

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

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

What should you include in the backup strategy?

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

**Answer: B**

#### Explanation:

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

Reference:

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

### NEW QUESTION 2

- (Exam Topic 5)

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 3

- (Exam Topic 5)

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

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

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

NOTE: Each correct selection is worth one point.

Encryption key: ▼

Column encryption key
Database encryption key
Service master key

Encryption type: ▼

Deterministic
Randomized
Transparent Data Encryption (TDE)

- A. Mastered
- B. Not Mastered

**Answer: A**

#### Explanation:

Box 1: Column encryption Key

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

Reference:

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

#### NEW QUESTION 4

- (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 5

- (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 6

- (Exam Topic 5)

You have an Azure SQL managed instance.

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

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

NOTE: Each correct selection is worth one point.

RESTORE		DB1	FROM	
	▼			▼
DATABASE				DISK = N'\\NAS01\SSQLBackups\DB1.bak';
FILE				TAPE = N'\\.\Tape0'
LOG				URL = N'https://mybackups.blob.core.windows.net/bkups/DB1.bak'

A. Mastered

B. Not Mastered

**Answer:** A

**Explanation:**

Text Description automatically generated

#### NEW QUESTION 7

- (Exam Topic 5)

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

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

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

A. For DB1, set QUERY\_CAPTURE\_MODE of Query Store to All.

B. Run the SET SHOWPLAN\_ALL Transact-SQL statement.

C. Save the actual execution plan.

D. Enable Query Store for DB1.

**Answer:** C

**Explanation:**

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

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

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

#### NEW QUESTION 8

- (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 9

- (Exam Topic 5)

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

You scale up the virtual machine to 16 vCPUSs and 64 GB of memory. You need to provide the lowest latency for tempdb.

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

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

Answer: D

### Explanation:

The number of files depends on the number of (logical) processors on the machine. As a general rule, if the number of logical processors is less than or equal to eight, use the same number of data files as logical

processors. If the number of logical processors is greater than eight, use eight data files and then if contention continues, increase the number of data files by multiples of 4 until the contention is reduced to acceptable levels or make changes to the workload/code.

Reference:

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

### NEW QUESTION 10

- (Exam Topic 5)

You are building an Azure virtual machine.

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

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

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

## Actions

a virtual disk that uses the stripe layout

a virtual disk that uses the mirror layout

a volume

a virtual disk that uses the simple layout

a storage pool

## Answer Area



- A. Mastered
- B. Not Mastered

**Answer:** A

### Explanation:

Follow these same steps to create striped virtual disk:

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

Box 1: a storage pool

Box 2: a virtual disk that uses stripe layout

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

Box 3: a volume Reference:

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

### NEW QUESTION 10

- (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 12**

- (Exam Topic 5)

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

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

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

**Answer:** D

**Explanation:**

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

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

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

Reference:

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

**NEW QUESTION 13**

- (Exam Topic 5)

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

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You have 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 17**

- (Exam Topic 5)

You have an Azure subscription.

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

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

NOTE: Each correct selection is worth one point.

**Answer Area**

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

- A. Mastered
- B. Not Mastered

Answer: A

**Explanation:**

Text Description automatically generated

Reference:

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

**NEW QUESTION 21**

- (Exam Topic 5)

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

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

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

Answer: C

**Explanation:**

To send a notification in response to an alert, you must first configure SQL Server Agent to send mail.

Using SQL Server Management Studio; to configure SQL Server Agent to use Database Mail:

- In Object Explorer, expand a SQL Server instance.
- Right-click SQL Server Agent, and then click Properties.
- Click Alert System.



- Select Enable Mail Profile.
- In the Mail system list, select Database Mail.
- In the Mail profile list, select a mail profile for Database Mail.
- Restart SQL Server Agent.

Note: Prerequisites include:

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

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

#### NEW QUESTION 25

- (Exam Topic 5)

You have an Azure Databricks resource.

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

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

**Answer: E**

#### Explanation:

Cloud Provider Infrastructure Logs.

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

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

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

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

Reference:

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

#### NEW QUESTION 28

- (Exam Topic 5)

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

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You have 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 29

- (Exam Topic 5)

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

Which resource provider should you enable?

