

Answers review

Correct 3**Wrong** 8**Skipped** 34**#12**

With a web application deployed to Azure Web Apps, a company wants to start deploying rolling updates, but at the same time, they want to test the updates on the Azure environment before promoting the app to production. Which of the approaches below would help fulfill their requirements?

A Create a virtual machine and re-create the web application there. Deploy the updates, test the application and then deploy it to production.

B Create an on-premise virtual machine and re-create the web application there. Deploy the updates, test the application and then deploy it to production.

C Create a deployment slot, configure the app on this slot. Test the app, then swap the slots.

D Create a separate web app, then deploy and test it. Then deploy the web app with the updates to production site using Visual Studio.

Explanation

The Web Apps service in Azure App Service allows you to create deployment slots to have a separate staging environment for testing updates before they get rolled out to production. The deployment slot creates a new environment which can then be swapped with the production environment after all testing is complete.

 <https://docs.microsoft.com/en-us/azure/app-service-web/web-sites-staged-publishing>

#14

Your team develops multiple mobile finance APIs for an online banking service. You need mitigate potential abuse for a single online product, a business travel expense submission service. Using Azure API Management, you need to set policies within Azure API Management to control the character types within data strings submitted to the backend via all the product APIs. Which stage and level would you need to set for this API policy in Azure API Management?

A Inbound stage and Product scope

B Backend stage and Specific API scope

C Frontend stage at Individual Operation score

- D Inbound stage and Global scope

Explanation

This policy would control inbound stages APIs at the product scope, because it modifies or controls request contents before they reach the backend for all of a product's APIs.

🔗 <https://cloudacademy.com/course/configuring-azure-api-management/api-policies/>

#15

Which Azure CLI command will provision an Azure Container Registry?

- A az acr create

- B az acr import

- C az acr config

- D az acr run

Explanation

The CLI command 'az acr create' will provision a new registry in ACR. The import command imports an image from one registry into another. The config command configures policy for the registry. The run command queues a quick run for a registry.

🔗 <https://docs.microsoft.com/en-us/cli/azure/acr?view=azure-cli-latest#az-acr-create>

Answers review

Correct 3 Wrong 8 Skipped 34

#3

What operation does the following command in AzCopy perform?
azcopy copy
'https://mysourceaccount.blob.core.windows.net/mycontainer/myTextFile.txt?sv=2018-03-28&ss=bfqt&srt=sco&sp=rw&dlacup&se=2019-07-04T05:30:08Z&st=2019-07-03T21:30:08Z&spr=https&sig=CAfhgnc9gdGktvB=ska7bAiqIddM845iyFwdMH481QA8%3D'
'https://mydestinationaccount.blob.core.windows.net/mycontainer/myTextFile.txt'

Copies the blob "myTextFile.txt" in one Azure storage container to another container in the same Azure Storage account

B Copies the blob "myTextFile.txt" from one Azure storage account to another Azure storage account

C Moves the blob "myTextFile.txt" in one Azure storage container to another container in the same Azure Storage account

D Copies the blob "myTextFile.txt" from one Azure Storage account to another Azure storage account and deletes the blob from the source Azure Storage account

Explanation

The command copies the blob 'myTextFile.txt' from one Azure Storage account to another Azure Storage account, but does not delete the blob from the source account. AzCopy cannot perform deletions, and it is also important to remember that it only copies files and does not move or migrate them. The difference between copying vs. moving is that copying simply duplicates the blob in another storage account, while moving would remove it from the source account and place it in the other account.

 <https://docs.microsoft.com/en-us/azure/storage/common/storage-use-azcopy-blobs?toc=%2fazure%2fstorage%2fblobs%2ftoc.json#copy-blobs-between-storage-accounts>

#4

As the network engineer for a large investment firm, you have been asked to set up an Azure Redis Cache with one critical need. The application developers know that all database elements will likely be accessed with the same probability. Because it is important to select the right eviction policy depending on the access pattern of the application, what Maxmemory eviction policy setting should you choose?

A noeviction

allkeys-lru

C allkeys-random

D volatile-random

Explanation

The Azure Redis Maxmemory policy setting on the Azure Portal Advanced settings blade configures the memory policy for the cache. The exact behavior Redis follows when the maxmemory limit is reached is configured using the maxmemory-policy configuration directive.

There are several directives available: noevection, allkeys-lru, volatile-lru, allkeys-random, volatile-random and volatile-ttl. Redis

recommends using the allkeys-random value if you have a cyclic access where all the keys are scanned continuously, or when you expect the distribution to be uniform (all elements likely accessed with the same probability).

 <https://docs.microsoft.com/en-us/azure/redis-cache/cache-configure#maxmemory-policy-and-maxmemory-reserved>

Eviction policies: The exact behavior Redis follows when the maxmemory limit is reached is configured using the maxmemory-policy configuration directive. The following policies are available:
 noevection: return errors when the memory limit was reached and the client is trying to execute commands that could result in more memory to be used (most write commands, but DEL and a few more exceptions).
 allkeys-lru: evict keys by trying to remove the less recently used (LRU) keys first, in order to make space for the new data added.
 volatile-lru: evict keys by trying to remove the less recently used (LRU) keys first, but only among keys that have an expire set, in order to make space for the new data added.
 allkeys-random: evict keys randomly in order to make space for the new data added.
 volatile-random: evict keys randomly in order to make space for the new data added, but only evict keys with an expire set.
 volatile-ttl: evict keys with an expire set, and try to evict keys with a shorter time to live (TTL) first, in order to make space for the new data added.

#5

ASP.NET applications that run in Azure web app can create which of the following kinds of logs?

A Application tracing, Web server, Detailed error message, Failed request tracing

Application tracing, Web server, Detailed error message, Access request tracing

C Application tracing, Web server, Error message, Access request tracing

D Application tracing, Web server, Error message, Successful request tracing

Explanation

ASP.NET applications running in Azure web apps can create the following types of logs:

- Application tracing
- Web server
- Detailed error message
- Failed request tracing.

 <https://azure.microsoft.com/en-us/documentation/articles/web-sites-dotnet-troubleshoot-visual-studio/>

#6

Before you deploy a new application to its production environment, you need to integrate a monitoring solution that sends messages to the development team's mobile devices. The key requirements for this messaging solution are: It can be deployed with minimal customization or

administration required. It can deliver messages to mobile devices running Android and iOS operating systems. Which Azure solution is optimal for this scenario?

A Azure Service Bus

B Azure Event Hub

C Azure Notification Hub

✓ Azure Event Grid

Explanation

This is where **Azure Notification Hubs** and IoT Edge come in. The former **is a ready-made smart device notification solution**. Need to send push notifications to iPhones, Android phones, or tablets? Notification Hubs is your answer. The great thing about it is that it takes away a lot of the pain involved in supporting a variety of mobile devices. If you have experience as a mobile developer, then you'll know what I am talking about. Unlike other forms of messaging, push notifications often have tricky platform-dependent logic. Scaling, managing tokens, and routing messages to different segments of users on different hardware and different versions of Android is non-trivial work for even an experienced tech team.

Notification Hub takes away most of that pain. It **lets you broadcast to all platforms with a single interface**. It can work both in the cloud or on-premises and includes security features like SAS, shared access secrets, and federated authentication. See the “How To” guide link for more details.

🔗 <https://docs.microsoft.com/en-us/azure/notification-hubs/notification-hubs-push-notification-overview>

#7

You have successfully containerized your application within an Azure Container Registry, created an image of your application and pushed it into the container registry. You have also created an AKS cluster. Now you want to deploy the containerized application onto your AKS cluster. Which three steps do you need to complete? (Choose 3 answers)

✓ Get credentials to authenticate **kubectl** commands sent to the Kubernetes cluster.

✓ Create a manifest file declaring the required Kubernetes resources.

C Create the resources in the cluster

✓ Create a service principal to allow your cluster to interact with Azure resources

Explanation

You would need to complete all of the following steps in order to deploy your application to an AKS cluster except for creating a service principal. This step must already be completed in order for your AKS cluster to be provisioned and ready to host your application. You can also have AKS create a service principal for you using Azure CLI or Azure Portal.

 <https://docs.microsoft.com/en-us/azure/aks/tutorial-kubernetes-deploy-cluster#create-a-service-principal>

#8

There are four replicas of a multi-tier application separated into four resource groups with the following specifications: Each resource group is in a separate region - East US, West US, West Central US, and South Central US. Each resource group includes a replica of a three-tier application replica comprised of five VMs. Two front-end VMs, two mid-tier application VMs, and one back-end database VM. You want to increase the resilience of your database solution by replacing the database hosted on an ARM virtual machine with Cosmos DB. You want to offer a consistent experience for each customer while minimizing the latency of your responses. Which consistency type would be ideal?

A Bounded Staleness

B Session

C Consistent Prefix

✓ Eventual

Explanation

Strong consistency guarantees that a read operation will return the most recent version of an item. This is the type of consistency that relational databases have. For a distributed database to achieve strong consistency, it has to ensure that each write operation has been propagated to all of the replicas before the operation is considered complete. There's an obvious problem with this approach. It's very slow, especially if the database is distributed over a wide geographic region. So how can Cosmos DB provide strong consistency for a global database? Well, it can't. If you choose strong consistency, then the database can only be in one region.

At the other end of the spectrum is eventual consistency. The only guarantee made by this approach is that if no new writes are made to an item, then eventually all of the replicas will have the same value for that item. This is a very weak guarantee because not only could a request return an old value, but it could return a value older than the one that you retrieved previously. This could happen if your second request connected to a replica that hadn't been updated yet. This is the level of consistency typically offered by NoSQL databases. It has the lowest latency, but the worst consistency.

Cosmos DB offers three other consistency levels that are in between these two extremes. As you add more consistency, both the latency and the cost generally go up.

Consistent Prefix is the same as eventual consistency except that it guarantees that read operations will never see out-of-order writes. That is, reads can still return older values, but never out of order.

Session consistency guarantees consistency for each client session. So a client will never see data older than what it has written during a session. This is relatively easy to provide because the system doesn't have to worry about conflicts between multiple clients. It just needs to keep things consistent for an individual client. This approach offers the lowest latency reads and writes. It's also by far the most popular consistency level chosen by Cosmos DB customers.

Bounded staleness guarantees that reads may lag behind writes by a limited amount of time. This costs as much as strong consistency, but it allows you to distribute your database across regions and has lower latency. This is the second most popular consistency level chosen by customers.

 [/course/designing-an-azure-data-implementation/designing-an-azure-data-implementation-cosmos-db/](#)

#9

Which of the following PowerShell cmdlets will initiate a planned failover for an Azure SQL Database?

