

# Microsoft

## Exam Questions DP-300

Administering Relational Databases on Microsoft Azure (beta)



### NEW QUESTION 1

- (Exam Topic 5)

You have 10 Azure virtual machines that have SQL Server installed.

You need to implement a backup strategy to ensure that you can restore specific databases to other SQL Server instances. The solution must provide centralized management of the backups.

What should you include in the backup strategy?

- A. Automated Backup in the SQL virtual machine settings
- B. Azure Backup
- C. Azure Site Recovery
- D. SQL Server Agent jobs

**Answer:** B

#### Explanation:

Azure Backup provides an Enterprise class backup capability for SQL Server on Azure VMs. All backups are stored and managed in a Recovery Services vault. There are several advantages that this solution provides, especially for Enterprises.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/virtual-machines/windows/backup-restore#azbackup>

### NEW QUESTION 2

- (Exam Topic 5)

You have an Azure SQL Database managed instance named sqldbmi1 that contains a database name Sales. You need to initiate a backup of Sales.

How should you complete the Transact-SQL statement? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**BACKUP DATABASE Sales**

	▼
TO DISK = \\BackupSystem\BackupDisk1\Sales.bak'	
TO DISK = 'X:\BAK\Sales.bak'	
TO 'Sales_Backup'	
TO URL = 'https://storage1.blob.core.windows.net/blob1/Sales.bak'	

**WITH STATS = 5,**

	▼
WITH COPY_ONLY;	
WITH ENCRYPTION;	
WITH FILE_SNAPSHOT;	
WITH NO_TRUNCATE	

- A. Mastered
- B. Not Mastered

**Answer:** A

#### Explanation:

Box 1: TO URL = 'https://storage1.blob.core.windows.net/blob1/Sales.bak' Native database backup in Azure SQL Managed Instance.

You can backup any database using standard BACKUP T-SQL command: BACKUP DATABASE tpcc2501

TO URL = 'https://myacc.blob.core.windows.net/testcontainer/tpcc2501.bak'

WITH COPY\_ONLY

Box 2: WITH COPY\_ONLY

Reference:

<https://techcommunity.microsoft.com/t5/azure-sql-database/native-database-backup-in-azure-sql-managed-insta>

### NEW QUESTION 3

- (Exam Topic 5)

You have an Azure SQL database named DB1 that contains two tables named Table1 and Table2. Both tables contain a column named a Column1. Column1 is used for joins by an application named App1.

You need to protect the contents of Column1 at rest, in transit, and in use.

How should you protect the contents of Column1? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Encryption key:

Encryption type:

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Box 1: Column encryption Key

Always Encrypted uses two types of keys: column encryption keys and column master keys. A column encryption key is used to encrypt data in an encrypted column. A column master key is a key-protecting key that encrypts one or more column encryption keys.

Reference:

<https://docs.microsoft.com/en-us/sql/relational-databases/security/encryption/always-encrypted-database-engine>

**NEW QUESTION 4**

- (Exam Topic 5)

You are designing a date dimension table in an Azure Synapse Analytics dedicated SQL pool. The date dimension table will be used by all the fact tables. Which distribution type should you recommend to minimize data movement?

- A. HASH
- B. REPLICATE
- C. ROUND\_ROBIN

**Answer:** B

**Explanation:**

A replicated table has a full copy of the table available on every Compute node. Queries run fast on replicated tables since joins on replicated tables don't require data movement. Replication requires extra storage, though, and isn't practical for large tables.

Reference:

<https://docs.microsoft.com/en-us/azure/synapse-analytics/sql-data-warehouse/sql-data-warehouse-tables-distribu>

**NEW QUESTION 5**

- (Exam Topic 5)

You have an Azure Data Lake Storage Gen2 account named account1 that stores logs as shown in the following table.

Type	Designated retention period
Application	360 days
Infrastructure	60 days

You do not expect that the logs will be accessed during the retention periods.

You need to recommend a solution for account1 that meets the following requirements:

- > Automatically deletes the logs at the end of each retention period
- > Minimizes storage costs

What should you include in the recommendation? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

To minimize storage costs:

To delete the logs automatically:

- A. Mastered

B. Not Mastered

Answer: A

Explanation:

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Box 1: Store the infrastructure logs in the Cool access tier the application logs in the Archive access tier Hot - Optimized for storing data that is accessed frequently.

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

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

Box 2: Azure Blob storage lifecycle management rules

Blob storage lifecycle management offers a rich, rule-based policy that you can use to transition your data to the best access tier and to expire data at the end of its lifecycle.

Reference:

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

NEW QUESTION 6

- (Exam Topic 5)

You have an Azure SQL database.

You discover that the plan cache is full of compiled plans that were used only once.

You run the select \* from sys.database\_scoped\_configurations Transact-SQL command and receive the results shown in the following table.

configuration_id	name	value	is_value_default
1	LEGACY_CARDINALITY_ESTIMATION	0	1
2	QUERY_OPTIMIZER_HOTFIXES	0	1
3	OPTIMIZE_FOR_AD_HOC_WORKLOADS	0	1
4	ACCELERATED_PLAN_FORCING	1	1

You need relieve the memory pressure. What should you configure?

- A. LEGACY\_CARDINALITY\_ESTIMATION
- B. QUERY\_OPTIMIZER\_HOTFIXES
- C. OPTIMIZE\_FOR\_AD\_HOC\_WORKLOADS
- D. ACCELERATED\_PLAN\_FORCING

Answer: C

Explanation:

OPTIMIZE\_FOR\_AD\_HOC\_WORKLOADS = { ON | OFF }

Enables or disables a compiled plan stub to be stored in cache when a batch is compiled for the first time. The default is OFF. Once the database scoped configuration OPTIMIZE\_FOR\_AD\_HOC\_WORKLOADS is enabled for a database, a compiled plan stub will be stored in cache when a batch is compiled for the first time. Plan stubs have a smaller memory footprint compared to the size of the full compiled plan.

Reference:

<https://docs.microsoft.com/en-us/sql/t-sql/statements/alter-database-scoped-configuration-transact-sql>

NEW QUESTION 7

- (Exam Topic 5)

You are creating a managed data warehouse solution on Microsoft Azure.

You must use PolyBase to retrieve data from Azure Blob storage that resides in parquet format and load the data into a large table called FactSalesOrderDetails.

You need to configure Azure Synapse Analytics to receive the data.

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

Actions

Answer Area

Create an external data source for Azure Blob storage.

Create a master key on database.

Enable Transparent Data Encryption.

Create the external table FactSalesOrderDetails.

Load the data to a staging table.

Create an external file format to map the parquet files.

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- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

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To query the data in your Hadoop data source, you must define an external table to use in Transact-SQL queries. The following steps describe how to configure the external table.

Step 1: Create a master key on database.

\* 1. Create a master key on the database. The master key is required to encrypt the credential secret. (Create a database scoped credential for Azure blob storage.)

Step 2: Create an external data source for Azure Blob storage.

\* 2. Create an external data source with CREATE EXTERNAL DATA SOURCE.. Step 3: Create an external file format to map the parquet files.

\* 3. Create an external file format with CREATE EXTERNAL FILE FORMAT. Step 4. Create an external table FactSalesOrderDetails

\* 4. Create an external table pointing to data stored in Azure storage with CREATE EXTERNAL TABLE. Reference:

<https://docs.microsoft.com/en-us/sql/relational-databases/polybase/polybase-configure-azure-blob-storage>

**NEW QUESTION 8**

- (Exam Topic 5)

You have an Azure Databricks workspace named workspace1 in the Standard pricing tier. Workspace1 contains an all-purpose cluster named cluster1.

You need to reduce the time it takes for cluster1 to start and scale up. The solution must minimize costs. What should you do first?

A. Upgrade workspace1 to the Premium pricing tier.

B. Configure a global init script for workspace1.

C. Create a pool in workspace1.

D. Create a cluster policy in workspace1.

**Answer:** C

**Explanation:**

You can use Databricks Pools to Speed up your Data Pipelines and Scale Clusters Quickly.

