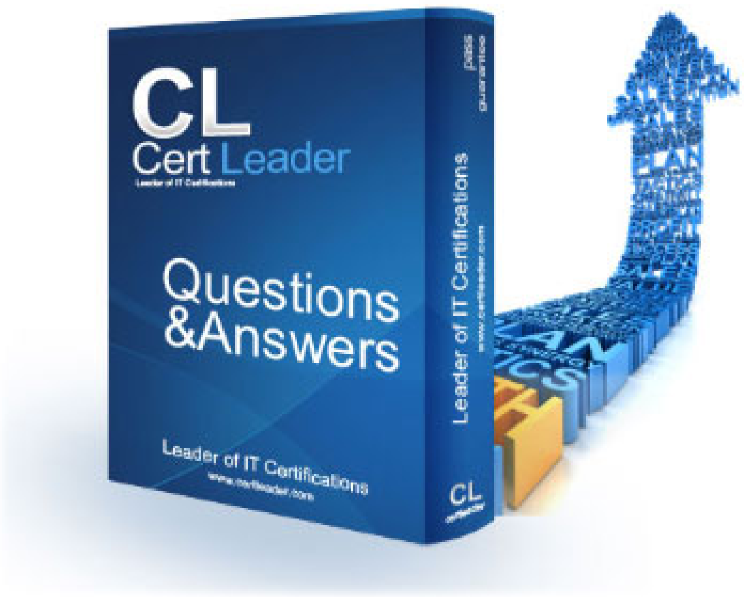
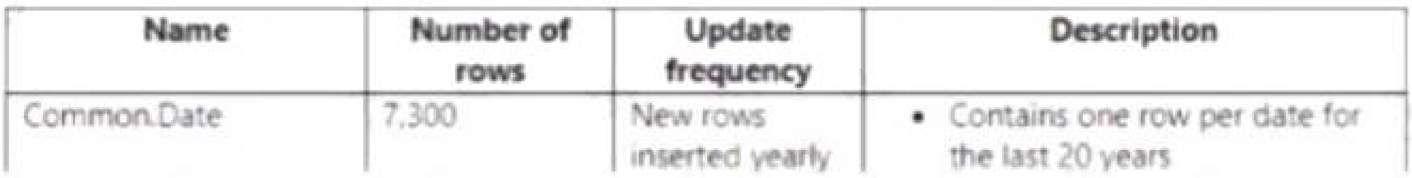
DP-203 Dumps

Data Engineering on Microsoft Azure

https://www.certleader.com/DP-203-dumps.html



NEW QUESTION 1
- (Exam Topic 3)
You have an Azure subscription.
You plan to build a data warehouse in an Azure Synapse Analytics dedicated SQL pool named pool1 that will contain staging tables and a dimensional model
Pool1 will contain the following tables.



Name	Number of rows	Update frequency	Description
Common.Date	7,300	New rows inserted yearly	• Contains one row per date for the last 20 years

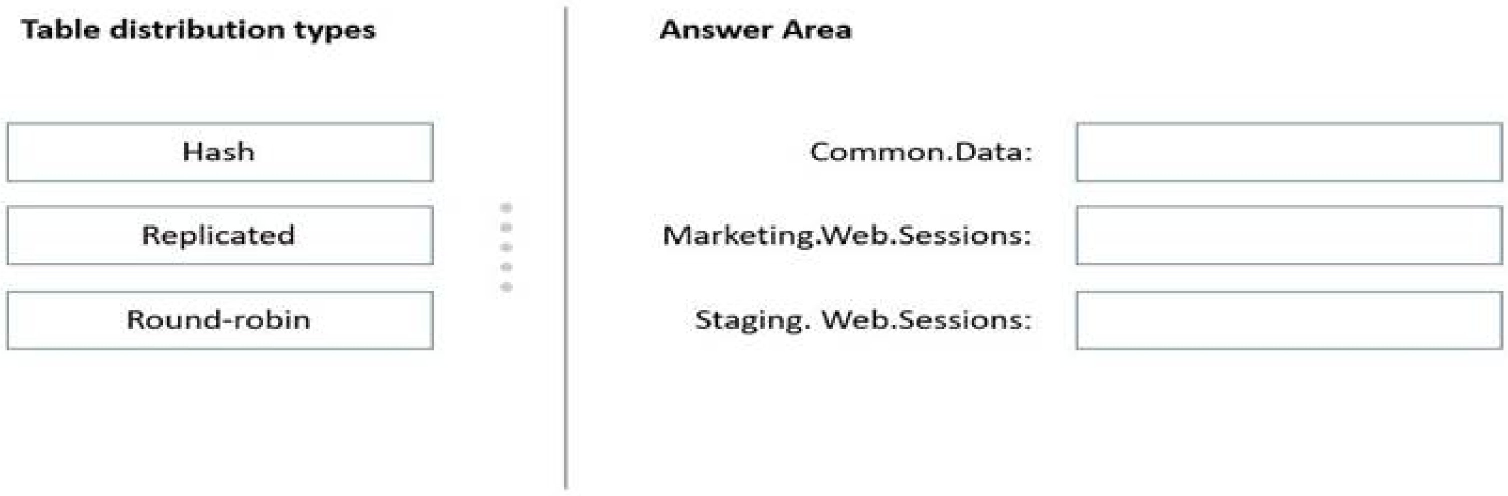


Table distribution types

Hash

Replicated

Round-robin

Answer Area

Common.Data:

Marketing.Web.Sessions:

Staging. Web.Sessions:

A. Mastered
B. Not Mastered

Answer: A

Explanation:

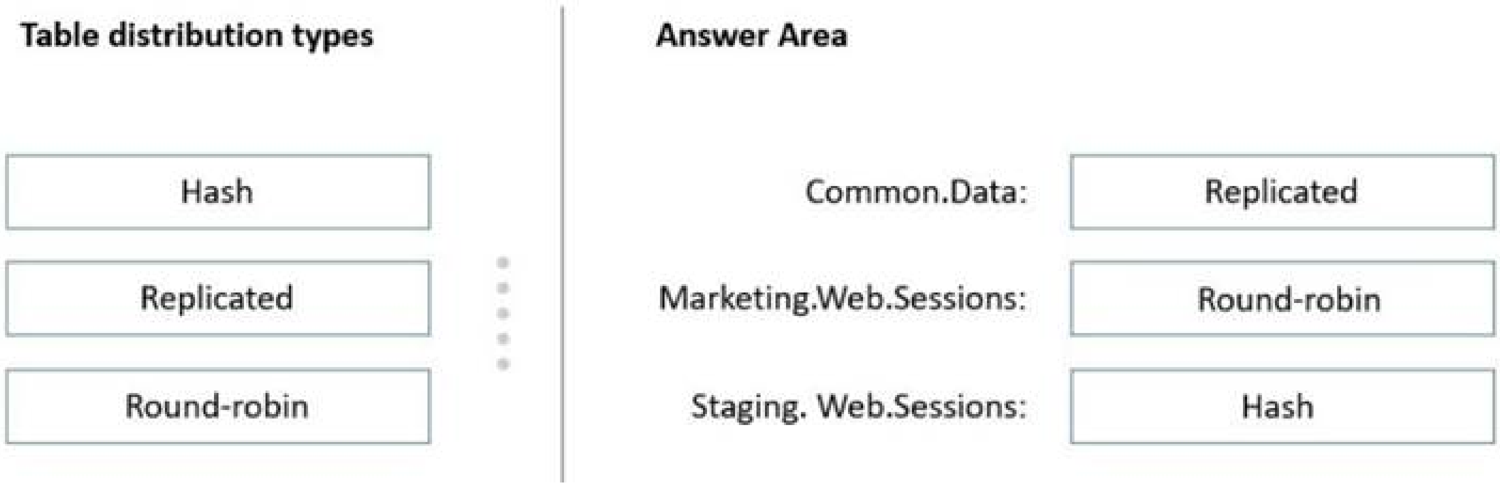


Table distribution types

Hash

Replicated

Round-robin

Answer Area

Common.Data: Replicated

Marketing.Web.Sessions: Round-robin

Staging. Web.Sessions: Hash

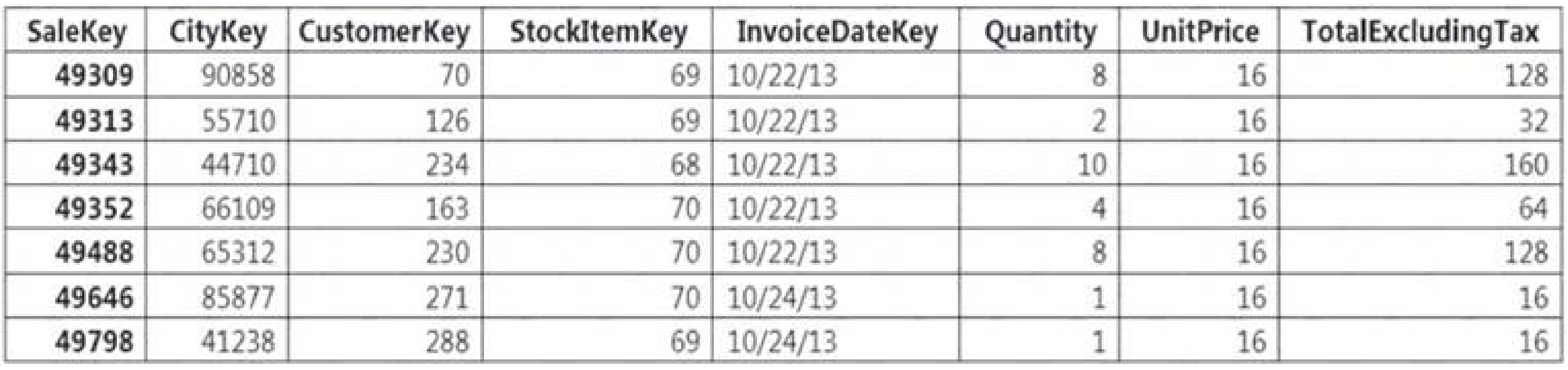
NEW QUESTION 2
- (Exam Topic 3)
A company has a real-time data analysis solution that is hosted on Microsoft Azure. The solution uses Azure Event Hub to ingest data and an Azure Stream Analytics cloud job to analyze the data. The cloud job is configured to use 120 Streaming Units (SU).
You need to optimize performance for the Azure Stream Analytics job.
Which two actions should you perform? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

A. Implement event ordering.
B. Implement Azure Stream Analytics user-defined functions (UDF).
C. Implement query parallelization by partitioning the data output.
D. Scale the SU count for the job up.
E. Scale the SU count for the job down.
F. Implement query parallelization by partitioning the data input.

Answer: DF

Explanation:
Reference:
https://docs.microsoft.com/en-us/azure/stream-analytics/stream-analytics-parallelization

NEW QUESTION 3
- (Exam Topic 3)
You implement an enterprise data warehouse in Azure Synapse Analytics. You have a large fact table that is 10 terabytes (TB) in size.
Incoming queries use the primary key SaleKey column to retrieve data as displayed in the following table:



SaleKey	CityKey	CustomerKey	StockItemKey	InvoiceDateKey	Quantity	UnitPrice	TotalExcludingTax
49309	90858	70	69	10/22/13	8	16	128
49313	55710	126	69	10/22/13	2	16	32
49343	44710	234	68	10/22/13	10	16	160
49352	66109	163	70	10/22/13	4	16	64
49488	65312	230	70	10/22/13	8	16	128
49646	85877	271	70	10/24/13	1	16	16
49798	41238	288	69	10/24/13	1	16	16

You need to distribute the large fact table across multiple nodes to optimize performance of the table. Which technology should you use?

A. hash distributed table with clustered index
B. hash distributed table with clustered Columnstore index
C. round robin distributed table with clustered index
D. round robin distributed table with clustered Columnstore index
E. heap table with distribution replicate

Answer: B

Explanation:
Hash-distributed tables improve query performance on large fact tables.
Columnstore indexes can achieve up to 100x better performance on analytics and data warehousing workloads and up to 10x better data compression than traditional rowstore indexes.
Reference:
https://docs.microsoft.com/en-us/azure/sql-data-warehouse/sql-data-warehouse-tables-distribute https://docs.microsoft.com/en-us/sql/relational-databases/indexes/columnstore-indexes-query-performance

NEW QUESTION 4
- (Exam Topic 3)
You have an Azure Data Lake Storage account that contains a staging zone.
You need to design a dairy 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.
Note: You can use data transformation activities in Azure Data Factory and Synapse pipelines to transform and process your raw data into predictions and insights at scale.
Reference:
https://docs.microsoft.com/en-us/azure/data-factory/transform-data

NEW QUESTION 5
- (Exam Topic 3)
You have several Azure Data Factory pipelines that contain a mix of the following types of activities.
* Wrangling data flow
* Notebook
* Copy
* jar
Which two Azure services should you use to debug the activities? Each correct answer presents part of the solution NOTE: Each correct selection is worth one point.

A. Azure HDInsight
B. Azure Databricks
C. Azure Machine Learning
D. Azure Data Factory
E. Azure Synapse Analytics

Answer: CE

NEW QUESTION 6
- (Exam Topic 3)
You are designing an Azure Databricks cluster that runs user-defined local processes. You need to recommend a cluster configuration that meets the following requirements:
• Minimize query latency.
• Maximize the number of users that can run queues on the cluster at the same time « Reduce overall costs without compromising other requirements
Which cluster type should you recommend?

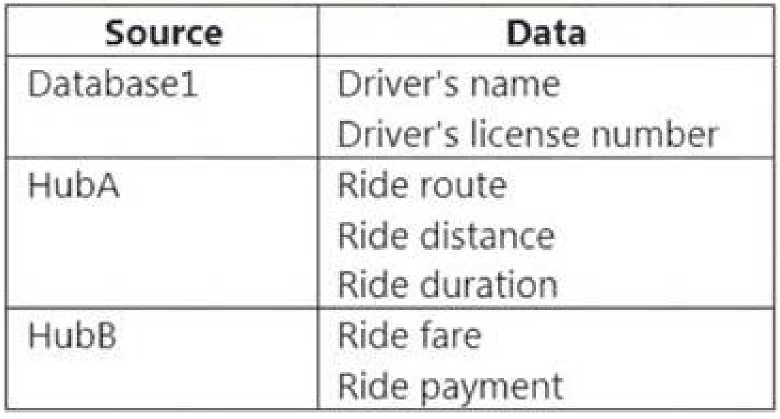
A. Standard with Auto termination
B. Standard with Autoscaling
C. High Concurrency with Autoscaling

D. High Concurrency with Auto Termination

Answer: C

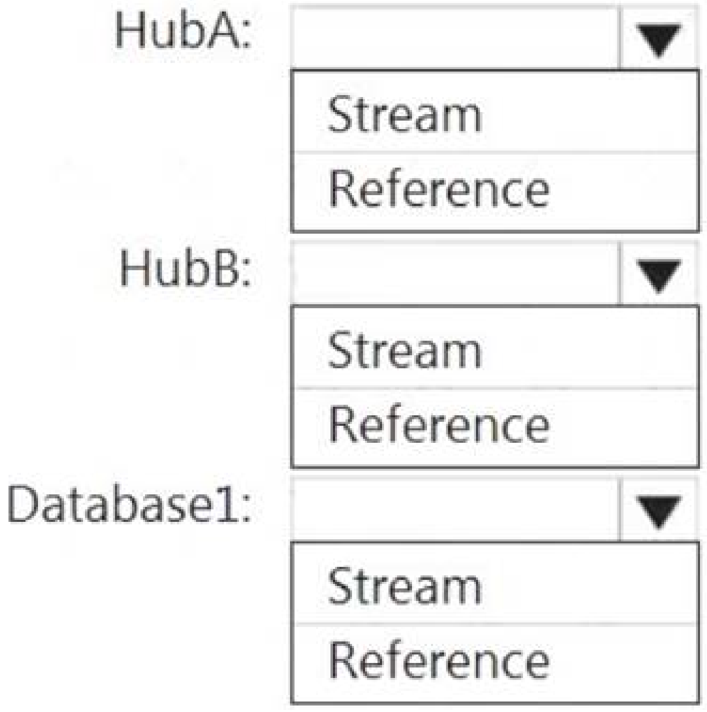
Explanation:
A High Concurrency cluster is a managed cloud resource. The key benefits of High Concurrency clusters are that they provide fine-grained sharing for maximum resource utilization and minimum query latencies.
Databricks chooses the appropriate number of workers required to run your job. This is referred to as autoscaling. Autoscaling makes it easier to achieve high cluster utilization, because you don't need to provision the cluster to match a workload.
Reference:
https://docs.microsoft.com/en-us/azure/databricks/clusters/configure

NEW QUESTION 7
- (Exam Topic 3)
You have an Azure SQL database named Database1 and two Azure event hubs named HubA and HubB. The data consumed from each source is shown in the following table.



Source	Data
Database1	Driver's name Driver's license number
HubA	Ride route Ride distance Ride duration
HubB	Ride fare Ride payment

You need to implement Azure Stream Analytics to calculate the average fare per mile by driver.
How should you configure the Stream Analytics input for each source? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.



HubA:
- Stream
- Reference

HubB:
- Stream
- Reference

Database1:
- Stream
- Reference

A. Mastered
B. Not Mastered

Answer: A

Explanation:
HubA: Stream HubB: Stream
Database1: Reference
Reference data (also known as a lookup table) is a finite data set that is static or slowly changing in nature, used to perform a lookup or to augment your data streams. For example, in an IoT scenario, you could store metadata about sensors (which don't change often) in reference data and join it with real time IoT data streams. Azure Stream Analytics loads reference data in memory to achieve low latency stream processing
Reference:
https://docs.microsoft.com/en-us/azure/stream-analytics/stream-analytics-use-reference-data

NEW QUESTION 8
- (Exam Topic 3)
You have an Azure Stream Analytics query. The query returns a result set that contains 10,000 distinct values for a column named clusterID.
You monitor the Stream Analytics job and discover high latency. You need to reduce the latency.
Which two actions should you perform? Each correct answer presents a complete solution. NOTE: Each correct selection is worth one point.

A. Add a pass-through query.
B. Add a temporal analytic function.
C. Scale out the query by using PARTITION BY.
D. Convert the query to a reference query.
E. Increase the number of streaming units.

Answer: CE

Explanation:
C: Scaling a Stream Analytics job takes advantage of partitions in the input or output. Partitioning lets you divide data into subsets based on a partition key. A process that consumes the data (such as a Streaming Analytics job) can consume and write different partitions in parallel, which increases throughput.
E: Streaming Units (SUs) represents the computing resources that are allocated to execute a Stream Analytics job. The higher the number of SUs, the more CPU and memory resources are allocated for your job. This capacity lets you focus on the query logic and abstracts the need to manage the hardware to run your Stream Analytics job in a timely manner.
References:
https://docs.microsoft.com/en-us/azure/stream-analytics/stream-analytics-parallelization https://docs.microsoft.com/en-us/azure/stream-analytics/stream-analytics-streaming-unit-consumption

NEW QUESTION 9
- (Exam Topic 3)
You have an Azure Synapse Analytics dedicated SQL pool that contains a table named Table1. Table1 contains the following:

- One billion rows
- A clustered columnstore index
- A hash-distributed column named Product Key
- A column named Sales Date that is of the date data type and cannot be null Thirty million rows will be added to Table1 each month.

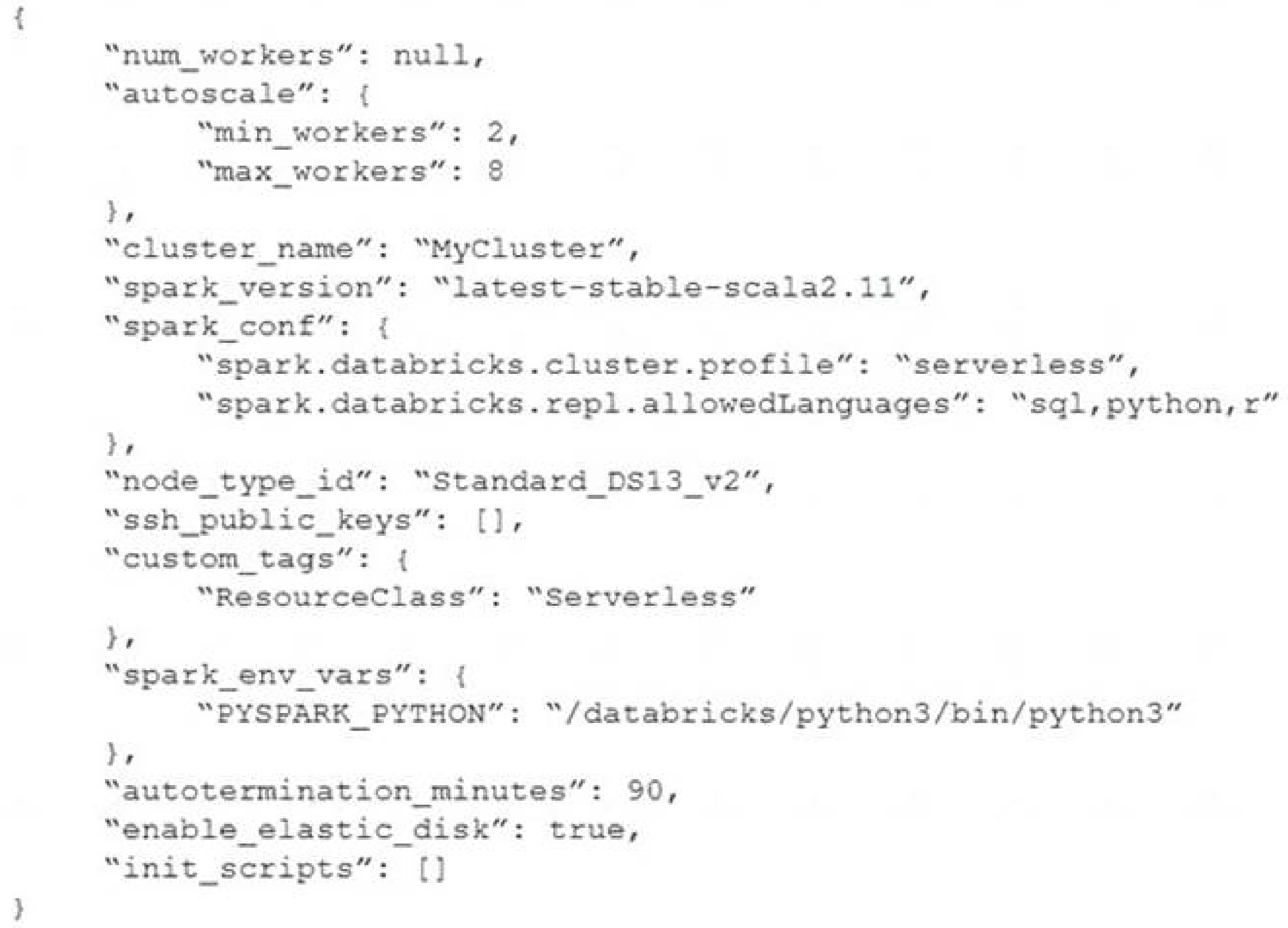
You need to partition Table1 based on the Sales Date column. The solution must optimize query performance and data loading.
How often should you create a partition?

A. once per month
B. once per year
C. once per day
D. once per week

Answer: B

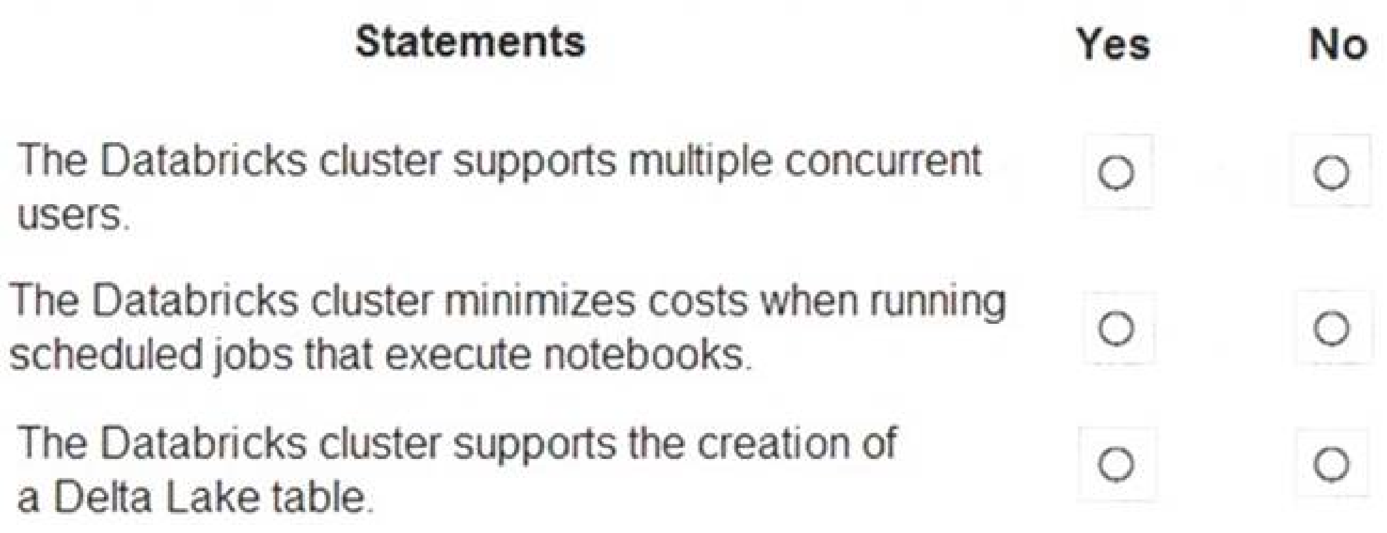
Explanation:
Need a minimum 1 million rows per distribution. Each table is 60 distributions. 30 millions rows is added each month. Need 2 months to get a minimum of 1 million rows per distribution in a new partition.
Note: When creating partitions on clustered columnstore tables, it is important to consider how many rows belong to each partition. For optimal compression and performance of clustered columnstore tables, a minimum of 1 million rows per distribution and partition is needed. Before partitions are created, dedicated SQL pool already divides each table into 60 distributions.
Any partitioning added to a table is in addition to the distributions created behind the scenes. Using this example, if the sales fact table contained 36 monthly partitions, and given that a dedicated SQL pool has 60 distributions, then the sales fact table should contain 60 million rows per month, or 2.1 billion rows when all months are populated. If a table contains fewer than the recommended minimum number of rows per partition, consider using fewer partitions in order to increase the number of rows per partition.
Reference:
https://docs.microsoft.com/en-us/azure/synapse-analytics/sql-data-warehouse/sql-data-warehouse-tables-partitio

NEW QUESTION 10
- (Exam Topic 3)
The following code segment is used to create an Azure Databricks cluster.



```
{
     “num_workers”: null,
     “autoscale”: {
          “min_workers”: 2,
          “max_workers”: 8
     },
     “cluster_name”: “MyCluster”,
     “spark_version”: “latest-stable-scala2.11”,
     “spark_conf”: {
          “spark.databricks.cluster.profile”: “serverless”,
          “spark.databricks.repl.allowedLanguages”: “sql,python,r”
     },
     “node_type_id”: “Standard_DS13_v2”,
     “ssh_public_keys”: [],
     “custom_tags”: {
          “ResourceClass”: “Serverless”
     },
     “spark_env_vars”: {
          “PYSPARK_PYTHON”: “/databricks/python3/bin/python3”
     },
     “autotermination_minutes”: 90,
     “enable_elastic_disk”: true,
     “init_scripts”: []
}
```

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 Databricks cluster supports multiple concurrent users.	○	○
The Databricks cluster minimizes costs when running scheduled jobs that execute notebooks.	○	○
The Databricks cluster supports the creation of a Delta Lake table.	○	○

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Graphical user interface, text, application Description automatically generated
Box 1: Yes
A cluster mode of ‘High Concurrency’ is selected, unlike all the others which are ‘Standard’. This results in a worker type of Standard_DS13_v2.
Box 2: No
When you run a job on a new cluster, the job is treated as a data engineering (job) workload subject to the job workload pricing. When you run a job on an existing cluster, the job is treated as a data analytics (all-purpose) workload subject to all-purpose workload pricing.
Box 3: Yes
Delta Lake on Databricks allows you to configure Delta Lake based on your workload patterns. Reference:
https://adatis.co.uk/databricks-cluster-sizing/ https://docs.microsoft.com/en-us/azure/databricks/jobs
https://docs.databricks.com/administration-guide/capacity-planning/cmbp.html https://docs.databricks.com/delta/index.html

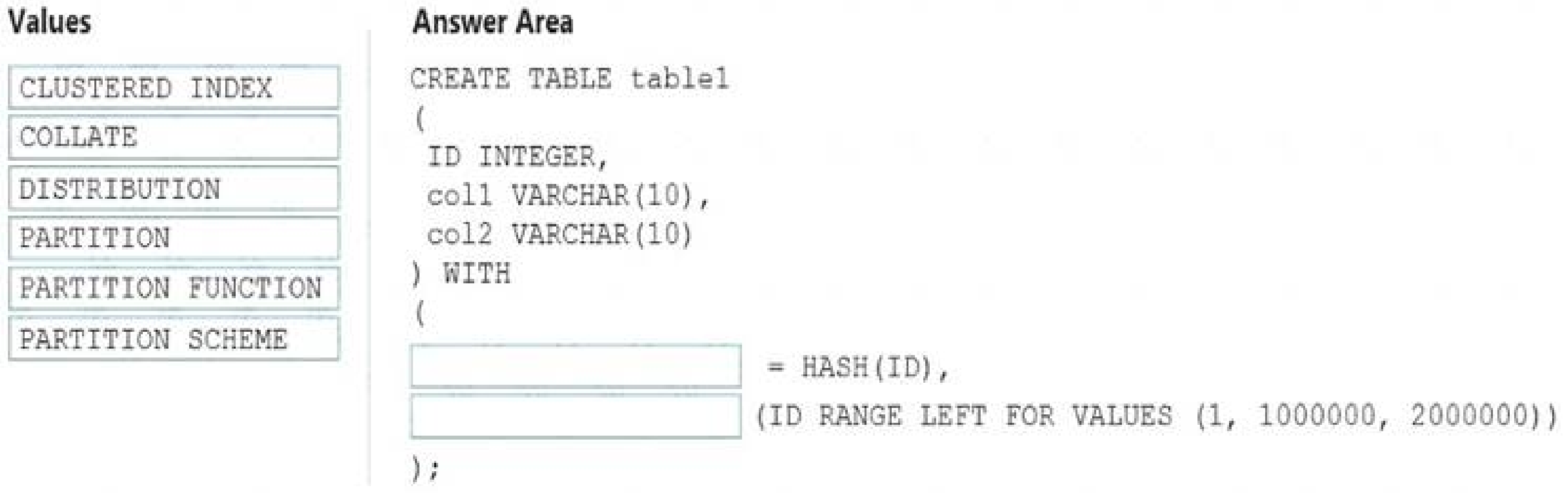
NEW QUESTION 10
- (Exam Topic 3)
You need to design a solution that will process streaming data from an Azure Event Hub and output the data to Azure Data Lake Storage. The solution must ensure that analysts can interactively query the streaming data.
What should you use?

