

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

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

NOTE: Each correct selection is worth one point.

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

**Answer:** ACE

**Explanation:**

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

For vCore-based purchasing model: MAX(<Total number of DBs X average vCore utilization per DB>, <Number of concurrently peaking DBs X Peak vCore utilization per DB>)

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

Reference:

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

**NEW QUESTION 3**

- (Exam Topic 5)

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

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

What should you include in the backup strategy?

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

**Answer:** B

**Explanation:**

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

Reference:

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

**NEW QUESTION 4**

- (Exam Topic 5)

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

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

You have an Azure 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 5**

- (Exam Topic 5)

You have an Azure SQL Database server named sqlsrv1 that hosts 10 Azure SQL databases. The databases perform slower than expected.

You need to identify whether the performance issue relates to the use of tempdb on sqlsrv1. What should you do?

- A. Run Query Store-based queries
- B. Review information provided by SQL Server Profiler-based traces
- C. Review information provided by Query Performance Insight
- D. Run dynamic management view-based queries

**Answer:** D

**Explanation:**

The diagnostics log outputs tempDB contention details. You can use the information as the starting point for troubleshooting.

You can use the Intelligent Insights performance diagnostics log of Azure SQL Database to troubleshoot performance issues.

Reference:

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

**NEW QUESTION 6**

- (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

GO

	▼
OFFLINE	
ONLINE	
SINGLE_USER	
TRUSTWORTHY	

WITH ROLLBACK IMMEDIATE;

DBCC CHECKDB ('DB1',

GO

	▼
MOINDEX	
PHYSICAL_ONLY	
REPAIR_ALLOW_DATA_LOSS	
REPAIR_FAST	

WITH NO\_INFOMSGS;

ALTER DATABASE [DB1] SET

GO

	▼
MULTI_USER;	
ONLINE;	
OPEN;	
TRUSTWORTHY;	

- 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 7**

- (Exam Topic 5)

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

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

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

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

**Answer:** B

**Explanation:**

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

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

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

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

Reference:

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

**NEW QUESTION 8**

- (Exam Topic 5)

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

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

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

**Answer:** C

**Explanation:**

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

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

Reference:

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

**NEW QUESTION 9**

- (Exam Topic 5)

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

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

You plan to migrate DB1 to an Azure SQL database.

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

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

**Answer:** B

**Explanation:**

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

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

Reference:

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

**NEW QUESTION 10**

- (Exam Topic 5)

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

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

NOTE: Each correct selection is worth one point.

- A. Turn on auditing and write audit logs to an Azure Storage account.
- B. Add extended properties to the column.
- C. Turn on Advanced Data Security for the Azure SQL server.
- D. Apply sensitivity labels named Highly Confidential to the column.
- E. Turn on Azure Advanced Threat Protection (ATP).

**Answer:** ACD

**Explanation:**

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

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

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

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

Reference:

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

**NEW QUESTION 10**

- (Exam Topic 5)

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

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

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

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

NOTE: Each correct selection is worth one point.

Values

Answer Area

- CustomerKey
- HASH
- ROUND\_ROBIN
- REPLICATE
- OrderDateKey
- SalesOrderNumber

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

- A. Mastered
- B. Not Mastered

Answer: A

**Explanation:**

Graphical user interface, text, application Description automatically generated

Box 1: HASH

Box 2: OrderDateKey

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

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

Reference:

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

**NEW QUESTION 15**

- (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 20**

- (Exam Topic 5)

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

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

- A. complete
- B. append
- C. update

Answer: A

**Explanation:**

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

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

**NEW QUESTION 24**

- (Exam Topic 5)

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

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

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

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

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

Answer: D

**NEW QUESTION 27**

- (Exam Topic 5)

You have an Azure virtual machine based on a custom image named VM1. VM1 hosts an instance of Microsoft SQL Server 2019 Standard.

You need to automate the maintenance of VM1 to meet the following requirements: Automate the patching of SQL Server and Windows Server.

Automate full database backups and transaction log backups of the databases on VM1.

Minimize administrative effort. What should you do first?

- A. Enable a system-assigned managed identity for VM1
- B. Register VM1 to the Microsoft.Sql resource provider
- C. Install an Azure virtual machine Desired State Configuration (DSC) extension on VM1
- D. Register VM1 to the Microsoft.SqlVirtualMachine resource provider

Answer: B

**Explanation:**

Automated Patching depends on the SQL Server infrastructure as a service (IaaS) Agent Extension. The SQL Server IaaS Agent Extension (SqlIaaSExtension) runs on Azure virtual machines to automate administration

tasks. The SQL Server IaaS extension is installed when you register your SQL Server VM with the SQL Server VM resource provider.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/virtual-machines/windows/sql-server-iaas-agent-extensionauto>

**NEW QUESTION 31**

- (Exam Topic 5)

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

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

The records contain two applicants at most.

