Free Test

Completed on 17-June-2020

Attempt	Marks Obtained	Your score	Time Taken	Result
04	15 / 15	100%	N/A	Congratulations! Passed

Share your Result with your friends

Domains wise Quiz Performance Report

No	Domain	Total Question	Correct	Incorrect	Unattempted	Marked as Review
1	Monitor and optimize data solutions	4	4	0	0	0
2	Manage and develop data processing	6	6	0	0	0
3	Implement data storage solutions	5	5	0	0	0
Total	All Domain	15	15	0	0	0

Review the Answers

Sorting by All

Question 1 **Correct**

Domain :Monitor and optimize data solutions

A company has an Azure SQL Database defined as part of their Azure subscription. The Automatic tuning settings are configured as shown below

Option	Server level	Database level
Force Plan	Inherited	Inherited
Create Index	Inherited	Inherited
Drop Index	Inherited	Inherited

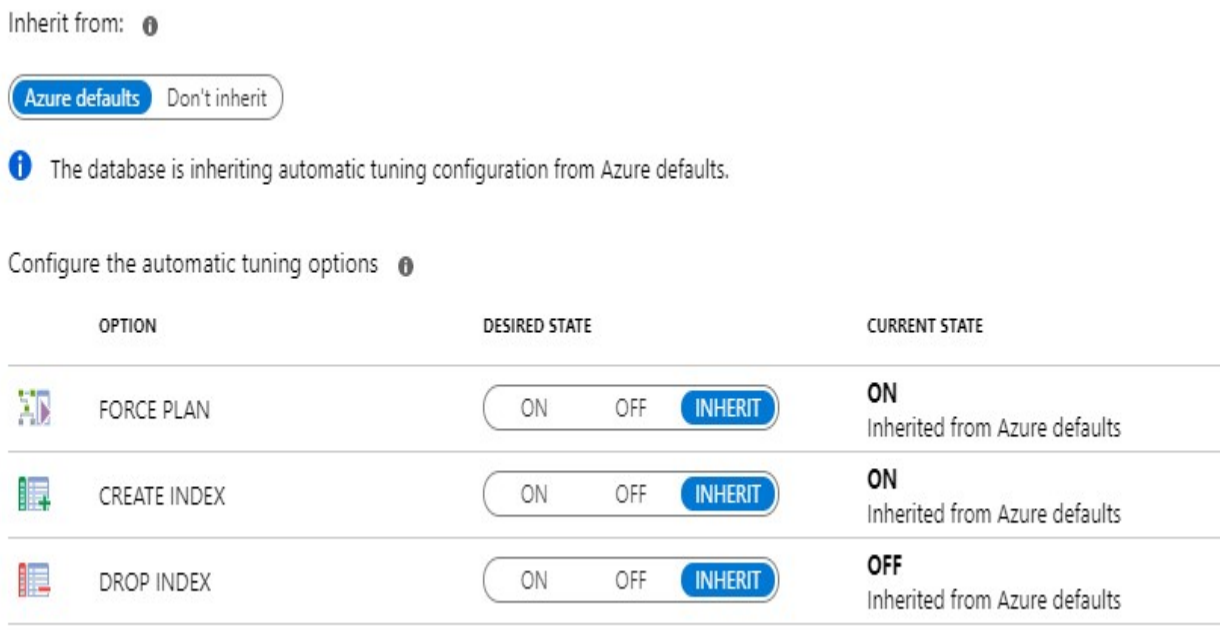
Would the setting of "Create Index" be ON for the database?