A. event triggers in Azure Data Factory
B. Azure Stream Analytics and Azure Synapse notebooks
C. Structured Streaming in Azure Databricks
D. Azure Queue storage and read-access geo-redundant storage (RA-GRS)

Answer: C

Explanation:
Apache Spark Structured Streaming is a fast, scalable, and fault-tolerant stream processing API. You can use it to perform analytics on your streaming data in near real-time.
With Structured Streaming, you can use SQL queries to process streaming data in the same way that you would process static data.
Azure Event Hubs is a scalable real-time data ingestion service that processes millions of data in a matter of seconds. It can receive large amounts of data from multiple sources and stream the prepared data to Azure Data Lake or Azure Blob storage.
Azure Event Hubs can be integrated with Spark Structured Streaming to perform the processing of messages in near real-time. You can query and analyze the processed data as it comes by using a Structured Streaming query and Spark SQL.
Reference:
https://k21academy.com/microsoft-azure/data-engineer/structured-streaming-with-azure-event-hubs/

NEW QUESTION 11
- (Exam Topic 3)
DRAG DROP
You need to create a partitioned table in an Azure Synapse Analytics dedicated SQL pool.
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

- CLUSTERED INDEX
- COLLATE
- DISTRIBUTION
- PARTITION
- PARTITION FUNCTION
- PARTITION SCHEME

Answer Area

```
CREATE TABLE table1
(
 ID INTEGER,
 col1 VARCHAR(10),
 col2 VARCHAR(10)
) WITH
(
[          ] = HASH(ID),
[          ] (ID RANGE LEFT FOR VALUES (1, 1000000, 2000000))
);
```

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Box 1: DISTRIBUTION
Table distribution options include DISTRIBUTION = HASH (distribution_column_name), assigns each row to one distribution by hashing the value stored in distribution_column_name. Box 2: PARTITION
Table partition options. Syntax:
PARTITION (partition_column_name RANGE [LEFT | RIGHT] FOR VALUES ([boundary_value [,...n]]))
Reference:
https://docs.microsoft.com/en-us/sql/t-sql/statements/create-table-azure-sql-data-warehouse?

NEW QUESTION 16
- (Exam Topic 3)
You have an Azure SQL database named DB1 and an Azure Data Factory data pipeline named pipeline. From Data Factory, you configure a linked service to DB1.
In DB1, you create a stored procedure named SP1. SP1 returns a single row of data that has four columns.
You need to add an activity to pipeline to execute SP1. The solution must ensure that the values in the columns are stored as pipeline variables.
Which two types of activities can you use to execute SP1? (Refer to Data Engineering on Microsoft Azure documents or guide for Answers explanation available at Microsoft.com)

A. Stored Procedure
B. Lookup
C. Script
D. Copy

Answer: AB

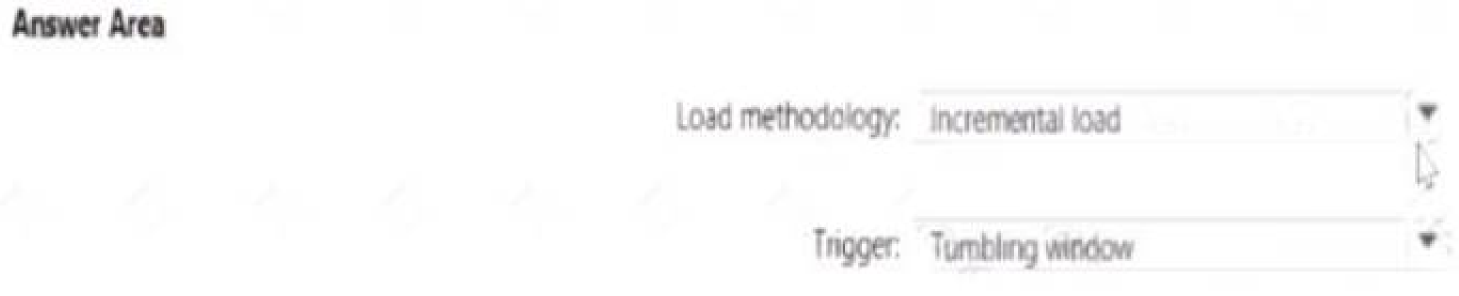
Explanation:
the two types of activities that you can use to execute SP1 are Stored Procedure and Lookup.
A Stored Procedure activity executes a stored procedure on an Azure SQL Database or Azure Synapse Analytics or SQL Server1. You can specify the stored procedure name and parameters in the activity setting1s.
A Lookup activity retrieves a dataset from any data source that returns a single row of data with four columns2. You can use a query to execute a stored procedure as the source of the Lookup activit2y. You can then store the values in the columns as pipeline variables by using expressions2.
https://learn.microsoft.com/en-us/azure/data-factory/transform-data-using-stored-procedure

NEW QUESTION 20
- (Exam Topic 3)
You have an Azure Storage account that generates 200.000 new files daily. The file names have a format of (YYY)/(MM)/(DD)/|HH])/(CustornerID).csv.
You need to design an Azure Data Factory solution that will toad new data from the storage account to an Azure Data lake once hourly. The solution must minimize load times and costs.
How should you configure the solution? 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:



Answer Area

Load methodology: Incremental load

Trigger: Tumbling window

NEW QUESTION 21
- (Exam Topic 3)
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 plan to create an Azure Databricks workspace that has a tiered structure. The workspace will contain the following three workloads:

- A workload for data engineers who will use Python and SQL.
- A workload for jobs that will run notebooks that use Python, Scala, and SOL.
- A workload that data scientists will use to perform ad hoc analysis in Scala and R.

The enterprise architecture team at your company identifies the following standards for Databricks environments:

- The data engineers must share a cluster.
- The job cluster will be managed by using a request process whereby data scientists and data engineers provide packaged notebooks for deployment to the cluster.
- All the data scientists must be assigned their own cluster that terminates automatically after 120 minutes of inactivity. Currently, there are three data scientists.

You need to create the Databricks clusters for the workloads.

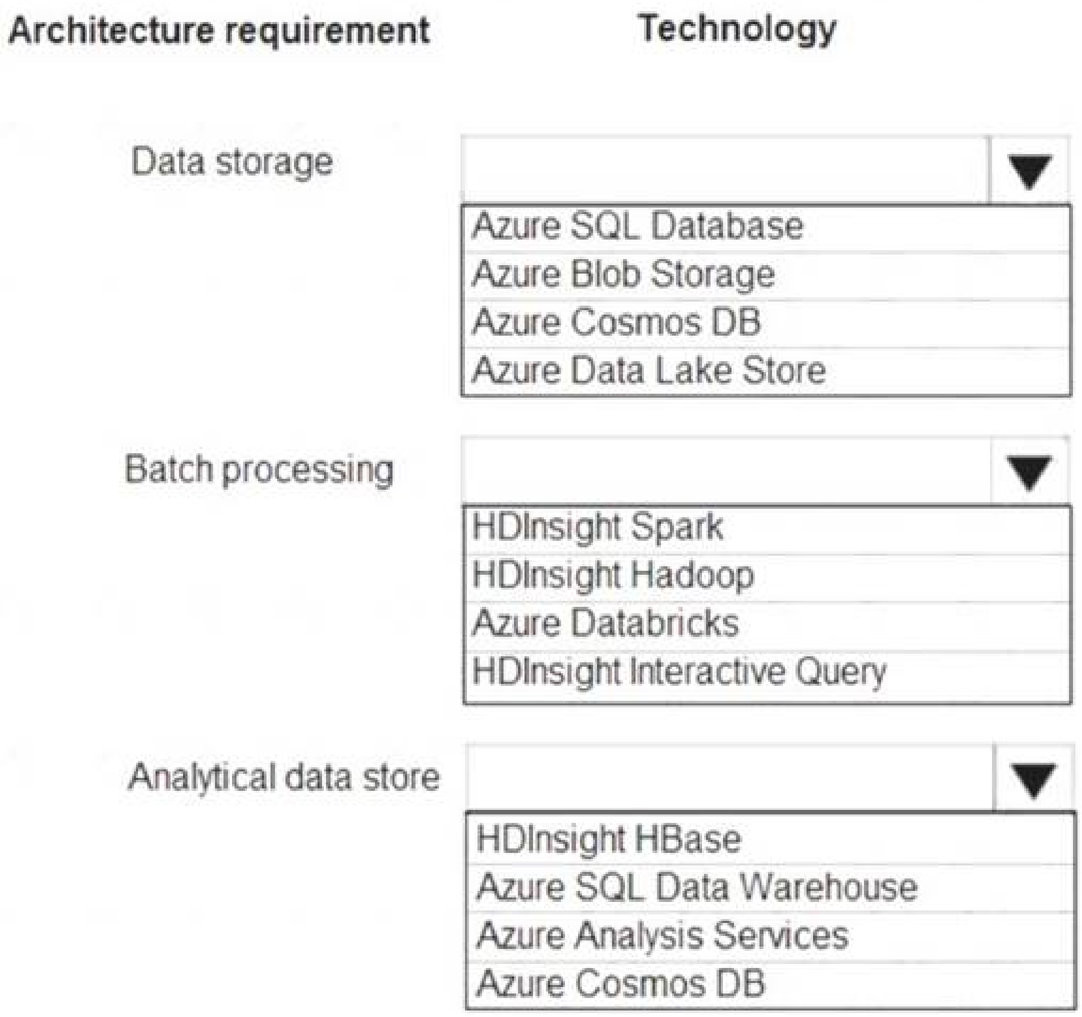
Solution: You create a Standard cluster for each data scientist, a High Concurrency cluster for the data engineers, and a High Concurrency cluster for the jobs.
Does this meet the goal?

A. Yes
B. No

Answer: A

Explanation:
We need a High Concurrency cluster for the data engineers and the jobs. Note:
Standard clusters are recommended for a single user. Standard can run workloads developed in any language: Python, R, Scala, and SQL.
A high concurrency cluster is a managed cloud resource. The key benefits of high concurrency clusters are that they provide Apache Spark-native fine-grained sharing for maximum resource utilization and minimum query latencies.
Reference: https://docs.azuredatabricks.net/clusters/configure.html

NEW QUESTION 25
- (Exam Topic 3)
You are developing a solution using a Lambda architecture on Microsoft Azure. The data at test layer must meet the following requirements:
Data storage:
•Serve as a repository (or high volumes of large files in various formats.
•Implement optimized storage for big data analytics workloads.
•Ensure that data can be organized using a hierarchical structure. Batch processing:
•Use a managed solution for in-memory computation processing.
•Natively support Scala, Python, and R programming languages.
•Provide the ability to resize and terminate the cluster automatically. Analytical data store:
•Support parallel processing.
•Use columnar storage.
•Support SQL-based languages.
You need to identify the correct technologies to build the Lambda architecture.
Which technologies should you use? To answer, select the appropriate options in the answer area NOTE: Each correct selection is worth one point.



Architecture requirement	Technology
Data storage	Azure SQL Database Azure Blob Storage Azure Cosmos DB Azure Data Lake Store
Batch processing	HDInsight Spark HDInsight Hadoop Azure Databricks HDInsight Interactive Query
Analytical data store	HDInsight HBase Azure SQL Data Warehouse Azure Analysis Services Azure Cosmos DB

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Data storage: Azure Data Lake Store
A key mechanism that allows Azure Data Lake Storage Gen2 to provide file system performance at object storage scale and prices is the addition of a hierarchical namespace. This allows the collection of objects/files within an account to be organized into a hierarchy of directories and nested subdirectories in the same way that the file system on your computer is organized. With the hierarchical namespace enabled, a storage account becomes capable of providing the scalability and cost-effectiveness of object storage, with file system semantics that are familiar to analytics engines and frameworks.
Batch processing: HD Insight Spark
Aparch Spark is an open-source, parallel-processing framework that supports in-memory processing to boost the performance of big-data analysis applications.
HDInsight is a managed Hadoop service. Use it deploy and manage Hadoop clusters in Azure. For batch processing, you can use Spark, Hive, Hive LLAP, MapReduce.
Languages: R, Python, Java, Scala, SQL Analytic data store: SQL Data Warehouse
SQL Data Warehouse is a cloud-based Enterprise Data Warehouse (EDW) that uses Massively Parallel Processing (MPP).
SQL Data Warehouse stores data into relational tables with columnar storage. References:
https://docs.microsoft.com/en-us/azure/storage/blobs/data-lake-storage-namespace https://docs.microsoft.com/en-us/azure/architecture/data-guide/technology-choices/batch-processing https://docs.microsoft.com/en-us/azure/sql-data-warehouse/sql-data-warehouse-overview-what-is

NEW QUESTION 27
- (Exam Topic 3)
A company purchases IoT devices to monitor manufacturing machinery. The company uses an IoT appliance to communicate with the IoT devices.
The company must be able to monitor the devices in real-time. You need to design the solution.
What should you recommend?

A. Azure Stream Analytics cloud job using Azure PowerShell
B. Azure Analysis Services using Azure Portal
C. Azure Data Factory instance using Azure Portal
D. Azure Analysis Services using Azure PowerShell

Answer: C

Explanation:
Stream Analytics is a cost-effective event processing engine that helps uncover real-time insights from devices, sensors, infrastructure, applications and data quickly and easily.
Monitor and manage Stream Analytics resources with Azure PowerShell cmdlets and powershell scripting that execute basic Stream Analytics tasks.
Reference:
https://cloudblogs.microsoft.com/sqlserver/2014/10/29/microsoft-adds-iot-streaming-analytics-data-production-a

NEW QUESTION 29
- (Exam Topic 3)
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 scenario, 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 Storage account that contains 100 GB of files. The files contain text and numerical values. 75% of the rows contain description data that has an average length of 1.1 MB.
You plan to copy the data from the storage account to an enterprise data warehouse in Azure Synapse Analytics.
You need to prepare the files to ensure that the data copies quickly. Solution: You convert the files to compressed delimited text files. Does this meet the goal?

A. Yes
B. No

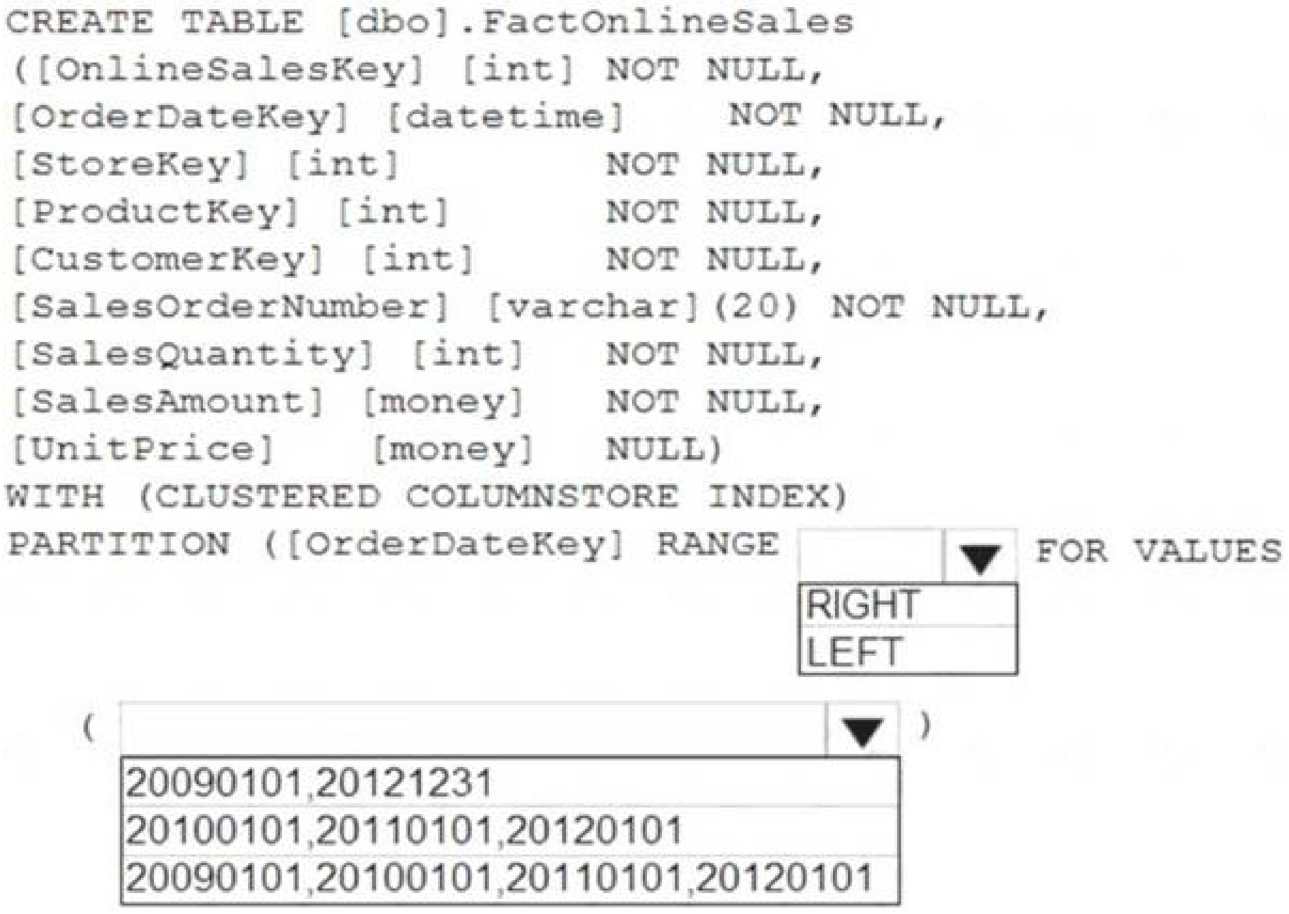
Answer: A

Explanation:
All file formats have different performance characteristics. For the fastest load, use compressed delimited text files.
Reference:
https://docs.microsoft.com/en-us/azure/sql-data-warehouse/guidance-for-loading-data

NEW QUESTION 33
- (Exam Topic 3)
You have an enterprise data warehouse in Azure Synapse Analytics that contains a table named FactOnlineSales. The table contains data from the start of 2009 to the end of 2012.
You need to improve the performance of queries against FactOnlineSales by using table partitions. The solution must meet the following requirements:

- Create four partitions based on the order date.
- Ensure that each partition contains all the orders places during a given calendar year.

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



```
CREATE TABLE [dbo].FactOnlineSales
([OnlineSalesKey] [int] NOT NULL,
[OrderDateKey] [datetime]     NOT NULL,
[StoreKey] [int]            NOT NULL,
[ProductKey] [int]          NOT NULL,
[CustomerKey] [int]         NOT NULL,
[SalesOrderNumber] [varchar](20) NOT NULL,
[SalesQuantity] [int]       NOT NULL,
[SalesAmount] [money]       NOT NULL,
[UnitPrice]     [money]     NULL)
WITH (CLUSTERED COLUMNSTORE INDEX)
PARTITION ([OrderDateKey] RANGE [▼] FOR VALUES
                                RIGHT
                                LEFT
      ( [▼] )
        20090101,20121231
        20100101,20110101,20120101
        20090101,20100101,20110101,20120101
```

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Text Description automatically generated
Range Left or Right, both are creating similar partition but there is difference in comparison For example: in this scenario, when you use LEFT and 20100101,20110101,20120101
Partition will be, datecol<=20100101, datecol>20100101 and datecol<=20110101, datecol>20110101 and datecol<=20120101, datecol>20120101
But if you use range RIGHT and 20100101,20110101,20120101
Partition will be, datecol<20100101, datecol>=20100101 and datecol<20110101, datecol>=20110101 and datecol<20120101, datecol>=20120101
In this example, Range RIGHT will be suitable for calendar comparison Jan 1st to Dec 31st Reference:
https://docs.microsoft.com/en-us/sql/t-sql/statements/create-partition-function-transact-sql?view=sql-server-ver1

NEW QUESTION 34
- (Exam Topic 3)
You have an Azure Data Lake Storage Gen2 container that contains 100 TB of data.
You need to ensure that the data in the container is available for read workloads in a secondary region if an outage occurs in the primary region. The solution must minimize costs.
Which type of data redundancy should you use?

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

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 at all times, including in a situation where the primary region becomes unavailable.
Reference:
https://docs.microsoft.com/en-us/azure/storage/common/storage-redundancy

NEW QUESTION 36
- (Exam Topic 3)
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 plan to create an Azure Databricks workspace that has a tiered structure. The workspace will contain the following three workloads:

- A workload for data engineers who will use Python and SQL.
- A workload for jobs that will run notebooks that use Python, Scala, and SOL.
- A workload that data scientists will use to perform ad hoc analysis in Scala and R.

The enterprise architecture team at your company identifies the following standards for Databricks environments:

- The data engineers must share a cluster.
- The job cluster will be managed by using a request process whereby data scientists and data engineers provide packaged notebooks for deployment to the cluster.
- All the data scientists must be assigned their own cluster that terminates automatically after 120 minutes of inactivity. Currently, there are three data scientists.

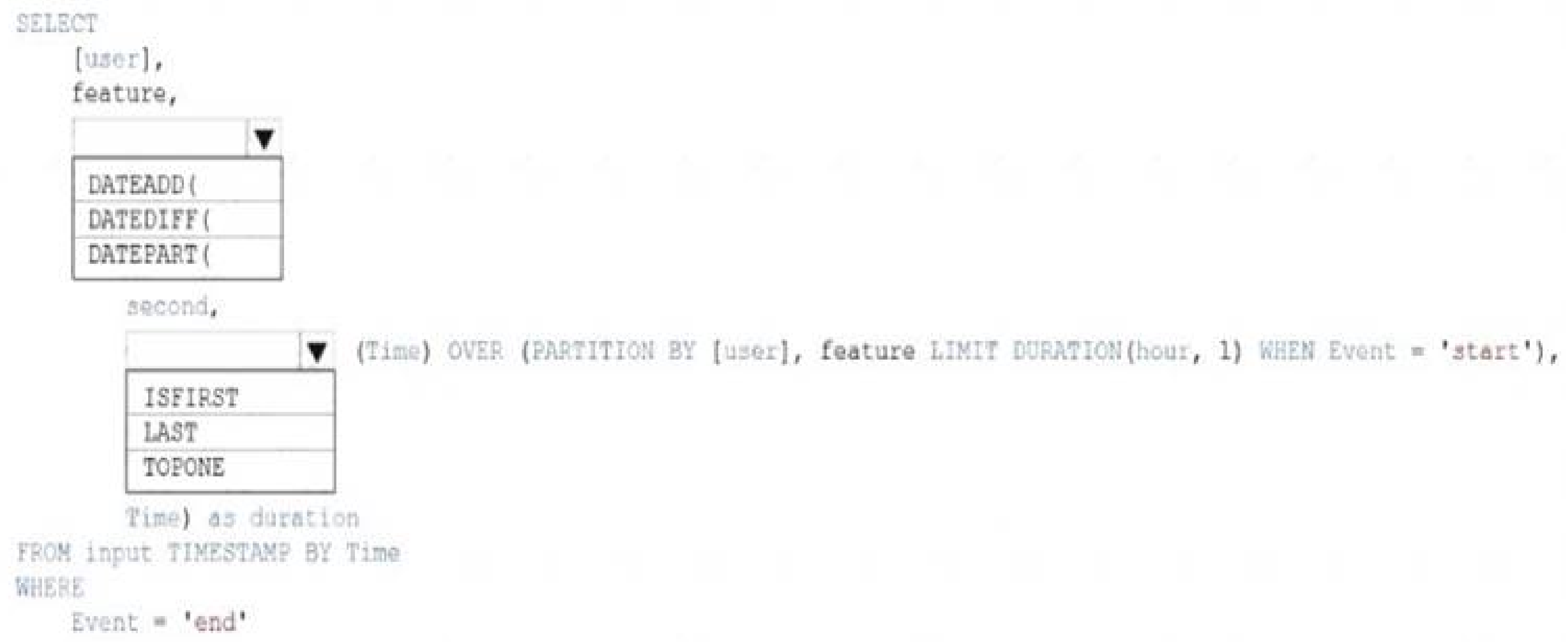
You need to create the Databricks clusters for the workloads.
Solution: You create a Standard cluster for each data scientist, a High Concurrency cluster for the data engineers, and a Standard cluster for the jobs.
Does this meet the goal?

A. Yes
B. No

Answer: B

Explanation:
We would need a High Concurrency cluster for the jobs. Note:
Standard clusters are recommended for a single user. Standard can run workloads developed in any language: Python, R, Scala, and SQL.
A high concurrency cluster is a managed cloud resource. The key benefits of high concurrency clusters are that they provide Apache Spark-native fine-grained sharing for maximum resource utilization and minimum query latencies.
Reference: https://docs.azuredatabricks.net/clusters/configure.html

NEW QUESTION 39
- (Exam Topic 3)
You are building an Azure Stream Analytics job to identify how much time a user spends interacting with a feature on a webpage.
The job receives events based on user actions on the webpage. Each row of data represents an event. Each event has a type of either 'start' or 'end'.
You need to calculate the duration between start and end events.
How should you complete the query? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.



```
SELECT
    [user],
    feature,
    [ ▼ ]
    DATEADD(
    DATEDIFF(
    DATEPART(
        second,
        [ ▼ ] (Time) OVER (PARTITION BY [user], feature LIMIT DURATION(hour, 1) WHEN Event = 'start'),
        ISFIRST
        LAST
        TOPONE
        Time) as duration
FROM input TIMESTAMP BY Time
WHERE
    Event = 'end'
```

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Box 1: DATEDIFF
DATEDIFF function returns the count (as a signed integer value) of the specified datepart boundaries crossed between the specified startdate and enddate.
Syntax: DATEDIFF (datepart , startdate, enddate) Box 2: LAST
The LAST function can be used to retrieve the last event within a specific condition. In this example, the condition is an event of type Start, partitioning the search by PARTITION BY user and feature. This way, every user and feature is treated independently when searching for the Start event. LIMIT DURATION limits the search back in time to 1 hour between the End and Start events.
Example: SELECT
[user], feature, DATEDIFF(
second,
LAST(Time) OVER (PARTITION BY [user], feature LIMIT DURATION(hour,
1) WHEN Event = 'start'), Time) as duration
FROM input TIMESTAMP BY Time
WHERE
Event = 'end' Reference:
https://docs.microsoft.com/en-us/azure/stream-analytics/stream-analytics-stream-analytics-query-patterns

NEW QUESTION 43
- (Exam Topic 3)
You plan to use an Apache Spark pool in Azure Synapse Analytics to load data to an Azure Data Lake Storage Gen2 account.
You need to recommend which file format to use to store the data in the Data Lake Storage account. The solution must meet the following requirements:
• Column names and data types must be defined within the files loaded to the Data Lake Storage account.
• Data must be accessible by using queries from an Azure Synapse Analytics serverless SQL pool.
• Partition elimination must be supported without having to specify a specific partition. What should you recommend?

