



# Microsoft

## Exam Questions DP-300

Administering Relational Databases on Microsoft Azure (beta)

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**NEW QUESTION 1**

- (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:

Store the infrastructure logs and the application logs in the Archive access tier.

Store the infrastructure logs and the application logs in the Cool access tier.

Store the infrastructure logs in the Cool access tier and the application logs in the Archive access tier.

To delete the logs automatically:

Azure Data Factory pipelines

Azure Blob storage lifecycle management rules

Immutable Azure Blob storage time-based retention policies

- A. Mastered  
 B. Not Mastered

**Answer:** A

**Explanation:**

A picture containing text Description automatically generated

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 2**

- (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 3

- (Exam Topic 5)

You have an Azure SQL database named db1 that contains an Azure Active Directory (Azure AD) user named user1. You need to test impersonation of user1 in db1 by running a SELECT statement and returning to the original execution context. 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.

EXECUTE AS 

	▼
CALLER	
LOGIN	
OWNER	
USER	

 = 'user1@contoso.com'

GO

SELECT SUSER\_SNAME ()

	▼
REVERT	
REVOKE	
ROLLBACK	

GO

- A. Mastered
- B. Not Mastered

**Answer: A**

#### Explanation:

Graphical user interface Description automatically generated

Reference:

<https://docs.microsoft.com/en-us/sql/t-sql/statements/execute-as-transact-sql?view=sql-server-ver15> <https://docs.microsoft.com/en-us/sql/t-sql/functions/suser-sname-transact-sql?view=sql-server-ver15>

### NEW QUESTION 4

- (Exam Topic 5)

You have an Azure subscription that uses a domain named contoso.com.

You have two Azure VMs named DBServer1 and DBServer2. Each of them hosts a default SQL Server instance. DBServer1 is in the East US Azure region and contains a database named DatabaseA. DBServer2 is in the West US Azure region.

DBServer1 has a high volume of data changes and low latency requirements for data writes.

You need to configure a new availability group for DatabaseA. The secondary replica will reside on DBServer2.

What should you do?

- A. Configure the primary endpoint as TCP://DBServer1.contoso.com:445, configure the secondary endpoint as TCP://DBServer2.contoso.com:445, and set the availability mode to Asynchronous.
- B. Configure the primary endpoint as TCP://DBServer1.contoso.com:445, configure the secondary endpoint as TCP://DBServer2.contoso.com:445, and set the availability mode to Synchronous.
- C. Configure the primary endpoint as TCP://DBServer1.contoso.com:5022, configure the secondary endpoint as TCP://DBServer2.contoso.com:5022, and set the availability mode to Asynchronous.
- D. Configure the primary endpoint as TCP://DBServer1.contoso.com:5022, configure the secondary endpoint as TCP://DBServer2.contoso.com:5022, and set the availability mode to Synchronous.

**Answer: C**

#### Explanation:


Reference:


<https://docs.microsoft.com/en-us/sql/database-engine/availability-groups/windows/availability-modes-always-on>


### NEW QUESTION 5


- (Exam Topic 5)


You configure version control for an Azure Data Factory instance as shown in the following exhibit.


 Connections


 Linked services


 Integration runtimes


 Azure Purview (Preview)


 Source control


 Git configuration


 ARM template


 Parameterization template


 Author

 Triggers

 Global parameters



 Security

 Customer managed key

 Managed private endpoints

### Git repository

Git repository information associated with your data factory. [CI/CD best practices](#)

 Setting  Disconnect

Repository type	Azure DevOps Git
Azure DevOps Account	CONTOSO
Project name	Data
Repository name	dwh_batchetl
Collaboration branch	main
Publish branch	adf_publish
Root folder	/

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.

Azure Resource Manager (ARM) templates for the pipeline assets as stored in

/

adf\_publish

main

Parameterization template

A Data Factory Azure Resource Manager (ARM) template named contososales can be found in

/contososales

/dwh\_batchetl/adf\_publish/contososales

/main

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Graphical user interface, text, application Description automatically generated

Box 1: adf\_publish

By default, data factory generates the Resource Manager templates of the published factory and saves them into a branch called adf\_publish. To configure a custom publish branch, add a publish\_config.json file to the root folder in the collaboration branch. When publishing, ADF reads this file, looks for the field publishBranch, and saves all Resource Manager templates to the specified location. If the branch doesn't exist, data factory will automatically create it. And example of what this file looks like is below:

```
{
  "publishBranch": "factory/adf_publish"
}
```

Box 2: /dwh\_barchlet/ adf\_publish/contososales

RepositoryName: Your Azure Repos code repository name. Azure Repos projects contain Git repositories to manage your source code as your project grows. You can create a new repository or use an existing repository that's already in your project.

Reference:

<https://docs.microsoft.com/en-us/azure/data-factory/source-control>

NEW QUESTION 6

- (Exam Topic 5)

You have two on-premises servers that run Windows Server 2019 and host a Microsoft SQL Server 2017 Always On availability group named AG1. AG1 contains a single database named DB1.

You have an Azure subscription. The subscription contains a virtual machine named VM1 that runs Linux.

You need to migrate DB1 to a SQL Server 2019 instance on VM1. The solution must minimize the downtime of DB1 during the migration.

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 prepare for the migration:

To perform the migration, use:

- A. Mastered  
B. Not Mastered

Answer: A

Explanation:

Answer Area

To prepare for the migration: 

Create a SQL Server 2019 Always On availability group on VM1.

To perform the migration, use: 

Azure Migrate

NEW QUESTION 7

- (Exam Topic 5)

You create a new Azure SQL managed instance named SQL1 and enable Database Mail extended stored procedures.

You need to ensure that SOL Server Agent jobs running on SQL 1 can notify administrators when a failure occurs.

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

Enable pager notifications upon failure.

Create a profile named application\_dbmail\_profile.

Create a Database Mail account.

Create a profile named AzureManagedInstance\_dbmail\_profile.

Enable email notifications upon failure.

➤

➤

Answer Area

1

2

3

- A. Mastered  
B. Not Mastered

Answer: A

Explanation:

Actions

Enable pager notifications upon failure.

Create a profile named application\_dbmail\_profile.

Create a Database Mail account.

Create a profile named AzureManagedInstance\_dbmail\_profile.

Enable email notifications upon failure.

➤

➤

Answer Area

1

Create a Database Mail account.

2

3

Create a profile named AzureManagedInstance\_dbmail\_profile.

Enable email notifications upon failure.

NEW QUESTION 8

- (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

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#### NEW QUESTION 9

- (Exam Topic 5)

You have an Azure subscription.

You need to deploy an Azure SQL database. The solution must meet the following requirements:

- Dynamically scale CPU resources.
- Ensure that the database can be paused to reduce costs. What should you use?

- A. the Business Critical service tier
- B. the serverless compute tier
- C. an elastic pool
- D. the General Purpose service tier

**Answer:** B

#### NEW QUESTION 10

- (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:** BD

#### Explanation:

Reference:

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

#### NEW QUESTION 10

- (Exam Topic 5)

You have a Microsoft SQL Server 2017 server.

You need to migrate the server to Azure. The solution must meet the following requirements:

- Ensure that the latest version of SQL Server is used.
- Support the SQL Server Agent service. Minimize administrative effort.

What should you use?

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

**Answer:** D

#### NEW QUESTION 14

- (Exam Topic 5)

You have an Azure SQL database named DB 1 in the General Purpose service tier. You need to monitor DB 1 by using SQL Insights.

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

To collect monitoring data, use:

A virtual machine

An Azure function

The Azure Monitor agent

To store monitoring data, create:

A Log Analytics workspace

An Azure SQL database

An Azure Storage account

- A. Mastered
- B. Not Mastered

**Answer:** A

#### Explanation:

Box 1 = Azure Monitor Agent Box 2 = An Azure SQL database

<https://docs.microsoft.com/en-us/azure/azure-sql/database/sql-database-paas-overview?view=azuresql>

#### NEW QUESTION 15

- (Exam Topic 5)

You are designing an anomaly detection solution for streaming data from an Azure IoT hub. The solution must meet the following requirements:

- Send the output to an Azure Synapse.
- Identify spikes and dips in time series data.
- Minimize development and configuration effort.

Which should you include in the solution?

- A. Azure SQL Database
- B. Azure Databricks
- C. Azure Stream Analytics

**Answer: C**

**Explanation:**

Anomalies can be identified by routing data via IoT Hub to a built-in ML model in Azure Stream Analytics Reference:

<https://docs.microsoft.com/en-us/learn/modules/data-anomaly-detection-using-azure-iot-hub/> <https://docs.microsoft.com/en-us/azure/stream-analytics/azure-synapse-analytics-output>

**NEW QUESTION 17**

- (Exam Topic 5)

You are designing a dimension table in an Azure Synapse Analytics dedicated SQL pool.

You need to create a surrogate key for the table. The solution must provide the fastest query performance. What should you use for the surrogate key?

- A. an IDENTITY column
- B. a GUID column
- C. a sequence object

**Answer: A**

**Explanation:**

Dedicated SQL pool supports many, but not all, of the table features offered by other databases. Surrogate keys are not supported. Implement it with an Identity column.

Reference:

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

**NEW QUESTION 18**

- (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 SQL database named Sales.

You need to implement disaster recovery for Sales to meet the following requirements:

- During normal operations, provide at least two readable copies of Sales.
- Ensure that Sales remains available if a datacenter fails.

Solution: You deploy an Azure SQL database that uses the General Purpose service tier and geo-replication. Does this meet the goal?

- A. Yes
- B. No

**Answer: B**

**Explanation:**

Instead deploy an Azure SQL database that uses the Business Critical service tier and Availability Zones. Note: Premium and Business Critical service tiers leverage the Premium availability model, which integrates compute resources (sqlservr.exe process) and storage (locally attached SSD) on a single node. High availability is achieved by replicating both compute and storage to additional nodes creating a three to four-node cluster.

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).

Reference:

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

**NEW QUESTION 23**

- (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 26

- (Exam Topic 5)

You have a SQL Server on Azure Virtual Machines instance that hosts a 10-TB SQL database named DB1. You need to identify and repair any physical or logical corruption in DB1. The solution must meet the following requirements:

- Minimize how long it takes to complete the procedure.
- Minimize data loss.

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

Answer Area

DBCC CHECK [DB1],

NOINDEX

REPAIR\_ALLOW\_DATA\_LOSS

REPAIR\_FAST

REPAIR\_REBUILD

) WITH

EXTENDED\_LOGICAL\_CHECKS;

PHYSICAL\_ONLY;

TABLOCK;

- A. Mastered  
B. Not Mastered

Answer: A

Explanation:

Answer Area

DBCC CHECK [DB1],

NOINDEX

REPAIR\_ALLOW\_DATA\_LOSS

REPAIR\_FAST

REPAIR\_REBUILD

) WITH

EXTENDED\_LOGICAL\_CHECKS;

PHYSICAL\_ONLY;

TABLOCK;

NEW QUESTION 27

- (Exam Topic 5)

You have an on-premises multi-tier application named App1 that includes a web tier, an application tier, and a Microsoft SQL Server tier. All the tiers run on Hyper-V virtual machines.

Your new disaster recovery plan requires that all business-critical applications can be recovered to Azure. You need to recommend a solution to fail over the database tier of App1 to Azure. The solution must provide the ability to test failover to Azure without affecting the current environment.

What should you include in the recommendation?

- A. Azure Backup  
B. Azure Information Protection  
C. Windows Server Failover Cluster  
D. Azure Site Recovery

Answer: D

Explanation:

Reference:  
<https://docs.microsoft.com/en-us/azure/site-recovery/site-recovery-test-failover-to-azure>

NEW QUESTION 32

- (Exam Topic 5)

You have an Azure SQL database named DB1 that contains a table named Orders. The Orders table contains a row for each sales order. Each sales order includes the name of the user who placed the order.

You need to implement row-level security (RLS). The solution must ensure that the users can view only their respective sales orders.

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

Create:

Control access to the rows by using:

- A. Mastered  
B. Not Mastered

**Answer:** A

**Explanation:**

Create:

Control access to the rows by using:

### NEW QUESTION 33

- (Exam Topic 5)

You have an Azure Databricks resource.

You need to log actions that relate to changes in compute for the Databricks resource. Which Databricks services should you log?

- A. clusters  
B. jobs  
C. DBFS  
D. SSH  
E. workspace

**Answer:** E

**Explanation:**

Cloud Provider Infrastructure Logs.

Databricks logging allows security and admin teams to demonstrate conformance to data governance standards within or from a Databricks workspace.

Customers, especially in the regulated industries, also need records on activities like:

- > User access control to cloud data storage
- > Cloud Identity and Access Management roles
- > User access to cloud network and compute

Azure Databricks offers three distinct workloads on several VM Instances tailored for your data analytics workflow—the Jobs Compute and Jobs Light Compute workloads make it easy for data engineers to build and execute jobs, and the All-Purpose Compute workload makes it easy for data scientists to explore, visualize, manipulate, and share data and insights interactively.

