

Free PDF
Part 1

On a Mission to make 100+ Certified Cloud Engineer in next 30 Days

CertyIQ

DP-900

Real Exam Questions & Answers

Latest Exam Questions - 2023
All Topics Covered
Added New Questions



40 IMPORTANT QUESTIONS



Subscribe

Microsoft Azure Data Fundamentals (DP-900) Certification Exam Format

Exam Name	Microsoft Azure Data Fundamentals (DP-900)
Exam Cost	USD 99
Exam Format	Multiple Choice
Total Questions	40-60 Questions
Passing Score	700 out of 1000
Exam Duration	60 Minutes
Languages	English, Japanese, Chinese (Simplified), Korean, French, German, Spanish
Testing Center	Pearson Vue

Skills Measured/Microsoft Azure Data Fundamentals (DP-900) Certification Examination Weights: -

- Core data concepts (15-20%)
- Analytics workload on Microsoft Azure (25-30%)
- Working with relational data on Azure (25-30%)
- Working with non-relational data on Azure (25-30%)

Source: <https://docs.microsoft.com/en-us/learn/certifications/>

Question 1

CertyIQ

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.

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.

Explanation:

Descriptive Analytics tells you what happened in the past. Diagnostic Analytics helps you understand why something happened in the past. Diagnostic analytics ask about the present. They drill down into why something has happened and helps users diagnose issues. Descriptive analytics ask about the past. They want to know what has been happening to the business and how this is likely to affect future sales.

Question 2

CertyIQ

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.	<input type="radio"/>	<input type="radio"/>
Normalizing a database reduces data redundancy.	<input type="radio"/>	<input type="radio"/>
Normalization improves data integrity.	<input type="radio"/>	<input type="radio"/>

Answer Area

	Statements	Yes	No
Correct Answer:	Normalization involves eliminating relationships between database tables.	<input type="radio"/>	<input checked="" type="radio"/>
	Normalizing a database reduces data redundancy.	<input checked="" type="radio"/>	<input type="radio"/>
	Normalization improves data integrity.	<input checked="" type="radio"/>	<input type="radio"/>

Explanation:

Normalization is the process of organizing data in a database. This includes creating tables and establishing relationships between those tables according to rules designed both to protect the data and to make the database more flexible by eliminating redundancy and inconsistent dependency. <https://docs.microsoft.com/en-us/office/troubleshoot/access/database-normalization-description#:~:text=Normalization%20is%20the%20process%20of,eliminating%20redundancy%20and%20inconsistent%20dependency>

Question 3

CertyIQ

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.	

Answer Area

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

Correct Answer:

- 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.

Explanation:

Extract, transform, and load (ETL) is a data pipeline used to collect data from various sources, transform the data according to business rules, and load it into a destination data store.

Reference:

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

Question 4

CertyIQ

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.

Answer Area

In batch processing,

Correct Answer:

- data is always inserted one row at a time.
- data is processed in real-time.
- latency is expected.
- processing can only execute serially.

Explanation:

Answer C is correct in this context.

Advantages of using Azure Batch

Azure Batch is especially well-suited to running large-scale parallel and high-performance computing (HPC) batch jobs. The service handles everything for you -- managing and scheduling all the nodes and applications required to run your scenarios. And it's a free service, so you only pay for the underlying compute, storage, and networking resources that you use.

Batch processing is parallellly

<https://docs.microsoft.com/en-us/learn/modules/run-parallel-tasks-in-azure-batch-with-the-azure-cli/2-what-is-azure-batch>

Question 5

CertyIQ

HOTSPOT -

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

Hot Area:

Answer Area

Transcribing audio files is an example of

▼
cognitive
descriptive
predictive
prescriptive

analytics.

Answer Area

Correct Answer:

Transcribing audio files is an example of

▼
cognitive
descriptive
predictive
prescriptive

analytics.

Explanation:

Transcribe means converting from Audio to Text. This is similar to Alexa, Alexa is a Cognitive device. Cognitive is the correct answer.

<https://docs.microsoft.com/en-us/learn/modules/data-analytics-microsoft/2-data-analysis>

Question 6

CertyIQ

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?

