

# Demo Questions

## Microsoft DP-300 Exam

### Administering Relational Databases on Microsoft Azure

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#### Question #1 Topic 1

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

**Correct Answer: D**

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 #2Topic 1

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

**Correct Answer: A**

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>

### Question #3Topic 1

HOTSPOT -

You have an on-premises Microsoft SQL Server 2016 server named Server1 that contains a database named DB1.

You need to perform an online migration of DB1 to an Azure SQL Database managed instance by using Azure Database Migration Service.

How should you configure the backup of DB1? To answer, select the appropriate options in the answer area.

NOTE:

Each correct selection is worth one point.

Hot Area:

### Answer Area

Backup type:

	▼
Full and log backups only	
Full backup only	
Log backup only	

Backup option:

	▼
WITH CHECKSUM	
WITH NOINIT	
WITH UNLOAD	

Correct Answer:

## Answer Area

Backup type:

	▼
Full and log backups only	
Full backup only	
Log backup only	

Backup option:

	▼
WITH CHECKSUM	
WITH NOINIT	
WITH UNLOAD	

Box 1: Full and log backups only

Make sure to take every backup on a separate backup media (backup files). Azure Database Migration Service doesn't support backups that are appended to a single backup file. Take full backup and log backups to separate backup files.

Box 2: WITH CHECKSUM -

Azure Database Migration Service uses the backup and restore method to migrate your on-premises databases to SQL Managed Instance. Azure Database Migration Service only supports backups created using checksum.

Incorrect Answers:

NOINIT Indicates that the backup set is appended to the specified media set, preserving existing backup sets. If a media password is defined for the media set, the password must be supplied. NOINIT is the default.

UNLOAD -

Specifies that the tape is automatically rewound and unloaded when the backup is finished. UNLOAD is the default when a session begins.

Reference:

<https://docs.microsoft.com/en-us/azure/dms/known-issues-azure-sql-db-managed-instance-online>

### Question #4Topic 1

DRAG DROP -

You have a resource group named App1Dev that contains an Azure SQL Database server named

DevServer1. DevServer1 contains an Azure SQL database named DB1. The schema and permissions for DB1 are saved in a Microsoft SQL Server Data Tools (SSDT) database project. You need to populate a new resource group named App1Test with the DB1 database and an Azure SQL Server named TestServer1. The resources in App1Test must have the same configurations as the resources in App1Dev.

Which four 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.

Select and Place:

**Actions**

**Answer Area**

- Change the Active Directory Admin on TestServer1
- Change the server name and related variables in the templates
- From the database project, deploy the database schema and permissions
- Add IP addresses to the firewall
- From the Azure portal, export the Azure Resource Manager templates
- From the Azure portal, deploy the templates.



**Correct Answer:**

**Actions**

**Answer Area**

- Change the Active Directory Admin on TestServer1
- Change the server name and related variables in the templates
- From the database project, deploy the database schema and permissions
- Add IP addresses to the firewall
- From the Azure portal, export the Azure Resource Manager templates
- From the Azure portal, deploy the templates.



- From the Azure portal, export the Azure Resource Manager templates
- Change the server name and related variables in the templates
- From the Azure portal, deploy the templates.
- From the database project, deploy the database schema and permissions

### Question #5 Topic 1

You have 20 Azure SQL databases provisioned by using the vCore purchasing model.

You plan to create an Azure SQL Database elastic pool and add the 20 databases.

Which three metrics should you use to size the elastic pool to meet the demands of your workload?

Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. total size of all the databases
- B. geo-replication support
- C. number of concurrently peaking databases \* peak CPU utilization per database
- D. maximum number of concurrent sessions for all the databases
- E. total number of databases \* average CPU utilization per database

**Correct Answer:** ACE

CE: Estimate the vCores needed for the pool as follows:

For vCore-based purchasing model:  $\text{MAX}(\text{Total number of DBs} \times \text{average vCore utilization per DB}, \text{Number of concurrently peaking DBs} \times \text{Peak vCore utilization per DB})$

A: Estimate the storage space needed for the pool by adding the number of bytes needed for all the databases in the pool.

Reference:

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