Reference:

<https://databricks.com/blog/2020/03/25/trust-but-verify-with-databricks.html>

### NEW QUESTION 34

- (Exam Topic 5)

You have an Azure subscription that contains an instance of SQL Server on an Azure virtual machine named SQLVM1 and a user named User1. SQLVM1 hosts a database named DB1.

You need to ensure that User1 can create a scheduled task to perform a full backup of DB1. The solution must use the principle of least privilege.

Which built-in database role should you assign to User1?

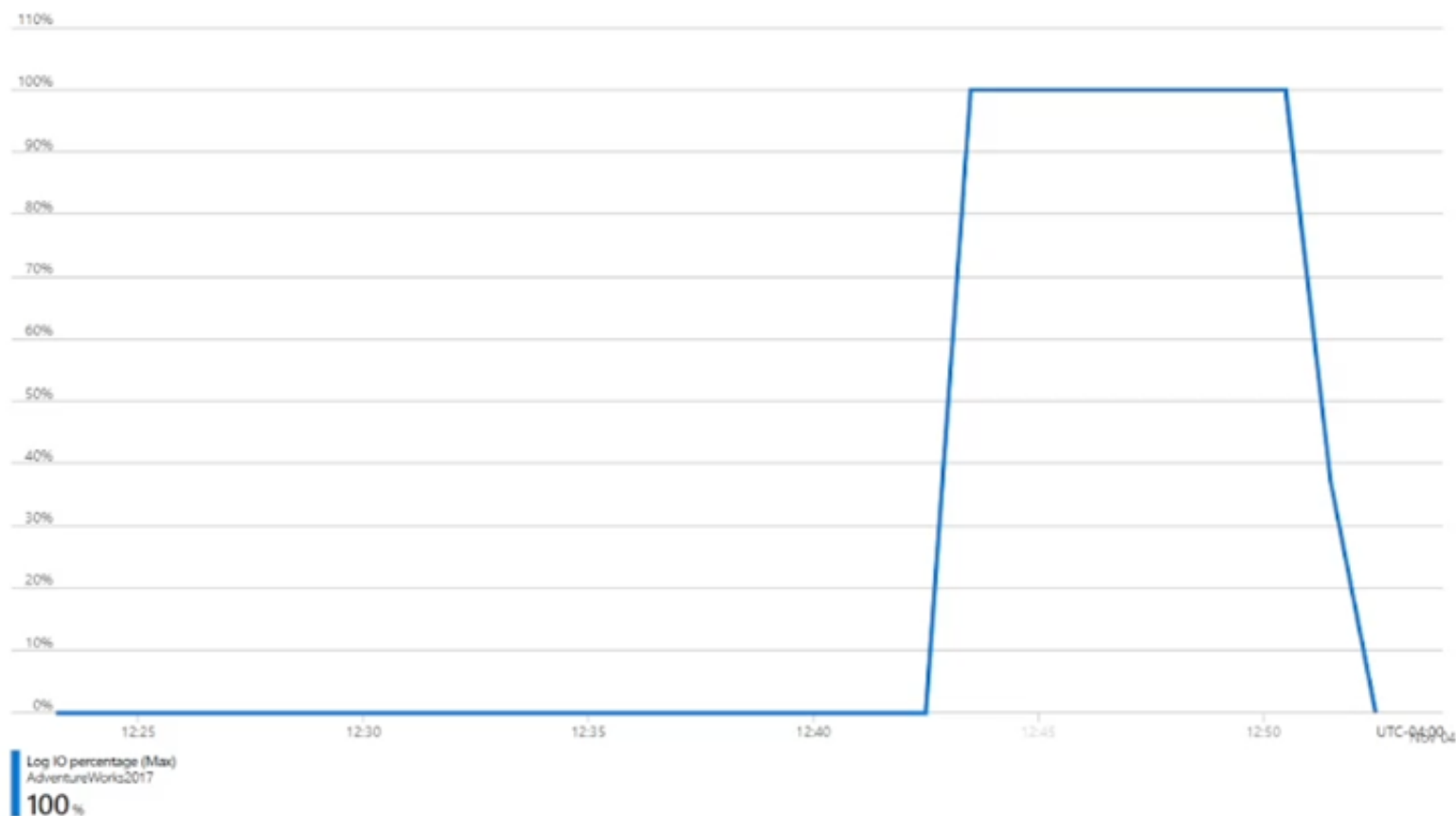
- A. SQLAgentReaderRole  
B. db.owner  
C. SQLAgentOperatorRole  
D. SQLAgentUserRole

Answer: C

#### NEW QUESTION 39

- (Exam Topic 5)

You have an Azure SQL database named DB1 in the General Purpose service tier. The performance metrics for DB1 are shown in the following exhibit.



You need to reduce the Log 10 percentage. The solution must minimize costs. What should you do?

- A. Increase the number of vCores.
- B. Change Recoverymodel to Simple.
- C. Perform a checkpoint operation.
- D. Change Service tier to Business Critical.

Answer: D

#### NEW QUESTION 40

- (Exam Topic 5)

You plan to perform batch processing in Azure Databricks once daily. Which type of Databricks cluster should you use?

- A. automated
- B. interactive
- C. High Concurrency

Answer: A

#### Explanation:

Azure Databricks makes a distinction between all-purpose clusters and job clusters. You use all-purpose clusters to analyze data collaboratively using interactive notebooks. You use job clusters to run fast and robust automated jobs.

The Azure Databricks job scheduler creates a job cluster when you run a job on a new job cluster and terminates the cluster when the job is complete.

Reference:

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

#### NEW QUESTION 43

- (Exam Topic 5)

You have an Azure SQL database named db1.

You need to retrieve the resource usage of db1 from the last week.

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

NOTE: Each correct selection is worth one point.

SELECT \*

FROM

	▼
sys.dm_db_resource_stats	
sys.dm_exec_requests	
sys.dm_user_db_resource_governance	
sys.resource_stats	

WHERE database\_name = 'db1' AND

start\_time >

	▼
DATEADD	
DATEDIFF	
DATEPART	
DATETIMEOFFSET	

(day, -7, GETDATE())

ORDER BY start\_time DESC;

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Box 1: sys.resource\_stats

sys.resource\_stats returns CPU usage and storage data for an Azure SQL Database. It has database\_name and start\_time columns.

Box 2: DateAdd

The following example returns all databases that are averaging at least 80% of compute utilization over the last one week.

```
DECLARE @s datetime; DECLARE @e datetime;
```

```
SET @s= DateAdd(d,-7,GetUTCDate()); SET @e= GETUTCDATE();
```

```
SELECT database_name, AVG(avg_cpu_percent) AS Average_Compute_Utilization FROM sys.resource_stats
```

```
WHERE start_time BETWEEN @s AND @e GROUP BY database_name
```

```
HAVING AVG(avg_cpu_percent) >= 80
```

Reference:  
<https://docs.microsoft.com/en-us/sql/relational-databases/system-catalog-views/sys-resource-stats-azure-sql-data>

**NEW QUESTION 46**

- (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 48**

- (Exam Topic 5)

You have a data warehouse in Azure Synapse Analytics.

You need to ensure that the data in the data warehouse is encrypted at rest. What should you enable?

- A. Transparent Data Encryption (TDE)
- B. Advanced Data Security for this database
- C. Always Encrypted for all columns
- D. Secure transfer required

**Answer:** A

**Explanation:**

Transparent data encryption (TDE) helps protect Azure SQL Database, Azure SQL Managed Instance, and Azure Synapse Analytics against the threat of malicious offline activity by encrypting data at rest. Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/transparent-data-encryption-tde-overview>

**NEW QUESTION 51**

- (Exam Topic 5)

You have an Azure SQL database named DB1 in the General Purpose service tier. You need to monitor DB1 by using SQL insights.



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

### Answer Area

To collect monitoring data, use:

	▼
A virtual machine	
An Azure function	
The Azure Monitor agent	

To store monitoring data, create:

	▼
A Log Analytics workspace	
An Azure SQL database	
An Azure Storage account	

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

### Answer Area

To collect monitoring data, use:

	▼
A virtual machine	
An Azure function	
The Azure Monitor agent	

To store monitoring data, create:

	▼
A Log Analytics workspace	
An Azure SQL database	
An Azure Storage account	

### NEW QUESTION 54

- (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 58

- (Exam Topic 5)

You have An Azure SQL managed instance.

You need to configure the SQL Server Agent service to email job notifications. Which statement should you execute?

A)

```
EXECUTE msdb.dbo.sysmail_add_profile_sp @profile_name = 'sysadmin_dbmail_profile';
```

B)

```
EXECUTE msdb.dbo.sysmail_add_profile_sp @profile_name = 'application_dbmail_profile';
```

C)

```
EXECUTE msdb.dbo.sysmail_add_profile_sp @profile_name = 'AzureManagedInstance_dbmail_profile';
```

D)

```
EXECUTE msdb.dbo.sysmail_add_profile_sp @profile_name = 'sys_dbmail_profile';
```

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

D. Option D

**Answer:** B

#### NEW QUESTION 61

- (Exam Topic 5)

You have SQL Server on an Azure virtual machine that contains a database named Db1. You need to enable automatic tuning for Db1.

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

NOTE: Each correct selection is worth one point.

ALTER DATABASE [Db1]

SET AUTOMATIC\_TUNING (FORCE\_LAST\_GOOD\_PLAN=OFF)  
SET AUTOMATIC\_TUNING (FORCE\_LAST\_GOOD\_PLAN=ON)  
SET AUTOMATIC\_TUNING=AUTO  
SET QUERY\_STORE=OFF  
SET QUERY\_STORE=ON(OPERATION\_MODE=READ\_ONLY)  
SET QUERY\_STORE=ON(OPERATION\_MODE=READ\_WRITE)

GO

ALTER DATABASE [Db1]

SET AUTOMATIC\_TUNING (FORCE\_LAST\_GOOD\_PLAN=OFF)  
SET AUTOMATIC\_TUNING (FORCE\_LAST\_GOOD\_PLAN=ON)  
SET AUTOMATIC\_TUNING=AUTO  
SET QUERY\_STORE=OFF  
SET QUERY\_STORE=ON(OPERATION\_MODE=READ\_ONLY)  
SET QUERY\_STORE=ON(OPERATION\_MODE=READ\_WRITE)

GO

- A. Mastered
- B. Not Mastered

**Answer:** A

#### Explanation:

Box 1: SET AUTOMATIC\_TUNING = AUTO

To enable automatic tuning on a single database via T-SQL, connect to the database and execute the following query:

ALTER DATABASE current SET AUTOMATIC\_TUNING = AUTO

Setting automatic tuning to AUTO will apply Azure Defaults.

Box 2: SET AUTOMATIC\_TUNING (FORCE\_LAST\_GOOD\_PLAN = ON)

To configure individual automatic tuning options via T-SQL, connect to the database and execute the query such as this one:

ALTER DATABASE current SET AUTOMATIC\_TUNING (FORCE\_LAST\_GOOD\_PLAN = ON)

Setting the individual tuning option to ON will override any setting that database inherited and enable the tuning option. Setting it to OFF will also override any setting that database inherited and disable the tuning option.

Reference:

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

#### NEW QUESTION 66

- (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: From the Azure portal, you delete Database1 from Server2, and then you create a new database on Server2 by using the backup of Database1 from Server1.

Does this meet the goal?

- A. Yes
- B. No

**Answer:** B

#### Explanation:

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

Note: REPLACE should be used rarely and only after careful consideration. Restore normally prevents accidentally overwriting a database with a different

database. If the database specified in a RESTORE statement already exists on the current server and the specified database family GUID differs from the database family GUID recorded in the backup set, the database is not restored. This is an important safeguard.

Reference:

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

### NEW QUESTION 68

- (Exam Topic 5)

You have an Azure subscription that contains a storage account named databasebackups. You have an Azure SQL managed instance named DB1.

You need to back up DB1 to databasebackups.

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

#### Answer Area

```
CREATE CREDENTIAL
[https://databasebackups.blob.core.windows.net/Backups]
WITH IDENTITY = 'SHARED ACCESS SIGNATURE'
SECRET = 'sp=r&st=2023-02-02T19:23:08Z&se=2033-02-02T19:30:08Z&spr=https&sv=2021-06-08&sr=b&sig=B%2FxEYQiOC%4BqyYCeqlHSz2QpRI%2FKcg3ZABz78J2kix3JZjk%3D'
BACKUP DATABASE DB1
TO URL = 'https://databasebackups.blob.core.windows.net/Backups/db1.bak'
WITH COPY_ONLY
```

- A. Mastered
- B. Not Mastered

**Answer: A**

**Explanation:**

#### Answer Area

```
CREATE CREDENTIAL
[https://databasebackups.blob.core.windows.net/Backups]
WITH IDENTITY = 'SHARED ACCESS SIGNATURE'
SECRET = 'sp=r&st=2023-02-02T19:23:08Z&se=2033-02-02T19:30:08Z&spr=https&sv=2021-06-08&sr=b&sig=B%2FxEYQiOC%4BqyYCeqlHSz2QpRI%2FKcg3ZABz78J2kix3JZjk%3D'
BACKUP DATABASE DB1
TO URL = 'https://databasebackups.blob.core.windows.net/Backups/db1.bak'
WITH COPY_ONLY
```



### NEW QUESTION 73

- (Exam Topic 5)

You have an Azure subscription that contains two instances of SQL Server on Azure Virtual Machines named VM1 and VM2. Both instances run Microsoft SQL Server 2019 CU8. You need to deploy a failover cluster instance (FCI) to VM1 and VM2. The solution must eliminate the need for the following:

- A distributed network name (DNN)
- A load balancer

- A. Deploy VM1 and VM2 to a single proximity placement group.
- B. Deploy VM1 and VM2 to different proximity placement groups in the same Azure region.
- C. Connect VM1 and VM2 to a single subnet.
- D. Connect VM1 and VM2 to different subnets on a single virtual network.