Databricks Pools, a managed cache of virtual machine instances that enables clusters to start and scale 4 times faster.

Reference:

<https://databricks.com/blog/2019/11/11/databricks-pools-speed-up-data-pipelines.html>

**NEW QUESTION 9**

- (Exam Topic 5)

You have a new Azure SQL database. The database contains a column that stores confidential information. You need to track each time values from the column are returned in a query. The tracking information must be stored for 365 days from the date the query was executed.

Which three actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

A. Turn on auditing and write audit logs to an Azure Storage account.

B. Add extended properties to the column.

C. Turn on Advanced Data Security for the Azure SQL server.

D. Apply sensitivity labels named Highly Confidential to the column.

E. Turn on Azure Advanced Threat Protection (ATP).

**Answer:** ACD

**Explanation:**

C: Advanced Data Security (ADS) is a unified package for advanced SQL security capabilities. ADS is available for Azure SQL Database, Azure SQL Managed Instance, and Azure Synapse Analytics. It includes functionality for discovering and classifying sensitive data

D: You can apply sensitivity-classification labels persistently to columns by using new metadata attributes that have been added to the SQL Server database engine. This metadata can then be used for advanced, sensitivity-based auditing and protection scenarios.

A: An important aspect of the information-protection paradigm is the ability to monitor access to sensitive data. Azure SQL Auditing has been enhanced to include a new field in the audit log called data\_sensitivity\_information. This field logs the sensitivity classifications (labels) of the data that was returned by a query. Here's an example:

d	client_ip	application_name	duration_milliseconds	response_rows	affected_rows	connection_id	data_sensitivity_information
	7.125	Microsoft SQL Server Management Studio - Query	1	847	847	C244A066-2271-...	Confidential - GDPR
	7.125	Microsoft SQL Server Management Studio - Query	2	32	32	C244A066-2271-...	Confidential
	7.125	Microsoft SQL Server Management Studio - Query	41	32	32	A7088FD4-759E-...	Confidential, Confidential - GDPR

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/data-discovery-and-classification-overview>

**NEW QUESTION 10**

- (Exam Topic 5)

You plan to create a table in an Azure Synapse Analytics dedicated SQL pool.

Data in the table will be retained for five years. Once a year, data that is older than five years will be deleted. You need to ensure that the data is distributed evenly across partitions. The solutions must minimize the amount of time required to delete old data.

How should you complete the Transact-SQL statement? To answer, drag the appropriate values to the correct targets. Each value may be used once, more than once, or not at all.

You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

## Values

## Answer Area

CustomerKey	CREATE TABLE [dbo].[FactSales]
HASH	(
ROUND_ROBIN	[ProductKey] int NOT NULL
REPLICATE	, [OrderDateKey] int NOT NULL
OrderDateKey	, [CustomerKey] int NOT NULL
SalesOrderNumber	, [SalesOrderNumber] nvarchar ( 20 ) NOT NULL
	, [OrderQuantity] smallint NOT NULL
	, [UnitPrice] money NOT NULL
	)
	WITH
	( CLUSTERED COLUMNSTORE INDEX
	, DISTRIBUTION = [ ] ([ProductKey])
	, PARTITION ( [ ] RANGE RIGHT FOR VALUES
	(20170101, 20180101, 20190101, 20200101, 20210101)
	)
	)

- A. Mastered  
 B. Not Mastered

**Answer:** A

### Explanation:

Graphical user interface, text, application Description automatically generated

Box 1: HASH

Box 2: OrderDateKey

In most cases, table partitions are created on a date column.

A way to eliminate rollbacks is to use Metadata Only operations like partition switching for data management. For example, rather than execute a DELETE statement to delete all rows in a table where the order\_date was in October of 2001, you could partition your data early. Then you can switch out the partition with data for an empty partition from another table.

Reference:

<https://docs.microsoft.com/en-us/sql/t-sql/statements/create-table-azure-sql-data-warehouse> <https://docs.microsoft.com/en-us/azure/synapse-analytics/sql/best-practices-dedicated-sql-pool>

### NEW QUESTION 10

- (Exam Topic 5)

You plan to build a structured streaming solution in Azure Databricks. The solution will count new events in five-minute intervals and report only events that arrive during the interval.

The output will be sent to a Delta Lake table. Which output mode should you use?

- A. complete  
 B. append  
 C. update

**Answer:** A

### Explanation:

Complete mode: You can use Structured Streaming to replace the entire table with every batch. Reference:

<https://docs.databricks.com/delta/delta-streaming.html>

### NEW QUESTION 15

- (Exam Topic 5)

You have two on-premises Microsoft SQL Server 2019 instances named SQL1 and SQL2.

You need to migrate the databases hosted on SQL 1 to Azure. The solution must meet the following requirements:

The service that hosts the migrated databases must be able to communicate with SQL2 by using linked server connections.

Administrative effort must be minimized. What should you use to host the databases?

- A. a single Azure SQL database  
 B. an Azure SQL Database elastic pool  
 C. SQL Server on Azure Virtual Machines  
 D. Azure SQL Managed Instance

**Answer:** D

### NEW QUESTION 16

- (Exam Topic 5)

You are building a database in an Azure Synapse Analytics serverless SQL pool. You have data stored in Parquet files in an Azure Data Lake Storage Gen2 container. Records are structured as shown in the following sample.

```
{
  "id":123,
  "address_housenumber": "19c",
  "address_line1": "Memory Lane",
  "applicant1_name": "Jane",
  "applicant2_name": "Dev"
}
```

The records contain two applicants at most.

You need to build a table that includes only the address fields.

How should you complete the Transact-SQL statement? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

```
CREATE EXTERNAL TABLE
CREATE TABLE
CREATE VIEW
WITH (
  LOCATION = 'applications/',
  DATA_SOURCE = applications_ds,
  FILE_FORMAT = applications_file_format
)
AS
SELECT id, [address_housenumber] as addressnumber, [address_line1]
as addressline1
FROM
  (BULK 'https://contoso1.dfs.core.windows.net/
  applications/year=*/,*.parquet',
  FORMAT = 'PARQUET') AS [r]
GO
```

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Graphical user interface, text, application Description automatically generated

Box 1: CREATE EXTERNAL TABLE

An external table points to data located in Hadoop, Azure Storage blob, or Azure Data Lake Storage. External tables are used to read data from files or write data to files in Azure Storage. With Synapse SQL, you can use external tables to read external data using dedicated SQL pool or serverless SQL pool.

Syntax:

CREATE EXTERNAL TABLE { database\_name.schema\_name.table\_name | schema\_name.table\_name | table\_name }

( <column\_definition> [ ,...n ] ) WITH (

LOCATION = 'folder\_or\_filepath', DATA\_SOURCE = external\_data\_source\_name, FILE\_FORMAT = external\_file\_format\_name Box 2. OPENROWSET

When using serverless SQL pool, CETAS is used to create an external table and export query results to Azure Storage Blob or Azure Data Lake Storage Gen2.

Example: AS

SELECT decennialTime, stateName, SUM(population) AS population FROM

OPENROWSET(BULK

'https://azureopendatastorage.blob.core.windows.net/censusdatacontainer/release/us\_population\_county/year=\*/

FORMAT='PARQUET') AS [r]

GROUP BY decennialTime, stateName GO

Reference:

<https://docs.microsoft.com/en-us/azure/synapse-analytics/sql/develop-tables-external-tables>

**NEW QUESTION 18**

- (Exam Topic 5)

You are developing an application that uses Azure Data Lake Storage Gen 2.

You need to recommend a solution to grant permissions to a specific application for a limited time period. What should you include in the recommendation?

- A. role assignments
- B. account keys
- C. shared access signatures (SAS)
- D. Azure Active Directory (Azure AD) identities

**Answer:** C

**Explanation:**

A shared access signature (SAS) provides secure delegated access to resources in your storage account. With a SAS, you have granular control over how a client can access your data. For example:

What resources the client may access.

What permissions they have to those resources. How long the SAS is valid.

