

# **Microsoft**

# **Exam Questions DP-203**

Data Engineering on Microsoft Azure





#### **NEW QUESTION 1**

- 1	(Exam	Topic 3)	
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The storage account container view is shown in the Refdata exhibit. (Click the Refdata tab.) You need to configure the Stream Analytics job to pick up the new reference data. What should you configure? To answer, select the appropriate options in the answer area NOTE: Each correct selection is worth one point.

#### Solution:

#### Answer as below

Answer Area

Path pattern:	(date)/product.csv	٣
Date format:	YYYY/MM/DD	¥

Does this meet the goal?

A. Yes B. No

Answer: A

# **NEW QUESTION 2**

- (Exam Topic 3)

You have an Azure Data Factory pipeline shown the following exhibit.

Execute Pipeline	Web		Set variable	
Exec_COPY_BLOB	Web,	,GetIP	★ ( $\chi$ ) Set status	*
he execution log for the first Activity runs	t pipeline run is shown in the t	following exhibit.		
Pipeline run ID 87/89922-1	4fa-468f-b13f-2f867606f4ff			
All status 🖂				
Showing 1 - 2 items				
Activity name 14	Activity type 1	Run start 🗘	Duration 14	Status 🛧
Web_GetIP	Web	Nov 10, 2022, 11:11:3	6 a 00:00:02	S Failed
Exec_COPY_BLOB	Execute Pipeline	Nov 10, 2022, 11:11:2	5 a 00:00:11	Succeeded
he execution log for the sec Activity runs	cond pipeline run is shown in t	the following exhibit.		
Pipeline run ID a7b5b52	2-cfaf-4c09-b3a9-f842986be9	84		
All status 🖂				
Showing 1 - 3 items				
Activity name 14	Activity type 1	Run start 🗘	Duration 14	Status 🐄

Set status	Set variable	Nov 10, 2022, 11:13:17 a 00:00:01	Succeeded
Web_GetIP	Web	Nov 10, 2022, 11:12:59 a 00:00:16	Succeeded
Exec_COPY_BLOB	Execute Pipeline	Nov 10, 2022, 11:12:48 a 00:00:11	C Skipped

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



# Answer Area

Solution: Answer Area

Statements	Yes	No
The Retry property of the Web_GetIP activity is set to 1.	0	0
The waitOnCompletion property of the Exec_COPY_BLOB activity is set to true.	0	0
The Exec_COPY_BLOB activity was skipped during the second run due to pipeline dependencies.	0	0
Statements	Yes	No
The Retry property of the Web_GetIP activity is set to 1.	0	[0]
The waitOnCompletion property of the Exec_COPY_BLOB activity is set to true.	0	[0]
The Exec_COPY_BLOB activity was skipped during the second run due to pipeline dependencies.	0	101

# Does this meet the goal?

A. Yes B. No

#### Answer: A

# **NEW QUESTION 3**

- (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 4**

- (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 terminationB. Standard with AutoscalingC. High Concurrency with AutoscalingD. 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 5**

```
- (Exam Topic 3)
You have an Azure Synapse Analytics dedicated SQL pool named pool1.
You plan to implement a star schema in pool1 and create a new table named DimCustomer by using the following code.
CREATE TABLE dbo.[DimCustomer](
     [CustomerKey] int NOT NULL,
     [CustomerSourceID] [int] NOT NULL,
     [Title] [nvarchar](8) NULL,
     [FirstName] [nvarchar](50) NOT NULL,
     [MiddleName] [nvarchar](50) NULL.
     [LastName] [nvarchar](50) NOT NULL,
     [Suffix] [nvarchar](10) NULL,
     [CompanyName] [nvarchar](128) NULL,
     [SalesPerson] [nvarchar](256) NULL,
     [EmailAddress] [nvarchar](50) NULL,
     [Phone] [nvarchar](25) NULL,
     [InsertedDate] [datetime] NOT NULL,
     [ModifiedDate] [datetime] NOT NULL,
     [HashKey] [varchar](100) NOT NULL,
     [IsCurrentRow] [bit] NOT NULL
)
WITH
(
    DISTRIBUTION = REPLICATE.
     CLUSTERED COLUMNSTORE INDEX
);
GO
```

