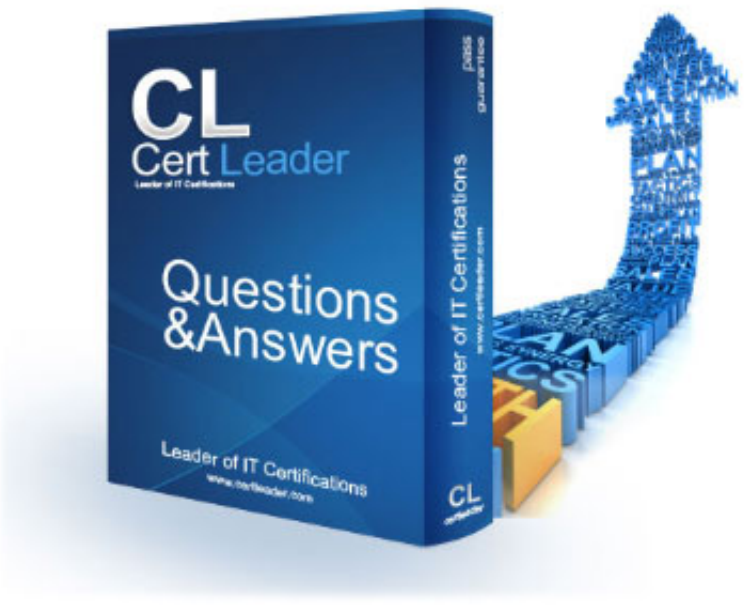
70-761 Dumps

Querying Data with Transact-SQL (beta)

https://www.certleader.com/70-761-dumps.html



NEW QUESTION 1
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section. You will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You create a table named Products by running the following Transact-SQL statement:

```
CREATE TABLE Products (
  ProductID int IDENTITY (1, 1), NOT NULL PRIMARY KEY,
  ProductName nvarchar (100), NULL,
  UnitPrice decimal (18, 2) NOT NULL,
  UnitsInStock int NOT NULL,
  UnitsOnOrder int NULL
)
```

You have the following stored procedure:

```
CREATE PROCEDURE InsertProduct
  @ProductName nvarchar(100),
  @UnitPrice decimal (18, 2),
  @UnitsInStock int,
  @UnitsOnOrder int
AS
BEGIN
  INSERT INTO Products (ProductName, UnitPrice, UnitsInStock, UnitsOnOrder)
  VALUES (@ProductName, @UnitPrice, @UnitsInStock, @UnitsOnOrder)
END
```

You need to modify the stored procedure to meet the following new requirements:
Insert product records as a single unit of work.
Return error number 51000 when a product fails to insert into the database.
If a product record insert operation fails, the product information must not be permanently written to the database.
Solution: You run the following Transact-SQL statement:

```
ALTER PROCEDURE InsertProduct
@ProductName nvarchar (100),
@UnitPrice decimal (18, 2),
@UnitsInStock int,
@UnitsOnOrder int
AS
BEGIN
  SET XACT_ABORT ON
  BEGIN TRY
    BEGIN TRANSACTION
      INSERT INTO Products (ProductName, UnitPrice, UnitsInStock, UnitsOnOrder)
      VALUES (@ProductName, @UnitPrice, @UnitsInStock, @UnitsOnOrder)
    COMMIT TRANSACTION
  END TRY
  BEGIN CATCH
    IF XACT_STATE () <> 0 ROLLBACK TRANSACTION
    THROW 51000, 'The product could not be created,' 1
  END CATCH
END
```

Does the solution meet the goal?

A. Yes
B. No

Answer: B

NEW QUESTION 2
Note: This question is part of a series of questions that use the same or similar answer choices. An answer choice may be correct for more than one question in the series. Each question is independent of the other questions in this series. Information and details provided in a question apply only to that question.
You have a database that contains tables named Customer_CRMSystem and Customer_HRSystem. Both tables use the following structure:

Column name	Data type	Allow null
CustomerID	int	No
CustomerCode	char(4)	Yes
CustomerName	varchar(50)	No

The tables include the following records: Customer_CRMSystem

CustomerID	CustomerCode	CustomerName
1	CUS1	Roya
2	CUS9	Yossi
3	CUS4	Jack
4	NULL	Jane
5	NULL	Francisco

Customer_HRSystem

CustomerID	CustomerCode	CustomerName
1	CUS1	Roya
2	CUS2	Jose
3	CUS9	Yossi
4	NULL	Jane

Records that contain null values for CustomerCode can be uniquely identified by CustomerName. You need to display distinct customers that appear in both

tables.
Which Transact-SQL statement should you run?

A

```
SELECT c.CustomerCode, c.CustomerName, h.CustomerCode, h.CustomerName
FROM Customer_CRMSystem c
INNER JOIN Customer_HRSystem h
ON c.CustomerCode = h.CustomerCode AND c.CustomerName = h.CustomerName
```

B

```
SELECT CustomerCode, CustomerName
FROM Customer_CRMSystem
INTERSECT
SELECT CustomerCode, CustomerName
FROM Customer_HRSystem
```

C

```
SELECT c.CustomerCode, c.CustomerName
FROM Customer_CRMSystem c
LEFT OUTER JOIN Customer_HRSystem h
ON c.CustomerCode = h.CustomerCode
WHERE h.CustomerCode IS NULL AND c.CustomerCode IS NOT NULL
```

D

```
SELECT CustomerCode, CustomerName
FROM Customer_CRMSystem
EXCEPT
SELECT CustomerCode, CustomerName
FROM Customer_HRSystem
```

E

```
SELECT CustomerCode, CustomerName
FROM Customer_CRMSystem
UNION
SELECT CustomerCode, CustomerName
FROM Customer_HRSystem
```

F

```
SELECT CustomerCode, CustomerName
FROM Customer_CRMSystem
UNION ALL
SELECT CustomerCode, CustomerName
FROM Customer_HRSystem
```

G

```
SELECT c.CustomerCode, c.CustomerName, h.CustomerCode, h.CustomerName
FROM Customer_CRMSystem c
CROSS JOIN Customer_HRSystem h
```

H

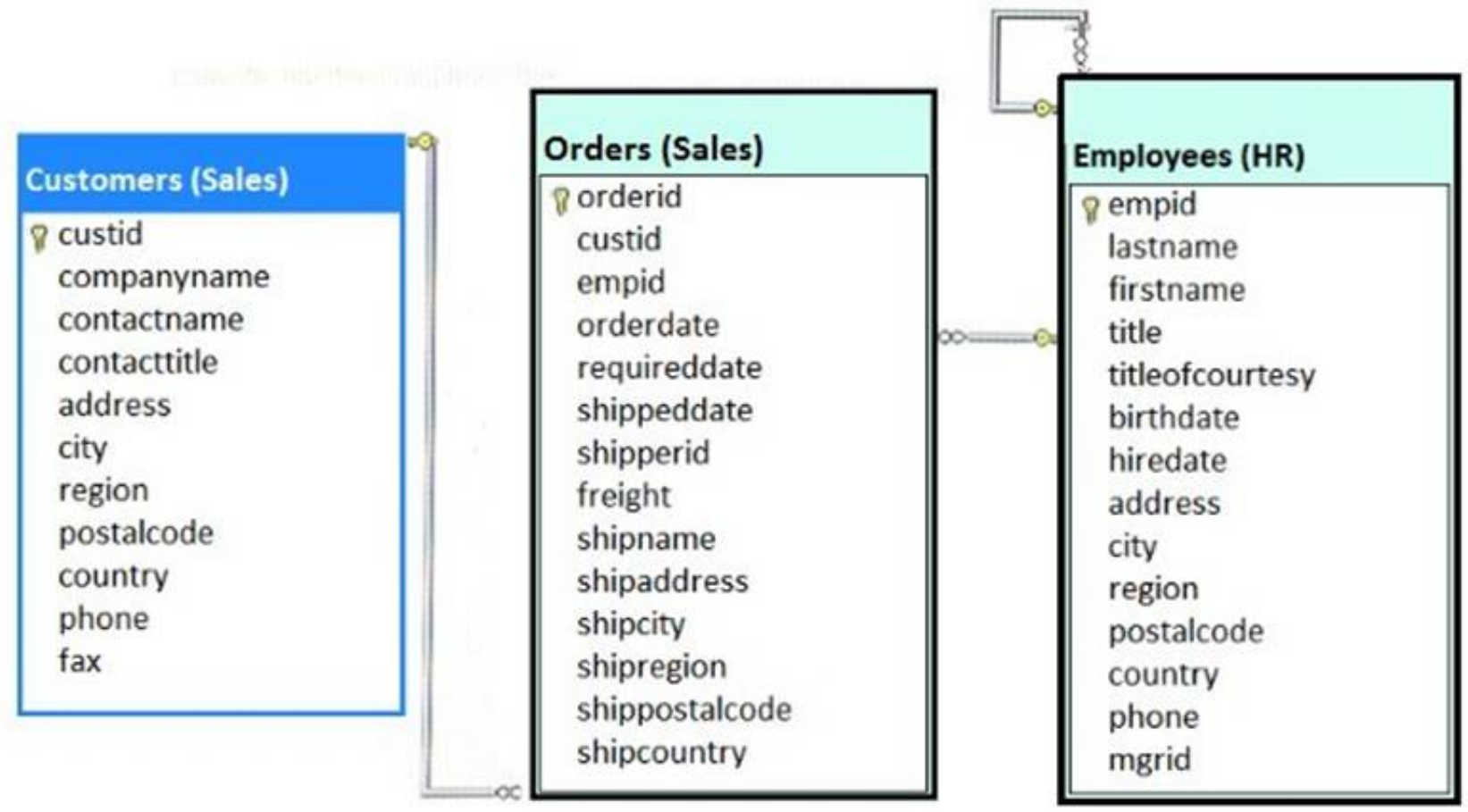
```
SELECT c.CustomerCode, c.CustomerName, h.CustomerCode, h.CustomerName
FROM Customer_CRMSystem c
FULL OUTER JOIN Customer_HRSystem h
ON c.CustomerCode = h.CustomerCode AND c.CustomerName = h.CustomerName
```

A. Option A
B. Option B
C. Option C
D. Option D
E. Option E
F. Option F
G. Option G
H. Option H

Answer: H

Explanation: To retain the nonmatching information by including nonmatching rows in the results of a join, use a full outer join. SQL Server provides the full outer join operator, FULL OUTER JOIN, which includes all rows from both tables, regardless of whether or not the other table has a matching value.

NEW QUESTION 3
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section. You will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have a database that includes the tables shown in the exhibit (Click the Exhibit button.)



You need to create a Transact-SQL query that returns the following information:
- the customer number
- the customer contact name
- the date the order was placed, with a name of DateofOrder
- a column named Salesperson, formatted with the employee first name, a space, and the employee last name
- orders for customers where the employee identifier equals 4

The output must be sorted by order date, with the newest orders first. The solution must return only the most recent order for each customer. Solution: You run the following Transact-SQL statement:

```
SELECT c.custid, contactname, MAX(orderdate) AS DateofOrder,
e.firstname + ' ' + e.lastname AS Salesperson
FROM Sales.Customers AS c
INNER JOIN Sales.Orders AS o ON c.custid = o.custid
INNER JOIN HR.Employees AS e ON o.empid = e.empid
WHERE o.empid = 4
ORDER BY DateofOrder DESC
```

Does the solution meet the goal?

A. Yes
B. No

Answer: B

Explanation: We need a GROUP BY statement as we want to return an order for each customer.

NEW QUESTION 4
You are developing a training management application. You run the following Transact-SQL statement:

```
CREATE TABLE Evaluations(
     EvaluationID INT NOT NULL,
     EmployeeID INT NULL,
     CourseID INT NULL,
     EvalScore INT NULL)
```

You must create a report that returns course identifiers and the average evaluation score for each course. The result set must include only one score for each employee for each course.
How should you complete the Transact-SQL statement? To answer, select the appropriate Transact-SQL segments in the answer area.
NOTE: Each correct selection is worth one point.

Answer Area

```
WITH Evals_CTE (CourseID, EmployeeID, EvalScore)
AS
(
    SELECT
    FROM Evaluations

)
SELECT
FROM Evals_CTE
GROUP BY CourseID
```

DISTINCT CourseID, EmployeeID
DISTINCT CourseID, EmployeeID, EvalScore
(DISTINCT (CourseID, EmployeeID, EvalScore
CourseID, EmployeeID, EvalScore

CourseID, AVG(DISTINCT EvalScore
CourseID, SUM(EvalScore
CourseID, AVG(EvalScore
CourseID, EmployeeID, EvalScore

Answer:

Explanation:

Answer Area

```
WITH Evals_CTE (CourseID, EmployeeID, EvalScore)
AS
(
    SELECT
    FROM Evaluations

)
SELECT
FROM Evals_CTE
GROUP BY CourseID
```

DISTINCT CourseID, EmployeeID
DISTINCT CourseID, EmployeeID, EvalScore
(DISTINCT (CourseID, EmployeeID, EvalScore
CourseID, EmployeeID, EvalScore

CourseID, AVG(DISTINCT EvalScore
CourseID, SUM(EvalScore
CourseID, AVG(EvalScore
CourseID, EmployeeID, EvalScore

NEW QUESTION 5
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section. You will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have a table named Products that stores information about products your company sells. The table has a column named ListPrice that stores retail pricing information for products.
Some products are used only internally by the company. Records for these products are maintained in the Products table for inventory purposes. The price for each of these products is $0.00. Customers are not permitted to order these products.
You need to increase the list price for products that cost less than $100 by 10 percent. You must only increase pricing for products that customers are permitted to order.
Solution: You run the following Transact-SQL statement:

```
UPDATE Production.Product
SET ListPrice = ListPrice + 1.1
WHERE ListPrice
BETWEEN 0 and 100
```

Does the solution meet the goal?

A. Yes
B. No

Answer: B

Explanation: Products with a price of $0.00 would also be increased.

NEW QUESTION 6
You have a table named Table1 that contains 200 million rows. Table1 contains a column named SaleDate that has a data type of DateTime2(3).
Users report that the following query runs slowly.

```
Select SalesPerson, count(*)
FROM table1
Where year(SaleDate) = 2017
GROUP BY SalesPerson
```

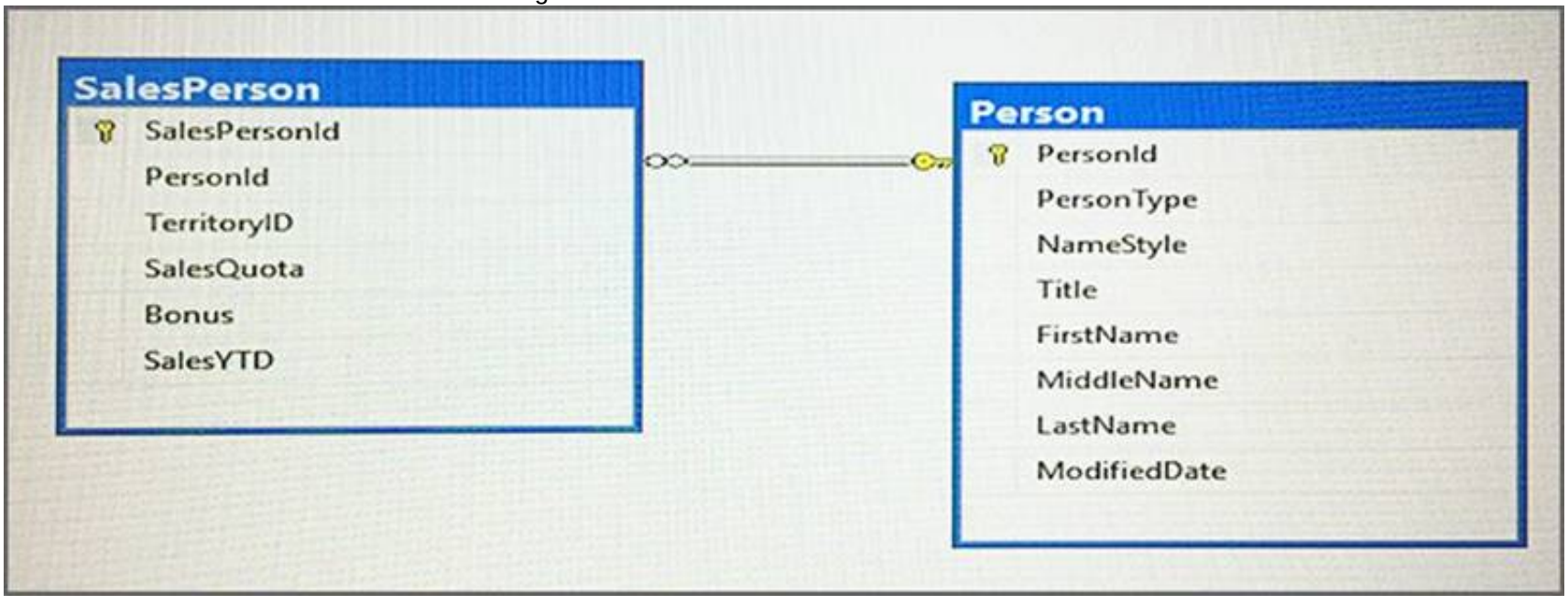
You need to reduce the amount of time it takes to run the query. What should you use to replace the WHERE statement?

A. WHERE SaleDate >= '2017-01-01' AND SaleDate < '2018-01-01'
B. WHERE cast(SaleDate as varchar(10)) BETWEEN '2017-01-01' AND '2017-12-31'
C. WHERE cast(SaleDate as date) BETWEEN '2017-01-01' AND '2017-12-31'
D. WHERE 2017 = year(SaleDate)

Answer: C

Explanation: References: https://docs.microsoft.com/en-us/sql/t-sql/queries/select-transact-sql?view=sql-server-2017

NEW QUESTION 7
You have a database that contains the following tables.



You need to create a query that lists the highest-performing salespersons based on the current year-to-date sales period. The query must meet the following requirements:
Construct the query using the following guidelines:

Keywords

ADD	EXIT	PROC
ALL	EXTERNAL	PROCEDURE
ALTER	FETCH	PUBLIC
AND	FILE	RAISERROR
ANY	FILLFACTOR	READ
AS	FORFOREIGN	READTEXT
ASC	FREETEXT	RECONFIGURE
AUTHORIZATION	FREETEXTTABLE	REFERENCES
BACKUP	FROM	REPLICATION
BEGIN	FULL	RESTORE
BETWEEN	FUNCTION	RESTRICT
BREAK	GOTO	RETURN
BROWSE	GRANT	REVERT
BULK	GROUP	REVOKE
BY	HAVING	RIGHT
CASCADE	HOLDLOCK	ROLLBACK
CASE	IDENTITY	ROWCOUNT
CHECK	IDENTITY_INSERT	ROWGUIDCOL
CHECKPOINT	IDENTITYCOL	RULE
CLOSE	IF	SAVE
CLUSTERED	IN	SCHEMA
COALESCE	INDEX	SECURITYAUDIT
COLLATE	INNER	SELECT
COLUMN	INSERT	SEMANTICKEYPHRASETABLE
COMMIT	INTERSECT	SEMANTICSIMILARITYDETAILSTABLE
COMPUTE	INTO	SEMANTICSIMILARITYTABLE
CONCAT	IS	SESSION_USER
CONSTRAINT	JOIN	SET
CONTAINS	KEY	SETUSER
CONTAINSTABLE	KILL	SHUTDOWN
CONTINUE	LEFT	SOME
CONVERT	LIKE	STATISTICS
CREATE	LINENO	SYSTEM_USER
CROSS	LOAD	TABLE
CURRENT	MERGE	TABLESAMPLE
CURRENT_DATE	NATIONAL	TEXTSIZE
CURRENT_TIME	NOCHECK	THEN
CURRENT_TIMESTAMP	NONCLUSTERED	TO
CURENT_USER	NOT	TOP
CURSOR	NULL	TRAN
DATABASE	NULLIF	TRANSACTION
DBCC	OF	TRIGGER
DEALLOCATE	OFF	TRUNCATE
DECLARE	OFFSETS	TRY_CONVERT

```
DEFAULT
DELETE
DENY
DESC
DISK
DISTINCT
DISTRIBUTED
DOUBLE
DROP
DUMP
ELSE
END
ERRLVL
ESCAPE
ESCEPT
EXEC
EXECUTE
EXISTS
ON
OPEN
OPENDATASOURCE
OPENQUERY
OPENROWSET
OPENXML
OPTION
OR
ORDER
OUTER
OVER
PERCENT
PIVOT
PLAN
PRECISION
PRIMARY
PRINT
TSEQUAL
UNION
UNIQUE
UNPIVOT
UPDATE
UPDATETEXT
USE
USER
VALUES
VARYING
VIEW
WAITFOR
WHEN
WHERE
WHILE
WITH
WITHIN GROUP
WRITETEXT
```

Part of the correct Transact-SQL has been provided in the answer area below. Enter the code in the answer area that resolves the problem and meets the stated goals or requirements. You can add code within the code that has been provided as well as below it.
1 SELECT top 3 lastname,salesYTD
2 FROM Person AS p INNER JOIN SalesPerson AS s 3 ON p.PersonID = s.SalesPersonID
4 WHERE territoryid is null 5 order by salesytd dsec
Use the Check Syntax button to verify your work. Any syntax or spelling errors will be reported by line and character position.

Answer:

Explanation: 1 SELECT top 3 lastname,salesYTD
2 FROM Person AS p INNER JOIN SalesPerson AS s 3 ON p.PersonID = s.SalesPersonID
4 WHERE territoryid is not null 5 order by salesytd desc
Note:
On line 4 add a not before null. On line 5 change dsec to desc.

NEW QUESTION 8
You must create a report that shows the regions that have a factory but do not have a shipping center. You need to create the query for the report.
Which two Transact-SQL statements can you use? Each correct answer presents a complete solution.
A)

```
SELECT Factory.Region
FROM Factory
LEFT JOIN
ShippingCenter ON ShippingCenter.Region = Factory.Region
```

B)

```
SELECT Region
FROM Factory
WHERE Region NOT IN
(SELECT Region FROM ShippingCenter)
```

C)

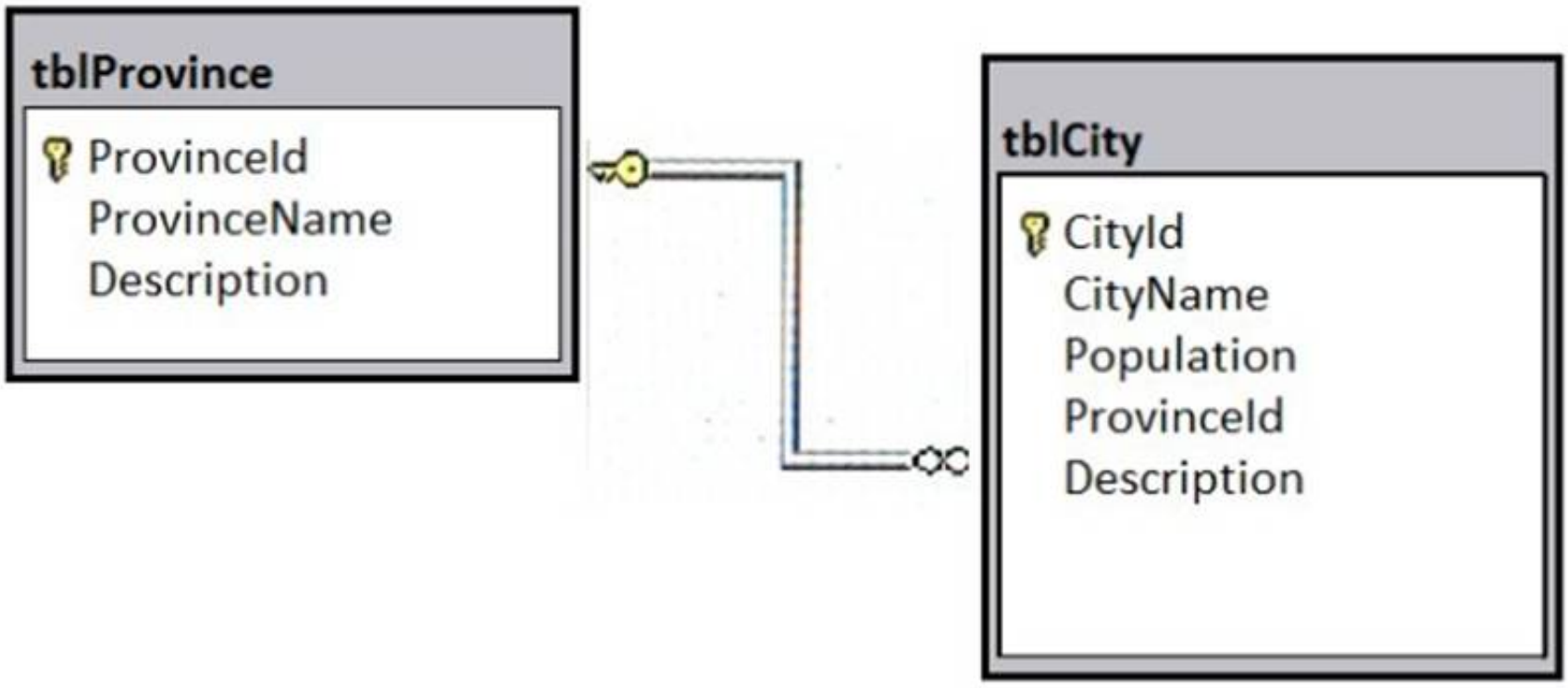
```
SELECT Region
FROM Factory
WHERE NOT EXISTS
(SELECT * FROM ShippingCenter WHERE ShippingCenter.Region = Factory.Region)
```

A. Option A
B. Option B
C. Option C

Answer: BC

NEW QUESTION 9
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the

stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section. You will NOT be able to return to it. As a result, these questions will not appear in the review screen.
A database has two tables as shown in the following database diagram:



You need to list all provinces that have at least two large cities. A large city is defined as having a population of at least one million residents. The query must return the following columns:

- tblProvince.ProvinceId
- tblProvince.ProvinceName
- a derived column named LargeCityCount that presents the total count of large cities for the province

Solution: You run the following Transact-SQL statement:

```
SELECT P.ProvinceId, P.ProvinceName, CitySummary.LargeCityCount
FROM tblProvince P
CROSS APPLY (
   SELECT COUNT(*) AS LargeCityCount FROM tblCity C
   WHERE C.Population>=1000000 AND C.ProvinceId = P.ProvinceId
) CitySummary
WHERE CitySummary.LargeCityCount >=2
```

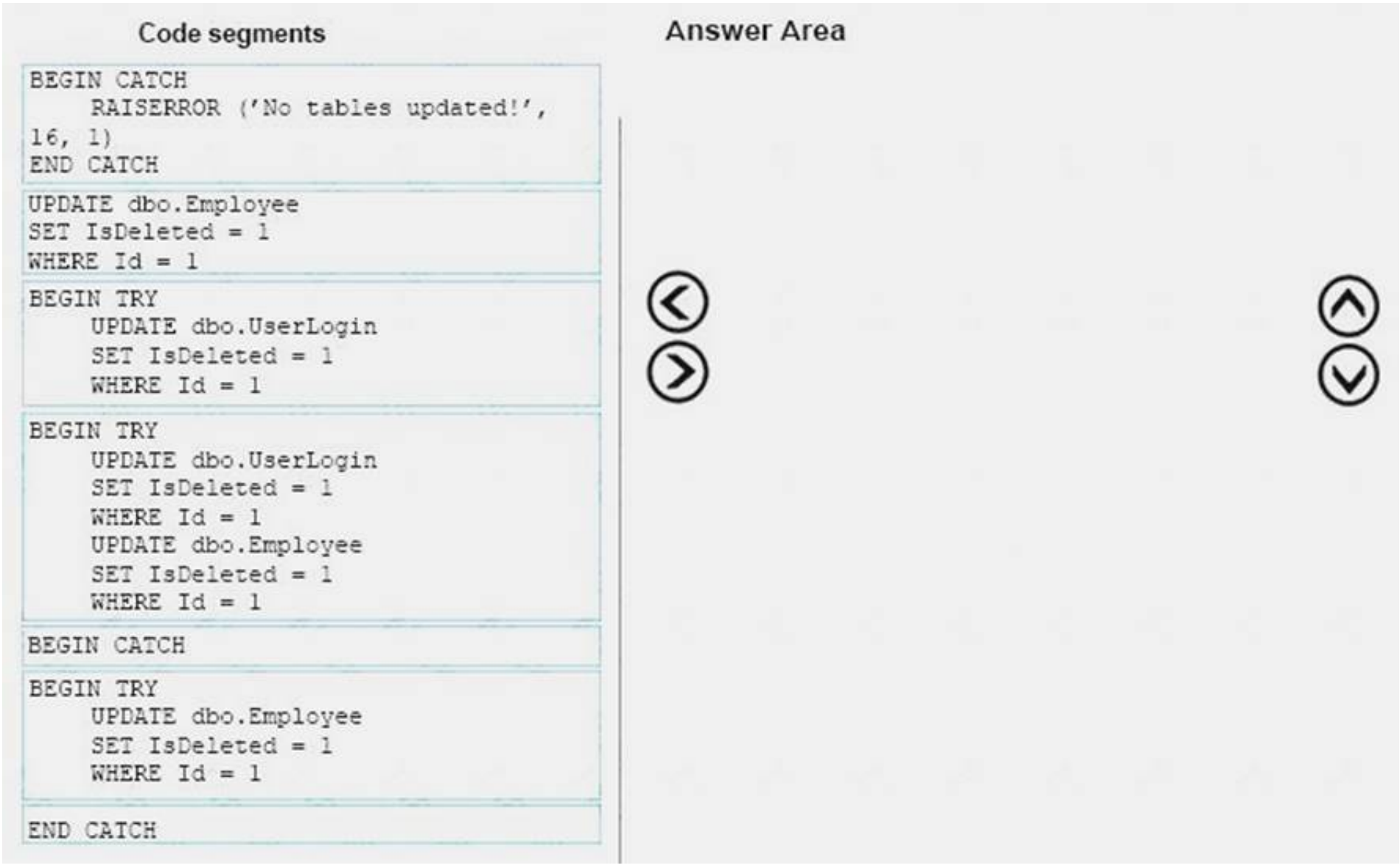
Does the solution meet the goal?

A. Yes
B. No

Answer: A

Explanation: The requirement to list all provinces that have at least two large cities is meet by the WHERE CitySummary.LargeCityCount >=2 clause.
CROSS APPLY will work fine here. Note:
The APPLY operator allows you to invoke a table-valued function for each row returned by an outer table expression of a query. The table-valued function acts as the right input and the outer table expression acts as the left input. The right input is evaluated for each row from the left input and the rows produced are combined for the final output. The list of columns produced by the APPLY operator is the set of columns in the left input followed by the list of columns returned by the right input.
There are two forms of APPLY: CROSS APPLY and OUTER APPLY. CROSS APPLY returns only rows from the outer table that produce a result set from the table-valued function. OUTER APPLY returns both rows that produce a result set, and rows that do not, with NULL values in the columns produced by the table-valued function.
References: https://technet.microsoft.com/en-us/library/ms175156(v=sql.105).aspx

NEW QUESTION 10
You have two tables named UserLogin and Employee respectively.
You need to create a Transact-SQL script that meets the following requirements:
* The script must update the value of the IsDeleted column for the UserLogin table to 1 if the value of the Id column for the UserLogin table is equal to 1.
* The script must update the value of the IsDeleted column of the Employee table to 1 if the value of the Id column is equal to 1 for the Employee table when an update to the UserLogin table throws an error.
* The error message “No tables updated!” must be produced when an update to the Employee table throws an error.
Which five Transact-SQL segments should you use to develop the solution? To answer, move the appropriate Transact-SQL segments from the list of Transact-SQL segments to the answer area and arrange them in the correct order.



Answer:

Explanation: A TRY block must be immediately followed by an associated CATCH block. Including any other statements between the END TRY and BEGIN CATCH statements generates a syntax error.
References: https://msdn.microsoft.com/en-us/library/ms175976.aspx

NEW QUESTION 10
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section. You will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have a table that was created by running the following Transact-SQL statement:

```
CREATE TABLE Products (
     ProductID int NOT NULL PRIMARY KEY,
     ProductName nvarchar(100) NULL,
     UnitPrice decimal(18, 2) NOT NULL,
     UnitsInStock int NOT NULL,
     UnitsOnOrder int NULL
)
```

The Products table includes the data shown in the following table:

ProductID	ProductName	UnitPrice	UnitsInStock	UnitsOnOrder
1	ProductA	10.00	10	15
2	ProductB	30.00	20	Null
3	ProductC	15.00	5	20

TotalUnitPrice is calculated by using the following formula: TotalUnitPrice = UnitPrice * (UnitsInStock + UnitsOnOrder)
You need to ensure that the value returned for TotalUnitPrice for ProductB is equal to 600.00. Solution: You run the following Transact-SQL statement:

```
SELECT ProductName, UnitPrice*(UnitsInStock+UnitsOnOrder) AS
TotalUnitPrice FROM Products
```

Does the solution meet the goal?

A. Yes
B. No

Answer: B

Explanation: The NULL value in the UnitsOnOrder field would cause a runtime error.

