (can also be inferred from the requirements).

"allowPublicClient" seems to be meant for special cases not required here, there is only "oauth2AllowImplicitFlow" which makes sense for a website.

upvoted 3 times

✉ **oescm** 2 years, 2 months ago

Got this one 02/2022. Went with:

- 1) groupMembershipClaims
- 2) oauth2AllowImplicitFlow

upvoted 3 times

✉ **MasterQuestMaster** 2 years, 2 months ago

Got this on the exam!

upvoted 3 times

✉ **lugospod** 2 years, 2 months ago

Got this one 01/2022. Went with most voted (to avoid writing answers again)

upvoted 5 times

✉ **maharaju** 1 year, 12 months ago

How come after writing exams you guys are visiting each questions and commenting ..SO much time

upvoted 8 times

✉ **paulomjeet** 2 years, 8 months ago

2nd Answer should be oauth2AllowIdTokenImplicitFlow as it is a Boolean field. On the otherhand oauth2Permissions is an array of permission objects.

upvoted 3 times

## Question #22

You develop an app that allows users to upload photos and videos to Azure storage. The app uses a storage REST API call to upload the media to a blob storage account named Account1. You have blob storage containers named Container1 and Container2.

Uploading of videos occurs on an irregular basis.

You need to copy specific blobs from Container1 to Container2 when a new video is uploaded.

What should you do?

- A. Copy blobs to Container2 by using the Put Blob operation of the Blob Service REST API
- B. Create an Event Grid topic that uses the Start-AzureStorageBlobCopy cmdlet
- C. Use AzCopy with the Snapshot switch to copy blobs to Container2
- D. Download the blob to a virtual machine and then upload the blob to Container2

**Correct Answer: B**

The Start-AzureStorageBlobCopy cmdlet starts to copy a blob.

Example 1: Copy a named blob -

```
C:\PS>Start-AzureStorageBlobCopy -SrcBlob "ContosoPlanning2015" -DestContainer "ContosoArchives" -SrcContainer "ContosoUploads"
```

This command starts the copy operation of the blob named ContosoPlanning2015 from the container named ContosoUploads to the container named ContosoArchives.

Reference:

<https://docs.microsoft.com/en-us/powershell/module/azure.storage/start-azurestorageblobcopy?view=azurermps-6.13.0>

*Community vote distribution*

B (100%)

✉ **AnonymousJhb** Highly Voted 3 years, 4 months ago

B looks correct.

Common Blob storage event scenarios include image or video processing, search indexing, or any file-oriented workflow. Asynchronous file uploads are a great fit for events. When changes are infrequent, but your scenario requires immediate responsiveness, event-based architecture can be especially efficient.

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

upvoted 34 times

✉ **Eward** 1 year, 2 months ago

I agree with you! B is correct answer

upvoted 1 times

✉ **mlantonis** Highly Voted 2 years, 10 months ago

Correct Answer: B

The Start-AzureStorageBlobCopy cmdlet starts to copy a blob.

Reference:

<https://docs.microsoft.com/en-us/powershell/module/azure.storage/start-azurestorageblobcopy?view=azurermps-6.13.0>

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

upvoted 15 times

✉ **[Removed]** Most Recent 1 year ago

Got this in exam today (5 April 2023)

upvoted 4 times

✉ **Saluk\_DE** 1 year ago

Selected Answer: B

Question was on exam 2023-03-30

upvoted 1 times

✉ **NombreFalso** 1 year, 1 month ago

Selected Answer: B

Only B is automated, since this happens on an irregular basis it needs to be automated

upvoted 3 times

✉ **OPT\_001122** 1 year, 4 months ago

**Selected Answer: B**

B. Create an Event Grid topic that uses the Start-AzureStorageBlobCopy cmdlet  
upvoted 1 times

 **coffecold** 1 year, 6 months ago

**Selected Answer: B**

I think the handler then should be a powershell function ?  
upvoted 2 times

 **gmishra88** 1 year, 6 months ago

I do get it is the correct answer but the option looked very weird when I first read it: "B. Create an Event Grid topic that uses the Start-AzureStorageBlobCopy cmdlet". Probably Microsoft guy wanted that effect. I would have said event-grid topic with an Start-AzureStorageBlobCopy event handler. Microsoft wins again.  
upvoted 5 times

 **Eltooth** 1 year, 9 months ago

**Selected Answer: B**

B is the correct answer.  
upvoted 3 times

 **arindam1989** 1 year, 11 months ago

**Selected Answer: B**

The automation of the process comes into play. Answer should be (B)  
upvoted 1 times

 **AZ204Cert** 1 year, 12 months ago

Got this on 04/05/22 (selected B)  
upvoted 2 times

 **Mev4953** 2 years, 2 months ago

**Selected Answer: B**

Correct Answer B  
upvoted 2 times

 **ehurfheiz** 2 years, 2 months ago

**Selected Answer: B**

B looks correct  
upvoted 1 times

 **hems4all** 2 years, 10 months ago

The Start-AzureStorageBlobCopy cmdlet starts to copy a blob

<https://docs.microsoft.com/en-us/powershell/module/azure.storage/start-azurestorageblobcopy?view=azurermps-6.13.0>

The Put Blob operation creates a new block, page, or append blob, or updates the content of an existing block blob. So in the given options, only Start-AzureStorageBlobCopy cmdlet copies the blob

upvoted 3 times

 **glam** 2 years, 11 months ago

B. Create an Event Grid topic that uses the Start-AzureStorageBlobCopy cmdlet  
upvoted 4 times

 **faizalzain** 2 years, 11 months ago

the answer is C in udemy  
upvoted 3 times

 **AOE** 2 years, 7 months ago

You dont have snapshots in the question so C is definitely wrong.  
upvoted 3 times

 **sien** 2 years, 12 months ago

I personally think it should be answer A -> The Put Block operation creates a new block to be committed as part of a blob. -> <https://docs.microsoft.com/en-us/rest/api/storageservices/put-block>

Main reasoning is that answer B with the powershell doesn't make sense  
upvoted 2 times

 **clarionprogrammer** 2 years, 12 months ago

Put Blob is incorrect. It only "[c]reates a new blob or replaces an existing blob within a container."  
<https://docs.microsoft.com/en-us/rest/api/storageservices/blob-service-rest-api>

upvoted 1 times

✉ **clarionprogrammer** 2 years, 12 months ago

It doesn't seem to imply that it can be used for copying between containers.

upvoted 1 times

✉ **sien** 2 years, 11 months ago

a copy between containers is nothing more than taking a blob from container A and then "Create" a blob in container B, isn't it?

upvoted 2 times

## Question #23

## Topic 4

You are developing an ASP.NET Core website that uses Azure FrontDoor. The website is used to build custom weather data sets for researchers. Data sets are downloaded by users as Comma Separated Value (CSV) files. The data is refreshed every 10 hours. Specific files must be purged from the FrontDoor cache based upon Response Header values. You need to purge individual assets from the Front Door cache. Which type of cache purge should you use?

- A. single path
- B. wildcard
- C. root domain

**Correct Answer: A**

These formats are supported in the lists of paths to purge:

⇒ Single path purge: Purge individual assets by specifying the full path of the asset (without the protocol and domain), with the file extension, for example, /

[1]

⇒ Wildcard purge: Asterisk (\*) may be used as a wildcard. Purge all folders, subfolders, and files under an endpoint with /\* in the path or purge all subfolders and files under a specific folder by specifying the folder followed by /\*, for example, /pictures/\*.

⇒ Root domain purge: Purge the root of the endpoint with "/" in the path.

Reference:

<https://docs.microsoft.com/en-us/azure/frontdoor/front-door-caching>

*Community vote distribution*

A (100%)

✉  **mlantonis**  2 years, 10 months ago

Correct Answer: A

These formats are supported in the lists of paths to purge:

- Single path purge: Purge individual assets by specifying the full path of the asset (without the protocol and domain), with the file extension, for example, /pictures/strasbourg.png;
- Wildcard purge: Asterisk (\*) may be used as a wildcard. Purge all folders, subfolders, and files under an endpoint with /\* in the path or purge all subfolders and files under a specific folder by specifying the folder followed by /\*, for example, /pictures/\*.
- Root domain purge: Purge the root of the endpoint with "/" in the path.

Here since we just need to purge individual assets, we can just make use of the Single path purge as the format for purging assets.

Reference:

<https://docs.microsoft.com/en-us/azure/frontdoor/front-door-caching>

upvoted 31 times

✉  **Tealon**  3 years, 3 months ago

The given answer is correct.

upvoted 26 times

✉  **Eward**  1 year, 2 months ago

Given answer is correct!

<https://learn.microsoft.com/en-us/azure/frontdoor/standard-premium/how-to-cache-purge>

upvoted 1 times

✉  **Lucifer14** 1 year, 3 months ago

In 28-12-2022 exam

upvoted 3 times

✉  **capable** 1 year, 4 months ago

GOT THIS QUE IN EXAM 27/11/2022

upvoted 2 times

✉  **TheExamMaster2020** 1 year, 4 months ago

Did my exam on 15th November 2022. This question was on it.

upvoted 1 times

 **Eltooth** 1 year, 9 months ago

**Selected Answer: A**

A is correct answer.

Specific file = Single path

upvoted 4 times

 **[Removed]** 1 year, 11 months ago

**Selected Answer: A**

Got this on 04/29/2022. Correct Answer: A

upvoted 3 times

 **AZ204Cert** 1 year, 12 months ago

Got this on 04/05/22 (selected Single path)

upvoted 2 times

 **petibilly** 2 years, 1 month ago

Got it in exam 03/22

upvoted 2 times

 **Manivannan19** 2 years, 1 month ago

Is Azure FrontDoor part of this exam?

upvoted 3 times

 **coffecold** 1 year, 6 months ago

CDN is , Azure FrontDoor includes CDN. CDN has the caching thing.

upvoted 1 times

 **Freidrich** 2 years, 1 month ago

**Selected Answer: A**

The proposed answer is correct A: Single path.

upvoted 1 times

 **ehurfheiz** 2 years, 2 months ago

**Selected Answer: A**

A is the correct answer

upvoted 2 times

 **kondapaturi** 2 years, 9 months ago

Single Path is correct , we just need to purge individual assets , we can just make use of the Single path purge as the format for purging assets.

upvoted 1 times

 **UnknowMan** 2 years, 10 months ago

The given answer is correct.

upvoted 1 times

 **glam** 2 years, 11 months ago

correct

upvoted 3 times

 **azahran** 3 years, 2 months ago

individual assets so answer is correct

upvoted 3 times

## Question #24

Your company is developing an Azure API.

You need to implement authentication for the Azure API. You have the following requirements:

All API calls must be secure.

- Callers to the API must not send credentials to the API.

Which authentication mechanism should you use?

- A. Basic
- B. Anonymous
- C. Managed identity
- D. Client certificate

**Correct Answer: C**

Use the authentication-managed-identity policy to authenticate with a backend service using the managed identity of the API Management service. This policy essentially uses the managed identity to obtain an access token from Azure Active Directory for accessing the specified resource. After successfully obtaining the token, the policy will set the value of the token in the Authorization header using the Bearer scheme.

Reference:

<https://docs.microsoft.com/bs-cyrl-ba/azure/api-management/api-management-authentication-policies>

*Community vote distribution*

C (73%)

D (27%)

✉  **MasDen**  3 years, 5 months ago

If a caller outside Azure doesn't look like we can use Managed Identity in such a situation. I think the client certificate is better.

upvoted 34 times

✉  **dluk** 3 years, 4 months ago

Seems it's legit because question says "All API calls must be secure"

upvoted 2 times

✉  **IsildursHeir** 3 years, 3 months ago

They do say "Azure API" so I am guessing they mean its an Azure provided API, not one wrapped around by Azure API management so MI would work..

upvoted 3 times

✉  **jay158** 2 years, 9 months ago

Outsides user's can authenticate using Facebook /Google Identity providers.

Managed Identity is a good answer.

upvoted 5 times

✉  **ning** 2 years, 7 months ago

Those are NOT managed identity, those are claim based authentication.

upvoted 6 times

✉  **Knightie** 1 year, 7 months ago

there is another similar question, using the cert, you will need to pass the cert or else store the cert in the key vault that you will still need to pass a value to retrieve the secret from key vault, so you will anyway pass a value to get it done. Managed ID doesn't need to pass a value like this.

upvoted 1 times

✉  **coffecold** 1 year, 6 months ago

it says : You need to implement authentication for the Azure API.

So the Azure API is the one that needs to have an authenticated access to the backend services. That means Managed Identity.

upvoted 6 times

✉  **luppittegui**  3 years, 3 months ago

Ans is correct: managed identities eliminate the need for developers having to manage credentials by providing an identity for the Azure resource in Azure AD and using it to obtain Azure Active Directory (Azure AD) tokens.

<https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/overview>

upvoted 30 times

✉  **Vady98** 2 years, 6 months ago

If a caller outside Azure doesn't look like we can use Managed Identity.

I think the client certificate is better.

upvoted 2 times

 **sarmaria** Most Recent 1 year ago

Got this on 16/03/23. Went with proposed solution. Make sure to prepare for case study. I got city and lights case study. No Kubernetes, Search, Logic Apps questions for me.

upvoted 3 times

 **YLM007** 10 months, 2 weeks ago

have u gone through all the questions from exam topics?

upvoted 2 times

 **NombreFalso** 1 year, 1 month ago

**Selected Answer: C**

C because it doesn't send credentials + API that's gonna call it is on Azure so Managed Identity is viable.

upvoted 2 times

 **Eward** 1 year, 2 months ago

Given answer is correct as per MS docs

<https://learn.microsoft.com/en-us/azure/api-management/authentication-managed-identity-policy>

upvoted 1 times

 **gmishra88** 1 year, 6 months ago

It can never be managed identity unless the client is an azure resource that supports managed identity. The question does not say that. So, it has to be client-certificate. But then this is Microsoft exam and cannot expect a lot of logic from the question creators.

upvoted 2 times

 **bamosk** 1 year, 9 months ago

**Selected Answer: C**

C is correct. A lot of people choose D (Client Certificate), but that is also sent to the server using the header X-ARR-ClientCert so that is not correct.

See here: <https://docs.microsoft.com/en-us/azure/app-service/app-service-web-configure-tls-mutual-auth#access-client-certificate>

upvoted 2 times

 **Eltooth** 1 year, 9 months ago

C appears best answer based on question text, however if question is missing key words (API Management) then D would be best answer.

Remember the exam question will not be ambiguous nor prove to someone's photo memory of rewriting it here.

upvoted 3 times

 **tosm** 1 year, 9 months ago

my read was: my company develop an Azure API, and need to authenticate the API to other (Azure) services. If this is the case. using managed ID is correct.

upvoted 3 times

 **suku555** 1 year, 10 months ago

key words - developing an Azure API (obviously customization and there is no Azure service named 'Azure API') & Secure API calls --> These leads to the answer 'Client Certificate'.. Also in the Q there is no requirement of managing/rotating credential so surprising why many people vote for 'Managed Identity'..

upvoted 1 times

 **Azprep** 2 years ago

Managed identity

upvoted 1 times

 **iamstudying** 2 years ago

**Selected Answer: D**

Agree with MasDen

upvoted 1 times

 **petibilly** 2 years, 1 month ago

Got it in exam 03/22

upvoted 1 times

 **DonOnur** 2 years, 1 month ago

**Selected Answer: C**

Since there is no requirement for users outside of Azure, I would choose C.

upvoted 4 times

 **DonOnur** 2 years, 1 month ago

Couldn't find the requirement that it has to be available to users outside azure.

upvoted 4 times

 **ytingyeu** 2 years, 1 month ago

There is no service called "Azure API". Thus, I assume it refers to "App Service > API Apps".  
<https://azure.microsoft.com/en-us/services/app-service/api>

In the page of "Secure app > Use managed identities", it's all about App itself accesses other resources, not about client calling API.  
<https://docs.microsoft.com/en-us/azure/app-service/overview-managed-identity>

And the page "AuthN and AuthZ in Azure App Service ", it says "App Service uses federated identity", not managed identities.  
<https://docs.microsoft.com/en-us/azure/app-service/overview-authentication-authorization>

So I suppose the only thing we can do is client certificate  
<https://docs.microsoft.com/en-us/azure/app-service/app-service-web-configure-tls-mutual-auth>  
upvoted 2 times

 **ytingyeu** 2 years, 1 month ago  
Plus, in page "Configure your App Service app to use AAD login" which is a part of federated identity, I don't see managed identities either.  
<https://docs.microsoft.com/en-us/azure/app-service/configure-authentication-provider-aad>  
<https://docs.microsoft.com/en-us/azure/app-service/configure-authentication-provider-aad>  
upvoted 1 times

 **ytingyeu** 2 years, 1 month ago  
imo managed identities is for resource-to-resource not for client-to-resource  
upvoted 3 times

 **ScubaDiver123456** 2 years, 2 months ago

**Selected Answer: D**

Client Certificate as explained here:  
<https://docs.microsoft.com/en-us/learn/modules/explore-api-management/7-secure-access-api-certificates>  
upvoted 2 times

## Question #25

You are a developer for a SaaS company that offers many web services.

All web services for the company must meet the following requirements:

- ☞ Use API Management to access the services
- ☞ Use OpenID Connect for authentication
- ☞ Prevent anonymous usage

A recent security audit found that several web services can be called without any authentication.

Which API Management policy should you implement?