You need to ensure that DimCustomer has the necessary columns to support a Type 2 slowly changing dimension (SCD). Which two columns should you add? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

A. [HistoricalSalesPerson] [nvarchar] (256) NOT NULL

B. [EffectiveEndDate] [datetime] NOT NULL

- C. [PreviousModifiedDate] [datetime] NOT NULL
- D. [RowID] [bigint] NOT NULL

E. [EffectiveStartDate] [datetime] NOT NULL

# Answer: AB

# **NEW QUESTION 6**

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

# **NEW QUESTION 7**

- (Exam Topic 3)

You have the following Azure Stream Analytics query.



WITH

```
step1 AS (SELECT *
     FROM input1
    PARTITION BY StateID
     INTO 10),
step2 AS (SELECT *
     FROM input2
     PARTITION BY StateID
    INTO 10)
SELECT *
INTO output
FROM step1
PARTITION BY StateID
UNION
SELECT * INTO output
       FROM step2
       PARTITION 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		No
The query combines two streams of partitioned data.	0	0
The stream scheme key and count must match the output scheme.	0	0
Providing 60 streaming units will optimize the performance of the query.	0	0

# Solution:

Box 1: No

Note: 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

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.

In general, the best practice is to start with 6 SUs for queries that don't use PARTITION BY. Here there are 10 partitions, so 6x10 = 60 SUs is good. 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/ https://docs.microsoft.com/en-us/azure/stream-analytics/stream-analytics-streaming-unit-consumption

Does this meet the goal?

A. Yes B. No

#### **NEW QUESTION 8**

- (Exam Topic 3)

You have an enterprise data warehouse in Azure Synapse Analytics named DW1 on a server named Server1. You need to determine the size of the transaction log file for each distribution of DW1.

What should you do?

A. On DW1, execute a query against the sys.database\_files dynamic management view.

B. From Azure Monitor in the Azure portal, execute a query against the logs of DW1.

C. Execute a query against the logs of DW1 by using theGet-AzOperationalInsightsSearchResult PowerShell cmdlet.

D. On the master database, execute a query against the sys.dm\_pdw\_nodes\_os\_performance\_counters dynamic management view.

# Answer: A

#### Explanation:

For information about the current log file size, its maximum size, and the autogrow option for the file, you can also use the size, max\_size, and growth columns for that log file in sys.database\_files.



#### Reference:

https://docs.microsoft.com/en-us/sql/relational-databases/logs/manage-the-size-of-the-transaction-log-file

# **NEW QUESTION 9**

#### - (Exam Topic 3)

You have an Azure Databricks workspace named workspace! in the Standard pricing tier. Workspace1 contains an all-purpose cluster named cluster). You need to reduce the time it takes for cluster 1 to start and scale up. The solution must minimize costs. What should you do first?

A. Upgrade workspace! to the Premium pricing tier.

- B. Create a cluster policy in workspace1.
- C. Create a pool in workspace1.
- D. Configure a global init script for workspace1.

#### Answer: C

# **Explanation:**

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

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

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

#### **NEW QUESTION 10**

#### - (Exam Topic 3)

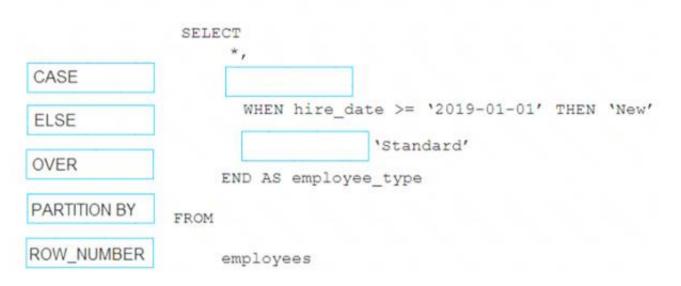
You have the following table named Employees.

first_name	last_name	hire_date	employee_type
Jane	Doe	2019-08-23	new
Ben	Smith	2017-12-15	Standard

You need to calculate the employee\_type value based on the hire\_date value.

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.

#### Answer Area Values



#### Solution:

Graphical user interface, text, application Description automatically generated

Box 1: CASE

CASE evaluates a list of conditions and returns one of multiple possible result expressions.