A. Delta Lake
B. JSON
C. CSV
D. ORC

Answer: D

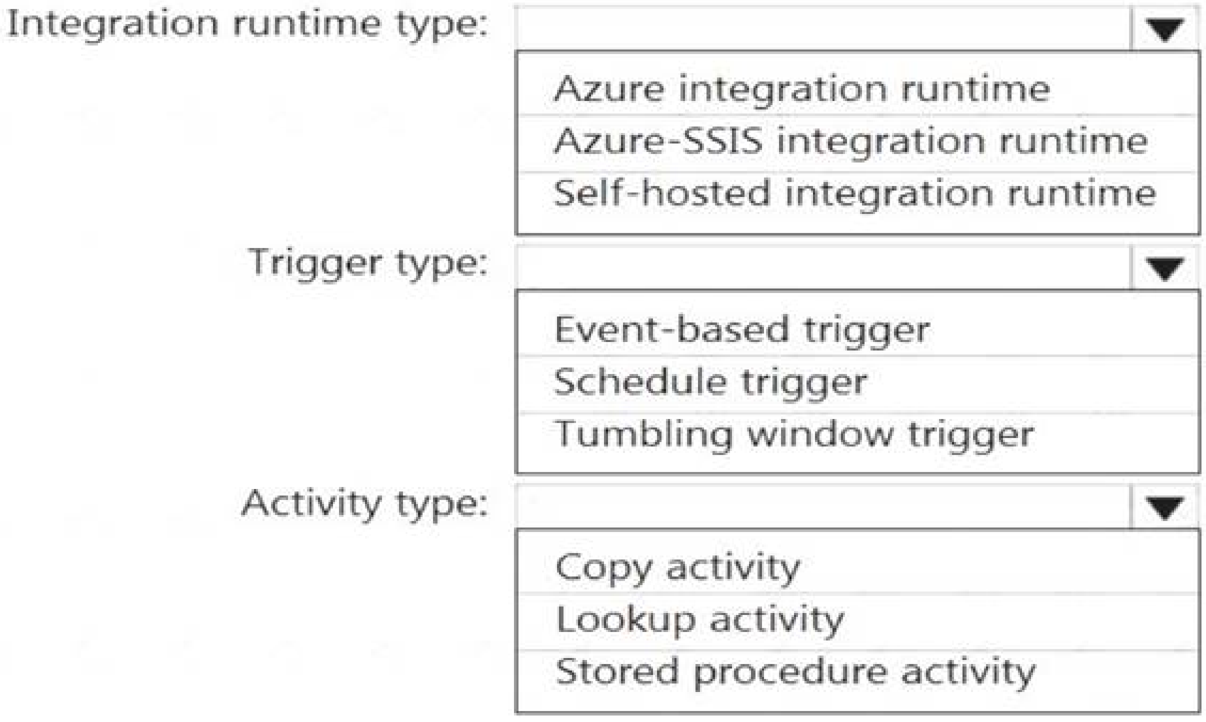
NEW QUESTION 48
- (Exam Topic 3)
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this scenario, 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 Storage account that contains 100 GB of files. The files contain text and numerical values. 75% of the rows contain description data that has an average length of 1.1 MB.
You plan to copy the data from the storage account to an Azure SQL data warehouse. You need to prepare the files to ensure that the data copies quickly.
Solution: You modify the files to ensure that each row is less than 1 MB. Does this meet the goal?

A. Yes
B. No

Answer: A

Explanation:
When exporting data into an ORC File Format, you might get Java out-of-memory errors when there are large text columns. To work around this limitation, export only a subset of the columns.
References:
https://docs.microsoft.com/en-us/azure/sql-data-warehouse/guidance-for-loading-data

NEW QUESTION 53
- (Exam Topic 2)
Which Azure Data Factory components should you recommend using together to import the daily inventory data from the SQL server to Azure Data Lake Storage?
To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.



Integration runtime type: ▼
Azure integration runtime
Azure-SSIS integration runtime
Self-hosted integration runtime

Trigger type: ▼
Event-based trigger
Schedule trigger
Tumbling window trigger

Activity type: ▼
Copy activity
Lookup activity
Stored procedure activity

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Box 1: Self-hosted integration runtime
A self-hosted IR is capable of running copy activity between a cloud data stores and a data store in private network.
Box 2: Schedule trigger Schedule every 8 hours Box 3: Copy activity Scenario:

➢ Customer data, including name, contact information, and loyalty number, comes from Salesforce and can be imported into Azure once every eight hours. Row modified dates are not trusted in the source table.

➢ Product data, including product ID, name, and category, comes from Salesforce and can be imported into Azure once every eight hours. Row modified dates are not trusted in the source table.

NEW QUESTION 55
- (Exam Topic 1)
You need to design a data retention solution for the Twitter teed data records. The solution must meet the customer sentiment analytics requirements.
Which Azure Storage functionality should you include in the solution?

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

Answer: D

NEW QUESTION 56
- (Exam Topic 1)
You need to design a data retention solution for the Twitter feed data records. The solution must meet the customer sentiment analytics requirements.
Which Azure Storage functionality should you include in the solution?

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

Answer: D

Explanation:
Scenario: Purge Twitter feed data records that are older than two years.
Data sets have unique lifecycles. Early in the lifecycle, people access some data often. But the need for access often drops drastically as the data ages. Some data remains idle in the cloud and is rarely accessed once stored. Some data sets expire days or months after creation, while other data sets are actively read and modified throughout their lifetimes. Azure Storage lifecycle management offers a rule-based policy that you can use to transition blob data to the appropriate access tiers or to expire data at the end of the data lifecycle.
Reference:
https://docs.microsoft.com/en-us/azure/storage/blobs/lifecycle-management-overview

NEW QUESTION 61
- (Exam Topic 3)
You are creating an Azure Data Factory data flow that will ingest data from a CSV file, cast columns to specified types of data, and insert the data into a table in an Azure Synapse Analytics dedicated SQL pool. The CSV file contains columns named username, comment and date.

The data flow already contains the following:
- A source transformation
- A Derived Column transformation to set the appropriate types of data
- A sink transformation to land the data in the pool

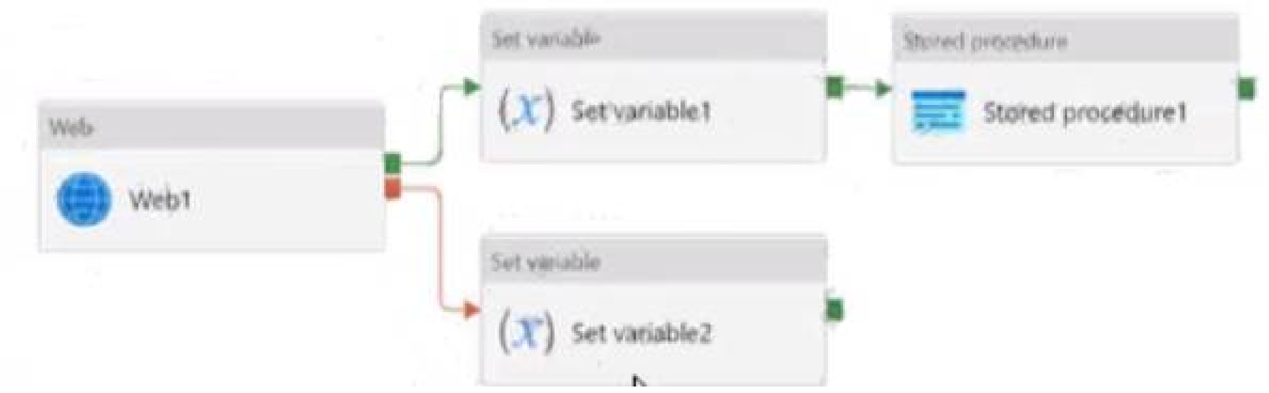
You need to ensure that the data flow meets the following requirements;
- All valid rows must be written to the destination table.
- Truncation errors in the comment column must be avoided proactively.
- Any rows containing comment values that will cause truncation errors upon insert must be written to a file in blob storage.

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

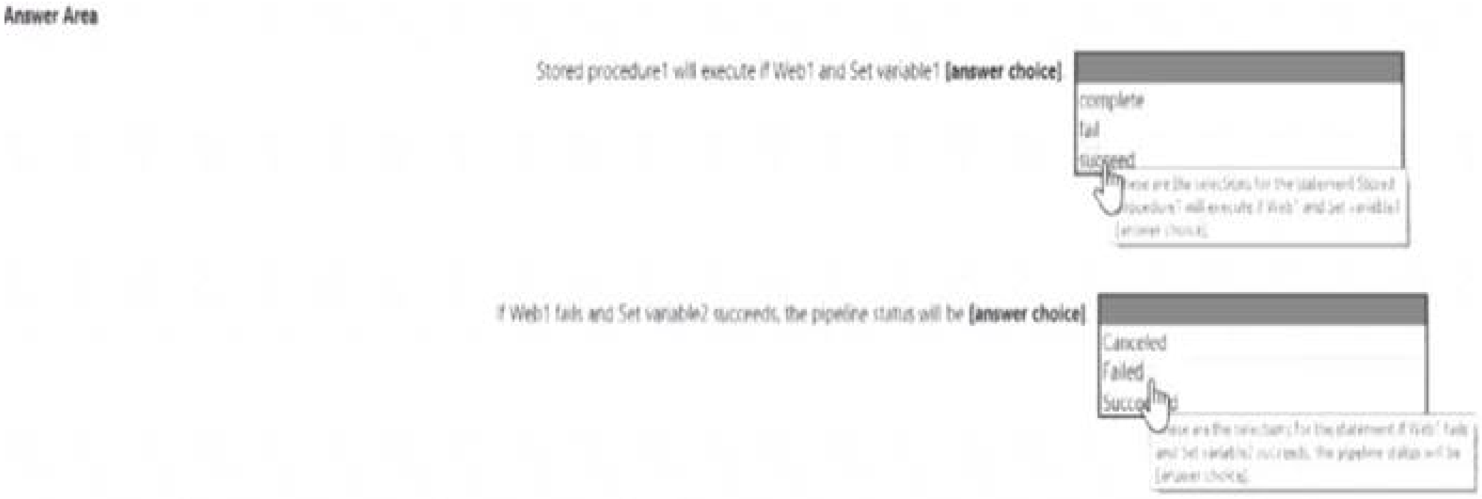
A. Add a select transformation that selects only the rows which will cause truncation errors.
B. Add a sink transformation that writes the rows to a file in blob storage.
C. Add a filter transformation that filters out rows which will cause truncation errors.
D. Add a Conditional Split transformation that separates the rows which will cause truncation errors.

Answer: BD

NEW QUESTION 63
- (Exam Topic 3)
You have an Azure Data Factory pipeline that has the activity 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.


Answer Area

Stored procedure1 will execute if Web1 and Set variable1 **[answer choice]**.

complete
fail
succeed
These are the selections for the statement Stored procedure1 will execute if Web1 and Set variable1 [answer choice].

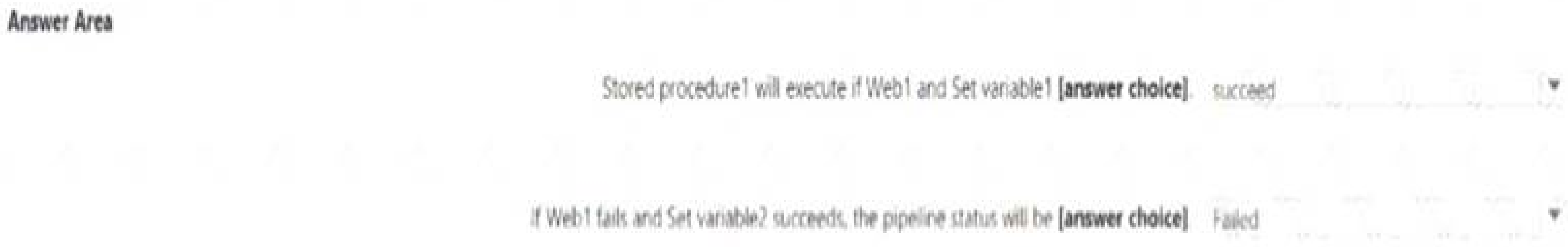
If Web1 fails and Set variable2 succeeds, the pipeline status will be **[answer choice]**

Canceled
Failed
Succeeded
These are the selections for the statement If Web1 fails and Set variable2 succeeds, the pipeline status will be [answer choice].

A. Mastered
B. Not Mastered

Answer: A

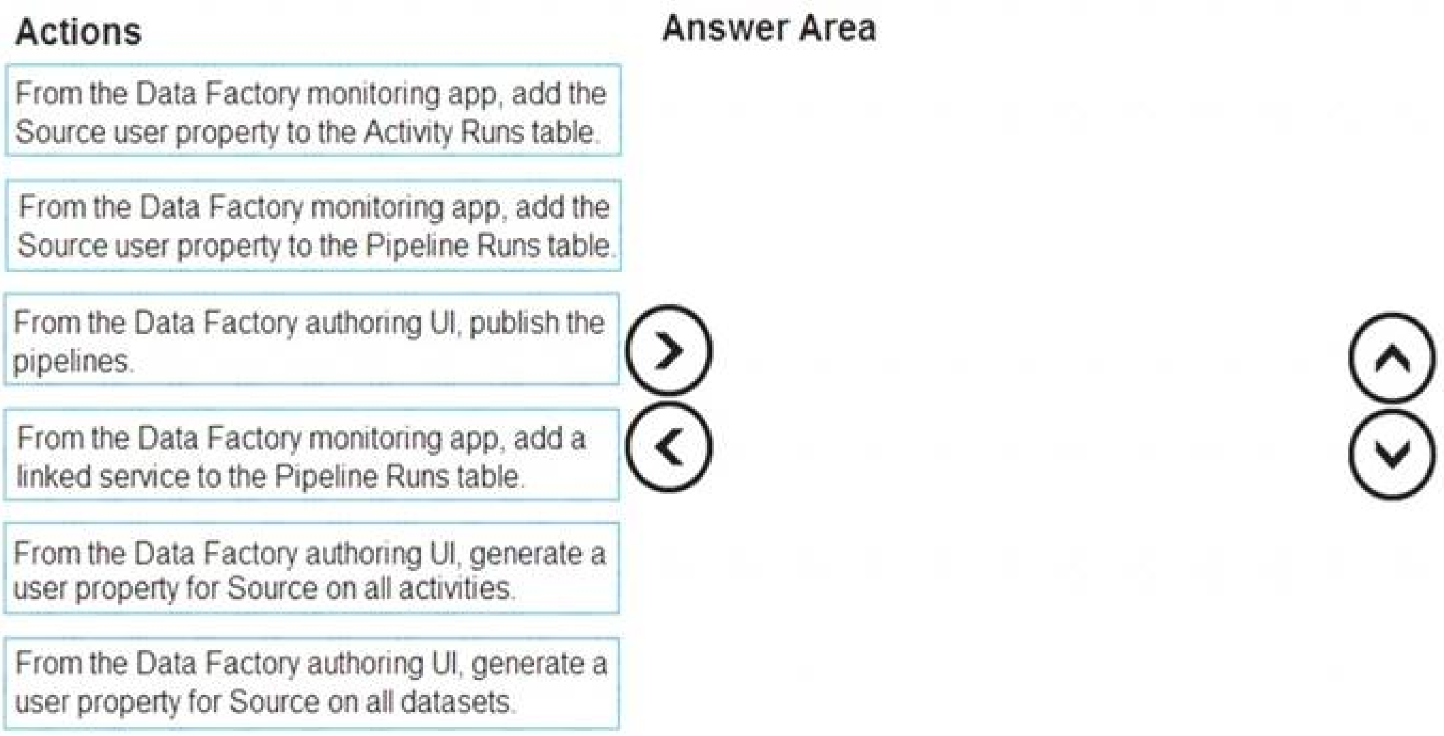
Explanation:


Answer Area

Stored procedure1 will execute if Web1 and Set variable1 **[answer choice]**. succeed

If Web1 fails and Set variable2 succeeds, the pipeline status will be **[answer choice]** Failed

NEW QUESTION 67
- (Exam Topic 3)
You plan to monitor an Azure data factory by using the Monitor & Manage app.
You need to identify the status and duration of activities that reference a table in a source database.
Which three actions should you perform in sequence? To answer, move the actions from the list of actions to the answer are and arrange them in the correct order.



Actions

From the Data Factory monitoring app, add the Source user property to the Activity Runs table.

From the Data Factory monitoring app, add the Source user property to the Pipeline Runs table.

From the Data Factory authoring UI, publish the pipelines.

From the Data Factory monitoring app, add a linked service to the Pipeline Runs table.

From the Data Factory authoring UI, generate a user property for Source on all activities.

From the Data Factory authoring UI, generate a user property for Source on all datasets.

Answer Area

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Step 1: From the Data Factory authoring UI, generate a user property for Source on all activities. Step 2: From the Data Factory monitoring app, add the Source user property to Activity Runs table.
You can promote any pipeline activity property as a user property so that it becomes an entity that you can
monitor. For example, you can promote the Source and Destination properties of the copy activity in your pipeline as user properties. You can also select Auto Generate to generate the Source and Destination user properties for a copy activity.
Step 3: From the Data Factory authoring UI, publish the pipelines
Publish output data to data stores such as Azure SQL Data Warehouse for business intelligence (BI) applications to consume.
References:
https://docs.microsoft.com/en-us/azure/data-factory/monitor-visually

NEW QUESTION 68
- (Exam Topic 3)
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 in container1 into Table1 and transform the data. Each row of data in the files will produce one row in the serving layer of Table1.
You need to ensure that when the source data files are loaded to container1, the DateTime is stored as an additional column in Table1.
Solution: You use a dedicated SQL pool to create an external table that has an additional DateTime column. Does this meet the goal?

A. Yes
B. No

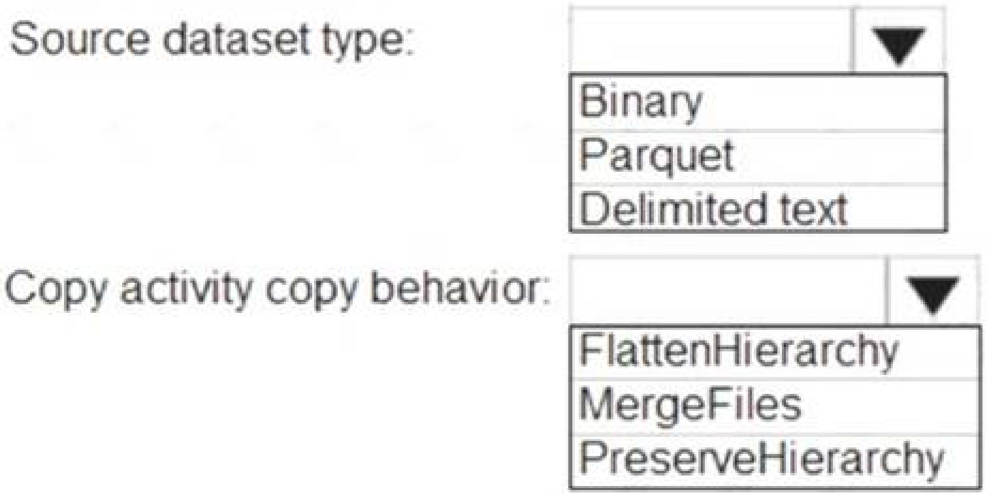
Answer: B

Explanation:
Instead use the derived column transformation to generate new columns in your data flow or to modify existing fields.
Reference:
https://docs.microsoft.com/en-us/azure/data-factory/data-flow-derived-column

NEW QUESTION 70
- (Exam Topic 3)
You have two Azure Storage accounts named Storage1 and Storage2. Each account holds one container and has the hierarchical namespace enabled. The system has files that contain data stored in the Apache Parquet format.
You need to copy folders and files from Storage1 to Storage2 by using a Data Factory copy activity. The
solution must meet the following requirements:

- No transformations must be performed.
- The original folder structure must be retained.
- Minimize time required to perform the copy activity.

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



Source dataset type:
- Binary
- Parquet
- Delimited text

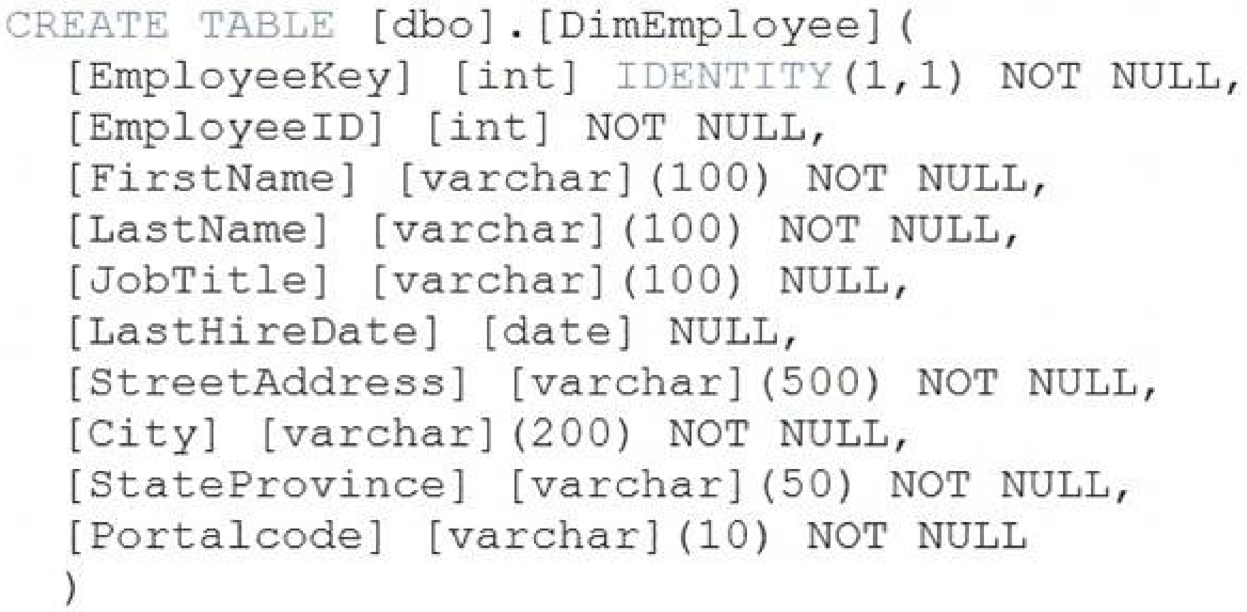
Copy activity copy behavior:
- FlattenHierarchy
- MergeFiles
- PreserveHierarchy

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Graphical user interface, text, application, chat or text message Description automatically generated
Box 1: Parquet
For Parquet datasets, the type property of the copy activity source must be set to ParquetSource. Box 2: PreserveHierarchy
PreserveHierarchy (default): Preserves the file hierarchy in the target folder. The relative path of the source file to the source folder is identical to the relative path of the target file to the target folder.
Reference:
https://docs.microsoft.com/en-us/azure/data-factory/format-parquet https://docs.microsoft.com/en-us/azure/data-factory/connector-azure-data-lake-storage

NEW QUESTION 75
- (Exam Topic 3)
You have a table in an Azure Synapse Analytics dedicated SQL pool. The table was created by using the following Transact-SQL statement.



```
CREATE TABLE [dbo].[DimEmployee](
   [EmployeeKey] [int] IDENTITY(1,1) NOT NULL,
   [EmployeeID] [int] NOT NULL,
   [FirstName] [varchar](100) NOT NULL,
   [LastName] [varchar](100) NOT NULL,
   [JobTitle] [varchar](100) NULL,
   [LastHireDate] [date] NULL,
   [StreetAddress] [varchar](500) NOT NULL,
   [City] [varchar](200) NOT NULL,
   [StateProvince] [varchar](50) NOT NULL,
   [Portalcode] [varchar](10) NOT NULL
   )
```

You need to alter the table to meet the following requirements:
- Ensure that users can identify the current manager of employees.
- Support creating an employee reporting hierarchy for your entire company.
- Provide fast lookup of the managers' attributes such as name and job title.

Which column should you add to the table?

A. [ManagerEmployeeID] [int] NULL
B. [ManagerEmployeeID] [smallint] NULL
C. [ManagerEmployeeKey] [int] NULL
D. [ManagerName] [varchar](200) NULL

Answer: A

Explanation:
Use the same definition as the EmployeeID column. Reference:
https://docs.microsoft.com/en-us/analysis-services/tabular-models/hierarchies-ssas-tabular

NEW QUESTION 78
- (Exam Topic 3)
You are designing an Azure Databricks interactive cluster. The cluster will be used infrequently and will be configured for auto-termination.
You need to ensure that the cluster configuration is retained indefinitely after the cluster is terminated. The solution must minimize costs.
What should you do?

A. Clone the cluster after it is terminated.
B. Terminate the cluster manually when processing completes.
C. Create an Azure runbook that starts the cluster every 90 days.
D. Pin the cluster.

Answer: D

Explanation:
To keep an interactive cluster configuration even after it has been terminated for more than 30 days, an administrator can pin a cluster to the cluster list.
References:
https://docs.azuredatabricks.net/clusters/clusters-manage.html#automatic-termination

NEW QUESTION 83
- (Exam Topic 3)
You have two Azure Data Factory instances named ADFdev and ADFprod. ADFdev connects to an Azure DevOps Git repository.
You publish changes from the main branch of the Git repository to ADFdev. You need to deploy the artifacts from ADFdev to ADFprod.
What should you do first?

A. From ADFdev, modify the Git configuration.
B. From ADFdev, create a linked service.
C. From Azure DevOps, create a release pipeline.
D. From Azure DevOps, update the main branch.

Answer: C

Explanation:
In Azure Data Factory, continuous integration and delivery (CI/CD) means moving Data Factory pipelines from one environment (development, test, production) to another.
Note:
The following is a guide for setting up an Azure Pipelines release that automates the deployment of a data factory to multiple environments.

- In Azure DevOps, open the project that's configured with your data factory.
- On the left side of the page, select Pipelines, and then select Releases.
- Select New pipeline, or, if you have existing pipelines, select New and then New release pipeline.
- In the Stage name box, enter the name of your environment.
- Select Add artifact, and then select the git repository configured with your development data factory.

Select the publish branch of the repository for the Default branch. By default, this publish branch is adf_publish.

- Select the Empty job template. Reference:

https://docs.microsoft.com/en-us/azure/data-factory/continuous-integration-deployment

NEW QUESTION 88
- (Exam Topic 3)
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 are designing an Azure Stream Analytics solution that will analyze Twitter data.
You need to count the tweets in each 10-second window. The solution must ensure that each tweet is counted only once.
Solution: You use a session window that uses a timeout size of 10 seconds. Does this meet the goal?

A. Yes
B. No

Answer: A

Explanation:
Instead use a tumbling window. Tumbling windows are a series of fixed-sized, non-overlapping and contiguous time intervals. Reference:
https://docs.microsoft.com/en-us/stream-analytics-query/tumbling-window-azure-stream-analytics

NEW QUESTION 89
- (Exam Topic 3)
You plan to implement an Azure Data Lake Gen2 storage account.
You need to ensure that the data lake will remain available if a data center fails in the primary Azure region. The solution must minimize costs.
Which type of replication should you use for the storage account?

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

Answer: C

Explanation:
Locally redundant storage (LRS) copies your data synchronously three times within a single physical location in the primary region. LRS is the least expensive replication option
Reference:
https://docs.microsoft.com/en-us/azure/storage/common/storage-redundancy

NEW QUESTION 90
- (Exam Topic 3)
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. a GUID column

B. a sequence object
C. an IDENTITY column

Answer: C

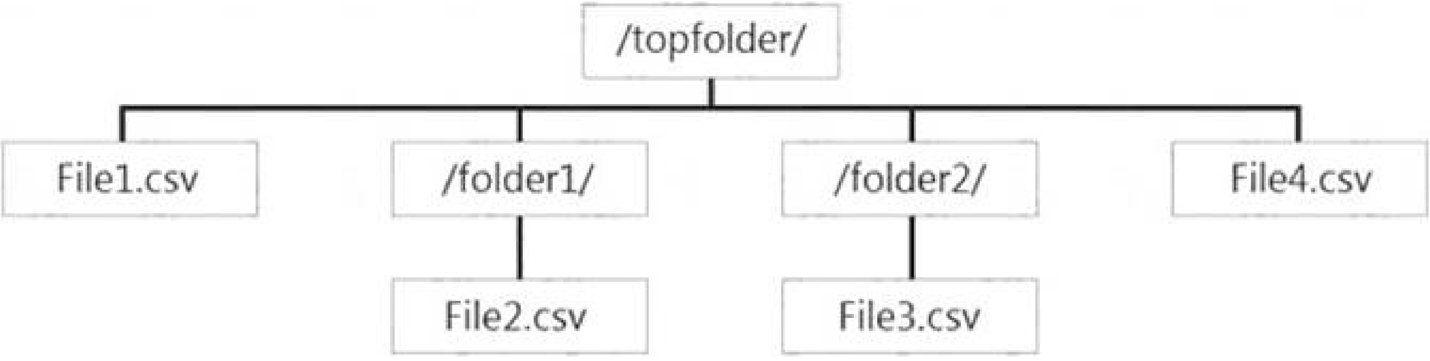
Explanation:
Use IDENTITY to create surrogate keys using dedicated SQL pool in AzureSynapse Analytics.
Note: A surrogate key on a table is a column with a unique identifier for each row. The key is not generated from the table data. Data modelers like to create surrogate keys on their tables when they 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-tables-identity

NEW QUESTION 92
- (Exam Topic 3)
You have a partitioned table in an Azure Synapse Analytics dedicated SQL pool. You need to design queries to maximize the benefits of partition elimination. What should you include in the Transact-SQL queries?

A. JOIN
B. WHERE
C. DISTINCT
D. GROUP BY

Answer: B

NEW QUESTION 93
- (Exam Topic 3)
You have files and folders in Azure Data Lake Storage Gen2 for an Azure Synapse workspace as shown in the following exhibit.



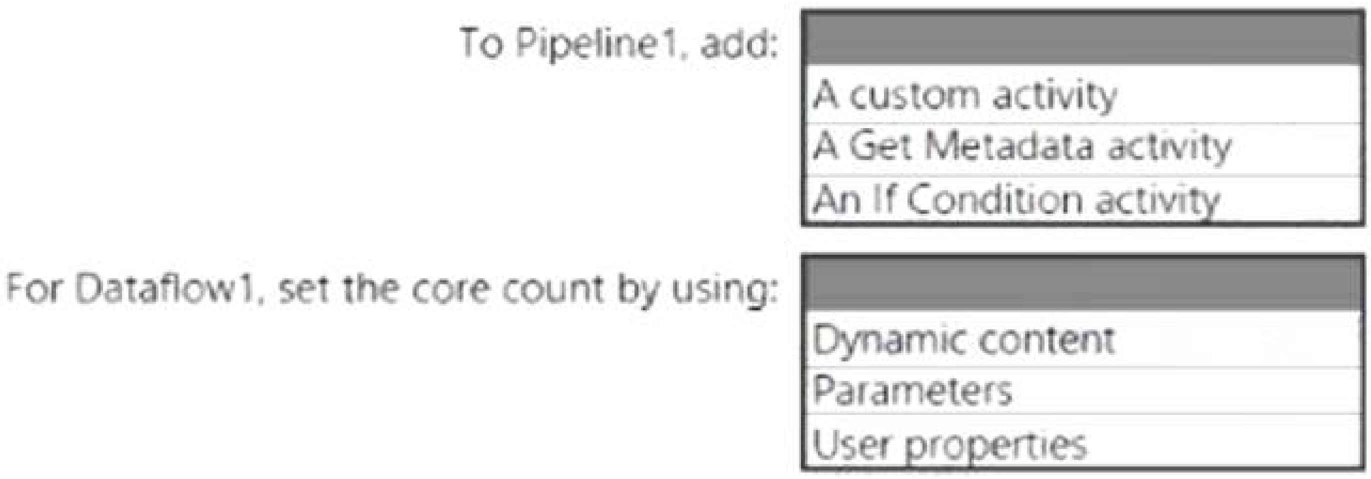
You create an external table named ExtTable that has LOCATION='/topfolder/'.
When you query ExtTable by using an Azure Synapse Analytics serverless SQL pool, which files are returned?