A Set-AzureRmSqlDatabaseSecondary -Failover

B Set-AzureRmSqlDatabaseSecondary -Failover -AllowDataLoss

Set-AzureRmSqlDatabasePrimary -Failover

D Set-AzureRmSqlDatabasePrimary -Failover -AllowDataLoss

Explanation

Set-AzureRmSqlDatabaseSecondary with the -Failover parameter used to promote a secondary DB to primary DB, demoting the existing primary to secondary.

 <https://azure.microsoft.com/en-us/documentation/articles/sql-database-geo-replication-failover-powershell/>

#11

If you don't know how long to retain data when setting a retention period for immutable blob storage, what kind of policy can you put in place?

A Elastic

LTR Long Term Retention

C Legal

D Fluid

Explanation

Immutable storage supports the following features:

Time-based retention policy support: Users can set policies to store data for a specified interval. When a time-based retention policy is set, blobs can be created and read, but not modified or deleted. After the retention period has expired, blobs can be deleted but not overwritten.

Legal hold policy support: If the retention interval is not known, users can set legal holds to store immutable data until the legal hold is cleared. When a legal hold policy is set, blobs can be created and read, but not modified or deleted. Each legal hold is associated with a user-defined alphanumeric tag (such as a case ID, event name, etc.) that is used as an identifier string.

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

Covered in this lecture



Blob Storage Retention

Course: Configuring Azure Application and Data Security

54s

Answers review

Correct 3 Wrong 8 Skipped 34

#1

Jeremy will manage security for all applications within two subscriptions, named Subscription 1 and Subscription 2. Jeremy needs to be assigned the appropriate role to manage these resources. This new role has the following requirements: Jeremy needs to be able to assign employees he manages permanent roles within PIM. With his potential ability to assign other employees resource access in PIM, his role assignment will need administrative review. Before management activates his assignment, they would like Jeremy to complete MFA. What Azure resource role assignment within PIM will meet these requirements?

A Permanent eligible assignment

B Permanent active assignment

C An eligible assignment with expiration

D An active assignment with expiration

Explanation

Permanent assignments allow users to assign other users permanent roles within PIM. Eligible assignments require the user to complete an action, which could be a justification for the role or MFA, before activating the role. Active role assignments do not need to be justified or require MFA.

🔗 <https://docs.microsoft.com/en-us/azure/active-directory/privileged-identity-management/pim-resource-roles-eligible-visibility>

#2

You have created an investment app that uses machine learning to analyze day-to-day stock market activity. The real-time data is processed using Azure Stream Analytics, uploaded to an Azure SQL Database for initial queries and then migrated to an SQL Data Warehouse, where it is analyzed. The data analysis is done within a custom application hosted on heterogeneous Azure Virtual Machines within an availability set. Analysis of new data is a stateful process assigned to a specific instance within the availability set. The analysis tasks can take 40 minutes to complete if the process is not interrupted. In the event of any errors or transient failures that cannot be resolved, the analysis must completely restart. Which potential solutions could work together to streamline analysis of new data? (Choose 2 answers)

A Modify the data analysis process to be idempotent.

B Configure a scale set to manage the stateful process via scheduled auto scaling.

C Integrate a checkpoint mechanism into the process.

D Reduce the time between each retry to address transient failures.

Explanation

Modifying the two processes so they can be performed idempotently increase the chance that the operation can be spread across multiple instances and continue in the event of an instance failure. Integrating a checkpoint mechanism would also allow the process to save its progress in stages, and in the event of an error, the process could restart from where it left off.

 <https://cloudacademy.com/course/developing-autoscaling-azure/application-design-considerations/>

#10

Your company would like to enable Azure MFA within its Azure Active Directory tenants. The company includes an office of roughly 300 employees, with many employees working from home periodically throughout the week. Sales representatives who travel most of the year require remote access to applications in demonstration environments hosted on Azure. The company's requirements are:
 Minimal administrative overhead in MFA setup and management
 All employees must register for MFA
 All employees must MFA when logging into their user accounts remotely, but not when in the office.
 Without considering the necessary Azure Active Directory licenses, what choice best accomplishes these requirements?

- A** Enable Azure AD Identity Protection. Configure an Azure MFA registration policy requiring all users to register and enable MFA. Configure all office IP addresses as federated IP addresses which can skip MFA.
- B** Enable Azure MFA for all employees via the Azure Portal. Configure an Azure MFA registration policy requiring all users to register and enable MFA. Configure all office IP addresses as managed IP addresses which can skip MFA.
- C** Enable Azure AD Identity Protection. Configure an Azure MFA registration policy requiring all users to register and enable MFA. Configure an Azure MFA risk-based conditional access policy requiring users accessing Azure resources remotely to complete MFA for all logins.
- D** Enable Azure AD Identity Protection. Configure an Azure MFA registration policy requiring all users to register and enable MFA. Configure an MFA bypass option for all employees when they log in through an office IP address.

Explanation

With Azure Active Directory's Identity Protection service, you can set up registration policies that enforce your MFA requirements for all directory users. You can also setup all office IP addresses as federated (not managed) Trusted IP addresses, which will not require MFA, or administrative updates as your office IP addresses change.

 <https://docs.microsoft.com/en-us/azure/active-directory/identity-protection/overview>

Covered in this lecture



Azure AD B2B

Course: Designing for Azure Identity Management

3m 18s



#13

Which PowerShell command will create a new deployment slot for a web app?

- A** New-AzureRmWebAppSlot -ResourceGroupName [resource group name] -Name [web app name] -Slot [deployment slot]

-- slot name] -AppServicePlan [app service plan name]

- B** New-AzureRmDeploymentSlot -ResourceGroupName [resource group name] -Name [web app name] -Slot [deployment slot name] -AppServicePlan [app service plan name]
- C** New-AzureRmWebAppSlot -Name [web app name] -Slot [deployment slot name] -AppServicePlan [app service plan name]
- D** New-AzureRmWebAppDeploymentSlot -ResourceGroupName [resource group name] -Name [web app name] -Slot [deployment slot name] -AppServicePlan [app service plan name]

Explanation

The correct answer is:

New-AzureRmWebAppSlot -ResourceGroupName [resource group name] -Name [web app name] -Slot [deployment slot name] -AppServicePlan [app service plan name].

All of the other answers contain errors.

🔗 <https://azure.microsoft.com/en-us/documentation/articles/sql-database-elastic-pool-create-powershell/>

#16

Stuart is a contractor who needs to read and write access to resources within two resource groups, Resource Group 1 and Resource Group 2. He will assist with updates to live applications within both resource groups. The role assignment has the following requirements: For security reasons, credentials assigned to contractors must last no longer than five business days. This release will take 30 business days to properly plan, test and execute. If Stuart does not have access to resources at all times, the project will be compromised. How can these requirements and project goals be met?

- A** Assign Stuart an active role that expires after five business days. Assign a resource administrator to extend his role before it expires.
- B** Assign Stuart an eligible role that expires after five business days. Assign a designated approver to extend his role before it expires.
- C** Assign Stuart an active role that expires after 30 business days. Assign a Privileged Role Administrator to review his activity and all actions performed on the resources for 30 business days.
- D** Assign Stuart an eligible role that expires after 30 business days. Require MFA for each login, and re-approval for role activation every 5 days.

Explanation

Here are the key facts related to this question:

- Roles with expiration can be extended or renewed. Extensions are better in this case to avoid potential loss of access during role renewal.
- Only resource administrators (Owners, User Access Administrators, and Global Admins) can renew or extend roles in Azure PIM.

🔗 <https://docs.microsoft.com/en-us/azure/active-directory/privileged-identity-management/pim-resource-roles-configure-role-settings#require-multi-factor-authentication>

#17

What Azure Active Directory (Azure AD) role is required to add users to applications?

A Azure Automation Manager

B Azure Owner

C Device Manager

D Azure AD administrator

Explanation

Azure AD can support password-based single sign on for any cloud-based app that has an HTML-based sign-in page. Administrators can create and manage application credentials, and assign those credentials to users or groups who need access to the application. Alternatively, administrators can assign applications to end users or groups, and allow the end users to enter their own credentials directly upon accessing the application for the first time in their access panel.

🔗 <https://docs.microsoft.com/en-us/azure/active-directory/active-directory-appssoaccess-whatis#how-does-single-sign-on-with-azure-active-directory-work>

#18

You are designing several message queue services for clients. Service 1 is a delivery system for online invitations with the following specifications: First-in, first-out support is required to ensure messages are delivered in order. Messages must have unlimited time to live (TTL). Service 2 is a billing reminder delivery services with the following specifications: Prevention of duplicate messages - any duplicate messages would need to be detected and removed from the queue automatically. The messages will average 150 KB in size. Service 3 is a data delivery system for weather data from numerous IoT producers to a central data warehouse for batch processing for eventual data analysis. Its specifications are: The messages will be 10 KB in size. The service will have to process thousands of messages per second. The data analysis application used with Service 3 performs idempotent operations. Which service(s) would be ideal for Azure Storage Queue?

A Service 1 and 3

B Service 2 only

C Service 3 only

D Service 1 and 2.

Explanation

Azure Storage Queues and Azure Service Bus Queues have several similar use cases, but their service limitations make them ideal for specific services.

- Storage Queues cannot guarantee FIFO delivery, while Service Bus Queues can.
- Storage Queues cannot detect duplicate messages in a queue.
- Storage Queues have a maximum message TTL of 7 days, while Service Bus Queues TTL can be unlimited.
- Storage Queues have a maximum file size of 64 KB, and although they can provide a pointer to larger size files if necessary, doing so decreases the speed of the service. Service Bus Queues are capable of delivering larger messages.
- Storage Queues are generally recommended for large, asynchronous workflows while Service Bus Queues are ideal for medium-scale transaction workflows.

 <https://cloudacademy.com/course/intro-to-azure-storage/queue-storage-overview-1/>

#19

Your database administrator and you are brainstorming ways to monitor memory pressure on a newly installed Azure Redis Cache Premium tier instance. Your database administrator insists that using the cache misses Azure Portal metric is the best way to monitor memory pressure. Why do you advise against using cache misses for monitoring memory pressure?

A Cache misses are normal and do not always reflect memory pressure.

B Cache misses are more a reflection of server CPU utilization issues and latency issues.

C Cache misses result from client/server regional variances and request/response timeouts.

D Cache misses can only measure timeout issues resulting from low network bandwidth availability.

