**Answer Summary**

Below is a summary of your answers.

Back to Report

**Question 1 of 50**

You have 20 on-premises Microsoft SQL Server instances.

You need to migrate the instances to Azure. The solution must support auditing at the server level.

Which two services can you use? Each correct answer presents a complete solution.

**Your Answer**

* Azure SQL Database elastic pool

**This answer is incorrect.**

* Azure SQL Managed Instance

**This answer is correct.**

**Correct Answer**

* Azure SQL Managed Instance

**This answer is correct.**

* SQL Server on Azure Virtual Machines

**This answer is correct.**

SQL Server on Azure Virtual Machines and Azure SQL Managed Instance support SQL Server Audit and can be used.

Azure SQL Database serverless is a compute tier of Azure SQL Database that does not support SQL Server Audit. Azure SQL Database Elastic pool is a shared database offering of Azure SQL Database that doesn’t support SQL Server Audit. Azure SQL Database Hyperscale is a service tier of Azure SQL Database that does not support SQL Server Audit.

[Explore Azure SQL Database Managed Instance - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/prepare-to-maintain-sql-databases-azure/5-explore-azure-sql-database-managed-instance?source=learn)

[T-SQL differences between SQL Server & Azure SQL Managed Instance - Azure SQL Managed Instance | Microsoft Learn](https://learn.microsoft.com/azure/azure-sql/managed-instance/transact-sql-tsql-differences-sql-server?view=azuresql#auditing)

[SQL Server Audit (Database Engine) - SQL Server | Microsoft Learn](https://learn.microsoft.com/sql/relational-databases/security/auditing/sql-server-audit-database-engine?view=sql-server-ver16)

**Question 2 of 50**

You are building a multi-tenant app that will use an Azure SQL Database.

You need to partition the database. The solution must meet the following requirements:

* Improve scalability.
* Reduce contention.
* Optimize performance.
* Isolate each tenant’s data.

What should you use?

**Your Answer**

* a combination of list and range shard maps

**This answer is incorrect.**

**Correct Answer**

* a list shard map only

**This answer is correct.**

Using only a list shard map is the correct solution because each tenant’s data will be stored in a separate database.

A range shard map will allow data from multiple tenants to be in stored in the same database.

[Explore performance and security - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/deploy-iaas-solutions-with-azure-sql/4-explore-performance-and-security)

[Data partitioning strategies - Azure Architecture Center | Microsoft Learn](https://learn.microsoft.com/azure/architecture/best-practices/data-partitioning-strategies)

**Question 3 of 50**

You are deploying a SQL Server on Azure Virtual Machines instance that will be used as a development environment. You will develop two small databases, one of which will have in-memory tables.

You need to choose the most suitable virtual machine type for the deployment.

What should you choose?

**Your Answer**

* general purpose

**This answer is correct.**

**Correct Answer**

* general purpose

**This answer is correct.**

General purpose virtual machine sizes provide a balanced CPU-to-memory ratio. This is ideal for testing and development, small to medium databases, and low to medium traffic web servers.

Compute optimized virtual machine sizes have a high CPU-to-memory ratio. This is good for medium traffic web servers, network appliances, batch processes, and application servers.

Memory optimized virtual machine sizes offer a high memory-to-CPU ratio that is used for relational database servers, medium to large caches, and in-memory analytics.

GPU optimized virtual machine sizes are specialized virtual machines available with single, multiple, or fractional GPUs. These sizes are designed for compute-intensive, graphics-intensive, and visualization workloads.

[Azure VM sizes - General purpose - Azure Virtual Machines | Microsoft Learn](https://learn.microsoft.com/azure/virtual-machines/sizes-general)

[Prepare to maintain SQL databases on Azure - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/prepare-to-maintain-sql-databases-azure/)

**Question 4 of 50**

You are deploying a SQL Server on Azure Virtual Machines instance for a production environment. One of the databases in this instance has in-memory tables.

You need to choose the most suitable virtual machine type for the deployment.

What should you choose?

**Your Answer**

* compute optimized

**This answer is incorrect.**

**Correct Answer**

* memory optimized

**This answer is correct.**

Memory optimized virtual machine sizes offer a high memory-to-CPU ratio that is good for relational database servers, medium to large caches, and in-memory analytics.

General purpose virtual machines provide a balanced CPU-to-memory ratio. These are best for testing and development, small to medium databases, and low to medium traffic web servers.

Compute optimized virtual machines have a high CPU-to-memory ratio. These are used for medium traffic web servers, network appliances, batch processes, and application servers.

GPU optimized virtual machine sizes are specialized virtual machines available with single, multiple, or fractional GPUs. These sizes are designed for compute-intensive, graphics-intensive, and visualization workloads.

[Azure VM sizes - Memory - Azure Virtual Machines | Microsoft Learn](https://learn.microsoft.com/azure/virtual-machines/sizes-memory)

[Prepare to maintain SQL databases on Azure - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/prepare-to-maintain-sql-databases-azure/)

**Question 5 of 50**

You have a fact table that contains 500 million rows. The table has a clustered index. Most queries select data from the current week and rarely select data that is more than a month old.

Queries against the table are very slow.

You need to recommend a solution that will improve the performance of the majority of the queries against the table.

What should you include in the recommendation?

**Your Answer**

* table partitioning

**This answer is correct.**

**Correct Answer**

* table partitioning

**This answer is correct.**

The data of partitioned tables and indexes are divided into units that might be spread across more than one filegroup in a database or stored in a single filegroup. The partition that contains the most current data does not block any queries that are related to old data, so this will benefit the performance.

Row and page compression changes the internal table storage, but it does not help solve the performance issues. The in-memory table is best for transactional workloads, and the fact table is the analytical workload.

[Partitioned tables and indexes - SQL Server, Azure SQL Database, Azure SQL Managed Instance | Microsoft Learn](https://learn.microsoft.com/sql/relational-databases/partitions/partitioned-tables-and-indexes?view=sql-server-ver16)

[Deploy IaaS solutions with Azure SQL - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/deploy-iaas-solutions-with-azure-sql/)

**Question 6 of 50**

You have an on-premises instance of Microsoft SQL Server 2019 that uses a SQL common language runtime (CLR) stored procedure to access a file share.

You need to migrate the instance to Azure.

To which Azure service should you migrate the instance?

**Your Answer**

* Azure SQL Database serverless

**This answer is incorrect.**

**Correct Answer**

* SQL Server on Azure Virtual Machines

**This answer is correct.**

SQL Server on Azure Virtual Machine supports SQL CLR objects. The objects can access files shares, disks, and folders.

Azure SQL Database serverless is a compute tier for Azure SQL Database that does not support SQL CLR objects.

Azure SQL Database Hyperscale is a service tier of Azure SQL Database that does not support SQL CLR objects.

Azure SQL Managed Instance does not support SQL CLR objects that access file shares or folders of the operating system.

