

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.

Hide Solution**Discussion 24****Answer Area**

Descriptive analytics tells you

Correct Answer:

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.

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
------------	-----	----

Normalization involves eliminating relationships between database tables.

Normalizing a database reduces data redundancy.

Normalization improves data integrity.

Hide Solution**Discussion 14****Answer Area**

Statements	Yes	No
------------	-----	----

Correct Answer:

Normalization involves eliminating relationships between database tables.

Normalizing a database reduces data redundancy.

Normalization improves data integrity.

HOTSPOT -

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

Hot Area:

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.

[Hide Solution](#)[Discussion 72](#)**Answer Area**

Correct Answer:
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.

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

HOTSPOT -

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

Hot Area:

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.

[Hide Solution](#)[Discussion 4](#)**Answer Area**

Correct Answer:
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.

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

[Hide Solution](#)[Discussion 13](#)**Answer Area****Correct Answer:**

Transcribing audio files is an example of analytics.

cognitive
descriptive
predictive
prescriptive

Reference:

<https://azure.microsoft.com/en-us/services/cognitive-services/speech-services/>



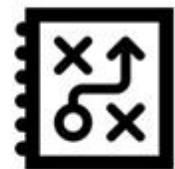
Descriptive
What's happening?



Diagnostic
Why's happening?



Predictive
What will happen?



Prescriptive
What actions should we take?

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?

[Hide Solution](#)

[Discussion 12](#)

Correct Answer: *Incorrect Answer:*

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 patterns, 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.

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?

Question #7

Topic 1

HOTSPOT -

You have the following JSON document.

```
"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"  
        }  
    ]  
}
```

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

[Hide Solution](#)

[Discussion](#) 10

Answer Area

Customer is [answer choice].

a nested array
a nested object
a root object

Correct Answer:

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

Reference:

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

[Hide Solution](#)

[Discussion 8](#)

Answer Area

The data model is a [answer choice].

transactional model
star schema
snowflake schema

Correct Answer:

Customer is a [answer choice] table.

fact
dimension
bridge

Box 1: star schema -

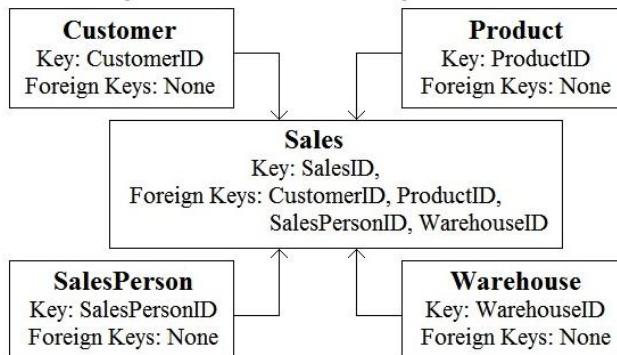
In computing, the star schema is the simplest style of data mart schema and is the approach most widely used to develop data warehouses and dimensional data marts. The star schema consists of one or more fact tables referencing any number of dimension tables. The star schema is an important special case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

Question #8

Topic 1

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

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.

[Hide Solution](#)

[Discussion 10](#)

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.

Reference:

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

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

[Hide Solution](#)

[Discussion 6](#)

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

HOTSPOT -

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

Hot Area:

Answer Area

A relational database is appropriate for scenarios that involve a high volume of

changes to relationships between entities
geographically distributed writes
transactional writes
writes that have varying data structures

[Hide Solution](#)[Discussion 4](#)**Answer Area**

Correct Answer: A relational database is appropriate for scenarios that involve a high volume of

changes to relationships between entities
geographically distributed writes
transactional writes
writes that have varying data structures

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
Batch processing can output data to a file store	<input type="radio"/>	<input type="radio"/>
Batch processing can output data to a relational database	<input type="radio"/>	<input type="radio"/>
Batch processing can output data to a NoSQL database	<input type="radio"/>	<input type="radio"/>

3 Yes

Question #13**Topic 1****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:

Locations

- An in-memory data integration tool
- The CRM system
- The data warehouse

Answer Area

Extract:

Location

CRM

Load:

Location

DWH

Transform:

Location

DWH

Question #14**Topic 1****HOTSPOT -**

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

Hot Area:

Answer Area

A visualization that shows a university's current student enrollment versus the maximum capacity is an example of

cognitive	▼	analytics.
descriptive		
predictive		
prescriptive		

Hide Solution**Discussion 9****Answer Area**

A visualization that shows a university's current student enrollment versus the maximum capacity is an example of

Correct Answer:

cognitive	▼	analytics.
descriptive		
predictive		
prescriptive		

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)

[Hide Solution](#)[Discussion 8](#)**Correct Answer: BD**

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>

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.