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

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

NOTE: Each correct selection is worth one point.

▼ applications

CREATE EXTERNAL TABLE  
 CREATE TABLE  
 CREATE VIEW

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

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

CROSS APPLY  
 OPENJSON  
 OPENROWSET

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

- A. Mastered
- B. Not Mastered

Answer: A

**Explanation:**

Graphical user interface, text, application Description automatically generated

Box 1: CREATE EXTERNAL TABLE

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

Syntax:

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

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

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

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

Example: AS

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

```
OPENROWSET(BULK
```

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

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

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

Reference:

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

**NEW QUESTION 36**

- (Exam Topic 5)

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

The data contains the following columns:

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

You need to design a star schema to support analytical queries of the data. The star schema will contain four tables including a date dimension.

To which table should you add each column? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

EventCategory:  ▼

- DimChannel
- DimDate
- DimEvent
- FactEvents

ChannelGrouping:  ▼

- DimChannel
- DimDate
- DimEvent
- FactEvents

TotalEvents:  ▼

- DimChannel
- DimDate
- DimEvent
- FactEvents

- A. Mastered
- B. Not Mastered

Answer: A

**Explanation:**

Graphical user interface, application, table Description automatically generated

Box 1: FactEvents

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

Box 2: DimChannel

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

Box 3: DimEvent Reference:

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

**NEW QUESTION 37**

- (Exam Topic 5)

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

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

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

What should you do?

- A. Assign a smaller resource class to the automated data load queries.
- B. Create sampled statistics to every column in each table of DW1.
- C. Assign a larger resource class to the automated data load queries.
- D. Hash distribute the large fact tables in DW1 before performing the automated data loads.

**Answer: C**

**Explanation:**

The performance capacity of a query is determined by the user's resource class.

Smaller resource classes reduce the maximum memory per query, but increase concurrency. Larger resource classes increase the maximum memory per query, but reduce concurrency. Reference:

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

**NEW QUESTION 41**

- (Exam Topic 5)

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

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

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

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

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

Does this meet the goal?

- A. Yes
- B. No

**Answer: A**

**Explanation:**

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

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

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

Reference:

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

**NEW QUESTION 43**

- (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:**

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

**NEW QUESTION 45**

- (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 49**

- (Exam Topic 5)

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

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

You have an Azure Data Lake Storage account that contains a staging zone.

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

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

Does this meet the goal?

- A. Yes
- B. No

**Answer:** B

**Explanation:**

If you need to transform data in a way that is not supported by Data Factory, you can create a custom activity, not a mapping flow, with your own data processing logic and use the activity in the pipeline. You can create a custom activity to run R scripts on your HDInsight cluster with R installed. Reference: <https://docs.microsoft.com/en-US/azure/data-factory/transform-data>

**NEW QUESTION 50**

- (Exam Topic 5)

You configure a long-term retention policy for an Azure SQL database as shown in the exhibit. (Click the Exhibit tab.)

### Configure policies ✕

SQL server

#### Point in Time Restore Configuration

Configure PiTR backup retention ▼ Days

---

#### Long-term Retention Configurations

Weekly LTR Backups ⓘ

How long would you like weekly backups to be kept?

6 Week(s) ▼

---

Monthly LTR Backups ⓘ

How long would you like the first backup of each month to be kept?

12 Month(s) ▼

---

Yearly LTR Backups ⓘ

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

Week 2 ▼

How long would you like this annual backup to be kept?

10 Year(s) ▼

The first weekly backup occurred on January 4, 2020. The dates for the first 10 weekly backups are:

- January 4, 2020
- January 11, 2020
- January 18, 2020
- January 25, 2020
- February 1, 2020
- February 8, 2020
- February 15, 2020
- February 22, 2020
- February 29, 2020
- March 7, 2020

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 backup saved to long-term retention on January 4, 2020, will be retained for

▼

6 weeks

12 months

10 years

The backup saved to long-term retention on January 11, 2020 will be retained for

▼

6 weeks

12 months

10 years

- A. Mastered
- B. Not Mastered

Answer: A

**Explanation:**

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

**NEW QUESTION 52**

- (Exam Topic 5)

You have a SQL pool in Azure Synapse that contains a table named dbo.Customers. The table contains a column name Email. You need to prevent nonadministrative users from seeing the full email addresses in the Email column. The users must see values in a format of aXXX@XXXX.com instead. What should you do?

- A. From the Azure portal, set a mask on the Email column.
- B. From the Azure portal, set a sensitivity classification of Confidential for the Email column.
- C. From Microsoft SQL Server Management Studio, set an email mask on the Email column.
- D. From Microsoft SQL Server Management Studio, grant the SELECT permission to the users for all the columns in the dbo.Customers table except Email.