NEW QUESTION 15
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section. You will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have a database that contains a single table named tblVehicleRegistration. The table is defined as follows:

Column name	Data type	Description
VehicleId	int	the primary key for the table
RegistrationNumber	varchar(5)	a vehicle registration number that contains only letters and numbers
RegistrationDate	date	the vehicle registration date
UserId	int	an identifier for the vehicle owner

You run the following query:

```
SELECT UserId FROM tblVehicleRegistration
WHERE RegistrationNumber = 20012
AND RegistrationDate > '2016-01-01'
```

The query output window displays the following error message: "Conversion failed when converting the varchar value 'AB012' to data type int."
You need to resolve the error.
Solution: You modify the Transact-SQL statement as follows:

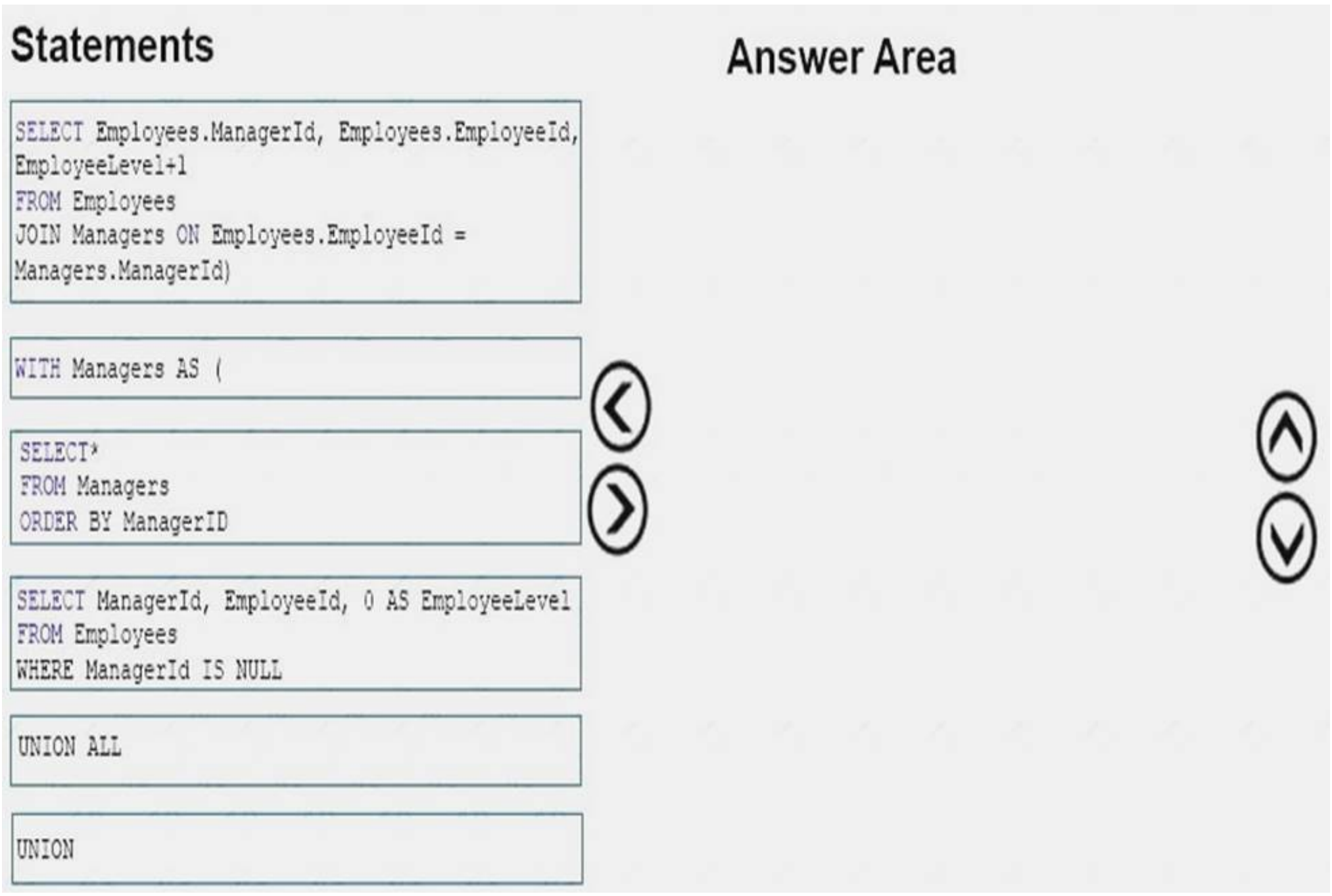
```
SELECT UserId FROM tblVehicleRegistration
WHERE RegistrationNumber =  20012
AND RegistrationDate > CONVERT(DATE, '2016-01-01', 120)
```

Does the solution meet the goal?

A. Yes
B. No

Answer: B

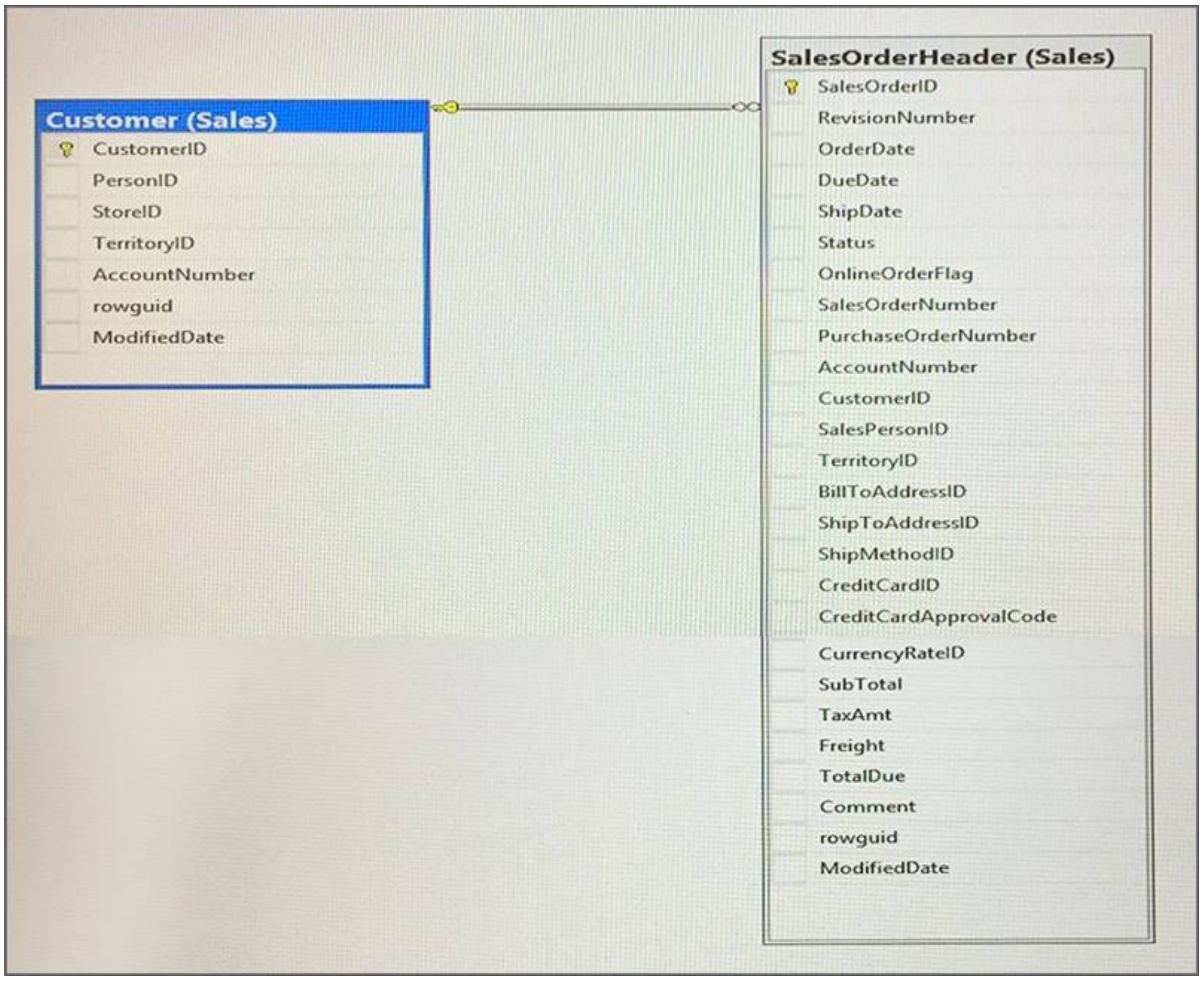
NEW QUESTION 18
You have a database named DB1 that contains a table named HR.Employees. HR.Employees contains two columns named ManagerID and EmployeeID. ManagerID refers to EmployeeID.
You need to create a query that returns a list of all employees, the manager of each employee, and the numerical level of each employee in your organization's hierarchy.
Which five statements should you add to the query in sequence? To answer, move the appropriate statements from the list of statements to the answer area and arrange them in the correct order.



Answer:

Explanation: References:
https://blog.sqlauthority.com/2012/04/24/sql-server-introduction-to-hierarchical-query-using-a-recursive-cte-a-p

NEW QUESTION 22
You have a database that includes the tables shown in the exhibit. (Click the exhibit button.)



You need to create a list of all customers, the order ID for the last order that the customer placed, and the date that the order was placed. For customers who have not placed orders, you must substitute a zero for the order ID and 01/01/1990 for the date.
Which Transact-SQL statement should you run?

A
```
SELECT C.CustomerID, ISNULL(SOH.SalesOrderID, 0) AS OrderID,ISNULL(MAX(OrderDate), '')
FROM Sales.Customer C LEFT OUTER JOIN Sales.SalesOrderHeader SOH
ON C.CustomerID = SOH.CustomerID
GROUP BY C.CustomerID, SOH.SalesOrderID
ORDER BY C.CustomerID
```

B
```
SELECT C.CustomerID, SOH.SalesOrderID, MAX(OrderDate)
FROM Sales.Customer C INNER JOIN Sales.SalesOrderHeader SOH
ON C.CustomerID = SOH.CustomerID
GROUP BY C.CustomerID, SOH.SalesOrderID
ORDER BY C.CustomerID
```

C
```
SELECT C.CustomerID, SOH.SalesOrderID, MAX(OrderDate)
FROM Sales.Customer C CROSS JOIN Sales.SalesOrderHeader SOH
ON C.CustomerID = SOH.CustomerID
GROUP BY C.CustomerID, SOH.SalesOrderID
ORDER BY C.CustomerID
```

D
```
SELECT C.CustomerID, SOH.SalesOrderID, MAX(OrderDate)
FROM Sales.Customer C RIGHT OUTER JOIN Sales.SalesOrderHeader SOH
ON C.CustomerID = SOH.CustomerID
GROUP BY C.CustomerID, SOH.SalesOrderID
ORDER BY C.CustomerID
```

A. Option A

B. Option B
C. Option C
D. Option D

Answer: A

Explanation: ISNULL Syntax: ISNULL (check_expression , replacement_value) author:"Luxemburg, Rosa"
The ISNULL function replaces NULL with the specified replacement value. The value of check_expression is returned if it is not NULL; otherwise, replacement_value is returned after it is implicitly converted to the type of check_expression.
References: https://msdn.microsoft.com/en-us/library/ms184325.aspx

NEW QUESTION 25
Note: This question is part of a series of questions that use the same scenario. For your convenience, the scenario is repeated in each question. Each question presents a different goal and answer choices, but the text of the scenario is exactly the same in each question in this series.
You are developing a database to track customer orders. The database contains the following tables: Sales.Customers, Sales.Orders, and Sales.OrderLines. The following table describes the columns in Sales.Customers.

Column name	Data type	Constraints
CustomerID	int	primary key
CustomerName	nvarchar(100)	does not allow null values
PhoneNumber	nvarchar(20)	does not allow null values
AccountOpenedDate	date	does not allow null values
StandardDiscountPercentage	decimal(18,3)	does not allow null values
CreditLimit	decimal(18,2)	null values are permitted
IsOnCreditHold	bit	does not allow null values
DeliveryLocation	geography	does not allow null values
PhoneNumber	nvarchar(20)	does not allow null values

The following table describes the columns in Sales.Orders.

Column name	Data type	Constraints
OrderID	int	primary key
CustomerID	int	foreign key to the Sales.Customers table
OrderDate	date	does not allow null values

The following table describes the columns in Sales.OrderLines.

Column name	Data type	Constraints
OrderLineID	int	primary key
OrderID	int	foreign key to the Sales.Orders table
Quantity	int	does not allow null values
UnitPrice	decimal(18,2)	null values are permitted
TaxRate	decimal(18,3)	does not allow null values

You need to create a function that calculates the highest tax rate charged for an item in a specific order. Which five Transact-SQL segments should you use to develop the solution? To answer, move the appropriate
Transact-SQL segments from the list of Transact-SQL segments to the answer area and arrange them in the correct order.

Answer:

Explanation: Box 1: CREATE FUNCTION…@OrderID
Include definition for the …@OrderID parameter. Box 2: RETURNS decimal(18,2)
The function is defined to return a scalar value. Box 3: AS BEGIN …
Declare the local variables of the function. Box 4: SET @CalculatedTaxRate = (.. Calculate the tax rate.
Box 5: RETURN @CalculatedRate END Return a scalar value.
References: https://msdn.microsoft.com/en-us/library/ms186755.aspx

NEW QUESTION 27
You create a table by running the following Transact-SQL statement:

```
CREATE TABLE Customers (
    CustomerID int NOT NULL PRIMARY KEY CLUSTERED,
    FirstName nvarchar(100) NOT NULL,
    LastName nvarchar(100) NOT NULL,
    TaxIdNumber varchar(20) NOT NULL,
    Address nvarchar(1024) NOT NULL,
    AnnualRevenue decimal(19,2) NOT NULL,
    DateCreated datetime(2) NOT NULL,
    ValidFrom datetime2(2) GENERATED ALWAYS AS ROW START NOT NULL,
    ValidTo datetime2(2) GENERATED ALWAYS AS ROW END NOT NULL,
    PERIOD FOR SYSTEM_TIME(ValidFrom,ValidTo)
)
WITH (SYSTEM_VERSIONING = ON (HISTORY_TABLE = CustomerHistory))
```

You need to view all customer data.
Which Transact-SQL statement should you run?

A.
```
SELECT FirstName, LastName, SUM(AnnualRevenue)
FROM Customers
GROUP BY GROUPING SETS((FirstName, LastName, AnnualRevenue), ())
ORDER BY FirstName, LastName, AnnualRevenue
```

B.
```
SELECT CustomerID, FirstName, LastName, TaxIdNumber, Address, AnnualRevenue, DateCreated, ValidFrom, ValidTo
FROM Customers
FOR SYSTEM_TIME ALL ORDER BY ValidFrom
```

C.
```
SELECT c.CustomerID, c.FirstName, c.LastName, c.Address, c.ValidFrom, c.ValidTo
FROM Customers AS c
ORDER BY c.CustomerID
FOR JSON AUTO, ROOT('Customers')
```

D.
```
SELECT * FROM (SELECT CustomerID, FirstName, LastName, Address, AnnualRevenue, DateCreated
FROM Customers) AS Customers PIVOT(AVG(AnnualRevenue)
FOR DateCreated IN([2014])) AS PivotCustomers
ORDER BY LastName, FirstName
```

E.
```
SELECT CustomerID, AVG(AnnualRevenue)
AS AverageAnnualRevenue, FirstName, LastName, Address, DateCreated
FROM Customers WHERE YEAR(DateCreated) >= 2014
GROUP BY CustomerID, FirstName, LastName, Address, DateCreated
```

F.
```
SELECT c.CustomerID, c.FirstName, c.LastName, c.Address, c.ValidFrom, c.ValidTo
FROM Customers AS c ORDER BY c.CustomerID
FOR XML PATH ('CustomerData'), root ('Customers')
```

G.
```
SELECT CustomerID, FirstName, LastName, TaxIdNumber, Address, ValidFrom, ValidTo
FROM Customers FOR SYSTEM_TIME
BETWEEN '2014-01-01 00:00:00.0000000' AND '2015-01-01 00:00:00.0000000'
```

A. Option A
B. Option B
C. Option C
D. Option D
E. Option E
F. Option F
G. Option G
H. Option H

Answer: B

Explanation: The FOR SYSTEM_TIME ALL clause returns all the row versions from both the Temporal and History table. References:
https://msdn.microsoft.com/en-us/library/dn935015.aspx

NEW QUESTION 31
You need to create a database object that meets the following requirements:
accepts a product identifies as input
calculates the total quantity of a specific product, including quantity on hand and quantity on order
caches and reuses execution plan
returns a value
can be called from within a SELECT statement
can be used in a JOIN clause
What should you create?

A. an extended stored procedure
B. a user-defined table-valued function

C. a user-defined stored procedure that has an OUTPUT parameter
D. a memory-optimized table that has updated statistics

Answer: B

NEW QUESTION 32
You have the following Transact-SQL query:

```
SELECT
     City.CityID,
     City.CityName,
     TranslateName(Nearby.CityName) AS NearbyCity
FROM Cities AS City
CROSS APPLY NearbyCities(City.CityID) AS Nearby
```

What type of functions are used in the query? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Answer Area

Function	Type
TranslateName	Scalar / Table-Valued / System / Aggregate
NearbyCities	Scalar / Table-Valued / System / Aggregate

Answer:

Explanation: Box 1: Scalar
The return value of a function can either be a scalar (single) value or a table. Box 2: Table-Valued
The APPLY operator allows you to invoke a table-valued function for each row returned by an outer table expression of a query. The table-valued function acts as the right input and the outer table expression acts as the left input. The right input is evaluated for each row from the left input and the rows produced are combined for the final output. The list of columns produced by the APPLY operator is the set of columns in the left input followed by the list of columns returned by the right input.
References:
https://msdn.microsoft.com/en-us/library/ms186755.aspx https://technet.microsoft.com/en-us/library/ms175156(v=sql.105).aspx

NEW QUESTION 35
Note: This question is part of a series of questions that use the same or similar answer choices. An answer choice may be correct for more than one question in the series. Each question is independent of the other questions in this series. Information and details provided in a question apply only to that question.
You run the following Transact-SQL statement:

```
CREATE TABLE Customers (
     CustomerID int NOT NULL PRIMARY KEY CLUSTERED,
     FirstName nvarchar(100) NOT NULL,
     LastName nvarchar(100) NOT NULL,
     TaxIdNumber varchar(20) NOT NULL,
     Address nvarchar(1024) NOT NULL,
     AnnualRevenue decimal(19,2) NOT NULL,
     DateCreated datetime2(2) NOT NULL,
     ValidFrom datetime2(2) GENERATED ALWAYS AS ROW START NOT NULL,
     ValidTo datetime2(2) GENERATED ALWATS AS ROW END NOT NULL,
     PERIOD FOR SYSTEM_TIME(ValidFrom, ValidTo)
)
WITH (SYSTEM_VERSIONING = ON (HISTORY_TABLE = CustomersHistory))
```

You need to return the total annual revenue for all customers, followed by a row for each customer that shows the customer's name and annual revenue.
Which Transact-SQL statement should you run?

A

```
SELECT FirstName, LastName, SUM(AnnualRevenue)
FROM Customers
GROUP BY GROUPING SETS((FirstName, LastName, AnnualRevenue),())
ORDER BY FirstName, LastName, AnnualRevenue
```

B

```
SELECT  FirstName, LastName, Address
FROM Customers
FOR SYSTEM_TIME ALL ORDER BY ValidFrom
```

C

```
SELECT c.CustomerID, c.FirstName, c.LastName, c.Address, c.ValidFrom, c.ValidTo
FROM Customers AS c
ORDER BY c.CustomerID
FOR JSON AUTO, ROOT('Customers')
```

D

```
SELECT * FROM (SELECT CustomerID, FirstName, LastName, Address, AnnualRevenue, DateCreated
FROM Customers) AS Customers PIVOT(AVG(AnnualRevenue)
FOR DateCreated IN([2014])) AS PivotCustomers
ORDER BY LastName, FirstName
```

E

```
SELECT CustomerID, AVG(AnnualRevenue)
AS AverageAnnualRevenue, FirstName, LastName, Address, DateCreated
FROM Customers WHERE YEAR(DateCreated) >= 2014
GROUP BY CustomerID, FirstName, LastName, Address, DateCreated
```

F

```
SELECT c.CustomerID, c.FirstName, c.LastName, c.Address, c.ValidFrom, c.ValidTo
FROM Customers AS c ORDER BY c.CustomerID
FOR XML PATH ('CustomerData'), root ('Customers')
```

G

```
SELECT CustomerID, FirstName, LastName, TaxIdNumber, Address, ValidFrom, ValidTo
FROM Customers FOR SYSTEM_TIME
BETWEEN '2014-01-01 00:00:00.000000' AND '2015-01-01 00:00:00.000000'
```

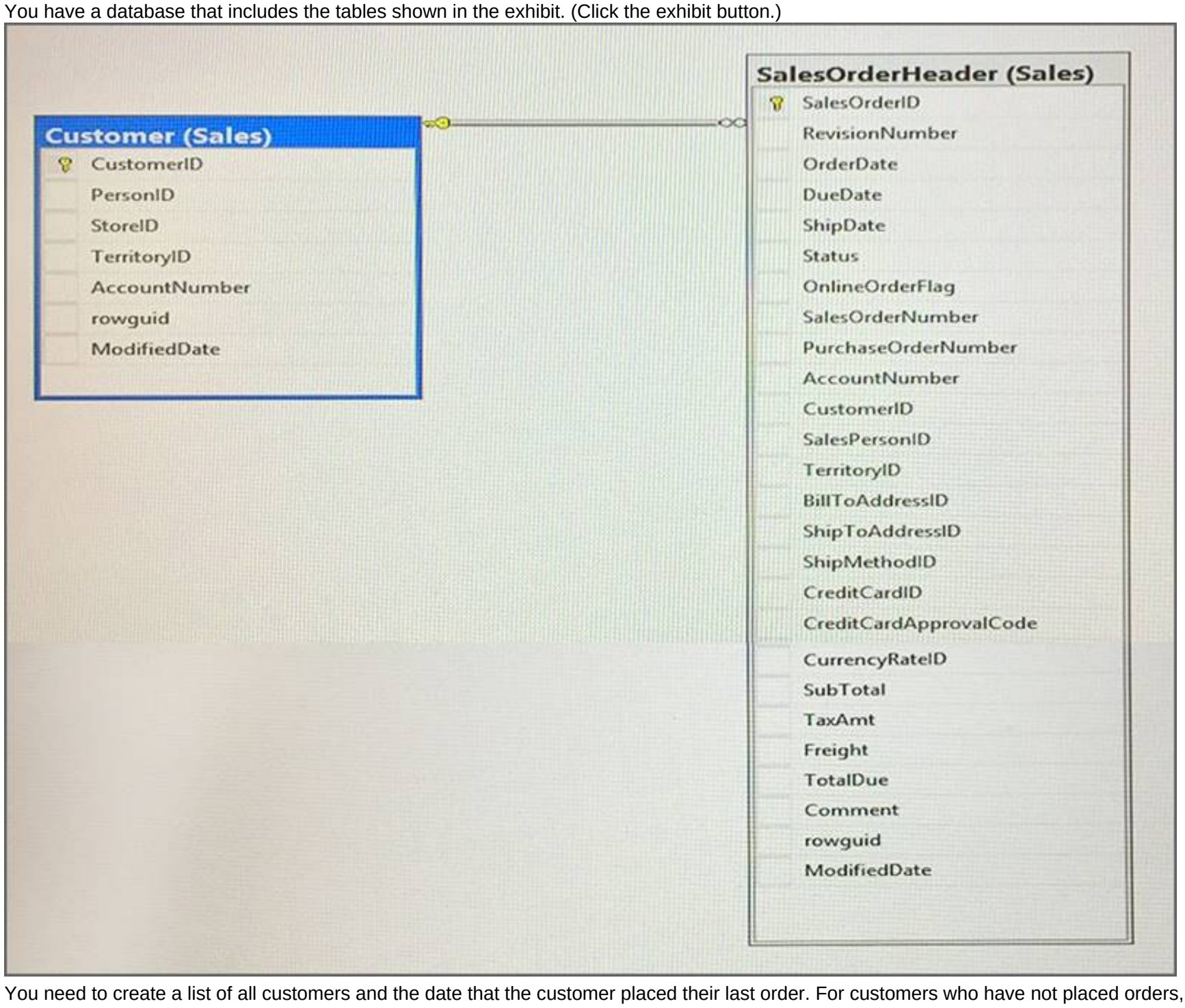
H

```
SELECT CustomerID, FirstName, LastName, TaxIdNumber, Address, ValidFrom, ValidTo
FROM Customers
WHERE DateCreated
BETWEEN '20140101' AND '20141231'
```

A. Option A
B. Option B
C. Option C
D. Option D
E. Option E
F. Option F
G. Option G
H. Option H

Answer: A

NEW QUESTION 37
You have a database that includes the tables shown in the exhibit. (Click the exhibit button.)



You need to create a list of all customers and the date that the customer placed their last order. For customers who have not placed orders, you must substitute a zero for the order ID and 01/01/1990 for the date.
Which Transact-SQL statement should you run?

A

```
SELECT C.CustomerID, COALESCE(MAX(OrderDate), '19000101')
FROM Sales.Customer C LEFT OUTER JOIN Sales.SalesOrderHeader SOH
ON C.CustomerID = SOH.CustomerID
GROUP BY C.CustomerID
ORDER BY C.CustomerID
```

B

```
SELECT C.CustomerID, MAX(OrderDate)
FROM Sales.Customer C LEFT OUTER JOIN Sales.SalesOrderHeader SOH
ON C.CustomerID = SOH.CustomerID
GROUP BY C.CustomerID
ORDER BY C.CustomerID
```

C

```
SELECT C.CustomerID, MAX(OrderDate)
FROM Sales.Customer C CROSS JOIN Sales.SalesOrderHeader SOH
GROUP BY C.CustomerID
ORDER BY C.CustomerID
```

D

```
SELECT C.CustomerID, SOH.SalesOrderID, MAX(OrderDate)
FROM Sales.Customer C LEFT OUTER JOIN Sales.SalesOrderHeader SOH
ON C.CustomerID = SOH.CustomerID
GROUP BY C.CustomerID, SOH.SalesOrderID
ORDER BY C.CustomerID
```

A. Option A
B. Option B
C. Option C
D. Option D

Answer: A

Explanation: COALESCE evaluates the arguments in order and returns the current value of the first expression that initially does not evaluate to NULL.
References: https://docs.microsoft.com/en-us/sql/t-sql/language-elements/coalesce-transact-sql

NEW QUESTION 38
You have a database that contains the following tables: Customer

Column name	Data type	Nullable	Default value
CustomerId	int	No	Identity property
FirstName	varchar(30)	Yes	
LastName	varchar(30)	No	
CreditLimit	money	No	

CustomerAudit

Column name	Data type	Nullable	Default value
CustomerId	int	No	
DateChanged	datetime	No	GETDATE()
OldCreditLimit	money	No	
NewCreditLimit	money	No	
ChangedBy	varchar(100)	No	SYSTEM_USER

Where the value of the CustomerID column equals 3, you need to update the value of the CreditLimit column to 1000 for the customer. You must ensure that the change to the record in the Customer table is recorded on the CustomerAudit table.
Which Transact-SQL statement should you run?

A.

```
UPDATE Customer
SET CreditLimit= 1000
OUTPUT inserted. CustomerId, deleted. CreditLimit, deleted. CreditLimit
INTO CustomerAudit (CustomerID, OldCreditLimit, NewCreditLimit, ChangedBy)
WHERE CustomerId=3
```

B.

```
UPDATE Customer
SET CreditLimit= 1000
OUTPUT inserted. CustomerId, GETDATE (), deleted. CreditLimit, inserted. CreditLimit, SYSTEM_USER
INTO CustomerAudit (CustomerID, DateChanged, OldCreditLimit, NewCreditLimit, ChangedBy)
WHERE CustomerId=3
```

C.

```
UPDATE Customer
SET CreditLimit= 1000
WHERE CustomerId=3
INSERT INTO CustomerAudit (CustomerId, DateChanged, OldCreditLimit, NewCreditLimit,
ChangedBy)
SELECT CustomerId, GETDATE (), CreditLimit, CreditLimit, SYSTEM_USER
FROM Customer
WHERE CustomerID =3
```

D.

```
UPDATE Customer
SET CreditLimit= 1000
OUTPUT inserted. CustomerId, inserted. CreditLimit, inserted. CreditLimit
INTO CustomerAudit (CustomerId, OldCreditLimit, NewCreditLimit)
WHERE CustomerId=3
```

A. Option A
B. Option B
C. Option C
D. Option D

Answer: C

NEW QUESTION 42
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section. You will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You create a table named Customer by running the following Transact-SQL statement:

```
CREATE TABLE Customer (
      CustomerID int IDENTITY(1,1) PRIMARY KEY,
      FirstName varchar(50) NULL,
      LastName varchar(50) NOT NULL,
      DateOfBirth date NOT NULL,
      CreditLimit money CHECK (CreditLimit < 10000),
      TownID int NULL REFERENCES dbo.Town(TownID),
      CreatedDate datetime DEFAULT(Getdate())
)
```

You must insert the following data into the Customer table:

Record	First name	Last name	Date of Birth	Credit limit	Town ID	Created date
Record 1	Yvonne	McKay	1984-05-25	9,000	no town details	current date and time
Record 2	Jossef	Goldberg	1995-06-03	5,500	no town details	current date and time

You need to ensure that both records are inserted or neither record is inserted. Solution: You run the following Transact-SQL statement:

```
INSERT INTO Customer (FirstName, LastName, DateOfBirth, CreditLimit)
VALUES ('Yvonne', 'McKay', '1984-05-25', 9000)
INSERT INTO Customer (FirstName, LastName, DateOfBirth, CreditLimit)
VALUES ('Jossef', 'Goldberg', '1995-06-03', 5500)
```

Does the solution meet the goal?

A. Yes
B. No

Answer: B

NEW QUESTION 47
Note: This question is part of a series of questions that use the same or similar answer choices. An answer choice may be correct for more than one question in the series. Each question is independent of the other questions in this series. Information and details provided in a question apply only to that question.
You create a table by running the following Transact-SQL statement:

```
CREATE TABLE Customers (
      CustomerID int NOT NULL PRIMARY KEY CLUSTERED,
      FirstName nvarchar(100) NOT NULL,
      LastName nvarchar(100) NOT NULL,
      TaxIdNumber varchar(20) NOT NULL,
      Address nvarchar(1024) NOT NULL,
      AnnualRevenue decimal(19,2) NOT NULL,
      DateCreated datetime2(2) NOT NULL,
      ValidFrom datetime2(2) GENERATED ALWAYS AS ROW START NOT NULL,
      ValidTo datetime2(2) GENERATED ALWAITS AS ROW END NOT NULL,
      PERIOD FOR SYSTEM_TIME(ValidFrom, ValidTo)
)
WITH (SYSTEM_VERSIONING = ON (HISTORY_TABLE = CustomersHistory))
```

You are developing a report that aggregates customer data only for the year 2014. The report requires that the data be denormalized.
You need to return the data for the report.
Which Transact-SQL statement should you run?

A

```
SELECT FirstName, LastName, SUM(AnnualRevenue)
FROM Customers
GROUP BY GROUPING SETS((FirstName, LastName, AnnualRevenue),())
ORDER BY FirstName, LastName, AnnualRevenue
```

B

```
SELECT CustomerID, FirstName, LastName, TaxIdNumber, Address, AnnualRevenue, DateCreated, ValidFrom, ValidTo
FROM Customers
FOR SYSTEM_TIME ALL ORDER BY ValidFrom
```

C

```
SELECT c.CustomerID, c.FirstName, c.LastName, c.Address, c.ValidFrom, c.ValidTo
FROM Customers AS c
ORDER BY c.CustomerID
FOR JSON AUTO, ROOT('Customers')
```

D

```
SELECT * FROM (SELECT CustomerID, FirstName, LastName, Address, AnnualRevenue, DateCreated
FROM Customers) AS Customers PIVOT(AVG(AnnualRevenue)
FOR DateCreated IN([2014])) AS PivotCustomers
ORDER BY LastName, FirstName
```

E

```
SELECT CustomerID, AVG(AnnualRevenue)
AS AverageAnnualRevenue, FirstName, LastName, Address, DateCreated
FROM Customers WHERE YEAR(DateCreated) >= 2014
GROUP BY CustomerID, FirstName, LastName, Address, DateCreated
```

F

```
SELECT c.CustomerID, c.FirstName, c.LastName, c.Address, c.ValidFrom, c.ValidTo
FROM Customers AS c ORDER BY c.CustomerID
FOR XML PATH ('CustomerData'), root ('Customers')
```

G

```
SELECT CustomerID, FirstName, LastName, TaxIdNumber, Address, ValidFrom, ValidTo
FROM Customers FOR SYSTEM_TIME
BETWEEN '2014-01-01 00:00:00.000000' AND '2015-01-01 00:00:00.000000'
```

H

```
SELECT CustomerID, FirstName, LastName, TaxIdNumber, Address, ValidFrom, ValidTo
FROM Customers
WHERE DateCreated
BETWEEN '20140101' AND '20141231'
```

A. Option A
B. Option B
C. Option C
D. Option D
E. Option E
F. Option F
G. Option G
H. Option H

Answer: G

NEW QUESTION 52

Note: This question is part of a series of questions that use the same or similar answer choices. An answer choice may be correct for more than one question in the series. Each question is independent of the other questions in this series. Information and details provided in a question apply to that question.
You have a database for a banking system. The database has two tables named tblDepositAcct and tblLoanAcct that store deposit and loan accounts, respectively. Both tables contain the following columns:

Column name	Data type	Primary key column	Description
CustNo	int	No	This column uniquely identifies a customer in the bank. A customer may have both deposit and loan accounts.
AcctNo	int	Yes	This column uniquely identifies a customer in the bank.
ProdCode	varchar(3)	No	This column identifies the product type of an account. A customer may have multiple accounts for the same product type.

You need to determine the total number of customers who have only loan accounts. Which Transact-SQL statement should you run?
A. SELECT COUNT(*)FROM (SELECT AcctNoFROM tblDepositAcctINTERSECTSELECTAcctNoFROM tblLoanAcct) R
B. SELECT COUNT(*)FROM (SELECT CustNoFROM tblDepositAcctUNIONSELECT CustNoFROMtblLoanAcct) R
C. SELECT COUNT(*)FROM (SELECT CustNoFROM tblDepositAcctUNION ALLSELECTCustNoFROM tblLoanAcct) R
D. SELECT COUNT (DISTINCT D.CustNo)FROM tblDepositAcct D, tblLoanAcct LWHERE D.CustNo= L.CustNo
E. SELECT COUNT(DISTINCT L.CustNo)FROM tblDepositAcct DRIGHT JOIN tblLoanAcct L ON D.CustNo = L.CustNoWHERE D.CustNo IS NULL
F. SELECT COUNT(*)FROM (SELECT CustNoFROM tblDepositAcctEXCEPTSELECT CustNoFROMtblLoanAcct) R
G. SELECT COUNT (DISTINCT COALESCE(D.CustNo, L.CustNo))FROM tblDepositAcct DFULLJOIN tblLoanAcct L ON D.CustNo = L.CustNoWHERE D.CustNo IS NULL OR L.CustNo IS NULL
H. SELECT COUNT(*)FROM tblDepositAcct DFULL JOIN tblLoanAcct L ON D.CustNo = L.CustNo

Answer: E

Explanation: The RIGHT JOIN keyword returns all records from the right table (table2), and the matched records from the left table (table1). The result is NULL from the left side, when there is no match.
References: https://www.w3schools.com/sql/sql_join_right.asp

NEW QUESTION 57
You have a database named DB1 that contains a temporal table named Sales.Customers.
You need to create a query that returns the credit limit that was available to each customer in DB1 at the beginning of 2017.
Which query should you execute?