- A. Microsoft.EventHub
- B. Microsoft.EventGrid
- C. Microsoft.Sql
- D. Microsoft.Automation

**Answer: B**

#### Explanation:

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

Reference:

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

### NEW QUESTION 32

- (Exam Topic 5)

You have an Azure Synapse Analytics dedicated SQL pool.

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

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

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

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

**Answer: D**

#### Explanation:

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

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

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

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

Reference:

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

### NEW QUESTION 37

- (Exam Topic 5)

You have an Azure Active Directory (Azure AD) tenant named `contoso.com` that contains a user named `user1@contoso.com` and an Azure SQL managed instance named `SQLMI1`.

You need to ensure that `user1@contoso.com` can create logins in `SQLMI1` that map to Azure AD service principals.

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

Actions

Run CREATE LOGIN user1@contoso.com FROM EXTERNAL PROVIDER on the master database.

Run ALTER SERVER ROLE securityadmin ADD MEMBER user1@contoso.com.

Create a managed identity for SQLMI1.

Grant SQLMI1 read access to Azure AD.

Run CREATE USER user1@contoso.com FROM LOGIN user1@contoso.com.

Answer Area

⏪

⏩

⏴

⏵

- A. Mastered  
 B. Not Mastered

**Answer:** A

**Explanation:**

Text Description automatically generated with medium confidence

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/managed-instance/aad-security-configure-tutorial>

**NEW QUESTION 39**

- (Exam Topic 5)

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

ADF1 contains the following pipelines:

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

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

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

P1:

▼

Set the Copy method to Bulk insert.

Set the Copy method to PolyBase.

Set the Isolation level to Repeatable read.

Set the Partition option to Dynamic range.

P2:

▼

Set the Copy method to Bulk insert.

Set the Copy method to PolyBase.

Set the Isolation level to Repeatable read.

Set the Partition option to Dynamic range.

- A. Mastered  
 B. Not Mastered

**Answer:** A

**Explanation:**

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

P1: Set the Partition option to Dynamic Range.

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

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

Reference:

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

**NEW QUESTION 41**

- (Exam Topic 5)

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

- A. automated



- B. interactive
- C. High Concurrency

**Answer:** A

**Explanation:**

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

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

Reference:

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

**NEW QUESTION 43**

- (Exam Topic 5)

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

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

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

**Answer:** B

**Explanation:**

Geo-redundant storage (with GRS or GZRS) replicates your data to another physical location in the secondary region to protect against regional outages.

However, that data is available to be read only if the customer or Microsoft initiates a failover from the primary to secondary region. When you enable read access to the secondary region, your data is available to be read if the primary region becomes unavailable. For read access to the secondary region, enable read-access geo-redundant storage (RA-GRS) or read-access geo-zone-redundant storage (RA-GZRS).

Reference:

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

**NEW QUESTION 46**

- (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 counters in your application code Create Dropwizard gauges or counters in your application code

**NEW QUESTION 50**

- (Exam Topic 5)



You plan to develop a dataset named Purchases by using Azure Databricks. Purchases will contain the following columns:

- > ProductID
- > ItemPrice
- > LineTotal
- > Quantity
- > StoreID
- > Minute
- > Month
- > Hour
- > Year
- > Day

You need to store the data to support hourly incremental load pipelines that will vary for each StoreID. The solution must minimize storage costs.

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

NOTE: Each correct selection is worth one point.

df.write

.bucketBy	("")
.partitionBy	("StoreID", "Hour")
.range	("StoreID", "Year", "Month", "Day", "Hour")
.sortBy	("Year", "Month", "Day", "Hour", "StoreID")

.mode("append")

.csv("/Purchases")
.json("/Purchases")
.parquet("/Purchases")
.saveAsTable("/Purchases")

- A. Mastered
- B. Not Mastered

Answer: A

#### Explanation:

Graphical user interface, text, application Description automatically generated

Box 1: .partitionBy Example:

df.write.partitionBy("y","m","d") mode(SaveMode.Append) parquet("/data/hive/warehouse/db\_name.db/" + tableName) Box 2:

("Year","Month","Day","Hour","StoreID")

Box 3: .parquet("/Purchases") Reference:

<https://intellipaas.com/community/11744/how-to-partition-and-write-dataframe-in-spark-without-deleting-partitions>

#### NEW QUESTION 52

- (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 57

- (Exam Topic 5)

You have SQL Server on an Azure virtual machine that contains a database named DB1. DB1 is 30 TB and has a 1-GB daily rate of change.

