dp-900 148q_formatted

Number: 000-000
Passing Score: 800
Time Limit: 120 min
File Version: 1.0

DP-900.premium.exam

Number: DP-900
Passing Score: 800
Time Limit: 120 min
File Version: 5.0

DP-900

Microsoft Azure Data Fundamentals

Version 5.0

Sections
1. Describe core data concepts
2. Describe how to work with relational data on Azure
3. Describe how to work with non-relational data on Azure
4. Describe an analytics workload on Azure

D283ABFBEDB32CDCE3B3406B9C29DB2F
Exam A

Sections
1. Describe core data concepts
2. Describe how to work with relational data on Azure Explanation
3. Describe how to work with relational data on Azure
4. Describe how to work with non-relational data on Azure Explanation
5. Describe how to work with non-relational data on Azure
6. Describe an analytics workload on Azure

Exam A

QUESTION 1
HOTSPOT

To complete the sentence, select the appropriate option in the answer area.

Hot Area:

Answer Area

Descriptive analytics tells you [▼]
- what is most likely to occur in the future.
- what occurred in the past.
- which actions you can perform to affect outcomes.
- why something occurred in the past.

A.
B.
C.
D.

Correct Answer:
Section: Describe core data concepts
Explanation

Explanation/Reference:

Answer Area

Descriptive analytics tells you [▼]
- what is most likely to occur in the future.
- what occurred in the past.
- which actions you can perform to affect outcomes.
- why something occurred in the past.

Section: Describe core data concepts
Explanation

Explanation/Reference:
Reference:
https://demand-planning.com/2020/01/20/the-differences-between-descriptive-diagnostic-predictive-cognitive- analytics/

QUESTION 2
HOTSPOT

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

NOTE: Each correct selection is worth one point.

Hot Area:
D283ABFBEDB32CDCE3B3406B9C29DB2F

Answer Area

Statements	Yes	No
Normalization involves eliminating relationships between database tables.	○	○
Normalizing a database reduces data redundancy.	○	○
Normalization improves data integrity.	○	○

A.
B.
C.
D.

Correct Answer:
Section: Describe core data concepts
Explanation

Explanation/Reference:

Answer Area

Statements	Yes	No
Normalization involves eliminating relationships between database tables.	○	○
Normalizing a database reduces data redundancy.	○	○
Normalization improves data integrity.	○	○

Section: Describe core data concepts
Explanation

Explanation/Reference:
Reference:
https://www.sqlshack.com/what-is-database-normalization-in-sql-server/

QUESTION 3
HOTSPOT

To complete the sentence, select the appropriate option in the answer area.

Hot Area:

D283ABFBEDB32CDCE3B3406B9C29DB2F

Answer Area

An extract, transform, and load (ETL) process requires ▼

- a matching schema in the data source and the data target.
- a target data store powerful enough to transform data.
- data that is fully processed before being loaded to the target data store.
- that the data target be a relational database.

A.
B.
C.
D.

Correct Answer:
Section: Describe core data concepts
Explanation

Explanation/Reference:

Answer Area

An extract, transform, and load (ETL) process requires ▼

- a matching schema in the data source and the data target.
- a target data store powerful enough to transform data.
- data that is fully processed before being loaded to the target data store.
- that the data target be a relational database.

Section: Describe core data concepts
Explanation

Explanation/Reference:
Explanation:

In the ELT pipeline, the transformation occurs in the target data store. ELT only works well when the target system is powerful enough to transform the data efficiently.

Incorrect Answers:
The data does not need to be fully processed: Often, the three ETL phases are run in parallel to save time.

▪

For example, while data is being extracted, a transformation process could be working on data already received and prepare it for loading, and a loading process can begin working on the prepared data, rather than waiting for the entire extraction process to complete.

The target does need to be a relational database.

.

Reference:
https://docs.microsoft.com/en-us/azure/architecture/data-guide/relational-data/etl

QUESTION 4
HOTSPOT

To complete the sentence, select the appropriate option in the answer area.

Hot Area:

D283ABFBEDB32CDCE3B3406B9C29DB2F

Answer Area

In batch processing, [▼]
- data is always inserted one row at a time.
- data is processed in real-time.
- latency is expected.
- processing can only execute serially.

A.
B.
C.
D.

Correct Answer:
Section: Describe core data concepts
Explanation

Explanation/Reference:

Answer Area

In batch processing, [▼]
- data is always inserted one row at a time.
- data is processed in real-time.
- **latency is expected.**
- processing can only execute serially.

Section: Describe core data concepts
Explanation

Explanation/Reference:
Reference:
https://www.bmc.com/blogs/what-is-batch-processing-batch-processing-explained/

QUESTION 5
HOTSPOT

To complete the sentence, select the appropriate option in the answer area.

Hot Area:

Answer Area

Transcribing audio files is an example of [▼] analytics.
- cognitive
- descriptive
- predictive
- prescriptive

A.
B.

C.
D.

Correct Answer:
Section: Describe core data concepts
Explanation

Explanation/Reference:
D283ABFBEDB32CDCE3B3406B9C29DB2F

Answer Area

Transcribing audio files is an example of [▼] analytics.

- cognitive
- descriptive
- predictive
- prescriptive

Section: Describe core data concepts
Explanation

Explanation/Reference:
Reference:
https://azure.microsoft.com/en-us/services/cognitive-services/speech-services/

QUESTION 6
DRAG DROP

Match the types of analytics that can be used to answer the business questions.

To answer, drag the appropriate analytics type from the column on the left to its question on the right. Each analytics type may be used once, more than once, or not at all.

NOTE: Each correct match is worth one point.

Select and Place:

Analytics Types

- Cognitive
- Diagnostic
- Descriptive
- Predictive
- Prescriptive

Answer Area

[ ] Why did sales increase last month?
[ ] How do I allocate my budget to buy different inventory items?
[ ] Which people are mentioned in a company's business documents?

A.
B.
C.
D.

Correct Answer:
Section: Describe core data concepts
Explanation

Explanation/Reference:

Analytics Types	Answer Area	
Cognitive	Diagnostic	Why did sales increase last month?
Diagnostic	Prescriptive	How do I allocate my budget to buy different inventory items?
Descriptive	Descriptive	Which people are mentioned in a company's business documents?
Predictive		
Prescriptive		

Section: Describe core data concepts

D283ABFBEDB32CDCE3B3406B9C29DB2F
Explanation

Explanation/Reference:
Explanation:

Box 1: Diagnostic
Diagnostic Analytics: At this stage you can begin to answer some of those why questions. Historical data can begin to be measured against other data to answer the question of why something happened in the past. This is the process of gathering and interpreting different data sets to identify anomalies, detect patters, and determine relationships.

Box 2: Prescriptive
Prescriptive analytics is a combination of data, mathematical models, and various business rules to infer actions to influence future desired outcomes.

Incorrect Answer:
Predictive analytics, broadly speaking, is a category of business intelligence that uses descriptive and predictive variables from the past to analyze and identify the likelihood of an unknown future outcome

Box 3: Descriptive
Generally speaking, data analytics comes in four types:

▪

Descriptive, to answer the question: What's happening?

▪

Diagnostic, to answer the question: Why's happening?

▪

Predictive, to answer the question: What will happen?

▪

Prescriptive, to answer the question: What actions should we take?

▪

Reference:
https://demand-planning.com/2020/01/20/the-differences-between-descriptive-diagnostic-predictive-cognitive- analytics/

https://azure.microsoft.com/en-us/blog/answering-whats-happening-whys-happening-and-what-will-happen- with-iot-analytics/

QUESTION 7
HOTSPOT

You have the following JSON document.

D283ABFBEDB32CDCE3B3406B9C29DB2F

```
"customer" : {
    "first name" : "Ben",
    "last name" : "Smith",
    "address" : {
         "line 1" : "161 Azure Ln",
         "line 2" : "Palo Alto",
         "ZIP code" : "54762"
    },
    "social media": [
        {
           "service" : "twitter",
           "handle" : "@bensmith"
        },
        {
           "service" : "linkedin",
           "handle" : "bensmith"
        }
    ],
    "phone numbers": [
        {
            "type" : "mobile",
            "number" : "555-555-555"
        }
    ]
}
```

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

NOTE: Each correct selection is worth one point.

Hot Area:

D283ABFBEDB32CDCE3B3406B9C29DB2F

Answer Area

Customer is **[answer choice]**. ▼
- a nested array
- a nested object
- a root object

Address is **[answer choice]**. ▼
- a nested array
- a nested object
- a root object

Social media is **[answer choice]**. ▼
- a nested array
- a nested object
- a root object

A.
B.
C.
D.

Correct Answer:
Section: Describe core data concepts
Explanation

Explanation/Reference:

Answer Area

Customer is **[answer choice]**.
- a nested array
- a nested object
- a root object

Address is **[answer choice]**.
- a nested array
- a nested object
- a root object

Social media is **[answer choice]**.
- a nested array
- a nested object
- a root object

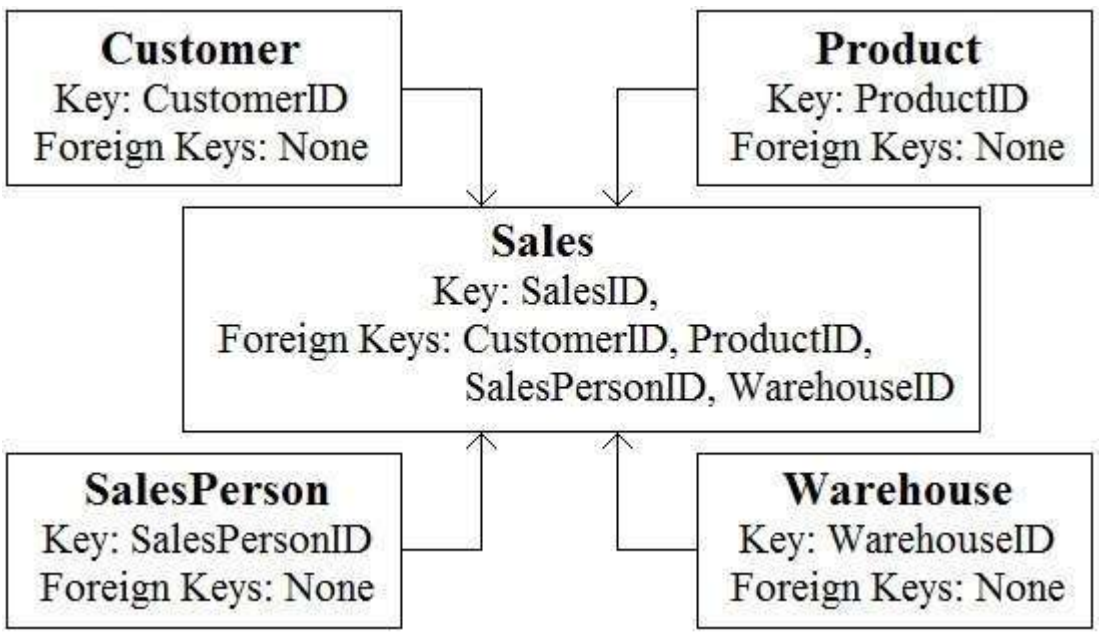
Section: Describe core data concepts
Explanation

D283ABFBEDB32CDCE3B3406B9C29DB2F
Explanation/Reference:
Reference:
https://www.w3schools.com/js/js_json_arrays.asp

https://www.w3schools.com/js/js_json_objects.asp

QUESTION 8
HOTSPOT

You are reviewing the data model 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

Hot Area:

Answer Area

The data model is a **[answer choice]**.
- transactional model
- star schema
- snowflake schema

Customer is a **[answer choice]** table.
- fact
- dimension
- bridge

D283ABFBEDB32CDCE3B3406B9C29DB2F

A.
B.
C.
D.

Correct Answer:
Section: Describe core data concepts
Explanation

Explanation/Reference:

Answer Area

The data model is a **[answer choice]**.

- transactional model
- star schema
- snowflake schema

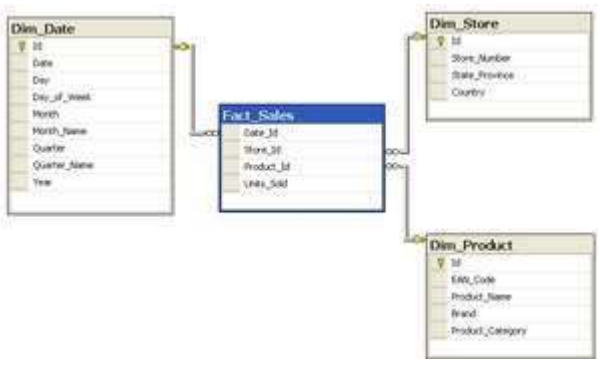
Customer is a **[answer choice]** table.

- fact
- dimension
- bridge

Section: Describe core data concepts
Explanation

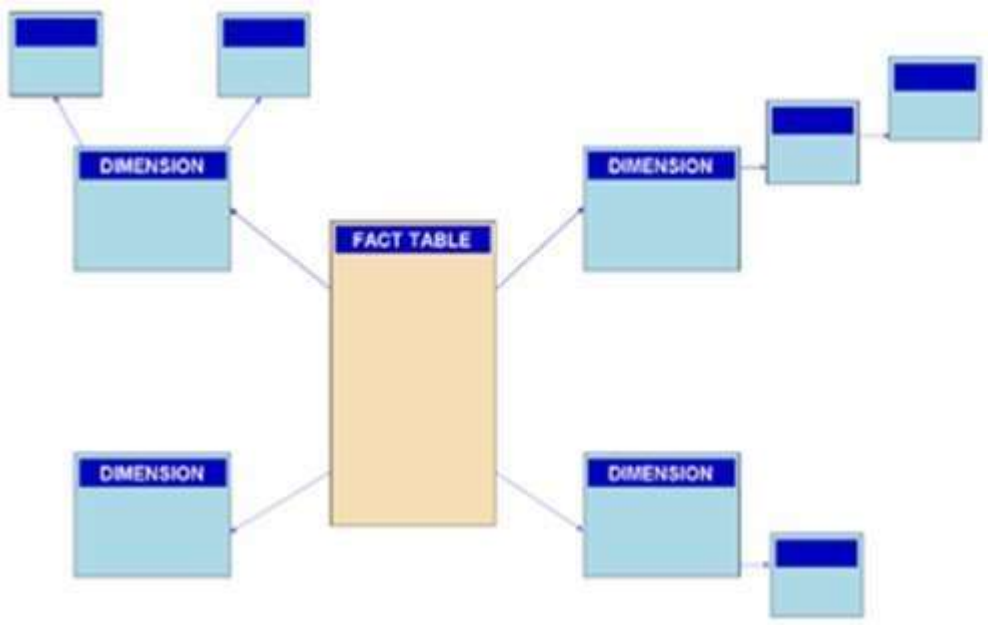
Explanation/Reference:
Explanation:

Box 1: star schema
In computing, the star schema is the simplest style of data mart schema and is the approach most widely used to develop data warehouses and dimensional data marts. The star schema consists of one or more fact tables referencing any number of dimension tables. The star schema is an important special case of the snowflake schema, and is more effective for handling simpler queries.
Example:



Incorrect Answers:
The data in the question is not normalized.
The snowflake schema is a variation of the star schema, featuring normalization of dimension tables.
Example:

D283ABFBEDB32CDCE3B3406B9C29DB2F



Note: A snowflake schema is a logical arrangement of tables in a multidimensional database such that the entity relationship diagram resembles a snowflake shape. The snowflake schema is represented by centralized fact tables which are connected to multiple dimensions.[citation needed]. "Snowflaking" is a method of normalizing the dimension tables in a star schema. When it is completely normalized along all the dimension tables, the resultant structure resembles a snowflake with the fact table in the middle.

Box 2: dimension
The star schema consists of one or more fact tables referencing any number of dimension tables.

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

https://en.wikipedia.org/wiki/Star_schema

https://en.wikipedia.org/wiki/Snowflake_schema

https://azure.microsoft.com/en-us/blog/data-models-within-azure-analysis-services-and-power-bi/

QUESTION 9
HOTSPOT

To complete the sentence, select the appropriate option in the answer area.

Hot Area:

Answer Area

The massively parallel processing (MPP) engine of Azure Synapse Analytics [▼]

- distributes processing across compute nodes.
- distributes processing across control nodes.
- redirects client connections across compute nodes.
- redirects client connections across control nodes.

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A.
B.
C.
D.

Correct Answer:
Section: Describe core data concepts
Explanation

Explanation/Reference:

Answer Area

The massively parallel processing (MPP) engine of Azure Synapse Analytics [▼]

- distributes processing across compute nodes.
- distributes processing across control nodes.
- redirects client connections across compute nodes.
- redirects client connections across control nodes.

Section: Describe core data concepts
Explanation

Explanation/Reference:
Reference:
https://docs.microsoft.com/en-us/azure/synapse-analytics/sql-data-warehouse/massively-parallel-processing- mpp-architecture

QUESTION 10
HOTSPOT

To complete the sentence, select the appropriate option in the answer area.

Hot Area:

Answer Area

[▼] is an object associated with a table that sorts and stores the data rows in the table based on their key values.

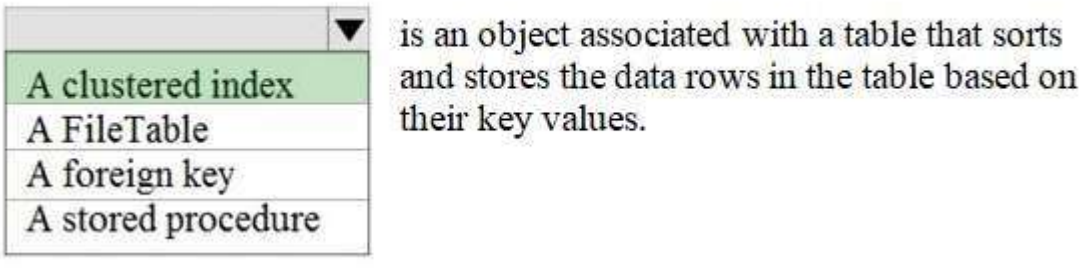
- A clustered index
- A FileTable
- A foreign key
- A stored procedure

A.
B.
C.
D.

Correct Answer:
Section: Describe core data concepts
Explanation

Explanation/Reference:

Answer Area



Section: Describe core data concepts

D283ABFBEDB32CDCE3B3406B9C29DB2F
Explanation

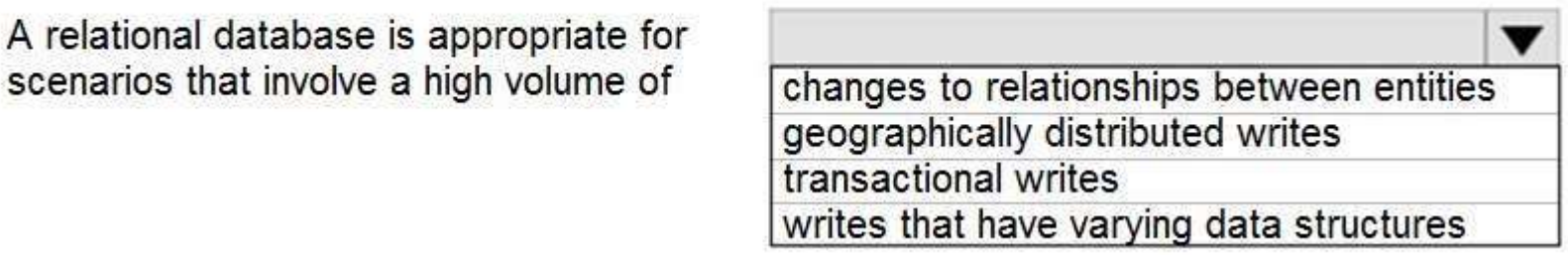
Explanation/Reference:
Reference:
https://docs.microsoft.com/en-us/sql/relational-databases/indexes/clustered-and-nonclustered-indexes- described?view=sql-server-ver15

QUESTION 11
HOTSPOT

To complete the sentence, select the appropriate option in the answer area.

Hot Area:

Answer Area

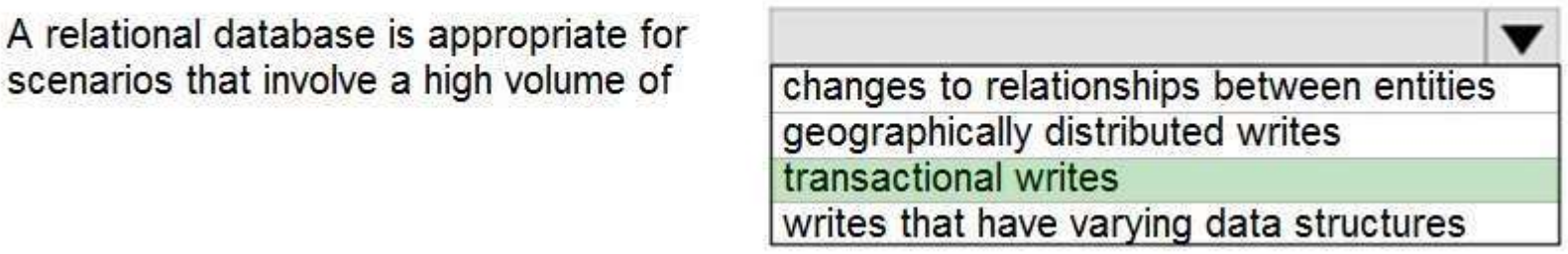


A.
B.
C.
D.

Correct Answer:
Section: Describe core data concepts
Explanation

Explanation/Reference:

Answer Area



Section: Describe core data concepts
Explanation

Explanation/Reference:
Explanation:

Disadvantages of non-relational databases include: Data Consistency -- non-relational databases do not perform ACID transactions.

Note: Relational databases are optimized for writes. They are optimized for consistency and availability. Advantages of relational databases include simplicity, ease of data retrieval, data integrity, and flexibility.

Incorrect Answers:
Use a relational database when data that you work with is structured, and the structure is not subject to frequent changes.
Use Cloud storage (no relational database) for geographically distributed writes.

Reference:
https://towardsdatascience.com/choosing-the-right-database-c45cd3a28f77

QUESTION 12
HOTSPOT

D283ABFBEDB32CDCE3B3406B9C29DB2F
For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
Batch processing can output data to a file store	○	○
Batch processing can output data to a relational database	○	○
Batch processing can output data to a NoSQL database	○	○

A.
B.
C.
D.

Correct Answer:
Section: Describe core data concepts
Explanation

Explanation/Reference:

Answer Area

Statements	Yes	No
Batch processing can output data to a file store	○	○
Batch processing can output data to a relational database	○	○
Batch processing can output data to a NoSQL database	○	○

Section: Describe core data concepts
Explanation

Explanation/Reference:
Explanation:

Box 1: Yes
Big data solutions often use long-running batch jobs to filter, aggregate, and otherwise prepare the data for analysis. Usually these jobs involve reading source files from scalable storage (like HDFS, Azure Data Lake Store, and Azure Storage), processing them, and writing the output to new files in scalable storage.

Box 2: No

Box 3: No

Reference:
https://docs.microsoft.com/en-us/azure/architecture/data-guide/big-data/batch-processing

QUESTION 13
DRAG DROP

Your company plans to load data from a customer relationship management (CRM) system to a data warehouse by using an extract, load, and transform (ELT) process.

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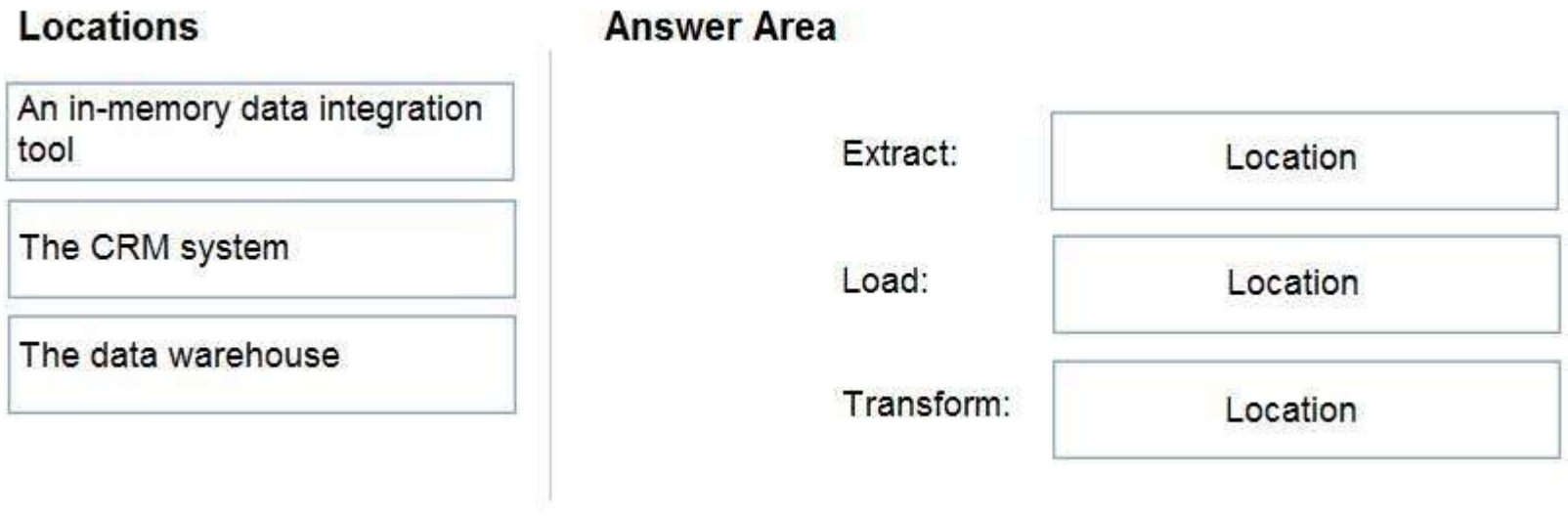
Where does data processing occur for each stage of the ELT process? To answer, drag the appropriate locations to the correct stages. Each location may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

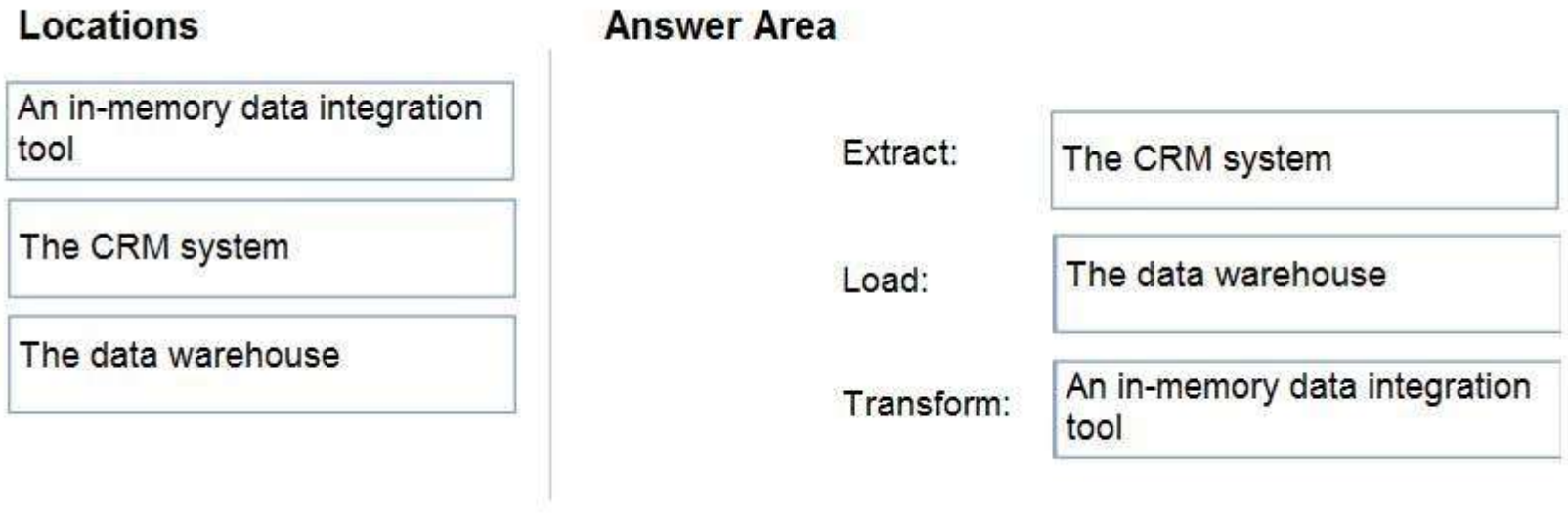
Select and Place:



A.
B.
C.
D.

Correct Answer:
Section: Describe core data concepts
Explanation

Explanation/Reference:



Section: Describe core data concepts
Explanation

Explanation/Reference:
Explanation:

Box 1: The CRM system
Data is extracted from the CRM system.

Box 2: The data warehouse
Data is loaded to the data warehouse.

Box 3: An in-memory data integration tool
The data transformation that takes place usually involves various operations, such as filtering, sorting, aggregating, joining data, cleaning data, deduplicating, and validating data.

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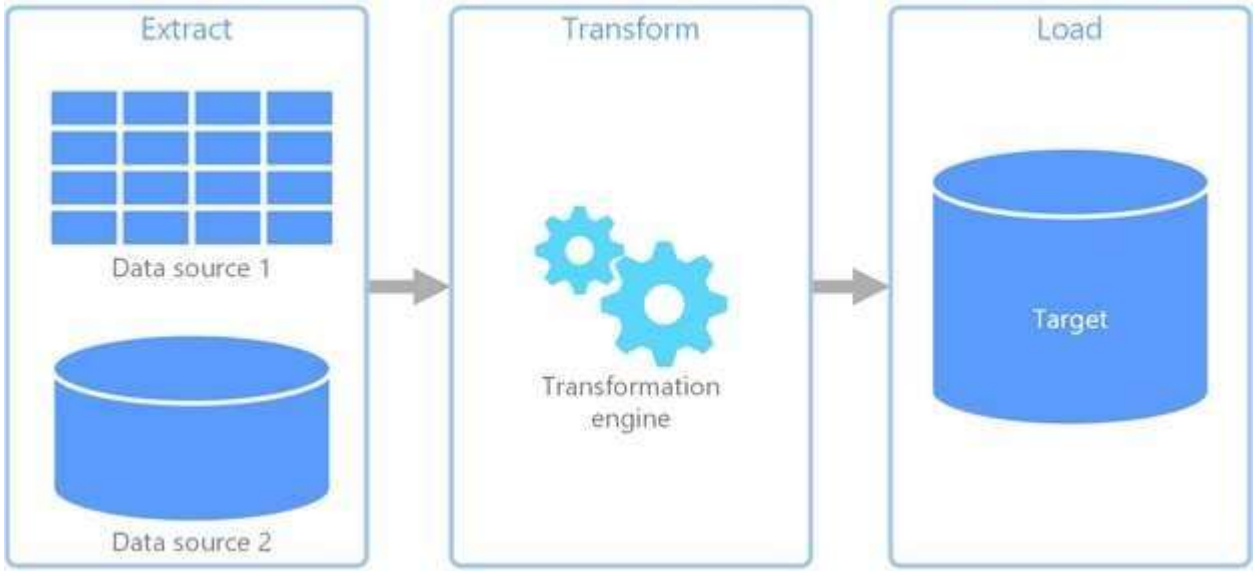
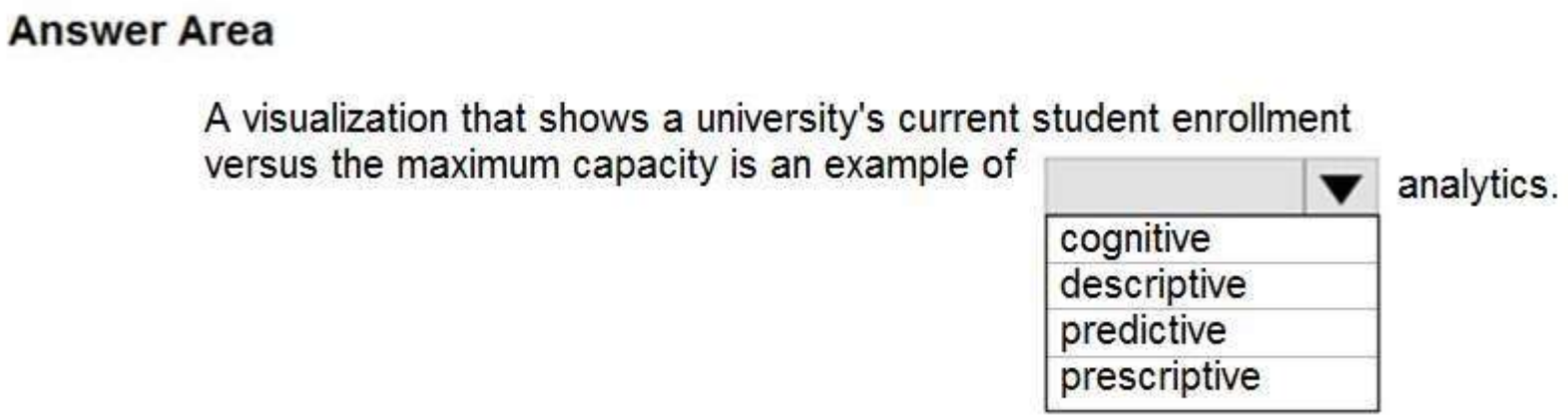


Reference:
https://docs.microsoft.com/en-us/azure/architecture/data-guide/relational-data/etl

QUESTION 14
HOTSPOT

To complete the sentence, select the appropriate option in the answer area.

