

## Exam Questions DP-300

Administering Relational Databases on Microsoft Azure (beta)

<https://www.2passeasy.com/dumps/DP-300/>



**NEW QUESTION 1**

- (Exam Topic 5)

You create a new Azure SQL managed instance named SQL1 and enable Database Mail extended stored You need to ensure that SQ Server Agent jobs running on SQL 1 can notify when a failure Occurs

Which three actions should you perform in sequence 7 TO answer. move the appropriate actions from the list Of actions to answer area and arrange them in correct order.

Actions	Answer Area
Create a Database Mail account.	
Enable pager notifications upon failure.	
Create a profile named AzureManagedInstance_dbmail_profile.	
Enable email notifications upon failure.	
Create a profile named application_dbmail_profile.	

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Actions	Answer Area
Create a Database Mail account.	Create a Database Mail account.
Enable pager notifications upon failure.	
Create a profile named AzureManagedInstance_dbmail_profile.	Create a profile named AzureManagedInstance_dbmail_profile.
Enable email notifications upon failure.	Enable email notifications upon failure.
Create a profile named application_dbmail_profile.	

**NEW QUESTION 2**

- (Exam Topic 5)

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

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

NOTE: Each correct selection is worth one point.

**BACKUP DATABASE Sales**

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

WITH STATS = 5,

WITH COPY_ONLY;
WITH ENCRYPTION;
WITH FILE_SNAPSHOT;
WITH NO_TRUNCATE

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

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

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

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

WITH COPY\_ONLY

Box 2: WITH COPY\_ONLY

Reference:

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

**NEW QUESTION 3**

- (Exam Topic 5)

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 4**

- (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:  ▼

Column encryption key
Database encryption key
Service master key

Encryption type:  ▼

Deterministic
Randomized
Transparent Data Encryption (TDE)

- 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 5**

- (Exam Topic 5)

You have SQL Server on an Azure virtual machine that contains a database named DB1. The database reports a CHECKSUM error.

You need to recover the database.

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

NOTE: Each correct selection is worth one point.

USE master;

ALTER DATABASE [DB1] SET

	▼
OFFLINE	
ONLINE	
SINGLE_USER	
TRUSTWORTHY	

WITH ROLLBACK IMMEDIATE;

GO

DBCC CHECKDB ('DB1',

	▼
MOINDEX	
PHYSICAL_ONLY	
REPAIR_ALLOW_DATA_LOSS	
REPAIR_FAST	

WITH NO\_INFOMSGS;

GO

ALTER DATABASE [DB1] SET

	▼
MULTI_USER;	
ONLINE;	
OPEN;	
TRUSTWORTHY;	

GO

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Box 1: SINGLE\_USER

The specified database must be in single-user mode to use one of the following repair options. Box 2: REPAIR\_ALLOW\_DATA\_LOSS

REPAIR\_ALLOW\_DATA\_LOSS tries to repair all reported errors. These repairs can cause some data loss.

Note: The REPAIR\_ALLOW\_DATA\_LOSS option is a supported feature but it may not always be the best option for bringing a database to a physically consistent state. If successful, the REPAIR\_ALLOW\_DATA\_LOSS option may result in some data loss. In fact, it may result in more data lost than if a user were to restore the database from the last known good backup.

Reference:

<https://docs.microsoft.com/en-us/sql/t-sql/database-console-commands/dbcc-checkdb-transact-sql>

**NEW QUESTION 6**

- (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 7**

- (Exam Topic 5)

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

Home	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. An 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 8**

- (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 9**

- (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 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 on a server named server1.

The Intelligent Insights diagnostics log identifies queries that cause performance issues due to tempDB contention.

You need to resolve the performance issues. What should you do?

- A. Implement memory-optimized tables.
- B. Run the dbcc flushprocindb command.
- C. Replace the sequential index keys with nonsequential keys.
- D. Run the dbcc dbreindex command.

**Answer:** A

**Explanation:**

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/intelligent-insights-troubleshoot-performance#tempdb>

**NEW QUESTION 11**

- (Exam Topic 5)

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

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

The records contain two applicants at most.

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

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

NOTE: Each correct selection is worth one point.

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

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Graphical user interface, text, application Description automatically generated

Box 1: CREATE EXTERNAL TABLE

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

Syntax:

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

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

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

Box 2: OPENROWSET

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

Example: AS

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

OPENROWSET(BULK

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

FORMAT='PARQUET') AS [r]

GROUP BY decennialTime, stateName GO

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

**NEW QUESTION 12**

- (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.