A

```
SELECT
      CustomerID,
      CustomerName,
      CreditLimit
 FROM
      Sales.Customers
            FOR SYSTEM_TIME CONTAINED IN ('2017-01-01 ');
```

B

```
SELECT
      CustomerID,
      CustomerName,
      CreditLimit
FROM
      Sales.Customers
            FOR SYSTEM_TIME AS OF '2017-01-01';
```

C

```
SELECT
      CustomerID,
      CustomerName,
      CreditLimit
FROM
      Sales.Customers
            FOR SYSTEM_TIME ALL;
```

D

```
SELECT
      CustomerID,
      CustomerName,
      CreditLimit
FROM
      Sales.Customers
            FOR SYSTEM_TIME BETWEEN '2016-12-31' AND '2017-01-01');
```

A. Option A
B. Option B
C. Option C
D. Option D

Answer: B

NEW QUESTION 59
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section. you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You create a table named Products by running the following Transact-SQL statement:

```
CREATE TABLE Products (
      ProductID int IDENTITY(1,1) NOT NULL PRIMARY KEY,
      ProductName nvarchar(100) NULL,
      UnitPrice decimal(18, 2) NOT NULL,
      UnitsInStock int NOT NULL,
      UnitsOnOrder int NULL
)
```

You have the following stored procedure:

```
CREATE PROCEDURE InsertProduct
      @ProductName nvarchar(100),
      @UnitPrice decimal(18,2),
      @UnitsInStock int,
      @UnitsOnOrder int
AS
BEGIN
      INSERT INTO Products(ProductName,ProductPrice,ProductsInStock,ProductsOnOrder)
      VALUES (@ProductName,@UnitPrice,@UnitsInStock,@UnitsOnOrder)
END
```

You need to modify the stored procedure to meet the following new requirements:
- Insert product records as a single unit of work.
- Return error number 51000 when a product fails to insert into the database.
- If a product record insert operation fails, the product information must not be permanently written to the database.
Solution: You run the following Transact-SQL statement:

```
ALTER PROCEDURE InsertProduct
@ProductName nvarchar(100),
@UnitPrice decimal(18,2),
@UnitsInStock int,
@UnitsOnOrder int
AS
BEGIN
     BEGIN TRY
          BEGIN TRANSACTION
               INSERT INTO Products(ProductName,ProductPrice,ProductsInStock,ProductsOnOrder)
               VALUES (@ProductName,@UnitPrice,@UnitsInStock,@UnitsOnOrder)
          COMMIT TRANSACTION
     END TRY
     BEGIN CATCH
          IF @@TRANCOUNT > 0 ROLLBACK TRANSACTION
               IF @@ERROR = 51000
                    THROW
          END CATCH
END
```

Does the solution meet the goal?

A. Yes
B. No

Answer: B

Explanation: A transaction is correctly defined for the INSERT INTO ..VALUES statement, and if there is an error in the transaction it will be caught ant he transaction will be rolled back. However, error number 51000 will not be
returned, as it is only used in an IF @ERROR = 51000 statement.
Note: @@TRANCOUNT returns the number of BEGIN TRANSACTION statements that have occurred on the current connection.
References: https://msdn.microsoft.com/en-us/library/ms187967.aspx

NEW QUESTION 62
You have a database that stored information about servers and application errors. The database contains the following tables.
Servers

Column	Data type	Notes
ServerID	int	This is the primary key for the table.
DNS	nvarchar(100)	Null values are not permitted for this column.

Errors

Column	Data type	Notes
ErrorID	int	This is the primary key for the table.
ServerID	int	Null values are not permitted for this column. This column is a foreign key that is related to the ServerID column in the Servers table.
Occurrences	int	Null values are not permitted for this column.
LogMessage	nvarchar(max)	Null values are not permitted for this column.

You need to return all error log messages and the server where the error occurs most often. Which Transact-SQL statement should you run?

A
```
SELECT DISTINCT ServerID, LogMessage FROM Errors AS e1
WHERE Occurrences > ALL (
     SELECT e2.Occurrences FROM Errors AS e2
     WHERE e2.LogMessage = e1.LogMessage AND e2.ServerID <> e1.ServerID
)
```

B
```
SELECT DISTINCT ServerID, LogMessage FROM Errors AS e1
GROUP BY ServerID, LogMessage
HAVING MAX(Occurrences) = 1
```

C
```
SELECT DISTINCT ServerID, LogMessage FROM Errors AS e1
WHERE LogMessage IN (
     SELECT TOP 1 e2.LogMessage FROM Errors AS e2
     WHERE e2.LogMessage = e1.LogMessage AND e2.ServerID <> e1.ServerID
     ORDER BY e2.Occurrences
)
```

D
```
SELECT ServerID, LogMessage FROM Errors AS e1
GROUP BY ServerID, LogMessage, Occurrences
HAVING COUNT(*) = 1
ORDER BY Occurrences
```

A. Option A
B. Option B
C. Option C
D. Option D

Answer: C

NEW QUESTION 67
You run the following Transact-SQL statement:

```
CREATE TABLE Sales.Customers(
     custid int IDENTITY(1,1) NOT NULL,
     companyname nvarchar(50) NULL,
     contacttitle nvarchar(30) NOT NULL,
     address nvarchar(60) NOT NULL,
     postalcode nvarchar(10) NOT NULL,
     region nvarchar(15) NULL,
     phone nvarchar(24) NOT NULL,
     fax nvarchar(24) NULL,
) ON PPRIMARY
```

You need to ensure that you can insert data into the table.
What are the characteristics of the data? To answer, select the appropriate options in the answer area.

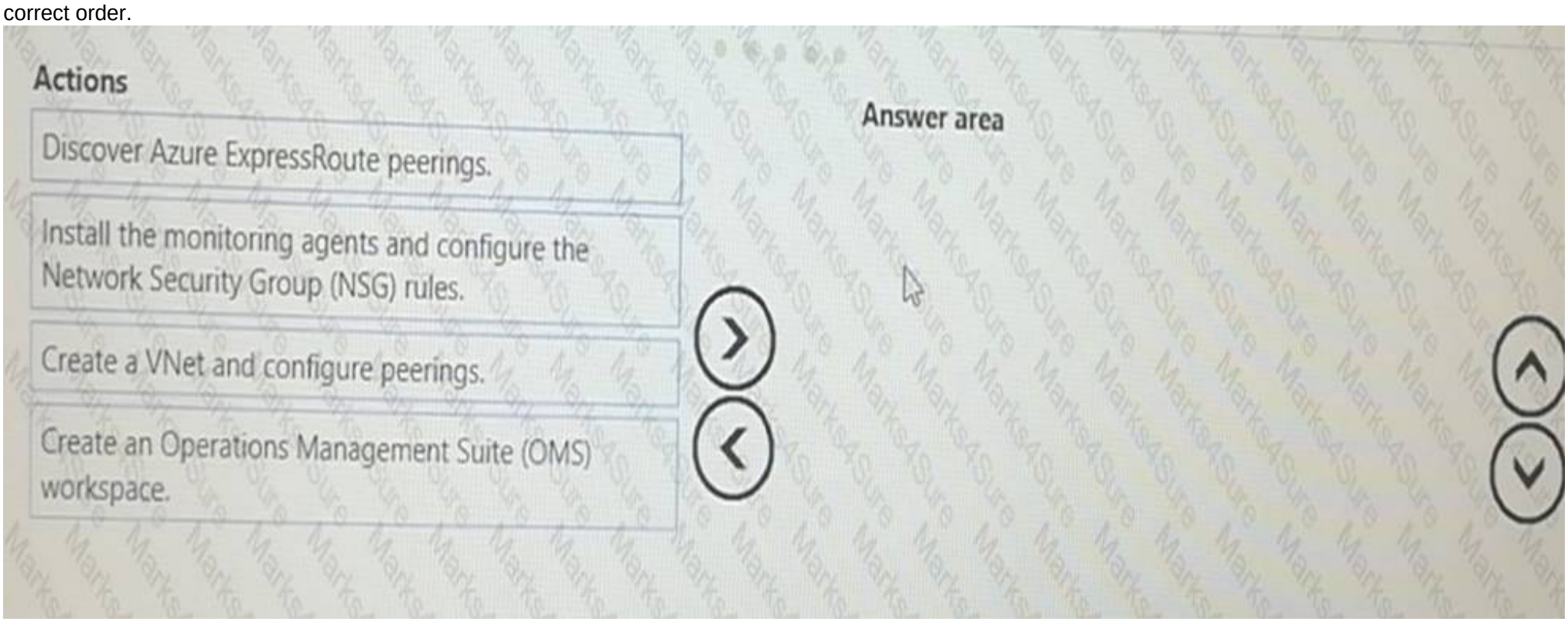
Answer Area

Column input constraint	Column name
Values cannot be entered into this column	custid / fax / postalcode / region
A value must be inserted into this column	custid / fax / postalcode / region
Data entry into this column is optional	custid / fax / postalcode / region

Answer:

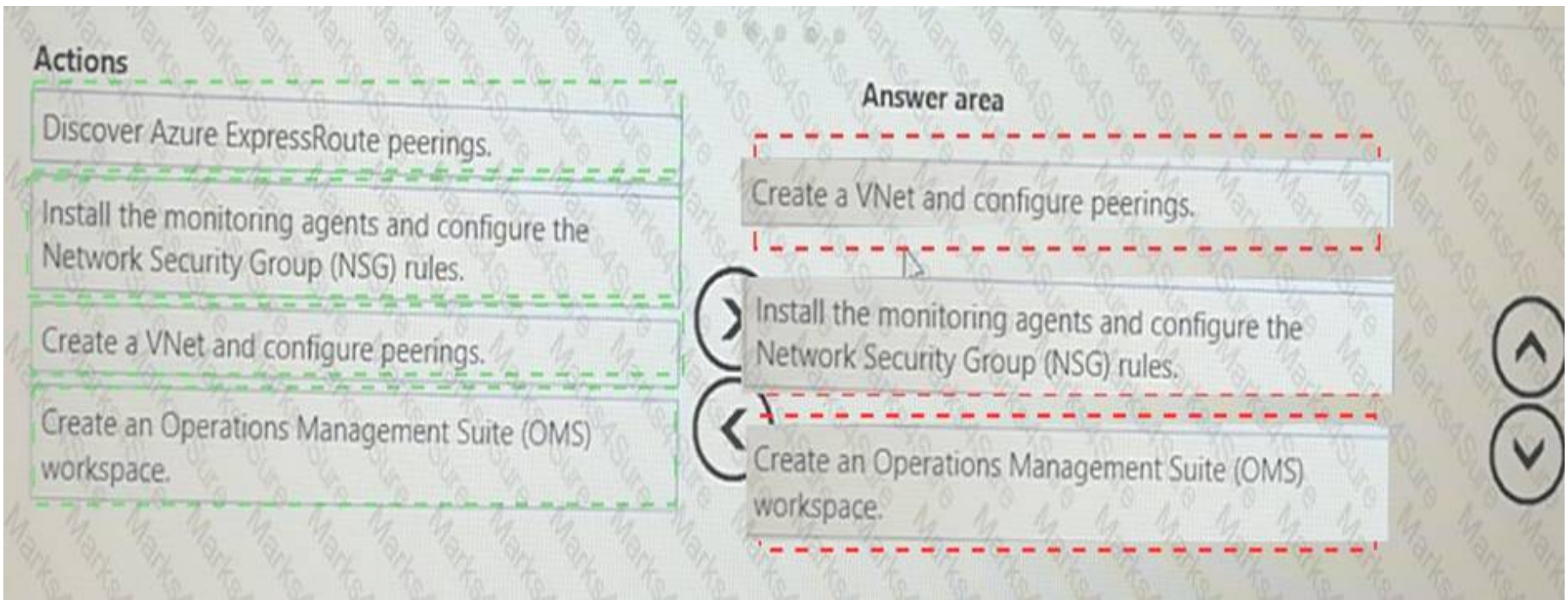
Explanation: Box 1: custid
IDENTITY indicates that the new column is an identity column. When a new row is added to the table, the Database Engine provides a unique, incremental value for the column. Identity columns are typically used with PRIMARY KEY constraints to serve as the unique row identifier for the table.
Box 2: postalcode
postalcode is declared as NOT NULL, which means that a value must be inserted. Box 3: region
Fax is also a correct answer. Both these two columns are declared as NULL, which means that data entry is optional.
References: https://msdn.microsoft.com/en-us/library/ms174979.aspx

NEW QUESTION 69
Your company plans to use Network Performance Monitor (NPM) on an existing Azure ExpressRoute connection.
You need to configure NPM.
Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.



Answer:

Explanation:



NEW QUESTION 72
Note: This question is part of a series of questions that use the same scenario. For your convenience, the scenario is repeated in each question. Each question presents a different goal and answer choices, but the text of the scenario is exactly the same in each question on this series.
You have a database that tracks orders and deliveries for customers in North America. System versioning is enabled for all tables. The database contains the Sales.Customers, Application.Cities, and Sales.CustomerCategories tables.
Details for the Sales.Customers table are shown in the following table:

Column	Data type	Notes
CustomerId	int	primary key
CustomerCategoryId	int	foreign key to the Sales.CustomerCategories table
PostalCityID	int	foreign key to the Application.Cities table
DeliveryCityID	int	foreign key to the Application.Cities table
AccountOpenedDate	datetime	does not allow values
StandardDiscountPercentage	int	does not allow values
CreditLimit	decimal(18,2)	null values are permitted
IsOnCreditHold	bit	does not allow values
DeliveryLocation	geography	does not allow values
PhoneNumber	nvarchar(20)	does not allow values
ValidFrom	datetime2(7)	does not allow values, GENERATED ALWAYS AS ROW START
ValidTo	datetime2(7)	does not allow values, GENERATED ALWAYS AS ROW END

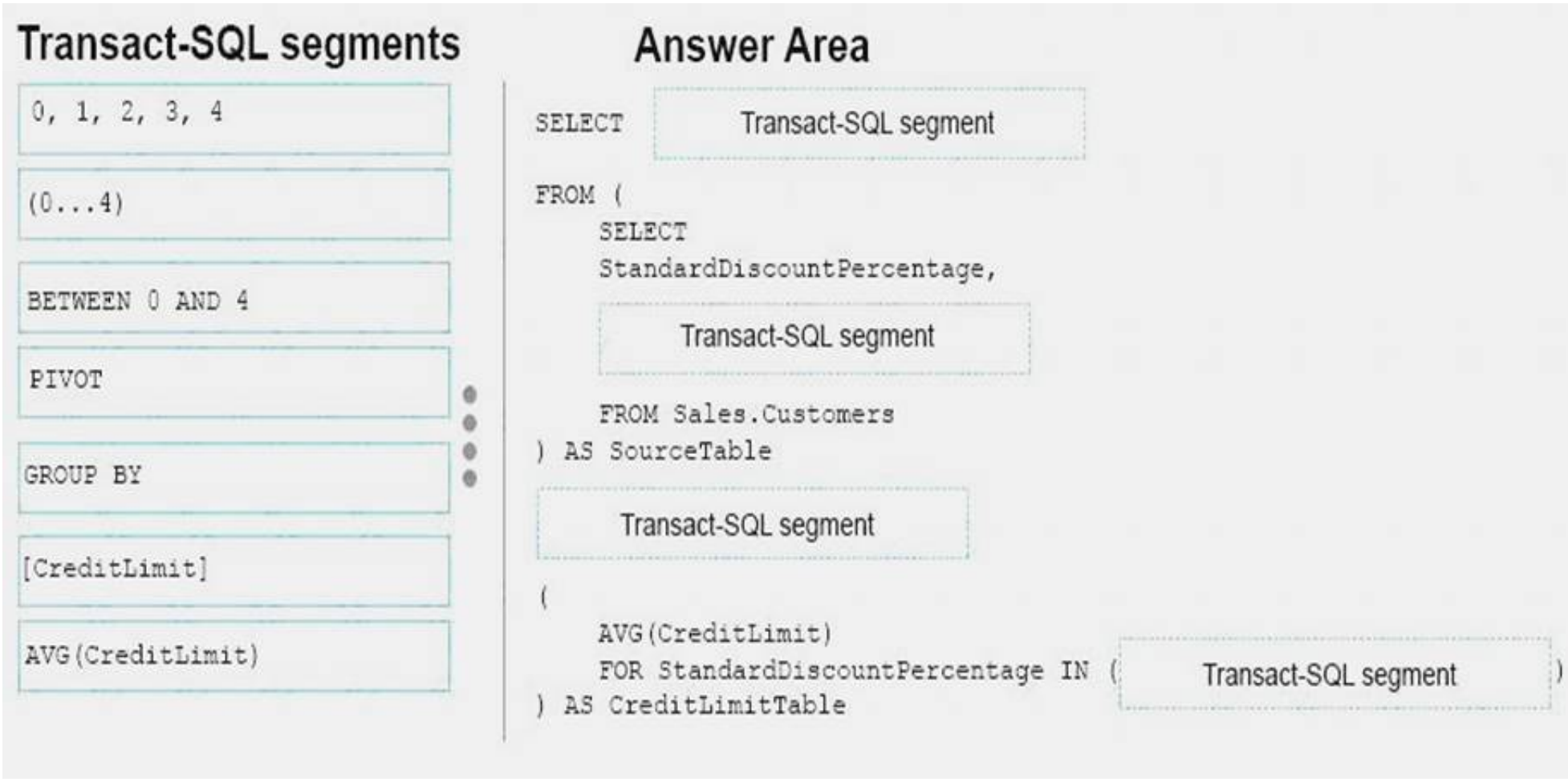
Details for the Application.Cities table are shown in the following table:

Column	Data type	Notes
CityID	int	primary key
LatestRecordedPopulation	bigint	null values are permitted

Details for the Sales.CustomerCategories table are shown in the following table:

Column	Data type	Notes
CustomerCategoryID	int	primary key
CustomerCategoryName	nvarchar(50)	does not allow null values

The marketing department is performing an analysis of how discount affect credit limits. They need to know the average credit limit per standard discount percentage for customers whose standard discount percentage is between zero and four.
You need to create a query that returns the data for the analysis.
How should you complete the Transact-SQL statement? To answer, drag the appropriate Transact-SQL segments to the correct locations. Each Transact-SQL segments may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.



Answer:

Explanation: Box 1: 0, 1, 2, 3, 4
Pivot example:
-- Pivot table with one row and five columns
SELECT 'AverageCost' AS Cost_Sorted_By_Production_Days, [0], [1], [2], [3], [4]
FROM
(SELECT DaysToManufacture, StandardCost FROM Production.Product) AS SourceTable PIVOT
(
AVG(StandardCost)
FOR DaysToManufacture IN ([0], [1], [2], [3], [4])
) AS PivotTable; Box 2: [CreditLimit]
Box 3: PIVOT
You can use the PIVOT and UNPIVOT relational operators to change a table-valued expression into another table. PIVOT rotates a table-valued expression by turning the unique values from one column in the expression into multiple columns in the output, and performs aggregations where they are required on any remaining column values that are wanted in the final output.
Box 4: 0, 1, 2, 3, 4
The IN clause determines whether a specified value matches any value in a subquery or a list. Syntax: test_expression [NOT] IN (subquery | expression [,...n])
Where expression[,... n]
is a list of expressions to test for a match. All expressions must be of the same type as test_expression. References: https://technet.microsoft.com/en-us/library/ms177410(v=sql.105).aspx

NEW QUESTION 73
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You are creating indexes in a data warehouse.
You have a dimension table named Table1 that has 10,000 rows. The rows are used to generate several reports. The reports join a column that is the primary key.
The execution plan contains bookmark lookups for Table1. You discover that the reports run slower than expected.
You need to reduce the amount of time it takes to run the reports. Solution: You create a hash index on the primary key column. Does this meet the goal?

A. Yes
B. No

Answer: B

NEW QUESTION 76
You need to create a table named Sales that meets the following requirements:

Column name	Requirements
SalesID	- uniquely identify the row of data - automatically generate when data is inserted - use the least amount of storage space
SalesDate	- store the date and time of the sale based on 24-hour clock - use an ANSI SQL compliant data type
SalesAmount	- store the amount of the sale - avoid rounding errors when used in arithmetic calculations

Which Transact-SQL statement should you run?

A

```
CREATE TABLE Sales (
      SalesID int IDENTITY(1,1),
      SalesDate DateTime NOT NULL,
      SalesAmount decimal(18,2) NULL
)
```

B

```
CREATE TABLE Sales (
      SalesID UNIQUEIDENTIFIER DEFAULT NEWSEQUENTIALID() PRIMARY KEY,
      SalesDate DateTime2 NOT NULL,
      SalesAmount money NULL
)
```

C

```
CREATE TABLE Sales (
      SalesID UNIQUEIDENTIFIER DEFAULT NEWSEQUENTIALID() PRIMARY KEY,
      SalesDate DateTime2 NOT NULL,
      SalesAmount decimal(18,2) NULL
)
```

D

```
CREATE TABLE Sales (
      SalesID int NOT NULL IDENTITY(1,1),
      SalesDate DateTime2 NOT NULL,
      SalesAmount decimal(18,4) NULL,
      CONSTRAINT PK_SalesID PRIMARY KEY CLUSTERED (SalesID)
)
```

A. Option A
B. Option B
C. Option C
D. Option D

Answer: D

Explanation: datetime2 Defines a date that is combined with a time of day that is based on 24-hour clock. datetime2 can be considered as an extension of the existing datetime type that has a larger date range, a larger default fractional precision, and optional user-specified precision.

NEW QUESTION 78

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section. You will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have a table named Products that stores information about products your company sells. The table has a column named ListPrice that stores retail pricing information for products.
Some products are used only internally by the company. Records for these products are maintained in the Products table for inventory purposes. The price for each of these products is $0.00. Customers are not permitted to order these products.
You need to increase the list price for products that cost less than $100 by 10 percent. You must only increase pricing for products that customers are permitted to order.
Solution: You run the following Transact-SQL statement:

```
UPDATE Production.Product
SET ListPrice = ListPrice + 1.1
WHERE ListPrice
BETWEEN .01 and 99.99
```

Does the solution meet the goal?

A. Yes
B. No

Answer: B

Explanation: Products with a price between $0.00 and $100 will be increased, while products with a price of $0.00 would not be increased.

NEW QUESTION 83
You have a database named MyDb. You run the following Transact-SQL statements:

```
CREATE TABLE tblRoles (
     RoleId int NOT NULL IDENTITY(1,1) PRIMARY KEY CLUSTERED,
     RoleName varchar(20) NOT NULL
)
CREATE TABLE tblUsers (
     UserId int NOT NULL IDENTITY(10000,1) PRIMARY KEY CLUSTERED,
     UserName varchar(20) UNIQUE NOT NULL,
     RoleId int NULL FOREIGN KEY REFERENCES tbRoles(RoleId),
     IsActive bit NOT NULL DEFAULT(1)
)
```

A value of 1 in the IsActive column indicates that a user is active.
You need to create a count for active users in each role. If a role has no active users. You must display a zero as the active users count.
Which Transact-SQL statement should you run?

A. SELECT R.RoleName, COUNT(*) AS ActiveUserCount FROM tblRoles RCROSS JOIN (SELECT UserId, RoleId FROM tblUsers WHERE IsActive = 1) UWHERE U.RoleId = R.RoleIdGROUP BY R.RoleId, R.RoleName
B. SELECT R.RoleName, COUNT(*) AS ActiveUserCount FROM tblRoles RLEFT JOIN (SELECTUserId, RoleId FROM tblUsers WHERE IsActive = 1) UON U.RoleId = R.RoleIdGROUP BY R.RoleId, R.RoleName
C. SELECT R.RoleName, U.ActiveUserCount FROM tblRoles R CROSS JOIN(SELECT RoleId, COUNT(*) AS ActiveUserCountFROM tblUsers WHERE IsActive = 1 GROUP BY R.RoleId) U
D. SELECT R.RoleName, ISNULL (U.ActiveUserCount,0) AS ActiveUserCountFROM tblRoles R LEFT JOIN (SELECT RoleId, COUNT(*) AS ActiveUserCountFROM tblUsers WHERE IsActive = 1 GROUP BY R.RoleId) U

Answer: B

NEW QUESTION 84
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section. you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You create a table named Customer by running the following Transact-SQL statement:

```
CREATE TABLE Customer (
     CustomerID int IDENTITY(1,1) PRIMARY KEY,
     FirstName varchar(50) NULL,
     LastName varchar(50) NOT NULL,
     DateOfBirth date NOT NULL,
     CreditLimit money CHECK (CreditLimit < 10000),
     TownID int NULL REFERENCES dbo.Town(TownID),
     CreatedDate datetime DEFAULT(Getdate())
)
```

You must insert the following data into the Customer table:

Record	First name	Last name	Date of Birth	Credit limit	Town ID	Created date
Record 1	Yvonne	McKay	1984-05-25	9,000	no town details	current date and time
Record 2	Jossef	Goldberg	1995-06-03	5,500	no town details	current date and time

You need to ensure that both records are inserted or neither record is inserted. Solution: You run the following Transact-SQL statement:

```
INSERT INTO dbo.Customer (FirstName, LastName, DateOfBirth, CreditLimit)
VALUES ('Yvonne', 'McKay', '1984-05-25', 9000), ("Jossef', 'Goldberg', '1995-06-03', 5500)
```

Does the solution meet the goal?

A. Yes
B. No

Answer: A

Explanation: With the INSERT INTO..VALUES statement we can insert both values with just one statement. This ensures that both records or neither is inserted.
References: https://msdn.microsoft.com/en-us/library/ms174335.aspx

NEW QUESTION 86
You create a table named Sales.Categories by running the following Transact-SQL statement:

```
CREATE TABLE Sales.Categories (
     CategoryID smallint NOT NULL PRIMARY KEY,
     Name nvarchar(50) NOT NULL,
     ParentCategoryID int NULL
)
```

You add the following data to the table.

CategoryID	Name	ParentCategoryID
1	Electronics	NULL
2	Cameras and photography	1
3	Computers and tablets	1
4	Cell phones and accessories	1
5	TV and audio	1
6	Digital cameras	2
9	laptops	3
13	Household goods	NULL
14	Bathroom items	13
15	Shower curtains	14

You need to create a query that uses a common table expression (CTE) to show the parent category of each category. The query must meet the following requirements:
Return all columns from the Categories table in the order shown.
Exclude all categories that do not have a parent category.
Construct the query using the following guidelines:
Name the expression ParentCategories.
Use PC as the alias for the expression.
Use C as the alias for the Categories table.
Use the AS keyword for all table aliases.
Use individual column names for each column that the query returns.
Do not use a prefix for any column name.
Do not surround object names with square brackets.

Keywords

ADD
ALL
ALTER
AND
ANY
AS
ASC
AUTHORIZATION
BACKUP
BEGIN
BETWEEN
BREAK
BROWSE
BULK
BY
CASCADE
CASE
CHECK
CHECKPOINT
CLOSE
CLUSTERED
COALESCE
COLLATE
COLUMN
COMMIT
COMPUTE
CONCAT
CONSTRAINT
CONTAINS
CONTAINSTABLE
CONTINUE
CONVERT
CREATE
CROSS
CURRENT
CURRENT_DATE
CURRENT_TIME
CURRENT_TIMESTAMP
CURENT_USER
CURSOR
DATABASE
DBCC
DEALLOCATE
DECLARE

EXIT
EXTERNAL
FETCH
FILE
FILLFACTOR
FORFOREIGN
FREETEXT
FREETEXTTABLE
FROM
FULL
FUNCTION
GOTO
GRANT
GROUP
HAVING
HOLDLOCK
IDENTITY
IDENTITY_INSERT
IDENTITYCOL
IF
IN
INDEX
INNER
INSERT
INTERSECT
INTO
IS
JOIN
KEY
KILL
LEFT
LIKE
LINENO
LOAD
MERGE
NATIONAL
NOCHECK
NONCLUSTERED
NOT
NULL
NULLIF
OF
OFF
OFFSETS

PROC
PROCEDURE
PUBLIC
RAISERROR
READ
READTEXT
RECONFIGURE
REFERENCES
REPLICATION
RESTORE
RESTRICT
RETURN
REVERT
REVOKE
RIGHT
ROLLBACK
ROWCOUNT
ROWGUIDCOL
RULE
SAVE
SCHEMA
SECURITYAUDIT
SELECT
SEMANTICKEYPHRASETABLE
SEMANTICSIMILARITYDETAILSTABLE
SEMANTICSIMILARITYTABLE
SESSION_USER
SET
SETUSER
SHUTDOWN
SOME
STATISTICS
SYSTEM_USER
TABLE
TABLESAMPLE
TEXTSIZE
THEN
TO
TOP
TRAN
TRANSACTION
TRIGGER
TRUNCATE
TRY_CONVERT

```
DEFAULT
DELETE
DENY
DESC
DISK
DISTINCT
DISTRIBUTED
DOUBLE
DROP
DUMP
ELSE
END
ERRLVL
ESCAPE
ESCEPT
EXEC
EXECUTE
EXISTS
ON
OPEN
OPENDATASOURCE
OPENQUERY
OPENROWSET
OPENXML
OPTION
OR
ORDER
OUTER
OVER
PERCENT
PIVOT
PLAN
PRECISION
PRIMARY
PRINT
TSEQUAL
UNION
UNIQUE
UNPIVOT
UPDATE
UPDATETEXT
USE
USER
VALUES
VARYING
VIEW
WAITFOR
WHEN
WHERE
WHILE
WITH
WITHIN GROUP
WRITETEXT
```

Part of the correct Transact-SQL has been provided in the answer area below. Enter the code in the answer area that resolves the problem and meets the stated goals or requirements. You can add code within the code that has been provided as well as below it.

```
1    c(SELECT c.categoryid,c.name,c.parentcategoryid
2         FROM sales.categories c
3         WHERE parentcategoryid is not null
4         )
5    SELECT * FROM parentcategories
```

Use the Check Syntax button to verify your work. Any syntax or spelling errors will be reported by line and character position. You may check syntax as many times as needed.

Answer:

Explanation: 1 WITH ParentCategories pc (CategoryID, Name, PatentCategoryID) AS (SELECT c.categoryID,c.name,c.parentcategoryid
2 FROM sales.categories c
3 WHERE parentcategoryid is not null
4)
5 SELECT * FROM parentcategories
Note: On Line 1 replace c with WITH ParentCategories pc (CategoryID, Name, PatentCategoryID) AS Note: The basic syntax structure for a CTE is:
WITH expression_name [(column_name [,...n])] AS
(CTE_query_definition)
References: https://technet.microsoft.com/en-us/library/ms190766(v=sql.105).aspx

NEW QUESTION 87
You are developing a mobile app to manage meetups. The app allows for users to view the 25 closest people with similar interests. You have a table that contains records for approximately two million people. You create the table by running the following Transact-SQL statement:

```
CREATE TABLE Person (
     PersonID INT,
     Name NVARCHAR(155) NOT NULL,
     Location GEOGRAPHY,
     Interests NVARCHAR(MAX)
)
```

You create the following table valued function to generate lists of people:

```
CREATE FUNCTION dbo.nearby  (@person AS INT)
     RETURNS @Res TABLE (
     PersonId INT NOT NULL,
     Location GEOGRAPHY
     )
     AS
     BEGIN
        . . .
     END
```

You need to build a report that shows meetings with at least two people only. What should you use?

A. OUTER APPLY
B. CROSS APPLY
C. PIVOT
D. LEFT OUTER JOIN

Answer: B

Explanation: References: https://www.sqlshack.com/the-difference-between-cross-apply-and-outer-apply-in-sql-server/

NEW QUESTION 90
You create three tables by running the following Transact-SQL statements:

```
CREATE TABLE tblRoles (
     RoleId int NOT NULL IDENTITY(1,1) PRIMARY KEY CLUSTERED,
     RoleName varchar(20) NOT NULL
)
CREATE TABLE tblUsers (
     UserId int NOT NULL IDENTITY(1,1) PRIMARY KEY CLUSTERED,
     UserName varchar(20) UNIQUE NOT NULL,
     IsActive bit NOT NULL DEFAULT(1)
)
CREATE TABLE tblUsersInRoles (
     UserId int NOT NULL FOREIGN KEY REFERENCES tblUsers(UserId),
     RoleId int NOT NULL FOREIGN KEY REFERENCES tblRoles(RolesId)
)
```

For reporting purposes, you need to find the active user count for each role, and the total active user count. The result must be ordered by active user count of each role. You must use common table expressions (CTEs).
Which four Transact-SQL segments should you use to develop the solution? To answer, move the appropriate Transact-SQL segments from the list of Transact-SQL segments to the answer area and arrange them in the correct order.