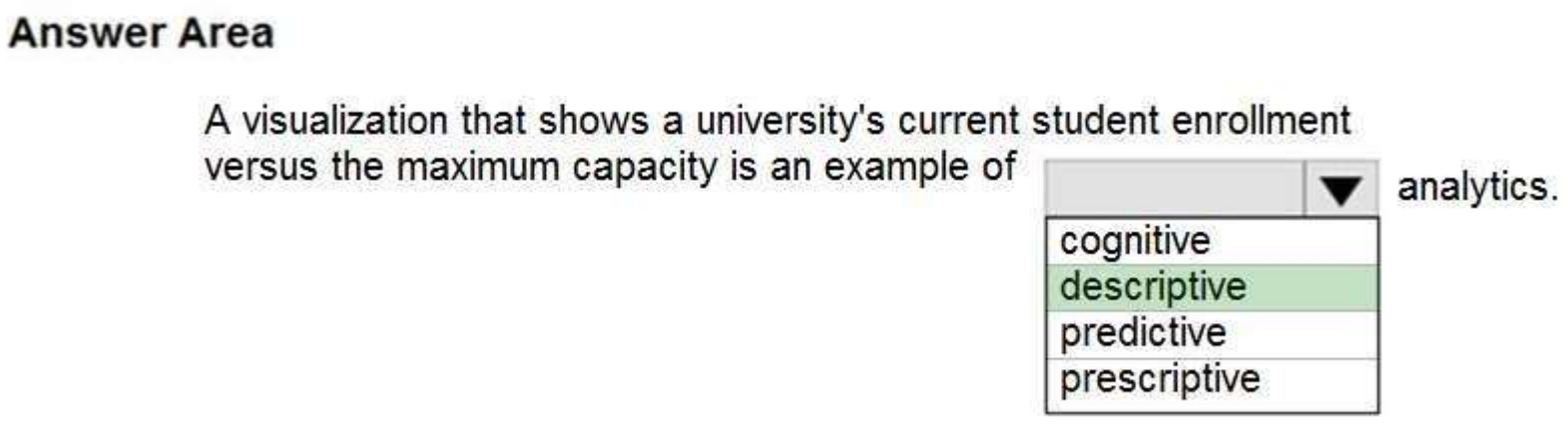
Hot Area:



A.
B.
C.
D.

Correct Answer:
Section: Describe core data concepts
Explanation

Explanation/Reference:



Section: Describe core data concepts
Explanation

Explanation/Reference:

D283ABFBEDB32CDCE3B3406B9C29DB2F
Explanation:
Generally speaking, data analytics comes in four types (Figure 1):

Descriptive, to answer the question: What's happening?
Diagnostic, to answer the question: Why's happening?
Predictive, to answer the question: What will happen?
Prescriptive, to answer the question: What actions should we take?

Reference:
https://azure.microsoft.com/en-us/blog/answering-whats-happening-whys-happening-and-what-will-happen- with-iot-analytics/

QUESTION 15
DRAG DROP

Match the types of visualizations to the appropriate descriptions.

To answer, drag the appropriate visualization type from the column on the left to its description on the right. Each visualization type may be used once, more than once, or not at all.

NOTE: Each correct match is worth one point.

Select and Place:

Visualizations

- Key influencer
- Scatter
- Treemap

Answer Area

Visualization	A chart of colored, nested rectangles that displays individual data points represented by the size and color of a relative rectangle.
Visualization	A chart that displays the major contributors of a selected result or value.
Visualization	A chart that shows the relationship between two numerical values.

A.
B.
C.
D.

Correct Answer:
Section: Describe core data concepts
Explanation

Explanation/Reference:

Visualizations

- Key influencer
- Scatter
- Treemap

Answer Area

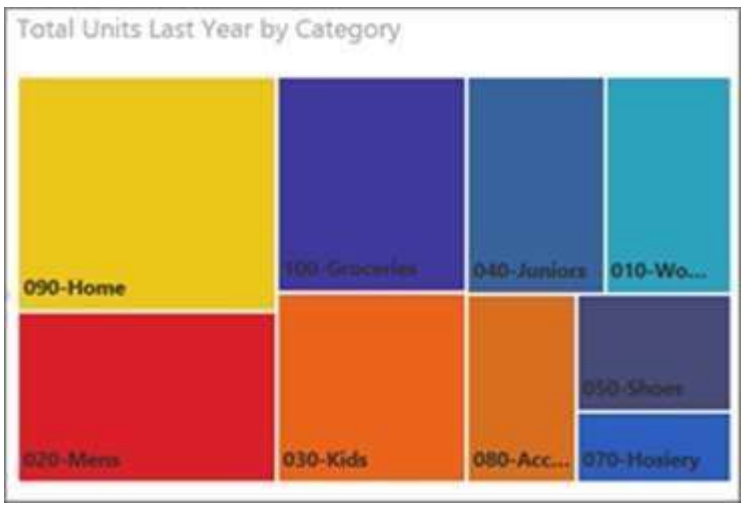
Treemap	A chart of colored, nested rectangles that displays individual data points represented by the size and color of a relative rectangle.
Key influencer	A chart that displays the major contributors of a selected result or value.
Scatter	A chart that shows the relationship between two numerical values.

Section: Describe core data concepts
Explanation

Explanation/Reference:
Explanation:

Box 1: Tree map
Treemaps are charts of colored rectangles, with size representing value. They can be hierarchical, with rectangles nested within the main rectangles.

D283ABFBEDB32CDCE3B3406B9C29DB2F



Box 2: Key influencer
A key influencer chart displays the major contributors to a selected result or value.

Box 3: Scatter
Scatter and Bubble charts display relationships between 2 (scatter) or 3 (bubble) quantitative measures -- whether or not, in which order, etc.

QUESTION 16
You need to create an Azure Storage account.

Data in the account must replicate outside the Azure region automatically.

Which two types of replication can you use for the storage account? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

A. zone-redundant storage (ZRS)
B. read-access geo-redundant storage (RA-GRS)

C. locally-redundant storage (LRS)
D. geo-redundant storage (GRS)

Correct Answer: BD
Section: Describe core data concepts
Explanation

Explanation/Reference:
Section: Describe core data concepts
Explanation

Explanation/Reference:
Explanation:
D: Azure Storage offers two options for copying your data to a secondary region:
Geo-redundant storage (GRS)

▪

Geo-zone-redundant storage (GZRS)

▪

B: With GRS or GZRS, the data in the secondary region isn't available for read or write access unless there is a failover to the secondary region. For read access to the secondary region, configure your storage account to use read-access geo-redundant storage (RA-GRS) or read-access geo-zone-redundant storage (RA-GZRS).

Reference:
https://docs.microsoft.com/en-us/azure/storage/common/storage-redundancy#redundancy-in-a-secondary- region

QUESTION 17
D283ABFBEDB32CDCE3B3406B9C29DB2F
HOTSPOT

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
Platform as a service (PaaS) database offerings in Azure require less setup and configuration effort than infrastructure as a service (IaaS) database offerings.	○	○
Platform as a service (PaaS) database offerings in Azure provide administrators with the ability to control and update the operating system version.	○	○
All relation and non-relational platform as a service (PaaS) database offerings in Azure can be paused to reduce costs.	○	○

A.
B.
C.
D.

Correct Answer:
Section: Describe core data concepts
Explanation

Explanation/Reference:

Answer Area

Statements	Yes	No
Platform as a service (PaaS) database offerings in Azure require less setup and configuration effort than infrastructure as a service (IaaS) database offerings.	○	○
Platform as a service (PaaS) database offerings in Azure provide administrators with the ability to control and update the operating system version.	○	○
All relation and non-relational platform as a service (PaaS) database offerings in Azure can be paused to reduce costs.	○	○

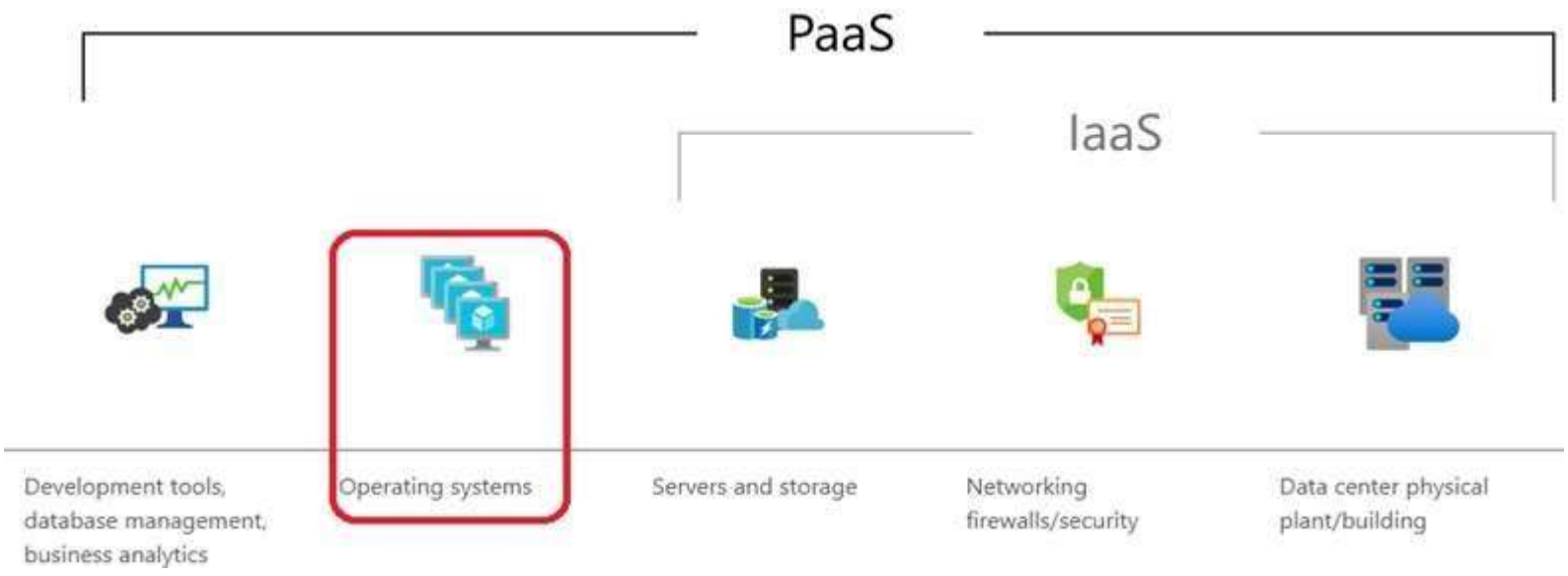
Section: Describe core data concepts
Explanation

Explanation/Reference:
Explanation:

Box 1: Yes
Like IaaS, PaaS includes infrastructure servers, storage, and networking but also middleware, development tools, business intelligence (BI) services, database management systems, and more. PaaS is designed to support the complete web application lifecycle: building, testing, deploying, managing, and updating. PaaS allows you to avoid the expense and complexity of buying and managing software licenses, the underlying application infrastructure and middleware, container orchestrators such as Kubernetes, or the development tools and other resources

Box 2: Yes
You manage the applications and services you develop, and the cloud service provider typically manages everything else.

D283ABFBEDB32CDCE3B3406B9C29DB2F



Box 3: No
There really is no way to pause / stop billing for your Azure SQL Database. Microsoft's official answer "Yes, you can export your database. Delete the Azure SQL database and that will pause billing. Then when you need it you can create a new database and import your previously exported DB."

Reference:
https://azure.microsoft.com/en-us/overview/what-is-paas

https://feedback.azure.com/forums/217321-sql-database/suggestions/6931152-please-add-ability-to- temporarily-turn-off-on-sql

QUESTION 18
Which statement is an example of Data Manipulation Language (DML)?

A. REVOKE
B. DISABLE
C. INSERT
D. GRANT

Correct Answer: C
Section: Describe core data concepts
Explanation

Explanation/Reference:
Section: Describe core data concepts
Explanation

Explanation/Reference:
Explanation:
Data Manipulation Language (DML) statements:
DELETE

INSERT

▪

UPDATE

▪

Reference:
https://docs.microsoft.com/en-us/azure/synapse-analytics/sql-data-warehouse/sql-data-warehouse-reference- tsql-statements

QUESTION 19
You have a SQL query that combines customer data and order data. The query includes calculated columns.

You need to create a database object that would allow other users to rerun the same SQL query.

What should you create?

A. an index
B. a view
D283ABFBEDB32CDCE3B3406B9C29DB2F
C. a scalar function
D. a table

Correct Answer: B
Section: Describe core data concepts
Explanation

Explanation/Reference:
Section: Describe core data concepts
Explanation

Explanation/Reference:
Explanation:
A view is a virtual table whose contents are defined by a query. A view acts as a filter on the underlying tables referenced in the view. The query that defines the view can be from one or more tables or from other views in the current or other databases.

Reference:
https://docs.microsoft.com/en-us/sql/relational-databases/views/views

QUESTION 20
HOTSPOT

To complete the sentence, select the appropriate option in the answer area.

Hot Area:

Answer Area

A key/value data store is optimized for [▼]
- enforcing constraints
- simple lookups
- table joins
- transactions

A.
B.
C.
D.

Correct Answer:
Section: Describe core data concepts
Explanation

Explanation/Reference:

Answer Area

A key/value data store is optimized for [▼]
- enforcing constraints
- simple lookups
- table joins
- transactions

Section: Describe core data concepts
Explanation

Explanation/Reference:
Explanation:

Box 1: simple lookups
A key/value store associates each data value with a unique key. Most key/value stores only support simple query, insert, and delete operations. To modify a value (either partially or completely), an application must overwrite the existing data for the entire value. In most implementations, reading or writing a single value is an

D283ABFBEDB32CDCE3B3406B9C29DB2F
atomic operation.

An application can store arbitrary data as a set of values. Any schema information must be provided by the application. The key/value store simply retrieves or stores the value by key.

Reference:
https://docs.microsoft.com/en-us/azure/architecture/guide/technology-choices/data-store-overview

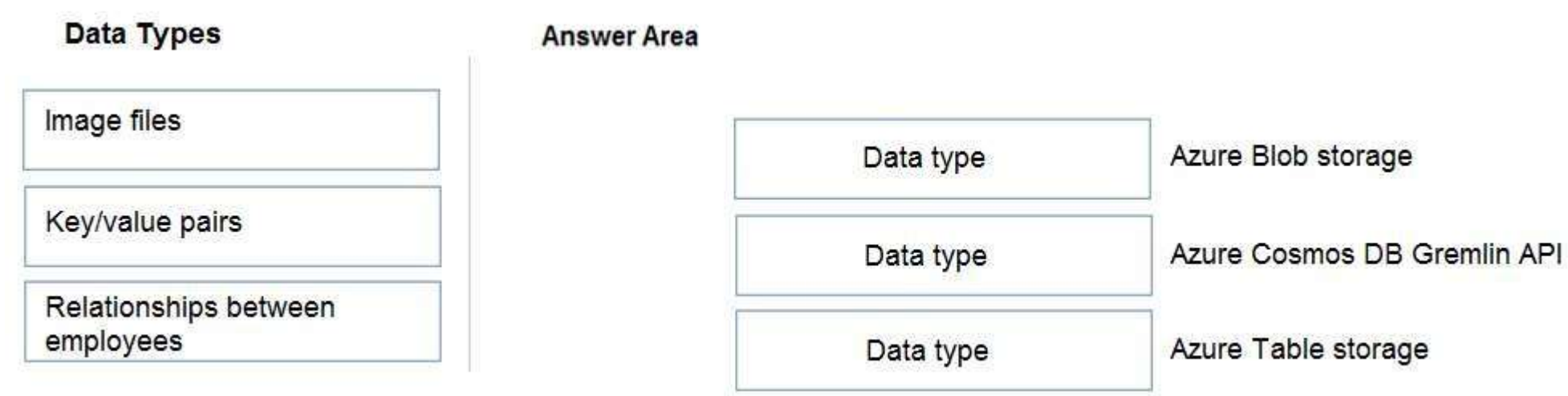
QUESTION 21
DRAG DROP

Match the types of data to the appropriate Azure data services.

To answer, drag the appropriate data type from the column on the left to its service on the right. Each data type may be used once, more than once, or not at all.

NOTE: Each correct match is worth one point.

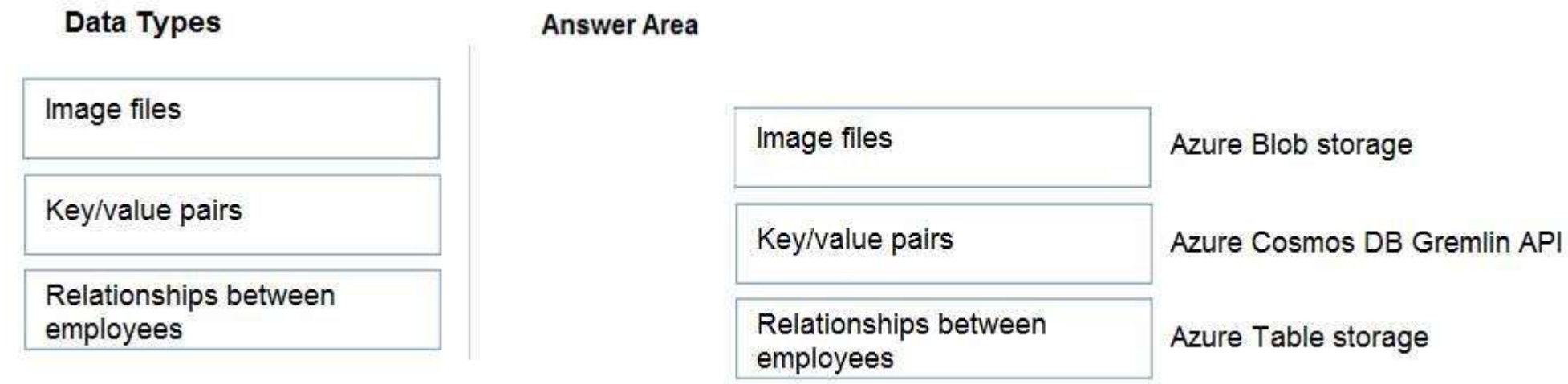
Select and Place:



A.
B.
C.
D.

Correct Answer:
Section: Describe core data concepts
Explanation

Explanation/Reference:



Section: Describe core data concepts
Explanation

Explanation/Reference:
Explanation:

Box 1: Image files
Azure Blob storage is suitable for image files.

Box 2:Key/value pairs
Azure CosmosDB table API is a key-value storage hosted in the cloud.

Box 3: Relationship between employees
One-to-many relationships between business domain objects occur frequently: for example, one department has many employees. There are several ways to implement one-to-many relationships in the Azure Table service.

D283ABFBEDB32CDCE3B3406B9C29DB2F
Reference:
https://docs.microsoft.com/en-us/azure/storage/tables/table-storage-design-modeling

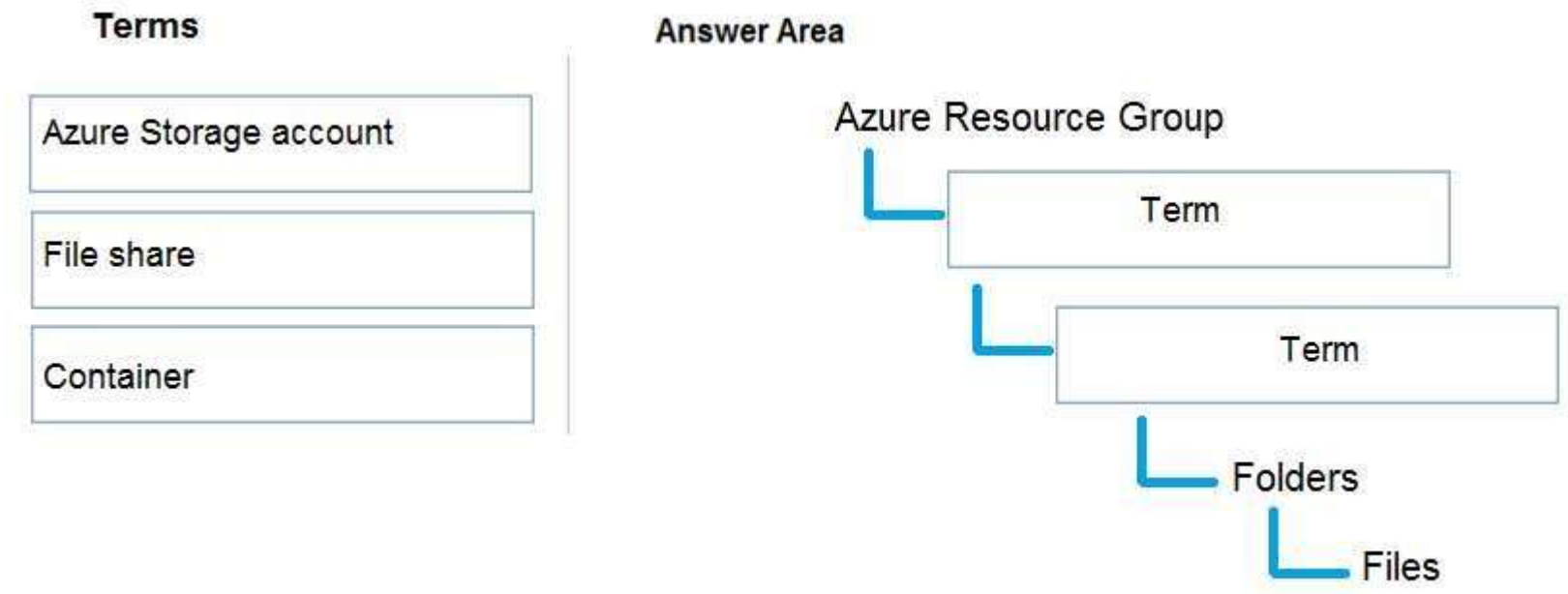
QUESTION 22
DRAG DROP

Match the Azure Data Lake Storage Gen2 terms to the appropriate levels in the hierarchy.

To answer, drag the appropriate term from the column on the left to its level on the right. Each term may be used once, more than once, or not at all.

NOTE: Each correct match is worth one point.

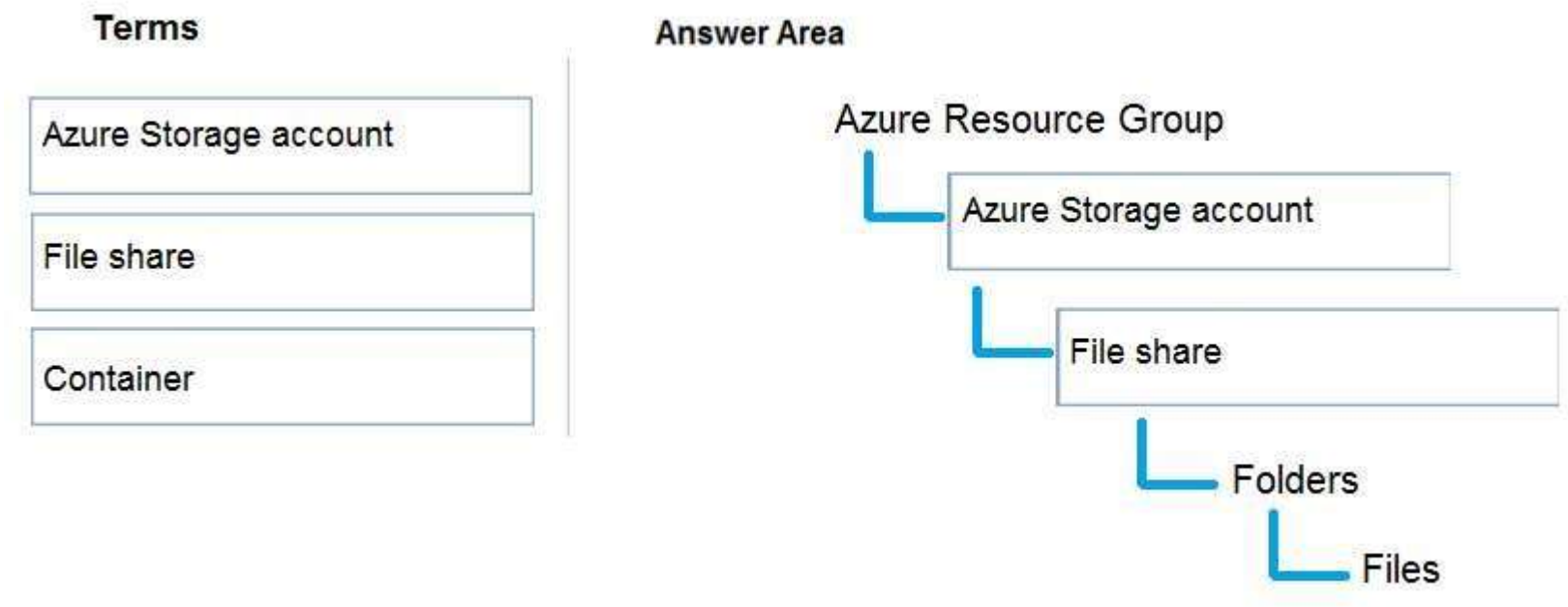
Select and Place:



A.
B.
C.
D.

Correct Answer:
Section: Describe core data concepts
Explanation

Explanation/Reference:



Section: Describe core data concepts
Explanation

Explanation/Reference:
Explanation:

Box 1: Azure Storage account
Azure file shares are deployed into storage accounts, which are top-level objects that represent a shared pool

D283ABFBEDB32CDCE3B3406B9C29DB2F
of storage.

Box 2: File share

Reference:
https://docs.microsoft.com/en-us/azure/storage/files/storage-how-to-create-file-share

QUESTION 23

What are two characteristics of real-time data processing? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

A. Data is processed periodically
B. Low latency is expected
C. High latency is acceptable
D. Data is processed as it is created

Correct Answer: BD
Section: Describe core data concepts
Explanation

Explanation/Reference:
Section: Describe core data concepts
Explanation

Explanation/Reference:
Explanation:
Real time processing deals with streams of data that are captured in real-time and processed with minimal latency to generate real-time (or near-real-time) reports or automated responses.

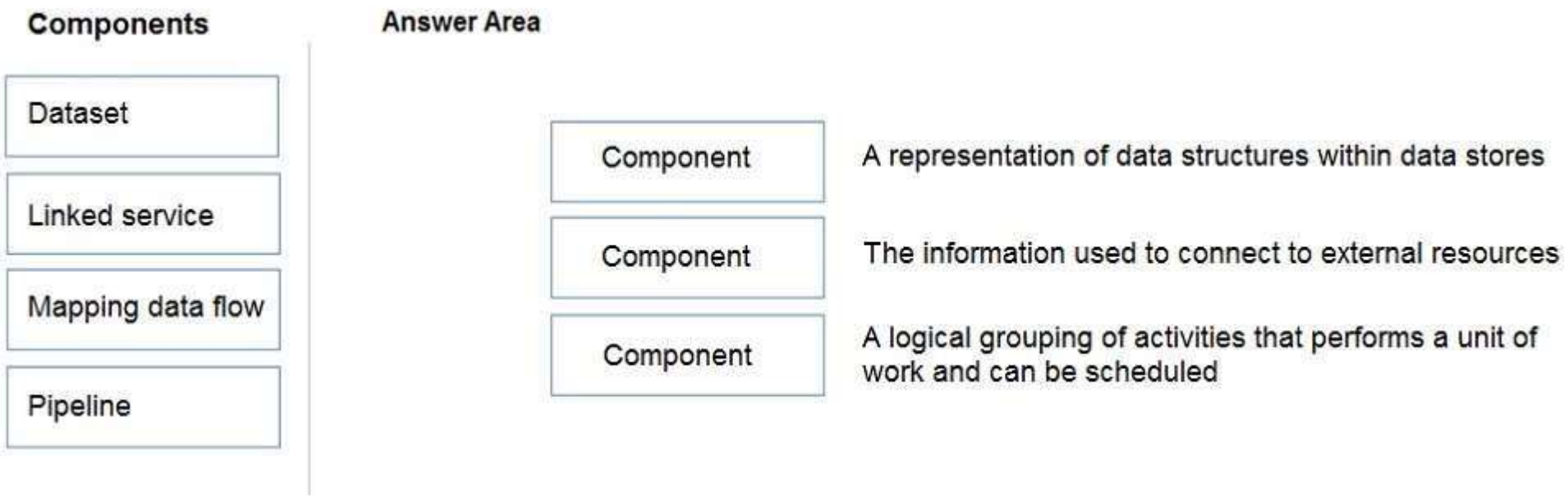
Reference:
https://docs.microsoft.com/en-us/azure/architecture/data-guide/big-data/real-time-processing

QUESTION 24
DRAG DROP
Match the Azure Data Factory components to the appropriate descriptions.

To answer, drag the appropriate component from the column on the left to its description on the right. Each component may be used once, more than once, or not at all.

NOTE: Each correct match is worth one point.

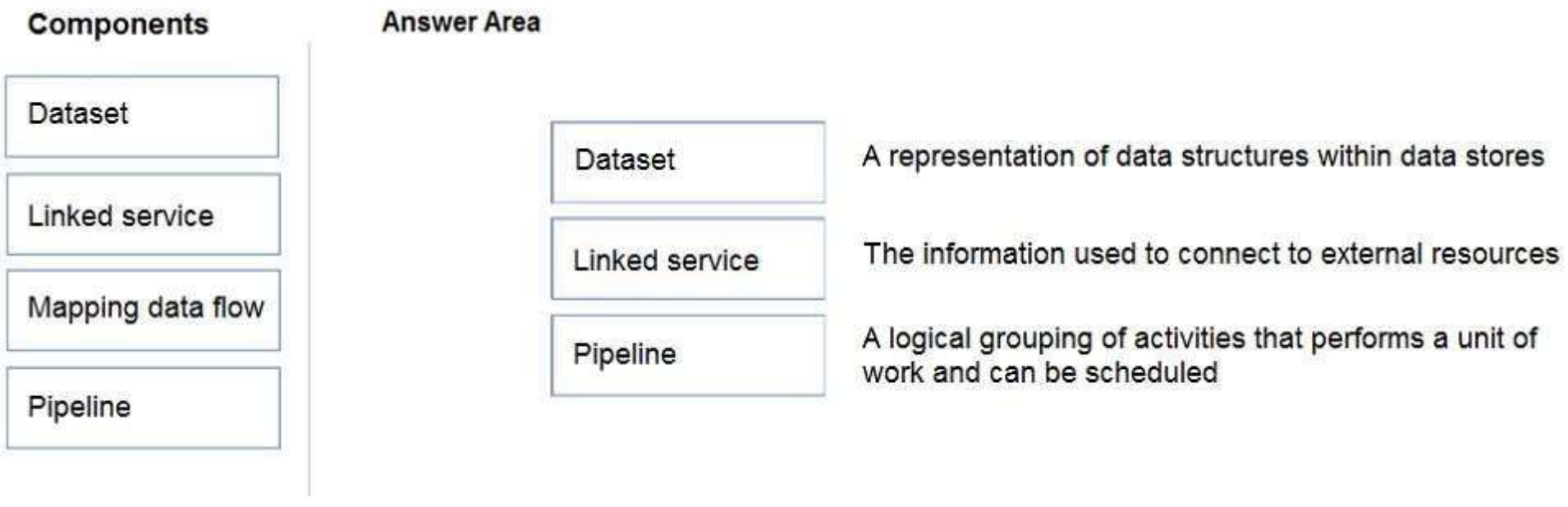
Select and Place:



A.
B.
C.
D.

Correct Answer:
Section: Describe core data concepts
Explanation

Explanation/Reference:
D283ABFBEDB32CDCE3B3406B9C29DB2F



Section: Describe core data concepts
Explanation

Explanation/Reference:
Explanation:

Box 1: Dataset
Datasets must be created from paths in Azure datastores or public web URLs, for the data to be accessible by Azure Machine Learning.