[Compare the database engine features of SQL Database and SQL Managed Instance - Azure SQL Database & SQL Managed Instance | Microsoft Learn](https://learn.microsoft.com/azure/azure-sql/database/features-comparison?view=azuresql)

[T-SQL differences between SQL Server & Azure SQL Managed Instance - Azure SQL Managed Instance | Microsoft Learn](https://learn.microsoft.com/azure/azure-sql/managed-instance/transact-sql-tsql-differences-sql-server?view=azuresql#clr)

**Question 7 of 50**

You have several databases in an Azure SQL Managed Instance that uses the General Purpose vCore service tier.

You discover high latency in some of the database files.

What should you do to reduce latency?

**Your Answer**

* Add more virtual cores to the instance.

**This answer is incorrect.**

**Correct Answer**

* Increase the file size.

**This answer is correct.**

You should increase the file size to improve performance. If you have a file that is up to 128 GB, then you can have up to 500 IOPS. If you change the file size to 1 TB, then you can have up to 5,000 IOPS.

You should not add more vCores to the instance in the General Purpose tier, as this will not change the available IOPS. Adding more files to the database also does not help, as the number of available IOPS is calculated per file size, not by the number of files. Changing the service tier will change the type of CPU, the maximum file size, and the amount of memory reserved per CPU.

[Resource limits - Azure SQL Managed Instance | Microsoft Learn](https://learn.microsoft.com/azure/azure-sql/managed-instance/resource-limits?view=azuresql)

[Deploy PaaS solutions with Azure SQL - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/deploy-paas-solutions-with-azure-sql/)

**Question 8 of 50**

You have an Azure SQL Managed Instance that contains a database named db1.

You need to implement table partitioning for a table in db1.

You create the filegroups.

What should you do next?

**Your Answer**

* Create a partition function, create a table on the partition function, and then change the fill factor settings on indexes.

**This answer is incorrect.**

**Correct Answer**

* Create a partition function, create a partition scheme, and then create a table on the partition scheme.

**This answer is correct.**

You should first create a partition function to define how the rows in a table or index map to a set of partitions based on the values of a partitioning column. Then you should create a partition scheme, which is a database object that maps the partitions of a partition function to one filegroup or to multiple filegroups. Finally, you should create a table specifying the partition scheme.

You should not create a table specifying the partition function, as a partition scheme is needed, nor should you change the fill factor settings for the indexes, as these settings relate to the free space at the index page level.

[Partitioned tables and indexes - SQL Server, Azure SQL Database, Azure SQL Managed Instance | Microsoft Learn](https://learn.microsoft.com/sql/relational-databases/partitions/partitioned-tables-and-indexes?view=sql-server-ver16)

[Explore performance and security - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/deploy-iaas-solutions-with-azure-sql/4-explore-performance-and-security?ns-enrollment-type=learningpath&ns-enrollment-id=learn.wwl.plan-implement-data-platform-resources)

**Question 9 of 50**

You have an on-premises SQL Server database that is used as part of a mission critical app.

You plan to migrate the database to SQL Server on Azure Virtual Machines.

You need to configure the disks for the virtual machine. The solution must meet the following requirements:

* Maximize throughput.
* Minimize latency.

Which type of disk should you use?

**Your Answer**

* Ultra disk

**This answer is correct.**

**Correct Answer**

* Ultra disk

**This answer is correct.**

Ultra SSD will provide the highest throughput. Standard HDD, Standard SSD, and Premium SSD will not provide the highest throughput.

[Explore performance and security - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/deploy-iaas-solutions-with-azure-sql/4-explore-performance-and-security)

**Question 10 of 50**

You have a database in an Azure SQL Managed Instance.

You need to synchronize data from five tables in the database to an Azure SQL Database. Any subsequent data changes must be visible in the Azure SQL Database as quickly as possible.

Which migration method should you use?

**Your Answer**

* transactional replication

**This answer is correct.**

**Correct Answer**

* transactional replication

**This answer is correct.**

Transactional replication allows you to select tables and apply filters so only the required data will be sent to the target database. The replication process occurs nearly in real time, and it does not require any additional coding.

Change data capture and BCP require an additional orchestration component, such as Data Factory, to send changes from the source server to the target server. If you use Data Factory, you will need to detect changes when the pipeline is running. This process takes more time.

[Transactional replication - Azure SQL Managed Instance | Microsoft Learn](https://learn.microsoft.com/azure/azure-sql/managed-instance/replication-transactional-overview?view=azuresql)

[Evaluate strategies for migrating to Azure SQL - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/evaluate-strategies-for-migrating-to-azure-sql/)

**Question 11 of 50**

You have an on-premises Microsoft SQL Server 2019 instance that hosts 10 databases.

You plan to migrate the databases to Azure SQL Database.

You need to validate the compatibility of the databases with Azure SQL Database.

Which two tools can you use? Each correct answer presents a complete solution.

**Your Answer**

* Data Migration Assistant (DMA)

**This answer is correct.**

* the Azure Migrate Discovery and assessment tool

**This answer is correct.**

**Correct Answer**

* Data Migration Assistant (DMA)

**This answer is correct.**

* the Azure Migrate Discovery and assessment tool

**This answer is correct.**

DMA will assess the database for compatibility. The Azure Migrate Discovery and assessment tool discovers and assesses on-premises VMware virtual machines, Hyper-V virtual machines, and physical servers for migration to Azure.

The MAP toolkit provides an inventory of the Microsoft Platform. The Copy Database Wizard is used for copying databases. The App and Data Modernization Readiness Tool is used to help customers evaluate their business strategies.

[Overview of Data Migration Assistant (SQL Server) - SQL Server | Microsoft Learn](https://learn.microsoft.com/sql/dma/dma-overview?view=sql-server-ver16)

[Evaluate strategies for migrating to Azure SQL - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/evaluate-strategies-for-migrating-to-azure-sql/)

**Question 12 of 50**

You have an Azure SQL Database named db1.

You need to provide access to db1 for a Microsoft Entra ID user .

What should you do?

**Your Answer**

* In db1, run the CREATE USER statement with the FROM EXTERNAL PROVIDER option.

**This answer is correct.**

**Correct Answer**

* In db1, run the CREATE USER statement with the FROM EXTERNAL PROVIDER option.

**This answer is correct.**

You should use the CREATE USER statement with FROM EXTERNAL PROVIDER option in db1, as this user should have access to this database.

Using the CREATE USER statement with the FROM LOGIN or WITH PASSWORD option creates a login in the master database. By default, the login does not have any access to the databases.

[CREATE USER (Transact-SQL) - SQL Server | Microsoft Learn](https://learn.microsoft.com/sql/t-sql/statements/create-user-transact-sql?view=sql-server-ver16)

[Configure database authentication and authorization - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/configure-database-authentication-authorization/)

**Question 13 of 50**

You have an Azure SQL Database logical server named Instance1.

You create a user named User1 in the master database of Instance1.

You need to ensure that User1 can create and delete databases attached to Instance1. The solution must follow the principle of least privilege.

Which role should you assign to User1?

**Your Answer**

* dbmanager

**This answer is correct.**

**Correct Answer**

* db\_ddladmin

**This answer is correct.**

* dbmanager

**This answer is correct.**

Members of the dbmanager role can create databases.

Members of the db\_owner role can perform all activities at the database level.

Members of the db\_ddladmin role can run any DDL statements.

Members of the loginmanager can create and delete logins.