- A. jsonp
- B. authentication-certificate
- C. check-header
- D. validate-jwt

**Correct Answer: D**

Add the validate-jwt policy to validate the OAuth token for every incoming request.

Incorrect Answers:

A: The jsonp policy adds JSON with padding (JSONP) support to an operation or an API to allow cross-domain calls from JavaScript browser-based clients.

JSONP is a method used in JavaScript programs to request data from a server in a different domain. JSONP bypasses the limitation enforced by most web browsers where access to web pages must be in the same domain.

JSONP - Adds JSON with padding (JSONP) support to an operation or an API to allow cross-domain calls from JavaScript browser-based clients.

Reference:

<https://docs.microsoft.com/en-us/azure/api-management/api-management-howto-protect-backend-with-aad>

*Community vote distribution*

D (100%)

 **Cornholioz** Highly Voted 3 years, 4 months ago

Correct. It's validate-jwt for Open ID, API, secure authentication.

upvoted 46 times

 **mlantonis** Highly Voted 2 years, 10 months ago

Correct Answer: D

Add the validate-jwt policy to validate the OAuth token for every incoming request.

Reference:

<https://docs.microsoft.com/en-us/azure/api-management/api-management-howto-protect-backend-with-aad>

upvoted 17 times

 **applepie** Most Recent 8 months, 2 weeks ago

got this question today, answer D - validate-jwt - 7/30/2023, score 895/1000

upvoted 3 times

 **Videira** 1 year, 1 month ago

On my exam 2023-02-25

upvoted 2 times

 **sam5678** 1 year, 6 months ago

correct

upvoted 1 times

 **serpevi** 1 year, 7 months ago

Got this in 09/22 , went with the most voted answer, score 927.

upvoted 3 times

 **Eltooth** 1 year, 9 months ago

Selected Answer: D

D is correct answer.

upvoted 3 times

 **JotaEleEfe** 2 years ago

**Selected Answer: D**

I think validate-jwt is the correct option.

upvoted 2 times

 **iamstudying** 2 years ago

**Selected Answer: D**

validate-jwt, buddies

upvoted 1 times

 **Freidrich** 2 years, 1 month ago

**Selected Answer: D**

The proposed answer is correct D: validate-jwt.

upvoted 1 times

 **mabusalma** 2 years, 2 months ago

Can someone let me understand why a check-header isn't a valid answer?

<https://docs.microsoft.com/en-us/azure/api-management/api-management-access-restriction-policies#CheckHTTPHeader>

Use the check-header policy to enforce that a request has a specified HTTP header. You can optionally check to see if the header has a specific value or check for a range of allowed values. If the check fails, the policy terminates request processing and returns the HTTP status code and error message specified by the policy.

upvoted 1 times

 **coffecold** 1 year, 6 months ago

JWT is a token issued by an identity provider, sent in the request, and that can be verified by the receiving site. A HTTP header is not issued by an identity provider.

upvoted 4 times

 **mcbc** 2 years, 7 months ago

correct

upvoted 2 times

 **Peter304403** 2 years, 10 months ago

The answer might be correct, but in the explanation of the incorrect answers it sounds very confusing to read jsonp described 3-times in a similar way? Since I don't know and I couldn't find anything: Could someone please explain the other two answers, what it is or where to find sothing about that?

upvoted 4 times

 **UnknowMan** 2 years, 10 months ago

correct

upvoted 1 times

 **glam** 2 years, 11 months ago

correct

upvoted 2 times

 **demius\_8** 2 years, 11 months ago

Answer is correct. Source: <https://docs.microsoft.com/en-us/azure/api-management/api-management-howto-protect-backend-with-aad>

upvoted 3 times

 **pac1311** 3 years, 2 months ago

Correctomundo!

upvoted 4 times

## Question #26

DRAG DROP -

Contoso, Ltd. provides an API to customers by using Azure API Management (APIM). The API authorizes users with a JWT token.

You must implement response caching for the APIM gateway. The caching mechanism must detect the user ID of the client that accesses data for a given location and cache the response for that user ID.

You need to add the following policies to the policies file:

- ☞ a set-variable policy to store the detected user identity
- ☞ a cache-lookup-value policy
- ☞ a cache-store-value policy
- ☞ a find-and-replace policy to update the response body with the user profile information

To which policy section should you add the policies? To answer, drag the appropriate sections to the correct policies. Each section 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.

Select and Place:

## Answer Area

| Policy section | Policy             | Policy section |
|----------------|--------------------|----------------|
|                | Set-variable       |                |
| Inbound        | Cache-lookup-value |                |
| Outbound       | Cache-store-value  |                |
|                | Find-and-replace   |                |

## Answer Area

| Policy section | Policy             | Policy section |
|----------------|--------------------|----------------|
|                | Set-variable       | Inbound        |
| Inbound        | Cache-lookup-value | Inbound        |
| Outbound       | Cache-store-value  | Outbound       |
|                | Find-and-replace   | Outbound       |

Box 1: Inbound.

A set-variable policy to store the detected user identity.

Example:

```
<policies>
<inbound>
<!-- How you determine user identity is application dependent -->
<set-variable
 name="enduserid"
 value="@({context.Request.Headers.GetValueOrDefault("Authorization","").Split(' ')[1].AsJwt()?.Subject})" />
```

Box 2: Inbound -

A cache-lookup-value policy -

Example:

```

<inbound>
<base />
<cache-lookup vary-by-developer="true | false" vary-by-developer-groups="true | false" downstream-caching-type="none | private | public" must-revalidate="true | false">
<vary-by-query-parameter>parameter name</vary-by-query-parameter> <!-- optional, can be repeated several times -->
</cache-lookup>
</inbound>

```

Box 3: Outbound -

A cache-store-value policy.

Example:

```

<outbound>
<base />
<cache-store duration="3600" />
</outbound>

```

Box 4: Outbound -

A find-and-replace policy to update the response body with the user profile information.

Example:

```

<outbound>
<!-- Update response body with user profile-->
<find-and-replace
from="$userprofile$"
to="@((string)context.Variables["userprofile"])" />
<base />
</outbound>

```

Reference:

<https://docs.microsoft.com/en-us/azure/api-management/api-management-caching-policies> <https://docs.microsoft.com/en-us/azure/api-management/api-management-sample-cache-by-key>

✉  **Ave**  3 years, 5 months ago

Inbound  
Inbound  
Inbound  
Outbound  
upvoted 174 times

✉  **Azprep** 2 years, 3 months ago

<https://docs.microsoft.com/en-us/azure/api-management/api-management-sample-cache-by-key>  
upvoted 4 times

✉  **Azprep** 2 years ago

Answers are  
Inbound  
Inbound  
Inbound  
Outbound  
upvoted 3 times

✉  **SachinV** 4 months, 3 weeks ago

looks correct, in Nov182023, scored 962  
upvoted 6 times

✉  **Ciupaz** 3 months, 3 weeks ago

Best score ever, compliments.  
upvoted 4 times

✉  **RaviKS** 3 years, 3 months ago

Yes, correct  
upvoted 3 times

✉  **Ganesh1983** 1 year, 11 months ago

cache-store-value can be used in Outbound as well. For example:  
<https://grapespace.net/bin/view/Cloud/Azure1/Integration/API%20Management/Policies/Caching%20policy%20>

So the answer is

Inbound  
Inbound  
Outbound  
Outbound  
upvoted 1 times

✉ **taupokk** Highly Voted 3 years, 5 months ago

The answer provided is correct.

upvoted 37 times

✉ **robertob** 3 years, 5 months ago

yes is correct: <policies>  
<inbound>  
<base />  
<cache-lookup vary-by-developer="false" vary-by-developer-groups="false" downstream-caching-type="none" must-revalidate="true" caching-type="internal" >  
<vary-by-query-parameter>version</vary-by-query-parameter>  
</cache-lookup>  
</inbound>  
<outbound>  
<cache-store duration="seconds" />  
<base />  
</outbound>  
</policies>

upvoted 8 times

✉ **cbn** 3 years, 1 month ago

This is not cache-store-value. However the answer seems correct as per @profesorklaus answer below.

upvoted 4 times

✉ **FeriAZ** Most Recent 2 months, 3 weeks ago

Set-Variable Policy

Purpose: To store the detected user identity, which is likely extracted from the JWT token.

Placement: Inbound. You need to extract and store the user ID as the request comes in, before any caching logic is applied.

Cache-Lookup-Value Policy

Purpose: To check if there's a cached response available for the specific user ID.

Placement: Inbound. This should happen early in the request processing to determine if a cached response can be used instead of forwarding the request to the backend.

Cache-Store-Value Policy

Purpose: To store the response in the cache associated with the specific user ID.

Placement: Outbound. After the backend service generates a response, this policy stores it in the cache before sending it to the client.

Find-and-Replace Policy

Purpose: To update the response body with the user profile information.

Placement: Outbound. This modification should be done after the backend service has generated the response and just before it's sent back to the client.

upvoted 3 times

✉ **manopeydakon** 2 months, 3 weeks ago

The cache-store-value policy in Azure API Management (APIM) is used in the inbound policy section. This policy is typically applied before the request reaches the backend service, allowing you to cache the response based on the specified conditions or keys.

In the context of caching, the inbound policy section refers to policies that are executed before the request is sent to the backend, and the outbound policy section refers to policies that are executed before the response is sent back to the client.

So, when you use cache-store-value to cache a response, you want to do this on the inbound side, ensuring that the caching occurs before the request is forwarded to the backend service.

upvoted 1 times

✉ **11\_NickName\_11** 4 months, 1 week ago

Inbound  
Inbound  
Inbound  
Outbound

<https://learn.microsoft.com/en-us/azure/api-management/api-management-sample-cache-by-key#fragment-caching>

upvoted 1 times

✉ **dddddd111** 4 months, 3 weeks ago

Inbound  
Inbound  
Outbound  
Outbound

Reference: <https://learn.microsoft.com/en-us/azure/api-management/api-management-sample-cache-by-key#architecture>

upvoted 1 times

✉ **dddddd111** 4 months, 3 weeks ago

Sorry, the 3rd one is Inbound.

upvoted 1 times

✉ **JH81** 9 months, 2 weeks ago

Got this on 6/28/2023 and passed with 850. Went with highly voted answer.

upvoted 3 times

✉ **NombreFalso** 1 year, 1 month ago

>> The caching mechanism must detect the user ID of the client that accesses data for a given location and \*cache the response for that user ID.\*

Thus cache store should be outbound guys

upvoted 3 times

✉ **Eward** 1 year, 2 months ago

Given answers are correct.

Inbound

Inbound

outbound->in general the response come in outbound section

outbound

<https://learn.microsoft.com/en-us/azure/api-management/api-management-howto-cache>

upvoted 4 times

✉ **kkop** 1 year, 4 months ago

Here is Answer:<https://learn.microsoft.com/en-us/azure/api-management/api-management-sample-cache-by-key#architecture>

inbound,

inbound,

inbound

outbound

upvoted 5 times

✉ **elequiel** 1 year, 5 months ago

Got it in exam 20/10/2022

upvoted 3 times

✉ **Knightie** 1 year, 7 months ago

see the xml tag of inbound and outbound

<https://docs.microsoft.com/en-us/azure/api-management/api-management-sample-cache-by-key>

upvoted 1 times

✉ **Lucky\_me** 1 year, 9 months ago

```
<policies>
<inbound>
<base />
<cache-lookup vary-by-developer="false" vary-by-developer-groups="false" downstream-caching-type="none" must-revalidate="true" caching-type="internal" >
<vary-by-query-parameter>version</vary-by-query-parameter>
</cache-lookup>
</inbound>
<outbound>
<cache-store duration="seconds" />
<base />
</outbound>
</policies>
```

upvoted 1 times

✉ **vavra** 1 year, 10 months ago

I think it's B, because of this:

<https://github.com/AzureAD/microsoft-authentication-library-for-dotnet/wiki/Integrated-Windows-Authentication>

Federated users only, i.e. those created in an Active Directory and backed by Azure Active Directory. Users created directly in AAD, without AD backing - managed users - cannot use this auth flow. This limitation does not affect the Username/Password flow.

upvoted 1 times

✉ **kjfdzkkbsm** 1 year, 10 months ago

You're at the wrong question, mate

upvoted 8 times

✉ **Azprep** 2 years ago

Inbound

Inbound

Inbound

Outbound

upvoted 3 times

✉ **Prasu69** 2 years ago

Inbound

Inbound

Inbound

Outbound

upvoted 2 times

✉️ [Removed] 8 months, 4 weeks ago

Incorrect

upvoted 1 times

✉️ petitbilly 2 years, 1 month ago

According to this docs from Microsoft, the third box (cache-store-value) could be: inbound or outbound.

<https://docs.microsoft.com/en-us/azure/app-service/faq-app-service-linux#i-m-using-my-own-custom-container--i-want-the-platform-to-mount-an-smb-share-to-the---home---directory->

upvoted 1 times

## Question #27

## DRAG DROP -

You are developing an Azure solution.

You need to develop code to access a secret stored in Azure Key Vault.

How should you complete the code segment? To answer, drag the appropriate code segments to the correct location. Each code segment 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.

Select and Place:

## Code segments

DefaultAzureCredential

ClientSecretCredential

CloudClients

SecretClient

## Answer Area

```
string var1 = Environment.GetEnvironmentVariable("KEY_VAULT_URI");
var var2 = new Code segment (new Uri(var1), new Code segment ());
```

## Correct Answer:

## Code segments

ClientSecretCredential

CloudClients

## Answer Area

```
string var1 = Environment.GetEnvironmentVariable("KEY_VAULT_URI");
var var2 = new SecretClient (new Uri(var1), new DefaultAzureCredential ());
```

Box 1: SecretClient -

Box 2: DefaultAzureCredential -

In below example, the name of your key vault is expanded to the key vault URI, in the format "https://<your-key-vault-name>.vault.azure.net".

This example is using 'DefaultAzureCredential()' class from Azure Identity Library, which allows to use the same code across different environments with different options to provide identity.

```
string keyVaultName = Environment.GetEnvironmentVariable("KEY_VAULT_NAME");
var kvUri = "https://" + keyVaultName + ".vault.azure.net";
var client = new SecretClient(new Uri(kvUri), new DefaultAzureCredential());
```

Reference:

<https://docs.microsoft.com/en-us/azure/key-vault/secrets/quick-create-net>

✉  **mlantonis**  2 years, 10 months ago

Answer is correct.

```
string keyVaultName = Environment.GetEnvironmentVariable("KEY_VAULT_NAME");
var kvUri = "https://" + keyVaultName + ".vault.azure.net";
var client = new SecretClient(new Uri(kvUri), new DefaultAzureCredential());
```

Box 1: SecretClient

Box 2: DefaultAzureCredential

Reference:

<https://docs.microsoft.com/en-us/azure/key-vault/secrets/quick-create-net>

upvoted 75 times

✉  **SachinV** 4 months, 3 weeks ago

Agreed looks correct, in Nov182023, scored 962

upvoted 2 times

✉  **Eward** 1 year, 2 months ago

Agreed

upvoted 1 times

✉  **oescm**  2 years, 2 months ago

Got this one 02/2022. Went with most voted

upvoted 9 times

 **JH81** Most Recent 9 months, 2 weeks ago

Got this on 6/28/2023 and passed with 850. Went with answer.

upvoted 2 times

 **Saluk\_DE** 1 year ago

Question was on exam 2023-03-30

upvoted 1 times

 **mabdo** 1 year, 2 months ago

on exam 02/23

upvoted 1 times

 **kociuba** 1 year, 3 months ago

got it on my exam 30-12-2022

score: 818

upvoted 3 times

 **adilkhan** 1 year, 2 months ago

are all these questions enough to pass the exam?

upvoted 2 times

 **OPT\_001122** 1 year, 3 months ago

1: SecretClient

2: DefaultAzureCredential

upvoted 2 times

 **vcfvct** 1 year, 5 months ago

Had this question on 10/21/22

upvoted 2 times

 **Eltooth** 1 year, 9 months ago

Secret

Default

upvoted 2 times

 **edengoforit** 2 years, 4 months ago

DefaultAzureCredential

DefaultAzureCredential is appropriate for most scenarios where the application is intended to run in the Azure Cloud. This is because the DefaultAzureCredential determines the appropriate credential type based on the environment it is executing in. It supports authenticating both as a service principal or managed identity, and can be configured so that it will work both in a local development environment or when deployed to the cloud.

The DefaultAzureCredential will first attempt to authenticate using credentials provided in the environment. In a development environment you can authenticate as a service principal with the DefaultAzureCredential by providing configuration in environment variables as described in the next section.

If the environment configuration is not present or incomplete, the DefaultAzureCredential will then determine if a managed identity is available in the current environment. Authenticating as a managed identity requires no configuration, but does require platform support. See the managed identity documentation for more details on this.

upvoted 8 times

 **ADJ85** 2 years, 7 months ago

Correct

upvoted 4 times

## Question #28

You are developing an Azure App Service REST API.

The API must be called by an Azure App Service web app. The API must retrieve and update user profile information stored in Azure Active Directory (Azure AD).

You need to configure the API to make the updates.

Which two tools should you use? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Microsoft Graph API
- B. Microsoft Authentication Library (MSAL)
- C. Azure API Management
- D. Microsoft Azure Security Center
- E. Microsoft Azure Key Vault SDK

**Correct Answer: AC**

A: You can use the Azure AD REST APIs in Microsoft Graph to create unique workflows between Azure AD resources and third-party services. Enterprise developers use Microsoft Graph to integrate Azure AD identity management and other services to automate administrative workflows, such as employee onboarding (and termination), profile maintenance, license deployment, and more.