Box 2: Linked service
Linked services are much like connection strings, which define the connection information needed for Data Factory to connect to external resources.

Box 3: Pipeline
A pipeline is a logical grouping of activities that together perform a task.

Reference:
https://k21academy.com/microsoft-azure/dp-100/datastores-and-datasets-in-azure/

https://docs.microsoft.com/en-us/azure/data-factory/concepts-linked-services

https://docs.microsoft.com/en-us/azure/data-factory/concepts-pipelines-activities

QUESTION 25
DRAG DROP

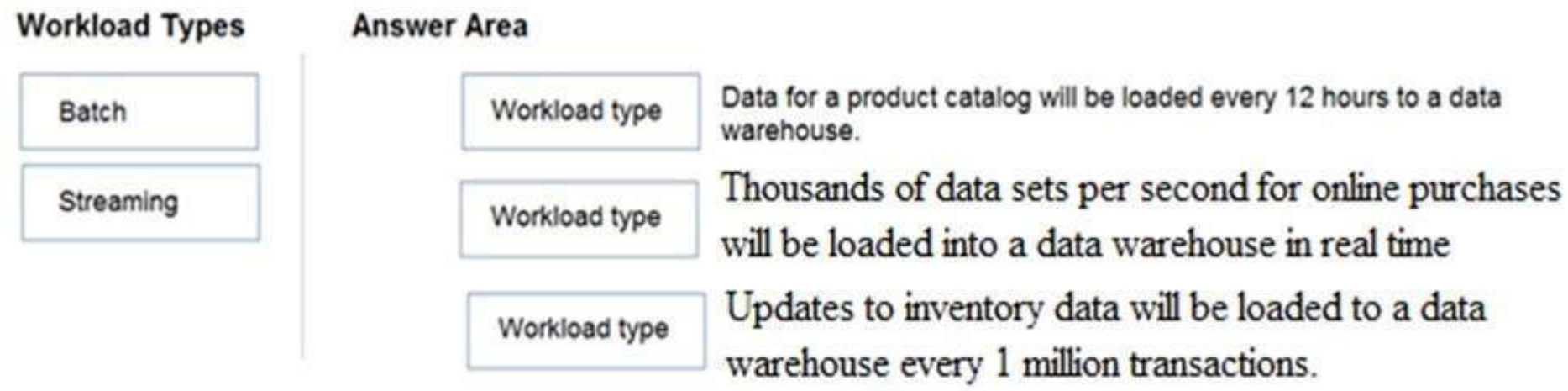
Match the types of workloads to the appropriate scenarios.

To answer, drag the appropriate workload type from the column on the left to its scenario on the right. Each workload type may be used once, more than once, or not at all.

NOTE: Each correct match is worth one point.

Select and Place:

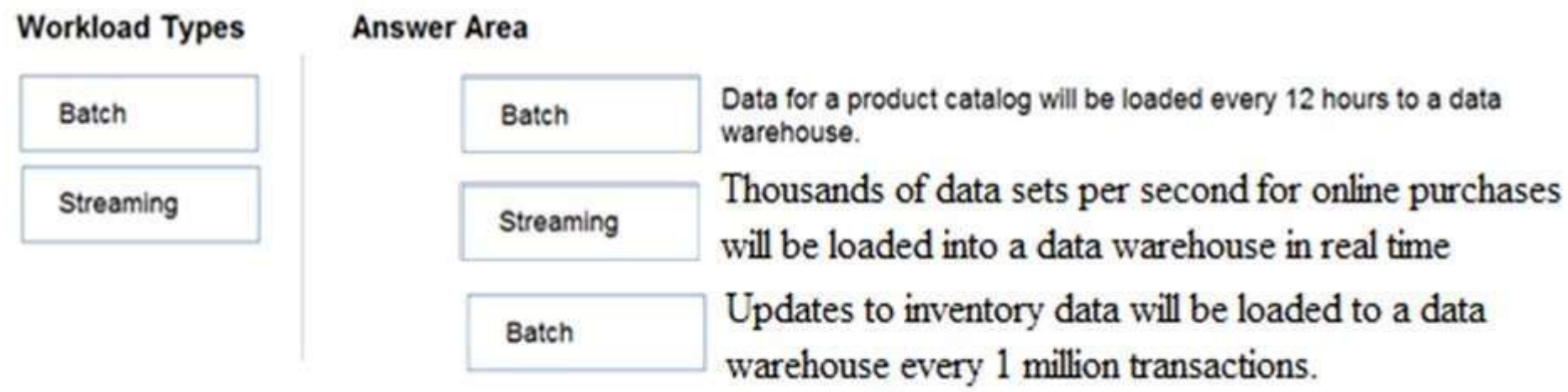
D283ABFBEDB32CDCE3B3406B9C29DB2F



A.
B.
C.
D.

Correct Answer:
Section: Describe core data concepts
Explanation

Explanation/Reference:



Section: Describe core data concepts
Explanation

Explanation/Reference:
Explanation:

Box 1: Batch
Batch processing refers to the processing of blocks of data that have already been stored over a period of time.

Box 2: Streaming
Stream processing is a big data technology that allows us to process data in real-time as they arrive and detect conditions within a small period of time from the point of receiving the data. It allows us to feed data into analytics tools as soon as they get generated and get instant analytics results.

Box 3: Batch

Reference:
https://docs.microsoft.com/en-us/azure/architecture/data-guide/technology-choices/batch-processing

QUESTION 26
DRAG DROP

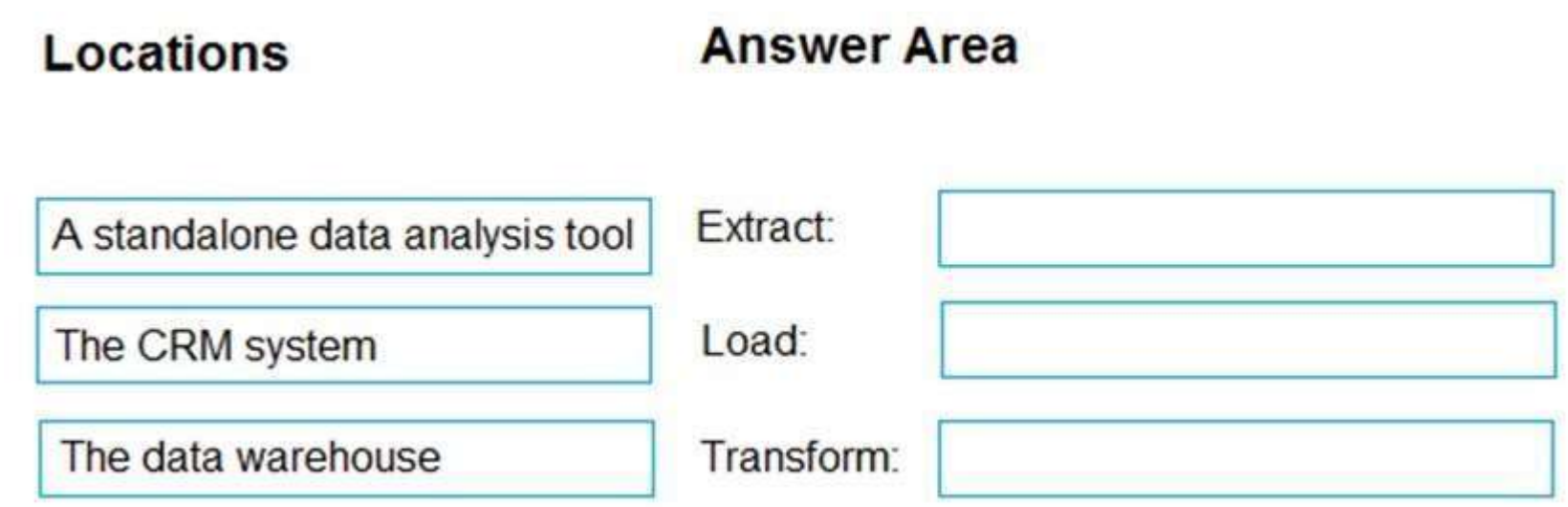
Your company plans to load data from a customer relationship management (CRM) system to a data warehouse by using an extract, load, and transform (ELT) process.

Where does data processing occur for each stage of the ELT process? To answer, drag the appropriate locations to the correct stages. Each location 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.

Select and Place:

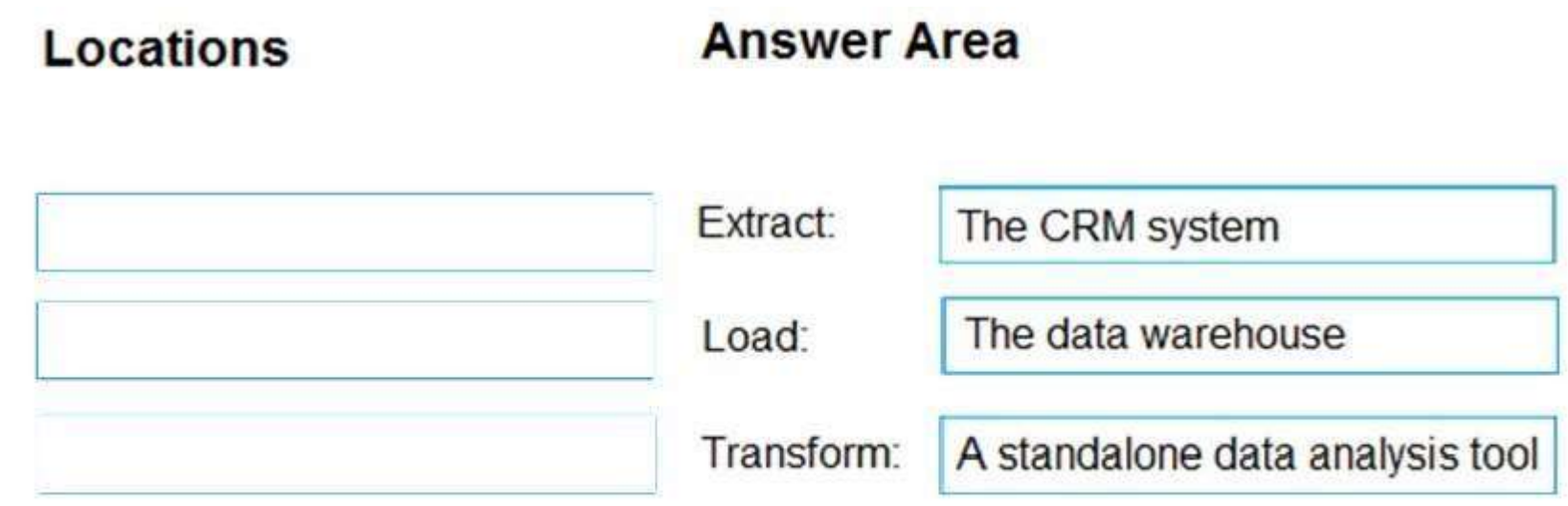
D283ABFBEDB32CDCE3B3406B9C29DB2F



A.
B.
C.
D.

Correct Answer:
Section: Describe core data concepts
Explanation

Explanation/Reference:



Section: Describe core data concepts
Explanation

Explanation/Reference:
Explanation:

Box 1: The CRM system
Data is extracted from the CRM system.

Box 2: The data warehouse
Data is loaded to the data warehouse.

Box 3: A standalone data analysis tool
The data transformation that takes place usually involves various operations, such as filtering, sorting, aggregating, joining data, cleaning data, deduplicating, and validating data.

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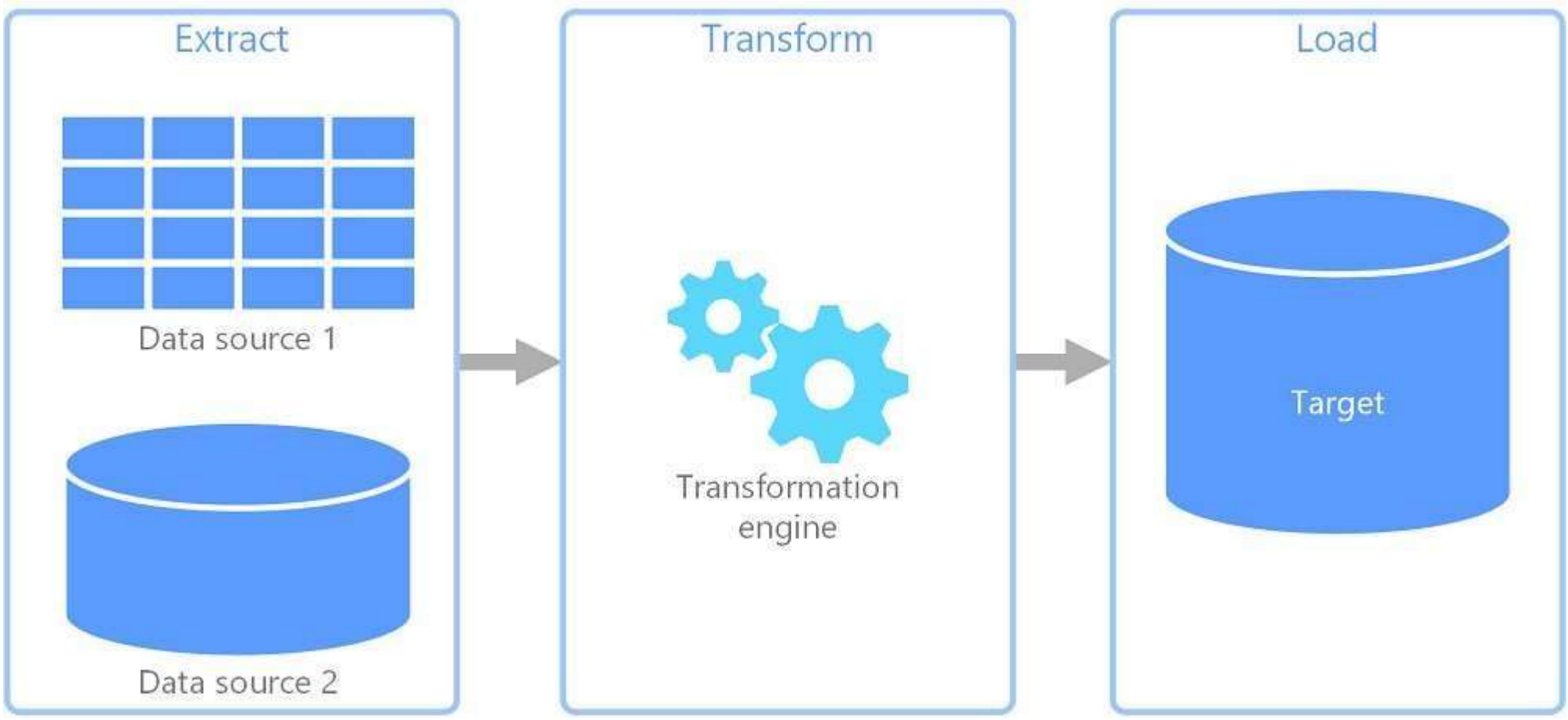
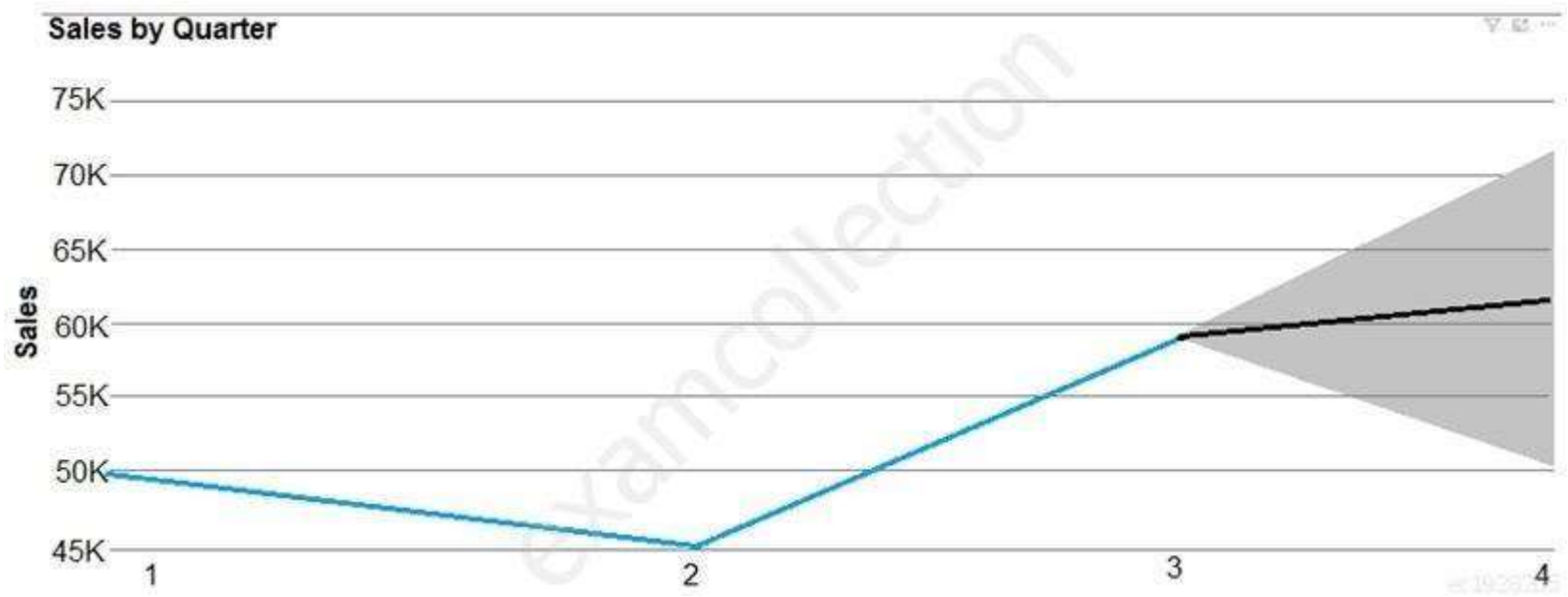


Reference:
https://docs.microsoft.com/en-us/azure/architecture/data-guide/relational-data/etl

QUESTION 27
Your company recently reported sales from the third quarter.

You have the chart shown in the following exhibit.



Which type of analysis is shown in the fourth quarter?

A. predictive
B. prescriptive
C. descriptive
D. diagnostic

Correct Answer: A
Section: Describe core data concepts
Explanation

Explanation/Reference:
Section: Describe core data concepts
Explanation

Explanation/Reference:
Explanation:

D283ABFBEDB32CDCE3B3406B9C29DB2F
Predictive, to answer the question: What will happen?

Reference:
https://demand-planning.com/2020/01/20/the-differences-between-descriptive-diagnostic-predictive-cognitive- analytics/

https://azure.microsoft.com/en-us/blog/answering-whats-happening-whys-happening-and-what-will-happen- with-iot-analytics/

QUESTION 28
Which statement is an example of Data Manipulation Language (DML)?

A. REVOKE
B. DISABLE
C. CREATE
D. UPDATE

Correct Answer: D
Section: Describe core data concepts
Explanation

Explanation/Reference:
Section: Describe core data concepts
Explanation

Explanation/Reference:
Explanation:
Data Manipulation Language (DML) affect the information stored in the database. Use these statements to insert, update, and change the rows in the database.

BULK INSERT

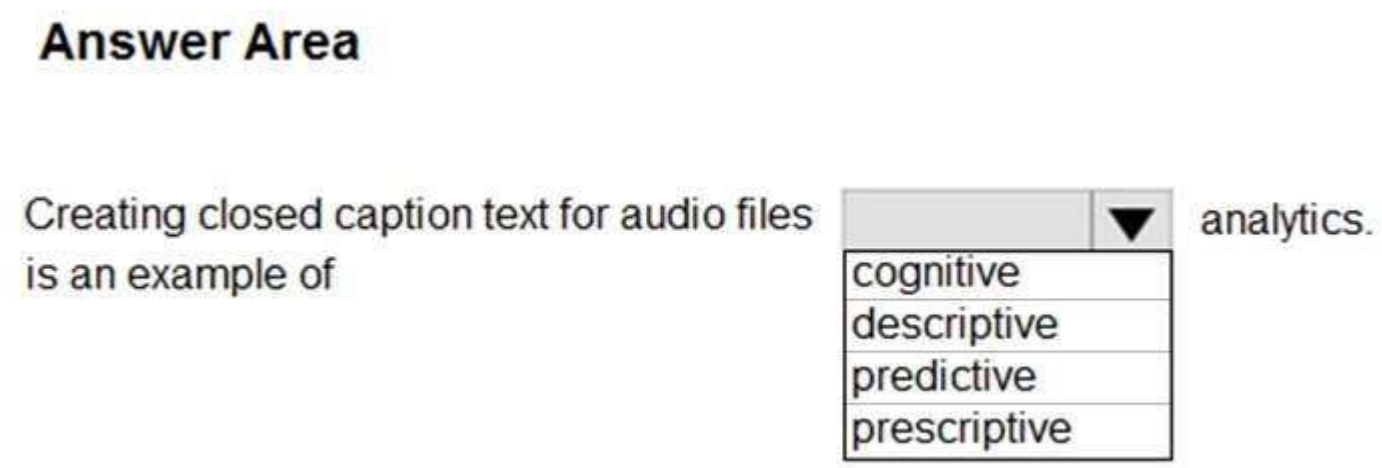
DELETE
INSERT
SELECT
UPDATE
MERGE

Reference:
https://docs.microsoft.com/en-us/sql/t-sql/statements/statements

QUESTION 29
HOTSPOT

To complete the sentence, select the appropriate option in the answer area.

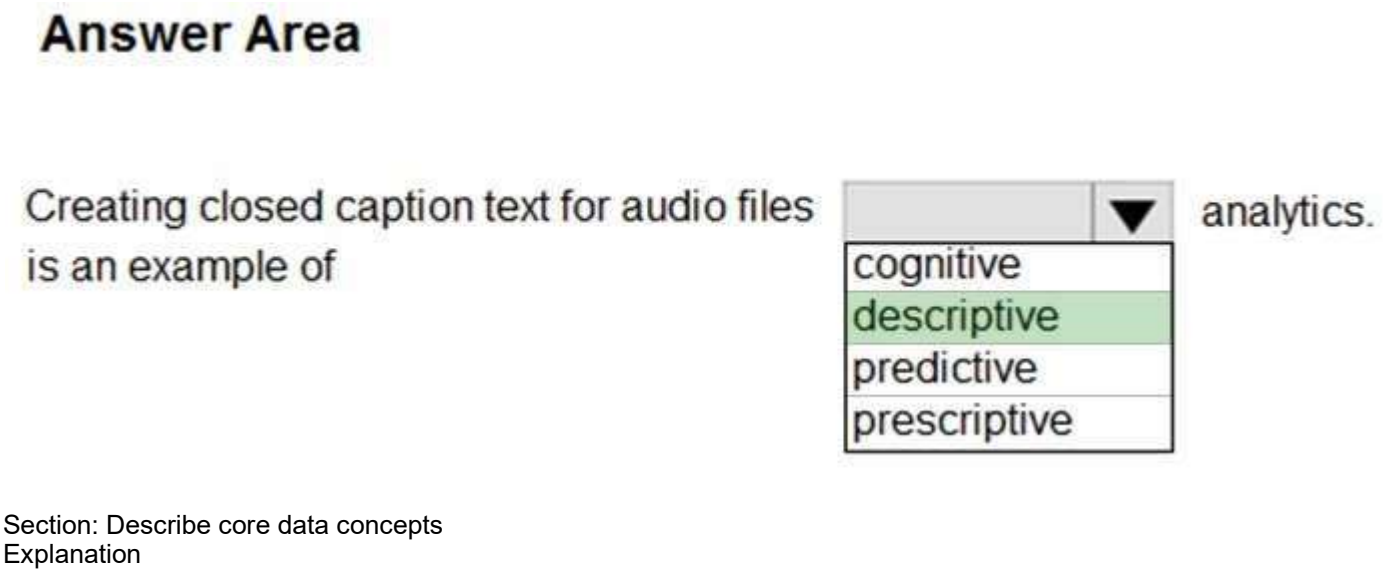
D283ABFBEDB32CDCE3B3406B9C29DB2F
Hot Area:



A.
B.
C.
D.

Correct Answer:
Section: Describe core data concepts
Explanation

Explanation/Reference:



Section: Describe core data concepts
Explanation

Explanation/Reference:
Explanation:

Descriptive, to answer the question: What's happening?

Note: Azure Media Indexer enables you to make content of your media files searchable and to generate a full- text transcript for closed captioning and keywords. You can process one media file or multiple media files in a

D283ABFBEDB32CDCE3B3406B9C29DB2F
batch.

Reference:
https://demand-planning.com/2020/01/20/the-differences-between-descriptive-diagnostic-predictive-cognitive- analytics/

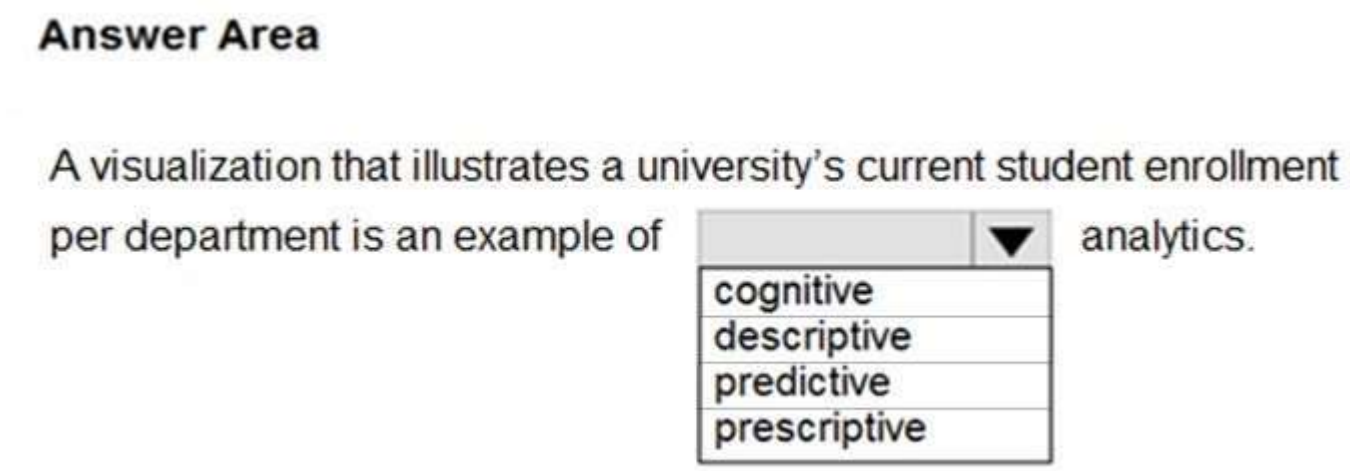
https://azure.microsoft.com/en-us/blog/answering-whats-happening-whys-happening-and-what-will-happen- with-iot-analytics/

https://docs.microsoft.com/en-us/azure/media-services/previous/media-services-index-content

QUESTION 30
HOTSPOT

To complete the sentence, select the appropriate option in the answer area.

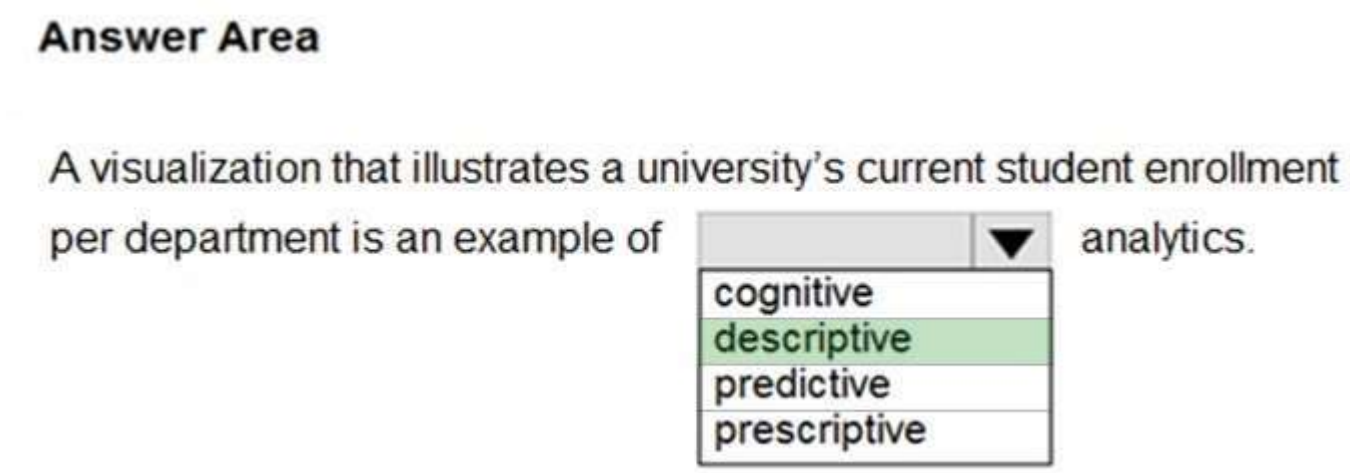
Hot Area:



A.
B.
C.
D.

Correct Answer:
Section: Describe core data concepts
Explanation

Explanation/Reference:



Section: Describe core data concepts
Explanation

Explanation/Reference:
Explanation:

Generally speaking, data analytics comes in four types:
1. Descriptive, to answer the question: What's happening?
2. Diagnostic, to answer the question: Why's happening?

D283ABFBEDB32CDCE3B3406B9C29DB2F
3. Predictive, to answer the question: What will happen?
4. Prescriptive, to answer the question: What actions should we take?

Reference:
https://azure.microsoft.com/en-us/blog/answering-whats-happening-whys-happening-and-what-will-happen- with-iot-analytics/

QUESTION 31
HOTSPOT

To complete the sentence, select the appropriate option in the answer area.

Hot Area:

Answer Area

Transparent Data Encryption (TDE) encrypts

- a column to protect data at rest and in transit.
- queries and their results in order to protect data in transit.
- the database to protect data at rest.
- the server to protect data at rest.

A.
B.
C.
D.

Correct Answer:
Section: Describe how to work with relational data on Azure Explanation
Explanation

Explanation/Reference:

Answer Area

Transparent Data Encryption (TDE) encrypts

- a column to protect data at rest and in transit.
- queries and their results in order to protect data in transit.
- the database to protect data at rest.
- the server to protect data at rest.

Section: Describe how to work with relational data on Azure Explanation

Explanation/Reference:
Reference:
https://docs.microsoft.com/en-us/azure/azure-sql/database/transparent-data-encryption-tde-overview? tabs=azure-portal

QUESTION 32
D283ABFBEDB32CDCE3B3406B9C29DB2F
You need to ensure that users use multi-factor authentication (MFA) when connecting to an Azure SQL database.