[Hide Solution](#)[Discussion 7](#)**Correct Answer:****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.

Question #18*Topic 1*

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

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

Hide Solution**Discussion** 8**Correct Answer: C**

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*Topic 1*

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

You need to persist the SQL query so that other users can use the query.

What should you create?

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

Hide Solution**Discussion** 6**Correct Answer: B**

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>

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.	<input type="radio"/> Y	<input type="radio"/>
Platform as a service (PaaS) database offerings in Azure provide administrators with the ability to control and update the operating system version.	<input type="radio"/>	<input type="radio"/> N
All platform as a service (PaaS) database offerings in Azure can be paused to reduce costs.	<input type="radio"/>	<input type="radio"/> N

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

[Hide Solution](#)

[Discussion 5](#)

Answer Area

Correct Answer:

A key/value data store is optimized for

enforcing constraints
simple lookups
table joins
transactions

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

Question #21

Topic 1

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:

**Question #22**

Topic 1

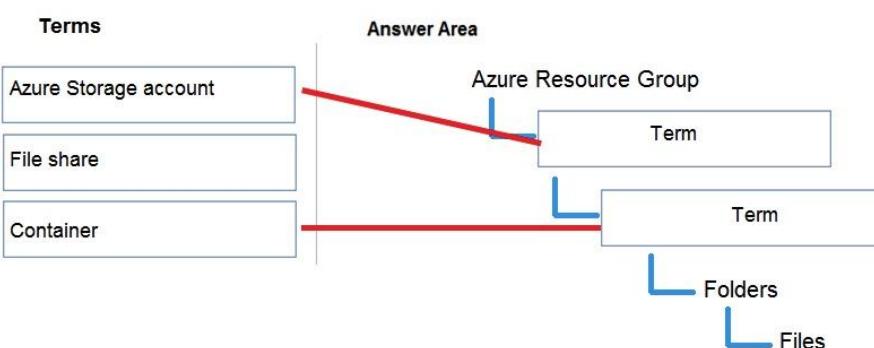
DRAG DROP -

Match the Azure Data Lake Storage 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:



Question #23

Topic 1

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

Hide Solution**Discussion** 7**Correct Answer:** BD

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

Topic 1

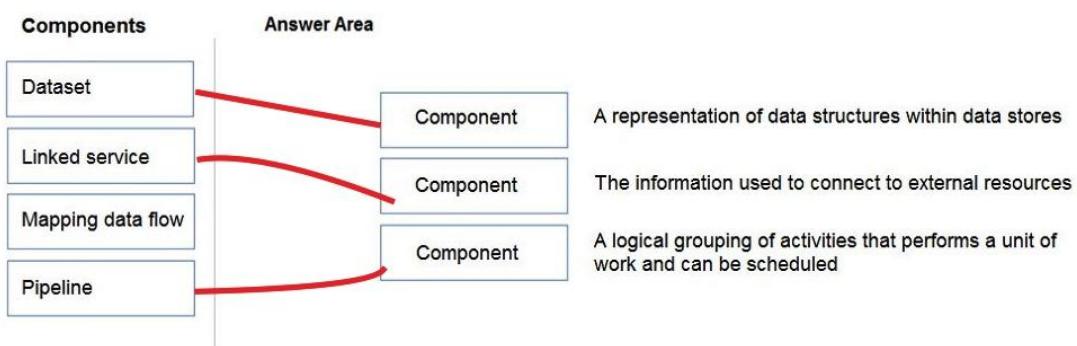
DRAG DROP -

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:

**Question #25**

Topic 1

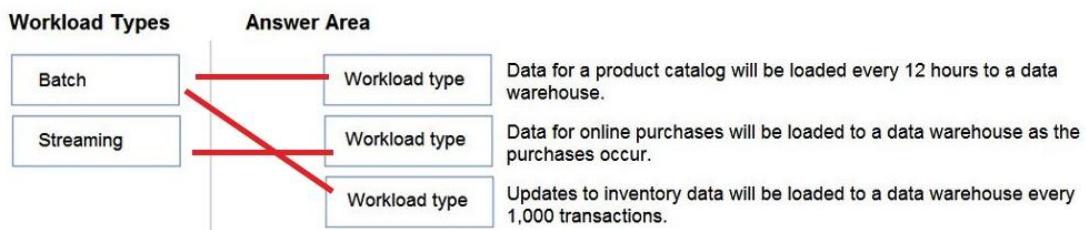
DRAG DROP -

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:



Question #28**Topic 1**

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

Hide Solution**Discussion 7****Correct Answer: B**

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/features-comparison>**Question #26****Topic 1****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.