Transact-SQL segments

```
Total AS (
     SELECT COUNT(*) AS TotalCountInAllRoles
     FROM ActiveUsers
)
SELECT S.*, Total.TotalCountInAllRoles
FROM RoleSummary S, Total
ORDER BY S.ActiveUserCount
```

```
WITH ActiveUsers AS (
     SELECT UserId
     FROM tblUsers
     WHERE IsActive=1
),
```

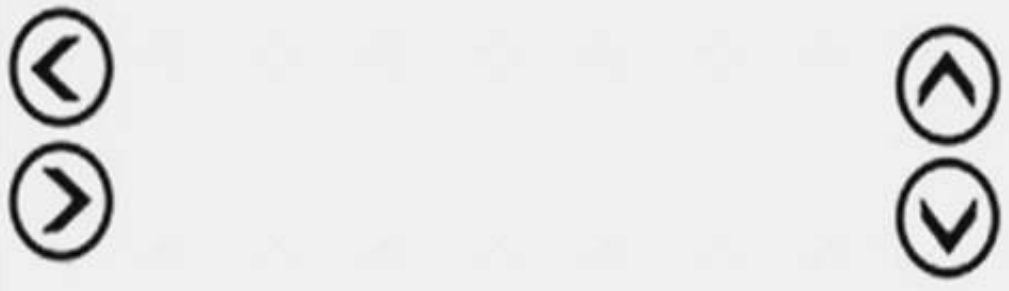
```
RoleNCount AS (
     SELECT RoleId, COUNT(*) AS ActiveUser-
Count
     FROM tblUsersInRoles BRG
     INNER JOIN ActiveUsers U ON BRG.UserId =
U.UserId
     GROUP BY BRG.RoleId
),
```

```
Total AS (
     SELECT COUNT(*) AS TotalCountInAllRoles
     FROM ActiveUsers
)
SELECT S.*, Total.TotalCountInAllRoles
FROM RoleSummary S, Total
```

```
RoleSummary AS (
     SELECT R.RoleName, ISNULL
(S.ActiveUserCount,0) AS ActiveUserCount
     FROM tblRoles R
     LEFT JOIN RoleNCount S ON R.RoleId =
S.RoleId
     ORDER BY S.ActiveUserCount
),
```

```
RoleSummary AS (
     SELECT R.RoleName, ISNULL
(S.ActiveUserCount,0) AS ActiveUserCount
     FROM tblRoles R
     LEFT JOIN RoleNCount S ON R.RoleId =
S.RoleId
),
```

Answer Area



Answer:

Explanation:

Transact-SQL segments

```
Total AS (
     SELECT COUNT(*) AS TotalCountInAllRoles
     FROM ActiveUsers
)
SELECT S.*, Total.TotalCountInAllRoles
FROM RoleSummary S, Total
ORDER BY S.ActiveUserCount
```

```
WITH ActiveUsers AS (
     SELECT UserId
     FROM tblUsers
     WHERE IsActive=1
),
```

```
RoleNCount AS (
     SELECT RoleId, COUNT(*) AS ActiveUser-
Count
     FROM tblUsersInRoles BRG
     INNER JOIN ActiveUsers U ON BRG.UserId =
U.UserId
     GROUP BY BRG.RoleId
),
```

```
Total AS (
     SELECT COUNT(*) AS TotalCountInAllRoles
     FROM ActiveUsers
)
SELECT S.*, Total.TotalCountInAllRoles
FROM RoleSummary S, Total
```

```
RoleSummary AS (
     SELECT R.RoleName, ISNULL
(S.ActiveUserCount,0) AS ActiveUserCount
     FROM tblRoles R
     LEFT JOIN RoleNCount S ON R.RoleId =
S.RoleId
     ORDER BY S.ActiveUserCount
),
```

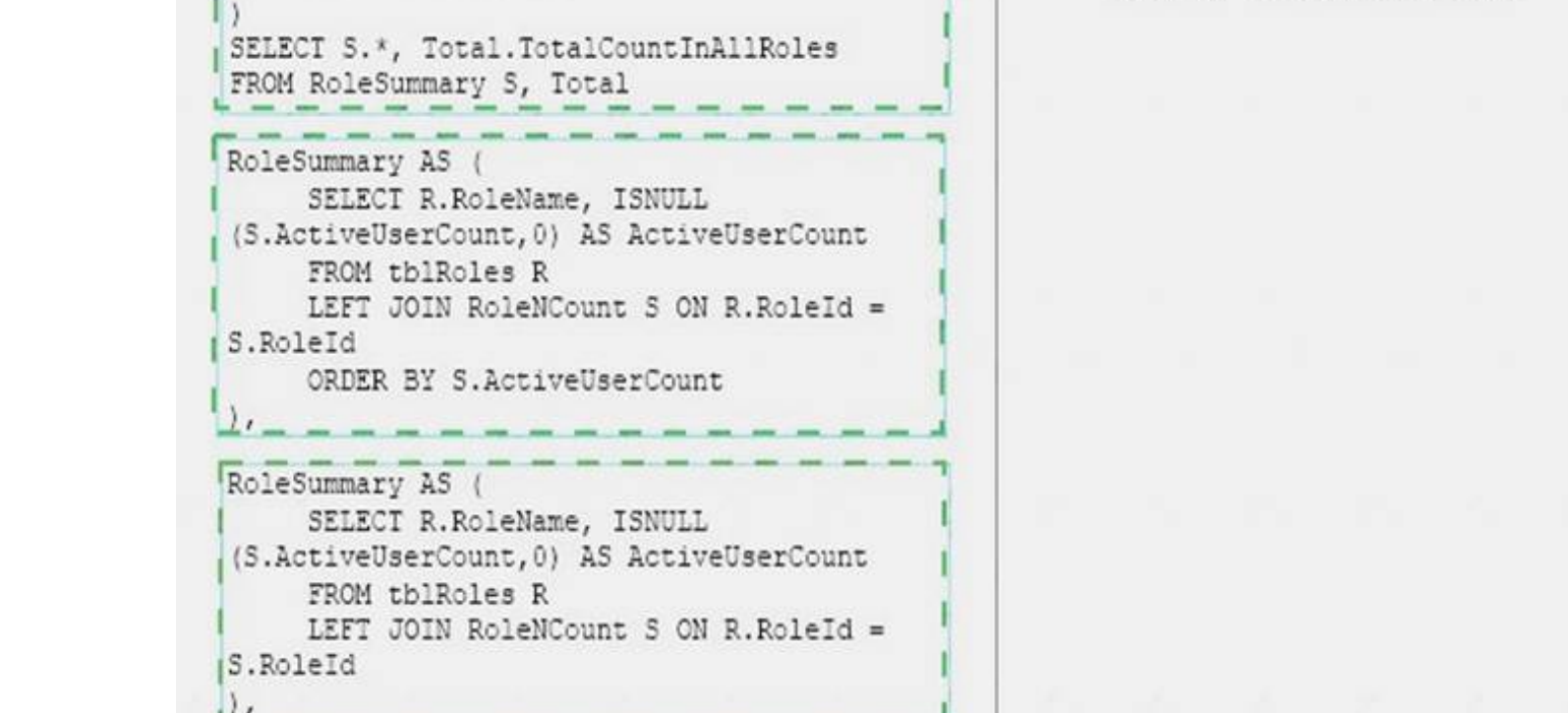
```
RoleSummary AS (
     SELECT R.RoleName, ISNULL
(S.ActiveUserCount,0) AS ActiveUserCount
     FROM tblRoles R
     LEFT JOIN RoleNCount S ON R.RoleId =
S.RoleId
),
```

Answer Area

```
RoleNCount AS (
     SELECT RoleId, COUNT(*) AS ActiveUser-
Count
     FROM tblUsersInRoles BRG
     INNER JOIN ActiveUsers U ON BRG.UserId =
U.UserId
     GROUP BY BRG.RoleId
),
WITH ActiveUsers AS (
     SELECT UserId
     FROM tblUsers
     WHERE IsActive=1
),
```

```
RoleSummary AS (
     SELECT R.RoleName, ISNULL
(S.ActiveUserCount,0) AS ActiveUserCount
     FROM tblRoles R
     LEFT JOIN RoleNCount S ON R.RoleId =
S.RoleId
     ORDER BY S.ActiveUserCount
Total AS (
     SELECT COUNT(*) AS TotalCountInAllRoles
     FROM ActiveUsers
)
SELECT S.*, Total.TotalCountInAllRoles
FROM RoleSummary S, Total
ORDER BY S.ActiveUserCount
```

NEW QUESTION 94
You have a database that includes the following tables. All of the tables are in the Production schema.



You need to create a query that returns a list of product names for all products in the Beverages category. Construct the query using the following guidelines:
Use the first letter of the table name as the table alias.
Use two-part column names.

Do not surround object names with square brackets.
Do not use implicit joins.
Do not use variables.
Use single quotes to surround literal values.
Part of the correct Transact-SQL has been provided in the answer area below. Enter the code in the answer area that resolves the problem and meets the stated goals or requirements. You can add code within the code that has been provided as well as below it.

```
1    SELECT p.productname
2    FROM Production.Categories AS c
3    inner join production.products as p on c.categoryid*p.categoryid
4    WHERE c.categoryname = 'Beverages'
```

Use the Check Syntax button to verify your work. Any syntax or spelling errors will be reported by line and character position. You may check syntax as many times as needed.

Answer:

Explanation: 1 SELECT p.productname
2 FROM Production.categories AS c
3 inner join production.products as p on c.categoryid=p.categoryid 4 WHERE c.categoryname = 'Beverages'
Note: On line 3 change * to =

NEW QUESTION 98
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section. You will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have a table named Products that stores information about products your company sells. The table has a column named ListPrice that stores retail pricing information for products.
Some products are used only internally by the company. Records for these products are maintained in the Products table for inventory purposes. The price for each of these products is $0.00. Customers are not permitted to order these products.
You need to increase the list price for products that cost less than $100 by 10 percent. You must only increase pricing for products that customers are permitted to order.
Solution: You run the following Transact-SQL statement:

```
UPDATE Production.Product
SET ListPrice = ListPrice + 1.1
WHERE ListPrice < 100
```

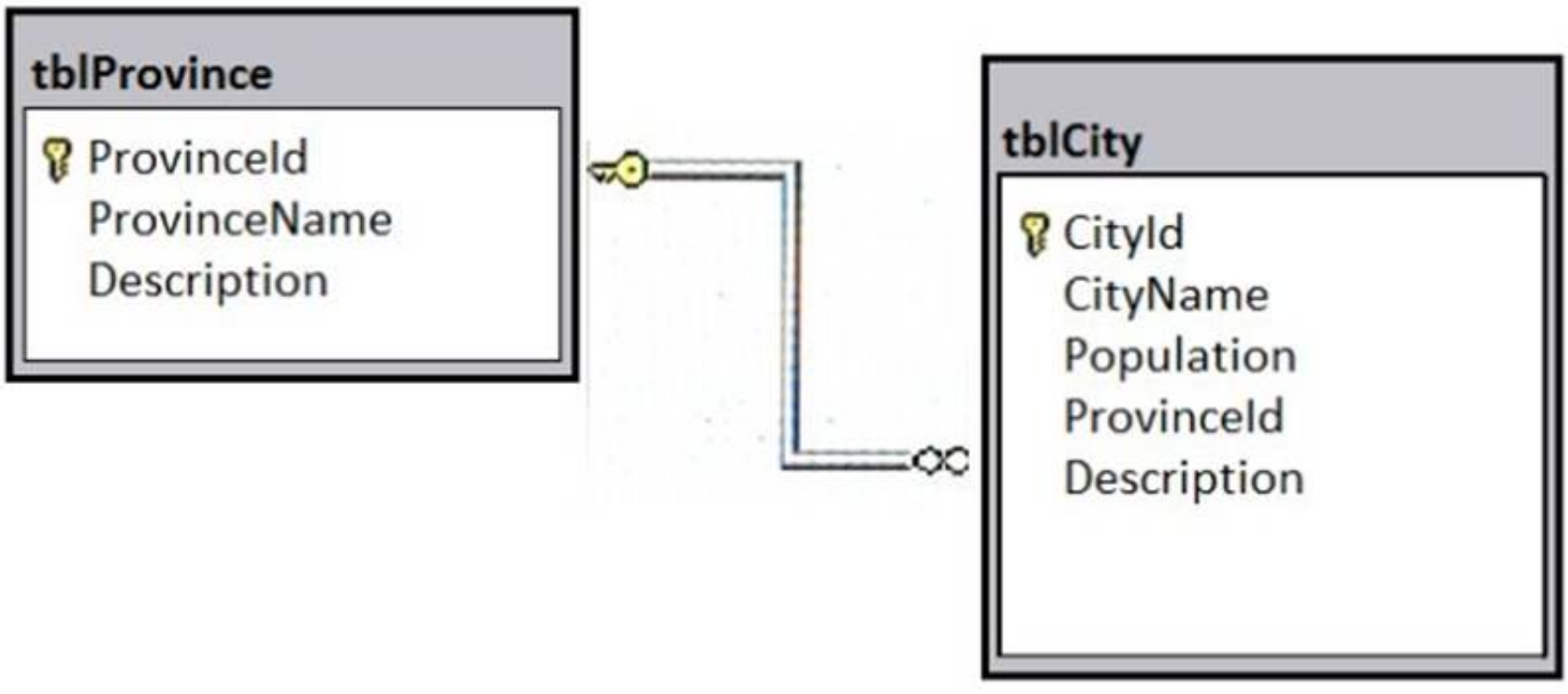
Does the solution meet the goal?

A. Yes
B. No

Answer: B

Explanation: Products with a price of $0.00 would also be increased.

NEW QUESTION 100
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section. You will NOT be able to return to it. As a result, these questions will not appear in the review screen.
A database has two tables as shown in the following database diagram:



You need to list all provinces that have at least two large cities. A large city is defined as having a population of at least one million residents. The query must return the following columns:

- tblProvince.ProvinceId
- tblProvince.ProvinceName
- a derived column named LargeCityCount that presents the total count of large cities for the province

Solution: You run the following Transact-SQL statement:

```
SELECT P.ProvinceId, P.ProvinceName, CitySummary.LargeCityCount
FROM tblProvince P
OUTER APPLY (
   SELECT COUNT(*) AS LargeCityCount FROM tblCity C
   WHERE C.Population>=1000000 AND C.ProvinceId = P. ProvinceId
) CitySummary
```

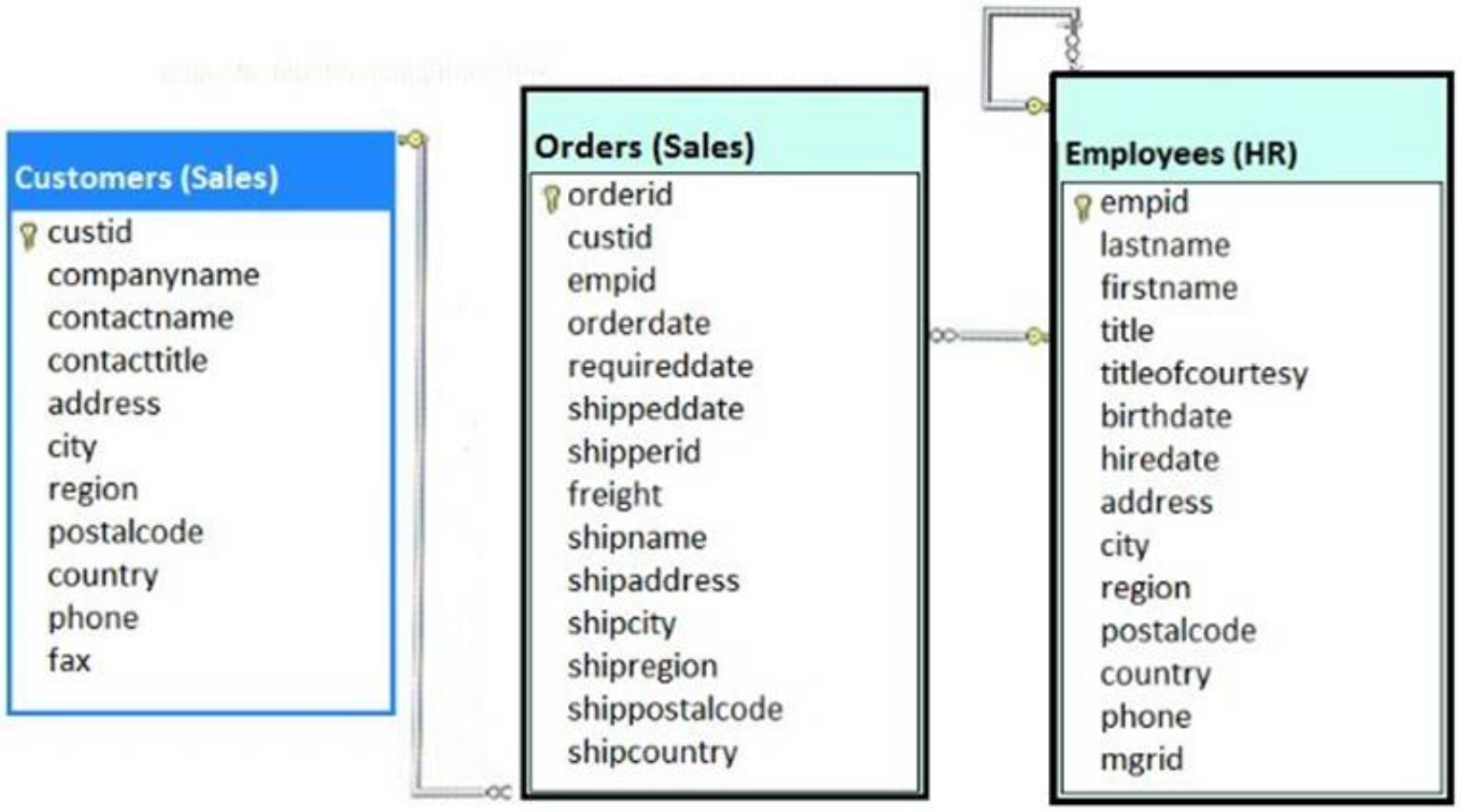
Does the solution meet the goal?

A. Yes
B. No

Answer: A

Explanation: We need to list all provinces that have at least two large cities. There is no reference to this in the code.

NEW QUESTION 105
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section. You will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have a database that includes the tables shown in the exhibit (Click the Exhibit button.)



You need to create a Transact-SQL query that returns the following information:
*the customer number
* the customer contact name
*the date the order was placed, with a name of DateofOrder
*a column named Salesperson, formatted with the employee first name, a space, and the employee last name
*orders for customers where the employee identifier equals 4
The output must be sorted by order date, with the newest orders first. The solution must return only the most recent order for each customer. Solution: You run the following Transact-SQL statement:

```
SELECT c.custid, contactname, MAX(orderdate) AS DateofOrder,
e.firstname + ‘’ + e.lastname AS Salesperson
FROM Sales.Customers AS c
INNER JOIN Sales.Orders AS o ON c.custid = o.custid
INNER JOIN HR.Employees AS e ON o.empid = e.empid
GROUP BY c.custid, contactname, firstname, lastname, o.empid
HAVING o.empid = 4
ORDER BY DateofOrder DESC
```

Does the solution meet the goal?

A. Yes
B. No

Answer: B

Explanation: We should use a WHERE clause, not a HAVING clause. The HAVING clause would refer to aggregate data.

NEW QUESTION 108
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section. You will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have a database that tracks orders and deliveries for customers in North America. The database contains the following tables:
Sales.Customers

Column	Data type	Notes
CustomerID	int	primary key
CustomerCategoryID	int	foreign key to the Sales.CustomerCategories table
PostalCityID	int	foreign key to the Application.Cities table
DeliveryCityID	int	foreign key to the Application.Cities table
AccountOpenedDate	datetime	does not allow new values
StandardDiscountPercentage	int	does not allow new values
CreditLimit	decimal(18,2)	null values are permitted
IsOnCreditHold	bit	does not allow new values
DeliveryLocation	geography	does not allow new values
PhoneNumber	nvarchar(20)	does not allow new values data is formatted as follows: 425-555-0187

Application.Cities

Column	Data type	Notes
CityID	int	primary key
LatestRecordedPopulation	bigint	null values are permitted

Sales.CustomerCategories

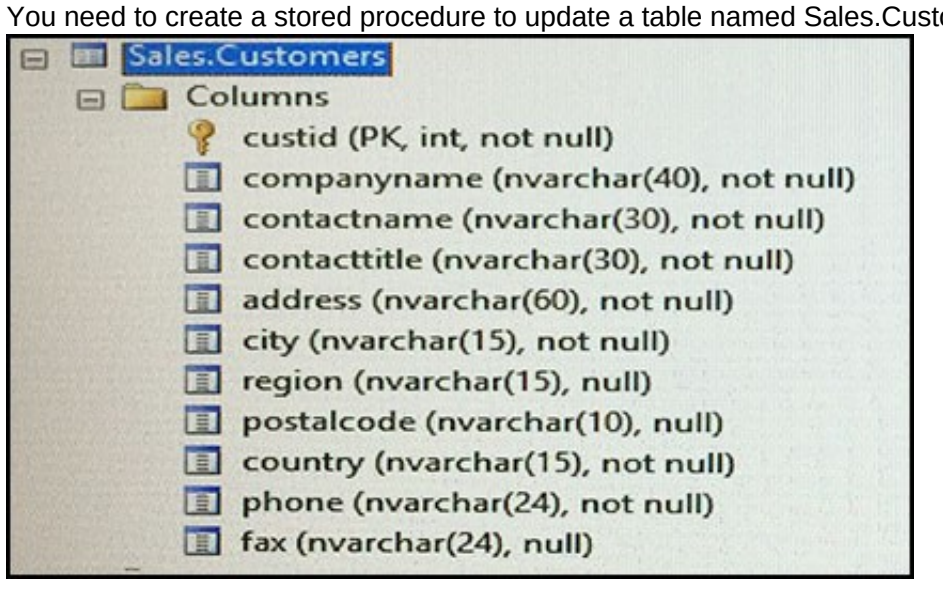
Column	Data type	Notes
CustomerCategoryID	int	primary key
CustomerCategoryName	nvarchar(50)	does not allow null values

Your company is developing a new social application that connects customers to each other based on the distance between their delivery locations.
You need to write a query that returns the nearest customer. Solution: You run the following Transact-SQL statement:
SELECT TOP 1 B.CustomerID, A.DeliveryLocation.STDistance(B.DeliveryLocation) AS Dist FROM Sales.Customers AS A
CROSS JOIN Sales.Customers AS B
WHERE A.CustomerID = @custID AND A.CustomerID <> B.CustomerID ORDER BY Dist
The variable @custID is set to a valid customer. Does the solution meet the goal?

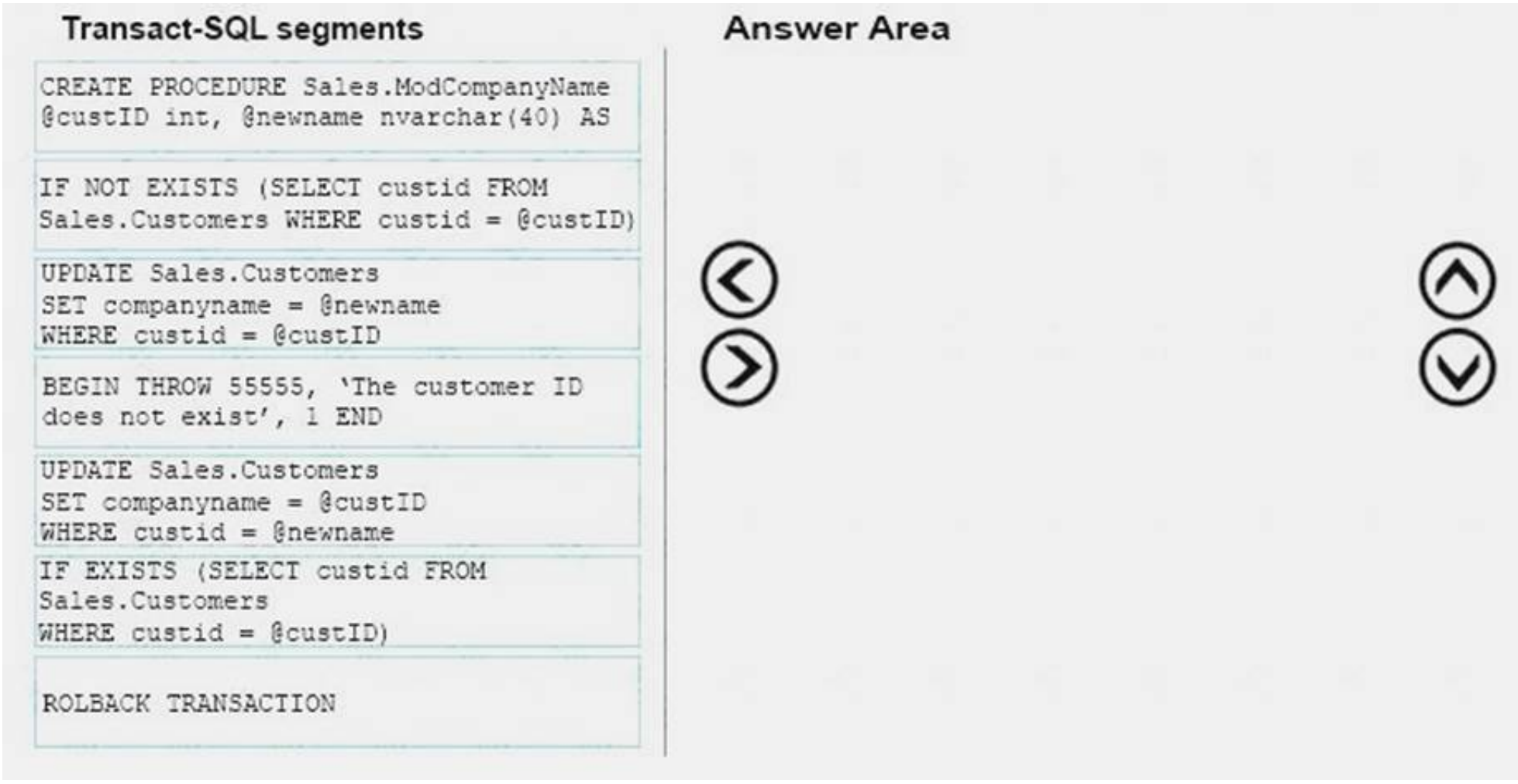
A. Yes
B. No

Answer: B

NEW QUESTION 110
You need to create a stored procedure to update a table named Sales.Customers. The structure of the table is shown in the exhibit. (Click the exhibit button.)

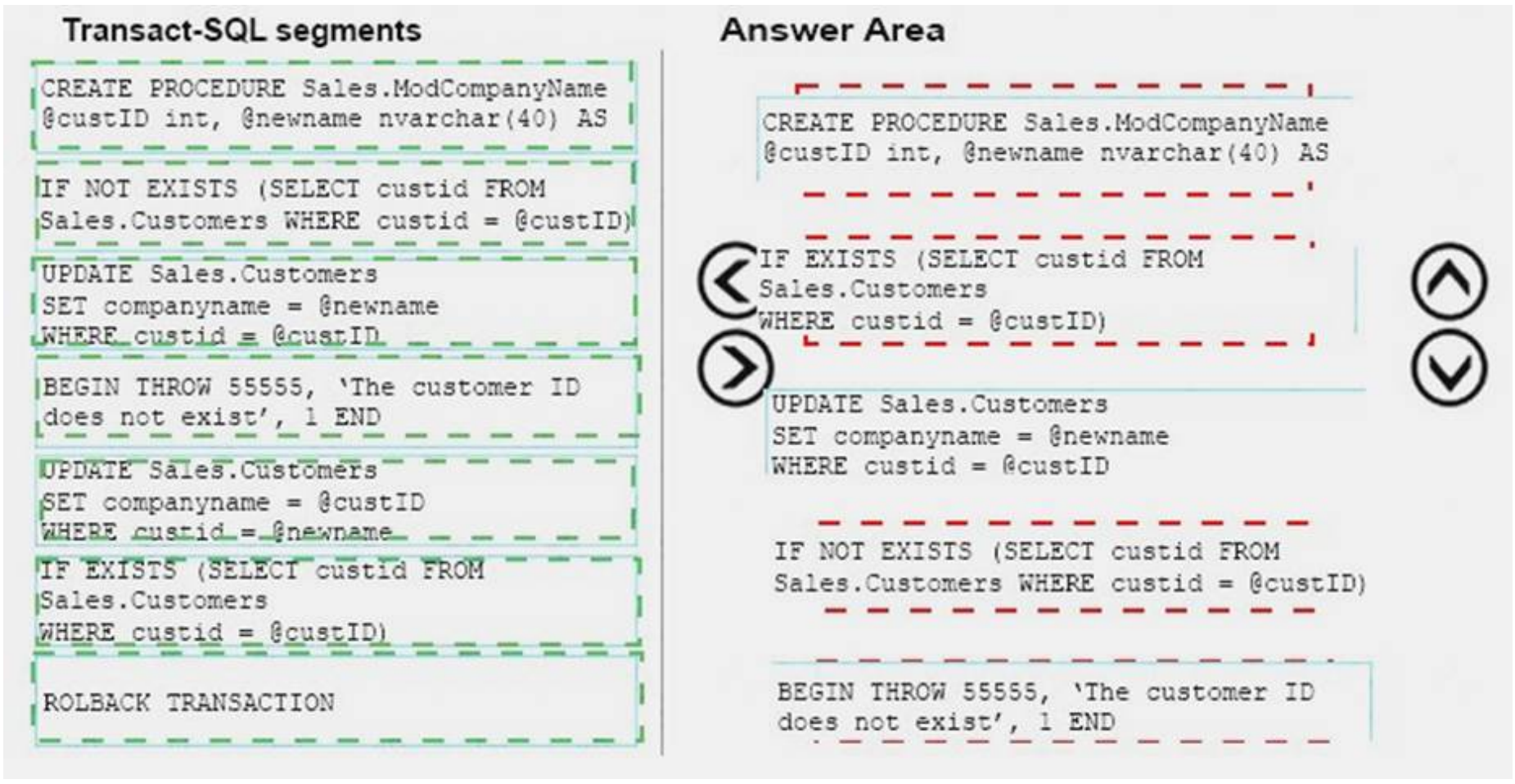


The stored procedure must meet the following requirements:
- Accept two input parameters.
- Update the company name if the customer exists.
- Return a custom error message if the customer does not exist.
Which five Transact-SQL segments should you use to develop the solution? To answer, move the appropriate Transact-SQL segments from the list of Transact-SQL segments to the answer area and arrange them in the correct order.
NOTE: More than one order of answer choices is correct. You will receive credit for any of the correct orders you select.



Answer:

Explanation:



NEW QUESTION 114
You need to create a table named Sales that meets the following requirements:

Column name	Requirements
SalesID	- uniquely identify the row of data - automatically generate when data is inserted - use the least amount of storage space
SalesDate	- store the date and time of the sale based on 24-hour clock - use an ANSI SQL compliant data type
SalesAmount	- store the amount of the sale - avoid rounding errors when used in arithmetic calculations

Which Transact-SQL statement should you run?

A

```
CREATE TABLE Sales (
      SalesID int IDENTITY(1,1) PRIMARY KEY,
      SalesDate DateTime2 NOT NULL,
      SalesAmount float NULL
)
```

B

```
CREATE TABLE Sales (
      SalesID int IDENTITY(1,1) PRIMARY KEY,
      SalesDate DateTime2 NOT NULL,
      SalesAmount decimal(18, 2) NULL
)
```

C

```
CREATE TABLE Sales (
      SalesID UNIQUEIDENTIFIER DEFAULT NEWSEQUENTIALID() PRIMARY KEY,
      SalesDate DateTime2 NOT NULL,
      SalesAmount decimal(18,2) NULL
)
```

D

```
CREATE TABLE Sales (
      SalesID int IDENTITY(1,1),
      SalesDate DateTime  NOT NULL,
      SalesAmount decimal(18,2) NULL

)
```

A. Option A
B. Option B
C. Option C
D. Option D

Answer: B

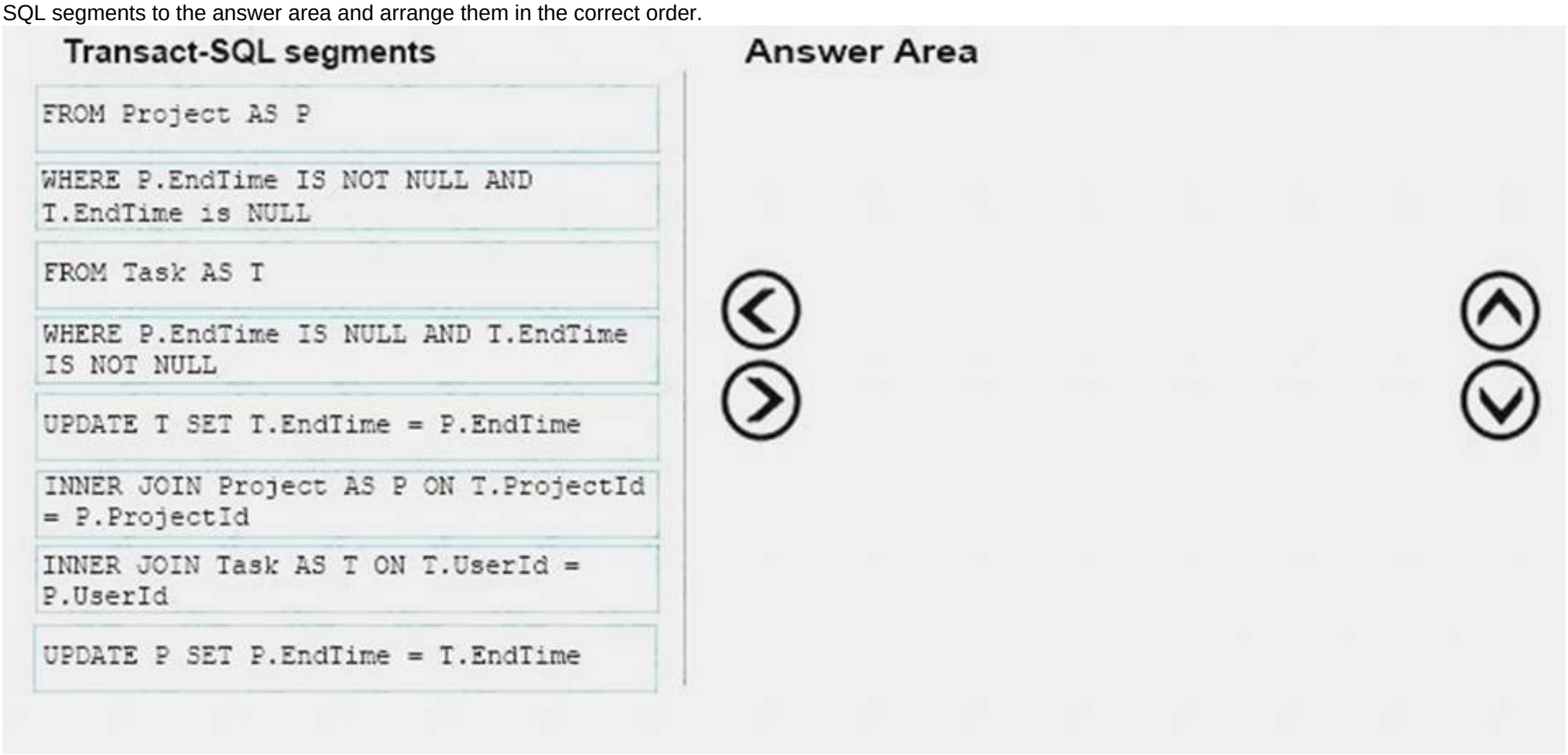
Explanation: References:
https://docs.microsoft.com/en-us/sql/t-sql/data-types/decimal-and-numeric-transact-sql?view=sql-server-2017 https://docs.microsoft.com/en-us/sql/t-sql/data-types/float-and-real-transact-sql?view=sql-server-2017

NEW QUESTION 115
Note: This question is part of a series of questions that use the same scenario. For your convenience, the scenario is repeated in each question. Each question presents a different goal and answer choices, but the text of the scenario is exactly the same in each question in this series.
You query a database that includes two tables: Project and Task. The Project table includes the following columns:

Column name	Data type	Notes
ProjectId	int	This is a unique identifier for a project.
ProjectName	varchar(100)	
StartTime	datetime2(7)	
EndTime	datetime2(7)	A null value indicates the project is not finished yet.
UserId	int	Identifies the owner of the project.