You back up the database by using a Microsoft SQL Server Agent job that runs Transact-SQL commands. You perform a weekly full backup on Sunday, daily differential backups at 01:00, and transaction log backups every five minutes.

The database fails on Wednesday at 10:00.

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

Actions	Answer Area
Monday, Tuesday, and then Wednesday differential backups	
Wednesday, Tuesday, and then Monday log backups	
full backup	
Monday, Tuesday, and then Wednesday log backups	
Wednesday, Tuesday, and then Monday differential backups	
Wednesday log backups	
Wednesday differential backup	

- A. Mastered  
 B. Not Mastered

Answer: A

Explanation:

Actions	Answer Area
Monday, Tuesday, and then Wednesday differential backups	full backup
Wednesday, Tuesday, and then Monday log backups	Wednesday differential backup
full backup	Wednesday log backups
Monday, Tuesday, and then Wednesday log backups	
Wednesday, Tuesday, and then Monday differential backups	
Wednesday log backups	
Wednesday differential backup	

#### NEW QUESTION 60

- (Exam Topic 5)

Your company uses Azure Stream Analytics to monitor devices.

The company plans to double the number of devices that are monitored.

You need to monitor a Stream Analytics job to ensure that there are enough processing resources to handle the additional load.

Which metric should you monitor?

- A. Input Deserialization Errors  
 B. Late Input Events  
 C. Early Input Events  
 D. Watermark delay

Answer: D

Explanation:

The Watermark delay metric is computed as the wall clock time of the processing node minus the largest watermark it has seen so far.

The watermark delay metric can rise due to:

- \* 1. Not enough processing resources in Stream Analytics to handle the volume of input events.
- \* 2. Not enough throughput within the input event brokers, so they are throttled.
- \* 3. Output sinks are not provisioned with enough capacity, so they are throttled. Reference:

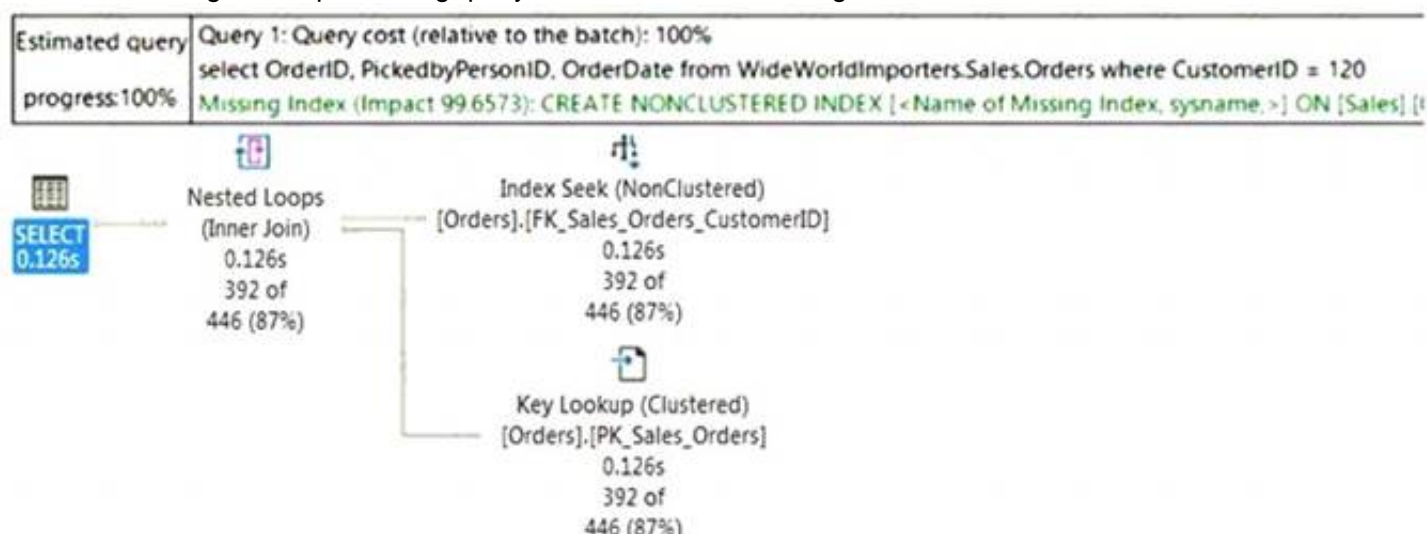
<https://docs.microsoft.com/en-us/azure/stream-analytics/stream-analytics-time-handling>