Note: Data Lake Storage Gen2 supports the following authorization mechanisms:

- Shared Key authorization
- Shared access signature (SAS) authorization
- Role-based access control (Azure RBAC)
- Shared Key authorization
- Shared access signature (SAS) authorization
- Role-based access control (Azure RBAC)
- Access control lists (ACL)

Reference:

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

## NEW QUESTION 22

- (Exam Topic 5)

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have two Azure SQL Database servers named Server1 and Server2. Each server contains an Azure SQL database named Database1.

You need to restore Database1 from Server1 to Server2. The solution must replace the existing Database1 on Server2.

Solution: You restore Database1 from Server1 to the Server2 by using the RESTORE Transact-SQL command and the REPLACE option.

Does this meet the goal?

- A. Yes
- B. No

**Answer: A**

### Explanation:

The REPLACE option overrides several important safety checks that restore normally performs. The overridden checks are as follows:

- Restoring over an existing database with a backup taken of another database.

With the REPLACE option, restore allows you to overwrite an existing database with whatever database is in the backup set, even if the specified database name differs from the database name recorded in the backup set. This can result in accidentally overwriting a database by a different database.

Reference:

<https://docs.microsoft.com/en-us/sql/t-sql/statements/restore-statements-transact-sql>

## NEW QUESTION 25

- (Exam Topic 5)

You have an Azure SQL database named DB1.

You have a table name Table1 that has 20 columns of type CHAR(400). Row compression for Table1 is enabled.

During a database audit, you discover that none of the fields contain more than 150 characters. You need to ensure that you can apply page compression to Table1.

What should you do?

- A. Configure the columns as sparse.
- B. Change the column type to nvarchar (MAX).
- C. Change the column type to varchar (MAX).
- D. Change the column type to varchar (200).

**Answer: D**

### Explanation:

Reference:

<https://www.sqlshack.com/sql-varchar-data-type-deep-dive/> <https://36chambers.wordpress.com/2020/06/18/nvarchar-everywhere-a-thought-experiment/>

## NEW QUESTION 27

- (Exam Topic 5)

You have four Azure subscriptions. Each subscription contains multiple Azure SQL databases. You need to update the column and index statistics for the databases.

What should you use?

- A. an Azure Automation runbook
- B. a SQL Agent job
- C. Azure SQL Analytics
- D. automatic tuning in Azure SQL Database

**Answer: A**

### Explanation:

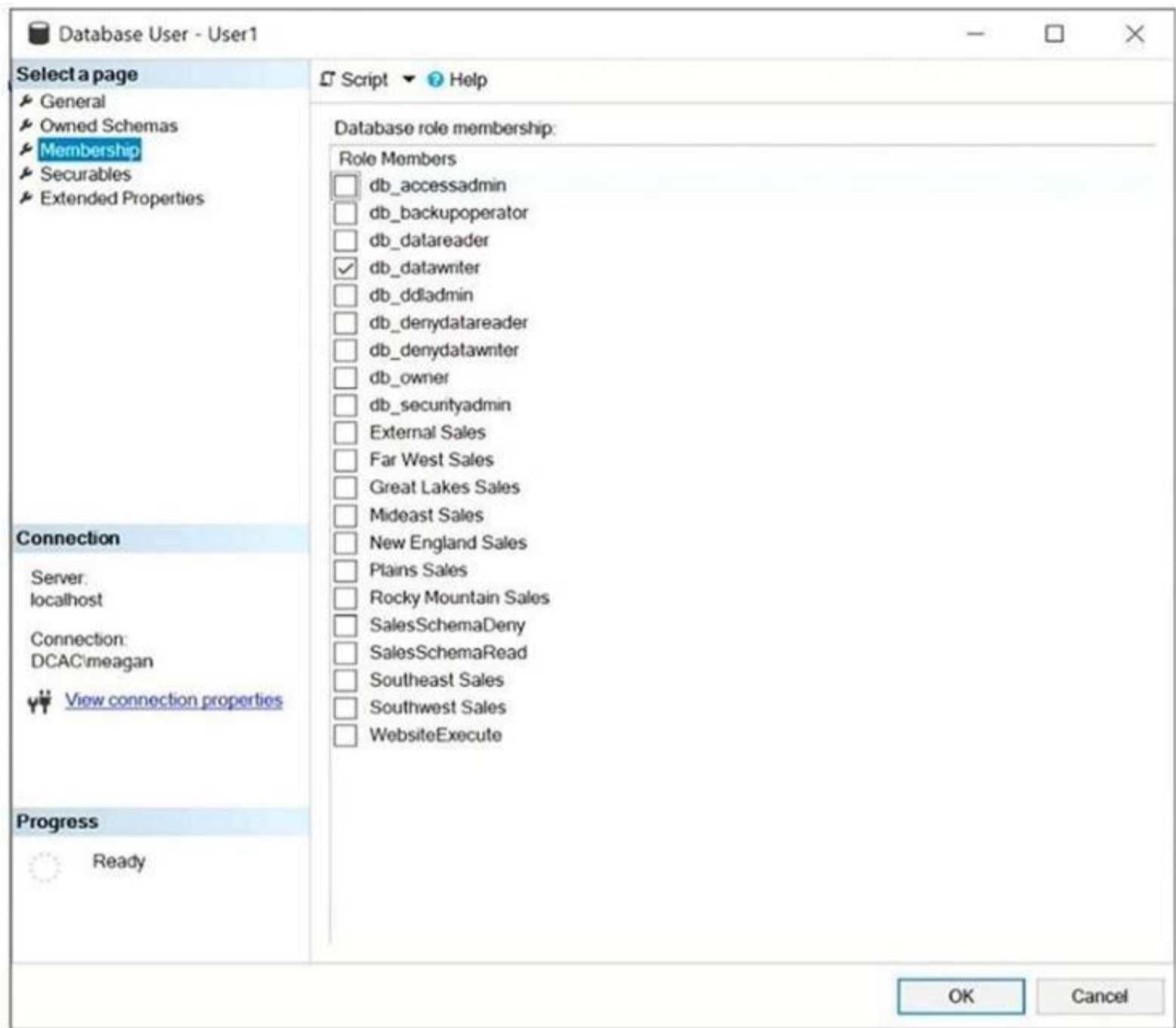
Reference:

<https://www.sqlshack.com/automate-azure-sql-database-indexes-and-statistics-maintenance/>

## NEW QUESTION 29

- (Exam Topic 5)

You have a Microsoft SQL Server database named DB1 that contains a table named Table1. The database role membership for a user named User1 is shown in the following exhibit.



Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.  
NOTE: Each correct selection is worth one point.

User1 can [answer choice].

add a column to Table1  
delete a row from Table1  
delete Table1

To ensure that User1 can run queries to retrieve data from DB1, you must assign User1 the [answer choice] database role.

db\_datareader  
db\_ddladmin  
db\_denydatareader  
db\_denydatawriter

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Box 1: delete a row from Table1  
Members of the db\_datawriter fixed database role can add, delete, or change data in all user tables. Box 2: db\_datareader  
Members of the db\_datareader fixed database role can read all data from all user tables. Reference:  
<https://docs.microsoft.com/en-us/sql/relational-databases/security/authentication-access/database-level-roles>

NEW QUESTION 31

- (Exam Topic 5)  
You plan to deploy an app that includes an Azure SQL database and an Azure web app. The app has the following requirements:

- > The web app must be hosted on an Azure virtual network.
- > The Azure SQL database must be assigned a private IP address.
- > The Azure SQL database must allow connections only from the virtual network.

You need to recommend a solution that meets the requirements. What should you include in the recommendation?