[Database-Level Roles - SQL Server | Microsoft Learn](https://learn.microsoft.com/sql/relational-databases/security/authentication-access/database-level-roles?view=azuresqldb-current)

**Question 14 of 50**

You have an Azure SQL Database named db1 and a Microsoft Entra group named db\_readers.

You need to ensure that the members of db\_readers can read data from db1. The solution must follow the principle of least privilege.

Which two actions should you perform? Each correct answer presents part of the solution.

**Your Answer**

* Assign the db\_accessadmin role to the user in the master database.

**This answer is incorrect.**

* Assign the db\_datareader role to the user in db1.

**This answer is correct.**

**Correct Answer**

* Assign the db\_datareader role to the user in db1.

**This answer is correct.**

* Create a user in the db1 database for db\_readers.

**This answer is correct.**

You need to create a contained database user in the db1 database. The user must be assigned the db\_datareader role for db1 to be able to read the data.

You should not create a user in the master database.

You should not assign the db\_accessadmin role to the user because this role allows you to manage security assignments for other roles.

You should not assign the db\_datareader role to the user for the master database because the user must read data from db1.

You should not assign the db\_denydatawriter role to the user for db1 because this role prevents data changes in the database but is unrelated to data selection.

[Database-Level Roles - SQL Server | Microsoft Learn](https://learn.microsoft.com/sql/relational-databases/security/authentication-access/database-level-roles?view=sql-server-ver16)

**Question 15 of 50**

You have an Azure SQL server that hosts 10 Azure SQL Databases.

You create an app named App1 with a system assigned managed identity.

You need to ensure that App1 has read access to each database.

Which three actions should you perform? Each correct answer presents part of the solution.

**Your Answer**

* Assign the database user the db\_reader role for each database.

**This answer is correct.**

* Create a login for App1 that uses Windows authentication.

**This answer is incorrect.**

* Create a user in each database for the App1 login.

**This answer is correct.**

**Correct Answer**

* Assign the database user the db\_reader role for each database.

**This answer is correct.**

* Create a login for App1 from an external provider.

**This answer is correct.**

* Create a user in each database for the App1 login.

**This answer is correct.**

A managed identity requires that a login be created from an external provider, each database requires a user for the login, and assigning the database user the db\_reader role for each database will allow read access to the user databases.

A managed identity cannot use Windows authentication. The app does not require a user in the master database and assigning the database user the db\_reader role for the master database will allow the user read access to the master database, but not read access to the user databases.

[Describe Security Principals - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/configure-database-authentication-authorization/4-describe-security-principals)

**Question 16 of 50**

You have a database named db1 in an Azure SQL Managed Instance named Instance1.

You need to encrypt db1 by using Transparent Data Encryption (TDE).

Which three actions should you perform before you can start the encryption? Each correct answer present part of the solution.

**Your Answer**

* Create a certificate in db1.

**This answer is incorrect.**

* Create a database encryption key in db1.

**This answer is correct.**

* Create a master key in the master database.

**This answer is correct.**

**Correct Answer**

* Create a certificate in the master database.

**This answer is correct.**

* Create a database encryption key in db1.

**This answer is correct.**

* Create a master key in the master database.

**This answer is correct.**

The procedure of preparing the database to use TDE is first to create a master key and a certificate in the master database, and then to create a database encryption key in the db1.

You should not create a certificate or an asymmetric key in db1, as TDE can only use certificates created in the master database.

[Transparent data encryption (TDE) - SQL Server | Microsoft Learn](https://learn.microsoft.com/sql/relational-databases/security/encryption/transparent-data-encryption?view=sql-server-ver16)

[Protect data in-transit and at rest - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/protect-data-transit-rest/)

**Question 17 of 50**

You have an Azure SQL Database named db1.

You have an app named App1 that supports the latest TLS version.

You need to ensure that App1 can access db1 in the most secure manner.

What should you do?

**Your Answer**

* Set the minimum TLS version setting to 1.0.

**This answer is incorrect.**

**Correct Answer**

* Set the minimum TLS version setting to 1.2.

**This answer is correct.**

Setting the minimum required TLS version for the application to connect to 1.2 will allow App1 to access db1 in the most secure manner.

Leaving the default settings and setting the minimum required TLS version for the application to connect to 1.0 are not the most secure methods.

[Enable encrypted connections - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/protect-data-transit-rest/5-enable-encrypted-connections)

**Question 18 of 50**

You have an Azure SQL Database that contains a table named Employee. The table has columns that are masked by using dynamic data masking.

When a user copies the Employee table by using the SELECT INTO command, the data is masked in a new table. The user must see the unmasked data in the new table.

You need to grant the appropriate permissions to the user. The solution must follow the principle of least privilege.

What should you grant to the user?

**Your Answer**

* the UNMASK permission for the new table

**This answer is incorrect.**

**Correct Answer**

* the UNMASK permission for the Employee table

**This answer is correct.**

You should grant the UNMASK permission to the user for the Employee table because data must be unmasked before copying it to the new table.

Granting the UNMASK permission to the user for the new table does not allow the user to see the unmasked data in the new table, as the data cannot be unmasked after it is copied to the new table.

The ALTER ANY MASK permission is dedicated to the security officer as it allows that management of dynamic data masking, and the SELECT permission does not make masked data readable.

[Dynamic Data Masking - SQL Server | Microsoft Learn](https://learn.microsoft.com/sql/relational-databases/security/dynamic-data-masking?view=sql-server-ver16)

[Implement compliance controls for sensitive data - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/implement-compliance-controls-sensitive-data/)

**Question 19 of 50**

You have an Azure SQL Database named db1 that contains a table named Sales.

You need to implement change tracking for Sales.

What should you do first?

**Your Answer**

* Enable change tracking for Sales.

**This answer is incorrect.**

**Correct Answer**

* Enable change tracking for db1.

**This answer is correct.**

You should enable change tracking at the database level first, then you can enable change tracking for each table.

Change tracking must be enabled at the database level before it can be enabled for the Sales table. Creating a master key in the master database and creating a certificate in db1 are not needed for change tracking.

[Enable and Disable Change Tracking - SQL Server | Microsoft Learn](https://learn.microsoft.com/sql/relational-databases/track-changes/enable-and-disable-change-tracking-sql-server?view=sql-server-ver16)

[Implement compliance controls for sensitive data - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/implement-compliance-controls-sensitive-data/)

**Question 20 of 50**

You have an Azure SQL Managed Instance that hosts a database. The database contains a column named Column1 that stores confidential information.

You need to audit access to Column1. The solution must meet the following requirements:

* Retain audit data for at least eight years.
* Minimize administrative effort.

Which three actions should you perform? Each correct answer presents part of the solution.

**Your Answer**

* Apply a sensitivity classification to the column.

**This answer is correct.**

* Configure a Storage audit log destination.

**This answer is correct.**

* Enable Azure SQL Auditing.

**This answer is correct.**

**Correct Answer**

* Apply a sensitivity classification to the column.

**This answer is correct.**

* Configure a Storage audit log destination.

**This answer is correct.**

* Enable Azure SQL Auditing.

**This answer is correct.**

Azure SQL Auditing needs to be enabled to monitor access. A storage account allows unlimited retention. The column needs a classification label so that access is audited.