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Graphical user interface, text Description automatically generated

**NEW QUESTION 15**

- (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;	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid gray; width: 150px; height: 100px; margin-bottom: 10px;"></div> <div style="border: 1px solid gray; width: 150px; height: 100px; margin-bottom: 10px;"></div> </div> <div style="display: flex; justify-content: space-around; align-items: center;"> <span>⏪</span> <span>⏩</span> </div> <div style="display: flex; justify-content: space-around; align-items: center;"> <span>⏴</span> <span>⏵</span> </div>
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 18

- (Exam Topic 5)

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

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

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

**Answer: C**

#### Explanation:

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

What resources the client may access.

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

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

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

Reference:

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

### NEW QUESTION 21

- (Exam Topic 5)

You deploy a database to an Azure SQL Database managed instance.

You need to prevent read queries from blocking queries that are trying to write to the database. Which database option should set?

- A. PARAMETERIZATION to FORCED
- B. PARAMETERIZATION to SIMPLE
- C. Delayed Durability to Forced
- D. READ\_COMMITTED\_SNAPSHOT to ON

**Answer: D**

#### Explanation:

In SQL Server, you can also minimize locking contention while protecting transactions from dirty reads of uncommitted data modifications using either:

- The READ COMMITTED isolation level with the READ\_COMMITTED\_SNAPSHOT database option set to ON.
- The SNAPSHOT isolation level.

If READ\_COMMITTED\_SNAPSHOT is set to ON (the default on SQL Azure Database), the Database Engine uses row versioning to present each statement with a transactionally consistent snapshot of the data as it existed at the start of the statement. Locks are not used to protect the data from updates by other transactions.

Reference:

<https://docs.microsoft.com/en-us/sql/t-sql/statements/set-transaction-isolation-level-transact-sql>

### NEW QUESTION 22

- (Exam Topic 5)

You have an Azure subscription.

You plan to deploy an Azure SQL database by using an Azure Resource Manager template.

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

NOTE: Each correct selection is worth one point.

Answer Area

```
{
  "resources": [
    {
      "type": [
        "Microsoft.Sql/servers",
        "Microsoft.SqlVirtualMachines/sqlVirtualMachines",
        "Microsoft.Synapse/workspaces/sqldatabases"
      ],
      "apiVersion": "2020-02-02-preview",
      "name": "[parameters('name1')]",
      "location": "[parameters('location')]",
      ...
      "resources": [
        {
          "type": "databases",
          "apiVersion": "2020-02-02-preview",
          ...
          "dependsOn": [
            "properties": [
              "tags": [
                "[resourceId('Microsoft.Sql/servers', concat(parameters('name1')))]"
              ]
            ]
          ]
        }
      ]
    }
  ]
}
```

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Text Description automatically generated

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/single-database-create-arm-template-quickstart>

NEW QUESTION 23

- (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:

- A materialized view in DB1
- A security policy in the Orders table**
- Database scoped credentials in DB1

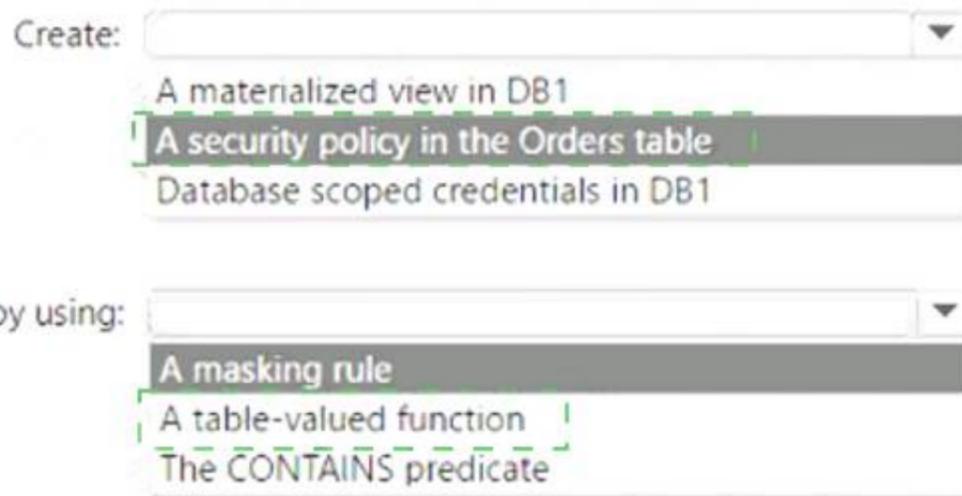
Control access to the rows by using:

- A masking rule**
- A table-valued function
- The CONTAINS predicate

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



**NEW QUESTION 28**

- (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. Double the value of Data Flush interval
- B. Decrease by half the value of Data Flush Interval
- C. Double the value of Statistics Collection Interval
- D. Decrease by half the value of Statistics Collection interval

**Answer: B**

**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 29**

- (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), run sp\_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 31**

- (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. Change Salary to the money data type.
- B. Change PhoneNumber to the float data type.
- C. Change LastHireDate to the datetime2(7) data type.
- D. Change PhoneNumber to the bigint data type.
- E. Change LastHireDate to the date data type.

**Answer:** AE

### NEW QUESTION 32

- (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 34

- (Exam Topic 5)

You have an Azure subscription that contains an Azure Data Factory version 2 (V2) data factory named df1. DF1 contains a linked service.

You have an Azure Key vault named vault1 that contains an encryption key named key1. You need to encrypt df1 by using key1.

What should you do first?

- A. Disable purge protection on vault1.
- B. Remove the linked service from df1.
- C. Create a self-hosted integration runtime.
- D. Disable soft delete on vault1.

**Answer:** B

#### Explanation:

A customer-managed key can only be configured on an empty data Factory. The data factory can't contain any resources such as linked services, pipelines and data flows. It is recommended to enable customer-managed key right after factory creation.

Note: Azure Data Factory encrypts data at rest, including entity definitions and any data cached while runs are in progress. By default, data is encrypted with a randomly generated Microsoft-managed key that is uniquely assigned to your data factory.

Reference:

<https://docs.microsoft.com/en-us/azure/data-factory/enable-customer-managed-key>

### NEW QUESTION 38

- (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 42**

- (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.



- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Table Description automatically generated

Reference:

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

**NEW QUESTION 46**

- (Exam Topic 5)

You have SQL Server 2019 on an Azure virtual machine that contains an SSISDB database. A recent failure causes the master database to be lost.

You discover that all Microsoft SQL Server integration Services (SSIS) packages fail to run on the virtual machine.

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

**Actions**

**Answer Area**

- Add a certificate to an Azure key vault
- Enable Transparent Data Encryption (TDE)
- Encrypt a copy of the master key by using the service master key
- Turn on the TRUSTWORTHY property and the CLR property
- Attach the SSISDB database
- Open the master key for the SSISDB database



- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Step 1: Attach the SSISDB database

Step 2: Turn on the TRUSTWORTHY property and the CLR property

If you are restoring the SSISDB database to an SQL Server instance where the SSISDB catalog was never created, enable common language runtime (clr)

Step 3: Open the master key for the SSISDB database

Restore the master key by this method if you have the original password that was used to create SSISDB. open master key decryption by password = 'LS1Setup!' --'Password used when creating SSISDB'

Alter Master Key Add encryption by Service Master Key

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

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

**NEW QUESTION 51**

- (Exam Topic 5)

You are provisioning an Azure SQL database in the Azure portal as shown in the following exhibit.

The screenshot shows the 'Configure' page for a new Azure SQL database. The hardware configuration is set to Gen5 (up to 40 vCores, up to 120 GB memory). The auto-pause delay is set to 4 hours. The data max size is set to 800 GB. The cost summary shows Gen5 - General Purpose (GP\_S, Gen5\_0) with a cost of 0.12 USD per GB and 119.60 USD estimated storage cost per month.

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.

After four hours of inactivity, the database requires [answer choice] to resume operations for new activities.

▼

no extra time

up to 10 minutes

up to one minute

The database configuration reduces the cost of [answer choice] usage patterns.

▼

intermittent and unpredictable

regular and high

steady and low

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

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

Reference:

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

**NEW QUESTION 52**

- (Exam Topic 5)

You have an Azure Synapse Analytics dedicated SQL pool.

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

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

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

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

**Answer:** D

**Explanation:**

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

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

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

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

Reference:

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

**NEW QUESTION 53**

- (Exam Topic 5)

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

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

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

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

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

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Text Description automatically generated

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/managed-instance/job-automation-managed-instance>

**NEW QUESTION 55**

- (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 59**

- (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 61**

- (Exam Topic 5)

You have SQL Server on an Azure virtual machine that contains a database named DB1. You have an application that queries DB1 to generate a sales report. You need to see the parameter values from the last time the query was executed.