- A. **Yes** ✓
- B. **No**

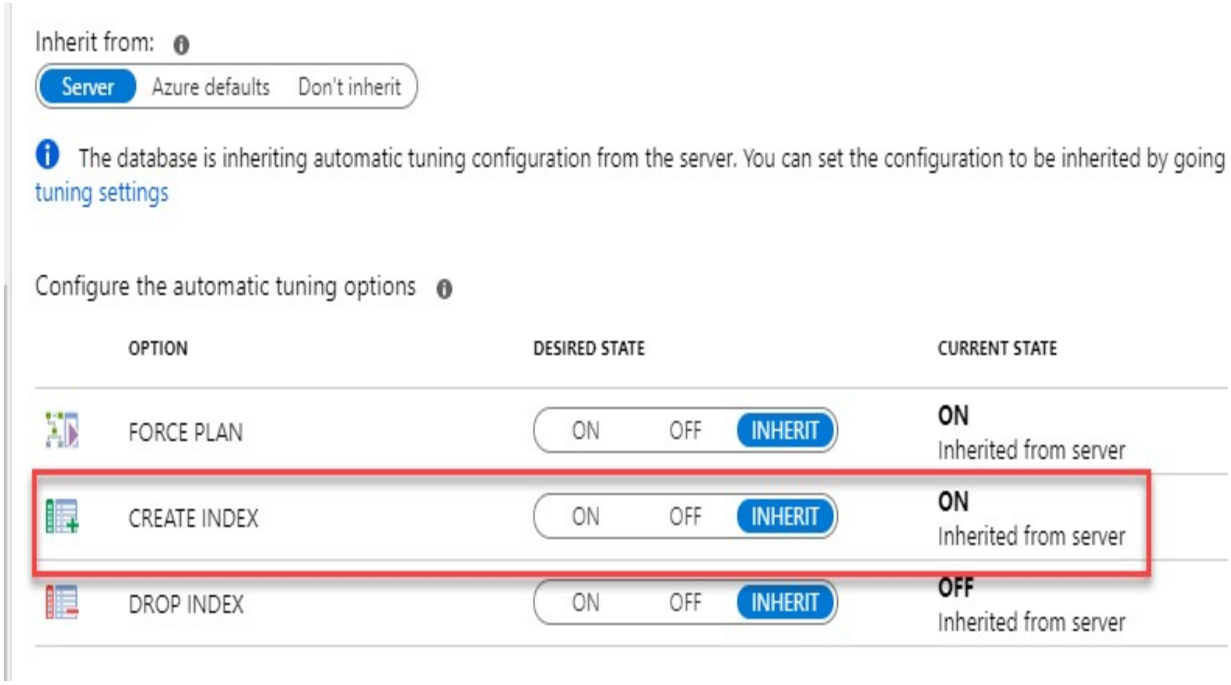
Explanation:

Answer – A

If you implement the below auditing settings for the server



And also place the following settings for the database



You can see that the "CREATE INDEX" setting is ON.

For more information on Automatic Tuning, please visit the following URL

https://docs.microsoft.com/en-us/azure/sql-database/sql-database-automatic-tuning-enable

Ask our Experts

Rate this Question?

View Queries

open

Question 2

Correct

Domain :Manage and develop data processing

You need to create a new Azure Databricks cluster. This cluster would connect to Azure Data Lake Storage Gen2 by using Azure Active Directory (Azure AD) integration.
Which of the following advanced option would you enable?

A. **Blob access control**

B. **Table access control**

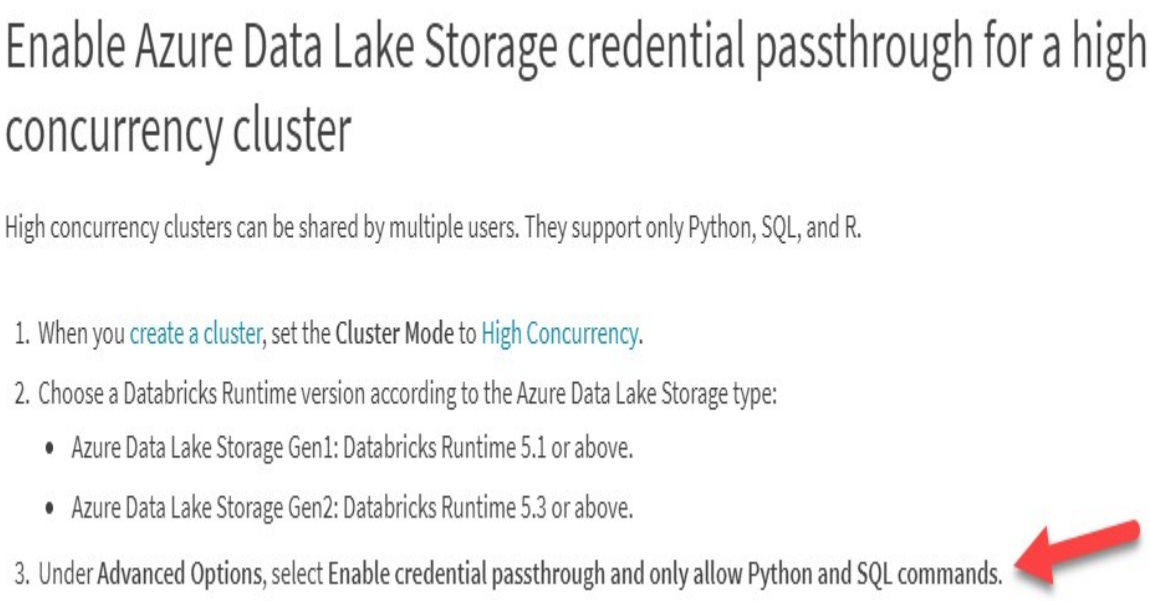
C. **Credential Passthrough** ✓

D. **Single Sign-On**

Explanation:

Answer – C

The documentation for Azure Data bricks mentions that you should set Credential Passthrough in the Advanced option.