Column name	Data type	Notes
TaskId	int	This is a unique identifier for a task.
TaskName	varchar(100)	A nonclustered index exists for this column.
ParentTaskId	int	Each task may or may not have a parent task.
ProjectId	int	A null value indicates the task is not assigned to a specific project.
StartTime	datetime2(7)	
EndTime	datetime2(7)	A null value indicates the task is not completed yet.
UserId	int	Identifies the owner of the task.

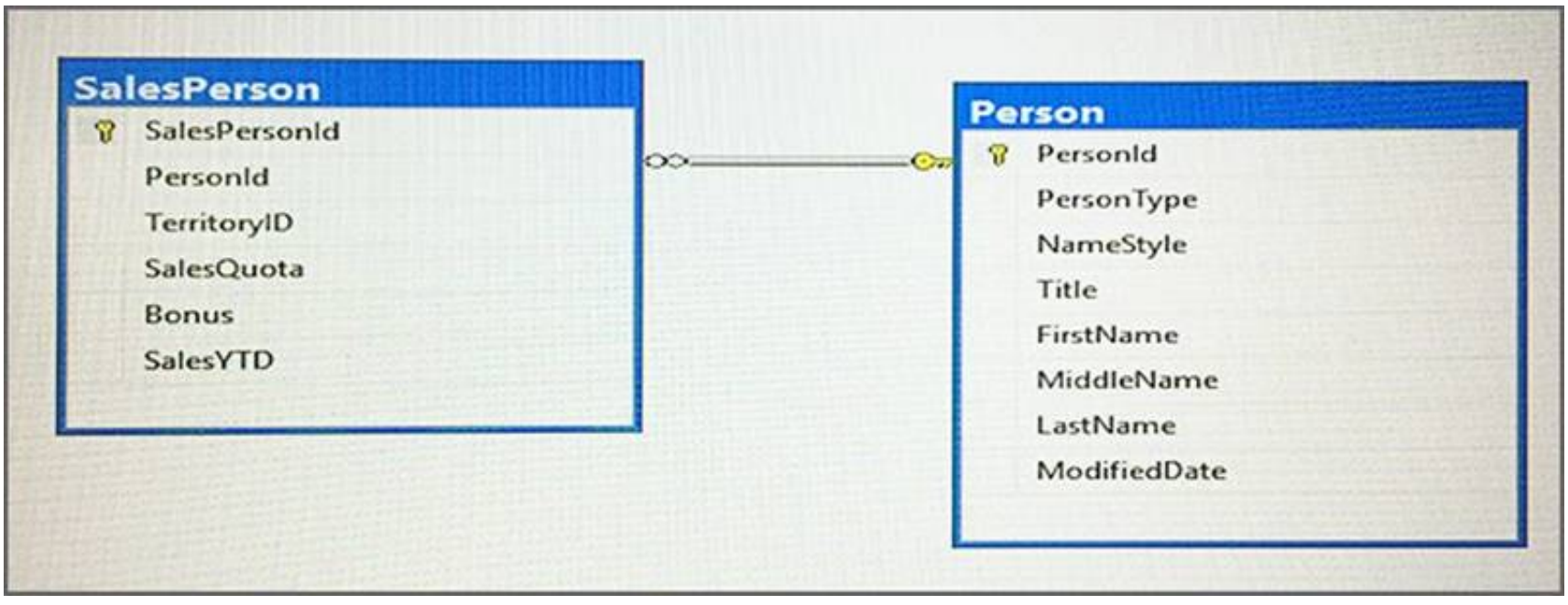
When running an operation, you updated a column named EndTime for several records in the Project table, but updates to the corresponding task records in the Task table failed.
You need to synchronize the value of the EndTime column in the Task table with the value of the EndTime column in the project table. The solution must meet the following requirements:
* If the EndTime column has a value, make no changes to the record.
* If the value of the EndTime column is null and the corresponding project record is marked as completed, update the record with the project finish time.
Which four Transact-SQL segments should you use to develop the solution? To answer, move the appropriate Transact-SQL segments from the list of Transact-SQL segments to the answer area and arrange them in the correct order.



Answer:

Explanation: Box 1: UPDATE T SET T.EndTime = P.EndTime
We are updating the EndTime column in the Task table. Box 2: FROM Task AS T
Where are updating the task table.
Box 3:INNER JOIN Project AS P on T.ProjectID = P.ProjectID
We join with the Project table (on the ProjectID columnID column). Box 4: WHERE P.EndTime is NOT NULL AND T.EndTime is NULL
We select the columns in the Task Table where the EndTime column in the Project table has a value (NOT NULL), but where it is NULL in the Task Table.
References: https://msdn.microsoft.com/en-us/library/ms177523.aspx

NEW QUESTION 119
You have a database that contains the following tables.



You need to create a query that lists the lowest-performing salespersons based on the current year-to-date sales period. The query must meet the following requirements:
- Return a column named Fullname that includes the salesperson FirstName, a space, and then LastName.
- Include the current year-to-date sales for each salesperson.
- Display only data for the three salespersons with the lowest year-to-year sales values.
- Exclude salespersons that have no value for TerritoryID. Construct the query using the following guidelines:
- Use the first letter of a table name as the table alias.
- Use two-part column names.
- Do not surround object names with square brackets.
- Do not use implicit joins.
- Use only single quotes for literal text.
- Use aliases only if required.

Keywords

ADD	EXIT	PROC
ALL	EXTERNAL	PROCEDURE
ALTER	FETCH	PUBLIC
AND	FILE	RAISERROR
ANY	FILLFACTOR	READ
AS	FORFOREIGN	READTEXT
ASC	FREETEXT	RECONFIGURE
AUTHORIZATION	FREETEXTTABLE	REFERENCES
BACKUP	FROM	REPLICATION
BEGIN	FULL	RESTORE
BETWEEN	FUNCTION	RESTRICT
BREAK	GOTO	RETURN
BROWSE	GRANT	REVERT
BULK	GROUP	REVOKE
BY	HAVING	RIGHT
CASCADE	HOLDLOCK	ROLLBACK
CASE	IDENTITY	ROWCOUNT
CHECK	IDENTITY_INSERT	ROWGUIDCOL
CHECKPOINT	IDENTITYCOL	RULE
CLOSE	IF	SAVE
CLUSTERED	IN	SCHEMA
COALESCE	INDEX	SECURITYAUDIT
COLLATE	INNER	SELECT
COLUMN	INSERT	SEMANTICKEYPHRASETABLE
COMMIT	INTERSECT	SEMANTICSIMILARITYDETAILSTABLE
COMPUTE	INTO	SEMANTICSIMILARITYTABLE
CONCAT	IS	SESSION_USER
CONSTRAINT	JOIN	SET
CONTAINS	KEY	SETUSER
CONTAINSTABLE	KILL	SHUTDOWN
CONTINUE	LEFT	SOME
CONVERT	LIKE	STATISTICS
CREATE	LINENO	SYSTEM_USER
CROSS	LOAD	TABLE
CURRENT	MERGE	TABLESAMPLE
CURRENT_DATE	NATIONAL	TEXTSIZE
CURRENT_TIME	NOCHECK	THEN
CURRENT_TIMESTAMP	NONCLUSTERED	TO
CURENT_USER	NOT	TOP
CURSOR	NULL	TRAN
DATABASE	NULLIF	TRANSACTION
DBCC	OF	TRIGGER
DEALLOCATE	OFF	TRUNCATE
DECLARE	OFFSETS	TRY_CONVERT

```
DEFAULT
DELETE
DENY
DESC
DISK
DISTINCT
DISTRIBUTED
DOUBLE
DROP
DUMP
ELSE
END
ERRLVL
ESCAPE
ESCEPT
EXEC
EXECUTE
EXISTS
ON
OPEN
OPENDATASOURCE
OPENQUERY
OPENROWSET
OPENXML
OPTION
OR
ORDER
OUTER
OVER
PERCENT
PIVOT
PLAN
PRECISION
PRIMARY
PRINT
TSEQUAL
UNION
UNIQUE
UNPIVOT
UPDATE
UPDATETEXT
USE
USER
VALUES
VARYING
VIEW
WAITFOR
WHEN
WHERE
WHILE
WITH
WITHIN GROUP
WRITETEXT
```

Part of the correct Transact-SQL has been provided in the answer area below. Enter the code in the answer area that resolves the problem and meets the stated goals or requirements. You can add code within the code that has been provided as well as below it.

```
1 SELECT
2 FROM Person AS P INNER JOIN SalesPerson AS S
3 ON P.PersonID = S.SalesPersonID
4 WHERE
```

Use the Check Syntax button to verify your work. Any syntax or spelling errors will be reported by line and character position.

A. SELECT TOP 3(p.FirstName + ' ' + p.LastName) AS FullName, s.SalesYTD FROMPerson AS pINNER JOIN SalesPerson AS s ON p.PersonID = s.PersonID WHERE
B. TerritoryID IS NOT NULLORDER BY
C. SalesYTD DESC

Answer: A

NEW QUESTION 120
You need to create a database object that meets the following requirements:
accepts a product identifies as input
calculates the total quantity of a specific product, including quantity on hand and quantity on order
caches and reuses execution plan
returns a value
can be called from within a SELECT statement
can be used in a JOIN clause
What should you create?

A. a temporary table that has a columnstore index
B. a user-defined table-valued function
C. a memory-optimized table that has updated statistics
D. a natively-complied stored procedure that has an OUTPUT parameter

Answer: B

Explanation: A table-valued user-defined function can also replace stored procedures that return a single result set. The table returned by a user-defined function can be referenced in the FROM clause of a Transact-SQL statement, but stored procedures that return result sets cannot.
References: https://technet.microsoft.com/en-us/library/ms191165(v=sql.105).aspx

NEW QUESTION 123
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section. You will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have a database that tracks orders and deliveries for customers in North America. The database contains the following tables:
Sales.Customers

Column	Data type	Notes
CustomerID	int	primary key
CustomerCategoryID	int	foreign key to the Sales.CustomerCategories table
PostalCityID	int	foreign key to the Application.Cities table
DeliveryCityID	int	foreign key to the Application.Cities table
AccountOpenedDate	datetime	does not allow new values
StandardDiscountPercentage	int	does not allow new values
CreditLimit	decimal(18,2)	null values are permitted
IsOnCreditHold	bit	does not allow new values
DeliveryLocation	geography	does not allow new values
PhoneNumber	nvarchar(20)	does not allow new values

Application.Cities

Column	Data type	Notes
CityID	int	primary key
LatestRecordedPopulation	bigint	null values are permitted

Sales.CustomerCategories

Column	Data type	Notes
CustomerCategoryID	int	primary key
CustomerCategoryName	nvarchar(50)	does not allow null values

Your company is developing a new social application that connects customers to each other based on the distance between their delivery locations.
You need to write a query that returns the nearest customer. Solution: You run the following Transact-SQL statement:

```
SELECT TOP 1 B.CustomerID, A.DeliveryLocation.STDistance(B.DeliveryLocation) AS Dist
FROM Sales.Customers AS A
CROSS JOIN Sales.Customers AS B
WHERE A.CustomerID = @custID AND A.CustomerID <> B.CustomerID
ORDER BY Dist
```

The variable @custID is set to a valid customer.
Does the solution meet the goal?

A. Yes
B. No

Answer: B

NEW QUESTION 126
You have a database that tracks customer complaints.
The database contains a table named Complaints that includes the following columns:

Column name	Column description
ComplaintID	This is a unique identifier for a complaint record.
CustomerTranscript	This column stores a transcribed verbatim record of a customer complaint.

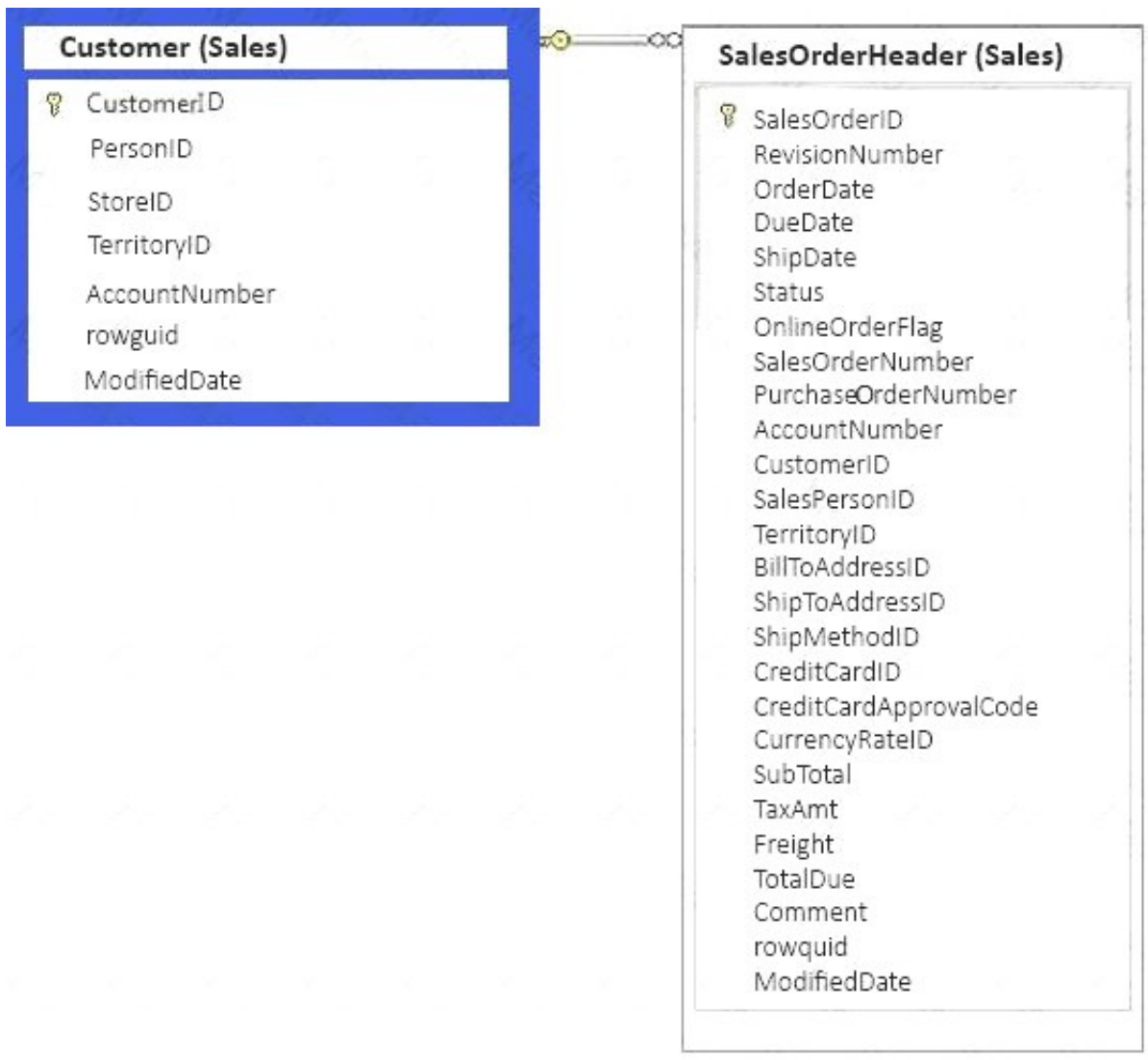
You need to create a query that lists complaints about defective products. The report must include complaints where the exact phrase “defective product” occurs, as well as complaints where similar phrases occur.
Which Transact-SQL statement should you run?

A. SELECT ComplaintID, ComplaintTranscript FROM Complaints WHERE CONTAINS(CustomerTranscript, 'defective')AND CONTAINS(CustomerTranscript, 'product')
B. SELECT ComplaintID, CustomerTranscript FROM Complaints WHERE SOUNDEX('defective') = SOUNDEX('product')
C. SELECT ComplaintID, CustomerTranscript FROM Complaints WHERE FREETEXT(CustomerTranscript, 'defective product')
D. SELECT ComplaintID, Customer Transcript FROM Complaints WHERE CustomerTranscript like '%defective product%'

Answer: A

Explanation: References: https://docs.microsoft.com/en-us/sql/t-sql/queries/contains-transact-sql?view=sql-server-2017

NEW QUESTION 128
You have a database that includes the tables shown in the exhibit. (Click the exhibit button.)



You need to create a list of all customers and the date that the customer placed their last order. For customers who have not placed orders, you must substitute 01/01/1990 for the date.
Which Transact-SQL statement should you run?

A

```
SELECT C.CustomerID,   ISNULL (MAX(OrderDate), '19000101')
FROM Sales.Customer C LEFT OUTER JOIN Sales.SalesOrderHeader SOH
ON C.CustomerID = SOH.CustomerID
GROUP BY C.CustomerID
ORDER BY C.CustomerID
```

B

```
SELECT C.CustomerID, SOH.SalesOrderID, MAX(OrderDate)
FROM Sales.Customer C LEFT OUTER JOIN Sales.SalesOrderHeader SOH
ON C.CustomerID = SOH.CustomerID
GROUP BY C.CustomerID, SOH.SalesOrderID
ORDER BY C.CustomerID
```

C

```
SELECT C.CustomerID, MAX(OrderDate)
FROM Sales.Customer C RIGHT OUTER JOIN Sales.SalesOrderHeader SOH
ON C.CustomerID = SOH.CustomerID
GROUP BY C.CustomerID
ORDER BY C.CustomerID
```

D

```
SELECT C.CustomerID, MAX(OrderDate)
FROM Sales.Customer C LEFT  OUTER JOIN Sales.SalesOrderHeader SOH
ON C.CustomerID = SOH.CustomerID
GROUP BY C.CustomerID
ORDER BY C.CustomerID
```

A. Option A
B. Option B
C. Option C

D. Option D

Answer: A

NEW QUESTION 130
You run the following Transact-SQL statement:

```
CREATE TABLE Employees (
      EmployeeID int IDENTITY(1, 1) PRIMARY KEY NOT NULL,
      FirstName nvarchar(30) NOT NULL,
      LastName nvarchar(40) NOT NULL,
      Title nvarchar(50) NOT NULL,
      DepartmentID smallint NOT NULL,
      ManagerID int NULL
)
```

You need to create a stored procedure that meets the following requirements:
Inserts data into the Employees table.
Processes all data changes as a single unit of work.
Sets the exception severity level to 16 and an error number of 60, 000 when any error occurs.
If a Transact-SQL statement raises a runtime error, terminates and reverts the entire unit of work, and indicates the line number in the statement where the error occurred.
Inserts the value New Employee for the Title column if no title is provided.
How should you complete the Transact-SQL statement? To answer, drag the appropriate Transact-SQL segment to the correct target. Each Transact-SQL segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.
NOTE: Each correct selection is worth one point.

Transact-SQL segments

```
RAISERROR (60000, 16, 1)
```

```
THROW 60000, 'The record was not added.', 1
```

```
IF XACT_STATE () <> 0 ROLLBACK TRANSACTION
```

```
IF @@TRANCOUNT > 0 ROLLBACK TRANSACTION
```

```
SAVE TRANSACTION AddEmployee
```

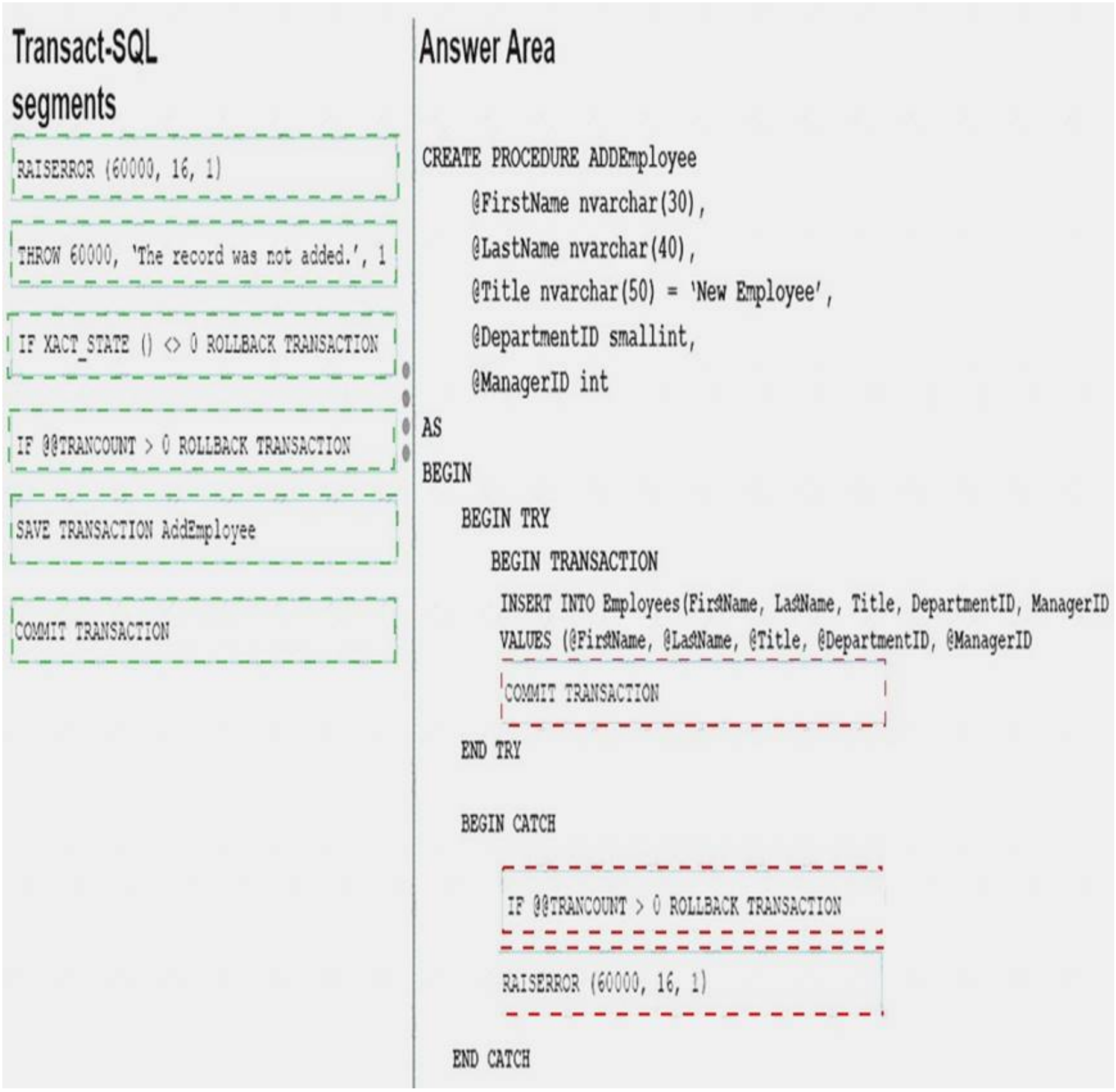
```
COMMIT TRANSACTION
```

Answer Area

```
CREATE PROCEDURE ADDEmployee
      @FirstName nvarchar(30),
      @LastName nvarchar(40),
      @Title nvarchar(50) = 'New Employee',
      @DepartmentID smallint,
      @ManagerID int
AS
BEGIN
    BEGIN TRY
       BEGIN TRANSACTION
        INSERT INTO Employees(FirstName, LastName, Title, DepartmentID, ManagerID
        VALUES (@FirstName, @LastName, @Title, @DepartmentID, @ManagerID

                Transact-SQL segment

    END TRY

    BEGIN CATCH

                Transact-SQL segment

                Transact-SQL segment

    END CATCH
```

Answer:

Explanation:

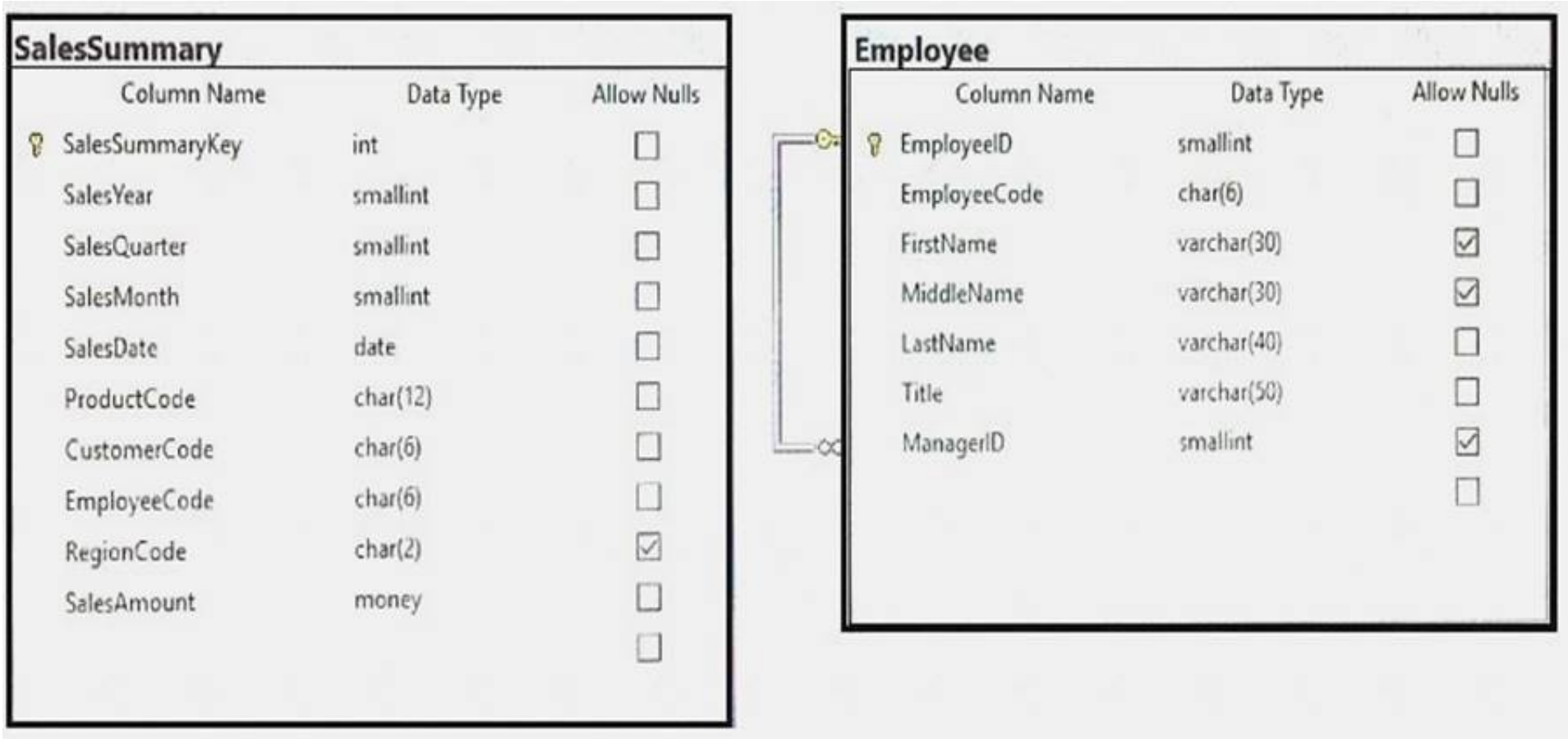


NEW QUESTION 134

Note: This question is part of a series of questions that use the same scenario. For your convenience, the scenario is repeated in each question. Each question presents a different goal and answer choices, but the text of the scenario is exactly the same in each question in this series.

Start of repeated scenario

You have a database that contains the tables shown in the exhibit. (Click the Exhibit button.)



You review the Employee table and make the following observations:
- Every record has a value in the ManagerID except for the Chief Executive Officer (CEO).
- The FirstName and MiddleName columns contain null values for some records.
- The valid values for the Title column are Sales Representative manager, and CEO. You review the SalesSummary table and make the following observations:
- The ProductCode column contains two parts: The first five digits represent a product code, and the last seven digits represent the unit price. The unit price uses the following pattern: ####.##.
- You observe that for many records, the unit price portion of the ProductCode column contains values.
- The RegionCode column contains NULL for some records.
- Sales data is only recorded for sales representatives.

You are developing a series of reports and procedures to support the business. Details for each report or procedure follow.
Sales Summary report: This report aggregates data by year and quarter. The report must resemble the following table.

SalesYear	SalesQuarter	YearSalesAmount	QuarterSalesAmount
2015	1	2000.00	1000.00
2015	2	2000.00	500.00
2015	3	2000.00	250.00
2015	4	2000.00	250.00
2016	1	3500.00	500.00
2016	2	3500.00	1000.00

Sales Manager report: This report lists each sales manager and the total sales amount for all employees that report to the sales manager.
Sales by Region report: This report lists the total sales amount by employee and by region. The report must include the following columns: EmployeeCode, MiddleName, LastName, RegionCode, and SalesAmount. If MiddleName is NULL, FirstName must be displayed. If both FirstName and MiddleName have null values, the world Unknown must be displayed/ If RegionCode is NULL, the word Unknown must be displayed.
Report1: This report joins data from SalesSummary with the Employee table and other tables. You plan to create an object to support Report1. The object has the following requirements:
- be joinable with the SELECT statement that supplies data for the report
- can be used multiple times with the SELECT statement for the report
- be usable only with the SELECT statement for the report
- not be saved as a permanent object

Report2: This report joins data from SalesSummary with the Employee table and other tables. You plan to create an object to support Report1. The object has the following requirements:
Sales Hierarchy report. This report aggregates rows, creates subtotal rows, and super-aggregates rows over the SalesAmount column in a single result-set. The report uses SaleYear, SaleQuarter, and SaleMonth as a hierarchy. The result set must not contain a grand total or cross-tabulation aggregate rows.
Current Price Stored Procedure: This stored procedure must return the unit price for a product when a product code is supplied. The unit price must include a dollar sign at the beginning. In addition, the unit price must contain a comma every three digits to the left of the decimal point, and must display two digits to the left of the decimal point. The stored procedure must not throw errors, even if the product code contains invalid data.
End of Repeated Scenario
You need to create the query for the Sales by Region report.
Which function should you apply to each column? To answer, select the appropriate options in the answer area.

Answer area

Column	Function
MiddleName	NULLIF / REPLACE / COALESCE
RegionCode	NULLIF / REPLACE / COALESCE

Answer:

Explanation: Box 1: COALESCE
COALESCE evaluates the arguments in order and returns the current value of the first expression that initially does not evaluate to NULL.
If MiddleName is NULL, FirstName must be displayed. If both FirstName and MiddleName have null values, the world Unknown must be displayed.
The following example shows how COALESCE selects the data from the first column that has a nonnull value.
SELECT Name, Class, Color, ProductNumber, COALESCE(Class, Color, ProductNumber) AS FirstNotNull FROM Production.Product;
Not NULLIF: NULLIF returns the first expression if the two expressions are not equal. If the expressions are equal, NULLIF returns a null value of the type of the first expression.
Box 2: COALESCE
If RegionCode is NULL, the word Unknown must be displayed.
References: https://docs.microsoft.com/en-us/sql/t-sql/language-elements/coalesce-transact-sql

NEW QUESTION 139
You run the following Transact-SQL statements:

```
CREATE TABLE CourseParticipants
 (
  CourseID INT NOT NULL,
  CourseDate DATE NOT NULL,
  LocationDescription VARCHAR(100) NOT NULL,
  NumParticipants INT NOT NULL
 )
```

You need to create a query that returns the total number of attendees for each combination of CourseID, CourseDate, and the following locations: Lisbon, London, and Seattle. The result set should resemble the following:

	CourseID	CourseDate	Lisbon	London	Seattle
1	1	2018-02-01	NULL	NULL	15
2	2	2018-02-01	33	NULL	NULL
3	1	2018-02-02	NULL	20	NULL
4	1	2018-02-03	20	10	NULL
5	2	2018-02-03	NULL	20	NULL

Which Transact-SQL code segment should you run?

A. SELECT *FROM CourseParticipants PIVOT(SUM(NumParticipants) FOR LocationDescription IN (Lisbon, London, Seattle))
B. SELECT *FROM CourseParticipants PIVOT(SUM(NumParticipants) FOR LocationDescription IN (Lisbon, London, Seattle)) as PVTTable
C. SELECT *FROM CourseParticipants UNPIVOT(SUM(NumParticipants) FOR LocationDescription IN (Lisbon, London, Seattle)
D. SELECT *FROM CourseParticipants UNPIVOT(SUM(NumParticipants) FOR LocationDescription IN (Lisbon, London, Seattle) AS PVTTable

Answer: B

Explanation: References: https://www.techonthenet.com/sql_server/pivot.php

NEW QUESTION 140
You have a database named MyDb. You run the following Transact-SQL statements:

```
CREATE TABLE tblRoles (
     RoleId int NOT NULL IDENTITY(1,1) PRIMARY KEY CLUSTERED,
     RoleName varchar(20) NOT NULL
)
CREATE TABLE tblUsers (
     UserId int NOT NULL IDENTITY(10000,1) PRIMARY KEY CLUSTERED,
     UserName varchar(20) UNIQUE NOT NULL,
     RoleId int NULL FOREIGN KEY REFERENCES tbRoles(RoleId),
     IsActive bit NOT NULL DEFAULT(1)
)
```

A value of 1 in the IsActive column indicates that a user is active.
You need to create a count for active users in each role. If a role has no active users. you must display a zero as the active users count.
Which Transact-SQL statement should you run?