**Answer:** D

### NEW QUESTION 74

- (Exam Topic 5)

You have an Azure virtual machine named VM1 on a virtual network named VNet1. Outbound traffic from VM1 to the internet is blocked.

You have an Azure SQL database named SqlDb1 on a logical server named SqlSrv1.

You need to implement connectivity between VM1 and SqlDb1 to meet the following requirements:

- Ensure that VM1 cannot connect to any Azure SQL Server other than SqlSrv1.
- Restrict network connectivity to SqlSrv1. What should you create on VNet1?

- A. a VPN gateway
- B. a service endpoint
- C. a private endpoint
- D. an ExpressRoute gateway

**Answer:** C

#### Explanation:

A private endpoint is a network interface that uses a private IP address from your virtual network. This network interface connects you privately and securely to a service powered by Azure Private Link. By enabling a private endpoint, you're bringing the service into your virtual network.

The service could be an Azure service such as:

- Azure Storage
- Azure Cosmos DB
- Azure SQL Database
- Your own service using a Private Link Service. Reference:

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

### NEW QUESTION 77

- (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 81

- (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 Data Lake Storage account that contains a staging zone.

You need to design a daily process to ingest incremental data from the staging zone, transform the data by executing an R script, and then insert the transformed data into a data warehouse in Azure Synapse Analytics.

Solution: You use an Azure Data Factory schedule trigger to execute a pipeline that copies the data to a staging table in the data warehouse, and then uses a stored procedure to execute the R script.

Does this meet the goal?

- A. Yes
- B. No



**Answer:** A

**Explanation:**

If you need to transform data in a way that is not supported by Data Factory, you can create a custom activity with your own data processing logic and use the activity in the pipeline. You can create a custom activity to run R scripts on your HDInsight cluster with R installed.

Reference:

<https://docs.microsoft.com/en-US/azure/data-factory/transform-data>

**NEW QUESTION 83**

- (Exam Topic 5)

You have SQL Server 2019 on an Azure virtual machine that runs Windows Server 2019. The virtual machine has 4 vCPUs and 28 GB of memory.

You scale up the virtual machine to 8 vCPUs and 64 GB of memory.

You need to provide the lowest latency for tempdb.

What is the total number of data files that tempdb should contain?

- A. 2
- B. 4
- C. 8
- D. 64

**Answer:** C

**Explanation:**

The number of files depends on the number of (logical) processors on the machine. As a general rule, if the number of logical processors is less than or equal to eight, use the same number of data files as logical processors. If the number of logical processors is greater than eight, use eight data files and then if contention continues, increase the number of data files by multiples of 4 until the contention is reduced to acceptable levels or make changes to the workload/code.

Reference:

<https://docs.microsoft.com/en-us/sql/relational-databases/databases/tempdb-database>

**NEW QUESTION 85**

- (Exam Topic 5)

You have an Azure SQL Database instance named DatabaseA on a server named Server1.

You plan to add a new user named App1 to DatabaseA and grant App1 db\_datacenter permissions. App1 will use SQL Server Authentication.

You need to create App1. The solution must ensure that App1 can be given access to other databases by using the same credentials.

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**

On the master database, run `CREATE LOGIN [APP1] FROM EXTERNAL PROVIDER;`

On DatabaseA, run `CREATE USER [APP1] WITH PASSWORD = 'P@ssW0rd!';`

On DatabaseA, run `ALTER ROLE db_datareader ADD MEMBER [App1];`

On the master database, run `CREATE LOGIN [App1] WITH PASSWORD = 'P@aaW0rd!';`

On DatabaseA, run `CREATE USER [App1] FROM LOGIN [App1];`



- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Step 1: On the master database, run `CREATE LOGIN [App1] WITH PASSWORD = 'p@aaW0rd!'`

Logins are server wide login and password pairs, where the login has the same password across all databases. Here is some sample Transact-SQL that creates a login:

`CREATE LOGIN readonlylogin WITH password='1231!#ASDF!a';`

You must be connected to the master database on SQL Azure with the administrative login (which you get from the SQL Azure portal) to execute the CREATE LOGIN command.

Step 2: On DatabaseA, run `CREATE USER [App1] FROM LOGIN [App1]`

Users are created per database and are associated with logins. You must be connected to the database in where you want to create the user. In most cases, this is not the master database. Here is some sample Transact-SQL that creates a user:

`CREATE USER readonlyuser FROM LOGIN readonlylogin;`

Step 3: On DatabaseA run `ALTER ROLE db_datareader ADD Member [App1]`

Just creating the user does not give them permissions to the database. You have to grant them access. In the Transact-SQL example below the readonlyuser is given read only permissions to the database via the db\_datareader role.

`EXEC sp_addrolemember 'db_datareader', 'readonlyuser';` Reference:

<https://azure.microsoft.com/en-us/blog/adding-users-to-your-sql-azure-database/>

#### NEW QUESTION 88

- (Exam Topic 5)

You have an Azure SQL database named DB1.

You need to ensure that DB1 will support automatic failover without data loss if a datacenter fails. The solution must minimize costs.

Which deployment option and pricing tier should you configure?

- A. Azure SQL Database Hyperscale
- B. Azure SQL Database managed instance General Purpose
- C. Azure SQL Database Premium
- D. Azure SQL Database Basic

**Answer: C**

#### Explanation:

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.

Reference:

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

#### NEW QUESTION 91

- (Exam Topic 5)

You are building a database backup solution for a SQL Server database hosted on an Azure virtual machine. In the event of an Azure regional outage, you need to be able to restore the database backups. The solution must minimize costs.

Which type of storage accounts should you use for the backups?

- A. locally-redundant storage (LRS)
- B. read-access geo-redundant storage (RA-GRS)
- C. zone-redundant storage (ZRS)
- D. geo-redundant storage

**Answer: B**

#### Explanation:

Geo-redundant storage (with GRS or GZRS) replicates your data to another physical location in the secondary region to protect against regional outages. However, that data is available to be read only if the customer or Microsoft initiates a failover from the primary to secondary region. When you enable read access to the secondary region, your data is available to be read if the primary region becomes unavailable. For read access to the secondary region, enable read-access geo-redundant storage (RA-GRS) or read-access geo-zone-redundant storage (RA-GZRS).

Reference:

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

#### NEW QUESTION 93

- (Exam Topic 5)

You have a new Azure subscription.

You create an Azure SQL Database instance named DB1 on an Azure SQL Database server named Server1. You need to ensure that users can connect to DB1 in the event of an Azure regional outage. In the event of an outage, applications that connect to DB1 must be able to connect without having to update the connection strings.

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

NOTE:Each correct selection is worth one point.

- A. From the properties of DB1. configure geo-replication.
- B. From the properties of Server1 add a failover group.
- C. Create a new Azure SQL Database server named Server2.
- D. From the properties of Server1 configure retention for DB1
- E. Create a new Azure SQL Database instance named DB2.

**Answer: BC**

#### Explanation:

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/auto-failover-group-overview?tabs=azure-powershell> <https://docs.microsoft.com/en-us/azure/azure-sql/database/failover-group-add-single-database-tutorial?tabs=azur>

#### NEW QUESTION 96

- (Exam Topic 5)

You have SQL Server on an Azure virtual machine that contains a database named DB1. DB1 contains a table named CustomerPII.

You need to record whenever users query the CustomerPII table.

Which two options should you enable? Each correct answer presents part of the solution.

NOTE:Each correct selection is worth one point.

- A. server audit specification
- B. SQL Server audit
- C. database audit specification

D. a server principal

**Answer:** AC

**Explanation:**

An auditing policy can be defined for a specific database or as a default server policy in Azure (which hosts SQL Database or Azure Synapse):

- A server policy applies to all existing and newly created databases on the server.
- If server auditing is enabled, it always applies to the database. The database will be audited, regardless of the database auditing settings.
- Enabling auditing on the database, in addition to enabling it on the server, does not override or change any of the settings of the server auditing. Both audits will exist side by side.

Note:

The Server Audit Specification object belongs to an audit.

A Database Audit Specification defines which Audit Action Groups will be audited for the specific database in which the specification is created.

Reference:

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

**NEW QUESTION 100**

- (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 102**

- (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 106**

- (Exam Topic 5)

You have 20 Azure SQL databases provisioned by using the vCore purchasing model. You plan to create an Azure SQL Database elastic pool and add the 20 databases.

Which three metrics should you use to size the elastic pool to meet the demands of your workload? Each correct answer presents part of the solution.

NOTE:Each correct selection is worth one point.

- A. total size of all the databases
- B. geo-replication support

- C. number of concurrently peaking databases \* peak CPU utilization per database
- D. maximum number of concurrent sessions for all the databases
- E. total number of databases \* average CPU utilization per database

**Answer:** ACE

**Explanation:**

CE: Estimate the vCores needed for the pool as follows:

For vCore-based purchasing model:  $\text{MAX}(\text{Total number of DBs} \times \text{average vCore utilization per DB}, \text{Number of concurrently peaking DBs} \times \text{Peak vCore utilization per DB})$

A: Estimate the storage space needed for the pool by adding the number of bytes needed for all the databases in the pool.

Reference:

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

**NEW QUESTION 109**

- (Exam Topic 5)

You have an Azure subscription that contain an Azure SQL managed instance named SQLMI1 and a Log Analytics workspace named Workspace1. You need to collect performance metrics for SQLMI1 and stream the metrics to Workspace1.

- A. Create the private endpoint connection on SQLMI1.
- B. Configure Azure SQL Analytics to use Workspace1.
- C. Modify the Computer + storage settings for SQLMI1.
- D. Modify the diagnostic settings for SQLMI1.

**Answer:** B

**NEW QUESTION 110**

- (Exam Topic 5)

You have a Microsoft SQL Server 2019 database named DB1 and an Azure SQL managed instance named SQLMI1. You need to move a SQL Server Agent job from DB1 to SQLMI1. Which job attribute is unsupported in SQLMI1?

- A. log to table
- B. email notifications
- C. schedules
- D. output files

**Answer:** D

**NEW QUESTION 114**

- (Exam Topic 5)

You have an Azure subscription.

You need to deploy a logical SQL server by using PowerShell. The solution must ensure that the logical SQL server can create Azure AD users and provide Transparent Data Encryption (TDE) with a customer-managed key.

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

**Answer Area**

```
New-AzSqlServer -ResourceGroupName "RG1" -ServerName "SQL1" -Location "EastUS" -ErrorAction Stop
-Tags @{Environment="Databases";Department="Data Tech"}
-assignidentity
-federatedclientID
-keyid
"https://db1.vault.azure.net/keys/dbkey/01234234512345678901234561823942"
```

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

"Assigned Identity" and "Key

id"<https://learn.microsoft.com/en-us/powershell/module/az.sql/new-azsqlserver?view=azps-10.2.0#code-try-3>

**NEW QUESTION 115**

- (Exam Topic 5)

You have an Azure SQL database named DB1 that contains a private certificate named Sales. The private key for Sales is encrypted with a password. You need to change the password for the private key. Which Transact-SQL statement should you run?

- A)

```
ALTER CERTIFICATE Sales
WITH PRIVATE KEY (DECRYPTION BY PASSWORD = 'Mb^6BK&*w%',
ENCRIPTION BY PASSWORD = ' 6YY9YcD!pV');
```
- B)



```
ALTER CERTIFICATE Sales
    WITH PRIVATE KEY (ENCRYPTION BY PASSWORD = ' 6YY9YcD!pV');
```

C)

```
ALTER CERTIFICATE Sales    WITH PRIVATE KEY (FILE = 'D:\importkeys\SalesNew,    DECRYPTION BY PASSWORD = ' Mb^6BK&*w%');
```

D)

```
ALTER CERTIFICATE Sales    WITH PRIVATE KEY (DECRYPTION BY PASSWORD = ' EWYx9Xk+$#');
```

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

**Answer:** C

#### NEW QUESTION 117

- (Exam Topic 5)

You have an Azure SQL database that contains a table named factSales. FactSales contains the columns shown in the following table.

Name	Data type
SalesID	Int
Product	Int
Total Number	Numeric(8,4)
Tax Number	Numeric(8,4)
SalesRep	Varchar(30)

FactSales has 6 billion rows and is loaded nightly by using a batch process.

