Vendor: Microsoft

Exam Code: 70-464

Exam Name: Developing Microsoft SQL Server 2012 Databases

Version: Demo
**Topic 1, Application Scenario**

**Application Information**
You have two servers named SQL1 and SQL2 that have SQL Server 2012 installed. You have an application that is used to schedule and manage conferences. Users report that the application has many errors and is very slow. You are updating the application to resolve the issues.

You plan to create a new database on SQL1 to support the application.
A junior database administrator has created all the scripts that will be used to create the database.

The script that you plan to use to create the tables for the new database is shown in Tables.sql.
The script that you plan to use to create the stored procedures for the new database is shown in StoredProcedures.sql.
The script that you plan to use to create the indexes for the new database is shown in Indexes.sql.

(Line numbers are included for reference only.)

A database named DB2 resides on SQL2. DB2 has a table named SpeakerAudit that will audit changes to a table named Speakers.
A stored procedure named usp_UpdateSpeakersName will be executed only by other stored procedures. The stored procedures executing usp_UpdateSpeakersName will always handle transactions.
A stored procedure named usp_SelectSpeakersByName will be used to retrieve the names of speakers. usp_SelectSpeakersByName can read uncommitted data.
A stored procedure named usp_GetFutureSessions will be used to retrieve sessions that will occur in the future.

**Procedures.sql**
CREATE PROCEDURE usp_UpdateSpeakerName
    @SpeakerID int,
    @LastName nvarchar(100)
AS
BEGIN TRY
UPDATE Speakers
SET LastName = @LastName
WHERE SpeakerID = @SpeakerID;

INSERT INTO SQL2.DB2.dbo.SpeakerAudit(SpeakerID, LastName)
VALUES (@SpeakerID, @LastName);

END TRY
BEGIN CATCH
END CATCH:

GO

CREATE PROCEDURE usp_SelectSpeakersByName
    @LastName nvarchar(100)
AS
SELECT SpeakerID,
    FirstName,
    LastName
FROM Speakers
WHERE LastName LIKE @LastName + '%'

GO

CREATE PROCEDURE usp_InsertSessions
    @SessionData SessionDataDataTable READONLY
AS
INSERT INTO Sessions
    (SpeakerID, Title, Abstract, DeliveryTime, TitleAndSpeaker)
SELECT SpeakerID, Title, Abstract, DeliveryTime, TitleAndSpeaker
FROM @SessionData;

GO

CREATE PROCEDURE usp_UpdateSessionRoom
    @RoomID int,
    @SpeakerID int
AS
SET TRANSACTION ISOLATION LEVEL SNAPSHOT
BEGIN TRANSACTION;

SELECT SessionID,
    Title
FROM Sessions
WHERE SpeakerID = @SpeakerID;

UPDATE Sessions
SET RoomID = @RoomID
WHERE SpeakerID = @SpeakerID;

COMMIT TRANSACTION;

CREATE PROCEDURE usp_AttendeesReport
    @LastName varchar(100)
AS
SELECT FirstName + ' ' + LastName AS FullName
FROM Attendees
WHERE LastName = @LastName;
GO

CREATE PROCEDURE usp_GetFutureSessions
AS
SELECT SpeakerID,
    RoomID,
    DeliveryTime
FROM Sessions
GO

CREATE PROCEDURE usp_TestSpeakers
AS
EXECUTE usp_SelectSpeakersByName 'a';
EXECUTE usp_SelectSpeakersByName 'an';
EXECUTE usp_SelectSpeakersByName 'and';
EXECUTE usp_SelectSpeakersByName 'ander';
EXECUTE usp_SelectSpeakersByName 'anderson';
EXECUTE usp_SelectSpeakersByName 'b';
EXECUTE usp_SelectSpeakersByName 'bi';
...
EXECUTE usp_SelectSpeakersByName 'zzz';
GO
Indexes.sql

```
01 CREATE INDEX IX_Sessions ON Sessions
02 (SessionID, DeliveryTime)
03 INCLUDE (RoomID)
04
05 GO
06
07 CREATE INDEX IX_Speakers ON Speakers
08 (LastName);
09 GO
10
11 CREATE INDEX IX_Attendees_Name ON Attendees
12 (FirstName, LastName);
13
14 GO
15
16 CREATE INDEX IX_Attendees_Confirmed ON Attendees
17 (Confirmed);
18 GO
```
Tables.sql