A. File2.csv and File3.csv only
B. File1.csv and File4.csv only
C. File1.csv, File2.csv, File3.csv, and File4.csv
D. File1.csv only

Answer: B

Explanation:
To run a T-SQL query over a set of files within a folder or set of folders while treating them as a single entity or rowset, provide a path to a folder or a pattern (using wildcards) over a set of files or folders. Reference:
https://docs.microsoft.com/en-us/azure/synapse-analytics/sql/query-data-storage#query-multiple-files-or-folders

NEW QUESTION 97
- (Exam Topic 3)
You have an Azure Synapse Analytics pipeline named Pipeline1 that contains a data flow activity named Dataflow1.
Pipeline1 retrieves files from an Azure Data Lake Storage Gen 2 account named storage1.
Dataflow1 uses the AutoResolveIntegrationRuntime integration runtime configured with a core count of 128. You need to optimize the number of cores used by Dataflow1 to accommodate the size of the files in storage1. What should you configure? To answer, select the appropriate options in the answer area.



To Pipeline1, add:
- A custom activity
- A Get Metadata activity
- An If Condition activity

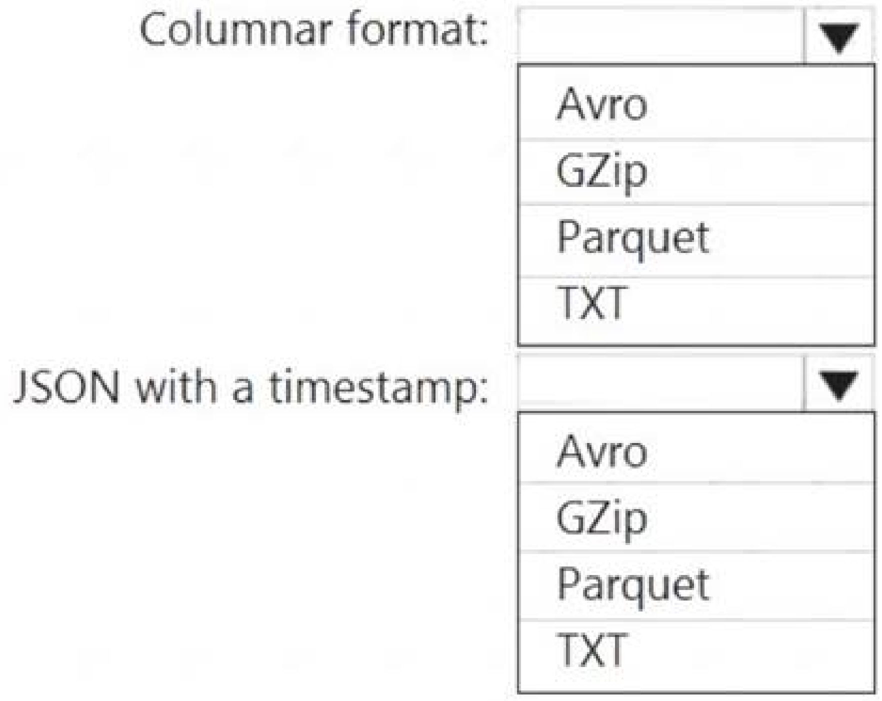
For Dataflow1, set the core count by using:
- Dynamic content
- Parameters
- User properties

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Box 1: A Get Metadata activity
Dynamically size data flow compute at runtime
The Core Count and Compute Type properties can be set dynamically to adjust to the size of your incoming source data at runtime. Use pipeline activities like Lookup or Get Metadata in order to find the size of the source dataset data. Then, use Add Dynamic Content in the Data Flow activity properties.
Box 2: Dynamic content
Reference: https://docs.microsoft.com/en-us/azure/data-factory/control-flow-execute-data-flow-activity

NEW QUESTION 98
- (Exam Topic 3)
You need to output files from Azure Data Factory.
Which file format should you use for each type of output? 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: Parquet
Parquet stores data in columns, while Avro stores data in a row-based format. By their very nature,
column-oriented data stores are optimized for read-heavy analytical workloads, while row-based databases are best for write-heavy transactional workloads.
Box 2: Avro
An Avro schema is created using JSON format. AVRO supports timestamps.
Note: Azure Data Factory supports the following file formats (not GZip or TXT).

- Avro format
- Binary format
- Delimited text format
- Excel format
- JSON format
- ORC format
- Parquet format
- XML format

Reference:
https://www.datanami.com/2018/05/16/big-data-file-formats-demystified

NEW QUESTION 99
- (Exam Topic 3)
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 in container1 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: B

Explanation:

Instead use the derived column transformation to generate new columns in your data flow or to modify existing fields.
Reference:
https://docs.microsoft.com/en-us/azure/data-factory/data-flow-derived-column

NEW QUESTION 102
- (Exam Topic 3)
You have an Azure data factory named ADM that contains a pipeline named Pipelwe1 Pipeline! must execute every 30 minutes with a 15-minute offset.
You need to create a trigger for Pipehne1. The trigger must meet the following requirements:
• Backfill data from the beginning of the day to the current time.
• If Pipeline1 fairs, ensure that the pipeline can re-execute within the same 30-mmute period.
• Ensure that only one concurrent pipeline execution can occur.
• Minimize de4velopment and configuration effort Which type of trigger should you create?

A. schedule
B. event-based
C. manual
D. tumbling window

Answer: A

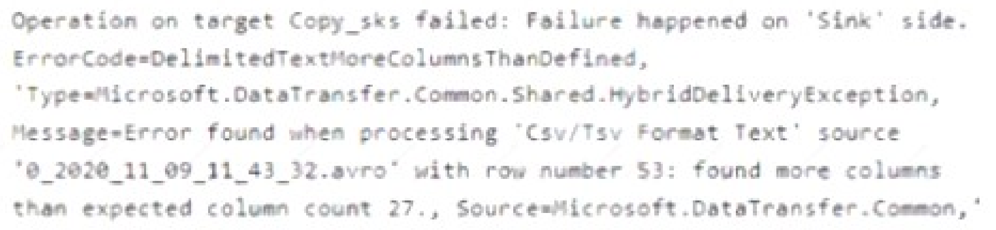
NEW QUESTION 107
- (Exam Topic 3)
You have an Azure Data Factory version 2 (V2) resource named Df1. Df1 contains a linked service. You have an Azure Key vault named vault1 that contains an encryption key named key1.
You need to encrypt Df1 by using key1. What should you do first?

A. Add a private endpoint connection to vaul 1.
B. Enable Azure role-based access control on vault 1.
C. Remove the linked service from Df1.
D. Create a self-hosted integration runtime.

Answer: C

Explanation:
Linked services are much like connection strings, which define the connection information needed for Data Factory to connect to external resources.
Reference:
https://docs.microsoft.com/en-us/azure/data-factory/enable-customer-managed-key https://docs.microsoft.com/en-us/azure/data-factory/concepts-linked-services
https://docs.microsoft.com/en-us/azure/data-factory/create-self-hosted-integration-runtime

NEW QUESTION 108
- (Exam Topic 3)
You have an Azure Data Lake Storage Gen2 account that contains two folders named Folder and Folder2. You use Azure Data Factory to copy multiple files from Folder1 to Folder2.



```
Operation on target Copy_sks failed: Failure happened on 'Sink' side.
ErrorCode=DelimitedTextMoreColumnsThanDefined,
'Type=Microsoft.DataTransfer.Common.Shared.HybridDeliveryException,
Message=Error found when processing 'Csv/Tsv Format Text' source
'0_2020_11_09_11_43_32.avro' with row number 53: found more columns
than expected column count 27., Source=Microsoft.DataTransfer.Common,'
```

You receive the following error.
What should you do to resolve the error.

A. Add an explicit mapping.
B. Enable fault tolerance to skip incompatible rows.
C. Lower the degree of copy parallelism
D. Change the Copy activity setting to Binary Copy

Answer: A

Explanation:
Reference:
https://knowledge.informatica.com/s/article/Microsoft-Azure-Data-Lake-Store-Gen2-target-file-names-not-gene

NEW QUESTION 112
- (Exam Topic 3)
You are designing an Azure Data Lake Storage solution that will transform raw JSON files for use in an analytical workload.
You need to recommend a format for the transformed files. The solution must meet the following requirements:
➢ Contain information about the data types of each column in the files.
➢ Support querying a subset of columns in the files.
➢ Support read-heavy analytical workloads.
➢ Minimize the file size.
What should you recommend?

A. JSON
B. CSV
C. Apache Avro

D. Apache Parquet

Answer: D

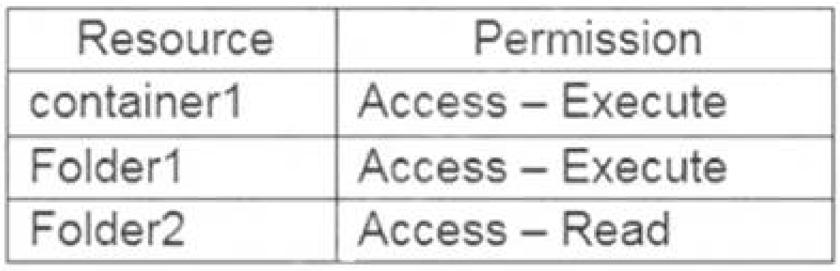
Explanation:
Parquet, an open-source file format for Hadoop, stores nested data structures in a flat columnar format. Compared to a traditional approach where data is stored in a row-oriented approach, Parquet file format is
more efficient in terms of storage and performance.
It is especially good for queries that read particular columns from a “wide” (with many columns) table since only needed columns are read, and IO is minimized.
Reference: https://www.clairvoyant.ai/blog/big-data-file-formats

NEW QUESTION 117
- (Exam Topic 3)
You have an Azure Synapse Analytics dedicated SQL pod.
You need to create a pipeline that will execute a stored procedure in the dedicated SQL pool and use the returned result set as the input (or a downstream activity. The solution must minimize development effort.
Which Type of activity should you use in the pipeline?

A. Notebook
B. U-SQL
C. Script
D. Stored Procedure

Answer: D

NEW QUESTION 121
- (Exam Topic 3)
You have an Azure subscription linked to an Azure Active Directory (Azure AD) tenant that contains a service principal named ServicePrincipal1. The subscription contains an Azure Data Lake Storage account named adls1. Adls1 contains a folder named Folder2 that has a URI of https://adls1.dfs.core.windows.net/container1/Folder1/Folder2/.
ServicePrincipal1 has the access control list (ACL) permissions shown in the following table.



Resource	Permission
container1	Access – Execute
Folder1	Access – Execute
Folder2	Access – Read

You need to ensure that ServicePrincipal1 can perform the following actions:
- Traverse child items that are created in Folder2.
- Read files that are created in Folder2.

The solution must use the principle of least privilege.
Which two permissions should you grant to ServicePrincipal1 for Folder2? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

A. Access - Read
B. Access - Write
C. Access - Execute
D. Default-Read
E. Default - Write
F. Default - Execute

Answer: DF

Explanation:
Execute (X) permission is required to traverse the child items of a folder.
There are two kinds of access control lists (ACLs), Access ACLs and Default ACLs. Access ACLs: These control access to an object. Files and folders both have Access ACLs.
Default ACLs: A "template" of ACLs associated with a folder that determine the Access ACLs for any child items that are created under that folder. Files do not have Default ACLs.
Reference:
https://docs.microsoft.com/en-us/azure/data-lake-store/data-lake-store-access-control

NEW QUESTION 126
- (Exam Topic 3)
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.Sql
B. Microsoft-Automation
C. Microsoft.EventGrid
D. Microsoft.EventHub

Answer: C

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

NEW QUESTION 127
- (Exam Topic 3)
You have an Azure Databricks workspace named workspace1 in the Standard pricing tier.
You need to configure workspace1 to support autoscaling all-purpose clusters. The solution must meet the following requirements:

- Automatically scale down workers when the cluster is underutilized for three minutes.
- Minimize the time it takes to scale to the maximum number of workers.
- Minimize costs. What should you do first?

A. Enable container services for workspace1.
B. Upgrade workspace1 to the Premium pricing tier.
C. Set Cluster Mode to High Concurrency.
D. Create a cluster policy in workspace1.

Answer: B

Explanation:
For clusters running Databricks Runtime 6.4 and above, optimized autoscaling is used by all-purpose clusters in the Premium plan
Optimized autoscaling:
Scales up from min to max in 2 steps.
Can scale down even if the cluster is not idle by looking at shuffle file state. Scales down based on a percentage of current nodes.
On job clusters, scales down if the cluster is underutilized over the last 40 seconds.
On all-purpose clusters, scales down if the cluster is underutilized over the last 150 seconds.
The spark.databricks.aggressiveWindowDownS Spark configuration property specifies in seconds how often a cluster makes down-scaling decisions. Increasing the value causes a cluster to scale down more slowly. The maximum value is 600.
Note: Standard autoscaling
Starts with adding 8 nodes. Thereafter, scales up exponentially, but can take many steps to reach the max. You can customize the first step by setting the spark.databricks.autoscaling.standardFirstStepUp Spark configuration property.
Scales down only when the cluster is completely idle and it has been underutilized for the last 10 minutes. Scales down exponentially, starting with 1 node.
Reference: https://docs.databricks.com/clusters/configure.html

NEW QUESTION 132
- (Exam Topic 3)
You have an Azure Databricks workspace that contains a Delta Lake dimension table named Tablet. Table1 is a Type 2 slowly changing dimension (SCD) table.
You need to apply updates from a source table to Table1. Which Apache Spark SQL operation should you use?

A. CREATE
B. UPDATE
C. MERGE
D. ALTER

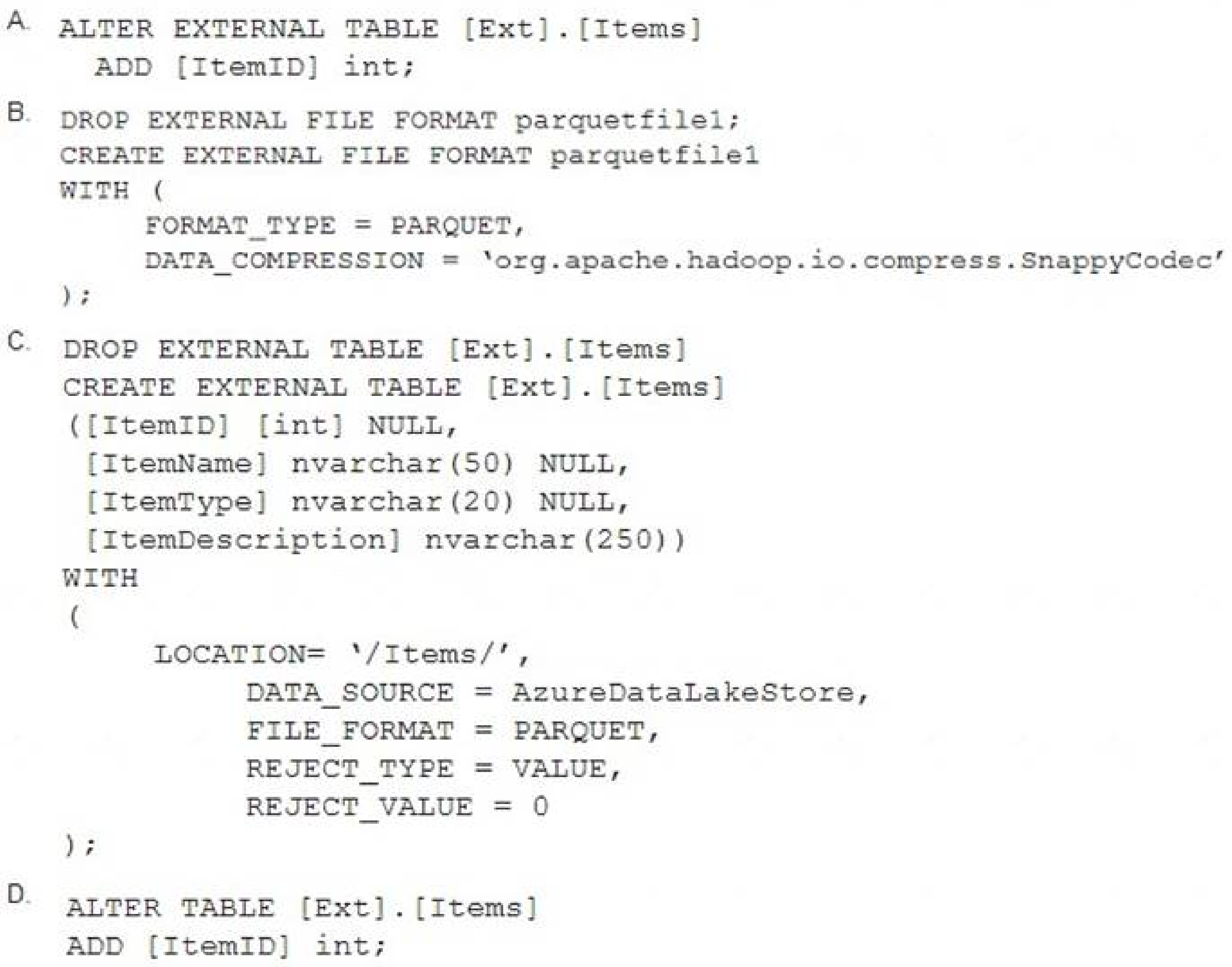
Answer: C

Explanation:
The Delta provides the ability to infer the schema for data input which further reduces the effort required in managing the schema changes. The Slowly Changing Data(SCD) Type 2 records all the changes made to each key in the dimensional table. These operations require updating the existing rows to mark the previous values of the keys as old and then inserting new rows as the latest values. Also, Given a source table with the updates and the target table with dimensional data, SCD Type 2 can be expressed with the merge.
Example:

```
// Implementing SCD Type 2 operation using merge function customersTable
as("customers") merge(
stagedUpdates.as("staged_updates"), "customers.customerId = mergeKey")
whenMatched("customers.current = true AND customers.address <> staged_updates.address") updateExpr(Map(
"current" -> "false",
"endDate" -> "staged_updates.effectiveDate")) whenNotMatched()
insertExpr(Map(
"customerid" -> "staged_updates.customerId", "address" -> "staged_updates.address", "current" -> "true",
"effectiveDate" -> "staged_updates.effectiveDate",
"endDate" -> "null")) execute()
}
```

Reference:
https://www.projectpro.io/recipes/what-is-slowly-changing-data-scd-type-2-operation-delta-table-databricks

NEW QUESTION 133
- (Exam Topic 3)
You have an enterprise data warehouse in Azure Synapse Analytics.
Using PolyBase, you create an external table named [Ext].[Items] to query Parquet files stored in Azure Data Lake Storage Gen2 without importing the data to the data warehouse.
The external table has three columns.
You discover that the Parquet files have a fourth column named ItemID.
Which command should you run to add the ItemID column to the external table?



A.
```
ALTER EXTERNAL TABLE [Ext].[Items]
  ADD [ItemID] int;
```

B.
```
DROP EXTERNAL FILE FORMAT parquetfile1;
CREATE EXTERNAL FILE FORMAT parquetfile1
WITH (
     FORMAT_TYPE = PARQUET,
     DATA_COMPRESSION = 'org.apache.hadoop.io.compress.SnappyCodec'
);
```

C.
```
DROP EXTERNAL TABLE [Ext].[Items]
CREATE EXTERNAL TABLE [Ext].[Items]
([ItemID] [int] NULL,
 [ItemName] nvarchar(50) NULL,
 [ItemType] nvarchar(20) NULL,
 [ItemDescription] nvarchar(250))
WITH
(
     LOCATION= '/Items/',
          DATA_SOURCE = AzureDataLakeStore,
          FILE_FORMAT = PARQUET,
          REJECT_TYPE = VALUE,
          REJECT_VALUE = 0
);
```

D.
```
ALTER TABLE [Ext].[Items]
ADD [ItemID] int;
```

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

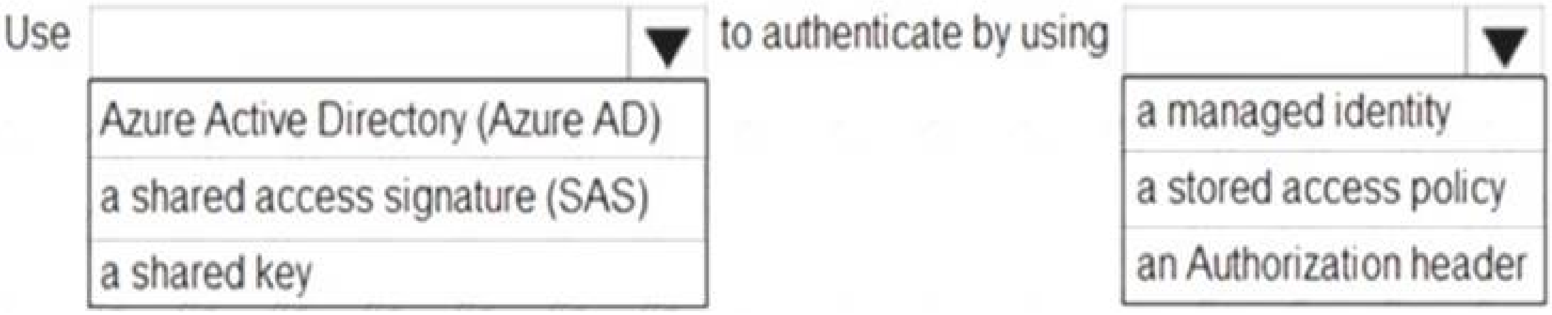
Answer: C

Explanation:
https://docs.microsoft.com/en-us/sql/t-sql/statements/create-external-table-transact-sql

NEW QUESTION 134
- (Exam Topic 3)
You have an Azure subscription that contains an Azure Data Lake Storage account. The storage account contains a data lake named DataLake1.
You plan to use an Azure data factory to ingest data from a folder in DataLake1, transform the data, and land the data in another folder.
You need to ensure that the data factory can read and write data from any folder in the DataLake1 file system. The solution must meet the following requirements:

- Minimize the risk of unauthorized user access.
- Use the principle of least privilege.
- Minimize maintenance effort.

How should you configure access to the storage account for the data factory? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.



Use ▼ to authenticate by using ▼

- Azure Active Directory (Azure AD)
- a shared access signature (SAS)
- a shared key

- a managed identity
- a stored access policy
- an Authorization header

A. Mastered
B. Not Mastered

Answer: A

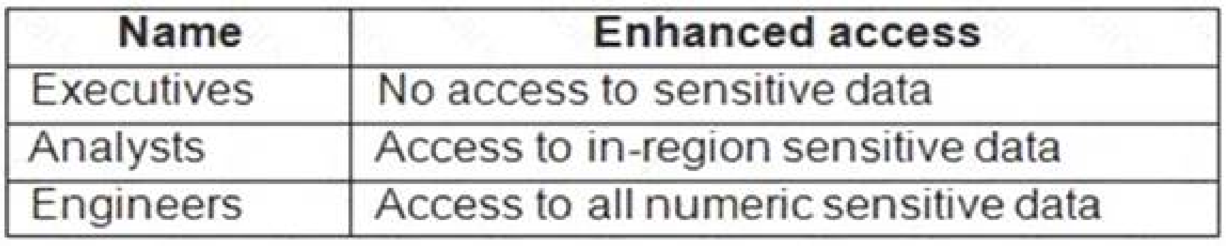
Explanation:
Text Description automatically generated with low confidence
Box 1: Azure Active Directory (Azure AD)
On Azure, managed identities eliminate the need for developers having to manage credentials by providing an identity for the Azure resource in Azure AD and using it to obtain Azure Active Directory (Azure AD) tokens.
Box 2: a managed identity
A data factory can be associated with a managed identity for Azure resources, which represents this specific data factory. You can directly use this managed identity for Data Lake Storage Gen2 authentication, similar to using your own service principal. It allows this designated factory to access and copy data to or from your Data Lake Storage Gen2.

Note: The Azure Data Lake Storage Gen2 connector supports the following authentication types.

- Account key authentication
- Service principal authentication
- Managed identities for Azure resources authentication Reference:

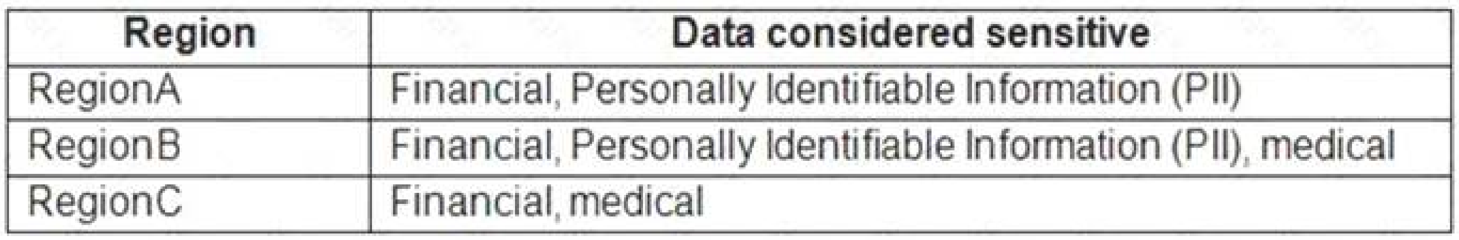
https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/overview https://docs.microsoft.com/en-us/azure/data-factory/connector-azure-data-lake-storage

NEW QUESTION 137
- (Exam Topic 3)
You are designing an Azure Synapse Analytics dedicated SQL pool.
Groups will have access to sensitive data in the pool as shown in the following table.



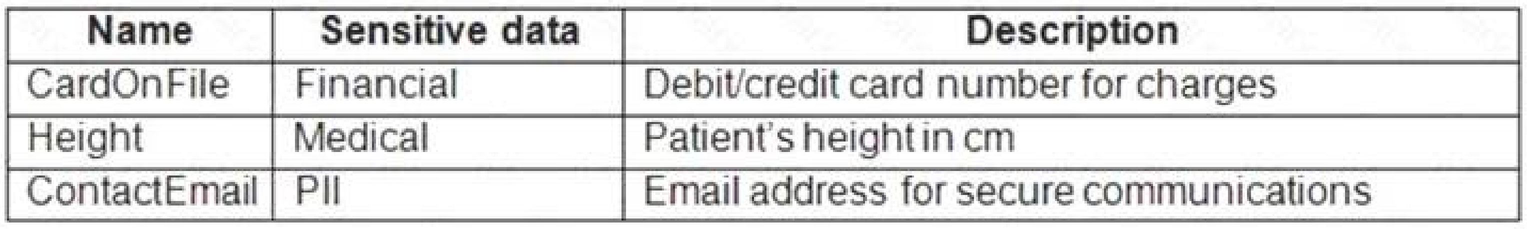
Name	Enhanced access
Executives	No access to sensitive data
Analysts	Access to in-region sensitive data
Engineers	Access to all numeric sensitive data

You have policies for the sensitive data. The policies vary be region as shown in the following table.



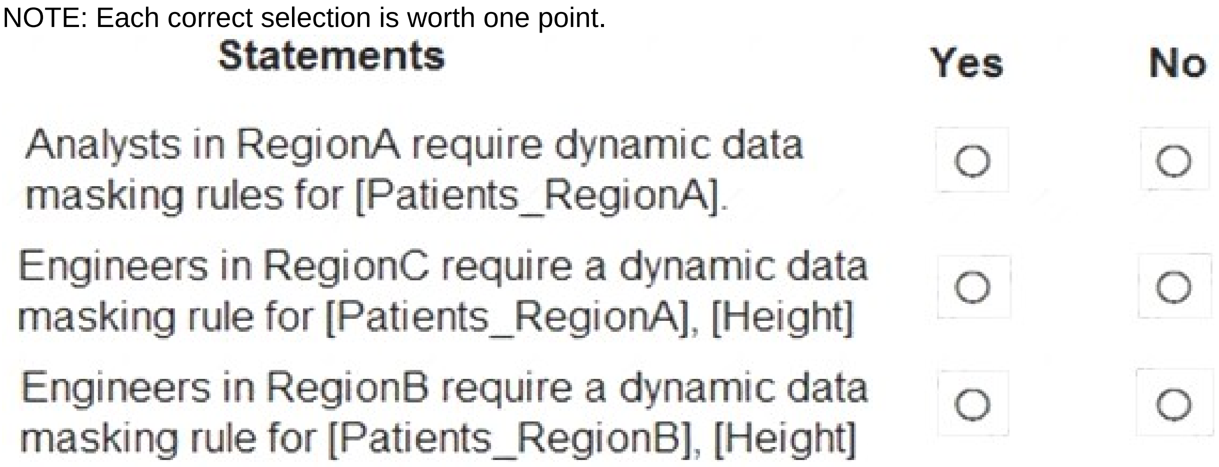
Region	Data considered sensitive
RegionA	Financial, Personally Identifiable Information (PII)
RegionB	Financial, Personally Identifiable Information (PII), medical
RegionC	Financial, medical

You have a table of patients for each region. The tables contain the following potentially sensitive columns.