Which type of compression provides the greatest space reduction for the database?

- A. page compression
- B. row compression
- C. columnstore compression
- D. columnstore archival compression

**Answer:** D

#### Explanation:

Columnstore tables and indexes are always stored with columnstore compression. You can further reduce the size of columnstore data by configuring an additional compression called archival compression.

Note: Columnstore — The columnstore index is also logically organized as a table with rows and columns, but the data is physically stored in a column-wise data format.

Reference:

<https://docs.microsoft.com/en-us/sql/relational-databases/data-compression/data-compression>

#### NEW QUESTION 122

- (Exam Topic 5)

You have an Azure subscription.

You need to deploy two instances of SQL Server on Azure virtual machines in a highly available configuration that will use an Always On availability group. The solution must meet the following requirements:

- Minimize how long it takes to fail over.
- Maintain existing connections to the primary replica during a failover. What should you do?

- A. Connect each virtual machine to a single subnet on a single virtual network.
- B. Connect each virtual machine to a single subnet on a virtual network
- C. Deploy a standard Azure load balancer.
- D. Connect each virtual machine to a different subnet on a single virtual network.
- E. Connect each virtual machine to a different subnet on a virtual network
- F. Deploy a basic Azure load balancer.

**Answer:** C

#### NEW QUESTION 125

- (Exam Topic 5)

You have an Azure virtual machine named VM1 on a virtual network named VNet1. Outbound traffic from VM1 to the internet is blocked.

You have an Azure SQL database named SqlDb1 on a logical server named SqlSrv1.

You need to implement connectivity between VM1 and SqlDb1 to meet the following requirements:

- Ensure that all traffic to the public endpoint of SqlSrv1 is blocked.
- Minimize the possibility of VM1 exfiltrating data stored in SqlDb1. What should you create on VNet1?

- A. a VPN gateway
- B. a service endpoint
- C. a private link
- D. an ExpressRoute gateway

**Answer:** C

**Explanation:**

Azure Private Link enables you to access Azure PaaS Services (for example, Azure Storage and SQL Database) and Azure hosted customer-owned/partner services over a private endpoint in your virtual network.

Traffic between your virtual network and the service travels the Microsoft backbone network. Exposing your service to the public internet is no longer necessary.

Reference:

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

**NEW QUESTION 126**

- (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 127**

- (Exam Topic 5)

You have an Azure SQL managed instance named SQLMI1 that hosts 10 databases.

You need to implement alerts by using Azure Monitor. The solution must meet the following requirements: ➤ Minimize costs.

➤ Aggregate Intelligent Insights telemetry from each database. What should you do?

- A. From the Diagnostic settings of each database, select Send to Log Analytics.
- B. From the Diagnostic settings of each database, select Stream to an event hub.
- C. From the Diagnostic settings of SQLMI1. select Send to Log Analytics.
- D. From the Diagnostic settings of SQLMI1. select Stream to an event hub.

**Answer:** A

**Explanation:**

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/metrics-diagnostic-telemetry-logging-streaming-expo>

**NEW QUESTION 129**

- (Exam Topic 5)

You have an on-premises Microsoft SQL server that uses the FileTables and Filestream features. You plan to migrate to Azure SQL.

Which service should you use?

- A. Azure SQL Database
- B. SQL Server on an Azure Virtual Machine
- C. Azure SQL Managed Instance
- D. Azure Database for MySQL

**Answer:** B

**Explanation:**

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/migration-guides/database/sql-server-to-sql-database-overview>

NEW QUESTION 134

- (Exam Topic 5)  
You have an Azure SQL managed instance named MI1.  
You need to implement automatic tuning for the databases of MI1. What should you do?

- A. Use the REST API to call the patch operation and modify the AutomaticTuningServerMode property.
- B. Use Transact-SQL to enable the force\_last\_good\_plan option.
- C. From the Azure portal, configure automatic tuning.

Answer: B

NEW QUESTION 135

- (Exam Topic 5)  
You have an Azure SQL Database elastic pool that contains 10 databases. You receive the following alert.  
Msg 1132, Level 16, State 1, Line 1  
The elastic pool has reached its storage limit. The storage used for the elastic pool cannot exceed (76800) MBs.  
You need to resolve the alert. The solution must minimize administrative effort.  
Which three actions can you perform? Each correct answer presents a complete solution. NOTE: Each correct selection is worth one point.

- A. Delete data from a database.
- B. Remove a database from the pool.
- C. Increase the maximum storage of the elastic pool.
- D. Shrink individual databases.
- E. Enable data compression.

Answer: BCD

NEW QUESTION 137

- (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 141

- (Exam Topic 5)  
You have a SQL Server on Azure Virtual Machines instance named VM1 . You run the following query.

```
BACKUP LOG DB1 TO DISK = '\\File1\SQLBackups\DB1.trn'
WITH NORECOVERY,COPY_ONLY,CONTINUE_AFTER_ERROR;
GO
```

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

Statements	Yes	No
The log file will be truncated.	<input type="radio"/>	<input type="radio"/>
DB1 will be placed in an offline state.	<input type="radio"/>	<input type="radio"/>
You are performing a tail-log backup.	<input type="radio"/>	<input type="radio"/>

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:  
Answer Area

Statements	Yes	No
The log file will be truncated.	<input checked="" type="radio"/>	<input type="radio"/>
DB1 will be placed in an offline state.	<input type="radio"/>	<input checked="" type="radio"/>
You are performing a tail-log backup.	<input type="radio"/>	<input checked="" type="radio"/>

NEW QUESTION 142

- (Exam Topic 5)  
You have a database named db1.  
The log for db1 contains the following entry.

```
Date 10/5/2021 10:57:08 AM
Log SQL Server (Current - 10/5/2021 11:26:00 AM)

Source spid1595

Message
The transaction log for database 'db1' is full due to 'AVAILABILITY_REPLICA'
```

You need to ensure That db1 can process transactions.

Actions

- Add db1 back to the availability group.
- Shrink db1.
- Shrink the transaction log file.
- Remove db1 from the availability group.
- Back up the transaction log file.

Answer Area

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Actions

- Add db1 back to the availability group.
- Shrink db1.
- Shrink the transaction log file.
- Remove db1 from the availability group.
- Back up the transaction log file.

Answer Area

- Remove db1 from the availability group.
- Shrink the transaction log file.
- Add db1 back to the availability group.

NEW QUESTION 147

- (Exam Topic 5)  
You have an Azure SQL database.  
You need to implement a disaster recovery solution that meets the following requirements:

- Minimizes how long it takes to recover the database if a datacenter fails
- Minimize administrative effort

What should you include in the solution?



- A. Azure Backup
- B. active geo-replication
- C. Azure Site Recovery
- D. auto-failover groups

**Answer:** D

#### NEW QUESTION 148

- (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 Data Lake Storage account that contains a staging zone.

You need to design a daily process to ingest incremental data from the staging zone, transform the data by executing an R script, and then insert the transformed data into a data warehouse in Azure Synapse Analytics.

Solution: You use an Azure Data Factory schedule trigger to execute a pipeline that executes an Azure Databricks notebook, and then inserts the data into the data warehouse.

Does this meet the goal?

- A. Yes
- B. No

**Answer:** B

#### NEW QUESTION 150

- (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 151

- (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:** C

#### Explanation:

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

#### NEW QUESTION 156

- (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 157

- (Exam Topic 5)

A data engineer creates a table to store employee information for a new application. All employee names are in the US English alphabet. All addresses are locations in the United States. The data engineer uses the following statement to create the table.

```
CREATE TABLE dbo.Employee
```

```
(  
    EmployeeID      INT IDENTITY(1,1) PRIMARY KEY CLUSTERED NOT NULL,  
    FirstName       VARCHAR(100) NOT NULL,  
    LastName        VARCHAR(100) NOT NULL,  
    Title           VARCHAR(100) NULL,  
    LastHireDate     DATETIME NULL,  
    StreetAddress1   VARCHAR(500) NOT NULL,  
    StreetAddress2   VARCHAR(500) NOT NULL,  
    StreetAddress3   VARCHAR(500) NOT NULL,  
    City            VARCHAR(200) NOT NULL,  
    StateName        VARCHAR(20) NOT NULL,  
    Salary           VARCHAR(20) NULL,  
    PhoneNumber      VARCHAR(20) NOT NULL  
)
```

You need to recommend changes to the data types to reduce storage and improve performance.

Which two actions should you recommend? Each correct answer presents part of the solution.

NOTE:Each correct selection is worth one point.

- A. ChangeSalaryto themoneydata type.
- B. ChangePhoneNumbertothefloatdata type.
- C. ChangeLastHireDateto thedatetime2(7)data type.
- D. ChangePhoneNumbertothebigintdata type.
- E. ChangeLastHireDateto thedatedata type.

**Answer:** AE

## NEW QUESTION 162

- (Exam Topic 5)

You are designing an enterprise data warehouse in Azure Synapse Analytics that will store website traffic analytics in a star schema.

You plan to have a fact table for website visits. The table will be approximately 5 GB.

You need to recommend which distribution type and index type to use for the table. The solution must provide the fastest query performance.

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

NOTE:Each correct selection is worth one point.

Distribution: 

▼

Hash

Round robin

Replicated

Index: 

▼

Clustered columnstore

Clustered

Nonclustered

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

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

Box 1: Hash

Consider using a hash-distributed table when: The table size on disk is more than 2 GB.

The table has frequent insert, update, and delete operations. Box 2: Clustered columnstore

Clustered columnstore tables offer both the highest level of data compression and the best overall query performance.

Reference:

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

NEW QUESTION 167

- (Exam Topic 5)

You have an Azure SQL database named DB1. DB1 has a table named Table1 that contains the following columns.

Name	Type
Column1	Ntext
Column2	Geometry
Column3	Image
Column4	Varchar
Column5	Datetime2

You plan to enable Always Encrypted for Table1.

Which two columns support encryption? Each correct answer presents a complete solution. NOTE: Each correct selection is worth one point

- A. Column1
- B. Column2
- C. Column3
- D. Column4
- E. Column5

Answer: AD

NEW QUESTION 168

- (Exam Topic 5)

You have an Azure subscription that contains an Azure SQL managed instance, a database named db1, and an Azure web app named Appl. Appl uses db1.

You need to enable Resource Governor for a App1. The solution must meet the following requirements: App1 must be able to consume all available CPU resources.

App1 must have at least half of the available CPU resources always available.

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**

Create a plan.

Create a classifier function in db1.

Create a workload group.

Create a classifier function in the master database.

Create a resource pool that has the following configurations.

MAX\_CPU\_PERCENT = 100

MIN\_CPU\_PERCENT = 50

>

<

- A. Mastered  
 B. Not Mastered

**Answer:** A

**Explanation:**

**Actions**

Create a plan.

Create a classifier function in db1.

Create a workload group.

Create a classifier function in the master database.

Create a resource pool that has the following configurations.

MAX\_CPU\_PERCENT = 100

MIN\_CPU\_PERCENT = 50

>

<

**Answer Area**

Create a resource pool that has the following configurations.

MAX\_CPU\_PERCENT = 100

MIN\_CPU\_PERCENT = 50

<

Create a workload group.

Create a classifier function in the master database.

#### NEW QUESTION 171

- (Exam Topic 5)

You plan to move two 100-GB databases to Azure.

You need to dynamically scale resources consumption based on workloads. The solution must minimize downtime during scaling operations.

What should you use?

- A. two Azure SQL Databases in an elastic pool  
 B. two databases hosted in SQL Server on an Azure virtual machine  
 C. two databases in an Azure SQL Managed instance  
 D. two single Azure SQL databases

**Answer:** A

**Explanation:**

Azure SQL Database elastic pools are a simple, cost-effective solution for managing and scaling multiple databases that have varying and unpredictable usage demands. The databases in an elastic pool are on a single server and share a set number of resources at a set price.

Reference:

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

#### NEW QUESTION 173

- (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 Data Lake Storage account that contains a staging zone.

You need to design a daily process to ingest incremental data from the staging zone, transform the data by executing an R script, and then insert the transformed data into a data warehouse in Azure Synapse Analytics.

Solution: You use an Azure Data Factory schedule trigger to execute a pipeline that executes mapping data flow, and then inserts the data into the data warehouse.

Does this meet the goal?

- A. Yes  
 B. No

**Answer:** B

**Explanation:**

If you need to transform data in a way that is not supported by Data Factory, you can create a custom activity, not a mapping flow, with your own data processing logic and use the activity in the pipeline. You can create a custom activity to run R scripts on your HDInsight cluster with R installed. Reference:

<https://docs.microsoft.com/en-US/azure/data-factory/transform-data>

#### NEW QUESTION 174

- (Exam Topic 5)

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



Name	Type
App1	Azure web app
db1	Azure SQL database in the serverless tier

App1 experiences transient connection errors and timeouts when it attempts to access db1 after extended periods of inactivity. You need to modify db1 to resolve the issues experienced by Appl as soon as possible, without considering immediate costs. What do you do?