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

For more information on using Azure AD for Azure Data bricks, please visit the following URL

https://docs.azuredatabricks.net/data/data-sources/azure/adls-passthrough.html

Ask our Experts

Rate this Question? ☺ ☹

Question 3 Correct

Domain :Manage and develop data processing

You have JSON files stored in an Azure Data Lake Storage Gen2 account. The JSON file contains the FirstName and LastName of customers. You need to use Azure Data bricks to copy the data in the JSON files to an Azure data warehouse. A new column must be created which concatenates the FirstName and LastName values. You have the following components in place in Azure

A destination table in the SQL Data Warehouse

An Azure Blob storage container

A service principal

Which of the following are actions you would perform to transfer the data onto the Azure SQL Data warehouse table? Choose 5 answers from the options given below

- [ ] A. **Write the results onto Azure Data Lake Storage**
- [ ] B. **Drop the data frame**
- [x] C. **Perform transformations on the data frame**
- [x] D. **Mount the Data Lake Storage onto DBFS**
- [ ] E. **Perform transformations on the file**
- [x] F. **Read the file into a data frame**
- [x] G. **Specify a temporary folder to stage the data**
- [x] H. **Write the results to a table in SQL Data Warehouse**

Explanation:

Answer - C, D, F,G and H

To Connect to Azure Data Lake Gen 2 storage, we first need to mount the file system. This is also given in the Azure data bricks documentation

Azure Data Lake Storage Gen2

Azure Data Lake Storage Gen2 (also known as ADLS Gen2) is a next-generation data lake solution for big data analytics. Azure Data Lake Storage Gen2 builds Azure Data Lake Storage Gen1 capabilities—file system semantics, file-level security, and scale—into Azure Blob storage, with its low-cost tiered storage, high availability, and disaster recovery features.

> **Note**
>
> The Azure Data Lake Storage Gen2 connector is supported in Databricks Runtime 5.2 and above with full support for Delta Lake in Databricks Runtime 5.5 and above.

There are three ways of accessing Azure Data Lake Storage Gen2:

1. Mount an Azure Data Lake Storage Gen2 filesystem to DBFS using a service principal and OAuth 2.0.
2. Use a service principal directly.
3. Use the Azure Data Lake Storage Gen2 storage account access key directly.

Next, we need to load the data from the Azure Data Lake Storage Gen2 account. An example is also given in the Microsoft documentation

Extract data from the Azure Data Lake Storage Gen2 account

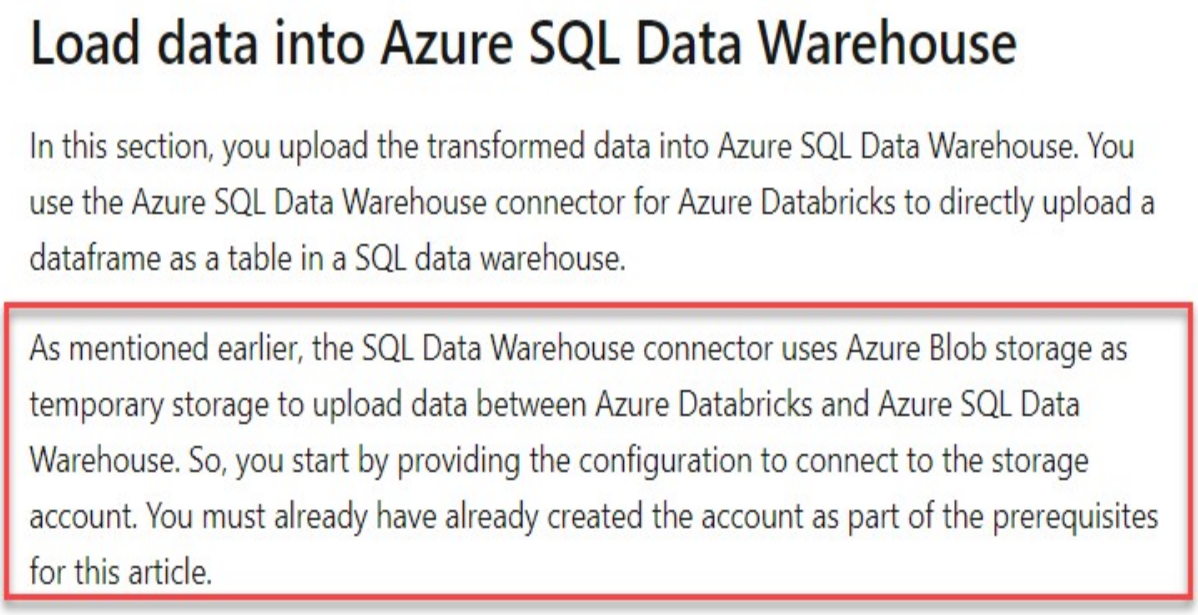
1. You can now load the sample json file as a data frame in Azure Databricks. Paste the following code in a new cell. Replace the placeholders shown in brackets with your values.