Which type of authentication should you use?

A. service principal authentication
B. Azure Active Directory (Azure AD) authentication
C. SQL authentication
D. certificate authentication

Correct Answer: B
Section: Describe how to work with relational data on Azure Explanation
Explanation

Explanation/Reference:

Section: Describe how to work with relational data on Azure Explanation

Explanation/Reference:
Reference:
https://docs.microsoft.com/en-us/azure/azure-sql/database/authentication-mfa-ssms-overview

QUESTION 33
What is a benefit of hosting a database on Azure SQL managed instance as compared to an Azure SQL database?

A. built-in high availability
B. native support for cross-database queries and transactions
C. system-initiated automatic backups
D. support for encryption at rest

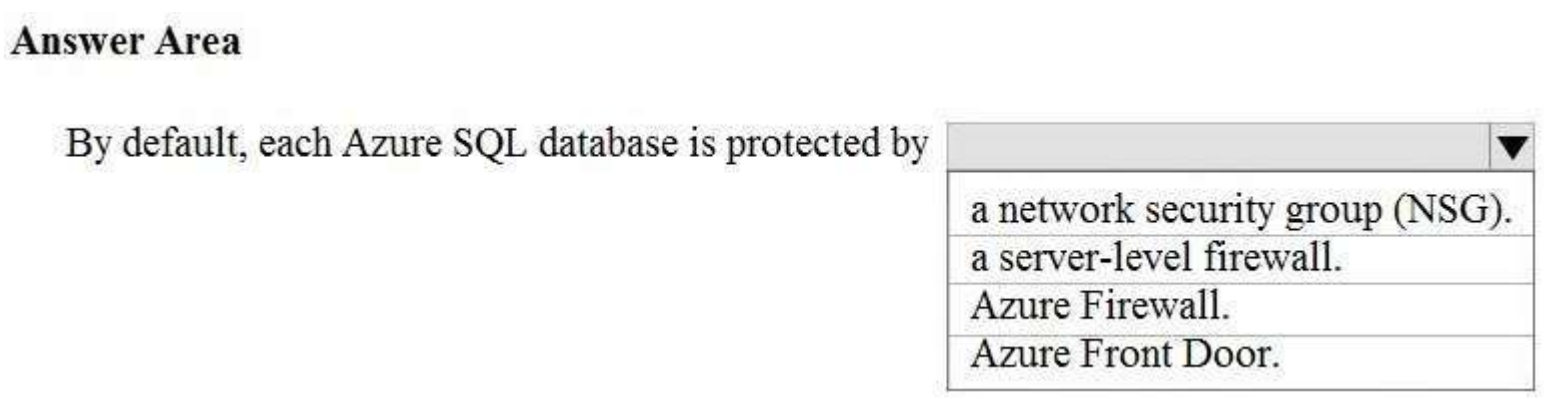
Correct Answer: B
Section: Describe how to work with relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with relational data on Azure Explanation

Explanation/Reference:
Reference:
https://docs.microsoft.com/en-us/azure/azure-sql/database/features-comparison

QUESTION 34
HOTSPOT
To complete the sentence, select the appropriate option in the answer area.

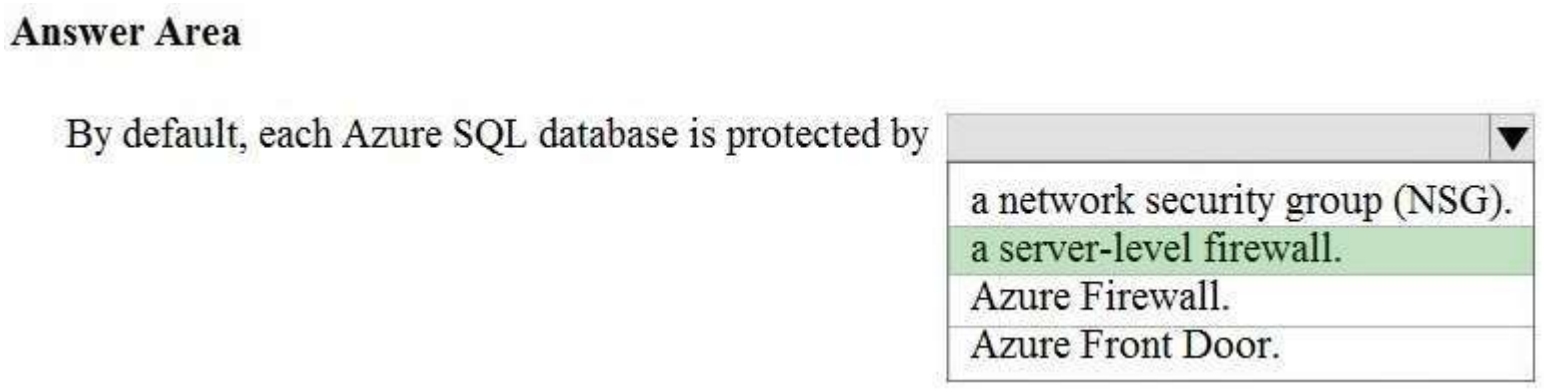
Hot Area:



A.
B.
C.
D.

Correct Answer:
Section: Describe how to work with relational data on Azure Explanation
Explanation

Explanation/Reference:
D283ABFBEDB32CDCE3B3406B9C29DB2F



Section: Describe how to work with relational data on Azure Explanation

Explanation/Reference:
Explanation:

When you create a new server in Azure SQL Database or Azure Synapse Analytics named mysqlserver, for example, a server-level firewall blocks all access to the public endpoint for the server

Reference:
https://docs.microsoft.com/en-us/azure/security/fundamentals/infrastructure-sql

QUESTION 35
You need to design and model a database by using a graphical tool that supports project-oriented offline database development.

What should you use?

A. Microsoft SQL Server Data Tools (SSDT)
B. Microsoft SQL Server Management Studio (SSMS)

C. Azure Databricks
D. Azure Data Studio

Correct Answer: A
Section: Describe how to work with relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with relational data on Azure Explanation

Explanation/Reference:
Reference:
https://docs.microsoft.com/en-us/sql/ssdt/project-oriented-offline-database-development?view=sql-server- ver15

QUESTION 36
DRAG DROP

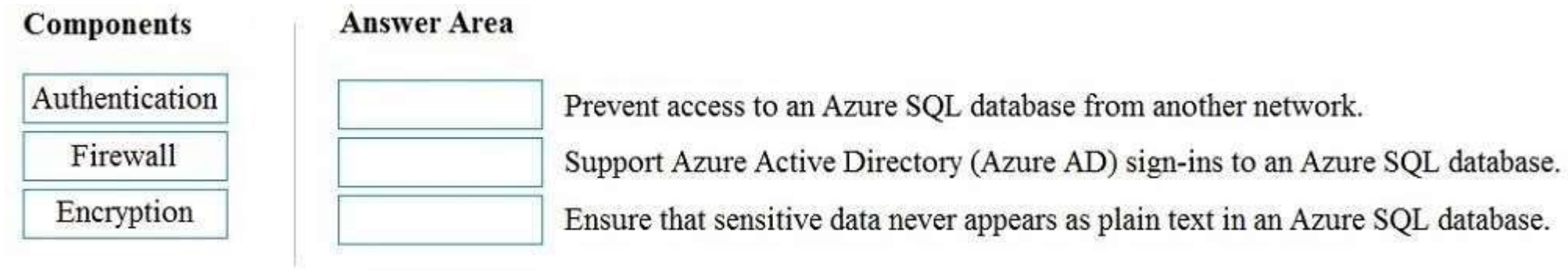
Match the security components to the appropriate scenarios.

To answer, drag the appropriate component from the column on the left to its scenario on the right. Each component may be used once, more than once, or not at all.

NOTE: Each correct match is worth one point.

Select and Place:

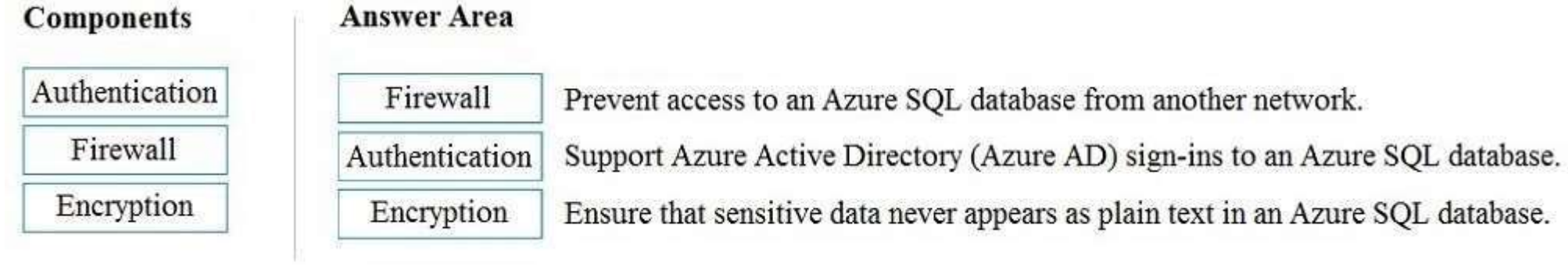
D283ABFBEDB32CDCE3B3406B9C29DB2F



A.
B.
C.
D.

Correct Answer:
Section: Describe how to work with relational data on Azure Explanation
Explanation

Explanation/Reference:



Section: Describe how to work with relational data on Azure Explanation

Explanation/Reference:
Reference:
https://docs.microsoft.com/en-us/sql/database-engine/configure-windows/configure-a-windows-firewall-for- database-engine-access?view=sql-server-ver15

https://docs.microsoft.com/en-us/azure/azure-sql/database/authentication-aad-overview

https://docs.microsoft.com/en-us/azure/azure-sql/database/always-encrypted-certificate-store-configure

QUESTION 37
You have a transactional application that stores data in an Azure SQL managed instance.

When should you implement a read-only database replica?

A. You need to generate reports without affecting the transactional workload.
B. You need to audit the transactional application.
C. You need to implement high availability in the event of a regional outage.
D. You need to improve the recovery point objective (RPO).

Correct Answer: A
Section: Describe how to work with relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with relational data on Azure Explanation

Explanation/Reference:
Explanation:
Use read-only replicas to offload read-only query workloads.

Reference:
https://docs.microsoft.com/en-us/azure/azure-sql/database/read-scale-out

QUESTION 38
HOTSPOT

To complete the sentence, select the appropriate option in the answer area.

Hot Area:

D283ABFBEDB32CDCE3B3406B9C29DB2F

Answer Area

A relational database must be used when [▼]
- a dynamic schema is required.
- data will be stored as key/value pairs.
- storing large images and videos.
- strong consistency guarantees are required.

A.
B.
C.
D.

Correct Answer:
Section: Describe how to work with relational data on Azure Explanation
Explanation

Explanation/Reference:

Answer Area

A relational database must be used when [▼]
- a dynamic schema is required.
- data will be stored as key/value pairs.
- storing large images and videos.
- strong consistency guarantees are required.

Section: Describe how to work with relational data on Azure Explanation

Explanation/Reference:

QUESTION 39
HOTSPOT

To complete the sentence, select the appropriate option in the answer area.

Hot Area:

Answer Area

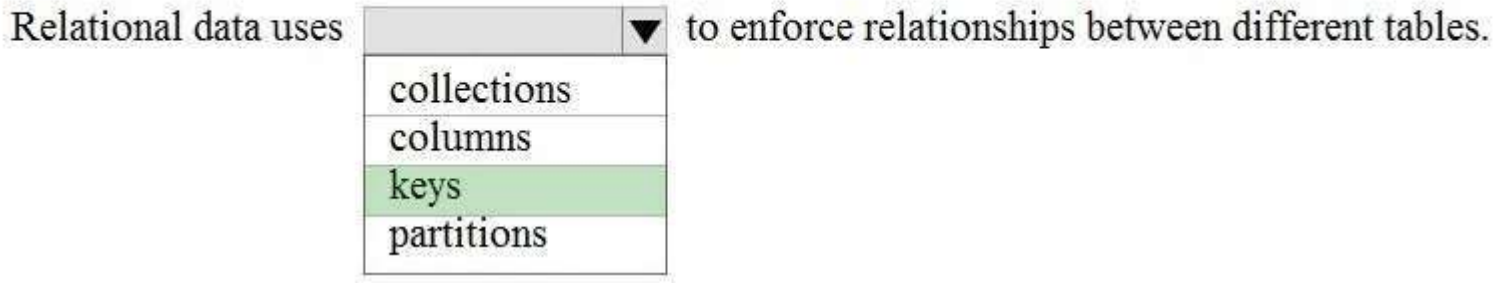
Relational data uses [▼] to enforce relationships between different tables.
- collections
- columns
- keys
- partitions

A.
B.
C.
D.

Correct Answer:
Section: Describe how to work with relational data on Azure
Explanation

Explanation/Reference:

Answer Area



Section: Describe how to work with relational data on Azure

D283ABFBEDB32CDCE3B3406B9C29DB2F
Explanation

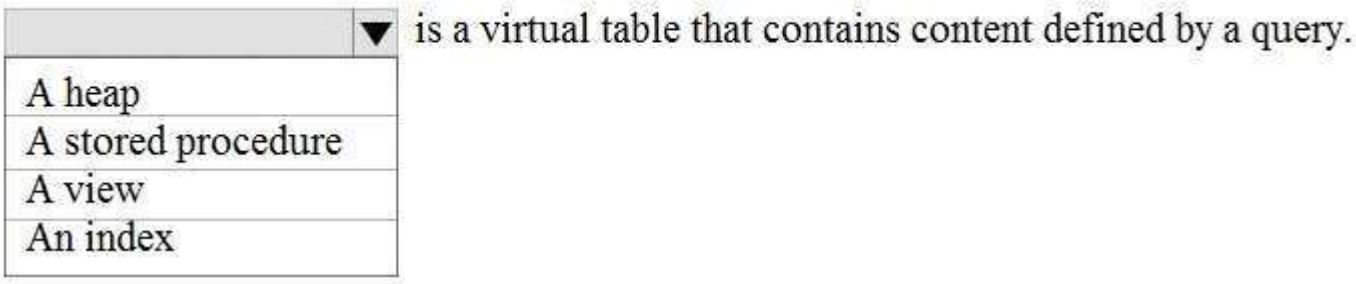
Explanation/Reference:
Reference:
https://teachcomputerscience.com/relational-databases/

QUESTION 40
HOTSPOT

To complete the sentence, select the appropriate option in the answer area.

Hot Area:

Answer Area

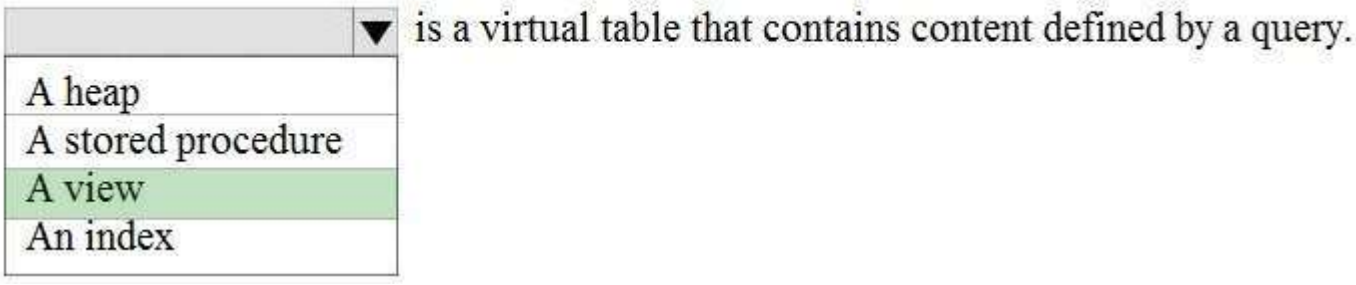


A.
B.
C.
D.

Correct Answer:
Section: Describe how to work with relational data on Azure Explanation
Explanation

Explanation/Reference:

Answer Area



Section: Describe how to work with relational data on Azure Explanation

Explanation/Reference:
Reference:
https://docs.microsoft.com/en-us/sql/relational-databases/views/views

QUESTION 41
You need to query a table named Products in an Azure SQL database.

Which three requirements must be met to query the table from the internet? Each correct answer presents part of the solution. (Choose three.)

NOTE: Each correct selection is worth one point.

A. You must be assigned the Reader role for the resource group that contains the database.
B. You must have SELECT access to the Products table.
C. You must have a user in the database.
D. You must be assigned the Contributor role for the resource group that contains the database.
E. Your IP address must be allowed to connect to the database.
D283ABFBEDB32CDCE3B3406B9C29DB2F

Correct Answer: BCE
Section: Describe how to work with relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with relational data on Azure Explanation

Explanation/Reference:
Explanation:
Incorrect Answers:
A, D: Resource group permissions is not required to query an Azure SQL database table.

Reference:
https://docs.microsoft.com/en-us/sql/relational-databases/security/authentication-access/getting-started-with- database-engine-permissions?view=sql-server-ver15

QUESTION 42
You have an inventory management database that contains the following table.

ProductName	Quantity
Product1	100
Product2	129
Product3	176

Which statement should you use in a SQL query to change the inventory quantity of Product1 to 270?

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

Correct Answer: C
Section: Describe how to work with relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with relational data on Azure Explanation

Explanation/Reference:
Reference:
https://docs.microsoft.com/en-us/sql/t-sql/queries/update-transact-sql?view=sql-server-ver15

QUESTION 43
Your company needs to implement a relational database in Azure. The solution must minimize ongoing maintenance.

Which Azure service should you use?

A. Azure HDInsight
B. Azure SQL Database
C. Azure Cosmos DB
D. SQL Server on Azure virtual machines

Correct Answer: B
Section: Describe how to work with relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with relational data on Azure Explanation

Explanation/Reference:
Reference:
D283ABFBEDB32CDCE3B3406B9C29DB2F
https://azure.microsoft.com/en-us/services/sql-database/#features

QUESTION 44
You are writing a set of SQL queries that administrators will use to troubleshoot an Azure SQL database.

You need to embed documents and query results into a SQL notebook.

What should you use?

A. Microsoft SQL Server Management Studio (SSMS)
B. Azure Data Studio
C. Azure CLI
D. Azure PowerShell

Correct Answer: B
Section: Describe how to work with relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with relational data on Azure Explanation

Explanation/Reference:
Reference:
https://www.mssqltips.com/sqlservertip/5997/create-sql-server-notebooks-in-azure-data-studio/

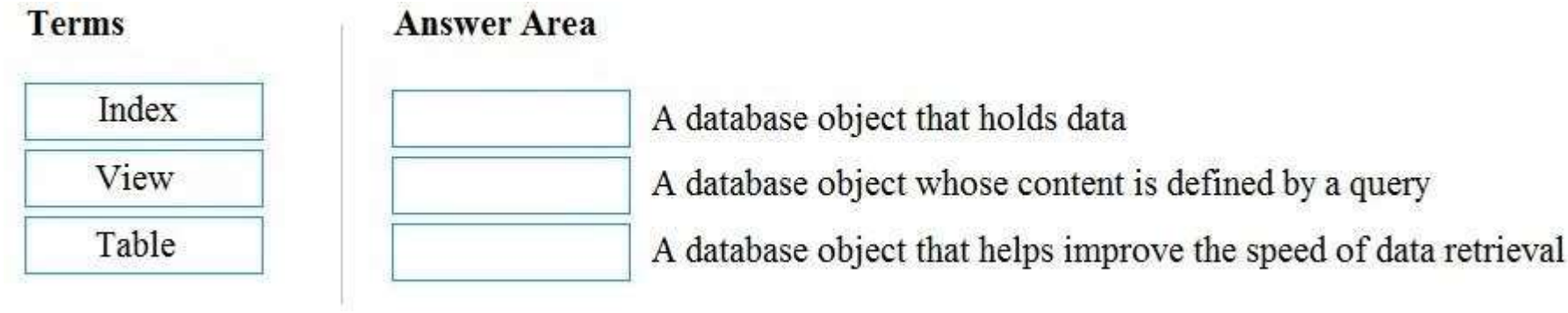
QUESTION 45
DRAG DROP

Match the terms to the appropriate descriptions.

To answer, drag the appropriate term from the column on the left to its description on the right. Each term may be used once, more than once, or not at all.

NOTE: Each correct match is worth one point.

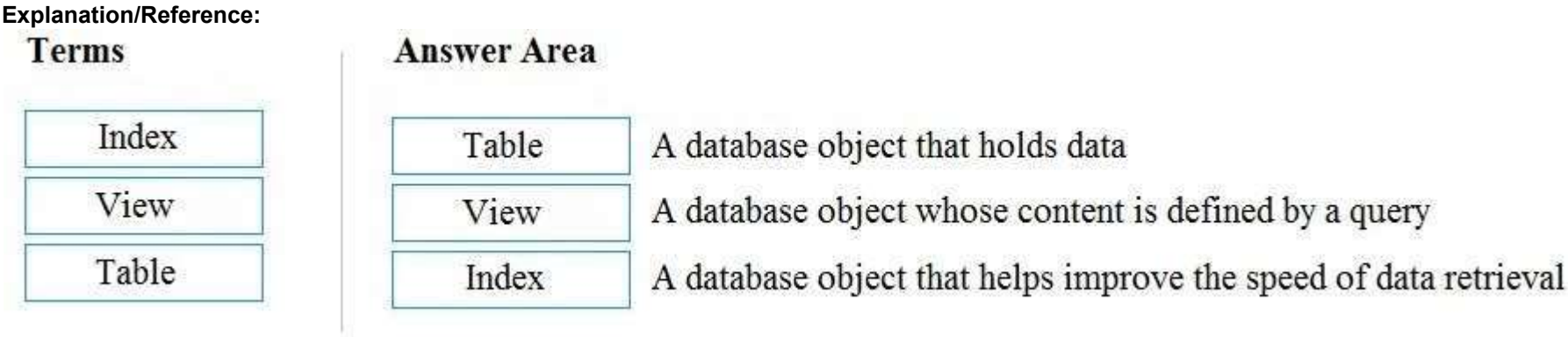
Select and Place:



A.
B.
C.
D.

Correct Answer:
Section: Describe how to work with relational data on Azure Explanation
Explanation

Explanation/Reference:



Section: Describe how to work with relational data on Azure Explanation

Explanation/Reference:
Reference:
https://en.wikipedia.org/wiki/Table_(database)#:~:text=A%20table%20is%20a%20collection,table%20format%

D283ABFBEDB32CDCE3B3406B9C29DB2F
20within%20a%20database.&text=In%20relational%20databases%2C%20and%20flat,a%20row%20and% 20column%20intersect.

https://en.wikipedia.org/wiki/View_(SQL)

https://en.wikipedia.org/wiki/Database_index#:~:text=A%20database%20index%20is%20a,maintain%20the% 20index%20data%20structure.

QUESTION 46
You have an e-commerce application that reads and writes data to an Azure SQL database.
Which type of processing does the application use?

A. stream processing
B. batch processing
C. Online Analytical Processing (OLAP)
D. Online Transaction Processing (OLTP)

Correct Answer: D
Section: Describe how to work with relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with relational data on Azure Explanation

Explanation/Reference:
Explanation:
OLTP is designed to serve as a persistent data store for business or front-end applications. OLTP administers day to day transaction of an organization.

Reference:
https://sqlwizard.blog/2020/03/15/sql-server-oltp-vs-olap/

QUESTION 47
When can you use an Azure Resource Manager template?

A. to automate the creation of an interdependent group of Azure resources in a repeatable way
B. to apply Azure policies for multi-tenant deployments
C. to provision Azure subscriptions

D. to control which services and feature administrators and developers can deploy from the Azure portal

Correct Answer: A
Section: Describe how to work with relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with relational data on Azure Explanation

Explanation/Reference:
Explanation:
You can automate deployments and use the practice of infrastructure as code. In code, you define the infrastructure that needs to be deployed
To implement infrastructure as code for your Azure solutions, use Azure Resource Manager templates (ARM templates). The template is a JavaScript Object Notation (JSON) file that defines the infrastructure and configuration for your project. The template uses declarative syntax, which lets you state what you intend to deploy without having to write the sequence of programming commands to create it. In the template, you specify the resources to deploy and the properties for those resources.

Reference:
https://docs.microsoft.com/en-us/azure/azure-resource-manager/templates/overview

QUESTION 48
You have an Azure SQL database that you access directly from the Internet.

D283ABFBEDB32CDCE3B3406B9C29DB2F
You recently changed your external IP address.

After changing the IP address, you can no longer access the database. You can connect to other resources in Azure.

What is a possible cause of the issue?

A. role-based access control (RBAC)
B. Dynamic Host Configuration Protocol (DHCP)
C. Domain Name Service (DNS)
D. a database-level firewall

Correct Answer: D
Section: Describe how to work with relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with relational data on Azure Explanation

Explanation/Reference:
Explanation:
The Azure SQL Database firewall lets you decide which IP addresses may or may not have access to either your Azure SQL Server or your Azure SQL database.

When creating an Azure SQL Database, the firewall needs to be configured before anyone will be able to access the database. By default, no external access to your SQL Database will be allowed until you explicitly assign permission by creating a firewall rule.

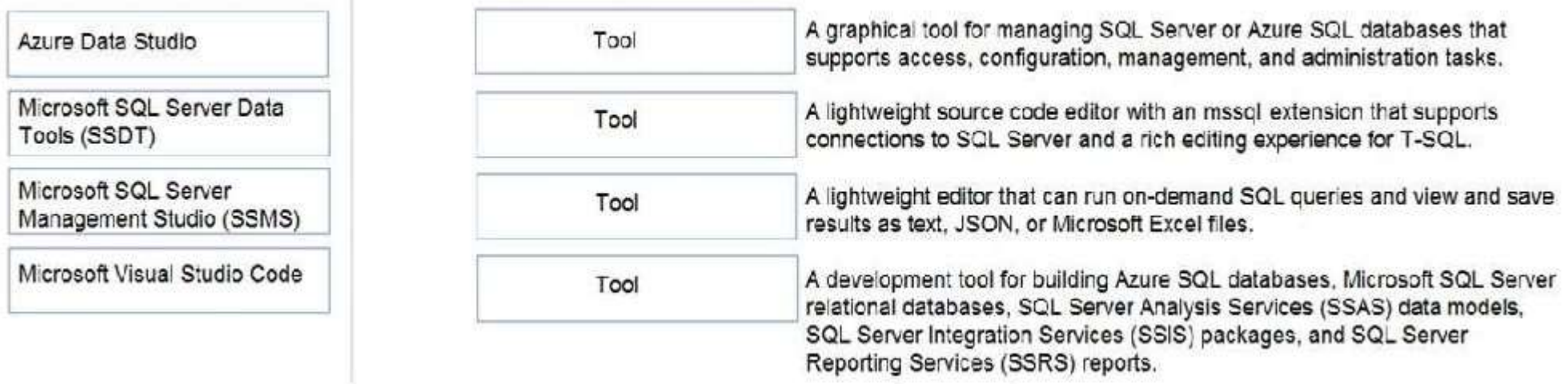
Reference:
https://www.sqlshack.com/configuring-the-azure-sql-database-firewall/

QUESTION 49
DRAG DROP

Match the tools to the appropriate descriptions.

To answer, drag the appropriate tool from the column on the left to its description on the right. Each tool may be used once, more than once, or not at all.

Select and Place:

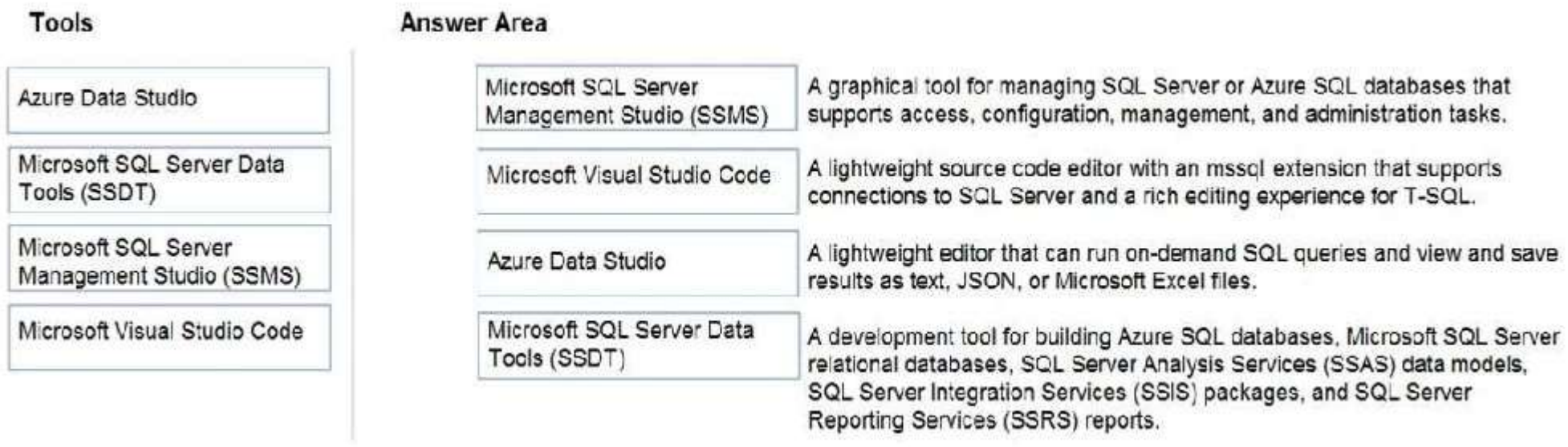


A.
B.
C.
D.

Correct Answer:
Section: Describe how to work with relational data on Azure Explanation

Explanation

Explanation/Reference:
D283ABFBEDB32CDCE3B3406B9C29DB2F



Section: Describe how to work with relational data on Azure Explanation
Explanation/Reference:
Explanation:

Box 1: Microsoft SQL Server Management Studio (SSMS)
SQL Server Management Studio (SSMS) is an integrated environment for managing any SQL infrastructure, from SQL Server to Azure SQL Database.

Box 2: Microsoft Visual Studio Code
Visual Studio Code is a streamlined code editor with support for development operations like debugging, task running, and version control. It aims to provide just the tools a developer needs for a quick code-build-debug cycle and leaves more complex workflows to fuller featured IDEs, such as Visual Studio IDE.

Box 3: Azure Data Studio
Azure Data Studio offers a modern, keyboard-focused SQL coding experience that makes your everyday tasks easier with built-in features, such as multiple tab windows, a rich SQL editor, IntelliSense, keyword completion, code snippets, code navigation, and source control integration (Git). Run on-demand SQL queries, view and save results as text, JSON, or Excel. Edit data, organize your favorite database connections, and browse database objects in a familiar object browsing experience.

Box 4: Microsoft SQL Server Data Tools (SSDT)
SQL Server Data Tools (SSDT) is a modern development tool for building SQL Server relational databases, databases in Azure SQL, Analysis Services (AS) data models, Integration Services (IS) packages, and Reporting Services (RS) reports. With SSDT, you can design and deploy any SQL Server content type with the same ease as you would develop an application in Visual Studio.