CASE can be used in any statement or clause that allows a valid expression. For example, you can use CASE in statements such as SELECT, UPDATE, DELETE and SET, and in clauses such as select\_list, IN, WHERE, ORDER BY, and HAVING.

Syntax: Simple CASE expression: CASE input\_expression

WHEN when expression THEN result expression [ ... n ] [ ELSE else result expression ]

- END

Box 2: ELSE

Reference:

https://docs.microsoft.com/en-us/sql/t-sql/language-elements/case-transact-sql

Does this meet the goal?

A. Yes B. No

Answer: A

# **NEW QUESTION 11**

- (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 hopping window that uses a hop size of 10 seconds and a window size of 10 seconds. Does this meet the goal?

A. Yes

B. No

#### Answer: B

# **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 12**

- (Exam Topic 3)

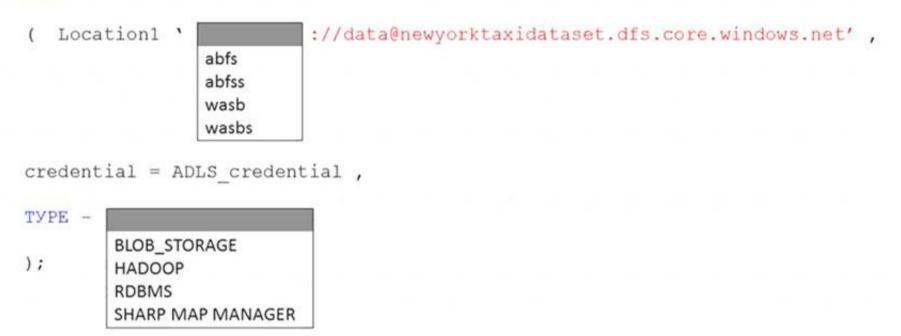
You have an Azure subscription that contains an Azure Synapse Analytics dedicated SQL pool named Pool1 and an Azure Data Lake Storage account named storage1. Storage1 requires secure transfers.

You need to create an external data source in Pool1 that will be used to read .orc files in storage1. 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 EXTERNAL DATA SOURCE AzureDataLakeStore





#### Solution:

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

Reference:

https://docs.microsoft.com/en-us/sql/t-sql/statements/create-external-data-source-transact-sql?view=azure-sqldw

Does this meet the goal?

A. Yes

B. No

#### Answer: A

# **NEW QUESTION 13**

- (Exam Topic 3)

You are designing 2 solution that will use tables in Delta Lake on Azure Databricks. You need to minimize how long it takes to perform the following:

"Queries against non-partitioned tables

\* Joins on non-partitioned columns

Which two options should you include in the solution? Each correct answer presents part of the solution. (Choose Correct Answer and Give explanation and References to Support the answers based from Data

Engineering on Microsoft Azure)

A. Z-OrderingB. Apache Spark cachingC. dynamic file pruning (DFP)D. the clone command

Answer: AC

#### Explanation:

According to the information I found on the web, two options that you should include in the solution to minimize how long it takes to perform queries and joins on non-partitioned tables are:

Z-Ordering: This is a technique to colocate related information in the same set of files. This co-locality is automatically used by Delta Lake in data-skipping algorithms. This behavior dramatically reduces the amount of data that Delta Lake on Azure Databricks needs to read123.



Apache Spark caching: This is a feature that allows you to cache data in memory or on disk for faster access. Caching can improve the performance of repeated queries and joins on the same data. You can cache Delta tables using the CACHE TABLE or CACHE LAZY commands. To minimize the time it takes to perform queries against non-partitioned tables and joins on non-partitioned columns in Delta Lake on Azure Databricks, the

following options should be included in the solution:

\* A. Z-Ordering: Z-Ordering improves query performance by co-locating data that share the same column values in the same physical partitions. This reduces the need for shuffling data across nodes during query execution. By using Z-Ordering, you can avoid full table scans and reduce the amount of data processed. \* B. Apache Spark caching: Caching data in memory can improve query performance by reducing the amount of data read from disk. This helps to speed up subsequent queries that need to access the same data. When you cache a table, the data is read from the data source and stored in memory. Subsequent queries can then read the data from memory, which is much faster than reading it from disk. References:

Delta Lake on Databricks: https://docs.databricks.com/delta/index.html

Best Practices for Delta Lake on

Databricks: https://databricks.com/blog/2020/05/14/best-practices-for-delta-lake-on-databricks.html