Scala | Copy

```
val df = spark.read.json("abfss://<file-system-name>@<storage-account-name
```

Next, we need to transform the data in the data frame to combine the FirstName and LastName values

You need to mention an Azure storage account as a temporary staging area.



And then finally you copy the data onto the Azure SQL data warehouse.

Option A is incorrect since you don't need to write the results onto Azure Data Lake storage. The results are written to the Azure SQL Data warehouse table.

Option B is incorrect since we don't need to drop the data frames

Option B is incorrect since transformations need to be carried out on the data frames

For more information on loading data from an Azure SQL Data warehouse, please visit the following URL

https://docs.microsoft.com/en-us/azure/azure-databricks/databricks-extract-load-sql-data-warehouse#load-data-into-azure-sql-data-warehouse

Question 4 **Correct**

Domain :Implement data storage solutions

You have an Azure SQL Database named whizlabdb. The database contains a table named whizlabcustomer. The table has a column named customerID that is of the type varchar(22). You have to implement masking for the customerID which would meet the following requirements

The first two prefix characters must be exposed

The last four prefix characters must be exposed

All other characters must be masked

You decide to implement data masking and use a random number function mask. Would this fulfil the requirement?

A. **Yes**

B. **No** ✓

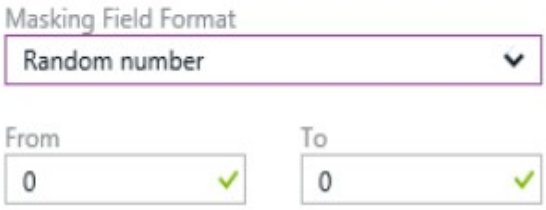
Explanation:

Answer - B

This masking function is used to mask specific boundaries

The Microsoft documentation mentions the following on the function mask

Random number	**Masking method, which generates a random number** according to the selected boundaries and actual data types. If the designated boundaries are equal, then the masking function is a constant number.



For more information on dynamic data masking, please visit the following URL

https://docs.microsoft.com/en-us/azure/sql-database/sql-database-dynamic-data-masking-get-started

Ask our Experts

Rate this Question?

View Queries

open

Question 5

Correct

Domain :Manage and develop data processing

A company wants to use the Azure Databricks service. There is need to create clusters based on the following configuration

ClusterA – Here the cluster need to be configured to terminate automatically after 120 minutes

ClusterB – Here an environment needs to be created for each notebook

ClusterC – Here a group of data engineers will be sharing the same cluster

Which of the following cluster type would you set for ClusterB?

A. **Standard**

B. **Basic**

C. **Job**

D. **High concurrency**

Explanation:

Answer – D

Here you have to use the cluster type as "High concurrency"

The Microsoft documentation mentions the following

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

For more information on cluster configurations, one can visit the below URL

https://docs.microsoft.com/en-us/azure/databricks/clusters/configure

Ask our Experts

Rate this Question?

View Queries

open

Question 6

Correct

Domain :Monitor and optimize data solutions

A team currently managed Azure HDInsight cluster. The team spends quite a lot of time on creating and destroying clusters. They want to implement a solution that can be used to deploy Azure HDInsight clusters with minimal effort. Which of the following can they implement for this requirement?

A. Azure Databricks

B. Azure Load Balancer

C. Azure Resource Manager templates

D. Azure SQL data warehouse

Explanation:

Answer – C

You can use Azure Resource Manager templates to easily deploy resources in Azure. If you have to repeatable deploy the same infrastructure on Azure, you can make use of Azure Resource Manager templates.

Option A is incorrect since this is a separate Spark-based analytics platform

Option B is incorrect since this is used to distribute traffic to backend virtual machines

Option D is incorrect since this is data warehousing solution available on the Azure platform

For more information on the template format for creating HDInsight clusters, one can visit the below URL

https://docs.microsoft.com/en-us/azure/templates/microsoft.hdinsight/2018-06-01-preview/clusters

Ask our Experts

Rate this Question?

View Queries open

Question 7 **Correct**

Domain :Implement data storage solutions

A company needs to configure synchronization of data between their on-premise Microsoft SQL Server database and Azure SQL database. The synchronization process must include the following

Be able to perform an initial data synchronization to the Azure SQL Database with minimal downtime.

Be able to perform bi-directional synchronization after the initial synchronization is complete

Which of the following would you consider as the synchronization solution?