Hide Solution**Discussion 8****Answer Area**

Transparent Data Encryption (TDE) encrypts

Correct Answer:

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.

Reference:

Question #27**Topic 1**

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

Hide Solution**Discussion 5****Correct Answer: B**

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/authentication-mfa-ssms-overview>**Question #30****Topic 1**

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

Hide Solution**Discussion 16****Correct Answer: A**

Reference:

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

HOTSPOT -

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

Hot Area:

Answer Area

By default, each Azure SQL database is protected by

a network security group (NSG).
a server-level firewall.
Azure Firewall.
Azure Front Door.

Hide Solution**Discussion 28****Answer Area**

By default, each Azure SQL database is protected by

Correct Answer:

a network security group (NSG).
a server-level firewall.
Azure Firewall.
Azure Front Door.

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

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:

Components

- Authentication
- Firewall
- Encryption

Answer Area

Prevent access to an Azure SQL database from another network.

Support Azure Active Directory (Azure AD) sign-ins to an Azure SQL database.

Ensure that sensitive data never appears as plain text in an Azure SQL database.

Hide Solution**Discussion 15**

Correct Answer:

Components

- Authentication
- Firewall
- Encryption

Answer Area

Firewall
Authentication
Encryption

Prevent access to an Azure SQL database from another network.

Support Azure Active Directory (Azure AD) sign-ins to an Azure SQL database.

Ensure that sensitive data never appears as plain text in an Azure SQL database.

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).

[Hide Solution](#)[Discussion 40](#)**Correct Answer:** A

Use read-only replicas to offload read-only query workloads.

Reference:

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

HOTSPOT -

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

Hot Area:

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.

[Hide Solution](#)[Discussion 8](#)**Answer Area**

A relational database must be used when

Correct Answer:

- a dynamic schema is required.
- data will be stored as key/value pairs.
- storing large images and videos.
- strong consistency guarantees are required.

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

[Hide Solution](#)

[Discussion 6](#)

Answer Area

Relational data uses ▼ to enforce relationships between different tables.

Correct Answer:

collections
columns
keys
partitions

[Reference](#)

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.

[Hide Solution](#)

[Discussion 44](#)

Correct Answer: BCE

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>

HOTSPOT -

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

Hot Area:

Answer Area

	▼	is a virtual table that contains content defined by a query.
A heap		
A stored procedure		
A view		
An index		

[Hide Solution](#)[Discussion 11](#)**Answer Area**

Correct Answer:

	▼	is a virtual table that contains content defined by a query.
A heap		
A stored procedure		
A view		
An index		

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

[Hide Solution](#)[Discussion 7](#)

Correct Answer: B

Reference:

<https://azure.microsoft.com/en-us/services/sql-database/#features>

Question #37*Topic 1*

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

Hide Solution**Discussion 7****Correct Answer: C**

Reference:

<https://docs.microsoft.com/en-us/sql/t-sql/queries/update-transact-sql?view=sql-server-ver15>**Question #39***Topic 1*

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

Hide Solution**Discussion 16****Correct Answer: B**

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:

Terms	Answer Area
Index	A database object that holds data
View	A database object whose content is defined by a query
Table	A database object that helps improve the speed of data retrieval

[Hide Solution](#)

[Discussion 9](#)

Terms	Answer Area
Index	A database object that holds data
View	A database object whose content is defined by a query
Table	A database object that helps improve the speed of data retrieval

Correct Answer:

- 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

[Hide Solution](#)

[Discussion 3](#)

Correct Answer: A

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.

Question #43**Topic 1**

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

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

Hide Solution**Discussion** 5**Correct Answer:** D

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.

Question #41**Topic 1**

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)

Hide Solution**Discussion** 4**Correct Answer:** D

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.

Question #44**Topic 1****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:

Tools

- Azure Data Studio
- Microsoft SQL Server Data Tools (SSDT)
- Microsoft SQL Server Management Studio (SSMS)
- Microsoft Visual Studio Code

Answer Area

Tool	A graphical tool for managing SQL Server or Azure SQL databases that supports access, configuration, management, and administration tasks.
Tool	A lightweight source code editor with an mssql extension that supports connections to SQL Server and a rich editing experience for T-SQL.
Tool	A lightweight editor that can run on-demand SQL queries and view and save results as text, JSON, or Microsoft Excel files.
Tool	A development tool for building Azure SQL databases, Microsoft SQL Server relational databases, SQL Server Analysis Services (SSAS) data models, SQL Server Integration Services (SSIS) packages, and SQL Server Reporting Services (SSRS) reports.