C: API Management (APIM) is a way to create consistent and modern API gateways for existing back-end services.

API Management helps organizations publish APIs to external, partner, and internal developers to unlock the potential of their data and services.

Reference:

<https://docs.microsoft.com/en-us/graph/azuread-identity-access-management-concept-overview>

*Community vote distribution*

AB (100%)

 **Cholo981** Highly Voted  2 years, 10 months ago

The Answer is Graph API and MSAL.

API management as nothing to do with the developing of the REST API...

upvoted 103 times

 **AndrewJB** 2 years, 5 months ago

Correct. To access Graph API user must be logged in, so MSAL is required. APIM is optional and not mandatory for this scenario

upvoted 7 times

 **ReniRechner** 2 years, 1 month ago

Furthermore the API is not intended for public use but internal use by another web app. So there is no need for APIM.

upvoted 6 times

 **pazetox** 1 year, 9 months ago

MSAL can be used to provide secure access to Microsoft Graph.

<https://docs.microsoft.com/en-us/azure/active-directory/develop/msal-overview>

upvoted 2 times

 **Eward** 1 year, 2 months ago

Agreed.

<https://learn.microsoft.com/en-us/graph/auth-cloudsolutionprovider?tabs=azuread>

upvoted 1 times

 **mlantonis** Highly Voted  2 years, 10 months ago

Answer is correct.

A: Microsoft Graph to retrieve and update user profile info from Azure AD.

C: API Management (APIM)

Reference:

<https://docs.microsoft.com/en-us/graph/azuread-identity-access-management-concept-overview>

<https://docs.microsoft.com/en-us/graph/overview>

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

upvoted 21 times

✉ **ensa** 2 years, 5 months ago

Fiest time see you are wrong.  
AAAAAAAAABBBBBBBBBB

upvoted 9 times

✉ **cooyooote** 2 years, 7 months ago

So wrong, API Management is supposed to create API gateways and rules to manage API calls

upvoted 9 times

✉ **cb98160** Most Recent 3 weeks, 5 days ago

**Selected Answer: AB**

You don't need a APIM.

upvoted 1 times

✉ **manopeydakon** 2 months, 3 weeks ago

To configure the Azure App Service REST API to retrieve and update user profile information stored in Azure Active Directory (Azure AD), you should use the following tools:

A. Microsoft Graph API: The Microsoft Graph API allows you to interact with data in Azure AD, including retrieving and updating user profile information.

B. Microsoft Authentication Library (MSAL): MSAL is used for handling authentication in your application. It helps you authenticate users and acquire access tokens, which are necessary when making requests to the Microsoft Graph API.

Therefore, the correct answers are A (Microsoft Graph API) and B (Microsoft Authentication Library).

upvoted 1 times

✉ **Neckbread** 3 months ago

**Selected Answer: AB**

Apim???????

upvoted 1 times

✉ **Dixavado** 6 months, 2 weeks ago

**Selected Answer: AB**

It was on my exam today (2023-09-26) - score 850

upvoted 3 times

✉ **nikipediaa** 6 months, 2 weeks ago

Question was on exam 2023-09-26. The order of answers was changed.

upvoted 3 times

✉ **deathRac3** 10 months, 3 weeks ago

**Selected Answer: AB**

trythis

upvoted 1 times

✉ **[Removed]** 1 year ago

Got this in exam today (5 April 2023)

upvoted 4 times

✉ **NombreFalso** 1 year, 1 month ago

**Selected Answer: AB**

Choosing A implies using B too. APIM is totally unrelated.

upvoted 3 times

✉ **Jeff8888** 1 year, 2 months ago

Graph Api, Azure APIM

upvoted 1 times

✉ **Michael2023** 1 year, 2 months ago

"The API must retrieve and update user profile information stored in Azure Active Directory (Azure AD). You need to configure the API to make the updates."

this is a hint that you want programmatically update the user data stored in Azure AD...

so Graph API and MSAL is the right answer :)

upvoted 1 times

✉ **serpevi** 1 year, 7 months ago

Got this in 09/22 , went with MSAL and Graph, score 927.

upvoted 9 times

 **Azprep** 2 years ago

Graph Api, Azure APIM

upvoted 2 times

 **svsv22** 2 years ago

I think answer should be A and B. MSAL is needed to get the tokens and pass it in Graph API request.

upvoted 1 times

 **iamstudying** 2 years ago

**Selected Answer: AB**

AB, buddies. 981Cholo, AndrweJB and ReniRechner are the mvps

upvoted 3 times

 **karthik0328** 2 years, 1 month ago

**Selected Answer: AB**

Why is API management required for this?

upvoted 1 times

## Question #29

You develop a REST API. You implement a user delegation SAS token to communicate with Azure Blob storage.

The token is compromised.

You need to revoke the token.

What are two possible ways to achieve this goal? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. Revoke the delegation key.
- B. Delete the stored access policy.
- C. Regenerate the account key.
- D. Remove the role assignment for the security principle.

**Correct Answer: AB**

A: Revoke a user delegation SAS -

To revoke a user delegation SAS from the Azure CLI, call the `az storage account revoke-delegation-keys` command. This command revokes all of the user delegation keys associated with the specified storage account. Any shared access signatures associated with those keys are invalidated.

B: To revoke a stored access policy, you can either delete it, or rename it by changing the signed identifier. Changing the signed identifier breaks the associations between any existing signatures and the stored access policy. Deleting or renaming the stored access policy immediately effects all of the shared access signatures associated with it.

Reference:

<https://github.com/MicrosoftDocs/azure-docs/blob/master/articles/storage/blobs/storage-blob-user-delegation-sas-create-cli.md>

<https://docs.microsoft.com/en-us/rest/api/storageservices/define-stored-access-policy#modifying-or-revoking-a-stored-access-policy>

*Community vote distribution*

AD (100%)

✉  **jay158**  2 years, 10 months ago

Given answer is incorrect.

Correct answers are A , D

<https://docs.microsoft.com/en-us/rest/api/storageservices/create-user-delegation-sas#revoke-a-user-delegation-sas>

upvoted 105 times

✉  **jkes80** 2 years, 9 months ago

Your link literally says you're correct it should be A and D.

"If you believe that a SAS has been compromised, then you should revoke the SAS. You can revoke a user delegation SAS either by revoking the user delegation key, or by changing or removing RBAC role assignments for the security principal used to create the SAS."

upvoted 19 times

✉  **Esward** 1 year, 2 months ago

I greed with A, D

upvoted 2 times

✉  **maukaba** 2 years, 3 months ago

There're two ways to create a SAS:

(1). The "standard" way to generate a SAS token is to use the storage account key.

(2). by using "managed identities" with a technique is called a "user delegation" SAS, and it allows you to sign the signature with Azure AD credentials instead of with the storage account key.

This question is (2) hence A, D is correct

REF: <https://markheath.net/post/user-delegation-sas>

upvoted 3 times

✉  **ML333** 1 year, 9 months ago

Answer definitely A, D as per provided link - All exam questions answers should be as straightforward as this Microsoft! So much ambiguity in 90% of the questions.

upvoted 3 times

✉  **mlantonis**  2 years, 10 months ago

Answer seems correct.

A: Use `az storage account revoke-delegation-keys` command.

B: To revoke a stored access policy, you can either delete it, or rename it by changing the signed identifier.

Reference:

<https://github.com/MicrosoftDocs/azure-docs/blob/master/articles/storage/blobs/storage-blob-user-delegation-sas-create-cli.md>

<https://docs.microsoft.com/en-us/rest/api/storageservices/define-stored-access-policy#modifying-or-revoking-a-stored-access-policy>

[https://docs.microsoft.com/en-us/cli/azure/storage/account?view=azure-cli-latest#az\\_storage\\_account\\_revoke\\_delegation\\_keys](https://docs.microsoft.com/en-us/cli/azure/storage/account?view=azure-cli-latest#az_storage_account_revoke_delegation_keys)  
upvoted 16 times

✉ **Azprep** 2 years ago

Answers should be A& D

upvoted 1 times

✉ **Jurgen1234** 2 years, 9 months ago

Incorrect it should be D not B, see <https://docs.microsoft.com/en-us/rest/api/storageservices/define-stored-access-policy>

Stored access policies are not supported for the user delegation SAS or the account SAS..

upvoted 3 times

✉ **manopeydakon** Most Recent 2 months, 2 weeks ago

A,C

When dealing with a compromised user delegation SAS token in Azure Blob storage, you can take the following actions:

A. Revoke the delegation key: User delegation SAS tokens are generated based on a delegation key. Revoking the delegation key would invalidate any tokens generated with that key.

C. Regenerate the account key: Regenerating the account key would effectively invalidate all SAS tokens, including user delegation SAS tokens, associated with the storage account. This is a more drastic measure and should be carefully considered, as it affects all tokens, not just the compromised one.

Therefore, the correct answers are A (Revoke the delegation key) and C (Regenerate the account key).

upvoted 2 times

✉ **FeriAZ** 2 months, 3 weeks ago

A. Revoke the Delegation Key

Approach: By revoking the user delegation key used to create the SAS token, you can effectively invalidate the SAS token.

Feasibility: Azure Blob Storage allows you to revoke user delegation keys, which will invalidate any SAS tokens created with them.

Effectiveness: This is a direct way to revoke a compromised User Delegation SAS token.

D. Remove the Role Assignment for the Security Principle

Approach: This involves removing the Azure AD role assignment that grants permissions to the user or service principal associated with the SAS token.

Feasibility: By removing or altering the role assignment in Azure AD, you can effectively revoke access permissions that the SAS token grants.

Effectiveness: This can be an effective way to revoke access, though it may be broader than just invalidating a specific SAS token.

upvoted 1 times

✉ **manopeydakon** 2 months, 3 weeks ago

A and D!

upvoted 1 times

✉ **nikipediaa** 6 months, 2 weeks ago

Question was on exam 2023-09-26

upvoted 1 times

✉ **Teit\_examtopics** 6 months, 2 weeks ago

If you believe that a SAS has been compromised, you should revoke it. You can revoke a user delegation SAS either by revoking the user delegation key, or by changing or removing RBAC role assignments for the security principal that's used to create the SAS.

<https://learn.microsoft.com/en-us/rest/api/storageservices/create-user-delegation-sas>

upvoted 1 times

✉ **IvanIco** 7 months, 3 weeks ago

C By regenerating the you make the prevues key unusable why isn't that right

upvoted 1 times

✉ **RKyawal** 9 months, 1 week ago

<https://learn.microsoft.com/en-us/rest/api/storageservices/define-stored-access-policy>

cannot be B as per this link..not supported

upvoted 1 times

✉ **DP\_Bhatt** 1 year, 2 months ago

Selected Answer: AD

Correct answers A and D

upvoted 1 times

✉ **rosa\_0617** 1 year, 7 months ago

Selected Answer: AD

If you believe that a SAS has been compromised, then you should revoke the SAS.

You can revoke a user delegation SAS either by revoking the user delegation key, or by changing or removing RBAC role assignments for the security principal used to create the SAS.

upvoted 4 times

 **nuiowmokka** 1 year, 7 months ago

Can we pass the exam just by studying questions till Page 22? I don't have contributor access and can't afford right now.

upvoted 5 times

 **ASAAAAS2** 1 year, 8 months ago

**Selected Answer: AD**

A & D for sure

upvoted 2 times

 **Eltooth** 1 year, 9 months ago

**Selected Answer: AD**

A and D are correct answers.

upvoted 2 times

 **emetos05** 1 year, 10 months ago

AD is correct

upvoted 1 times

 **Azprep** 2 years ago

Correct answers are A& B

upvoted 1 times

 **Prasu69** 2 years ago

**Selected Answer: AD**

<https://docs.microsoft.com/en-us/rest/api/storageservices/define-stored-access-policy>

upvoted 1 times

Question #30

DRAG DROP -

You are developing an Azure-hosted application that must use an on-premises hardware security module (HSM) key.

The key must be transferred to your existing Azure Key Vault by using the Bring Your Own Key (BYOK) process.

You need to securely transfer the key to Azure Key Vault.

Which four actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

### Actions

Generate a key transfer blob file by using the HSM vendor-provided tool.

Generate a Key Exchange Key (KEK).

Create a custom policy definition in Azure Policy.

Run the `az keyvault key import` command.

Run the `az keyvault key restore` command.

Retrieve the Key Exchange Key (KEK) public key.

### Answer Area

Correct Answer:

### Actions

Create a custom policy definition in Azure Policy.

Run the `az keyvault key restore` command.

### Answer Area

Generate a Key Exchange Key (KEK).

Retrieve the Key Exchange Key (KEK) public key.

Generate a key transfer blob file by using the HSM vendor-provided tool.

Run the `az keyvault key import` command.

To perform a key transfer, a user performs following steps:

- ⇒ Generate KEK.
- ⇒ Retrieve the public key of the KEK.
- ⇒ Using HSM vendor provided BYOK tool - Import the KEK into the target HSM and exports the Target Key protected by the KEK.
- ⇒ Import the protected Target Key to Azure Key Vault.

Step 1: Generate a Key Exchange Key (KEK).

Step 2: Retrieve the Key Exchange Key (KEK) public key.

Step 3: Generate a key transfer blob file by using the HSM vendor-provided tool.

Generate key transfer blob using HSM vendor provided BYOK tool

Step 4: Run the `az keyvault key import` command

Upload key transfer blob to import HSM-key.

Customer will transfer the Key Transfer Blob ("byok" file) to an online workstation and then run a `az keyvault key import` command to import this blob as a new

HSM-backed key into Key Vault.

To import an RSA key use this command:

`az keyvault key import`

Reference:

<https://docs.microsoft.com/en-us/azure/key-vault/keys/byok-specification>

  **aradice**  2 years, 9 months ago

correct: <https://docs.microsoft.com/en-us/azure/key-vault/keys/byok-specification#user-steps>

upvoted 49 times

  **TakumaK** 2 years, 9 months ago

agree with you!

upvoted 4 times

- ✉ **Eward** 1 year, 2 months ago  
Agreed  
upvoted 1 times
- ✉ **Eward** 1 year, 2 months ago  
Given answers are correct  
upvoted 1 times
- ✉ **MasterQuestMaster** Highly Voted 2 years, 2 months ago  
Got this on the exam. :)  
top kek  
upvoted 22 times
- ✉ **mandynotmandy** 2 years, 1 month ago  
this is still showing up in feb 2022 exams, the kek definitely made this question unforgettable for me  
top kek  
upvoted 7 times
- ✉ **kotireddy4120** Most Recent 4 months, 2 weeks ago  
Given Answer is correct  
upvoted 1 times
- ✉ **mewan** 10 months, 2 weeks ago  
is it enough to pass the exam to read up to 22 pages  
upvoted 6 times
- ✉ **Videira** 1 year, 1 month ago  
On my exam 2023-02-25  
upvoted 2 times
- ✉ **NombreFalso** 1 year, 1 month ago  
based kek question  
upvoted 2 times
- ✉ **Jeff8888** 1 year, 2 months ago  
Agreed  
upvoted 1 times
- ✉ **petitbilly** 2 years, 1 month ago  
Got it in exam 03/22  
upvoted 4 times
- ✉ **oescm** 2 years, 2 months ago  
Got this one 02/2022. Went with most voted  
upvoted 6 times
- ✉ **lugospod** 2 years, 2 months ago  
Got this one 01/2022. Went with originally proposed solution  
upvoted 6 times
- ✉ **danila16030** 2 years, 2 months ago  
Ho many questions from you test you find on this site? Just interesting)  
upvoted 1 times
- ✉ **mcbc** 2 years, 7 months ago  
Generate KEK.  
Retrieve the public key of the KEK.  
Using HSM vendor provided BYOK tool - Import the KEK into the target HSM and exports the Target Key protected by the KEK.  
Import the protected Target Key to Azure Key Vault.  
upvoted 2 times

## Question #31

You develop and deploy an Azure Logic app that calls an Azure Function app. The Azure Function app includes an OpenAPI (Swagger) definition and uses an Azure Blob storage account. All resources are secured by using Azure Active Directory (Azure AD). The Azure Logic app must securely access the Azure Blob storage account. Azure AD resources must remain if the Azure Logic app is deleted. You need to secure the Azure Logic app. What should you do?

- A. Create a user-assigned managed identity and assign role-based access controls.
- B. Create an Azure AD custom role and assign the role to the Azure Blob storage account.
- C. Create an Azure Key Vault and issue a client certificate.
- D. Create a system-assigned managed identity and issue a client certificate.
- E. Create an Azure AD custom role and assign role-based access controls.

**Correct Answer: A**

To give a managed identity access to an Azure resource, you need to add a role to the target resource for that identity.

Note: To easily authenticate access to other resources that are protected by Azure Active Directory (Azure AD) without having to sign in and provide credentials or secrets, your logic app can use a managed identity (formerly known as Managed Service Identity or MSI). Azure manages this identity for you and helps secure your credentials because you don't have to provide or rotate secrets.

If you set up your logic app to use the system-assigned identity or a manually created, user-assigned identity, the function in your logic app can also use that same identity for authentication.