Name	Sensitive data	Description
CardOnFile	Financial	Debit/credit card number for charges
Height	Medical	Patient's height in cm
ContactEmail	PII	Email address for secure communications

You are designing dynamic data masking to maintain compliance.
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
Analysts in RegionA require dynamic data masking rules for [Patients_RegionA].	○	○
Engineers in RegionC require a dynamic data masking rule for [Patients_RegionA], [Height]	○	○
Engineers in RegionB require a dynamic data masking rule for [Patients_RegionB], [Height]	○	○

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Text Description automatically generated
Reference:
https://docs.microsoft.com/en-us/azure/azure-sql/database/dynamic-data-masking-overview

NEW QUESTION 140
- (Exam Topic 3)
You are designing an Azure Synapse Analytics workspace.
You need to recommend a solution to provide double encryption of all the data at rest.
Which two components should you include in the recommendation? Each coned answer presents part of the solution
NOTE: Each correct selection is worth one point.

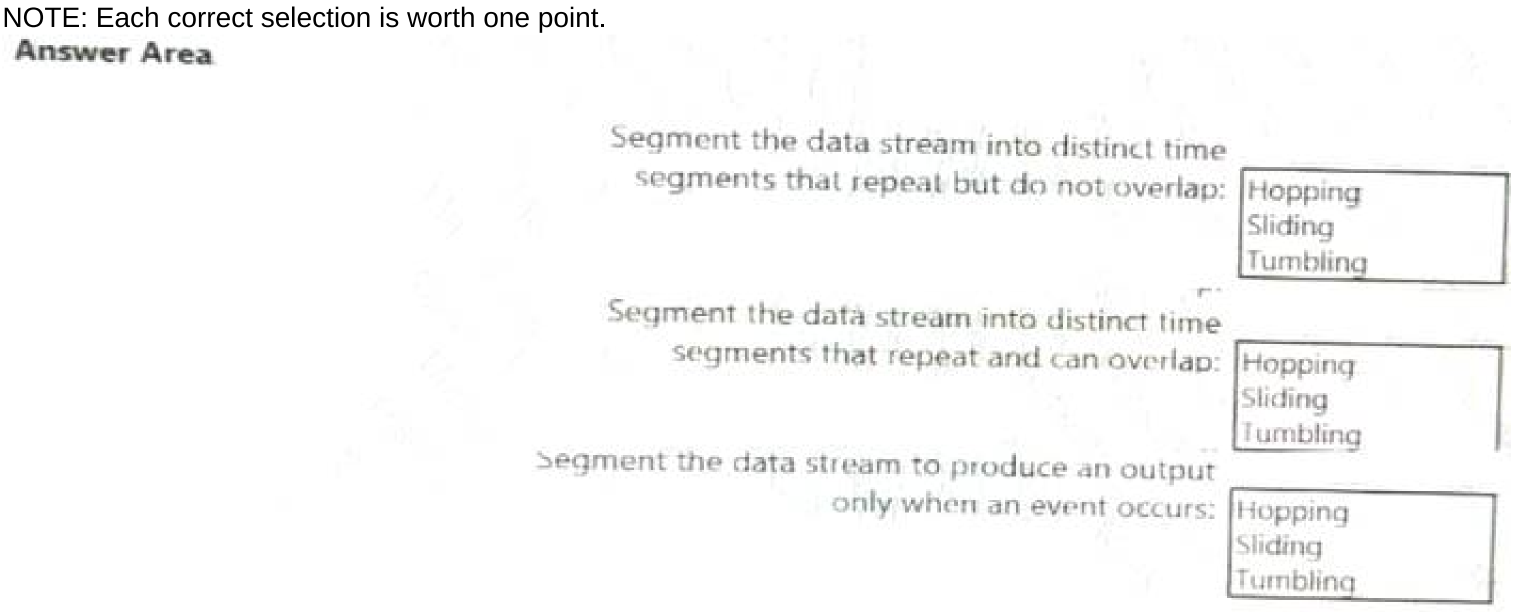
A. an X509 certificate
B. an RSA key
C. an Azure key vault that has purge protection enabled
D. an Azure virtual network that has a network security group (NSG)
E. an Azure Policy initiative

Answer: BC

Explanation:
Synapse workspaces encryption uses existing keys or new keys generated in Azure Key Vault. A single key is used to encrypt all the data in a workspace.
Synapse workspaces support RSA 2048 and 3072 byte-sized keys, and RSA-HSM keys.

The Key Vault itself needs to have purge protection enabled. Reference:
https://docs.microsoft.com/en-us/azure/synapse-analytics/security/workspaces-encryption

NEW QUESTION 141
- (Exam Topic 3)
You are implementing Azure Stream Analytics windowing functions.
Which windowing function should you use for each requirement? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.



Answer Area

Segment the data stream into distinct time segments that repeat but do not overlap: Hopping / Sliding / Tumbling

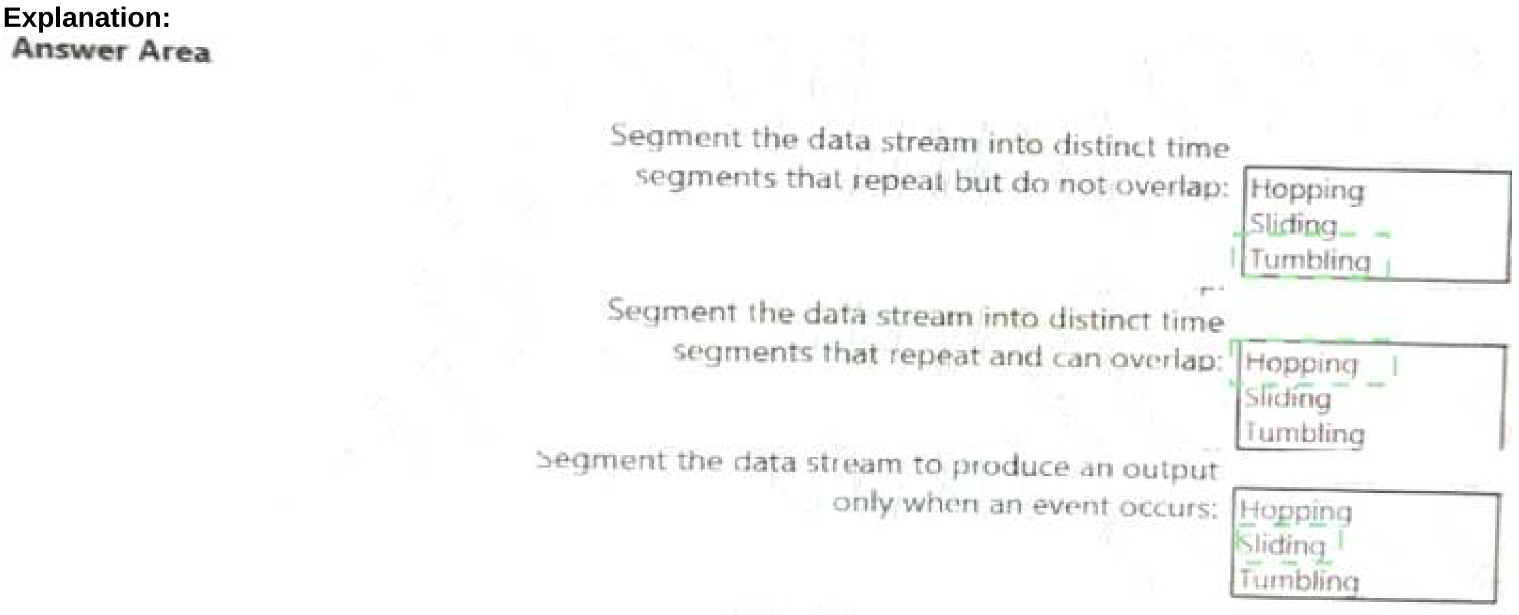
Segment the data stream into distinct time segments that repeat and can overlap: Hopping / Sliding / Tumbling

Segment the data stream to produce an output only when an event occurs: Hopping / Sliding / Tumbling

A. Mastered
B. Not Mastered

Answer: A

Explanation:



Answer Area

Segment the data stream into distinct time segments that repeat but do not overlap: Hopping / Sliding / Tumbling

Segment the data stream into distinct time segments that repeat and can overlap: Hopping / Sliding / Tumbling

Segment the data stream to produce an output only when an event occurs: Hopping / Sliding / Tumbling

NEW QUESTION 143
- (Exam Topic 3)
A 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. Early Input Events
B. Late Input Events
C. Watermark delay
D. Input Deserialization Errors

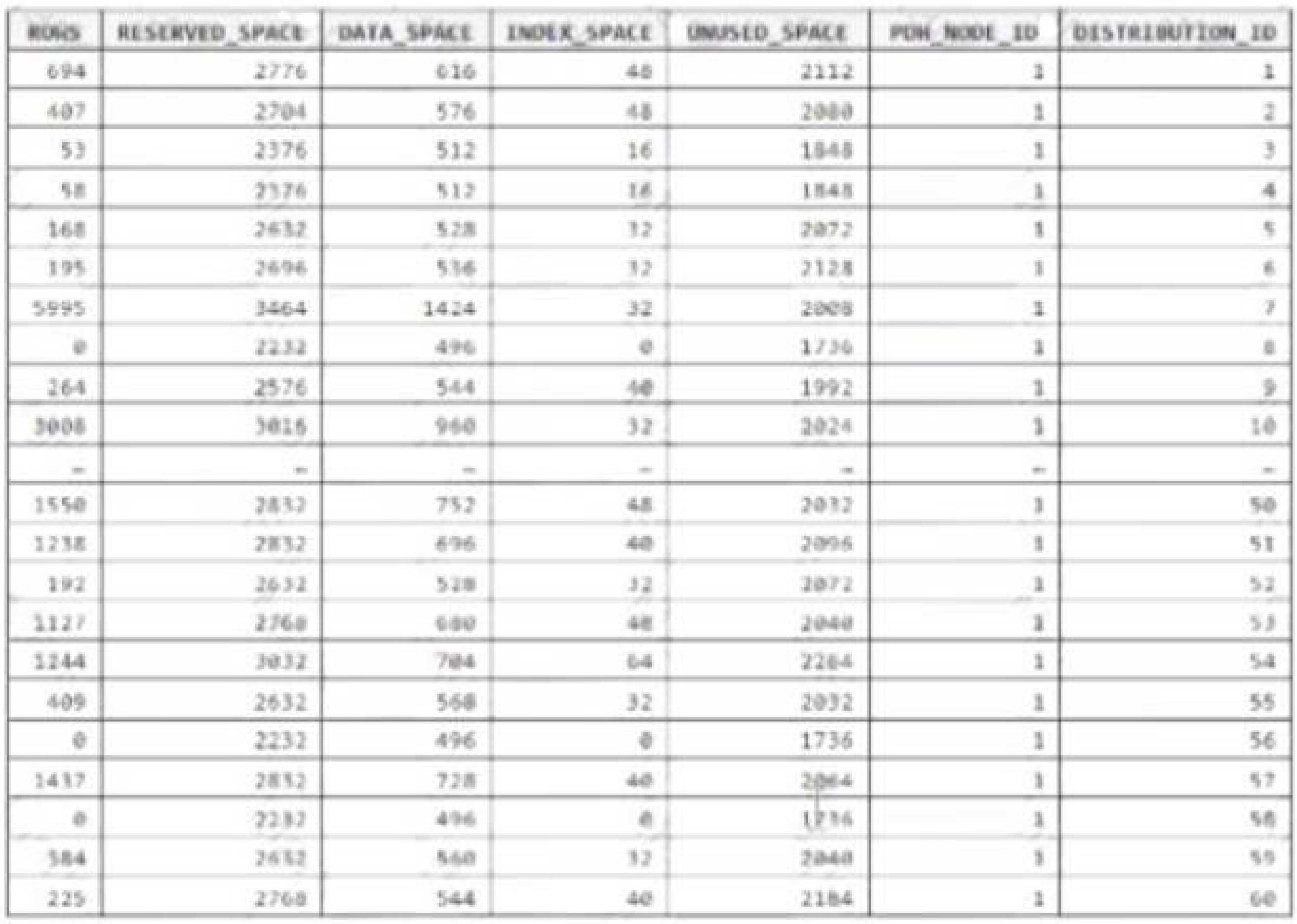
Answer: A

Explanation:
There are a number of resource constraints that can cause the streaming pipeline to slow down. The watermark delay metric can rise due to:

- Not enough processing resources in Stream Analytics to handle the volume of input events.
- Not enough throughput within the input event brokers, so they are throttled.
- Output sinks are not provisioned with enough capacity, so they are throttled. The possible solutions vary widely based on the flavor of output service being used.

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

NEW QUESTION 145
- (Exam Topic 3)
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
584	2632	560	32	2040	1	59
225	2768	544	40	2184	1	60

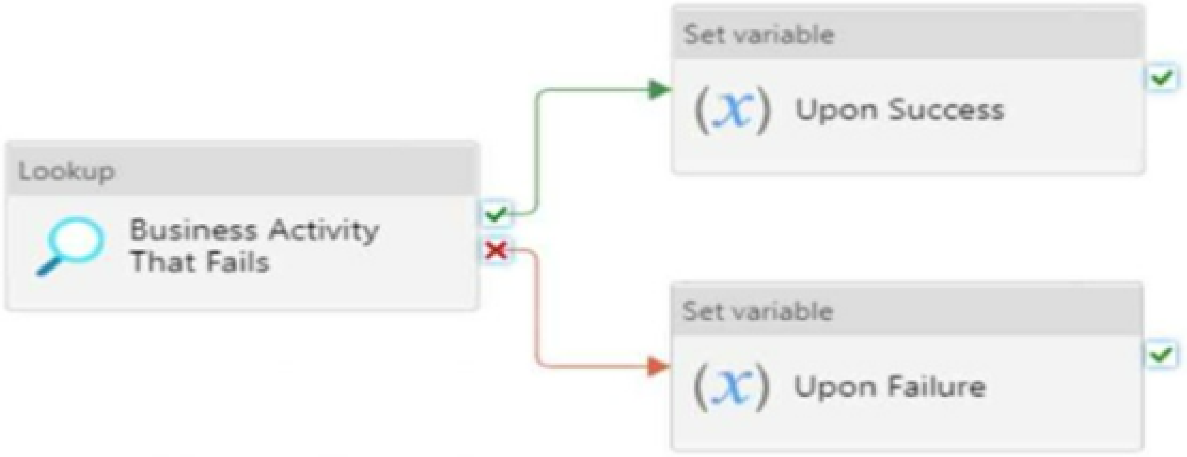
Which statement accurately describes the dbo,FactInternetSales table?

A. The table contains less than 1,000 rows.
B. All distributions contain data.
C. The table is skewed.
D. The table uses round-robin distribution.

Answer: C

Explanation:
Data skew means the data is not distributed evenly across the distributions. Reference:
https://docs.microsoft.com/en-us/azure/synapse-analytics/sql-data-warehouse/sql-data-warehouse-tables-distribu

NEW QUESTION 149
- (Exam Topic 3)
You have the Azure Synapse Analytics pipeline shown in the following exhibit.



You need to add a set variable activity to the pipeline to ensure that after the pipeline’s completion, the status of the pipeline is always successful.
What should you configure for the set variable activity?

A. a success dependency on the Business Activity That Fails activity
B. a failure dependency on the Upon Failure activity
C. a skipped dependency on the Upon Success activity
D. a skipped dependency on the Upon Failure activity

Answer: A

Explanation:
A failure dependency means that the activity will run only if the previous activity fails. In this case, setting a failure dependency on the Upon Failure activity will ensure that the set variable activity will run after the pipeline fails and set the status of the pipeline to successful.

NEW QUESTION 152
- (Exam Topic 3)
You create an Azure Databricks cluster and specify an additional library to install. When you attempt to load the library to a notebook, the library in not found.
You need to identify the cause of the issue. What should you review?

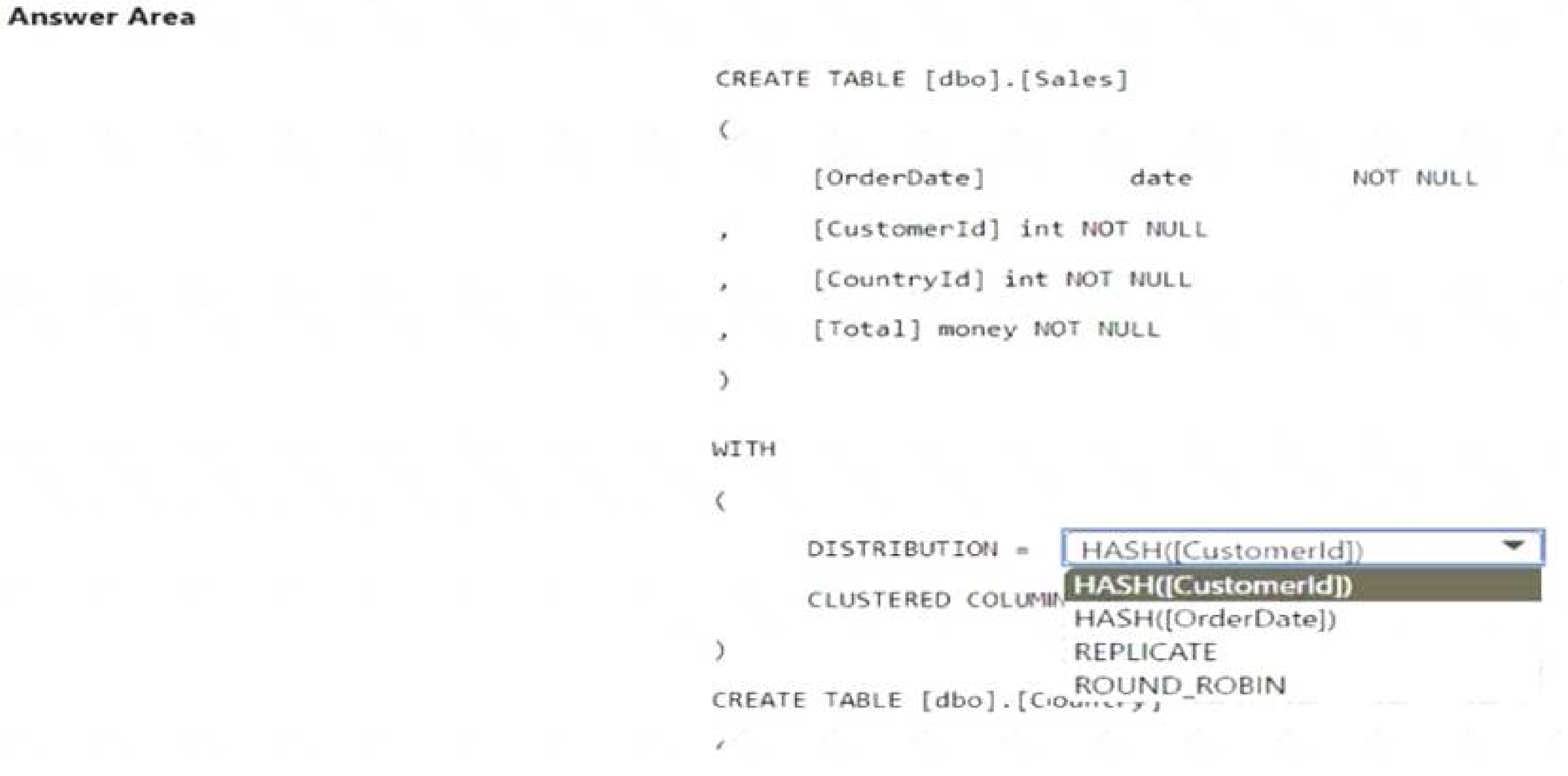
A. notebook logs
B. cluster event logs
C. global init scripts logs

D. workspace logs

Answer: C

Explanation:
Cluster-scoped Init Scripts: Init scripts are shell scripts that run during the startup of each cluster node before the Spark driver or worker JVM starts. Databricks customers use init scripts for various purposes such as installing custom libraries, launching background processes, or applying enterprise security policies.
Logs for Cluster-scoped init scripts are now more consistent with Cluster Log Delivery and can be found in the same root folder as driver and executor logs for the cluster.
Reference:
https://databricks.com/blog/2018/08/30/introducing-cluster-scoped-init-scripts.html

NEW QUESTION 154
- (Exam Topic 3)
You have an Azure subscription that contains an Azure Synapse Analytics dedicated SQL pool. You plan to deploy a solution that will analyze sales data and include the following:
• A table named Country that will contain 195 rows
• A table named Sales that will contain 100 million rows
• A query to identify total sales by country and customer from the past 30 days
You need to create the tables. The solution must maximize query performance.
How should you complete the script? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.



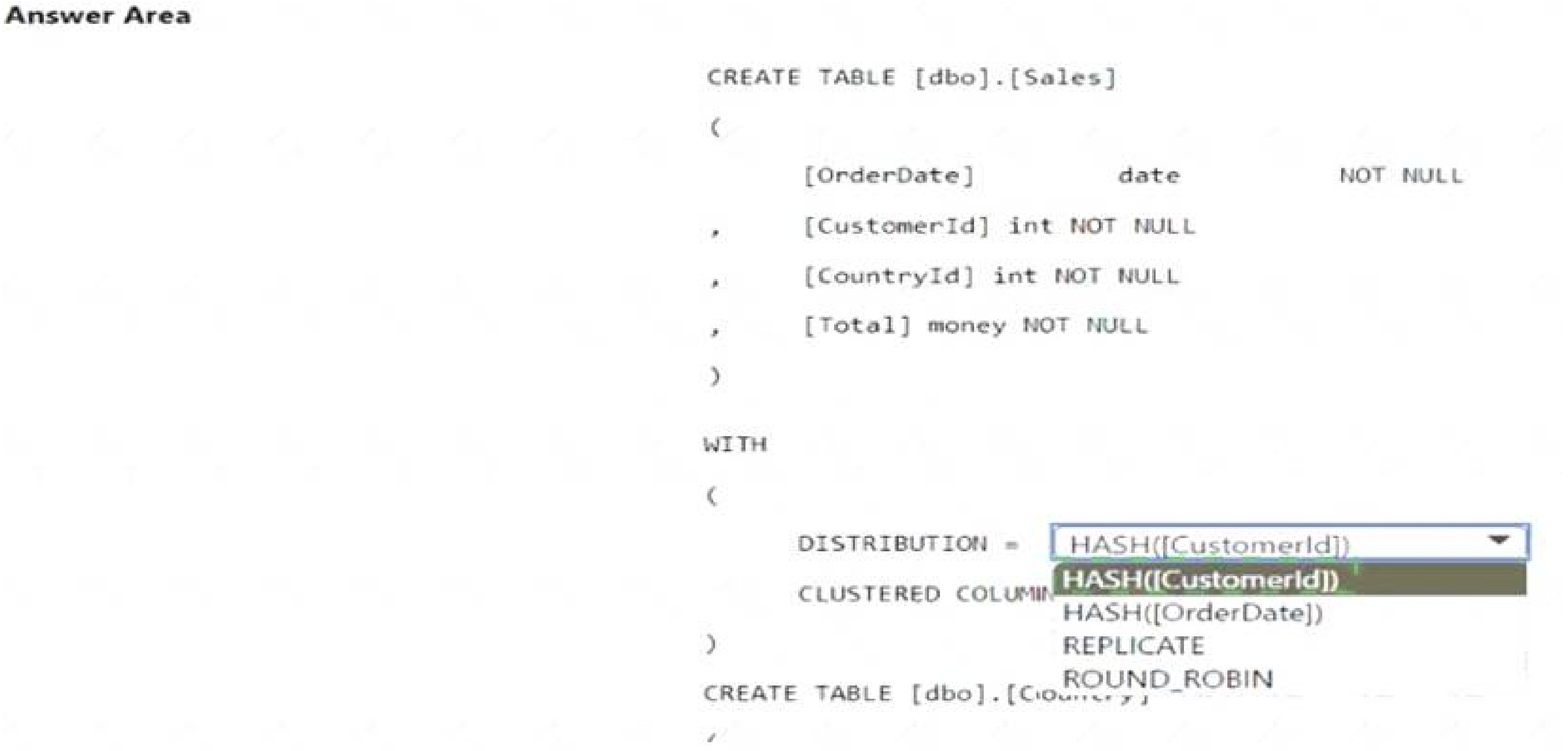
Answer Area

```
CREATE TABLE [dbo].[Sales]
(
        [OrderDate]          date            NOT NULL
,       [CustomerId] int NOT NULL
,       [CountryId] int NOT NULL
,       [Total] money NOT NULL
)
WITH
(
        DISTRIBUTION = HASH([CustomerId])
        CLUSTERED COLUMN
)
CREATE TABLE [dbo].[Country]
,
```

A. Mastered
B. Not Mastered

Answer: A

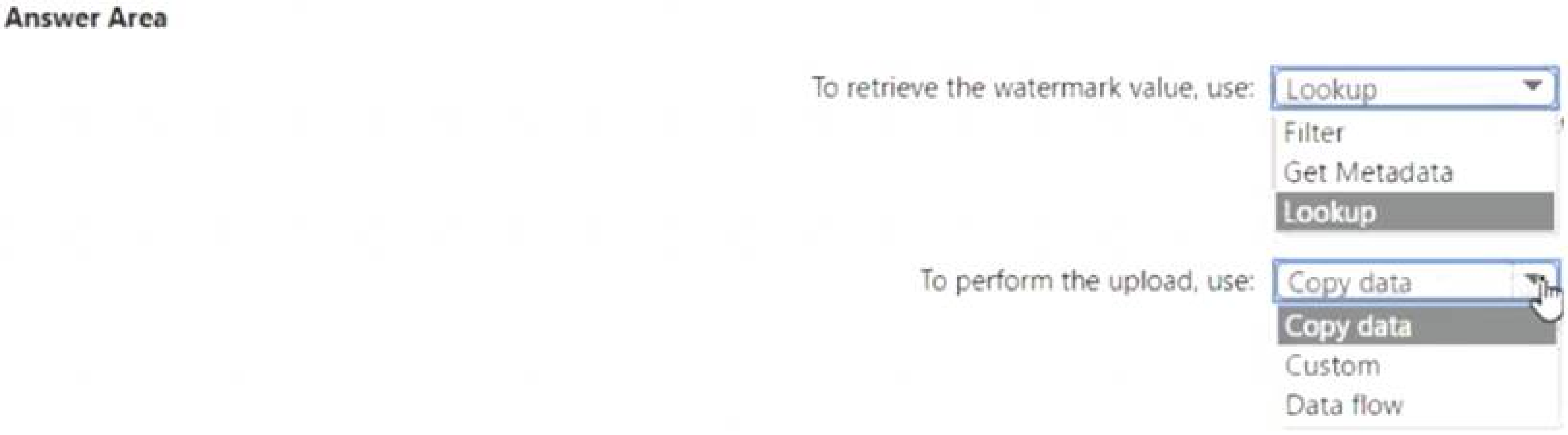
Explanation:



Answer Area

```
CREATE TABLE [dbo].[Sales]
(
        [OrderDate]          date            NOT NULL
,       [CustomerId] int NOT NULL
,       [CountryId] int NOT NULL
,       [Total] money NOT NULL
)
WITH
(
        DISTRIBUTION = HASH([CustomerId])
        CLUSTERED COLUMN
)
CREATE TABLE [dbo].[Country]
,
```

NEW QUESTION 155
- (Exam Topic 3)
You have two Azure SQL databases named DB1 and DB2.
DB1 contains a table named Table 1. Table1 contains a timestamp column named LastModifiedOn. LastModifiedOn contains the timestamp of the most recent update for each individual row.
DB2 contains a table named Watermark. Watermark contains a single timestamp column named WatermarkValue.
You plan to create an Azure Data Factory pipeline that will incrementally upload into Azure Blob Storage all the rows in Table1 for which the LastModifiedOn column contains a timestamp newer than the most recent value of the WatermarkValue column in Watermark.
You need to identify which activities to include in the pipeline. The solution must meet the following requirements:
• Minimize the effort to author the pipeline.
• Ensure that the number of data integration units allocated to the upload operation can be controlled. What should you identify? To answer, select the appropriate options in the answer area.