[Hide Solution](#)

Discussion 7

Correct Answer:**Tools**

- Azure Data Studio
- Microsoft SQL Server Data Tools (SSDT)
- Microsoft SQL Server Management Studio (SSMS)
- Microsoft Visual Studio Code

Answer Area

Microsoft SQL Server Management Studio (SSMS)	A graphical tool for managing SQL Server or Azure SQL databases that supports access, configuration, management, and administration tasks.
Microsoft Visual Studio Code	A lightweight source code editor with an mssql extension that supports connections to SQL Server and a rich editing experience for T-SQL.
Azure Data Studio	A lightweight editor that can run on-demand SQL queries and view and save results as text, JSON, or Microsoft Excel files.
Microsoft SQL Server Data Tools (SSDT)	A development tool for building Azure SQL databases, Microsoft SQL Server relational databases, SQL Server Analysis Services (SSAS) data models, SQL Server Integration Services (SSIS) packages, and SQL Server Reporting Services (SSRS) reports.

Question #47**Topic 1****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 fully managed backup service.	<input type="radio"/>	<input type="radio"/>
Azure SQL Database has built-in high availability.	<input type="radio"/>	<input type="radio"/>
Azure SQL Database can use Azure Advanced Threat Protection (ATP).	<input type="radio"/>	<input type="radio"/>

[Hide Solution](#)

Discussion 10

Answer Area**Correct Answer:**

Azure SQL Database includes a fully managed backup service.

Yes No

Azure SQL Database has built-in high availability.

Yes No

Azure SQL Database can use Azure Advanced Threat Protection (ATP).

Yes No

Reference:

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
Relational database tables contain columns and rows	<input type="radio"/>	<input type="radio"/>
Indexes in a relational database describe the data types in a table	<input type="radio"/>	<input type="radio"/>
A database view is a virtual table whose content is defined by a query	<input type="radio"/>	<input type="radio"/>

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

A. sqlcmd

B. bcp

C. azdata

D. Azure CLI

[Hide Solution](#)

[Discussion 56](#)

Correct Answer: A

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.

Answer Area

Statements	Yes	No
Relational database tables contain columns and rows	<input checked="" type="radio"/>	<input type="radio"/>
Indexes in a relational database describe the data types in a table	<input type="radio"/>	<input checked="" type="radio"/>
A database view is a virtual table whose content is defined by a query	<input checked="" type="radio"/>	<input type="radio"/>

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>

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 use Azure Data Studio to query a Microsoft SQL Server big data cluster.	<input type="radio"/>	<input checked="" type="radio"/>
You can use Microsoft SQL Server Management Studio (SSMS) to query an Azure Synapse Analytics data warehouse.	<input type="radio"/>	<input checked="" type="radio"/>
You can use MySQL Workbench to query Azure Database for MariaDB databases.	<input type="radio"/>	<input checked="" type="radio"/>

[Hide Solution](#)

[Discussion 4](#)

Answer Area

Statements	Yes	No
Correct Answer: You can use Azure Data Studio to query a Microsoft SQL Server big data cluster.	<input checked="" type="radio"/>	<input type="radio"/>
You can use Microsoft SQL Server Management Studio (SSMS) to query an Azure Synapse Analytics data warehouse.	<input checked="" type="radio"/>	<input type="radio"/>
You can use MySQL Workbench to query Azure Database for MariaDB databases.	<input type="radio"/>	<input checked="" type="radio"/>

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 provide built-in high availability.	<input type="radio"/>	<input type="radio"/>
Platform as a service (PaaS) database offerings in Azure provide configurable scaling options.	<input type="radio"/>	<input type="radio"/>
Platform as a service (PaaS) database offerings in Azure reduce the administrative overhead for managing hardware.	<input type="radio"/>	<input type="radio"/>

Hide Solution**Discussion 8****Answer Area**

Correct Answer:	Statements	Yes	No
	Platform as a service (PaaS) database offerings in Azure provide built-in high availability.	<input checked="" type="radio"/>	<input type="radio"/>
	Platform as a service (PaaS) database offerings in Azure provide configurable scaling options.	<input checked="" type="radio"/>	<input type="radio"/>
	Platform as a service (PaaS) database offerings in Azure reduce the administrative overhead for managing hardware.	<input checked="" type="radio"/>	<input type="radio"/>

Question #50**Topic 1****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:

Answer Area

Dbo.Products :

A column
A database
A table
An index

Table

ProductName :