Analytics Types

Cognitive
Predictive

Answer Area

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

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 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?
- ⇒ 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

CertyIQ

Your company uses both relational and non-relational data.

You need to determine which tools are suitable for each of the following tasks.

What tools should you use? To answer, drag the appropriate option to the correct task. Each option may be used once, more than once, or not at all.

Drag and drop the answers

Azure Data Factory	Extract data from external sources.	
Azure Data Lake Storage	Maintain relational and NoSQL data in a data store.	
Azure Synapse Analytics	Analyze relational and NoSQL data.	

Correct Answers: -

Azure Data Factory	Extract data from external sources.	Azure Data Factory
Azure Data Lake Storage	Maintain relational and NoSQL data in a data store.	Azure Data Lake Storage
Azure Synapse Analytics	Analyze relational and NoSQL data.	Azure Synapse Analytics

Explanation:

You should use Azure Data Factory to extract data from external sources. Azure Data Factory allows you to extract data from both relational and non-relational data stores.

You should use Azure Data Lake Storage to maintain relational and NoSQL data in a data store. You can load raw data into Azure Data Lake storage.

You should use Azure Synapse Analytics to analyze relational and NoSQL data. You can analyze a high volume of structured and unstructured data with Azure Synapse Analytics.

Question 8

CertyIQ

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:

Statements	Yes	No
Azure Databricks is an analytics platform based on Apache Spark.	<input type="radio"/>	<input type="radio"/>
Azure Databricks can handle batch processing only.	<input type="radio"/>	<input type="radio"/>
Azure Databricks provides an interactive workspace for exploration and data visualization.	<input type="radio"/>	<input type="radio"/>

Correct Answers: -

Statements	Yes	No
Azure Databricks is an analytics platform based on Apache Spark.	<input checked="" type="radio"/>	<input type="radio"/>
Azure Databricks can handle batch processing only.	<input type="radio"/>	<input checked="" type="radio"/>
Azure Databricks provides an interactive workspace for exploration and data visualization.	<input checked="" type="radio"/>	<input type="radio"/>

Explanation:

Azure Databricks is an analytics platform based on Apache Spark. Azure Databricks is a complete platform for big data processing, streaming, and machine learning optimized for the Microsoft Azure cloud services platform and built on top of Apache Spark.

Azure Databricks can handle batch and stream processing. You can also perform real-time data processing and event streaming from Azure Event Hubs with Azure Databricks.

Azure Databricks provides an interactive workspace for exploration and data visualization. Azure Databricks provides a workspace for collaboration between data scientists, data engineers, and business analysts. You can run notebooks in R, Python, Scala, or SQL, and interact with the data very quickly.

Question 9

CertyIQ

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.

Answer Area

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

Correct Answer:

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

Explanation:

Reference:

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

Question 10

CertyIQ

HOTSPOT -

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

Hot Area:

Answer Area

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

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

Answer Area

Correct Answer:

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

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

Explanation:

Clustered indexes sort and store the data rows in the table or view based on their key values. These are the columns included in the index definition. There can be only one clustered index per table, because the data rows themselves can be stored in only one order.

Reference:

Question 11

CertyIQ

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

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

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

CertyIQ

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"/>

Answer Area

Statements	Yes	No
Batch processing can output data to a file store	<input checked="" type="radio"/>	<input type="radio"/>
Batch processing can output data to a relational database	<input checked="" type="radio"/>	<input type="radio"/>
Batch processing can output data to a NoSQL database	<input checked="" type="radio"/>	<input type="radio"/>

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: Yes -

Box 3: Yes -

Reference:

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

Question 13

CertyIQ

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

Load:

Location

Transform:

Location

Correct Answer:

Locations

An in-memory data integration tool

The CRM system

The data warehouse

Answer Area

Extract:

The CRM system

Load:

The data warehouse

Transform:

The data warehouse

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: The data warehouse -
In the ELT pipeline, the transformation occurs in the target data store. Instead of using a separate transformation engine, the processing capabilities of the target data store are used to transform data.

<https://docs.microsoft.com/en-us/azure/architecture/data-guide/relational-data/etl#extract-load-and-transform-elt>

Question 14

CertyIQ

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
descriptive
predictive
prescriptive

analytics.