Answer Area

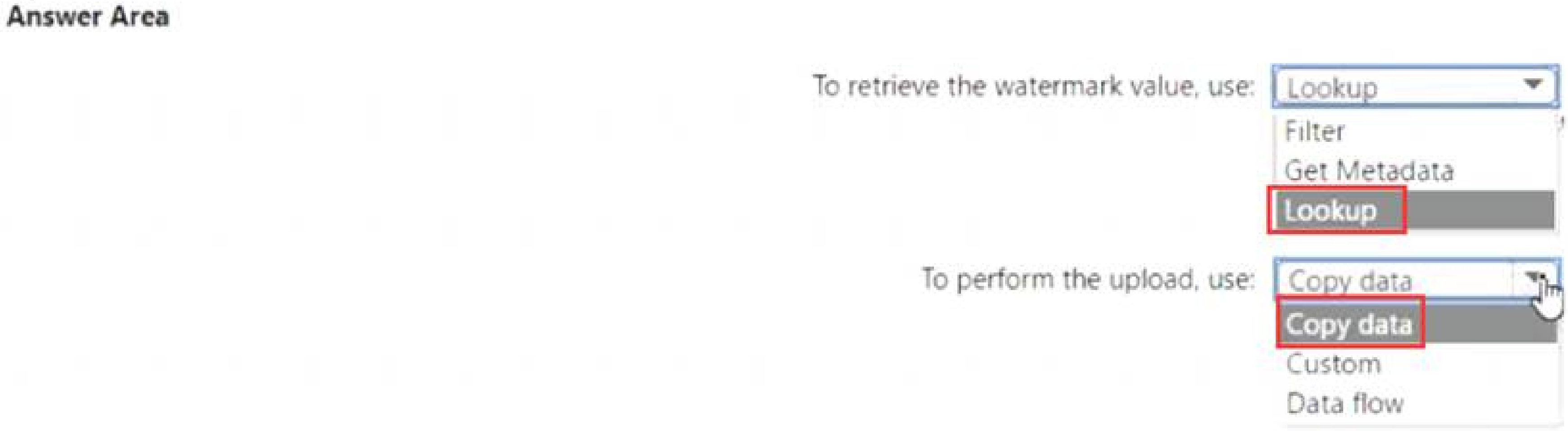
To retrieve the watermark value, use: Lookup

To perform the upload, use: Copy data

A. Mastered
B. Not Mastered

Answer: A

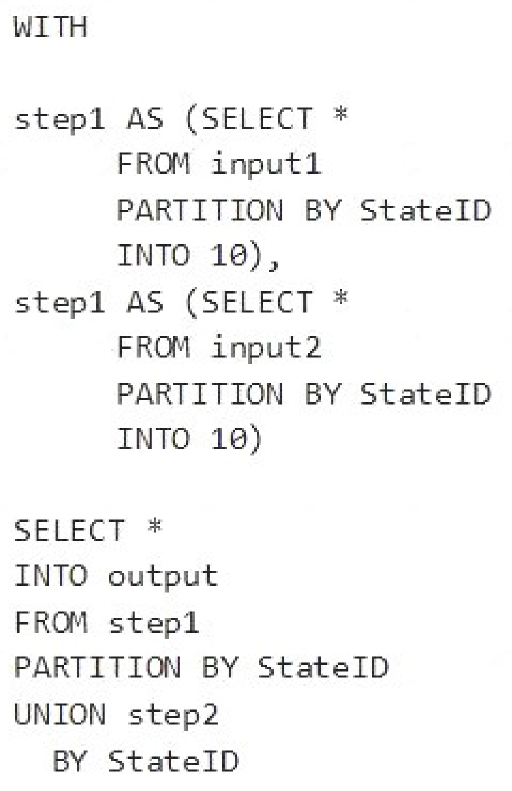
Explanation:


Answer Area

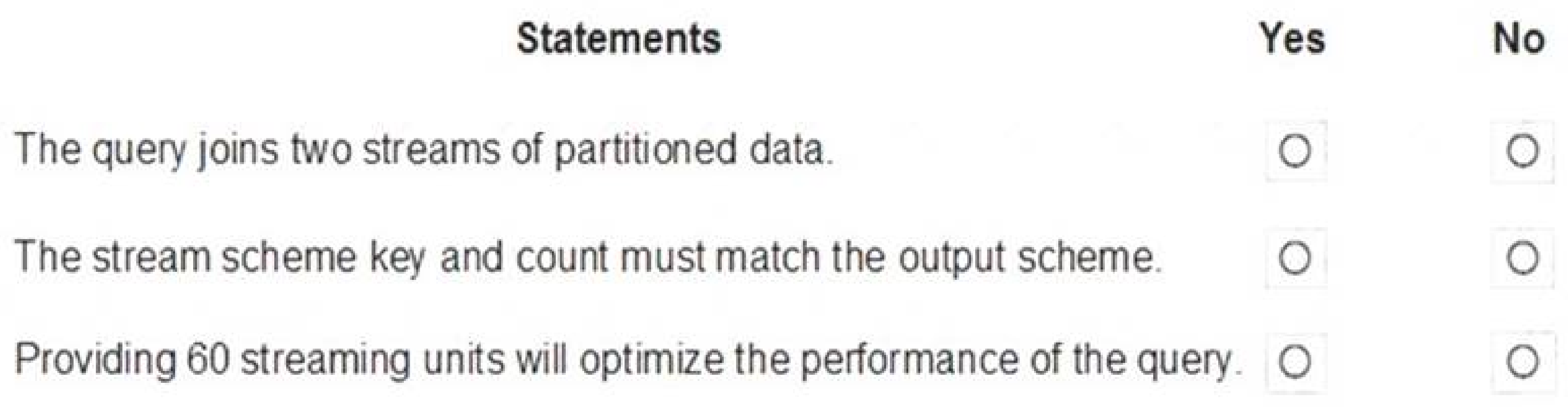
To retrieve the watermark value, use: Lookup

To perform the upload, use: Copy data

NEW QUESTION 156
- (Exam Topic 3)
You have the following Azure Stream Analytics query.


```
WITH

step1 AS (SELECT *
      FROM input1
      PARTITION BY StateID
      INTO 10),
step1 AS (SELECT *
      FROM input2
      PARTITION BY StateID
      INTO 10)

SELECT *
INTO output
FROM step1
PARTITION BY StateID
UNION step2
  BY StateID
```

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



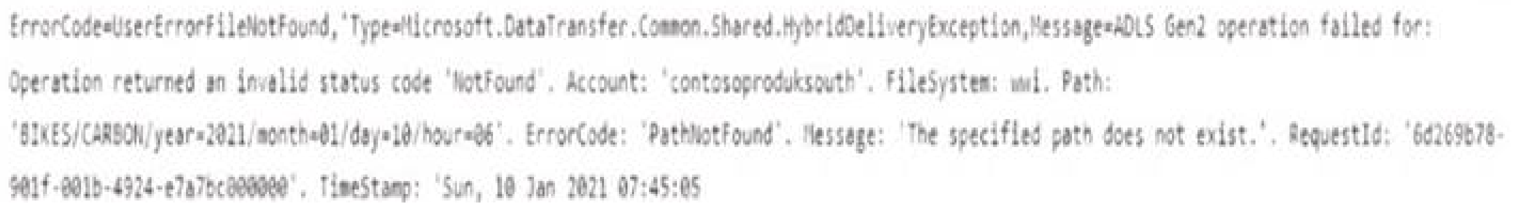
Statements	Yes	No
The query joins two streams of partitioned data.	○	○
The stream scheme key and count must match the output scheme.	○	○
Providing 60 streaming units will optimize the performance of the query.	○	○

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Box 1: Yes
You can now use a new extension of Azure Stream Analytics SQL to specify the number of partitions of a stream when reshuffling the data.
The outcome is a stream that has the same partition scheme. Please see below for an example: WITH step1 AS (SELECT * FROM [input1] PARTITION BY DeviceID INTO 10),
step2 AS (SELECT * FROM [input2] PARTITION BY DeviceID INTO 10)
SELECT * INTO [output] FROM step1 PARTITION BY DeviceID UNION step2 PARTITION BY DeviceID Note: The new extension of Azure Stream Analytics SQL includes a keyword INTO that allows you to specify the number of partitions for a stream when performing reshuffling using a PARTITION BY statement.
Box 2: Yes
When joining two streams of data explicitly repartitioned, these streams must have the same partition key and partition count.
Box 3: Yes
10 partitions x six SUs = 60 SUs is fine.
Note: Remember, Streaming Unit (SU) count, which is the unit of scale for Azure Stream Analytics, must be adjusted so the number of physical resources available to the job can fit the partitioned flow. In general, six SUs is a good number to assign to each partition. In case there are insufficient resources assigned to the job, the system will only apply the repartition if it benefits the job.
Reference:
https://azure.microsoft.com/en-in/blog/maximize-throughput-with-repartitioning-in-azure-stream-analytics/

NEW QUESTION 160
- (Exam Topic 3)
You have an Azure Data Factory pipeline that is triggered hourly. The pipeline has had 100% success for the past seven days.
The pipeline execution fails, and two retries that occur 15 minutes apart also fail. The third failure returns the following error.



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

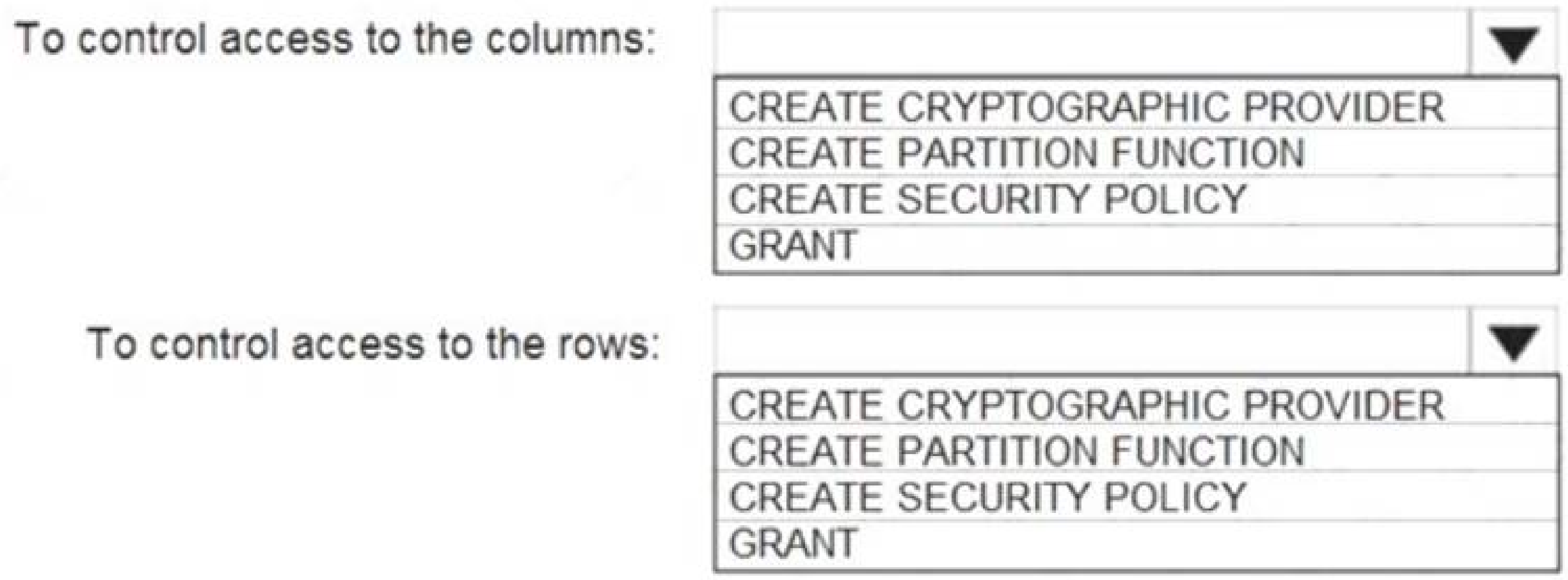
What is a possible cause of the error?

A. The parameter used to generate year=2021/month=01/day=10/hour=06 was incorrect.
B. From 06:00 to 07:00 on January 10, 2021, there was no data in wwi/BIKES/CARBON.
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: C

NEW QUESTION 161
- (Exam Topic 3)
You have an Azure subscription that contains the following resources:
- An Azure Active Directory (Azure AD) tenant that contains a security group named Group1
- An Azure Synapse Analytics SQL pool named Pool1

You need to control the access of Group1 to specific columns and rows in a table in Pool1.
Which Transact-SQL commands should you use? To answer, select the appropriate options in the answer area.



To control access to the columns:

- CREATE CRYPTOGRAPHIC PROVIDER
- CREATE PARTITION FUNCTION
- CREATE SECURITY POLICY
- GRANT

To control access to the rows:

- CREATE CRYPTOGRAPHIC PROVIDER
- CREATE PARTITION FUNCTION
- CREATE SECURITY POLICY
- GRANT

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Text Description automatically generated
Box 1: GRANT
You can implement column-level security with the GRANT T-SQL statement. Box 2: CREATE SECURITY POLICY
Implement Row Level Security by using the CREATE SECURITY POLICY Transact-SQL statement Reference:
https://docs.microsoft.com/en-us/azure/synapse-analytics/sql-data-warehouse/column-level-security

NEW QUESTION 166
- (Exam Topic 3)
You are monitoring an Azure Stream Analytics job.
The Backlogged Input Events count has been 20 for the last hour. You need to reduce the Backlogged Input Events count.
What should you do?

A. Drop late arriving events from the job.
B. Add an Azure Storage account to the job.
C. Increase the streaming units for the job.
D. Stop the job.

Answer: C

Explanation:
General symptoms of the job hitting system resource limits include:

- If the backlog event metric keeps increasing, it’s an indicator that the system resource is constrained (either because of output sink throttling, or high CPU).

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: adjust Streaming Units.
Reference:
https://docs.microsoft.com/en-us/azure/stream-analytics/stream-analytics-scale-jobs https://docs.microsoft.com/en-us/azure/stream-analytics/stream-analytics-monitoring

NEW QUESTION 170
- (Exam Topic 3)
You are designing an inventory updates table in an Azure Synapse Analytics dedicated SQL pool. The table will have a clustered columnstore index and will include the following columns:

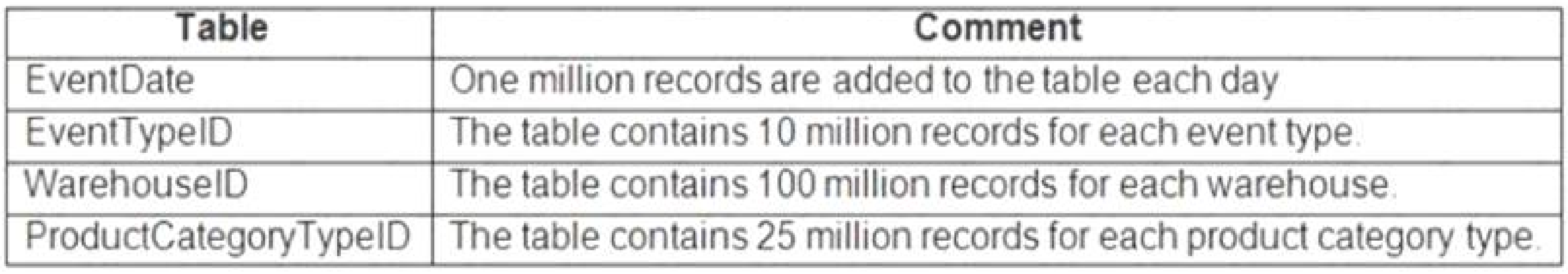


Table	Comment
EventDate	One million records are added to the table each day
EventTypeID	The table contains 10 million records for each event type.
WarehouseID	The table contains 100 million records for each warehouse.
ProductCategoryTypeID	The table contains 25 million records for each product category type.

You identify the following usage patterns:

- Analysts will most commonly analyze transactions for a warehouse.
- Queries will summarize by product category type, date, and/or inventory event type. You need to recommend a partition strategy for the table to minimize query times.

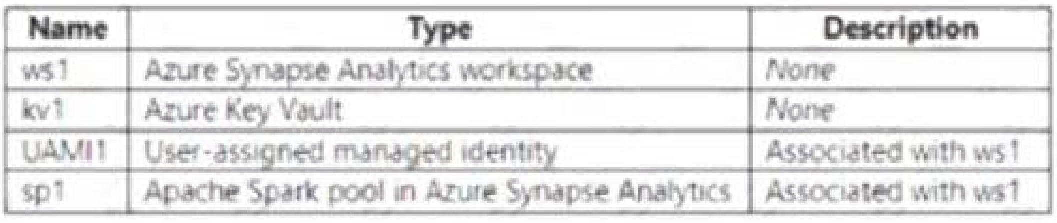
On which column should you partition the table?

A. ProductCategoryTypeID
B. EventDate
C. WarehouseID
D. EventTypeID

Answer: C

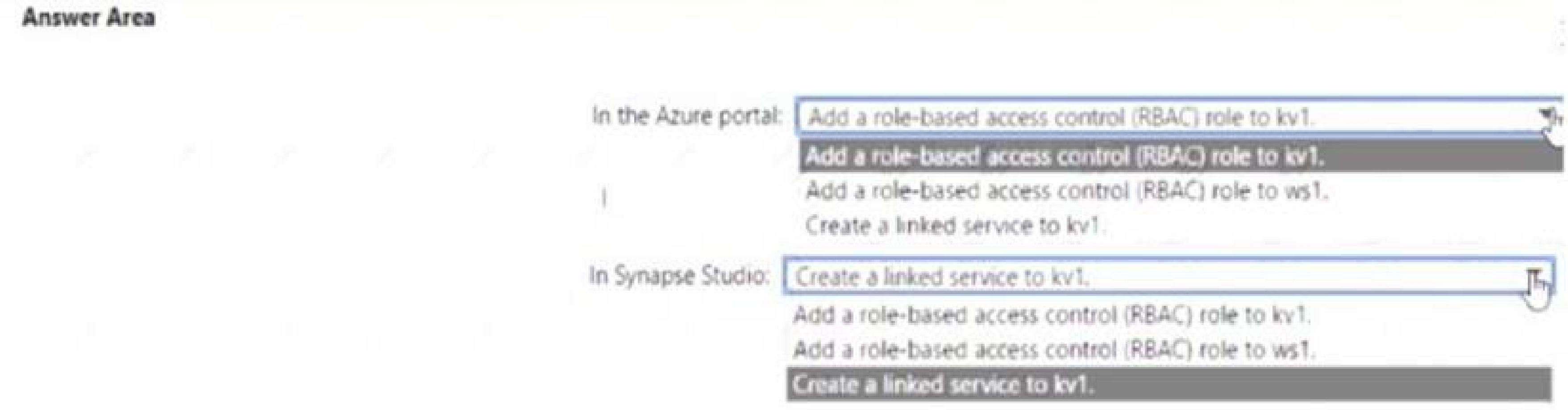
Explanation:
The number of records for each warehouse is big enough for a good partitioning.
Note: Table partitions enable you to divide your data into smaller groups of data. In most cases, table partitions are created on a date column.
When creating partitions on clustered columnstore tables, it is important to consider how many rows belong to each partition. For optimal compression and performance of clustered columnstore tables, a minimum of 1 million rows per distribution and partition is needed. Before partitions are created, dedicated SQL pool already divides each table into 60 distributed databases.

NEW QUESTION 175
- (Exam Topic 3)
You have an Azure subscription that contains the resources shown in the following table.



Name	Type	Description
ws1	Azure Synapse Analytics workspace	None
kv1	Azure Key Vault	None
UAMI1	User-assigned managed identity	Associated with ws1
sp1	Apache Spark pool in Azure Synapse Analytics	Associated with ws1

You need to ensure that you can Spark notebooks in ws1. The solution must ensure secrets from kv1 by using UAMI1. What should you do? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.



Answer Area

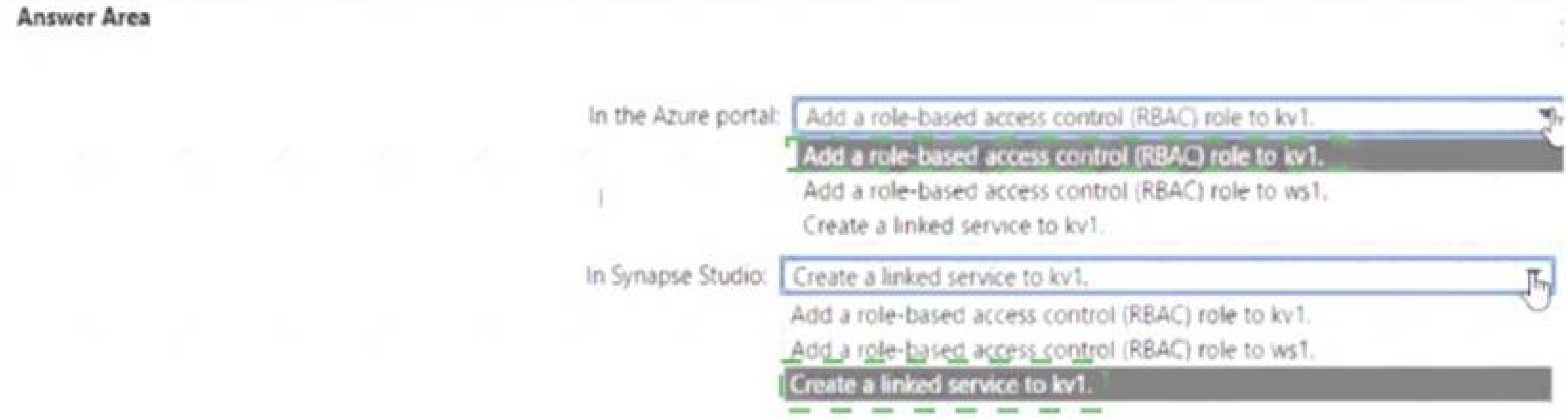
In the Azure portal: Add a role-based access control (RBAC) role to kv1.
Add a role-based access control (RBAC) role to kv1.
Add a role-based access control (RBAC) role to ws1.
Create a linked service to kv1.

In Synapse Studio: Create a linked service to kv1.
Add a role-based access control (RBAC) role to kv1.
Add a role-based access control (RBAC) role to ws1.
Create a linked service to kv1.

A. Mastered
B. Not Mastered

Answer: A

Explanation:

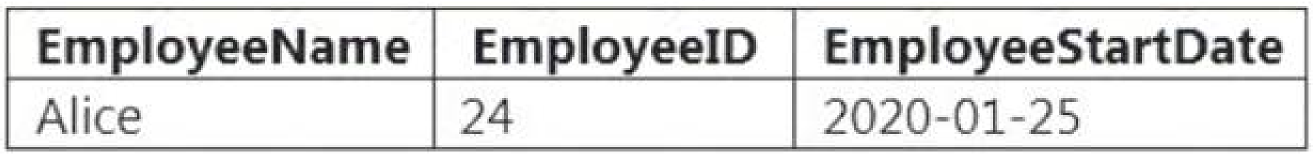


Answer Area

In the Azure portal: Add a role-based access control (RBAC) role to kv1.
Add a role-based access control (RBAC) role to kv1.
Add a role-based access control (RBAC) role to ws1.
Create a linked service to kv1.

In Synapse Studio: Create a linked service to kv1.
Add a role-based access control (RBAC) role to kv1.
Add a role-based access control (RBAC) role to ws1.
Create a linked service to kv1.

NEW QUESTION 179
- (Exam Topic 3)
You have an Azure Synapse workspace named MyWorkspace that contains an Apache Spark database named mytestdb.
You run the following command in an Azure Synapse Analytics Spark pool in MyWorkspace. CREATE TABLE mytestdb.myParquetTable(
EmployeeID int, EmployeeName string, EmployeeStartDate date) USING Parquet
You then use Spark to insert a row into mytestdb.myParquetTable. The row contains the following data.



EmployeeName	EmployeeID	EmployeeStartDate
Alice	24	2020-01-25

One minute later, you execute the following query from a serverless SQL pool in MyWorkspace. SELECT EmployeeID
FROM mytestdb.dbo.myParquetTable WHERE name = 'Alice';
What will be returned by the query?

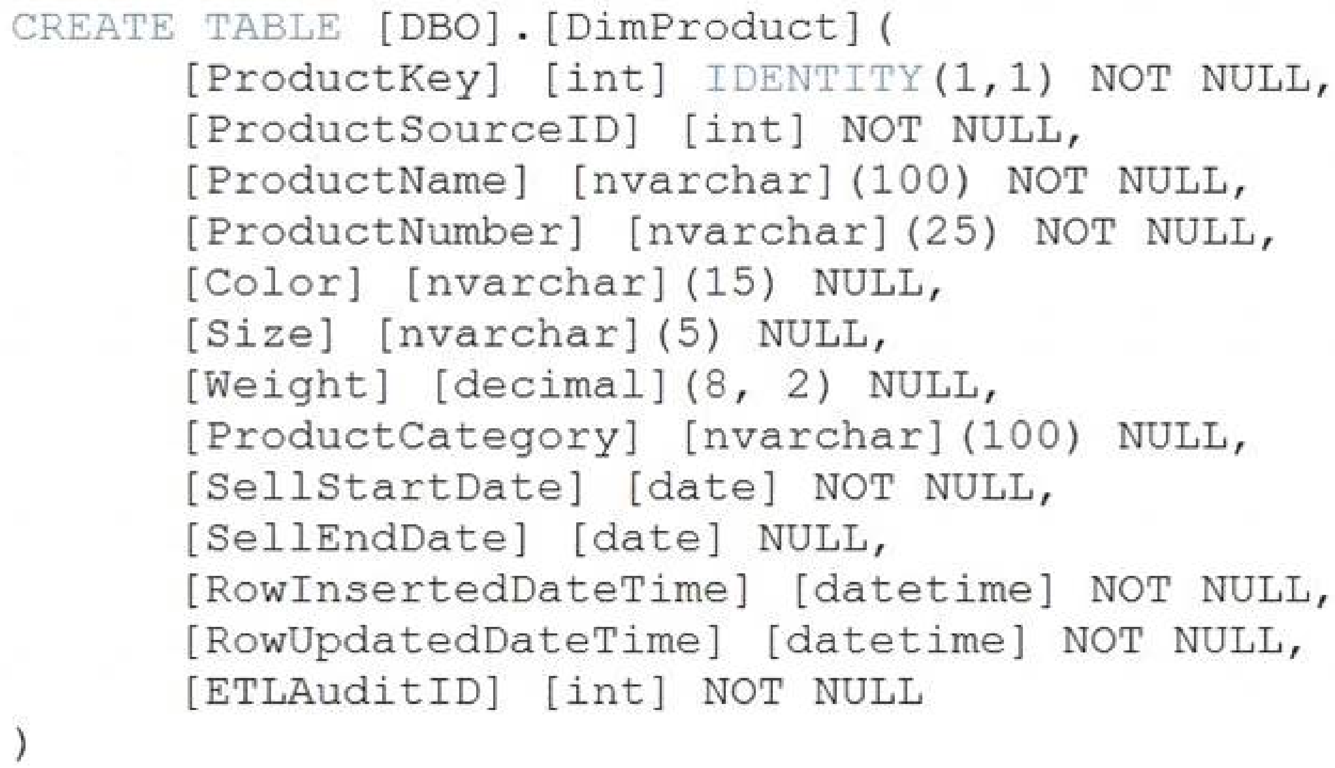
A. 24
B. an error
C. a null value

Answer: B

Explanation:
Once a database has been created by a Spark job, you can create tables in it with Spark that use Parquet as the storage format. Table names will be converted to lower case and need to be queried using the lower case name. These tables will immediately become available for querying by any of the Azure Synapse

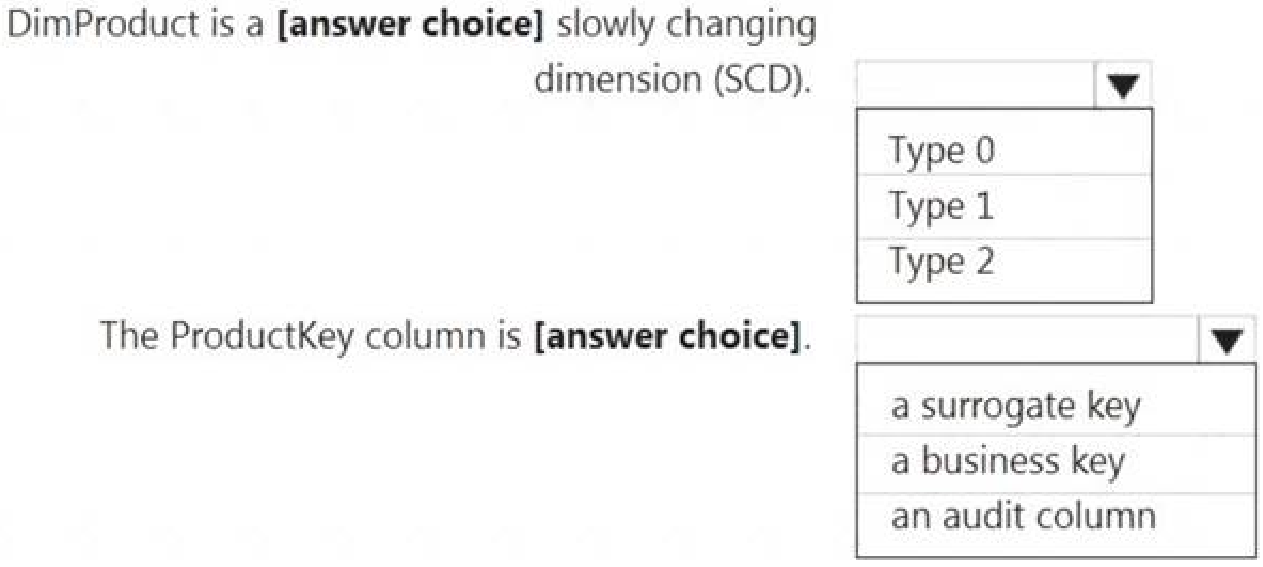
workspace Spark pools. They can also be used from any of the Spark jobs subject to permissions.
Note: For external tables, since they are synchronized to serverless SQL pool asynchronously, there will be a delay until they appear.
Reference:
https://docs.microsoft.com/en-us/azure/synapse-analytics/metadata/table

NEW QUESTION 184
- (Exam Topic 3)
You are creating dimensions for a data warehouse in an Azure Synapse Analytics dedicated SQL pool. You create a table by using the Transact-SQL statement shown in the following exhibit.



```
CREATE TABLE [DBO].[DimProduct](
      [ProductKey] [int] IDENTITY(1,1) NOT NULL,
      [ProductSourceID] [int] NOT NULL,
      [ProductName] [nvarchar](100) NOT NULL,
      [ProductNumber] [nvarchar](25) NOT NULL,
      [Color] [nvarchar](15) NULL,
      [Size] [nvarchar](5) NULL,
      [Weight] [decimal](8, 2) NULL,
      [ProductCategory] [nvarchar](100) NULL,
      [SellStartDate] [date] NOT NULL,
      [SellEndDate] [date] NULL,
      [RowInsertedDateTime] [datetime] NOT NULL,
      [RowUpdatedDateTime] [datetime] NOT NULL,
      [ETLAuditID] [int] NOT NULL
)
```

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.