Reference:
https://docs.microsoft.com/en-us/sql/ssms/download-sql-server-management-studio-ssms

https://code.visualstudio.com/docs/supporting/FAQ

https://docs.microsoft.com/en-us/sql/azure-data-studio/what-is-azure-data-studio

https://docs.microsoft.com/en-us/sql/ssdt/download-sql-server-data-tools-ssdt

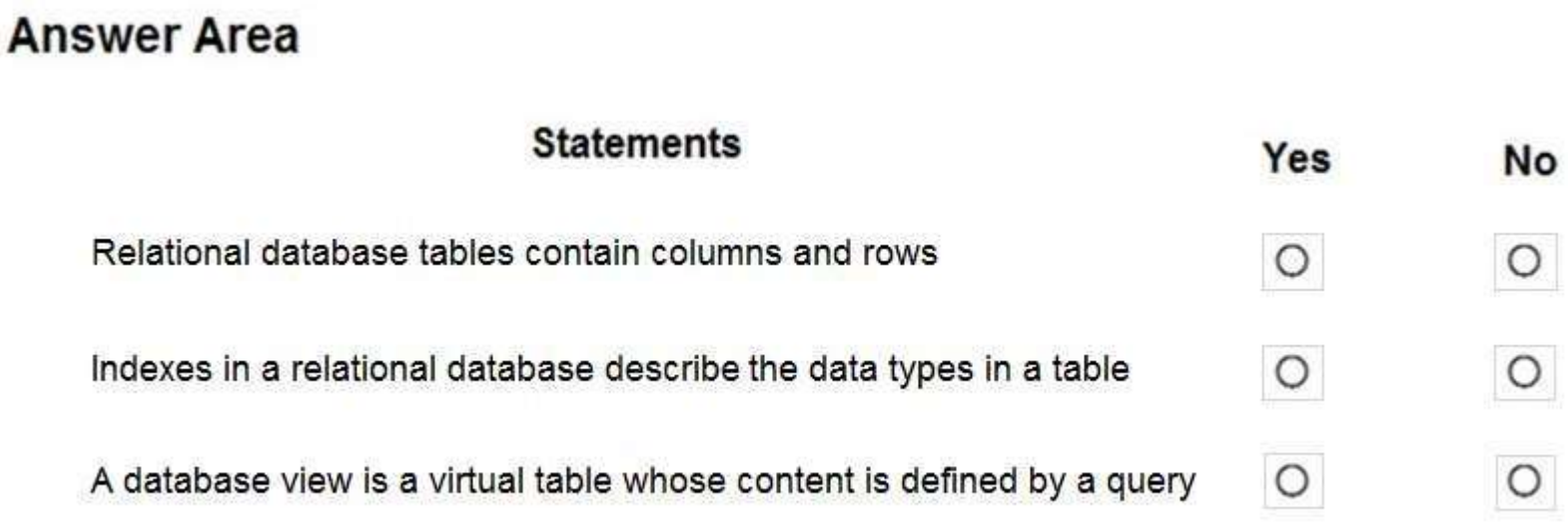
QUESTION 50
HOTSPOT

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

NOTE: Each correct selection is worth one point.

Hot Area:

D283ABFBEDB32CDCE3B3406B9C29DB2F



A.
B.
C.

D.

Correct Answer:
Section: Describe how to work with relational data on Azure Explanation
Explanation

Explanation/Reference:

Answer Area

Statements	Yes	No
Relational database tables contain columns and rows	○	○
Indexes in a relational database describe the data types in a table	○	○
A database view is a virtual table whose content is defined by a query	○	○

Section: Describe how to work with relational data on Azure Explanation

Explanation/Reference:
Explanation:

Box 1: Yes
Tables are database objects that contain all the data in a database. In tables, data is logically organized in a row-and-column format similar to a spreadsheet. Each row represents a unique record, and each column represents a field in the record.

Box 2: No
An index is an on-disk structure associated with a table or view that speeds retrieval of rows from the table or view.

Box 3: Yes
A view is a virtual table whose contents are defined by a query. Like a table, a view consists of a set of named columns and rows of data.

Reference:
https://docs.microsoft.com/en-us/sql/relational-databases/tables/tables

https://docs.microsoft.com/en-us/sql/relational-databases/indexes/clustered-and-nonclustered-indexes- described

https://docs.microsoft.com/en-us/sql/relational-databases/views/views?view=sql-server-ver15

QUESTION 51
D283ABFBEDB32CDCE3B3406B9C29DB2F
Which command-line tool can you use to query Azure SQL databases?

A. sqlcmd
B. bcp
C. azdata
D. Azure CLI

Correct Answer: A
Section: Describe how to work with relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with relational data on Azure Explanation

Explanation/Reference:
Explanation:
The sqlcmd utility lets you enter Transact-SQL statements, system procedures, and script files at the command prompt.

Incorrect Answers:
B: The bulk copy program utility (bcp) bulk copies data between an instance of Microsoft SQL Server and a data file in a user-specified format.

D: The Azure CLI is the defacto tool for cross-platform and command-line tools for building and managing Azure resources.

Reference:
https://docs.microsoft.com/en-us/sql/tools/overview-sql-tools?view=sql-server-ver15

QUESTION 52
HOTSPOT

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
Azure SQL Database includes a managed backup service.	○	○
Azure SQL Database has built-in high availability.	○	○
Azure SQL Database can use Azure Defender.	○	○

A.
B.
C.
D.

Correct Answer:
Section: Describe how to work with relational data on Azure Explanation
Explanation

Explanation/Reference:
D283ABFBEDB32CDCE3B3406B9C29DB2F

Answer Area

Statements	Yes	No
Azure SQL Database includes a managed backup service.	○	○
Azure SQL Database has built-in high availability.	○	○
Azure SQL Database can use Azure Defender.	○	○

Section: Describe how to work with relational data on Azure Explanation

Explanation/Reference:
Explanation:

Box 1: Yes

Box 2: Yes

Box 3: Yes
Azure Defender provides security alerts and advanced threat protection for virtual machines, SQL databases, containers, web applications, your network, and more.

Azure Defender provides security alerts and advanced threat protection for virtual machines, SQL databases, containers, web applications, your network, and more.

Reference:
https://docs.microsoft.com/en-us/azure/azure-sql/database/sql-database-paas-overview

https://azure.microsoft.com/en-us/blog/announcing-sql-atp-and-sql-vulnerability-assessment-general- availability/

https://docs.microsoft.com/en-us/azure/security-center/azure-defender

QUESTION 53
HOTSPOT

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

NOTE: Each correct selection is worth one point.

Hot Area:

D283ABFBEDB32CDCE3B3406B9C29DB2F

Answer Area

Statements	Yes	No
You can use Azure Data Studio to query a Microsoft SQL Server big data cluster.	○	○
You can use Microsoft SQL Server Management Studio (SSMS) to query an Azure Synapse Analytics data warehouse.	○	○
You can use MySQL Workbench to query Azure Database for MariaDB databases.	○	○

A.
B.
C.
D.

Correct Answer:
Section: Describe how to work with relational data on Azure Explanation
Explanation

Explanation/Reference:

Answer Area

Statements	Yes	No
You can use Azure Data Studio to query a Microsoft SQL Server big data cluster.	○	○
You can use Microsoft SQL Server Management Studio (SSMS) to query an Azure Synapse Analytics data warehouse.	○	○
You can use MySQL Workbench to query Azure Database for MariaDB databases.	○	○

Section: Describe how to work with relational data on Azure Explanation

Explanation/Reference:
Reference:
https://docs.microsoft.com/en-us/sql/big-data-cluster/connect-to-big-data-cluster?view=sql-server-ver15

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

https://docs.microsoft.com/en-us/azure/mariadb/connect-workbench

QUESTION 54
HOTSPOT

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

NOTE: Each correct selection is worth one point.

Hot Area:

D283ABFBEDB32CDCE3B3406B9C29DB2F

Answer Area

Statements	Yes	No
Platform as a service (PaaS) database offerings in Azure provide built-in high availability.	○	○
Platform as a service (PaaS) database offerings in Azure provide configurable scaling options.	○	○
Platform as a service (PaaS) database offerings in Azure reduce the administrative overhead for managing hardware.	○	○

A.
B.
C.
D.

Correct Answer:
Section: Describe how to work with relational data on Azure Explanation
Explanation

Explanation/Reference:

Answer Area

Statements	Yes	No
Platform as a service (PaaS) database offerings in Azure provide built-in high availability.	○	○
Platform as a service (PaaS) database offerings in Azure provide configurable scaling options.	○	○
Platform as a service (PaaS) database offerings in Azure reduce the administrative overhead for managing hardware.	○	○

Section: Describe how to work with relational data on Azure Explanation

Explanation/Reference:
Reference:
https://docs.microsoft.com/en-us/azure/azure-sql/database/sql-database-paas-overview

QUESTION 55
HOTSPOT

You have the following SQL query.

```
INSERT INTO dbo.Products (ProductID, ProductName, Price, ProductDescription)
    VALUES (1, 'Clamp', 12.48, 'Workbench clamp') ;
```

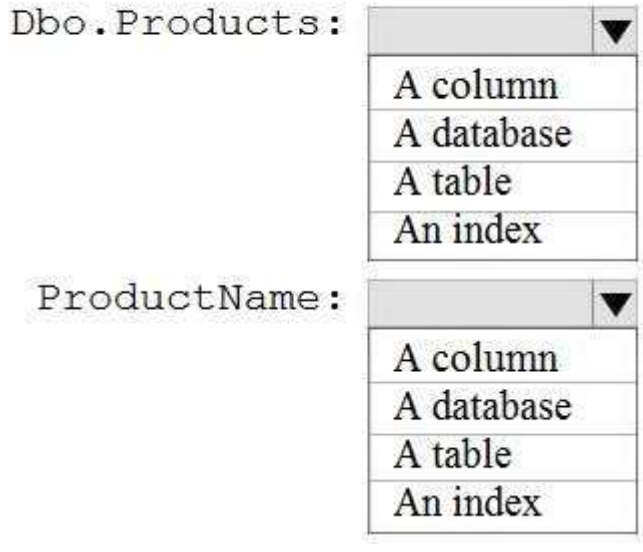
What are dbo.Products and ProductName? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

D283ABFBEDB32CDCE3B3406B9C29DB2F

Answer Area

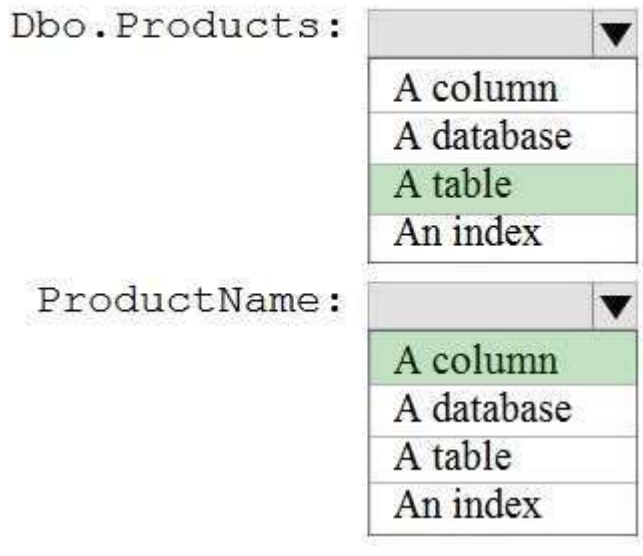


A.
B.
C.
D.

Correct Answer:
Section: Describe how to work with relational data on Azure Explanation
Explanation

Explanation/Reference:

Answer Area



Section: Describe how to work with relational data on Azure Explanation

Explanation/Reference:

QUESTION 56
HOTSPOT
For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

D283ABFBEDB32CDCE3B3406B9C29DB2F
Hot Area:

Answer Area

Statements	Yes	No
You must apply operating system updates to Azure SQL databases regularly.	○	○
You need a Microsoft 365 subscription to create an Azure SQL database.	○	○
You can use existing Microsoft SQL Server licenses to reduce the cost of Azure SQL databases.	○	○

A.
B.
C.
D.

Correct Answer:
Section: Describe how to work with relational data on Azure Explanation
Explanation

Explanation/Reference:

Answer Area

Statements	Yes	No
You must apply operating system updates to Azure SQL databases regularly.	○	○
You need a Microsoft 365 subscription to create an Azure SQL database.	○	○
You can use existing Microsoft SQL Server licenses to reduce the cost of Azure SQL databases.	○	○

Section: Describe how to work with relational data on Azure Explanation

Explanation/Reference:
Reference:
https://azure.microsoft.com/en-gb/blog/hot-patching-sql-server-engine-in-azure-sql-database/

https://azure.microsoft.com/en-us/services/sql-database/#product-overview

QUESTION 57
Which statement is an example of Data Definition Language (DDL)?

A. SELECT
B. JOIN
D283ABFBEDB32CDCE3B3406B9C29DB2F
C. UPDATE
D. CREATE

Correct Answer: D
Section: Describe how to work with relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with relational data on Azure Explanation

Explanation/Reference:
Explanation:
Data Definition Language (DDL) statements defines data structures. Use these statements to create, alter, or drop data structures in a database. These statements include:

ALTER

-

Collations

-

CREATE

-

DROP

-

DISABLE TRIGGER

-

ENABLE TRIGGER

-

RENAME

-

UPDATE STATISTICS

-

TRUNCATE TABLE

.

Reference:
https://docs.microsoft.com/en-us/sql/t-sql/statements/statements

QUESTION 58
HOTSPOT

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
Azure Data Studio can be used to query an Azure SQL database from a device that runs macOS.	○	○
Microsoft SQL Server Management Studio (SSMS) enables users to create and use SQL notebooks.	○	○
Azure Data Studio can be used to restore a database.	○	○

A.
B.
C.
D.

Correct Answer:
Section: Describe how to work with relational data on Azure Explanation
Explanation

Explanation/Reference:
D283ABFBEDB32CDCE3B3406B9C29DB2F

Answer Area

Statements	Yes	No
Azure Data Studio can be used to query an Azure SQL database from a device that runs macOS.	○	○
Microsoft SQL Server Management Studio (SSMS) enables users to create and use SQL notebooks.	○	○
Azure Data Studio can be used to restore a database.	○	○

Section: Describe how to work with relational data on Azure Explanation

Explanation/Reference:
Explanation:

Box 1: Yes
Azure Data Studio is a cross-platform database tool for data professionals using on-premises and cloud data platforms on Windows, macOS, and Linux.

You can use Azure Data Studio to connect to an Azure SQL Database server. You'll then run Transact-SQL (T- SQL) statements to create and query Azure SQL databases.

Box 2: No
SQL Server Management Studio is for configuring, managing, and administering all components within Microsoft SQL Server, not to create SQL notebooks. Instead use Azure Data Studio to create SQL notebook.

Box 3: Yes
You can use the Azure Data Studio to restore databases.

Reference:
https://docs.microsoft.com/en-us/sql/azure-data-studio/what-is-azure-data-studio

QUESTION 59
You are deploying a software as a service (SaaS) application that requires a relational database for Online Transaction Processing (OLTP).

Which Azure service should you use to support the application?

A. Azure Cosmos DB
B. Azure HDInsight
C. Azure SQL Database
D. Azure Synapse Analytics

Correct Answer: C
Section: Describe how to work with relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with relational data on Azure Explanation

Explanation/Reference:
Explanation:
Azure SQL Database is relational database and a managed service.

D283ABFBEDB32CDCE3B3406B9C29DB2F
Incorrect Answers:
A, B: Cosmos DB, HDInsight are non-relational databases.
D: Azure Synapse Analytics is for data warehousing, not for Online Transaction Processing

Reference:
https://cloud.netapp.com/blog/azure-cvo-blg-azure-database-review-your-guide-for-database-assessment

QUESTION 60
What are two benefits of platform as a service (PaaS) relational database offerings in Azure, such as Azure SQL Database? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

A. access to the latest features
B. complete control over backup and restore processes
C. in-database machine learning services
D. reduced administrative effort for managing the server infrastructure

Correct Answer: AD
Section: Describe how to work with relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with relational data on Azure Explanation

Explanation/Reference:
Explanation:
A: Azure SQL Database is a fully managed platform as a service (PaaS) database engine that handles most of the database management functions such as upgrading, patching, backups, and monitoring without user involvement.

D: SQL Database delivers predictable performance with multiple resource types, service tiers, and compute sizes. It provides dynamic scalability with no downtime, built-in intelligent optimization, global scalability and availability, and advanced security options. These capabilities allow you to focus on rapid app development and accelerating your time-to-market, rather than on managing virtual machines and infrastructure.

Reference:
https://docs.microsoft.com/en-us/azure/azure-sql/database/sql-database-paas-overview

QUESTION 61
HOTSPOT
For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

D283ABFBEDB32CDCE3B3406B9C29DB2F

Answer Area

Statements	Yes	No
If you have a platform as a service (PaaS) database in Azure, you are responsible for applying operating system updates.	○	○
If you have a platform as a service (PaaS) database in Azure, backups are performed automatically.	○	○
If you have a platform as a service (PaaS) database in Azure, you are responsible for upgrading the database engine.	○	○

A.
B.
C.
D.

Correct Answer:
Section: Describe how to work with relational data on Azure Explanation
Explanation

Explanation/Reference:

Answer Area

Statements	Yes	No
If you have a platform as a service (PaaS) database in Azure, you are responsible for applying operating system updates.	○	○
If you have a platform as a service (PaaS) database in Azure, backups are performed automatically.	○	○
If you have a platform as a service (PaaS) database in Azure, you are responsible for upgrading the database engine.	○	○

Section: Describe how to work with relational data on Azure Explanation

Explanation/Reference:
Explanation:

Box 1: No
Microsoft handles all patching and updating of the SQL and operating system code. You don't have to manage the underlying infrastructure.

Box 2: Yes
SQL Database is a fully managed service that has built-in high availability, backups, and other common maintenance operations.

Box 3: No

Reference:
https://docs.microsoft.com/en-us/azure/azure-sql/database/sql-database-paas-overview

QUESTION 62
DRAG DROP

You have a table named Sales that contains the following data.

D283ABFBEDB32CDCE3B3406B9C29DB2F

SalesDate	SalesAmount	ProductID
4-Apr-20	$2,000	1
5-Apr-20	$40	2
5-Apr-20	$2,300	1
6-Apr-20	$40	3
6-Apr-20	$200	4

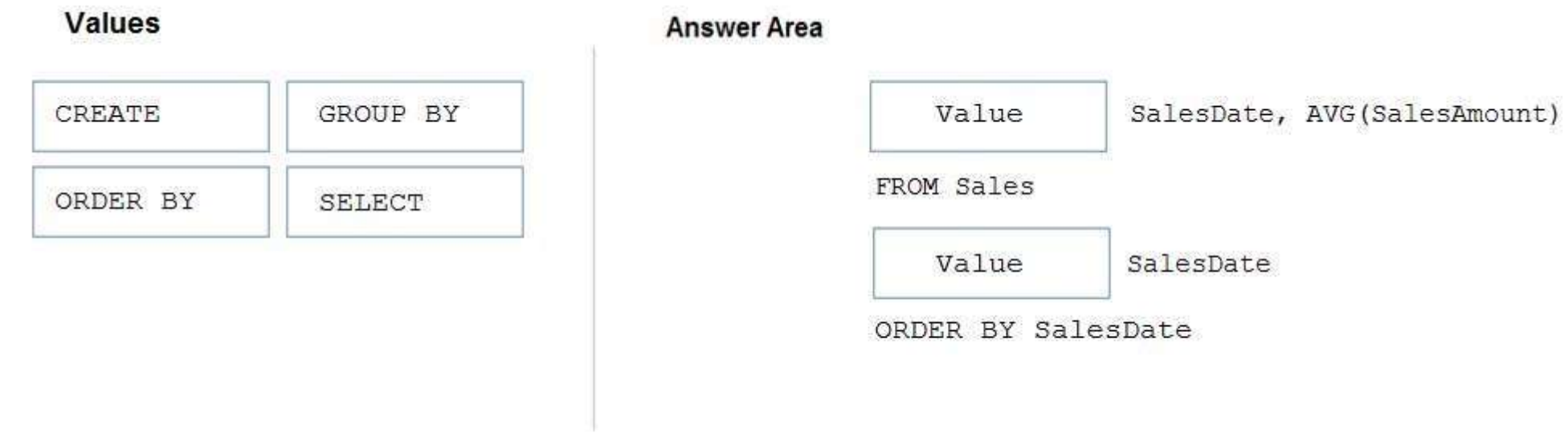
You need to query the table to return the average sales amount per day. The output must produce the following results.

SalesDate	AVG(SalesAmount)
4-Apr-20	$2,000
5-Apr-20	$1,170
6-Apr-20	$120

How should you complete the query? 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.

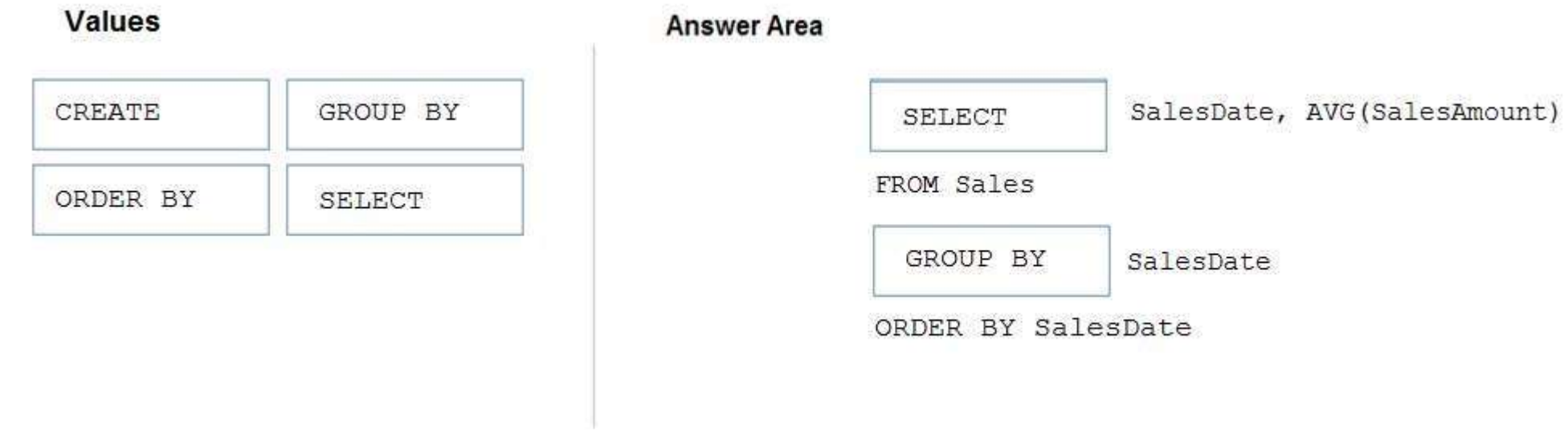
Select and Place:



A.
B.
C.
D.

Correct Answer:
Section: Describe how to work with relational data on Azure
Explanation

Explanation/Reference:



Section: Describe how to work with relational data on Azure

D283ABFBEDB32CDCE3B3406B9C29DB2F
Explanation

Explanation/Reference:
Explanation:

Box 1: SELECT

Box 2: GROUP BY

Example:
When used with a GROUP BY clause, each aggregate function produces a single value covering each group, instead of a single value covering the whole table. The following example produces summary values for each sales territory in the AdventureWorks2012 database. The summary lists the average bonus received by the sales people in each territory, and the sum of year-to-date sales for each territory.

SELECT TerritoryID, AVG(Bonus)as 'Average bonus', SUM(SalesYTD) as 'YTD sales' FROM Sales.SalesPerson
GROUP BY TerritoryID;

Reference:
https://docs.microsoft.com/en-us/sql/t-sql/functions/avg-transact-sql

QUESTION 63
When you create an Azure SQL database, which account can always connect to the database?

A. the Azure Active Directory (Azure AD) account that created the database
B. the server admin login account of the logical server
C. the Azure Active Directory (Azure AD) administrator account
D. the sa account

Correct Answer: B
Section: Describe how to work with relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with relational data on Azure Explanation

Explanation/Reference:
Explanation:
When you first deploy Azure SQL, you specify an admin login and an associated password for that login. This administrative account is called Server admin.

Reference:
https://docs.microsoft.com/en-us/azure/azure-sql/database/single-database-create-quickstart

QUESTION 64
Which statement is an example of Data Definition Language (DDL)?

A. SELECT
B. INSERT
C. DELETE
D. DROP

Correct Answer: D
Section: Describe how to work with relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with relational data on Azure Explanation

Explanation/Reference:
Explanation:
Data Definition Language (DDL) statements defines data structures. Use these statements to create, alter, or

D283ABFBEDB32CDCE3B3406B9C29DB2F
drop data structures in a database. These statements include:
ALTER

-

Collations

-

CREATE

-

DROP

-

DISABLE TRIGGER

-

ENABLE TRIGGER

-

RENAME

-

UPDATE STATISTICS

-

TRUNCATE TABLE

-

Reference:
https://docs.microsoft.com/en-us/sql/t-sql/statements/statements

QUESTION 65
A team of developers has computers that run Windows 10 and Ubuntu Desktop.

The developers need to connect to and query an Azure SQL database from each of their computers. The developers require code assistance features such as IntelliSense.

What should the developers use?

A. sqlcmd
B. Microsoft SQL Server Management Studio (SSMS)
C. Azure Data Studio
D. Azure Data Explorer

Correct Answer: C
Section: Describe how to work with relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with relational data on Azure Explanation

Explanation/Reference:
Explanation:
Azure Data Studio is a cross-platform database tool for data professionals who use on-premises and cloud data platforms on Windows, macOS, and Linux.

Azure Data Studio offers a modern editor experience with IntelliSense, code snippets, source control integration, and an integrated terminal.

Reference:
https://docs.microsoft.com/en-us/sql/azure-data-studio/download-azure-data-studio

QUESTION 66
You manage an application that stores data in a shared folder on a Windows server.

You need to move the shared folder to Azure Storage.

Which type of Azure Storage should you use?

A. queue
B. blob
C. file
D. table

Correct Answer: C
Section: Describe how to work with non-relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with non-relational data on Azure Explanation

D283ABFBEDB32CDCE3B3406B9C29DB2F
Explanation/Reference:
Explanation:
Azure file shares can be mounted concurrently by cloud or on-premises deployments of Windows, Linux, and macOS. Azure file shares can also be cached on Windows Servers with Azure File Sync for fast access near where the data is being used.

Reference:
https://azure.microsoft.com/en-us/services/storage/files/

QUESTION 67
Your company is designing a database that will contain session data for a website. The data will include notifications, personalization attributes, and products that are added to a shopping cart.

Which type of data store will provide the lowest latency to retrieve the data?

A. key/value
B. graph
C. columnar
D. document

Correct Answer: C
Section: Describe how to work with non-relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with non-relational data on Azure Explanation

Explanation/Reference:
Reference:
https://docs.microsoft.com/en-us/azure/architecture/data-guide/technology-choices/analytical-data-stores

QUESTION 68
You have an application that runs on Windows and requires access to a mapped drive.

Which Azure service should you use?

A. Azure Files
B. Azure Blob storage
C. Azure Cosmos DB
D. Azure Table storage

Correct Answer: A
Section: Describe how to work with non-relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with non-relational data on Azure Explanation

Explanation/Reference:
Explanation:
Azure Files is Microsoft's easy-to-use cloud file system. Azure file shares can be seamlessly used in Windows and Windows Server.
To use an Azure file share with Windows, you must either mount it, which means assigning it a drive letter or mount point path, or access it via its UNC path.

Reference:
https://docs.microsoft.com/en-us/azure/storage/files/storage-how-to-use-files-windows

QUESTION 69
HOTSPOT

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

D283ABFBEDB32CDCE3B3406B9C29DB2F
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
The Azure Cosmos DB API is configured separately for each database in an Azure Cosmos DB account.	○	○
Partition keys are used in Azure Cosmos DB to optimize queries.	○	○
Items contained in the same Azure Cosmos DB logical partition can have different partition keys.	○	○

A.
B.
C.
D.

Correct Answer:
Section: Describe how to work with non-relational data on Azure Explanation
Explanation

Explanation/Reference:

Answer Area

Statements	Yes	No
The Azure Cosmos DB API is configured separately for each database in an Azure Cosmos DB account.	○	○
Partition keys are used in Azure Cosmos DB to optimize queries.	○	○
Items contained in the same Azure Cosmos DB logical partition can have different partition keys.	○	○

Section: Describe how to work with non-relational data on Azure Explanation

Explanation/Reference:
Explanation:

Box 1: No
The API determines the type of account to create. Azure Cosmos DB provides five APIs: Core (SQL) and MongoDB for document data, Gremlin for graph data, Azure Table, and Cassandra. Currently, you must create a separate account for each API.

Box 2: Yes
Azure Cosmos DB uses partitioning to scale individual containers in a database to meet the performance needs of your application. In partitioning, the items in a container are divided into distinct subsets called logical partitions. Logical partitions are formed based on the value of a partition key that is associated with each item in a container.

Box 3: No
Logical partitions are formed based on the value of a partition key that is associated with each item in a container.

Reference:
https://docs.microsoft.com/en-us/azure/cosmos-db/partitioning-overview

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QUESTION 70
Your company is designing an application that will write a high volume of JSON data and will have an application-defined schema.

Which type of data store should you use?

A. columnar

B. key/value
C. document
D. graph

Correct Answer: B
Section: Describe how to work with non-relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with non-relational data on Azure Explanation

Explanation/Reference:
Explanation:
A key/value store associates each data value with a unique key.

An application can store arbitrary data as a set of values. Any schema information must be provided by the application. The key/value store simply retrieves or stores the value by key.

Reference:
https://docs.microsoft.com/en-us/azure/architecture/guide/technology-choices/data-store-overview

QUESTION 71
You need to recommend a non-relational data store that is optimized for storing and retrieving text files, videos, audio streams, and virtual disk images. The data store must store data, some metadata, and a unique ID for each file.

Which type of data store should you recommend?

A. key/value
B. columnar
C. object
D. document

Correct Answer: C
Section: Describe how to work with non-relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with non-relational data on Azure Explanation

Explanation/Reference:
Explanation:
Object storage is optimized for storing and retrieving large binary objects (images, files, video and audio streams, large application data objects and documents, virtual machine disk images). Large data files are also popularly used in this model, for example, delimiter file (CSV), parquet, and ORC. Object stores can manage extremely large amounts of unstructured data.

Reference:
https://docs.microsoft.com/en-us/azure/architecture/guide/technology-choices/data-store-overview

QUESTION 72
Your company is designing a data store for internet-connected temperature sensors.

The collected data will be used to analyze temperature trends.

Which type of data store should you use?

D283ABFBEDB32CDCE3B3406B9C29DB2F

A. relational
B. time series
C. graph
D. columnar

Correct Answer: B
Section: Describe how to work with non-relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with non-relational data on Azure Explanation

Explanation/Reference:
Explanation:
Time series data is a set of values organized by time. Time series databases typically collect large amounts of data in real time from a large number of sources. Updates are rare, and deletes are often done as bulk operations. Although the records written to a time-series database are generally small, there are often a large number of records, and total data size can grow rapidly.

Reference:
https://docs.microsoft.com/en-us/azure/architecture/guide/technology-choices/data-store-overview

QUESTION 73
HOTSPOT

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
When ingesting data from Azure Data Lake Storage across Azure regions, you will incur costs for bandwidth.	○	○
You can use blob, table, and file storage in the same Azure Storage account.	○	○
You implement Azure Data Lake Storage by creating an Azure Storage account.	○	○

A.
B.
C.
D.

Correct Answer:
Section: Describe how to work with non-relational data on Azure Explanation
Explanation

Explanation/Reference:
D283ABFBEDB32CDCE3B3406B9C29DB2F

Answer Area

Statements	Yes	No
When ingesting data from Azure Data Lake Storage across Azure regions, you will incur costs for bandwidth.	○	○
You can use blob, table, and file storage in the same Azure Storage account.	○	○
You implement Azure Data Lake Storage by creating an Azure Storage account.	○	○

Section: Describe how to work with non-relational data on Azure Explanation

Explanation/Reference:
Reference:
https://docs.microsoft.com/en-us/azure/data-lake-store/data-lake-store-get-started-portal

https://docs.microsoft.com/en-us/azure/storage/common/storage-account-overview

https://azure.microsoft.com/en-us/pricing/details/bandwidth/

QUESTION 74
HOTSPOT

To complete the sentence, select the appropriate option in the answer area.

Hot Area:

Answer Area

When using the Azure Cosmos DB Gremlin API, the container resource type is projected as a [▼]

- graph.
- table.
- partition key.
- document.