01 CREATE DATABASE Conference;
02 GO
03 ALTER DATABASE Conference
04 SET READ_COMMITTED_SNAPSHOT ON;
05 GO
06 CREATE TABLE Attendees
07 
08 CREATE TABLE Speakers
09 
10 CREATE TABLE Sessions
11 
12 CREATE TABLE Rooms
13

QUESTION 1
You need to recommend a solution to ensure that SQL1 supports the auditing requirements of usp_UpdateSpeakerName. What should you include in the recommendation?

A. the Distributed Transaction Coordinator (DTC)
B. transactional replication
C. change data capture
D. change tracking

Correct Answer: A
QUESTION 2
You need to modify usp_SelectSpeakersByName to support server-side paging. The solution must minimize the amount of development effort required. What should you add to usp_SelectSpeakersByName?

A. an OFFSET-FETCH clause
B. a table variable
C. the ROWNUMBER keyword
D. a recursive common table expression

Correct Answer: A

QUESTION 3
You are evaluating the table design. You need to recommend a change to Tables.sql that reduces the amount of time it takes for usp_AttendeesReport to execute. What should you add at line 14 of Tables.sql?

A. FullName AS (FirstName + ' ' + LastName),
B. FullName nvarchar(100) NOT NULL DEFAULT (dbo.CreateFullName(FirstName, LastName)),
C. FullName AS (FirstName + ' ' + LastName) PERSISTED,
D. FullName nvarchar(100) NOT NULL CONSTRAINT DF_FullName DEFAULT (dbo.CreateFullName (FirstName, LastName)),

Correct Answer: C

QUESTION 4
You need to provide referential integrity between the Sessions table and Speakers table. Which code segment should you add at line 47 of Tables.sql?

A. ALTER TABLE dbo.Sessions ADD CONSTRAINT FK_Sessions_Speakers FOREIGN KEY (SessionID) REFERENCES dbo.Speakers (SpeakerID);
B. ALTER TABLE dbo.Speakers ADD CONSTRAINT FK_Speakers_Sessions FOREIGN KEY (SessionID) REFERENCES dbo.Sessions (SessionID);
C. ALTER TABLE dbo.Sessions ADD CONSTRAINT FK_Sessions_Speakers FOREIGN KEY (SpeakerID) REFERENCES dbo.Speakers (SpeakerID);
D. ALTER TABLE dbo.Speakers ADD CONSTRAINT
FK_Speakers_Sessions FOREIGN KEY (SpeakerID) REFERENCES dbo.Sessions (SessionID);

Correct Answer: A

QUESTION 5
You need to add a new column named Confirmed to the Attendees table. The solution must meet the following requirements:

- Have a default value of false.
- Minimize the amount of disk space used.

Which code block should you use?

A. ALTER TABLE Attendees
   ADD Confirmed bit DEFAULT 0;

B. ALTER TABLE Attendees
   ADD Confirmed char(1) DEFAULT '0';

C. ALTER TABLE Attendees
   ADD Confirmed char(1) DEFAULT '1';

D. ALTER TABLE Attendees
   ADD Confirmed bit DEFAULT 1;

Correct Answer: A

QUESTION 6
You execute usp_TestSpeakers. You discover that usp_SelectSpeakersByName uses inefficient execution plans. You need to update usp_SelectSpeakersByName to ensure that the most efficient execution plan is used. What should you add at line 30 of Procedures.sql?

A. OPTION (FCRCESCAN)
B. OPTION (FCRCESEEX)
C. OPTION (OPTIMIZE FOR UNKNOWN)
D. OPTION (OPTIMIZE FOR (@lastName = 'Anderson'))

Correct Answer: C