

Question: 1

HOTSPOT

You are planning the migration of the SERVER1 databases. The solution must meet the business requirements.

What should you include in the migration plan? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Azure Database Migration Service pricing tier:

	▼
Standard 2-vCore	
Standard 4-vCore	
Premium 4-vCore	

Required Azure resource:

	▼
A virtual network that has service endpoints	
A VPN gateway	
An Azure Logic app	

Answer:

Azure Database Migration Service pricing tier:

	▼
Standard 2-vCore	
Standard 4-vCore	
Premium 4-vCore	

Required Azure resource:

	▼
A virtual network that has service endpoints	
A VPN gateway	
An Azure Logic app	

Explanation:

Azure Database Migration service

Box 1: Premium 4-VCORE

Scenario: Migrate the SERVER1 databases to the Azure SQL Database platform.

- Minimize downtime during the migration of the SERVER1 databases.

Premium 4-vCore is for large or business critical workloads. It supports online migrations, offline migrations, and faster migration speeds.

Incorrect Answers:

The Standard pricing tier suits most small- to medium- business workloads, but it supports offline migration only.

Box 2: A VPN gateway

You need to create a Microsoft Azure Virtual Network for the Azure Database Migration Service by using

the Azure Resource Manager deployment model, which provides site-to-site connectivity to your onpremises

source servers by using either ExpressRoute or VPN.

Reference:

<https://azure.microsoft.com/pricing/details/database-migration/>

<https://docs.microsoft.com/en-us/azure/dms/tutorial-sql-server-azure-sql-online>

Question: 2

DRAG DROP

You need to configure user authentication for the SERVER1 databases. The solution must meet the security and compliance requirements.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions	Answer Area
Create a user in the master database	
Modify the Azure SQL server administrator account	
Create contained database users	
Create an Azure AD administrator for the logical server	
Connect to the databases by using an Azure AD account	
Enable the contained database authentication option	

Answer:

Create an Azure AD administrator for the logical server

Create contained database users

Connect to the databases by using an Azure AD account

Explanation:

Scenario: Authenticate database users by using Active Directory credentials.

The configuration steps include the following procedures to configure and use Azure Active Directory authentication.

- Create and populate Azure AD.
- Optional: Associate or change the active directory that is currently associated with your Azure Subscription.
- Create an Azure Active Directory administrator. (Step 1)
- Configure your client computers.
- Create contained database users in your database mapped to Azure AD identities. (Step 2)
- Connect to your database by using Azure AD identities. (Step 3)

Reference:

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

Question: 3

You need to implement authentication for ResearchDB1. The solution must meet the security and compliance requirements.

What should you run as part of the implementation?

- A. CREATE LOGIN and the FROM WINDOWS clause
- B. CREATE USER and the FROM CERTIFICATE clause
- C. CREATE USER and the FROM LOGIN clause
- D. CREATE USER and the ASYMMETRIC KEY clause
- E. CREATE USER and the FROM EXTERNAL PROVIDER clause

Answer: E

Explanation:

Scenario: Authenticate database users by using Active Directory credentials.

(Create a new Azure SQL database named ResearchDB1 on a logical server named ResearchSrv01.)

Authenticate the user in SQL Database or SQL Data Warehouse based on an Azure Active Directory user:

```
CREATE USER [Fritz@contoso.com] FROM EXTERNAL PROVIDER;
```

Reference:

<https://docs.microsoft.com/en-us/sql/t-sql/statements/create-user-transact-sql>

Question: 4

You have an Azure SQL database that contains a table named factSales. FactSales contains the columns shown in the following table.

Name	Data type
SalesID	Int
Product	Int
Total Number	Numeric(8,4)
Tax Number	Numeric(8,4)
SalesRep	Varchar(30)

FactSales has 6 billion rows and is loaded nightly by using a batch process.

Which type of compression provides the greatest space reduction for the database?

- A. page compression
- B. row compression
- C. columnstore compression
- D. columnstore archival compression

Answer: D

Explanation:

Columnstore tables and indexes are always stored with columnstore compression. You can further reduce the size of columnstore data by configuring an additional compression called archival compression.

Note: Columnstore — The columnstore index is also logically organized as a table with rows and columns, but the data is physically stored in a column-wise data format.

Incorrect Answers:

B: Rowstore — The rowstore index is the traditional style that has been around since the initial release of SQL Server.

For rowstore tables and indexes, use the data compression feature to help reduce the size of the database.

Reference:

<https://docs.microsoft.com/en-us/sql/relational-databases/data-compression/data-compression>

Question: 5

You have a Microsoft SQL Server 2019 instance in an on-premises datacenter. The instance contains a 4-TB database named DB1.

You plan to migrate DB1 to an Azure SQL Database managed instance.

What should you use to minimize downtime and data loss during the migration?

- A. distributed availability groups
- B. database mirroring
- C. log shipping
- D. Database Migration Assistant

Answer: A

Explanation:

The Data Migration Assistant (DMA) helps you upgrade to a modern data platform by detecting compatibility issues that can impact database functionality in your new version of SQL Server or Azure SQL Database. DMA recommends performance and reliability improvements for your target environment

and allows you to move your schema, data, and uncontained objects from your source server to your target server.

Note: SQL Managed Instance supports the following database migration options (currently these are the only supported migration methods):

- Azure Database Migration Service - migration with near-zero downtime.
- Native RESTORE DATABASE FROM URL - uses native backups from SQL Server and requires some downtime.

Reference:

<https://docs.microsoft.com/en-us/sql/dma/dma-overview>