- A. Increase the number of vCores allocated to db1.
- B. Decrease the auto-pause delay for db1.
- C. Disable auto-pause delay for db1.
- D. Enable automatic tuning for db1.

**Answer:** D

#### NEW QUESTION 175

- (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 SQL Server 2019 on an Azure virtual machine.

You are troubleshooting performance issues for a query in a SQL Server instance.

To gather more information, you query sys.dm\_exec\_requests and discover that the wait type is PAGELATCH\_UP and the wait\_resource is 2:3:905856.

You need to improve system performance.

Solution: You change the data file for the master database to autogrow by 10 percent. Does this meet the goal?

- A. Yes
- B. No

**Answer:** B

#### Explanation:

Reference:

<https://docs.microsoft.com/en-US/troubleshoot/sql/performance/recommendations-reduce-allocation-contention>

#### NEW QUESTION 177

- (Exam Topic 5)

You are building an Azure Stream Analytics job to retrieve game data.

You need to ensure that the job returns the highest scoring record for each five-minute time interval of each game.

How should you complete the Stream Analytics query? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

SELECT  as HighestScore

FROM input TIMESTAMP BY CreatedAt

GROUP BY

- A. Mastered
- B. Not Mastered

**Answer:** A

#### Explanation:

Graphical user interface, text, application, email Description automatically generated

Box 1: TopOne() OVER(PARTITION BY Game ORDER BY Score Desc)

TopOne returns the top-rank record, where rank defines the ranking position of the event in the window according to the specified ordering. Ordering/ranking is based on event columns and can be specified in ORDER BY clause.

Analytic Function Syntax:

TopOne() OVER ([<PARTITION BY clause>] ORDER BY (<column name> [ASC | DESC]) + <LIMIT

DURATION clause> [<WHEN clause>])

Box 2: Tumbling(minute 5)

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.

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://docs.microsoft.com/en-us/stream-analytics-query/topone-azure-stream-analytics> <https://github.com/MicrosoftDocs/azure-docs/blob/master/articles/stream-analytics/stream-analytics-window-fun>

NEW QUESTION 180

- (Exam Topic 5)  
You are creating a new notebook in Azure Databricks that will support R as the primary language but will also support Scala and SQL.  
Which switch should you use to switch between languages?

- A. \[<language>]
- B. %<language>
- C. \[<language>]
- D. @<language>

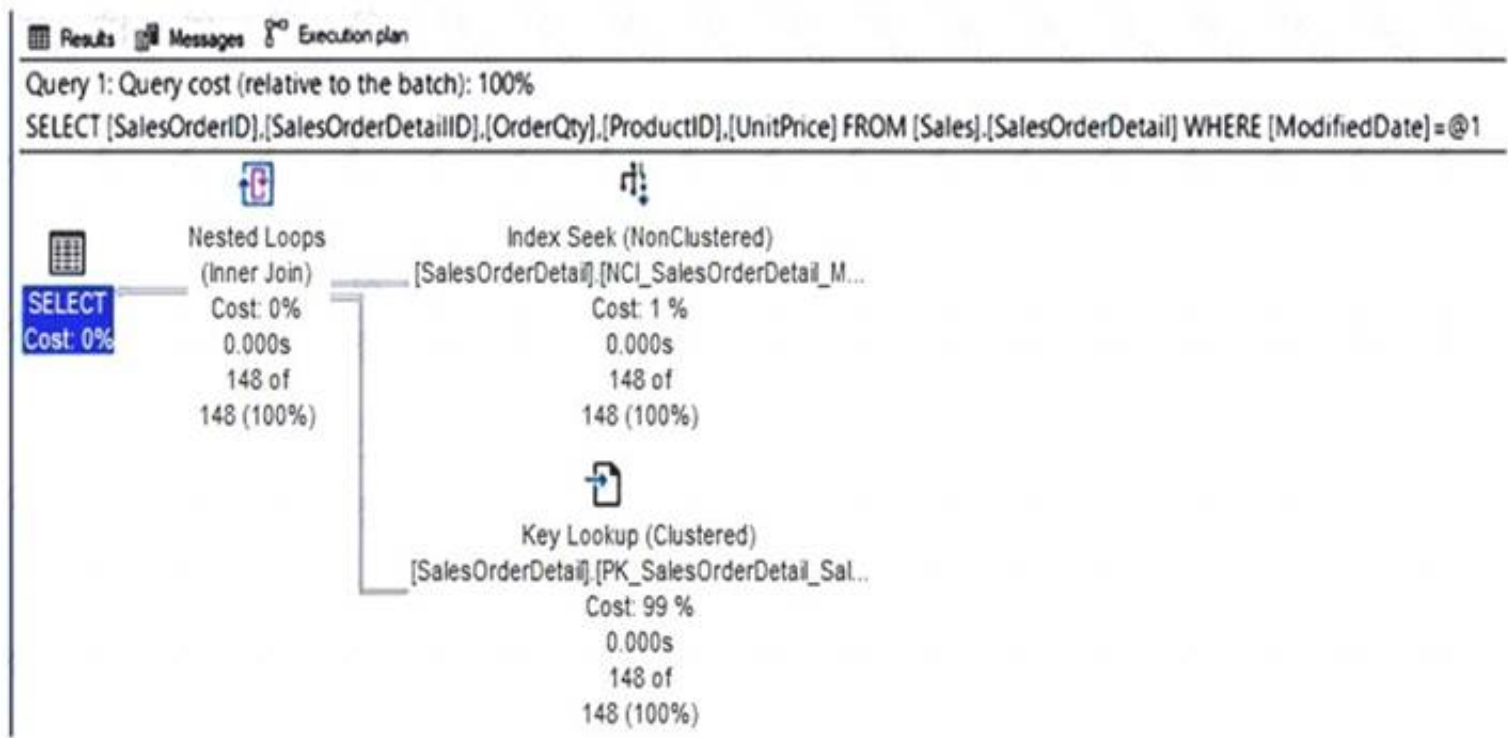
Answer: B

Explanation:

You can override the default language by specifying the language magic command %<language> at the beginning of a cell. The supported magic commands are: %python, %r, %scala, and %sql.  
Reference:  
<https://docs.microsoft.com/en-us/azure/databricks/notebooks/notebooks-use>

NEW QUESTION 185

- (Exam Topic 5)  
You have an Azure SQL database.  
You have a query and the associated execution plan as 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.

The performance issue stems from the [answer choice] operator.

Select

Index Seek

Key Lookup

Nested Loops

The performance issue can be resolved by adding include columns to the [answer choice].

heap

clustered index

nonclustered index

- A. Mastered  
B. Not Mastered

**Answer:** A

**Explanation:**

Graphical user interface, text, application, email Description automatically generated

Box 1: Key Lookup

The Key Lookup cost is 99% so that is the performance bottleneck. Box 2: nonclustered index

The key lookup on the clustered index is used because the nonclustered index does not include the required columns to resolve the query. If you add the required columns to the nonclustered index, the key lookup will not be required.

**NEW QUESTION 187**

- (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. Grantselecton 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 190**

- (Exam Topic 5)

You are performing exploratory analysis of bus fare data in an Azure Data Lake Storage Gen2 account by using an Azure Synapse Analytics serverless SQL pool.

You execute the Transact-SQL query shown in the following exhibit.

```
SELECT
    payment_type,
    SUM(fare_amount) AS fare_total
FROM OPENROWSET(
    BULK 'csv/busfare/tripdata_2020*.csv',
    DATA_SOURCE = 'BusData',
    FORMAT = 'CSV', PARSER_VERSION = '2.0',
    FIRSTROW = 2
)
WITH (
    payment_type INT 10,
    fare_amount FLOAT 11
) AS nyc
GROUP BY payment_type
ORDER BY payment_type;
```

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.



The query results include only [answer choice] in the csv/busfare folder.

▼

CSV files in the tripdata_2020 subfolder
files that have files names beginning with "tripdata_2020"
CSV files that have file names containing "tripdata_202"
CSV files that have file named beginning with "tripdata_2020"

The query assumes that the first row in a CSV file is [answer choice] row.

▼

a header
a data
an empty

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Graphical user interface, table Description automatically generated  
Box 1: CSV files that have file named beginning with "tripdata\_2020" Box 2: a header  
FIRSTROW = 'first\_row'  
Specifies the number of the first row to load. The default is 1 and indicates the first row in the specified data file. The row numbers are determined by counting the row terminators. FIRSTROW is 1-based.  
Reference:  
<https://docs.microsoft.com/en-us/azure/synapse-analytics/sql/develop-openrowset>

NEW QUESTION 195

- (Exam Topic 5)  
You configure backup for an Azure SQL database as shown in the following exhibit.

Point-in-time-restore

Specify how long you want to keep your point-in-time backups. [Learn more »](#)

How many days would you like PITR backups to be kept? ⓘ

14

Long-term retention

Specify how long you want to keep your long-term retention backups. You may choose to keep yearly backups for up to 10 years. [Learn more »](#)

Weekly LTR Backups

Keep weekly backups for:

52

Week(s) ▼

Monthly LTR Backups

Keep the first backup of each month for:

60

Week(s) ▼

Yearly LTR Backups

Keep an annual backup for:

10

Year(s) ▼

Which weekly backup of the year would you like to keep?

Week 52 ▼

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



**Answer Area**

To restore from a failure that occurred two days ago and caused minimal data loss, you must use a [answer choice]

After the 52nd weekly backup runs, there will be [answer choice] in long term retention.

point-time restore (PITR) backup.  
point-time restore (PITR) backup.  
yearly long-term retention (LTR) backup.  
weekly long-term retention (LTR) backup.  
monthly long-term retention (LTR) backup.

65 backup copies  
1 backup copy  
52 backup copies  
64 backup copies  
65 backup copies

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

**Answer Area**

To restore from a failure that occurred two days ago and caused minimal data loss, you must use a [answer choice]

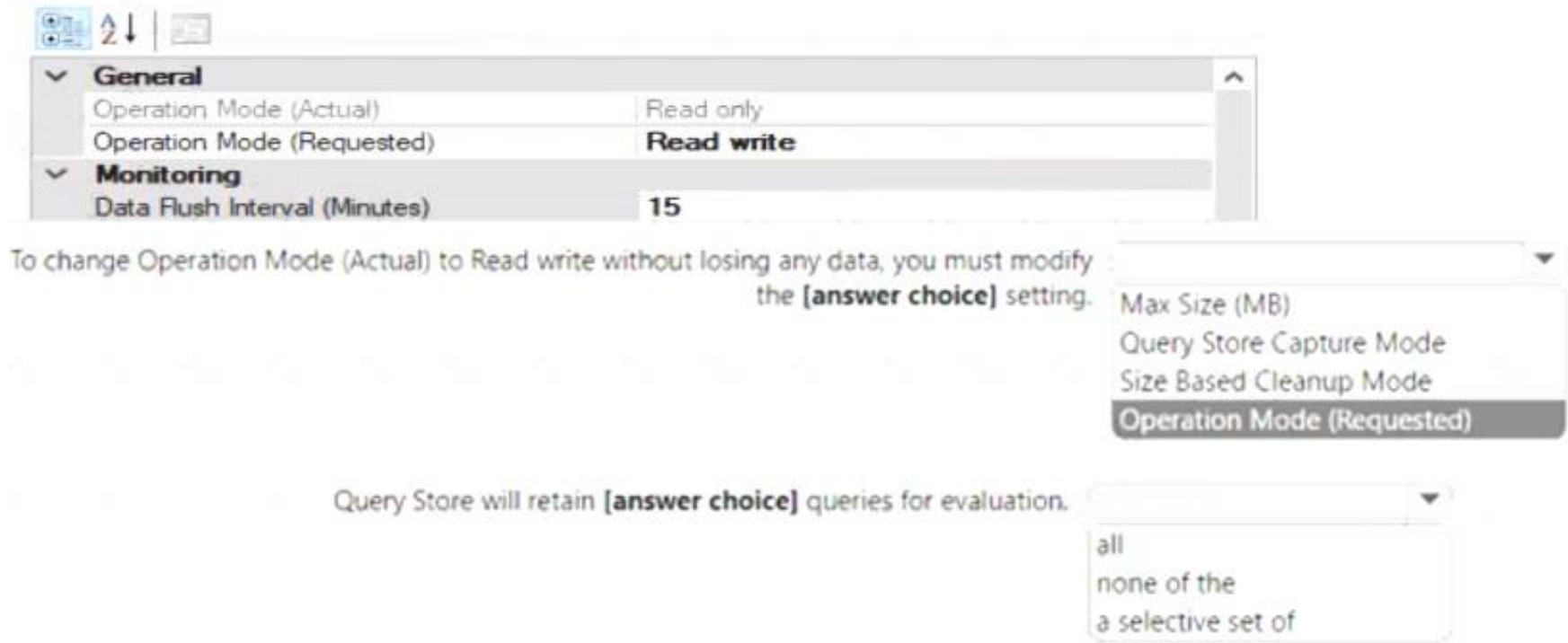
After the 52nd weekly backup runs, there will be [answer choice] in long term retention.

point-time restore (PITR) backup.  
point-time restore (PITR) backup.  
yearly long-term retention (LTR) backup.  
weekly long-term retention (LTR) backup.  
monthly long-term retention (LTR) backup.