A
```
SELECT R.RoleName, COUNT(U.UserId) AS ActiveUserCount FROM tblRoles R
LEFT JOIN (SELECT UserId, RoleId FROM tblUsers WHERE IsActive = 1) U ON U.RoleId = R.RoleId
GROUP BY R.RoleId, R.RoleName
```

B
```
SELECT R.RoleName, U.ActiveUserCount FROM tblRoles R
INNER JOIN (SELECT RoleId, COUNT(*) AS ActiveUserCount FROM tblUsers WHERE IsActive = 1
GROUP BY RoleId) U ON R.RoleId = U.RoleId
```

C
```
SELECT R.RoleName, COUNT(*) AS ActiveUserCount FROM tblRoles R
LEFT JOIN (SELECT UserId, RoleId FROM tblUsers WHERE IsActive = 1)U ON U.RoleId = R.RoleId
GROUP BY R.RoleId, R.RoleName
```

D
```
SELECT R.RoleName, U.ActiveUserCount FROM tblRoles R CROSS JOIN
(SELECT COUNT(*) AS ActiveUserCount FROM tblUsers WHERE IsActive = 1) U
```

A. Option A
B. Option B
C. Option C
D. Option D

Answer: C

NEW QUESTION 142
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You are building a stored procedure that will be used by hundreds of users concurrently.
You need to store rows that will be processed later by the stored procedure. The object that stores the rows must meet the following requirements:
Be indexable
Contain up-to-date statistics
Be able to scale between 10 and 100,000 rows
The solution must prevent users from accessing one another's data. Solution: You create a global temporary table in the stored procedure. Does this meet the goal?

A. Yes
B. No

Answer: A

NEW QUESTION 146
You are building a stored procedure that will update data in a table named Table1 by using a complex query as the data source.
You need to ensure that the SELECT statement in the stored procedure meets the following requirements:
Data being processed must be usable in several statements in the stored procedure.
Data being processed must contain statistics. What should you do?

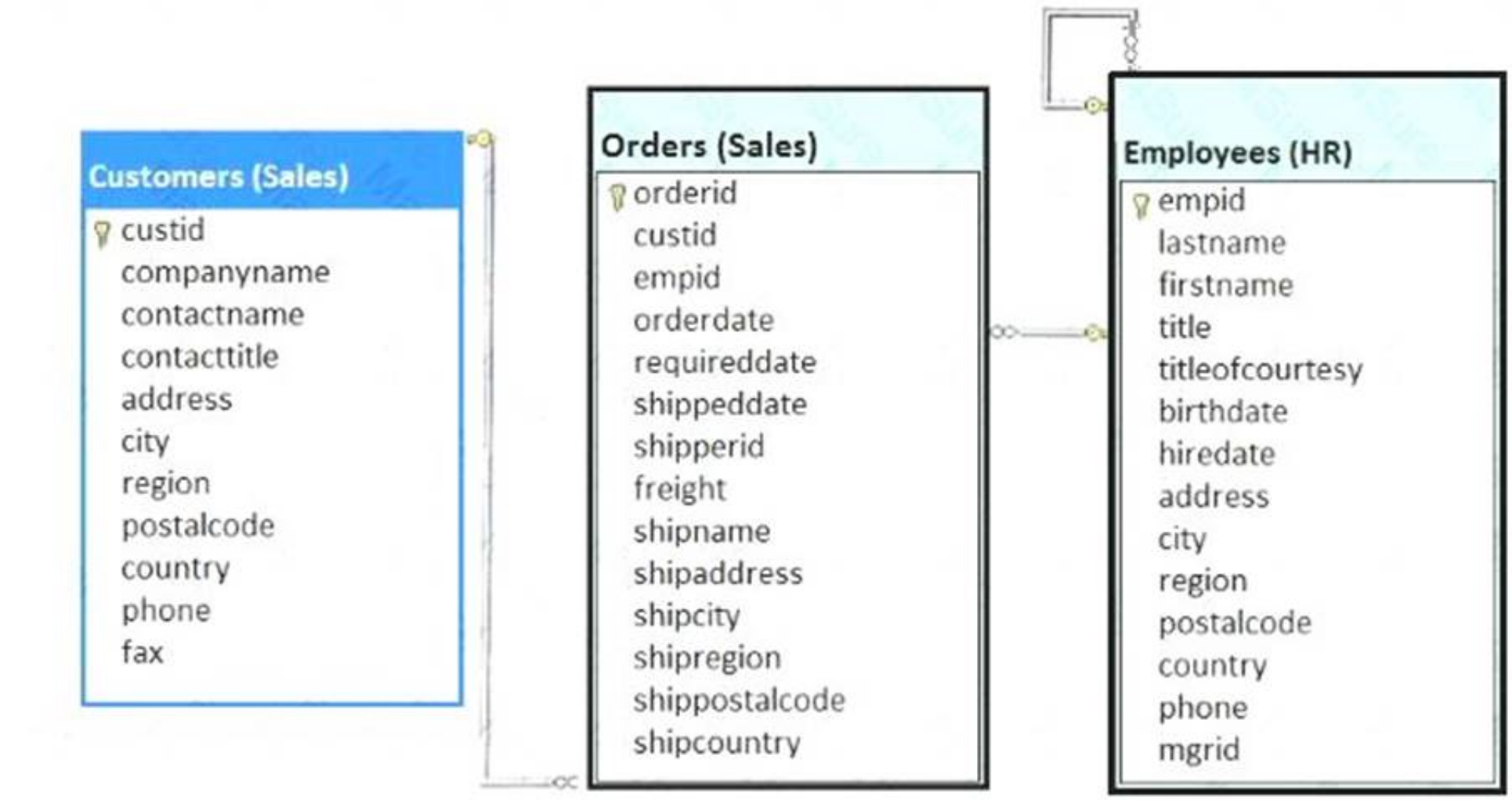
A. Update Table1 by using a common table expression (CTE).
B. Insert the data into a temporary table, and then update Table1 from the temporary table.
C. Place the SELECT statement in a derived table, and then update Table1 by using a JOIN to the derived table.
D. Insert the data into a table variable, and then update Table1 from the table variable.

Answer: B

Explanation: Temp Tables...

Are real materialized tables that exist in tempdb Have dedicated stats generated by the engine Can be indexed
Can have constraints
Persist for the life of the current CONNECTION Can be referenced by other queries or subproce

NEW QUESTION 150
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section. You will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have a database that includes the tables shown in the exhibit (Click the Exhibit button.)



You need to create a Transact-SQL query that returns the following information:
- the customer number
- the customer contact name
- the date the order was placed, with a name of DateofOrder
- a column named Salesperson, formatted with the employee first name, a space, and the employee last name
- orders for customers where the employee identifier equals 4
The output must be sorted by order date, with the newest orders first. The solution must return only the most recent order for each customer. Solution: You run the following Transact-SQL statement:

```
SELECT c.custid, contactname, MAX(orderdate) AS DateofOrder,
e.firstname + ' ' + e.lastname AS Salesperson
FROM Sales.Customers AS c
INNER JOIN Sales.Orders AS o ON c.custid = o.custid
INNER JOIN HR.Employees AS e ON o.empid = e.empid
WHERE o.empid = 4
GROUP BY c.custid, contactname, firstname, lastname
ORDER BY DateofOrder DESC
```

Does the solution meet the goal?

A. Yes
B. No

Answer: A

Explanation: The MAX(orderdate) in the SELECT statement makes sure we return only the most recent order. A WHERE o.empiD =4 clause is correctly used. GROUP BY is also required.

NEW QUESTION 154
Note: This question is part of a series of questions that use the same scenario. For your convenience, the scenario is repeated in each question. Each question presents a different goal and answer choices, but the text of the scenario is exactly the same in each question in this series.
You query a database that includes two tables: Project and Task. The Project table includes the following columns:

Column name	Data type	Notes
ProjectId	int	This is a unique identifier for a project.
ProjectName	varchar(100)	
StartTime	datetime2(7)	
EndTime	datetime2(7)	A null value indicates the project is not finished yet.
UserId	int	Identifies the owner of the project.

The Task table includes the following columns:

Column name	Data type	Notes
TaskId	int	This is a unique identifier for a task.
TaskName	varchar(100)	A nonclustered index exists for this column.
ParentTaskId	int	Each task may or may not have a parent task.
ProjectId	int	A null value indicates the task is not assigned to a specific project.
StartTime	datetime2(7)	
EndTime	datetime2(7)	A null value indicates the task is not completed yet.
UserId	int	Identifies the owner of the task.

You need to find all projects that have at least one task that took more than 50 hours to complete. You must also determine the average duration of the tasks that took more that took more than 50 hours to complete for each project.
How should you complete the Transact-SQL statement? To answer, drag the appropriate Transact-SQL segments to the correct locations. Each Transact-SQL segment may be used once, more than once or not at all. You may need to drag the split bar between panes or scroll to view content.

Transact-SQL segments

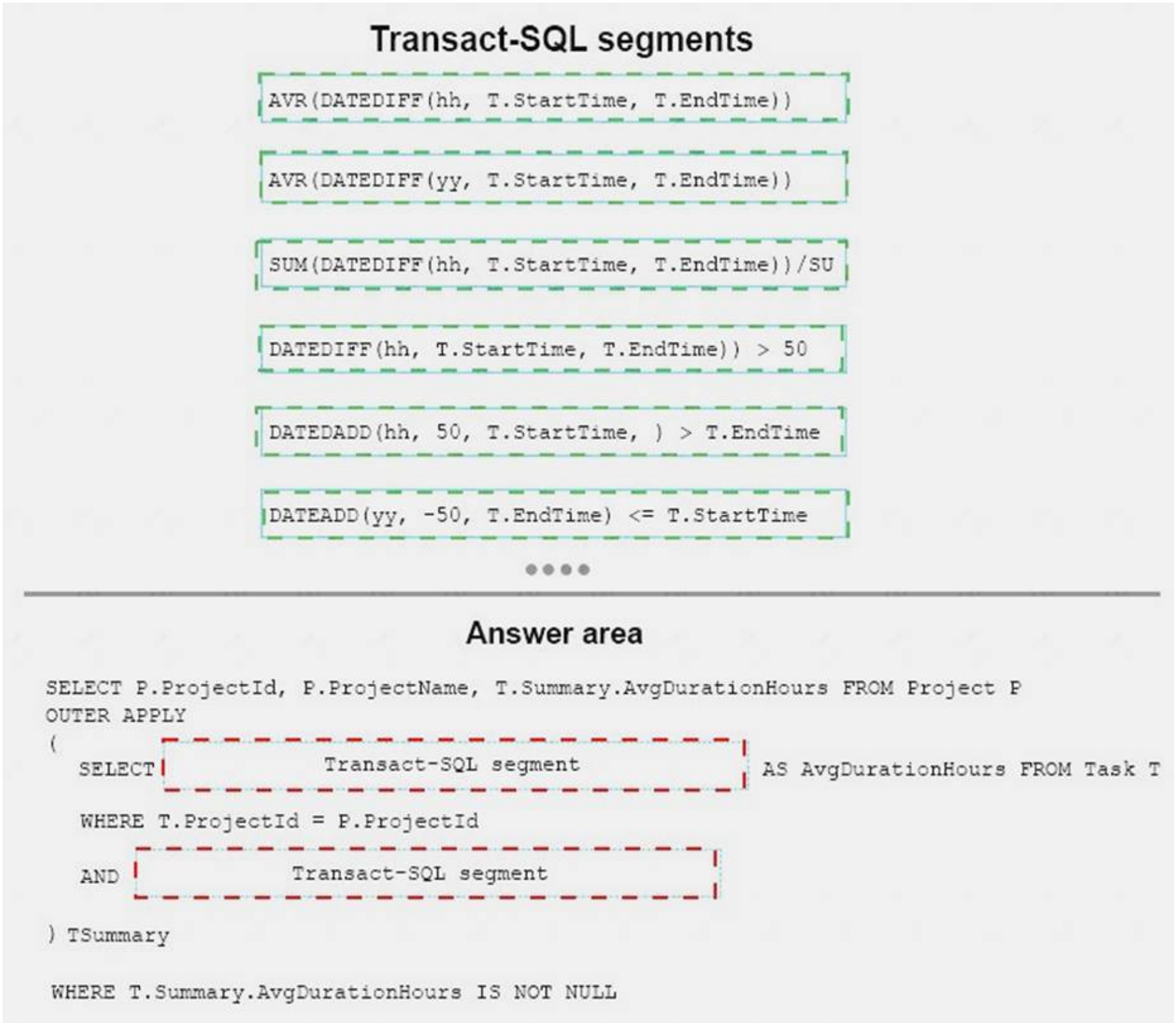
```
AVR(DATEDIFF(hh, T.StartTime, T.EndTime))

AVR(DATEDIFF(yy, T.StartTime, T.EndTime))

SUM(DATEDIFF(hh, T.StartTime, T.EndTime))/SU

DATEDIFF(hh, T.StartTime, T.EndTime)) > 50

DATEDADD(hh, 50, T.StartTime, ) > T.EndTime

DATEADD(yy, -50, T.EndTime) <= T.StartTime
```

Answer area

```
SELECT P.ProjectId, P.ProjectName, T.Summary.AvgDurationHours FROM Project P
OUTER APPLY
(
   SELECT [ Transact-SQL segment ] AS AvgDurationHours FROM Task T

   WHERE T.ProjectId = P.ProjectId

   AND [ Transact-SQL segment ]

) TSummary

WHERE T.Summary.AvgDurationHours IS NOT NULL
```

Answer:

Explanation:



NEW QUESTION 156

Note: This question is part of a series of questions that use the same scenario. For your convenience, the scenario is repeated in each question. Each question presents a different goal and answer choices, but the text of the scenario is exactly the same in each question in this series.

You are developing a database to track customer orders. The database contains the following tables: Sales.Customers, Sales.Orders, and Sales.OrderLines. The following table describes the columns in Sales.Customers.

Column name	Data type	Constraints
CustomerID	int	primary key
CustomerName	nvarchar(100)	does not allow null values
PhoneNumber	nvarchar(20)	does not allow null values
AccountOpenedDate	date	does not allow null values
StandardDiscountPercentage	decimal(18,3)	does not allow null values
CreditLimit	decimal(18,2)	null values are permitted
IsOnCreditHold	bit	does not allow null values
DeliveryLocation	geography	does not allow null values
PhoneNumber	nvarchar(20)	does not allow null values

The following table describes the columns in Sales.Orders.

Column name	Data type	Constraints
OrderID	int	primary key
CustomerID	int	foreign key to the Sales.Customers table
OrderDate	date	does not allow null values

The following table describes the columns in Sales.OrderLines.

Column name	Data type	Constraints
OrderLineID	int	primary key
OrderID	int	foreign key to the Sales.Orders table
Quantity	int	does not allow null values
UnitPrice	decimal(18,2)	null values are permitted
TaxRate	decimal(18,3)	does not allow null values

You need to create a stored procedure that inserts data into the Customers table. The stored procedure must meet the following requirements:
- Data changes occur as a single unit of work.
- Data modifications that are successful are committed and a value of 0 is returned.
- Data modifications that are unsuccessful are rolled back. The exception severity level is set to 16 and a value of -1 is returned.
- The stored procedure uses a built-it scalar function to evaluate the current condition of data modifications.
- The entire unit of work is terminated and rolled back if a run-time error occurs during execution of the stored procedure.

How should complete the stored procedure definition? To answer, drag the appropriate Transact-SQL segments to the correct targets. Each Transact-SQL segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.
NOTE: Each correct selection is worth one point.

Transact-SQL segments

- RAISERROR
- THROW
- XACT_ABORT
- XACT_STATE
- @@TRANCOUNT
- ROLLBACK
- COMMIT
- END

Answer Area

```
CREATE PROCEDURE Sales.InsertCustomer
    @CustomerName nvarchar(100),
    @PhoneNumber nvarchar(20),
    @AccountOpenedDate date,
    @StandardDiscountPercentage decimal(18,3),
    @CreditLimit decimal(18,2),
    @IsCreditOnHold bit,
    @DeliveryLongitude nvarchar(50),
    @DeliveryLatitude nvarchar(50)
AS
BEGIN
    SET NOCOUNT ON
        SET [Transact-SQL segment] ON

BEGIN TRY
    BEGIN TRANSACTION
        INSERT INTO Sales.Customers (CustomerName, PhoneNumber, AccountOpenedDate,
            StandardDiscountPercentage, CreditLimit, IsOnCreditHold, DeliveryLocation)
        VALUES
            (@CustomerName, @PhoneNumber, @AccountOpenedDate, @StandardDiscountPecentage,
             @CreditLimt, @IsCreditOnHold, geography::Point(ISNULL(@DeliveryLongitude, ''),
             ISNULL(@DeliveryLatitude, ''), 4326))

             [Transact-SQL segment] TRANSACTION
END TRY
    BEGIN CATCH
            IF [Transact-SQL segment] () <> 0 [Transact-SQL segment] TRANSACTION

            PRINT 'Unable to create the customer record.'
            [Transact-SQL segment]

            RETURN -1
    END CATCH
        RETURN 0
    END
```

Answer:

Explanation: Box 1: XACT_ABORT
XACT_ABORT specifies whether SQL Server automatically rolls back the current transaction when a Transact-SQL statement raises a run-time error.
When SET XACT_ABORT is ON, if a Transact-SQL statement raises a run-time error, the entire transaction is terminated and rolled back.
Box 2: COMMIT
Commit the transaction. Box 3: XACT_STATE
Box 4: ROLLBACK
Rollback the transaction Box 5: THROW
THROW raises an exception and the severity is set to 16.
Requirement: Data modifications that are unsuccessful are rolled back. The exception severity level is set to 16 and a value of -1 is returned.
References:
https://msdn.microsoft.com/en-us/library/ms188792.aspx https://msdn.microsoft.com/en-us/library/ee677615.aspx

NEW QUESTION 160
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section. You will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have a database that contains a single table named tblVehicleRegistration. The table is defined as follows:

Column name	Data type	Description
VehicleId	int	the primary key for the table
RegistrationNumber	varchar(5)	a vehicle registration number that contains only letters and numbers
RegistrationDate	date	the vehicle registration date
UserId	int	an identifier for the vehicle owner

You run the following query:

```
SELECT UserId FROM tblVehicleRegistration
WHERE RegistrationNumber = 20012
AND RegistrationDate > '2016-01-01'
```

The query output window displays the following error message: "Conversion failed when converting the varchar value 'AB012' to data type int."
You need to resolve the error.
Solution: You modify the Transact-SQL statement as follows:

```
SELECT UserId FROM tblVehicleRegistration
WHERE CAST(RegistrationNumber AS int) = 20012
AND RegistrationDate > '2016-01-01'
```

Does the solution meet the goal?

A. Yes
B. No

Answer: A

NEW QUESTION 164
A company's sales team is divided in two different regions, North and South. You create tables named SalesNorth and SalesSouth. The SalesNorth table stores sales data from the North region. The SalesSouth table stores sales data from the South region. Both tables use the following structure:

Column name	Data type	Allow nulls
region	CHAR(1)	Yes
salesID	INT	Yes
customer	VARCHAR(150)	Yes
amount	MONEY	Yes

You need to create a consolidated result set that includes all records from both tables. Which Transact-SQL statement should you run?

A. SELECT SalesNorth.salesID, SalesNorth.customer, SalesNorth.amount, SalesSouth.SalesID, SalesSouth.customer, SalesSouth.amountFROM SalesNorthJOIN SalesSouth ON SalesNorth.salesID = SalesSouth.salesID
B. SELECT SalesNorth.salesID, SalesNorth.customer, SalesNorth.amount, SalesSouth.salesID, SalesSouth.customer, SalesSouth.amountFROM SalesNorth LEFT JOIN SalesSouthON SalesNorth.salesID=SalesSouth.salesID
C. SELECT salesID, customer, amount FROM SalesNorthUNION ALLSELECT salesID, customer, amount FROM SalesSouth
D. SELECT salesID, customer, amount FROM SalesNorthUNIONSELECT salesID, customer, amountFROM SalesSouth

Answer: C

Explanation: References: https://docs.microsoft.com/en-us/sql/t-sql/queries/from-transact-sql?view=sql-server-2017

NEW QUESTION 167
You have the following stored procedure:

```
CREATE PROC dbo.UpdateLogs @Code char(5), @ApplicationId int, @Info varchar(1000)
AS
BEGIN
     BEGIN TRY
          BEGIN TRAN
               INSERT INTO dbo.Log1 VALUES (@Code, @ApplicationId, @Info)
               IF @Code = 'C2323 AND @ApplicationId = 1
                    RAISERROR('C2323 code from HR application!', 16, 1)
               ELSE
                    INSERT INTO dbo.Log2 VALUES (@Code, @ApplicationId, @Info)
                    INSERT INTO dbo.Log3 VALUES (@Code, @ApplicationId, @Info)
                    BEGIN TRAN
                         IF @Code = 'C2323'
                              ROLLBACK TRAN
                         ELSE
                              INSERT INTO dbo.Log4 VALUES (@Code, @ApplicationId, @Info)
                              IF @@TRANCOUNT > 0
                                   COMMIT TRAN
     END TRY
     BEGIN CATCH
          IF XACT_STATE() != 0
               ROLLBACK TRAN
     END CATCH
END
```

You run the following Transact-SQL statements:

```
EXEC dbo.UpdateLogs 'C2323', 1, 'Employee records are updated.'
EXEC dbo.UpdateLogs 'C2323', 10, 'Sales process started.'
```

What is the result of each Transact-SQL statement? To answer, select the appropriate options in the answer area.

Answer Area

Stored procedure execution	Result
First stored procedure execution	All transactions are rolled back. Only the Log1 and Log3 tables are updated. Only the Log1 table is updated. All four tables are updated.
Second stored procedure execution	Only the Log1, Log2, and Log3 tables are updated. All transactions are rolled back. Only the Log1 table is updated. Only the Log1 and Log3 tables are updated.

Answer:

Explanation: Box 1: All transactions are rolled back.
The first IF-statement, IF @CODE = 'C2323' AND @ApplicationID = 1, will be true, an error will be raised, the error will be caught in the CATCH block, and the only transaction that has been started will be rolled back.
Box 2: Only Log1, Log2, and Log3 tables are updated.
The second IF-statement, IF @Code = 'C2323', will be true, so the second transaction will be rolled back, but log1, log2, and log3 was updated before the second transaction.

NEW QUESTION 168
You have a database containing the following tables: Servers

Column	Data type	Notes
ServerID	int	primary key
DNS	nvarchar(100)	does not allow null values

Errors

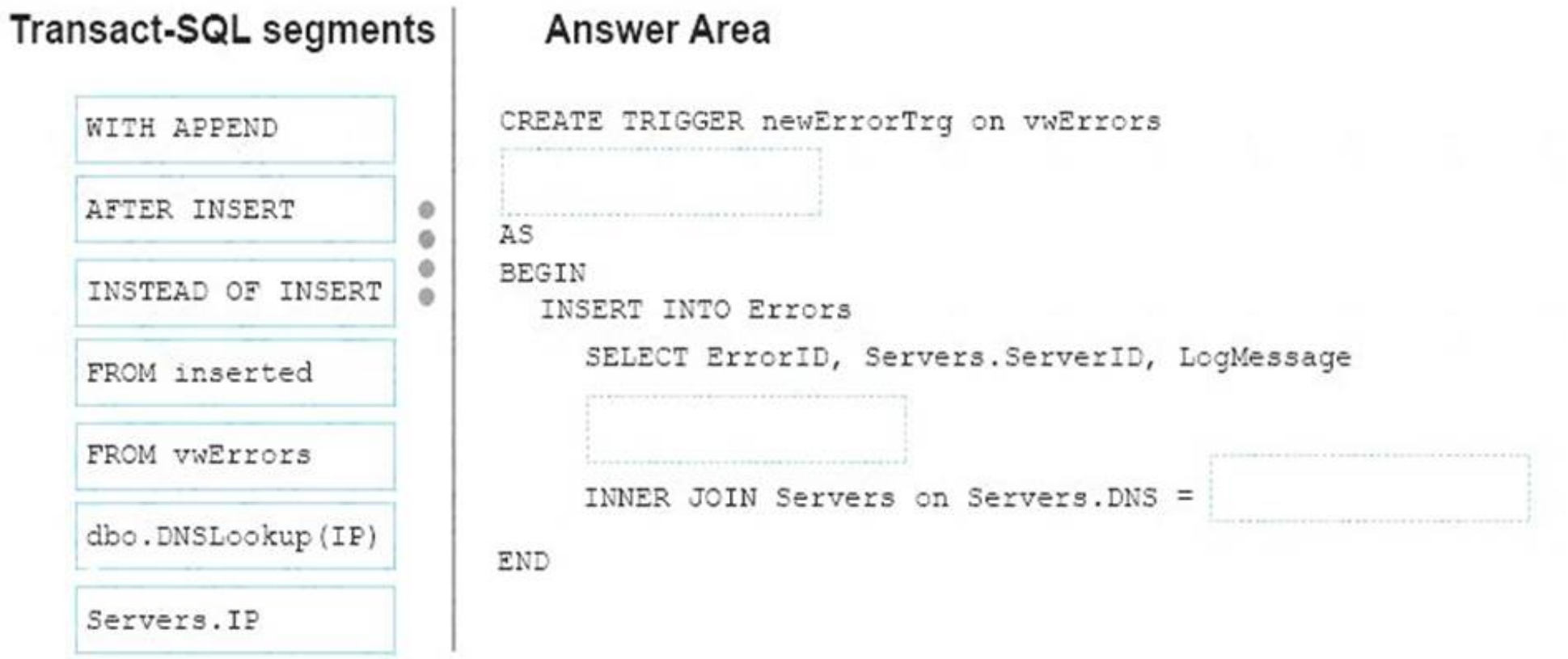
Column	Data type	Notes
ErrorID	int	primary key
ServerID	int	does not allow null values, foreign key to Servers table
LogMessage	nvarchar(max)	does not allow null values

You have a user-defined, scalar function named IPLookup that takes a DNS name as a parameter and returns

the IP address of the server. You have an additional user-defined, scalar function named DNSLookup, that takes an IP address as a parameter and returns a DNS name.
You create a view named vwErrors by running the following Transact-SQL statement:

```
CREATE VIEW vwErrors
AS
      SELECT ErrorID,IPLookup(DNS) as IP,LogMessage
      FROM Errors
      INNER JOIN Servers ON Errors.ServerID = Servers.ServerID
```

You need to insert data by using the view.
How should you complete the Transact-SQL statement? To answer, drag the appropriate Transact-SQL segments to the correct location. Each Transact-SQL segments may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.



Answer:

Explanation: References: https://docs.microsoft.com/en-us/sql/t-sql/queries/output-clause-transact-sql

NEW QUESTION 173
You work for an organization that monitors seismic activity around volcanos. You have a table named GroundSensors. The table stored data collected from seismic sensors. It includes the columns describes in the following table:

Name	Data Type	Notes
SensorID	int	primary key
Location	geography	do not allow null values
Tremor	int	do not allow null values
NormalizedReading	float	allow null values

The database also contains a scalar value function named NearestMountain that returns the name of the mountain that is nearest to the sensor.
You need to create a query that shows the average of the normalized readings from the sensors for each mountain. The query must meet the following requirements:
- Include the average normalized readings and nearest mountain name.
- Exclude sensors for which no normalized reading exists.
- Exclude those sensors with value of zero for tremor. Construct the query using the following guidelines:
- Use one part names to reference tables, columns and functions.
- Do not use parentheses unless required.
- Do not use aliases for column names and table names.
- Do not surround object names with square brackets.

Keywords

ADD
ALL
ALTER
AND
ANY
AS
ASC
AUTHORIZATION
BACKUP
BEGIN
BETWEEN
BREAK
BROWSE
BULK
BY
CASCADE
CASE
CHECK
CHECKPOINT
CLOSE
CLUSTERED
COALESCE
COLLATE
COLUMN
COMMIT
COMPUTE
CONCAT
CONSTRAINT
CONTAINS
CONTAINSTABLE
CONTINUE
CONVERT
CREATE
CROSS
CURRENT
CURRENT_DATE
CURRENT_TIME
CURRENT_TIMESTAMP
CURENT_USER
CURSOR
DATABASE
DBCC
DEALLOCATE
DECLARE

EXIT
EXTERNAL
FETCH
FILE
FILLFACTOR
FORFOREIGN
FREETEXT
FREETEXTTABLE
FROM
FULL
FUNCTION
GOTO
GRANT
GROUP
HAVING
HOLDLOCK
IDENTITY
IDENTITY_INSERT
IDENTITYCOL
IF
IN
INDEX
INNER
INSERT
INTERSECT
INTO
IS
JOIN
KEY
KILL
LEFT
LIKE
LINENO
LOAD
MERGE
NATIONAL
NOCHECK
NONCLUSTERED
NOT
NULL
NULLIF
OF
OFF
OFFSETS

PROC
PROCEDURE
PUBLIC
RAISERROR
READ
READTEXT
RECONFIGURE
REFERENCES
REPLICATION
RESTORE
RESTRICT
RETURN
REVERT
REVOKE
RIGHT
ROLLBACK
ROWCOUNT
ROWGUIDCOL
RULE
SAVE
SCHEMA
SECURITYAUDIT
SELECT
SEMANTICKEYPHRASETABLE
SEMANTICSIMILARITYDETAILSTABLE
SEMANTICSIMILARITYTABLE
SESSION_USER
SET
SETUSER
SHUTDOWN
SOME
STATISTICS
SYSTEM_USER
TABLE
TABLESAMPLE
TEXTSIZE
THEN
TO
TOP
TRAN
TRANSACTION
TRIGGER
TRUNCATE
TRY_CONVERT

```
DEFAULT
DELETE
DENY
DESC
DISK
DISTINCT
DISTRIBUTED
DOUBLE
DROP
DUMP
ELSE
END
ERRLVL
ESCAPE
ESCEPT
EXEC
EXECUTE
EXISTS
ON
OPEN
OPENDATASOURCE
OPENQUERY
OPENROWSET
OPENXML
OPTION
OR
ORDER
OUTER
OVER
PERCENT
PIVOT
PLAN
PRECISION
PRIMARY
PRINT
TSEQUAL
UNION
UNIQUE
UNPIVOT
UPDATE
UPDATETEXT
USE
USER
VALUES
VARYING
VIEW
WAITFOR
WHEN
WHERE
WHILE
WITH
WITHIN GROUP
WRITETEXT
```

Part of the correct Transact-SQL has been provided in the answer area below. Enter the code in the answer area that resolves the problem and meets the stated goals or requirements. You can add code within the code that has been provided as well as below it.
1. SELECT
2. FROM Sales.Products AS P
Use the Check Syntax button to verify your work. Any syntax or spelling errors will be reported by line and character position. You may check syntax as many times as needed.

Answer:

Explanation: 1. SELECT avg(P.ProductPrice) AS Average, min(P.ProductsInStock) AS LowestNumber, max(P.ProductPrice) AS HighestPrice
2. FROM Sales.Products AS P Make the additions to line 1.
References: https://www.mssqltips.com/sqlservertip/4424/max-min-and-avg-sql-server-functions/

NEW QUESTION 177
Note: This question is part of a series of questions that use the same or similar answer choices. An answer choice may be correct for more than one question in the series. Each question is independent of the other questions in this series. Information and details provided in a question apply only to that question.
You have a database that contains several connected tables. The tables contain sales data for customers in the United States only.
You have the following partial query for the database. (Line numbers are included for reference only.)

```
01  SELECT CountryName, StateProviceName, CityName, Quantity*UnitPrice as TotalSales
02  FROM Sales
03
04  ORDER BY CountryName, StateProvinceName, CityName
```

You need to complete the query to generate the output shown in the following table.

CountryName	StateProvinceName	CityName	TotalSales
NULL	NULL	NULL	$23395792.75
NULL	NULL	Abbottsburg	$45453.25
NULL	NULL	Absecon	$33140.15
NULL	NULL	Accomac	$43226.80
NULL	NULL	Aceitunas	$23001.40

Which statement clause should you add at line 3?