## NEW QUESTION 61

- (Exam Topic 5)

You have an Azure SQL database.

You are reviewing a slow performing query as shown in the following exhibit.



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

NOTE: Each correct selection is worth one point.

The exhibit shows [answer choice].

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

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

- Index Seek
- Key Lookup
- Nested Loops

- A. Mastered
- B. Not Mastered

Answer: A

### Explanation:

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

Reference:

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

## NEW QUESTION 66

- (Exam Topic 5)

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

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

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

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

Solution: You run the Remove-AzSqlDatabase PowerShell cmdlet for Database1 on Server2. You run the Restore-AzSqlDatabase PowerShell cmdlet for Database1 on Server2.

Does this meet the goal?

- A. Yes
- B. No

Answer: B

### Explanation:

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

Note: REPLACE should be used rarely and only after careful consideration. Restore normally prevents accidentally overwriting a database with a different database. If the database specified in a RESTORE statement already exists on the current server and the specified database family GUID differs from the database family GUID recorded in the backup set, the database is not restored. This is an important safeguard.

Reference:

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

## NEW QUESTION 70

- (Exam Topic 5)

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

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

You have an Azure SQL database named Sales.



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

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

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

- A. Yes
- B. No

**Answer: B**

**Explanation:**

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

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

Reference:

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

**NEW QUESTION 71**

- (Exam Topic 5)

You have an Azure Stream Analytics job.

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

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

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

**Answer: CD**

**Explanation:**

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

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

Reference:

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

**NEW QUESTION 72**

- (Exam Topic 5)

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

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

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

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

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

Does this meet the goal?

- A. Yes
- B. No

**Answer: A**

**Explanation:**

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

Reference:

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

**NEW QUESTION 77**

- (Exam Topic 5)

You have a Microsoft SQL Server 2019 instance in an on-premises datacenter. The instance contains a 4-TB database named DB1.

You plan to migrate DB1 to an Azure SQL Database managed instance.

What should you use to minimize downtime and data loss during the migration?

- A. distributed availability groups
- B. database mirroring
- C. log shipping
- D. Database Migration Assistant

**Answer: D**

**Explanation:**



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

### NEW QUESTION 81

- (Exam Topic 5)

You have an Azure SQL managed instance.

You need to enable SQL Agent Job email notifications. What should you do?

- A. Use the Agent XPs option.
- B. Enable the SQL Server Agent.
- C. Run the sp\_configure command.
- D. Run the sp\_set\_agent\_properties command.

**Answer: C**

### NEW QUESTION 82

- (Exam Topic 5)

You manage an enterprise data warehouse in Azure Synapse Analytics.

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

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

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

**Answer: A**

#### Explanation:

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

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

Reference:

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

### NEW QUESTION 86

- (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 87**

- (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 90**

- (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 93**

- (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 94**

- (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',
```

blob
dfs
table

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 96**

- (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?

- Add a schedule trigger to all four pipelines.
- Add an event trigger to all four pipelines.
- Create a parent pipeline that contains the four pipelines and use an event trigger.
- 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 100**

- (Exam Topic 5)

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

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

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

**Answer: C**

## NEW QUESTION 101

- (Exam Topic 5)

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

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

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

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

**Answer: A**

#### NEW QUESTION 102

- (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 104

- (Exam Topic 5)

You have a resource group named App1Dev that contains an Azure SQL Database server named DevServer1. DevServer1 contains an Azure SQL database named DB1. The schema and permissions for DB1 are saved in a Microsoft SQL Server Data Tools (SSDT) database project.

You need to populate a new resource group named App1Test with the DB1 database and an Azure SQL Server named TestServer1. The resources in App1Test must have the same configurations as the resources in App1Dev.

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

Change the Active Directory Admin on TestServer1

Change the server name and related variables in the templates

From the database project, deploy the database schema and permissions

Add IP addresses to the firewall

From the Azure portal, export the Azure Resource Manager templates

From the Azure portal, deploy the templates.



- A. Mastered
- B. Not Mastered

**Answer:** A

#### Explanation:



## Actions

Change the Active Directory Admin on TestServer1

Change the server name and related variables in the templates

From the database project, deploy the database schema and permissions

Add IP addresses to the firewall

From the Azure portal, export the Azure Resource Manager templates

From the Azure portal, deploy the templates.

## Answer Area

From the Azure portal, export the Azure Resource Manager templates

Change the server name and related variables in the templates

From the Azure portal, deploy the templates.

From the database project, deploy the database schema and permissions

### NEW QUESTION 109

- (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%',
ENCPTION 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 113

- (Exam Topic 5)

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

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

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

What should you do?

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

Answer: A

### Explanation:

Reference:

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

### NEW QUESTION 115

- (Exam Topic 5)

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

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

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

### Actions

### Answer Area

Encrypt the Salary column by using the randomized encryption type.

Create a column encryption key.

Enable Transparent Data Encryption (TDE).

Encrypt the Salary column by using the deterministic encryption type.

Apply a dynamic data mask to the Salary column.

Create a column master key.



- A. Mastered
- B. Not Mastered

**Answer:** A

#### Explanation:

Step 1: Create a column master key

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

Step 2: Create a column encryption key.

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

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

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

Reference:

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

#### NEW QUESTION 117

- (Exam Topic 5)

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

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

You have an Azure SQL database named Sales.

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

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

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

- A. Yes
- B. No

**Answer:** B

#### Explanation:

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

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

Reference:

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

#### NEW QUESTION 119

- (Exam Topic 5)

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

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

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

NOTE: Each correct selection is worth one point.



SELECT  as HighestScore

Collect(Score)
CollectTop(1)OVER(ORDER BY Score Desc)
Game, MAX(Score)
TopOne() OVER(PARTITION BY Game ORDER BY Score Desc)

FROM input TIMESTAMP BY CreatedAt

GROUP BY

Game
Hopping(minute, 5)
Tumbling(minute, 5)
Windows(TumblingWindow(minute, 5), Hopping(minute, 5))

- A. Mastered  
B. Not Mastered

Answer: A

#### Explanation:

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

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

Analytic Function Syntax:

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

DURATION clause> [<WHEN clause>])

Box 2: Tumbling(minute 5)

Tumbling window functions are used to segment a data stream into distinct time segments and perform a function against them, such as the example below. The key differentiators of a Tumbling window are that they repeat, do not overlap, and an event cannot belong to more than one tumbling window.

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



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

Reference:

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

#### NEW QUESTION 124

- (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 126

- (Exam Topic 5)

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

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

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

NOTE: Each correct selection is worth one point.

Configuration setting:

DATA_FLUSH_INTERVAL_SECONDS
INTERVAL_LENGTH_MINUTES
MAX_PLANS_PER_QUERY
QUERY_CAPTURE_MODE

Value:

1
60
CUSTOM
ON

- A. Mastered
- B. Not Mastered

Answer: A