A column
A database
A table
An index

Column

Question #51*Topic 1***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 must apply patches to Azure SQL databases regularly.	<input type="radio"/>	<input type="radio"/>
You need a Microsoft 365 subscription to create an Azure SQL database.	<input type="radio"/>	<input type="radio"/>
You can use existing Microsoft SQL Server licenses to reduce the cost of Azure SQL databases.	<input type="radio"/>	<input type="radio"/>

Hide Solution**Discussion 12****Correct Answer:****Answer Area**

Statements	Yes	No
You must apply patches to Azure SQL databases regularly.	<input type="radio"/>	<input checked="" type="radio"/>
You need a Microsoft 365 subscription to create an Azure SQL database.	<input type="radio"/>	<input checked="" type="radio"/>
You can use existing Microsoft SQL Server licenses to reduce the cost of Azure SQL databases.	<input checked="" type="radio"/>	<input type="radio"/>

Question #52*Topic 1*

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

- A. SELECT
- B. JOIN
- C. MERGE
- D. CREATE

Hide Solution**Discussion 5****Correct Answer: D**

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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Microsoft SQL Server Management Studio (SSMS) enables users to create and use SQL notebooks.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Azure Data Studio can be used to restore a database.	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

Hide Solution**Discussion 4****Correct Answer: C**

Azure SQL Database is relational database and a managed service.

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](#)

Question #55**Topic 1**

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

Hide Solution**Discussion 2****Correct Answer: AD**

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.

Question #56**Topic 1****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
If you have a platform as a service (PaaS) database in Azure, you are responsible for applying operating system updates.	<input type="radio"/>	<input checked="" type="radio"/>
If you have a platform as a service (PaaS) database in Azure, backups are performed automatically.	<input checked="" type="radio"/>	<input type="radio"/>
If you have a platform as a service (PaaS) database in Azure, you are responsible for upgrading the database engine.	<input type="radio"/>	<input checked="" type="radio"/>

Question #59**Topic 1**

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

Hide Solution**Discussion 55****Correct Answer: C**

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.

Question #58**Topic 1**

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

Hide Solution**Discussion 8****Correct Answer: B**

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.

Question #60**Topic 1**

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

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

Question #61**Topic 1**

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

Hide Solution**Discussion 3****Correct Answer: A**

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.

Def.....

Question #63**Topic 1**

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

C**Question #64****Topic 1**

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

Hide Solution**Discussion 4****Correct Answer: C**

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.

Answer Area

Statements	Yes	No
The Azure Cosmos DB API is configured separately for each database in an Azure Cosmos DB account.	<input type="radio"/>	<input type="radio"/>
Partition keys are used in Azure Cosmos DB to optimize queries.	<input type="radio"/>	<input type="radio"/>
Items contained in the same Azure Cosmos DB logical partition can have different partition keys.	<input type="radio"/>	<input type="radio"/>

[Hide Solution](#)

[Discussion 6](#)

Answer Area

Statements	Yes	No
Correct Answer: The Azure Cosmos DB API is configured separately for each database in an Azure Cosmos DB account.	<input type="radio"/>	<input checked="" type="radio"/>
Partition keys are used in Azure Cosmos DB to optimize queries.	<input checked="" type="radio"/>	<input type="radio"/>
Items contained in the same Azure Cosmos DB logical partition can have different partition keys.	<input type="radio"/>	<input checked="" type="radio"/>

Answer Area

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

[Hide Solution](#)

[Discussion 17](#)

Answer Area

Statements	Yes	No
Correct Answer: When ingesting data from Azure Data Lake Storage across Azure regions, you will incur costs for bandwidth.	<input checked="" type="radio"/>	<input type="radio"/>
You can use blob, table, and file storage in the same Azure Storage account.	<input checked="" type="radio"/>	<input type="radio"/>
You implement Azure Data Lake Storage by creating an Azure Storage account.	<input type="radio"/>	<input checked="" type="radio"/>

Question #65**Topic 1**

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?

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

Hide Solution**Discussion 3****Correct Answer: B**

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.

Question #68**Topic 1**

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

Hide Solution**Discussion 4****Correct Answer: AC**

Reference:

<https://docs.microsoft.com/en-us/azure/cosmos-db/set-throughput>

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.

Hide Solution**Discussion 4****Answer Area**

Correct Answer:

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

graph.
table.
partition key.
document.

