

# Microsoft

## Exam Questions DP-300

Administering Relational Databases on Microsoft Azure (beta)



NEW QUESTION 1

- (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 2

- (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 3

- (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](#)

SettingDisconnect

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 4

- (Exam Topic 5)

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

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

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

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

produce one row in the serving layer of Table1.  
You need to ensure that when the source data files are loaded to container1, the DateTime is stored as an additional column in Table1.  
Solution: You use a dedicated SQL pool to create an external table that has an additional DateTime column. Does this meet the goal?

- A. Yes
- B. No

**Answer:** B

**Explanation:**  
Instead use a serverless SQL pool to create an external table with the extra column.  
Note: In dedicated SQL pools you can only use Parquet native external tables. Native external tables are generally available in serverless SQL pools.  
Reference:  
<https://docs.microsoft.com/en-us/azure/synapse-analytics/sql/create-use-external-tables>

**NEW QUESTION 5**

- (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 6**

- (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 7**

- (Exam Topic 5)  
You have an instance of SQL Server on Azure Virtual Machines named SQL1. SQL1 contains a database named DB1.  
You need to enable Transparent Data Encryption (TDE) for DB1.  
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.

Objects

a database encryption key in the master database

a master key in DB1

a certificate in DB1

a master key in the master database

a certificate in the master database

a database encryption key in DB1

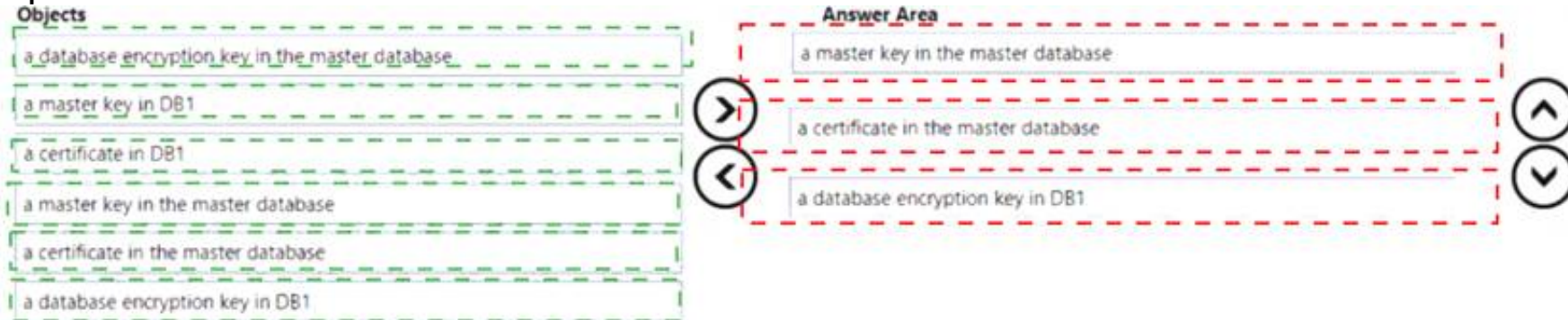
Answer Area

- A. Mastered
- B. Not Mastered

**Answer:** A



**Explanation:**



**NEW QUESTION 8**

- (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 9**

- (Exam Topic 5)

You have an Azure Data Lake Storage Gen2 container.

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

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

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

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

NOTE: Each correct selection is worth one point.

Five-year-old data:

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

Seven-year-old data:

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

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Text, table Description automatically generated

Box 1: Move to cool storage

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

Short-term backup and disaster recovery

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

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

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

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

Box 2: Move to archive storage

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

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

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

**NEW QUESTION 10**

- (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 16 vCPUSs 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:** D

**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 10**

- (Exam Topic 5)

You have an Azure SQL database named DB1. You run a query while connected to DB1.

You review the actual execution plan for the query, and you add an index to a table referenced by the query. You need to compare the previous actual execution plan for the query to the Live Query Statistics.

What should you do first in Microsoft SQL Server Management Studio (SSMS)?

- A. For DB1, set QUERY\_CAPTURE\_MODE of Query Store to All.
- B. Run the SET SHOWPLAN\_ALL Transact-SQL statement.
- C. Save the actual execution plan.
- D. Enable Query Store for DB1.

**Answer:** C

**Explanation:**

The Plan Comparison menu option allows side-by-side comparison of two different execution plans, for easier identification of similarities and changes that explain the different behaviors for all the reasons stated above.

This option can compare between:

Two previously saved execution plan files (.sqlplan extension).

One active execution plan and one previously saved query execution plan. Two selected query plans in Query Store.

**NEW QUESTION 13**

- (Exam Topic 5)

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

Which isolation level should you configure?

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

**Answer:** B

**Explanation:**

Reference:

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

**NEW QUESTION 16**

- (Exam Topic 5)

You plan to migrate on-premises Microsoft SQL Server databases to Azure.

You need to identify which deployment and resiliency options meet the following requirements:

- Support user-initiated backups.
- Support multiple automatically replicated instances across Azure regions.
- Minimize administrative effort to implement and maintain business continuity. What should you identify? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Deployment option:

	▼
Azure SQL Managed Instance	
SQL Server on Azure Virtual Machines	
An Azure SQL Database single database	

Resiliency option:

	▼
Auto-failover group	
Active geo-replication	
Zone-redundant deployment	

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Box 1: SQL Server on Azure VMs

SQL Server on Azure Virtual Machines can take advantage of Automated Backup, which regularly creates backups of your database to blob storage. You can also manually use this technique.

Box 2: Active geo-replication

Geo-replication for services such as Azure SQL Database and Cosmos DB will create secondary replicas of your data across multiple regions. While both services will automatically replicate data within the same region, geo-replication protects you against a regional outage by enabling you to fail over to a secondary region.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/virtual-machines/windows/sql-server-on-azure-vm-iaas-what-i> <https://docs.microsoft.com/en-us/dotnet/architecture/cloud-native/infrastructure-resiliency-azure>

**NEW QUESTION 21**

- (Exam Topic 5)

You have an Azure SQL Database managed instance named SQLMI1. A Microsoft SQL Server Agent job runs on SQLMI1.

You need to ensure that an automatic email notification is sent once the job completes. What should you include in the solution?