Reference:

<https://docs.microsoft.com/en-us/azure/logic-apps/create-managed-service-identity> <https://docs.microsoft.com/en-us/azure/api-management/api-management-howto-mutual-certificates-for-clients>

*Community vote distribution*

A (100%)

 **aradice** Highly Voted 2 years, 9 months ago

correct "Azure AD resources must remain if the Azure Logic app is deleted."

upvoted 47 times

 **TonyMel** 1 year ago

correct, in 2023Mar24, score: 904/1000.

upvoted 7 times

 **debanjan10** Highly Voted 2 years, 6 months ago

User-assigned keys are individual components. Even if the logic apps are deleted, the keys remain. But in case of system-assigned keys, those are auto generated and are deleted when the Azure resources themselves are deleted.

upvoted 22 times

 **Ciupaz** Most Recent 2 months, 2 weeks ago

**Selected Answer: A**

Azure AD resources must remain if the Azure Logic app is deleted -> User Managed Identity

upvoted 1 times

 **FeriAZ** 2 months, 3 weeks ago

A. Create a user-assigned managed identity and assign role-based access controls.

This approach ensures that the Azure Logic App can securely access the Azure Blob Storage with the appropriate permissions, and the managed identity remains operational and intact, independent of the Logic App's lifecycle.

upvoted 1 times

 **bgbgvfvf** 3 months, 2 weeks ago

correct answer

upvoted 1 times

 **applepie** 8 months, 2 weeks ago

got this question today, answer A - 7/30/2023, score 895/1000

upvoted 4 times

 **databasejamdown** 11 months ago

**Selected Answer: A**

User assigned will persist after resource is removed  
upvoted 5 times

✉ **RaghavMGupta** 12 months ago

Why are other options wrong?  
upvoted 1 times

✉ **Sulzirsha** 1 year, 1 month ago

Was on exam feb21  
upvoted 1 times

✉ **rotimislaw** 1 year, 3 months ago

Why not E. Create Azure AD custom role?  
upvoted 1 times

✉ **r3verse** 1 year, 4 months ago

"You need to secure the Azure Logic app.", lol, but we aren't securing the logic app, we are providing a mechanism for the logic app to securely access other resources. (a key not a lock). The logic app itself can still be accessed anonymously.  
upvoted 3 times

✉ **EmnaDa** 1 year, 4 months ago

correct "Azure AD resources must remain if the Azure Logic app is deleted."  
upvoted 1 times

✉ **sam5678** 1 year, 6 months ago

correct  
upvoted 1 times

✉ **iamstudying** 2 years ago

**Selected Answer: A**

A, buddies. Agree with @dejanban10  
upvoted 2 times

✉ **meoukg** 2 years ago

Got it on 03/2022, I chose A. Create a user-assigned managed identity and assign role-based access controls.  
upvoted 3 times

✉ **mattvasc** 2 years, 1 month ago

**Selected Answer: A**

In here <https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/overview>

We can found:

"Common use cases: Workloads where resources are recycled frequently, but permissions should stay consistent."  
upvoted 1 times

✉ **AJ309** 2 years, 6 months ago

logic app is out of course right?  
upvoted 8 times

✉ **mariodarken** 2 years, 2 months ago

Yes, but this is more a Azure AD question  
upvoted 1 times

## Question #32

## HOTSPOT -

You are developing an application that uses a premium block blob storage account. You are optimizing costs by automating Azure Blob Storage access tiers.

You apply the following policy rules to the storage account. You must determine the implications of applying the rules to the data. (Line numbers are included for reference only.)

```

01 {
02 "rules": [
03 {
04 "name": "agingDataRule",
05 "enabled": true,
06 "type": "Lifecycle",
07 "definition": {
08 "filters": {
09 "blobTypes": ["blockBlob"],
10 "prefixMatch": ["container1/salesorders", "container2/inventory"]
11 },
12 "actions": {
13 "baseBlob": {
14 "tierToCool": { "daysAfterModificationGreaterThan": 60 },
15 "tierToArchive": { "daysAfterModificationGreaterThan": 120 }
16 }
17 }
18 }
19 },
20 {
21 "enabled": true,
22 "name": "lastAccessedDataRule",
23 "type": "Lifecycle",
24 "definition": {
25 "actions": {
26 "baseBlob": {
27 "enableAutoTierToHotFromCool": true,
28 "tierToCool": {
29 "daysAfterLastAccessTimeGreaterThan": 30
30 }
31 }
32 },
33 "filters": {
34 "blobTypes": ["blockBlob"]
35 }
36 }
37 },
38 {
39 "rules": [
40 {
41 "name": "expirationDataRule",
42 "enabled": true,
43 "type": "Lifecycle",
44 "definition": {
45 "filters": {
46 "blobTypes": ["blockBlob"]
47 },
48 "actions": {
49 "baseBlob": {
50 "delete": { "daysAfterModificationGreaterThan": 730 }
51 }
52 }
53 }
54 }
55]
56 }
57]
58 }
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

Yes	No
<input type="radio"/>	<input type="radio"/>

Block blobs prefixed with container1/salesorders or container2/inventory which have not been modified in over 60 days are moved to cool storage. Blobs that have not been modified in 120 days are moved to the archive tier.

Blobs are moved to cool storage if they have not been accessed for 30 days.

Blobs will automatically be tiered from cool back to hot if accessed again after being tiered to cool.

All block blobs older than 730 days will be deleted.

Correct Answer:

## Answer Area

Yes  No 

Block blobs prefixed with container1/salesorders or container2/inventory which have not been modified in over 60 days are moved to cool storage. Blobs that have not been modified in 120 days are moved to the archive tier.

Blobs are moved to cool storage if they have not been accessed for 30 days.

Blobs will automatically be tiered from cool back to hot if accessed again after being tiered to cool.

All block blobs older than 730 days will be deleted.

Box 1: Yes -

```
"rules": [
 {
 "name": "agingDataRule",
 "enabled": true,
 "type": "Lifecycle",
 "definition": {
 "filters": {
 "blobTypes": ["blockBlob"],
 "prefixMatch": ["container1/salesorders", "container2/inventory"]
 },
 "actions": {
 "baseBlob": {
 "tierToCool": { "daysAfterModificationGreaterThan": 60 },
 "tierToArchive": { "daysAfterModificationGreaterThan": 120 }
 }
 }
 }
 }
]
```

Box 2: Yes -

```
"enabled": true,
"name": "lastAccessedDataRule",
"type": "Lifecycle",
"definition": {
 "actions": {
 "baseBlob": {
 "enableAutoTierToHotFromCool": true,
 "tierToCool": {
 "daysAfterLastAccessTimeGreaterThan": 30
 }
 }
 }
}
```

Box 3: Yes -

Box 4: Yes -

```
"rules": [
 {
 "name": "expirationDataRule",
 "enabled": true,
 "type": "Lifecycle",
 "definition": {
 "filters": {
 "blobTypes": ["blockBlob"]
 },
 "actions": {
 "baseBlob": {
 "delete": { "daysAfterModificationGreaterThan": 730 }
 }
 }
 }
]
```

  **finnishr** Highly Voted 2 years, 8 months ago

Correct answer:

1. Yes
2. Yes
3. Yes
4. No

upvoted 83 times

  **Eward** 1 year, 2 months ago

Agree with you!

upvoted 1 times

  **windflower555** 2 years, 6 months ago

4 No, correct answer is: should be block blobs will be deleted 730 days after last modified (missed deleted part in my previous comment)

upvoted 10 times

  **Vady98** 2 years, 6 months ago

Agree  
I think  
upvoted 1 times

 **somename20221106** 1 year, 5 months ago

Wondering why B is "Yes". There is no mentioning of moving the Blob from Hot to Cold Tier in 30 days...  
upvoted 1 times

 **MagoNero** 1 year, 4 months ago  
Lifecycle  
upvoted 2 times

 **Bear\_Polar** 1 year, 4 months ago

```
"tierToCool": {
 "daysAfterLastAccessTimeGreaterThan": 30
}
```

upvoted 4 times

 **sbsd** 1 year, 1 month ago

I think you missed the difference between Blobs and Block blobs.

1. Yes
2. No - configuration is for Block Blobs and not for blob
3. No - configuration is for Block Blobs and not for blob
4. Yes - because of delete property

upvoted 1 times

 **warchoon** 1 year, 1 month ago

So 1 must be No too because of "Blobs" for 120 days  
upvoted 1 times

 **TOM101** 1 year, 1 month ago

The scenario is about premium block blobs, so blobs can only be block blobs here  
upvoted 1 times

 **jay158** Highly Voted 2 years, 9 months ago

Answer is correct

1. Yes
2. Yes
3. Yes
4. Yes

upvoted 38 times

 **vtomy** 2 years, 9 months ago

Answer is correct  
upvoted 4 times

 **ucsdmiami2020** 2 years, 4 months ago

4 is Yes. Per the Microsoft docs "Some data is expected to expire days or months after creation. You can configure a lifecycle management policy to expire data by deletion based on data age. The following example shows a policy that deletes all block blobs older than 365 days."

```
"actions": {
 "baseBlob": {
 "delete": { "daysAfterModificationGreaterThanOrEqual": 365 }
 }
}
```

<https://docs.microsoft.com/en-us/azure/storage/blobs/lifecycle-management-overview?tabs=azure-portal#move-aging-data-to-a-cooler-tier>  
upvoted 3 times

 **mattvasc** 2 years, 1 month ago

I have opened an PR, and now, the docs is correct:  
"The following example shows a policy that deletes all block blobs that have not been modified in the last 365 days."  
PR:  
<https://github.com/MicrosoftDocs/azure-docs/pull/89203>

Docs:

<https://docs.microsoft.com/en-us/azure/storage/blobs/lifecycle-management-overview?tabs=azure-portal#expire-data-based-on-age>  
upvoted 8 times

 **gmishra88** 1 year, 6 months ago

Bad that you cannot start a PR on this question from Microsoft :)  
upvoted 1 times

 **yibuqian** 2 years ago

#2 rule conflict with #1, so #1ans - No  
#4ans is No, because the rule is not for created date  
upvoted 1 times

✉ **wangga** 2 years, 1 month ago

4. No, It should be daysAfterCreationGreaterThan

<https://docs.microsoft.com/en-us/azure/storage/blobs/lifecycle-management-overview?tabs=azure-portal>

upvoted 5 times

✉ **blpiek21** Most Recent 2 weeks, 1 day ago

So confused, Premium Block Blob storage does not support tiering. Or am I missing something?

upvoted 2 times

✉ **SSR999** 1 month, 3 weeks ago

All No, as premium block blob wont support lifecycle management policies (Tiers) and access tiers

<https://learn.microsoft.com/en-us/azure/storage/blobs/storage-feature-support-in-storage-accounts#premium-block-blob-accounts>

upvoted 3 times

✉ **Veeresh114** 2 months, 1 week ago

The baseBlob element in a lifecycle management policy refers to the current version of a blob. The version element refers to a previous version.

upvoted 1 times

✉ **manopeydakon** 2 months, 2 weeks ago

NO, No, No, No - Tiering is not yet supported in a premium block blob storage account. For all other accounts, tiering is allowed only on block blobs and not for append and page blobs.

See: <https://learn.microsoft.com/en-us/azure/storage/blobs/lifecycle-management-overview>

upvoted 3 times

✉ **CarlosTheBoldest** 4 months ago

I got this question on my exam, 2023Dec, go with what I remember was the most voted answer. Score 902, most of the questions were here, slightly different on wording because the Azure Ad <-> Entra Id change. Case was City Power & Light. Good luck!

Important tip, you have access to microsoft learn during the exam!

upvoted 2 times

✉ **ww** 4 months, 1 week ago

Received this question on my test dated 28-11-2023,

went with

No,

No,

No,

No

Because as mentioned in the discussions here, Premium block blobs don't support tiering as of Nov-23.

upvoted 6 times

✉ **dddddd111** 4 months, 3 weeks ago

As of Oct2023, premium block blob storage account is not yet supported for tiering.

This is a tricky question, just because you see a code doesn't mean it will work. All answers are "No", unless the premium block blob storage account becomes available in the future. (If that's happen, I believe No.4 would still be no, due to the delete rule requirements)

Reference: Search the note for premium block blob storage account.

<https://learn.microsoft.com/en-us/azure/storage/blobs/lifecycle-management-overview>

upvoted 5 times

✉ **nanguer** 5 months, 1 week ago

All of the answers should be "No" according to this paragraph in the docs:

"Data stored in a premium block blob storage account cannot be tiered to hot, cool, cold or archive by using Set Blob Tier or using Azure Blob Storage lifecycle management. To move data, you must synchronously copy blobs from the block blob storage account to the hot tier in a different account using the Put Block From URL API or a version of AzCopy that supports this API"

<https://learn.microsoft.com/en-us/azure/storage/blobs/access-tiers-overview#blob-lifecycle-management>

upvoted 8 times

✉ **dddddd111** 4 months, 3 weeks ago

Indeed. It was also mentioned in this site <https://learn.microsoft.com/en-us/azure/storage/blobs/lifecycle-management-overview>

Tiering is not yet supported in a premium block blob storage account. For all other accounts, tiering is allowed only on block blobs and not for append and page blobs.

All answers are "NO"

upvoted 3 times

✉ **pandugadu009** 6 months, 2 weeks ago

Got it today and went with

No

No

No

Yes

Passed the exam with 749 score.

upvoted 1 times

✉ **leviatas** 6 months, 2 weeks ago

Got this question in exam 2023.09.25. Contoso case Study

upvoted 1 times

✉ **SangeethaRamasamy** 6 months, 4 weeks ago

Got this in 14/09/2023 exam

upvoted 2 times

✉ **Elbanna** 6 months, 3 weeks ago

which answers did you choose?

upvoted 1 times

✉ **Dreamer999** 10 months ago

Answer should be : No, No ,No, No

The key is that this is premium storage account and moving between tiers are not supported using lifecycle management policy.

I tested it by creating a premium storage account with the blob type as block blob. In the life cycle management window for adding rules in the portal, I only see option to delete the blob. No option to move to different tiers.

upvoted 10 times

✉ **JogSte** 7 months, 1 week ago

I tested too and Premium Block Blob Storage Account only accept Delete lifecycle, not tierToCool neither tierToArchive.

The documentation says 1-NO, 2-NO, 3-NO

"Data stored in a premium block blob storage account cannot be tiered to hot, cool, cold or archive by using Set Blob Tier or using Azure Blob Storage lifecycle management. To move data, you must synchronously copy blobs from the block blob storage account to the hot tier in a different account using the Put Block From URL API or a version of AzCopy that supports this API."

<https://learn.microsoft.com/en-us/azure/storage/blobs/access-tiers-overview>

upvoted 2 times

✉ **prakash007** 11 months, 1 week ago

Correct answer :

1. Yes
2. Yes
3. Yes
4. No.

Reference: -

<https://learn.microsoft.com/en-us/azure/storage/blobs/lifecycle-management-overview?tabs=azure-portal#move-aging-data-to-a-cooler-tier>

upvoted 1 times

✉ **[Removed]** 1 year ago

Got this in exam today (5 April 2023)

upvoted 3 times

✉ **rasojol523** 1 year, 1 month ago

Box 1:

No. Premium block BLOBs cannot use the archive layer.

Box2:

No.

Box2 is "if not 'accessed' for 30 days". The tireToCool rule, on the other hand, is "60-day modification" because it is a tireToCool rule with a tireToCoolGreaterThan 60, so the dates and conditions are different.

Box 3::

Yes. enableAutoTireToHotFromCool w/ dayAfterLastAccessTimeGreaterThan 30.

Box4:

Presumably Yes.

If "older than 730 days" has since been changed, then yes.

If since created, then no.

upvoted 2 times

✉ **rasojol523** 1 year, 1 month ago

Box 2: Yes.

Oops, I missed the second TireToCool. This is daysAfterLastAccessTimeGreaterThan : 30.

NO if MS makes a clear distinction between "Greater than 30" and "just 30"...

I'll go with this.

No, Yes, Yes, Yes

upvoted 2 times

## Question #33

You are developing a solution that will use a multi-partitioned Azure Cosmos DB database. You plan to use the latest Azure Cosmos DB SDK for development.

The solution must meet the following requirements:

- ☞ Send insert and update operations to an Azure Blob storage account.
- ☞ Process changes to all partitions immediately.
- ☞ Allow parallelization of change processing.

You need to process the Azure Cosmos DB operations.

What are two possible ways to achieve this goal? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. Create an Azure App Service API and implement the change feed estimator of the SDK. Scale the API by using multiple Azure App Service instances.
- B. Create a background job in an Azure Kubernetes Service and implement the change feed feature of the SDK.
- C. Create an Azure Function to use a trigger for Azure Cosmos DB. Configure the trigger to connect to the container.
- D. Create an Azure Function that uses a FeedIterator object that processes the change feed by using the pull model on the container. Use a FeedRange object to parallelize the processing of the change feed across multiple functions.

**Correct Answer: AC**

Azure Functions is the simplest option if you are just getting started using the change feed. Due to its simplicity, it is also the recommended option for most change feed use cases. When you create an Azure Functions trigger for Azure Cosmos DB, you select the container to connect, and the Azure Function gets triggered whenever there is a change in the container. Because Azure Functions uses the change feed processor behind the scenes, it automatically parallelizes change processing across your container's partitions.

Note: You can work with change feed using the following options:

- ☞ Using change feed with Azure Functions
- ☞ Using change feed with change feed processor

Reference:

<https://docs.microsoft.com/en-us/azure/cosmos-db/read-change-feed>

*Community vote distribution*

CD (41%)	D (24%)	A (18%)	Other
----------	---------	---------	-------

  **Zulhin** Highly Voted 2 years, 9 months ago

Answer C & D.

"What are two possible ways to achieve this goal?"

upvoted 42 times

  **Chiboy** 2 years, 2 months ago

C is the correct answer. Each answer has two possible ways that in combination, gives the solution. Moreover, because of the requirement to "Process changes to all partitions immediately", D cannot be the answer or part of it since it "processes the change feed by using the pull model on the container"

upvoted 4 times

  **Baskman** 2 years, 1 month ago

Agree with C & D

"NOTE: Each correct selection is worth one point."

upvoted 3 times

  **aradice** Highly Voted 2 years, 9 months ago

c and d ? <https://docs.microsoft.com/en-us/azure/cosmos-db/read-change-feed#azure-functions>

<https://docs.microsoft.com/en-us/azure/cosmos-db/change-feed-pull-model#using-feedrange-for-parallelization>

upvoted 16 times

  **Jurgen1234** 2 years, 9 months ago

I agree

upvoted 3 times

  **raymond\_abcd** Most Recent 2 months, 2 weeks ago

Answer C and D

C you need to implement the lease container in the function for dynamic scaling and works with multiple partitions. See:  
<https://learn.microsoft.com/en-us/azure/cosmos-db/nosql/change-feed-functions>.

D is also correct as it is described here: <https://learn.microsoft.com/en-us/azure/cosmos-db/nosql/read-change-feed>  
upvoted 1 times

✉ **FeriAZ** 2 months, 2 weeks ago

**Selected Answer: CD**

C. Azure Function with Cosmos DB Trigger

Azure Functions can be triggered by changes in Cosmos DB, allowing for immediate processing of inserts and updates.

D. Azure Function with FeedIterator and FeedRange for Change Feed

This method manually handles the change feed processing, allowing for detailed control over parallelization and processing logic.

upvoted 1 times

✉ **manopeydakon** 2 months, 3 weeks ago

Both options B and D can be used to process Azure Cosmos DB operations efficiently:

B. Create a background job in an Azure Kubernetes Service and implement the change feed feature of the SDK. This option involves creating a background job using Azure Kubernetes Service (AKS) and implementing the change feed feature of the Azure Cosmos DB SDK. AKS provides scalability, and you can parallelize the processing by distributing work across multiple pods in the AKS cluster.

D. Create an Azure Function that uses a FeedIterator object that processes the change feed by using the pull model on the container. Use a FeedRange object to parallelize the processing of the change feed across multiple functions.

This option involves using Azure Functions with the change feed trigger for Azure Cosmos DB. By using the FeedIterator and FeedRange objects, you can parallelize the processing of the change feed across multiple Azure Functions.

upvoted 1 times

✉ **lednari** 3 months, 4 weeks ago

B and C for me. AKS containers can scale and job just runs in background. Funcs can scale and trigger on cosmos.

A is an api so whats it triggering on?

D also doesn't mention what it would trigger on

upvoted 1 times

✉ **Dianahu** 8 months, 2 weeks ago

isn't the change feed estimator only for monitoring? it is the change feed processor who does the work <https://learn.microsoft.com/en-us/azure/cosmos-db/nosql/how-to-use-change-feed-estimator?tabs=dotnet> so it is C&D

upvoted 1 times

✉ **adilkhan** 1 year ago

C,D chatGPT

upvoted 2 times

✉ **Ciupaz** 6 months, 1 week ago

In my case chatGPT response is A and C.

upvoted 1 times

✉ **Ciupaz** 4 months, 2 weeks ago

Bard, instead, returns: A - D

upvoted 1 times

✉ **adilkhan** 1 year, 1 month ago

CD (36%)

D (21%)

A (21%)

Other ...OMG :D

upvoted 6 times

✉ **mabdo** 1 year, 2 months ago

similar was on 2/23

upvoted 1 times

✉ **alexein74** 1 year, 2 months ago

**Selected Answer: CD**

I agree with Zulhin.

upvoted 1 times

✉ **Idenouter** 1 year, 2 months ago

**Selected Answer: CD**

I agree with Zulhin.

upvoted 1 times

✉ **rotimislaw** 1 year, 3 months ago

**Selected Answer: AC**

A & C - simplicity is your best friend

upvoted 1 times

✉ **AB1453** 1 year, 4 months ago

**Selected Answer: AC**

A and C

upvoted 1 times

 **OPT\_001122** 1 year, 5 months ago

**Selected Answer: CD**

c and d

upvoted 2 times

 **VirusZer0** 1 year, 5 months ago

**Selected Answer: CD**

C and D

upvoted 2 times

 **gmishra88** 1 year, 6 months ago

Another question created to confuse a person who knows change feed processor and did not notice the option had change feed estimator in an exam setting. When the pull model is not the recommended option I should also know that ?

upvoted 1 times

## Question #34

## HOTSPOT -

You have an Azure Web app that uses Cosmos DB as a data store. You create a CosmosDB container by running the following PowerShell script:

```
$resourceGroupName = "testResourceGroup"
$accountName = "testCosmosAccount"
$databaseName = "testDatabase"
$containerName = "testContainer"
$partitionKeyPath = "/EmployeeId"
$autoscaleMaxThroughput = 5000
```

```
New-AzCosmosDBSqlContainer -
-ResourceGroupName $resourceGroupName
-AccountName $accountName
-DatabaseName $databaseName
-Name $containerName
-PartitionKeyKind Hash
-PartitionKeyPath $partitionKeyPath
-AutoscaleMaxThroughput $autoscaleMaxThroughput
```

You create the following queries that target the container:

```
SELECT * FROM c WHERE c.EmployeeId > '12345'
```

```
SELECT * FROM c WHERE c.UserId = '12345'
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

	<b>Yes</b>	<b>No</b>
The minimum throughput for the container is 400 R/Us.	<input type="radio"/>	<input type="radio"/>
The first query statement is an in-partition query.	<input type="radio"/>	<input type="radio"/>
The second query statement is a cross-partition query.	<input type="radio"/>	<input type="radio"/>

**Correct Answer:****Answer Area**

	<b>Yes</b>	<b>No</b>
The minimum throughput for the container is 400 R/Us.	<input type="radio"/>	<input checked="" type="radio"/>
The first query statement is an in-partition query.	<input type="radio"/>	<input checked="" type="radio"/>
The second query statement is a cross-partition query.	<input checked="" type="radio"/>	<input type="radio"/>

Box 1: No -

You set the highest, or maximum RU/s Tmax you don't want the system to exceed. The system automatically scales the throughput T such that  $0.1 * Tmax \leq T \leq Tmax$ .

Box 2: No -

First query: `SELECT * FROM c WHERE c.EmployeeId > '12345'`

Here's a query that has a range filter on the partition key and won't be scoped to a single physical partition. In order to be an in-partition query, the query must have an equality filter that includes the partition key:

```
SELECT * FROM c WHERE c.DeviceId > 'XMS-0001'
```

Box 3: Yes -

Example of In-partition query:

Consider the below query with an equality filter on Deviceld. If we run this query on a container partitioned on Deviceld, this query will filter to a single physical partition.

```
SELECT * FROM c WHERE c.Deviceld = 'XMS-0001'
```

Reference:

<https://docs.microsoft.com/en-us/azure/cosmos-db/how-to-choose-offer> <https://docs.microsoft.com/en-us/azure/cosmos-db/how-to-query-container>

✉ **aradice** Highly Voted 2 years, 9 months ago

correct:

1° no => line 6

2° no =>

<https://docs.microsoft.com/en-us/azure/cosmos-db/how-to-choose-offer#overview-of-provisioned-throughput-types>

<https://docs.microsoft.com/en-us/azure/cosmos-db/how-to-query-container#in-partition-query>

"Here's a query that has a range filter on the partition key and won't be scoped to a single physical partition. In order to be an in-partition query, the query must have an equality filter that includes the partition key: `SELECT * FROM c WHERE c.Deviceld > 'XMS-0001'`"

3° : yes => partition key is Employeed. <https://docs.microsoft.com/en-us/azure/cosmos-db/how-to-query-container#cross-partition-query>

upvoted 41 times

✉ **finnishr** 2 years, 8 months ago

100% correct!

upvoted 1 times

✉ **xRiot007** 2 years, 1 month ago

The documentation on the second point could be better.

They put the most important part at the end and that is that even if the query uses the partition key it MUST use an equality filter to be considered in-partition.

upvoted 3 times

✉ **HimanshuNankani** Highly Voted 2 years, 5 months ago

1. No : Because as question specifies max RUs = 5000, so minimum RUs = 5000/10 = 500

<https://docs.microsoft.com/en-us/azure/cosmos-db/how-to-choose-offer#overview-of-provisioned-throughput-types>

2. No : In-partition query needs equality filter that is missing here

3. Yes: Though we have equality filter here, 'UserId' is not a partition key here.

<https://docs.microsoft.com/en-us/azure/cosmos-db/sql/how-to-query-container>

upvoted 27 times

✉ **FeriAZ** Most Recent 2 months, 3 weeks ago

Minimum Throughput for the Container is 400 R/Us:

Answer: No. In Cosmos DB, the minimum throughput for a container with autoscale is 10% of the maximum throughput. Since the maximum is set to 5000 RUs, the minimum would be 500 RUs (10% of 5000).

The First Query Statement is an In-Partition Query:

Answer: No. Though it filters on the partition key, it uses a range condition, potentially involving multiple partitions.

The Second Query Statement is a Cross-Partition Query:

Answer: Yes. It filters on a non-partition key (UserId), necessitating a scan across multiple partitions.

upvoted 2 times

✉ **bgbgvfvf** 3 months, 2 weeks ago

Given answers are correct

upvoted 1 times

✉ **lednari** 3 months, 4 weeks ago

Y, N, Y

Min is 400 RUs. (5000/100 = 50 which is smaller than 400)

<https://learn.microsoft.com/en-us/azure/cosmos-db/concepts-limits#minimum-throughput-on-container>

upvoted 2 times

✉ **leviatas** 6 months, 2 weeks ago

Got this question in my exam 2023.09.25. Had contoso Case Study

upvoted 2 times

✉ **applepie** 8 months, 2 weeks ago

got this question today, answer NNY- 7/30/2023, score 895/1000

upvoted 2 times

✉ **NightshadeRC** 8 months, 2 weeks ago

Had this question in today's exam: 2023-07-26

upvoted 2 times

✉ **[Removed]** 1 year ago

Got this in exam today (5 April 2023)

upvoted 3 times

✉ **Saluk\_DE** 1 year ago

Question was on exam 2023-03-30

upvoted 1 times

✉ **proffesormuffin** 1 year, 1 month ago

400 looks correct to me.

"To estimate the minimum throughput required of a container with manual throughput, find the maximum of:

400 RU/s

Current storage in GB \* 1 RU/s

Highest RU/s ever provisioned on the container / 100"

$5000/100 = 50$  not 500

so  $\text{MAX}(400, 50) = 400$  ?

<https://learn.microsoft.com/en-us/azure/cosmos-db/concepts-limits>

upvoted 2 times

✉ **Xardas** 8 months, 3 weeks ago

Highest RU/s ever provisioned on the container \* 0.1 = 500

upvoted 1 times

✉ **Xardas** 8 months, 3 weeks ago

This link says formula is max \* 0.1

<https://learn.microsoft.com/en-us/azure/cosmos-db/how-to-choose-offer#overview-of-provisioned-throughput-types>

But this link says it is max / 100

<https://learn.microsoft.com/en-us/azure/cosmos-db/concepts-limits>

Which is right????

upvoted 1 times

✉ **stlim83** 1 month ago

'max / 100', this one is for the manual throughput.

'max / 10', this is for the autoscale throughput.

upvoted 1 times

✉ **mabdo** 1 year, 2 months ago

on 2/23

upvoted 2 times

✉ **Eward** 1 year, 2 months ago

Given answers are correct.

upvoted 1 times

✉ **gmishra88** 1 year, 6 months ago

First option is a question that punishes people who tried to set the RUs and remembered 400 RU as the minimum. If you never tried, you will find some relation with 5000 and 10% is a nice relation.

upvoted 3 times

✉ **proffesormuffin** 1 year, 1 month ago

it's 1% not 10% so max 400,50 is 400.

<https://learn.microsoft.com/en-us/azure/cosmos-db/concepts-limits>

upvoted 1 times

✉ **[Removed]** 1 year, 6 months ago

Answer

No, No, Yes, got this in the cosmos dp-420 exam

upvoted 1 times

✉ **Azprep** 2 years ago

No,

No,

Yes

upvoted 2 times

✉ **meoukg** 2 years ago

Got it on 03/2022, I chose as below:

The minimum throughput for the container is 400 R/Us = No

The first query statement is an in-partition query. = No

The second query statement is a cross-partition query. = Yes

upvoted 2 times

## Question #35

## HOTSPOT -

You are developing a web application that makes calls to the Microsoft Graph API. You register the application in the Azure portal and upload a valid X509 certificate.

You create an appsettings.json file containing the certificate name, client identifier for the application, and the tenant identifier of the Azure Active Directory (Azure

AD). You create a method named ReadCertificate to return the X509 certificate by name.

You need to implement code that acquires a token by using the certificate.

How should you complete the code segment? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

```
AuthenticationConfig config = AuthenticationConfig.ReadFromJsonFile("appsettings.json");
X509Certificate2 certificate = ReadCertificate(config.CertificateName);
var app =
 .Create(config.ClientId)
 .WithCertificate(certificate)
 .WithAuthority(new Uri(config.Authority))
 .Build();
string[] scopes = new string[] { $"{config.ApiUrl}.default" };
AuthenticationResult result = await app.AcquireTokenForClient(
 .ExecuteAsync();
```

**Correct Answer:****Answer Area**

```
AuthenticationConfig config = AuthenticationConfig.ReadFromJsonFile("appsettings.json");
X509Certificate2 certificate = ReadCertificate(config.CertificateName);
var app =
 .Create(config.ClientId)
 .WithCertificate(certificate)
 .WithAuthority(new Uri(config.Authority))
 .Build();
string[] scopes = new string[] { $"{config.ApiUrl}.default" };
AuthenticationResult result = await app.AcquireTokenForClient(
 .ExecuteAsync();
```

Box 1: ConfidentialClientApplicationBuilder

Here's the code to instantiate the confidential client application with a client secret: app =

ConfidentialClientApplicationBuilder.Create(config.ClientId)

.WithClientSecret(config.ClientSecret)

.WithAuthority(new Uri(config.Authority))

.Build();

Box 2: scopes -

After you've constructed a confidential client application, you can acquire a token for the app by calling AcquireTokenForClient, passing the scope, and optionally forcing a refresh of the token.

Sample code: result = await app.AcquireTokenForClient(scopes)

.ExecuteAsync();

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/develop/scenario-daemon-app-configuration> <https://docs.microsoft.com/en-us/azure/active-directory/develop/scenario-daemon-acquire-token>

- ✉  **aradice** Highly Voted 2 years, 9 months ago  
correct <https://docs.microsoft.com/en-us/azure/active-directory/develop/scenario-daemon-app-configuration?tabs=dotnet#instantiate-the-confidential-client-application-with-a-client-certificate>  
<https://docs.microsoft.com/en-us/azure/active-directory/develop/scenario-daemon-acquire-token?tabs=dotnet#acquiretokenforclient-api>  
upvoted 52 times
- ✉  **Esward** 1 year, 2 months ago  
Given answers are correct! agreed.  
upvoted 2 times
- ✉  **MK22** Highly Voted 2 years, 8 months ago  
Provided answer is correct.  
upvoted 12 times
- ✉  **bgbgfvf** Most Recent 3 months, 2 weeks ago  
correct answer  
upvoted 1 times
- ✉  **BaoNguyen2411** 8 months, 2 weeks ago  
got this question on 06-29-2023  
upvoted 5 times
- ✉  **tmuras** 1 year, 1 month ago  
This question was on exam on 17/02/23.  
upvoted 4 times
- ✉  **bertwin** 1 year, 4 months ago  
Absolute correct  
upvoted 1 times
- ✉  **TheExamMaster2020** 1 year, 4 months ago  
Did my exam on 15th November 2022. This question was on it.  
upvoted 5 times
- ✉  **lugospod** 2 years, 2 months ago  
Got this one 01/2022. Went with most voted (to avoid writing answers again)  
upvoted 9 times

Question #36

HOTSPOT -

You develop a containerized application. You plan to deploy the application to a new Azure Container instance by using a third-party continuous integration and continuous delivery (CI/CD) utility.

The deployment must be unattended and include all application assets. The third-party utility must only be able to push and pull images from the registry. The authentication must be managed by Azure Active Directory (Azure AD). The solution must use the principle of least privilege.

You need to ensure that the third-party utility can access the registry.

Which authentication options should you use? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

Authentication	Option
Registry authentication method	<input type="checkbox"/> Service principal <input type="checkbox"/> Individual identity <input type="checkbox"/> Repository-scoped access token <input type="checkbox"/> Managed identity for Azure resources
RBAC role	<input type="checkbox"/> AcrPull <input type="checkbox"/> Owner <input type="checkbox"/> AcrPush <input type="checkbox"/> Contributor

### Answer Area

Authentication	Option
Registry authentication method	<input checked="" type="checkbox"/> Service principal <input type="checkbox"/> Individual identity <input type="checkbox"/> Repository-scoped access token <input type="checkbox"/> Managed identity for Azure resources
RBAC role	<input type="checkbox"/> AcrPull <input type="checkbox"/> Owner <input checked="" type="checkbox"/> AcrPush <input type="checkbox"/> Contributor

Box 1: Service principal -

Applications and container orchestrators can perform unattended, or "headless," authentication by using an Azure Active Directory (Azure AD) service principal.