Log Analytics has a maximum retention limit of seven years, Always Encrypted is used to protect data in use or in transit, and TDE encrypts data files.

[Explore server and database audit - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/implement-compliance-controls-sensitive-data/3-explore-server-and-database-audit)

**Question 21 of 50**

You have an Azure SQL Database named db1 that contains a table. The table contains a column that stores email addresses.

You need to ensure that reporting users can only view email addresses in a format of aXXX@XXX.com. The solution must minimize the impact on other users.

What should you configure?

**Your Answer**

* dynamic data masking

**This answer is correct.**

**Correct Answer**

* dynamic data masking

**This answer is correct.**

Dynamic data masking will enable users to only see masked values instead of email addresses.

Always Encrypted protects data in use or in transit. RLS controls access to rows in a table, and column encryption will encrypt the data in the column, which can hinder users’ ability to view the data.

[Dynamic Data Masking - SQL Server | Microsoft Learn](https://learn.microsoft.com/sql/relational-databases/security/dynamic-data-masking?view=sql-server-ver16)

[Implement compliance controls for sensitive data - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/implement-compliance-controls-sensitive-data/)

**Question 22 of 50**

You need to set up a baseline for performance monitoring of an Azure SQL Database.

Which dynamic management view should you query to get the baseline performance data?

**Your Answer**

* sys.dm\_exec\_query\_stats

**This answer is incorrect.**

**Correct Answer**

* sys.dm\_db\_wait\_stats

**This answer is correct.**

sys.dm\_db\_wait\_stats returns information about all the waits encountered in the database. This allows you to see the baseline performance data.

sys.dm\_os\_waiting\_tasks is related to current connections and sessions. This view does not store any historical waits, so it should not be used to create the performance baseline. sys.dm\_exec\_sessions\_wait\_stats is used to find the wait statistics for a particular session. sys.dm\_exec\_query\_stats returns aggregate performance statistics for cached query plans in Microsoft SQL Server.

[sys.dm\_db\_wait\_stats (Azure SQL Database) - SQL Server | Microsoft Learn](https://learn.microsoft.com/sql/relational-databases/system-dynamic-management-views/sys-dm-db-wait-stats-azure-sql-database?view=azuresqldb-current)

[Establish baseline metrics - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/describe-performance-monitoring/4-establish-baseline-metrics?ns-enrollment-type=learningpath&ns-enrollment-id=learn.wwl.monitor-optimize-operational-resources-sql-server)

**Question 23 of 50**

You have an Azure subscription that contains five Azure SQL Databases.

You need to configure SQL Insights.

What should you do first?

**Your Answer**

* Enable Azure SQL Auditing.

**This answer is incorrect.**

**Correct Answer**

* Create a monitoring profile.

**This answer is correct.**

Creating a monitoring profile is the first requirement to configuring SQL Insights.

Automatic tuning uses AI to provide peak performance. Azure SQL Auditing tracks database events and records them. Extended Events is a lightweight performance monitoring system.

[Describe Azure SQL Insights - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/describe-performance-monitoring/6-describe-azure-sql-insights?ns-enrollment-type=learningpath&ns-enrollment-id=learn.wwl.monitor-optimize-operational-resources-sql-server)

**Question 24 of 50**

You discover that a stored procedure running on an Azure SQL Database is slow due to a parameter sniffing issue. The procedure contains one SELECT statement.

You need to resolve the issue by using query hints. You do not want to remove query plans after each procedure execution.

Which hint should you use?

**Your Answer**

* FORCESEEK

**This answer is incorrect.**

**Correct Answer**

* OPTIMIZE FOR

**This answer is correct.**

Using the OPTIMIZE FOR hint in the SELECT statement instructs Microsoft SQL Server to use a particular value for a parameter when the query is optimized.

The INDEX hint forces the query optimizer to use only the specified indexes to access the data in the referenced table or view, and the FORCESEEK hint forces the optimizer to use only an index seek operation to access the data in the referenced table or view.

[Attach Query Hints to a Plan Guide - SQL Server | Microsoft Learn](https://learn.microsoft.com/sql/relational-databases/performance/attach-query-hints-to-a-plan-guide?view=sql-server-ver16)

[Explore query performance optimization - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/explore-query-performance-optimization/)

**Question 25 of 50**

You have a database in an Azure SQL Managed Instance.

You need analyze the wait information for all the sessions currently running on the instance and select the query that has the highest number of waits.

Which dynamic management view should you query?

**Your Answer**

* sys.dm\_exec\_sessions\_wait\_stats

**This answer is correct.**

**Correct Answer**

* sys.dm\_exec\_sessions\_wait\_stats

**This answer is correct.**

The sys.dm\_exec\_sessions\_wait\_stats view returns information about all the waits encountered by threads that executed for each session. You can use this view to diagnose performance issues with Microsoft SQL Server sessions and also with specific queries and batches.

The sys.dm\_exec\_query\_profiles view monitors real-time query progress while the query is in execution, the sys.dm\_exec\_query\_statistics\_xml view returns query execution plans for in-flight requests, and the sys.dm\_db\_wait\_stats view returns information about all the waits encountered by threads that executed during an operation.

[sys.dm\_exec\_session\_wait\_stats (Transact-SQL) - SQL Server | Microsoft Learn](https://learn.microsoft.com/sql/relational-databases/system-dynamic-management-views/sys-dm-exec-session-wait-stats-transact-sql?view=azuresqldb-current)

[Evaluate performance improvements - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/evaluate-performance-improvements/)

**Question 26 of 50**

You have an Azure SQL Database that uses Query Store.

You notice poor performance for a report caused by the execution plan and the report parameters.

You need to improve the performance of the report. The solution must minimize administrative effort.

What should you do?

**Your Answer**

* Execute the DBCC FREEPROCCACHE command.

**This answer is incorrect.**

**Correct Answer**

* Force the most efficient execution plan.

**This answer is correct.**

Forcing the plan that is the most efficient for most the executions will improve report performance.

Disabling parameter sniffing will ignore any parameters and not choose the most efficient plan. DBCC FREEPROCCACHE will remove all plans from the cache.

Snapshot isolation is used to enable concurrent execution of transactions.

[Monitor performance by using the Query Store - SQL Server | Microsoft Learn](https://learn.microsoft.com/sql/relational-databases/performance/monitoring-performance-by-using-the-query-store?view=sql-server-ver16#Regressed)

[Evaluate performance improvements - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/evaluate-performance-improvements/)

**Question 27 of 50**

You have an Azure SQL Managed Instance that contains databases.

One of the databases experiences excessive blocking.

You need to identify which session is causing the blocking.

Which dynamic management view should you query?

**Your Answer**

* sys.dm\_exec\_session\_wait\_stats

**This answer is incorrect.**

**Correct Answer**

* sys.dm\_exec\_requests

**This answer is correct.**

sys.dm\_exec\_requests returns information about each request that is executing in Microsoft SQL Server. One of the columns exposed by this view is blocking\_session\_id.

sys.dm\_exec\_sessions returns one row per authenticated session in SQL Server. This view does not return information about blocking issues.

sys.dm\_exec\_query\_stats returns aggregate performance statistics for cached plans in SQL Server.

sys.dm\_exec\_session\_waits returns information about all the waits encountered by threads that are executed for each session.