- A. From SQL Server Configuration Manager (SSMS), enable SQL Server Agent
- B. From SQL Server Management Studio (SSMS), runsp\_set\_sqlagent\_properties
- C. From SQL Server Management Studio (SSMS), create a Database Mail profile
- D. From the Azure portal, create an Azure Monitor action group that has an Email/SMS/Push/Voice action

**Answer:** C

**Explanation:**

To send a notification in response to an alert, you must first configure SQL Server Agent to send mail. Using SQL Server Management Studio; to configure SQL Server Agent to use Database Mail:

- In Object Explorer, expand a SQL Server instance.
- Right-click SQL Server Agent, and then click Properties.
- Click Alert System.
- Select Enable Mail Profile.
- In the Mail system list, select Database Mail.
- In the Mail profile list, select a mail profile for Database Mail.
- Restart SQL Server Agent.

Note: Prerequisites include:

- Enable Database Mail.
- Create a Database Mail account for the SQL Server Agent service account to use.
- Create a Database Mail profile for the SQL Server Agent service account to use and add the user to the DatabaseMailUserRole in the msdb database.
- Set the profile as the default profile for the msdb database. Reference:

<https://docs.microsoft.com/en-us/sql/relational-databases/database-mail/configure-sql-server-agent-mail-to-use-d>

**NEW QUESTION 24**

- (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 29

- (Exam Topic 5)

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

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

Answer: D

Explanation:

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

NEW QUESTION 32

- (Exam Topic 5)

You have SQL Server on an Azure virtual machine that contains a database named DB1. DB1 is 30 TB and has a 1-GB daily rate of change. You back up the database by using a Microsoft SQL Server Agent job that runs Transact-SQL commands. You perform a weekly full backup on Sunday, daily differential backups at 01:00, and transaction log backups every five minutes. The database fails on Wednesday at 10:00. Which three backups should you restore in sequence? To answer, move the appropriate backups from the list of backups to the answer area and arrange them in the correct order.

Actions

Monday, Tuesday, and then Wednesday differential backups

Wednesday, Tuesday, and then Monday log backups

full backup

Monday, Tuesday, and then Wednesday log backups

Wednesday, Tuesday, and then Monday differential backups

Wednesday log backups

Wednesday differential backup

Answer Area

>

<

↑

↓

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



### Actions

Monday, Tuesday, and then Wednesday differential backups

Wednesday, Tuesday, and then Monday log backups

full backup

Monday, Tuesday, and then Wednesday log backups

Wednesday, Tuesday, and then Monday differential backups

Wednesday log backups

Wednesday differential backup

### Answer Area

full backup

➤

Wednesday differential backup

⬅

⬆

Wednesday log backups

⬆

### NEW QUESTION 35

- (Exam Topic 5)

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

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

The records contain two applicants at most.

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

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

NOTE:Each correct selection is worth one point.

▼ applications

CREATE EXTERNAL TABLE

CREATE TABLE

CREATE VIEW

```
WITH (
  LOCATION = 'applications/',
  DATA_SOURCE = applications_ds,
  FILE_FORMAT = applications_file_format
)
AS
SELECT id, [address_housenumber] as addressnumber, [address_line1]
as addressline1
FROM
```

▼ (BULK 'https://contoso1.dfs.core.windows.net/applications/year=\*/,\*.parquet',

CROSS APPLY

OPENJSON

OPENROWSET

```
FORMAT = 'PARQUET') AS [r]
GO
```

- A. Mastered
- B. Not Mastered

**Answer: A**

### Explanation:

Graphical user interface, text, application Description automatically generated

#### Box 1: CREATE EXTERNAL TABLE

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

Syntax:

```
CREATE EXTERNAL TABLE { database_name.schema_name.table_name | schema_name.table_name | table_name }
```

```
( <column_definition> [ ,...n ] ) WITH (
```

```
LOCATION = 'folder_or_filepath', DATA_SOURCE = external_data_source_name, FILE_FORMAT = external_file_format_name
```

Box 2. OPENROWSET  
When using serverless SQL pool, CETAS is used to create an external table and export query results to Azure Storage Blob or Azure Data Lake Storage Gen2.

Example: AS

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

```
OPENROWSET(BULK
```

```
'https://azureopendatastorage.blob.core.windows.net/censusdatacontainer/release/us_population_county/year=*/
```

```
FORMAT='PARQUET') AS [r]
```

```
GROUP BY decennialTime, stateName GO
```

Reference:

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

#### NEW QUESTION 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 44

- (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	
TODATETIMEOFFSET	

(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 45

- (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 create additional tempdb files. Does this meet the goal?

A. Yes

B. No

**Answer: A**

**Explanation:**

Reference:

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

#### NEW QUESTION 49

- (Exam Topic 5)

You have the following Transact-SQL query.

```
SELECT
    [file_id] AS [File ID],
    [type] AS [File Type],
    substring([physical_name], 1,1) AS [Drive],
    [name] AS [Logical Name],
    [physical_name] AS [Physical Name],
    CAST([size] as DECIMAL(38,0))/128.0 AS [ColumnA],
    CAST(FILEPROPERTY([name], 'SpaceUsed') AS DECIMAL(38,0))/128.0 AS
[ColumnB],
    (CAST([size] AS DECIMAL(38,0))/128.0) - (CAST(FILEPROPERTY([name],
'SpaceUsed') AS DECIMAL (38,0))/128.0) AS [ColumnC],
    [max_size] AS [ColumnD],
    [is_percent_growth] AS [Percent Growth Enabled],
    [growth] AS [Growth Rate],
    SYSDATETIME() AS [Current Date]
FROM sys.database_files;
```

Which column returned by the query represents the free space in each file?

A. ColumnA

B. ColumnB

C. ColumnC

D. ColumnD

**Answer: C**

**Explanation:**

Example:

Free space for the file in the below query result set will be returned by the FreeSpaceMB column.

`SELECT DB_NAME() AS DbName,`

`name AS FileName,`

`type_desc,`

`size/128.0 AS CurrentSizeMB,`

`size/128.0 - CAST(FILEPROPERTY(name, 'SpaceUsed') AS INT)/128.0 AS FreeSpaceMB`

`FROM sys.database_files`

`WHERE type IN (0,1);`

Reference:

<https://www.sqlshack.com/how-to-determine-free-space-and-file-size-for-sql-server-databases/>

#### NEW QUESTION 54

- (Exam Topic 5)

You have an Azure SQL managed instance.

You need to restore a database named DB1 by using Transact-SQL.