- A. **Data Migration Assistant**
- B. **Backup and restore**
- C. **SQL Server Agent Job**
- D. **Azure SQL Data Sync** ✓

Explanation:

Answer – D

Azure SQL Data Sync can be used to synchronize data between the on-premise SQL Server and the Azure SQL database

The Microsoft documentation mentions the following

When to use Data Sync

Data Sync is useful in cases where data needs to be kept updated across several Azure SQL databases or SQL Server databases. Here are the main use cases for Data Sync:

- **Hybrid Data Synchronization:** With Data Sync, you can keep data synchronized between your on-premises databases and Azure SQL databases to enable hybrid applications. This capability may appeal to customers who are considering moving to the cloud and would like to put some of their application in Azure.
- **Distributed Applications:** In many cases, it's beneficial to separate different workloads across different databases. For example, if you have a large production database, but you also need to run a reporting or analytics workload on this data, it's helpful to have a second database for this additional workload. This approach minimizes the performance impact on your production workload. You can use Data Sync to keep these two databases synchronized.
- **Globally Distributed Applications:** Many businesses span several regions and even several countries/regions. To minimize network latency, it's best to have your data in a region close to you. With Data Sync, you can easily keep databases in regions around the world synchronized.

Option A is incorrect since this is just used to assess databases for the migration process

Option B is incorrect since this would just be the initial setup activity

Option C is incorrect since this is used to run administrative tasks on on-premise SQL databases

For more information on SQL database Sync, one can visit the below URL

https://docs.microsoft.com/en-us/azure/sql-database/sql-database-sync-data

View Queries open

Question 8 Correct

Domain :Manage and develop data processing

You need to migrate data from an Azure Blob storage account to an Azure SQL Data warehouse. Which of the following actions do you need to implement for this requirement? Choose 4 answers from the options given below

- [x] A. **Provision an Azure SQL Data Warehouse instance**
- [ ] B. **Connect to the Blob storage container via SQL Server Management Studio**
- [ ] C. **Create an Azure Blob storage container**
- [x] D. **Run the T-SQL statements to load the data**
- [x] E. **Connect to the Azure SQL Data warehouse via SQL Server Management Studio**
- [ ] F. **Build external tables by using Azure portal**
- [x] G. **Build external tables by using SQL Server Management Studio**

Explanation:

Answer – A, D,E and G

You first need to create an Azure SQL Data Warehouse instance.

Then you need to connect to the data warehouse via SQL Server Management Studio

Then create external tables to the Azure Blob storage account

And then finally use T-SQL statements to load the data

This is also given as an example in github as part of the Microsoft documentation on loading data from Azure Blob to an Azure SQL data warehouse.

This tutorial uses PolyBase to load New York Taxicab data from a global Azure blob to Azure SQL Data Warehouse. The tutorial uses the Azure portal and SQL Server Management Studio (SSMS) to:

> [!div class="checklist"]
>
> - Create a data warehouse in the Azure portal
> - Set up a server-level firewall rule in the Azure portal
> - Connect to the data warehouse with SSMS
> - Create a user designated for loading data
> - Create external tables for data in Azure blob storage
> - Use the CTAS T-SQL statement to load data into your data warehouse
> - View the progress of data as it is loading
> - Create statistics on the newly loaded data

Option B is incorrect because you can't connect to Blob storage from SQL Server Management Studio

Option C is incorrect because you already have the blob data in place

Option F is incorrect because you need to build the external tables in SQL Server Management Studio

For more information on the example, one can visit the below URL

https://github.com/MicrosoftDocs/azure-docs/blob/master/articles/sql-data-warehouse/load-data-from-azure-blob-storage-using-polybase.md

Ask our Experts

Rate this Question?

View Queries

open

Question 9

Correct

Domain :Monitor and optimize data solutions

View Case Study

You need to fulfil the below requirement of the case study
"Applications with Tiers 6 through 8 must ensure that unexpected resource storage usage is immediately reported to IT data engineers."
Which of the following would you implement for this requirement?

A. **An alert rule that would be used to monitor CPU percentage for the database and then alert the IT Engineers**

B. **An alert rule that would be used to monitor CPU percentage for the elastic pool and then alert the IT Engineers**

C. **An alert rule that would be used to monitor storage percentage for the database and then alert the IT Engineers**

D. **An alert rule that would be used to monitor storage percentage for the elastic pool and then alert the IT Engineers** ✓

Explanation:

Answer – D

Since the requirement asks for monitoring the storage, we should set this. Also, since the databases are going to be part of an elastic pool, we need to set it to monitor the percentage for the entire elastic pool.

For more information on working with alerts, one can visit the below URL

https://docs.microsoft.com/en-us/azure/azure-monitor/platform/alerts-metric

Ask our Experts

Rate this Question? ☺ ☹

View Queries

open

Question 10

Correct

Domain :Implement data storage solutions

You have to access Azure Blob Storage from Azure Databricks using secrets stored in a key vault. You already have the storage account, the blob container and Azure key vault in place.
You decide to implement the following steps

Add the secret to the key vault

Create a Databricks workspace and add the access keys

Access the blob container from Azure Databricks

Would these steps fulfil the requirement?