Answer Area

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

Correct Answer:

▼
cognitive
descriptive
predictive
prescriptive

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

CertyIQ

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.

Correct Answer:

Visualizations

Key influencer
Scatter
Treemap

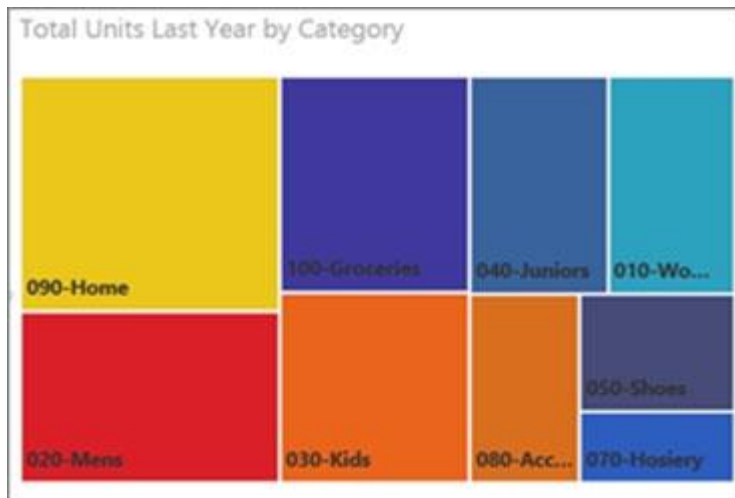
Answer Area

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.

Explanation:

Box 1: Tree map -

Treemaps are charts of coloured rectangles, with size representing value. They can be hierarchical, with rectangles nested within the main rectangles.



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

CertyIQ

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)

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

CertyIQ

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

Answer Area

	Statements	Yes	No
Correct Answer:	Platform as a service (PaaS) database offerings in Azure require less setup and configuration effort than infrastructure as a service (IaaS) database offerings.	<input checked="" type="radio"/>	<input type="radio"/>
	Platform as a service (PaaS) database offerings in Azure provide end users with the ability to control and update the operating system version.	<input type="radio"/>	<input checked="" type="radio"/>
	All relation and non-relational platform as a service (PaaS) database offerings in Azure can be paused to reduce costs.	<input type="radio"/>	<input checked="" type="radio"/>

Explanation:

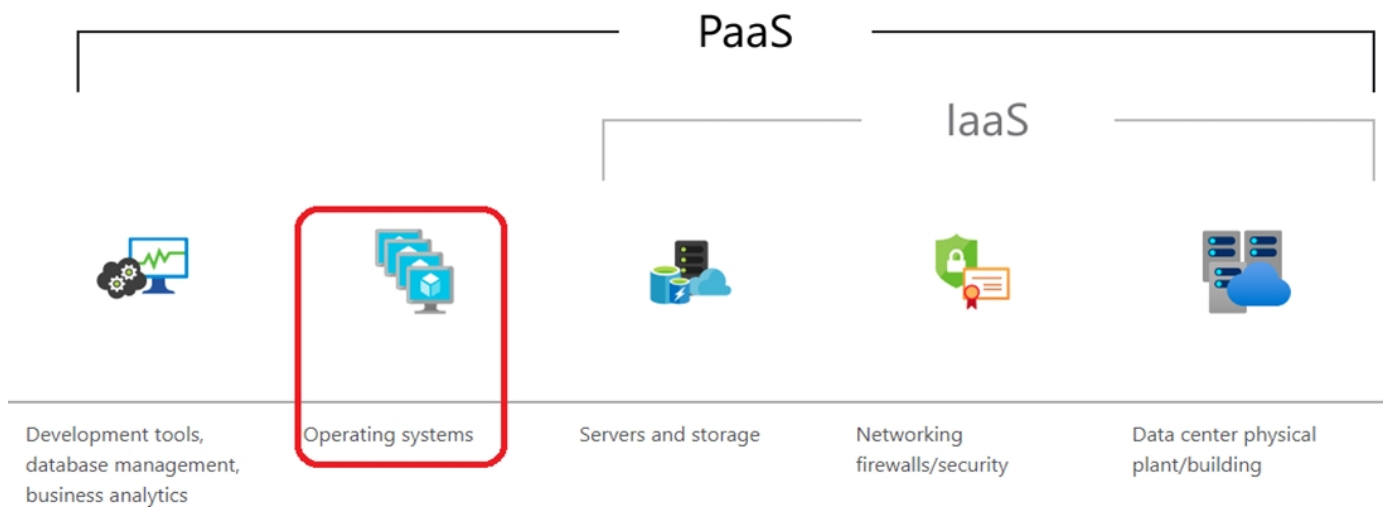
Box 1: Yes -

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: No -

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



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>

Question 18

CertyIQ

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

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

Explanation:

There's 3 type of Relational data SQL:

DDL (Data Definition Language) CREATE, DROP, ALTER, RENAME, COMMENT AND TRUNCATE.

DML (Data Manipulation Language) SELECT, INSERT INTO, DELETE, UPDATE.

DCL (Data Control Language) REVOKE & GRANT.

TCL (Transactional Control Language) COMMIT & ROLLBACK

Reference:

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

Question 19

CertyIQ

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

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

CertyIQ

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	

Answer Area

Correct Answer:

A key/value data store is optimized for

	▼
enforcing constraints	
simple lookups	
table joins	
transactions	

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 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

CertyIQ

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:

Data Types	Answer Area
Image files	Data type Azure Blob storage
Key/value pairs	Data type Azure Cosmos DB Gremlin API
Relationships between employees	Data type Azure Table storage

Correct Answer:

Data Types	Answer Area
Image files	Image files Azure Blob storage
Key/value pairs	Relationships between employees Azure Cosmos DB Gremlin API
Relationships between employees	Key/value pairs Azure Table storage

Explanation:

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

Box 2: - Relationship between employees
the relationship between employees is one of the first examples of a graph database (and therefore Gremlin API).

Box 3: Key/value pairs
Key/value pairs = Azure Table Storage
Reference: <https://docs.microsoft.com/en-us/azure/storage/tables/table-storage-design-modeling>