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

NOTE: Each correct selection is worth one point.

- A. Enable Last\_Query\_Plan\_Stats in the master database
- B. Enable Lightweight\_Query\_Profiling in DB1
- C. Enable Last\_Query\_Plan\_Stats in DB1
- D. Enable Lightweight\_Query\_Profiling in the master database
- E. Enable PARAMETER\_SNIFFING in DB1

**Answer:** AC

**Explanation:**

Last\_Query\_Plan\_Stats allows you to enable or disable collection of the last query plan statistics (equivalent to an actual execution plan) in sys.dm\_exec\_query\_plan\_stats.

Lightweight profiling can be disabled at the database level using the LIGHTWEIGHT\_QUERY\_PROFILING database scoped configuration: ALTER DATABASE SCOPED CONFIGURATION SET LIGHTWEIGHT\_QUERY\_PROFILING = OFF;.

Reference:

<https://docs.microsoft.com/en-us/sql/relational-databases/performance/query-profiling-infrastructure>

**NEW QUESTION 64**

- (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 67

- (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 71

- (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 73

- (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 75

- (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 App1. App1 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

**Answer Area**



- 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

(Left arrow icon)

Create a workload group.

Create a classifier function in the master database.

**NEW QUESTION 76**

- (Exam Topic 5)

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

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

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

**Answer:** D

**Explanation:**

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

**NEW QUESTION 80**

- (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 81**

- (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 83

- (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 88

- (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 90

- (Exam Topic 5)

Your on-premises network contains a Microsoft SQL Server 2016 server that hosts a database named db1. You have an Azure subscription.

You plan to migrate db1 to an Azure SQL managed instance.

You need to create the SQL managed instance. The solution must minimize the disk latency of the instance. Which service tier should you use?

- A. Hyperscale
- B. General Purpose
- C. Premium
- D. Business Critical

**Answer:** A

#### NEW QUESTION 92

- (Exam Topic 5)

You have an Azure SQL Database managed instance. The instance starts experiencing performance issues.

You need to identify which query is causing the issue and retrieve the execution plan for the query. The solution must minimize administrative effort.

What should you use?

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

**Answer:** C

**Explanation:**

Reference:

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

#### NEW QUESTION 94

- (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.

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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 98**

- (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:** D

**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 100**

- (Exam Topic 5)

You have an Azure subscription. You need to deploy an Azure SQL resource that will support cross database queries by using an Azure Resource Manager (ARM) template. How should you complete the ARM template? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

**Answer Area**

```

"resources": [
  ...
  "type": [
    Microsoft.Sql/servers
    Microsoft.Sql/servers/databases
    Microsoft.Sql/managedInstances
  ],
  "name": "[parameters('targetName')]",
  "location": "[parameters('location')]",
  "sku": {
    "name": "[parameters('skuName')]"
  },
  ...
  "dependsOn": [
    "[parameters('targetName')]",
    "[parameters('virtualNetworkName')]",
    "[variables('networkSecurityGroupName')]",
  ],
  "properties": {
    "administratorLogin": "[parameters('administratorLogin')]",
    "administratorLoginPassword": "[parameters('administratorLoginPassword')]",
    "subnetId": "[resourceId('Microsoft.Network/virtualNetworks/subnets', parameters('virtualNetworkName'), parameters('virtualNetworkName'), parameters('subnetName'))]",
    "storageSizeInGB": "[parameters('storageSizeInGB')]", "vCores": "[parameters('vCores')]",
    "licenseType": "[parameters('licenseType')]"
  },
  ...
]

```

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

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

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/managed-instance/create-template-quickstart?tabs=azure-powe>

**NEW QUESTION 101**

- (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:

- > 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 102**

- (Exam Topic 5)

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

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

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

What should you do?

- A. Create User1 in the master database.
- B. Assign User1 the db\_datareader role for the master database.
- C. Assign User1 the db\_datareader role for the databases that User1 creates.
- D. Grant select on sys.databases to public in the master database.

**Answer: A**

**Explanation:**

Reference:

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

**NEW QUESTION 105**

- (Exam Topic 5)

You have an Azure SQL database that contains a table named Employees. Employees contains a column named Salary.

You need to encrypt the Salary column. The solution must prevent database administrators from reading the data in the Salary column and must provide the most secure encryption.