Explanation

Cache misses are not necessarily a bad thing. Not all data can be in the cache at once. When using the cache-aside programming pattern, an application looks first in the cache for an item. If the item is not there (cache miss), the item is retrieved from the database and added to the cache for next time. Cache misses are normal behavior for the cache-aside programming pattern. Higher than expected cache misses may be caused by application logic that populates and reads from the cache. However, **if items are being evicted from the cache due to memory pressure then there may be some cache misses, but a better metric to monitor for memory pressure would be Used Memory or Evicted Keys.**

 <https://docs.microsoft.com/en-us/azure/redis-cache/cache-how-to-monitor#available-metrics-and-reporting-intervals>

#20

You need to design and implement a function using Azure Functions to initiate order processing for your online website. Online orders from the client are processed via an Azure Storage Queue, and these order details need to be written into a CosmosDB database table. To create the necessary function in Azure Functions to complete this task, which function components will you need to configure? (Choose 2 answers)

A An Azure App Service account connection

B An Azure Storage Queue trigger

C An Azure Cosmos DB output binding

D An HTTP input binding

Explanation

The Azure Queue trigger includes an input binding, so the HTTP input binding is not necessary. The data received from the queue is being written to the Cosmos DB table, so modifying a boilerplate Cosmos DB output binding accomplishes that task. When configuring the function, you need to create connections between Azure Functions and the other services and resources that the function will interact with, so connections must be created for the Azure Storage account that delivers the message via a queue, and for the Cosmos DB account that contains the table.

 <https://cloudacademy.com/course/intro-to-azure-functions/triggering-on-queues-and-binding-to-documentdb/>

Covered in this lecture



DEMO: Input Bindings

Course: [Introduction to Azure Functions](#)

7m 2s



#21

Your team is spending too much time recovering from unplanned events, specifically when small resource updates occur that disrupt service operations, or noncompliant resources are created. You want to automate a process to review log data related to resource updates. You also need to design specific queries and potentially alerts related to these kinds of noncompliant resource updates. What type of logs would you analyze, and with what Azure service?

A Analyze activity logs with Log Analytics

B Analyze diagnostic logs with Event Grid

C Analyze application logs with Stream Analytics

D Analyze diagnostic logs with Event Hub

Explanation

There are three types of logs we need to be aware of: activity logs, diagnostic logs, and application logs, or guest OS logs. Let's take a look at where these logs exist within an Azure subscription in relation to the resources they are monitoring. Here we have a Non-Compute Resource, which is tightly integrated and delivered through Azure providers, for example a network security group. Next to this, we have a Compute Resource.

This is a virtual machine with a guest OS, like Windows or Linux, and it has an application installed like IIS or Apache. Activity logs provide a record of operations from a subscription level, executed against the resource. For example, when administrative tasks are performed on the resource, like creating a resource or updating the properties of an existing resource, this will

generate an event in the activity log. Diagnostic logs are collected within a subscription at an Azure resource level for services like VPN gateways or network security groups. Not all Azure services have an option for diagnostic logging, and the level of detail you can capture varies. You can view a full list of resources that support diagnostic logging from the Microsoft Azure website. Application logs are logs generated by applications or services within a guest OS. These logs are collected from within the operating system through an agent. Application logs can be collected from core services, like Windows Event logs, or from applications like IIS. Diagnostic logging can be enabled in a couple of ways: using the Azure portal, PowerShell, Azure CLI or the REST API via Azure Resource Manager.

 [/course/designing-for-azure-operations/designing-for-azure-operations-section1-3-log-analytics/](https://cloudacademy.com/course/designing-for-azure-operations/designing-for-azure-operations-section1-3-log-analytics/)

#22

Which Azure domain service is based in Azure rather than on-premise, and is designed to help migrate on-premise applications which need Active Directory Domain Service authentication to the cloud?

A Do-It-Yourself Active Directory Domain Services

B Azure AD Standalone

C Azure Active Directory Hybrid ID Solution

D Azure Active Directory Domain Services Solution

Explanation

Azure AD Domain Services solution is a cloud-based, lightweight option to meet on-premises identity requirements for network application development and testing. This isn't meant to replace your on-premises identity solution but rather act as a mechanism to help migrate on-premises applications that require AD DS authentication methods to the cloud.

 <https://cloudacademy.com/course/azure-active-directory-security/identity-management-1/>

Covered in this lecture

**Identity and Access Management****#23**

Your team is spending too much time recovering from unplanned events, specifically when small resource updates occur that disrupt service operations, or noncompliant resources are created. You want to automate a process to review log data related to resource updates, to detect anomalies within the updates. You would like to utilize live dashboards to evaluate the log data quickly. What type of logs would you analyze, and with what Azure service?

A Process activity logs with Azure Event Hub.

B Process diagnostic logs with Log Analytics.

C Process application logs with tables in Azure Storage.

D Process diagnostic logs with Power BI.

Explanation

Azure offers activity logs to help you track subscription level operations on resources, such as creating or updating resources.

Azure Event Hubs allows you to receive thousands of log events per second and detect anomalies, and it also provides live dashboards as well.

🔗 <https://docs.microsoft.com/en-us/azure/monitoring-and-diagnostics/monitoring-overview-activity-logs>

#24

The following is a subsection of an ARM template to deploy a Windows VM. In order to create the network interface you need a public IP Address and a Virtual Network. Which of the answers below belong in the dependsOn array to accomplish that objective?...{"apiVersion": "2016-03-30", "type": "Microsoft.Network/networkInterfaces", "name": "[variables('nicName')]", "location": "[resourceGroup().location]", "dependsOn": [__FILL_IN_THE_BLANK__[resourceId('Microsoft.Network/virtualNetworks', variables('virtualNetworkName'))]]}....

A "[resourceId('Microsoft.Network/publicIPAddresses', variables('publicIPAddressName'))]",

B "[resourceId('Microsoft.Network/networkInterfaces', variables('nicName'))]"

C "[reference(variables('publicIPAddressName')).dnsSettings.fqdn]"

D "[resourceId('Microsoft.Storage/storageAccounts', variables('storageAccountName'))]",

Explanation

The dependsOn property of a resource will allow you to delay the creation of a resource until another exists.

🔗 <https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-group-authoring-templates>

#25

When using a mobile app with the Azure Notification Hub services, what are the required steps to ensure that push notifications are received on mobile devices?

- A Configure the Notification Hub. Retrieve the PNS handle from the provider. Register the PNS handle with the app back end. The Notification Hub sends the message to the platform notification service.
- B Retrieve the PNS handle from the provider. Register the PNS handle with the app back end. The Notification Hub sends the message to the platform notification service.
- C Configure the Notification Hub. Retrieve the PNS handle from the provider. The Notification Hub sends the message to the platform notification service.
- D Configure the Notification Hub. Register the PNS handle with the app back end. The Notification Hub sends the message to the platform notification service.

Explanation

At the high level , this is how the push notification works

1. The client app decides it wants to receive pushes, and contacts the corresponding PNS to retrieve its unique and temporary push handle. The handle type depends on the system.
2. The client app stores this handle in the app back-end or provider.
3. To send a push notification, the app back-end contacts the PNS using the handle to target a specific client app.
4. The PNS forwards the notification to the device specified by the handle.

🔗 <https://docs.microsoft.com/en-us/azure/notification-hubs/notification-hubs-push-notification-overview>

#26

You are designing a networking events mobile application with the Mobile Apps platform in Azure App Service. What type of notification would you send to clients by integrating their SDKs with the registration capabilities of Azure Notification Hubs?

A push

B pull

C post

D get**Explanation**

When developing a mobile application in Azure App Service, Azure Notification Hubs provides a multiplatform, scaled-out infrastructure that enables you to send mobile push notifications from any backend (in the cloud or on-premises) to any mobile platform. With a single API call, you can target individual users or entire audience segments containing millions of users, across all their devices.

🔗 <https://docs.microsoft.com/en-us/azure/notification-hubs/notification-hubs-push-notification-overview>

#27

The junior database administrator at your organization is experimenting with an Azure Stream Analytics parallel job. The job input is from an Event Hub with eight partitions. Which of the following would be feasible for the job output?

A An Event Hub with 0 partitions**B** An Event Hub with 16 partitions**C** A Blob Output**D** A Blob Output with 8 partitions**Explanation**

The number of input partitions must equal the number of output partitions so the idea is to avoid a mismatched partition count issue. Blob output does not currently support partitions. However, it will inherit the partitioning scheme of the upstream query. If Event Hubs are used, there must be eight partitions.

🔗 <https://docs.microsoft.com/en-au/azure/stream-analytics/stream-analytics-scale-jobs#example-scenarios-that-are-not-embarrassingly-parallel>

#28

Which tool can copy blobs from one Azure Storage container to another container programmatically, and delete data from the source container once the copy is complete?

A AzCopy**B** Azure Storage Data Movement Library

C Azure Migrate

D Azure Storage Explorer

Explanation

It is possible to effectively move blobs between containers programmatically using the [Microsoft Azure storage data movement library](#). This library contains methods that can be added to a C# project that can copy data between containers as well as delete the blobs after the copy process has completed. To learn more about the Microsoft Azure storage data movement library refer to this URL (<https://docs.microsoft.com/azure/storage/common/storage-use-data-movement-library>).

🔗 https://cloudacademy.com/course/managing-azure-blob-storage/moving-blobs-between-storage-containers/?context_id=534&context_resource=lp

#29

Below is a section from an ARM Template. Which of the following options will cause the "adminPassword" property to be masked if deployed inside the portal?"parameters": { "adminPassword": { "type": "_____"}},

A secureString

B string

C secureObject

D array

Explanation

The secureString allows you to mask properties inside the portal.

🔗 <https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-group-authoring-templates>

#30

You have recently launched a Python application with an Azure Cache for Redis. You want to store a string within your Python app titled Reference that reads "Filename: Critical_Doc; Last update 8/19/2019". Which script will perform this operation?

A result = r.set("Reference", "Filename: Critical_Doc; Last update 8/19/2019")

B print = r.insert("String: Reference", "Filename: Critical_Doc; Last update 8/19/2019")

C result = r.get("String", "Filename: Critical_Doc; Last update 8/19/2019")

D print = r.add("Reference", "Filename: Critical_Doc; Last update 8/19/2019")

Explanation

The script **result = r.set("Reference", "Filename: Critical_Doc; Last update 8/19/2019")** will store the string in your Azure Cache for Redis. You can retrieve it using the short script **result = r.get("Reference")**.

🔗 <https://docs.microsoft.com/en-us/azure/azure-cache-for-redis/cache-python-get-started#read-and-write-to-the-cache>

#31

You have an ARM template, and you need to test and deploy it with PowerShell. Which of the following shows the correct series of commands to run?