Question 22

CertyIQ

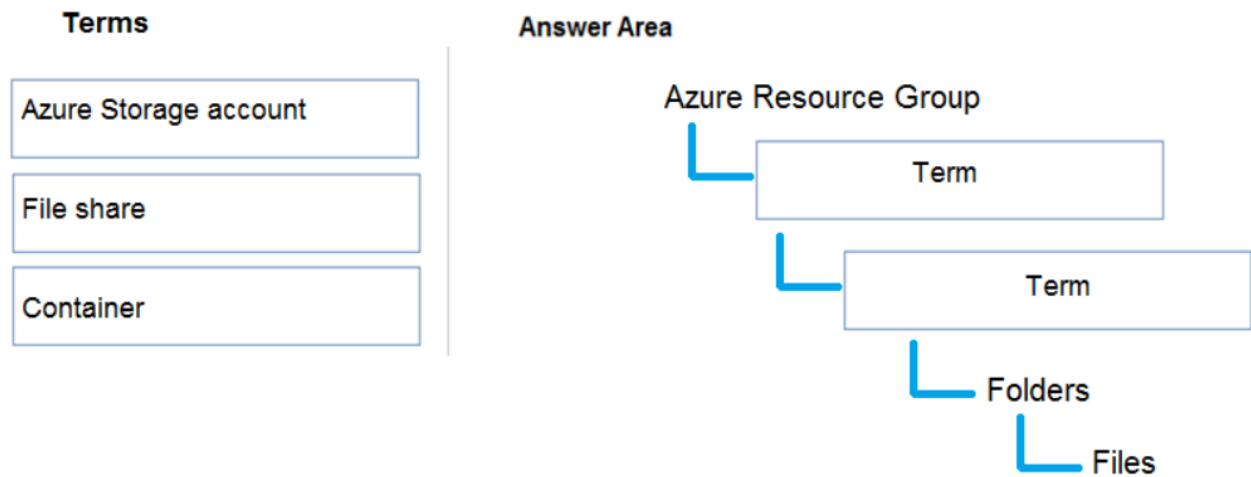
DRAG DROP -

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

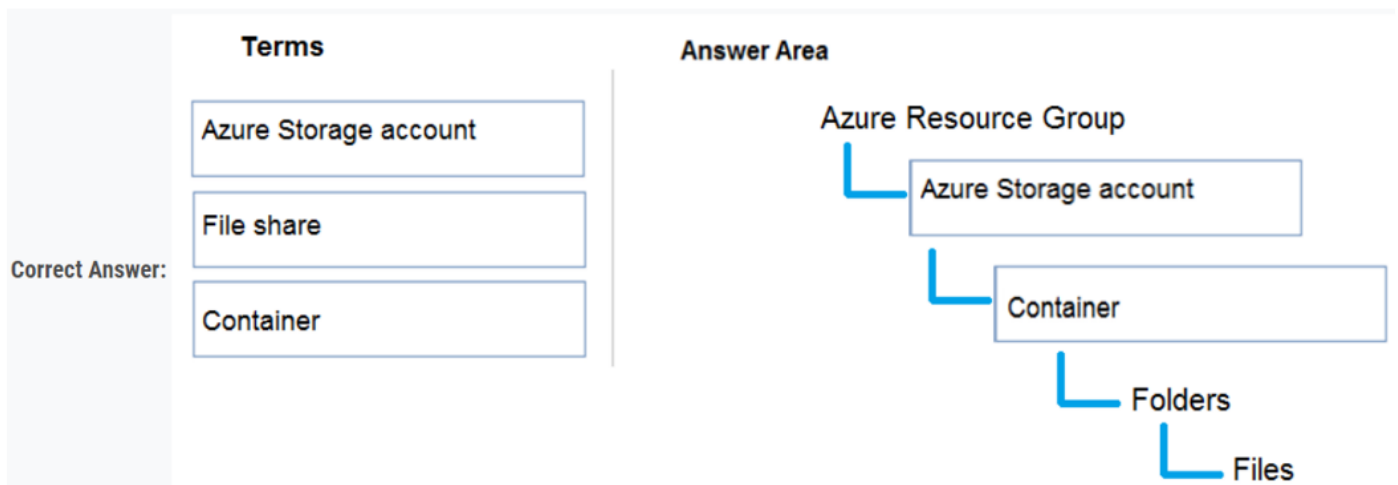
To answer, drag the appropriate term from the column on the left to its level on the right. Each term may be used once, more than once, or not at all.

NOTE: Each correct match is worth one point.

Select and Place:



Correct Answers: -



Explanation:

Box 1: Azure Storage account -

Azure file shares are deployed into storage accounts, which are top-level objects that represent a shared pool of storage.

Box 2: Container -

Reference:

<https://docs.microsoft.com/en-us/learn/modules/explore-provision-deploy-non-relational-data-services-azure/3-azure-data-lake-gen2>

Question 23

CertyIQ

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

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

CertyIQ

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:

Components	Answer Area
Dataset	Component A representation of data structures within data stores
Linked service	Component The information used to connect to external resources
Mapping data flow	Component A logical grouping of activities that performs a unit of work and can be scheduled
Pipeline	

Correct Answer:

Components	Answer Area
Dataset	Dataset A representation of data structures within data stores
Linked service	Linked service The information used to connect to external resources
Mapping data flow	Pipeline A logical grouping of activities that performs a unit of work and can be scheduled
Pipeline	

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

CertyIQ

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:

Workload Types	Answer Area
Batch	Workload type Data for a product catalog will be loaded every 12 hours to a data warehouse.
Streaming	Workload type Thousands of data sets per second for online purchases will be loaded into a data warehouse in real time
	Workload type Updates to inventory data will be loaded to a data warehouse every 1 million transactions.

Workload Types	Answer Area
Batch	Batch Data for a product catalog will be loaded every 12 hours to a data warehouse.
Streaming	Streaming Thousands of data sets per second for online purchases will be loaded into a data warehouse in real time
	Batch Updates to inventory data will be loaded to a data warehouse every 1 million transactions.

Correct Answer:

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

CertyIQ

Which type of database is used to store structured data?