- A. Azure Private Link
- B. a network security group (NSG)
- C. a database-level firewall
- D. a server-level firewall

Answer: A

Explanation:

Reference:  
<https://docs.microsoft.com/en-us/azure/azure-sql/database/private-endpoint-overview>

NEW QUESTION 33

- (Exam Topic 5)

You have the following Azure Resource Manager template.

```
...
  "variable": {
    "serverName": "azsqlserver0001"
  },
  "resources": [
    {
      "name": "[variables('serverName')]",
      "type": "Microsoft.Sql/servers",
      "apiVersion": "2019-06-01-preview",
      "location": "[parameters('location')]",
      "properties": {
        "administratorLogin": "[parameters('administratorLogin')]",
        "administratorLoginPassword": "[parameters('administratorLoginPassword')]",
        "version": "12.0"
      },
      "resources": [
        {
          "name": "[concat(variables('serverName'), '/', parameters('databaseName'))]",
          "type": "Microsoft.Sql/servers/databases",
          "apiVersion": "2020-08-01-preview",
          "location": "[parameters('location')]",
          "kind": "v12.0"
          "sku": {
            "name": "Standard",
            "tier": "Standard",
            "capacity": 10
          },
          "dependsOn": [
            "[concat('Microsoft.Sql/servers/', variables('serverName'))]"
          ],
          "properties": {
          },
          "resources": [
          ]
        }
      ]
    }
  ],
  ...
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.  
NOTE: Each correct selection is worth one point.

Statements	Yes	No
The template deploys a serverless Azure SQL database.	<input type="radio"/>	<input type="radio"/>
The template deploys a database to an Azure SQL Database managed instance.	<input type="radio"/>	<input type="radio"/>
The pricing tier of the database deployment is based on DTUs.	<input type="radio"/>	<input type="radio"/>

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

A screenshot of a computer Description automatically generated with low confidence  
Reference:  
<https://docs.microsoft.com/en-us/azure/azure-sql/database/purchasing-models> <https://docs.microsoft.com/en-us/azure/azure-sql/database/single-database-create-arm-template-quickstart>

NEW QUESTION 34

- (Exam Topic 5)

You have an Azure SQL database named DB1. DB1 contains a table that has a column named Col1. You need to encrypt the data in Col1. Which four actions should you perform for DB1 in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions

Create a database master key.

Create a column master key.

Open the symmetric key.

Create a certificate.

Update Col1.

Create a symmetric key.

Answer Area

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Table Description automatically generated  
Reference:  
<https://www.sqlshack.com/an-overview-of-the-column-level-sql-server-encryption/>

NEW QUESTION 39

- (Exam Topic 5)

You have SQL Server 2019 on an Azure virtual machine that contains an SSISDB database. A recent failure causes the master database to be lost. You discover that all Microsoft SQL Server integration Services (SSIS) packages fail to run on the virtual machine. Which four actions should you perform in sequence to resolve the issue? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct.

Actions

Add a certificate to an Azure key vault

Enable Transparent Data Encryption (TDE)

Encrypt a copy of the master key by using the service master key

Turn on the TRUSTWORTHY property and the CLR property

Attach the SSISDB database

Open the master key for the SSISDB database

Answer Area

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Step 1: Attach the SSISDB database  
Step 2: Turn on the TRUSTWORTHY property and the CLR property  
If you are restoring the SSISDB database to an SQL Server instance where the SSISDB catalog was never created, enable common language runtime (clr)  
Step 3: Open the master key for the SSISDB database  
Restore the master key by this method if you have the original password that was used to create SSISDB. open master key decryption by password = 'LS1Setup!'  
--'Password used when creating SSISDB'

Alter Master Key Add encryption by Service Master Key

Step 4: Encrypt a copy of the mater key by using the service master key Reference:

<https://docs.microsoft.com/en-us/sql/integration-services/backup-restore-and-move-the-ssis-catalog>

#### NEW QUESTION 40

- (Exam Topic 5)

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure Synapse Analytics dedicated SQL pool that contains a table named Table1. You have files that are ingested and loaded into an Azure Data Lake Storage Gen2 container named container1.

You plan to insert data from the files into Table1 and transform the data. Each row of data in the files will produce one row in the serving layer of Table1.

You need to ensure that when the source data files are loaded to container1, the DateTime is stored as an additional column in Table1.

Solution: You use an Azure Synapse Analytics serverless SQL pool to create an external table that has an additional DateTime column.

Does this meet the goal?

A. Yes

B. No

**Answer: A**

#### Explanation:

In dedicated SQL pools you can only use Parquet native external tables. Native external tables are generally available in serverless SQL pools.

Reference:

<https://docs.microsoft.com/en-us/azure/synapse-analytics/sql/create-use-external-tables>

#### NEW QUESTION 45

- (Exam Topic 5)

You need to trigger an Azure Data Factory pipeline when a file arrives in an Azure Data Lake Storage Gen2 container.

Which resource provider should you enable?

A. Microsoft.EventHub

B. Microsoft.EventGrid

C. Microsoft.Sql

D. Microsoft.Automation

**Answer: B**

#### Explanation:

Event-driven architecture (EDA) is a common data integration pattern that involves production, detection, consumption, and reaction to events. Data integration scenarios often require Data Factory customers to trigger pipelines based on events happening in storage account, such as the arrival or deletion of a file in Azure Blob Storage account. Data Factory natively integrates with Azure Event Grid, which lets you trigger pipelines on such events.

Reference:

<https://docs.microsoft.com/en-us/azure/data-factory/how-to-create-event-trigger>

#### NEW QUESTION 50

- (Exam Topic 5)

You have an on-premises Microsoft SQL Server 2016 server named Server1 that contains a database named DB1.

You need to perform an online migration of DB1 to an Azure SQL Database managed instance by using Azure Database Migration Service.

How should you configure the backup of DB1? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

#### Answer Area

Backup type:

	▼
Full and log backups only	
Full backup only	
Log backup only	

Backup option:

	▼
WITH CHECKSUM	
WITH NOINIT	
WITH UNLOAD	

A. Mastered

B. Not Mastered

**Answer: A**

#### Explanation:

Box 1: Full and log backups only

Make sure to take every backup on a separate backup media (backup files). Azure Database Migration Service doesn't support backups that are appended to a

single backup file. Take full backup and log backups to separate backup files.

Box 2: WITH CHECKSUM

Azure Database Migration Service uses the backup and restore method to migrate your on-premises databases to SQL Managed Instance. Azure Database Migration Service only supports backups created using checksum.

Reference:

<https://docs.microsoft.com/en-us/azure/dms/known-issues-azure-sql-db-managed-instance-online>

## NEW QUESTION 55

- (Exam Topic 5)

You have an Azure Synapse Analytics dedicated SQL pool.

You run `PDW_SHOWSPACEUSED('dbo.FactInternetSales')`; and get the results shown in the following table.

ROWS	RESERVED_SPACE	DATA_SPACE	INDEX_SPACE	UNUSED_SPACE	PDW_NODE_ID	DISTRIBUTION_ID
694	2776	616	48	2112	1	1
407	2704	576	48	2080	1	2
53	2376	512	16	1848	1	3
58	2376	512	16	1848	1	4
168	2632	528	32	2072	1	5
195	2696	536	32	2128	1	6
5995	3464	1424	32	2008	1	7
0	2232	496	0	1736	1	8
264	2576	544	40	1992	1	9
3008	3016	960	32	2024	1	10
...	...	...	...	...	...	...
1550	2832	752	48	2032	1	50
1238	2832	696	40	2096	1	51
192	2632	528	32	2072	1	52
1127	2768	680	48	2040	1	53
1244	3032	704	64	2264	1	54
409	2632	568	32	2032	1	55
0	2232	496	0	1736	1	56
1437	2832	728	40	2064	1	57
0	2232	496	0	1736	1	58
384	2632	560	32	2040	1	59
225	2768	544	40	2184	1	60

Which statement accurately describes the `dbo.FactInternetSales` table?

- A. The table contains less than 10,000 rows.
- B. All distributions contain data.
- C. The table uses round-robin distribution
- D. The table is skewed.

**Answer: D**

### Explanation:

The rows per distribution can vary up to 10% without a noticeable impact on performance. Here the distribution varies more than 10%. It is skewed.

Note: `SHOWSPACEUSED` displays the number of rows, disk space reserved, and disk space used for a specific table, or for all tables in a Azure Synapse Analytics or Parallel Data Warehouse database.