Question #70

Topic 1

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

-
-
-

Application users and their default language

Medical images and their associated metadata

Employee data that shows the relationships between employees

Hide Solution**Discussion 4****Data Store Types**

Correct Answer:

-
-
-

Answer Area

-
-
-

Application users and their default language

Medical images and their associated metadata

Employee data that shows the relationships between employees

Question #71**Topic 1**

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

Hide Solution**Discussion 3****Correct Answer: AC****Question #69****Topic 1**

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 Table storage supports multiple read replicas.	<input checked="" type="checkbox"/>	<input type="radio"/>
Azure Table storage supports multiple write regions.	<input checked="" type="checkbox"/>	<input type="radio"/>
The Azure Cosmos DB Table API supports multiple read replicas.	<input checked="" type="checkbox"/>	<input type="radio"/>
The Azure Cosmos DB Table API supports multiple write regions.	<input checked="" type="checkbox"/>	<input type="radio"/>

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

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

[Hide Solution](#)[Discussion 17](#)**Correct Answer:** D

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

[Hide Solution](#)[Discussion 9](#)**Correct Answer:** B

Question #76*Topic 1***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:

APIs

- Cassandra API
- Gremlin API
- MongoDB API
- Table API

Answer Area

- Graph data
- JSON documents
- Key/value data

Hide Solution**Discussion 9****Correct Answer:****APIs**

- Cassandra API
- Gremlin API
- MongoDB API
- Table API

Answer Area

- Gremlin API Graph data
- MongoDB API JSON documents
- Table API Key/value data

Question #74*Topic 1*

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

Hide Solution**Discussion 6****Correct Answer: A****Question #75***Topic 1*

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

A. document

B. columnar

C. graph

D. time series

Hide Solution**Discussion 6**

HOTSPOT -

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

Hot Area:

Answer Area

To configure an Azure Storage account to support both security at the folder level and atomic directory manipulation,

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

[Hide Solution](#)

[Discussion 4](#)

Answer Area

To configure an Azure Storage account to support both security at the folder level and atomic directory manipulation,

Correct Answer:

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

Reference:

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

[Hide Solution](#)

[Discussion 7](#)

Correct Answer: D

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.

Question #79**Topic 1**

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

Hide Solution**Discussion 5****Correct Answer: B**

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.

Question #78**Topic 1****HOTSPOT -**

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

Hot Area:

Answer Area**D**

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.

Question #81**Topic 1**

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

Hide Solution**Discussion 2****Correct Answer: A**

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.

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	<input checked="" type="checkbox"/>	<input type="radio"/>
Azure Databricks can consume data from Azure Event Hubs	<input checked="" type="checkbox"/>	<input type="radio"/>
Azure Databricks can consume data from Azure Cosmos DB	<input checked="" type="checkbox"/>	<input type="radio"/>

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:

Services	Answer Area
Azure Blob storage	Azure Cosmos DB Service Enables the use of SQL queries against data stored in JSON documents
Azure Cosmos DB	Azure Files Service Enables users to access data by using the Server Message Block (SMB) version 3 protocol
Azure Files	
Azure Table storage	

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

[Hide Solution](#)

[Discussion 3](#)

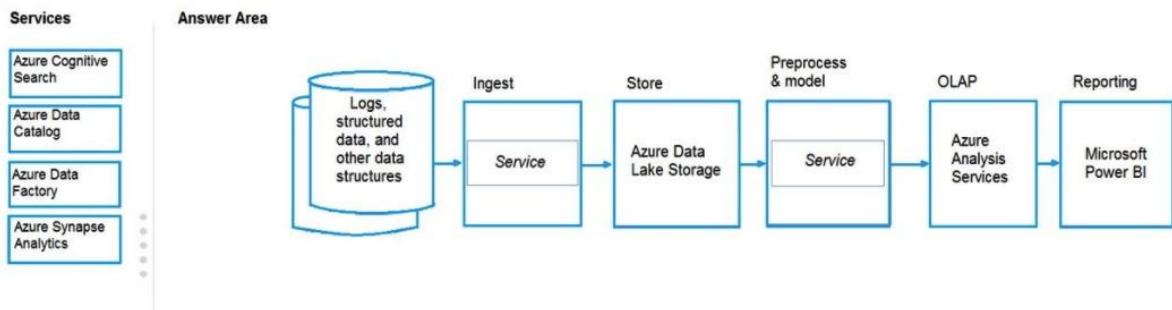
Correct Answer: C

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.