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
Encrypt the Salary column by using the randomized encryption type.	
Create a column encryption key.	
Enable Transparent Data Encryption (TDE).	<div style="display: flex; align-items: center; justify-content: center;"> <div style="margin-right: 10px;">➤</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">⬆</div> </div>
Encrypt the Salary column by using the deterministic encryption type.	<div style="display: flex; align-items: center; justify-content: center;"> <div style="margin-right: 10px;">⬅</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">⬇</div> </div>
Apply a dynamic data mask to the Salary column.	
Create a column master key.	

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Step 1: Create a column master key

Create a column master key metadata entry before you create a column encryption key metadata entry in the database and before any column in the database can be encrypted using Always Encrypted.

Step 2: Create a column encryption key.

Step 3: Encrypt the Salary column by using the randomized encryption type.

Randomized encryption uses a method that encrypts data in a less predictable manner. Randomized encryption is more secure, but prevents searching, grouping, indexing, and joining on encrypted columns.

Note: A column encryption key metadata object contains one or two encrypted values of a column encryption key that is used to encrypt data in a column. Each value is encrypted using a column master key.

Reference:

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

**NEW QUESTION 107**

- (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:

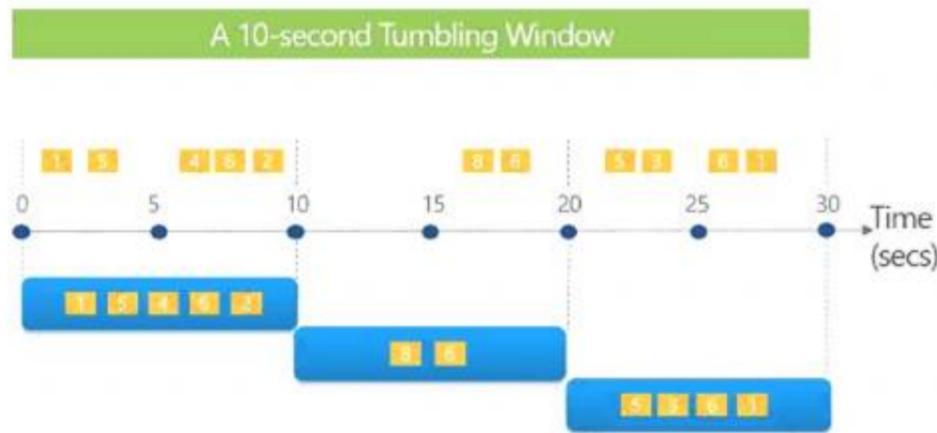
TopOne() OVER ([<PARTITION BY clause>] ORDER BY (<column name> [ASC |DESC])+ <LIMIT

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 110**

- (Exam Topic 5)

You have an Azure Data Factory pipeline that performs an incremental load of source data to an Azure Data Lake Storage Gen2 account.

Data to be loaded is identified by a column named LastUpdatedDate in the source table. You plan to execute the pipeline every four hours.

You need to ensure that the pipeline execution meets the following requirements:

Automatically retries the execution when the pipeline run fails due to concurrency or throttling limits. Supports backfilling existing data in the table.

Which type of trigger should you use?

- A. tumbling window
- B. on-demand
- C. event
- D. schedule

**Answer: A**

**Explanation:**

The Tumbling window trigger supports backfill scenarios. Pipeline runs can be scheduled for windows in the past.

Reference:

<https://docs.microsoft.com/en-us/azure/data-factory/concepts-pipeline-execution-triggers>

**NEW QUESTION 114**

- (Exam Topic 5)

You have an Azure SQL database named db1 on a server named server1. You use Query Performance Insight to monitor db1.

You need to modify the Query Store configuration to ensure that performance monitoring data is available as soon as possible.

Which configuration setting should you modify and which value should you configure? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Configuration setting:

DATA_FLUSH_INTERVAL_SECONDS
INTERVAL_LENGTH_MINUTES
MAX_PLANS_PER_QUERY
QUERY_CAPTURE_MODE

Value:

1
60
CUSTOM
ON

- A. Mastered
- B. Not Mastered

**Answer: A**

**Explanation:**

Graphical user interface, text, application Description automatically generated

**NEW QUESTION 115**

- (Exam Topic 5)

You have an Azure SQL managed instance named SQLMI1 that has Resource Governor enabled and is used by two apps named App1 and App2. You need to configure SQLMI1 to limit the CPU and memory resources that can be allocated to App1. 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 a workload group.	
Create a user-defined classifier function.	⬅️ ⬆️
Modify Resource Governor.	➡️ ⬇️
Create a contained database user.	
Create a resource pool.	