Which command should you run? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

RESTORE	<div><div></div><div>DATABASE</div><div>FILE</div><div>LOG</div></div>	DB1 FROM	<div><div></div><div>DISK = N'\\NAS01\$SQLBackups\DB1.bak';</div><div>TAPE = N'\\Tape0'</div><div>URL = N'https://mybackups.blob.core.windows.net/bkups/DB1.bak'</div></div>
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- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**  
Text Description automatically generated

**NEW QUESTION 58**

- (Exam Topic 5)  
You have SQL Server on an Azure virtual machine.  
You need to add a 4-TB volume that meets the following requirements:

- Maximizes IOPs
- Uses premium solid state drives (SSDs)

What should you do?

- A. Attach two mirrored 4-TB SSDs.
- B. Attach a stripe set that contains four 1-TB SSDs.
- C. Attach a RAID-5 array that contains five 1-TB SSDs.
- D. Attach a single 4-TB SSD.

**Answer:** B

**Explanation:**  
Reference:  
<https://docs.microsoft.com/en-us/azure/azure-sql/virtual-machines/windows/storage-configuration?tabs=window>

**NEW QUESTION 63**

- (Exam Topic 5)  
You have an Azure subscription that contains an Azure SQL managed instance named SQLMi1 and a SQL Agent job named Backupdb. Backupdb performs a daily backup of the databases hosted on SQLMi1.  
You need to be notified by email if the job fails.  
Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.  
NOTE:More than one order of answer choices is correct. You will receive credit for any of the correct orders you select.

Actions

Create a SQL Server Agent alert.

Create an operator.

Create an extended event.

Enable Database Mail.

Add a failure notification to the job.

Answer Area

⏪

⏩

⏴

⏵

- A. Mastered
- B. Not Mastered

**Answer:** A

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

**NEW QUESTION 67**

- (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 71

- (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 75

- (Exam Topic 5)

You have an Azure subscription that contains a SQL Server on Azure Virtual Machines instance named SQLVMI. SQLVMI hosts a database named OBI.

You need to retrieve query plans from the Query Store on DBI. What should you do first?

- A. On SQLVM1, install the SQL Server IaaS Agent extension.
- B. From Microsoft SQL Server Management Studio, modify the properties of the SQL Server instance.
- C. From Microsoft SQL Server Management Studio, modify the properties of DB 1.
- D. On SQLVM1, install the Azure Monitor agent for Windows.

**Answer: B**

**NEW QUESTION 80**

- (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 84**

- (Exam Topic 5)

You have an Azure subscription that contains 50 instances of SQL Server on Azure Virtual Machines. The instances host 500 Azure SQL databases. You need to ensure that all the databases have the same configuration. The solution must meet the following requirements:

- Auditing must be enabled.
- Azure Defender must be enabled.
- Public network access must be disabled.
- Administrative effort must be minimized.

Which two resources should you create in the subscription? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

- A. an Azure Policy assignment
- B. an Azure Automation account
- C. an Azure Policy initiative
- D. an Azure Automation runbook
- E. an Azure Policy definition

**Answer:** CE

**NEW QUESTION 89**

- (Exam Topic 5)

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

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

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

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

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

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

Does this meet the goal?

- A. Yes
- B. No

**Answer:** A

**Explanation:**

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

Reference:

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

**NEW QUESTION 90**

- (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 95**

- (Exam Topic 5)

You have an Azure subscription that contains an Azure SQL database named SQLDb1. SQLDb1 contains a table named Table1.

You plan to deploy an Azure web app named webapp1 that will export rows in Table1 that have changed. You need to ensure that webapp1 can identify the changes to Table1. The solution must meet the following requirements:

- Minimize compute times.
- Minimize storage.

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**

From webapp1, connect to SQLDb1, obtain the initial dataset, and run the `CHANGETABLE()` function.

Connect to SQLDb1 and run the following Transact-SQL statement.  
`ALTER DATABASE SQLDb1 SET CHANGE_TRACKING = ON`

From webapp1, connect to SQLDb1, obtain the initial dataset, and run the `CHANGE_TRACKING_CURRENT_VERSION()` function.

Connect to SQLDb1 and run the following Transact-SQL statement.  
`EXEC sys.sp_cdc_enable_table`

Connect to SQLDb1 and run the following Transact-SQL statement.  
`EXEC sys.sp_cdc_enable_db`

Connect to SQLDb1 and run the following Transact-SQL statement.  
`ALTER TABLE dbo.Table1 ENABLE CHANGE_TRACKING`

**Answer Area**

- A. Mastered  
B. Not Mastered

**Answer:** A

**Explanation:**

Graphical user interface, text, application Description automatically generated

**NEW QUESTION 100**

- (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 103**

- (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

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];