A. GROUP BY
B. MERGE
C. GROUP BY ROLLUP
D. LEFT JOIN
E. GROUP BY CUBE
F. CROSS JOIN
G. PIVOT
H. UNPIVOT

Answer: C

Explanation: In the result sets that are generated by the GROUP BY operators, NULL has the following uses:
If a grouping column contains NULL, all null values are considered equal, and they are put into one NULL group.
When a column is aggregated in a row, the value of the column is shown as NULL. Example of GROUP BY ROLLUP result set:

Region	Country	Store	SalesPersonID	Total Sales
NULL	NULL	NULL	NULL	297597.8
NULL	NULL	NULL	284	33633.59
NULL	NULL	Spa and Exercise Outfitters	284	32774.36
NULL	FR	Spa and Exercise Outfitters	284	32774.36
Europe	FR	Spa and Exercise Outfitters	284	32774.36
NULL	NULL	Versatile Sporting Goods Company	284	859.232
NULL	DE	Versatile Sporting Goods Company	284	859.232
Europe	DE	Versatile Sporting Goods Company	284	859.232
NULL	NULL	NULL	286	246272.4
NULL	NULL	Spa and Exercise Outfitters	286	246272.4
NULL	FR	Spa and Exercise Outfitters	286	246272.4
Europe	FR	Spa and Exercise Outfitters	286	246272.4
NULL	NULL	NULL	289	17691.83
NULL	NULL	Versatile Sporting Goods Company	289	17691.83
NULL	DE	Versatile Sporting Goods Company	289	17691.83
Europe	DE	Versatile Sporting Goods Company	289	17691.83

References: https://technet.microsoft.com/en-us/library/bb522495(v=sql.105).aspx

NEW QUESTION 180
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section. you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have a database that tracks orders and deliveries for customers in North America. The database contains the following tables:
Sales.Customers

Column	Data type	Notes
CustomerID	int	primary key
CustomerCategoryID	int	foreign key to the Sales.CustomerCategories table
PostalCityID	int	foreign key to the Application.Cities table
DeliveryCityID	int	foreign key to the Application.Cities table
AccountOpenedDate	datetime	does not allow null values
StandardDiscountPercentage	int	does not allow null values
CreditLimit	decimal(18,2)	null values are permitted
IsOnCreditHold	bit	does not allow null values
DeliveryLocation	geography	does not allow null values
PhoneNumber	nvarchar(20)	does not allow null values data is formatted as follows: 425-555-0187

Application.Cities

Column	Data type	Notes
CityID	int	primary key
LatestRecordedPopulation	bigint	null values are permitted

Sales.CustomerCategories

Column	Data type	Notes
CustomerCategoryID	int	primary key
CustomerCategoryName	nvarchar(50)	does not allow null values

The company's development team is designing a customer directory application. The application must list customers by the area code of their phone number. The area code is defined as the first three characters of the phone number.
The main page of the application will be based on an indexed view that contains the area and phone number for all customers.
You need to return the area code from the PhoneNumber field. Solution: You run the following Transact-SQL statement:

```
CREATE FUNCTION AreaCode (
      @phoneNumber nvarchar(20)
)
RETURNS nvarchar(10)
WITH SCHEMABINDING
AS
BEGIN
   DECLARE @areaCode nvarchar(max)
   SELECT TOP 1 @areaCode = value FROM STRING_SPLIT(@phoneNumber, '-')
   RETURN @areaCode
 END
```

Does the solution meet the goal?

A. Yes
B. No

Answer: A

Explanation: The following indicates a correct solution:
The function returns a nvarchar(10) value.
Schemabinding is used.
SELECT TOP 1 … gives a single value Note: nvarchar(max) is correct statement. nvarchar [(n | max)]
Variable-length Unicode string data. n defines the string length and can be a value from 1 through 4,000. max indicates that the maximum storage size is 2^31-1 bytes (2 GB).
References:
https://docs.microsoft.com/en-us/sql/t-sql/data-types/nchar-and-nvarchar-transact-sql https://sqlstudies.com/2014/08/06/schemabinding-what-why/

NEW QUESTION 182
Note: This question is part of a series of questions that use the same or similar answer choices. An answer choice may be correct for more than one question in the series. Each question is independent of the other questions in this series. Information and details provided in a question apply only to that question.
You create a table by running the following Transact-SQL statement:

```
CREATE TABLE Customers (
      CustomerID int NOT NULL PRIMARY KEY CLUSTERED,
      FirstName nvarchar(100) NOT NULL,
      LastName nvarchar(100) NOT NULL,
      TaxIdNumber varchar(20) NOT NULL,
      Address nvarchar(1024) NOT NULL,
      AnnualRevenue decimal(19,2) NOT NULL,
      DateCreated datetime2(2) NOT NULL,
      ValidFrom datetime2(2) GENERATED ALWAYS AS ROW START NOT NULL,
      ValidTo datetime2(2) GENERATED ALWATS AS ROW END NOT NULL,
      PERIOD FOR SYSTEM_TIME(ValidFrom, ValidTo)
)
WITH (SYSTEM_VERSIONING = ON (HISTORY_TABLE = CustomersHistory))
```

You are developing a report that displays customer information. The report must contain a grand total column. You need to write a query that returns the data for the report.
Which Transact-SQL statement should you run?

A
```
SELECT CustomerID, FirstName, LastName, TaxIdNumber, Address, AnnualRevenue, DateCreated
FROM Customers
GROUP BY GROUPING SETS((FirstName, LastName), (Address), (CustomerID, AnnualRevenue), (CustomerID), ())
ORDER BY CustomerID, FirstName, LastName, Address, AnnualRevenue
```

B
```
SELECT  FirstName, LastName, Address
FROM Customers
FOR SYSTEM_TIME ALL ORDER BY ValidFrom
```

C
```
SELECT c.CustomerID, c.FirstName, c.LastName, c.Address, c.ValidFrom, c.ValidTo
FROM Customers AS c
ORDER BY c.CustomerID
FOR JSON AUTO, ROOT('Customers')
```

D
```
SELECT * FROM (SELECT CustomerID, FirstName, LastName, Address, AnnualRevenue, DateCreated
FROM Customers) AS Customers PIVOT(AVG(AnnualRevenue)
FOR DateCreated IN([2014])) AS PivotCustomers
ORDER BY LastName, FirstName
```

E
```
SELECT CustomerID, AVG(AnnualRevenue)
AS AverageAnnualRevenue, FirstName, LastName, Address, DateCreated
FROM Customers WHERE YEAR(DateCreated) >= 2014
GROUP BY CustomerID, FirstName, LastName, Address, DateCreated
```

F
```
SELECT c.CustomerID, c.FirstName, c.LastName, c.Address, c.ValidFrom, c.ValidTo
FROM Customers AS c ORDER BY c.CustomerID
FOR XML PATH ('CustomerData'), root ('Customers')
```

G
```
SELECT CustomerID, FirstName, LastName, TaxIdNumber, Address, ValidFrom, ValidTo
FROM Customers FOR SYSTEM_TIME
BETWEEN '2014-01-01 00:00:00.000000' AND '2015-01-01 00:00:00.000000'
```

H
```
SELECT CustomerID, FirstName, LastName, TaxIdNumber, Address, ValidFrom, ValidTo
FROM Customers
WHERE DateCreated
BETWEEN '20140101' AND '20141231'
```

A. Option A
B. Option B
C. Option C
D. Option D
E. Option E
F. Option F
G. Option G
H. Option H

Answer: E

Explanation: Calculate aggregate column through AVG function and GROUP BY clause.

NEW QUESTION 186
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section. you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have a database that tracks orders and deliveries for customers in North America. The database contains the following tables:
Sales.Customers

Column	Data type	Notes
CustomerID	int	primary key
CustomerCategoryID	int	foreign key to the Sales.CustomerCategories table
PostalCityID	int	foreign key to the Application.Cities table
DeliveryCityID	int	foreign key to the Application.Cities table
AccountOpenedDate	datetime	does not allow new values
StandardDiscountPercentage	int	does not allow new values
CreditLimit	decimal(18,2)	null values are permitted
IsOnCreditHold	bit	does not allow new values
DeliveryLocation	geography	does not allow new values
PhoneNumber	nvarchar(20)	does not allow new values data is formatted as follows: 425-555-0187

Application.Cities

Column	Data type	Notes
CityID	int	primary key
LatestRecordedPopulation	bigint	null values are permitted

Sales.CustomerCategories

Column	Data type	Notes
CustomerCategoryID	int	primary key
CustomerCategoryName	nvarchar(50)	does not allow null values

The company's development team is designing a customer directory application. The application must list customers by the area code of their phone number. The area code is defined as the first three characters of the phone number.
The main page of the application will be based on an indexed view that contains the area and phone number for all customers.
You need to return the area code from the PhoneNumber field. Solution: You run the following Transact-SQL statement:

```
CREATE FUNCTION AreaCode (
     @phoneNumber nvarchar(20)
)
RETURNS nvarchar(10)
WITH SCHEMABINDING
AS
BEGIN
     DECLARE @areaCode nvarchar(max)
     SELECT @areaCode = value FROM STRING_SPLIT(@phoneNumber, '-')
     RETURN @areaCode
END
```

Does the solution meet the goal?

A. Yes
B. No

Answer: B

Explanation: The variable max, in the line DECLARE @areaCode nvarchar(max), is not defined.

NEW QUESTION 189
Note: This question is part of a series of questions that use the same scenario. For your convenience, the scenario is repeated in each question. Each question presents a different goal and answer choices, but the text of the scenario is exactly the same in each question in this series.
You query a database that includes two tables: Project and Task. The Project table includes the following columns:

Column name	Data type	Notes
ProjectId	int	This is a unique identifier for a project.
ProjectName	varchar(100)	
StartTime	datetime2(7)	
EndTime	datetime2(7)	A null value indicates the project is not finished yet.
UserId	int	Identifies the owner of the project.

Column name	Data type	Notes
TaskId	int	This is a unique identifier for a task.
TaskName	varchar(100)	A nonclustered index exists for this column.
ParentTaskId	int	Each task may or may not have a parent task.
ProjectId	int	A null value indicates the task is not assigned to a specific project.
StartTime	datetime2(7)	
EndTime	datetime2(7)	A null value indicates the task is not completed yet.
UserId	int	Identifies the owner of the task.

You plan to run the following query to update tasks that are not yet started:

```
UPDATE Task SET StartTime = GETDATE() WHERE StartTime IS NULL
```

You need to return the total count of tasks that are impacted by this UPDATE operation, but are not associated with a project.
What set of Transact-SQL statements should you run?

A
```
DECLARE @startedTasks TABLE(ProjectId int)
UPDATE Task SET StartTime = GETDATE() OUTPUT deleted.ProjectId INTO @startedTasks WHERE StartTime is NULL
SELECT COUNT(*) FROM @startedTasks WHERE ProjectId IS NOT NULL
```

B
```
DECLARE @startedTasks TABLE(TaskId int, ProjectId int)
UPDATE Task SET StartTime = GETDATE() OUTPUT deleted.TaskId, deleted.ProjectId INTO @startedTasks
WHERE StartTime is NULL
SELECT COUNT(*) FROM @startedTasks WHERE ProjectId IS NULL
```
B.

C
```
DECLARE @startedTasks TABLE(TaskId int)
UPDATE Task SET StartTime = GETDATE() OUTPUT inserted.TaskId, INTO @startedTasks WHERE StartTime is NULL
SELECT COUNT(*) FROM @startedTasks WHERE TaskId IS NOT NULL
```
C.

D
```
DECLARE @startedTasks TABLE(TaskId int)
UPDATE Task SET StartTime = GETDATE() OUTPUT deleted.TaskId, INTO @startedTasks WHERE StartTime is NULL
SELECT COUNT(*) FROM @startedTasks WHERE TaskId IS NOT NULL
```
D.

A. Option A
B. Option B
C. Option C
D. Option D

Answer: B

Explanation: The WHERE clause of the third line should be WHERE ProjectID IS NULL, as we want to count the tasks that are not associated with a project.

NEW QUESTION 193
Note: This question is part of a series of questions that use the same or similar answer choices. An answer choice may be correct for more than one question in the series. Each question is independent of the other questions in this series. Information and details provided in a question apply only to that question.
You create a table by running the following Transact-SQL statement:

```
CREATE TABLE Customers (
      CustomerID int NOT NULL PRIMARY KEY CLUSTERED,
      FirstName nvarchar(100) NOT NULL,
      LastName nvarchar(100) NOT NULL,
      TaxIdNumber varchar(20) NOT NULL,
      Address nvarchar(1024) NOT NULL,
      AnnualRevenue decimal(19,2) NOT NULL,
      DateCreated datetime2(2) NOT NULL,
      ValidFrom datetime2(2) GENERATED ALWAYS AS ROW START NOT NULL,
      ValidTo datetime2(2) GENERATED ALWAITS AS ROW END NOT NULL,
      PERIOD FOR SYSTEM_TIME(ValidFrom, ValidTo)
)
WITH (SYSTEM_VERSIONING = ON (HISTORY_TABLE = CustomersHistory))
```

You need to develop a query that meets the following requirements:
Output data by using a tree-like structure.
Allow mixed content types.
Use custom metadata attributes.
Which Transact-SQL statement should you run?

A

```
SELECT FirstName, LastName, SUM(AnnualRevenue)
FROM Customers
GROUP BY GROUPING SETS((FirstName, LastName, AnnualRevenue),())
ORDER BY FirstName, LastName, AnnualRevenue
```

B

```
SELECT  FirstName, LastName, Address
FROM Customers
FOR SYSTEM_TIME ALL ORDER BY ValidFrom
```

C

```
SELECT c.CustomerID, c.FirstName, c.LastName, c.Address, c.ValidFrom, c.ValidTo
FROM Customers AS c
ORDER BY c.CustomerID
FOR JSON AUTO, ROOT('Customers')
```

D

```
SELECT * FROM (SELECT CustomerID, FirstName, LastName, Address, AnnualRevenue, DateCreated
FROM Customers) AS Customers PIVOT(AVG(AnnualRevenue)
FOR DateCreated IN([2014])) AS PivotCustomers
ORDER BY LastName, FirstName
```

E

```
SELECT CustomerID, AVG(AnnualRevenue)
AS AverageAnnualRevenue, FirstName, LastName, Address, DateCreated
FROM Customers WHERE YEAR(DateCreated) >= 2014
GROUP BY CustomerID, FirstName, LastName, Address, DateCreated
```

F

```
SELECT c.CustomerID, c.FirstName, c.LastName, c.Address, c.ValidFrom, c.ValidTo
FROM Customers AS c ORDER BY c.CustomerID
FOR XML PATH ('CustomerData'), root ('Customers')
```

G

```
SELECT CustomerID, FirstName, LastName, TaxIdNumber, Address, ValidFrom, ValidTo
FROM Customers FOR SYSTEM_TIME
BETWEEN '2014-01-01 00:00:00.000000' AND '2015-01-01 00:00:00.000000'
```

H

```
SELECT CustomerID, FirstName, LastName, TaxIdNumber, Address, ValidFrom, ValidTo
FROM Customers
WHERE DateCreated
BETWEEN '20140101' AND '20141231'
```

A. Option A
B. Option B
C. Option C
D. Option D
E. Option E
F. Option F
G. Option G
H. Option H

Answer: F

NEW QUESTION 196
Note: This question is part of a series of questions that use the same or similar answer choices. An answer choice may be correct for more than one question in the series. Each question is independent of the other questions in this series. Information and details provided in a question apply to that question.
You have a database for a banking system. The database has two tables named tblDepositAcct and tblLoanAcct that store deposit and loan accounts, respectively. Both tables contain the following columns:

Column name	Data type	Primary key column	Description
CustNo	int	No	This column uniquely identifies a customer in the bank. A customer may have both deposit and loan accounts.
AcctNo	int	Yes	This column uniquely identifies a customer in the bank.
ProdCode	varchar(3)	No	This column identifies the product type of an account. A customer may have multiple accounts for the same product type.

You need to determine the total number of customers who have either deposit accounts or loan accounts, but not both types of accounts.
Which Transact-SQL statement should you run?

A. SELECT COUNT(*)FROM (SELECT AcctNoFROM tblDepositAcctINTERSECTSELECTAcctNoFROM tblLoanAcct) R
B. SELECT COUNT(*)FROM (SELECT CustNoFROM tblDepositAcctUNIONSELECT CustNoFROMtblLoanAcct) R
C. SELECT COUNT(*)FROM (SELECT CustNoFROM tblDepositAcctUNION ALLSELECTCustNoFROM tblLoanAcct) R
D. SELECT COUNT (DISTINCT D.CustNo)FROM tblDepositAcct D, tblLoanAcct LWHERE D.CustNo= L.CustNo

E. SELECT COUNT(DISTINCT L.CustNo)FROM tblDepositAcct DRIGHT JOIN tblLoanAcct L ON D.CustNo = L.CustNoWHERE D.CustNo IS NULL
F. SELECT COUNT(*)FROM (SELECT CustNoFROM tblDepositAcctEXCEPTSELECT CustNoFROMtblLoanAcct) R
G. SELECT COUNT (DISTINCT COALESCE(D.CustNo, L.CustNo))FROM tblDepositAcct DFULLJOIN tblLoanAcct L ON D.CustNo = L.CustNoWHERE D.CustNo IS NULL OR L.CustNo IS NULL
H. SELECT COUNT(*)FROM tblDepositAcct DFULL JOIN tblLoanAcct L ON D.CustNo = L.CustNo

Answer: G

Explanation: SQL Server provides the full outer join operator, FULL OUTER JOIN, which includes all rows from both tables, regardless of whether or not the other table has a matching value.
Consider a join of the Product table and the SalesOrderDetail table on their ProductID columns. The results show only the Products that have sales orders on them. The ISO FULL OUTER JOIN operator indicates that all rows from both tables are to be included in the results, regardless of whether there is matching data in the tables.
You can include a WHERE clause with a full outer join to return only the rows where there is no matching data between the tables. The following query returns only those products that have no matching sales orders, as well as those sales orders that are not matched to a product.
USE AdventureWorks2008R2; GO
-- The OUTER keyword following the FULL keyword is optional. SELECT p.Name, sod.SalesOrderID
FROM Production.Product p
FULL OUTER JOIN Sales.SalesOrderDetail sod ON p.ProductID = sod.ProductID
WHERE p.ProductID IS NULL OR sod.ProductID IS NULL ORDER BY p.Name ;
References: https://technet.microsoft.com/en-us/library/ms187518(v=sql.105).aspx

NEW QUESTION 201
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section. you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You create a table named Customer by running the following Transact-SQL statement:

```
CREATE TABLE Customer (
     CustomerID int IDENTITY(1,1) PRIMARY KEY,
     FirstName varchar(50) NULL,
     LastName varchar(50) NOT NULL,
     DateOfBirth date NOT NULL,
     CreditLimit money CHECK (CreditLimit < 10000),
     TownID int NULL REFERENCES dbo.Town(TownID),
     CreatedDate datetime DEFAULT(Getdate())
)
```

You must insert the following data into the Customer table:

Record	First name	Last name	Date of Birth	Credit limit	Town ID	Created date
Record 1	Yvonne	McKay	1984-05-25	9,000	no town details	current date and time
Record 2	Jossef	Goldberg	1995-06-03	5,500	no town details	current date and time

You need to ensure that both records are inserted or neither record is inserted. Solution: You run the following Transact-SQL statement:

```
INSERT INTO Customer (FirstName, LastName, DateOfBirth, CreditLimit, CreatedDate)
VALUES ('Yvonne', 'McKay', '1984-05-25', 9000, GETDATE())
INSERT INTO Customer (FirstName, LastName, DateOfBirth, CreditLimit, CreatedDate)
VALUES ('Jossef', 'Goldberg', '1995-06-03', 5500, GETDATE())
GO
```

Does the solution meet the goal?

A. Yes
B. No

Answer: B

Explanation: As there are two separate INSERT INTO statements we cannot ensure that both or neither records is inserted.

NEW QUESTION 203
Note: This question is part of a series of questions that use the same or similar answer choices. An answer choice may be correct for more than one question in the series. Each question is independent of the other questions in this series. Information and details provided in a question apply only to that question.
You have a database that contains several connected tables. The tables contain sales data for customers in the United States only.
You have the following partial query for the database. (Line numbers are included for reference only.)

```
01  SELECT CountryName, StateProviceName, CityName, Quantity*UnitPrice as TotalSales
02  FROM Sales
03
04 ORDER BY CountryName, StateProvinceName, CityName
```

You need to complete the query to generate the output shown in the following table.

CountryName	StateProvinceName	CityName	TotalSales
United States	Alabama	Bazemore	$34402.00
United States	Alabama	Belgreen	$51714.65
United States	Alabama	Broomtown	$59.349.20
United States	Alabama	Coker	$26409.50
United States	Alabama	Eulaton	$54225.35

Which statement clause should you add at line 3?

A. GROUP BY
B. MERGE
C. GROUP BY ROLLUP
D. LEFT JOIN
E. GROUP BY CUBE
F. CROSS JOIN
G. PIVOT
H. UNPIVOT

Answer: A

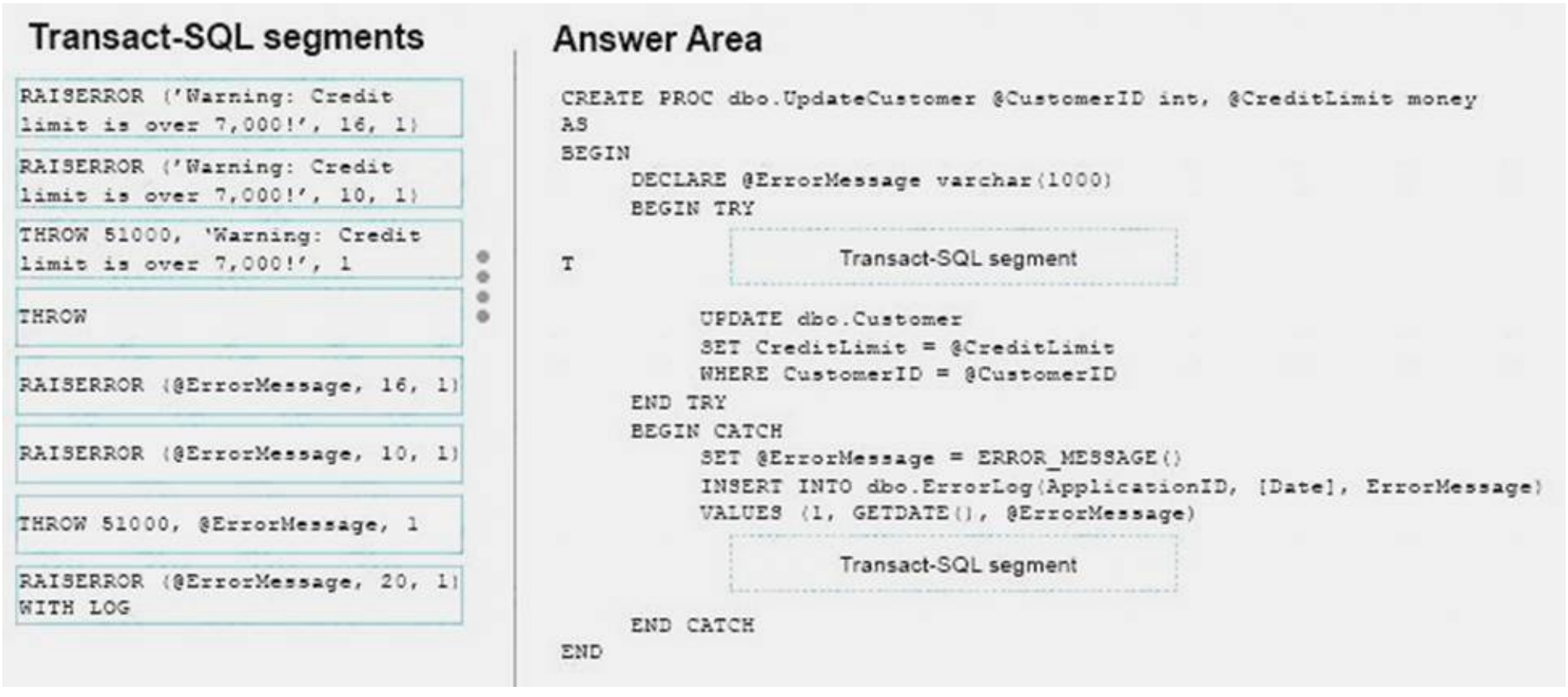
NEW QUESTION 205
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You are creating indexes in a data warehouse.
You have a dimension table named Table1 that has 10,000 rows. The rows are used to generate several reports. The reports join a column that is the primary key.
The execution plan contains bookmark lookups for Table1. You discover that the reports run slower than expected.
You need to reduce the amount of time it takes to run the reports.
Solution: You create a nonclustered index on the primary key column that does NOT include columns. Does this meet the goal?

A. YES
B. NO

Answer: A

Explanation: References:
https://docs.microsoft.com/en-us/sql/relational-databases/indexes/clustered-and-nonclustered-indexes-described?

NEW QUESTION 206
You need to create a stored procedure that meets the following requirements:
*Produces a warning if the credit limit parameter is greater than 7,000
*Propagates all unexpected errors to the calling process
How should you complete the Transact-SQL statement? To answer, drag the appropriate Transact-SQP segments to the correct locations. Each Transact-SQL segments may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.



Answer:

Explanation: Box 1: THROW 51000, 'Warning: Credit limit is over 7,000!",1
THROW raises an exception and transfers execution to a CATCH block of a TRY…CATCH construct in SQL Server.
THROW syntax:
THROW [{ error_number | @local_variable },
{ message | @local_variable },
{ state | @local_variable }] [;]
Box 2: RAISERROR (@ErrorMessage, 16,1)
RAISERROR generates an error message and initiates error processing for the session. RAISERROR can either reference a user-defined message stored in the sys.messages catalog view or build a message dynamically. The message is returned as a server error message to the calling application or to an associated CATCH block of a TRY…CATCH construct. New applications should use THROW instead.
Severity levels from 0 through 18 can be specified by any user. Severity levels from 19 through 25 can only be specified by members of the sysadmin fixed server role or users with ALTER TRACE permissions. For severity levels from 19 through 25, the WITH LOG option is required.
On Severity level 16. Using THROW to raise an exception
The following example shows how to use the THROW statement to raise an exception. Transact-SQL
THROW 51000, 'The record does not exist.', 1;
Here is the result set.
Msg 51000, Level 16, State 1, Line 1 The record does not exist.
Note: RAISERROR syntax:
RAISERROR ({ msg_id | msg_str | @local_variable }
{ ,severity ,state }
[,argument [,...n]])
[WITH option [,...n]]
Note: The ERROR_MESSAGE function returns the message text of the error that caused the CATCH block of a TRY…CATCH construct to be run.
References:
https://msdn.microsoft.com/en-us/library/ms178592.aspx https://msdn.microsoft.com/en-us/library/ms190358.aspx https://msdn.microsoft.com/en-us/library/ee677615.aspx

NEW QUESTION 210
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section. You will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You create a table named Products by running the following Transact-SQL statement:

```
CREATE TABLE Products (
   ProductID int IDENTITY (1, 1), NOT NULL PRIMARY KEY,
   ProductName nvarchar (100), NULL,
   UnitPrice decimal (18, 2) NOT NULL,
   UnitsInStock int NOT NULL,
   UnitsOnOrder int NULL
)
```

You have the following stored procedure:

```
CREATE PROCEDURE InsertProduct
   @ProductName nvarchar(100),
   @UnitPrice decimal (18, 2),
   @UnitsInStock int,
   @UnitsOnOrder int
AS
BEGIN
   INSERT INTO Products (ProductName, UnitPrice, UnitsInStock, UnitsOnOrder)
   VALUES (@ProductName, @UnitPrice, @UnitsInStock, @UnitsOnOrder)
END
```

You need to modify the stored procedure to meet the following new requirements:
Insert product records as a single unit of work.
Return error number 51000 when a product fails to insert into the database.
If a product record insert operation fails, the product information must not be permanently written to the database.
Solution: You run the following Transact-SQL statement:

```
ALTER PROCEDURE InsertProduct
@ProductName nvarchar (100),
@UnitPrice decimal (18, 2),
@UnitsInStock int,
@UnitsOnOrder int
AS
BEGIN
  BEGIN TRY
    BEGIN TRANSACTION
      INSERT INTO Products (ProductName, UnitPrice, UnitsInStock, UnitsOnOrder)
      VALUES (@ProductName, @UnitPrice, @UnitsInStock, @UnitsOnOrder)
    COMMIT TRANSACTION
    END TRY
    BEGIN CATCH
  IF @@TRANCOUNT > 0 ROLLBACK TRANSACTION
    RAISERROR (51000,16, 1)
    END CATCH
  END
```

Does the solution meet the goal?

A. Yes
B. No

Answer: B

NEW QUESTION 214
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section. You will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have a database that contains a single table named tblVehicleRegistration. The table is defined as follows:

Column name	Data type	Description
VehicleId	int	the primary key for the table
RegistrationNumber	varchar(5)	a vehicle registration number that contains only letters and numbers
RegistrationDate	date	the vehicle registration date
UserId	int	an identifier for the vehicle owner

You run the following query:

```
SELECT UserId FROM tblVehicleRegistration
WHERE RegistrationNumber = 20012
AND RegistrationDate > '2016-01-01'
```

The query output window displays the following error message: “Conversion failed when converting the varchar value ‘AB012’ to data type int.”
You need to resolve the error.
Solution: You modify the Transact-SQL statement as follows:

```
SELECT UserId FROM tblVehicleRegistration
WHERE RegistrationNumber = '20012'
AND RegistrationDate > '2016-01-01'
```

Does the solution meet the goal?

A. Yes

B. No

Answer: B

NEW QUESTION 217
Note: This question is part of a series of questions that use the same scenario. For your convenience, the scenario is repeated in each question. Each question presents a different goal and answer choices, but the text of the scenario is exactly the same in each question in this series.
You query a database that includes two tables: Project and Task. The Project table includes the following columns:

Column name	Data type	Notes
ProjectId	int	This is a unique identifier for a project.
ProjectName	varchar(100)	
StartTime	datetime2(7)	
EndTime	datetime2(7)	A null value indicates the project is not finished yet.
UserId	int	Identifies the owner of the project.

The Task table includes the following columns:

Column name	Data type	Notes
TaskId	int	This is a unique identifier for a task.
TaskName	varchar(100)	A nonclustered index exists for this column.
ParentTaskId	int	Each task may or may not have a parent task.
ProjectId	int	A null value indicates the task is not assigned to a specific project.
StartTime	datetime2(7)	
EndTime	datetime2(7)	A null value indicates the task is not completed yet.
UserId	int	Identifies the owner of the task.

You plan to run the following query to update tasks that are not yet started: UPDATE Task SET StartTime = GETDATE() WHERE StartTime IS NULL
You need to return the total count of tasks that are impacted by this UPDATE operation, but are not associated with a project.
What set of Transact-SQL statements should you run?

A

```
DECLARE @startedTasks TABLE(ProjectId int)
UPDATE Task SET StartTime = GETDATE() OUTPUT inserted.ProjectId INTO @startedTasks WHERE StartTime is NULL
SELECT COUNT(*) FROM @startedTasks WHERE ProjectId IS NOT NULL
```

B

```
DECLARE @startedTasks TABLE(TaskId int, ProjectId int)
UPDATE Task SET StartTime = GETDATE() OUTPUT deleted.TaskId, deleted.ProjectId INTO @startedTasks
WHERE StartTime is NULL
SELECT COUNT(*) FROM @startedTasks WHERE ProjectId IS NULL
```

C

```
DECLARE @startedTasks TABLE(TaskId int)
UPDATE Task SET StartTime = GETDATE() OUTPUT deleted.TaskId, INTO @startedTasks WHERE StartTime is NULL
SELECT COUNT(*) FROM @startedTasks WHERE TaskId IS NOT NULL
```

D

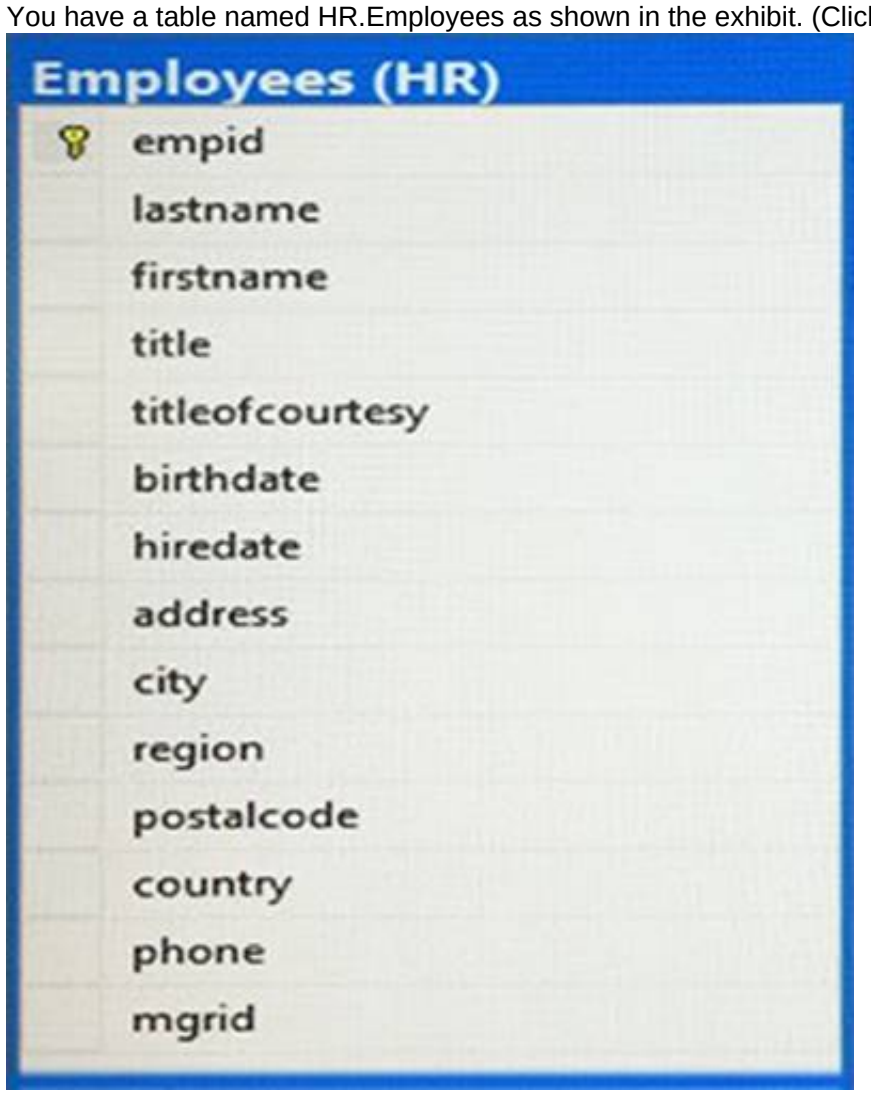
```
UPDATE Task SET StartTime = GETDATE() WHERE StartTime IS NULL
SELECT @@ROWCOUNT
```

A. Option A
B. Option B
C. Option C
D. Option D

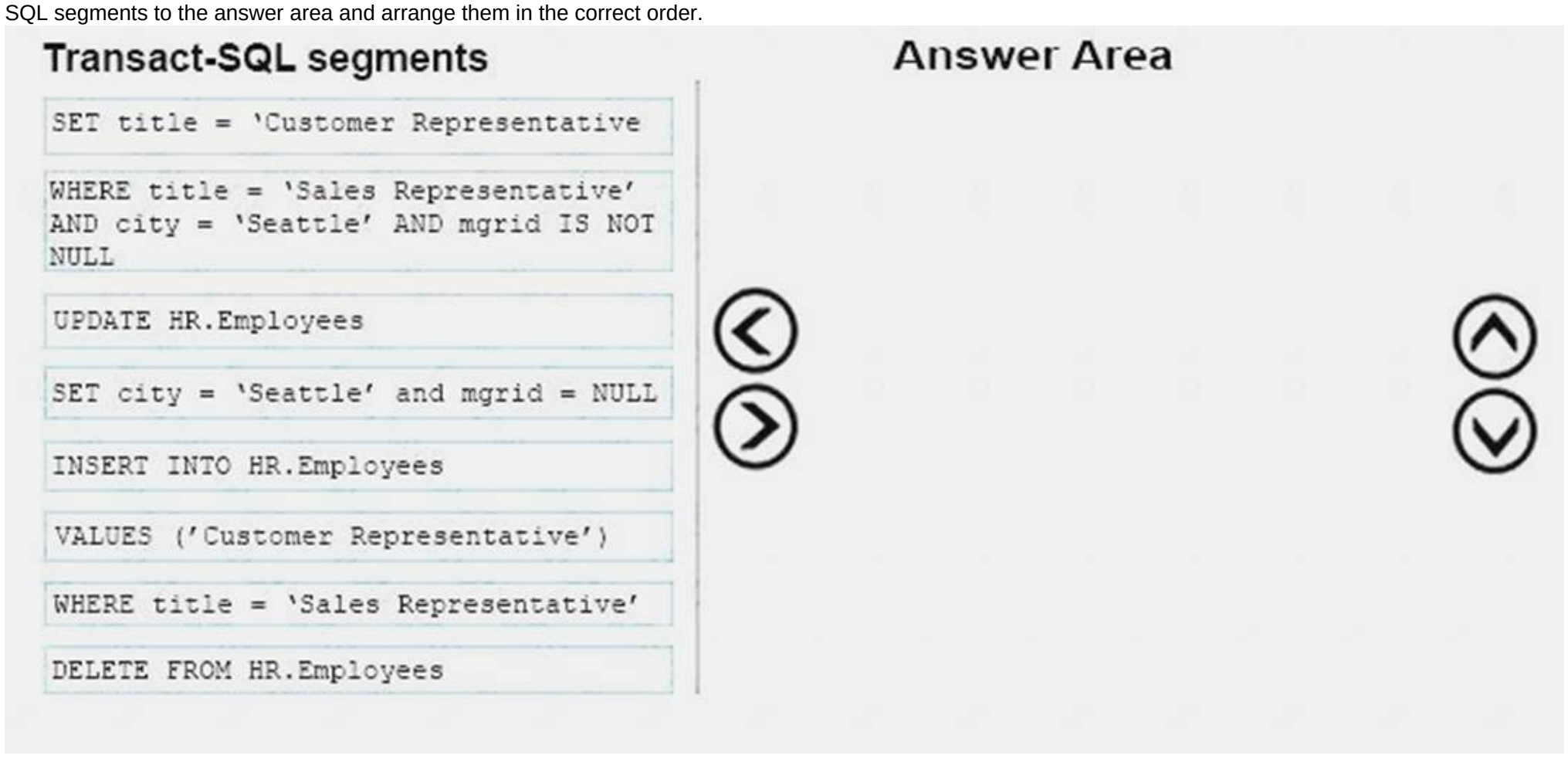
Answer: B

NEW QUESTION 219

You have a table named HR.Employees as shown in the exhibit. (Click the exhibit button.)