**Answer: B**

**Explanation:**

The Email masking method, which exposes the first letter and replaces the domain with XXX.com using a constant string prefix in the form of an email address. Example: aXX@XXXX.com

**NEW QUESTION 56**

- (Exam Topic 5)

You have SQL Server 2019 on an Azure virtual machine that runs Windows Server 2019. The virtual machine has 4 vCPUs and 28 GB of memory. You scale up the virtual machine to 8 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: C**

**Explanation:**

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

Reference:

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

**NEW QUESTION 58**

- (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 60

- (Exam Topic 5)

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

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

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

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

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

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

Does this meet the goal?

- A. Yes
- B. No

**Answer:** A

#### Explanation:

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

Reference:

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

### NEW QUESTION 63

- (Exam Topic 5)

You have several Azure SQL databases on the same Azure SQL Database server in a resource group named ResourceGroup1.

You must be alerted when CPU usage exceeds 80 percent for any database. The solution must apply to any additional databases that are created on the Azure SQL server.

Which resource type should you use to create the alert?

- A. Resource Groups
- B. SQL Servers
- C. SQL Databases
- D. SQL Virtual Machines

**Answer:** C

#### Explanation:

There are resource types related to application code, compute infrastructure, networking, storage + databases. You can deploy up to 800 instances of a resource type in each resource group.

Some resources can exist outside of a resource group. These resources are deployed to the subscription, management group, or tenant. Only specific resource types are supported at these scopes.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/resource-providers-and-types>

### NEW QUESTION 65

- (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-content/blob/master/articles/sql-data-warehouse/sql-data-warehouse-manage-distrib>

**NEW QUESTION 68**

- (Exam Topic 5)

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

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

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

**Answer: A**

**Explanation:**

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

Reference:

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

**NEW QUESTION 69**

- (Exam Topic 5)

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

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

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

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

**Actions**

- Create a SQL Server Agent alert.
- Create an operator.
- Create an extended event.
- Enable Database Mail.
- Add a failure notification to the job.

**Answer Area**



- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Text Description automatically generated

Reference:

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

**NEW QUESTION 71**

- (Exam Topic 5)

You manage 100 Azure SQL managed instances located across 10 Azure regions.

You need to receive voice message notifications when a maintenance event affects any of the 10 regions. The solution must minimize administrative effort.

What should you do?

- A. From the Azure portal, create a service health alert.
- B. From the Azure portal, create an Azure Advisor operational excellence alert.
- C. From Microsoft SQL Server Management Studio (SSMS), configure a SQL Server agent job.
- D. From the Azure portal, configure an activity log alert.

**Answer:** C

**NEW QUESTION 75**

- (Exam Topic 5)

You have an Azure Data Factory pipeline that is triggered hourly. The pipeline has had 100% success for the past seven days.