- A
1. Add-AzureRmAccount
 2. New-AzureRmResourceGroup
 3. Test-AzureRmResourceGroupDeployment
 4. New-AzureRmResourceGroupDeployment

- B
1. Login-AzureAccount
 2. New-AzureResourceGroup
 3. Test-AzureResourceGroupDeployment
 4. New-AzureResourceGroupDeployment

- C
1. Add-AzureRmAccount
 2. Test-AzureRmResourceGroupDeployment
 3. New-AzureRmResourceGroup
 4. New-AzureRmResourceGroupDeployment

- D
1. Login-AzureAccount
 2. Test-AzureResourceGroupDeployment
 3. New-AzureResourceGroup
 4. New-AzureResourceGroupDeployment

Explanation

This is a difficult question if you don't use PowerShell regularly.

However the order should be to first to login

```
Add-AzureRmAccount
```

Next you can create the resource group

```
New-AzureRmResourceGroup -Name ExampleResourceGroup -Location "West US"
```

Then you can test the deployment

```
Test-AzureRmResourceGroupDeployment -ResourceGroupName ExampleResourceGroup -TemplateFile <PathToTemplate>
```

Then you can actually deploy the resource group

```
New-AzureRmResourceGroupDeployment -Name ExampleDeployment -ResourceGroupName ExampleResourceGroup -Templa
```

 <https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-group-template-deploy>

#32

Which Microsoft PowerShell Security Cmdlet converts a secure string to an encrypted standard string?

A ConvertTo-EncryptedString

B ConvertFrom-EncryptedString

C ConvertTo-SecureString

D **ConvertFrom-SecureString**

Explanation

PowerShell has a Security module that consists of cmdlets and providers that manage the basic security features of Windows.

To convert a secure string to an encrypted standard string, use the ConvertFrom-SecureString cmdlet.

 <https://msdn.microsoft.com/en-us/powershell/reference/5.1/microsoft.powershell.security/microsoft.powershell.security>

#33

You're designing a messaging solution and it has the following requirements:Messages must have a time-to-live of at least 10 daysYour application message size does not exceed 150 KBYour queue size will not grow larger than 50 GBYour application requires at-most-once deliveryWhich of the following services will be included in your design?

A Service Bus Queues

B Service Bus Relay

C Storage Queues

D Event Hubs

Explanation

As a solution architect/developer, you should consider using Storage queues when:

- Your application must store over 80 GB of messages in a queue, where the messages have a lifetime shorter than 7 days.

As a solution architect/developer, you should consider using Service Bus queues when:

- The time-to-live (TTL) characteristic of the application-specific workload can exceed the 7-day period.
- Your application handles messages that can exceed 64 KB but will not likely approach the 256 KB limit.
- Your messaging solution must be able to support the "At-Most-Once" delivery guarantee without the need for you to build the additional infrastructure components.

🔗 <https://docs.microsoft.com/en-us/azure/service-bus-messaging/service-bus-azure-and-service-bus-queues-compared-contrasted>

#34

You have configured an Azure Stream Analytics job and want to check its progress periodically using the metric graphing feature available in Azure Portal. You need to monitor the following metrics: Streaming units (percentage) Late input events (count) Early input events (count) Input Event Bytes (bytes) Runtime errors (count) Out-of-Order Events (count) You prefer to create the minimum number of graphs, for optimal efficiency. How many graphs will you need to create

A 5

B 1

C 3

D 2

Explanation

All of the metrics on the same graph have to be the same unit of measure. There are three units of measure in the collection of metrics listed in this question - count, percentage, and number of bytes. Therefore, the correct answer is three.

#35

When configuring Azure Notification Hub push notifications for your Azure App Service mobile app, which credential type is required to allow your mobile backend to connect to your notification hub?

A Access policy connection strings

B OAuth 2.0 authentication

C Managed Service Identity authentication

D HubTriggers

Explanation

You will need to get the connection string from the Access Policies page. This is the credential that will let your mobile backend actually connect to your hub for pushing messages. It will be part of your mobile backend code.

</course/design-solutions-using-platform-services/creating-push-notification-system/>

#36

When using the Azure Monitoring service for Web Apps in Azure, which of the below logging facilities is not an available option?

A Application Logging (File System)

B Application Logging (Table Storage)

C Application Logging (Blob Storage)

D Application Logging (Queue Storage)

Explanation

By default, the following Application Diagnostics are disabled for a Web App service , but can be enabled whenever required:

1. Application Logging (File System): The logs are collected by the file system of the web app.

2. **Application Logging (Table Storage):** The logs are collected in the Table storage that is specified under Manage Table Storage.
3. **Application Logging (Blob Storage):** The logs are collected in the Blob container that is specified under Manage Blob Storage.

↳ <https://docs.microsoft.com/en-us/azure/app-service-web/web-sites-enable-diagnostic-log>

#37

Your developers need to be able to send messages between the web and worker roles and have asked you for architectural help. Which of the following options would be well suited to pass messages between a web and worker role?

A Azure Queue Storage

B Azure Blob Storage

C Azure File Storage

D Azure Table Storage

Explanation

Storage queues allow for asynchronous messaging.

↳ <https://docs.microsoft.com/en-us/azure/storage/storage-dotnet-how-to-use-queues>

Covered in this lecture



Queues



Course: **Developing Long-Running Tasks on Azure**

42s

#38

You are developing a data processing application that continuously receives updates in near real-time from sources across the globe. Once processed, the data will be stored in Cosmos DB. You would like to minimize storage costs as much as possible and ensure that your Cosmos DB database can receive data from multiple regions simultaneously. You also want to minimize latency, but the data update sequence is critical. Therefore, it is critical that data is delivered and updated in proper order. What Cosmos DB consistency level is ideal for this data processing application based on these requirements?

A Bounded Staleness

B Session

C Consistent Prefix

- D** Eventual

Explanation

With Consistent Prefix and Eventual consistency levels, both of these levels guarantee that your data will eventually converge to the most recently written. With Consistent Prefix at least you get an additional guarantee that data will never be out of order. So even if you don't get the most recent data on read, you can at least be sure you are not skipping over data inadvertently. Both of these consistency levels allow for fast throughput and are relatively inexpensive. The more inconsistency you can tolerate, the more you can save money on request unit usage.

🔗 <https://cloudacademy.com/course/introduction-azure-cosmos-db/cosmos-db-features-and-capabilities/>

#39

You have an Azure service plan hosting three Azure Web Apps, named Azure Web App 1, Azure Web App 2, and Azure Web App 3. Web App 1 is suddenly experiencing a complete outage that is affecting multiple deployment slots. You would like to stop the entire application. What effect can executing a stop command for Web App 1 application have in Azure App Service? (Choose 2 answers)

- A** It can stop the VMs hosting the application.

- B** **It can stop all Web App 1 deployment slots.**

- C** **It can stop Web App 1 entirely.**

- D** It can stop all Web Apps running on your App Service Plan.

Explanation

There are commands to **Stop** and **Restart** the application. The underlying virtual machines are not stopped or restarted, so these commands do not impact other apps in the same App Service plan.

🔗 <https://cloudacademy.com/lab/deploying-monitoring-azure-app-service-web-apps/creating-web-app-azure/>

#40

You need to update the metadata for a blob within an Azure Blob Storage account using Azure PowerShell. The process to update the metadata includes the following steps, but not in the numbered order listed below. Which answer places the following numbered steps in the proper order to complete the task? Review the object properties Retrieve the desired blob Set the storage context to the correct storage account and provide access key Set properties using the set properties method

- A** 3-2-1-4

B 2-1-3-4**C** 3-1-2-4**D** 2-3-1-4

Explanation

The correct order is:

(3) Set the storage context to the correct storage account and provide access key

(2) Retrieve the desired blob

- (1) Review the object properties
- (4) Set properties using the set properties method

🔗 <https://cloudacademy.com/course/managing-azure-blob-storage/setting-and-retrieving-blob-properties-and-metadata/>

#41

Your company has a formal process for sending shared access signatures (SAS) to verified third parties, but is concerned that the SAS tokens could be obtained by an unintended or malicious user. You are considering additional security options to integrate into your SAS process, such as stored access policies. Consider the security options available with shared access signatures. What additional security option is available with stored access policies, and is not possible with shared access signatures alone?

A Limiting access to a specific IP address or address range**B** Specifying when access via SAS token starts and ends**C** Limiting access to specific Azure storage containers or objects**D** Modifying existing SAS token permissions

Explanation

Shared access signatures allow you to:

1. Define the scope of access - account level (multiple Azure Storage services like queue, blob, etc) or resource level (limited

- to service, container, or blob)
2. Define allowed actions (read, write, and delete, for example)
 3. Specify start and expiration time
 4. Specify approved IP address or address range that may use the URI
 5. Set approved protocols: HTTP or HTTPS

Stored Access Policies allow you to:

1. Set at container level
2. Modify start and expiration time
3. Revoke a SAS token after it is issued
4. Modify existing SAS permissions

 <https://cloudacademy.com/course/intro-to-azure-storage/blob-storage-demo-1/>

#42

You are binding a certificate with IP SSL for your Azure App Service web app. What additional step is required to successfully bind a certificate with IP SSL that is unnecessary for binding other types of SSL certificates with an App Service web app?

A Re-map your A record to the new custom domain IP address

B Enforce HTTPS

C Ensure your app deployed on the basic level tier or higher

D Provide the certificate password

Explanation

Only one IP SSL binding may be added. This option allows only one SSL certificate to secure a dedicated public IP address. The other steps, enforcing HTTPS and providing the certificate password, are required for all SSL certificate types. The other potential answer is required for other SSL certificates - at least a basic level tier for your app service. For IP SSL, you actually are required to use either the production or isolated tier.

 <https://docs.microsoft.com/en-us/azure/app-service/configure-ssl-bindings#remap-a-record-for-ip-ssl>

#43

You are auditing and updating a small number of critical blobs within an Azure Blob Storage account, and those updates are recorded in a separate on-premises database. The entire update process for each blob takes roughly 30-50 seconds because the on-premises update can lag occasionally. The process has never taken longer than 50 seconds. During this update, you plan to lease each blob individually as you audit the account, to limit the potential effects to ongoing business. You want to lease the blob from the time you begin your update until the time the update is recorded in the on-premises database. Which lease operations should you perform?

- A Lease the blob for 60 seconds, perform the update, and break the lease.
- B Lease the blob for 60 seconds, perform the manual update, and release the lease.
- C Lease the blob indefinitely, perform the manual update and then break the lease.
- D Lease the blob indefinitely, perform the manual update and, then release the lease.