Answer Area

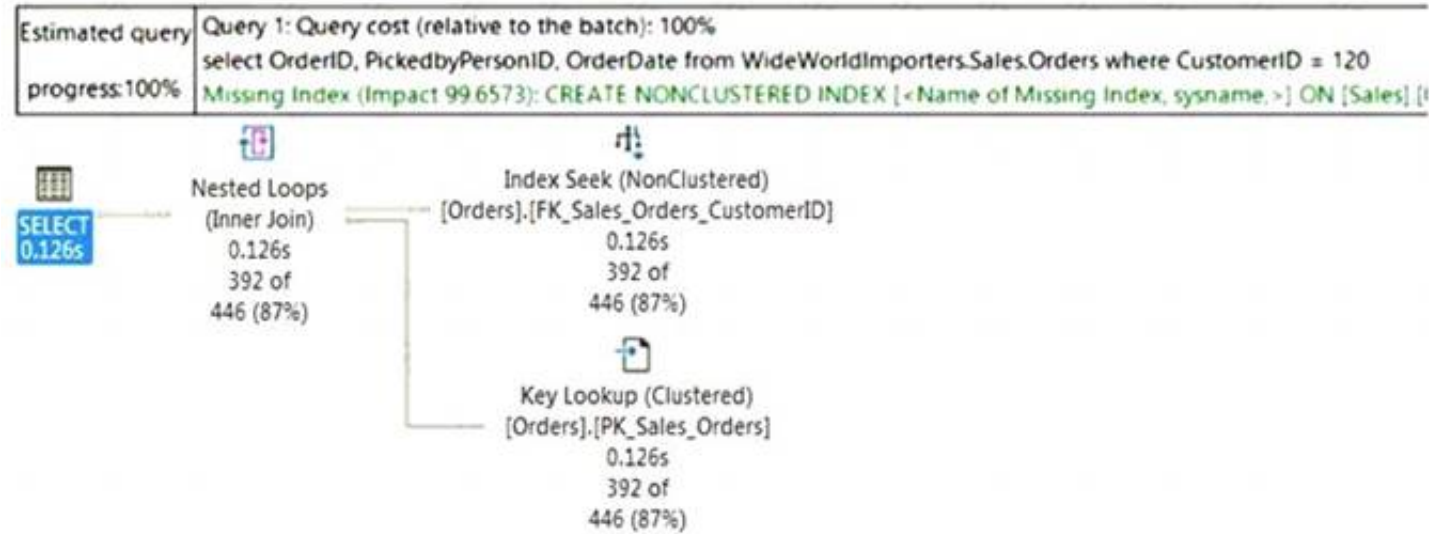
- A. Mastered
- B. Not Mastered

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 108

- (Exam Topic 5)  
You have an Azure SQL database.  
You are reviewing a slow performing query 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 exhibit shows [answer choice].

- an actual execution plan
- an estimated execution plan
- Live Query Statistics

The [answer choice] operator in the execution plan indicates that the query would benefit from performance tuning.

- Index Seek
- Key Lookup
- Nested Loops

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

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

Reference:

<https://docs.microsoft.com/en-us/sql/relational-databases/performance/live-query-statistics?view=sql-server-ver>

NEW QUESTION 110

- (Exam Topic 5)

You have an Azure subscription that contains a logical SQL server. The server hosts two databases named db1 and db2 and an Azure AD service principal named appl.

You need to ensure that appl can access db1. The solution must use the principle of least privilege. 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.

Answer Area

CREATE

- CREDENTIAL
- LOGIN
- USER

[app1]

- FOR LOGIN app1
- FROM EXTERNAL PROVIDER
- FROM LOGIN app1
- WITHOUT LOGIN

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Answer Area

CREATE

- CREDENTIAL
- LOGIN
- USER

[app1]

- FOR LOGIN app1
- FROM EXTERNAL PROVIDER
- FROM LOGIN app1
- WITHOUT LOGIN

NEW QUESTION 111

- (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: MAX(<Total number of DBs X average vCore utilization per DB>, <Number of concurrently peaking DBs X 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 113**

- (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?

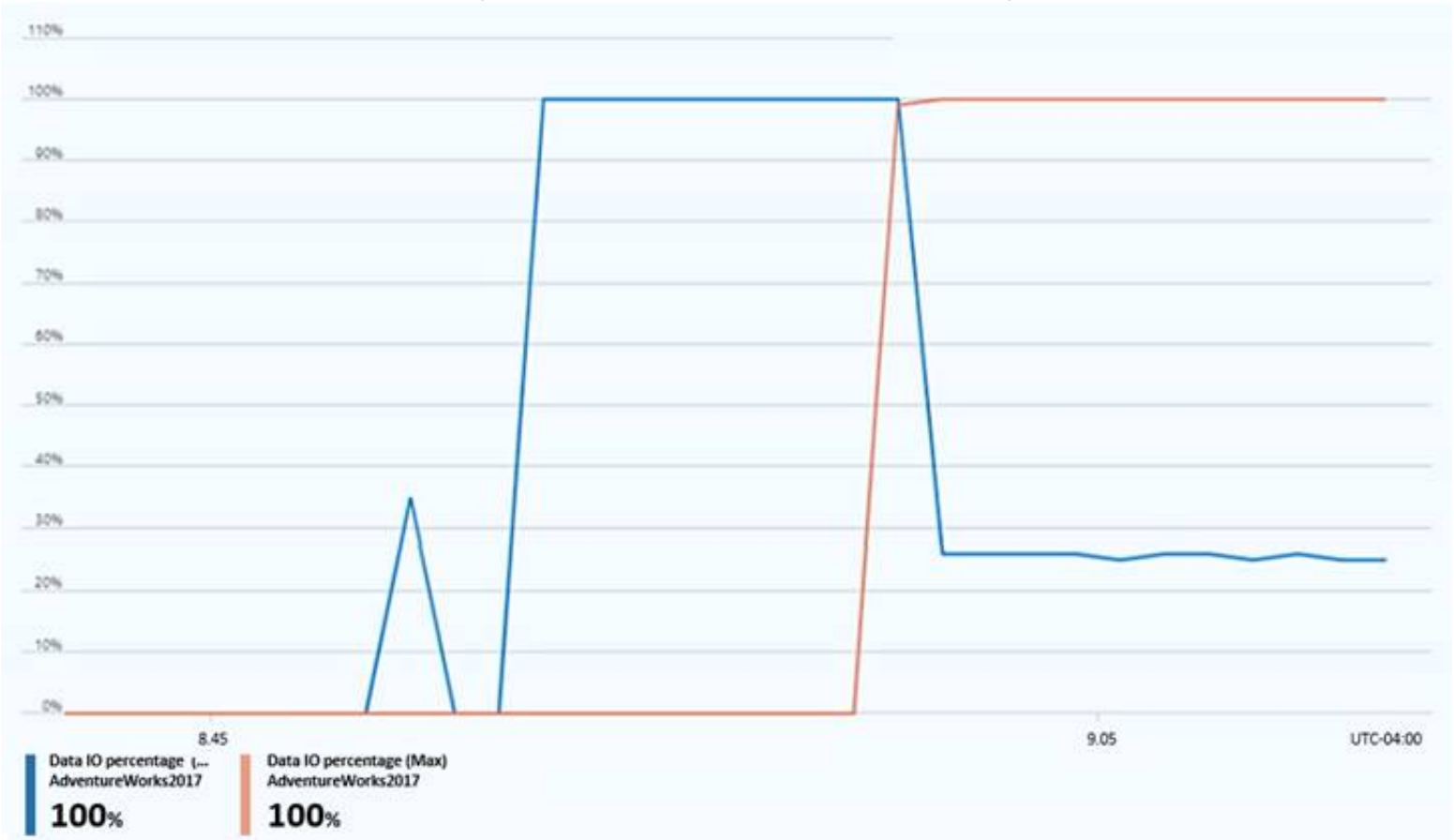
- A. log to table
- B. email notifications
- C. schedules
- D. output files

**Answer:** D

**NEW QUESTION 118**

- (Exam Topic 5)

You have an Azure SQL database named DB1 that contains a table named Table 1. You run a query to load data into Table1. The performance metrics of Table1 during the load operation are 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.