This is a very quick and simple way to see the number of table rows that are stored in each of the 60 distributions of your database. Remember that for the most balanced performance, the rows in your distributed table should be spread evenly across all the distributions.

`ROUND_ROBIN` distributed tables should not be skewed. Data is distributed evenly across the nodes by design.

Reference:

<https://docs.microsoft.com/en-us/azure/synapse-analytics/sql-data-warehouse/sql-data-warehouse-tables-distrib> <https://github.com/rgl/azure-content/blob/master/articles/sql-data-warehouse/sql-data-warehouse-manage-distrib>

## NEW QUESTION 58

- (Exam Topic 5)

You have an Azure subscription that contains an Azure SQL managed instance named `SQLMi1` and a SQL Agent job named `Backupdb`. `Backupdb` performs a daily backup of the databases hosted on `SQLMi1`.

You need to be notified by email if the job fails.

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

NOTE: More than one order of answer choices is correct. You will receive credit for any of the correct orders you select.

Actions		Answer Area
Create a SQL Server Agent alert.		
Create an operator.		
Create an extended event.	⬅️	⬆️
Enable Database Mail.	➡️	⬇️
Add a failure notification to the job.		

- A. Mastered
- B. Not Mastered

Answer: A

**Explanation:**  
Text Description automatically generated  
Reference:  
<https://docs.microsoft.com/en-us/azure/azure-sql/managed-instance/job-automation-managed-instance>

NEW QUESTION 63

- (Exam Topic 5)  
You have an Azure Active Directory (Azure AD) tenant named contoso.com that contains a user named user1@contoso.com and an Azure SQL managed instance named SQLMI1.  
You need to ensure that user1@contoso.com can create logins in SQLMI1 that map to Azure AD service principals.  
Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions		Answer Area
Run CREATE LOGIN user1@contoso.com FROM EXTERNAL PROVIDER on the master database.		
Run ALTER SERVER ROLE securityadmin ADD MEMBER user1@contoso.com.	⬅️	⬆️
Create a managed identity for SQLMI1.	➡️	⬇️
Grant SQLMI1 read access to Azure AD.		
Run CREATE USER user1@contoso.com FROM LOGIN user1@contoso.com.		

- A. Mastered
- B. Not Mastered

Answer: A

**Explanation:**  
Text Description automatically generated with medium confidence  
Reference:  
<https://docs.microsoft.com/en-us/azure/azure-sql/managed-instance/aad-security-configure-tutorial>

NEW QUESTION 67

- (Exam Topic 5)  
You have an Azure SQL database named db1 on a server named server1.  
The Intelligent Insights diagnostics log identifies that several tables are missing indexes. You need to ensure that indexes are created for the tables.  
What should you do?

- A. Run the DBCC SQLPERF command.
- B. Run the dbcc dbreindex command.
- C. Modify the automatic tuning settings for db1.
- D. Modify the Query Store settings for db1.

Answer: C

**Explanation:**

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/automatic-tuning-overview>**NEW QUESTION 70**

- (Exam Topic 5)

You need to recommend an availability strategy for an Azure SQL database. The strategy must meet the following requirements:

- Support failovers that do not require client applications to change their connection strings.
- Replicate the database to a secondary Azure region.
- Support failover to the secondary region. What should you include in the recommendation?

- A. failover groups
- B. transactional replication
- C. Availability Zones
- D. geo-replication

**Answer:** A**Explanation:**

Active geo-replication is an Azure SQL Database feature that allows you to create readable secondary databases of individual databases on a server in the same or different data center (region).

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/active-geo-replication-overview>**NEW QUESTION 75**

- (Exam Topic 5)

You are designing an enterprise data warehouse in Azure Synapse Analytics that will contain a table named Customers. Customers will contain credit card information.

You need to recommend a solution to provide salespeople with the ability to view all the entries in Customers. The solution must prevent all the salespeople from viewing or inferring the credit card information.

What should you include in the recommendation?

- A. row-level security
- B. data masking
- C. Always Encrypted
- D. column-level security

**Answer:** B**Explanation:**

Azure SQL Database, Azure SQL Managed Instance, and Azure Synapse Analytics support dynamic data masking. Dynamic data masking limits sensitive data exposure by masking it to non-privileged users.

The Credit card masking method exposes the last four digits of the designated fields and adds a constant string as a prefix in the form of a credit card.

Example:

XXXX-XXXX-XXXX-1234

**NEW QUESTION 79**

- (Exam Topic 5)

You have an Azure SQL database.

Users report that the executions of a stored procedure are slower than usual. You suspect that a regressed query is causing the performance issue.

You need to view the query execution plan to verify whether a regressed query is causing the issue. The solution must minimize effort.

What should you use?

- A. Performance Recommendations in the Azure portal
- B. Extended Events in Microsoft SQL Server Management Studio (SSMS)
- C. Query Store in Microsoft SQL Server Management Studio (SSMS)
- D. Query Performance Insight in the Azure portal

**Answer:** C**Explanation:**

Use the Query Store Page in SQL Server Management Studio.

Query performance regressions caused by execution plan changes can be non-trivial and time consuming to resolve.

Since the Query Store retains multiple execution plans per query, it can enforce policies to direct the Query Processor to use a specific execution plan for a query.

This is referred to as plan forcing. Plan forcing in Query Store is provided by using a mechanism similar to the USE PLAN query hint, but it does not require any change in user applications. Plan forcing can resolve a query performance regression caused by a plan change in a very short period of time.

Reference:

<https://docs.microsoft.com/en-us/sql/relational-databases/performance/monitoring-performance-by-using-the-qu>**NEW QUESTION 82**

- (Exam Topic 5)

You have a on-premises Microsoft SQL Server named SQL1 that hosts five databases.

You need to migrate the databases to an Azure SQL managed instance. The solution must minimize downtime and prevent data loss.

What should you use?

- A. log shipping
- B. Always On availability groups
- C. Database Migration Assistant

D. Backup and Restore

**Answer:** A

#### NEW QUESTION 86

- (Exam Topic 5)

You have an Azure Stream Analytics job.

You need to ensure that the job has enough streaming units provisioned. You configure monitoring of the SU % Utilization metric.

Which two additional metrics should you monitor? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

- A. Late Input Events
- B. Out of order Events
- C. Backlogged Input Events
- D. Watermark Delay
- E. Function Events

**Answer:** CD

#### Explanation:

To react to increased workloads and increase streaming units, consider setting an alert of 80% on the SU Utilization metric. Also, you can use watermark delay and backlogged events metrics to see if there is an impact.

Note: Backlogged Input Events: Number of input events that are backlogged. A non-zero value for this metric implies that your job isn't able to keep up with the number of incoming events. If this value is slowly increasing or consistently non-zero, you should scale out your job, by increasing the SUs.

Reference:

<https://docs.microsoft.com/en-us/azure/stream-analytics/stream-analytics-monitoring>

#### NEW QUESTION 88

- (Exam Topic 5)

You have an Azure SQL database named DB1 that contains a nonclustered index named index1. End users report slow queries when they use index1.

You need to identify the operations that are being performed on the index. Which dynamic management view should you use?

- A. `sys.dm_exec_query_plan_stats`
- B. `sys.dm_db_index_physical_stats`
- C. `sys.dm_db_index_operational_stats`
- D. `sys.dm_db_index_usage_stats`

- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Answer:** D

#### NEW QUESTION 90

- (Exam Topic 5)

Your on-premises network contains a server that hosts a 60-TB database named DB 1. The network has a 10-Mbps internet connection.

You need to migrate DB 1 to Azure. The solution must minimize how long it takes to migrate the database. What should you use?

- A. Azure Migrate
- B. Data Migration Assistant (DMA)
- C. Azure Data BOX
- D. Azure Database Migration Service

**Answer:** D

#### Explanation:

<https://www.techtarget.com/searchitoperations/tip/Easily-transfer-VMs-to-the-cloud-with-Microsoft-Azure-Mig>

#### NEW QUESTION 94

- (Exam Topic 5)