Explanation

The key to answering this question correctly is understanding how timed and indefinite (or infinite) leases operate.

- Timed and indefinite leases, when released, end immediately.
- Timed leases, when broken, last for the remaining time of the lease period and then end.
- Indefinite leases, when broken, end immediately.

Therefore, the correct answer is to select a timed lease of 60 seconds, and break it once you've completed the manual update. This way, the lease will extend the full 60 seconds while the on-premises database is updated.

🔗 <https://cloudacademy.com/course/managing-azure-blob-storage/implementing-blob-leasing/>

#44

You have just launched an update for your multi-language translation mobile app, hosted on App Service. You receive multiple complaints that customer submissions of text translations are not being processed, and did not receive HTTP 4xx or 5xx error code responses. You want to know which App service components may have caused the issue. What log type should you enable?

- A Failed Request Tracing
- B Web Server Logging
- C Detailed Error Messaging
- D Application Logging

Explanation

Detailed information on failed requests, including a trace of the IIS components used to process the request and the time taken in each component. It's useful if you want to improve site performance or isolate a specific HTTP error.

🔗 <https://docs.microsoft.com/en-us/azure/app-service/troubleshoot-diagnostic-logs>

#45

You are configuring your ARM template named AzureAppVMTTemplate.json to deploy four virtual machines. The resource IDs for the virtual machines deployed in AzureAppVMTTemplate.json will be passed to a separate ARM template titled AzureAppSecurity.json. What is required to pass the VM resource IDs from AzureAppVMTTemplate.json to AzureAppSecurity.json successfully? (Choose 2 answers)

- A AzureAppVMTTemplate.json must be linked to AzureAppSecurity.json
- B AzureAppVMTTemplate can be a parent or child of AzureAppSecurity.json to pass the VM resource IDs to it.
- C AzureAppVMTTemplate.json must reference the AzureAppSecurity.json file.
- D AzureAppVMTTemplate.json template must be a parent of AzureAppSecurity.json template to pass the VM resource IDs to it.

Explanation

In order for AzureAppVMTTemplate.json to pass the VM resource IDs to AzureAppSecurity.json, the two templates must be linked. It does not matter which template is the parent for this to succeed.

🔗 <https://cloudacademy.com/course/azure-arm-intro/azure-arm-template-structure/>

#1

_____ allows you to store and manage your container images in a central registry.

A Azure Container Instances

B Azure Service Fabric

C Azure Web Apps

✓ Azure Container Registry

Explanation

The Azure Container Registry is another container-centric service offering available in Azure. It allows you to store and manage your container images in a central registry, which is integrated with several other Azure services, including the App Service, Batch, and Service Fabric, among others.

🔗 <https://cloudacademy.com/course/building-containers-with-azure-devops-978/container-related-services-in-azure/>

#3

_____ is a distributed systems platform that allows you to build and operate always-on, scalable, distributed apps.

✓ Azure Service Fabric

B Azure Container Registry

C Azure Container Instances

D Azure Web Apps

Explanation

Azure Service Fabric is a distributed systems platform that allows you to build and operate always-on, scalable, distributed apps.

🔗 <https://cloudacademy.com/course/building-containers-with-azure-devops-978/container-related-services-in-azure/>

#4

You are publishing a debug build configuration. Which of the following must be done in order for remote debugging to work?

A Ensure the debug attribute of the compilation element in the web.config file is set to false.

✓ Ensure the debug attribute of the compilation element in the web.config file is set to true.

C Ensure the debug attribute of the httpRuntime element in the web.config file is set to true.

D Ensure the debug attribute of the httpRuntime element in the web.config file is set to false.

Explanation

Make sure the debug attribute of the compilation element in the web.config file is set to true.

🔗 <https://support.microsoft.com/en-us/help/815157/how-to-disable-debugging-for-asp-net-applications>

_____ allows you to assess your update status across your entire environment and to manage updates for both on-prem and Azure-hosted Windows servers and Linux servers from a single location.

A Azure Resource Manager

B Azure Update Management

C Azure Security Center

D Azure Container Registry

Explanation

Azure Update Management is a service that's included with each Azure subscription. This service **allows you to assess your update status across your entire environment and to manage updates for both on-prem and Azure-hosted Windows servers and Linux servers from a single location.**

 <https://cloudacademy.com/course/configuring-azure-vm-and-container-security/configuring-system-updates-for-virtual-machines/>

Azure Resource Manager (ARM) policy focuses on _____ actions at various scopes.

A organizational

B user

C resource

D system

Explanation

With policies, you can prevent users in your organization from breaking conventions that are needed to manage your organization's resources. It is important to note that policies and RBAC work together. However, there are differences. RBAC focuses on the actions a user can perform at different scopes while policy focuses on resource actions at various scopes.

🔗 <https://docs.microsoft.com/en-us/azure/resource-manager-policy#how-is-it-different-from-rbac>

Covered in this lecture



Book 8 - Infrastructure as Code

Course: **DevOps Playbook Part 2**

5m 59s

There is a requirement to store audit logs for an application hosted in Azure. Which of the following Azure Blob Storage blob type is recommended for this purpose?

A Append blob

B Normal blob

C Block blob

D Page blob

Explanation

The append blob gives the ability to append data to an existing blob. This blob type is ideal for storing data that is relevant to logging and auditing.

 <https://blogs.msdn.microsoft.com/windowsazurestorage/2015/04/13/introducing-azure-storage-append-blob/>

#3

You're an application developer looking to persist your data into Azure Blob Storage using REST API, with the occasional need to remove and update your records. What type of Blob would you use?

A Append Blobs

B Any

C Block Blobs

D Page Blobs

Explanation

Best option here is to use Block Blobs, as they offer programmatic access via REST API, unlike Page Blobs which are used by filesystem disks and Append Blobs do not support update and delete operations.

 <https://docs.microsoft.com/en-us/rest/api/storageservices/understanding-block-blobs--append-blobs--and-page-blobs>

When you configure key management for storage accounts, you must ensure which of the following key vault configurations?

A The key vault is in the same region as the storage account

B The key vault is linked to a container within the storage account

C The key vault is in the same subscription as the storage account

✓ Make sure of all of these key configurations are correct

Explanation

Azure Key Vault is a multi-tenant service and uses a pool of Hardware Security Modules (HSMs) in each Azure location.

All HSMs at Azure locations in the same geographic region share the same cryptographic boundary (Thales Security World).

For example, East US and West US share the same security world because they belong to the US geo location. Similarly, all Azure locations in Japan share the same security world and all Azure locations in Australia, India, and so on.

A backup taken of a key from a key vault in one Azure location can be restored to a key vault in another Azure location, as long as both of these conditions are true:

- Both of the Azure locations belong to the same geographical location
- Both of the key vaults belong to the same Azure subscription

For example, a backup taken by a given subscription of a key in a key vault in West India, can only be restored to another key vault in the same subscription and geolocation; West India, Central India or South India.

🔗 <https://docs.microsoft.com/en-us/azure/key-vault/key-vault-ovw-security-worlds>

#4

Regarding Azure Storage Managed Disks, which disk role is used for the persistent storage of application data?

A Temporary disks

✓ Any disk type can persistently store application data

C Data disks

- D OS disks

Explanation

There are three disk roles in Azure. These roles include data disks, OS disks, and temporary disks.

Data disks are managed disks that you attach to a virtual machine. They're used to store applications and other sorts of data that you need. When you attach a data disk to a VM, it's registered as a SCSI drive. You can assign a drive letter to a data disk just like any other physical disk in a physical server. Data disks have a max capacity of 32 terabytes, and the number of data disks that you can attach to a virtual machine will be determined by the size of the virtual machine itself.

OS disks are pretty self-explanatory. When you deploy a virtual machine, it's deployed with a single OS disk attached. The OS disk, as you may have guessed, hosts the VM's operating system and boot volume. The max capacity of an OS disk is four terabytes.

Temporary disks are probably the most misunderstood of the three disk types. Every VM contains a temporary disk. I should mention, however, that the temporary disk is not a managed disk. The temporary disk is not intended for the storage of important data. Instead, temporary disks are used to host things like page files and swap files.

 <https://docs.microsoft.com/en-us/azure/virtual-machines/managed-disks-overview#disk-roles>

Covered in this lecture



An Introduction to Azure Managed Disks



Course: [Introduction to Azure Storage](#)

5 / 50

#5

What is one reason to use a Shared Access Signature instead of an account key?

- A To provide access to a client that can't be trusted with the account key

- To protect the access key's integrity

- C To provision storage to external clients

- D To enable remote access

Explanation

You would use a Shared Access Signature to provide access to a client that can't be trusted with the account key.

 <https://docs.microsoft.com/en-us/azure/storage/storage-dotnet-shared-access-signature-part-1>

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No	1
Domain	Connect to and consume Azure services and third-party services
Total Question	4
Correct	1
Incorrect	0
Unattempted	3
Marked for review	0

No	2
Domain	Develop Azure compute solutions
Total Question	5
Correct	0
Incorrect	0
Unattempted	5
Marked for review	0
 No	3
Domain	Implement Azure security
Total Question	2
Correct	0
Incorrect	0
Unattempted	2
Marked for review	0
 No	4
Domain	Monitor, troubleshoot, and optimize Azure solutions
Total Question	2
Correct	0
Incorrect	0
Unattempted	2
Marked for review	0

Review the Answers

Sorting by

All

Question 1

Correct

Domain :Connect to and consume Azure services and third-party services

A company is building a traffic monitoring system. The system would be monitoring the traffic along 4 highways. The system would be responsible for producing a time series-based analysis report for each highway.

The traffic sensors on each highway have been configured to send its data to Azure Event Hubs. The data from Event Hubs is then consumed by three departments. Each department makes use of an Azure Web App to display the data.

You have to implement the **Azure Event Hub** instance. You need to implement a solution which ensures data throughput is maximized and latency is minimized.

Which of the following would you use as the partition key?

- ✓ A. Highway 
- B. Department
- C. Timestamp
- D. Datestamp

Explanation:

Answer - A

Since the data would come in for each highway, the highway represented by probably a highway number would be ideal for the partition key.

The other options are incorrect since they would not provide ideal values for the distribution of data across the partitions.

For more information on partition keys, please visit the following URL

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

Question 2**Unattempted****Domain :Develop Azure compute solutions**

You are going to deploy a web application onto Azure. You would make use of the App Service on Linux. You go ahead and create an App Service Plan. You then go ahead and publish a custom docker image onto the Azure Web App. You need to access the console logs generated from the container in real time.