**Answer Area**

To reduce how long it takes to complete the query you must [answer choice].

▼

scale the resource  
 use an elastic resource  
 perform query tuning

To reduce the log IO load of the operation, the query must be updated to use [answer choice] table.

▼

a temporary  
 an In-Memory OTLP durable  
 an In-Memory OTLP non durable

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

**Answer Area**

To reduce how long it takes to complete the query you must [answer choice].

scale the resource  
use an elastic resource  
perform query tuning

To reduce the log IO load of the operation, the query must be updated to use [answer choice] table.

a temporary  
an In-Memory OLTP durable  
an In-Memory OLTP non durable

#### NEW QUESTION 122

- (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 124

- (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 run theRemove-AzSqlDatabasePowerShell cmdlet for Database1 on Server2. You run theRestore-AzSqlDatabasePowerShell cmdlet for Database1 on Server2.

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 125

- (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 129**

- (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 130**

- (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 135**

- (Exam Topic 5)

You configure backups 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? ⓘ



### 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:

#### Monthly LTR Backups

Keep the first backup of each month for:

#### Yearly LTR Backups

Keep an annual backup for:

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

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.

### Answer Area

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

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

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

- 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]

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

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

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

NEW QUESTION 136

- (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 138

- (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 142

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

- > The web app must be hosted on an Azure virtual network.
- > The Azure SQL database must be assigned a private IP address.
- > The Azure SQL database must allow connections only from the virtual network. You need to recommend a solution that meets the requirements.

What should you include in the recommendation?

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

**Answer:** A

**Explanation:**

Reference:

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

**NEW QUESTION 146**

- (Exam Topic 5)

You have an Azure Synapse Analytics dedicated SQL pool named Pool1 and a database named DB1. DB1 contains a fact table named Table. You need to identify the extent of the data skew in Table1. What should you do in Synapse Studio?

- A. Connect to Pool1 and query sys.dm\_pdw\_nodes\_db\_partition\_stats.
- B. Connect to the built-in pool and run DBCC CHECKALLOC.
- C. Connect to Pool1 and run DBCC CHECKALLOC.
- D. Connect to the built-in pool and query sys.dm\_pdw\_nodes\_db\_partition\_stats.

**Answer:** D

**Explanation:**

Use sys.dm\_pdw\_nodes\_db\_partition\_stats to analyze any skewness in the data. Reference:

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

**NEW QUESTION 147**

- (Exam Topic 5)

You have an Azure virtual machine named VM1 that runs Windows Server 2022 and hosts a Microsoft SQL Server 2019 instance named SQL1. You need to configure SQL! to use mixed mode authentication. Which procedure should you run?

- A. sp\_addremotelogin
- B. xp\_instance\_regwrite
- C. sp\_cnarge\_users\_login
- D. xp\_grant\_login

**Answer:** B

**NEW QUESTION 150**

- (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:

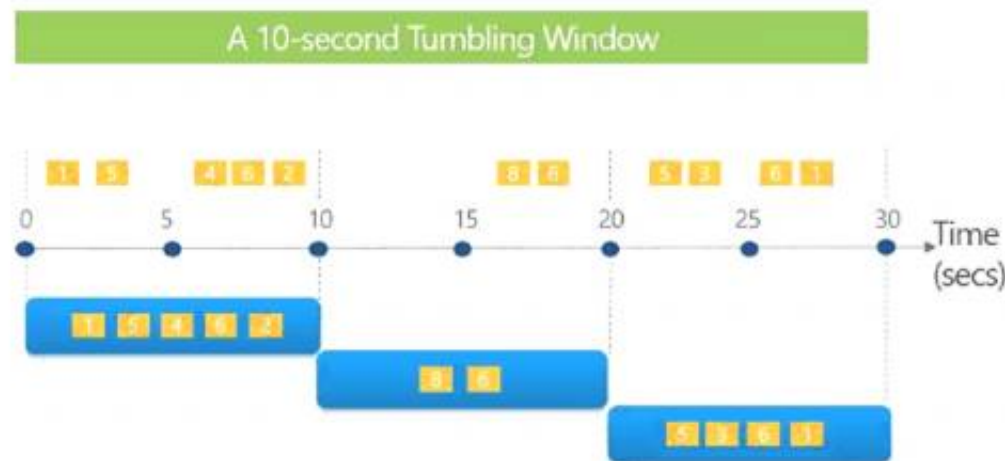


TopOne() OVER ([<PARTITION BY clause>] ORDER BY (<column name> [ASC |DESC])+ <LIMIT  
 DURATION clause> [<WHEN clause>])

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-](https://github.com/MicrosoftDocs/azure-docs/blob/master/articles/stream-analytics/stream-analytics-window-fun)

