

# (70-432) Microsoft SQL Server 2008, Installation and Maintenance

## 1

You administer a SQL Server 2008 infrastructure.

An instance hosts a business-critical database that must be continuously available to the users without data loss. The database includes **Filestream** data.

You need to implement a high-availability solution for the site.

Which solution should you use?

- A. Failover clustering
- B. Database snapshot
- C. Asynchronous database mirroring
- D. Synchronous database mirroring with a witness server

## 2

You administer a SQL Server 2008 instance.

The instance is one of three servers in a peer-to-peer transactional replication topology. The publication contains a table named Orders. The Orders table contains 200 GB of data across multiple partitions.

A batch process bulk loads 10 GB of data to the Orders table periodically.

You need to design a replication strategy to minimize latency.

What should you do?

- A. Configure the Distributor agent to replicate transactions continually.
- B. Configure the Distributor agent to change the commit batch threshold.
- C. Use the **BULK INSERT** command in multiple staging tables. Switch partitions into the Orders table.
- D. Disable the Distributor agent. Use the **BULK INSERT** command in the Orders table. Reinitialize the publication.

## 3

You administer a SQL Server 2008 instance that hosts a large financial database.

The database has the following backup strategies:

- A full database backup is performed once a week.
- A differential backup is performed every day.
- A transaction log backup is performed every hour.

You plan to execute an end-of-year batch process that takes two hours to run. The batch process will modify about five percent of data within the database.

You need to ensure that if the Finance department does not approve the batch process, the batch operation can be rolled back in minimum possible time.

What should you do prior to starting the batch process?

- A. Perform a differential backup.
- B. Create a database snapshot.
- C. Create a marked transaction. Perform a transaction log backup.
- D. Record the time before the batch operation. Perform a transaction log backup.

## 4

You administer a SQL Server 2008 infrastructure.

You plan to design a solution to obtain hardware configurations, such as the number of processors on a computer and the processor type of all SQL Server 2008 computers.

The solution must meet the following requirements:

- It is hosted on the central computer.
- It can verify hardware configurations for multiple servers.

You need to select a technology that meets the requirements by using the minimum amount of development effort.

What should you do?

- A. Use the Invoke-Sqlcmd cmdlet in SQL Server PowerShell cmdlet.
- B. Define policies based on conditions by using the **ExecuteSql** function.
- C. Define policies based on conditions by using the **ExecuteWQL** function.
- D. Use the Windows Management Instrumentation (WMI) provider for the server events.

## 5

You administer a SQL Server 2008 infrastructure.

An instance contains a database that includes a large table named OrderDetails. The application queries only execute DML statements on the last three months data. Administrative audits are conducted monthly on data older than three months.

You discover the following performance problems in the database.

- The performance of the application queries against the OrderDetail table is poor.
- The maintenance tasks against the database, including index defragmentation, take a long time.

You need to resolve the performance problems without affecting the server performance.

What should you do?

- A.
  - Create a database snapshot for the OrderDetails table every three months.
  - Modify the queries to use the current snapshot.
- B.
  - Create an additional table named OrderDetailsHistory for data older than three months.
  - Partition the OrderDetails and OrderDetailsHistory tables in two parts by using the OrderDate column.
  - Create a SQL Server Agent job that runs every month and uses the **ALTER TABLE...SWITCH** Transact-SQL statement to move data that is older than three months to the OrderDetailsHistory table.
- C.
  - Create an additional table named OrderDetailsHistory for data older than three months.
  - Create a SQL Server Agent job that runs the following Transact-SQL statement every month.

```
INSERT INTO OrderDetailsHistory
SELECT * FROM OrderDetails
WHERE DATEDIFF (m, OrderDate, GETDATE ()) > 3
```

- D.
  - Create an additional table named OrderDetailsHistory for data older than three months.
  - Use the following Transact-SQL statement.

```
CREATE TRIGGER trgMoveData
ON OrderDetails
AFTER INSERT
AS
INSERT INTO OrderDetailsHistory
SELECT * FROM OrderDetails
WHERE DATEDIFF (m, OrderDate, GETDATE ()) > 3
```

## 6

You administer a SQL Server 2008 infrastructure.