- A. Graph
- B. Relational**
- C. Column Family
- D. Key-value

Explanation:

Relational databases store structured data in tables. Records in separate tables are related to each other using keys, which are columns storing unique values per table row. Tables allow the storage of records in the same structure, containing the same attributes. Structured data is usually stored in a relational fashion; it minimizes storage costs through reducing duplication of data. Structured data is commonly queried using SQL (structured query language), which is why non-relational databases that store semi-structured data are sometimes referred to as NoSQL.

Key-value databases are non-relational and can be used to store semi-structured data. Semi-structured data allows for variation between each instance of a data entity. For example, one record may contain a single email address as an attribute, another may contain three, and another may not contain any email addresses. Key-value databases allow two components of data to be stored related to an individual record: a unique key and a value, which can contain different types, formats and amounts of data per record.

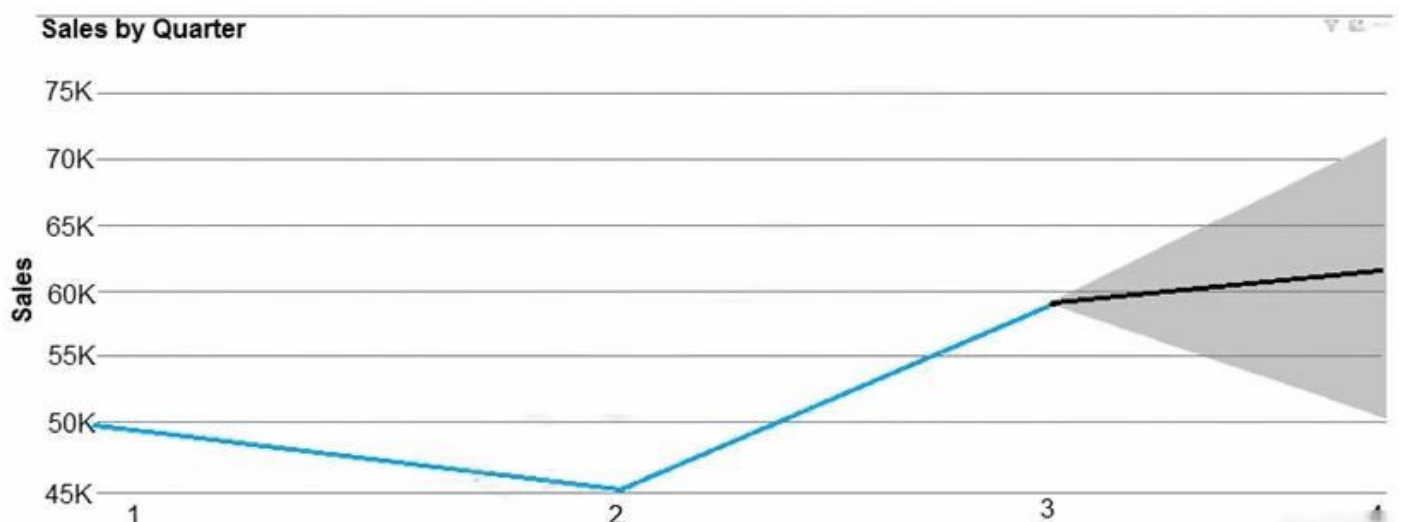
Column family databases are non-relational and can be used to store semi-structured data. Tables in column family databases can be divided into groups (column-families), holding sets of columns that are related to each other.

Graph databases are non-relational and can be used to store semi-structured data. Graph databases contain an additional dimension to many other types of database; they store entities as nodes and allow relationships to other nodes (edges) to have a direction. For instance, a parent/child relationship between two person nodes would indicate which is the parent and which is the child.

Question 27

CertyIQ

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

Explanation:

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

CertyIQ

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

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

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

CertyIQ

HOTSPOT -

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

Hot Area:

Answer Area

Creating closed caption text for audio files is an example of

	▼
cognitive	
descriptive	
predictive	
prescriptive	

analytics.

Correct Answer: -

Answer Area

Correct Answer:

Creating closed caption text for audio files is an example of

	▼
cognitive	
descriptive	
predictive	
prescriptive	

analytics.