**NEW QUESTION 151**

- (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**

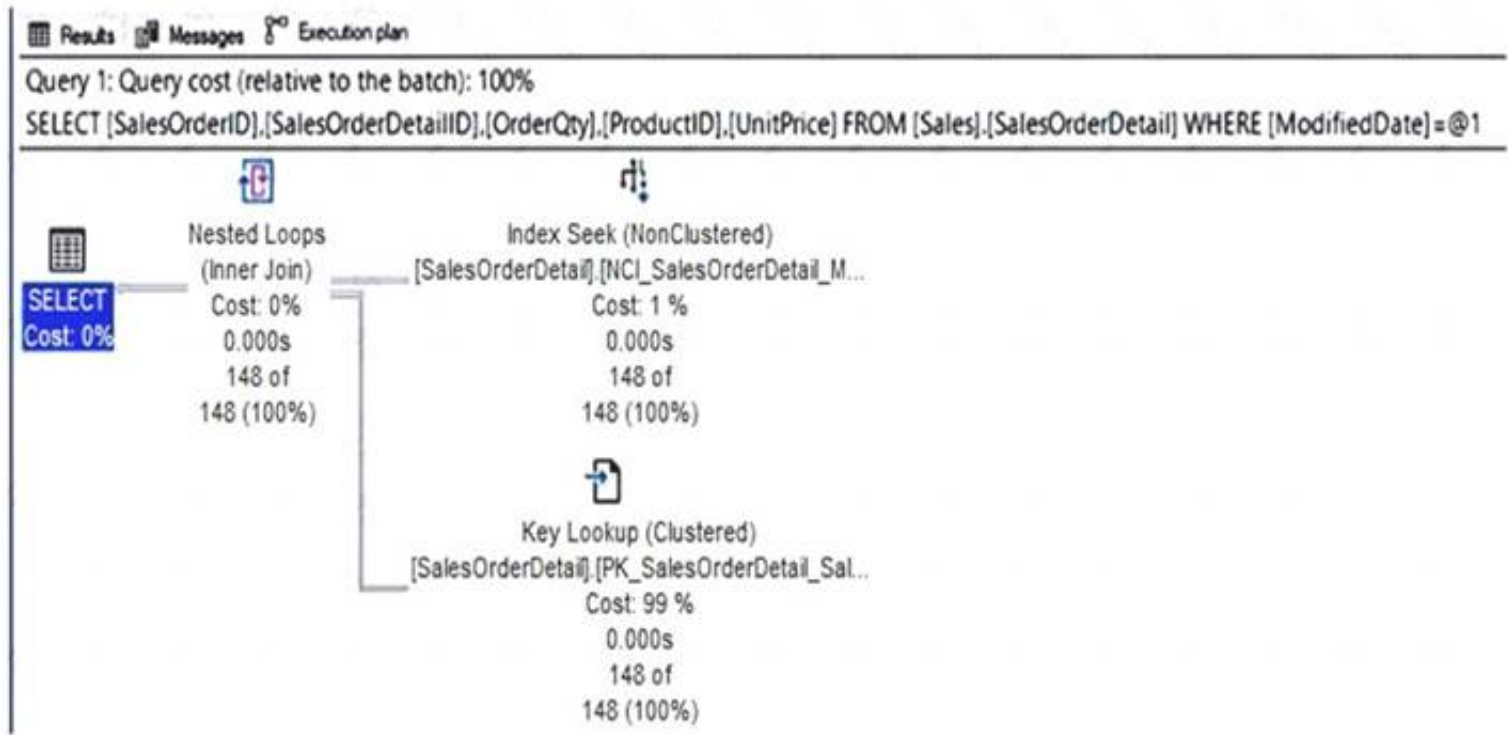
**Explanation:**

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 153**

- (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 154**

- (Exam Topic 5)

You have an Azure Synapse Analytics workspace named WS1 that contains an Apache Spark pool named Pool1.

You plan to create a database named DB1 in Pool1.

You need to ensure that when tables are created in DB1, the tables are available automatically as external tables to the built-in serverless SQL pool.

Which format should you use for the tables in DB1?

- A. JSON
- B. CSV
- C. Parquet
- D. ORC

**Answer:** C

**Explanation:**

Serverless SQL pool can automatically synchronize metadata from Apache Spark. A serverless SQL pool database will be created for each database existing in serverless Apache Spark pools.

For each Spark external table based on Parquet and located in Azure Storage, an external table is created in a serverless SQL pool database. As such, you can shut down your Spark pools and still query Spark external tables from serverless SQL pool.

Reference:

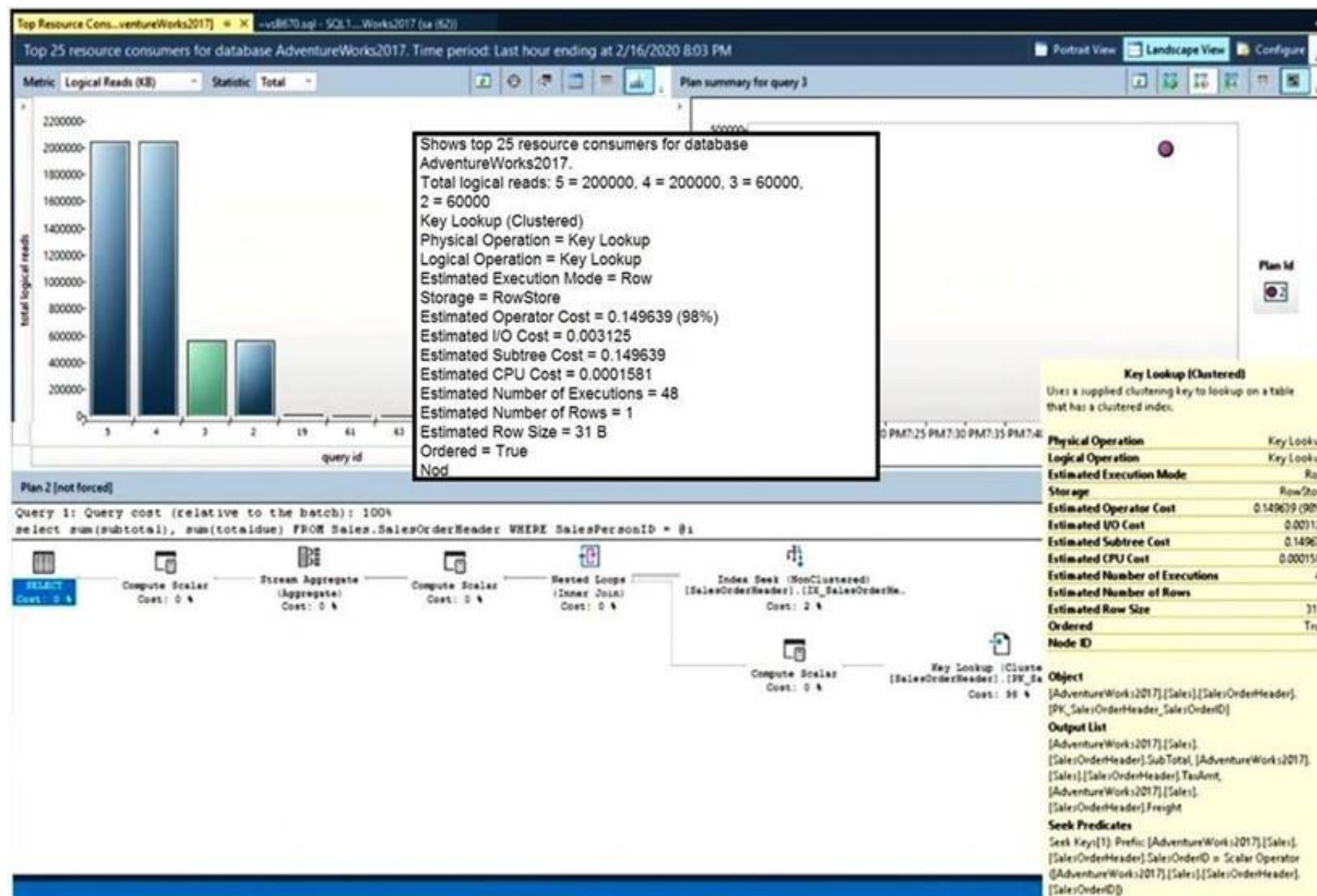
<https://docs.microsoft.com/en-us/azure/synapse-analytics/sql/develop-storage-files-spark-tables>

**NEW QUESTION 158**

- (Exam Topic 5)

You have SQL Server on an Azure virtual machine.