65 backup copies  
1 backup copy  
52 backup copies  
64 backup copies  
65 backup copies

NEW QUESTION 196

- (Exam Topic 5)  
You have a database on a SQL Server on Azure Virtual Machines instance.  
The current state of Query Store for the database is shown in the following exhibit.



General

Operation Mode (Actual)	Read only
Operation Mode (Requested)	Read write

Monitoring

Data Flush Interval (Minutes)	15
-------------------------------	----

To change Operation Mode (Actual) to Read write without losing any data, you must modify the [answer choice] setting.

Max Size (MB)  
Query Store Capture Mode  
Size Based Cleanup Mode  
Operation Mode (Requested)

Query Store will retain [answer choice] queries for evaluation.

all  
none of the  
a selective set of

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Graphical user interface, text Description automatically generated

NEW QUESTION 199

- (Exam Topic 5)  
You have 40 Azure SQL databases, each for a different customer. All the databases reside on the same Azure SQL Database server.  
You need to ensure that each customer can only connect to and access their respective database. Which two actions should you perform? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

- A. Implement row-level security (RLS).
- B. Create users in each database.
- C. Configure the database firewall.
- D. Configure the server firewall.
- E. Create logins in the master database.
- F. Implement Always Encrypted.

Answer: BE

Explanation:

Manage database access by adding users to the database, or allowing user access with secure connection strings. Database-level firewall rules only apply to individual databases. Reference:  
<https://docs.microsoft.com/en-us/azure/azure-sql/database/secure-database-tutorial>

NEW QUESTION 203

- (Exam Topic 5)

You have an on-premises Microsoft SQL Server 2019 server that hosts a database named DB1. You have an Azure subscription that contains an Azure SQL managed instance named SQLMI1 and a virtual network named VNET1. SQLMI1 resides on VNET1. The on-premises network connects to VNET1 by using an ExpressRoute connection. You plan to migrate DB1 to SQLMI1 by using Azure Database Migration Service. You need to configure VNET1 to support the migration. What should you do?

- A. Configure service endpoints.
- B. Configure virtual network peering.
- C. Deploy an Azure firewall.
- D. Configure network security groups (NSGs).

Answer: A


Explanation:


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


NEW QUESTION 206

- (Exam Topic 5)

You have an Azure SQL database named DB1. The automatic tuning options for DB1 are configured as shown in the following exhibit.




Azure SQL Database built-in intelligence automatically tunes your databases to optimize performance. Click here to learn more about automatic tuning 


Inherit from: 




Server

Azure defaults

Don't inherit

 The database is inheriting automatic tuning configuration from Azure defaults.

Configure the automatic tuning options 

	OPTION	DESIRED STATE	CURRENT STATE
	FORCE PLAN	<div><div>ON</div><div>OFF</div><div>INHERIT</div></div>	<b>ON</b> Auto-configured by Azure
	CREATE INDEX	<div><div>ON</div><div>OFF</div><div>INHERIT</div></div>	<b>ON</b> Auto-configured by Azure
	DROP INDEX	<div><div>ON</div><div>OFF</div><div>INHERIT</div></div>	<b>ON</b> Forced by user

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
Nonclustered indexes will be added to tables to improve performance.	<input type="radio"/>	<input type="radio"/>
Columns will be added to existing indexes automatically.	<input type="radio"/>	<input type="radio"/>
The query execution plan will revert to a previous plan if query performance degrades.	<input type="radio"/>	<input type="radio"/>

- A. Mastered  
B. Not Mastered

Answer: A

Explanation:

Box 1: Yes

We see: Tuning option: Create index ON

CREATE INDEX - Identifies indexes that may improve performance of your workload, creates indexes, and automatically verifies that performance of queries has improved.

Box 2: No

Box 3: Yes

FORCE LAST GOOD PLAN (automatic plan correction) - Identifies Azure SQL queries using an execution plan that is slower than the previous good plan, and queries using the last known good plan instead of the regressed plan.

NEW QUESTION 210

- (Exam Topic 5)

You have an Azure Data Factory instance named ADF1 and two Azure Synapse Analytics workspaces named WS1 and WS2.

ADF1 contains the following pipelines:

- > P1: Uses a copy activity to copy data from a nonpartitioned table in a dedicated SQL pool of WS1 to an Azure Data Lake Storage Gen2 account
- > P2: Uses a copy activity to copy data from text-delimited files in an Azure Data Lake Storage Gen2 account to a nonpartitioned table in a dedicated SQL pool of WS2

You need to configure P1 and P2 to maximize parallelism and performance.

Which dataset settings should you configure for the copy activity of each pipeline? To answer, select the appropriate options in the answer area.

P1:

Set the Copy method to Bulk insert.

Set the Copy method to PolyBase.

Set the Isolation level to Repeatable read.

Set the Partition option to Dynamic range.

P2:

Set the Copy method to Bulk insert.

Set the Copy method to PolyBase.

Set the Isolation level to Repeatable read.

Set the Partition option to Dynamic range.

- A. Mastered  
B. Not Mastered

Answer: A

Explanation:

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

P1: Set the Partition option to Dynamic Range.

The SQL Server connector in copy activity provides built-in data partitioning to copy data in parallel. P2: Set the Copy method to PolyBase

Polybase is the most efficient way to move data into Azure Synapse Analytics. Use the staging blob feature to achieve high load speeds from all types of data stores, including Azure Blob storage and Data Lake Store. (Polybase supports Azure Blob storage and Azure Data Lake Store by default.)

Reference:

<https://docs.microsoft.com/en-us/azure/data-factory/connector-azure-sql-data-warehouse> <https://docs.microsoft.com/en-us/azure/data-factory/load-azure-sql-data-warehouse>

NEW QUESTION 211

- (Exam Topic 5)

You have an Azure Synapse Analytics dedicated SQL pool named Pool1 and an Azure Data Lake Storage Gen2 account named Account1.

You plan to access the files in Account1 by using an external table.



You need to create a data source in Pool1 that you can reference when you create the external table. 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 DATA SOURCE source1
```

```
WITH
```

```
( LOCATION = 'https://account1.
```

▼
blob
dfs
table

```
.core.windows.net',
```

▼
PUSHDOWN = ON
TYPE = BLOB_STORAGE
TYPE = HADOOP

```
)
```

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Graphical user interface, table Description automatically generated

Box 1: blob

The following example creates an external data source for Azure Data Lake Gen2 CREATE EXTERNAL DATA SOURCE YellowTaxi

WITH ( LOCATION = 'https://azureopendatastorage.blob.core.windows.net/nyctlc/yellow/', TYPE = HADOOP)

Box 2: HADOOP

Reference:

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

**NEW QUESTION 212**

- (Exam Topic 5)

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

SQL1 contains an Extended Events session named session1 that captures Microsoft SQL Server events. You need to correlate the session events with events captured by Event Tracing for Windows (ETW). What should you do for session1?

- A. Modify the Set Session Event Filters settings.
- B. Add a target.
- C. Add an action.
- D. Modify the Specify Session Data Storage settings.

**Answer:** B

**NEW QUESTION 215**

- (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 218**

- (Exam Topic 5)

You plan to deploy two instances of SQL Server on Azure virtual machines in a highly available configuration that will use an Always On availability group.

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

- Provides a Service Level Agreement (SLA) of at least 99.95%
  - Replicates databases in the same group synchronously
  - Minimizes the latency of database writes
- What should you recommend?

- A. Create a proximity group and an availability set
- B. Deploy each virtual machine to the availability set
- C. Add both virtual machines to the proximity group.



- C. Create two proximity groups and a single availability se
- D. Deploy both virtual machines to the availability se
- E. Add one virtual machine to each proximity group.
- F. Create two proximity groups and two availability set
- G. Deploy each virtual machine to a unique availability se
- H. Add one virtual machine to each proximity group.
- I. Create a proximity group and two availability set
- J. Deploy each virtual machine to a unique availability se
- K. Add both virtual machines to the proximity group.

**Answer:** A

#### NEW QUESTION 221

- (Exam Topic 5)

You have an Azure SQL database.

You run the following PowerShell script.

```
$serverName = "SERVER1"
$resourceGroup = "RG1"
$dbName = "DB1"
```

```
Connect-AzAccount
```

```
$server = Get-AzSqlServer -ServerName $serverName -ResourceGroupName
$resourceGroup
```

```
Set-AzSqlDatabaseBackupShortTermRetentionPolicy -ResourceGroupName $resourceGroup
-ServerName $server `
    -DatabaseName $dbName -RetentionDays 21
```