You are monitoring an Azure Stream Analytics job.

You discover that the Backlogged input Events metric is increasing slowly and is consistently non-zero.

You need to ensure that the job can handle all the events. What should you do?

- A. Remove any named consumer groups from the connection and use \$default.
- B. Change the compatibility level of the Stream Analytics job.
- C. Create an additional output stream for the existing input stream.

D. Increase the number of streaming units (SUs).

**Answer:** D

**Explanation:**

Backlogged Input Events: Number of input events that are backlogged. A non-zero value for this metric implies that your job isn't able to keep up with the number of incoming events. If this value is slowly increasing or consistently non-zero, you should scale out your job, by increasing the SUs.

Reference:

<https://docs.microsoft.com/en-us/azure/stream-analytics/stream-analytics-monitoring>

**NEW QUESTION 96**

- (Exam Topic 5)

You have an instance of SQL Server on Azure Virtual Machine named SQL1.

You need to monitor SQL1 and query the metrics by using Kusto query language. The solution must minimize administrative effort.

Where should you store the metrics?

- A. a Log Analytics workspace
- B. Azure Event Hubs
- C. Azure SQL Database
- D. an Azure Blob storage container

**Answer:** A

**NEW QUESTION 97**

- (Exam Topic 5)

You manage an enterprise data warehouse in Azure Synapse Analytics.

Users report slow performance when they run commonly used queries. Users do not report performance changes for infrequently used queries.

You need to monitor resource utilization to determine the source of the performance issues. Which metric should you monitor?

- A. Local tempdb percentage
- B. DWU percentage
- C. Data Warehouse Units (DWU) used
- D. Cache hit percentage

**Answer:** A

**Explanation:**

Tempdb is used to hold intermediate results during query execution. High utilization of the tempdb database can lead to slow query performance.

Note: If you have a query that is consuming a large amount of memory or have received an error message related to allocation of tempdb, it could be due to a very large CREATE TABLE AS SELECT (CTAS) or INSERT SELECT statement running that is failing in the final data movement operation.

Reference:

<https://docs.microsoft.com/en-us/azure/synapse-analytics/sql-data-warehouse/sql-data-warehouse-managemonit>

**NEW QUESTION 102**

- (Exam Topic 5)

You have an Azure subscription that contains a server named Server1. Server1 hosts two Azure SQL databases named DB1 and DB2.

You plan to deploy a Windows app named App1 that will authenticate to DB2 by using SQL authentication. You need to ensure that App1 can access DB2. The solution must meet the following requirements:

- > App1 must be able to view only DB2.
- > Administrative effort must be minimized. What should you create?

- A. a contained database user for App1 on DB2
- B. a login for App1 on Server1
- C. a contained database user from an external provider for App1 on DB2
- D. a contained database user from a Windows login for App1 on DB2

**Answer:** D

**Explanation:**

Reference:

<https://docs.microsoft.com/en-us/sql/relational-databases/security/contained-database-users-making-your-databa>

**NEW QUESTION 105**

- (Exam Topic 5)

You have an Azure subscription that contains an Azure SQL database named SQL1. SQL1 is in an Azure region that does not support availability zones.

You need to ensure that you have a secondary replica of SQL1 in the same region. What should you use?

- A. log shipping
- B. auto-failover groups
- C. active geo-replication
- D. Microsoft SQL Server failover clusters

**Answer:** C

**NEW QUESTION 109**

- (Exam Topic 5)

You have an Azure SQL Database managed instance. The instance starts experiencing performance issues. You need to identify which query is causing the issue and retrieve the execution plan for the query. The solution must minimize administrative effort. What should you use?

- A. the Azure portal
- B. Extended Events
- C. Query Store
- D. dynamic management views

**Answer: C**

**Explanation:**

Reference:

<https://docs.microsoft.com/en-us/sql/relational-databases/performance/monitoring-performance-by-using-the-qu>

**NEW QUESTION 110**

- (Exam Topic 5)

You have an Azure SQL managed instance named SQL1 and two Azure web apps named App1 and App2. You need to limit the number of IOPs that App2 queries generate on SQL1.

Which two actions should you perform on SQL1? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Enable query optimizer fixes.
- B. Enable Resource Governor.
- C. Enable parameter sniffing.
- D. Create a workload group.
- E. Configure In-memory OLTP.
- F. Run the Database Engine Tuning Advisor.
- G. Reduce the Max Degree of Parallelism value.

**Answer: BC**

**Explanation:**

Reference:

<https://docs.microsoft.com/en-us/sql/relational-databases/resource-governor/resource-governor?view=sql-server>

**NEW QUESTION 111**

- (Exam Topic 5)

You have an on-premises Microsoft SQL Server 2019 instance that hosts a database named DB1.

You plan to perform an online migration of DB1 to an Azure SQL managed instance by using the Azure Database Migration Service.

You need to create a backup of DB1 that is accessible to the Azure Database Migration Service.

What should you run for the backup and where should you store the backup? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Run:

Store the backup in:

- A. Mastered
- B. Not Mastered

**Answer: A**

**Explanation:**

Graphical user interface, application, Word Description automatically generated

Reference:

<https://docs.microsoft.com/en-us/azure/dms/tutorial-sql-server-managed-instance-online>

**NEW QUESTION 116**

- (Exam Topic 5)

You create five Azure SQL Database instances on the same logical server.

In each database, you create a user for an Azure Active Directory (Azure AD) user named User1. User1 attempts to connect to the logical server by using Azure Data Studio and receives a login error.

You need to ensure that when User1 connects to the logical server by using Azure Data Studio, User1 can see all the databases.

What should you do?

- A. Create User1 in the master database.
- B. Assign User1 the db\_datareader role for the master database.
- C. Assign User1 the db\_datareader role for the databases that User1 creates.

D. Grant select on sys.databases to public in the master database.

**Answer:** A

**Explanation:**

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/logins-create-manage>

**NEW QUESTION 118**

- (Exam Topic 5)

You have an Azure subscription that contains the resources shown in the following table.

Name	Type	Configuration
DB1	Azure SQL Database	Hyperscale service tier No secondary replicas
App1	Azure Web Apps	App1 has read-only access to DB1. There are multiple instances of App1.

You need to create a read-only replica of DB1 and configure the App1 instances to use the replica.

What should you do? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

To add read-only replicas of DB1:

Create a replica on the same logical server.  
Create a new logical server and configure geo-replication.  
Create a new logical server and configure an auto-failover group.

To configure App1 instances to access the read-only replica:

Add an ApplicationIntent entry to the connection string.  
Add a MultiSubnetFailover entry to the App1 connection string.  
Create a dedicated endpoint and configure the App1 connection string to point to the endpoint.

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Text Description automatically generated

Reference:

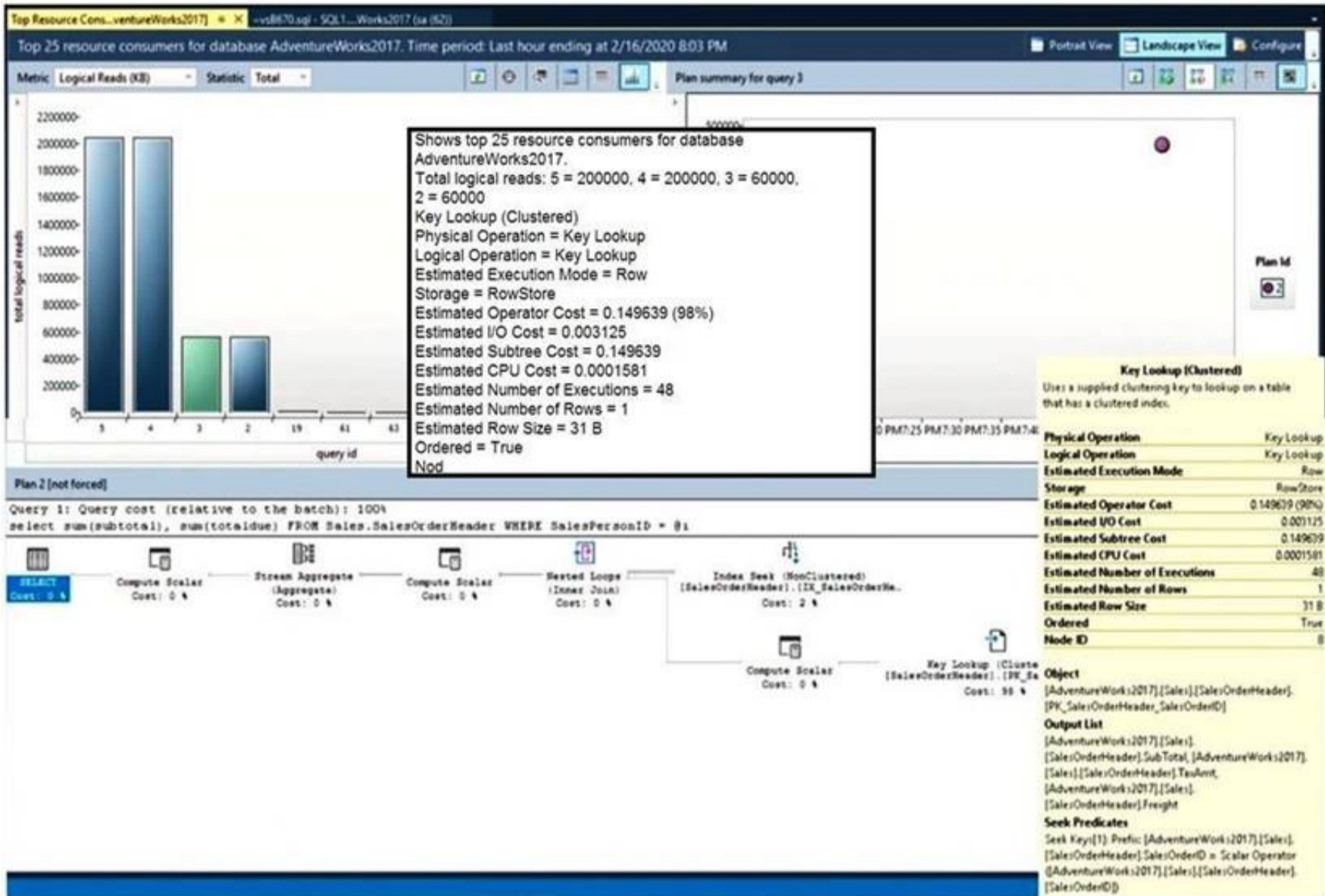
<https://sqlserverguides.com/read-only-replica-azure-sql/>

**NEW QUESTION 120**

- (Exam Topic 5)

You have SQL Server on an Azure virtual machine.

You review the query plan shown in the following exhibit.



For each of the following statements, select yes if the statement is true. Otherwise, select no.  
 NOTE: Each correct selection is worth one point.

### Statements

Yes

No

You will reduce the I/O usage and the query execution time if you force the query plan.

☐
☐

You will increase the I/O usage and the query execution time if you create a new index on the SalesOrderHeader table.

☐
☐

You will reduce the I/O usage and the query execution time if you include the SubTotal, TaxAmt, and Freight columns in the PK\_SalesOrderHeader\_SalesOrderID index.

☐
☐

- A. Mastered
- B. Not Mastered

**Answer: A**

**Explanation:**

Reference:

<https://docs.microsoft.com/en-us/sql/relational-databases/performance/monitoring-performance-by-using-the-qu>

### NEW QUESTION 124

- (Exam Topic 5)

You have an Azure SQL database named DB1.

You need to display the estimated execution plan of a query by using the query editor in the Azure portal. What should you do first?