The pipeline execution fails, and two retries that occur 15 minutes apart also fail. The third failure returns the following error.

```

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

What is a possible cause of the error?

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

**Answer:** B

**NEW QUESTION 79**

- (Exam Topic 5)

You have SQL Server on an Azure virtual machine.

You need to add a 4-TB volume that meets the following requirements:

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

What should you do?

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

D. Attach a single 4-TB SSD.

**Answer:** B

**Explanation:**

Reference:

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

**NEW QUESTION 83**

- (Exam Topic 5)

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

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

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

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

NOTE: Each correct selection is worth one point.

Distribution:  ▼

Hash
Round robin
Replicated

Index:  ▼

Clustered columnstore
Clustered
Nonclustered

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

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

Box 1: Hash

Consider using a hash-distributed table when:

The table size on disk is more than 2 GB.

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

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

Reference:

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

**NEW QUESTION 86**

- (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 87**

- (Exam Topic 5)

Your company analyzes images from security cameras and sends alerts to security teams that respond to unusual activity. The solution uses Azure Databricks. You need to send Apache Spark level events, Spark Structured Streaming metrics, and application metrics to Azure Monitor.

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

**Actions**

**Answer Area**

- Deploy Grafana to an Azure virtual machine.
- Build a `spark-listeners-loganalytics-1.0-SNAPSHOT.jar` JAR file.
- Create Dropwizard counters in the application code.
- Create a data source in Azure Monitor.
- Configure the Databricks cluster to use the Databricks monitoring library.



- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Graphical user interface, text, application Description automatically generated with medium confidence

Send application metrics using Dropwizard.

Spark uses a configurable metrics system based on the Dropwizard Metrics Library.

To send application metrics from Azure Databricks application code to Azure Monitor, follow these steps: Step 1: Configure your Azure Databricks cluster to use the Databricksmonitoring library.

Prerequisite: Configure your Azure Databricks cluster to use the monitoring library. Step 2: Build the `spark-listeners-loganalytics-1.0-SNAPSHOT.jar` JAR file

Step 3: Create Dropwizard gauges or counters in your application code

**NEW QUESTION 89**

- (Exam Topic 5)

You have 40 Azure SQL databases, each for a different customer. All the databases reside on the same Azure SQL Database server.

You need to ensure that each customer can only connect to and access their respective database. Which two actions should you perform? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

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

**Answer:** BC

**Explanation:**

Manage database access by adding users to the database, or allowing user access with secure connection strings.

Database-level firewall rules only apply to individual databases. Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/secure-database-tutorial>

**NEW QUESTION 92**

- (Exam Topic 5)

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

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

What should you include in the recommendation?

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

**Answer: B**

**Explanation:**

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

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

Example:

XXXX-XXXX-XXXX-1234

**NEW QUESTION 96**

- (Exam Topic 5)

You have SQL Server on an Azure virtual machine.

You need to use Policy-Based Management in Microsoft SQL Server to identify stored procedures that do not comply with your naming conventions.

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
Export a built-in policy.	
Create a custom policy based on a condition.	
Create a custom condition based on a built-in facet.	⬅️ ⬆️
View the policy history.	➡️ ⬇️
Import a policy file.	
Run a policy evaluation.	

- A. Mastered
- B. Not Mastered

**Answer: A**

**Explanation:**

Text Description automatically generated

Reference:

<https://www.mssqltips.com/sqlservertip/2298/enforce-sql-server-database-naming-conventions-using-policy-bas>

**NEW QUESTION 100**

- (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 104**

- (Exam Topic 5)

You are designing a streaming data solution that will ingest variable volumes of data. You need to ensure that you can change the partition count after creation.

Which service should you use to ingest the data?

- A. Azure Event Hubs Standard
- B. Azure Stream Analytics
- C. Azure Data Factory
- D. Azure Event Hubs Dedicated

**Answer:** D

**Explanation:**

The partition count for an event hub in a dedicated Event Hubs cluster can be increased after the event hub has been created.

Reference:

<https://docs.microsoft.com/en-us/azure/event-hubs/event-hubs-features#partitions>

**NEW QUESTION 106**

- (Exam Topic 5)

You need to migrate an on-premises Microsoft SQL Server database to Azure SQL Database. The solution must minimize downtime. What should you do?

- A. Configure Transaction Log Shipping.
- B. Implement Always On availability groups.
- C. Configure transactional replication.
- D. Import a BACPAC.

**Answer:** C

**Explanation:**

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/migrate-to-database-from-sql-server#method-1-migra>

**NEW QUESTION 111**

- (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 115**

- (Exam Topic 5)

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

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

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

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

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

Solution: In an Azure Synapse Analytics pipeline, you use a Get Metadata activity that retrieves the DateTime of the files.

Does this meet the goal?

- A. Yes
- B. No

**Answer:** B

**Explanation:**

Instead use a serverless SQL pool to create an external table with the extra column. Reference:

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