[sys.dm\_exec\_requests (Transact-SQL) - SQL Server | Microsoft Learn](https://learn.microsoft.com/sql/relational-databases/system-dynamic-management-views/sys-dm-exec-requests-transact-sql?view=sql-server-ver16)

**Question 28 of 50**

You have a database in an Azure SQL Managed Instance.

You need to control the MAXDOP configuration at the workload level. The solution must minimize administrative and development effort.

What should you do?

**Your Answer**

* At the database query level, set the MAXDOP hint.

**This answer is incorrect.**

**Correct Answer**

* In Resource Governor, set the MAX\_DOP workload group configuration.

**This answer is correct.**

Configure the MAX\_DOP workload group configuration in Resource Governor to be able to control the degree of parallelism per defined workload. This option can be set in the CREATE WORKLOAD GROUP statement.

The ALTER DATABASE SCOPED CONFIGURATION statement manages the settings per database and not per workload. Using the MAXDOP hint on the query level requires code changes, and you cannot control the workload. Using the sp\_configure stored procedure changes the settings at the server level, and you cannot control the workload.

[ALTER DATABASE SCOPED CONFIGURATION - SQL Server (Transact-SQL) | Microsoft Learn](https://learn.microsoft.com/sql/t-sql/statements/alter-database-scoped-configuration-transact-sql?view=sql-server-ver16)

[CREATE WORKLOAD GROUP (Transact-SQL) - SQL Server | Microsoft Learn](https://learn.microsoft.com/sql/t-sql/statements/create-workload-group-transact-sql?view=sql-server-ver16)

[Configure databases for optimal performance - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/configure-databases-for-optimal-performance/)

**Question 29 of 50**

You need to find all indexes that have high fragmentation.

Which two dynamic management views should you query? Each answer presents a part of the solution.

**Your Answer**

* sys.dm\_db\_index\_physical\_stats

**This answer is correct.**

* sys.dm\_db\_index\_usage\_stats

**This answer is incorrect.**

**Correct Answer**

* sys.dm\_db\_column\_store\_row\_group\_physical\_stats

**This answer is correct.**

* sys.dm\_db\_index\_physical\_stats

**This answer is correct.**

You should query the sys.dm\_db\_index\_physical\_stats view, as it returns size and fragmentation information for the data and indexes of the specified table or view in Microsoft SQL Server. For an index, one row is returned for each level of the B-tree in each partition. For a heap, one row is returned for the IN\_ROW\_DATA allocation unit of each partition. You should also query the sys.dm\_db\_column\_store\_row\_group\_physical\_stats view because it provides current rowgroup-level information about all the columnstore indexes in the current database. Based on the information, you can calculate the index fragmentation.

The sys.dm\_db\_index\_usage\_stats view returns counts of different types of index operations and the time each type of operation was last performed, and the sys.dm\_db\_index\_operational\_stats view returns current lower-level I/O, locking, latching, and access method activity for each partition of a table or index in the database.

[sys.dm\_db\_index\_physical\_stats (Transact-SQL) - SQL Server | Microsoft Learn](https://learn.microsoft.com/sql/relational-databases/system-dynamic-management-views/sys-dm-db-index-physical-stats-transact-sql?view=sql-server-ver16)

[Configure databases for optimal performance - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/configure-databases-for-optimal-performance/)

**Question 30 of 50**

You have an Azure SQL Managed Instance that contains a database named DB1. The database compatibility level for DB1 is 150.

Queries that use table variables are performing poorly. You identify that the issue is caused by incorrect cardinality estimations.

You need to configure an option to ensure that the database engine defines the cardinality estimate when the query is executed, and the actual row count is known.

Which option should you configure?

**Your Answer**

* TSQL\_SCALAR\_UDF\_INLINING

**This answer is incorrect.**

**Correct Answer**

* DEFERRED\_COMPILATION\_TV

**This answer is correct.**

You should use the DEFERRED\_COMPILATION\_TV option because it enables or disables table variable compilation.

The INTERLEAVED\_EXECUTION\_TVF option enables or disables interleaved execution for multi-statement table-valued functions.

The TSQL\_SCALAR\_UDF\_INLINING option enables or disables the T-SQL Scalar UDF inlining.

The ELEVATE\_ONLINE option causes the engine to automatically elevate supported operations online.

[ALTER DATABASE SCOPED CONFIGURATION - SQL Server (Transact-SQL) | Microsoft Learn](https://learn.microsoft.com/sql/t-sql/statements/alter-database-scoped-configuration-transact-sql?view=sql-server-ver16)

**Question 31 of 50**

You plan to deploy a SQL Server on an Azure Virtual Machines instance running on a Windows Server operating system.

You need to configure storage for the virtual machine. The solution must ensure the highest performance for the data files.

Which two actions should you perform? Each correct answer presents part of the solution.

**Your Answer**

* Set host caching to read-only.

**This answer is correct.**

* Use Write Accelerator disks.

**This answer is incorrect.**

**Correct Answer**

* Set host caching to read-only.

**This answer is correct.**

* Stripe multiple disks by using Storage Spaces.

**This answer is correct.**

You should stripe multiple disks, as it will increase IOPS, as well as set host caching to read-only, as data files perform best by using this type of host caching.

Setting host caching to none means that reads will not be cached, setting host caching to read/write will degrade performance and lead to data loss. Write Accelerator Disks should be used for transaction log disks.

[Storage: Performance best practices & guidelines - SQL Server on Azure VMs | Microsoft Learn](https://learn.microsoft.com/azure/azure-sql/virtual-machines/windows/performance-guidelines-best-practices-storage?source=recommendations&view=azuresql)

[Optimize database storage - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/configure-sql-server-resources-optimal-performance/4-optimize-database-storage)

**Question 32 of 50**

You have a SQL Server on Azure Virtual Machines instance.

You need to configure an alert when an error of severity 21 is detected.

Which type of alert should you configure?

**Your Answer**

* SQL Server performance condition alert

**This answer is incorrect.**

**Correct Answer**

* SQL Server event alert

**This answer is correct.**

A SQL Server event alert should be used when a specific error occurs, so this is the correct alert type to use in this case.

You should not use a SQL Server performance condition alert because it is used for performance metrics that are generated by Microsoft SQL Server. A WMI event alert occurs in response to a particular WMI event.

[Alerts - SQL Server Agent | Microsoft Learn](https://learn.microsoft.com/sql/ssms/agent/alerts?view=sql-server-ver16)

[Create and manage SQL Agent jobs - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/schedule-tasks-using-sql-server-agent/)

**Question 33 of 50**

You have an Azure SQL Managed Instance.

You need to troubleshoot a SQL Server Agent job that failed.

Which two methods can you use? Each correct answer presents a complete solution.

**Your Answer**

* Query the System Event log.

**This answer is incorrect.**

* Review the SQL Server Agent Error Log file.

**This answer is correct.**

**Correct Answer**

* From Microsoft SQL Server Management Studio (SSMS), use the Job Activity Viewer.