You need to complete the following Azure CLI script for this

```
az webapp log Slot 1 --name whizlabwebapp --resource-group whizlab-rg Slot 2  
filesystem
```

```
az Slot 3 log Slot 4 --name whizlabwebapp --resource-group whizlab-rg
```

Which of the following would go into Slot 1?

- A. config ✓
- B. download
- C. show
- D. tail

Explanation:

Answer – A

To configure "logging" we need to use the "az webapp log config" command

The Microsoft documentation mentions the following

az webapp log config

Configure logging for a web app.

Azure CLI

 Copy

```
az webapp log config [--application-logging {false, true}]\n                      [--detailed-error-messages {false, true}]\n                      [--docker-container-logging {filesystem, off}]\n                      [--failed-request-tracing {false, true}]\n                      [--ids]\n                      [--level {error, information, verbose, warning}]\n                      [--name]\n                      [--resource-group]\n                      [--slot]\n                      [--subscription]\n                      [--web-server-logging {filesystem, off}]
```

Question 3

Unattempted

Domain :Develop Azure compute solutions

You have to develop an Azure Function that would perform the following activities

Read messages from an Azure Storage Queue

Process the messages and add entities to Azure Table Storage

You have to define the correct bindings in the function.json file

```
{  
  "bindings": [  
    {  
      "type": "queueTrigger",  
      "direction": "Area 1",  
      "name": "neworder",  
      "queueName": "whizlab-queue",  
      "connection": "STORAGE_CONNECTION_3000"  
    },  
    {  
      "type": "table",  
      "direction": "Area 2",  
      "name": "Area 3",  
      "tableName": "Orders",  
      "connection": "STORAGE_CONNECTION_3000"  } ]}
```

Which of the following would go

into Area 1?

- A. "in"
- B. "out"
- C. "trigger"
- D. "\$return"
- E. "\$table"

Explanation:

Answer – A

Here we have to mention the binding as an input binding.

Suppose you want to write a new row to Azure Table storage whenever a new message appears in Azure Queue storage. This scenario can be implemented using an Azure Queue storage trigger and an Azure Table storage output binding.

Here's a *function.json* file for this scenario.

```
JSON Copy  
  
{  
  "bindings": [  
    {  
      "type": "queueTrigger",  
      "direction": "in",   
      "name": "order",  
      "queueName": "myqueue-items",  
      "connection": "MY_STORAGE_ACCT_APP_SETTING"  
    },  
    {  
      "type": "table",  
      "direction": "out",  
      "name": "$return",  
      "tableName": "outTable",  
      "connection": "MY_TABLE_STORAGE_ACCT_APP_SETTING"  
    }  
  ]  
}
```

Question 4**Unattempted****Domain :Develop Azure compute solutions**

You have to deploy a microservice based application to Azure. The application needs to be deployed to an Azure Kubernetes cluster. The solution has the following requirements

- Reverse proxy capabilities
- Ability to configure traffic routing

Termination of TLS with a custom certificate

Which of the following would you use to implement a single public IP endpoint to route traffic to multiple microservices?

- A. Helm
- B. Brigade
- C. Kubectl
- D. Ingress Controller ✓
- E. Virtual Kubelet

Explanation:

Answer – D

You can use the Ingress controller to route traffic at the application layer

The Microsoft documentation mentions the following

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.

Since this is clearly given in the documentation, all other options are incorrect

For more information on Ingress controllers, please visit the following URL

Question 5**Unattempted****Domain :Implement Azure security**

You have to develop an ASP.Net Core application. The application is used to work with blobs in an Azure storage account. The application authenticates via Azure AD credentials.

Role based access has been implemented on the containers that contain the blobs. These roles have been assigned to the users.

You have to configure the application so that the user's permissions can be used with the Azure Blob containers.

Which of the following would you use as the Permission for the Microsoft Graph API?

- A. User.Read 
- B. User.Write
- C. client_id
- D. user_impersonation

Explanation:

Answer – A

For the Microsoft Graph API, we need to use the User.Read permission. This is also given in the Microsoft documentation

The **API permissions** pane now shows that your registered Azure AD application has access to both Microsoft Graph and the Azure Storage. Permissions are granted to Microsoft Graph automatically when you first register your app with Azure AD.

API permissions

Applications are authorized to use APIs by requesting permissions. These permissions show up during the consent process where users are given the opportunity to grant/deny access.

[+ Add a permission](#)

API / PERMISSIONS NAME	TYPE	DESCRIPTION	ADMIN CONSENT REQUIRED
▼ Azure Storage (1)			
user_impersonation	Delegated	Access Azure Storage	-
▼ Microsoft Graph (1)			
User.Read	Delegated	Sign in and read user profile	-

These are the permissions that this application requests statically. You may also request user consent-able permissions dynamically through code. See best practices for requesting permissions

Question 6

Unattempted

Domain :Implement Azure security

You have to build a web application that would be deployed onto Azure. The web application would not allow anonymous access. The authentication would be carried out via Azure AD.

The application needs to abide by the following requirements

Users must be able to log into the web application using their Azure AD credentials

The personalization of the web application must be based on the membership in Active Directory groups

You have to configure the application manifest file

```
{  
...  
"appId" :" 44d3ece4-2c21-48c1-8857-db3524a086b0"  
    Slot 1 : "All",  
    Slot 2 : true  
}
```

Which of the following would go into Slot 2?

- A. "allowPublicClient"
- B. "oauth2Permissions"
- C. "requiredResourceAccess"
- D. "oauth2AllowImplicitFlow" 

Explanation:

Answer – D

In the question the requirement is as follows

The application needs to abide by the following requirements

1. Users must be able to log into the web application using their Azure AD credentials
 2. The personalization of the web application must be based on the membership in Active Directory groups
-

A



"oAuth2PermissionsallowPublicClient"

Boolean

This may be possible answer

Specifies the fallback application type. Azure AD infers the application type from the replyUrlsWithType by default. There are certain scenarios where Azure AD can't determine the client app type. For example, one such scenario is the ROPC flow where HTTP request happens without a URL redirection). In those cases, Azure AD will interpret the application type based on the value of this property. If this value is set to true the fallback application type is set as public client, such as an installed app running on a mobile device. The default value is false which means the fallback application type is confidential client such as web app.

Means Option A is not correct answer and hence can not be filled in Slot No. 2

B

"oauth2Permissions"

Collection

out of scope as given value is true means boolean

C

"requiredResourceAccess"

Collection

out of scope as given value is true means boolean

oauth2Permissions attribute

Key	Value type
oauth2Permissions	Collection

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.

Example:

JSON

Copy

```
"oauth2Permissions": [
  {
    "adminConsentDescription": "Allow the app to access resources on behalf of the signed-in user.",
    "adminConsentDisplayName": "Access resource1",
    "id": "<guid>",
    "isEnabled": true,
    "type": "User",
    "userConsentDescription": "Allow the app to access resource1 on your behalf.",
    "userConsentDisplayName": "Access resources",
    "value": "user_impersonation"
  }
],
```

oauth2AllowImplicitFlow attribute

Key	Value type
oauth2AllowImplicitFlow	Boolean

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. To learn more, enter [OAuth 2.0 implicit grant flow](#) in the table of contents and see the topics about implicit flow.

Example:

JSON	 Copy
<pre>"oauth2AllowImplicitFlow": false,</pre>	

oauth2AllowIdTokenImplicitFlow attribute

Key	Value type
oauth2AllowIdTokenImplicitFlow	Boolean

Specifies whether this web app can request OAuth2.0 implicit flow ID tokens. The default is false. This flag is used for browser-based apps, like JavaScript single-page apps.

Example:

JSON	 Copy

Question 7**Unattempted****Domain :Connect to and consume Azure services and third-party services****View Case Study****Case study is on page 75-76**

Which of the following needs to be used to secure the Logic App?

- A. Azure App Service Environment
- B. Azure AD B2B Integration
- C. Integration Service Environment 
- D. VNet service endpoint

Explanation:

Answer – C

Here we need to comply with the following requirement of the case study

"Resources used by the Azure Logic App must be secured to the corporate virtual network and also use dedicated storage resources with a fixed costing model"

For this we should use Integration Service Environment

The Microsoft documentation mentions the following

What is an Integration Service Environment?

An Integration Service Environment is a fully isolated and dedicated environment for all enterprise-scale integration needs. When you create a new Integration Service Environment, it is injected into your Azure virtual network, which allows you to deploy Logic Apps as a service on your VNET.

- **Direct, secure access to your virtual network resources.** Enables Logic Apps to have secure, direct access to private resources, such as virtual machines, servers, and other services in your virtual network including Azure services with service endpoints and on-premises resources via an Express Route or site to site VPN.
- **Consistent, highly reliable performance.** Eliminates the noisy neighbor issue, removing fear of intermittent slowdowns that can impact business critical processes with a dedicated runtime where only your Logic Apps execute in.
- **Isolated, private storage.** Sensitive data subject to regulation is kept private and secure, opening new integration opportunities.
- **Predictable pricing. Provides a fixed monthly cost for Logic Apps.** Each Integration Service Environment includes the free usage of 1 Standard Integration Account and 1 Enterprise connector. If your Logic Apps action execution count exceeds 50 million action executions per month, the Integration Service Environment could provide better value.

Question 8**Unattempted****Domain :Connect to and consume Azure services and third-party services**

You are developing an application that is going to make use of the Azure Service Bus. You have to create filters based on the different types of subscribers that would subscribe to the topic. The broad classification of these subscribers are

Subscribers should be able to receive all messages being sent to the topic

Subscribers should **NOT** be able to receive all messages being sent to the topic

Subscribers should be able to receive messages based on a SQL-like conditional expression

Which of the following would you use as the filter condition for the requirement?

"Subscribers should be able to receive all messages being sent to the topic"

- A. Boolean filters
- B. Primary filters
- C. SQL filters
- D. Correlation filters

Explanation:

Answer – A

Here we have to make use of Boolean filters which could either accept or reject all messages

Service Bus supports three filter conditions:

- *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.
- *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.

Question 9

Unattempted

Domain :Develop Azure compute solutions

Your company has an Azure Kubernetes cluster in place named "whizlabcluster". The company wants to create a new Azure AD Group and provide RBAC access for the group to the cluster. You have to complete the below Azure CLI script to fulfil this requirement

```
whizlabcluster_id=$( Slot 1 \
    --resource-group whizlabs-rg \
    --name whizlabcluster \
    --query id -o tsv)

whizlab_grp=$( Slot 2 \
    --display-name whizlabdevelopers --mail-nickname whizlabdev -- \
    query objectId -o tsv)

Slot 3 \
    --assignee $whizlab_grp \
    --role "Azure Kubernetes Service Cluster User Role" \
    --scope $whizlabcluster_id
```

Which of the following would go into Slot 2?