**NEW QUESTION 119**

- (Exam Topic 5)

You have an Azure SQL database.

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

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

What should you use?

- A. Performance Recommendations in the Azure portal

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

**Answer:** C

**Explanation:**

Use the Query Store Page in SQL Server Management Studio.

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

Since the Query Store retains multiple execution plans per query, it can enforce policies to direct the Query Processor to use a specific execution plan for a query. This is referred to as plan forcing. Plan forcing in Query Store is provided by using a mechanism similar to the USE PLAN query hint, but it does not require any change in user applications. Plan forcing can resolve a query performance regression caused by a plan change in a very short period of time.

Reference:

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

**NEW QUESTION 122**

- (Exam Topic 5)

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

- > Send the output to an Azure Synapse.
- > Identify spikes and dips in time series data.
- > Minimize development and configuration effort. Which should you include in the solution?

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

**Answer:** C

**Explanation:**

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

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

**NEW QUESTION 127**

- (Exam Topic 5)

You have an Azure SQL database named DBI that contains a nonclustered index named index1. End users report slow queries when they use index1. You need to identify the operations that are being performed on the index. Which dynamic management view should you use?

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

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

**Answer:** D

**NEW QUESTION 129**

- (Exam Topic 5)

You are designing a star schema for a dataset that contains records of online orders. Each record includes an order date, an order due date, and an order ship date.

You need to ensure that the design provides the fastest query times of the records when querying for arbitrary date ranges and aggregating by fiscal calendar attributes.

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

- A. Create a date dimension table that has a DateTime key.
- B. Create a date dimension table that has an integer key in the format of YYYYMMDD.
- C. Use built-in SQL functions to extract date attributes.
- D. Use integer columns for the date fields.
- E. Use DateTime columns for the date fields.

**Answer:** BD

**Explanation:**

Reference:

[https://community.idera.com/database-tools/blog/b/community\\_blog/posts/why-use-a-date-dimension-table-ina](https://community.idera.com/database-tools/blog/b/community_blog/posts/why-use-a-date-dimension-table-ina)

**NEW QUESTION 130**

- (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 134**

- (Exam Topic 5)

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

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

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

**Answer:** A

**NEW QUESTION 135**

- (Exam Topic 5)

You are performing exploratory analysis of bus fare data in an Azure Data Lake Storage Gen2 account by using an Azure Synapse Analytics serverless SQL pool. You execute the Transact-SQL query shown in the following exhibit.

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

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

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

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

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

	▼
a header	
a data	
an empty	

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Graphical user interface, table Description automatically generated

Box 1: CSV files that have file named beginning with "tripdata\_2020" Box 2: a header

FIRSTROW = 'first\_row'

Specifies the number of the first row to load. The default is 1 and indicates the first row in the specified data file. The row numbers are determined by counting the row terminators. FIRSTROW is 1-based.

Reference:

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

#### NEW QUESTION 136

- (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 139

- (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 144

- (Exam Topic 5)

You have an Azure Data Factory that contains 10 pipelines.

You need to label each pipeline with its main purpose of either ingest, transform, or load. The labels must be available for grouping and filtering when using the monitoring experience in Data Factory.

What should you add to each pipeline?

- A. an annotation
- B. a resource tag
- C. a run group ID
- D. a user property
- E. a correlation ID

**Answer: A**

**Explanation:**

Azure Data Factory annotations help you easily filter different Azure Data Factory objects based on a tag. You can define tags so you can see their performance or find errors faster.

Reference:

<https://www.techtalkcorner.com/monitor-azure-data-factory-annotations/>

#### NEW QUESTION 145

- (Exam Topic 5)

You have a Microsoft SQL Server 2017 server.

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

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

What should you use?

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

D. Azure SQL Managed Instance

Answer: A

**NEW QUESTION 147**

- (Exam Topic 5)

You have a version-8.0 Azure Database for MySQL database.

You need to identify which database queries consume the most resources. Which tool should you use?

- A. Query Store
- B. Metrics
- C. Query Performance Insight
- D. Alerts

Answer: A

**Explanation:**

The Query Store feature in Azure Database for MySQL provides a way to track query performance over time. Query Store simplifies performance troubleshooting by helping you quickly find the longest running and most resource-intensive queries. Query Store automatically captures a history of queries and runtime statistics, and it retains them for your review. It separates data by time windows so that you can see database usage patterns.

Data for all users, databases, and queries is stored in the mysql schema database in the Azure Database for MySQL instance. Reference:

<https://docs.microsoft.com/en-us/azure/mysql/concepts-query-store>

**NEW QUESTION 149**

- (Exam Topic 5)

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

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

You need to create a data source in Pool1 that you can reference when you create the external table. How should you complete the Transact-SQL statement? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