You need to write a query that will change the value of the job title column to Customer Representative for any employee who lives in Seattle and has a job title of Sales Representative. If the employee does not have a manager defined, you must not change the title.
Which three Transact-SQL segments should you use to develop the solution? To answer, move the appropriate Transact-SQL segments from the list of Transact-SQL segments to the answer area and arrange them in the correct order.



Answer:

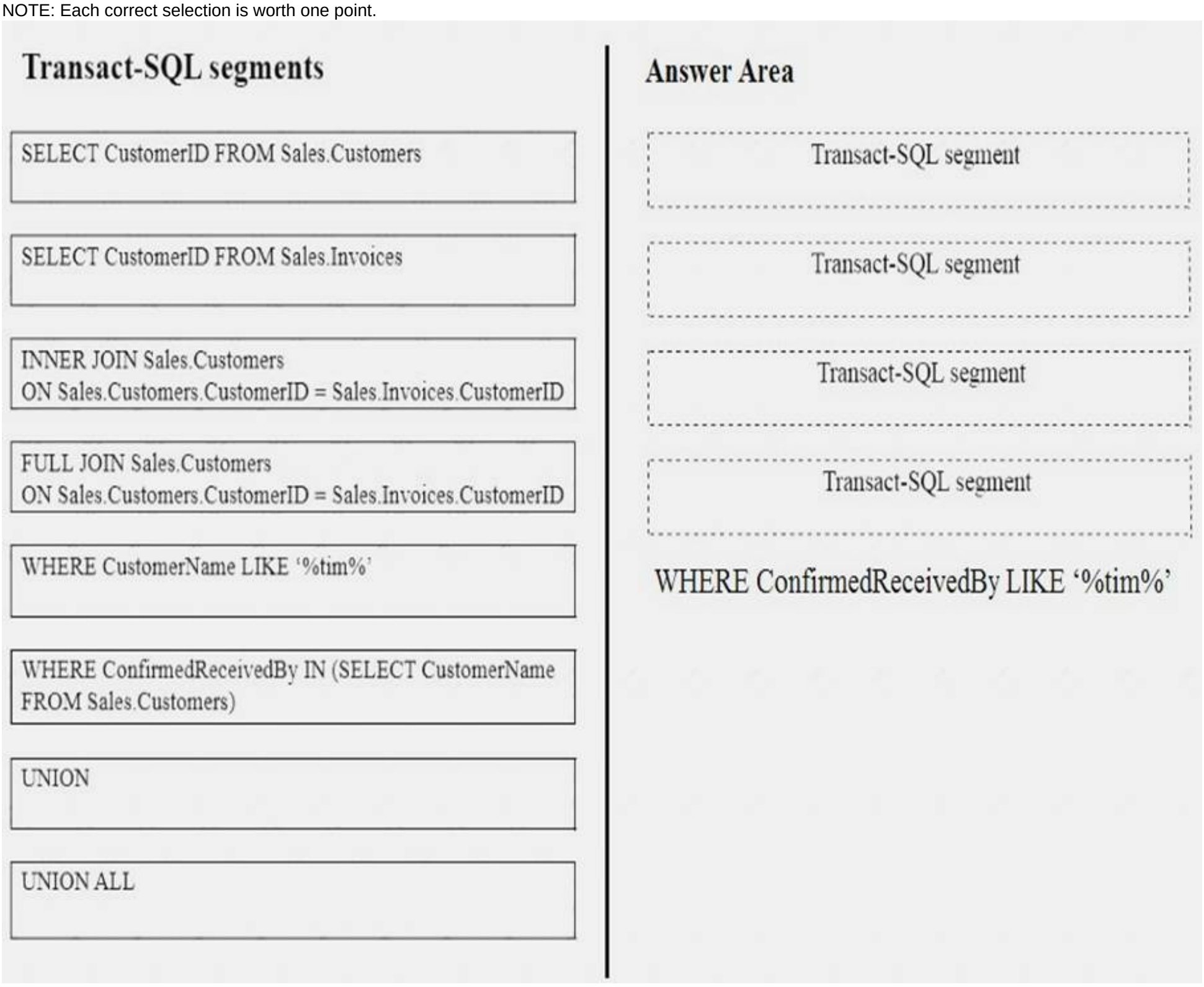
Explanation: References: https://msdn.microsoft.com/en-us/library/ms177523.aspx

NEW QUESTION 222
You have a database that contains the following tables:

Table	Columns
Sales.Customers	CustomerID, CustomerName
Sales.Invoices	CustomerID, ConfirmedReceivedBy

A delivery person enters an incorrect value for the CustomerID column in the Invoices table and enters the following text in the ConfirmedReceivedBy column: "Package signed for by the owner Tim."

You need to find the records in the Invoices table that contain the word Tim in the CustomerName field. How should you complete the Transact-SQL statement?
To answer, drag the appropriate Transact-SQL
segments to the correct locations. Each Transact-SQL segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.
NOTE: Each correct selection is worth one point.



Answer:

Explanation: Box 1: SELECT CustomerID FROM Sales.Invoices
Box 2: INNER JOIN Sales.Customers.CustomerID = Sales.Invoices.CustomerID Box 3: WHERE CustomerName LIKE '%tim%'
Box 4: WHERE ConfirmedReceiveBy IN (SELECT CustomerName FROM Sales.Customers)

NEW QUESTION 224
Note: This question is part of a series of questions that use the same or similar answer choices. An answer choice may be correct for more than one question in the series. Each question is independent of the other questions in this series. Information and details provided in a question apply only to that question.
Multiple processes use the data from a table named Sales and place it in other databases across the organization. Some of the processes are not completely aware of the data types in the Sales table. This leads to data type conversion errors.
You need to implement a method that returns a NULL value id data conversion fails instead of throwing an error.
What should you implement?

A. the COALESCE function
B. a view
C. a table-valued function
D. the TRY_PARSE function
E. a stored procedure
F. the ISNULL function
G. a scalar function
H. the TRY_CONVERT function

Answer: H

Explanation: TRY_CONVERT returns a value cast to the specified data type if the cast succeeds; otherwise, returns null. References: https://docs.microsoft.com/en-us/sql/t-sql/functions/try-convert-transact-sql

NEW QUESTION 229
You have a database named DB1 that contains a temporal table named Sales.Customers.
You need to create a query that returns the credit limit that was available to each customer in DB1 at the beginning of 2017.
Which query should you execute?

A

```
SELECT
      CustomerID,
      CustomerName,
      CreditLimit
FROM
      Sales.Customers
            FOR SYSTEM_TIME CONTAINED IN ('2017-01-01 00:00:00'));
```

B

```
SELECT
      CustomerID,
      CustomerName,
      CreditLimit
FROM
      Sales.Customers
            FOR SYSTEM_TIME AS OF '2017-01-01 00:00:00';
```

C

```
SELECT
      CustomerID,
      CustomerName,
      CreditLimit
FROM
      Sales.Customers
            FOR SYSTEM_TIME CONTAINED IN ('2016-12-31', '2017-01-01');
```

D

```
SELECT
      CustomerID,
      CustomerName,
      CreditLimit
FROM
      Sales.Customers
            FOR SYSTEM_TIME BETWEEN '2016-12-31' AND '2017-01-01');
```

A. Option A
B. Option B
C. Option C
D. Option D

Answer: B

NEW QUESTION 230
You have a database that stored information about servers and application errors. The database contains the following tables.

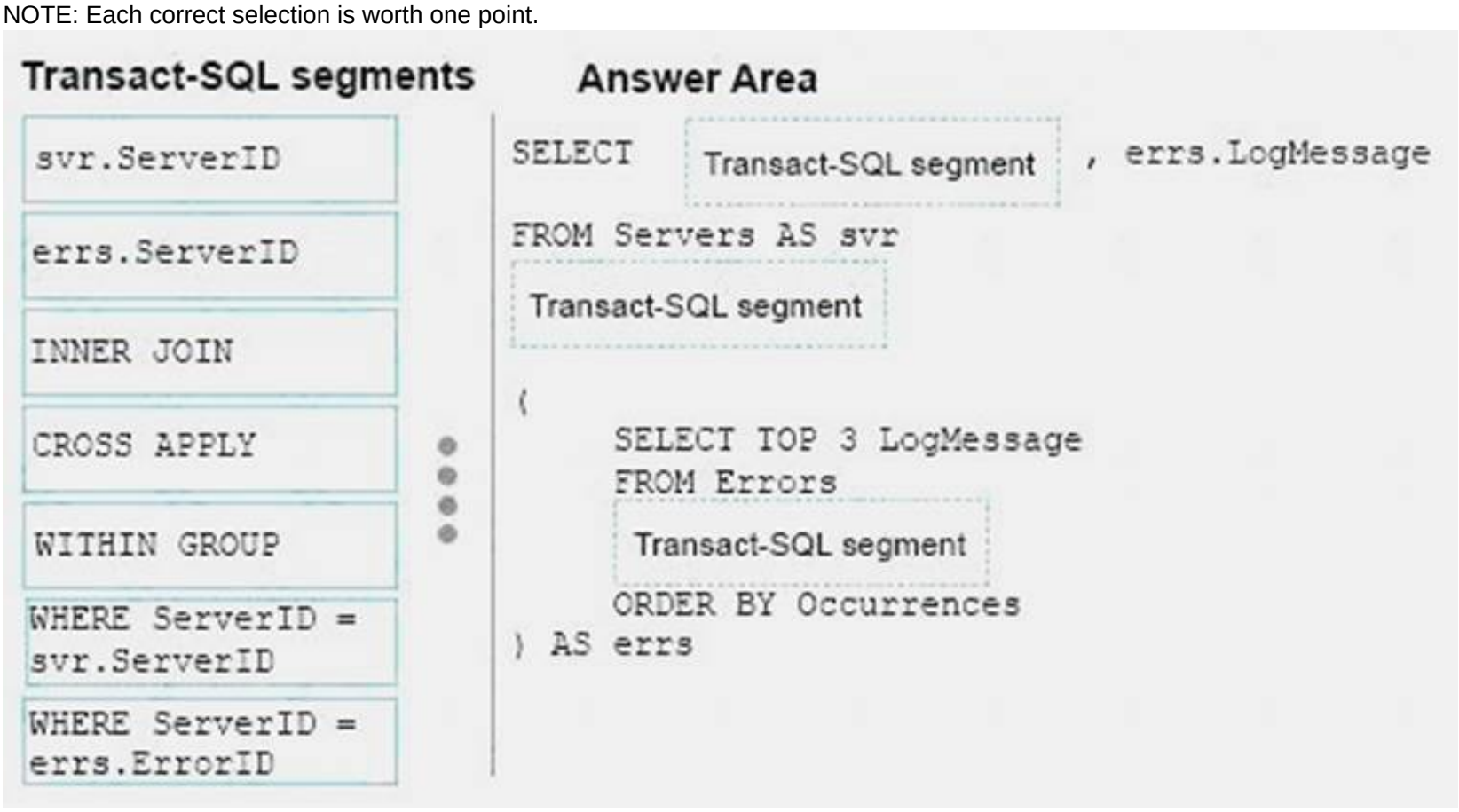
Servers

Column	Data Type	Notes
ServerID	int	primary key
DNS	nvarchar(100)	does not allows null values

Errors

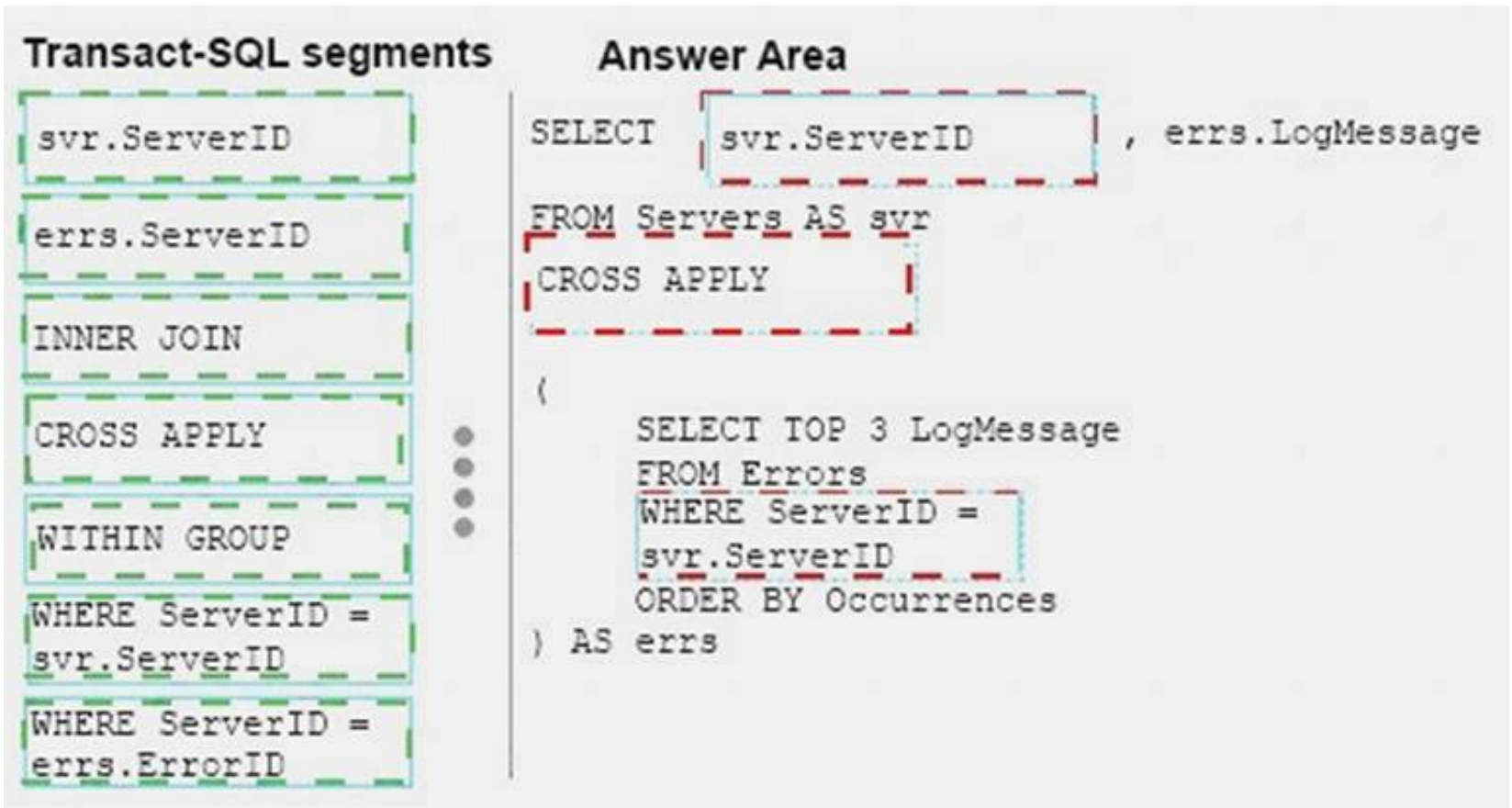
Column	Data Type	Notes
ErrorID	int	primary key
ServerID	int	does not allow null values, foreign key to Servers table
Occurrences	int	does not allow null values
LogMessage	nvarchar(max)	does not allow null values

You are building a webpage that shows the three most common errors for each server. You need to return the data for the webpage.
How should you complete the Transact-SQL statement? To answer, drag the appropriate Transact-SQL segments to the correct location. Each Transact-SQL segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.
NOTE: Each correct selection is worth one point.

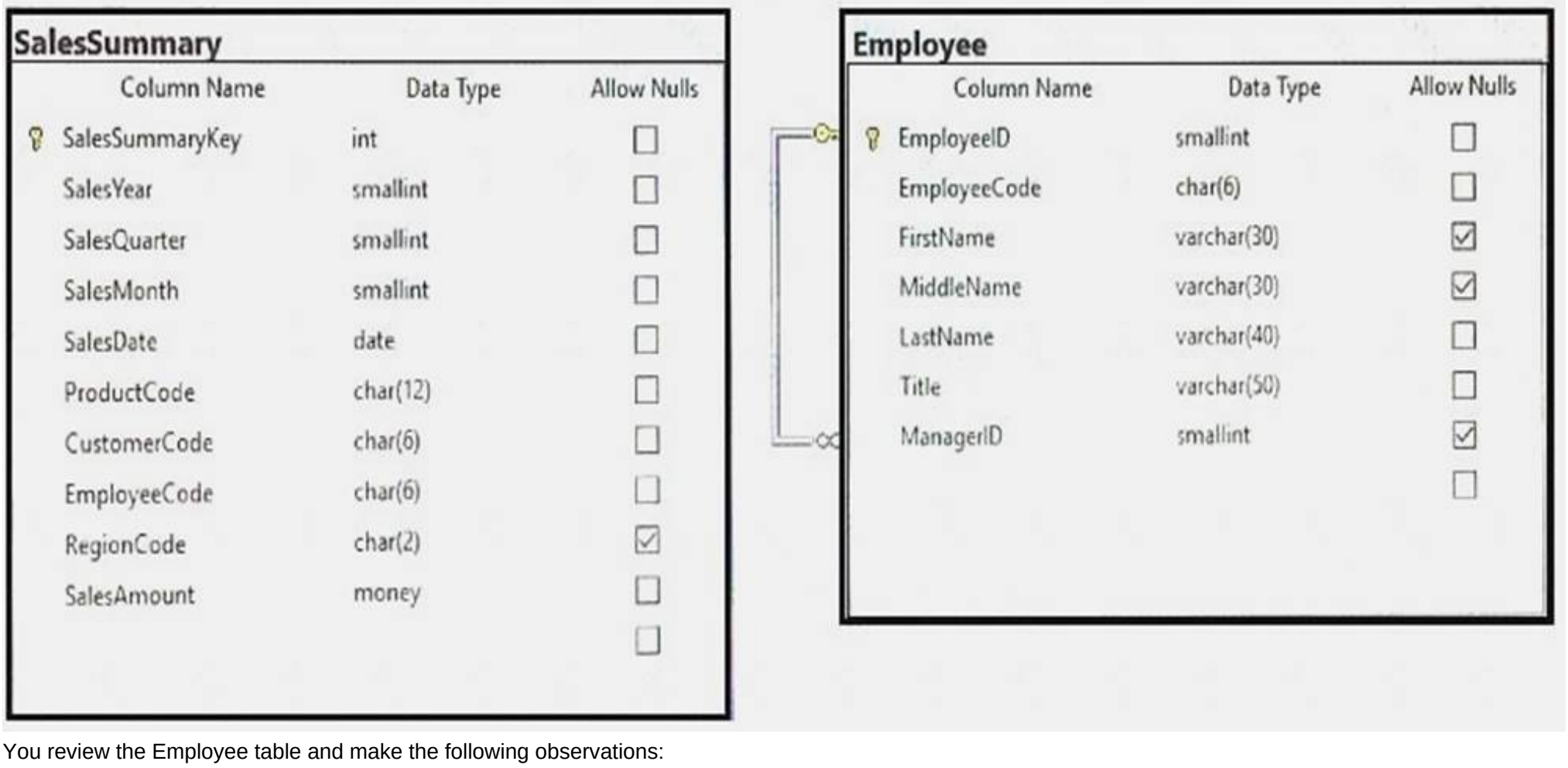


Answer:

Explanation:



NEW QUESTION 235
Note: This question is part of a series of questions that use the same scenario. For your convenience, the scenario is repeated in each question. Each question presents a different goal and answer choices, but the text of the scenario is exactly the same in each question in this series.
Start of repeated scenario
You have a database that contains the tables shown in the exhibit. (Click the Exhibit button.)



You review the Employee table and make the following observations:
- Every record has a value in the ManagerID except for the Chief Executive Officer (CEO).
- The FirstName and MiddleName columns contain null values for some records.
- The valid values for the Title column are Sales Representative manager, and CEO.

You review the SalesSummary table and make the following observations:
- The ProductCode column contains two parts: The first five digits represent a product code, and the last seven digits represent the unit price. The unit price uses the following pattern: ####.##.
- You observe that for many records, the unit price portion of the ProductCode column contains values.
- The RegionCode column contains NULL for some records.
- Sales data is only recorded for sales representatives.

You are developing a series of reports and procedures to support the business. Details for each report or procedure follow.

Sales Summary report: This report aggregates data by year and quarter. The report must resemble the following table.

SalesYear	SalesQuarter	YearSalesAmount	QuarterSalesAmount
2015	1	2000.00	1000.00
2015	2	2000.00	500.00
2015	3	2000.00	250.00
2015	4	2000.00	250.00
2016	1	3500.00	500.00
2016	2	3500.00	1000.00

Sales Manager report: This report lists each sales manager and the total sales amount for all employees that report to the sales manager.

Sales by Region report: This report lists the total sales amount by employee and by region. The report must include the following columns: EmployeeCode, MiddleName, LastName, RegionCode, and SalesAmount. If MiddleName is NULL, FirstName must be displayed. If both FirstName and MiddleName have null values, the world Unknown must be displayed/ If RegionCode is NULL, the word Unknown must be displayed.

Report1: This report joins data from SalesSummary with the Employee table and other tables. You plan to create an object to support Report1. The object has the following requirements:
- be joinable with the SELECT statement that supplies data for the report
- can be used multiple times with the SELECT statement for the report
- be usable only with the SELECT statement for the report
- not be saved as a permanent object

Report2: This report joins data from SalesSummary with the Employee table and other tables. You plan to create an object to support Report1. The object has the following requirements:

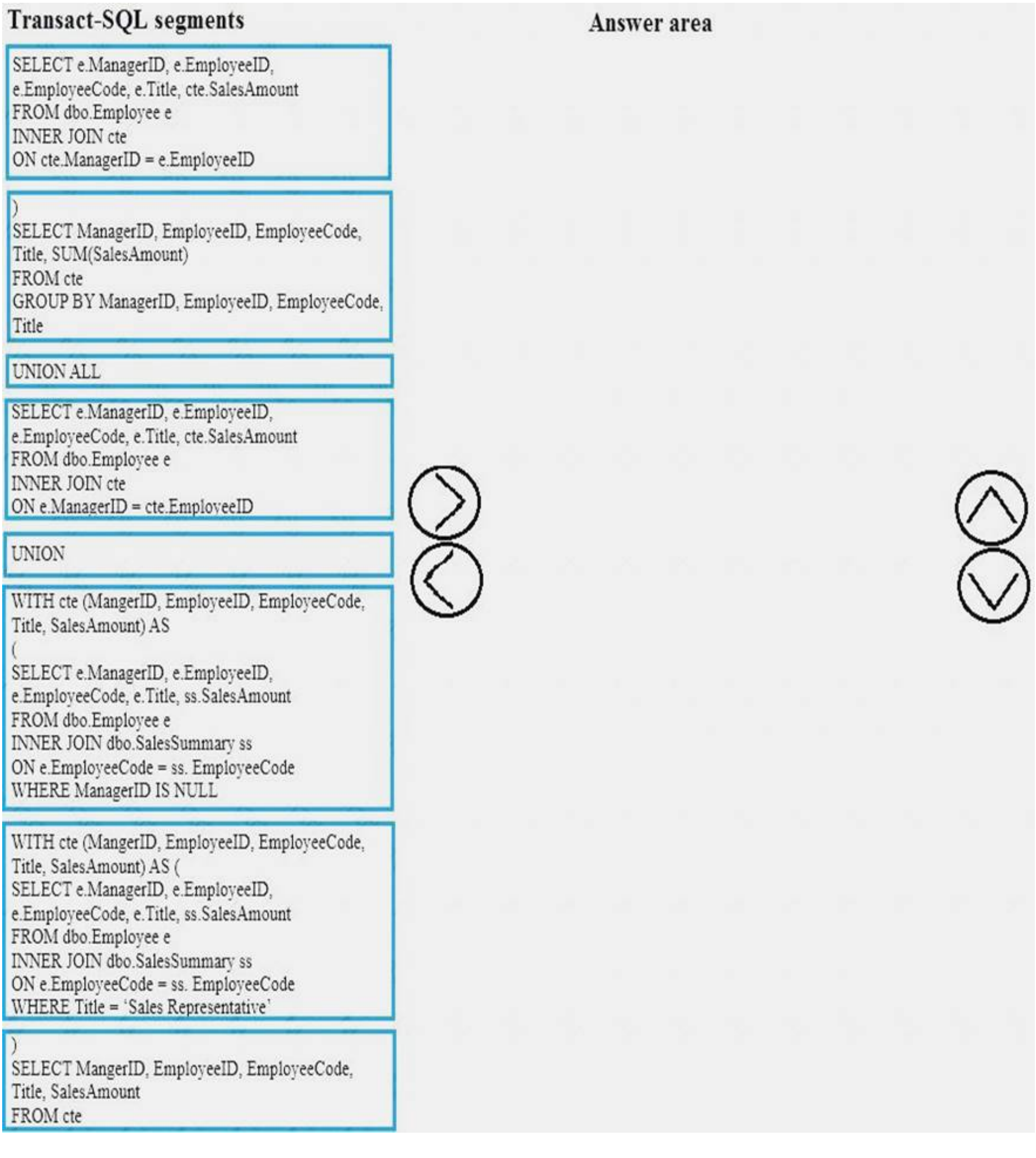
Sales Hierarchy report. This report aggregates rows, creates subtotal rows, and super-aggregates rows over the SalesAmount column in a single result-set. The report uses SaleYear, SaleQuarter, and SaleMonth as a hierarchy. The result set must not contain a grand total or cross-tabulation aggregate rows.

Current Price Stored Procedure: This stored procedure must return the unit price for a product when a product code is supplied. The unit price must include a dollar sign at the beginning. In addition, the unit price must contain a comma every three digits to the left of the decimal point, and must display two digits to the left of the decimal point. The stored procedure must not throw errors, even if the product code contains invalid data.

End of Repeated Scenario

You need to create the query for the Sales Managers report.

Which four Transact-SQL segments should you use to develop the solution? To answer, move the appropriate Transact-SQL segments from the list of Transact-SQL segments to the answer area and arrange them in the correct order.



Answer:

Explanation: From scenario: Sales Manager report: This report lists each sales manager and the total sales amount for all employees that report to the sales manager.
Box 1:..WHERE Title='Sales representative'
The valid values for the Title column are Sales Representative manager, and CEO. First we define the CTE expression.
Note: A common table expression (CTE) can be thought of as a temporary result set that is defined within the execution scope of a single SELECT, INSERT, UPDATE, DELETE, or CREATE VIEW statement. A CTE is similar to a derived table in that it is not stored as an object and lasts only for the duration of the query. Unlike a derived table, a CTE can be self-referencing and can be referenced multiple times in the same query.
Box 2:
Use the CTE expression one time. Box 3: UNION
Box 4:
Use the CTE expression a second time. References:

NEW QUESTION 237
Note: This question is part of a series of questions that use the same or similar answer choices. An answer choice may be correct for more than one question in the series. Each question is independent of the other questions in this series. Information and details provided in a question apply only to that question.
You create a table by running the following Transact-SQL statement:

```
CREATE TABLE Customers (
     CustomerID int NOT NULL PRIMARY KEY CLUSTERED,
     FirstName nvarchar(100) NOT NULL,
     LastName nvarchar(100) NOT NULL,
     TaxIdNumber varchar(20) NOT NULL,
     Address nvarchar(1024) NOT NULL,
     AnnualRevenue decimal(19,2) NOT NULL,
     DateCreated datetime2(2) NOT NULL,
     ValidFrom datetime2(2) GENERATED ALWAYS AS ROW START NOT NULL,
     ValidTo datetime2(2) GENERATED ALWAITS AS ROW END NOT NULL,
     PERIOD FOR SYSTEM_TIME(ValidFrom, ValidTo)
)
WITH (SYSTEM_VERSIONING = ON (HISTORY_TABLE = CustomersHistory))
```

You need to return normalized data for all customers that were added in the year 2014. Which Transact-SQL statement should you run?

A

```
SELECT FirstName, LastName, SUM(AnnualRevenue)
FROM Customers
GROUP BY GROUPING SETS((FirstName, LastName, AnnualRevenue),())
ORDER BY FirstName, LastName, AnnualRevenue
```

B

```
SELECT  FirstName, LastName, Address
FROM Customers
FOR SYSTEM_TIME ALL ORDER BY ValidFrom
```

C

```
SELECT c.CustomerID, c.FirstName, c.LastName, c.Address, c.ValidFrom, c.ValidTo
FROM Customers AS c
ORDER BY c.CustomerID
FOR JSON AUTO, ROOT('Customers')
```

D

```
SELECT * FROM (SELECT CustomerID, FirstName, LastName, Address, AnnualRevenue, DateCreated
FROM Customers) AS Customers PIVOT(AVG(AnnualRevenue)
FOR DateCreated IN([2014])) AS PivotCustomers
ORDER BY LastName, FirstName
```

E

```
SELECT CustomerID, AVG(AnnualRevenue)
AS AverageAnnualRevenue, FirstName, LastName, Address, DateCreated
FROM Customers WHERE YEAR(DateCreated) >= 2014
GROUP BY CustomerID, FirstName, LastName, Address, DateCreated
```

F

```
SELECT c.CustomerID, c.FirstName, c.LastName, c.Address, c.ValidFrom, c.ValidTo
FROM Customers AS c ORDER BY c.CustomerID
FOR XML PATH ('CustomerData'), root ('Customers')
```

G

```
SELECT CustomerID, FirstName, LastName, TaxIdNumber, Address, ValidFrom, ValidTo
FROM Customers FOR SYSTEM_TIME
BETWEEN '2014-01-01 00:00:00.000000' AND '2015-01-01 00:00:00.000000'
```

H

```
SELECT CustomerID, FirstName, LastName, TaxIdNumber, Address, ValidFrom, ValidTo
FROM Customers
WHERE DateCreated
BETWEEN '20140101' AND '20141231'
```

A. Option A
B. Option B
C. Option C
D. Option D
E. Option E
F. Option F
G. Option G
H. Option H

Answer: G

NEW QUESTION 239
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have a database named DB1 that contains two tables named Sales.Customers and Sales.Orders. Sales.Customers has a foreign key relationship to a column named CustomerID in Sales.Orders.
You need to recommend a query that returns all the customers. The query must also return the number of orders that each customer placed in 2016.
Solution: You recommend the following query:

```
SELECT
      Cust.CustomerName,
      NumberOfOrders = COUNT(Ord.OrderID)
FROM
      Sales.Customers Cust
LEFT JOIN
      Sales.Orders Ord
            ON Cust.CustomerID = Ord.OrderID
GROUP BY
      Cust.CustomerName;
```

Does this meet the goal?

A. Yes

B. No

Answer: B

NEW QUESTION 240

.....

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