Explanation:

It doesn't matter if a human or an algorithm generates the subtitles. First the content of the audio file must be recognized. This is a recognizing. Closed captions are a text version of the spoken part of a television, movie or computer presentation.

It's created for the deaf people especially, definitely cognitive because it is doing something on its own.

<https://azure.microsoft.com/en-us/services/cognitive-services/speech-to-text/#overview>

Question 30

CertyIQ

HOTSPOT -

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

Hot Area:

Answer Area

A visualization that illustrates a university's current student enrollment per department is an example of

	▼
cognitive	
descriptive	
predictive	
prescriptive	

analytics.

Answer Area

Correct Answer:

A visualization that illustrates a university's current student enrollment per department is an example of

	▼
cognitive	
descriptive	
predictive	
prescriptive	

analytics.

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?
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

CertyIQ

HOTSPOT -

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

Hot Area:

Answer Area

An extract, load, and transform (ELT) process
requires

- a separate transformation engine.
- a target data store powerful enough to transform data.
- data that is fully processed before being loaded to the target data store.
- a data pipeline that includes a transformation engine.

Answer Area

An extract, load, and transform (ELT) process
requires

Correct Answer:

- a separate transformation engine.
- a target data store powerful enough to transform data.
- data that is fully processed before being loaded to the target data store.
- a data pipeline that includes a transformation engine.

Explanation:

With ELT, the data store used to perform the transformation is the same data store where the data is ultimately consumed.

Reference:

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

Question 32

CertyIQ

You need to create an Azure resource to store data in Azure Table storage.
Which command should you run?

- A. az storage share create
- B. az storage account create
- C. az cosmosdb create
- D. az storage container create

Explanation:

Table is created under storage account as mentioned in the link

<https://docs.microsoft.com/en-us/azure/storage/tables/table-storage-overview>

also URL format for Azure Table Storage is

<http://<storage account>.table.core.windows.net/<table>>

Question 33

CertyIQ

HOTSPOT -

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

Hot Area:

Answer Area

The Azure Cosmos DB

Core (SQL)
Gremlin
MongoDB
Table

 API enables the use of SELECT statements to retrieve documents from Azure Cosmos DB.

Answer Area

Correct Answer:

The Azure Cosmos DB

Core (SQL)
Gremlin
MongoDB
Table

 API enables the use of SELECT statements to retrieve documents from Azure Cosmos DB.

Explanation:

Azure Cosmos DB SQL API accounts provide support for querying items using the Structured Query Language (SQL) syntax.

Reference:

<https://docs.microsoft.com/en-us/azure/cosmos-db/choose-api>

Question 34

CertyIQ

You need to modify a view in a relational database by adding a new column. Which statement should you use?

A. MERGE

B. ALTER

C. INSERT

D. UPDATE

Explanation:

ALTER - add/delete/modify column

UPDATE - edit existing row

INSERT - Insert new row

to add a column in a view Alter (<https://docs.microsoft.com/en-us/sql/relational-databases/tables/add-columns-to-a-table-database-engine?view=sql-server-ver15>)

Insert adds one or more rows to a table (<https://docs.microsoft.com/en-us/sql/t-sql/statements/insert-transact-sql?view=sql-server-ver15>)

Question 35

CertyIQ

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
Extract, transform, and load (ETL) can reduce the transfer of sensitive data to destination systems.	<input type="radio"/>	<input type="radio"/>
Extract, load, and transform (ELT) transforms data by using a compute resource independent of the source system and destination system.	<input type="radio"/>	<input type="radio"/>
Extract, load, and transform (ELT) minimizes the time it takes to copy large volumes of data to destination systems.	<input type="radio"/>	<input type="radio"/>

Answer Area

	Statements	Yes	No
Correct Answer:	Extract, transform, and load (ETL) can reduce the transfer of sensitive data to destination systems.	<input checked="" type="radio"/>	<input type="radio"/>
	Extract, load, and transform (ELT) transforms data by using a compute resource independent of the source system and destination system.	<input type="radio"/>	<input checked="" type="radio"/>
	Extract, load, and transform (ELT) minimizes the time it takes to copy large volumes of data to destination systems.	<input checked="" type="radio"/>	<input type="radio"/>

Explanation:

Box one is yes - You can reduce transfer sensitive data with transformations on data source.