A. Yes

B. No

Explanation:

Answer – B

You are supposed to add a secret scope to the Databricks workspace and not the access keys

For more information on accessing Azure Blob storage from Azure Databricks using Azure Key vault, one can visit the below URL

https://docs.microsoft.com/en-us/azure/azure-databricks/store-secrets-azure-key-vault

Ask our Experts

Rate this Question?

View Queries

open

Question 11

Correct

Domain :Implement data storage solutions

A company is planning on creating an Azure SQL database to support a mission critical application. The application needs to be highly available and not have any performance

degradation during maintenance windows. Which of the following technologies can be used to implement this solution? Choose 3 answers from the options given below

- [x] A. **Premium Service Tier**
- [ ] B. **Virtual Machine Scale Sets**
- [ ] C. **Basic Service Tier**
- [ ] D. **SQL Data Sync**
- [x] E. **Always On Availability Groups**
- [x] F. **Zone-redundant configuration**

Explanation:

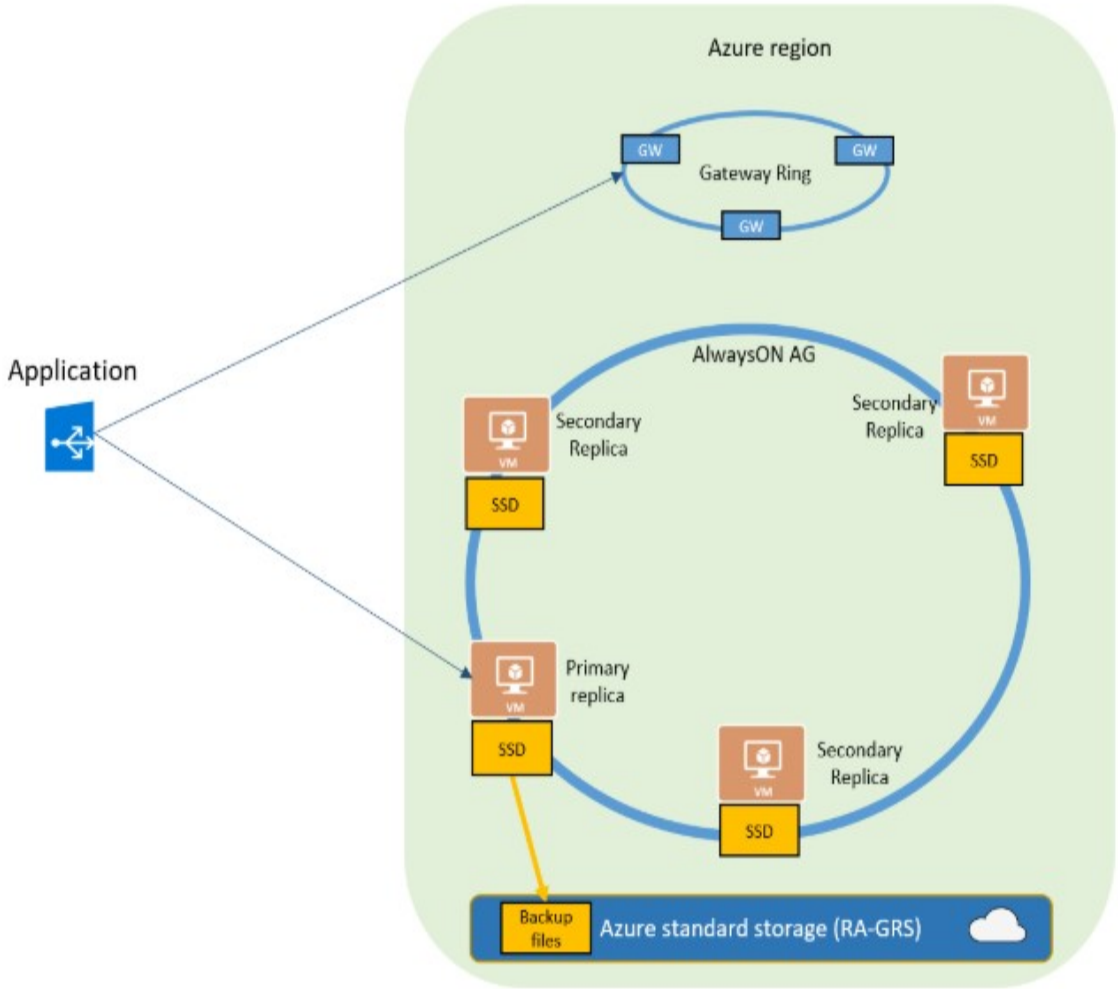
Answer – A, E and F

The Premium Service tier has better availability for Azure SQL Server databases

The Microsoft documentation mentions the following

Premium and Business Critical service tier availability

Premium and Business Critical service tiers leverage the Premium availability model, which integrates compute resources (SQL Server Database Engine process) and storag (locally attached SSD) on a single node. High availability is achieved by replicating bot compute and storage to additional nodes creating a three to four-node cluster.