DimProduct is a **[answer choice]** slowly changing dimension (SCD).

The ProductKey column is **[answer choice]**.

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Box 1: Type 2
A Type 2 SCD supports versioning of dimension members. Often the source system doesn't store versions, so the data warehouse load process detects and manages changes in a dimension table. In this case, the dimension table must use a surrogate key to provide a unique reference to a version of the dimension member. It also includes columns that define the date range validity of the version (for example, StartDate and EndDate) and possibly a flag column (for example, IsCurrent) to easily filter by current dimension members.
Reference:
https://docs.microsoft.com/en-us/learn/modules/populate-slowly-changing-dimensions-azure-synapse-analytics

NEW QUESTION 188
- (Exam Topic 3)
You have two fact tables named Flight and Weather. Queries targeting the tables will be based on the join between the following columns.

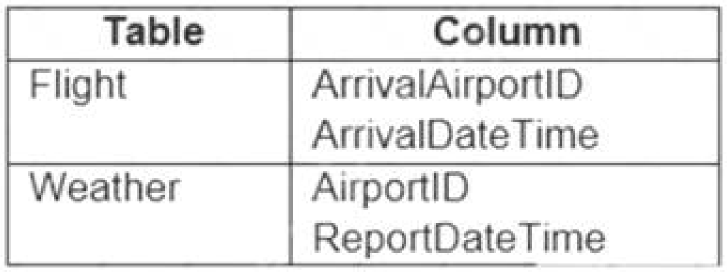


Table	Column
Flight	ArrivalAirportID ArrivalDateTime
Weather	AirportID ReportDateTime

You need to recommend a solution that maximizes query performance. What should you include in the recommendation?

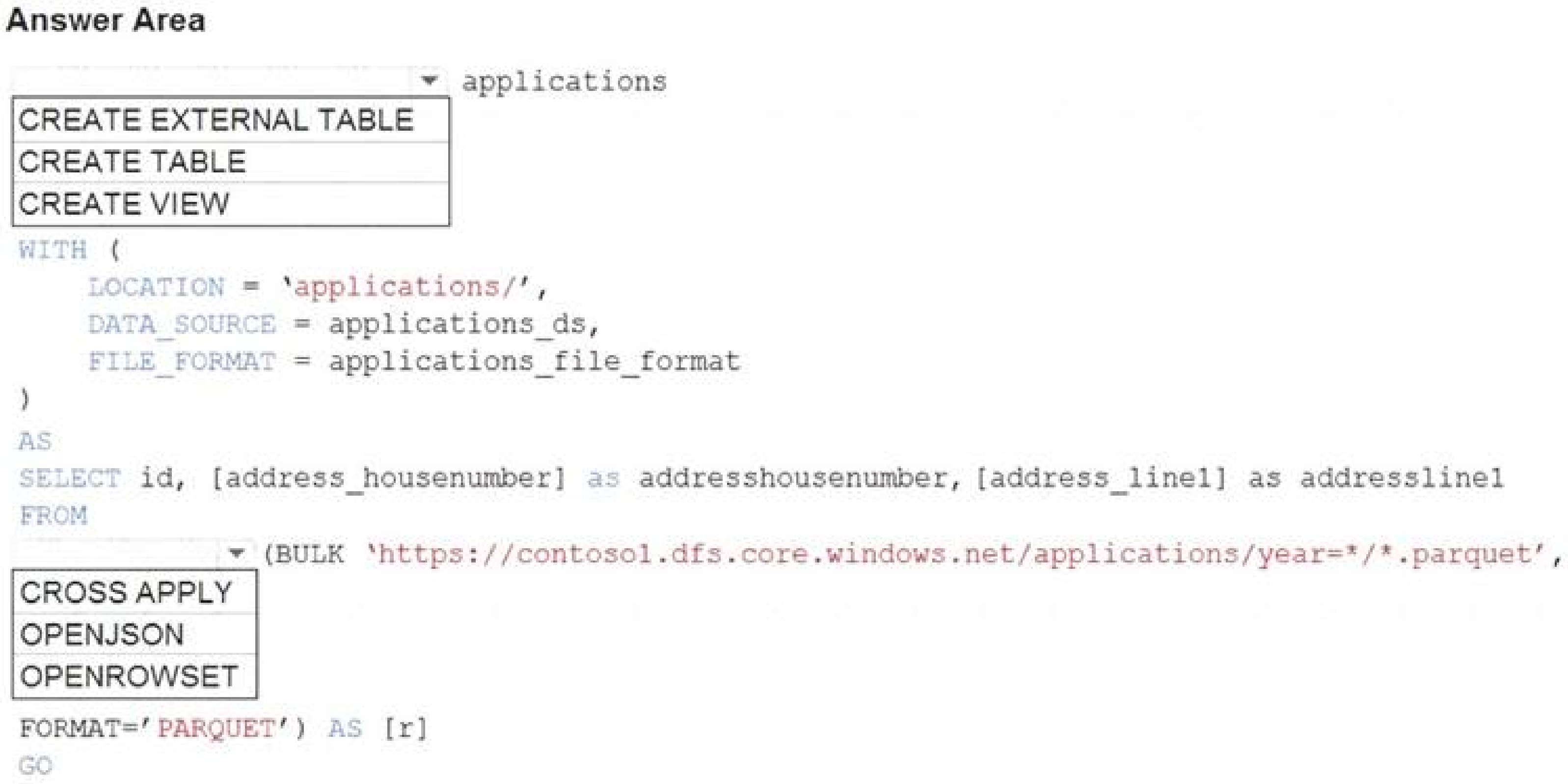
A. In the tables use a hash distribution of ArrivalDateTime and ReportDateTime.

B. In the tables use a hash distribution of ArrivalAirportID and AirportID.
C. In each table, create an identity column.
D. In each table, create a column as a composite of the other two columns in the table.

Answer: B

Explanation:
Hash-distribution improves query performance on large fact tables.

NEW QUESTION 193
- (Exam Topic 3)
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_line": "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.



Answer Area

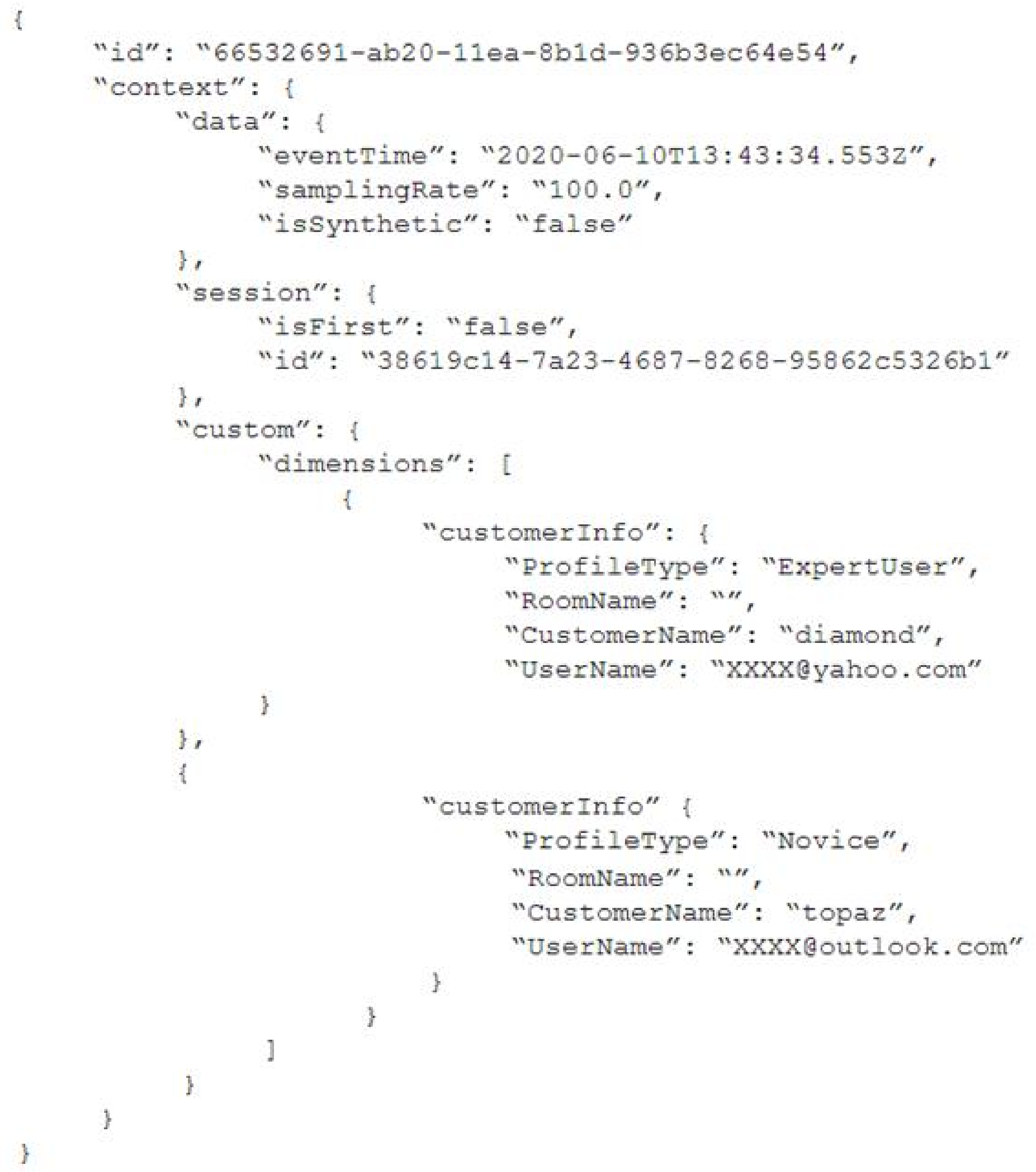
```
[▼] applications
WITH (
    LOCATION = 'applications/',
    DATA_SOURCE = applications_ds,
    FILE_FORMAT = applications_file_format
)
AS
SELECT id, [address_housenumber] as addresshousenumber, [address_line1] as addressline1
FROM
[▼] (BULK 'https://contoso1.dfs.core.windows.net/applications/year=*/*.parquet',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

A. Mastered
B. Not Mastered

Answer: A

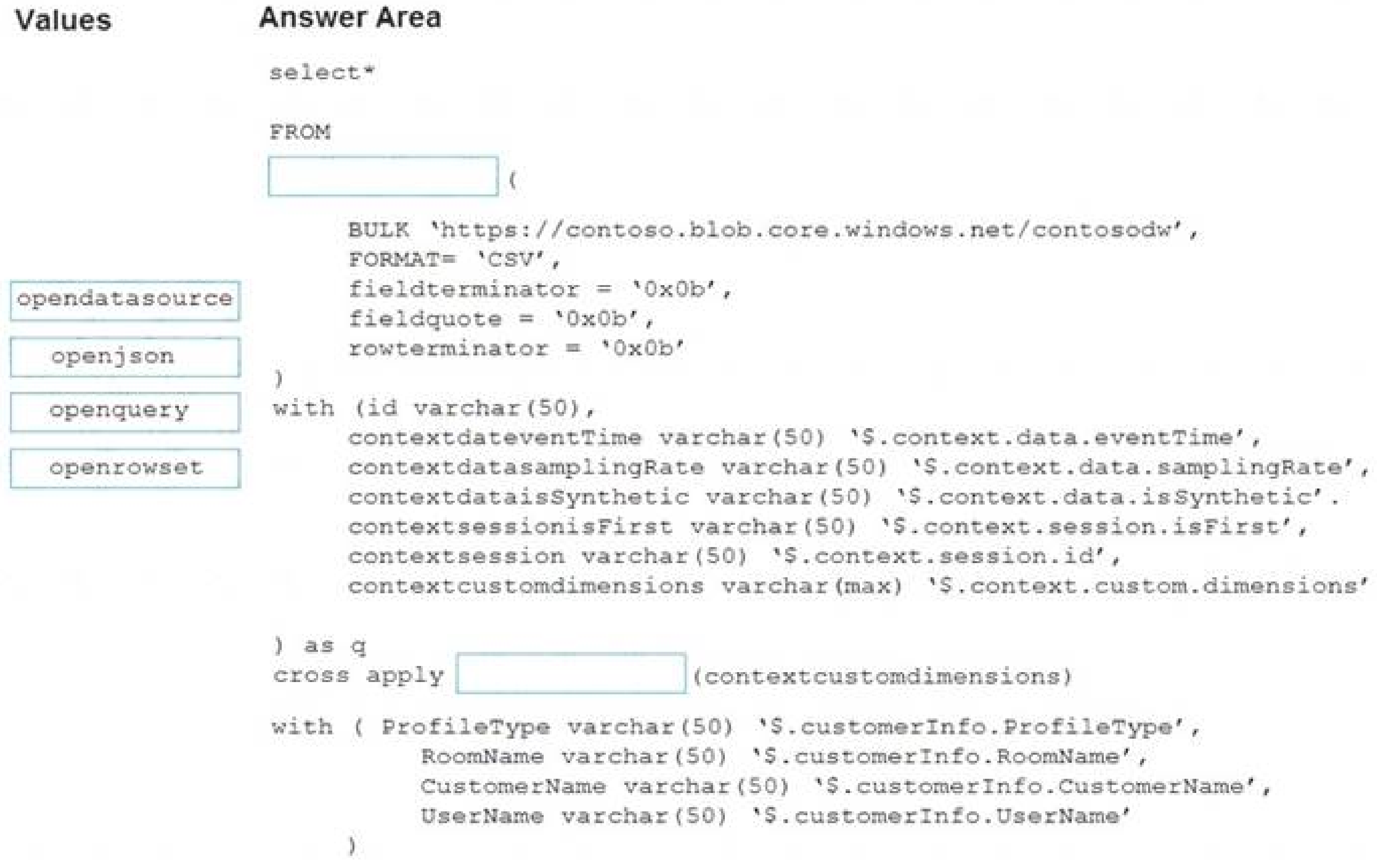
Explanation:
Box 1: CREATE EXTERNAL TABLE
An external table points to data located in Hadoop, Azure Storage blob, or Azure Data Lake Storage. External tables are used to read data from files or write data to files in Azure Storage. With Synapse SQL, you can use external tables to read external data using 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 197
- (Exam Topic 3)
You have an Azure Synapse Analytics workspace named WS1.
You have an Azure Data Lake Storage Gen2 container that contains JSON-formatted files in the following format.



```
{
     “id”: “66532691-ab20-11ea-8b1d-936b3ec64e54”,
     “context”: {
          “data”: {
               “eventTime”: “2020-06-10T13:43:34.553Z”,
               “samplingRate”: “100.0”,
               “isSynthetic”: “false”
          },
          “session”: {
               “isFirst”: “false”,
               “id”: “38619c14-7a23-4687-8268-95862c5326b1”
          },
          “custom”: {
               “dimensions”: [
                    {
                         “customerInfo”: {
                              “ProfileType”: “ExpertUser”,
                              “RoomName”: “”,
                              “CustomerName”: “diamond”,
                              “UserName”: “XXXX@yahoo.com”
               }
          },
          {
                         “customerInfo” {
                              “ProfileType”: “Novice”,
                              “RoomName”: “”,
                              “CustomerName”: “topaz”,
                              “UserName”: “XXXX@outlook.com”
                         }
                    }
               ]
          }
     }
}
```

You need to use the serverless SQL pool in WS1 to read the files.
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

- opendatasource
- openjson
- openquery
- openrowset

Answer Area

```
select*

FROM
□ (

    BULK 'https://contoso.blob.core.windows.net/contosodw',
    FORMAT= 'CSV',
    fieldterminator = '0x0b',
    fieldquote = '0x0b',
    rowterminator = '0x0b'
)
with (id varchar(50),
    contextdateventTime varchar(50) '$.context.data.eventTime',
    contextdatasamplingRate varchar(50) '$.context.data.samplingRate',
    contextdataisSynthetic varchar(50) '$.context.data.isSynthetic'.
    contextsessionisFirst varchar(50) '$.context.session.isFirst',
    contextsession varchar(50) '$.context.session.id',
    contextcustomdimensions varchar(max) '$.context.custom.dimensions'

) as q
cross apply □ (contextcustomdimensions)

with ( ProfileType varchar(50) '$.customerInfo.ProfileType',
        RoomName varchar(50) '$.customerInfo.RoomName',
        CustomerName varchar(50) '$.customerInfo.CustomerName',
        UserName varchar(50) '$.customerInfo.UserName'
    )
```

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Graphical user interface, text, application, email Description automatically generated
Box 1: openrowset
The easiest way to see to the content of your CSV file is to provide file URL to OPENROWSET function, specify csv FORMAT.
Example: SELECT *

FROM OPENROWSET(
BULK 'csv/population/population.csv', DATA_SOURCE = 'SqlOnDemandDemo', FORMAT = 'CSV', PARSER_VERSION = '2.0', FIELDTERMINATOR =',', ROWTERMINATOR = '\n'
Box 2: openjson
You can access your JSON files from the Azure File Storage share by using the mapped drive, as shown in the following example:
SELECT book.* FROM
OPENROWSET(BULK N't:\books\books.json', SINGLE_CLOB) AS json CROSS APPLY OPENJSON(BulkColumn)
WITH(id nvarchar(100), name nvarchar(100), price float, pages_i int, author nvarchar(100)) AS book
Reference:
https://docs.microsoft.com/en-us/azure/synapse-analytics/sql/query-single-csv-file https://docs.microsoft.com/en-us/sql/relational-databases/json/import-json-documents-into-sql-server

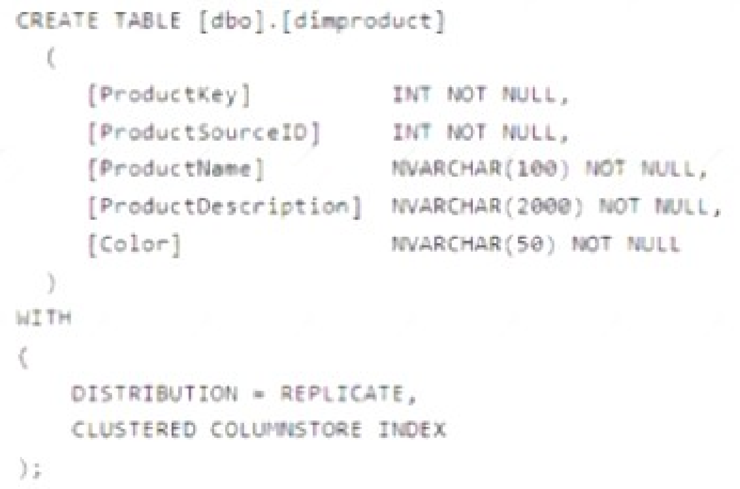
NEW QUESTION 199
- (Exam Topic 3)
You have an Azure Data Factory pipeline named pipeline1 that is invoked by a tumbling window trigger named Trigger1. Trigger1 has a recurrence of 60 minutes. You need to ensure that pipeline1 will execute only if the previous execution completes successfully. How should you configure the self-dependency for Trigger1?

A. offset: "-00:01:00" size: "00:01:00"
B. offset: "01:00:00" size: "-01:00:00"
C. offset: "01:00:00" size: "01:00:00"
D. offset: "-01:00:00" size: "01:00:00"

Answer: D

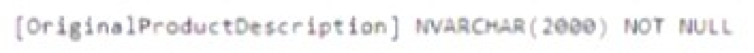
Explanation:
Tumbling window self-dependency properties
In scenarios where the trigger shouldn't proceed to the next window until the preceding window is successfully completed, build a self-dependency. A self-dependency trigger that's dependent on the success of earlier runs of itself within the preceding hour will have the properties indicated in the following code.
Example code:
"name": "DemoSelfDependency",
"properties": { "runtimeState": "Started", "pipeline": { "pipelineReference": { "referenceName": "Demo", "type": "PipelineReference"
}
},
"type": "TumblingWindowTrigger", "typeProperties": {
"frequency": "Hour", "interval": 1,
"startTime": "2018-10-04T00:00:00Z", "delay": "00:01:00",
"maxConcurrency": 50, "retryPolicy": { "intervalInSeconds": 30
},
"dependsOn": [
{
"type": "SelfDependencyTumblingWindowTriggerReference", "size": "01:00:00",
"offset": "-01:00:00"
}
]
}
}
}
Reference: https://docs.microsoft.com/en-us/azure/data-factory/tumbling-window-trigger-dependency

NEW QUESTION 201
- (Exam Topic 3)
You are implementing a star schema in an Azure Synapse Analytics dedicated SQL pool. You plan to create a table named DimProduct.
DimProduct must be a Type 3 slowly changing dimension (SCO) table that meets the following requirements:
• The values in two columns named ProductKey and ProductSourceID will remain the same.
• The values in three columns named ProductName, ProductDescription, and Color can change. You need to add additional columns to complete the following table definition.



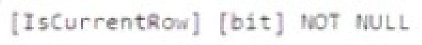
```
CREATE TABLE [dbo].[dimproduct]
  (
      [ProductKey]            INT NOT NULL,
      [ProductSourceID]       INT NOT NULL,
      [ProductName]           NVARCHAR(100) NOT NULL,
      [ProductDescription]    NVARCHAR(2000) NOT NULL,
      [Color]                 NVARCHAR(50) NOT NULL
  )
WITH
(
    DISTRIBUTION = REPLICATE,
    CLUSTERED COLUMNSTORE INDEX
);
```

A)



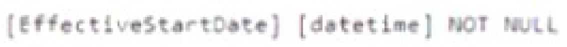
```
[OriginalProductDescription] NVARCHAR(2000) NOT NULL
```

B)



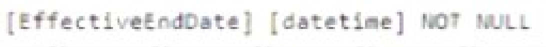
```
[IsCurrentRow] [bit] NOT NULL
```

C)



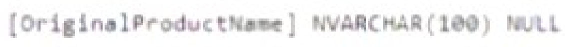
```
[EffectiveStartDate] [datetime] NOT NULL
```

D)



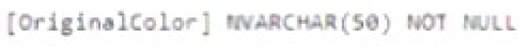
```
[EffectiveEndDate] [datetime] NOT NULL
```

E)



```
[OriginalProductName] NVARCHAR(100) NULL
```

F)