CREATE EXTERNAL DATA SOURCE source1

WITH

( LOCATION = 'https://account1.  .core.windows.net',

<input type="text"/>
blob
dfs
table

<input type="text"/>
PUSHDOWN = ON
TYPE = BLOB_STORAGE
TYPE = HADOOP

)

- A. Mastered
- B. Not Mastered

Answer: A

**Explanation:**

Graphical user interface, table Description automatically generated

Box 1: blob

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

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

Box 2: HADOOP

Reference:

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

**NEW QUESTION 152**

- (Exam Topic 5)

You have the following Azure Data Factory pipelines:

- > Ingest Data from System1
- > Ingest Data from System2
- > Populate Dimensions
- > Populate Facts

Ingest Data from System1 and Ingest Data from System2 have no dependencies. Populate Dimensions must execute after Ingest Data from System1 and Ingest Data from System2. Populate Facts must execute after the Populate Dimensions pipeline. All the pipelines must execute every eight hours.

What should you do to schedule the pipelines for execution?

- A. Add a schedule trigger to all four pipelines.
- B. Add an event trigger to all four pipelines.
- C. Create a parent pipeline that contains the four pipelines and use an event trigger.

D. Create a parent pipeline that contains the four pipelines and use a schedule trigger.

**Answer:** D

**Explanation:**

Reference:

<https://www.mssqltips.com/sqlservertip/6137/azure-data-factory-control-flow-activities-overview/>

**NEW QUESTION 157**

- (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 162**

- (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 schedule an Azure Databricks job that executes an R notebook, and then inserts the data into the data warehouse.

Does this meet the goal?

- A. Yes
- B. No

**Answer:** B

**Explanation:**

Must use an Azure Data Factory, not an Azure Databricks job. Reference:

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

**NEW QUESTION 163**

- (Exam Topic 5)

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

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

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

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

NOTE: Each correct selection is worth one point.

Run:

- A full backup and a log backup appended to the same file by using the WITH CHECKSUM option
- A full backup and a log backup to separate files by using the WITH CHECKSUM option
- A full backup and a log backup to separate files by using the WITH FILE\_SNAPSHOT option

Store the backup in:

- A Recovery Services vault
- An Azure Blob storage account
- An SMB file share

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Graphical user interface, application, Word Description automatically generated

Reference:

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

**NEW QUESTION 168**

- (Exam Topic 5)

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

Name	Type	Azure region
VM1	Azure virtual machine	West US 2
MI1	Azure SQL Managed Instance	East US

You need to configure a connection between VM1 and MIL The solution must meet the following requirements:

- The connection must be encrypted.
- Network latency must be minimized. What should you implement?

- A. virtual network peering
- B. private endpoints
- C. service endpoints
- D. a site-to-site VPN

**Answer: B**

**NEW QUESTION 173**

- (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 178**

- (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 179**

- (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 184**

- (Exam Topic 5)

You have an Azure SQL database named DB1 that contains a private certificate named Sales. The private key for Sales is encrypted with a password. You need to change the password for the private key. Which

Transact-SQL statement should you run?

A)

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

B)

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

C)

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

D)

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

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

**Answer:** C

**NEW QUESTION 187**

- (Exam Topic 5)

You have an Azure SQL database named DB1.

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

Which deployment option and pricing tier should you configure?

- A. Azure SQL Database Premium
- B. Azure SQL Database serverless
- C. Azure SQL Database managed instance Business Critical
- D. Azure SQL Database Standard

**Answer:** A

**Explanation:**

By default, the cluster of nodes for the premium availability model is created in the same datacenter. With the introduction of Azure Availability Zones, SQL Database can place different replicas of the Business Critical database to different availability zones in the same region. To eliminate a single point of failure, the control ring is also duplicated across multiple zones as three gateway rings (GW). The routing to a specific gateway ring is controlled by Azure Traffic Manager

(ATM). Because the zone redundant configuration in the Premium or Business Critical service tiers does not create additional database redundancy, you can enable it at no extra cost. By selecting a zone redundant configuration, you can make your Premium or Business Critical databases resilient to a much larger set of failures, including catastrophic datacenter outages, without any changes to the application logic. You can also convert any existing Premium or Business Critical databases or pools to the zone redundant configuration.

Reference:

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

**NEW QUESTION 189**

- (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 191**

- (Exam Topic 5)

You have an Azure SQL database named db1 that contains an Azure Active Directory (Azure AD) user named user1.

You need to test impersonation of user1 in db1 by running a SELECT statement and returning to the original execution context.

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

NOTE: Each correct selection is worth one point.

EXECUTE AS  = 'user1@contoso.com'

CALLER
LOGIN
OWNER
USER

GO

SELECT SUSER\_SNAME ()

REVERT
REVOKE
ROLLBACK

GO

- A. Mastered
- B. Not Mastered

**Answer: A**

**Explanation:**

Graphical user interface Description automatically generated

Reference:

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

**NEW QUESTION 192**

- (Exam Topic 5)

You have SQL Server on an Azure virtual machine that contains a database named Db1.

You need to enable automatic tuning for Db1.

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

NOTE: Each correct selection is worth one point.

ALTER DATABASE [Db1]