Incorrect Answers:

- ☞ Individual AD identity does not support unattended push/pull
- ☞ Repository-scoped access token is not integrated with AD identity
- ☞ Managed identity for Azure resources is used to authenticate to an Azure container registry from another Azure resource.

Box 2: AcrPush -

AcrPush provides pull/push permissions only and meets the principle of least privilege.

Incorrect Answers:

- AcPull only allows pull permissions it does not allow push permissions.

Owner and Contributor allow pull/push permissions but does not meet the principle of least privilege.

Reference:

<https://docs.microsoft.com/en-us/azure/container-registry/container-registry-authentication?tabs=azure-cli> <https://docs.microsoft.com/en-us/azure/container-registry/container-registry-roles?tabs=azure-cli>

 **dtctx** Highly Voted 1 year, 11 months ago

Got this 4/29. I passed test, but scored poorly in third party integration questions.

I went with Managed Identity and Contributor, and I think both are WRONG. I had not heard of ACR Push/Pull, so went with Contributor, but upon learning that ACR Push satisfies least privilege, that is probably the best answer.

Table of privileges:

<https://docs.microsoft.com/en-us/azure/container-registry/container-registry-roles?tabs=azure-cli>

I suggest ACR Push is the correct permission level.

upvoted 12 times

 **gmishra88** Highly Voted 1 year, 6 months ago

Correct. It is only service principal.

acr-token: cannot be because the AD authentication requirement. The roles are RBAC but the identity is not AD managed

Managed identity: Not an option because it is third party

AcrPush includes AcrPull. I did not know that nuance and the choice made by Microsoft to do this

upvoted 10 times

 **macobuzi** 7 months, 2 weeks ago

I don't understand, Why not Managed Identity? Azure Container Apps also support Managed Identity.

upvoted 1 times

 **bgbgvfvf** Most Recent 3 months, 2 weeks ago

answer is correct

upvoted 1 times

 **130nk3r5** 3 months, 3 weeks ago

To meet all the requirements, you should use the following authentication options:

Service Principal: A service principal is an identity that is used by a service or application to log in and access Azure resources. You can assign specific permissions to the service principal to adhere to the principle of least privilege. This will allow the third-party CI/CD utility to authenticate with Azure AD.

Role-Based Access Control (RBAC): After creating the service principal, you should assign it a role that only allows it to push and pull images from the Azure Container Registry. The "AcrPush" role could be a good fit as it allows the service principal to push and pull images, but doesn't grant any other permissions.

Remember to store the service principal's credentials securely in the CI/CD utility.

upvoted 2 times

 **Stann07** 4 months, 1 week ago

Service Principal: Service principals are non-interactive Azure accounts. Using them with CI/CD utilities allows for Unattended deployments.

AcrPull: This role can only pull images from the registry. This is here certainly the role with the least privilege because acrpush can Push image to the registry (and also pull them)

upvoted 1 times

 **Stann07** 4 months, 1 week ago

My error, I did not see the requirement in the question for the user to be able to pull AND PUSH images to the registry. So the right answer is ACRPUSH

upvoted 1 times

 **sarmaria** 1 year ago

Got this on 16/03/23. Chosen Service Principal and AcrPush. Make sure to prepare for case study. I got city and lights case study. No Kubernetes, Search, Logic Apps questions for me.

upvoted 7 times

 **mabdo** 1 year, 2 months ago

on exam 02/23

upvoted 3 times

 **Eward** 1 year, 2 months ago

Service Principal and AcrPush are correct answers!

<https://learn.microsoft.com/en-us/azure/container-registry/container-registry-authentication?tabs=azure-cli>

<https://learn.microsoft.com/en-us/azure/container-registry/container-registry-roles?tabs=azure-cli>

upvoted 3 times

 **OPT\_001122** 1 year, 4 months ago

service principal  
AcrPush

upvoted 2 times

 **hubekpeter** 1 year, 4 months ago

Individual identity - no, you don't want to use somebody's username, when he left, service will stop working (saw this tens of times). Managed identity - yes that could work, but you're not sure if CI/CD is running on Azure resource. Repository scoped access token - the next question would be regarding Scope Map, but they are apparently asking about RBAC role. So the correct answer is Service Principal with AcrPush role, which will meet the least privilege requirement.

upvoted 4 times

 **coffecold** 1 year, 6 months ago

The question is about access to 'a' registry.

Nowhere in the question is stated that Azure Container Registry (ACR) is used. It talks about "the registry", that is confusing.

Provided Azure Container Registry (ACR) is used, then the answer is correct.

If an other kind of registry is used to store the images the answer can be everything (depending on the registry used).

upvoted 2 times

 **finnishr** 1 year, 7 months ago

The answer is correct.

upvoted 2 times

 **vvlads** 1 year, 11 months ago

why not managed identity? Use only from select Azure services that support managed identities for Azure resources

<https://docs.microsoft.com/en-us/azure/container-registry/container-registry-authentication?tabs=azure-cli> resources: ...Azure Container Registry... <https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/managed-identities-status#azure-services-that-support-managed-identities-for-azure-resources>

upvoted 2 times

 **coffecold** 1 year, 6 months ago

The CI/CD is third party.

upvoted 3 times

 **sghaha** 1 year, 11 months ago

<https://docs.microsoft.com/ko-kr/azure/container-registry/container-registry-authentication?tabs=azure-cli>

upvoted 2 times

## Question #37

You deploy an Azure App Service web app. You create an app registration for the app in Azure Active Directory (Azure AD) and Twitter. The app must authenticate users and must use SSL for all communications. The app must use Twitter as the identity provider. You need to validate the Azure AD request in the app code. What should you validate?

- A. ID token header
- B. ID token signature
- C. HTTP response code
- D. Tenant ID

**Correct Answer: A**

## Reference:

<https://docs.microsoft.com/en-us/azure/storage/common/storage-auth-aad-app?tabs=dotnet>

*Community vote distribution*

B (92%) 8%

 **RaghavMGupta** Highly Voted 12 months ago

**Selected Answer: B**

To validate the Azure AD request in the app code when using Twitter as the identity provider, you should validate the ID token signature (option B).

The ID token is a JSON Web Token (JWT) that contains claims about the user. It is signed by Azure AD using a private key, and the signature can be verified using the corresponding public key. Validating the ID token signature ensures that the token was issued by a trusted source and that it has not been tampered with in transit.

Option A, validating the ID token header, is not sufficient for validating the entire ID token. The header only contains metadata about the token, such as the algorithm used for signing.

Option C, validating the HTTP response code, is unrelated to validating the ID token.

Option D, validating the tenant ID, is important for ensuring that the app is only accepting tokens from a trusted Azure AD tenant, but it does not ensure the integrity of the token itself.

upvoted 12 times

 **elequiel** Highly Voted 1 year, 5 months ago

Got it in exam 20/10/2022

upvoted 6 times

 **OPT\_001122** 1 year, 5 months ago

Thanks for mentioning date <https://www.examtopics.com/user/elequiel/>

upvoted 1 times

 **FeriAZ** Most Recent 2 months, 3 weeks ago

B. ID Token Signature

Explanation: The ID token signature is used to verify that the token hasn't been tampered with. It's a crucial part of a JWT, ensuring the token's integrity and authenticity.

Relevance: Validating the ID token signature is a key step in ensuring that the token is indeed from the trusted identity provider (in this case, Azure AD) and has not been altered. It's essential for security.

upvoted 1 times

 **Ciupaz** 6 months, 2 weeks ago

**Selected Answer: B**

Validating the ID token signature ensures that the token is valid and hasn't been altered.

upvoted 1 times

 **kabbas** 10 months ago

**Selected Answer: B**

A JWT contains three segments, a header, a body, and a signature. The signature segment can be used to validate the authenticity of the token so that it can be trusted by your application

upvoted 2 times

 **[Removed]** 1 year ago

**Selected Answer: B**

B. ID token signature

upvoted 3 times

 **sbsd** 1 year, 1 month ago

Current answer is correct (A). You can edit the token header in order to include the source. You cannot change the signature. check it out here: jwt.io

upvoted 1 times

 **Eward** 1 year, 2 months ago

B is the correct answer

<https://docs.microsoft.com/en-us/azure/active-directory-b2c/tokens-overview#validation>

upvoted 3 times

 **alexein74** 1 year, 2 months ago

**Selected Answer: B**

B. ID token signature

When validating an Azure AD request in the app code, it is important to validate the ID token signature to ensure the authenticity of the token. The ID token contains information about the authenticated user, including the user's identity and any claims or permissions associated with the user. By validating the signature, you can ensure that the token has not been tampered with and that it was indeed issued by Azure AD.

upvoted 1 times

 **ExamTopicsAnkur** 1 year, 4 months ago

**Selected Answer: B**

<https://docs.microsoft.com/en-us/azure/active-directory-b2c/tokens-overview#validation>

When your application or API receives an ID token, it must validate the signature to prove that the token is authentic.

upvoted 3 times

 **hubekpeter** 1 year, 4 months ago

**Selected Answer: B**

Id token, in another words, you are validating JWT token.

upvoted 2 times

 **bertwin** 1 year, 4 months ago

**Selected Answer: B**

Signature is for validation

upvoted 3 times

 **OPT\_001122** 1 year, 5 months ago

**Selected Answer: B**

B seems the correct answer

upvoted 2 times

 **alany2000** 1 year, 6 months ago

**Selected Answer: B**

B

<https://docs.microsoft.com/en-us/azure/active-directory-b2c/tokens-overview#validation>

upvoted 4 times

 **Praks13** 1 year, 7 months ago

I would say it's B.

<https://docs.microsoft.com/en-us/azure/active-directory-b2c/tokens-overview#validation>

upvoted 1 times

 **finnishr** 1 year, 7 months ago

**Selected Answer: B**

The answer is definitely b.

upvoted 3 times

 **qwerty112233** 1 year, 7 months ago

why? any link?

upvoted 2 times

 **willchenxa** 1 year, 7 months ago

**Selected Answer: A**

Correct

<https://docs.microsoft.com/en-us/azure/active-directory-b2c/identity-provider-twitter?pivots=b2c-user-flow>

upvoted 3 times

## Question #38

## Topic 4

A development team is creating a new REST API. The API will store data in Azure Blob storage. You plan to deploy the API to Azure App Service. Developers must access the Azure Blob storage account to develop the API for the next two months. The Azure Blob storage account must not be accessible by the developers after the two-month time period. You need to grant developers access to the Azure Blob storage account. What should you do?

- A. Generate a shared access signature (SAS) for the Azure Blob storage account and provide the SAS to all developers.
- B. Create and apply a new lifecycle management policy to include a last accessed date value. Apply the policy to the Azure Blob storage account.
- C. Provide all developers with the access key for the Azure Blob storage account. Update the API to include the Coordinated Universal Time (UTC) timestamp for the request header.
- D. Grant all developers access to the Azure Blob storage account by assigning role-based access control (RBAC) roles.

**Correct Answer: A**

Reference:

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

A (100%)

**alexlein74** Highly Voted 1 year, 2 months ago**Selected Answer: A**

A. Generate a shared access signature (SAS) for the Azure Blob storage account and provide the SAS to all developers.

A shared access signature (SAS) is a secure token that can be used to grant temporary and revocable access to a blob container or individual blobs. You can specify an expiration time for the SAS, so it will automatically expire after the two-month time period, making the blob storage account no longer accessible to the developers.

This approach allows you to grant the developers the necessary access to the Azure Blob storage account while still maintaining control over the access, and it also allows you to revoke access easily after the two-month time period.

upvoted 9 times

**richardc7** Most Recent 6 months, 2 weeks ago

got in exam 28/09/2029

upvoted 2 times

**BaoNguyen2411** 8 months, 2 weeks ago

got this question on 06-29-2023

upvoted 3 times

**OPT\_001122** 1 year, 5 months ago**Selected Answer: A**

A seems to be the correct answer

upvoted 4 times

**taki\_ananasek** 1 year, 5 months ago

Seems it's B

A JWT contains three segments, a header, a body, and a signature. The signature segment can be used to validate the authenticity of the token so that it can be trusted by your application.

<https://learn.microsoft.com/en-us/azure/active-directory-b2c/tokens-overview#validation>

upvoted 1 times

**ThaDude** 1 year, 3 months ago

Comment applies to different question

upvoted 4 times

**gmishra88** 1 year, 6 months ago

In practical situations, especially it is about your own developers (not outsiders) and expected to have AD roles, it is good to give RBAC roles and remove it after 2 months. But, I guess Microsoft wants to answer SAS. So, please choose SAS as the answer

upvoted 1 times

**coffecold** 1 year, 6 months ago

SAS automatically expires. You don't have to do changes in AD and change it back after two months.

upvoted 1 times

 **thedevguy** 1 year, 6 months ago

Correct

<https://learn.microsoft.com/en-us/azure/cognitive-services/translator/document-translation/create-sas-tokens?tabs=Containers>

upvoted 1 times

 **ArturKon** 1 year, 6 months ago

SAS has start and expiry date/time defined.

upvoted 2 times

 **vvlads** 1 year, 11 months ago

<https://azure.microsoft.com/de-de/blog/azure-blob-storage-lifecycle-management-now-generally-available/> lifecycle is for blobs and not for the access

upvoted 1 times

 **sghaha** 1 year, 11 months ago

why not B?

upvoted 1 times

 **finnishr** 1 year, 7 months ago

B has nothing to do with granting access to blob storage account.

upvoted 1 times

Question #39

DRAG DROP -

You develop a web application.

You need to register the application with an active Azure Active Directory (Azure AD) tenant.

Which three actions should you perform in sequence? To answer, move all actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

**Actions****Answer Area**

Select **Manifest** from the middle-tier service registration.

In Enterprise Applications, select **New application**.

Add a Cryptographic key.

Create a new application and provide the name, account type, and redirect URI.

Select the Azure AD instance.

Use an access token to access the secure resource.

In App Registrations, select **New registration**.



Correct Answer:

**Actions****Answer Area**

Select **Manifest** from the middle-tier service registration.

In App Registrations, select **New registration**.

In Enterprise Applications, select **New application**.

Select the Azure AD instance.

Add a Cryptographic key.

Create a new application and provide the name, account type, and redirect URI.



Select the Azure AD instance.

Use an access token to access the secure resource.

In App Registrations, select **New registration**.

Register a new application using the Azure portal

1. Sign in to the Azure portal using either a work or school account or a personal Microsoft account.
2. If your account gives you access to more than one tenant, select your account in the upper right corner. Set your portal session to the Azure AD tenant that you want.

3. Search for and select Azure Active Directory. Under Manage, select App registrations.
4. Select New registration. (Step 1)
5. In Register an application, enter a meaningful application name to display to users.
6. Specify who can use the application. Select the Azure AD instance. (Step 2)
7. Under Redirect URI (optional), select the type of app you're building: Web or Public client (mobile & desktop). Then enter the redirect URI, or reply URL, for your application. (Step 3)
8. When finished, select Register.

✉️  **Komat** Highly Voted 3 years, 4 months ago

1 Azure AD instance  
2 In App Registration, select new registration  
3 Create a new application and provide the name  
Discussion: <https://www.examtopics.com/discussions/microsoft/view/22224-exam-az-204-topic-3-question-3-discussion/>  
upvoted 230 times

✉️  **SxyPenguin** 3 years, 4 months ago

Is this the correct answer?  
upvoted 2 times

✉️  **iiiihhhh** 3 years, 4 months ago

I think that the firsts two and half steps of explanation can be summarized as: "Select Azure AD instance". So the explanation is correct but the picture is not.  
upvoted 2 times

✉️  **matejka** 3 years, 4 months ago

I would say Komat is right, I would select the same steps.  
upvoted 5 times

✉️  **Cornholioz** 3 years, 4 months ago

It is inconclusive in the discussion link too. Looks like 1&2 can be done either ways. Checked in the portal too. Question is unclear.  
upvoted 1 times

✉️  **MG90** 3 years, 2 months ago

Komat is right, reference is here: <https://docs.microsoft.com/en-us/azure/active-directory/develop/quickstart-register-app>  
upvoted 5 times

✉️  **riteshsiotiya** 2 years, 7 months ago

Provided answer is correct. They have mentioned AD instance.  
upvoted 4 times

✉️  **profesorklaus** Highly Voted 3 years, 2 months ago

I agree with you that it should be in following order:  
1. Select AD instance - select AD tenant in portal  
2. In App Registration, select new registration - use switched tenant  
3. Create a new application and provide the name  
upvoted 16 times

✉️  **Ciupaz** Most Recent 2 months, 2 weeks ago

5-7-4 is the best answer.  
upvoted 1 times

✉️  **JH81** 9 months, 2 weeks ago

Got this on 6/28/2023 and passed with 850. Went with answer.  
upvoted 3 times

✉️  **KrishTeam** 8 months, 1 week ago

bro did you read only examtopics questions or any other materials  
upvoted 1 times

✉️  **aragones** 11 months ago

Got this 2023-05-12.