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Text, table Description automatically generated

Reference:

<https://docs.microsoft.com/en-us/sql/relational-databases/resource-governor/resource-governor?view=sql-server> <https://docs.microsoft.com/en-us/sql/relational-databases/resource-governor/create-and-test-a-classifier-user-def>

**NEW QUESTION 118**

- (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 120**

- (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 App1 as soon as possible, without considering immediate costs. What should you do?

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

Answer: D

**NEW QUESTION 121**

- (Exam Topic 5)

A company plans to use Apache Spark analytics to analyze intrusion detection data.

You need to recommend a solution to analyze network and system activity data for malicious activities and policy violations. The solution must minimize administrative efforts.

What should you recommend?

- A. Azure Data Lake Storage
- B. Azure Databricks
- C. Azure HDInsight
- D. Azure Data Factory

Answer: C

**Explanation:**

Azure HDInsight offers pre-made, monitoring dashboards in the form of solutions that can be used to monitor the workloads running on your clusters. There are solutions for Apache Spark, Hadoop, Apache Kafka, live long and process (LLAP), Apache HBase, and Apache Storm available in the Azure Marketplace.

Note: With Azure HDInsight you can set up Azure Monitor alerts that will trigger when the value of a metric or the results of a query meet certain conditions. You can condition on a query returning a record with a value that is greater than or less than a certain threshold, or even on the number of results returned by a query. For example, you could create an alert to send an email if a Spark job fails or if a Kafka disk usage becomes over 90 percent full.

Reference:

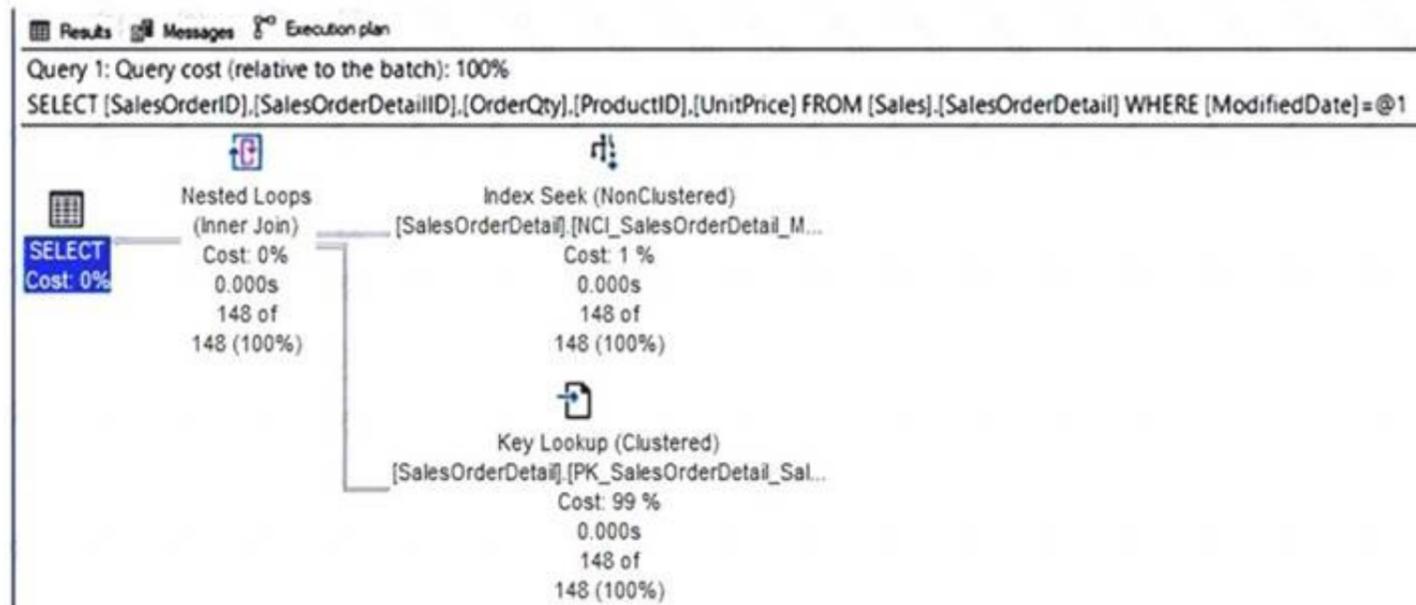
<https://azure.microsoft.com/en-us/blog/monitoring-on-azure-hdinsight-part-4-workload-metrics-and-logs/>

**NEW QUESTION 122**

- (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 123**

- (Exam Topic 5)

You have an Azure data factory that has two pipelines named PipelineA and PipelineB. PipelineA has four activities as shown in the following exhibit.



