

# 70-764 - Administering a SQL Database Infrastructure

**QUESTION 1**

You administer a Microsoft SQL Server 2012 database.

Users report that an application that accesses the database displays an error, but the error does not provide meaningful information. No entries are found in the SQL Server log or Windows event logs related to the error.

You need to identify the root cause of the issue by retrieving the error message.

What should you do?

- A. Create an Extended Events session by using the sqlserver.error\_reported event.
- B. Create a SQL Profiler session to capture all ErrorLog and EventLog events.
- C. Flag all stored procedures for recompilation by using sp\_recompile.
- D. Execute sp\_who.

**Correct Answer: A**

**Section: Volume A**

**Explanation**

**Explanation/Reference:**

Explanation/Reference:

<http://msdn.microsoft.com/en-us/library/bb630282.aspx> Event sqlserver.error\_reported: This event gets fired every time that an error happens in the server

**QUESTION 2**

You administer a Microsoft SQL Server 2012 server. One of the databases on the server supports a highly active OLTP application.

Users report abnormally long wait times when they submit data into the application.

You need to identify which queries are taking longer than 1 second to run over an extended period of time.

What should you do?

- A. use SQL Profiler to trace all queries that are processing on the server. Filter queries that have a Duration value of more than 1,000.

- B. Use sp\_configure to set a value for blocked process threshold. Create an extended event session.
- C. Use the Job Activity monitor to review all processes that are actively running. Review the Job History to find out the duration of each step.
- D. Run the sp\_who command from a query window.
- E. Run the DBCC TRACEON 1222 command from a query window and review the SQL Server event log.

**Correct Answer:** E  
**Section:** Volume A  
**Explanation**

**Explanation/Reference:**

Explanation/Reference:

<http://www.mssqltips.com/sqlservertip/2130/finding-sql-server-deadlocks-using-trace-flag-1222/> <http://msdn.microsoft.com/en-us/library/ms188396.aspx>

**QUESTION 3**

You administer a Microsoft SQL Server 2012 database.

You need to ensure that the size of the transaction log file does not exceed 2 GB.

What should you do?

- A. Execute sp\_configure 'max log size', 2G.
- B. use the ALTER DATABASE...SET LOGFILE command along with the maxsize parameter.
- C. In SQL Server Management Studio, right-click the instance and select Database Settings. Set the maximum size of the file for the transaction log.
- D. in SQL Server Management Studio, right-click the database, select Properties, and then click Files. Open the Transaction log Autogrowth window and set the maximum size of the file.

**Correct Answer:** D  
**Section:** Volume A  
**Explanation**

**Explanation/Reference:**

**QUESTION 4**

You administer a Microsoft SQL Server 2012 server. The MSSQLSERVER service uses a domain account named CONTOSO\SQLService.

You plan to configure Instant File Initialization.

You need to ensure that Data File Autogrow operations use Instant File Initialization.

What should you do? Choose all that apply.

- A. Restart the SQL Server Agent Service.
- B. Disable snapshot isolation.
- C. Restart the SQL Server Service.
- D. Add the CONTOSO\SQLService account to the Perform Volume Maintenance Tasks local security policy.
- E. Add the CONTOSO\SQLService account to the Server Operators fixed server role.
- F. Enable snapshot isolation.

**Correct Answer:** CD

**Section:** Volume A

**Explanation**

**Explanation/Reference:**

Explanation/Reference:

<http://msdn.microsoft.com/en-us/library/ms175935.aspx> <http://www.mssqltips.com/sqlservertip/2752/effect-of-instant-file-initialization-within-sql-server/>

How To Enable Instant File Initialization

1. Open Local Security Policy and go to Local Policies --> User Rights Assignment.
2. Double click Perform Volume Maintenance Tasks and add your SQL Server database engine service account.
3. Restart the SQL Server service using SQL Server Configuration Manager and this setting should now be enabled.

#### **QUESTION 5**

You administer a Microsoft SQL Server 2012 failover cluster that contains two nodes named Node A and Node B. A single instance of SQL Server is installed on the cluster.

An additional node named Node C has been added to the existing cluster.

You need to ensure that the SQL Server instance can use all nodes of the cluster.

What should you do?

- A. Run the New SQL Server stand-alone installation Wizard on Node C.
- B. Run the Add Node to SQL Server Failover Cluster Wizard on Node C.
- C. Use Node B to install SQL Server on Node C.
- D. Use Node A to install SQL Server on Node C.

**Correct Answer:** B

**Section:** Volume A

**Explanation**

**Explanation/Reference:**

<http://technet.microsoft.com/en-us/library/ms191545.aspx> To add a node to an existing SQL Server failover cluster, you must run SQL Server Setup on the node that is to be added to the SQL Server failover cluster instance. Do not run Setup on the active node. The Installation Wizard will launch the SQL Server Installation Center. To add a node to an existing failover cluster instance, click Installation in the left-hand pane. Then, select Add node to a SQL Server failover cluster.

**QUESTION 6**

You administer a Microsoft SQL Server 2012 database.

The database contains a Product table created by using the following definition:

```
CREATE TABLE dbo.Product
(ProductID INT PRIMARY KEY,
 Name VARCHAR(50) NOT NULL,
 Color VARCHAR(15) NOT NULL,
 Size VARCHAR(5) NOT NULL,
 Style CHAR(2) NULL,
 Weight DECIMAL(8,2) NULL);
```

You need to ensure that the minimum amount of disk space is used to store the data in the Product table.