- A. az role assignment create
- B. az role assignment update
- C. az ad group create 
- D. az aks show

Explanation:

Answer - C

Next, we have to create the Azure AD group

An example of this is given in the Microsoft documentation

Create the first example group in Azure AD for the application developers using the [az ad group create](#) command. The following example creates a group named *appdev*:

Azure CLI

APPDEV_ID=\$(az ad group create --display-name appdev --mail-nickname appdev --query object_id)

Copy Try It

Question 10

Unattempted

Domain :Monitor, troubleshoot, and optimize Azure solutions

A company has a web application that has been deployed using the Azure Web App service. The current service plan being used is D1. It needs to be ensured that the application infrastructure can automatically scale when the CPU load reaches 85 percent. You also have to ensure costs are minimized. Which of the following steps would you implement to achieve the requirements? Choose 4 answers from the options given below

- A. Enable autoscaling on the Web application
- B. Configure a scale condition
- C. Configure the web application to use the Standard App Service Plan
- D. Configure the web application to use the Premium App Service Plan
- E. Add a scale rule.

Explanation:

Answer – A, B, C and E

Since the app service plan being used is D1, that means this is the Shared Service Plan as shown below. And this plan does not have support for Autoscaling

Dev / Test	Production	Isolated
For less demanding workloads	For most production workloads	Advanced networking and scale

Recommended pricing tiers

F1 Shared infrastructure 1 GB memory 60 minutes/day compute Loading...	D1 Shared infrastructure 1 GB memory 240 minutes/day compute Loading...	B1 100 total ACU 1.75 GB memory A-Series compute equivalent Loading...
---	--	---

Included features
Every app hosted on this App Service plan will have access to these features:

- Custom domains**
Configure and purchase custom domain names.

Included hardware
Every instance of your App Service plan will include the following hardware configuration:

- Azure Compute Units (ACU)**
Dedicated compute resources used to run applications deployed in the App Service Plan. [Learn more](#)
- Memory**
Memory available to run applications deployed and running in the App Service plan.
- Storage**
1 GB disk storage shared by all apps deployed in the App Service plan.

Step 1) We have to scale up to at least the Standard App service plan.

Once this is done, you can now see the ability to enable Autoscale when you go to the Scale out section for the Azure Web App

The screenshot shows the Azure portal interface for managing an App Service plan. The left sidebar lists various settings like Application settings, Configuration (Preview), and SSL settings. The 'Scale out (App Service plan)' option is highlighted with a red circle labeled '1'. The main content area shows an 'Override condition' section with an 'Instance count' slider set to 1. A message states 'Your autoscale configuration is disabled. To reinstate your configuration, enable autoscale.' Below this is a large blue 'Enable autoscale' button, which is also highlighted with a red circle labeled '2'.

Step 2) Next you add a scale condition and a rule for autoscaling based on a CPU threshold.

out (App Service plan)

whizlabsapp - Scale out (App Service plan)

App Service

Save Discard Disable autoscale Refresh

Configure Run history JSON Notify

* Autoscale setting name CPU **1**

Resource group whizlabs-rg

Default Auto created scale condition **2**

Delete warning **i** The very last or default recurrence rule cannot be deleted. Instead, you can disable it.

Scale mode **Scale based on a metric** **2** **Scale to a specific instance count**

Scale out and scale in your instances based on metric. For example: 'Add a rule that inc above 70%'

Rules **i** It is recommended to have at least one scale in rule

+ Add a rule

Instance limits Minimum 1 Maximum 2 Default 1

Schedule **This scale condition is executed when none of the other scale condition(s) match**

+ Add a scale condition

Action

* Operation

Add

Metric source Current resource (demoplan)

Resource type App Service plans

Resource demoplan

Criteria

* Time aggregation Average

* Metric name CPU Percentage 1 minute time grain

* Time grain statistic Average

* Operator Greater than

* Threshold 85

* Duration (in minutes) 10

Question 11**Unattempted****Domain :Connect to and consume Azure services and third-party services**

A company is implementing an order processing system. The orders are going to be published to an Azure Service Bus topic. The properties of the messages that would be sent are as follows

Property	
Description	
Location	The region of the shipment
CorrelationId	Used as the priority value for the order
Quantity	User defined property that defines the order quantity
Audited	User defined property that defines the order date

The following subscriptions will be created. The requirement for each subscription is also given

Property	
Description	
LaterOrders	This subscription will be used in the future and should not accept any orders at the moment
HighPriorityOrders	Here all the high priority orders should be sent
GlobalOrders	Here the order where the region is not USA should be sent

HighOrders

Orders where the quantity is greater than 1000 should be sent

AllOrders

For auditing purposes, all orders should be sent here

You need to implement the right filters for each of the subscriptions given above.
Which of the following would you implement for the Subscription – AllOrders?

- A. **SqlFilter**
- B. **CorrelationFilter**
- C. **TrueFilter** 
- D. **FalseFilter**

Explanation:

Answer – C

As per MS doc.

Subscribers can define which messages they want to receive from a topic. These messages are specified in the form of one or more named subscription rules. Each rule consists of a condition that selects particular messages and an action that annotates the selected message. For each matching rule condition, the subscription produces a copy of the message, which may be differently annotated for each matching rule.

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.

Service Bus supports three filter conditions:

- *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.
- *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`), 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 the following properties:
 - `ContentType`
 - `Label`
 - `MessageId`
 - `ReplyTo`
 - `ReplyToSessionId`
 - `SessionId`
 - `To`
 - any user-defined properties.

Question 12

Unattempted

Domain :Develop Azure compute solutions

A company is developing a shopping application for Windows devices. A notification needs to be sent on a user's device whenever a new product is entered into the application. You have to implement push notifications.

You have to complete the missing parts in the partial code segment given below

```
1 static void ReceiveMessageAndSendNotification(string connectionString)
2 {
3
4     string whizlabshubConnectionString = CloudConfigurationManager.GetSetting
5         ("Microsoft.NotificationHub.ConnectionString");
6
7     Slot1 hub = Slot2 . Slot3
8
9         (whizlabshubConnectionString, "enterprisepushservicehub");
10
11     BrokeredMessage message = Client.Receive();
12     var toastMessage = @"<toast><visual><binding template=""ToastText01""><text id=""1"">
13     {messagepayload}</text></binding></visual></toast>";
14     SendNotificationAsync(toastMessage);
15
16 }
17 static async void SendNotificationAsync(string message)
18 {
19     await hub. Slot4 (message);
20 }
21
```

Which of the following would go into Slot2?

- A. **NotificationHubClient**
- B. **NotificationHubClientSettings**
- C. **NotificationHubJob**
- D. **NotificationDetails**

Explanation:

Answer - A

The full snippet of the code is

```
1 static void ReceiveMessageAndSendNotification(string connectionString)
2 {
3
4     string whizlabshubConnectionString = CloudConfigurationManager.GetSetting
5         ("Microsoft.NotificationHub.ConnectionString");
6
7     NotificationHubClient hub = NotificationHubClient.CreateClientFromConnectionString
8
9         (whizlabshubConnectionString, "enterprisepushservicehub");
10
11     BrokeredMessage message = Client.Receive();
12     var toastMessage = @"<toast><visual><binding template=""ToastText01""><text id=""1"">
13     {messagepayload}</text></binding></visual></toast>";
14     SendNotificationAsync(toastMessage);
15
16 }
17 static async void SendNotificationAsync(string message)
```

An example of this is given in the Microsoft documentation

 Copy

```
```csharp
static void ReceiveMessageAndSendNotification(string connectionString)
{
 // Initialize the Notification Hub
 string hubConnectionString = CloudConfigurationManager.GetSetting
 ("Microsoft.NotificationHub.ConnectionString");
 hub = NotificationHubClient.CreateClientFromConnectionString
 (hubConnectionString, "enterprisepushservicehub");

 SubscriptionClient Client =
 SubscriptionClient.CreateFromConnectionString
 (connectionString, sampleTopic, sampleSubscription);

 Client.Receive();

 // Continuously process messages received from the subscription
 while (true)
 {
 BrokeredMessage message = Client.Receive();
 var toastMessage = @"<toast><visual><binding template=""ToastText01""><text id=""1"">{messagepayload}</text></binding></visual></toast>";

 if (message != null)
 {
 try
 {
 Console.WriteLine(message.MessageId);
 Console.WriteLine(message.SequenceNumber);
 string messageBody = message.GetBody<string>();
 Console.WriteLine("Body: " + messageBody + "\n");

 toastMessage = toastMessage.Replace("{messagepayload}", messageBody);
 SendNotificationAsync(toastMessage);
 }
 }
 }
}
```

**Question 13****Unattempted****Domain :Develop for Azure storage**

You have to implement the azcopy tool to copy objects from a local folder named D:\whizlabs to a container named "demo" within the below storage account

**whizlabstore2020**  
Storage account

Search (Ctrl+.)

Overview      Open in Explorer      Move      Delete      Refresh

Resource group (change)  
demogroup

Status  
Primary: Available

Location  
West Europe

Subscription (change)  
Pay-As-You-Go

Subscription ID  
baaa99b3-1d19-4c5e-90e1-39d55de5fc6e

Tags (change)  
Click here to add tags

Services

- Blobs**  
REST-based object storage for unstructured data  
[Learn more](#)
- Files**  
File shares that use the standard SMB 3.0 protocol  
[Learn more](#)
- Queues**  
Effectively scale apps according to traffic  
[Learn more](#)
- Tables**  
Tabular data storage  
[Learn more](#)

You have to complete the below command to copy all of the objects in the local folder

```
azcopy cp " Slot1 "
 " Slot2 "/?sv=2018-03-
28&ss=bjqt&srt=sco&sp=rwddgcup&se=2019-05-01T05:01:17Z&st=2019-04-
30T21:01:17Z&spr=https&sig=MGCXiyezbttkr3ewJlh2AR8KrghSy1DGM9ovN734bQF4%3D"
 Slot3
```

Which of the following would go into Slot2?

A. <https://whizlabstore2020.blob.core.windows.net/demo>



B. <https://whizlabstore2020/demo>

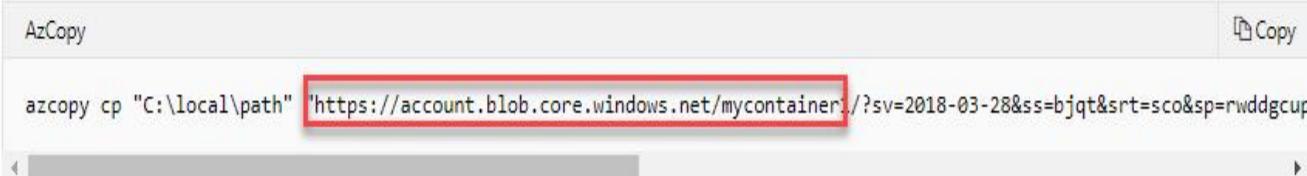
C. D:\whizlabs

D. whizlabs

## Option 2: Use a SAS token

You can append a SAS token to each source or destination URL that use in your AzCopy commands.

This example command recursively copies data from a local directory to a blob container. A fictitious SAS token is appended to the end of the of the container URL.