#### Explanation:

Graphical user interface, text, application Description automatically generated

#### NEW QUESTION 128

- (Exam Topic 5)

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

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

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

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

Answer: A

#### Explanation:

Reference:

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

#### NEW QUESTION 129

- (Exam Topic 5)

You have an Azure SQL database named db1.

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

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

NOTE: Each correct selection is worth one point.



SELECT \*

FROM

▼

sys.dm\_db\_resource\_stats

sys.dm\_exec\_requests

sys.dm\_user\_db\_resource\_governance

sys.resource\_stats

WHERE database\_name = 'db1' AND

start\_time > 

▼

DATEADD

DATEDIFF

DATEPART

TODATETIMEOFFSET

 (day, -7, GETDATE())

ORDER BY start\_time DESC;

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Box 1: sys.resource\_stats  
sys.resource\_stats returns CPU usage and storage data for an Azure SQL Database. It has database\_name and start\_time columns.  
Box 2: DateAdd  
The following example returns all databases that are averaging at least 80% of compute utilization over the last one week.  
DECLARE @s datetime; DECLARE @e datetime;  
SET @s= DateAdd(d,-7,GetUTCDate()); SET @e= GETUTCDATE();  
SELECT database\_name, AVG(avg\_cpu\_percent) AS Average\_Compute\_Utilization FROM sys.resource\_stats  
WHERE start\_time BETWEEN @s AND @e GROUP BY database\_name  
HAVING AVG(avg\_cpu\_percent) >= 80  
Reference:  
<https://docs.microsoft.com/en-us/sql/relational-databases/system-catalog-views/sys-resource-stats-azure-sql-data>

NEW QUESTION 131

- (Exam Topic 5)  
You have an Azure subscription that contains an Azure SQL database named SQLDb1. SQLDb1 contains a table named Table1.  
You plan to deploy an Azure web app named webapp1 that will export rows in Table1 that have changed.  
You need to ensure that webapp1 can identify the changes to Table'. The solution must meet the following requirements:

- Minimize compute times.
- Minimize storage.

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

Actions

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

Connect to SQLDb1 and run the following Transact-SQL statement.

ALTER DATABASE SQLDb1 SET CHANGE\_TRACKING = ON

From webapp1, connect to SQLDb1, obtain the initial dataset, and run the CHANGE\_TRACKING\_CURRENT\_VERSION() function.

Connect to SQLDb1 and run the following Transact-SQL statement.

EXEC sys.sp\_cdc\_enable\_table

Connect to SQLDb1 and run the following Transact-SQL statement.

EXEC sys.sp\_cdc\_enable\_db

Connect to SQLDb1 and run the following Transact-SQL statement.

ALTER TABLE dbo.Table1 ENABLE CHANGE\_TRACKING

Answer Area

>

<

A. Mastered

B. Not Mastered

Answer: A

Explanation:

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### NEW QUESTION 136

- (Exam Topic 5)

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

You need to record whenever users query the CustomerPII table.

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

NOTE: Each correct selection is worth one point.

- A. server audit specification
- B. SQL Server audit
- C. database audit specification
- D. a server principal

**Answer:** AC

#### Explanation:

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

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

Note:

The Server Audit Specification object belongs to an audit.

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

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

### NEW QUESTION 137

- (Exam Topic 5)

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

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

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

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

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

Does this meet the goal?

- A. Yes
- B. No

**Answer:** B

### NEW QUESTION 139

- (Exam Topic 5)

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

Which isolation level should you configure?

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

**Answer:** B

#### Explanation:

Reference:

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

### NEW QUESTION 143

- (Exam Topic 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 145

- (Exam Topic 2)

You are evaluating the role assignments.

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

NOTE: Each correct selection is worth one point.

Statements	Yes	No
DBAGroup1 will be able to sign in to each customer's Azure SQL database by using Azure Data Studio.	<input type="radio"/>	<input type="radio"/>
DBAGroup1 will be able to assign the SQL DB Contributor role to other users.	<input type="radio"/>	<input type="radio"/>
DBAGroup2 will be able to create a new Azure SQL database on each customer's Azure SQL Database server.	<input type="radio"/>	<input type="radio"/>

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Box 1: Yes  
DBAGroup1 is member of the Contributor role.  
The Contributor role grants full access to manage all resources, but does not allow you to assign roles in Azure RBAC, manage assignments in Azure Blueprints, or share image galleries.

Box 2: No

Box 3: Yes  
DBAGroup2 is member of the SQL DB Contributor role.  
The SQL DB Contributor role lets you manage SQL databases, but not access to them. Also, you can't manage their security-related policies or their parent SQL servers. As a member of this role you can create and manage SQL databases.

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

NEW QUESTION 150

- (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 152

- (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 155**

- (Exam Topic 1)

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

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

NOTE: Each correct selection is worth one point.

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

**Answer:** AE

**Explanation:**

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

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

E: Example:

The following query will show blocking information. SELECT

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

FROM sys.dm\_tran\_locks as t1

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

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

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

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

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

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

**NEW QUESTION 159**

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