What should you do?

- A. Convert all indexes to Column Store indexes.
- B. Implement Unicode Compression.
- C. Implement row-level compression.
- D. Implement page-level compression.

**Correct Answer: D**

**Section: Volume A**

**Explanation**

**Explanation/Reference:**

<http://msdn.microsoft.com/en-us/library/cc280449.aspx> <http://msdn.microsoft.com/en-us/library/cc280464.aspx> <http://msdn.microsoft.com/en-us/library/cc280576.aspx> <http://msdn.microsoft.com/en-us/library/ee240835.aspx>

**QUESTION 7**

You administer a Microsoft SQL Server 2012 instance. After a routine shutdown, the drive that contains tempdb fails.

You need to be able to start the SQL Server.  
What should you do?

- A. Modify tempdb location in startup parameters.
- B. Start SQL Server in minimal configuration mode.
- C. Start SQL Server in single-user mode.
- D. Configure SQL Server to bypass Windows application logging.

**Correct Answer: B**  
**Section: Volume A**  
**Explanation**

**Explanation/Reference:**

Explanation/Reference:

<http://msdn.microsoft.com/en-us/library/ms186400.aspx> <http://msdn.microsoft.com/en-us/library/ms345408.aspx>

**QUESTION 8**

You administer a single server that contains a Microsoft SQL Server 2012 default instance. You plan to install a new application that requires the deployment of a database on the server. The application login requires sysadmin permissions.

You need to ensure that the application login is unable to access other production databases.

What should you do?

- A. Use the SQL Server default instance and configure an affinity mask.
- B. Install a new named SQL Server instance on the server.
- C. Use the SQL Server default instance and enable Contained Databases.
- D. Install a new default SQL Server instance on the server.

**Correct Answer: B**  
**Section: Volume A**  
**Explanation**

**Explanation/Reference:**

**QUESTION 9**

You administer a Microsoft SQL Server 2012 Enterprise Edition server that uses 64 cores.

You discover performance issues when large amounts of data are written to tables under heavy system load.

You need to limit the number of cores that handle I/O.

What should you configure?

- A. Processor affinity
- B. Lightweight pooling
- C. Max worker threads
- D. I/O affinity

**Correct Answer: D**  
**Section: Volume A**  
**Explanation**

**Explanation/Reference:**

Explanation/Reference:

<http://msdn.microsoft.com/en-us/library/ms189629.aspx>

**QUESTION 10**

You administer a Microsoft SQL Server 2012 instance that contains a financial database hosted on a storage area network (SAN).

The financial database has the following characteristics:

A data file of 2 terabytes is located on a dedicated LUN (drive D).

A transaction log of 10 GB is located on a dedicated LUN (drive E).

Drive D has 1 terabyte of free disk space.

Drive E has 5 GB of free disk space.

The database is continually modified by users during business hours from Monday through Friday between 09:00 hours and 17:00 hours. Five percent of the existing data is modified each day.

The Finance department loads large CSV files into a number of tables each business day at 11:15 hours and 15:15 hours by using the BCP or BULK INSERT commands. Each data load adds 3 GB of data to the database.

These data load operations must occur in the minimum amount of time.

A full database backup is performed every Sunday at 10:00 hours. Backup operations will be performed every two hours (11:00, 13:00, 15:00, and 17:00) during business hours.

You need to ensure that your backup will continue if any invalid checksum is encountered.

Which backup option should you use?

- A. STANDBY
- B. Differential
- C. FULL
- D. CHECKSUM
- E. BULK\_LOGGED
- F. CONTINUE\_AFTER\_ERROR
- G. SIMPLE
- H. DBO\_ONLY
- I. COPY\_ONLY
- J. SKIP
- K. RESTART
- L. Transaction log
- M. NO\_CHECKSUM
- N. NORECOVERY

**Correct Answer:** F

**Section:** Volume A

**Explanation**

**Explanation/Reference:**

Explanation/Reference:

<http://msdn.microsoft.com/en-us/library/ms186865.aspx> <http://msdn.microsoft.com/en-us/library/microsoft.sqlserver.management.smo.backuprestorebase.continueaftererror.aspx>

### **QUESTION 11**

You administer a Microsoft SQL Server 2012 instance that contains a financial database hosted on a storage area network (SAN).

The financial database has the following characteristics:

A data file of 2 terabytes is located on a dedicated LUN (drive D). A transaction log of 10 GB is located on a dedicated LUN (drive E).

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The Finance department loads large CSV files into a number of tables each business day at 11:15 hours and 15:15 hours by using the BCP or BULK INSERT commands. Each data load adds 3 GB of data to the database.

These data load operations must occur in the minimum amount of time.

A full database backup is performed every Sunday at 10:00 hours. Backup operations will be performed every two hours (11:00, 13:00, 15:00, and 17:00) during business hours.

On Wednesday at 10:00 hours, the development team requests you to refresh the database on a development server by using the most recent version.

You need to perform a full database backup that will be restored on the development server.

Which backup option should you use?

- A. NORECOVERY
- B. FULL
- C. NO\_CHECKSUM
- D. CHECKSUM
- E. Differential
- F. 8ULK\_LOGGED
- G. STANDBY
- H. RESTART
- I. SKIP
- J. Transaction log
- K. DBO ONLY
- L. COPY\_ONLY
- M. SIMPLE
- N. CONTINUE AFTER ERROR

**Correct Answer:** L

**Section:** Volume A

**Explanation**

**Explanation/Reference:**