**This answer is correct.**

* Review the SQL Server Agent Error Log file.

**This answer is correct.**

The SQL Server Agent Error Log file and the Job Activity Viewer will both have the information about a SQL Server Agent job that failed, which allows you to troubleshoot the issue.

The System Event log does not hold SQL Server Agent information, and the sys.messages catalog view contains one row for each system error or warning that can be returned by the SQL Server Database Engine.

[View a Job - SQL Server Agent | Microsoft Learn](https://learn.microsoft.com/sql/ssms/agent/view-a-job?view=sql-server-ver16)

[Create and manage SQL Agent jobs - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/schedule-tasks-using-sql-server-agent/)

**Question 34 of 50**

You have a bacpac file from an existing Microsoft SQL Server database. You copy the file to an Azure Storage account.

You need to apply the bacpac file to an existing Azure SQL Database.

Which command should you run?

**Your Answer**

* az sql db import

**This answer is correct.**

**Correct Answer**

* az sql db import

**This answer is correct.**

You can use the az sql db import command to import the database from the bacpac file. The database must be created before the bacpac file is imported.

The az sql db restore command creates a new database from backup, and the az sql db update command updates the existing database.

[az sql db | Microsoft Learn](https://learn.microsoft.com/cli/azure/sql/db?view=azure-cli-latest#az-sql-db-create)

[Automate deployment of database resources - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/configure-automatic-deployment-azure-sql-database/)

**Question 35 of 50**

You have an Azure subscription.

You plan to deploy 100 Azure SQL Databases.

You need to automate the deployment. The solution must be parameterizable, repeatable, and be able to be versioned in source control.

Which three components can you use? Each correct answer presents a complete solution.

**Your Answer**

* Azure PowerShell scripts

**This answer is correct.**

* Azure Resource Manager (ARM) templates

**This answer is correct.**

* Bicep templates

**This answer is correct.**

**Correct Answer**

* Azure PowerShell scripts

**This answer is correct.**

* Azure Resource Manager (ARM) templates

**This answer is correct.**

* Bicep templates

**This answer is correct.**

ARM templates, Bicep templates, and PowerShell scripts can all be parameterized and versioned.

Cloud Shell is an interactive, authenticated, browser-accessible shell, and Azure Policy helps to enforce organizational standards and to assess compliance at-scale.

[Automate deployment by using Azure Resource Manager templates and Bicep - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/configure-automatic-deployment-azure-sql-database/3-automate-deployment-using-azure-resource-manager-bicep?ns-enrollment-type=learningpath&ns-enrollment-id=learn.wwl.automate-tasks-sql-server)

**Question 36 of 50**

You have an Azure subscription that contains a resource group named RG1. RG1 is hosted in the West US Azure region.

You need to create a new Azure SQL server named srv1.

Which Azure CLI command should you run?

**Your Answer**

* az sql elastic-pool create -g rg1-s srv1-n db1

**This answer is incorrect.**

**Correct Answer**

* az sql server create -l westus -g rg1-n srv1 -u adminuser -p adminpassword

**This answer is correct.**

Using the az sql server create -l westus -g rg1-n srv1 -u adminuser -p adminpassword command will create a new Azure SQL server.

The az sql db create -g rg1-s srv1-n mydb --service-objective S0 command creates a new Azure SQL Database, the az sql mi create -g rg1-n srv1-l westus -i -u adminuser -p adminpassword command will create a new Azure SQL Managed Instance, and the az sql elastic-pool create -g rg1-s srv1-n db1 command will create a new Azure SQL Database elastic pool.

[az sql server | Microsoft Learn](https://learn.microsoft.com/cli/azure/sql/server?view=azure-cli-latest)

[Automate deployment of database resources - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/configure-automatic-deployment-azure-sql-database/)

**Question 37 of 50**

You have an Elastic Job agent that will run tasks on an Azure SQL Database elastic pool.

You create an elastic job.

You need to ensure that the job runs every hour.

Which cmdlet should you run?

**Your Answer**

* Set-AzSqlElasticJob

**This answer is correct.**

**Correct Answer**

* Set-AzSqlElasticJob

**This answer is correct.**

Using the Set-AzSqlElasticJob cmdlet updates the elastic job properties. You can set the interval, as well as the start and end date of the job.

The Set-AzSqlElasticJobStep cmdlet updates the elastic job steps. You cannot modify the schedule at the step level. The Set-AzSqlElasticPool cmdlet modifies the properties of an Azure SQL Database elastic pool, and the Set-AzSqlDatabase cmdlet sets the properties of a database or moves an existing database into an elastic pool.

[Set-AzSqlElasticJob (Az.Sql) | Microsoft Learn](https://learn.microsoft.com/powershell/module/az.sql/set-azsqlelasticjob?view=azps-9.2.0)

[Manage Azure PaaS tasks using automation - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/manage-azure-paas-resources-using-automated-methods/)

**Question 38 of 50**

You have an Azure SQL Database named db1 that contains a table named Sales.

You create an Azure Logic App.

You need to configure the logic app to capture information when a new row is added to Sales.

What should you configure in the logic app?

**Your Answer**

* a When item is created trigger

**This answer is correct.**

**Correct Answer**

* a When item is created trigger

**This answer is correct.**

By configuring a When item is created trigger, the trigger will be executed when a new row is inserted into the table.

The Execute SQL query action is used when you provide a query that will be executed by the logic app on the target database, the Get rows action selects data from a table, and the Insert row action inserts a new row into the table.

[SQL Server - Connectors | Microsoft Learn](https://learn.microsoft.com/connectors/sql/)

[Manage Azure PaaS tasks using automation - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/manage-azure-paas-resources-using-automated-methods/)

**Question 39 of 50**

You have an Azure subscription that includes 20 Azure SQL logical servers.

You need to automate management tasks using an Azure Automation runbook.

What should you do first?

**Your Answer**

* Create an Azure Automation account.

**This answer is correct.**

**Correct Answer**

* Create an Azure Automation account.

**This answer is correct.**

To automate management tasks by using an Azure Automation runbook, you first need to create an Azure Automation account.

You cannot create a credential or a schedule without first creating an Azure Automation account, and you do not need a hybrid runbook runner.

[Build an automation runbook - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/manage-azure-paas-resources-using-automated-methods/4-build-automation-runbook)

**Question 40 of 50**

You have a SQL Server on Azure Virtual Machines instance that contains 10 databases. Three databases are used by an application named App1.

You need to recommend a high-availability (HA) strategy the meets the following requirements:

* If any of the databases for App1 become unavailable, all three databases must fail over.
* The failover process must be automatic and without any data loss.
* The other databases on the server must not be affected by the failover.

What should you include in the recommendation?

**Your Answer**

* Always On availability groups

**This answer is correct.**

**Correct Answer**

* Always On availability groups

**This answer is correct.**

Always On availability groups works at the database level rather than the instance level. This feature allows you to meet the requirements with minimal to no data loss if implemented properly.

An Always On failover cluster instance protects the entire instance, and neither transactional replication nor log shipping allow you to perform automatic failover.

