

# **DP-900**

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Question 41 CertylQ

#### HOTSPOT -

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

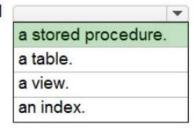
#### **Answer Area**

A block of code that runs in a database is called

a stored procedure.
a table.
a view.
an index.

A block of code that runs in a database is called

Correct Answer:



### **Explanation:**

#### Reference:

 $\frac{https://docs.microsoft.com/en-us/sql/relational-databases/stored-procedures/stored-procedures-database-engine?view=sql-server-ver15$ 

Question 42 CertylQ

#### 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	Answer Area	
Cognitive	Why did sales increase last month?	
Diagnostic	Provide specific guidance on how to allocate	
Descriptive	current budget to buy different inventory items.	
Predictive	Detect images of the company's logo included in PDF documents	
Prescriptive		
Analytics Type	s Answer Area	
Cognitive	Why did sales increase last month?	Diagnostic
Diagnostic	Provide specific guidance on how to allocate	
Descriptive	current budget to buy different inventory items.	Prescriptive
Predictive	Detect images of the company's logo included in PDF documents	Cognitive
Prescriptive		

### **Explanation:**

Box 1: Diagnostic -

Diagnostic Analytics: At this stage you can begin to answer some of those why questions. Historical data can begin to be measured against other data to answer the question of why something happened in the past. This is the process of

gathering and interpreting different data sets to identify anomalies, detect patters, and determine relationships.

#### Box 2: Prescriptive -

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

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: Cognitive -

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 43 CertylQ

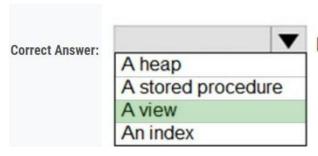
#### HOTSPOT -

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

Hot Area:

#### **Answer Area**





presents content defined by a query.

### **Explanation:**

A view - presents content defined by a query

Question 44 CertylQ

Which type of database is Azure Database for PostgreSQL?

#### A. Platform as a service (PaaS)

B. Infrastructure as a service (laaS)

- C. Microsoft SQL Server
- D. on-premises

Reference:

Question 45 CertylQ

Which storage solution supports access control lists (ACLs) at the file and folder level?

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

#### A. Azure Data Lake Storage

- B. Azure Queue storage
- C. Azure Blob storage
- D. Azure Cosmos DB

### **Explanation:**

Azure Data Lake Storage Gen2 implements an access control model that supports both Azure role-based access control (Azure RBAC) and POSIX-like access control lists (ACLs).

Reference:

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

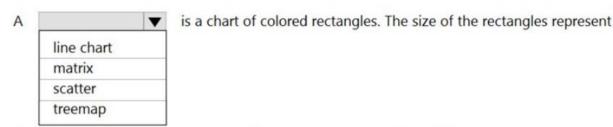
Question 46 CertylQ

HOTSPOT -

Select the answer that correctly completes the sentence.

Hot Area:

#### **Answer Area**



the relative value of each item. The chart can be hierarchical, displaying data as a set of rectangles nested within the main rectangle.

#### **Correct Answer: -**

#### **Answer Area**



is a chart of colored rectangles. The size of the rectangles represent

the relative value of each item. The chart can be hierarchical, displaying data as a set of rectangles nested within the main rectangle.

### **Explanation:**

A treemap chart divides the chart area into rectangles that represent the different levels and relative sizes of the data hierarchy.

Reference:

https://docs.microsoft.com/en-us/sql/reporting-services/report-design/tree-map-and-sunburst-charts-in-reporting-services?view=sql-server-ver15

Question 47 CertyIQ

What is a characteristic of batch processing?

- A. The data ingested during batch processing must be processed as soon as the data is received.
- B. Large datasets must be split into batches of less than 1 GB before the data can be processed.
- C. There is a noticeable time delay between ingesting data and obtaining the data processing results.
- D. Batch processing can only process data that is structured.

### **Explanation:**

Answer is C - There is a delay between ingestion and output because the batch has to be full for the processing to start. Batching is perfectly capable of handling any sort of data, including unstructured data that is usually sent as streams.

Question 48 CertylQ

HOTSPOT -

Select the answer that correctly completes the sentence.

Hot Area:

#### **Answer Area**

In a SQL statement,

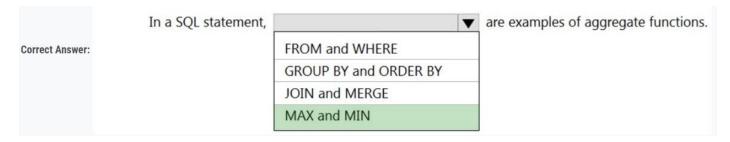
FROM and WHERE

GROUP BY and ORDER BY

JOIN and MERGE

MAX and MIN

are examples of aggregate functions.



An aggregate function performs a calculation on a set of values, and returns a single value. The following are aggregate functions:

- **○→ APPROX\_COUNT\_DISTINCT**
- AVG
- **○→ CHECKSUM\_AGG**
- **COUNT**
- **○→ COUNT\_BIG**
- **⇔** GROUPING
- **□ GROUPING\_ID**
- **S** MAX
- ⇔ MIN
- **⇒** STDEV
- **STDEVP STDEVP**
- **⇒** STRING\_AGG
- SUM

#### VAR -

•

**○→ VARP** 

Reference:

https://docs.microsoft.com/en-us/sql/t-sql/functions/aggregate-functions-transact-sql?view=sql-server-ver15

Question 49 CertylQ

#### 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 job that processes sales data once daily is an example of a batch workload.	0	0
A job that calculates a rolling average temperature reading is an example of a streaming workload.	0	0
A job that calculates average revenue per product for the last month is an example of a streaming workload.	0	0

#### **Correct Answer:**

#### **Answer Area**

A job that processes sales data once daily is an example of a batch workload.

A job that calculates a rolling average temperature reading is an example of a streaming workload.

A job that calculates average revenue per product for the last month is an

A job that calculates average revenue per product for the last month is an example of a streaming workload.



### **Explanation:**

#### Box 1: Yes -

Batch processing refers to processing of high volume of data in batch within a specific time span. It processes large volume of data all at once. Batch processing is used when data size is known and finite. It takes little longer time to processes data.

#### Box 2: Yes -

Stream processing refers to processing of continuous stream of data immediately as it is produced. It analyzes streaming data in real time. Stream processing is used when the data size is unknown and infinite and continuous.

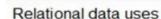
## Box 3: No - Reference:

https://www.geeksforgeeks.org/difference-between-batch-processing-and-stream-processing/

### Question 50 CertylQ

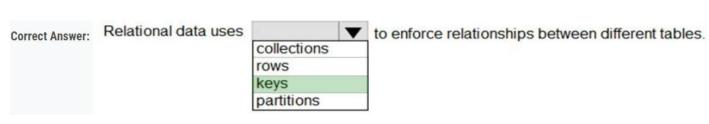
#### HOTSPOT -

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





to enforce relationships between different tables.



### **Explanation:**

#### Reference:

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

Question 51 CertyIQ

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

### **Explanation:**

ALTER - add/delete/modify column

**UPDATE** - update existing row

**INSERT - Insert new row** 

Reference:

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

Question 52 CertyIQ

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

### **Explanation:**

Minimize maintenance: so it should a PaaS + Relational Database = Azure SQL Database

SQL Database - https://azure.microsoft.com/en-us/products/azure-sql/database/#features

Fully managed SQL database automates updates, provisioning, and backups so you can focus on application development

Reference: <a href="https://azure.microsoft.com/en-us/services/sql-database/#features">https://azure.microsoft.com/en-us/services/sql-database/#features</a>

Question 53 CertyIQ

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

### **Explanation:**

#### B. Azure Data Studio.

It allows you to save your guery and even create charts or simple reports that you can re-visit.

#### Reference:

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

Question 54 CertylQ

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

### **Explanation:**

#### Reference:

 $\frac{\text{https://en.wikipedia.org/wiki/Table\_(database)}\#:\sim:\text{text=A}\%20 \\ \text{table}\%20 \\ \text{20a}\%20 \\ \text{database.}\&\text{text=In}\%20 \\ \text{relational}\%20 \\ \text{databases}\%2C\%20 \\ \text{and}\%20 \\ \text{flat,a}\%20 \\ \text{row}\%20 \\ \text{and}\%20 \\ \text{column}\%20 \\ \text{intersect https://en.wikipedia.org/wiki/View\_(SQL)}$ 

 $\frac{\text{https://en.wikipedia.org/wiki/Database\_index\#:} \sim :\text{text=A}\%20 \\ \text{data}\%20 \\ \text{structure} \ .$ 

2023 Latest AZ-900 Exam Actual Questions and other exam series on CertylQ (YouTube Channel)

Question 55 CertyIQ

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)

### **Explanation:**

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

Reference:

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

Question 56 CertyIQ

When can you use an Azure Resource Manager template?

#### A. to automate the creation of an interdependent group of Azure resources in a repeatable way

- B. to apply Azure policies for multi-tenant deployments
- C. to provision Azure subscriptions
- D. to control which services and feature administrators and developers can deploy from the Azure portal

### **Explanation:**

You can automate deployments and use the practice of infrastructure as code. In code, you define the infrastructure that needs to be deployed

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

Reference:

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

Question 57 CertylQ

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

You recently changed the public IP address of your computer.

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

### **Explanation:**

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

When creating an Azure SQL Database, the firewall needs to be configured before anyone will be able to access the database. By default, no external access to your SQL

Database will be allowed until you explicitly assign permission by creating a firewall rule.

Reference:

https://www.sglshack.com/configuring-the-azure-sgl-database-firewall/

Question 58 CertylQ

#### 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	Answer Area	
Azure Data Studio	Tool	A graphical tool for managing SQL Server or Azure SQL databases that supports access, configuration, management, and administration tasks.
Microsoft SQL Server Data Tools (SSDT)	Tool	A lightweight source code editor with an mssql extension that supports connections to SQL Server and a rich editing experience for T-SQL.
Microsoft SQL Server Management Studio (SSMS)	Tool	A lightweight editor that can run on-demand SQL queries and view and save results as text, JSON, or Microsoft Excel files.
Microsoft Visual Studio Code	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.

#### **Correct Answer: -**



Box 1: Microsoft SQL Server Management Studio (SSMS)

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

#### Box 2: Microsoft Visual Studio Code

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

#### Box 3: Azure Data Studio -

Azure Data Studio offers a modern, keyboard-focused SQL coding experience that makes your everyday tasks easier with built-in features, such as multiple tab windows, a rich

SQL editor, IntelliSense, keyword completion, code snippets, code navigation, and source control integration (Git). Run on-demand SQL queries, view and save results as text,

JSON, or Excel. Edit data, organize your favorite database connections, and browse database objects in a familiar object browsing experience.

#### Box 4: Microsoft SQL Server Data Tools (SSDT)

SQL Server Data Tools (SSDT) is a modern development tool for building SQL Server relational databases, databases in Azure SQL, Analysis Services (AS) data models,

Integration Services (IS) packages, and Reporting Services (RS) reports. With SSDT, you can design and deploy any SQL Server content type with the same ease as you would develop an application in Visual Studio.

Reference:

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

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

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

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

Question 59	CertyIQ
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#### 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	0	0
Indexes in a relational database describe the data types in a table	0	0
A database view is a virtual table whose content is defined by a query	0	0

	Statements	Yes	No
Correct Answer:	Relational database tables contain columns and rows	0	0
	Indexes in a relational database describe the data types in a table	0	0
	A database view is a virtual table whose content is defined by a query	0	0

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 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?views?views?views?views?views?views?views?views?views?views?views?views.

Question 60 CertylQ

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

#### A. sqlcmd

- B. bcp
- C. azdata
- D. Azure CLI

### **Explanation:**

The sqlcmd utility lets you enter Transact-SQL statements, system procedures, and script files through a variety of available modes:

At the command prompt.

In Query Editor in SQLCMD mode.

In a Windows script file.

In an operating system (Cmd.exe) job step of a SQL Server Agent job.

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

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

- B: The bulk copy program utility (bcp) bulk copies data between an instance of Microsoft SQL Server and a data file in a user-specified format.
- D: The Azure CLI is the defacto tool for cross-platform and command-line tools for building and managing Azure resources.

Reference:

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

Question 61	CertylQ
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Yes

No

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.

Statements

Hot Area:

#### **Answer Area**

Azure S	QL Database includes a managed backup service.	0	0		
Azure S	QL Database has built-in high availability.	0	0		
Azure S	QL Database can use Azure Defender.	0	0		
	Statements			Yes	No
Correct Answer:	Azure SQL Database includes a managed I	oackup se	rvice.	0	0
	Azure SQL Database has built-in high availa	ability.		0	0
	Azure SQL Database can use Azure Defen	der.		0	0

### **Explanation:**

Box 1: Yes -

Box 2: Yes -

Box 3: Yes -

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

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

Reference:

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

 $\underline{\text{https://azure.microsoft.com/en-us/blog/announcing-sql-atp-and-sql-vulnerability-assessment-general-availability/assessme$ 

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

Question 62 CertylQ

Ves

No

#### 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

#### Answer Area

	Statements	163	110	
	se Azure Data Studio to query a Microsoft SQL data cluster.	0	0	
	se Microsoft SQL Server Management Studio query an Azure Synapse Analytics data	0	0	
	se MySQL Workbench to query Azure Database B databases.	0	0	
	Statements		Yes	No
Correct Answer:	You can use Azure Data Studio to query a Mics Server big data cluster.	rosoft SQL	0	0
	You can use Microsoft SQL Server Managemet (SSMS) to query an Azure Synapse Analytics da warehouse.		0	0
	You can use MySQL Workbench to query Azur for MariaDB databases.	re Database	0	0
Cyplopotic				

### **Explanation:**

A) Yes from <a href="https://docs.microsoft.com/en-us/sql/azure-data-studio/what-is?view=sql-server-ver15">https://docs.microsoft.com/en-us/sql/azure-data-studio/what-is?view=sql-server-ver15</a>

Use Azure Data Studio if you: Are connecting to a SQL Server 2019 big data cluster

- B) Yes from <a href="https://docs.microsoft.com/en-us/learn/modules/query-azure-sql-data-warehouse/4-query-dw-using-ssms">https://docs.microsoft.com/en-us/learn/modules/query-azure-sql-data-warehouse/4-query-dw-using-ssms</a>
- C) Yes from <a href="https://docs.microsoft.com/en-us/azure/mariadb/connect-workbench">https://docs.microsoft.com/en-us/azure/mariadb/connect-workbench</a>

Question 63 CertylQ

#### 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 service (PaaS) database offerings in Azure lt-in high availability.	0	0	
	s a service (PaaS) database offerings in Azure afigurable scaling options.	0	0	
	s a service (PaaS) database offerings in Azure administrative overhead for managing hardware.	0	0	
	Statements		Yes	No
Correct Answer:	Platform as a service (PaaS) database offerings provide built-in high availability.	in Azure	0	0
	Platform as a service (PaaS) database offerings provide configurable scaling options.	in Azure	0	0

Platform as a service (PaaS) database offerings in Azure

reduce the administrative overhead for managing hardware.

0

0

### **Explanation:**

Reference:

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

Question 64 CertylQ

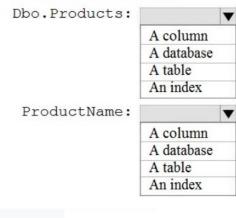
HOTSPOT -

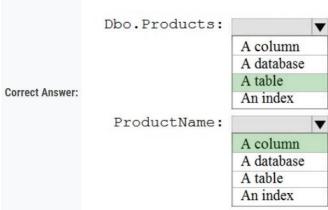
You have the following SQL query.

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**





Question 65 CertylQ

#### 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 operating system updates to Azure SQL databases regularly.	0	0
You need a Microsoft 365 subscription to create an Azure SQL database.	0	0
You can use existing Microsoft SQL Server licenses to reduce the cost of Azure SQL databases.	0	0

	Statements	Yes	No
Correct Answer:	You must apply operating system updates to Azure SQL databases regularly.	0	0
	You need a Microsoft 365 subscription to create an Azure SQL database.	0	0
	You can use existing Microsoft SQL Server licenses to reduce the cost of Azure SQL databases.	0	0

#### Reference:

https://azure.microsoft.com/en-gb/blog/hot-patching-sql-server-engine-in-azure-sql-database/https://azure.microsoft.com/en-us/services/sgl-database/#product-overview

Question 66 CertyIQ

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

A. SELECT

B. JOIN

C. UPDATE

#### D. CREATE

### **Explanation:**

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

- **→ ALTER**
- Collations
- **○** CREATE
- **□** DROP
- **⇒ DISABLE TRIGGER**
- **⇒ ENABLE TRIGGER**
- **□ RENAME**
- **UPDATE STATISTICS**
- **☞ TRUNCATE TABLE**
- **→ INSERT**

#### Reference:

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

Question 67 CertylQ

#### 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.	0	0
	Microsoft SQL Server Management Studio (SSMS) enables users to create and use SQL notebooks.	0	0
	Azure Data Studio can be used to restore a database.	0	0
	Statements	Yes	No
Correct Answer:	Azure Data Studio can be used to query an Azure SQL database from a device that runs macOS.	0	0
	Microsoft SQL Server Management Studio (SSMS) enables users to create and use SQL notebooks.	0	0
	Azure Data Studio can be used to restore a database.	0	0

### **Explanation:**

#### Box 1: Yes -

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

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

#### Box 2: No -

SQL Server Management Studio is for configuring, managing, and administering all components within Microsoft SQL Server, not to create SQL notebooks.

Instead use Azure Data Studio to create SQL notebook.

#### Box 3: Yes -

You can use the Azure Data Studio to restore databases.

#### Reference:

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

Question 68 CertylQ

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

### **Explanation:**

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:

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

Question 69 CertyIQ

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

### **Explanation:**

A: Azure SQL Database is a fully managed platform as a service (PaaS) database engine that handles most of the database management functions such as upgrading, patching, backups, and monitoring without user involvement. D: SQL Database delivers predictable performance with multiple resource types, service tiers, and compute sizes. It provides dynamic scalability with no downtime, built-in intelligent optimization, global scalability and availability, and advanced security options. These capabilities allow you to focus on rapid app development and accelerating your time-to-market, rather than on managing virtual machines and infrastructure.

Reference:

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

Question 70 CertylQ

#### 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**

	If you have a platform as a service (PaaS) database in Azure, you are responsible for applying operating system updates.	0	0
	If you have a platform as a service (PaaS) database in Azure, backups are performed automatically.	0	0
	If you have a platform as a service (PaaS) database in Azure, you are responsible for installation of the database engine.	0	0
	Statements	Yes	No
Correct Answer:	If you have a platform as a service (PaaS) database in Azure, you are responsible for applying operating system updates.	0	0
	If you have a platform as a service (PaaS) database in Azure, backups are performed automatically.	0	0

If you have a platform as a service (PaaS) database in Azure,

you are responsible for installation of the database engine.

Yes

No

0

0

Statements

### **Explanation:**

#### Box 1: No -

Microsoft handles all patching and updating of the SQL and operating system code. You don't have to manage the underlying infrastructure.

#### Box 2: Yes -

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

#### Box 3: No -

Reference:

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

Question 71 CertylQ

#### DRAG DROP -

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

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

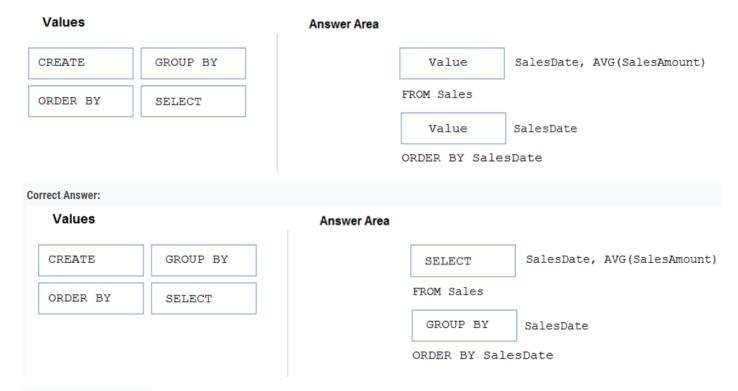
You need to query the table to return the average sales amount per day. The output must produce the following results.

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

How should you complete the query? To answer, drag the appropriate values to the correct targets. Each value may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content. NOTE: Each correct selection is worth one point.

Select and Place:



### **Explanation:**

Box 1: SELECT -

Box 2: GROUP BY -

Example:

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

SELECT TerritoryID, AVG(Bonus) as 'Average bonus', SUM(SalesYTD) as 'YTD sales'

FROM Sales.SalesPerson - GROUP BY TerritoryID;

#### Reference:

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

Question 72 CertylQ

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

### **Explanation:**

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

Reference:

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

Question 73 CertylQ

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

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

### **Explanation:**

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

- **○→ ALTER**
- **⇔** Collations
- **⇔** CREATE
- **□** DROP
- **→ DISABLE TRIGGER**
- **ENABLE TRIGGER**
- **→ RENAME**
- **UPDATE STATISTICS**
- **→ TRUNCATE TABLE**
- **□ UPDATE**

#### Reference:

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

Question 74 CertylQ

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

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

What should the developers use?

- A. sqlcmd
- B. Microsoft SQL Server Management Studio (SSMS)

#### C. Azure Data Studio

D. Azure Data Explorer

### **Explanation:**

IntelliSense = Azure Data Studio

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

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

Reference:

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

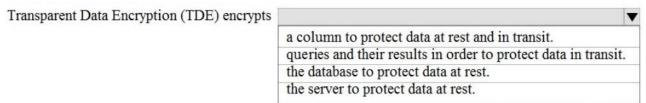
Question 75 CertylQ

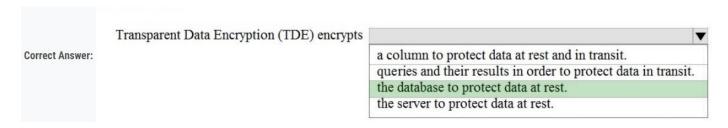
#### HOTSPOT -

Hot Area:

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

### Answer Area





### **Explanation:**

Transparent data encryption (TDE) helps protect Azure SQL Database, Azure SQL Managed Instance, and Azure Synapse Analytics against the threat of malicious offline activity by encrypting data at rest.

#### Reference:

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

Question 76 CertylQ

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

### **Explanation:**

Reference:

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

Question 77 CertylQ

You need to store structured data in a relational database.

How is data organized in a relational database?

- A Graphs containing edges and nodes
- B Tables containing keys and values
- Documents containing fields and values
- D Tables containing rows and columns

### **Explanation:**

Data is organized in tables containing rows and columns in a relational database. Relational databases use multiple tables with rows and columns to store structured data, with each row containing the same set of columns.

Data is not organized in documents containing fields and values in a relational database. Documents containing fields and values are a type of semi-structured data with a more flexible structure. Documents are usually represented in JavaScript Object Notation (JSON) format, and documents can have different fields to represent the same class of information.

Data is not organized in tables containing keys and values in a relational database. This semi-structured data is used in a key-value store, which is similar to a relational table. However, each row (represented as key) can have a different set of columns (represented as value).

Data is not organized in graphs containing edges and nodes in a relational database. This semi-structured data is used by graph databases, which are specialized to store and query information about complex relationships.

Question 78 CertyIQ

What type of data is JavaScript Object Notation (JSON) format data an example of?

Choose the correct answer

- A. Unstructured
- B. Semi-structured
- C. Relational
- D. Structured

### **Explanation:**

A JSON format data file is an example of semi-structured data. In a JSON document, each data field is identified by a label, followed by a colon, and the field value.

Curly brackets are used to enclose the document and any subdocuments. Azure Cosmos DB is the most common storage solution for this type of data.

Unstructured data includes files like video or audio files with no schema structure. This type of data is usually stored in Azure Blob storage.

Structured data and relational data refer to the same data structure with data in a highly normalized format and stored in multiple related tables. The most common storage solution is some type of SQL database management system.

Question 79 CertyIQ

You need to evaluate the characteristics of semi-structured data.

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

Statements	Yes	No
You need to define a strict schema on semi-structured data.	0	0
You can use semi-structured data to store data that has a highly variable structure.	0	0
You can use XML or JSON as a file format to store semi- structured data.	0	0

Correct Answer: -

Statements	Yes	No
You need to define a strict schema on semi-structured data.	0	0
You can use semi-structured data to store data that has a highly variable structure.	0	0
You can use XML or JSON as a file format to store semi- structured data.	0	0

You do not need to define a strict schema on semi-structured data. With semi-structured data, you do not need to define a schema. It focuses on storing the entity attributes data as-is rather than manipulating the data in tables and columns, that follow a strict schema, like a relational database.

You can use semi-structured data to store data that has a highly variable structure. You can store entities with different fields with semi-structured data, for example, a customer in an e-commerce platform could have multiple contact numbers or addresses, while another customer could have only one contact number. Semi-structured data provides you with this flexibility.

You can use Extensible Markup Language (XML) or JavaScript Object Notation (JSON) as a file format to store semi-structured data. Both file formats are flexible enough to store semi-structured data. You can add new attributes to entities by adding new keys to a JSON object or adding new elements or attributes to an XML document.

Question 80 CertylQ

A small car hire company maintains the following spreadsheets:

- · A list of its vehicles, containing the license plate, make, model, color and year purchased
- A list of rentals, containing the customer's name, e-mail address and phone number, the vehicle license plate, pick-up date and drop-off date

For each of the following statements about the car hire company's data, select Yes if the statement is true. Otherwise, select No.

Statements	Yes	No
Vehicle is a data entity.	0	0
License plate is a key value.	0	0
The car hire company's data is semi- structured.	0	0

Correct Answer: -

Statements	Yes	No
Vehicle is a data entity.	0	0
License plate is a key value.	0	0
The car hire company's data is semi- structured.	0	0

Vehicle is a data entity. A data entity models a real-world object, which has characteristics (attributes). The car hire company's data models two entities: vehicle and rental. In the case of the vehicle, its attributes are the license plate, make, model, color and year purchased.

License plate is a key value. License plate is a unique value for vehicles. It is referenced in both the vehicle spreadsheet and the rental spreadsheet, allowing a single vehicle to be related to many rentals; this is called a one-to-many relationship. The license plate value acts as a foreign key for rentals.

The car hire company's data is structured. Structured data is regular; the same set of information is recorded for each entity instance (in this instance, each line in the spreadsheet). For this reason, it is often referred to as tabular data. In semi-structured data, similar information with some variation is recorded for each instance and it is often hierarchical (one record can be a parent to another). For example, one record could record a home address and an e-mail address, and the next one might have a home address and a shipping address but not an e-mail address. For this car hire company, the same information is held for all records in the vehicle and rental spreadsheets, and so the data is structured. The rental and vehicle tables are related, and the two spreadsheets act as a basic relational database.





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