You can use Zone-redundant configuration to increase the availability of nodes in the database

The Microsoft documentation mentions the following

Zone redundant configuration

By default, the cluster of nodes for the premium availability model is created in the same datacenter. With the introduction of Azure Availability Zones, SQL Database can place different replicas of the Business Critical database to different availability zones in the same region. To eliminate a single point of failure, the control ring is also duplicated across multiple zones as three gateway rings (GW). The routing to a specific gateway ring is controlled by Azure Traffic Manager (ATM). Because the zone redundant configuration in the Premium or Business Critical service tiers does not create additional database redundancy, you can enable it at no extra cost. By selecting a zone redundant configuration, you can make your Premium or Business Critical databases resilient to a much larger set of failures, including catastrophic datacenter outages, without any changes to the application logic. You can also convert any existing Premium or Business Critical databases or pools to the zone redundant configuration.

If you have SQL servers on Azure Virtual Machines, you can also achieve high availability with the help of On Always Availability Groups.

Option B is incorrect since this is used to scale virtual machines based on the load or demand

Option C is incorrect since this service tier does not provide high availability options

Option D is incorrect since this feature is used to keep multiple databases in sync

For more information on achieving high availability for SQL Server databases on Azure, please visit the following URL

https://docs.microsoft.com/en-us/azure/sql-database/sql-database-high-availability

https://docs.microsoft.com/en-us/azure/virtual-machines/windows/sql/virtual-machines-windows-portal-sql-availability-group-tutorial

View Queries open

Question 12 Correct

Domain :Manage and develop data processing

A company has an Azure SQL data warehouse. They want to use PolyBase to retrieve data from an Azure Blob storage account and ingest into the Azure SQL data warehouse. The files are stored in parquet format. The data needs to be loaded into a table called whizlab_sales. Which of the following actions need to be performed to implement this requirement? Choose 4 answers from the options given below

- [ ] A. **Create an external file format that would map to the parquet-based files**
- [x] B. **Load the data into a staging table**
- [x] C. **Create an external table called whizlab_sales_details**
- [x] D. **Create an external data source for the Azure Blob storage account**
- [x] E. **Create a master key on the database**
- [ ] F. **Configure Polybase to use the Azure Blob storage account**

Explanation:

Answer – B,C,D,E

There is an article on github as part of the Microsoft documentation that provides details on how to load data into an Azure SQL data warehouse from an Azure Blob storage account. The key steps are

Creating a master key in the database

Creating an external data source for the Azure Blob storage account

3. Create a master key for the MySampleDataWarehouse database. You only need to create a master key once per database.

```
CREATE MASTER KEY;
```

4. Run the following CREATE EXTERNAL DATA SOURCE statement to define the location of the Azure blob. This is the location of the external taxi cab data. To run a command that you have appended to the query window, highlight the commands you wish to run and click **Execute**.

```
CREATE EXTERNAL DATA SOURCE NYTPublic
WITH
(
    TYPE = Hadoop,
    LOCATION = 'wasbs://2013@nytaxiblob.blob.core.windows.net/'
);
```

Next you need to create an external table

7. Create the external tables. The table definitions are stored in SQL Data Warehouse, but the tables reference data that is stored in Azure blob storage. Run the following T-SQL commands to create several external tables that all point to the Azure blob we defined previously in our external data source.

Next you load the data. But it is always beneficial to load the data into a staging table first

Load the data into your data warehouse

This section uses the external tables you just defined to load the sample data from Azure Storage Blob to SQL Data Warehouse.

> [!NOTE] This tutorial loads the data directly into the final table. In a production environment, you will usually use CREATE TABLE AS SELECT to load into a staging table. While data is in the staging table you can perform any necessary transformations. To append the data in the staging table to a production table, you can use the INSERT...SELECT statement. For more information, see Inserting data into a production table.

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

For more information on loading data from Azure Blob to Azure SQL data warehouse, please visit the following URL

https://github.com/MicrosoftDocs/azure-docs/blob/master/articles/sql-data-warehouse/load-data-from-azure-blob-storage-using-polybase.md

Ask our Experts

Rate this Question?