```
AzCopy
azcopy cp "C:\local\path" "https://account.blob.core.windows.net/mycontainer?sv=2018-03-28&ss=bjqt&srt=sco&sp=rwddgcup"
```

Question 14

Unattempted

Domain :Develop for Azure storage

[View Case Study](#)

You have to update the below code snippet that would be used to upload images to the Blob container.

Which of the following would go into Slot2?

```
Slot1 whizlabcloudBlockBlob =
cloudBlobContainer.GetBlockBlobReference(imgName);
await Slot2 .UploadFromFileAsync(imgFile);
```

- A. whizlabcloudBlockBlob 
- B. BlockBlob
- C. CloudBlockBlob
- D. Blob

---

**Explanation:**

Answer – A

The right data type is "whizlabcloudBlockBlob"

The Microsoft documentation gives an example on uploading content to Blob containers

## Upload blobs to a container

The following code snippet gets a reference to a **CloudBlockBlob** object by calling the [GetBlockBlobReference](#) method on the container created in the previous section. It then uploads the selected local file to the blob by calling the [UploadFromFileAsync](#) method. This method creates the blob if it doesn't already exist, and overwrites it if it does.

C#

 Copy

```
// Create a file in your local MyDocuments folder to upload to a blob.
string localPath = Environment.GetFolderPath(Environment.SpecialFolder.MyDocuments);
string localFileName = "QuickStart_" + Guid.NewGuid().ToString() + ".txt";
string sourceFile = Path.Combine(localPath, localFileName);
// Write text to the file.
File.WriteAllText(sourceFile, "Hello, World!");

Console.WriteLine("Temp file = {0}", sourceFile);
Console.WriteLine("Uploading to Blob storage as blob '{0}'", localFileName);

// Get a reference to the blob address, then upload the file to the blob.
// Use the value of localFileName for the blob name.
CloudBlockBlob cloudBlockBlob = cloudBlobContainer.GetBlockBlobReference(localFileName);
await cloudBlockBlob.UploadFromFileAsync(sourceFile);
```

Question 15

Unattempted

Domain :Monitor, troubleshoot, and optimize Azure solutions

 View Case Study

A developer needs to enable Application Insights Profiler for the Azure Web App. Which of the following feature required to enable Application Insights Profiler for a Web App?

**A. CORS configuration**

- B. Always On setting 
- C. Enable Identity
- D. Enable Custom domains

**Explanation:**

Answer - B

The requirement is to enable Application Insights Profiler for a web app which captures the data automatically at scale without negatively affecting to end user and widely used for monitoring purpose. and the given options are

**A. CORS configuration**

- 1 Cross-origin resource sharing (CORS) defines a way for client web applications that are loaded in one domain to interact with resources
- 2 Hence this is not going to help us to enable Application Insights Profiler

**B. Always On setting**

- 1 If a web app sit idle for too long, system unloads the website, and when traffic return, system need to load the Web App which causes longer response time and higher utilization of resources. By enabling 'Always On' setting (available for Standard tier websites), keeps the Web App up and running, which translates to higher availability and faster response times across the board.
- 2 Since requirement is to enable 'Application Insights Profiler' for a web App, Enabling 'Always On' is correct prerequisite.
- 3 Hence this is correct answer. We recommend ou to find detail at <https://docs.microsoft.com/en-us/azure/azure-monitor/app/profiler>

**C. Enable Identity**

- 1 identity is part of Azure Active Directory hence not related to Application Insights Profiler

**D. Enable Custom domains**

- 1 Enable Custom Domain is a feature to access any Azure URI by different or customized URI. Hence this is not related to enabling Application Insights Profiler

## Enable Profiler for your app

To enable Profiler for an app, follow the instructions below. If you're running a different type of Azure service, here are instructions for enabling Profiler on other supported platforms:

- Cloud Services
- Service Fabric Applications
- Virtual Machines

Application Insights Profiler is pre-installed as part of the App Services runtime. The steps below will show you how to enable it for your App Service. Follow these steps even if you've included the App Insights SDK in your application at build time.

1. Enable "Always On" setting for your app service. You can update the setting in the Configuration page of your App Service under General Settings.
2. Go to the **App Services** pane in the Azure portal.
3. Navigate to **Settings > Application Insights** pane.

---

---

Finish Review

**Certification**

- Cloud Certification
- Java Certification
- PM Certification
- Big Data Certification

**Company**

- Become Our Instructor
- Support
- Discussions
- Blog
- Business

**Support**

- Contact Us
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 **Join us on Slack!**

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## Case Study

### AZ 204 PT1 35 - 42

X

#### Overview

A company named whizlabs.com has a number of applications hosted in their on-premise environment. These applications focus on ensuring the company can provide online training to its customers.

The company wants to move its existing application and new applications to Azure. They want to make use of serverless computing wherever possible.

#### Current Infrastructure

They have a virtual machine on their on-premise environment that runs BizTalk Server 2016. These servers run the following workflows

- New Courses – This workflow gets information on new course requirements
- Course Improvements - This workflow gets information on new features for existing courses

The virtual machine environment supports the following REST API calls

- Course API – This API provides information on the course description, the number of videos and number of questions in the course.
- Student API – This API provides the number of students per course.
- Application API – This API provides complete details on the courses and students

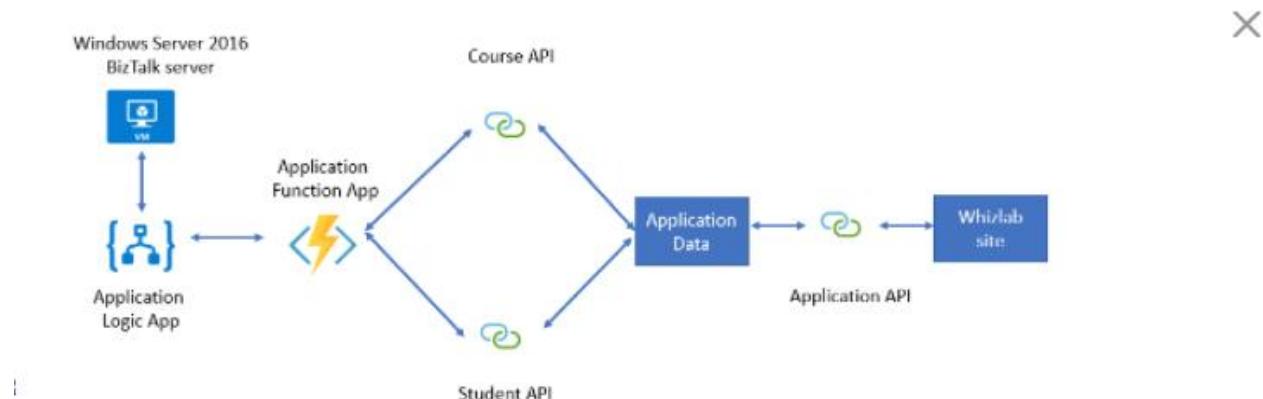
The course and the student data are stored in a MongoDB database

A site named <http://whizlab.com> provides information on the students and the courses.

#### Propose solution

They want to migrate the on-premise solution to Azure. They setup a new Azure virtual machine to host the BizTalk Server.

The architecture of the proposed setup is given below



#### Requirements

- The Logic App must support industry-standard protocol X12 messages
- Resources used by the Azure Logic App must be secured to the corporate virtual network and also use dedicated storage resources with a fixed costing model
- For the function app, you need to implement secure function endpoints by using app-level security and also include Azure Active Directory.
- The Azure Logic App must maintain on-premise connectivity to support legacy applications and also ensure the final Biztalk migrations can take place
- The REST API's must
  - Secure resources to the virtual network
  - They must allow deployment to a testing location within Azure without any additional costs
  - The API's must be able to scale to double its capacity during peak times.
- The data migration from the on-premise VM to Azure must minimize costs and downtime.

After migration the whizlab.com site to an Azure Web App for testing purposes, you are getting the following error when trying to test the API's

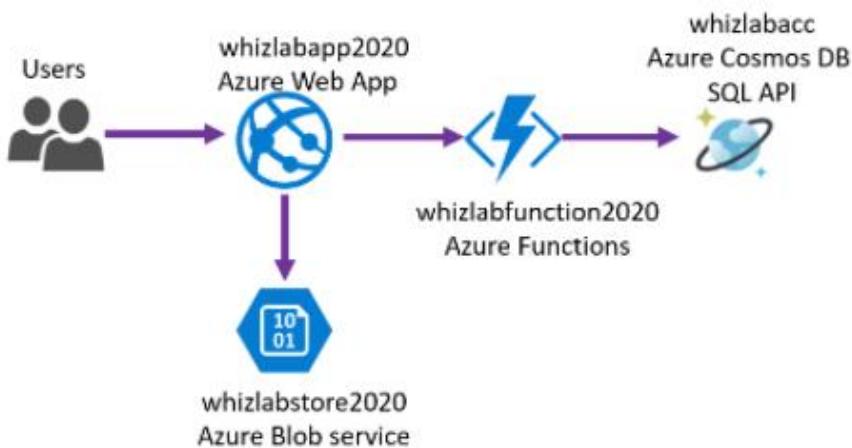
"Failed to load <http://test-appapi.whizlab.com/>: No 'Access-Control-Allow-Origin' header is present on the requested resource. Origin <http://test.whizlab.com/> is therefore not allowed access"

## Case Study

AZ 204 PT3 31-39

X

A company is planning on deploying a system that will follow the below mentioned architecture



- Users would be accessing the web application – <https://whizlab.com> via the Azure Web App service.
- Users would upload images via the web application to Azure Blob storage
- The image data would be sent to an Azure Function
- The image data would then be stored along with the user data in a Cosmos DB account

An example of an item stored in the Cosmos DB container is shown below

```
{
 "Id": "1",
 "Name": "UserA",
 "orders": [
 {
 "course": "Big Data",
 "price": "9.99"
 }
],
 "ratings": { "3": "100", "4": "200", "5": "300" }
}
```