```
Set-AzSqlDatabaseBackupLongTermRetentionPolicy -ServerName $serverName -
DatabaseName $dbName `
    -ResourceGroupName $resourceGroup -WeeklyRetention P52W -YearlyRetention PSY
-WeekOfYear 52
```

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
DB1 can be restored to a specific point in time 30 days ago.	<input type="radio"/>	<input type="radio"/>
DB1 can be restored from a weekly backup performed six months ago.	<input type="radio"/>	<input type="radio"/>
DB1 can be restored from a yearly backup performed six years ago.	<input type="radio"/>	<input type="radio"/>

- A. Mastered
- B. Not Mastered

**Answer:** A

#### Explanation:

Text Description automatically generated

Reference:

<https://docs.microsoft.com/en-us/powershell/module/az.sql/set-azsqldatabasebackupshorttermretentionpolicy?vi> <https://docs.microsoft.com/en-us/powershell/module/az.sql/set-azsqldatabasebackuplongtermretentionpolicy?vie>

#### NEW QUESTION 224

- (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

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

Answer Area

- A. Mastered
- B. Not Mastered

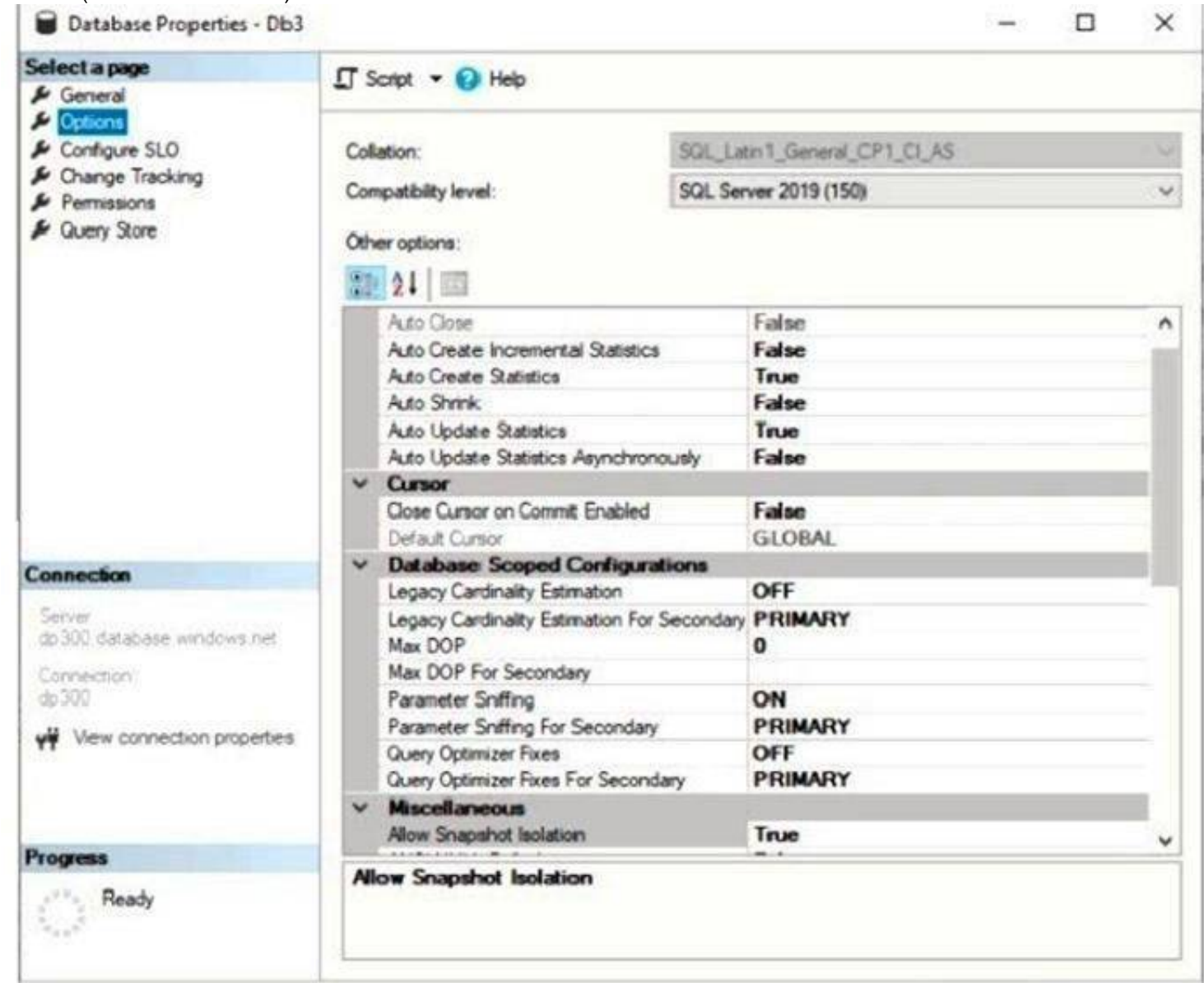
Answer: A

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 227

- (Exam Topic 5)  
You have an Azure SQL database named DB3.  
You need to provide a user named DevUser with the ability to view the properties of DB3 from Microsoft SQL Server Management Studio (SSMS) as shown in the exhibit. (Click theExhibittab.)



Which Transact-SQL command should you run?

- A. GRANT SHOWPLAN TO DevUser
- B. GRANT VIEW DEFINITION TO DevUser
- C. GRANT VIEW DATABASE STATE TO DevUser
- D. GRANT SELECT TO DevUser

**Answer:** C

**Explanation:**

The exhibits displays Database [State] properties.

To query a dynamic management view or function requires SELECT permission on object and VIEW SERVER STATE or VIEW DATABASE STATE permission.

Reference:

<https://docs.microsoft.com/en-us/sql/relational-databases/databases/database-properties-options-page>

**NEW QUESTION 230**

- (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 234**

- (Exam Topic 5)

You have a Microsoft SQL Server 2019 database named DB1 that uses the following database-level and instance-level features.

- Clustered columnstore indexes
- Automatic tuning
- Change tracking
- PolyBase

You plan to migrate DB1 to an Azure SQL database.

What feature should be removed or replaced before DB1 can be migrated?

- A. Clustered columnstore indexes
- B. PolyBase
- C. Change tracking
- D. Automatic tuning

**Answer:** B

**Explanation:**

This table lists the key features for PolyBase and the products in which they're available.

Feature	SQL Server (Beginning with 2016)	Azure SQL Database	Azure Synapse Analytics	Parallel Data Warehouse
Query Hadoop data with Transact-SQL	Yes	No	No	Yes
Import data from Hadoop	Yes	No	No	Yes
Export data to Hadoop	Yes	No	No	Yes
Query, import from, export to Azure HDInsight	No	No	No	No
Push down query computations to Hadoop	Yes	No	No	Yes
Import data from Azure Blob storage	Yes	Yes	Yes	Yes
Export data to Azure Blob storage	Yes	No	Yes	Yes
Import data from Azure Data Lake Store	No	No	Yes	No
Export data to Azure Data Lake Store	No	No	Yes	No
Run PolyBase queries from Microsoft BI tools	Yes	No	Yes	Yes

Reference:

<https://docs.microsoft.com/en-us/sql/relational-databases/polybase/polybase-versioned-feature-summary>



#### NEW QUESTION 235

- (Exam Topic 5)

You have an Azure SQL database named DB1.

You need to encrypt DB1. The solution must meet the following requirements;

- Encrypt data in motion.
- Support comparison operators.
- Provide randomized encryption.

What should you include in the solution?

- A. Always Encrypted
- B. column-level encryption
- C. Transparent Data Encryption (TDE)
- D. Always Encrypted with secure enclaves

**Answer:** A

#### NEW QUESTION 238

- (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 SQL database named Sales.

You need to implement disaster recovery for Sales to meet the following requirements:

- During normal operations, provide at least two readable copies of Sales.
- Ensure that Sales remains available if a datacenter fails.

Solution: You deploy an Azure SQL database that uses the Business Critical service tier and Availability Zones.

Does this meet the goal?

- A. Yes
- B. No

**Answer:** A

#### Explanation:

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

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).

Reference:

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

#### NEW QUESTION 242

- (Exam Topic 5)

You have an Azure SQL database named DB1. A user named User 1 has an Azure AD account.

You need to provide User1 with the ability to add and remove columns from the tables in DBV. The solution must use the principle of least privilege.

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

- A. Assign the database user the db.ddladmin role.
- B. Assign the database user the db.owner role.
- C. Create a contained database user.
- D. Create a login and an associated database user.

**Answer:** AD

#### NEW QUESTION 245

- (Exam Topic 5)

You have an Azure subscription.

You plan to deploy an instance of SQL Server on Azure Virtual Machines that supports Write Accelerator.

Which virtual machine series should you use?

- A. H-series
- B. G-series
- C. M-series
- D. E-series

**Answer:** C

#### NEW QUESTION 248

- (Exam Topic 5)

You have an Azure data solution that contains an enterprise data warehouse in Azure Synapse Analytics named DW1.

Several users execute adhoc queries to DW1 concurrently. You regularly perform automated data loads to DW1.

You need to ensure that the automated data loads have enough memory available to complete quickly and successfully when the adhoc queries run.

What should you do?

- A. Assign a smaller resource class to the automated data load queries.
- B. Create sampled statistics to every column in each table of DW1.



- C. Assign a larger resource class to the automated data load queries.
- D. Hash distribute the large fact tables in DW1 before performing the automated data loads.

**Answer:** C

**Explanation:**

The performance capacity of a query is determined by the user's resource class. Smaller resource classes reduce the maximum memory per query, but increase concurrency. Larger resource classes increase the maximum memory per query, but reduce concurrency.

Reference:

<https://docs.microsoft.com/en-us/azure/synapse-analytics/sql-data-warehouse/resource-classes-for-workloadman>

**NEW QUESTION 253**

- (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 257**

- (Exam Topic 5)

You are building an Azure virtual machine.

You allocate two 1-TiB, P30 premium storage disks to the virtual machine. Each disk provides 5,000 IOPS. You plan to migrate an on-premises instance of Microsoft SQL Server to the virtual machine. The instance has a database that contains a 1.2-TiB data file. The database requires 10,000 IOPS.

You need to configure storage for the virtual machine to support the database.

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

Actions

a virtual disk that uses the stripe layout

a virtual disk that uses the mirror layout

a volume

a virtual disk that uses the simple layout

a storage pool

Answer Area

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Follow these same steps to create striped virtual disk:

- > Create Log Storage Pool.
- > Create Virtual Disk
- > Create Volume

Box 1: a storage pool

Box 2: a virtual disk that uses stripe layout

Disk Striping: Use multiple disks and stripe them together to get a combined higher IOPS and Throughput limit. The combined limit per VM should be higher than the combined limits of attached premium disks.

Box 3: a volume Reference:

<https://hanu.com/hanu-how-to-striping-of-disks-for-azure-sql-server/>

**NEW QUESTION 261**

- (Exam Topic 5)

You have an Azure Data Factory pipeline that is triggered hourly. The pipeline has had 100% success for the past seven days. The pipeline execution fails, and two retries that occur 15 minutes apart also fail. The third failure returns the following error.

```
ErrorCode=UserErrorFileNotFound,
'Type=Microsoft.DataTransfer.Common.Shared.HybridDeliveryException,Message=ADLS
Gen2 operation failed for: Operation returned an invalid status code
'NotFound'. Account: 'contosoproduksouth' FileSystem: wwi.Path:
'BIKES/CARBON/year=2021/month=01/day=10/hour=06'. ErrorCode:
'PathNotFound'.Message: 'The specified path does not exist.'. RequestId:
'6d269b78-901f-001b-4924-e7a7bc000000'. Timestamp: 'Sun, 10 Jan 2021 07:45:05'
```

What is a possible cause of the error?

- A. From 06:00 to 07:00 on January 10, 2021, there was no data in wwi/BIKES/CARBON.
- B. The parameter used to generate year=2021/month=01/day=10/hour=06 was incorrect.
- C. From 06:00 to 07:00 on January 10, 2021, the file format of data in wwi/BIKES/CARBON was incorrect.
- D. The pipeline was triggered too early.

**Answer: B**

#### NEW QUESTION 266

- (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: C**

#### NEW QUESTION 268

- (Exam Topic 5)

You need to use an Azure Resource Manager (ARM) template to deploy an Azure virtual machine that will host a Microsoft SQL Server instance. The solution must maximize disk I/O performance for the SQL Server database and log files

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

```
"variables": {
  "dataDisks": {
    "caching":  "dataDiskCount": 8,"logDisksCount": 1,
    ...
  }
}