View Queries

open

Question 13

Correct

Domain :Manage and develop data processing

A company wants to create an in-memory batch processing solution. They want to provision an HDInsight cluster for the batch processing solution.
You need to complete the below PowerShell snippet for implementing the solution

Area 1 `

-Name $whizlabclustername -Context $defaultStorageContext

$whizlabclusterSizeInNodes = "4"

$whizlabclusterVersion = "3.6"

$whizlabclusterType = Area 2

$whizlabclusterOS = "Linux"

Area 3 `

-ResourceGroupName "whizlab-rg" `

-ClusterName $whizlabclusterName `

-Location $location `

-ClusterSizeInNodes $whizlabclusterSizeInNodes `

-ClusterType $whizlabclusterType `

-OSType $whizlabclusterOS `

-Version $whizlabclusterVersion `

-HttpCredential $whizlabhttpCredential `

-DefaultStorageAccountName "$defaultStorageAccountName.blob.core.windows.net" `

-DefaultStorageAccountKey $defaultStorageAccountKey `

-DefaultStorageContainer $whizlabclusterName `

-SshCredential $whizlabsshCredentials

Which of the following would go into Area 1?

- A. **New-AzStorageContainer** ✓
- B. **New-AzHDInsightCluster**
- C. **Hadoop**
- D. **Spark**

Explanation:

Answer – A

An example of this is given in the Microsoft documentation where we first have to create a storage container

```
# Default cluster size (# of worker nodes), version, type, and OS
$clusterSizeInNodes = "4"
$clusterVersion = "3.6"
$clusterType = "Hadoop"
$clusterOS = "Linux"
# Set the storage container name to the cluster name
$defaultBlobContainerName = $clusterName

# Create a blob container. This holds the default data store for the cluster.
New-AzStorageContainer `
    -Name $clusterName -Context $defaultStorageContext

# Create the HDInsight cluster
New-AzHDInsightCluster `
    -ResourceGroupName $resourceGroupName `
    -ClusterName $clusterName `
    -Location $location `
    -ClusterSizeInNodes $clusterSizeInNodes `
    -ClusterType $clusterType `
    -OSType $clusterOS `
    -Version $clusterVersion `
    -HttpCredential $httpCredential `
    -DefaultStorageAccountName "$defaultStorageAccountName.blob.core.windows.ne
    -DefaultStorageAccountKey $defaultStorageAccountKey `
    -DefaultStorageContainer $clusterName `
    -SshCredential $sshCredentials
```

Since this is clear from the Microsoft documentation, all other options are incorrect

For more information on an example on creating Azure HDInsight clusters, please visit the following URL

https://docs.microsoft.com/en-us/azure/hdinsight/hdinsight-hadoop-create-linux-clusters-azure-powershell

Ask our Experts

Rate this Question?

View Queries

open

Question 14

Correct

Domain :Monitor and optimize data solutions

You have to deploy resources on Azure HD Insight for a batch processing job. The batch processing must run daily and must scale to minimize costs. You also be able to monitor cluster performance.
You need to decide on a tool that will monitor the clusters and provide information on suggestions on how to scale.
You decide to download the Azure HDInsight cluster logs by using Azure PowerShell.
Would this fulfil the requirement?

A. Yes

B. No

Explanation:

Answer – B

This will not give you a complete picture and give you the ability to decide on how to scale the cluster.

You have to use Azure HDInsight cluster management solutions

For more information on HDInsight cluster management solutions, please visit the following URL

https://docs.microsoft.com/en-us/azure/hdinsight/hdinsight-hadoop-oms-log-analytics-tutorial#install-hdinsight-cluster-management-solutions

Ask our Experts

Rate this Question?

View Queries

open

Question 15

Correct

Domain :Implement data storage solutions

A company has a storage account named whizlabstore2020. They want to ensure that they can recover a blob object if it was deleted in the last 10 days. Which of the following would they implement for this requirement?

A. Firewalls and virtual networks

B. CORS

C. Soft Delete

D. Access Keys

Explanation:

Answer – C

They can use the Soft Delete feature

This is also given in the Microsoft documentation

How soft delete works

When enabled, soft delete enables you to save and recover your data when blobs or blob snapshots are deleted. This protection extends to blob data that is erased as the result of an overwrite.

When data is deleted, it transitions to a soft deleted state instead of being permanently erased. When soft delete is on and you overwrite data, a soft deleted snapshot is generated to save the state of the overwritten data. Soft deleted objects are invisible unless explicitly listed. You can configure the amount of time soft deleted data is recoverable before it is permanently expired.

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

For more information on the soft delete feature, please visit the following URL

https://docs.microsoft.com/en-us/azure/storage/blobs/storage-blob-soft-delete?tabs=azure-portal

Certification

Cloud Certification

Java Certification

PM Certification

Big Data Certification

Company

Become Our Instructor

Support

Discussions

Blog

Business

Follow us