Had cases:  
case: You need to configure authorization.  
case: You need to ensure the app does not time out and processes the blob data  
case study: VanArsdel Inc Canada  
upvoted 2 times

✉️  **OPT\_001122** 1 year, 4 months ago

Komat is right

1 Azure AD instance

2 In App Registration, select new registration  
3 Create a new application and provide the name  
upvoted 1 times

 **hubekpeter** 1 year, 4 months ago

In app registrationg select new reg  
Create a new app and provide the name, account type, and redirect URI  
Select Manifest from the middle-tier service registration  
upvoted 1 times

 **TheExamMaster2020** 1 year, 4 months ago

Did my exam on 15th November 2022. This question was on it.  
upvoted 1 times

 **Eltooth** 1 year, 10 months ago

Select AD instance  
App Registration, create new registration  
Create new application, name, account type & URI  
upvoted 3 times

 **Basant11** 1 year, 3 months ago

so was your answer correct?  
upvoted 2 times

 **meoukg** 2 years ago

Got it on 03/2022, I chose as below:  
1. Select the Azure AD Instance  
2. In App Registration, select New registration.  
3. Create a new application and provide the name, account type, and redirect URL.  
upvoted 7 times

 **Mev4953** 2 years, 2 months ago

I think provided answer is very clear  
upvoted 1 times

 **john4p** 2 years, 4 months ago

What? You register the non-existing app beforehand and then create it?  
upvoted 1 times

 **coffecold** 1 year, 5 months ago

yes, registering does not check the application exists  
upvoted 2 times

 **Lucario95** 2 years, 4 months ago

First answer should be swapped with the second one:  
1. Select Azure AD Instance  
2. In App Registration, Selecte Create New  
3. Create a new application  
upvoted 1 times

 **mimi21212152** 2 years, 5 months ago

page 12 is so perfect with the right answers throughout :)  
upvoted 2 times

 **AJ309** 2 years, 6 months ago

given answer is correct, since it has already written in question as Active Azure instance  
upvoted 2 times

 **GigaCaster** 2 years, 8 months ago

To me, the given answer is correct as it says select Azure AD instance and not create.  
upvoted 3 times

 **DouDouQin** 2 years, 9 months ago

Answer is correct!  
upvoted 2 times

## Question #40

You have a new Azure subscription. You are developing an internal website for employees to view sensitive data. The website uses Azure Active Directory (Azure AD) for authentication.

You need to implement multifactor authentication for the website.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Configure the website to use Azure AD B2C.
- B. In Azure AD, create a new conditional access policy.
- C. Upgrade to Azure AD Premium.
- D. In Azure AD, enable application proxy.
- E. In Azure AD conditional access, enable the baseline policy.

**Correct Answer: BC**

B: MFA Enabled by conditional access policy. It is the most flexible means to enable two-step verification for your users. Enabling using conditional access policy only works for Azure MFA in the cloud and is a premium feature of Azure AD.

C: Multi-Factor Authentication comes as part of the following offerings:

- ⇒ Azure Active Directory Premium licenses - Full featured use of Azure Multi-Factor Authentication Service (Cloud) or Azure Multi-Factor Authentication Server (On-premises).
- ⇒ Multi-Factor Authentication for Office 365
- ⇒ Azure Active Directory Global Administrators

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/authentication/howto-mfa-getstarted>

*Community vote distribution*

BC (100%)

✉  **Codenob** Highly Voted 3 years, 7 months ago

B and C are correct.

<https://docs.microsoft.com/en-us/azure/active-directory/authentication/tutorial-enable-azure-mfa>

upvoted 72 times

✉  **sebainones** 3 years, 6 months ago

Yes, based on the link you provided:

"Prerequisites

A working Azure AD tenant with at least an Azure AD Premium P1 or trial license enabled."

upvoted 4 times

✉  **mlantonis** Highly Voted 2 years, 10 months ago

Correct Answer: B and C

Azure AD Multi-Factor Authentication and Conditional Access policies give the flexibility to enable MFA for users during specific sign-in events. The recommended way to enable and use Azure AD Multi-Factor Authentication is with Conditional Access policies.

You need a working Azure AD tenant with at least an Azure AD Premium P1.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/authentication/howto-mfa-getstarted>

<https://docs.microsoft.com/en-us/azure/active-directory/authentication/tutorial-enable-azure-mfa>

<https://azure.microsoft.com/en-us/pricing/details/active-directory>

upvoted 11 times

✉  **UniqueNickname** Most Recent 1 year, 1 month ago

**Selected Answer: BC**

B and C are correct.

upvoted 1 times

✉  **18Marks** 1 year, 4 months ago

**Selected Answer: BC**

See in exam

upvoted 1 times

 **OPT\_001122** 1 year, 5 months ago

**Selected Answer: BC**

B and C are correct.

upvoted 1 times

 **Eltooth** 1 year, 10 months ago

**Selected Answer: BC**

B & C are the correct answers.

upvoted 1 times

 **SivajiTheBoss** 2 years, 1 month ago

**Selected Answer: BC**

BC is the perfect Match

upvoted 1 times

 **petibilly** 2 years, 1 month ago

Got it in exam 03/22

upvoted 3 times

 **sawipef270** 2 years, 3 months ago

**Selected Answer: BC**

correct

upvoted 2 times

 **AhmedHamdo** 2 years, 4 months ago

**Selected Answer: BC**

Answers are correct

upvoted 4 times

 **ning** 2 years, 8 months ago

You can definitely create conditional access policies, in premium pricing tier. For E, the problem is "the baseline" there are several baseline policies that are offered by MS, which one is the one??? Also, I do not know any baseline policy can target a specific web app

upvoted 2 times

 **kondapaturi** 2 years, 9 months ago

Create a new conditional access policy in Azure AD

Upgrade your licensing for Azure AD to Premium license

Hence answer is BC

upvoted 2 times

 **prabhjot** 2 years, 10 months ago

the given ans is 100% correct

upvoted 1 times

 **UnknowMan** 2 years, 10 months ago

The given answer is correct.

upvoted 1 times

 **glam** 2 years, 10 months ago

correct

upvoted 2 times

 **daporh** 3 years, 1 month ago

You can have MFA on the Free tier by enabling security defaults however to use conditional access, security defaults must be disabled

<https://docs.microsoft.com/en-us/azure/active-directory/fundamentals/concept-fundamentals-security-defaults#disabling-security-defaults>

However Conditional Access is the way to setup MFA on the Premium Tier and since the question does not mention Security Defaults, then the given answer is correct.

upvoted 3 times

 **Albertoski** 3 years, 2 months ago

Given answer is correct. Clearly in the docs says P1 is needed:

<https://docs.microsoft.com/en-us/azure/active-directory/authentication/tutorial-enable-azure-mfa>

upvoted 2 times

Question #41

DRAG DROP -

An organization plans to deploy Azure storage services.

You need to configure shared access signature (SAS) for granting access to Azure Storage.

Which SAS types should you use? To answer, drag the appropriate SAS types to the correct requirements. Each SAS type 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.

Select and Place:

SAS types	Answer Area	SAS type
Account-level		
Service-level	Delegate access to resources in one or more of the storage services	
User delegation	Delegate access to a resource in a single storage service	
	Secure a resource by using Azure AD credentials	

Correct Answer:

SAS types	Answer Area	SAS type
Account-level		Account-level
Service-level	Delegate access to resources in one or more of the storage services	Service-level
User delegation	Delegate access to a resource in a single storage service	User delegation
	Secure a resource by using Azure AD credentials	

Reference:

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

✉  **SoftSol**  1 year, 11 months ago

Correct

upvoted 18 times

✉  **karthikwarrior**  1 year, 1 month ago

If you have reached this far, question no 160+ then you have taken paid subscription (Contributor role)

upvoted 11 times

✉  **naivecoder786** 1 year, 1 month ago

Yeah indeed !

upvoted 1 times

✉  **p2006** 6 months, 3 weeks ago

I can see it without contributor, for now :)

upvoted 3 times

✉  **Santhosh\_Kumar** 4 months, 3 weeks ago

Since new questions were added, the free questions got increased.

I got the contributor access.

in: /e-santhosh-kumar

upvoted 1 times

✉  **macobuzi** 7 months, 2 weeks ago

LOL, didn't realize that since I already paid since the first questions

upvoted 1 times

✉  **leviatas**  6 months, 2 weeks ago

Got his question in exam 2023.09.25. Case Study Contoso

upvoted 2 times

 **kvtborad** 8 months ago

I got this question on 6th August 2023. chose highly voted. passed with 904. I got Case study: city and Lights. All questions are from ExamTopics.

upvoted 7 times

 **applepie** 8 months, 2 weeks ago

got this question today, go with the provided answer - 7/30/2023, score 895/1000

upvoted 3 times

 **NightshadeRC** 8 months, 2 weeks ago

Had this question in today's exam: 2023-07-26

upvoted 1 times

 **NombreFalso** 1 year, 1 month ago

No doubt that's correct

upvoted 1 times

 **Bear\_Polar** 1 year, 4 months ago

correct

upvoted 1 times

 **coffecold** 1 year, 5 months ago

User delegation is supported for Blob Storage only, and you can use it to grant access to containers and blobs. The question does not mention the kind of storage.

upvoted 3 times

 **damianadalid** 10 months, 3 weeks ago

After having read User delegation SAS in the reference link, I think the mentioning of "using Azure AD credentials" is enough to select User delegation despite of not knowing the kind of storage.

upvoted 1 times

## Question #42

## HOTSPOT -

You are developing an ASP.NET Core app that includes feature flags which are managed by Azure App Configuration. You create an Azure App Configuration store named AppFeatureflagStore as shown in the exhibit:

Key	Label	State	Description	Last modified	...
Export	Export	Off	Ability to export data.	6/11/2020, 9:13:26 ...	...

You must be able to use the feature in the app by using the following markup:

```
<feature name="Export">
 <li class="nav-item">
 Export Data

</feature>
```

You need to update the app to use the feature flag.

Which values should you use? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Code section	Value
Controller attribute	<div style="border: 1px solid black; padding: 5px; height: 150px;"><p>▼</p><p>FeatureGate</p><p>Route</p><p>ServiceFilter</p><p>TypeFilter</p></div>
Startup method	<div style="border: 1px solid black; padding: 5px; height: 150px;"><p>▼</p><p>AddAzureAppConfiguration</p><p>AddControllersWithViews</p><p>AddUserSecrets</p></div>
AppConfig endpoint setting	<div style="border: 1px solid black; padding: 5px; height: 150px;"><p>▼</p><p><a href="https://appfeatureflagstore.azconfig.io">https://appfeatureflagstore.azconfig.io</a></p><p><a href="https://appfeatureflagstore.vault.azure.net">https://appfeatureflagstore.vault.azure.net</a></p><p><a href="https://export.azconfig.io">https://export.azconfig.io</a></p><p><a href="https://export.vault.azure.net">https://export.vault.azure.net</a></p></div>

Correct Answer:

**Answer Area****Code section****Value****Controller attribute**

Value
FeatureGate
Route
ServiceFilter
TypeFilter

**Startup method**

Value
AddAzureAppConfiguration
AddControllersWithViews
AddUserSecrets

**AppConfig endpoint setting**

Value
https://appfeatureflagstore.azconfig.io
https://appfeatureflagstore.vault.azure.net
https://export.azconfig.io
https://export.vault.azure.net

Box 1: FeatureGate -

You can use the FeatureGate attribute to control whether a whole controller class or a specific action is enabled.

Box 2: AddAzureAppConfiguration -

The extension method AddAzureAppConfiguration is used to add the Azure App Configuration Provider.

Box 3: https://appfeatureflagstore.azconfig.io

You need to request the access token with resource=https://&lt;yourstorename&gt;.azconfig.io

Reference:

<https://docs.microsoft.com/en-us/azure/azure-app-configuration/use-feature-flags-dotnet-core><https://csharp.christiannagel.com/2020/05/19/azureappconfiguration/> <https://stackoverflow.com/questions/61899063/how-to-use-azure-app-configuration-rest-api>

✉  **gmishra88** Highly Voted  1 year, 6 months ago

And Microsoft claims this is not .Net specific.

upvoted 12 times

✉  **elequiel** Highly Voted  1 year, 5 months ago

Got it in exam 20/10/2022

upvoted 9 times

✉  **azpardha** Most Recent  1 day, 19 hours ago

Got this on 04/07/2024, Went with highly voted answer, score:820

upvoted 1 times

✉  **p2006** 6 months, 2 weeks ago

Got on 9/25/2023

featuregare

addazureappconfiguration

appfeatureflagstore.azconfig.io

upvoted 3 times

✉  **mihailos** 7 months, 1 week ago

Got it in exam 28/08/23. Went with proposed answer. Scored 912

upvoted 5 times

✉ **JogSte** 7 months, 1 week ago

Can you say approximately the number of questions you had in the certification that we have here on the site?  
upvoted 3 times

✉ **rockstar89** 8 months, 1 week ago

Got it Exam in 31/07/2027.  
score 875  
upvoted 1 times

✉ **Patrick199826** 5 months, 3 weeks ago

2027 LOL  
upvoted 4 times

✉ **juanckar** 9 months, 1 week ago

This was on the exam (July 2023). Went with proposed. Scored 917  
upvoted 7 times

✉ **nekkilodeon** 11 months, 3 weeks ago

Feature gate is correct  
<https://learn.microsoft.com/en-us/azure/azure-app-configuration/quickstart-feature-flag-aspnet-core?tabs=core6x#use-a-feature-flag>  
upvoted 1 times

✉ **DP\_Bhatt** 1 year, 2 months ago

Corrent  
upvoted 1 times

✉ **sghaha** 1 year, 11 months ago

in Korean  
<https://docs.microsoft.com/ko-kr/azure/azure-app-configuration/use-feature-flags-dotnet-core?tabs=core5x>  
upvoted 2 times

## Question #43

## HOTSPOT -

You have a single page application (SPA) web application that manages information based on data returned by Microsoft Graph from another company's Azure Active Directory (Azure AD) instance.

Users must be able to authenticate and access Microsoft Graph by using their own company's Azure AD instance.

You need to configure the application manifest for the app registration.

How should you complete the manifest? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

{

**“oauth2AllowImplicitFlow”:**

	▼
add	
false	
spa	
true	

“

	▼
addIns	
orgRestrictions	
availableToOtherTenants	
requiredResourceAccess	

”: [{

“resourceAppId”: “00000003-0000-0000-c000-000000000000”,

“resourceAccess”: [{

“id” : “24a6cdd6-fab1-4aaf-91b8-3cc8225e90d0”,

“type”: “Scope”

}]],

“signInAudience”: “

	▼
All	
AzureADMyOrg	
AzureADMultipleOrgs	
AzureADandPersonalMicrosoftAccount	

}

## Correct Answer:

```
{
 "oauth2AllowImplicitFlow":

| |
|-------|
| ▼ |
| add |
| false |
| spa |
| true |

 ,
 "": [{
 "addIns":

| |
|-------------------------|
| ▼ |
| orgRestrictions |
| availableToOtherTenants |
| requiredResourceAccess |

 "resourceAccess": [
 {
 "id": "24a6cdd6-fab1-4aaf-91b8-3cc8225e90d0",
 "type": "Scope"
 }],
 "signInAudience": "

| |
|------------------------------------|
| ▼ |
| All |
| AzureADMyOrg |
| AzureADMultipleOrgs |
| AzureADandPersonalMicrosoftAccount |

 "
 }
}
```

Box 1: true -

The oauth2AllowImplicitFlow attribute specifies whether this web app can request OAuth2.0 implicit flow access tokens. The default is false. This flag is used for browser-based apps, like JavaScript single-page apps.

In implicit flow, the app receives tokens directly from the Azure Active Directory (Azure AD) authorize endpoint, without any server-to-server exchange. All authentication logic and session handling is done entirely in the JavaScript client with either a page redirect or a pop-up box.

Box 2: requiredResourceAccess -

With dynamic consent, requiredResourceAccess drives the admin consent experience and the user consent experience for users who are using static consent.

However, this parameter doesn't drive the user consent experience for the general case. resourceAppId is the unique identifier for the resource that the app requires access to. This value should be equal to the appId declared on the target resource app. resourceAccess is an array that lists the OAuth2.0 permission scopes and app roles that the app requires from the specified resource. Contains the id and type values of the specified resources.

Example:

```
"requiredResourceAccess": [
 {
 "resourceAppId": "00000002-0000-0000-c000-000000000000",
 "resourceAccess": [
 {
 "id": "311a71cc-e848-46a1-bdf8-97ff7156d8e6",
 "type": "Scope"
 }
]
 }
],
```

Incorrect Answers:

- ☞ The legacy attribute availableToOtherTenants is no longer supported.
- ☞ The addIns attribute defines custom behavior that a consuming service can use to call an app in specific contexts. For example, applications that can render file streams may set the addIns property for its "FileHandler" functionality. This parameter will let services like Microsoft 365 call the application in the context of a document the user is working on.