```

SET AUTOMATIC_TUNING (FORCE_LAST_GOOD_PLAN=OFF)
SET AUTOMATIC_TUNING (FORCE_LAST_GOOD_PLAN=ON)
SET AUTOMATIC_TUNING=AUTO
SET QUERY_STORE=OFF
SET QUERY_STORE=ON(OPERATION_MODE=READ_ONLY)
SET QUERY_STORE=ON(OPERATION_MODE=READ_WRITE)
    
```

GO

ALTER DATABASE [Db1]

```

SET AUTOMATIC_TUNING (FORCE_LAST_GOOD_PLAN=OFF)
SET AUTOMATIC_TUNING (FORCE_LAST_GOOD_PLAN=ON)
SET AUTOMATIC_TUNING=AUTO
SET QUERY_STORE=OFF
SET QUERY_STORE=ON(OPERATION_MODE=READ_ONLY)
SET QUERY_STORE=ON(OPERATION_MODE=READ_WRITE)
    
```

GO

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Box 1: SET AUTOMATIC\_TUNING = AUTO

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

ALTER DATABASE current SET AUTOMATIC\_TUNING = AUTO

Setting automatic tuning to AUTO will apply Azure Defaults.

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

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

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

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

Reference:

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

**NEW QUESTION 193**

- (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 198**

- (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 201**

- (Exam Topic 5)

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

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

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

**Answer: D**

**Explanation:**

Reference:

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

**NEW QUESTION 203**

- (Exam Topic 5)

You have an Azure SQL database named DB1.

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

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

**Answer: A**

**Explanation:**

Reference:

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

**NEW QUESTION 207**

- (Exam Topic 5)

You have an Azure SQL logical server. You run the following script.

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

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

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

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

- A. Mastered
- B. Not Mastered

**Answer: A**

**Explanation:**

Yes  
No No

**NEW QUESTION 209**

- (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 210**

- (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 214**

- (Exam Topic 5)

You have an instance of SQL Server on Azure Virtual Machines that has a database named DB1. You plan to implement Azure SQL Data Sync for DB1. Which isolation level should you configure?

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

**Answer:** B

**Explanation:**

Reference:

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

**NEW QUESTION 218**

- (Exam Topic 4)

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

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

**Answer:** B

**Explanation:**

Scenario: Contoso requirements for the sales transaction dataset include: Implement a surrogate key to account for changes to the retail store addresses.

A surrogate key on a table is a column with a unique identifier for each row. The key is not generated from the table data. Data modelers like to create surrogate keys on their tables when they design data warehouse models. You can use the IDENTITY property to achieve this goal simply and effectively without affecting load performance.