A.
B.
C.
D.

Correct Answer:
Section: Describe how to work with non-relational data on Azure Explanation

Explanation

Explanation/Reference:
D283ABFBEDB32CDCE3B3406B9C29DB2F

Answer Area

When using the Azure Cosmos DB Gremlin API, the container resource type is projected as a [graph. / table. / partition key. / document.]

Section: Describe how to work with non-relational data on Azure Explanation

Explanation/Reference:
Reference:
https://docs.microsoft.com/en-us/azure/cosmos-db/create-graph-gremlin-console

QUESTION 75
At which two levels can you set the throughput for an Azure Cosmos DB account? Each correct answer presents a complete solution. (Choose two.)

NOTE: Each correct selection is worth one point.

A. database
B. item
C. container
D. partition

Correct Answer: AC
Section: Describe how to work with non-relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with non-relational data on Azure Explanation

Explanation/Reference:
Reference:
https://docs.microsoft.com/en-us/azure/cosmos-db/set-throughput

QUESTION 76
HOTSPOT

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

NOTE: Each correct selection is worth one point.

Hot Area:

D283ABFBEDB32CDCE3B3406B9C29DB2F

Answer Area

Statements	Yes	No
Azure Table storage supports multiple read replicas.	○	○
Azure Table storage supports multiple write regions.	○	○
The Azure Cosmos DB Table API supports multiple read replicas.	○	○
The Azure Cosmos DB Table API supports multiple write regions.	○	○

A.
B.
C.
D.

Correct Answer:
Section: Describe how to work with non-relational data on Azure Explanation
Explanation

Explanation/Reference:

Answer Area

Statements	Yes	No
Azure Table storage supports multiple read replicas.	○	○
Azure Table storage supports multiple write regions.	○	○
The Azure Cosmos DB Table API supports multiple read replicas.	○	○
The Azure Cosmos DB Table API supports multiple write regions.	○	○

Section: Describe how to work with non-relational data on Azure Explanation

Explanation/Reference:
Reference:
https://docs.microsoft.com/en-us/azure/cosmos-db/high-availability

QUESTION 77
DRAG DROP

Match the types of data stores to the appropriate scenarios.

To answer, drag the appropriate data store type from the column on the left to its scenario on the right. Each data store type may be used once, more than once, or not at all.

NOTE: Each correct match is worth one point.

Select and Place:

Data Store Types	Answer Area	
Graph		Application users and their default language
Object		Medical images and their associated metadata
Key/value		Employee data that shows the relationships between employees

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A.
B.
C.
D.

Correct Answer:
Section: Describe how to work with non-relational data on Azure Explanation
Explanation

Explanation/Reference:

Data Store Types	Answer Area	
Graph	Key/value	Application users and their default language
Object	Object	Medical images and their associated metadata
Key/value	Graph	Employee data that shows the relationships between employees

Section: Describe how to work with non-relational data on Azure Explanation

Explanation/Reference:
Reference:
https://docs.microsoft.com/en-us/azure/architecture/guide/technology-choices/data-store-overview

QUESTION 78
You have an Azure Cosmos DB account that uses the Core (SQL) API.

Which two settings can you configure at the container level? Each correct answer presents a complete solution. (Choose two.)

NOTE: Each correct selection is worth one point.

A. the throughput
B. the read region
C. the partition key

D. the API

Correct Answer: AC
Section: Describe how to work with non-relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with non-relational data on Azure Explanation

Explanation/Reference:
Reference:
https://www.sqlshack.com/start-your-journey-with-azure-cosmos-db/

QUESTION 79
Your company is designing a data store that will contain student data. The data has the following format.

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StudentNumber	StudentInformation
7634634	First name: Ben Last: Smith Preferred Name: Benjamin
7634634	First Name: Dominik Last Name: Paiha Email Address: dpaiha@contoso.com MCP ID: 931817
7634636	First Name: Reshma Last Name: Patel Phone number: 514-555-1101
7634637	First Name: Yun-Feng Last Name: Peng

Which type of data store should you use?

A. graph
B. key/value
C. object
D. columnar

Correct Answer: D
Section: Describe how to work with non-relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with non-relational data on Azure Explanation

Explanation/Reference:

QUESTION 80
Which storage solution supports role-based access control (RBAC) at the file and folder level?

A. Azure Disk Storage
B. Azure Data Lake Storage
C. Azure Blob storage
D. Azure Queue storage

Correct Answer: B
Section: Describe how to work with non-relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with non-relational data on Azure Explanation

Explanation/Reference:
Reference:
https://docs.microsoft.com/en-us/azure/storage/blobs/data-lake-storage-access-control

D283ABFBEDB32CDCE3B3406B9C29DB2F

QUESTION 81
You need to store data in Azure Blob storage for seven years to meet your company's compliance requirements. The retrieval time of the data is unimportant. The solution must minimize storage costs.

Which storage tier should you use?

A. Archive

B. Hot
C. Cool

Correct Answer: A
Section: Describe how to work with non-relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with non-relational data on Azure Explanation

Explanation/Reference:
Reference:
https://cloud.netapp.com/blog/azure-blob-storage-pricing-the-complete-guide-azure-cvo-blg#H1_4

QUESTION 82
Which type of non-relational data store supports a flexible schema, stores data as JSON files, and stores the all the data for an entity in the same document?

A. document
B. columnar
C. graph
D. time series

Correct Answer: A
Section: Describe how to work with non-relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with non-relational data on Azure Explanation

Explanation/Reference:

QUESTION 83
DRAG DROP

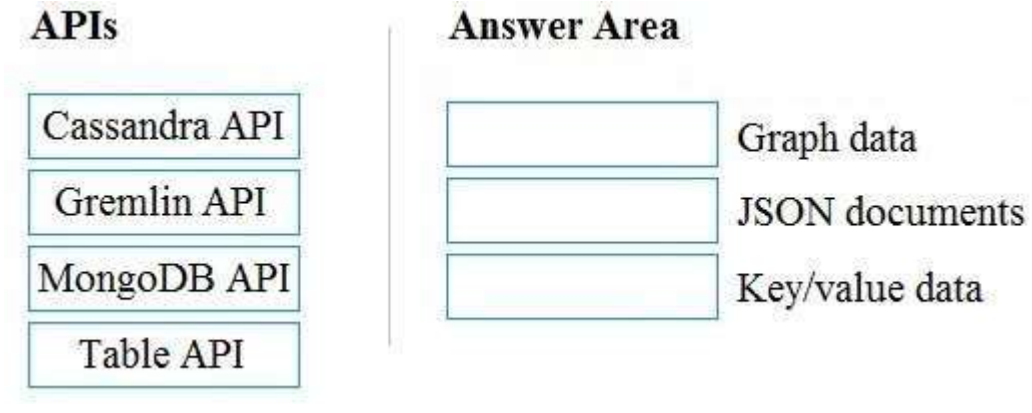
Match the Azure Cosmos DB APIs to the appropriate data structures.

To answer, drag the appropriate API from the column on the left to its data structure on the right. Each API may be used once, more than once, or not at all.

NOTE: Each correct match is worth one point.

Select and Place:

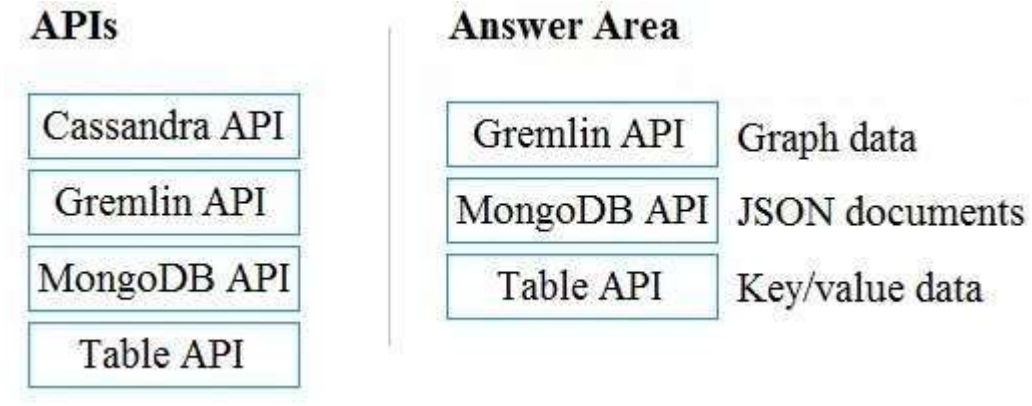
D283ABFBEDB32CDCE3B3406B9C29DB2F



A.
B.
C.
D.

Correct Answer:
Section: Describe how to work with non-relational data on Azure Explanation
Explanation

Explanation/Reference:



Section: Describe how to work with non-relational data on Azure Explanation

Explanation/Reference:
Reference:
https://docs.microsoft.com/en-us/azure/cosmos-db/faq

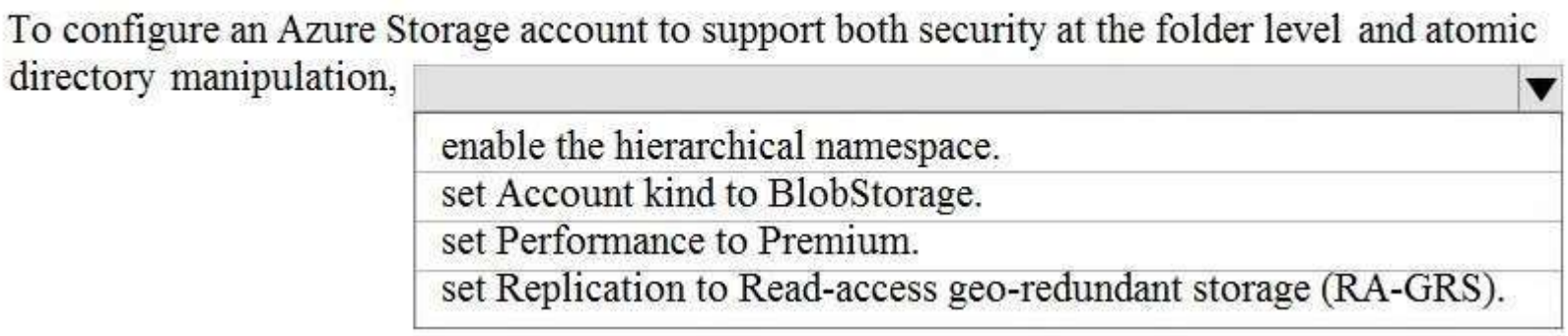
QUESTION 84

HOTSPOT

To complete the sentence, select the appropriate option in the answer area.

Hot Area:

Answer Area

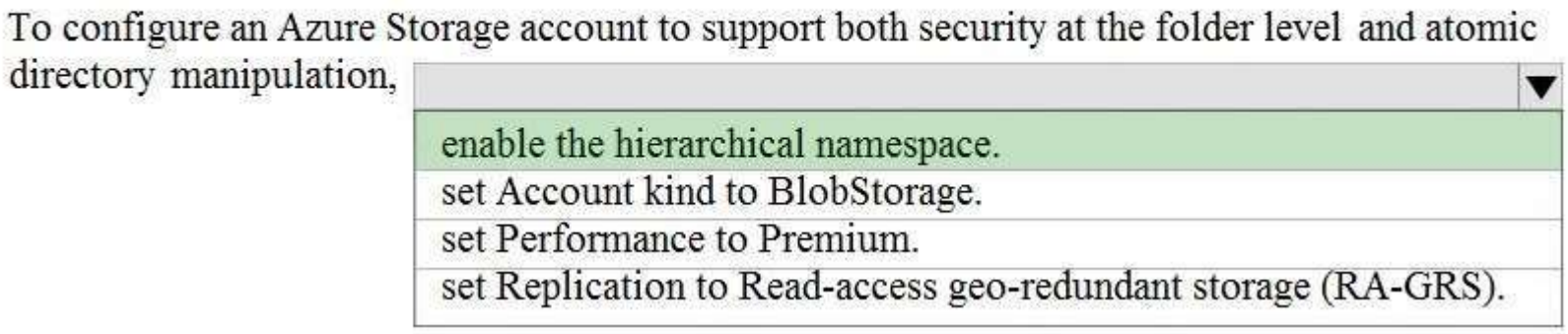


A.
B.
C.
D.

Correct Answer:
Section: Describe how to work with non-relational data on Azure Explanation
Explanation

Explanation/Reference:
D283ABFBEDB32CDCE3B3406B9C29DB2F

Answer Area



Section: Describe how to work with non-relational data on Azure Explanation

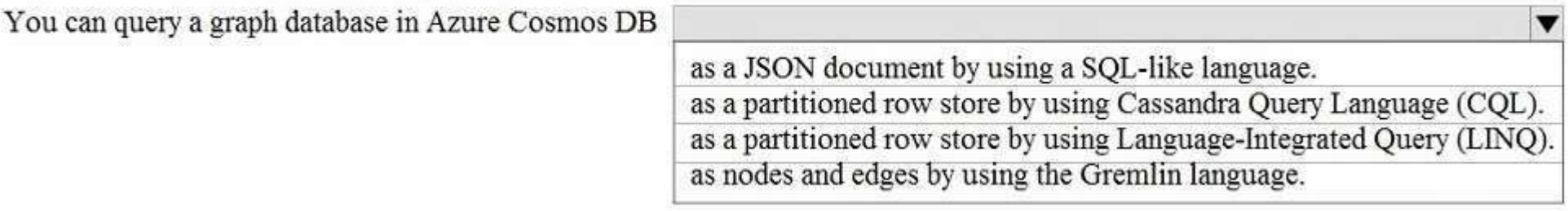
Explanation/Reference:
Reference:
https://docs.microsoft.com/en-us/azure/storage/blobs/data-lake-storage-namespace

QUESTION 85
HOTSPOT

To complete the sentence, select the appropriate option in the answer area.

Hot Area:

Answer Area



A.
B.
C.
D.

Correct Answer:
Section: Describe how to work with non-relational data on Azure Explanation
Explanation

Explanation/Reference:

Answer Area

You can query a graph database in Azure Cosmos DB

- as a JSON document by using a SQL-like language.
- as a partitioned row store by using Cassandra Query Language (CQL).
- as a partitioned row store by using Language-Integrated Query (LINQ).
- as nodes and edges by using the Gremlin language.

Section: Describe how to work with non-relational data on Azure Explanation

Explanation/Reference:
Reference:
https://www.sqlshack.com/graph-database-implementation-with-azure-cosmos-db-using-the-api/

QUESTION 86
When provisioning an Azure Cosmos DB account, which feature provides redundancy within an Azure region?

A. multi-master replication
B. Availability Zones
C. the strong consistency level
D. automatic failover

Correct Answer: B
Section: Describe how to work with non-relational data on Azure Explanation
Explanation

Explanation/Reference:
D283ABFBEDB32CDCE3B3406B9C29DB2F
Section: Describe how to work with non-relational data on Azure Explanation

Explanation/Reference:
Explanation:
With Availability Zone (AZ) support, Azure Cosmos DB will ensure replicas are placed across multiple zones within a given region to provide high availability and resiliency to zonal failures.

Note: Azure Cosmos DB provides high availability in two primary ways. First, Azure Cosmos DB replicates data across regions configured within a Cosmos account. Second, Azure Cosmos DB maintains 4 replicas of data within a region.

Reference:
https://docs.microsoft.com/en-us/azure/cosmos-db/high-availability

QUESTION 87
What is a benefit of the Azure Cosmos DB Table API as compared to Azure Table storage?

A. provides resiliency if an Azure region fails
B. supports partitioning
C. provides a higher storage capacity
D. supports a multi-master model

Correct Answer: D
Section: Describe how to work with non-relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with non-relational data on Azure Explanation

Explanation/Reference:
Explanation:
Multi-master support for Azure Cosmos DB is now available in all public regions. Azure CosmosDB table API is a key-value storage hosted in the cloud. It's a part of Azure Cosmos DB, that is Microsoft's multi-model database.

Reference:
https://docs.microsoft.com/en-us/azure/cosmos-db/table-support

QUESTION 88
Your company needs to design a database that shows how changes in network traffic in one area of a network affect network traffic in other areas of the network.

Which type of data store should you use?

A. graph
B. key/value
C. document
D. columnar

Correct Answer: A
Section: Describe how to work with non-relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with non-relational data on Azure Explanation

Explanation/Reference:
Explanation:
Data as it appears in the real world is naturally connected. Traditional data modeling focuses on defining entities separately and computing their relationships

at runtime. While this model has its advantages, highly connected data can be challenging to manage under its constraints.

D283ABFBEDB32CDCE3B3406B9C29DB2F
A graph database approach relies on persisting relationships in the storage layer instead, which leads to highly efficient graph retrieval operations. Azure Cosmos DB's Gremlin API supports the property graph model.

Reference:
https://docs.microsoft.com/en-us/azure/cosmos-db/graph-introduction#introduction-to-graph-databases

QUESTION 89
HOTSPOT

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
Azure Databricks can consume data from Azure SQL Database	○	○
Azure Databricks can consume data from Azure Event Hubs	○	○
Azure Databricks can consume data from Azure Cosmos DB	○	○

A.
B.
C.
D.

Correct Answer:
Section: Describe how to work with non-relational data on Azure Explanation
Explanation

Explanation/Reference:

Answer Area

Statements	Yes	No
Azure Databricks can consume data from Azure SQL Database	○	○
Azure Databricks can consume data from Azure Event Hubs	○	○
Azure Databricks can consume data from Azure Cosmos DB	○	○

Section: Describe how to work with non-relational data on Azure Explanation

Explanation/Reference:
Explanation:

Box 1: Yes
Azure Databricks can consume data from SQL Databases using JDBC and from SQL Databases using the Apache Spark connector.
The Apache Spark connector for Azure SQL Database and SQL Server enables these databases to act as input data sources and output data sinks for Apache Spark jobs.

D283ABFBEDB32CDCE3B3406B9C29DB2F
Box 2: Yes
You can stream data into Azure Databricks using Event Hubs.

Box 3: Yes
You can run Spark jobs with data stored in Azure Cosmos DB using the Cosmos DB Spark connector. Cosmos can be used for batch and stream processing, and as a serving layer for low latency access.

You can use the connector with Azure Databricks or Azure HDInsight, which provide managed Spark clusters on Azure.

Reference:
https://docs.microsoft.com/en-us/azure/databricks/data/data-sources/sql-databases-azure

https://docs.microsoft.com/en-us/azure/databricks/scenarios/databricks-stream-from-eventhubs

QUESTION 90
DRAG DROP

Match the datastore services to the appropriate descriptions.

To answer, drag the appropriate service from the column on the left to its description on the right. Each service may be used once, more than once, or not at all.

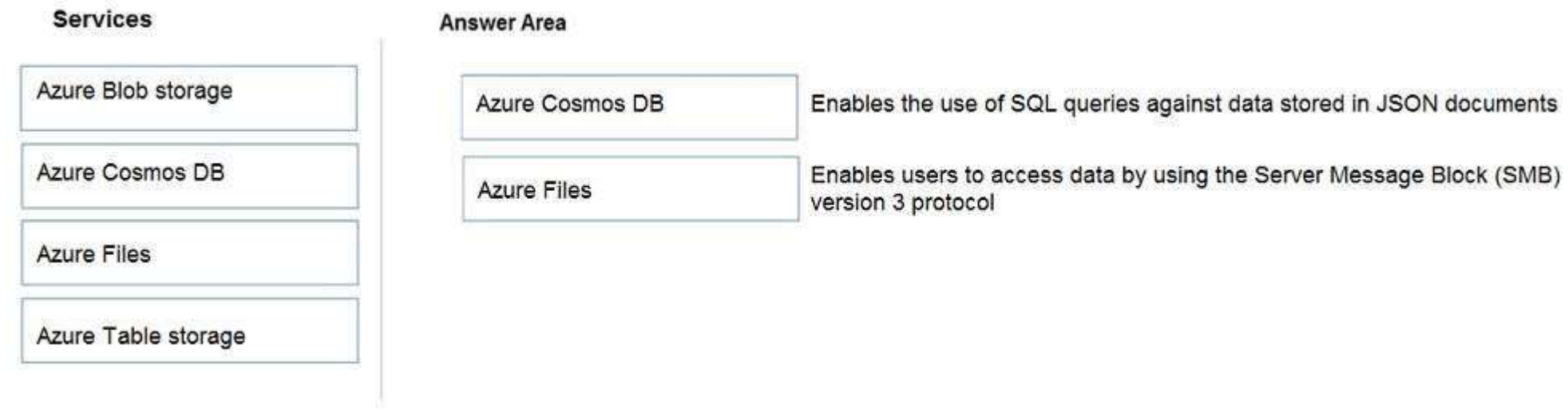
NOTE: Each correct match is worth one point.

Select and Place:

A.
B.
C.
D.

Correct Answer:
Section: Describe how to work with non-relational data on Azure Explanation
Explanation

Explanation/Reference:



Section: Describe how to work with non-relational data on Azure Explanation

Explanation/Reference:
Explanation:

Box 1: Azure Cosmos DB

D283ABFBEDB32CDCE3B3406B9C29DB2F
In Azure Cosmos DB's SQL (Core) API, items are stored as JSON. The type system and expressions are restricted to deal only with JSON types.

Box 2: Azure Files
Azure Files offers native cloud file sharing services based on the SMB protocol.

Reference:
https://docs.microsoft.com/en-us/azure/cosmos-db/sql-query-working-with-json

https://cloud.netapp.com/blog/azure-smb-server-message-block-in-the-cloud-for-azure-files

QUESTION 91
HOTSPOT

To complete the sentence, select the appropriate option in the answer area.

Hot Area:

Answer Area

When provisioning an Azure Cosmos DB [▼], you need to specify which type of API you will use.

- account
- container
- database
- item

A.
B.
C.
D.

Correct Answer:
Section: Describe how to work with non-relational data on Azure Explanation
Explanation

Explanation/Reference:

Answer Area

When provisioning an Azure Cosmos DB [▼], you need to specify which type of API you will use.

- account
- container
- database
- item

Section: Describe how to work with non-relational data on Azure Explanation

Explanation/Reference:
Reference:
https://docs.microsoft.com/en-us/azure/cosmos-db/create-cosmosdb-resources-portal

QUESTION 92
You need to store data by using Azure Table storage.

What should you create first?

A. an Azure Cosmos DB instance
B. a storage account
C. a blob container
D. a table

Correct Answer: B
Section: Describe how to work with non-relational data on Azure
Explanation

Explanation/Reference:
Section: Describe how to work with non-relational data on Azure

D283ABFBEDB32CDCE3B3406B9C29DB2F
Explanation

Explanation/Reference:
Explanation:
First create an Azure storage account, then use Table service in the Azure portal to create a table.

Note: An Azure storage account contains all of your Azure Storage data objects: blobs, files, queues, and tables.

Reference:
https://docs.microsoft.com/en-us/azure/storage/tables/table-storage-quickstart-portal

https://docs.microsoft.com/en-us/azure/storage/common/storage-account-create

QUESTION 93
You need to recommend a data store service that meets the following requirements:

Native SQL API access

▪

Configurable indexes

▪

What should you recommend?

A. Azure Files
B. Azure Blob storage
C. Azure Table storage
D. Azure Cosmos DB

Correct Answer: D
Section: Describe how to work with non-relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with non-relational data on Azure Explanation

Explanation/Reference:
Explanation:
Azure Cosmos DB comes with native Core (SQL) API support.

In Azure Cosmos DB, data is indexed following indexing policies that are defined for each container. The default indexing policy for newly created containers enforces range indexes for any string or number. This policy can be overridden with your own custom indexing policy.

Reference:
https://docs.microsoft.com/en-us/azure/cosmos-db/sql/how-to-manage-indexing-policy

QUESTION 94
HOTSPOT

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

NOTE: Each correct selection is worth one point.

Hot Area:

D283ABFBEDB32CDCE3B3406B9C29DB2F

Answer Area

Statements	Yes	No
Azure Table storage within a single Azure Storage account supports multiple concurrent reads in different Azure regions.	○	○
Azure Table storage within a single Azure Storage account supports multiple concurrent writes in different Azure regions.	○	○
An Azure Cosmos DB account that uses the Table API supports multiple concurrent reads in different Azure regions.	○	○
An Azure Cosmos DB account that uses the Table API supports multiple concurrent writes in different Azure regions.	○	○

A.
B.
C.
D.

Correct Answer:
Section: Describe how to work with non-relational data on Azure Explanation
Explanation

Explanation/Reference:

Answer Area

Statements	Yes	No
Azure Table storage within a single Azure Storage account supports multiple concurrent reads in different Azure regions.	○	○
Azure Table storage within a single Azure Storage account supports multiple concurrent writes in different Azure regions.	○	○
An Azure Cosmos DB account that uses the Table API supports multiple concurrent reads in different Azure regions.	○	○
An Azure Cosmos DB account that uses the Table API supports multiple concurrent writes in different Azure regions.	○	○

Section: Describe how to work with non-relational data on Azure Explanation

Explanation/Reference:
Explanation:

Box 1: Yes
For read access to the secondary region, configure your storage account to use read-access geo-redundant storage (RA-GRS) or read-access geo-zone-redundant storage (RA-GZRS).

Box 2: No

Box 3: Yes

Box 4: Yes
Azure Cosmos DB supports multi-region writes.

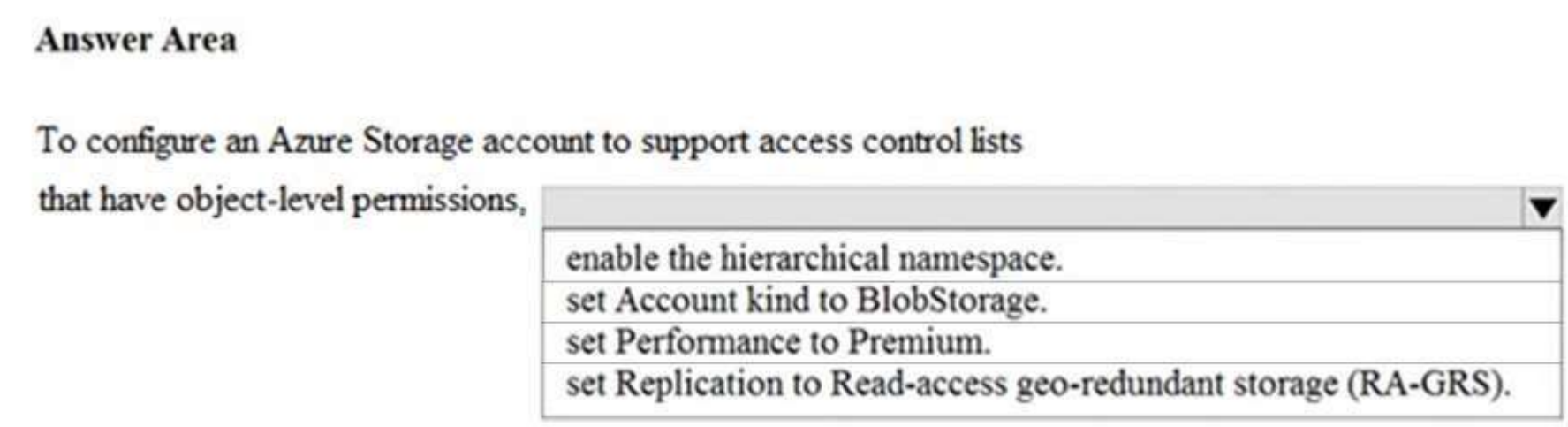
D283ABFBEDB32CDCE3B3406B9C29DB2F
Reference:
https://docs.microsoft.com/en-us/azure/storage/common/storage-redundancy

https://manojchoudhari.wordpress.com/2019/12/16/azure-cosmos-db-enable-multi-region-writes

QUESTION 95
HOTSPOT

To complete the sentence, select the appropriate option in the answer area.

Hot Area:



A.
B.
C.
D.

Correct Answer:
Section: Describe how to work with non-relational data on Azure Explanation
Explanation

Explanation/Reference:

Answer Area

To configure an Azure Storage account to support access control lists that have object-level permissions,

- enable the hierarchical namespace.
- set Account kind to BlobStorage.
- set Performance to Premium.
- set Replication to Read-access geo-redundant storage (RA-GRS).

Section: Describe how to work with non-relational data on Azure Explanation

Explanation/Reference:
Explanation:

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 a 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.

Reference:
https://docs.microsoft.com/en-us/azure/storage/blobs/data-lake-storage-namespace

QUESTION 96
Your company needs to design a database that illustrates the relationships between utilization levels of individual network devices across a local area network.

D283ABFBEDB32CDCE3B3406B9C29DB2F
Which type of data store should you use?

A. graph
B. key/value
C. document
D. columnar

Correct Answer: A
Section: Describe how to work with non-relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with non-relational data on Azure Explanation

Explanation/Reference:
Explanation:
Data as it appears in the real world is naturally connected. Traditional data modeling focuses on defining entities separately and computing their relationships at runtime. While this model has its advantages, highly connected data can be challenging to manage under its constraints.

A graph database approach relies on persisting relationships in the storage layer instead, which leads to highly efficient graph retrieval operations. Azure Cosmos DB's Gremlin API supports the property graph model.

Reference:
https://docs.microsoft.com/en-us/azure/cosmos-db/graph-introduction#introduction-to-graph-databases

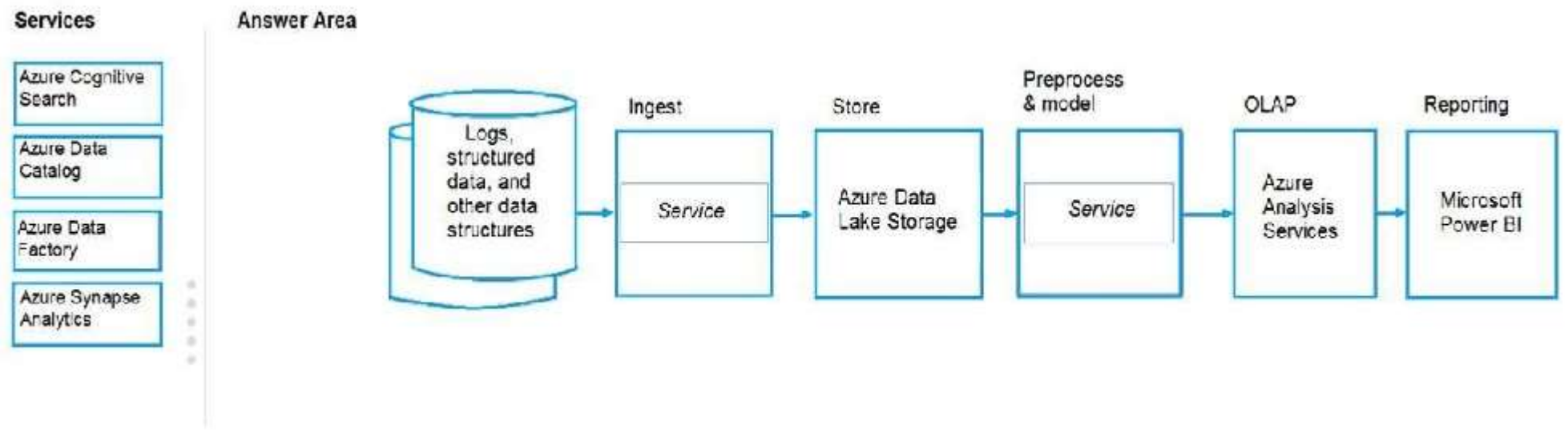
QUESTION 97
DRAG DROP

Match the Azure services to the appropriate locations in the architecture.

To answer, drag the appropriate service from the column on the left to its location on the right. Each service may be used once, more than once, or not at all.

NOTE: Each correct match is worth one point.