#### **NEW QUESTION 14**

- (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 15**

#### - (Exam Topic 3)

You have an Azure subscription that contains an Azure Databricks workspace named databricks1 and an Azure Synapse Analytics workspace named synapse1. The synapse1 workspace contains an Apache Spark pool named pool1.

You need to share an Apache Hive catalog of pool1 with databricks1.

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

NOTE: Each correct selection is worth one point.

From synapse1, create a linked service to:

Azure Cosmos DB	
Azure Data Lake Storage Gen2	
Azure SQL Database	

# Configure pool1 to use the linked service as:

An Azure Purview account	
A Hive metastore	
A managed Hive metastore service	1.1

#### Solution:

Box 1: Azure SQL Database

Use external Hive Metastore for Synapse Spark Pool

Azure Synapse Analytics allows Apache Spark pools in the same workspace to share a managed HMS (Hive Metastore) compatible metastore as their catalog. Set up linked service to Hive Metastore

Follow below steps to set up a linked service to the external Hive Metastore in Synapse workspace.

Set up Hive Metastore linked service

Choose Azure SQL Database or Azure Database for MySQL based on your database type, click Continue.

Provide Name of the linked service. Record the name of the linked service, this info will be used to configure Spark shortly.

You can either select Azure SQL Database/Azure Database for MySQL for the external Hive Metastore from Azure subscription list, or enter the info manually.

Provide User name and Password to set up the connection.

Test connection to verify the username and password.

Click Create to create the linked service.

Box 2: A Hive Metastore

nce: https://docs.microsoft.com/en-us/azure/synapse-analytics/spark/apache-spark-external-metastore

Does this meet the goal?

A. Yes B. No

Answer: A

#### **NEW QUESTION 16**



- (Exam Topic 1)

You need to integrate the on-premises data sources and Azure Synapse Analytics. The solution must meet the data integration requirements. Which type of integration runtime should you use?

A. Azure-SSIS integration runtime

- B. self-hosted integration runtime
- C. Azure integration runtime

Answer: C

# **NEW QUESTION 17**

# - (Exam Topic 1)

You need to design a data storage structure for the product sales transactions. The solution must meet the sales transaction dataset requirements. What should you include in the solution? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point. Answer Area

Table type to store the product sales transactions:	Hash Round-robin Replicated	
	Configure a clustered index. Set the distribution column to product ID. Set the distribution column to the sales date.	

# Solution:

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

Box 1: Hash Scenario:

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

A hash distributed table can deliver the highest query performance for joins and aggregations on large tables. Box 2: Set the distribution column to the sales date. Scenario: Partition data that contains sales transaction records. Partitions must be designed to provide efficient loads by month. Boundary values must belong to the partition on the right.

**Reference:** 

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

Does this meet the goal?

A. Yes

B. No

Answer: A

# **NEW QUESTION 18**

- (Exam Topic 1)

You need to design an analytical storage solution for the transactional data. The solution must meet the sales transaction dataset requirements. What should you include in the solution? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Table type to store retail store data:		▼
	Hash	
	Replicated	
	Round-robin	
Table type to store promotional data:		▼
	Hash	
	Replicated	



#### Solution:

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

Box 1: Round-robin

Round-robin tables are useful for improving loading speed.

Scenario: Partition data that contains sales transaction records. Partitions must be designed to provide efficient loads by month. Box 2: Hash

Hash-distributed tables improve query performance on large fact tables. Reference:

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

Does this meet the goal?

A. Yes B. No

# Answer: A



# **NEW QUESTION 19**

- (Exam Topic 3)

You are developing a solution that will stream to Azure Stream Analytics. The solution will have both streaming data and reference data. Which input type should you use for the reference data?

- A. Azure Cosmos DB
- B. Azure Blob storage
- C. Azure IoT Hub
- D. Azure Event Hubs

#### Answer: B

# **Explanation:**

Stream Analytics supports Azure Blob storage and Azure SQL Database as the storage layer for Reference Data.

Reference:

https://docs.microsoft.com/en-us/azure/stream-analytics/stream-analytics-use-reference-data

# **NEW QUESTION 20**

- (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 Storage account that contains 100 GB of files. The files contain rows of 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 copy the files to a table that has a columnstore index. Does this meet the goal?

A. Yes

B. No

# Answer: B

# **Explanation:**

Instead convert the files to compressed delimited text files. Reference: https://docs.microsoft.com/en-us/azure/sql-data-warehouse/guidance-for-loading-data

# **NEW QUESTION 21**

- (Exam Topic 3)

You have an Azure Data Factory pipeline named Pipeline1!. Pipelinel contains a copy activity that sends data to an Azure Data Lake Storage Gen2 account. Pipeline 1 is executed by a schedule trigger.

You change the copy activity sink to a new storage account and merge the changes into the collaboration branch.

After Pipelinel executes, you discover that data is NOT copied to the new storage account. You need to ensure that the data is copied to the new storage account. What should you do?

- A. Publish from the collaboration branch.
- B. Configure the change feed of the new storage account.
- C. Create a pull request.
- D. Modify the schedule trigger.

# Answer: A

# **Explanation:**

CI/CD lifecycle

A development data factory is created and configured with Azure Repos Git. All developers should have permission to author Data Factory resources like pipelines and datasets.

A developer creates a feature branch to make a change. They debug their pipeline runs with their most recent changes

After a developer is satisfied with their changes, they create a pull request from their feature branch to the main or collaboration branch to get their changes reviewed by peers.

After a pull request is approved and changes are merged in the main branch, the changes get published to the development factory.

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

# **NEW QUESTION 22**

- (Exam Topic 3)

You need to collect application metrics, streaming query events, and application log messages for an Azure Databrick cluster. Which type of library and workspace should you implement? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.



Library:			
	Azure Databricks Monitoring Librar	y	
	Microsoft Azure Management Monitoring Library		
	PyTorch		
TensorFlow			
Workspace:	•		
	Azure Databricks		
	Azure Log Analytics		
	Azure Machine Learning		

#### Solution:

You can send application logs and metrics from Azure Databricks to a Log Analytics workspace. It uses the Azure Databricks Monitoring Library, which is available on GitHub.

References:

https://docs.microsoft.com/en-us/azure/architecture/databricks-monitoring/application-logs

Does this meet the goal?

A. Yes B. No

Answer: A

#### **NEW QUESTION 23**

- (Exam Topic 3)

You have an Azure Synapse Analytics dedicated SQL pool named Pool1. Pool1 contains a table named table1. You load 5 TB of data intotable1. You need to ensure that columnstore compression is maximized for table1. Which statement should you execute?

A. ALTER INDEX ALL on table1 REORGANIZEB. ALTER INDEX ALL on table1 REBUILDC. DBCC DBREINOEX (table1)D. DBCC INDEXDEFRAG (pool1,tablel)

#### Answer: B

#### **Explanation:**

Columnstore and columnstore archive compression

Columnstore tables and indexes are always stored with columnstore compression. You can further reduce the size of columnstore data by configuring an additional compression called archival compression. To perform archival compression, SQL Server runs the Microsoft XPRESS compression algorithm on the data. Add or remove archival compression by using the following data compression types:

Use COLUMNSTORE\_ARCHIVE data compression to compress columnstore data with archival compression.

Use COLUMNSTORE data compression to decompress archival compression. The resulting data continue to be compressed with columnstore compression. To add archival compression, use ALTER TABLE (Transact-SQL) or ALTER INDEX (Transact-SQL) with the REBUILD option and DATA COMPRESSION = COLUMNSTORE\_ARCHIVE.

Reference: https://learn.microsoft.com/en-us/sql/relational-databases/data-compression/data-compression

# **NEW QUESTION 24**

- (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. NotebookB. U-SQLC. ScriptD. Stored Procedure

Answer: D

#### **NEW QUESTION 25**

- (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 Analytic dedicated SQL pool. The CSV file contains three 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:



https://www.surepassexam.com/DP-203-exam-dumps.html (303 New Questions)

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. To the data flow, add a sink transformation to write the rows to a file in blob storage.

- B. To the data flow, add a Conditional Split transformation to separate the rows that will cause truncation errors.
- C. To the data flow, add a filter transformation to filter out rows that will cause truncation errors.
- D. Add a select transformation to select only the rows that will cause truncation errors.

#### Answer: AB

#### **Explanation:**

B: Example:

\* 1. This conditional split transformation defines the maximum length of "title" to be five. Any row that is less than or equal to five will go into the GoodRows stream. Any row that is larger than five will go into the BadRows stream.

Conditional Split Settings	Optimize	Inspect	Data Preview	•			
Output stream name *	ErrorRows		Ø	Documentation			
Incoming stream *	TypeCast						
Split on	• First matching con	ndition A	ll matching con	ditions			
C 10/11/01/2010/A	•		1941 BEAGENELDO				
in an and the second	STREAM NAMES			NDITION			
Split condition			co		×J	+	Đ

\* 2. This conditional split transformation defines the maximum length of "title" to be five. Any row that is less than or equal to five will go into the GoodRows stream. Any row that is larger than five will go into the

BadRows stream. A:

\* 3. Now we need to log the rows that failed. Add a sink transformation to the BadRows stream for logging. Here, we'll "auto-map" all of the fields so that we have logging of the complete transaction record. This is a text-delimited CSV file output to a single file in Blob Storage. We'll call the log file "badrows.csv".

					BadRows Conditionally distributing the data in title groups, based on columns (1)'		LogBadRows Columns: 6 total	
Sink	Settings	Mapping	Optimize	Inspect	Data Preview 🔹		_	
Clear the File name		Default	nic content (Alt+P	Per partition	As data in column	⊙ O(	utput to single file	
Output to	single file *	badrows.csv		0				
Quote All		0						

\* 4. The completed data flow is shown below. We are now able to split off error rows to avoid the SQL truncation errors and put those entries into a log file. Meanwhile, successful rows can continue to write to our target database.

BadRows	1	LogBadRows	
Conditionally distributing the data in title groups, based on columns '(1)'	+	Columns 6 total	

Sink	Settings	Mapping	Optimize	Inspect	Data Preview 😐	-
Clear the	folder	Add dynami	ic content [Alt+P]			