PipelineB has two activities as shown in the following exhibit.



You create an alert for the data factory that uses Failed pipeline runs metrics for both pipelines and all failure types. The metric has the following settings:

- > Operator: Greater than
- > Aggregation type: Total
- > Threshold value: 2
- > Aggregation granularity (Period): 5 minutes
- > Frequency of evaluation: Every 5 minutes

Data Factory monitoring records the failures shown in the following table.

Pipeline	Activity	Time
PipelineA	Activity1	31-Jan-2020 10:44:00
PipelineA	Activity3	31-Jan-2020 10:47:00
PipelineB	Activity1	31-Jan-2020 10:50:00

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
An alert notification was sent after the failure of Activity1 in PipelineA.	<input type="radio"/>	<input type="radio"/>
An alert notification was sent after the failure of Activity3 in PipelineA.	<input type="radio"/>	<input type="radio"/>
An alert notification was sent after the failure of Activity1 in PipelineB.	<input type="radio"/>	<input type="radio"/>

- A. Mastered
- B. Not Mastered

**Answer: A**

**Explanation:**

Text Description automatically generated

Box 1: No

Just one failure within the 5-minute interval.

Box 2: No

Just two failures within the 5-minute interval.

Box 3: No

Just two failures within the 5-minute interval. Reference:

<https://docs.microsoft.com/en-us/azure/azure-monitor/alerts/alerts-metric-overview>

**NEW QUESTION 125**

- (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 127

- (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 128

- (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 130**

- (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.

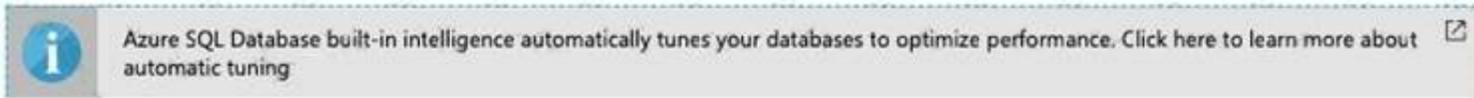
Reference:

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

**NEW QUESTION 131**

- (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.



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	ON OFF <b>INHERIT</b>	<b>ON</b> Auto-configured by Azure
CREATE INDEX	ON OFF <b>INHERIT</b>	<b>ON</b> Auto-configured by Azure
DROP INDEX	<b>ON</b> OFF INHERIT	<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 135**

- (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 138**

- (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:** A

**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 143**

- (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 147**

- (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 148

- (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 151

- (Exam Topic 5)

You are designing a security model for an Azure Synapse Analytics dedicated SQL pool that will support multiple companies.

You need to ensure that users from each company can view only the data of their respective company. Which two objects should you include in the solution? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

- A. a column encryption key
- B. asymmetric keys
- C. a function
- D. a custom role-based access control (RBAC) role
- E. a security policy

**Answer: DE**

#### Explanation:

Azure RBAC is used to manage who can create, update, or delete the Synapse workspace and its SQL pools, Apache Spark pools, and Integration runtimes.

Define and implement network security configurations for resources related to your dedicated SQL pool with Azure Policy.

Reference:

<https://docs.microsoft.com/en-us/azure/synapse-analytics/security/synapse-workspace-synapse-rbac> <https://docs.microsoft.com/en-us/security/benchmark/azure/baselines/synapse-analytics-security-baseline>

#### NEW QUESTION 152

- (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 157

- (Exam Topic 4)

You need to design an analytical storage solution for the transactional data. The solution must meet the sales transaction dataset requirements.

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.

Table type to store retail store data:

	▼
Hash	
Replicated	
Round-robin	

Table type to store promotional data:

	▼
Hash	
Replicated	
Round-robin	

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Graphical user interface, text, application Description automatically generated

Box 1: Hash Scenario:

Ensure that queries joining and filtering sales transaction records based on product ID complete as quickly as possible.