[What is an Always On availability group? - SQL Server Always On | Microsoft Learn](https://learn.microsoft.com/sql/database-engine/availability-groups/windows/overview-of-always-on-availability-groups-sql-server?view=sql-server-ver16)

[Describe high availability and disaster recovery strategies - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/describe-high-availability-disaster-recovery-strategies/)

**Question 41 of 50**

You have an on-premises Microsoft SQL Server 2019 server that hosts 10 databases that is up to date with patching. You are required to replicate all of the databases to the cloud.

Which two options could you recommend? Each correct answer presents a complete solution.

**Your Answer**

* an Azure SQL Database

**This answer is incorrect.**

* an Azure SQL Database elastic pool

**This answer is incorrect.**

**Correct Answer**

* a SQL Server on Azure Virtual Machines instance

**This answer is correct.**

* An Azure SQL Managed Instance link

**This answer is correct.**

A SQL Server on Azure Virtual Machines is required for hybrid high-availability and disaster recovery (HA/DR).

Azure SQL Managed Instance link enables near real-time data replication between SQL Server and Azure SQL Managed Instance.

Azure SQL Database, and an Azure SQL Database elastic pool are not the correct options, as they cannot be used with Always On availability groups.

[High availability, disaster recovery, business continuity - SQL Server on Azure VMs | Microsoft Learn](https://learn.microsoft.com/azure/azure-sql/virtual-machines/windows/business-continuity-high-availability-disaster-recovery-hadr-overview?view=azuresql)

[Plan and implement an high availability and disaster recovery environment - Training | Microsoft Learn](https://learn.microsoft.com/training/paths/plan-implement-high-availability-disaster-recovery-environment/)

**Question 42 of 50**

You have an Always On availability group located across multiple datacenters hosting 5 databases that support a web app named App1.

You need to ensure continuity in the event of a failover.

Which two actions should you perform? Each correct answer presents part of the solution.

**Your Answer**

* Configure MultiSubnetFailover=True for the connection string of App1.

**This answer is correct.**

* Create an availability group listener.

**This answer is correct.**

**Correct Answer**

* Configure MultiSubnetFailover=True for the connection string of App1.

**This answer is correct.**

* Create an availability group listener.

**This answer is correct.**

The connection string needs MultiSubnetFailover=True to be able to connect to IPS in a different subnet, and the listener needs to be created to ensure continuity in the event of a failover.

The connection timeout does not need to be changed, and the backup preference and the read write routing URL do not need to be configured to meet the goal.

[High availability, disaster recovery, business continuity - SQL Server on Azure VMs | Microsoft Learn](https://learn.microsoft.com/azure/azure-sql/virtual-machines/windows/business-continuity-high-availability-disaster-recovery-hadr-overview?view=azuresql)

[Plan and implement an high availability and disaster recovery environment - Training | Microsoft Learn](https://learn.microsoft.com/training/paths/plan-implement-high-availability-disaster-recovery-environment/)

**Question 43 of 50**

You need to perform a manual backup of a database running on an Azure SQL Managed Instance.

Which option should you include in the BACKUP DATABASE statement to perform the backup operation?

**Your Answer**

* WITH COPY\_ONLY

**This answer is correct.**

**Correct Answer**

* WITH COPY\_ONLY

**This answer is correct.**

The WITH COPY\_ONLY option must be included in the BACKUP DATABASE statement. The option is mandatory because Azure SQL Managed Instance has built-in automated backups.

WITH NO\_TRUNCATE specifies that the transaction log should not be truncated and causes the SQL Server Database Engine to attempt the backup regardless of the state of the database. Consequently, a backup taken with the NO\_TRUNCATE option might have incomplete metadata. WITH INIT specifies that all backup sets should be overwritten, but it preserves the media header. If INIT is specified, any existing backup set on that device is overwritten, if conditions permit. WITH FORMAT specifies that a new media set will be created.

[T-SQL differences between SQL Server & Azure SQL Managed Instance - Azure SQL Managed Instance | Microsoft Learn](https://learn.microsoft.com/azure/azure-sql/managed-instance/transact-sql-tsql-differences-sql-server?view=azuresql)

[Back up and restore databases - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/backup-restore-databases/)

**Question 44 of 50**

You have a Microsoft SQL Server 2019 instance.

You are configuring a backup maintenance solution.

You need to ensure that the databases can be restored to any point in time.

Which two types of backups should you include? Each correct answer presents part of the solution.

**Your Answer**

* full database

**This answer is correct.**

* transaction log

**This answer is correct.**

**Correct Answer**

* full database

**This answer is correct.**

* transaction log

**This answer is correct.**

To configure a backup maintenance solution and ensure that the databases can be restored to any point in time, a full database backup and a transaction log backup are required.

A copy-only backup is a SQL Server backup that is independent of the sequence of conventional SQL Server backups. A file backup contains all the data in one or more files, and a filegroup backup contains all the data in one or more filegroups.

[Back up and restore SQL Server running on Azure virtual machines - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/backup-restore-databases/2-backup-restore-sql-server-running-azure-virtual-machines)

**Question 45 of 50**

You have a Microsoft SQL Server 2019 instance. You are configuring a backup maintenance solution.

You need to ensure that databases can be restored to any point in time.

What should you configure?

**Your Answer**

* a recovery model

**This answer is correct.**

**Correct Answer**

* a recovery model

**This answer is correct.**

The database must use the FULL recovery model to ensure that they can be restored to any point in time.

Change retention specifies the minimum period for keeping change tracking information in the database, Temporal history retention enables a temporal table retention policy, and the Delayed Durability option controls whether transactions commit fully durable or delayed durable.

[Back up and restore SQL Server running on Azure virtual machines - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/backup-restore-databases/2-backup-restore-sql-server-running-azure-virtual-machines)

**Question 46 of 50**

You have a Microsoft SQL Server 2022 instance that contains several databases.

You are planning a disaster recovery solution for the instance.

You need to ensure that all databases can be restored to any point-in-time.

Which three actions should you include in the solution? Each correct answer presents part of the solution.

**Your Answer**

* Include a full database backup

**This answer is correct.**

* Include a log backup

**This answer is correct.**

* Set the full recovery model

**This answer is correct.**

**Correct Answer**

* Include a full database backup

**This answer is correct.**

* Include a log backup

**This answer is correct.**

* Set the full recovery model

**This answer is correct.**

Both full and transaction log database backups are required. The database must be set to the full recovery model.

You should not set the database to the bulk recovery model, as there are situations where the bulk recovery model does not allow you to set the point-in-time recovery.

The Copy-only option is used to perform a backup that is used independently of conventional backups. This is not useful when building the disaster recovery strategy.

The Continue on error option is used when you must perform a backup during the disaster.

[Back up and restore databases - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/backup-restore-databases/)

**Question 47 of 50**

You have an Azure SQL logical server named SQL1 that hosts five databases.

You need to ensure that you can restore the databases if SQL1 is deleted.

What should you include in the solution?

**Your Answer**

* long-term backup retention

**This answer is correct.**

**Correct Answer**

* long-term backup retention

**This answer is correct.**

Using long-term retention will allow you to restore the databases if the server is deleted.