- A. Run the set showplan\_all Transact-SQL statement.
- B. For DB1, set QUERY\_CAPTURE\_MODE of Query Store to All.
- C. Run the set forceplan Transact-SQL statement.
- D. Enable Query Store for DB1.

**Answer: A**

**Explanation:**

Reference:

<https://docs.microsoft.com/en-us/sql/t-sql/statements/set-showplan-all-transact-sql?view=sql-server-ver15>

### NEW QUESTION 129

- (Exam Topic 5)

You need to apply 20 built-in Azure Policy definitions to all new and existing Azure SQL Database deployments in an Azure subscription. The solution must

minimize administrative effort.

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

Actions	Answer Area
Duplicate Azure Policy definitions	
Run Azure Policy remediation tasks	
Create an Azure Blueprints assignment	
Create an Azure Policy initiative	
Create an Azure Policy initiative assignment	

➤
⬅
⬆
⬇

- A. Mastered
- B. Not Mastered

**Answer: A**

**Explanation:**

Step 1: Create an Azure Policy Initiative

The first step in enforcing compliance with Azure Policy is to assign a policy definition. A policy definition defines under what condition a policy is enforced and what effect to take.

With an initiative definition, you can group several policy definitions to achieve one overarching goal. An initiative evaluates resources within scope of the assignment for compliance to the included policies.

Step 2: Create an Azure Policy Initiative assignment

Assign the initiative definition you created in the previous step. Step 3: Run Azure Policy remediation tasks

To apply the Policy Initiative to the existing SQL databases. Reference:

<https://docs.microsoft.com/en-us/azure/governance/policy/tutorials/create-and-manage>

**NEW QUESTION 131**

- (Exam Topic 5)

You have an Always On availability group deployed to Azure virtual machines. The availability group contains a database named DB1 and has two nodes named SQL1 and SQL2. SQL1 is the primary replica.

You need to initiate a full backup of DB1 on SQL2. Which statement should you run?

- A. BACKUP DATABASE DB1 TO URL='https://mystorageaccount.blob.core.windows.net/ mycontainer/DB1.bak' with (Differential, STATS=5, COMPRESSION);
- B. BACKUP DATABASE DB1 TO URL='https://mystorageaccount.blob.core.windows.net/ mycontainer/DB1.bak' with (COPY\_ONLY, STATS=5, COMPRESSION);
- C. BACKUP DATABASE DB1 TO URL='https://mystorageaccount.blob.core.windows.net/ mycontainer/DB1.bak' with (File\_Snapshot, STATS=5, COMPRESSION);
- D. BACKUP DATABASE DB1 TO URL='https://mystorageaccount.blob.core.windows.net/ mycontainer/DB1.bak' with (NoInit, STATS=5, COMPRESSION);

**Answer: B**

**Explanation:**

BACKUP DATABASE supports only copy-only full backups of databases, files, or filegroups when it's executed on secondary replicas. Copy-only backups don't impact the log chain or clear the differential bitmap.

Reference:

<https://docs.microsoft.com/en-us/sql/database-engine/availability-groups/windows/active-secondaries-backup-on>

**NEW QUESTION 132**

- (Exam Topic 5)

You have an Azure Data Lake Storage Gen2 container.

Data is ingested into the container, and then transformed by a data integration application. The data is NOT modified after that. Users can read files in the container but cannot modify the files.

You need to design a data archiving solution that meets the following requirements:

- New data is accessed frequently and must be available as quickly as possible.
- Data that is older than five years is accessed infrequently but must be available within one second when requested.
- Data that is older than seven years is NOT accessed. After seven years, the data must be persisted at the lowest cost possible.
- Costs must be minimized while maintaining the required availability.

How should you manage the data? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Five-year-old data:

	▼
Delete the blob.	
Move to archive storage.	
Move to cool storage.	
Move to hot storage.	

Seven-year-old data:

	▼
Delete the blob.	
Move to archive storage.	
Move to cool storage.	
Move to hot storage.	

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Text, table Description automatically generated

Box 1: Move to cool storage

The cool access tier has lower storage costs and higher access costs compared to hot storage. This tier is intended for data that will remain in the cool tier for at least 30 days. Example usage scenarios for the cool access tier include:

Short-term backup and disaster recovery

Older data not used frequently but expected to be available immediately when accessed

Large data sets that need to be stored cost effectively, while more data is being gathered for future processing Note: Hot - Optimized for storing data that is accessed frequently.

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

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

Box 2: Move to archive storage

Example usage scenarios for the archive access tier include: Long-term backup, secondary backup, and archival datasets

Original (raw) data that must be preserved, even after it has been processed into final usable form Compliance and archival data that needs to be stored for a long time and is hardly ever accessed Reference:

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

**NEW QUESTION 135**

- (Exam Topic 5)

You have an Azure SQL managed instance.

You need to gather the last execution of a query plan and its runtime statistics. The solution must minimize the impact on currently running queries.

What should you do?

- A. Generate an estimated execution plan.
- B. Generate an actual execution plan.
- C. Run sys.dm\_exec\_query\_plan\_scans.
- D. Generate Live Query Statistics.

**Answer:** C

**Explanation:**

Reference:

<https://docs.microsoft.com/en-us/sql/relational-databases/system-dynamic-management-views/sys-dm-exec-quer>

**NEW QUESTION 140**

- (Exam Topic 5)

You have an instance of SQL Server on Azure Virtual Machines that has a database named DB1. You plan to implement Azure SQL Data Sync for DB1.

Which isolation level should you configure?

- A. SERIALIZABLE
- B. SNAPSHOT
- C. READ UNCOMMITTED
- D. READ COMMITTED

**Answer:** B

**Explanation:**

Reference:

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

**NEW QUESTION 143**

- (Exam Topic 4)

You need to implement the surrogate key for the retail store table. The solution must meet the sales transaction dataset requirements.

What should you create?

- A. a table that has a FOREIGN KEY constraint
- B. a table the has an IDENTITY property
- C. a user-defined SEQUENCE object
- D. a system-versioned temporal table

**Answer: B**

**Explanation:**

Scenario: Contoso requirements for the sales transaction dataset include: Implement a surrogate key to account for changes to the retail store addresses. A surrogate key on a table is a column with a unique identifier for each row. The key is not generated from the table data. Data modelers like to create surrogate keys on their tables when they design data warehouse models. You can use the IDENTITY property to achieve this goal simply and effectively without affecting load performance.

Reference:

<https://docs.microsoft.com/en-us/azure/synapse-analytics/sql-data-warehouse/sql-data-warehouse-tablesidentity>

**NEW QUESTION 147**

- (Exam Topic 3)

Which counter should you monitor for real-time processing to meet the technical requirements?

- A. SU% Utilization
- B. CPU% utilization
- C. Concurrent users
- D. Data Conversion Errors

**Answer: B**

**Explanation:**

Scenario: Real-time processing must be monitored to ensure that workloads are sized properly based on actual usage patterns. To monitor the performance of a database in Azure SQL Database and Azure SQL Managed Instance, start by monitoring the CPU and IO resources used by your workload relative to the level of database performance you chose in selecting a particular service tier and performance level.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/monitor-tune-overview>

**NEW QUESTION 148**

- (Exam Topic 3)

Which windowing function should you use to perform the streaming aggregation of the sales data?

- A. Sliding
- B. Hopping
- C. Session
- D. Tumbling

**Answer: D**

**Explanation:**

Scenario: The sales data, including the documents in JSON format, must be gathered as it arrives and analyzed online by using Azure Stream Analytics. The analytics process will perform aggregations that must be done continuously, without gaps, and without overlapping. Tumbling window functions are used to segment a data stream into distinct time segments and perform a function against them, such as the example below. The key differentiators of a Tumbling window are that they repeat, do not overlap, and an event cannot belong to more than one tumbling window. Timeline Description automatically generated

Tell me the count of Tweets per time zone every 10 seconds