You review the query plan shown in the following exhibit.



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

### Statements

Yes

No

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

☐
☐

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

☐
☐

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

☐
☐

A. Mastered  
 B. Not Mastered

**Answer: A**

**Explanation:**

Reference:

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

### NEW QUESTION 163

- (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.



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

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

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Graphical user interface, text Description automatically generated

**NEW QUESTION 166**

- (Exam Topic 5)

You have an Azure Synapse Analytics Apache Spark pool named Pool1.

You plan to load JSON files from an Azure Data Lake Storage Gen2 container into the tables in Pool1. The structure and data types vary by file.

You need to load the files into the tables. The solution must maintain the source data types. What should you do?

- A. Load the data by using PySpark.
- B. Load the data by using the OPENROWSET Transact-SQL command in an Azure Synapse Analytics serverless SQL pool.
- C. Use a Get Metadata activity in Azure Data Factory.
- D. Use a Conditional Split transformation in an Azure Synapse data flow.

**Answer:** B

**Explanation:**

Serverless SQL pool can automatically synchronize metadata from Apache Spark. A serverless SQL pool database will be created for each database existing in serverless Apache Spark pools.

Serverless SQL pool enables you to query data in your data lake. It offers a T-SQL query surface area that accommodates semi-structured and unstructured data queries.

To support a smooth experience for in place querying of data that's located in Azure Storage files, serverless SQL pool uses the OPENROWSET function with additional capabilities.

The easiest way to see to the content of your JSON file is to provide the file URL to the OPENROWSET function, specify csv FORMAT.

Reference:

<https://docs.microsoft.com/en-us/azure/synapse-analytics/sql/query-json-files> <https://docs.microsoft.com/en-us/azure/synapse-analytics/sql/query-data-storage>

**NEW QUESTION 169**

- (Exam Topic 5)

You have an Azure SQL database named DB1.

You need to display the estimated execution plan of a query by using the query editor in the Azure portal.

What should you do first?

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

**Answer:** A

**Explanation:**

Reference:

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

**NEW QUESTION 174**

- (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 176**



- (Exam Topic 5)  
You have an Azure SQL database named sqldb1.  
You need to minimize the amount of space by the data and log files of sqldb1. What should you run?

- A. DBCC SHRINKDATABASE
- B. sp\_clean\_db\_free\_space
- C. sp\_clean\_db\_file\_free\_space
- D. DBCC SHRINKFILE

Answer: D

**Explanation:**  
DBCC SHRINKDATABASE shrinks the size of the data and log files in the specified database. Reference:  
<https://docs.microsoft.com/en-us/sql/t-sql/database-console-commands/dbcc-shrinkdatabase-transact-sql>

NEW QUESTION 180

- (Exam Topic 5)  
You have an Azure SQL logical server. You run the following script.

```
CREATE DATABASE Sales
GO
CREATE TABLE [dbo].[Orders]
(
    [OrderID] INT NOT NULL,
    [OrderDescription] NVARCHAR (MAX) NOT NULL,
    [Timestamp] Datetime2 NOT NULL
)
WITH (
    SYSTEM_VERSIONING = ON,
    LEDGER = ON
);
GO
```

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

**NOTE:** Each correct selection is worth one point

Statements	Yes	No
The <code>orders</code> table will allow only rows to be inserted.	<input type="radio"/>	<input type="radio"/>
To create additional tables in the <code>Sales</code> database, the <code>LEDGER = ON</code> parameter must be used.	<input type="radio"/>	<input type="radio"/>
To ensure that a timestamp is added to each row in the <code>orders</code> table, the <code>GENERATED ALWAYS</code>	<input type="radio"/>	<input type="radio"/>

- A. Mastered
- B. Not Mastered

Answer: A

**Explanation:**  
Yes  
No No

NEW QUESTION 181

- (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 shrink the transaction log file. Does this meet the goal?

- A. Yes
- B. No

Answer: B



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

## NEW QUESTION 184

- (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	Answer Area
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	

- 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 185

- (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 SCOPED CONFIGURATION  
 ALTER DATABASE SET options

Autoshrink:   
 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 189**

- (Exam Topic 5)

You have an on-premises datacenter that contains a 2-TB Microsoft SQL Server 2019 database named DB1. You need to recommend a solution to migrate DB1 to an Azure SQL managed instance. The solution must minimize downtime and administrative effort.

What should you include in the recommendation?

- A. Log Replay Service (LRS)
- B. log shipping
- C. transactional replication
- D. SQL Data Sync

**Answer: B**

**NEW QUESTION 190**

- (Exam Topic 5)

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

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

- A. Upgrade workspace1 to the Premium pricing tier.
- B. Configure a global init script for workspace1.
- C. Create a pool in workspace1.
- D. Create a cluster policy in workspace1.

**Answer: C**

**Explanation:**

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

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

Reference:

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

**NEW QUESTION 193**

- (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 194**

- (Exam Topic 5)

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

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

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

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

**Answer: D**

NEW QUESTION 199

- (Exam Topic 5)

You have an Azure subscription that contains an Azure SQL database. The database fails to respond to queries in a timely manner. You need to identify whether the issue relates to resource\_semaphore waits. How should you complete the Transact-SQL query? To answer, select the appropriate options in the answer area. NOTE:Each correct selection is worth one point.

SELECT

is\_user\_process

wait\_time

wait\_type

SUM(wait\_time) AS total\_wait\_time\_ms

FROM sys.

dm\_exec\_query\_stats

dm\_exec\_requests

query\_store\_query

JOIN sys.dm\_exec\_sessions AS dmvs2

ON dmvs1.session\_id = dmvs2.session\_id

WHERE is\_user\_process = 1

GROUP BY wait\_type

ORDER BY SUM(wait\_time) DESC;

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Graphical user interface, text, application Description automatically generated  
Reference:  
https://docs.microsoft.com/en-us/azure/azure-sql/database/monitoring-with-dmvs

NEW QUESTION 201

- (Exam Topic 5)

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

Actions

Answer Area

Create a database master key.