You plan to design a maintenance strategy for a mission-critical database that includes a large table named Orders. The design plan includes index maintenance operations.

You must design the strategy after considering the following facts:

- The Orders table in the database is constantly accessed.
- New rows are frequently added to the Orders table.
- The average fragmentation for the clustered index of the Orders table is less than 2 percent.
- The Orders table includes a column of the **xml** data type.

You need to implement the strategy so that the performance of the queries on the table is optimized.

What should you do?

- A. Drop the clustered index of the Orders table.
- B. Rebuild the clustered index of the Orders table offline once a month.
- C. Reorganize the clustered index of the Orders table by decreasing the fill factor.
- D. Exclude the clustered index of the Orders table from scheduled reorganizing or rebuilding operations.

## 7

You administer a SQL Server 2008 infrastructure.

The instance contains a database required for the day-to-day business of your company. Users experience slow response time when they execute reports.

You plan to design a performance monitoring strategy that captures and stores the following data:

- Executed Transact-SQL statements and query activity.
- Blocking and deadlock information.
- Counters for disk, CPU, and memory.

You need to implement the monitoring process by using the minimum amount of administrative effort.

What should you do?

- A. Use the data collector.
- B. Use the client-side profiler trace.
- C. Use the dynamic management views.
- D. Use the System Monitor counter log trace.

## 8

You administer four SQL Server 2008 instances. Each instance hosts a single database application.

You plan to migrate all four instances to a new SQL Server failover cluster.

The four instances are configured as shown in the following table.

Instance Name	Configuration
Instance 1	8 processors that have 16-GB RAM
Instance 2	4 processors that have 8-GB RAM
Instance 3	2 processors that have 16-GB RAM
Instance 4	4 Processors that have 8-GB RAM

The four instances are fully optimized and have no spare CPU cycles or extra memory.

The new cluster will host all four databases on a single virtual cluster IP address.

You need to ensure that the new cluster is configured to handle the workload of all the database applications by using the minimum amount of hardware resources.

Which cluster configuration should you use?

- A. Four-node active/active/active/active cluster that has each node containing a minimum of 9 processors and a 25-GB memory
- B. Two-node active/active cluster that has each node containing a minimum of 9 processors and a 25-GB memory
- C. Two-node active/passive cluster that has each node containing a minimum of 18 processors and a 50-GB memory
- D. Four-node active/active/active/passive cluster that has each node containing a minimum of 18 processors and a 50-GB memory

## 9

You administer a SQL Server 2008 instance that hosts a database.

The backup strategy used by the database is as shown in the following table.

Backup Type	Frequency	Time of the Backup	Time Taken for the Backup
Full Database	Tuesday, Thursday, Saturday	21:00 hr	60-90 minutes
Differential	Monday, Wednesday, Friday	21:00 hr	30-45 minutes
Transaction Log	Hourly	Hourly	< 5 minutes

You run a batch process on Saturday that lasts from 21:00 hr to 23:00 hr.

You discover that the batch process is invalidated because a user has modified some data at 21:05 hr on the same day.

You need to restore the database to its state at the start of the batch process in the least possible time.

What should you do?

- A. Restore the full database backup that was performed on Saturday.
- B.
  - Restore the full database backup that was performed on Thursday.
  - Restore all transaction logs from the time of the full backup on Thursday and stop at 21:00 hr on Saturday.
- C.
  - Restore the full database backup that was performed on Saturday.
  - Restore all transaction logs from the time of the full backup on Saturday and stop at 21:00 hr on Saturday.
- D.
  - Restore the full database backup that was performed on Thursday.
  - Restore the differential backup that was performed on Friday.
  - Restore all transaction logs from the time of the differential backup on Friday and stop at 21:00 hr on Saturday.

## 10

You administer a SQL Server 2008 instance.

The instance contains a large mission-critical database that experiences a high volume of DML activity. Users report that the applications that connect to the database have a slow response time.

You need to design a monitoring process that collects the following information:

- Unused or sparingly used indexes
- New potential indexes
- Index fragmentation

What should you do?

- A. Use SQL Server Profiler.
- B. Use the System Monitor tool.
- C. Use dynamic management views.
- D. Use Database Engine Tuning Advisor.