File name	option *	Opefault	O Pattern	Per partition	As data in column	• Output to single file
Output t	o single file *	badrows.csv		0		
Quote Al	ř.	0				

Reference:

https://docs.microsoft.com/en-us/azure/data-factory/how-to-data-flow-error-rows

# **NEW QUESTION 26**



#### - (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.

RONS	RESERVED_SPACE	DATA_SPACE	INDER_SPACE	UNUSED_SPACE	POH_NODE_LD	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	1.6	1848	1	
168	2632	528	32	2072	1	5
195	2696	536	32	2128	1	6
5995	3464	1424	32	2008	1	7
e	22.32	496	0	1736	1	8
264	2576	544	- 50	1992	1	9
3008	3015	960	32	2024	1	10
-		-				-
1550	2832	752	4.5	2032	1	50
1238	2832	696	40	2096	1	51
192	2632	528	32	2072	1	52
1127	2768	689	48	2040	1	53
1244	3032	784	64	2264	1	54
409	2632	568	32	2032	1	55
0	2232	496	0	1736	1	56
1437	2852	728	48	2,064	1	57
0	22.82	496		1,236	1	58
384	26.82	560	32	2840	1	50
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

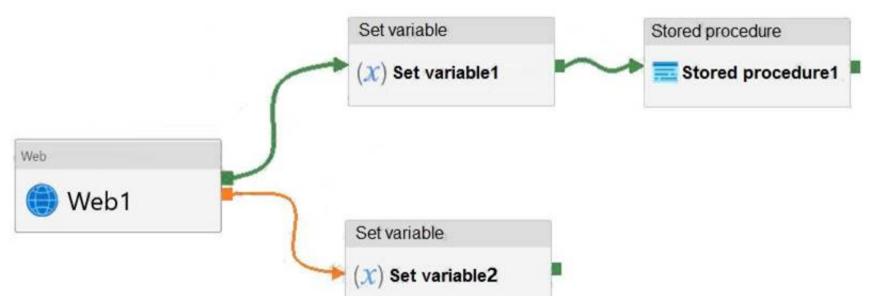
#### **Explanation:**

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 27**

- (Exam Topic 3)

You have an Azure Data Factory pipeline that has the activities shown in the following exhibit.



Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic. NOTE: Each correct selection is worth one point.



Stored procedure1 will execute Web1 and Set variable1 [answer choice]		¥
	complete	
	fail	
	succeed	

Web1 fails and Set variable2 succeeds, the pipeline status will be [answer choice]		V
	Canceled	
	Failed	
	Succeeded	

#### Solution:

Box 1: succeed

Box 2: failed Example:

Now let's say we have a pipeline with 3 activities, where Activity1 has a success path to Activity2 and a failure path to Activity3. If Activity1 fails and Activity3 succeeds, the pipeline will fail. The presence of the success path alongside the failure path changes the outcome reported by the pipeline, even though the activity executions from the pipeline are the same as the previous scenario.

Web 😣	Set variable $(x)$ Activity2	1
Activity1	Set variable	•
	Set variable	V

Activity1 fails, Activity2 is skipped, and Activity3 succeeds. The pipeline reports failure. Reference: https://datasavvy.me/2021/02/18/azure-data-factory-activity-failures-and-pipeline-outcomes/

Does this meet the goal?

A. Yes

B. No

Answer: A

# **NEW QUESTION 28**

- (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.

#### **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-analyticsmonitoring

# **NEW QUESTION 29**

- (Exam Topic 3)

You have an Azure data factory.

You need to examine the pipeline failures from the last 60 days. What should you use?

A. the Activity log blade for the Data Factory resourceB. the Monitor & Manage app in Data FactoryC. the Resource health blade for the Data Factory resource



#### D. Azure Monitor

#### Answer: D

# **Explanation:**

Data Factory stores pipeline-run data for only 45 days. Use Azure Monitor if you want to keep that data for a longer time. Reference:

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

#### **NEW QUESTION 30**

#### - (Exam Topic 3)

You have an Azure Synapse Analytics dedicated SQL pool that contains a large fact table. The table contains 50 columns and 5 billion rows and is a heap. Most queries against the table aggregate values from approximately 100 million rows and return only two columns. You discover that the queries against the fact table are very slow. Which type of index should you add to provide the fastest query times?

A. nonclustered columnstore

- B. clustered columnstore
- C. nonclustered
- D. clustered

#### Answer: B

# **Explanation:**

Clustered columnstore indexes are one of the most efficient ways you can store your data in dedicated SQL pool. Columnstore tables won't benefit a query unless the table has more than 60 million rows. Reference: https://docs.microsoft.com/en-us/azure/synapse-analytics/sql/best-practices-dedicated-sql-pool

#### **NEW QUESTION 31**

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