A hash distributed table can deliver the highest query performance for joins and aggregations on large tables. Box 2: Round-robin

Scenario:

You plan to create a promotional table that will contain a promotion ID. The promotion ID will be associated to a specific product. The product will be identified by a product ID. The table will be approximately 5 GB.

A round-robin table is the most straightforward table to create and delivers fast performance when used as a staging table for loads. These are some scenarios where you should choose Round robin distribution:

- > When you cannot identify a single key to distribute your data.
- > If your data doesn't frequently join with data from other tables.
- > When there are no obvious keys to join.

Reference:

<https://rajanireshkaushikk.com/2020/09/09/how-to-choose-right-data-distribution-strategy-for-azure-synapse/>

**NEW QUESTION 160**

- (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 161**

- (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 166**

- (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 167**

- (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 172**

- (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 Scenario:

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 176**

- (Exam Topic 1)

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

What should you run as part of the implementation?

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

**Answer:** E

**Explanation:**

Scenario: Authenticate database users by using Active Directory credentials.

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

Reference:

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

**NEW QUESTION 179**

- (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**

**Answer Area**

- 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.



- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

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

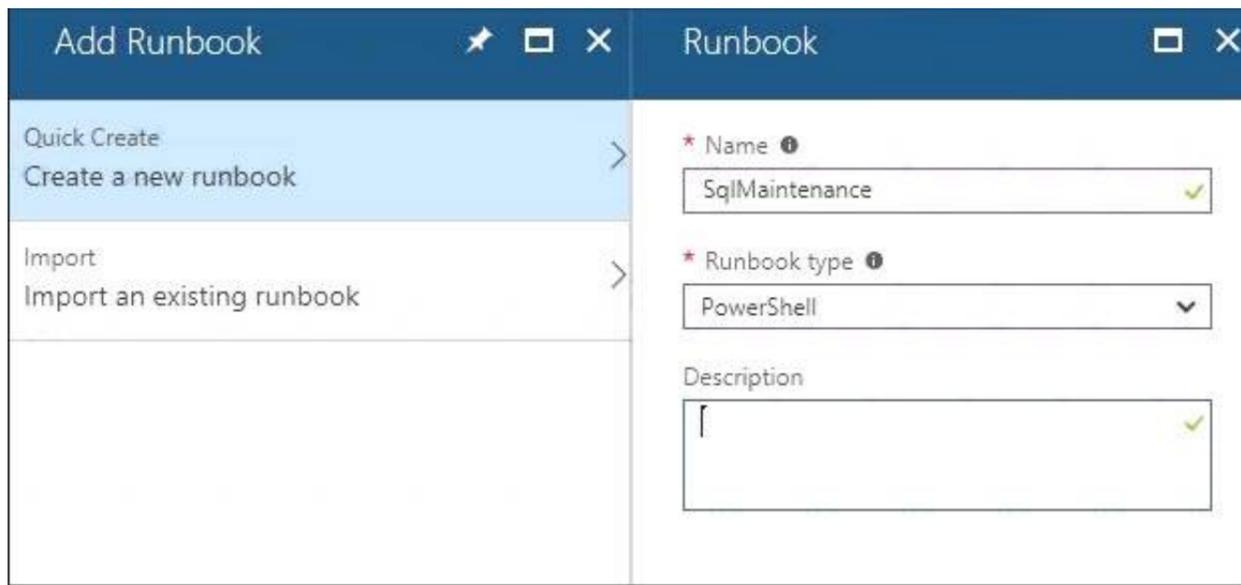
- \* 1. Create Azure automation account (Step 1)
- \* 2. Import SQLServer module (Step 2)
- \* 3. Add Credentials to access SQL DB

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"



\* 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 180**

- (Exam Topic 1)

You need to recommend a solution to ensure that the customers can create the database objects. The solution must meet the business goals. What should you include in the recommendation?

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

**Answer: D**

**NEW QUESTION 182**

- (Exam Topic 1)

You create all of the tables and views for ResearchDB1.

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

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

Actions	Answer Area
Run the Always Encrypted wizard.	
Create an Azure Key Vault instance and generate a secret.	
Create an Azure Key Vault instance and configure an access policy.	⬅️
Create an Azure AD managed identity.	⬆️
Register ResearchApp1 to Azure AD.	⬆️

- 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/always-encrypted-azure-key-vault-configure?tabs=az>

**NEW QUESTION 187**

- (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 189**

- (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:** C

**Explanation:**

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

**NEW QUESTION 191**

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