```
SELECT TimeZone, COUNT(*) AS Count
FROM TwitterStream TIMESTAMP BY CreatedAt
GROUP BY TimeZone, TumblingWindow(second,10)
```

Reference:

<https://github.com/MicrosoftDocs/azure-docs/blob/master/articles/stream-analytics/stream-analytics-window-fun>

**NEW QUESTION 149**

- (Exam Topic 2)

Based on the PaaS prototype, which Azure SQL Database compute tier should you use?

- A. Business Critical 4-vCore
- B. Hyperscale
- C. General Purpose v-vCore
- D. Serverless

**Answer:** A

**Explanation:**

There are CPU and Data I/O spikes for the PaaS prototype. Business Critical 4-vCore is needed. Reference:  
<https://docs.microsoft.com/en-us/azure/azure-sql/database/reserved-capacity-overview>

**NEW QUESTION 150**

- (Exam Topic 2)

What should you implement to meet the disaster recovery requirements for the PaaS solution?

- A. Availability Zones
- B. failover groups
- C. Always On availability groups
- D. geo-replication

**Answer:** B

**Explanation:**

Scenario: In the event of an Azure regional outage, ensure that the customers can access the PaaS solution with minimal downtime. The solution must provide automatic failover.

The auto-failover groups feature allows you to manage the replication and failover of a group of databases on a server or all databases in a managed instance to another region. It is a declarative abstraction on top of the existing active geo-replication feature, designed to simplify deployment and management of geo-replicated databases at scale. You can initiate failover manually or you can delegate it to the Azure service based on a user-defined policy.

The latter option allows you to automatically recover multiple related databases in a secondary region after a catastrophic failure or other unplanned event that results in full or partial loss of the SQL Database or SQL Managed Instance availability in the primary region.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/auto-failover-group-overview>

**NEW QUESTION 155**

- (Exam Topic 2)

Which audit log destination should you use to meet the monitoring requirements?

- A. Azure Storage
- B. Azure Event Hubs
- C. Azure Log Analytics

**Answer:** C

**Explanation:**

Scenario: Use a single dashboard to review security and audit data for all the PaaS databases.

With dashboards can bring together operational data that is most important to IT across all your Azure resources, including telemetry from Azure Log Analytics.

Note: Auditing for Azure SQL Database and Azure Synapse Analytics tracks database events and writes them to an audit log in your Azure storage account, Log Analytics workspace, or Event Hubs.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-monitor/visualize/tutorial-logs-dashboards>

**NEW QUESTION 157**

- (Exam Topic 1)

You are evaluating the business goals.

Which feature should you use to provide customers with the required level of access based on their service agreement?

- A. dynamic data masking
- B. Conditional Access in Azure
- C. service principals
- D. row-level security (RLS)

**Answer:** D

**Explanation:**

Reference:

<https://docs.microsoft.com/en-us/sql/relational-databases/security/row-level-security?view=sql-server-ver15>

**NEW QUESTION 160**

- (Exam Topic 1)

You need to implement authentication for ResearchDB1. The solution must meet the security and compliance requirements.

What should you run as part of the implementation?

- A. CREATE LOGIN and the FROM WINDOWS clause
- B. CREATE USER and the FROM CERTIFICATE clause
- C. CREATE USER and the FROM LOGIN clause
- D. CREATE USER and the ASYMMETRIC KEY clause
- E. CREATE USER and the FROM EXTERNAL PROVIDER clause

**Answer:** E

**Explanation:**

Scenario: Authenticate database users by using Active Directory credentials.

(Create a new Azure SQL database named ResearchDB1 on a logical server named ResearchSrv01.) Authenticate the user in SQL Database or SQL Data Warehouse based on an Azure Active Directory user: CREATE USER [Fritz@contoso.com] FROM EXTERNAL PROVIDER;

Reference:

<https://docs.microsoft.com/en-us/sql/t-sql/statements/create-user-transact-sql>

**NEW QUESTION 162**

- (Exam Topic 1)

You need to recommend a solution to ensure that the customers can create the database objects. The solution must meet the business goals.

What should you include in the recommendation?

- A. For each customer, grant the customer ddl\_admin to the existing schema.
- B. For each customer, create an additional schema and grant the customer ddl\_admin to the new schema.
- C. For each customer, create an additional schema and grant the customer db\_writerto the new schema.
- D. For each customer, grant the customer db\_writerto the existing schema.

**Answer:** D

**NEW QUESTION 167**

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