Box two is No - ELT use the compute resource from destination system.

Box three is Yes. ELT minimizes time with transformations are going to be processed on target data destination systems. (The key point with ELT is that the data store used to perform the transformation is the same data store where

the data is ultimately consumed. This data store reads directly from the scalable storage, instead of loading the data into its own proprietary storage. This approach skips the data copy step present in ETL, which often can be a time-consuming operation for large data sets.)

Question 36

CertyIQ

HOTSPOT -

You plan to deploy a PostgreSQL database to Azure.

Which hosting model corresponds to the available deployment options? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

PostgreSQL on Azure VMs:

Infrastructure as a service (IaaS)
Platform as a service (PaaS)
Software as a service (SaaS)

Azure Database for PostgreSQL:

Infrastructure as a service (IaaS)
Platform as a service (PaaS)
Software as a service (SaaS)

Answer Area

Correct Answer:

PostgreSQL on Azure VMs:

Infrastructure as a service (IaaS)
Platform as a service (PaaS)
Software as a service (SaaS)

Azure Database for PostgreSQL:

Infrastructure as a service (IaaS)
Platform as a service (PaaS)
Software as a service (SaaS)

Explanation:

The correct answer is IaaS and PaaS.

under Postgres on Azure VMs, everything is customer managed that means Postgres on Azure VMs is an IaaS.

<https://docs.microsoft.com/en-us/azure/postgresql/overview-postgres-choose-server-options>

Question 37

CertyIQ

HOTSPOT -

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

Hot Area:

Answer Area

	▼
Column family databases	
Document databases	
Graph databases	
Key-value stores	

natively support the analysis of relationships between entities.

Correct Answer:

Answer Area

	▼
Column family databases	
Document databases	
Graph databases	
Key-value stores	

natively support the analysis of relationships between entities.

Explanation:

Graph databases can efficiently perform queries across the network of nodes and edges and analyze the relationships between entities.

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

Question 38

CertyIQ

Which Azure storage solution provides native support for POSIX-compliant access control lists (ACLs)?

- A. Azure Table storage
- B. Azure Data Lake Storage
- C. Azure Queue storage
- D. Azure Files

Explanation:

Reference:

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

Question 39

CertyIQ

HOTSPOT -

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

Hot Area:

Answer Area

Relational data is stored in

a file system as unstructured data.
a hierarchal folder structure.
a tabular form of rows and columns.
comma-separated value (CSV) files.

Answer Area

Relational data is stored in

Correct Answer:

a file system as unstructured data.
a hierarchal folder structure.
a tabular form of rows and columns.
comma-separated value (CSV) files.

Explanation:

A relational database stores data in tables. Tables are organized into columns and row.

Question 40

CertyIQ

HOTSPOT -

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

Hot Area:

Answer Area

A view
A clustered index
A stored procedure
A nonclustered index

physically sorts the data in a table based on the values in a specified column.

Answer Area

Correct Answer:

A view
A clustered index
A stored procedure
A nonclustered index

physically sorts the data in a table based on the values in a specified column.

Explanation:

Clustered indexes.

<https://docs.microsoft.com/en-us/sql/relational-databases/indexes/clustered-and-nonclustered-indexes-described?view=sql-server-ver15&viewFallbackFrom=sql-server-ver15%20%20Previous%20QuestionsNext%20Questions>

End of Part 1



Want all PDFs of DP900?

Please drop us mail at: - certyiqoffical@gmail.com

Please find the videos of this **AZ-900/AI-900/AZ-305/AZ-104 /DP-900/ SC-900** and other Microsoft exam series on

CertyIQ Official YouTube channel (**FREE PDFs**): -

Please [Subscribe](#) to CertyIQ YouTube Channel to get notified for latest exam dumps by clicking on the below image, it will redirect to the **CertyIQ** YouTube page.



Connect with us @ [LinkedIn](#) [Telegram](#)

Contact us for other dumps: - certyiq@gmail.com

For any other enquiry, please drop us a mail at

certyiqofficial@gmail.com