"resources": [
  ...
  {
    "osDisk": {
      ...
    },
    "copy": [
      {
        "name": "dataDisks","count": "[add(variables('dataDiskCount'), variables('logDisksCount'))]",
        "input": {
          "lun": "[copyIndex('dataDisks')]",
          "createOption": "empty",
          "caching": "[if(greaterOrEquals(copyIndex('dataDisks'),parameters('dataDiskCount')),
            variables('dataDisks').caching )]",
          "diskSizeGB": 1023,
          ...
        }
      }
    ]
  }
]
```

- A. Mastered
- B. Not Mastered

**Answer: A**

**Explanation:**

Read onlyReadWrite

#### NEW QUESTION 272

- (Exam Topic 5)

You need to recommend a disaster recovery solution for an on-premises Microsoft SQL Server database. The solution must meet the following requirements:

- Support real-time data replication to a different geographic region.
- Use Azure as a disaster recovery target.
- Minimize costs and administrative effort.

What should you include in the recommendation?

- A. database mirroring on an instance of SQL Server on Azure Virtual Machines
- B. availability groups for SQL Server on Azure Virtual Machines
- C. an Azure SQL Managed Instance link
- D. transactional replication to an Azure SQL Managed Instance

**Answer:** D

**NEW QUESTION 277**

- (Exam Topic 5)  
You have a SQL Server on Azure Virtual Machines instance that hosts a database named Db1. You need to configure the autogrow and autoshrink settings for DB1.  
Which statements should you use? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Autogrow: 

ALTER DATABASE MODIFY File and Filegroup options

ALTER DATABASE SCOPED CONFIGURATION

ALTER DATABASE SET options

Autoshrink: 

ALTER DATABASE MODIFY File and Filegroup options

ALTER DATABASE SCOPED CONFIGURATION

ALTER DATABASE SET options

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**  
<https://learn.microsoft.com/en-us/troubleshoot/sql/admin/considerations-autogrow-autoshrink>

**NEW QUESTION 282**

- (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.



A. Mastered

B. Not Mastered

**Answer:** A

**Explanation:**

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

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 284**

- (Exam Topic 5)

You have 50 Azure SQL databases.

You need to notify the database owner when the database settings, such as the database size and pricing tier, are modified in Azure.

What should you do?

- A. Create a diagnostic setting for the activity log that has the Security log enabled.
- B. For the database, create a diagnostic setting that has the InstanceAndAppAdvanced metric enabled.
- C. Create an alert rule that uses a Metric signal type.
- D. Create an alert rule that uses an Activity Log signal type.

**Answer:** D

**Explanation:**

Activity log events - An alert can trigger on every event, or, only when a certain number of events occur. Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/alerts-insights-configure-portal>

**NEW QUESTION 287**

- (Exam Topic 5)

You have an Azure SQL managed instance that hosts multiple databases.

You need to configure alerts for each database based on the diagnostics telemetry of the database. What should you use?

- A. Azure SQL Analytics alerts based on metrics
- B. SQL Health Check alerts based on diagnostics logs
- C. SQL Health Check alerts based on metrics
- D. Azure SQL Analytics alerts based on diagnostics logs

**Answer:** D

**Explanation:**

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/metrics-diagnostic-telemetry-logging-streaming-expo>

**NEW QUESTION 292**

- (Exam Topic 5)

You have an on-premises Microsoft SQL Server 2019 instance named SQL1 that hosts a database named db1. You have an Azure subscription that contains an Azure SQL managed instance named MI1 and an Azure Storage account named storage1.

You need to ensure that you can back up db1 to storage1. The solution must meet the following requirements:

- \* Use block blob storage.
- \* Maximize security.

- A. Generate a shared access signature (SAS)
- B. Enable infrastructure encryption.
- C. Create an access policy.
- D. Rotate the storage keys

**Answer:** B

**NEW QUESTION 297**

- (Exam Topic 5)

You plan to move two 100-GB databases to Azure.

You need to dynamically scale resources consumption based on workloads. The solution must minimize downtime during scaling operations.

What should you use?

- A. An Azure SQL Database elastic pool
- B. SQL Server on Azure virtual machines
- C. an Azure SQL Database managed instance
- D. Azure SQL databases

**Answer:** A

**Explanation:**

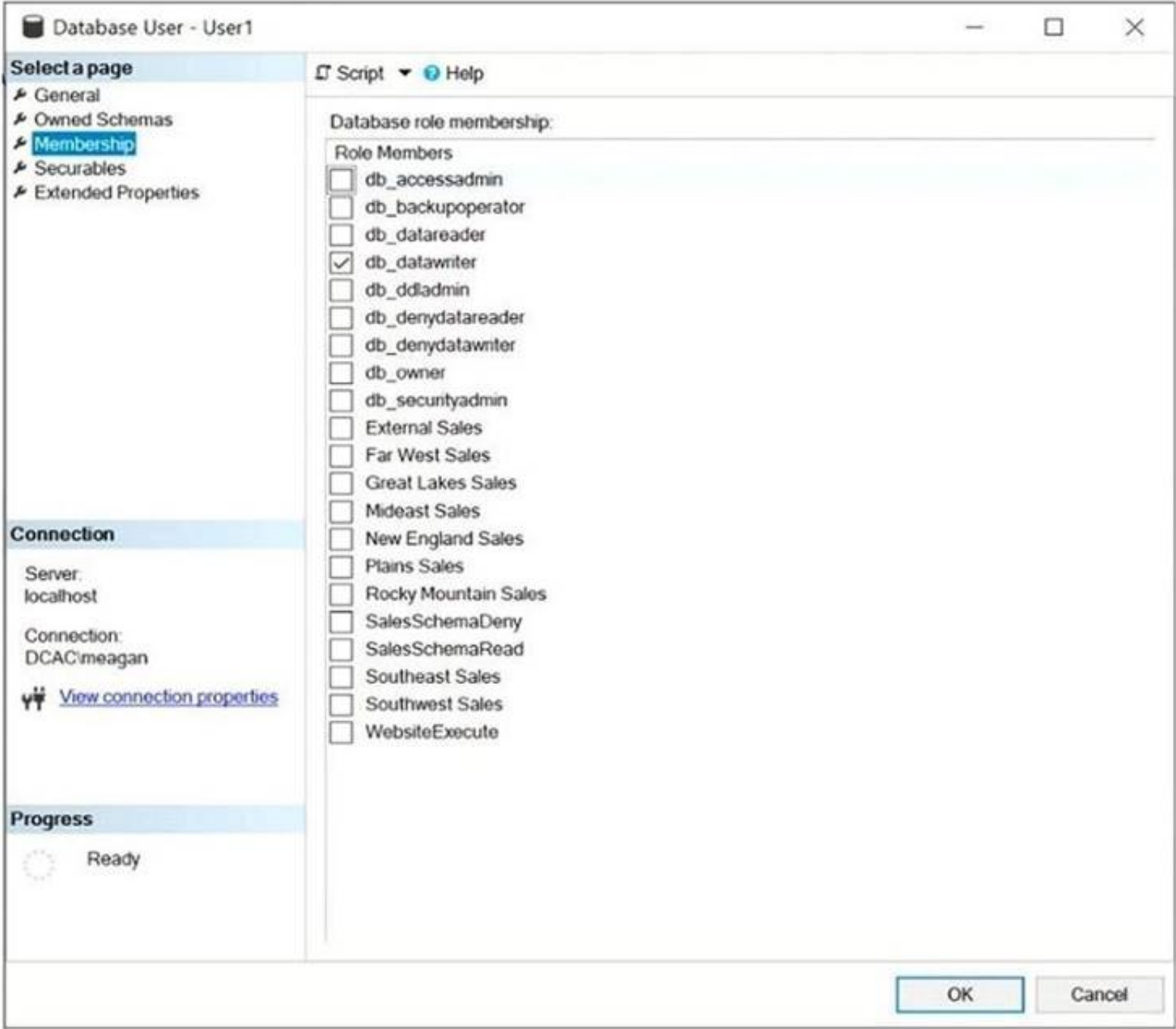


Azure SQL Database elastic pools are a simple, cost-effective solution for managing and scaling multiple databases that have varying and unpredictable usage demands. The databases in an elastic pool are on a single server and share a set number of resources at a set price.  
Reference:  
<https://docs.microsoft.com/en-us/azure/azure-sql/database/elastic-pool-overview>

NEW QUESTION 298

- (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 302**

- (Exam Topic 5)

You have an Azure SQL database named sqldb1.

You need to minimize the possibility of Query Store transitioning to a read-only state. What should you do?

- A. Halve the value of Data Flush Interval.
- B. Double the value of Statistics Collection Interval.
- C. Halve the value of Statistics Collection Interval.
- D. Double the value of Data Flush Interval.

**Answer:** A

**Explanation:**

The Max Size (MB) limit isn't strictly enforced. Storage size is checked only when Query Store writes data to disk. This interval is set by the Data Flush Interval (Minutes) option. If Query Store has breached the Maximum size limit between storage size checks, it transitions to read-only mode. Reference:  
<https://docs.microsoft.com/en-us/sql/relational-databases/performance/best-practice-with-the-query-store>

**NEW QUESTION 306**

- (Exam Topic 5)

You are planning a solution that will use Azure SQL Database. Usage of the solution will peak from October 1 to January 1 each year.

During peak usage, the database will require the following:

- > 24 cores
- > 500 GB of storage
- > 124 GB of memory
- > More than 50,000 IOPS

During periods of off-peak usage, the service tier of Azure SQL Database will be set to Standard. Which service tier should you use during peak usage?

- A. Business Critical
- B. Premium
- C. Hyperscale

**Answer:** A

**Explanation:**

Reference:  
<https://docs.microsoft.com/en-us/azure/azure-sql/database/resource-limits-vcore-single-databases#business-critic>

**NEW QUESTION 309**

- (Exam Topic 5)

You have a burstable Azure virtual machine named VMI that hosts an instance of Microsoft SQL Server. You need to attach an Azure ultra disk to VMI. The solution must minimize downtime on VMI.

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

Actions

Attach the ultra disk.

Stop and deallocate VM1.

Set Enable Ultra disk compatibility to **Yes**.

Resize VM1.

Start VM1.

Answer Area

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

**Actions**

Attach the ultra disk.
Stop and deallocate VM1.
Set Enable Ultra disk compatibility to <b>Yes</b> .
Resize VM1.
Start VM1.

**Answer Area**

Stop and deallocate VM1.
Attach the ultra disk.
Set Enable Ultra disk compatibility to <b>Yes</b> .
Resize VM1.
Start VM1.

**NEW QUESTION 313**

- (Exam Topic 5)

You have an on-premises app named App1 that stores data in an on-premises Microsoft SQL Server 2016 database named DB1. You plan to deploy additional instances of App1 to separate Azure regions. Each region will have a separate instance of App1 and DB1. The separate instances of DB1 will sync by using Azure SQL Data Sync. You need to recommend a database service for the deployment. The solution must minimize administrative effort. What should you include in the recommendation?

- A. Azure SQL Managed instance
- B. Azure SQL Database single database
- C. Azure Database for PostgreSQL
- D. SQL Server on Azure virtual machines

**Answer:** B

**Explanation:**

Azure SQL Database single database supports Data Sync. Reference:  
<https://docs.microsoft.com/en-us/azure/azure-sql/database/features-comparison>

**NEW QUESTION 317**

- (Exam Topic 5)

From a website analytics system, you receive data extracts about user interactions such as downloads, link clicks, form submissions, and video plays. The data contains the following columns:

Name	Sample value
Date	15 Jan 2021
EventCategory	Videos
EventAction	Play
EventLabel	Contoso Promotional
ChannelGrouping	Social
TotalEvents	150
UniqueEvents	120
SessionsWithEvents	99

You need to design a star schema to support analytical queries of the data. The star schema will contain four tables including a date dimension. To which table should you add each column? To answer, select the appropriate options in the answer area.  
 NOTE:Each correct selection is worth one point.

EventCategory:  ▼

DimChannel
DimDate
DimEvent
FactEvents

ChannelGrouping:  ▼

DimChannel
DimDate
DimEvent
FactEvents

TotalEvents:  ▼

DimChannel
DimDate
DimEvent
FactEvents

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Graphical user interface, application, table Description automatically generated

Box 1: FactEvents

Fact tables store observations or events, and can be sales orders, stock balances, exchange rates, temperatures, etc.

Box 2: DimChannel

Dimension tables describe business entities – the things you model. Entities can include products, people, places, and concepts including time itself. The most consistent table you'll find in a star schema is a date dimension table. A dimension table contains a key column (or columns) that acts as a unique identifier, and descriptive columns.

Box 3: DimEvent Reference:

<https://docs.microsoft.com/en-us/power-bi/guidance/star-schema>

**NEW QUESTION 318**

- (Exam Topic 4)

You need to design a data retention solution for the Twitter feed data records. The solution must meet the customer sentiment analytics requirements.

Which Azure Storage functionality should you include in the solution?

- A. time-based retention
- B. change feed
- C. lifecycle management
- D. soft delete

**Answer:** C

**Explanation:**

The lifecycle management policy lets you:

Delete blobs, blob versions, and blob snapshots at the end of their lifecycles Reference:

<https://docs.microsoft.com/en-us/azure/storage/blobs/storage-lifecycle-management-concepts>

**NEW QUESTION 320**

- (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 325

- (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 330

- (Exam Topic 2)

You need to implement a solution to notify the administrators. The solution must meet the monitoring requirements.

What should you do?

- A. Create an Azure Monitor alert rule that has a static threshold and assign the alert rule to an action group.
- B. Add a diagnostic setting that logs QueryStoreRuntimeStatistics and streams to an Azure event hub.
- C. Add a diagnostic setting that logs Timeouts and streams to an Azure event hub.
- D. Create an Azure Monitor alert rule that has a dynamic threshold and assign the alert rule to an action group.

**Answer: D**

#### Explanation:

Reference:

<https://azure.microsoft.com/en-gb/blog/announcing-azure-monitor-aiops-alerts-with-dynamic-thresholds/>

### NEW QUESTION 334

- (Exam Topic 2)

You are evaluating the role assignments.

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
DBAGroup1 will be able to sign in to each customer's Azure SQL database by using Azure Data Studio.	<input type="radio"/>	<input type="radio"/>
DBAGroup1 will be able to assign the SQL DB Contributor role to other users.	<input type="radio"/>	<input type="radio"/>
DBAGroup2 will be able to create a new Azure SQL database on each customer's Azure SQL Database server.	<input type="radio"/>	<input type="radio"/>

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Box 1: Yes

DBAGroup1 is member of the Contributor role.

The Contributor role grants full access to manage all resources, but does not allow you to assign roles in Azure RBAC, manage assignments in Azure Blueprints, or share image galleries.

Box 2: No

Box 3: Yes

DBAGroup2 is member of the SQL DB Contributor role.

The SQL DB Contributor role lets you manage SQL databases, but not access to them. Also, you can't manage their security-related policies or their parent SQL servers. As a member of this role you can create and manage SQL databases.

Reference:

<https://docs.microsoft.com/en-us/azure/role-based-access-control/built-in-roles>

**NEW QUESTION 336**

- (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 340**

- (Exam Topic 2)

What should you use to migrate the PostgreSQL database?

- A. Azure Data Box
- B. AzCopy
- C. Azure Database Migration Service
- D. Azure Site Recovery

**Answer:** C

**Explanation:**

Reference:

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

**NEW QUESTION 345**

- (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 347**

- (Exam Topic 1)

You are planning the migration of the SERVER1 databases. The solution must meet the business requirements.

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

Azure Database Migration Service pricing tier:

	▼
Standard 2-vCore	
Standard 4-vCore	
Premium 4-vCore	

Required Azure resource:

	▼
A virtual network that has service endpoints	
A VPN gateway	
An Azure Logic app	

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Azure Database Migration service Box 1: Premium 4-VCore

Scenario: Migrate the SERVER1 databases to the Azure SQL Database platform.

➤ Minimize downtime during the migration of the SERVER1 databases.

Premium 4-vCore is for large or business critical workloads. It supports online migrations, offline migrations, and faster migration speeds.

Reference: <https://azure.microsoft.com/pricing/details/database-migration/>

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

**NEW QUESTION 352**

- (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:** B

**NEW QUESTION 354**

- (Exam Topic 1)

You need to implement the monitoring of SalesSQLDb1. The solution must meet the technical requirements. How should you collect and stream metrics? To answer, select the appropriate options in the answer area. NOTE:Each correct selection is worth one point.

Collect metrics from:

	▼
The database only	
The elastic pool and the database	
The elastic pool only	
The server, the elastic pool, and the database	

Stream metrics to:

	▼
Azure Event Hubs	
Azure Log Analytics	
Azure Storage	

- A. Mastered

B. Not Mastered

**Answer:** A

**Explanation:**

Box 1: The server, the elastic pool, and the database

Senario:

SalesSQLDb1 is in an elastic pool named SalesSQLDb1Pool.

Litware technical requirements include: all SQL Server and Azure SQL Database metrics related to CPU and storage usage and limits must be analyzed by using Azure built-in functionality.

Box 2: Azure Event hubs

Scenario: Migrate ManufacturingSQLDb1 to the Azure virtual machine platform. Event hubs are able to handle custom metrics.

**NEW QUESTION 357**

- (Exam Topic 1)

You need to provide an implementation plan to configure data retention for ResearchDB1. The solution must meet the security and compliance requirements.

What should you include in the plan?

- A. Configure the Deleted databases settings for ResearchSrvOL
- B. Deploy and configure an Azure Backup server.
- C. Configure the Advanced Data Security settings for ResearchDBL
- D. Configure the Manage Backups settings for ResearchSrvOL

**Answer:** D

**Explanation:**

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/long-term-backup-retention-configure>

**NEW QUESTION 361**

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