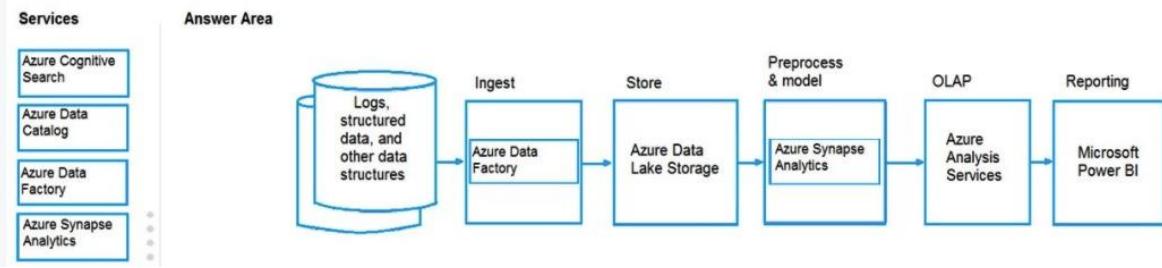
Select and Place:



[Hide Solution](#)

[Discussion](#) 2

Correct Answer:



Question #86

Topic 1

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:



HOTSPOT -

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

Hot Area:

Answer Area

In a data warehousing workload, data

from a single source is distributed to multiple locations
from multiple sources is combined in a single location
is added to a queue for multiple systems to process
is used to train machine learning models

[Hide Solution](#)

[Discussion](#) 2

Answer Area

Correct Answer:

In a data warehousing workload, data

from a single source is distributed to multiple locations
from multiple sources is combined in a single location
is added to a queue for multiple systems to process
is used to train machine learning models

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

Question #88

Topic 1

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	<input type="radio"/>	<input checked="" type="radio"/>
Azure Data Factory pipelines can execute other pipelines	<input checked="" type="radio"/>	<input type="radio"/>
A processing step within an Azure Data Factory pipeline is an activity	<input checked="" type="radio"/>	<input type="radio"/>

Question #89**Topic 1**

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:

Services	Answer Area						
Azure Data Factory							
Azure Data Lake Storage							
Azure SQL Database							
Azure Synapse Analytics							
	<table border="1"><tr><td style="text-align: center;">SQL Services Service</td><td>Output data to Parquet format</td></tr><tr><td style="text-align: center;">Data Lake Storage Service</td><td>Store data that is in Parquet format</td></tr><tr><td style="text-align: center;">Synapse Analytics Service</td><td>Persist a tabular representation of data that is stored in Parquet format</td></tr></table>	SQL Services Service	Output data to Parquet format	Data Lake Storage Service	Store data that is in Parquet format	Synapse Analytics Service	Persist a tabular representation of data that is stored in Parquet format
SQL Services Service	Output data to Parquet format						
Data Lake Storage Service	Store data that is in Parquet format						
Synapse Analytics Service	Persist a tabular representation of data that is stored in Parquet format						

Question #90**Topic 1**

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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Azure Synapse Analytics can be paused to reduce compute costs	<input checked="" type="checkbox"/>	<input type="checkbox"/>
An Azure Synapse Analytics data warehouse has a fixed storage capacity	<input type="checkbox"/>	<input checked="" type="checkbox"/>