The remaining options do not allow for a restore of the databases if a server is deleted. Accelerated database recovery is a redesigning of the Microsoft SQL Server database engine recovery process, enabling fast and consistent database recovery. Azure SQL Database elastic pools are a solution for managing and scaling multiple databases. The Azure Backup service provides simple, secure, and cost-effective solutions to back up your data and recover it from the Microsoft Azure cloud.

[Long-term backup retention - Azure SQL Database & Azure SQL Managed Instance | Microsoft Learn](https://learn.microsoft.com/azure/azure-sql/database/long-term-retention-overview?view=azuresql)

[Back up and restore databases - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/backup-restore-databases/)

**Question 48 of 50**

You have two SQL Server on Azure Virtual Machines instances.

You need to configure log shipping for a database named Sales.

You enable the Sales database as a primary server in the log shipping configuration.

What should you do next?

**Your Answer**

* Configure the Backup Settings for Sales.

**This answer is correct.**

**Correct Answer**

* Configure the Backup Settings for Sales.

**This answer is correct.**

You should first configure the Backup Settings for the Sales database. You need to specify the network location.

You can only add a secondary server to the log shipping configuration after you have configured the Backup Settings on the primary server. Configuring a monitoring server instance is an optional step, and you can do it only after you have configured the Backup Settings on the primary server. You can decide if the database will be created or restored during the secondary server configuration.

[Configure Log Shipping (SQL Server) - SQL Server | Microsoft Learn](https://learn.microsoft.com/sql/database-engine/log-shipping/configure-log-shipping-sql-server?view=sql-server-ver16)

[Back up and restore databases - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/backup-restore-databases/)

**Question 49 of 50**

You have an Azure SQL Database.

You need to configure high availability for the database in the event of a regional outage.

Which two features can you use? Each correct answer presents a complete solution.

**Your Answer**

* active geo-replication

**This answer is correct.**

**Correct Answer**

* active geo-replication

**This answer is correct.**

* auto-failover groups

**This answer is correct.**

Active geo-replication creates a secondary database replica in another region that is asynchronously kept up-to-date, and the auto-failover groups feature allows you to manage the replication and failover of some or all databases on a logical server to another region.

The Always On availability groups feature is a high-availability and disaster recovery (HA/DR) solution, but it is not used for Azure SQL Database. Long-term backup retention stores database backups in Azure Blob storage.

[Describe active geo-replication for Azure SQL Database - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/explore-iaas-paas-platform-tools-for-high-availability-disaster-recovery/5-describe-active-geo-replication?ns-enrollment-type=learningpath&ns-enrollment-id=learn.wwl.plan-implement-ha-dr-environment)

**Question 50 of 50**

You have an Azure subscription that contains five virtual machines. The virtual machines host a Microsoft SQL Server 2019 Always On availability group named AG1.

You need to enable monitoring for AG1. The solution must ensure that you can monitor the health of AG1 and diagnose performance issues.

What should you use?

**Your Answer**

* Query Performance Insight

**This answer is incorrect.**

**Correct Answer**

* SQL Insights

**This answer is correct.**

SQL Insights is a comprehensive solution for monitoring any product in the Azure SQL family. As such, it allows you to monitor the health of AG1 and diagnose any performance issues.

Query Performance Insight provides intelligent query analysis for single and pooled databases, SQL Database Advisor provides performance recommendations, and Intelligent Insights uses built-in intelligence to continuously monitor database usage through artificial intelligence (AI) and detect disruptive events that cause poor performance.

[Azure SQL Database and Azure SQL Managed Instance monitoring and tuning documentation - Azure SQL | Microsoft Learn](https://learn.microsoft.com/azure/azure-sql/database/monitoring-tuning-index?view=azuresql&viewFallbackFrom=auresql)

[Explore IaaS and PaaS solutions for high availability and disaster recovery - Training | Microsoft Learn](https://learn.microsoft.com/training/modules/explore-iaas-paas-platform-tools-for-high-availability-disaster-recovery/)

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1. [Microsoft Certified: Azure Database Administrator Associate](https://learn.microsoft.com/en-us/credentials/certifications/azure-database-administrator-associate/)

**Practice Assessment Results: September 10, 2024**

**Practice Assessment for Exam DP-300: Administering Microsoft Azure SQL Solutions**

It took you 3 minutes to complete this assessment.

**Overall Results**

To be better prepared for the exam, aim to achieve a score of 80% or higher in multiple attempts.

Score: 44%

Show My Answers

**Performance by assessment section**

To further strengthen your skills in the following areas, refer to the Customized Learning Material section below.

Plan and implement data platform resources

Implement a secure environment

Monitor, configure, and optimize database resources

Configure and manage automation of tasks

Plan and configure a high availability and disaster recovery (HA/DR) environment

**Ready to take the exam?**

[**Schedule exam**](https://learn.microsoft.com/credentials/certifications/azure-database-administrator-associate/) [**Take another practice assessment.**](https://learn.microsoft.com/en-us/credentials/certifications/azure-database-administrator-associate/practice/assessment?assessmentId=58&assessment-type=practice&practice-assessment-type=certification)

**Customized learning material to improve your skills**

**Because you scored lower in "Plan and implement data platform resources":**

* + Migrate SQL Server workloads to Azure SQL Managed Instance
  + 61 mins
  + Migrate SQL Server workloads to Azure SQL Database
  + 87 mins
  + Deploy IaaS solutions with Azure SQL
  + 66 mins
  + Deploy PaaS solutions with Azure SQL
  + 78 mins
  + Evaluate strategies for migrating to Azure SQL
  + 22 mins
  + Prepare to maintain SQL databases on Azure
  + 31 mins

**Because you scored lower in "Implement a secure environment":**

* + Configure database authentication and authorization
  + 59 mins
  + Implement compliance controls for sensitive data
  + 74 mins
  + Protect data in-transit and at rest
  + 47 mins

**Because you scored lower in "Monitor, configure, and optimize database resources":**

* + Configure database authentication and authorization
  + 59 mins
  + Configure databases for optimal performance
  + 46 mins
  + Configure SQL Server resources for optimal performance
  + 35 mins
  + Describe performance monitoring
  + 67 mins
  + Evaluate performance improvements
  + 41 mins
  + Explore query performance optimization
  + 84 mins

**Because you scored lower in "Configure and manage automation of tasks":**

* + Automate deployment of database resources
  + 47 mins
  + Manage Azure PaaS tasks using automation
  + 53 mins
  + Create and manage SQL Agent jobs
  + 41 mins

**Because you scored lower in "Plan and configure a high availability and disaster recovery (HA/DR) environment":**

* + Back up and restore databases
  + 41 mins
  + Describe high availability and disaster recovery strategies
  + 59 mins
  + Explore IaaS and PaaS solutions for high availability and disaster recovery
  + 53 mins

Save your customized collection

[**English (United States)**](https://learn.microsoft.com/en-us/locale?target=https%3A%2F%2Flearn.microsoft.com%2Fen-us%2Fcredentials%2Fcertifications%2Fazure-database-administrator-associate%2Fpractice%2Fresults%3FassessmentId%3D58%26practice-assessment-type%3Dcertification%26snapshotId%3D0a296018-af2c-46b6-90e0-cf2f4a6a7f41)

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