## Example:

```

"addIns": [
{
 "id": "968A844F-7A47-430C-9163-07AE7C31D407",
 "type": "FileHandler",
 "properties": [
 {
 "key": "version",
 "value": "2"
 }
]
}
],

```

## Box 3: AzureADMyOrg -

The signInAudience attribute specifies what Microsoft accounts are supported for the current application. Supported values are:

- ↪ AzureADMyOrg - Users with a Microsoft work or school account in my organization's Azure AD tenant (for example, single tenant)
- ↪ AzureADMultipleOrgs - Users with a Microsoft work or school account in any organization's Azure AD tenant (for example, multi-tenant)
- ↪ AzureADandPersonalMicrosoftAccount - Users with a personal Microsoft account, or a work or school account in any organization's Azure AD tenant

## Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/develop/reference-app-manifest> <https://docs.microsoft.com/en-us/azure/active-directory/develop/v2-oauth2-implicit-grant-flow>

✉  **vvlads** Highly Voted 1 year, 11 months ago

I think the last one should be AzureADMultipleOrgs  
upvoted 26 times

✉  **OPT\_001122** 1 year, 5 months ago

I think Gmishra88 is correct.  
Question states that - "Users must be able to authenticate and access Microsoft Graph by using their own company's Azure AD instance."

So it should be AzureADMyOrg

upvoted 4 times

✉  **SaintBahamut** 1 year, 11 months ago

same, question states that AD data is from external organisation  
upvoted 4 times

✉  **plusJoyed** Highly Voted 9 months, 3 weeks ago

got on my exam 6/22/2023  
upvoted 5 times

✉  **FeriAZ** Most Recent 2 months, 3 weeks ago

AzureADMultipleOrgs is correct

"signInAudience"

Explanation: This property defines the audience that can sign in to the application.

Values:

"AzureADMyOrg": Only users from your organization can sign in.

"AzureADMultipleOrgs": Users from any Azure AD tenant can sign in.

"AzureADandPersonalMicrosoftAccount": Allows sign-in from Azure AD (any tenant) and personal Microsoft accounts.

upvoted 1 times

✉  **isabelisabelisabel** 4 months, 3 weeks ago

the sign in audience for the application manifest should be AzureADMultipleOrgs1. This is because the application needs to support accounts in any organizational directory, which is one of the options for the supported account types in the app registration2. The signInAudience property in the manifest corresponds to the supported account types, and the value AzureADMultipleOrgs indicates that the application can be used by any Microsoft Entra organization

upvoted 2 times

✉  **the\_odd\_one** 5 months, 3 weeks ago

Would it be an option to use Azure AD B2B collaboration to invite guest users from tenant B (Microsoft Graph tenant) to access the application in tenant A (application tenant). Would then set signInAudience to "AzureADMyOrg" to restrict sign-ins to users from the specific Azure AD tenant associated with the application (tenant A).

upvoted 2 times

✉  **apparaog99** 1 year, 3 months ago

On my exam 12/31

upvoted 2 times

 **AWAPass** 1 year, 3 months ago

On exam 29/12/2022

upvoted 1 times

 **gmishra88** 1 year, 6 months ago

Given answers are correct.

SigninAudience: Specifies what Microsoft accounts are supported for the current application. The users login with the current organizations AD accounts. This does not talk about the external access. And that is probably the red herring Microsoft added to the mix so that you will make a mistake and they win. Microsoft always wins

upvoted 4 times

 **TonyMel** 1 year ago

correct, in 2023Mar24, score: 904/1000.

upvoted 3 times

 **Knightie** 1 year, 7 months ago

↳ AzureADMyOrg - Users with a Microsoft work or school account in my organization's Azure AD tenant (for example, single tenant)  
↳ AzureADMultipleOrgs - Users with a Microsoft work or school account in any organization's Azure AD tenant (for example, multi-tenant)  
↳ AzureADandPersonalMicrosoftAccount - Users with a personal Microsoft account, or a work or school account in any organization's Azure AD tenant [Answer]

upvoted 3 times

 **Knightie** 1 year, 7 months ago

first one is the current Tenant, second one is any Tenant under your Org, third one is any Tenant under Any Org... so only the 3rd make sense.

upvoted 1 times

 **finnishr** 1 year, 7 months ago

That makes no sense. Difference between AzureADMultipleOrgs and AzureADandPersonalMicrosoftAccount is that AzureADandPersonalMicrosoftAccount also includes personal Microsoft accounts which we dont want to include.

upvoted 2 times

 **sghaha** 1 year, 11 months ago

in Korean

<https://docs.microsoft.com/ko-kr/azure/active-directory/develop/reference-app-manifest>

upvoted 1 times

## Question #44

You manage a data processing application that receives requests from an Azure Storage queue.

You need to manage access to the queue. You have the following requirements:

- ⇒ Provide other applications access to the Azure queue.
- ⇒ Ensure that you can revoke access to the queue without having to regenerate the storage account keys.
- ⇒ Specify access at the queue level and not at the storage account level.

Which type of shared access signature (SAS) should you use?

- A. Service SAS with a stored access policy
- B. Account SAS
- C. User Delegation SAS
- D. Service SAS with ad hoc SAS

**Correct Answer: A**

A service SAS is secured with the storage account key. A service SAS delegates access to a resource in only one of the Azure Storage services:

Blob storage,

Queue storage, Table storage, or Azure Files.

Stored access policies give you the option to revoke permissions for a service SAS without having to regenerate the storage account keys.

Incorrect Answers:

Account SAS: Account SAS is specified at the account level. It is secured with the storage account key.

User Delegation SAS: A user delegation SAS applies to Blob storage only.

Reference:

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

*Community vote distribution*

A (100%)

✉  **sghaha**  1 year, 11 months ago

Argee A

upvoted 18 times

✉  **gmishra88**  1 year, 6 months ago

User delegation SAS is only for blob storage? These random restrictions that microsoft creates just makes me so happy. It is a maze of that works with this but not if that and only if those cases. Why do they expect human beings to remember these unfortunate mistakes Microsoft makes

upvoted 9 times

✉  **isabelisabelisabel**  4 months, 3 weeks ago

**Selected Answer: A**

A must be correct

upvoted 1 times

✉  **rolling\_potato\_** 1 year, 3 months ago

**Selected Answer: A**

Was on my exam today (03-01-2023)

upvoted 4 times

✉  **rotimislaw** 1 year, 3 months ago

Why D. Service SAS with ad hoc SAS is incorrect?

upvoted 1 times

✉  **tzuyichao** 1 year, 1 month ago

“Specify access at the queue level and not at the storage account level.”

upvoted 1 times

✉  **surprise0011** 11 months, 4 weeks ago

there is not a valid explanation. Question says: Service SAS with ad hoc SAS

So it is at service level not account level

It is not a valid answer because ad-hoc signature cannot be invalidated. With access policy you can change access policy

upvoted 3 times

✉  **OPT\_001122** 1 year, 5 months ago

**Selected Answer: A**

A - corrcrt

upvoted 2 times

  **adrian\_g** 1 year, 6 months ago

I would go with B. A stored access policy is defined on a resource container.

"An account SAS delegates access to resources in one or more of the storage services. All of the operations available via a service or user delegation SAS are also available via an account SAS."

"Service SAS with stored access policy. A stored access policy is defined on a resource container, which can be a blob container, table, queue, or file share."

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

upvoted 1 times

  **ArturKon** 1 year, 6 months ago**Selected Answer: A**

Looks like queues can only have SAS described in A.

upvoted 1 times

Question #45

Topic 4

**HOTSPOT -**

You are developing an application to store and retrieve data in Azure Blob storage. The application will be hosted in an on-premises virtual machine (VM). The

VM is connected to Azure by using a Site-to-Site VPN gateway connection. The application is secured by using Azure Active Directory (Azure AD) credentials.

The application must be granted access to the Azure Blob storage account with a start time, expiry time, and read permissions. The Azure Blob storage account access must use the Azure AD credentials of the application to secure data access. Data access must be able to be revoked if the client application security is breached.

You need to secure the application access to Azure Blob storage.

Which security features should you use? To answer select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

### Component

Application (Client)

### Security Feature

	▼
Storage Account Access Key	▼
System-assigned Managed Identity	▼
Shared access signature (SAS) token	▼

### Azure Storage (Server)

	▼
Stored Access Policy	▼
User-assigned Managed Identity	▼
Cross-Origin Resource Sharing (CORS)	▼

Correct Answer:

## Answer Area

### Component

Application (Client)

### Security Feature

	▼
Storage Account Access Key	
System-assigned Managed Identity	
Shared access signature (SAS) token	

### Azure Storage (Server)

	▼
Stored Access Policy	
User-assigned Managed Identity	
Cross-Origin Resource Sharing (CORS)	

#### Box 1: Shared access signature (SAS) token

When your application design requires shared access signatures for access to Blob storage, use Azure AD credentials to create a user delegation SAS when possible for superior security.

#### Box 2: Stored access policy -

Stored access policies give you the option to revoke permissions for a service SAS without having to regenerate the storage account keys.

A shared access signature can take one of the following two forms:

☞ Service SAS with stored access policy. A stored access policy is defined on a resource container, which can be a blob container, table, queue, or file share.

The stored access policy can be used to manage constraints for one or more service shared access signatures. When you associate a service SAS with a stored access policy, the SAS inherits the constraints – the start time, expiry time, and permissions – defined for the stored access policy.

☞ Ad hoc SAS.

Reference:

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

✉  **coffecold**  1 year, 5 months ago

storage account access keys : similar to a root password for your storage account, not for distribution

system assigned managed identity : only for use within of services in azure

SAS token : right answer

Stored Access Policy : right answer

user assigned managed identity : only for use within of services in azure, this must connect to a server outside

CORS protection : Site-to-Site VPN gateway, there is no other domain involved

upvoted 28 times

✉  **macobuzi**  7 months, 2 weeks ago

Why not System-Assigned Managed Identity + Stored Access Policy? I think it's also a valid option.

upvoted 1 times

✉  **vmakharashvili** 1 year, 1 month ago

Correct

upvoted 1 times

✉  **OPT\_001122** 1 year, 3 months ago

SAS token

Stored Access Policy

The answer is correct

upvoted 1 times

 **finnishr** 1 year, 7 months ago

The answer is correct since none of the other possible combinations make sense. Even though service level SAS doesn't use Azure AD credentials.

upvoted 2 times

 **finnishr** 1 year, 7 months ago

Stored Access Policies definitely won't work. I'd pick SAS and CORS.

upvoted 1 times

 **ArturKon** 1 year, 6 months ago

"Data access must be able to be revoked if the client application security is breached." - isn't that a clue to use access policy? Typical SAS is not revokable itself.

upvoted 2 times

 **gmishra88** 1 year, 6 months ago

SAS with user-delegation works with AD roles

upvoted 2 times

 **sghaha** 1 year, 11 months ago

in Korean

<https://docs.microsoft.com/ko-kr/azure/storage/common/storage-sas-overview>

upvoted 1 times

 **eazy\_breezy\_jeezy** 1 year, 11 months ago

A user delegation SAS makes sense for the "Application" answer, but I don't think any of the provided options for the Azure Storage side work. Stored Access Policies only work with a Service-level SAS, so that wouldn't make sense with a user delegation SAS. Seems like the closest option there would have been something like "RBAC role assignments" or "user delegation keys", just to spit ball.

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

<https://docs.microsoft.com/en-us/rest/api/storageservices/create-user-delegation-sas#revoke-a-user-delegation-sas>

upvoted 1 times

## Question #46

You are building a web application that uses the Microsoft identity platform for user authentication.

You are implementing user identification for the web application.

You need to retrieve a claim to uniquely identify a user.

Which claim type should you use?

- A. aud
- B. nonce
- C. oid
- D. idp

**Correct Answer: C**

oid -The object identifier for the user in Azure AD. This value is the immutable and non-reusable identifier of the user. Use this value, not email, as a unique identifier for users; email addresses can change. If you use the Azure AD Graph API in your app, object ID is that value used to query profile information.

Incorrect:

Not A: aud - Who the token was issued for. This will be the application's client ID.

Reference:

<https://docs.microsoft.com/en-us/azure/architecture/multitenant-identity/claims>

*Community vote distribution*

C (100%)

✉  **serpevi** Highly Voted 1 year, 7 months ago

Got this in 09/22 , went with oid, score 927.

upvoted 12 times

✉  **OPT\_001122** Highly Voted 1 year, 5 months ago

**Selected Answer: C**

oid - correct

upvoted 7 times

✉  **FeriAZ** Most Recent 2 months, 3 weeks ago

**Selected Answer: C**

oid (Object Identifier)

Explanation: The oid claim is a claim in Microsoft identity platform tokens that represents the immutable, unique identifier of a user or an object in Azure AD. It remains constant across the user's lifetime in an organization and across all applications.

he oid claim is specifically designed to uniquely identify a user and is consistent for a user across different applications and organizations in Azure AD.

upvoted 1 times

✉  **Ciupaz** 6 months, 2 weeks ago

The oid claim contains a unique identifier for the user, and it is typically used to uniquely identify users across different sessions and applications

upvoted 1 times

✉  **unraval** 6 months, 3 weeks ago

Determine if the token subject, such as the user (or application itself for an app-only token), is authorized.

You can either check for specific sub or oid claims.

<https://learn.microsoft.com/en-us/azure/active-directory/develop/claims-validation>

upvoted 1 times

✉  **devex** 7 months, 2 weeks ago

**Selected Answer: C**

C: oid

"The immutable identifier for the requestor, which is the verified identity of the user or service principal."

Reference: <https://learn.microsoft.com/en-us/azure/active-directory/develop/access-token-claims-reference#payload-claims>

upvoted 2 times

✉  **JH81** 9 months, 2 weeks ago

Got this on 6/28/2023 and passed with 850. Answer is correct.

upvoted 1 times

👤 **Shashakg** 10 months, 1 week ago

**Selected Answer: C**

Oid claims will always remain same.

upvoted 1 times

👤 **elequiel** 1 year, 5 months ago

Got it in exam 20/10/2022

upvoted 4 times

👤 **finnishr** 1 year, 7 months ago

Correct

upvoted 4 times

## Question #47

You are developing an Azure Function that calls external APIs by providing an access token for the API. The access token is stored in a secret named token in an Azure Key Vault named mykeyvault.

You need to ensure the Azure Function can access to the token. Which value should you store in the Azure Function App configuration?

- A. KeyVault:mykeyvault;Secret:token
- B. App:Settings:Secret:mykeyvault:token
- C. AZUREKVCNNSTR\_ https://mykeyveult.vault.ezure.net/secrets/token/
- D. @Microsoft.KeyVault(SecretUri=https://mykeyvault.vault.azure.net/secrets/token/)

**Correct Answer: D**

Add Key Vault secrets reference in the Function App configuration.

Syntax: @Microsoft.KeyVault(SecretUri={copied identifier for the username secret})

Reference:

<https://daniel-krzyczkowski.github.io/Integrate-Key-Vault-Secrets-With-Azure-Functions/>

*Community vote distribution*

D (89%)

11%

✉  **lorenaizzo** Highly Voted 1 year, 7 months ago

**Selected Answer: D**

It's right! D.

<https://docs.microsoft.com/en-us/azure/app-service/app-service-key-vault-references?tabs=azure-powershell>

upvoted 14 times

✉  **KingChuang** 1 year, 3 months ago

On my exam 2022-12-26.

Chose: Given Answer

upvoted 1 times

✉  **TonyMel** 1 year ago

correct, in 2023Mar24, score: 904/1000.

upvoted 3 times

✉  **juancar** Most Recent 9 months, 1 week ago

This was on the exam (July 2023). Went with proposed. Scored 917

upvoted 3 times

✉  **DarthVee** 11 months ago

According to ChatGPT its A:

Option A is the correct value to store in the Azure Function App configuration.

The format for referencing a secret stored in an Azure Key Vault is "KeyVault:{key vault name};Secret:{secret name}". Therefore, the correct value to store in the Azure Function App configuration to access the token stored in a secret named "token" in an Azure Key Vault named "mykeyvault" is "KeyVault:mykeyvault;Secret:token".

Option B is not a valid format for referencing an Azure Key Vault secret.

Option C is not a valid format for referencing an Azure Key Vault secret. This value appears to be an Azure Key Vault connection string.

Option D is a Key Vault reference expression, which is used in Azure Resource Manager templates to reference a Key Vault secret or certificate. This is not the correct format to store in the Azure Function App configuration.

upvoted 1 times

✉  **MikeAWS** 5 months, 4 weeks ago

chatgpt changed his mind :), its saying D now

upvoted 1 times

✉  **Ciupaz** 5 months ago

Also Bard says D as answer.

upvoted 1 times

✉  **surprise0011** 11 months, 4 weeks ago

If you wonder why not A because syntax is incomplete. Should be like:

@Microsoft.KeyVault(VaultName=myvault;SecretName=mysecret)

<https://learn.microsoft.com/en-us/azure/app-service/app-service-key-vault-references?tabs=azure-cli#reference-syntax>  
upvoted 1 times

✉ **TheExamMaster2020** 1 year, 4 months ago

Did my exam on 15th November 2022. This question was on it.

upvoted 3 times

✉ **OPT\_001122** 1 year, 5 months ago

**Selected Answer: D**

Given answer is correct

upvoted 1 times

✉ **coffecold** 1 year, 5 months ago

**Selected Answer: A**

The Azure Function must be able to access to the token (inside the code)

All it needs is a vaultname and a secret name.

```
var secretClient = new SecretClient(new Uri("https://<VaultName>.vault.azure.net"), new DefaultAzureCredential());
var secret = await secretClient.GetSecretAsync("<SecretName>");
the <SecretName> and the <Vaultname> come from your app settings
```

upvoted 2 times

✉ **nvtienanh** 1 year, 6 months ago

**Selected Answer: D**

Given answer is correct

upvoted 2 times

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