Reference:

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

**NEW QUESTION 223**

- (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 224**

- (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 227**

- (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 228**

- (Exam Topic 2)

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

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

**Answer: B**

**Explanation:**

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

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

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

Reference:

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

**NEW QUESTION 233**

- (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 237**

- (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 241**

- (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 242**

- (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)

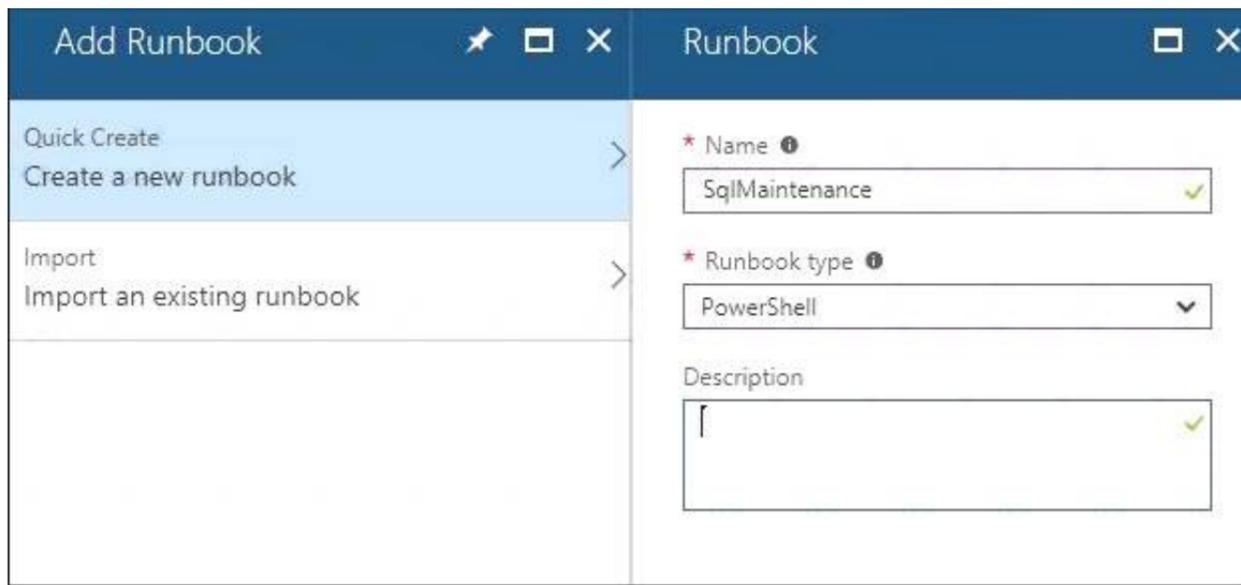
\* 3. Add Credentials to access SQL DB

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 Schedules 2. Click on "Add a schedule" and follow the instructions to choose existing schedule or create a new schedule.

Reference:

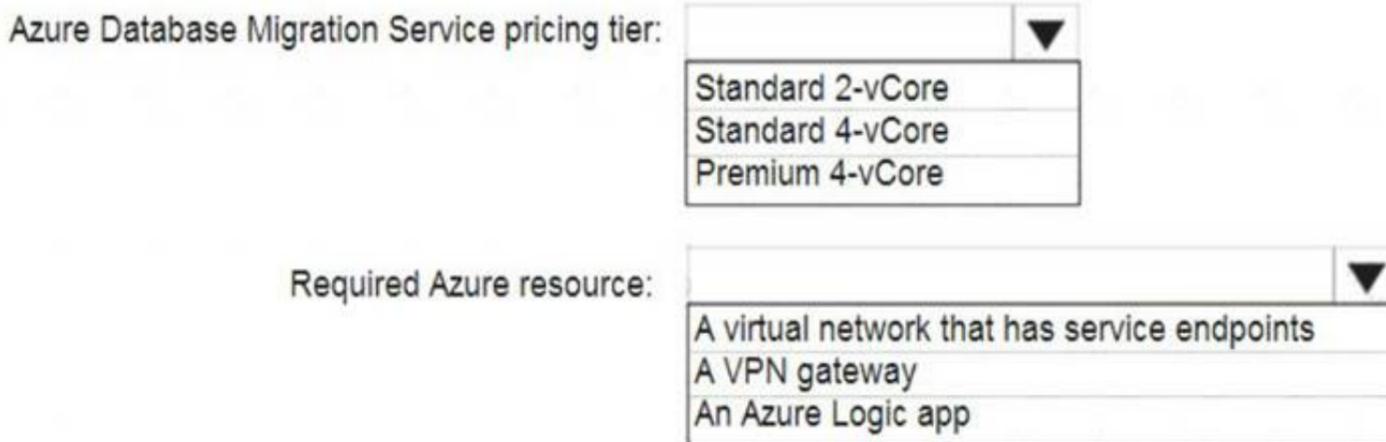
<https://techcommunity.microsoft.com/t5/azure-database-support-blog/automating-azure-sql-db-index-and-statist>

**NEW QUESTION 246**

- (Exam Topic 1)

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

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



- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Azure Database Migration service

Box 1: Premium 4-VCORE

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

> Minimize downtime during the migration of the SERVER1 databases.

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

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

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

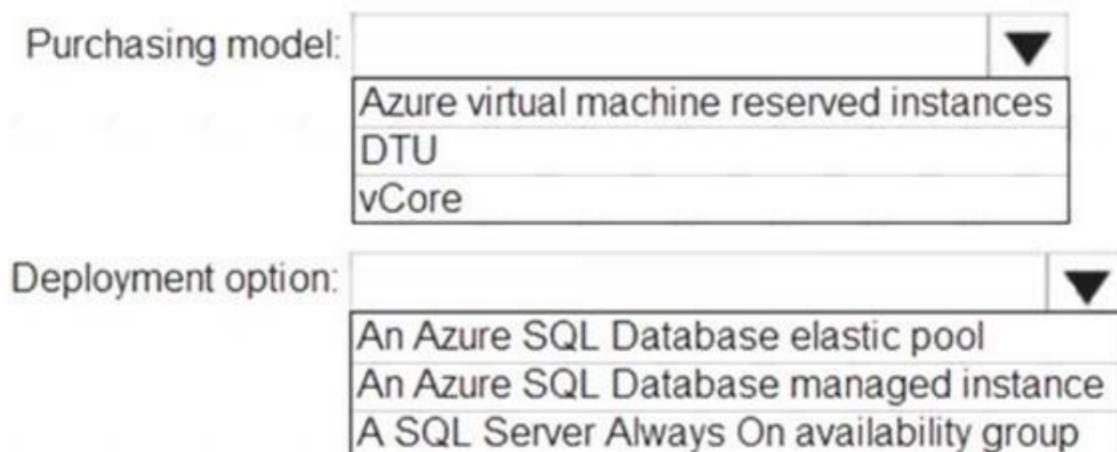
**NEW QUESTION 248**

- (Exam Topic 1)

You need to recommend the appropriate purchasing model and deployment option for the 30 new databases. The solution must meet the technical requirements and the business requirements.

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

NOTE: Each correct selection is worth one point.



- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Box 1: DTU

Scenario:

- > The 30 new databases must scale automatically.
- > Once all requirements are met, minimize costs whenever possible.

You can configure resources for the pool based either on the DTU-based purchasing model or the vCore-based purchasing model.

In short, for simplicity, the DTU model has an advantage. Plus, if you're just getting started with Azure SQL Database, the DTU model offers more options at the lower end of performance, so you can get started at a lower price point than with vCore.

Box 2: An Azure SQL database elastic pool

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. Elastic pools in Azure SQL Database enable SaaS developers to optimize the price performance for a group of databases within a prescribed budget while delivering performance elasticity for each database.

Reference:

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

**NEW QUESTION 252**

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