```
[OriginalColor] NVARCHAR(50) NOT NULL
```

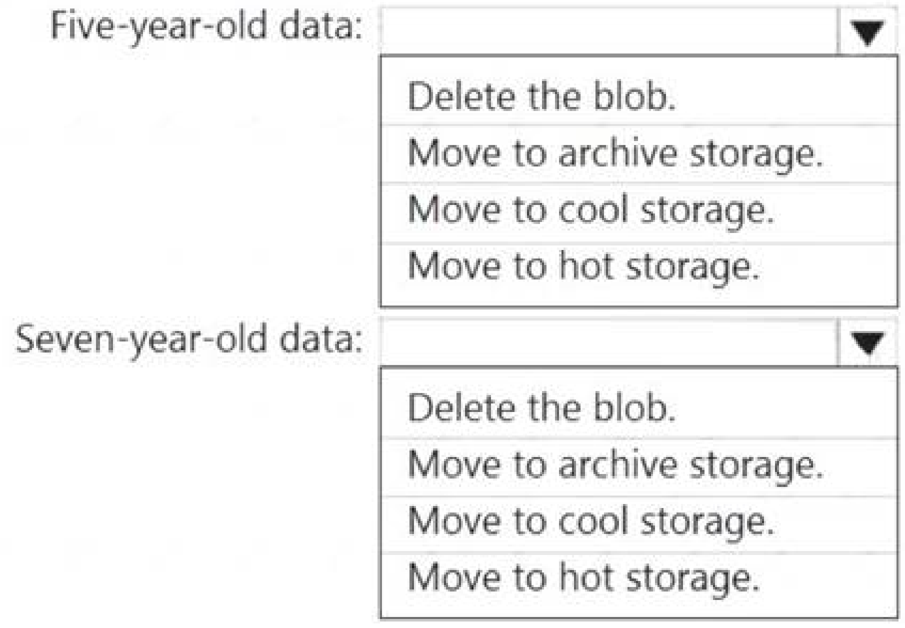
A. Option A
B. Option B
C. Option C
D. Option D
E. Option E
F. Option F

Answer: ABC

NEW QUESTION 202
- (Exam Topic 3)
You have an Azure Data Lake Storage Gen2 container.
Data is ingested into the container, and then transformed by a data integration application. The data is NOT modified after that. Users can read files in the container but cannot modify the files.
You need to design a data archiving solution that meets the following requirements:

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

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



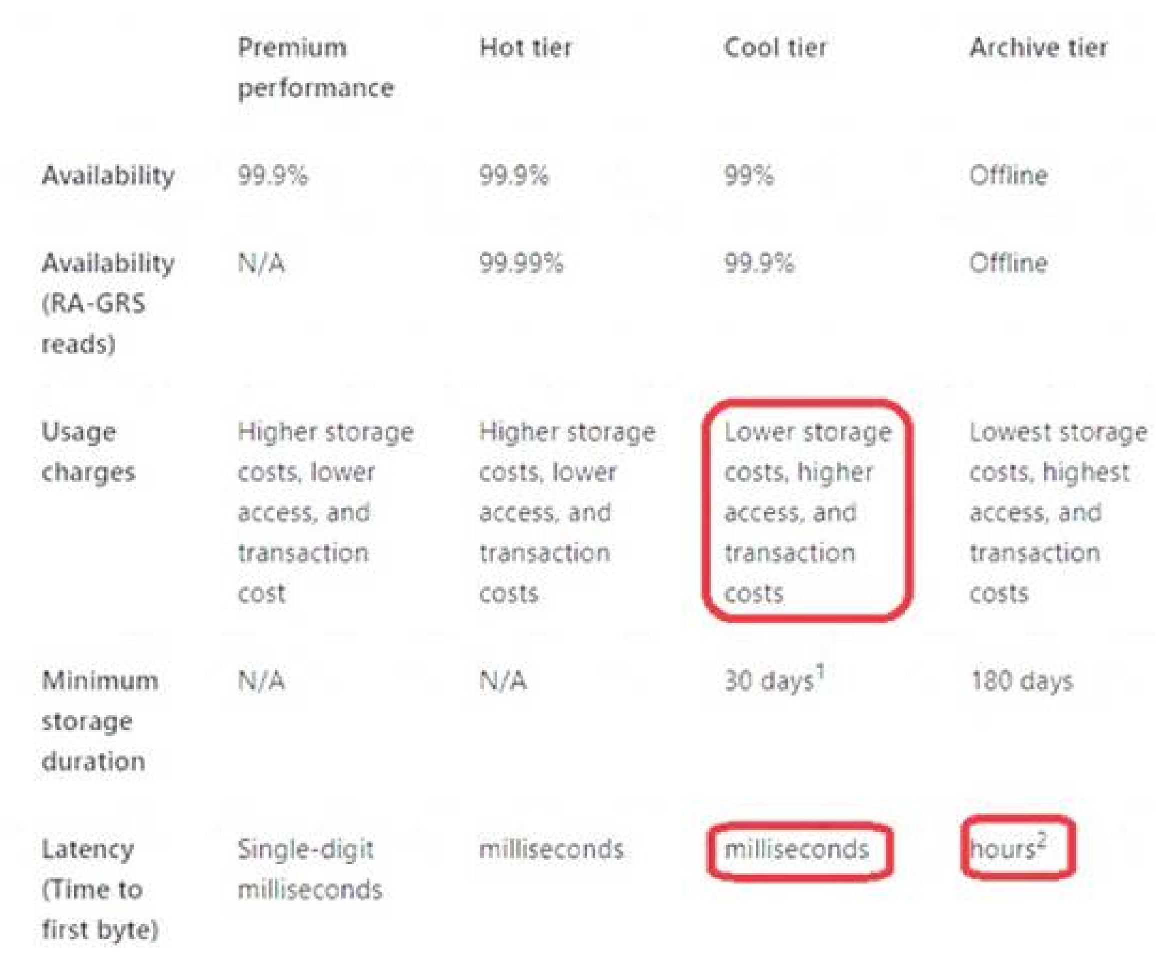
Five-year-old data:
- Delete the blob.
- Move to archive storage.
- Move to cool storage.
- Move to hot storage.

Seven-year-old data:
- Delete the blob.
- Move to archive storage.
- Move to cool storage.
- Move to hot storage.

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Box 1: Move to cool storage Box 2: Move to archive storage
Archive - Optimized for storing data that is rarely accessed and stored for at least 180 days with flexible latency requirements, on the order of hours.
The following table shows a comparison of premium performance block blob storage, and the hot, cool, and archive access tiers.



	Premium performance	Hot tier	Cool tier	Archive tier
Availability	99.9%	99.9%	99%	Offline
Availability (RA-GRS reads)	N/A	99.99%	99.9%	Offline
Usage charges	Higher storage costs, lower access, and transaction cost	Higher storage costs, lower access, and transaction costs	Lower storage costs, higher access, and transaction costs	Lowest storage costs, highest access, and transaction costs
Minimum storage duration	N/A	N/A	30 days[1]	180 days
Latency (Time to first byte)	Single-digit milliseconds	milliseconds	milliseconds	hours[2]

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

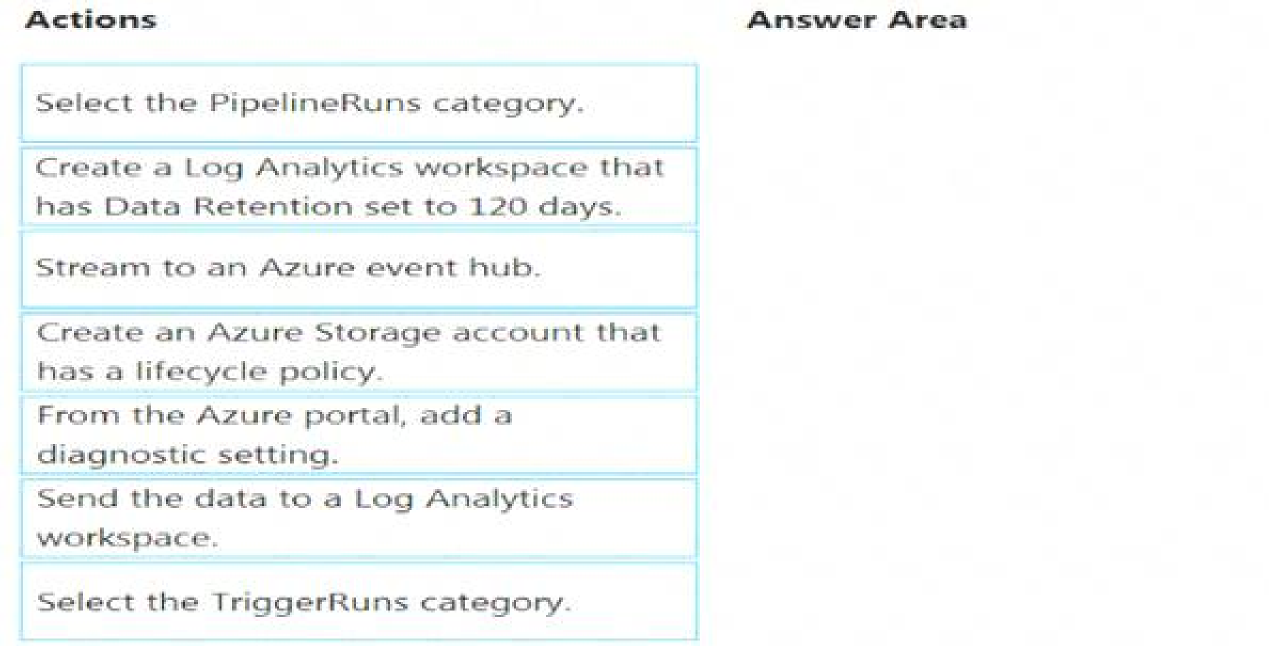
NEW QUESTION 203
- (Exam Topic 3)
You have an Azure Synapse Analytics dedicated SQL pool that contains a table named Table1. You have files that are ingested and loaded into an Azure Data Lake Storage Gen2 container named
container1.
You plan to insert data from the files into Table1 and azure Data Lake 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 data flow that contains a Derived Column transformation.

A. Yes
B. No

Answer: A

Explanation:
Use the derived column transformation to generate new columns in your data flow or to modify existing fields. Reference:
https://docs.microsoft.com/en-us/azure/data-factory/data-flow-derived-column

NEW QUESTION 207
- (Exam Topic 3)
You have an Azure data factory.
You need to ensure that pipeline-run data is retained for 120 days. The solution must ensure that you can query the data by using the Kusto query language.
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.
NOTE: More than one order of answer choices is correct. You will receive credit for any of the correct orders you select.



Actions

- Select the PipelineRuns category.
- Create a Log Analytics workspace that has Data Retention set to 120 days.
- Stream to an Azure event hub.
- Create an Azure Storage account that has a lifecycle policy.
- From the Azure portal, add a diagnostic setting.
- Send the data to a Log Analytics workspace.
- Select the TriggerRuns category.

Answer Area

A. Mastered
B. Not Mastered

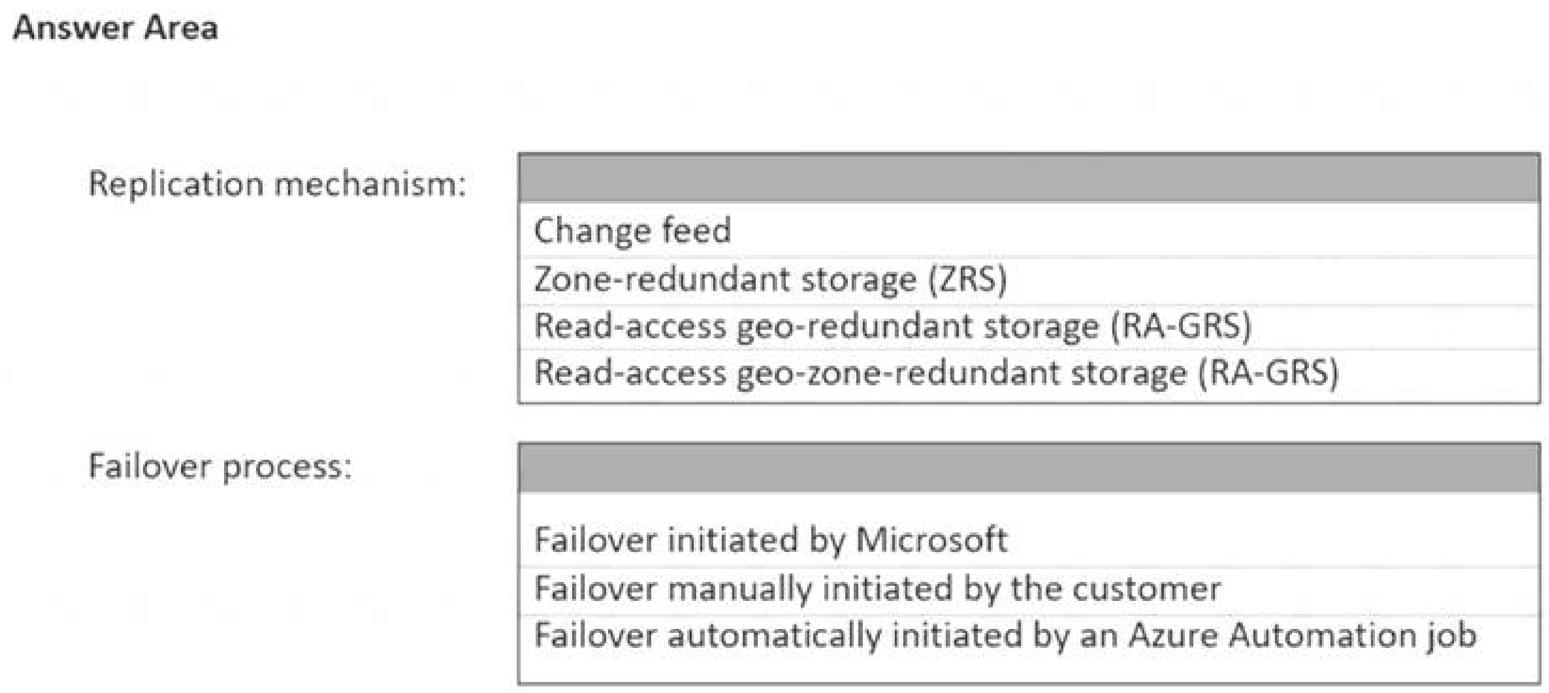
Answer: A

Explanation:
Step 1: Create an Azure Storage account that has a lifecycle policy
To automate common data management tasks, Microsoft created a solution based on Azure Data Factory. The service, Data Lifecycle Management, makes frequently accessed data available and archives or purges other data according to retention policies. Teams across the company use the service to reduce storage costs, improve app performance, and comply with data retention policies.
Step 2: Create a Log Analytics workspace that has Data Retention set to 120 days.
Data Factory stores pipeline-run data for only 45 days. Use Azure Monitor if you want to keep that data for a longer time. With Monitor, you can route diagnostic logs for analysis to multiple different targets, such as a Storage Account: Save your diagnostic logs to a storage account for auditing or manual inspection. You can use the diagnostic settings to specify the retention time in days.
Step 3: From Azure Portal, add a diagnostic setting. Step 4: Send the data to a log Analytics workspace,
Event Hub: A pipeline that transfers events from services to Azure Data Explorer. Keeping Azure Data Factory metrics and pipeline-run data.
Configure diagnostic settings and workspace.
Create or add diagnostic settings for your data factory.

- In the portal, go to Monitor. Select Settings > Diagnostic settings.
- Select the data factory for which you want to set a diagnostic setting.
- If no settings exist on the selected data factory, you're prompted to create a setting. Select Turn on diagnostics.
- Give your setting a name, select Send to Log Analytics, and then select a workspace from Log Analytics Workspace.
- Select Save. Reference:

https://docs.microsoft.com/en-us/azure/data-factory/monitor-using-azure-monitor

NEW QUESTION 209
- (Exam Topic 3)
You plan to create an Azure Data Lake Storage Gen2 account
You need to recommend a storage solution that meets the following requirements:
• Provides the highest degree of data resiliency
• Ensures that content remains available for writes if a primary data center fails
What should you include in the recommendation? To answer, select the appropriate options in the answer area.



Answer Area

Replication mechanism:
- Change feed
- Zone-redundant storage (ZRS)
- Read-access geo-redundant storage (RA-GRS)
- Read-access geo-zone-redundant storage (RA-GRS)

Failover process:
- Failover initiated by Microsoft
- Failover manually initiated by the customer
- Failover automatically initiated by an Azure Automation job

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Graphical user interface, text, application Description automatically generated
Availability : "Microsoft recommends RA-GZRS for maximum availability and durability for your applications."
Failover: "The customer initiates the account failover to the secondary endpoint. " https://docs.microsoft.com/en-us/azure/storage/common/storage-disaster-recovery-guidance?toc=/azure/storage/
https://docs.microsoft.com/en-us/answers/questions/32583/azure-data-lake-gen2-disaster-recoverystorage-acco.h

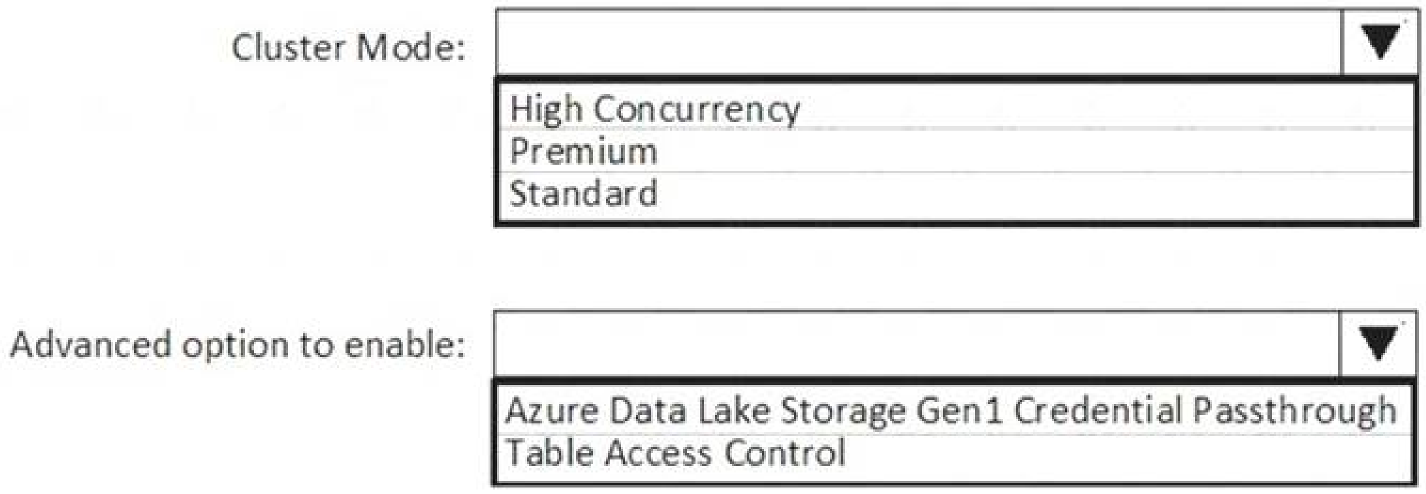
NEW QUESTION 214
- (Exam Topic 3)
You have an Azure subscription that contains an Azure SQL database named DB1 and a storage account named storage1. The storage1 account contains a file named File1.txt. File1.txt contains the names of selected tables in DB1.
You need to use an Azure Synapse pipeline to copy data from the selected tables in DB1 to the files in storage1. The solution must meet the following requirements:
• The Copy activity in the pipeline must be parameterized to use the data in File1.txt to identify the source and destination of the copy.
• Copy activities must occur in parallel as often as possible.
Which two pipeline activities should you include in the pipeline? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

A. If Condition
B. ForEach
C. Lookup
D. Get Metadata

Answer: BC

Explanation:
Lookup: This is a control activity that retrieves a dataset from any of the supported data sources and makes it available for use by subsequent activities in the pipeline. You can use a Lookup activity to read File1.txt from storage1 and store its content as an array variable1.
ForEach: This is a control activity that iterates over a collection and executes specified activities in a loop. You can use a ForEach activity to loop over the array variable from the Lookup activity and pass each table name as a parameter to a Copy activity that copies data from DB1 to storage11.

NEW QUESTION 217
- (Exam Topic 3)
You need to implement an Azure Databricks cluster that automatically connects to Azure Data Lake Storage Gen2 by using Azure Active Directory (Azure AD) integration.
How should you configure the new cluster? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.



Cluster Mode:
High Concurrency
Premium
Standard

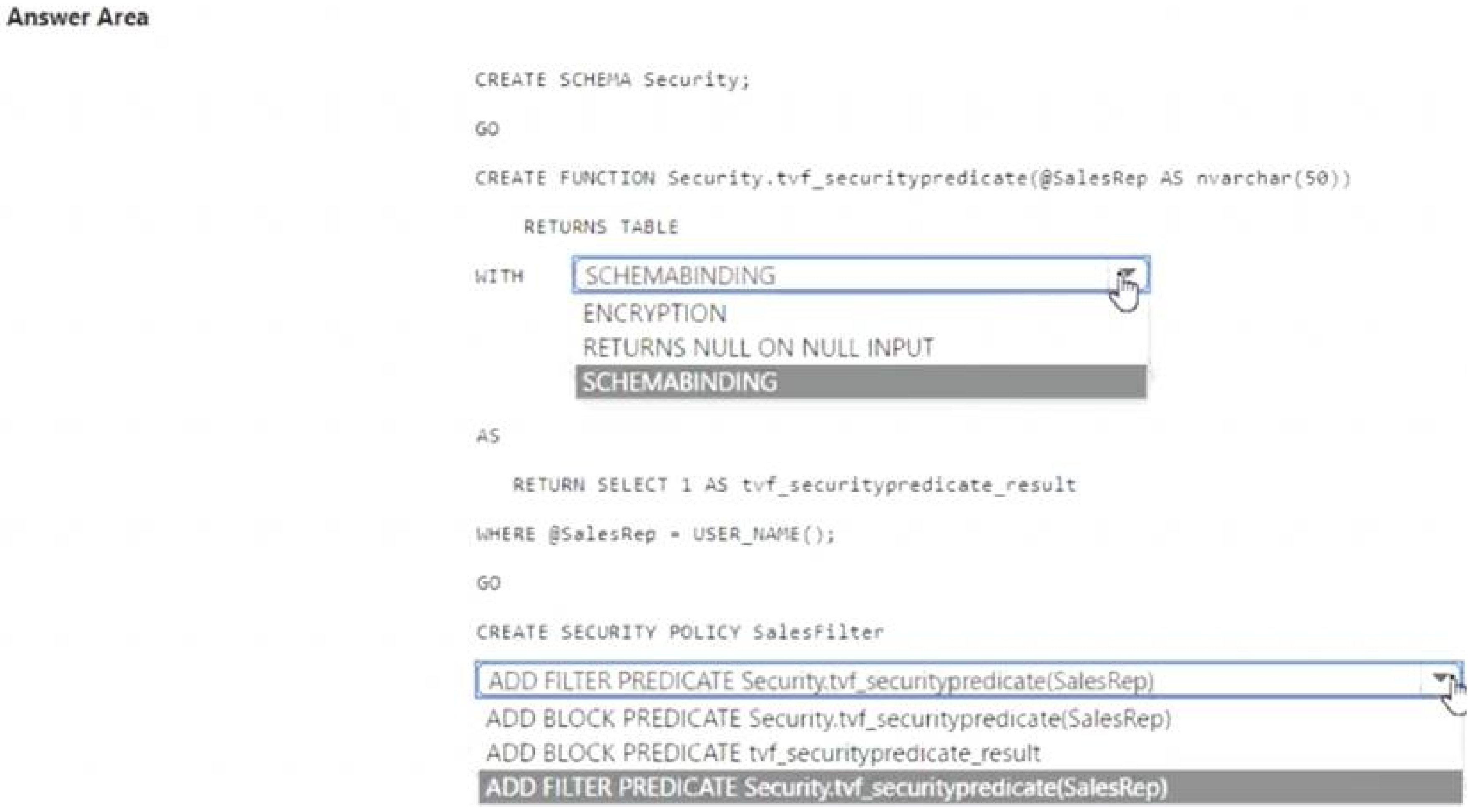
Advanced option to enable:
Azure Data Lake Storage Gen1 Credential Passthrough
Table Access Control

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Box 1: High Concurrency
Enable Azure Data Lake Storage credential passthrough for a high-concurrency cluster. Incorrect:
Support for Azure Data Lake Storage credential passthrough on standard clusters is in Public Preview.
Standard clusters with credential passthrough are supported on Databricks Runtime 5.5 and above and are limited to a single user.
Box 2: Azure Data Lake Storage Gen1 Credential Passthrough
You can authenticate automatically to Azure Data Lake Storage Gen1 and Azure Data Lake Storage Gen2 from Azure Databricks clusters using the same Azure Active Directory (Azure AD) identity that you use to log into Azure Databricks. When you enable your cluster for Azure Data Lake Storage credential passthrough, commands that you run on that cluster can read and write data in Azure Data Lake Storage without requiring you to configure service principal credentials for access to storage.
References:
https://docs.azuredatabricks.net/spark/latest/data-sources/azure/adls-passthrough.html

NEW QUESTION 221
- (Exam Topic 3)
You have an Azure Synapse Analytics dedicated SQL pool that contains a table named Sales.Orders. Sales.Orders contains a column named SalesRep.
You plan to implement row-level security (RLS) for Sales.Orders.
You need to create the security policy that will be used to implement RLS. The solution must ensure that sales representatives only see rows for which the value of the SalesRep column matches their username.
How should you complete the code? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.



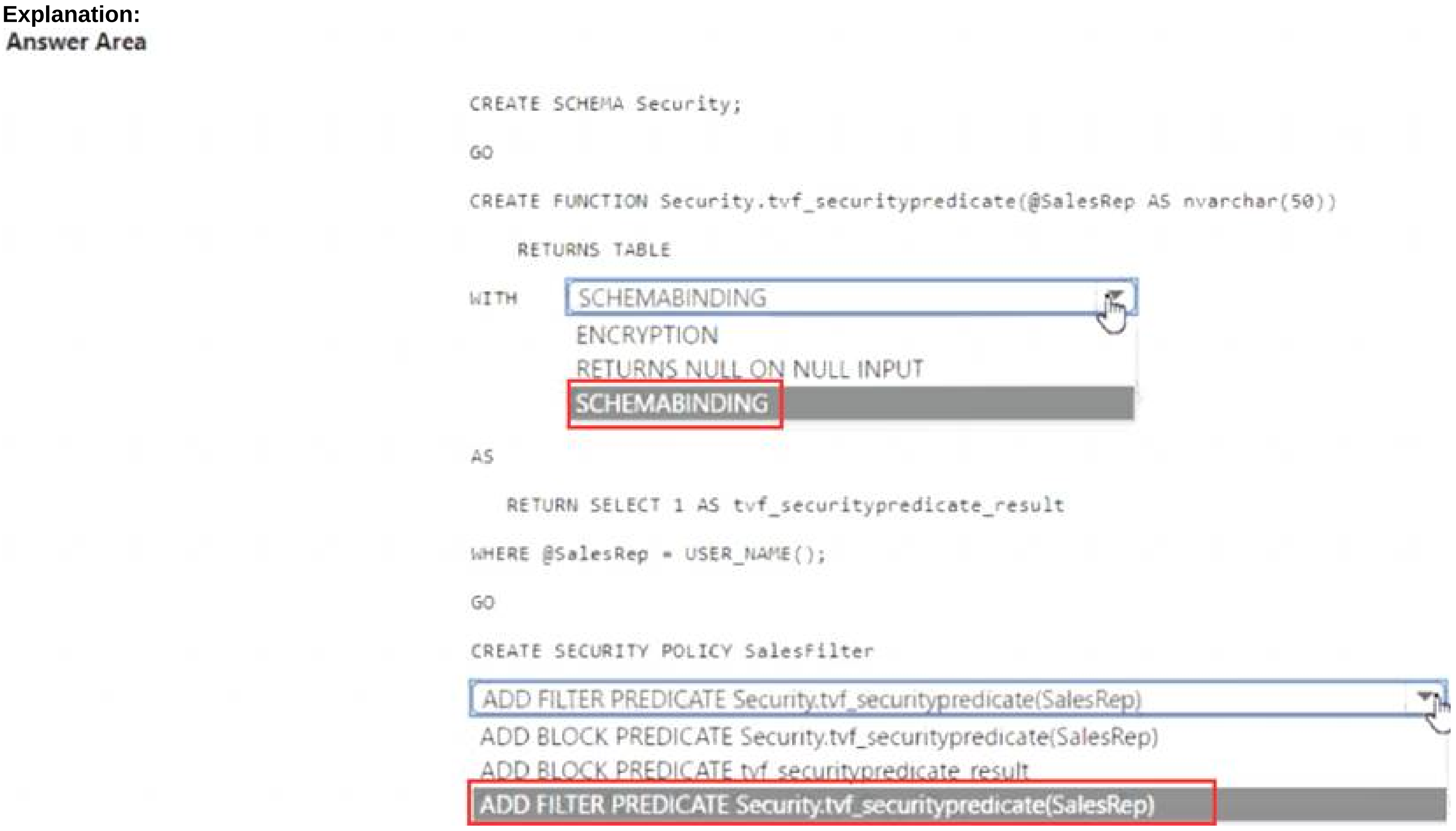
Answer Area

```
CREATE SCHEMA Security;

GO

CREATE FUNCTION Security.tvf_securitypredicate(@SalesRep AS nvarchar(50))

    RETURNS TABLE

WITH    SCHEMABINDING
        ENCRYPTION
        RETURNS NULL ON NULL INPUT
        SCHEMABINDING

AS

   RETURN SELECT 1 AS tvf_securitypredicate_result

WHERE @SalesRep = USER_NAME();

GO

CREATE SECURITY POLICY SalesFilter

ADD FILTER PREDICATE Security.tvf_securitypredicate(SalesRep)
ADD BLOCK PREDICATE Security.tvf_securitypredicate(SalesRep)
ADD BLOCK PREDICATE tvf_securitypredicate_result
ADD FILTER PREDICATE Security.tvf_securitypredicate(SalesRep)
```

A. Mastered
B. Not Mastered

Answer: A

Explanation:



Answer Area

```
CREATE SCHEMA Security;

GO

CREATE FUNCTION Security.tvf_securitypredicate(@SalesRep AS nvarchar(50))

    RETURNS TABLE

WITH    SCHEMABINDING
        ENCRYPTION
        RETURNS NULL ON NULL INPUT
        SCHEMABINDING

AS

   RETURN SELECT 1 AS tvf_securitypredicate_result

WHERE @SalesRep = USER_NAME();

GO

CREATE SECURITY POLICY SalesFilter

ADD FILTER PREDICATE Security.tvf_securitypredicate(SalesRep)
ADD BLOCK PREDICATE Security.tvf_securitypredicate(SalesRep)
ADD BLOCK PREDICATE tvf_securitypredicate_result
ADD FILTER PREDICATE Security.tvf_securitypredicate(SalesRep)
```

NEW QUESTION 223
- (Exam Topic 3)
You are designing the folder structure for an Azure Data Lake Storage Gen2 container.
Users will query data by using a variety of services including Azure Databricks and Azure Synapse Analytics serverless SQL pools. The data will be secured by subject area. Most queries will include data from the current year or current month.
Which folder structure should you recommend to support fast queries and simplified folder security?

A. /{SubjectArea}/{DataSource}/{DD}/{MM}/{YYYY}/{FileData}_{YYYY}_{MM}_{DD}.csv
B. /{DD}/{MM}/{YYYY}/{SubjectArea}/{DataSource}/{FileData}_{YYYY}_{MM}_{DD}.csv
C. /{YYYY}/{MM}/{DD}/{SubjectArea}/{DataSource}/{FileData}_{YYYY}_{MM}_{DD}.csv
D. /{SubjectArea}/{DataSource}/{YYYY}/{MM}/{DD}/{FileData}_{YYYY}_{MM}_{DD}.csv

Answer: D

Explanation:
There's an important reason to put the date at the end of the directory structure. If you want to lock down certain regions or subject matters to users/groups, then

you can easily do so with the POSIX permissions. Otherwise, if there was a need to restrict a certain security group to viewing just the UK data or certain planes, with the date structure in front a separate permission would be required for numerous directories under every hour directory. Additionally, having the date structure in front would exponentially increase the number of directories as time went on.
Note: In IoT workloads, there can be a great deal of data being landed in the data store that spans across numerous products, devices, organizations, and customers. It's important to pre-plan the directory layout for organization, security, and efficient processing of the data for down-stream consumers. A general template to consider might be the following layout:
{Region}/{SubjectMatter(s)}/{yyyy}/{mm}/{dd}/{hh}/

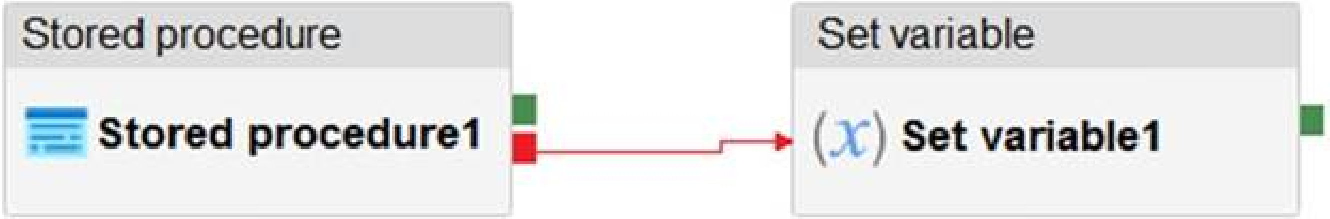
NEW QUESTION 225
- (Exam Topic 3)
You use Azure Stream Analytics to receive Twitter data from Azure Event Hubs and to output the data to an Azure Blob storage account.
You need to output the count of tweets during the last five minutes every five minutes. Each tweet must only be counted once.
Which windowing function should you use?

A. a five-minute Session window
B. a five-minute Sliding window
C. a five-minute Tumbling window
D. a five-minute Hopping window that has one-minute hop

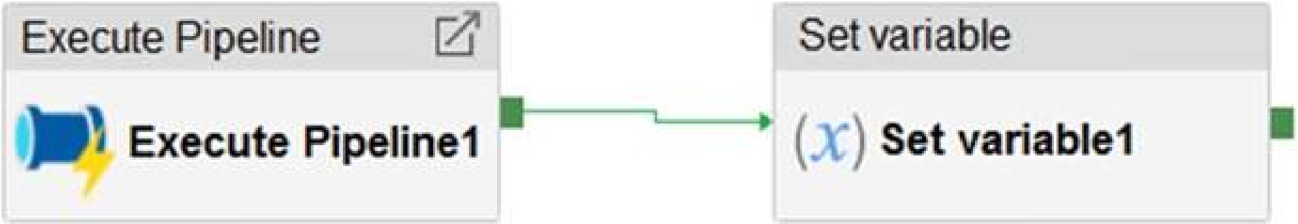
Answer: C

Explanation:
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.
References:
https://docs.microsoft.com/en-us/azure/stream-analytics/stream-analytics-window-functions

NEW QUESTION 230
- (Exam Topic 3)
You have an Azure Data Factory instance that contains two pipelines named Pipeline1 and Pipeline2. Pipeline1 has the activities shown in the following exhibit.



Pipeline2 has the activities shown in the following exhibit.

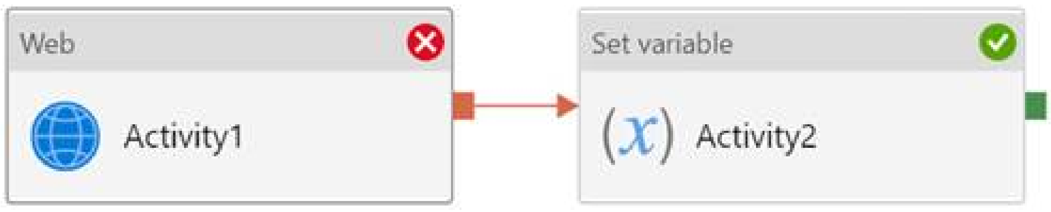


You execute Pipeline2, and Stored procedure1 in Pipeline1 fails. What is the status of the pipeline runs?

A. Pipeline1 and Pipeline2 succeeded.
B. Pipeline1 and Pipeline2 failed.
C. Pipeline1 succeeded and Pipeline2 failed.
D. Pipeline1 failed and Pipeline2 succeeded.

Answer: A

Explanation:
Activities are linked together via dependencies. A dependency has a condition of one of the following: Succeeded, Failed, Skipped, or Completed.
Consider Pipeline1:
If we have a pipeline with two activities where Activity2 has a failure dependency on Activity1, the pipeline
will not fail just because Activity1 failed. If Activity1 fails and Activity2 succeeds, the pipeline will succeed. This scenario is treated as a try-catch block by Data Factory.
Waterfall chart Description automatically generated with medium confidence



The failure dependency means this pipeline reports success. Note:
If we have a pipeline containing Activity1 and Activity2, and Activity2 has a success dependency on Activity1, it will only execute if Activity1 is successful. In this scenario, if Activity1 fails, the pipeline will fail.
Reference:
https://datasavvy.me/category/azure-data-factory/

NEW QUESTION 232
......