Create a column master key.

Open the symmetric key.

Create a certificate.

Update Col1.

Create a symmetric key.

<

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- A. Mastered
- B. Not Mastered

Answer: A

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**Explanation:**

Table Description automatically generated

Reference:

<https://www.sqlshack.com/an-overview-of-the-column-level-sql-server-encryption/>

**NEW QUESTION 206**

- (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 211**

- (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 215**

- (Exam Topic 5)

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

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

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

**Answer: A**

**Explanation:**

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

Reference:

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

**NEW QUESTION 217**

- (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 219**

- (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 222

- (Exam Topic 3)

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

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

**Answer: B**

#### Explanation:

Scenario: Real-time processing must be monitored to ensure that workloads are sized properly based on actual usage patterns.

To monitor the performance of a database in Azure SQL Database and Azure SQL Managed Instance, start by monitoring the CPU and IO resources used by your workload relative to the level of database performance you chose in selecting a particular service tier and performance level.

Reference:

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

#### NEW QUESTION 225

- (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 226

- (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 230

- (Exam Topic 1)

What should you do after a failover of SalesSQLDb1 to ensure that the database remains accessible to SalesSQLDb1App1?

- A. Configure SalesSQLDb1 as writable.
- B. Update the connection strings of SalesSQLDb1App1.
- C. Update the firewall rules of SalesSQLDb1.
- D. Update the users in SalesSQLDb1.

Answer: B

Explanation:

Scenario: SalesSQLDb1 uses database firewall rules and contained database users.

NEW QUESTION 232

- (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 233

- (Exam Topic 1)

You need to implement statistics maintenance for SalesSQLDb1. The solution must meet the technical requirements.

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

Create and configure a schedule.

Create a SQL Server Agent job.

Publish the runbook.

Create an Azure Automation account.

Import the SqlServer module.

Create a runbook that runs a PowerShell script.

Run sp\_add\_jobserver.

Answer Area

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- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Automating Azure SQL DB index and statistics maintenance using Azure Automation:

- \* 1. Create Azure automation account (Step 1)
- \* 2. Import SQLServer module (Step 2)
- \* 3. Add Credentials to access SQL DB

This will use secure way to hold login name and password that will be used to access Azure SQL DB

- \* 4. Add a runbook to run the maintenance (Step 3)

Steps:1. Click on "runbooks" at the left panel and then click "add a runbook"

- \* 2. Choose "create a new runbook" and then give it a name and choose "Powershell" as the type of the runbook and then click on "create"

Add Runbook

Runbook

Quick Create  
Create a new runbook

Import  
Import an existing runbook

\* Name ⓘ

\* Runbook type ⓘ

Description

\* 5. Schedule task (Step 4)

Steps:1. Click on Schedules2. Click on "Add a schedule" and follow the instructions to choose existing schedule or create a new schedule.

Reference:

<https://techcommunity.microsoft.com/t5/azure-database-support-blog/automating-azure-sql-db-index-and-statist>

#### NEW QUESTION 234

- (Exam Topic 1)

You are evaluating the business goals.

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

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

**Answer: D**

**Explanation:**

Reference:

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

#### NEW QUESTION 237

- (Exam Topic 1)

You need to identify the cause of the performance issues on SalesSQLDb1.

Which two dynamic management views should you use? Each correct answer presents part of the solution.

NOTE:Each correct selection is worth one point.

- A. sys.dm\_pdw\_nodes\_tran\_locks
- B. sys.dm\_exec\_compute\_node\_errors
- C. sys.dm\_exec\_requests
- D. sys.dm\_cdc\_errors
- E. sys.dm\_pdw\_nodes\_os\_wait\_stats
- F. sys.dm\_tran\_locks

**Answer: AE**

**Explanation:**

SalesSQLDb1 experiences performance issues that are likely due to out-of-date statistics and frequent blocking queries.

A: Use sys.dm\_pdw\_nodes\_tran\_locks instead of sys.dm\_tran\_locks from Azure Synapse Analytics (SQL Data Warehouse) or Parallel Data Warehouse.

E: Example:

The following query will show blocking information. SELECT

t1.resource\_type, t1.resource\_database\_id, t1.resource\_associated\_entity\_id, t1.request\_mode, t1.request\_session\_id, t2.blocking\_session\_id

FROM sys.dm\_tran\_locks as t1

INNER JOIN sys.dm\_os\_waiting\_tasks as t2

ON t1.lock\_owner\_address = t2.resource\_address;

Note: Depending on the system you're working with you can access these wait statistics from one of three locations:

sys.dm\_os\_wait\_stats: for SQL Server sys.dm\_db\_wait\_stats: for Azure SQL Database

sys.dm\_pdw\_nodes\_os\_wait\_stats: for Azure SQL Data Warehouse Reference:

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

#### NEW QUESTION 242

- (Exam Topic 1)

You need to recommend a configuration for ManufacturingSQLDb1 after the migration to Azure. The solution must meet the business requirements.

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.



Quorum model:

	▼
Cloud witness	
Disk witness	
File share witness	

Azure resource for the availability group listener:

	▼
Azure Application Gateway	
Azure Basic Load Balancer	

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Scenario: Business Requirements

Litware identifies business requirements include: meet an SLA of 99.99% availability for all Azure deployments.

Box 1: Cloud witness

If you have a Failover Cluster deployment, where all nodes can reach the internet (by extension of Azure), it is recommended that you configure a Cloud Witness as your quorum witness resource.

Box 2: Azure Basic Load Balancer

Microsoft guarantees that a Load Balanced Endpoint using Azure Standard Load Balancer, serving two or more Healthy Virtual Machine Instances, will be available 99.99% of the time.

Note: There are two main options for setting up your listener: external (public) or internal. The external (public) listener uses an internet facing load balancer and is associated with a publicVirtual IP (VIP) that is accessible over the internet. An internal listener uses an internal load balancer and only supports clients within the same Virtual Network.

Reference:

<https://technet.microsoft.com/windows-server-docs/failover-clustering/deploy-cloud-witness> [https://azure.microsoft.com/en-us/support/legal/sla/load-balancer/v1\\_0/](https://azure.microsoft.com/en-us/support/legal/sla/load-balancer/v1_0/)

**NEW QUESTION 247**

- (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 249**

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