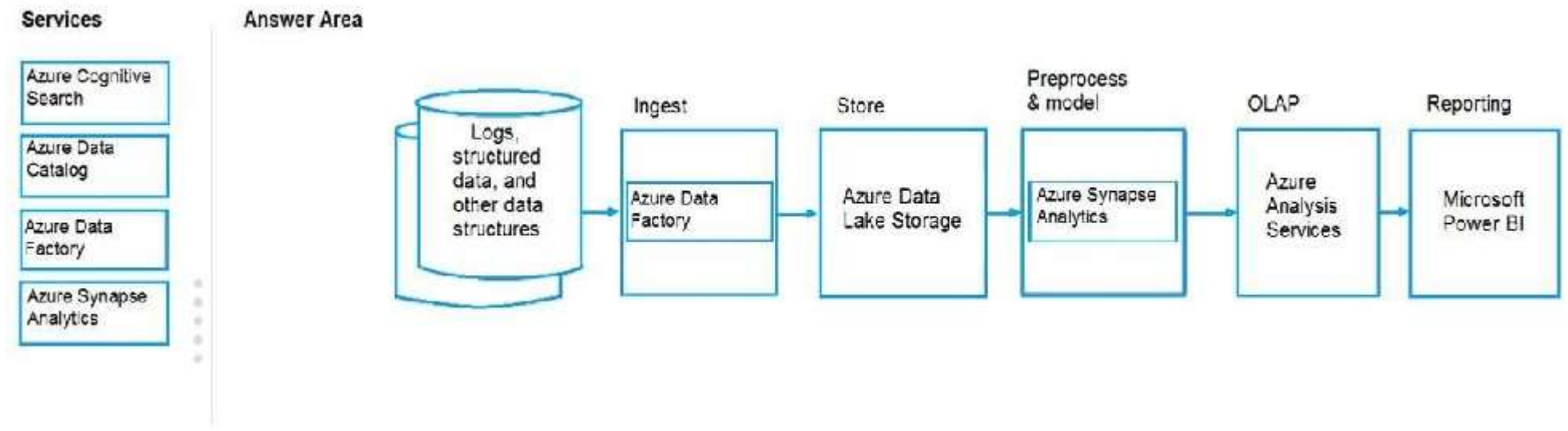
Select and Place:



A.
B.
C.
D.

Correct Answer:
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
D283ABFBEDB32CDCE3B3406B9C29DB2F



Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Explanation:

Box Ingest: Azure Data Factory
You can build a data ingestion pipeline with Azure Data Factory (ADF).

Box Preprocess & model: Azure Synapse Analytics
Use Azure Synapse Analytics to preprocess data and deploy machine learning models.

Reference:
https://docs.microsoft.com/en-us/azure/machine-learning/how-to-data-ingest-adf

https://docs.microsoft.com/en-us/azure/machine-learning/team-data-science-process/sqldw-walkthrough

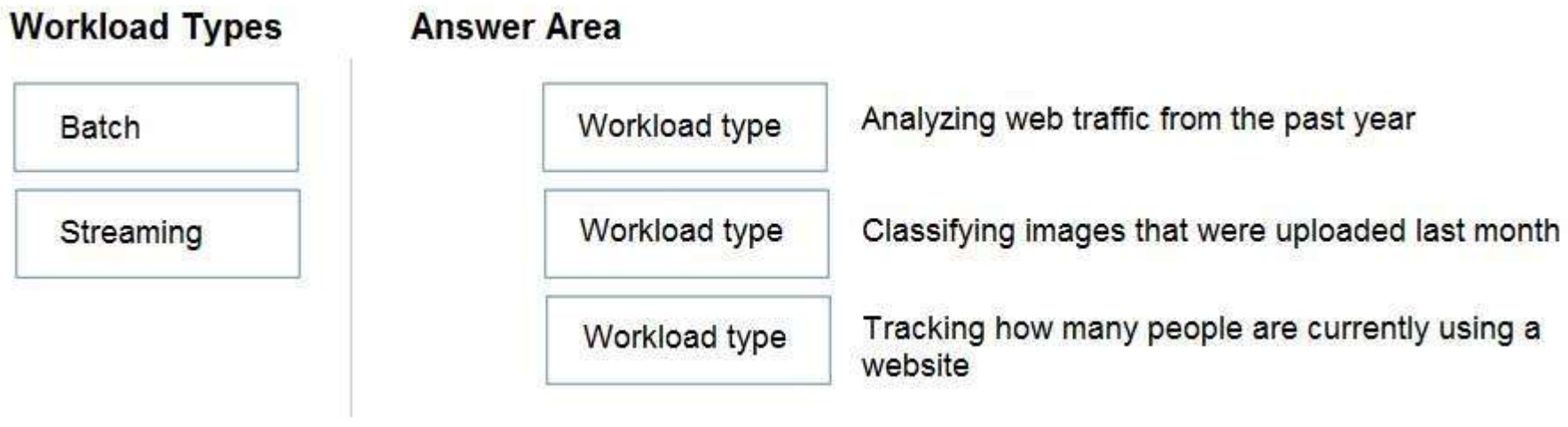
QUESTION 98
DRAG DROP

Match the types of workloads to the appropriate scenarios.

To answer, drag the appropriate workload type from the column on the left to its scenario on the right. Each workload type may be used once, more than once, or not at all.

NOTE: Each correct match is worth one point.

Select and Place:

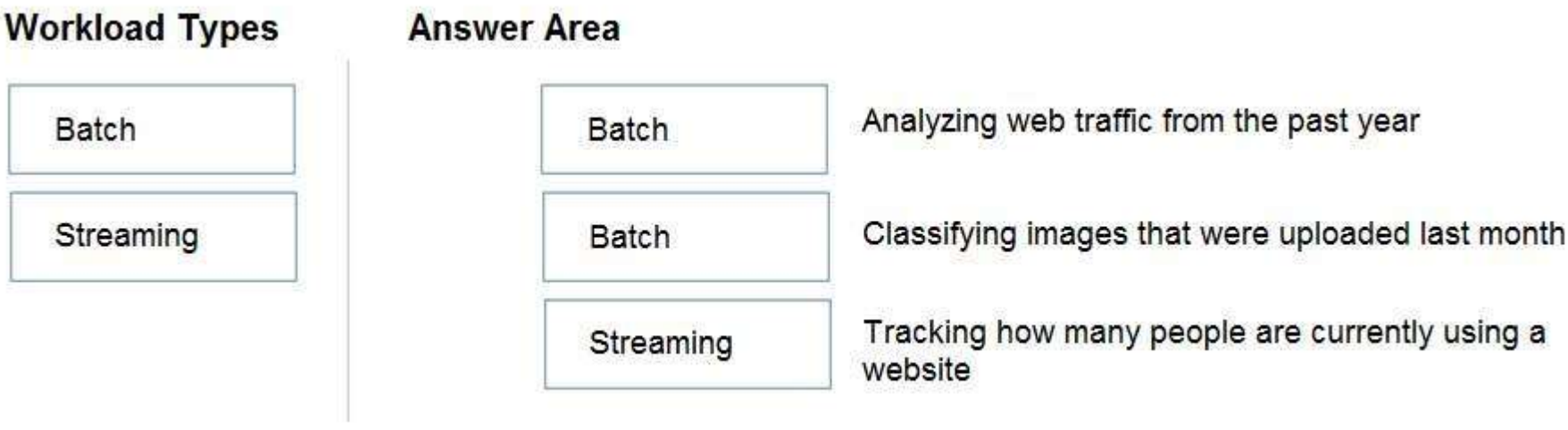


A.
B.
C.
D.

Correct Answer:
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:

D283ABFBEDB32CDCE3B3406B9C29DB2F



Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Explanation:

Box 1: Batch
The batch processing model requires a set of data that is collected over time while the stream processing model requires data to be fed into an analytics tool, often in micro-batches, and in real-time. The batch Processing model handles a large batch of data while the Stream processing model handles individual records or micro-batches of few records.
In Batch Processing, it processes over all or most of the data but in Stream Processing, it processes over data on a rolling window or most recent record.

Box 2: Batch

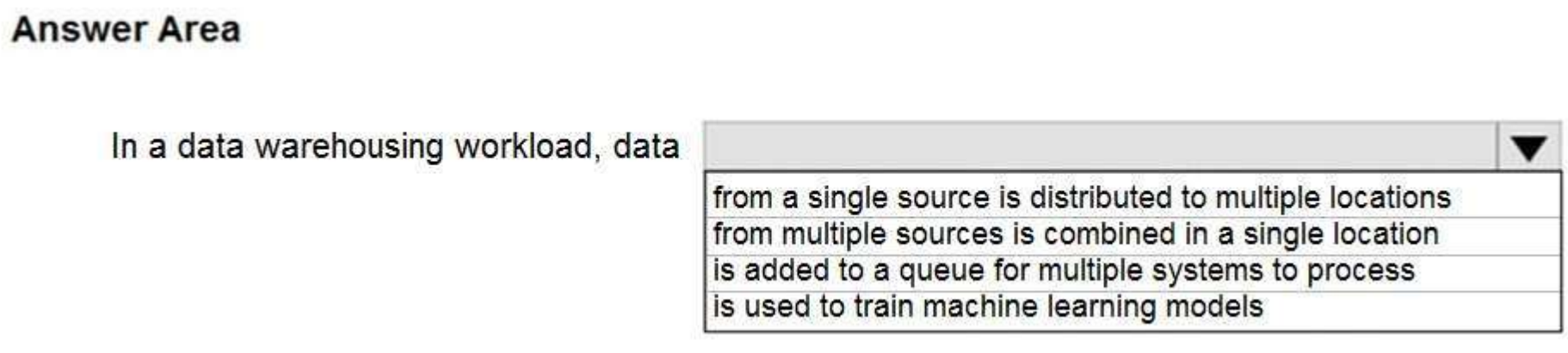
Box 3: Streaming

Reference:
https://k21academy.com/microsoft-azure/dp-200/batch-processing-vs-stream-processing

QUESTION 99
HOTSPOT

To complete the sentence, select the appropriate option in the answer area.

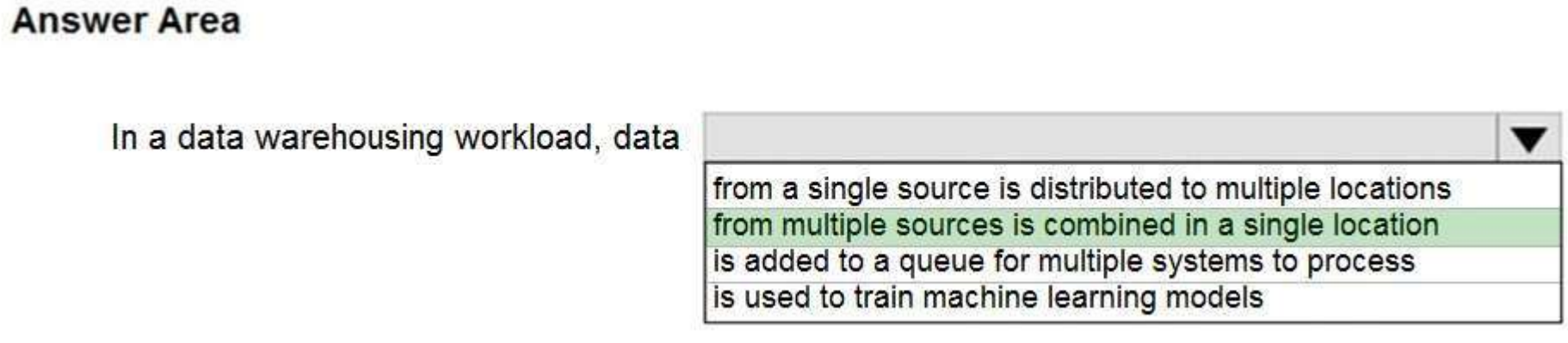
Hot Area:



A.
B.
C.
D.

Correct Answer:
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
D283ABFBEDB32CDCE3B3406B9C29DB2F



Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Explanation:

Note: The data warehouse workload encompasses:
The entire process of loading data into the warehouse

-

Performing data warehouse analysis and reporting

-

Managing data in the data warehouse

-

Exporting data from the data warehouse

-

Reference:
https://docs.microsoft.com/en-us/azure/synapse-analytics/sql-data-warehouse/sql-data-warehouse-workload- management

QUESTION 100
HOTSPOT

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
A pipeline is a representation of a data structure within Azure Data Factory	○	○
Azure Data Factory pipelines can execute other pipelines	○	○
A processing step within an Azure Data Factory pipeline is an activity	○	○

A.
B.
C.
D.

Correct Answer:
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
D283ABFBEDB32CDCE3B3406B9C29DB2F

Answer Area

Statements	Yes	No
A pipeline is a representation of a data structure within Azure Data Factory	○	○
Azure Data Factory pipelines can execute other pipelines	○	○
A processing step within an Azure Data Factory pipeline is an activity	○	○

Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Explanation:

Box 1: No
A pipeline is a logical grouping of activities that together perform a task.

Box 2: Yes
You can construct pipeline hierarchies with data factory.

Box 3: Yes
A pipeline is a logical grouping of activities that together perform a task.

Reference:
https://mrpaulandrew.com/2019/09/25/azure-data-factory-pipeline-hierarchies-generation-control/

QUESTION 101
DRAG DROP

Match the Azure services to the appropriate requirements.

To answer, drag the appropriate service from the column on the left to its requirement on the right. Each service may be used once, more than once, or not at all.

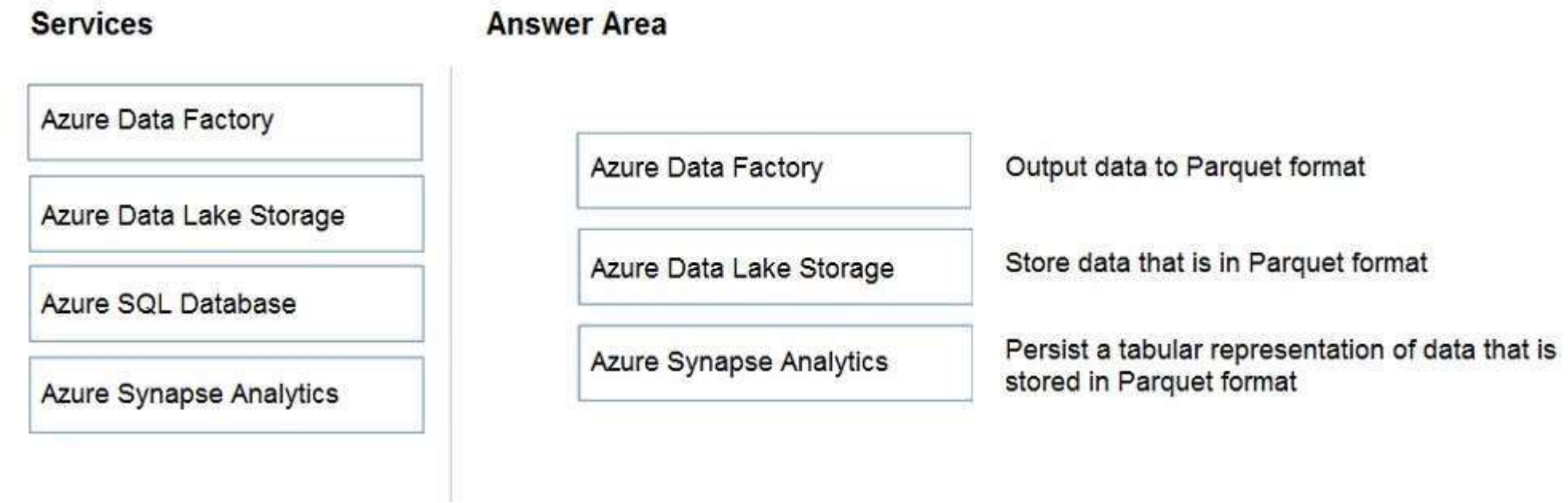
NOTE: Each correct match is worth one point.

Select and Place:

A.
B.
C.
D.

Correct Answer:
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
D283ABFBEDB32CDCE3B3406B9C29DB2F



Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Explanation:

Box 1: Azure Data Factory

Box 2: Azure Data Lake Storage
Azure Data Lake Storage (ADLA) now natively supports Parquet files. ADLA adds a public preview of the native extractor and outputter for the popular Parquet file format

Box 3: Azure Synapse Analytics
Use Azure Synapse Analytics Workspaces.

Reference:
https://docs.microsoft.com/en-us/azure/data-factory/supported-file-formats-and-compression-codecs

QUESTION 102
HOTSPOT

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
Azure Synapse Analytics scales storage and compute independently	○	○
Azure Synapse Analytics can be paused to reduce compute costs	○	○
An Azure Synapse Analytics data warehouse has a fixed storage capacity	○	○

A.
B.
C.
D.

Correct Answer:
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
D283ABFBEDB32CDCE3B3406B9C29DB2F

Answer Area

Statements	Yes	No
Azure Synapse Analytics scales storage and compute independently	○	○
Azure Synapse Analytics can be paused to reduce compute costs	○	○
An Azure Synapse Analytics data warehouse has a fixed storage capacity	○	○

Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Explanation:

Box 1: Yes
Compute is separate from storage, which enables you to scale compute independently of the data in your system.

Box 2: Yes
You can use the Azure portal to pause and resume the dedicated SQL pool compute resources. Pausing the data warehouse pauses compute. If your data warehouse was paused for the entire hour, you will not be charged compute during that hour.

Box 3: No
Storage is sold in 1 TB allocations. If you grow beyond 1 TB of storage, your storage account will automatically grow to 2 TBs.

Reference:
https://azure.microsoft.com/en-us/pricing/details/synapse-analytics/

QUESTION 103
What should you use to build a Microsoft Power BI paginated report?

A. Charticulator

B. Power BI Desktop
C. the Power BI service
D. Power BI Report Builder

Correct Answer: D
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Explanation:
Power BI Report Builder is the standalone tool for authoring paginated reports for the Power BI service.

Reference:
https://docs.microsoft.com/en-us/power-bi/paginated-reports/paginated-reports-report-builder-power-bi

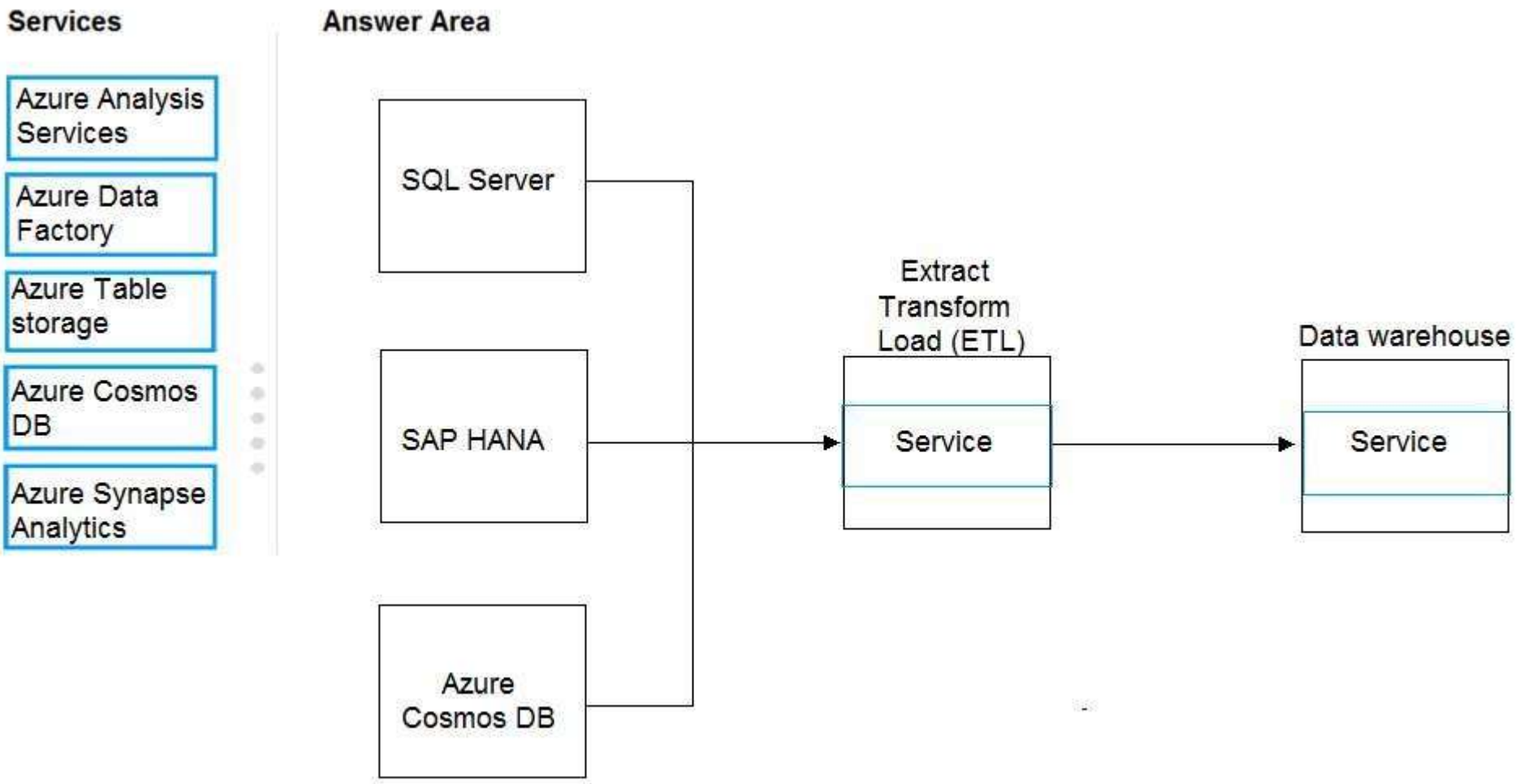
QUESTION 104
DRAG DROP

Match the Azure services to the appropriate locations in the architecture.

D283ABFBEDB32CDCE3B3406B9C29DB2F
To answer, drag the appropriate service from the column on the left to its location on the right. Each service may be used once, more than once, or not at all.

NOTE: Each correct match is worth one point.

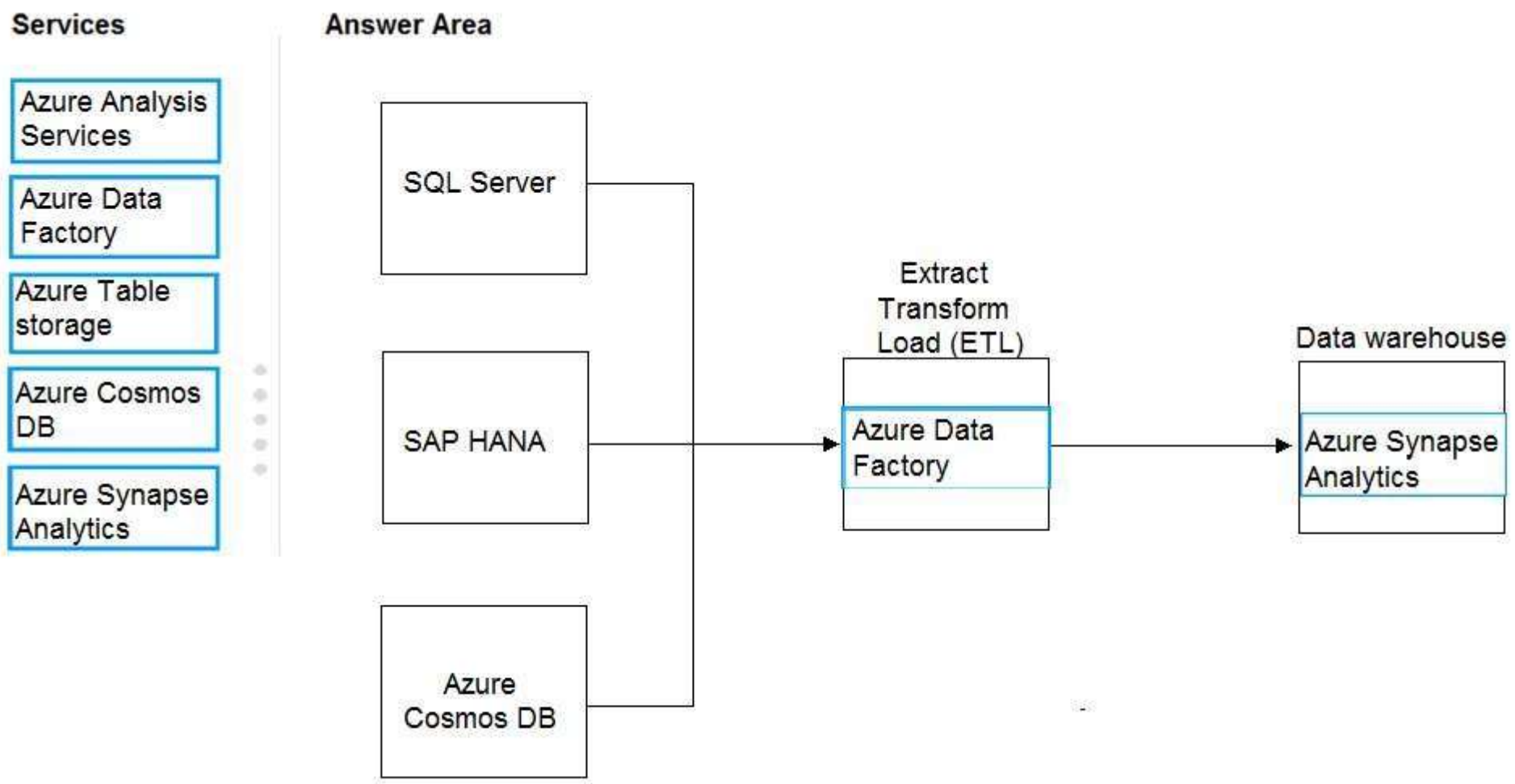
Select and Place:



A.
B.
C.
D.

Correct Answer:
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:



Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Explanation:

D283ABFBEDB32CDCE3B3406B9C29DB2F
Box 1: Azure Data factory
Relevant Azure service for the three ETL phases are Azure Data Factory and SQL Server Integration Services (SSIS).

Box 2: Azure Synapse Analytics
You can copy and transform data in Azure Synapse Analytics by using Azure Data Factory

Note: Azure Synapse Analytics connector is supported for the following activities:
Copy activity with supported source/sink matrix table

-

Mapping data flow

-

Lookup activity

-

GetMetadata activity

-

Reference:
https://docs.microsoft.com/en-us/azure/architecture/data-guide/relational-data/etl

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

QUESTION 105
HOTSPOT

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
Azure Databricks is an Apache Spark-based collaborative analytics platform.	○	○
Azure Analysis Services is used for transactional workloads.	○	○
Azure Data Factory orchestrates data integration workflows.	○	○

A.
B.
C.
D.

Correct Answer:
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:

Answer Area

Statements	Yes	No
Azure Databricks is an Apache Spark-based collaborative analytics platform.	○	○
Azure Analysis Services is used for transactional workloads.	○	○
Azure Data Factory orchestrates data integration workflows.	○	○

Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:

D283ABFBEDB32CDCE3B3406B9C29DB2F
Reference:
https://docs.microsoft.com/en-us/azure/databricks/scenarios/what-is-azure-databricks

https://docs.microsoft.com/en-us/azure/analysis-services/analysis-services-overview

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

QUESTION 106
Which scenario is an example of a streaming workload?

A. sending transactions that are older than a month to an archive
B. sending transactions daily from point of sale (POS) devices
C. sending telemetry data from edge devices
D. sending cloud infrastructure metadata every 30 minutes

Correct Answer: C
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:

QUESTION 107
HOTSPOT

To complete the sentence, select the appropriate option in the answer area.

Hot Area:

Answer Area

Batch workloads [▼]

- process data in memory, row-by-row.
- collect and process data at most once a day.
- process data as new data is received in near real-time.
- collect data and then process the data when a condition is met.

A.
B.
C.
D.

Correct Answer:
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:

Answer Area

Batch workloads

- process data in memory, row-by-row.
- collect and process data at most once a day.
- process data as new data is received in near real-time.
- collect data and then process the data when a condition is met.

Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:

D283ABFBEDB32CDCE3B3406B9C29DB2F

QUESTION 108
HOTSPOT

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
Processing salary payments once a month is an example of a batch workload.	○	○
A wind turbine that sends 50 sensor readings per second is an example of a streaming workload.	○	○
A home electricity meter that sends readings once a day to an energy provider is an example of a streaming workload.	○	○

A.
B.
C.
D.

Correct Answer:
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:

Answer Area

Statements	Yes	No
Processing salary payments once a month is an example of a batch workload.	○	○
A wind turbine that sends 50 sensor readings per second is an example of a streaming workload.	○	○
A home electricity meter that sends readings once a day to an energy provider is an example of a streaming workload.	○	○

Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:

QUESTION 109
You need to gather real-time telemetry data from a mobile application.

Which type of workload describes this scenario?

A. Online Transaction Processing (OLTP)
B. batch

C. massively parallel processing (MPP)
D. streaming
D283ABFBEDB32CDCE3B3406B9C29DB2F

Correct Answer: D
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Reference:
https://docs.microsoft.com/en-in/azure/azure-monitor/overview

QUESTION 110
You have a SQL pool in Azure Synapse Analytics that is only used actively every night for eight hours.

You need to minimize the cost of the dedicated SQL pool as much as possible during idle times. The solution must ensure that the data remains intact.

What should you do on the SQL pool?

A. Scale down the data warehouse units (DWUs).
B. Pause the pool.
C. Create a user-defined restore point.
D. Delete the pool

Correct Answer: B
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Reference:
https://docs.microsoft.com/en-us/azure/synapse-analytics/sql-data-warehouse/sql-data-warehouse-manage- compute-overview

QUESTION 111
Which Azure Data Factory component initiates the execution of a pipeline?

A. a control flow
B. a trigger
C. a parameter
D. an activity

Correct Answer: B
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Section: Describe an analytics workload on Azure
Explanation

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

QUESTION 112
Your company has a reporting solution that has paginated reports. The reports query a dimensional model in a data warehouse.

Which type of processing does the reporting solution use?

A. stream processing
B. batch processing
C. Online Analytical Processing (OLAP)
D283ABFBEDB32CDCE3B3406B9C29DB2F
D. Online Transaction Processing (OLTP)

Correct Answer: C
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Reference:
https://datawarehouseinfo.com/how-does-oltp-differ-from-olap-database/

QUESTION 113
DRAG DROP

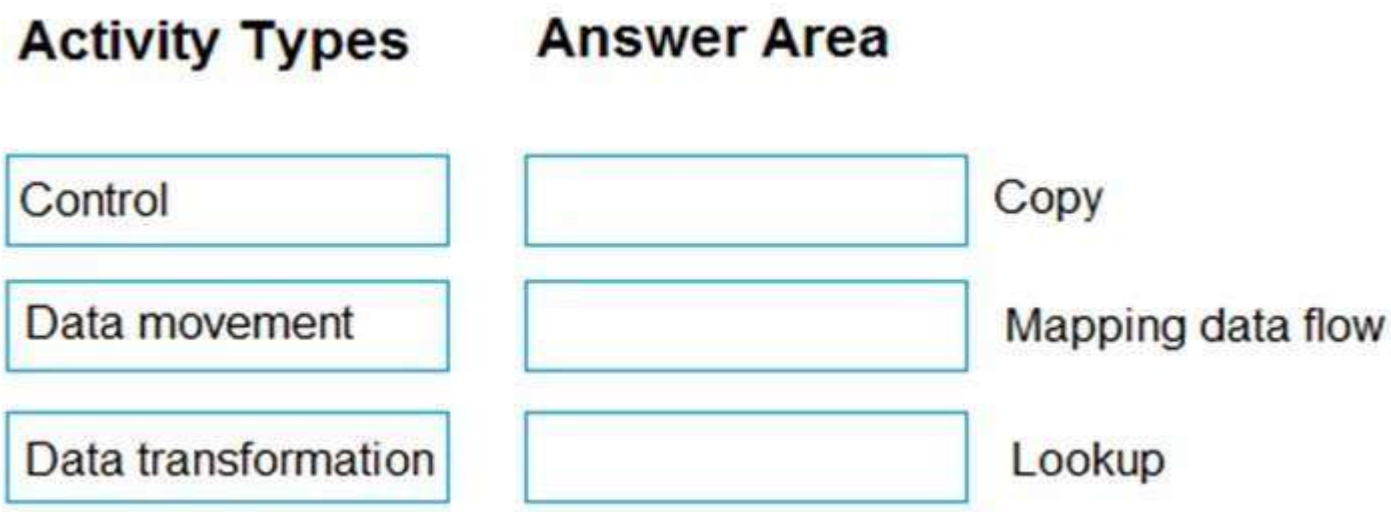
Match the types of activities to the appropriate Azure Data Factory activities.