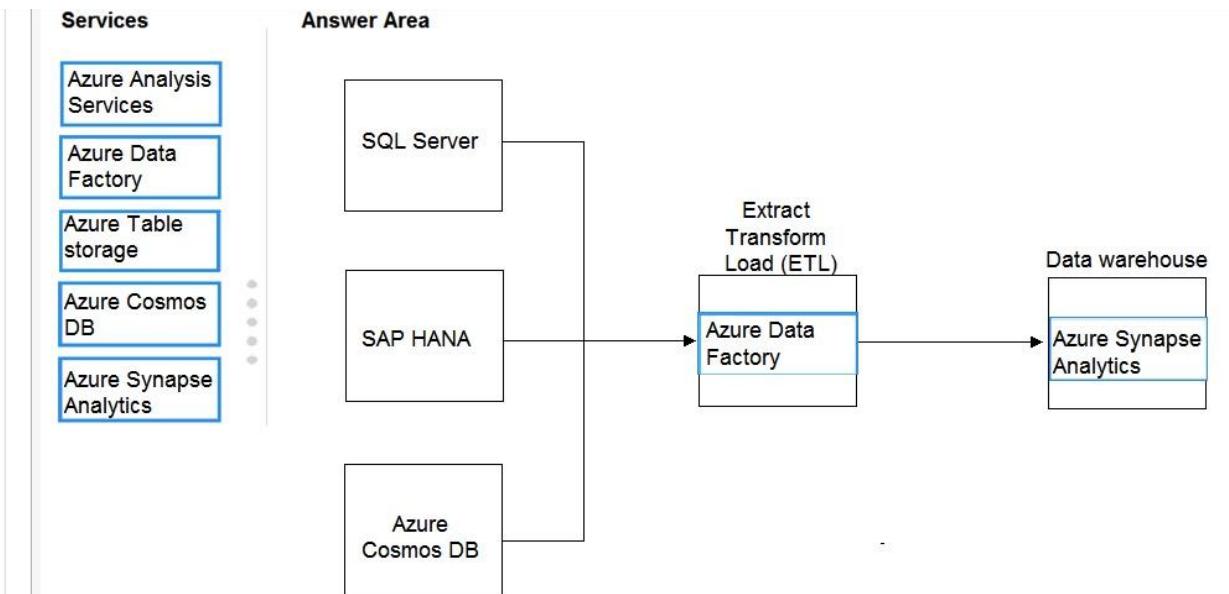
Question #91**Topic 1**

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

Hide Solution**Discussion 2****Correct Answer: D**

Power BI Report Builder is the standalone tool for authoring paginated reports for the Power BI service.



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

Question #94

Topic 1

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

[Hide Solution](#)

[Discussion 8](#)

Correct Answer: C

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.	<input checked="" type="checkbox"/>	<input type="radio"/>
Azure Analysis Services is used for transactional workloads.	<input type="radio"/>	<input checked="" type="checkbox"/>
Azure Data Factory orchestrates data integration workflows.	<input checked="" type="checkbox"/>	<input type="radio"/>

HOTSPOT -

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

Hot Area:

Answer Area

Batch workloads	<input type="text"/> ▼
	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.

Hide Solution**Discussion 14****Answer Area**

Batch workloads	<input type="text"/> ▼
Correct Answer:	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.

Question #96

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.

 Question #99*Topic 1*

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

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

Hide Solution**Discussion 5****Correct Answer: B**

Reference:

<https://docs.microsoft.com/en-us/azure/data-factory/concepts-pipeline-execution-triggers#trigger-execution>**Question #97***Topic 1*

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**

Question #98

Topic 1

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 SQL pool 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

Hide Solution**Discussion 13****Correct Answer: B****Question #100**

Topic 1

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)
- D. Online Transaction Processing (OLTP)

Hide Solution**Discussion 3****Correct Answer: C****Question #101**

Topic 1

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:

Activity Types

Control
Data movement
Data transformation

Answer Area

	Copy
	Mapping data flow
	Until

Hide Solution**Discussion 4****Correct Answer:****Activity Types**

Control
Data movement
Data transformation

Answer Area

Data movement	Copy
Data transformation	Mapping data flow
Control	Until

Question #102**Topic 1**

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

Hide Solution**Discussion 25****Correct Answer: BDF**

- 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.

Question #103**Topic 1**

Which two activities can be performed entirely by using the Microsoft Power BI service? 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

A**B****Hide Solution****Discussion 28**

Question #104

Topic 1

HOTSPOT -

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

Hot Area:

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.

Hide Solution**Discussion 9****Answer Area**

In Azure Data Factory, you can use

a control flow
a dataset
a linked service
an integration runtime

to orchestrate pipeline

Correct Answer:

activities that depend on the output of other pipeline activities.

Question #105

Topic 1

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

Hide Solution**Discussion 2**

Correct Answer: BC

Question #106

Topic 1

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

Hide Solution**Discussion 20**

Correct Answer: B

Question #107

Topic 1

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) C
- D. stream processing

Hide Solution**Discussion 36****Correct Answer: A**

Reference:

Question #108

Topic 1

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
- C. a visualization from a report
- D. a dataflow
- E. a text box

Hide Solution**Discussion 5****Correct Answer: ACE****Question #109**

Topic 1

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.	<input checked="" type="checkbox"/>	<input type="radio"/>
A Microsoft Power BI dashboard can only display visualizations from a single dataset.	<input type="radio"/>	<input checked="" type="checkbox"/>
A Microsoft Power BI dashboard can display visualizations from a Microsoft Excel workbook.	<input checked="" type="checkbox"/>	<input type="radio"/>

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.



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

[Hide Solution](#)[Discussion 20](#)**Correct Answer: B**

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

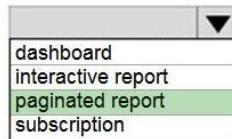
- ⇒ Data Flow
- ⇒ Data movement
- ⇒ Activity dispatch
- ⇒ SSIS package execution

[Hide Solution](#)[Discussion 1](#)

Answer Area

Correct Answer:

A Microsoft Power BI



enables users to create highly formatted,

fixed-layout documents optimized for printing and archiving.

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 #112****Topic 1**

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. Consistently implement business logic across reports

[Hide Solution](#)[Discussion 2](#)**Correct Answer: AC**

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 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>