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QUESTION 1

A database administrator has been asked to assign a user the ability to view a data set. Which of the following practices best describes this request?

A. Access control

B. Security audit

C. Database audit

D. Password policy implementation

Correct Answer: A

The practice that best describes this request is access control. Access control is a process that regulates who can access what data in a system based on predefined rules or policies. Access control helps protect data from unauthorized or inappropriate access or modification bygranting or denying permissions or privileges to users or groups based on their roles or identities. By applying access control, the database administrator can assign a user the ability to view a data set without allowing them to change or delete it. The other options are either different practices or not related to this request. For example, security audit is a process that evaluates the security level of a system by identifying vulnerabilities or risks; database audit is a process that monitors and records the activities or events that occur on a database; password policy implementation is a process that defines and enforces rules or standards for creating and managing passwords. References: CompTIA DataSys+ Course Outline, Domain 4.0 Data and Database Security, Objective 4.2 Given a scenario, implement security controls for databases.

QUESTION 2

Which of the following tools is used for natively running a Linux system in Windows?

A. WSL

B. [Remote Desktop Protocol

C. SSH D. ITelnet

Correct Answer: A

The tool that is used for natively running a Linux system in Windows is WSL. WSL, or Windows Subsystem for Linux, is a feature that allows users to run a Linux system natively on Windows 10 or Windows Server. WSL enables users to install and use various Linux distributions, such as Ubuntu, Debian, Fedora, etc., and run Linux commands, tools, applications, etc., without requiring a virtual machine or a dual-boot setup. WSL also provides users with interoperability and integration between Linux and Windows, such as file system access, network communication, process management, etc. WSL is useful for users who want to use Linux features or functionalities on Windows, such as development, testing, scripting, etc. The other options are either different tools or not related to running a Linux system in Windows at all. For example, Remote Desktop Protocol (RDP) is a protocol that allows users to remotely access and control another computer or device over a network; SSH, or Secure Shell, is a protocol that allows users to securely connect and communicate with another computer or device over a network; Telnet is a protocol that allows users to interact with another computer or device over a network using a text-based interface. References: CompTIA DataSys+ Course Outline, Domain 2.0 Database Deployment, Objective 2.2 Given a scenario, create database objects using scripting and programming languages.

QUESTION 3

Which of the following is used to hide data in a database so the data can only be read by a user who has a key?

A. Data security

B. Data masking

C. Data protection

D. Data encryption

Correct Answer: D

The option that is used to hide data in a database so the data can only be read by a user who has a key is data encryption. Data encryption is a process that transforms data into an unreadable or scrambled form using an algorithm and a key. Data encryption helps protect data from unauthorized access or modification by third parties, such as hackers, eavesdroppers, or interceptors. Data encryption also helps verify the identity and authenticity of the source and destination of the data using digital signatures or certificates. Data encryption can be applied to data at rest (stored in a database) or data in transit (transmitted over a network). To read encrypted data, a user needs to have the corresponding key to decrypt or restore the data to its original form. The other options are either different concepts or not related to hiding data at all. For example, data security is a broad term that encompasses various methods and techniques to protect data from threats or risks; data masking is a technique that replaces sensitive data with fictitious but realistic data to protect its confidentiality or compliance; data protection is a term that refers to the legal or ethical obligations to safeguard personal or sensitive data from misuse or harm. References: CompTIA DataSys+ Course Outline, Domain 4.0 Data and Database Security, Objective 4.2 Given a scenario, implement security controls for databases.

QUESTION 4

A DBA left the company, and the DBA\\'s account was removed from the system. Soon after, scheduled jobs began failing.

Which of the following would have most likely prevented this issue?

A. Load balancing

B. Business continuity plan

C. Service accounts

D. Assigning a data steward

Correct Answer: C

The most likely way to prevent this issue is to use service accounts. Service accounts are special accounts that are used by applications or services to perform tasks or run jobs on behalf of users. Service accounts have limited permissions and access rights that are tailored to their specific functions. By using service accounts, the DBA can ensure that scheduled jobs can run independently of individual user accounts, and avoid failures due to account removal or changes. The other options are either not related or not effective for this issue. For example, load balancing is a technique that distributes the workload across multiple servers or resources to improve performance and availability; business continuity plan is a plan that outlines how an organization will continue its operations in the event of a disaster or disruption; assigning a data steward is a process that designates a person who is responsible for ensuring the quality and governance of data. References: CompTIA DataSys+ Course Outline, Domain 3.0 Database Management and Maintenance, Objective 3.3 Given a scenario, migrate data between databases.

QUESTION 5

Which of the following would a database administrator monitor to gauge server health? (Choose two.)

A. CPU usage

B. Memory usage

C. Transaction logs

D. Network sniffer

E. Domain controllers

F. Firewall traffic

Correct Answer: AB

The two factors that the database administrator should monitor to gauge server health are CPU usage and memory usage. CPU usage is the percentage of time that the processor (CPU) of the server is busy executing instructions or processes. CPU usage indicates how much workload the server can handle and how fast it can process requests. High CPU usage may affect the performance or availability of the server and cause delays or errors. Memory usage is the amount of physical memory (RAM) or virtual memory (swap space) that the server uses to store data or run applications. Memory usage indicates how much space the server has to store temporary or intermediate data or results. High memory usage may affect the performance or availability of the server and cause swapping or paging. The other options are either not relevant or not direct indicators of server health. For example, transaction logs are files that record the changes made by transactions on the database; network sniffer is a tool that captures and analyzes network traffic; domain controllers are servers that manage user authentication and authorization in a network; firewall traffic is the amount of data that passes through a firewall device or software. References: CompTIA DataSys+ Course Outline, Domain 3.0 Database Management and Maintenance, Objective 3.2 Given a scenario, monitor database performance.

QUESTION 6

Which of the followingbestdescribes a collection of data that shares the same properties or attributes?

A. Relation set

B. ER model

C. Entity set

D. Tuples

Correct Answer: C

The option that best describes a collection of data that shares the same properties or attributes is entity set. An entity set is a term used in the entity-relationship (ER) model, which is a conceptual model for designing and representing databases. An entity set is a collection of entities that have the same type or characteristics, such as students, courses, products, etc. An entity is an object or thing that can be identified and distinguished from others, such as a specific student, course, product, etc. An entity set can have one or more attributes that describe the properties or features of the entities, such as name, age, price, etc. An entity set can also have one or more relationships with other entity sets that define how the entities are associated or connected, such as enrolled, taught by, purchased by, etc. The other options are either different terms or not related to the ER model at all. For example, relation set is a term used in the

relational model, which is a logical model for implementing and manipulating databases; ER model is a term used to refer to the entity-relationship model itself; tuples are rows or records in a table or relation. References: CompTIA DataSys+ Course Outline, Domain 1.0 Database Fundamentals, Objective 1.1 Given a scenario, identify common database types.

QUESTION 7

A database administrator set up a connection for a SQL Server instance for a new user, but the administrator is unable to connect using the user\\'s workstation. Which of the following is themostlikely cause of the issue?

A. The SQL Server codes are performing badly.

B. The SQL Server has not been tested properly.

C. The SQL Server ports to the main machine are closed.

D. The SQL Server has many concurrent users.

Correct Answer: C

The most likely cause of the issue is that the SQL Server ports to the main machine are closed. SQL Server uses TCP/IP ports to communicate with clients and other servers. If these ports are blocked by a firewall or other network device, the connection will fail. The administrator should check the port configuration on both the server and the user\\'s workstation, and make sure that they are open and match the expected values. The other options are either unlikely or unrelated to the issue. For example, the SQL Server codes performing badly or having many concurrent users may affect the performance or availability of the server, but not prevent the connection entirely; the SQL Server not being tested properly may cause errors or bugs in the functionality or security of the server, but not affect the connection unless there is a configuration problem. References: CompTIA DataSys+ Course Outline, Domain 2.0 Database Deployment, Objective 2.3 Given a scenario, troubleshoot common database deployment issues.

QUESTION 8

Which of the following database instances are created by default when SQL Server is installed? (Choose two.)

A. Root

B. Master

C. Log

D. Model

E. View

F. Index

Correct Answer: BD

The two database instances that are created by default when SQL Server is installed are master and model. Master is a system database that contains the information and settings of the SQL Server instance, such as the configuration, logins, endpoints, databases, etc. Master is essential for the operation and management of the SQL Server instance, and it should be backed up regularly. Model is a system database that serves as a template for creating new user databases. Model contains the default settings and objects, such as tables, views, procedures, etc., that will be inherited

by the new user databases. Model can be modified to customize the new user databases according to specific needs or preferences. The other options are either not database instances or not created by default when SQL Server is installed. For example, root is not a database instance, but a term that refers to the highest level of access or privilege in a system; log is not a database instance, but a file that records the changes made by transactions on a database; view is not a database instance, but an object that represents a subset or a combination of data from one or more tables; index is not a database instance, but a data structure that stores the values of one or more columns of a table in a sorted order. References: CompTIA DataSys+ Course Outline, Domain 2.0 Database Deployment, Objective 2.3 Given a scenario, update database systems.

QUESTION 9

Which of the following statements contains an error?

A. Select EmpId from employee where EmpId=90030

B. Select EmpId where EmpId=90030 and DeptId=34

C. Select* from employee where EmpId=90030

D. Select EmpId from employee

Correct Answer: B

The statement that contains an error is option B. This statement is missing the FROM clause, which specifies the table or tables from which to retrieve data. The FROM clause is a mandatory clause in a SELECT statement, unless the

statement uses a subquery or a set operator. The correct syntax for option B would be:

SELECT EmpId FROM employee WHERE EmpId=90030 AND DeptId=34 Copy

The other options are either correct or valid SQL statements. For example, option A selects the employee ID from the employee table where the employee ID is equal to 90030; option C selects all columns from the employee table where the

employee ID is equal to 90030; option D selects the employee ID from the employee table without any filter condition. References: CompTIA DataSys+ Course Outline, Domain 1.0 Database Fundamentals, Objective 1.2 Given a scenario,

execute database tasks using scripting and programming languages.

QUESTION 10

Which of the following concepts applies to situations that require court files to be scanned for permanent reference and original documents be stored for ten years before they can be discarded?

A. Data loss prevention

B. Data retention policies

C. Data classification

D. Global regulations

Correct Answer: B

The concept that applies to situations that require court files to be scanned for permanent reference and original documents be stored for ten years before they can be discarded is data retention policies. Data retention policies are rules or guidelines that specify how long data should be kept and when it should be deleted or archived. Data retention policies are often based on legal, regulatory, or business requirements, and help organizations manage their data lifecycle, storage, and compliance. The other options are either not related or not specific to this situation. For example, data loss prevention is a process that aims to prevent data from being leaked, stolen, or corrupted; data classification is a process that assigns labels or categories to data based on its sensitivity, value, or risk; global regulations are laws or standards that apply to data across different countries or regions. References: CompTIA DataSys+ Course Outline, Domain 4.0 Data and Database Security, Objective 4.1 Given a scenario, apply security principles and best practices for databases.

QUESTION 11

Over the weekend, a company\\'s transaction database was moved to an upgraded server. All validations performed after the migration indicated that the database was functioning as expected. However, on Monday morning, multiple users reported that the corporate reporting application was not working.

Which of the following are the most likely causes? (Choose two.)

A. The access permissions for the service account used by the reporting application were not changed.

B. The new database server has its own reporting system, so the old one is not needed.

C. The reporting jobs that could not process during the database migration have locked the application.

D. The reporting application\\'s mapping to the database location was not updated.

E. The database server is not permitted to fulfill requests from a reporting application.

F. The reporting application cannot keep up with the new, faster response from the database.

Correct Answer: AD

The most likely causes of the reporting application not working are that the access permissions for the service account used by the reporting application were not changed, and that the reporting application\\'s mapping to the database location was not updated. These two factors could prevent the reporting application from accessing the new database server. The other options are either irrelevant or unlikely to cause the problem. References: CompTIA DataSys+ Course Outline, Domain 3.0 Database Management and Maintenance, Objective 3.2 Given a scenario, troubleshoot common database issues.

QUESTION 12

Which of the following database structures is a type of NoSQL database?

A. Hierarchical

B. Key-value stores

C. Cloud

D. Object-oriented

Correct Answer: B

The database structure that is a type of NoSQL database is key-value stores. Key-value stores are databases that store and manage data as pairs of keys and values. Keys are unique identifiers that locate data in the database; values are arbitrary data that can be any type or format. Key-value stores do not use any schema or structure to organize data, but rather use hash tables or indexes to enable fast and simple access to data based on keys. Key-value stores are suitable for storing large amounts of simple or unstructured data that do not require complex queries or relationships. The other options are either different types of databases or not related to database structures at all. For example, hierarchical databases are databases that store and manage data as nodes in a tree-like structure; cloud databases are databases that are hosted and accessed over the internet using cloud computing services; object-oriented databases are databases that store and manage data as objects that have attributes and methods. References: CompTIA DataSys+ Course Outline, Domain 1.0 Database Fundamentals, Objective 1.1 Given a scenario, identify common database types.