To answer, drag the appropriate activity type from the column on the left to its Data Factory activity on the right. Each activity type may be used once, more

than once, or not at all.

NOTE: Each correct match is worth one point.

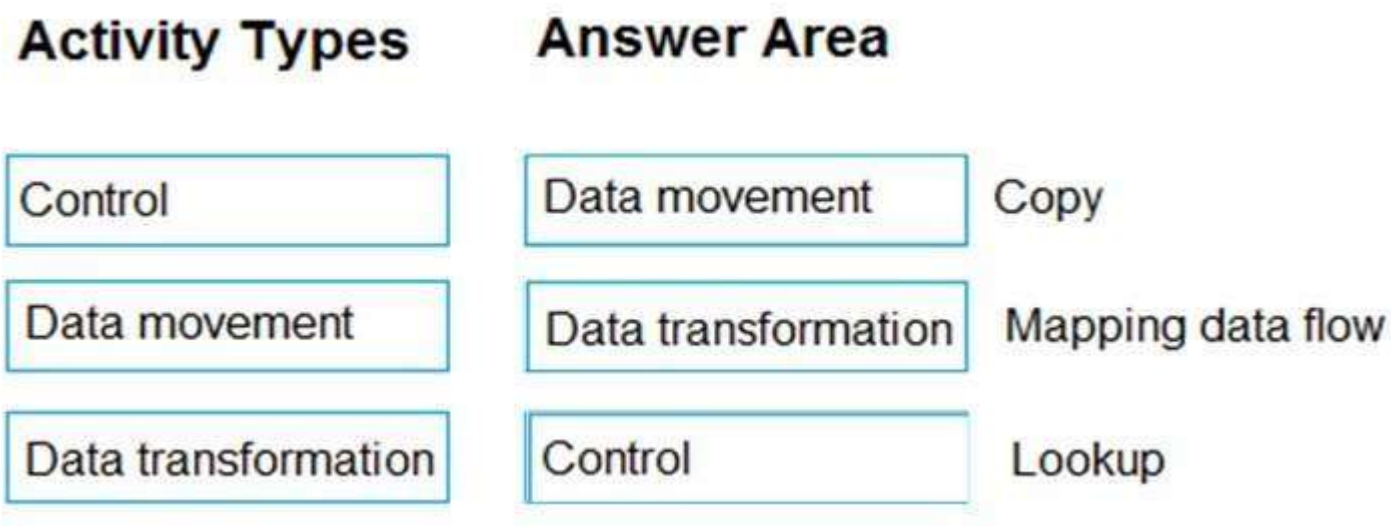
Select and Place:



A.
B.
C.
D.

Correct Answer:
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:



Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:

D283ABFBEDB32CDCE3B3406B9C29DB2F
Explanation:

Box 1: Data movement

Box 2: Data transformation
A pipeline could contain a set of activities that ingest and clean log data, and then kick off a mapping data flow to analyze the log data.

Box 3: Control
Lookup Activity is a control flow activity.

Lookup Activity can be used to read or look up a record/ table name/ value from any external source. This output can further be referenced by succeeding activities.

Reference:
https://docs.microsoft.com/en-us/azure/data-factory/concepts-pipelines-activities#data-transformation-activities

QUESTION 114
What are three characteristics of an Online Transaction Processing (OLTP) workload? Each correct answer presents a complete solution. (Choose three.)

NOTE: Each correct selection is worth one point.

A. denormalized data
B. heavy writes and moderate reads
C. light writes and heavy reads
D. schema on write
E. schema on read
F. normalized data

Correct Answer: BDF

Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Explanation:
B: Transactional data tends to be heavy writes, moderate reads.
D: Typical traits of transactional data include: schema on write, strongly enforced
F: Transactional data tends to be highly normalized.

Reference:
https://docs.microsoft.com/en-us/azure/architecture/data-guide/relational-data/online-transaction-processing

QUESTION 115
Which two activities can be performed entirely by using the Microsoft Power BI service without relying on Power BI Desktop? Each correct answer presents a complete solution. (Choose two.)

NOTE: Each correct selection is worth one point.

A. report and dashboard creation
B. report sharing and distribution
C. data modeling
D. data acquisition and preparation

Correct Answer: AD
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Section: Describe an analytics workload on Azure

D283ABFBEDB32CDCE3B3406B9C29DB2F
Explanation

Explanation/Reference:

QUESTION 116
HOTSPOT

To complete the sentence, select the appropriate option in the answer area.

Hot Area:

Answer Area

In Azure Data Factory, you can use [▼] to orchestrate pipeline activities that depend on the output of other pipeline activities.

- a control flow
- a dataset
- a linked service
- an integration runtime

A.
B.
C.
D.

Correct Answer:
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:

Answer Area

In Azure Data Factory, you can use [a control flow / a dataset / a linked service / an integration runtime] to orchestrate pipeline activities that depend on the output of other pipeline activities.

Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Reference:
https://docs.microsoft.com/en-us/azure/data-factory/frequently-asked-questions

QUESTION 117
You need to develop a solution to provide data to executives. The solution must provide an interactive graphical interface, depict various key performance indicators, and support data exploration by using drill down.

What should you use in Microsoft Power BI?

A. a dashboard
B. a report
C. a dataflow
D. Microsoft Power Apps

Correct Answer: B
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
D283ABFBEDB32CDCE3B3406B9C29DB2F
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Reference:
https://docs.microsoft.com/en-us/power-bi/consumer/end-user-dashboards

https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-kpi

https://docs.microsoft.com/en-us/power-bi/consumer/end-user-drill

QUESTION 118
Which two Azure services can be used to provision Apache Spark clusters? Each correct answer presents a complete solution. (Choose two.)

NOTE: Each correct selection is worth one point.

A. Azure Time Series Insights
B. Azure HDInsight
C. Azure Databricks
D. Azure Log Analytics

Correct Answer: BC
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Reference:
https://www.sqlshack.com/a-beginners-guide-to-azure-databricks/

QUESTION 119
You have a quality assurance application that reads data from a data warehouse.

Which type of processing does the application use?

A. Online Transaction Processing (OLTP)
B. batch processing
C. Online Analytical Processing (OLAP)
D. stream processing

Correct Answer: A
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Reference:
https://docs.microsoft.com/en-us/azure/architecture/data-guide/relational-data/online-transaction-processing

QUESTION 120
Which three objects can be added to a Microsoft Power BI dashboard? Each correct answer presents a complete solution. (Choose three.)

NOTE: Each correct selection is worth one point.

A. a report page
B. a Microsoft PowerPoint slide
D283ABFBEDB32CDCE3B3406B9C29DB2F
C. a visualization from a report
D. a dataflow
E. a text box

Correct Answer: ACE
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Reference:
https://docs.microsoft.com/en-us/power-bi/consumer/end-user-dashboards

https://docs.microsoft.com/en-us/power-bi/create-reports/service-dashboard-add-widget

QUESTION 121
HOTSPOT

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
A Microsoft Power BI dashboard is associated with a single workspace.	○	○
A Microsoft Power BI dashboard can only display visualizations from a single dataset.	○	○
A Microsoft Power BI dashboard can display visualizations from a Microsoft Excel workbook.	○	○

A.
B.
C.
D.

Correct Answer:
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
D283ABFBEDB32CDCE3B3406B9C29DB2F

Answer Area

Statements	Yes	No
A Microsoft Power BI dashboard is associated with a single workspace.	○	○
A Microsoft Power BI dashboard can only display visualizations from a single dataset.	○	○
A Microsoft Power BI dashboard can display visualizations from a Microsoft Excel workbook.	○	○

Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Reference:
https://docs.microsoft.com/en-us/power-bi/connect-data/service-datasets-across-workspaces

https://docs.microsoft.com/en-us/power-bi/consumer/end-user-dashboardshttps://powerbi.microsoft.com/en- us/excel-and-power-bi/

QUESTION 122
Which Azure Data Factory component provides the compute environment for activities?

A. a linked service
B. an integration runtime
C. a control flow
D. a pipeline

Correct Answer: B
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Explanation:
The Integration Runtime (IR) is the compute infrastructure used by Azure Data Factory to provide the following data integration capabilities across different network environments:
Data Flow

▪

Data movement

▪

Activity dispatch

▪

SSIS package execution

▪

Reference:
https://docs.microsoft.com/en-us/azure/data-factory/concepts-integration-runtime

QUESTION 123
HOTSPOT

To complete the sentence, select the appropriate option in the answer area.

D283ABFBEDB32CDCE3B3406B9C29DB2F
Hot Area:

Answer Area

A Microsoft Power BI [▼] enables users to create highly formatted, fixed-layout documents optimized for printing and archiving.

- dashboard
- interactive report
- paginated report
- subscription

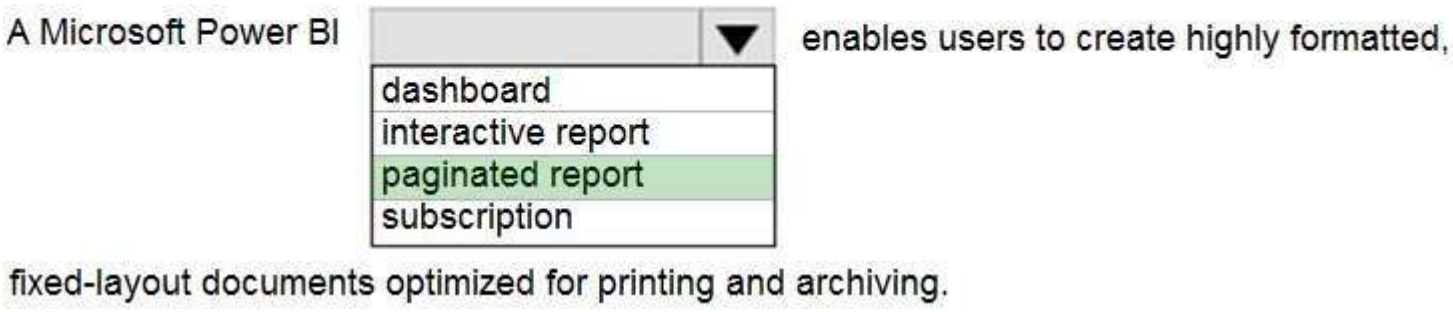
A.

B.
C.
D.

Correct Answer:
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:

Answer Area



Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Explanation:

Paginated Reports in Power BI now allows users to generate these fixed-layout documents optimized for printing and archiving, such as PDF and Word files. These document-style reports with visualizations that provide additional control, like which tables expand horizontally and vertically to display all their data and continue from page to page as needed.

Reference:
https://powerbi.microsoft.com/en-us/blog/announcing-paginated-reports-in-power-bi-general-availability/

QUESTION 124
What are two uses of data visualization? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

A. Represent trends and patterns over time
B. Implement machine learning to predict future values
C. Communicate the significance of data
D. Enforce business logic across reports

Correct Answer: AC
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Explanation:
Data visualization is a key component in being able to gain insight into your data. It helps make big and small data easier for humans to understand. It also makes it easier to detect patterns, trends, and outliers in groups

D283ABFBEDB32CDCE3B3406B9C29DB2F
of data.
Data visualization brings data to help you find key business insights quickly and effectively.

Reference:
https://docs.microsoft.com/en-us/azure/synapse-analytics/spark/apache-spark-data-visualization

QUESTION 125
You need to use Transact-SQL to query files in Azure Data Lake Storage from an Azure Synapse Analytics data warehouse.

What should you use to query the files?

A. Azure Functions
B. Microsoft SQL Server Integration Services (SSIS)
C. PolyBase
D. Azure Data Factory

Correct Answer: C
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Reference:
https://docs.databricks.com/data/data-sources/azure/synapse-analytics.html

QUESTION 126
HOTSPOT

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
You can copy a dashboard between Microsoft Power BI workspaces.	○	○
A Microsoft Power BI dashboard can only display visualizations from a single dataset.	○	○
A Microsoft Power BY dashboard can display visualizations from a Microsoft Excel workbook.	○	○

A.
B.
C.
D.

Correct Answer:
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:

Answer Area

Statements	Yes	No
You can copy a dashboard between Microsoft Power BI workspaces.	○	○
A Microsoft Power BI dashboard can only display visualizations from a single dataset.	○	○
A Microsoft Power BY dashboard can display visualizations from a Microsoft Excel workbook.	○	○

Section: Describe an analytics workload on Azure

D283ABFBEDB32CDCE3B3406B9C29DB2F
Explanation

Explanation/Reference:
Explanation:

Box 1: No
You can duplicate a dashboard. The duplicate ends up in the same Power BI workspace. There is no current functionality that allows you to move reports from one workspace to another.

Box 2: No

Box 3: Yes

Reference:
https://docs.microsoft.com/en-us/power-bi/connect-data/service-datasets-across-workspaces

https://docs.microsoft.com/en-us/power-bi/consumer/end-user-dashboardshttps://powerbi.microsoft.com/en- us/excel-and-power-bi/

QUESTION 127
What are three characteristics of an Online Transaction Processing (OLTP) workload? Each correct answer presents a complete solution. (Choose three.)

NOTE: Each correct selection is worth one point.

A. denormalized data
B. heavy writes and moderate reads
C. light writes and heavy reads
D. schema defined in a database
E. schema defined when reading unstructured data from a database
F. normalized data

Correct Answer: BDF
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Explanation:
B: Transactional data tends to be heavy writes, moderate reads.
D: Typical traits of transactional data include: schema on write, strongly enforced. The schema is defined in a database.
F: Transactional data tends to be highly normalized.

Reference:
https://docs.microsoft.com/en-us/azure/architecture/data-guide/relational-data/online-transaction-processing

QUESTION 128
What is the primary purpose of a data warehouse?

A. to provide answers to complex queries that rely on data from multiple sources
B. to provide transformation services between source and target data stores
C. to provide read-only storage of relational and non-relational historical data
D. to provide storage for transactional line-of-business (LOB) applications

Correct Answer: C
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Section: Describe an analytics workload on Azure
D283ABFBEDB32CDCE3B3406B9C29DB2F
Explanation

Explanation/Reference:
Explanation:
Consider using a data warehouse when you need to keep historical data separate from the source transaction systems for performance reasons. Data warehouses make it easy to access historical data from multiple locations, by providing a centralized location using common formats, keys, and data models. Query both relational and nonrelational data.

Incorrect Answers:
D: Data warehouses don't need to follow the same terse data structure you may be using in your OLTP databases.

Reference:
https://docs.microsoft.com/en-us/azure/architecture/data-guide/relational-data/data-warehousing

QUESTION 129
HOTSPOT

You have the following JSON document.

D283ABFBEDB32CDCE3B3406B9C29DB2F

```
"customer" : {
    "first name" : "Ben",
    "last name" : "Smith",
    "address" : {
        "line 1" : "161 Azure Ln",
        "line 2" : "Palo Alto",
        "ZIP code" : "54762"
    },
    "social media": [
        {
            "service" : "twitter",
            "handle" : "@bensmith"
        },
        {
            "service" : "linkedin",
            "handle" : "bensmith"
        }
    ],
    "phone numbers": [
        {
            "type" : "mobile",
            "number" : "555-555-555"
        }
    ]
}
```

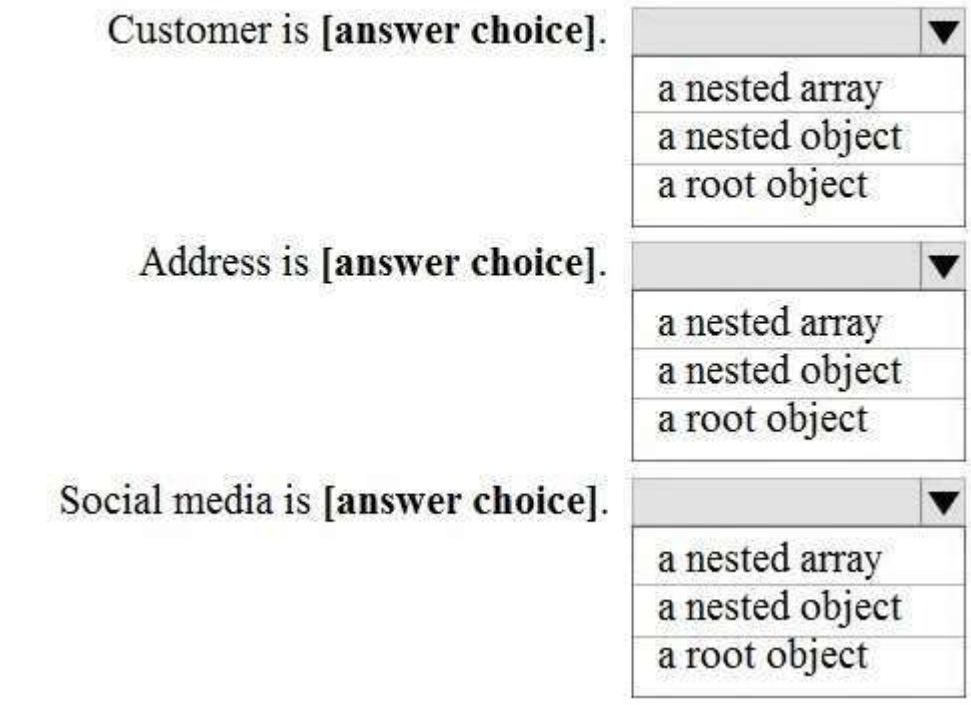
Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the JSON document.

NOTE: Each correct selection is worth one point.

Hot Area:

D283ABFBEDB32CDCE3B3406B9C29DB2F

Answer Area

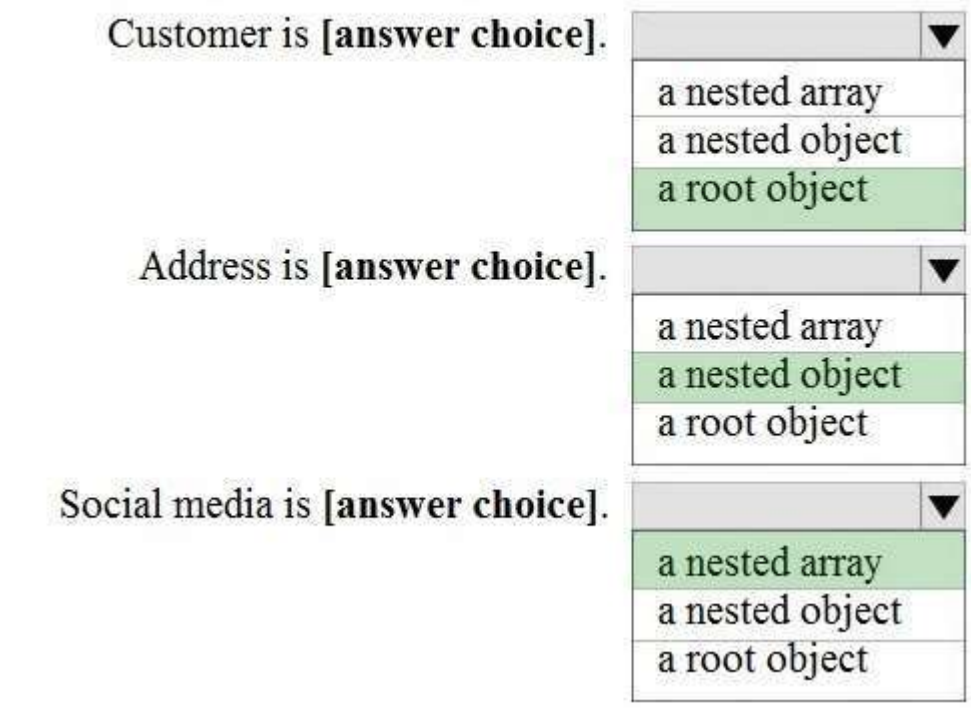


A.
B.
C.
D.

Correct Answer:
Section: Describe core data concepts
Explanation

Explanation/Reference:

Answer Area



Section: Describe core data concepts
Explanation

D283ABFBEDB32CDCE3B3406B9C29DB2F
Explanation/Reference:
Reference:
https://www.w3schools.com/js/js_json_arrays.asp

https://www.w3schools.com/js/js_json_objects.asp

QUESTION 130
Which Azure Data Factory component provides the compute environment for activities?

A. a linked service
B. an integration runtime
C. a control flow

D. a pipeline

Correct Answer: B
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Explanation:
The Integration Runtime (IR) is the compute infrastructure used by Azure Data Factory to provide the following data integration capabilities across different network environments:
Data Flow
Data movement
Activity dispatch
SSIS package execution

Reference:
https://docs.microsoft.com/en-us/azure/data-factory/concepts-integration-runtime

QUESTION 131
You have a SQL query that combines customer data and order data. The query includes calculated columns.

You need to create a database object that would allow other users to rerun the same SQL query.

What should you create?

A. an index
B. a view
C. a scalar function
D. a table

Correct Answer: B
Section: Describe core data concepts
Explanation

Explanation/Reference:
Section: Describe core data concepts
Explanation

Explanation/Reference:
Explanation:
A view is a virtual table whose contents are defined by a query. A view acts as a filter on the underlying tables referenced in the view. The query that defines the view can be from one or more tables or from other views in the current or other databases.

Reference:
https://docs.microsoft.com/en-us/sql/relational-databases/views/views

QUESTION 132
D283ABFBEDB32CDCE3B3406B9C29DB2F
What are two characteristics of real-time data processing? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

A. Data is processed periodically
B. Low latency is expected
C. High latency is acceptable
D. Data is processed as it is created

Correct Answer: BD
Section: Describe core data concepts
Explanation

Explanation/Reference:
Section: Describe core data concepts
Explanation

Explanation/Reference:
Explanation:
Real time processing deals with streams of data that are captured in real-time and processed with minimal latency to generate real-time (or near-real-time) reports or automated responses.

Reference:
https://docs.microsoft.com/en-us/azure/architecture/data-guide/big-data/real-time-processing

QUESTION 133
What is a benefit of the Azure Cosmos DB Table API as compared to Azure Table storage?

A. provides resiliency if an Azure region fails
B. supports partitioning
C. provides a higher storage capacity
D. supports a multi-master model

Correct Answer: D
Section: Describe how to work with non-relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with non-relational data on Azure Explanation

Explanation/Reference:
Explanation:
Multi-master support for Azure Cosmos DB is now available in all public regions. Azure CosmosDB table API is a key-value storage hosted in the cloud. It's a part of Azure Cosmos DB, that is Microsoft's multi-model database.

Reference:
https://docs.microsoft.com/en-us/azure/cosmos-db/table-support

QUESTION 134
HOTSPOT

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

NOTE: Each correct selection is worth one point.

Hot Area:

D283ABFBEDB32CDCE3B3406B9C29DB2F

Answer Area

Statements	Yes	No
Normalization involves eliminating relationships between database tables.	○	○
Normalizing a database reduces data redundancy.	○	○
Normalization improves data integrity.	○	○

A.
B.
C.
D.

Correct Answer:
Section: Describe core data concepts
Explanation

Explanation/Reference:

Answer Area

Statements	Yes	No
Normalization involves eliminating relationships between database tables.	○	○
Normalizing a database reduces data redundancy.	○	○
Normalization improves data integrity.	○	○

Section: Describe core data concepts
Explanation

Explanation/Reference:
Reference:
https://www.sqlshack.com/what-is-database-normalization-in-sql-server/

QUESTION 135
HOTSPOT

To complete the sentence, select the appropriate option in the answer area.

Hot Area:

D283ABFBEDB32CDCE3B3406B9C29DB2F

Answer Area

A Microsoft Power BI [▼] enables users to create highly formatted, fixed-layout documents optimized for printing and archiving.

- dashboard
- interactive report
- paginated report
- subscription

A.
B.
C.
D.

Correct Answer:
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:

Answer Area

A Microsoft Power BI [▼] enables users to create highly formatted, fixed-layout documents optimized for printing and archiving.

- dashboard
- interactive report
- paginated report
- subscription

Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Explanation:

Paginated Reports in Power BI now allows users to generate these fixed-layout documents optimized for printing and archiving, such as PDF and Word files. These document-style reports with visualizations that provide additional control, like which tables expand horizontally and vertically to display all their data and continue from page to page as needed.

Reference:
https://powerbi.microsoft.com/en-us/blog/announcing-paginated-reports-in-power-bi-general-availability/

D283ABFBEDB32CDCE3B3406B9C29DB2F

QUESTION 136
HOTSPOT

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

NOTE: Each correct selection is worth one point.

Hot Area:

D283ABFBEDB32CDCE3B3406B9C29DB2F

Answer Area

Statements	Yes	No
Normalization involves eliminating relationships between database tables.	○	○
Normalizing a database reduces data redundancy.	○	○
Normalization improves data integrity.	○	○

A.
B.
C.

D.

Correct Answer:
Section: Describe core data concepts
Explanation

Explanation/Reference:

Answer Area

Statements	Yes	No
Normalization involves eliminating relationships between database tables.	○	○
Normalizing a database reduces data redundancy.	○	○
Normalization improves data integrity.	○	○

Section: Describe core data concepts
Explanation

Explanation/Reference:
Reference:
https://www.sqlshack.com/what-is-database-normalization-in-sql-server/

QUESTION 137
What are three characteristics of an Online Transaction Processing (OLTP) workload? Each correct answer presents a complete solution. (Choose three.)

NOTE: Each correct selection is worth one point.

A. denormalized data
B. heavy writes and moderate reads
C. light writes and heavy reads
D. schema defined in a database
E. schema defined when reading unstructured data from a database
F. normalized data

Correct Answer: BDF
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Explanation:
B: Transactional data tends to be heavy writes, moderate reads.
D: Typical traits of transactional data include: schema on write, strongly enforced. The schema is defined in a database.
F: Transactional data tends to be highly normalized.

Reference:
https://docs.microsoft.com/en-us/azure/architecture/data-guide/relational-data/online-transaction-processing

QUESTION 138
Which Azure Data Factory component provides the compute environment for activities?

A. a linked service
B. an integration runtime
C. a control flow
D. a pipeline

Correct Answer: B
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Explanation:
The Integration Runtime (IR) is the compute infrastructure used by Azure Data Factory to provide the following data integration capabilities across different network environments:
Data Flow
Data movement
Activity dispatch
SSIS package execution

Reference:
https://docs.microsoft.com/en-us/azure/data-factory/concepts-integration-runtime

QUESTION 139

Your company is designing a data store for internet-connected temperature sensors.

The collected data will be used to analyze temperature trends.

Which type of data store should you use?

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A. relational
B. time series
C. graph
D. columnar

Correct Answer: B
Section: Describe how to work with non-relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with non-relational data on Azure Explanation

Explanation/Reference:
Explanation:
Time series data is a set of values organized by time. Time series databases typically collect large amounts of data in real time from a large number of sources. Updates are rare, and deletes are often done as bulk operations. Although the records written to a time-series database are generally small, there are often a large number of records, and total data size can grow rapidly.

Reference:
https://docs.microsoft.com/en-us/azure/architecture/guide/technology-choices/data-store-overview

QUESTION 140
Which Azure Data Factory component initiates the execution of a pipeline?

A. a control flow
B. a trigger
C. a parameter
D. an activity

Correct Answer: B
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Section: Describe an analytics workload on Azure
Explanation

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

QUESTION 141
You have an Azure Cosmos DB account that uses the Core (SQL) API.

Which two settings can you configure at the container level? Each correct answer presents a complete solution. (Choose two.)

NOTE: Each correct selection is worth one point.

A. the throughput
B. the read region
C. the partition key
D. the API

Correct Answer: AC
Section: Describe how to work with non-relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with non-relational data on Azure Explanation

Explanation/Reference:
Reference:
https://www.sqlshack.com/start-your-journey-with-azure-cosmos-db/

QUESTION 142
You need to design and model a database by using a graphical tool that supports project-oriented offline database development.

What should you use?

A. Microsoft SQL Server Data Tools (SSDT)
B. Microsoft SQL Server Management Studio (SSMS)
C. Azure Databricks
D. Azure Data Studio

Correct Answer: A
Section: Describe how to work with relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with relational data on Azure Explanation

Explanation/Reference:
Reference:
https://docs.microsoft.com/en-us/sql/ssdt/project-oriented-offline-database-development?view=sql-server- ver15

QUESTION 143
Which statement is an example of Data Manipulation Language (DML)?

A. REVOKE
B. DISABLE
C. INSERT
D. GRANT

Correct Answer: C
Section: Describe core data concepts
Explanation

Explanation/Reference:
Section: Describe core data concepts
Explanation

Explanation/Reference:
Explanation:
Data Manipulation Language (DML) statements:
DELETE

▪

INSERT

▪

UPDATE

▪

Reference:
https://docs.microsoft.com/en-us/azure/synapse-analytics/sql-data-warehouse/sql-data-warehouse-reference- tsql-statements

QUESTION 144
You need to store data in Azure Blob storage for seven years to meet your company's compliance requirements. The retrieval time of the data is unimportant. The solution must minimize storage costs.

Which storage tier should you use?

A. Archive
B. Hot
C. Cool

Correct Answer: A
Section: Describe how to work with non-relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with non-relational data on Azure Explanation

Explanation/Reference:
Reference:
https://cloud.netapp.com/blog/azure-blob-storage-pricing-the-complete-guide-azure-cvo-blg#H1_4

QUESTION 145
Your company has a reporting solution that has paginated reports. The reports query a dimensional model in a data warehouse.

Which type of processing does the reporting solution use?

A. stream processing
B. batch processing
C. Online Analytical Processing (OLAP)
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D. Online Transaction Processing (OLTP)

Correct Answer: C
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Reference:
https://datawarehouseinfo.com/how-does-oltp-differ-from-olap-database/

QUESTION 146
HOTSPOT

To complete the sentence, select the appropriate option in the answer area.

Hot Area:

D283ABFBEDB32CDCE3B3406B9C29DB2F

Answer Area

An extract, transform, and load (ETL) process requires

a matching schema in the data source and the data target.
a target data store powerful enough to transform data.
data that is fully processed before being loaded to the target data store.
that the data target be a relational database.

A.
B.
C.
D.

Correct Answer:
Section: Describe core data concepts
Explanation

Explanation/Reference:

Answer Area

An extract, transform, and load (ETL) process requires

a matching schema in the data source and the data target.
a target data store powerful enough to transform data.
data that is fully processed before being loaded to the target data store.
that the data target be a relational database.

Section: Describe core data concepts
Explanation

Explanation/Reference:
Explanation:

In the ELT pipeline, the transformation occurs in the target data store. ELT only works well when the target system is powerful enough to transform the data efficiently.

Incorrect Answers:
The data does not need to be fully processed: Often, the three ETL phases are run in parallel to save time.

▪

For example, while data is being extracted, a transformation process could be working on data already received and prepare it for loading, and a loading process can begin working on the prepared data, rather than waiting for the entire extraction process to complete.
The target does need to be a relational database.

▪

Reference:
https://docs.microsoft.com/en-us/azure/architecture/data-guide/relational-data/etl

QUESTION 147
Which Azure Data Factory component provides the compute environment for activities?

A. a linked service
B. an integration runtime
C. a control flow
D. a pipeline

Correct Answer: B
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Section: Describe an analytics workload on Azure
Explanation

Explanation/Reference:
Explanation:
The Integration Runtime (IR) is the compute infrastructure used by Azure Data Factory to provide the following data integration capabilities across different network environments:
Data Flow
Data movement
Activity dispatch
SSIS package execution

Reference:
https://docs.microsoft.com/en-us/azure/data-factory/concepts-integration-runtime

QUESTION 148
Which type of non-relational data store supports a flexible schema, stores data as JSON files, and stores the all the data for an entity in the same document?

A. document
B. columnar
C. graph
D. time series

Correct Answer: A
Section: Describe how to work with non-relational data on Azure Explanation
Explanation

Explanation/Reference:
Section: Describe how to work with non-relational data on Azure Explanation

Explanation/Reference: