Microsoft

Exam Questions 70-761

Querying Data with Transact-SQL (beta)

NEW QUESTION 1
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

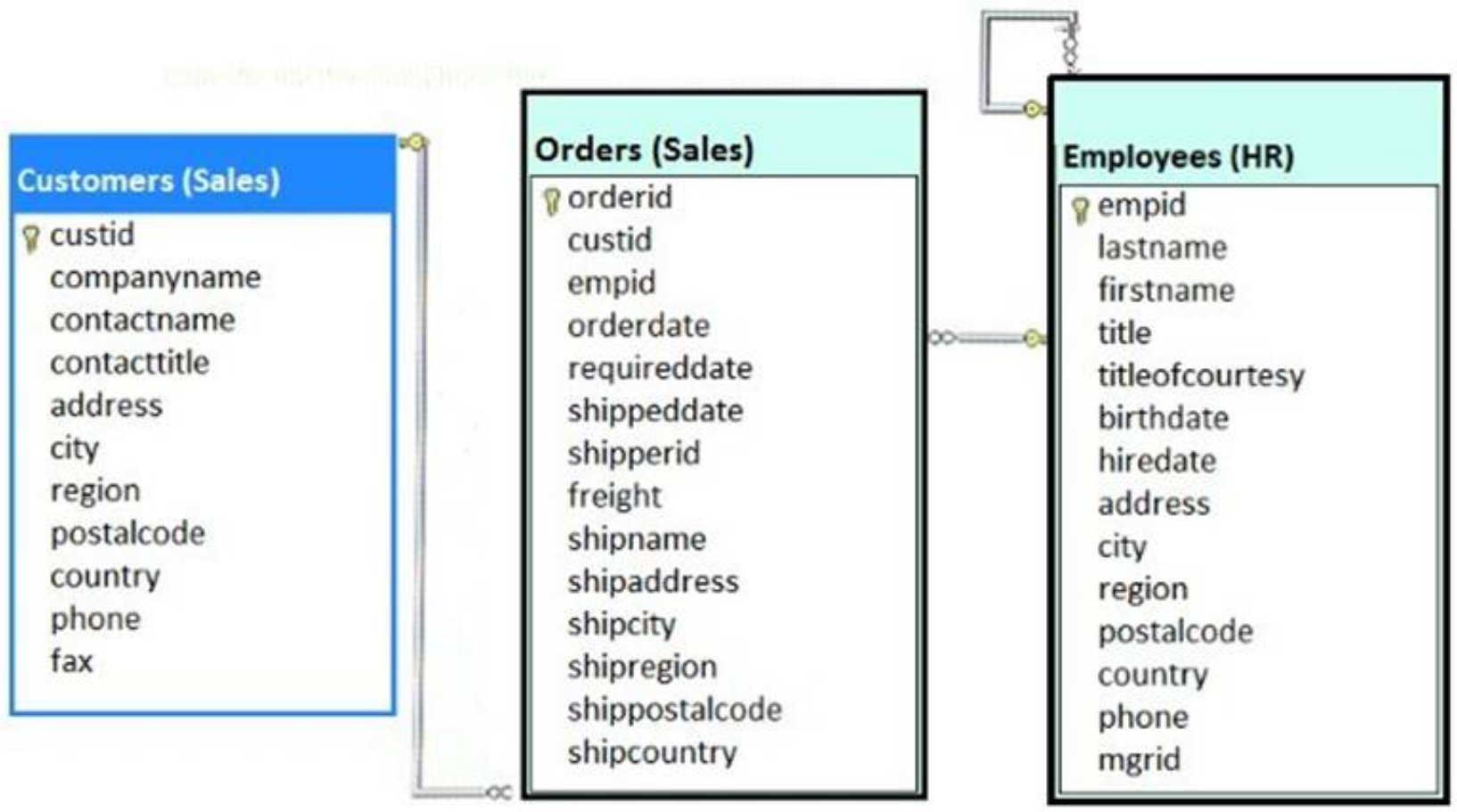
```
SELECT c.CustomerCode, c.CustomerName, h.CustomerCode, h.CustomerName
FROM Customer_CRMSystem c
FULL OUTER JOIN Customer_HRSystem h
ON c.CustomerCode = h.CustomerCode AND c.CustomerName = h.CustomerName
```

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 2
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
```

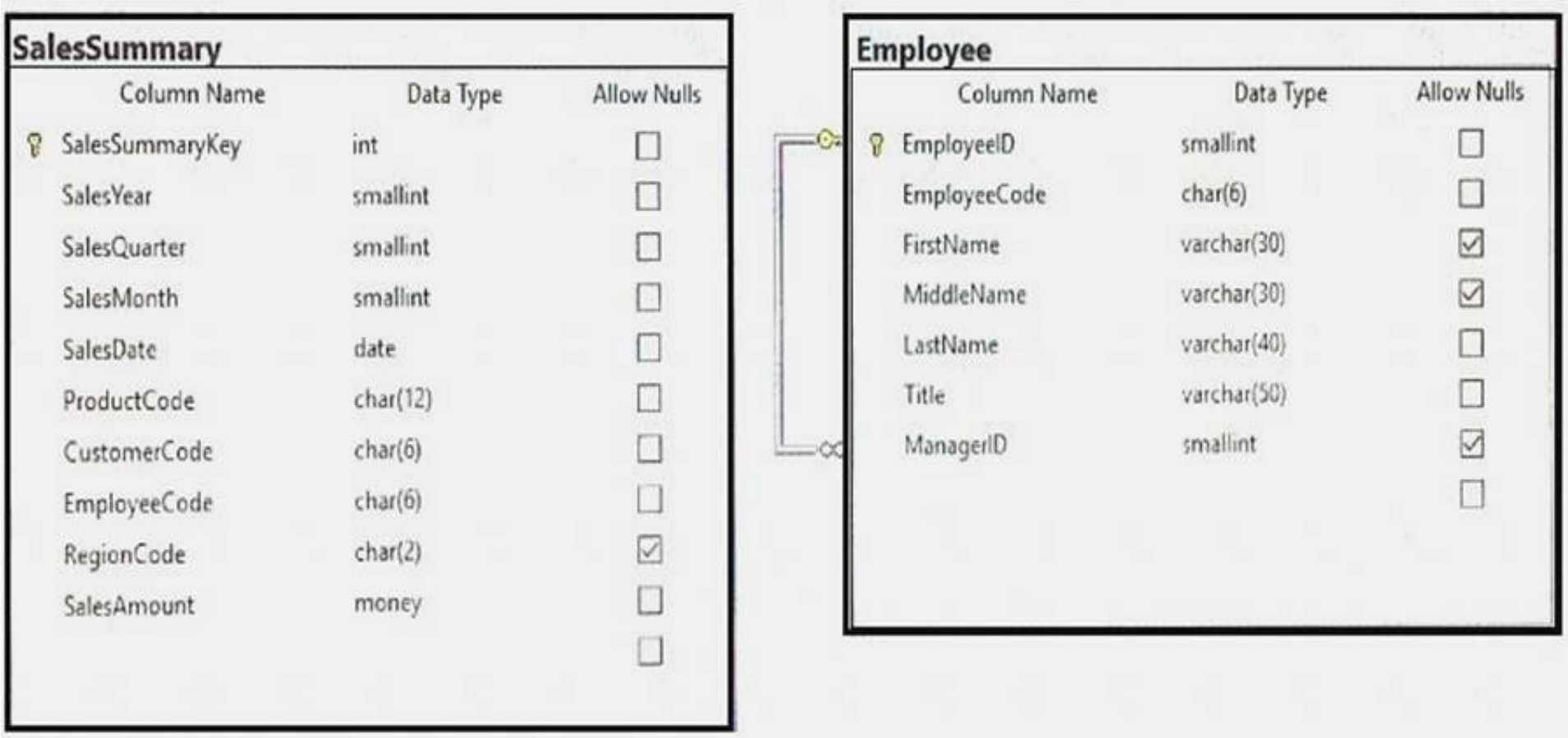
Does the solution meet the goal?

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 3
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.)



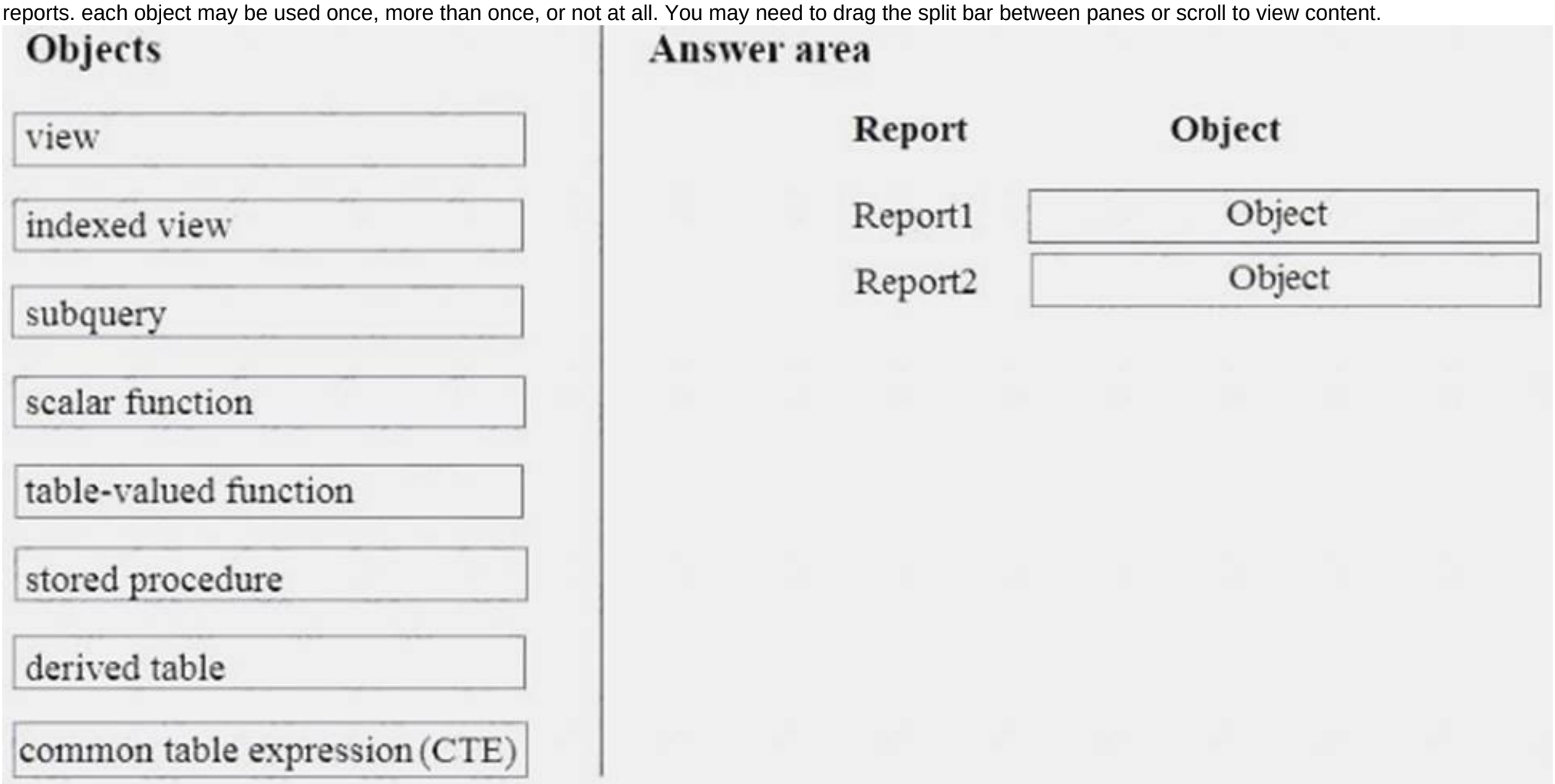
You review the Employee table and make the following observations:
- Every record has a value in the ManagerID except for the Chief Executive Officer (CEO).
- The FirstName and MiddleName columns contain null values for some records.
- The valid values for the Title column are Sales Representative manager, 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 are creating the queries for Report1 and Report2.
You need to create the objects necessary to support the queries.
Which object should you use to join the SalesSummary table with the other tables that each report uses? To answer, drag the appropriate objects to the correct reports. each object 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.



A. Mastered
B. Not Mastered

Answer: A

Explanation:
Box 1: common table expression (CTE)
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.
A CTE can be used to:
From Scenario: 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:
Box 2: view
From scenario: 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:
References: https://technet.microsoft.com/en-us/library/ms190766(v=sql.105).aspx

NEW QUESTION 4
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 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 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 6
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

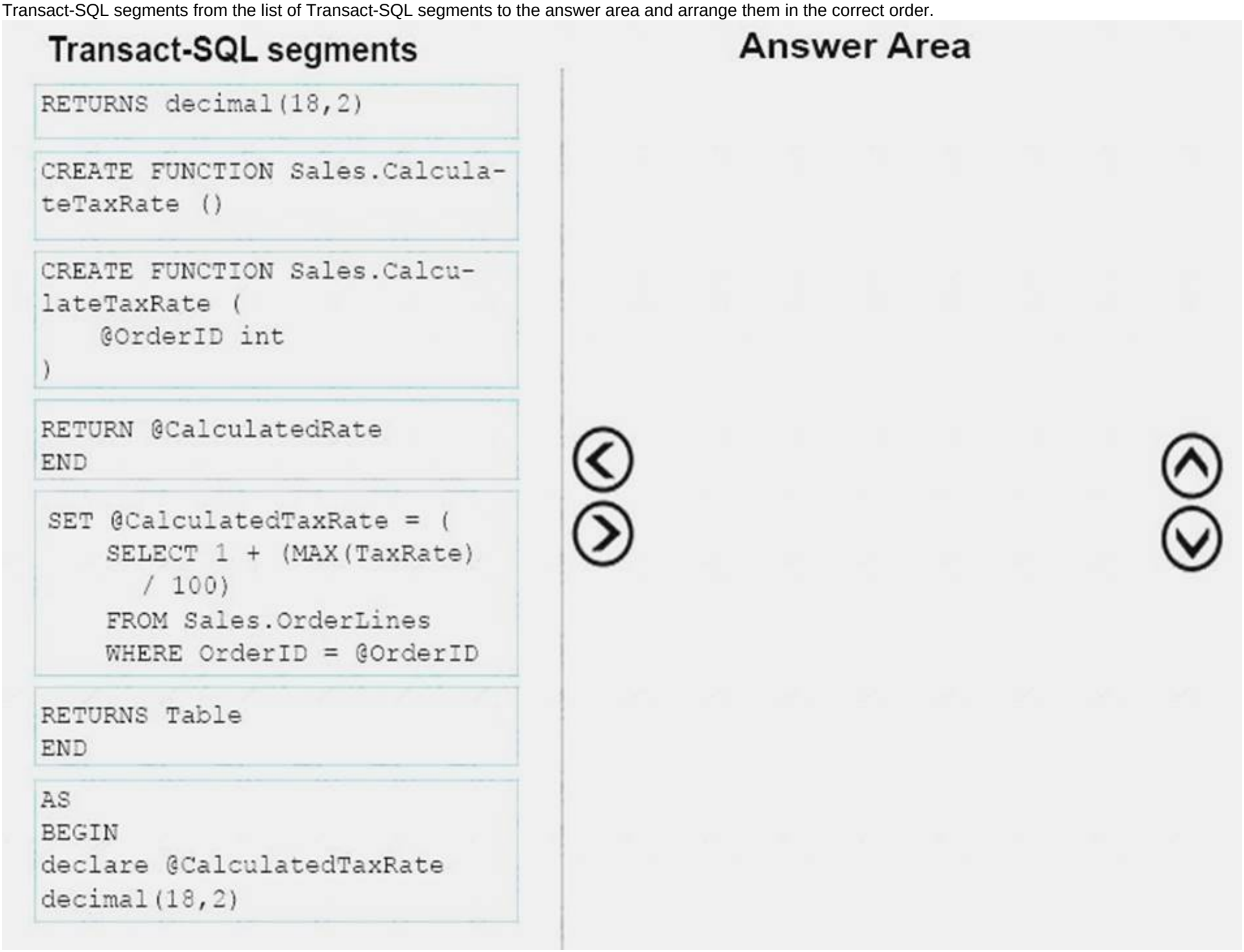
The following table describes the columns in Sales.Orders.

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.



A. Mastered
B. Not Mastered

Answer: A

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 7

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 need to return normalized data for all customers that were added in the year 2014. 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
```

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

Explanation:
The following query searches for row versions for Employee row with EmployeeID = 1000 that were active at least for a portion of period between 1st January of 2014 and 1st January 2015 (including the upper boundary):
SELECT * FROM Employee FOR SYSTEM_TIME
BETWEEN '2014-01-01 00:00:00.0000000' AND '2015-01-01 00:00:00.0000000'
WHERE EmployeeID = 1000 ORDER BY ValidFrom;
References: https://msdn.microsoft.com/en-us/library/dn935015.aspx

NEW QUESTION 8
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 9
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 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 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 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 Town(TownID),
    CreatedDate datetime DEFAULT(GETDATE())
)
```

You create a cursor by running the following Transact-SQL statement:

```
DECLARE cur CURSOR
FOR
SELECT LastName, CreditLimit
FROM Customer

DECLARE @LastName varchar(50), @CreditLimit money
OPEN cur
FETCH NEXT FROM cur INTO @LastName, @CreditLimit
WHILE (@@FETCH_STATUS = 0)
BEGIN
  FETCH NEXT FROM cur INTO @LastName, @CreditLimit
END
CLOSE cur
DEALLOCATE cur
```

If the credit limit is zero, you must delete the customer record while fetching data. You need to add the DELETE statement.
Solution: You add the following Transact-SQL statement:

```
IF @CreditLimit = 0
  DELETE Customer
  WHERE CustomerID IN (SELECT CustomerID)
  FROM Customer WHERE LastName = @LastName)
```

Does the solution meet the goal?

A. YES
B. NO

Answer: B

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

NEW QUESTION 10
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 deposit and 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 CustNoFROMtblDepositAcctUNION 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: C

Explanation:
Would list the customers with duplicates, which would equal the number of accounts.

NEW QUESTION 11
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_TIMEBETWEEN '2016-12-31' AND '2017-01-01');
```

A. Option A

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

Answer: B

NEW QUESTION 13
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 17
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(Cust.CustomerID)
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: A

NEW QUESTION 19
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:

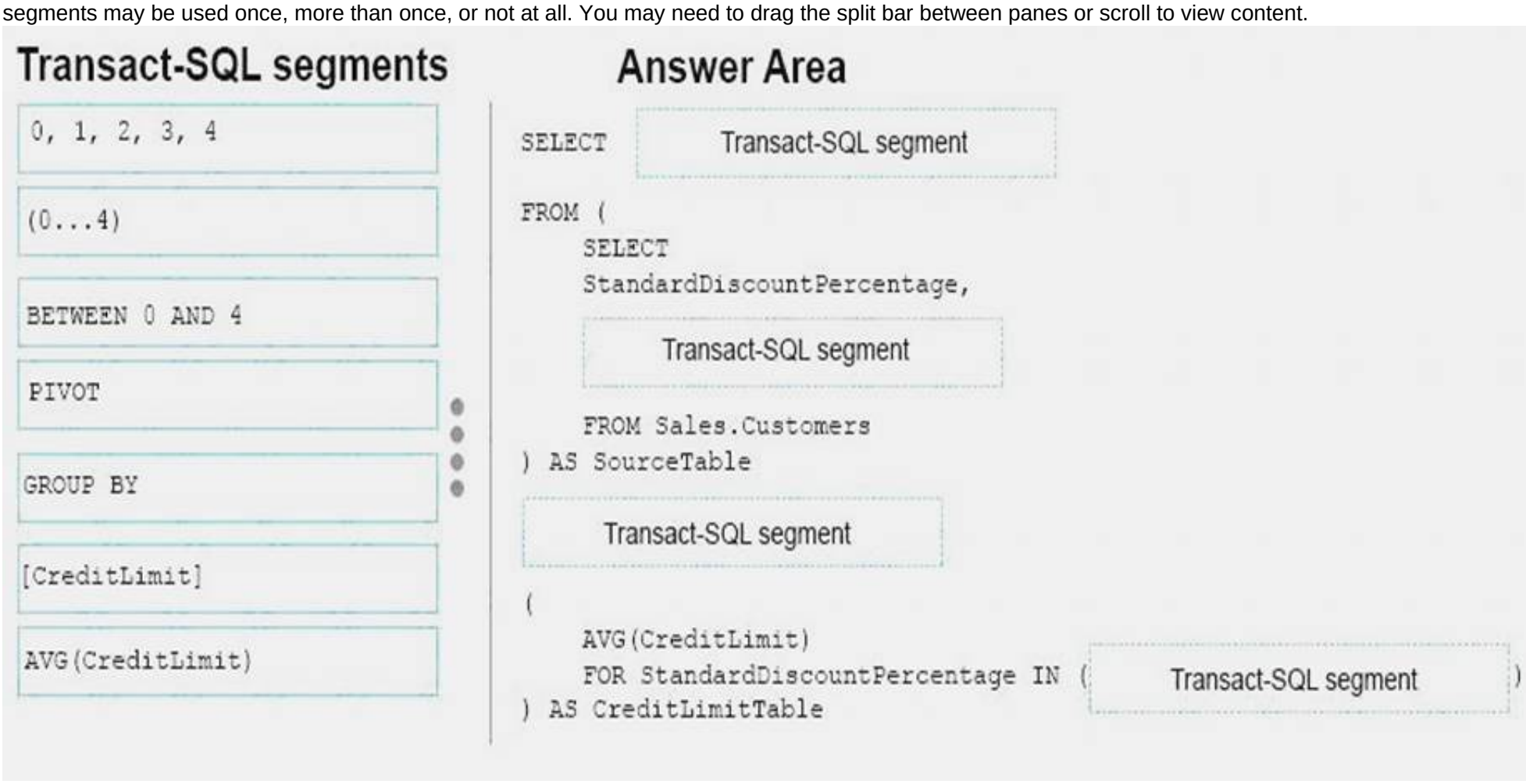
Column	Data type	Notes
CityID	int	primary key
LatestRecordedPopulation	bigint	null values are permitted

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.

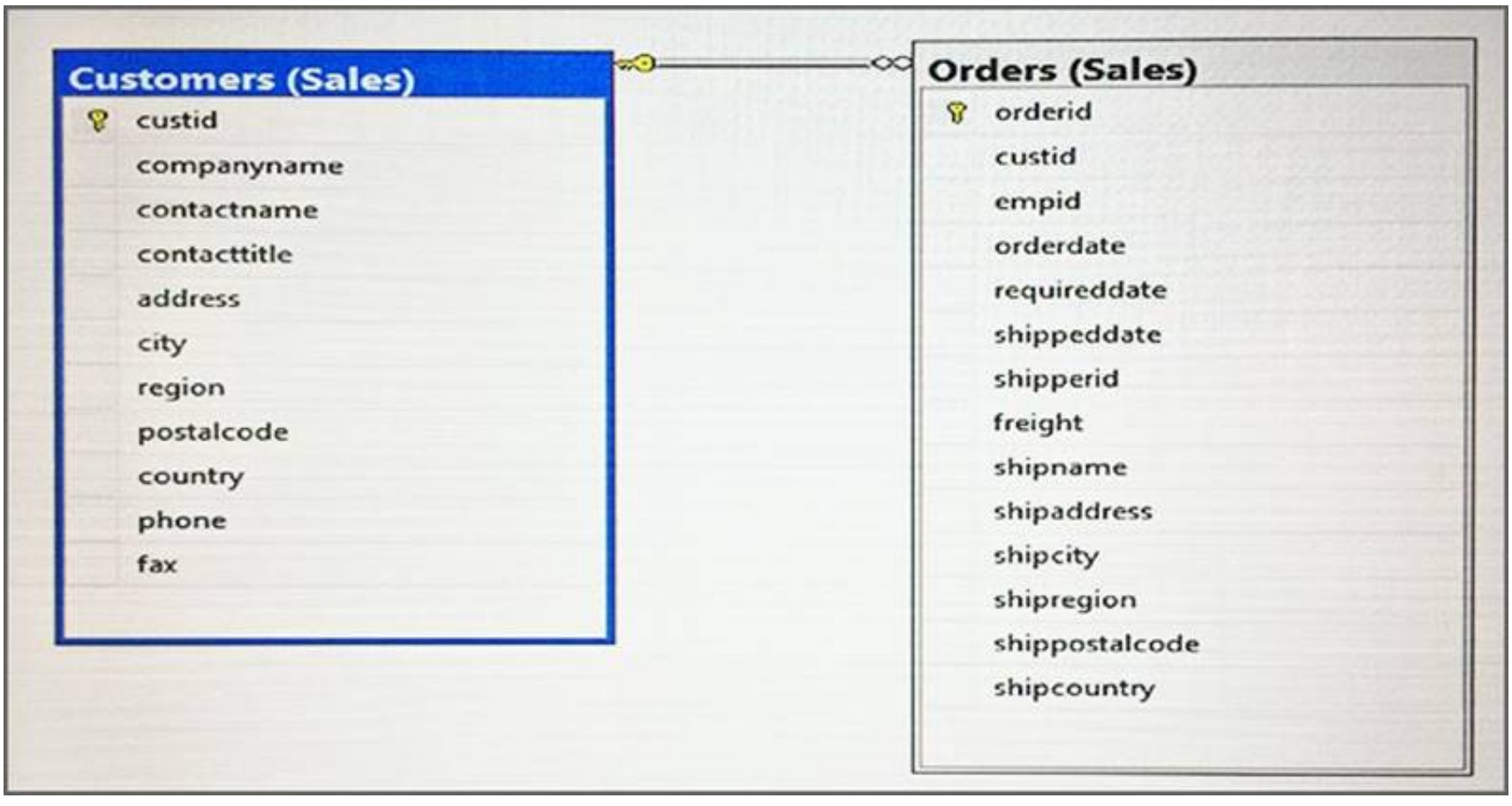


A. Mastered
B. Not Mastered

Answer: A

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 23
You have a database that includes the following tables:



You need to create a list of all customer IDs and the date of the last order that each customer placed. If the customer has not placed any orders, you must return the date January 1, 1900. The column names must be CustomerID and LastOrderDate.
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

```
GROUP BY c.custid
```

```
FROM sales.Customers AS c INNER
JOIN sales.Orders AS o
```

```
ON c.orderid = o.orderid
```

```
SELECT c.custid AS CustomerID,
MAX(o.orderdate) AS LastOrderDate
```

```
FROM sales.Customers AS c LEFT
OUTER JOIN sales.Orders AS o
```

```
GROUP BY LasOrderDate
```

```
ON c.custid = o.custid
```

```
SELECT c.custid AS CustomerID,
COALESCE (MAX(o.orderdate),
'19000101') AS LastOrderDate
```

Answer Area

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Box 1: SELECT..COALESCE…
The COALESCE function evaluates the arguments in order and returns the current value of the first expression that initially does not evaluate to NULL.
Box 2: ..LEFT OUTER JOIN..
The LEFT JOIN (LEFT OUTER JOIN) keyword returns all rows from the left table (table1), with the matching rows in the right table (table2). The result is NULL in the right side when there is no match. A customer might have no orders so the right table must be allowed have a NULL value.
Box 3: ON c.custid = o.custid
We JOIN on the custID column, which is available in both tables. Box 4: GROUP BY c.custid
References:
https://technet.microsoft.com/en-us/library/ms189499(v=sql.110).aspx
http://www.w3schools.com/sql/sql_join_left.asp

NEW QUESTION 28
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 30
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
     SET XACT_ABORT ON
     BEGIN TRY
          BEGIN TRANSACTION
               INSERT INTO Products(ProductName,ProductPrice,ProductsInStock,ProductsOnOrder)
               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

Explanation:
With X_ABORT ON the INSERT INTO statement and the transaction will be rolled back when an error is raised, it would then not be possible to ROLLBACK it again in the IF XACT_STATE() <> 0 ROLLACK TRANSACTION statement.
Note: 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, finally an error 51000 will be raised.
Note: When SET XACT_ABORT is ON, if a Transact-SQL statement raises a run-time error, the entire transaction is terminated and rolled back.
XACT_STATE is a scalar function that reports the user transaction state of a current running request. XACT_STATE indicates whether the request has an active user transaction, and whether the transaction is capable of being committed.
The states of XACT_STATE are:
0 There is no active user transaction for the current request.
1 The current request has an active user transaction. The request can perform any actions, including writing data and committing the transaction.
2 The current request has an active user transaction, but an error has occurred that has caused the transaction to be classified as an committable transaction.
References:
https://msdn.microsoft.com/en-us/library/ms188792.aspx https://msdn.microsoft.com/en-us/library/ms189797.aspx

NEW QUESTION 34
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 35
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 37
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

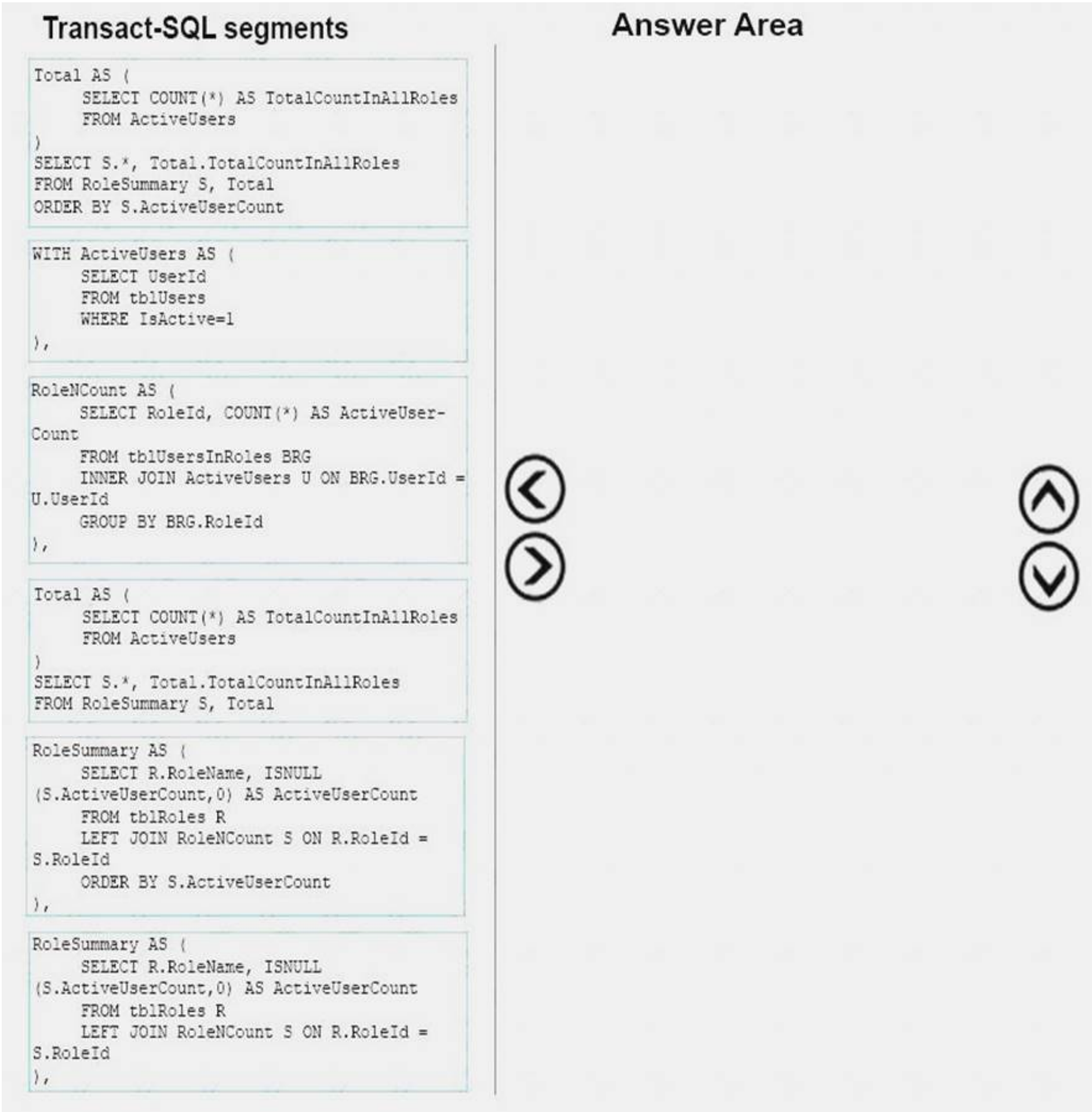
Answer: B

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

NEW QUESTION 38
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)
)
```

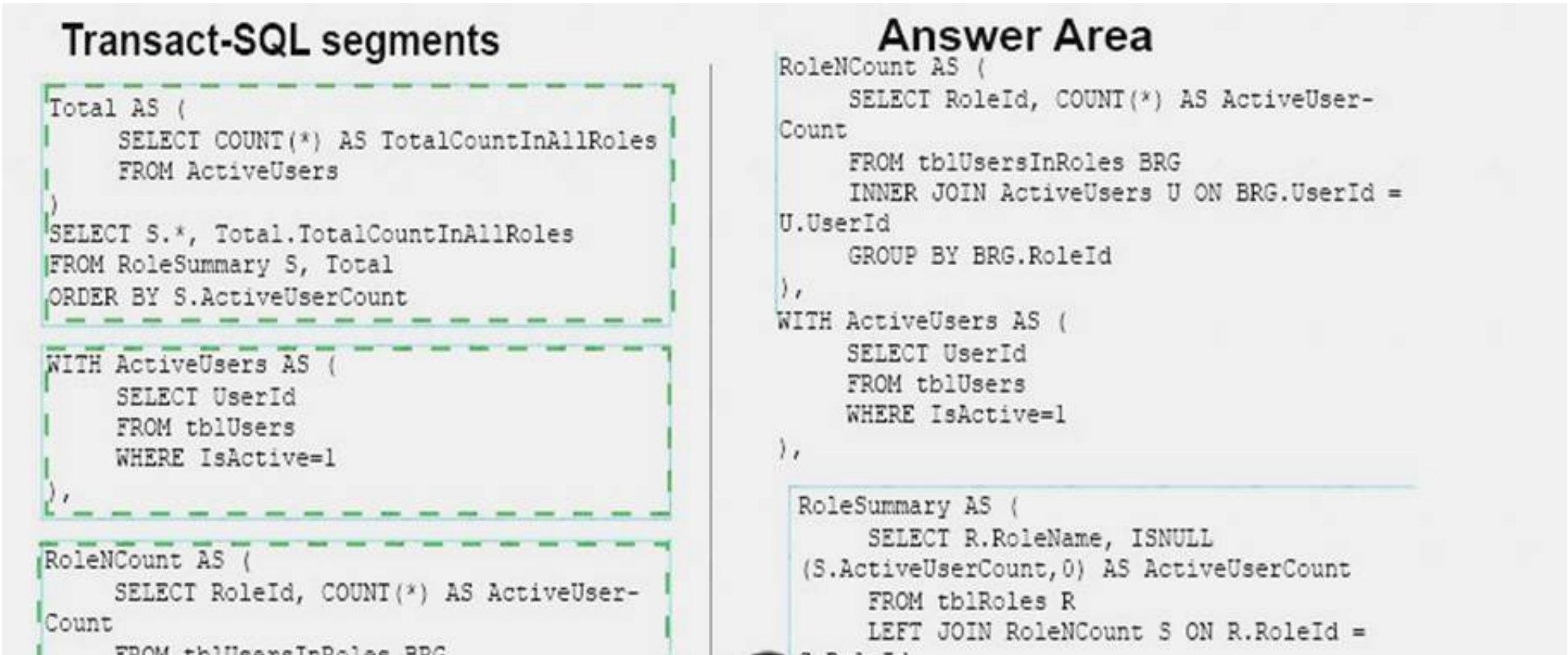
For reporting purposes, you need to find the active user count for each role, and the total active user count. The result must be ordered by active user count of each role. You must use common table expressions (CTEs).
Which four Transact-SQL segments should you use to develop the solution? To answer,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



A. Mastered
B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 41
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:

```
WITH DIST_CTE (CustA, CustB, Dist)
AS (
      SELECT A.CustomerID AS CustA, B.CustomerID AS CustB,
B.DeliveryLocation.ShortestLineTo(A.DeliveryLocation).STLength() AS Dist
      FROM Sales.Customers AS A
      CROSS JOIN Sales.Customers AS B
      WHERE A.CustomerID <> B.CustomerID
)
SELECT TOP 1 CustB, Dist
FROM DIST_CTE
WHERE CustA = @custID
ORDER BY Dist
```

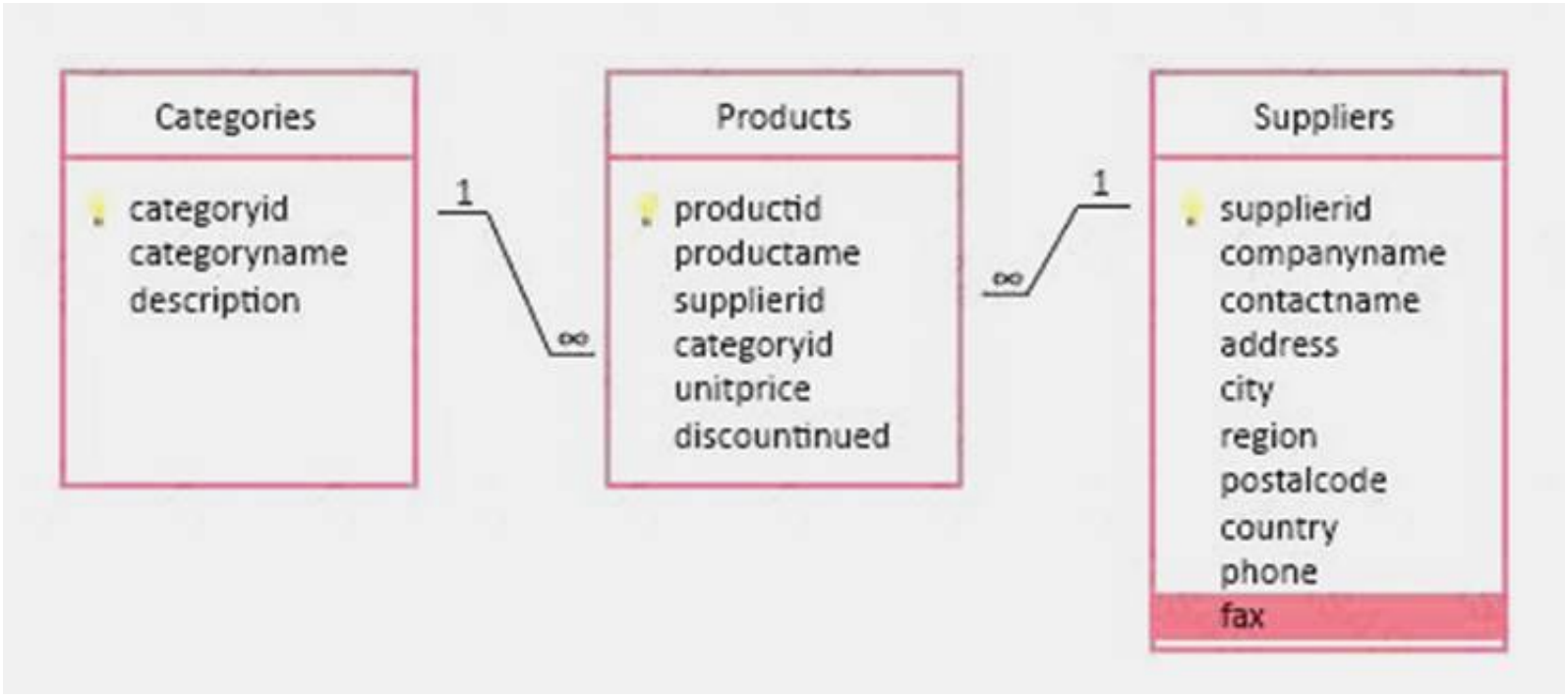
The variable @custID is set to a valid customer. Does the solution meet the goal?

A. Yes
B. No

Answer: A

Explanation:
ShortestLineTo (geometry Data Type) Returns a LineString instance with two points that represent the shortest distance between the two geometry instances. The length of the LineString instance returned is the distance between the two geometry instances.
STLength (geometry Data Type) returns the total length of the elements in a geometry instance. References: https://docs.microsoft.com/en-us/sql/t-sql/spatial-geometry/shortestlineto-geometry-data-type

NEW QUESTION 42
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'
```

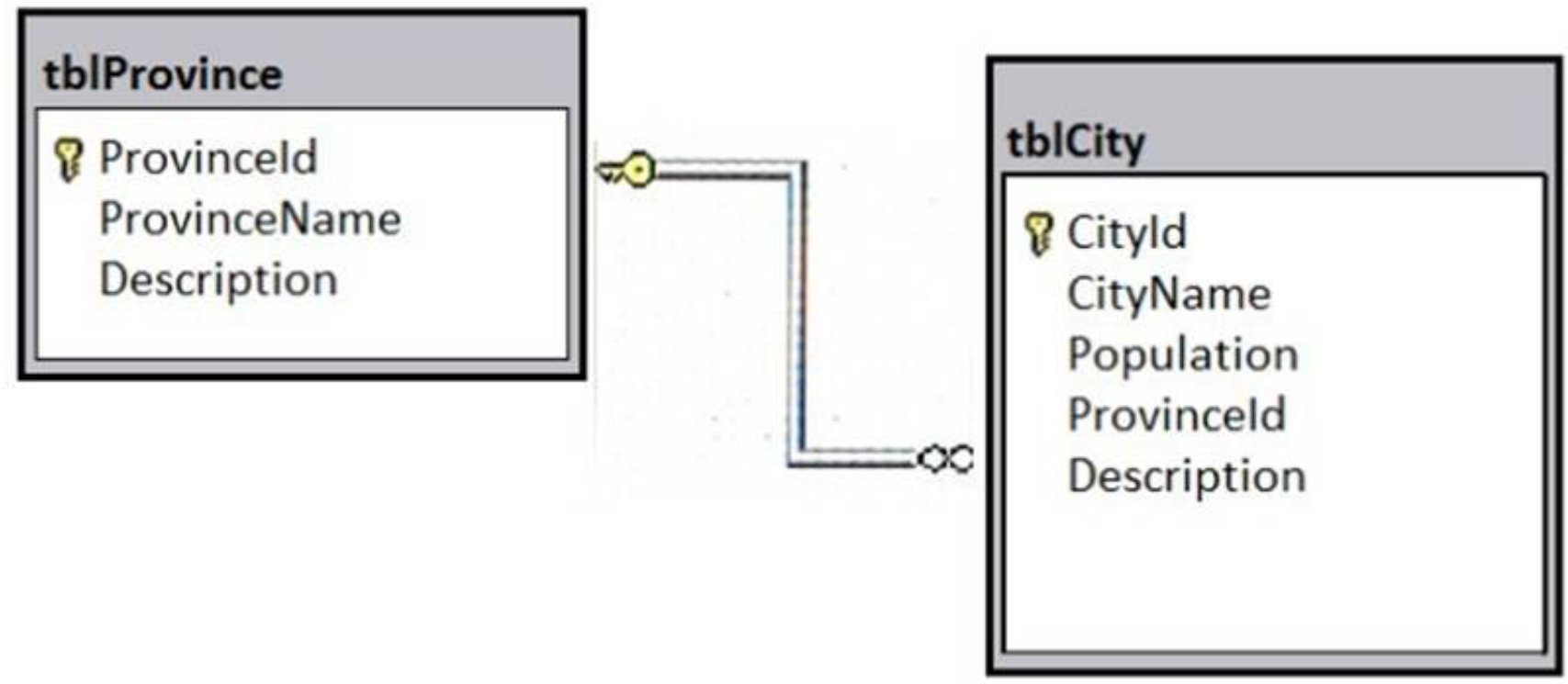
Use the Check Syntax button to verify your work. Any syntax or spelling errors will be reported by line and character position. You may check syntax as many times as needed.

A. Mastered
B. Not Mastered

Answer: A

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 45
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
```

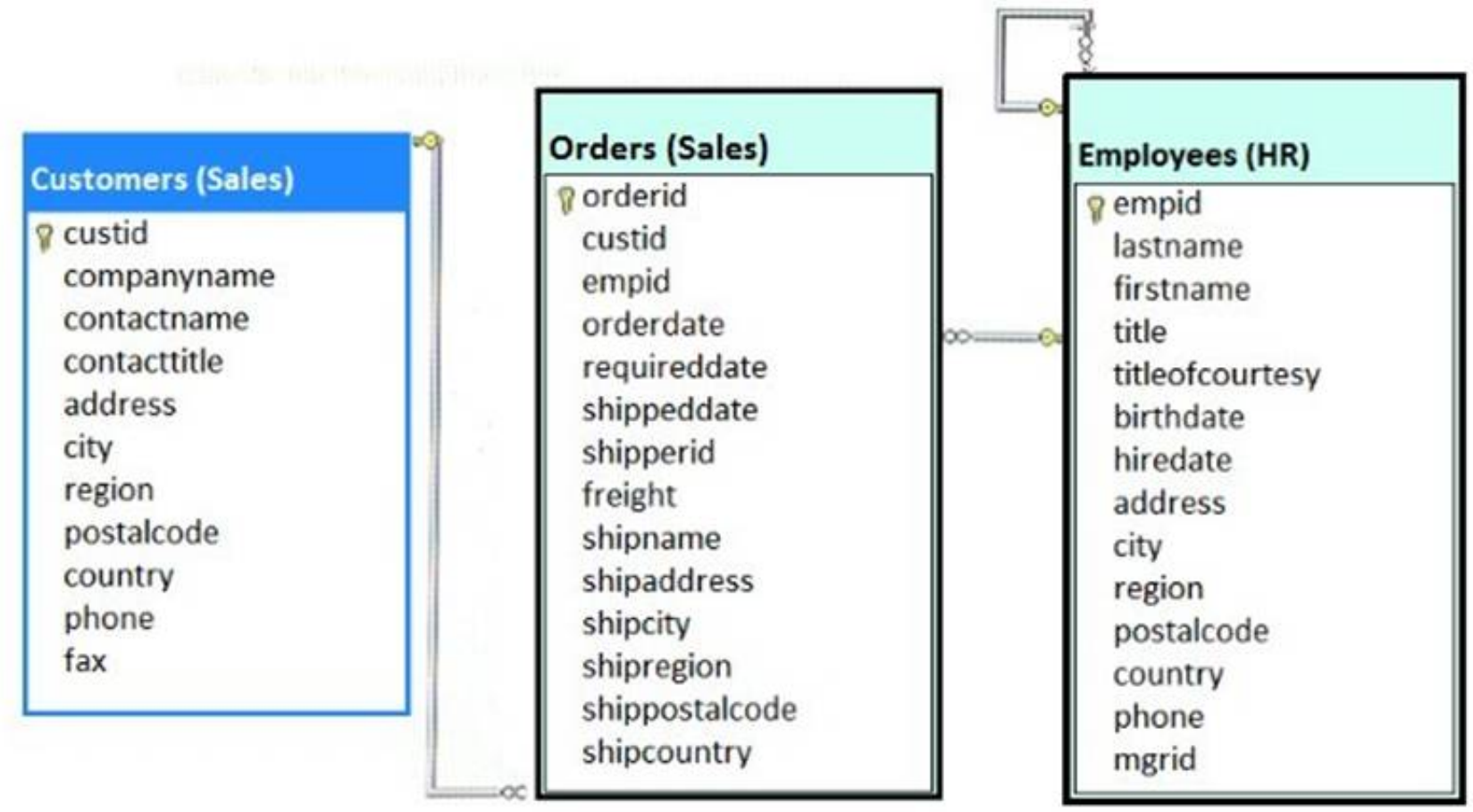
Does the solution meet the goal?

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 48
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
```

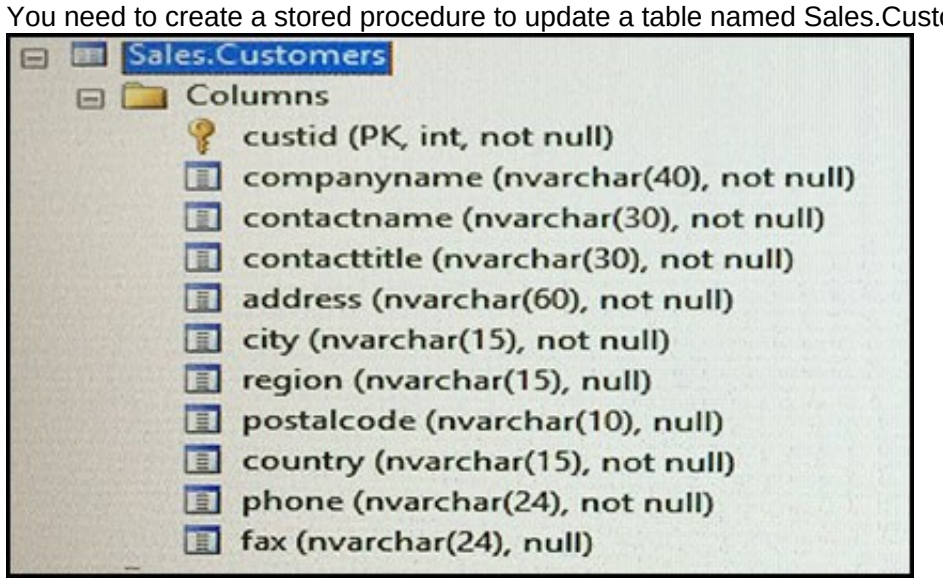
Does the solution meet the goal?

A. Yes
B. No

Answer: B

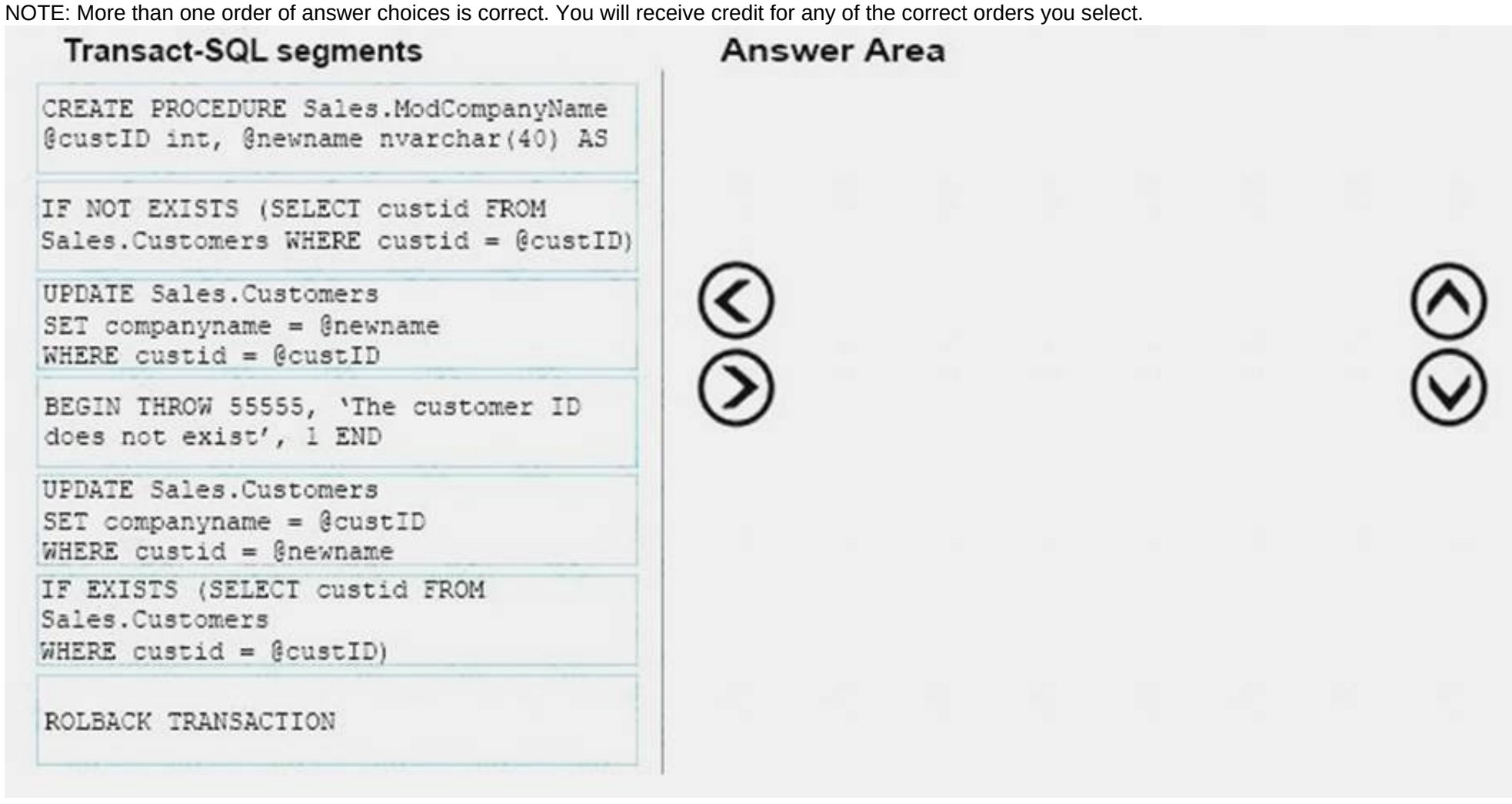
Explanation:
We should use a WHERE clause, not a HAVING clause. The HAVING clause would refer to aggregate data.

NEW QUESTION 52
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.

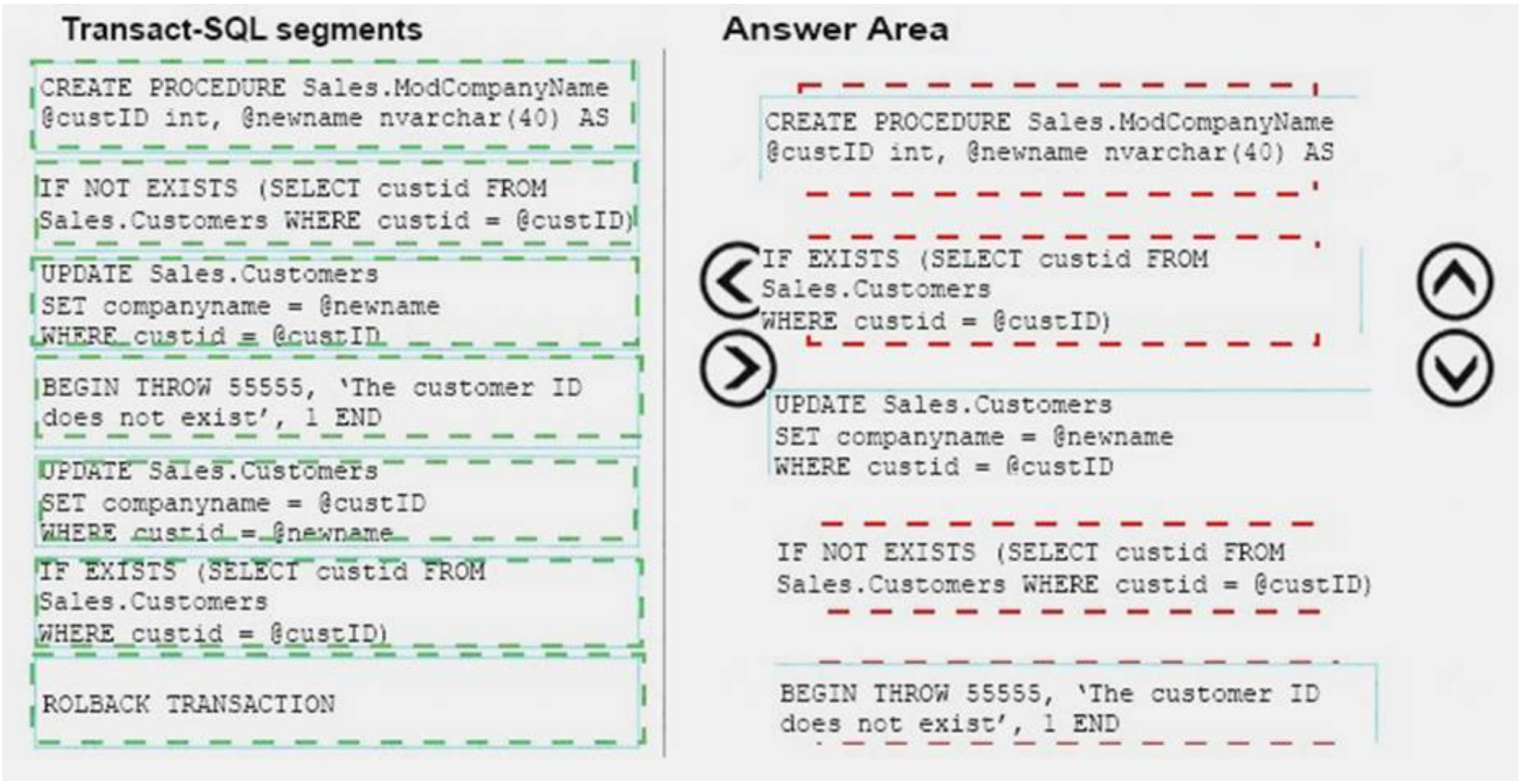
Which five Transact-SQL segments should you use to develop the solution? To answer, move the appropriate Transact-SQL segments from the list of Transact-SQL segments to the answer area and arrange them in the correct order.
NOTE: More than one order of answer choices is correct. You will receive credit for any of the correct orders you select.



A. Mastered
B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 57
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 named Customers. Data stored in the table must be exchanged between web pages and web servers by using AJAX calls that use REST endpoint.
You need to return all customer information by using a data exchange format that is text-based and lightweight.
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: C

Explanation:
JSON can be used to pass AJAX updates between the client and the server.
Export data from SQL Server as JSON, or format query results as JSON, by adding the FOR JSON clause to a SELECT statement.
When you use the FOR JSON clause, you can specify the structure of the output explicitly, or let the structure of the SELECT statement determine the output.
References: https://msdn.microsoft.com/en-us/library/dn921882.aspx

NEW QUESTION 59
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
Unites States	NULL	NULL	$23395792.75
Unites States	Alabama	NULL	$646508.75
Unites States	Alabama	Bazemore	$34402.00
Unites States	Alabama	Belgreen	$51714.65

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

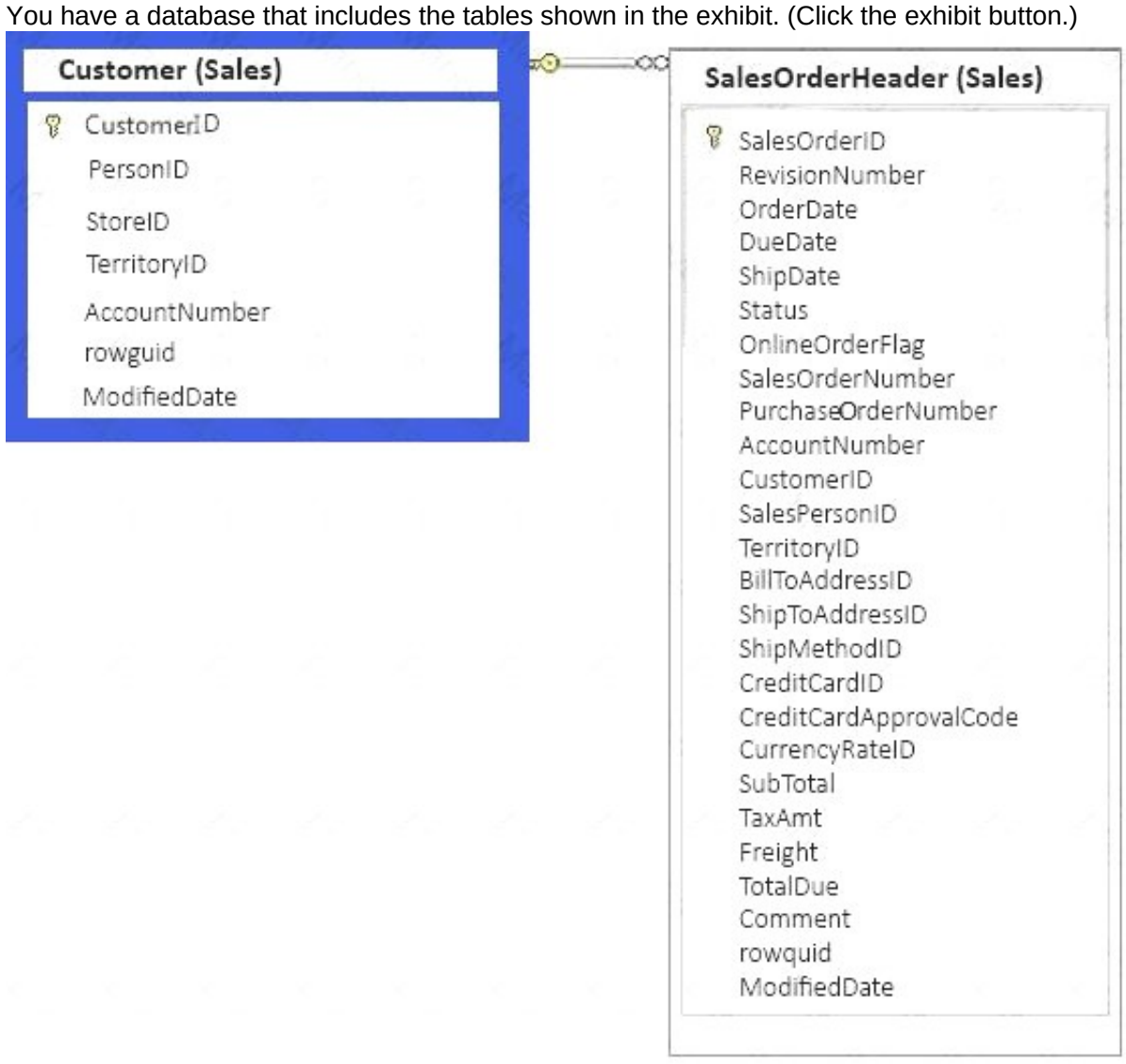
Answer: E

Explanation:
Example of GROUP BY CUBE result set:
In the following example, the CUBE operator returns a result set that has one grouping for all possible combinations of columns in the CUBE list and a grand total grouping.

Region	Country	Store	SalesPersonID	Total Sales
NULL	NULL	NULL	NULL	254013.6014
NULL	NULL	NULL	287	28461.1854
NULL	NULL	NULL	288	17073.0655
NULL	NULL	NULL	290	208479.3505
NULL	NULL	Spa and Exercise Outfitters	NULL	236210.9015
NULL	NULL	Spa and Exercise Outfitters	287	27731.551
NULL	NULL	Spa and Exercise Outfitters	290	208479.3505
NULL	NULL	Versatile Sporting Goods Company	NULL	17802.6999
NULL	NULL	Versatile Sporting Goods Company	287	729.6344
NULL	NULL	Versatile Sporting Goods Company	288	17073.0655
NULL	DE	NULL	NULL	17802.6999
NULL	DE	NULL	287	729.6344
NULL	DE	NULL	288	17073.0655
NULL	DE	Versatile Sporting Goods Company	NULL	17802.6999
NULL	DE	Versatile Sporting Goods Company	287	729.6344

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

NEW QUESTION 60
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
```

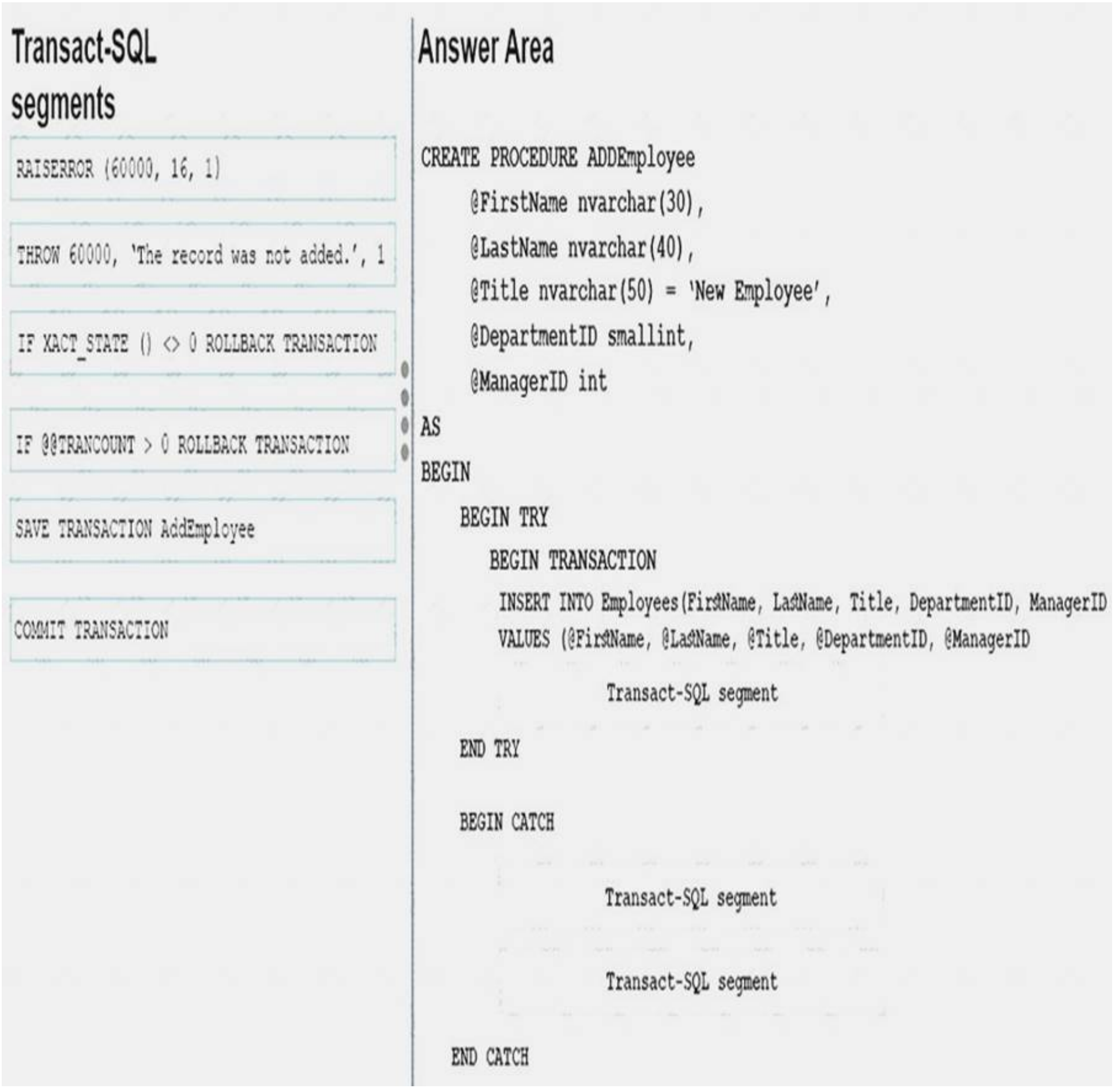
A. Option A
B. Option B
C. Option C
D. Option D

Answer: A

NEW QUESTION 62
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
)
```

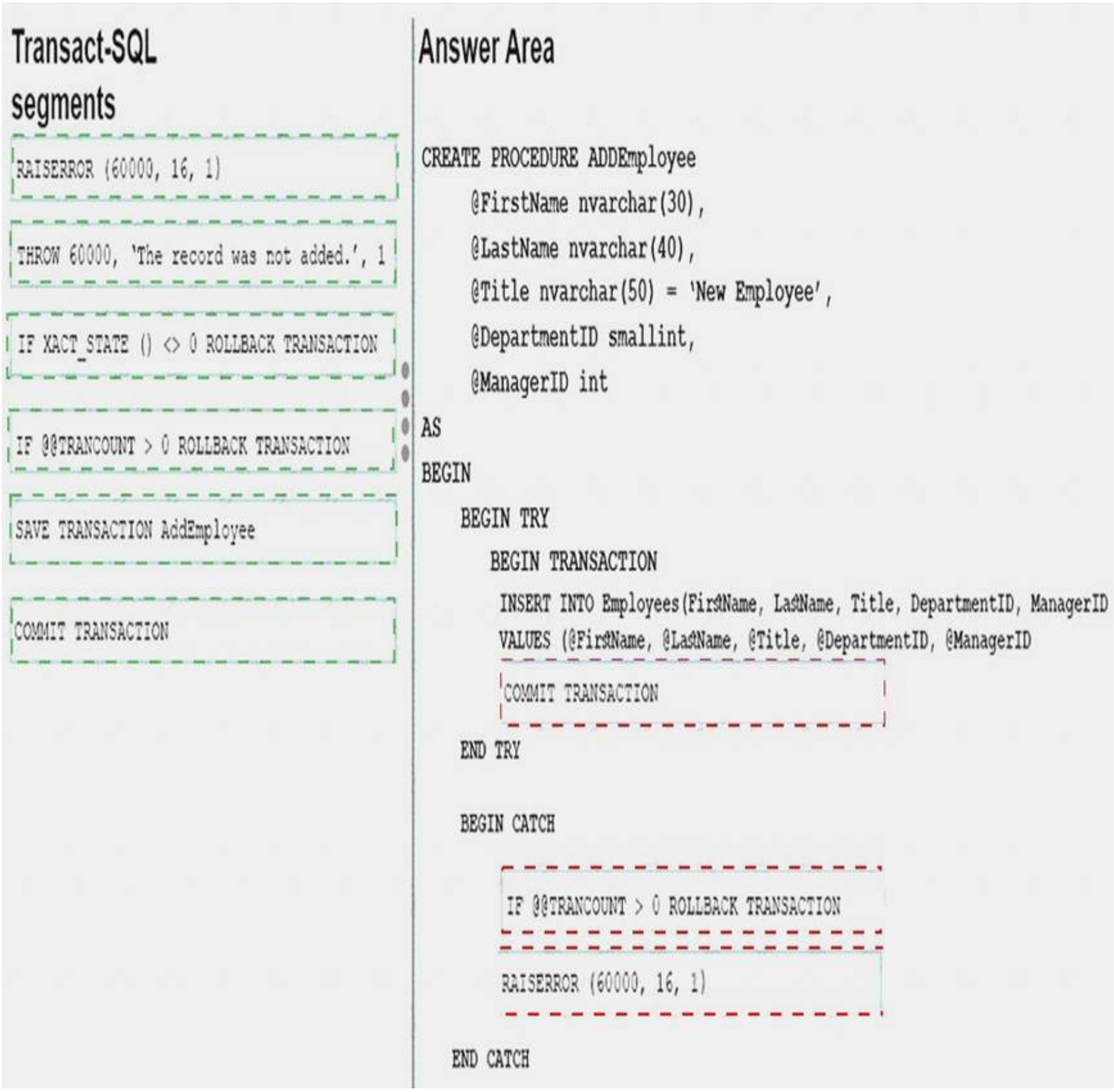
You need to create a stored procedure that meets the following requirements:
Inserts data into the Employees table.
Processes all data changes as a single unit of work.
Sets the exception severity level to 16 and an error number of 60, 000 when any error occurs.
If a Transact-SQL statement raises a runtime 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.



A. Mastered
B. Not Mastered

Answer: A

Explanation:

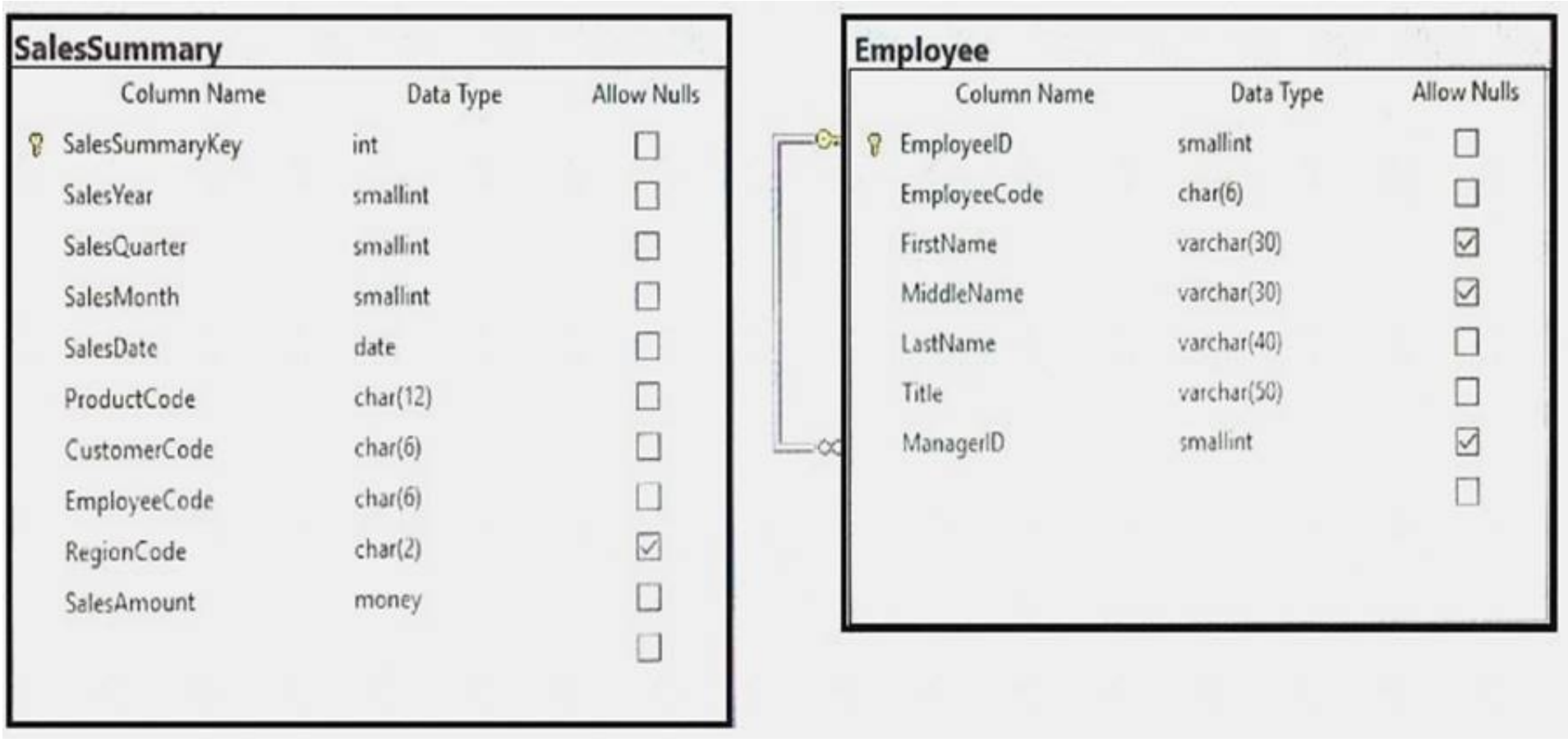


NEW QUESTION 66

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.

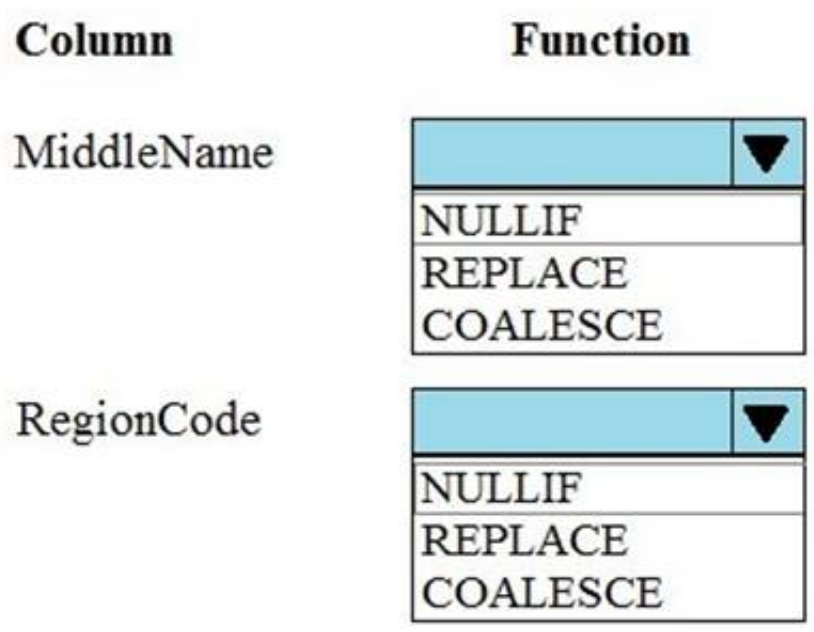
You are developing a series of reports and procedures to support the business. Details for each report or procedure follow.
Sales Summary report: This report aggregates data by year and quarter. The report must resemble the following table.

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



A. Mastered
B. Not Mastered

Answer: A

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 68
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

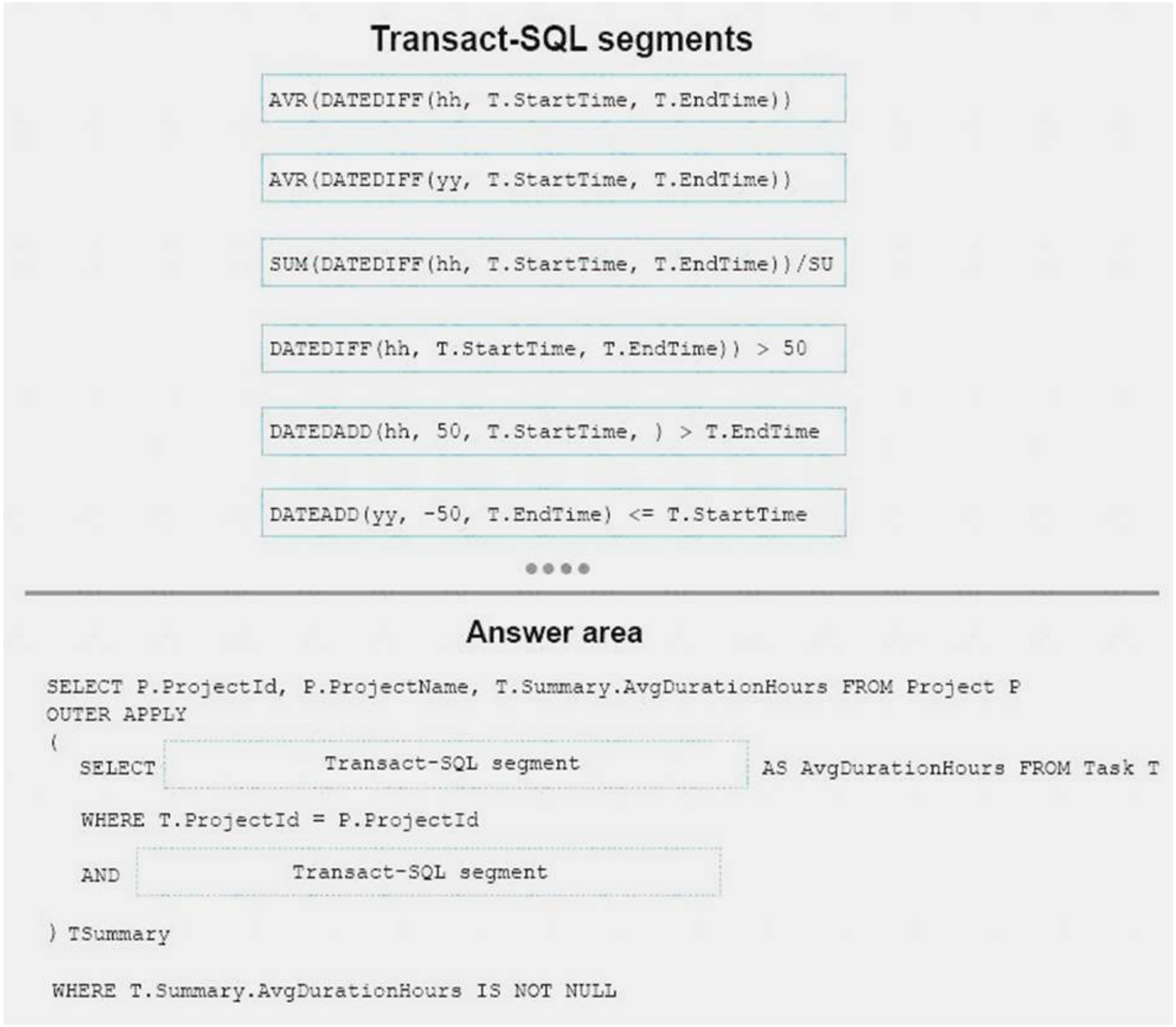
NEW QUESTION 70
Note: This question is part of a series of questions that use the same scenario. For your convenience, the scenario is repeated in each question. Each question presents a different goal and answer choices, but the text of the scenario is exactly the same in each question in this series.
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.

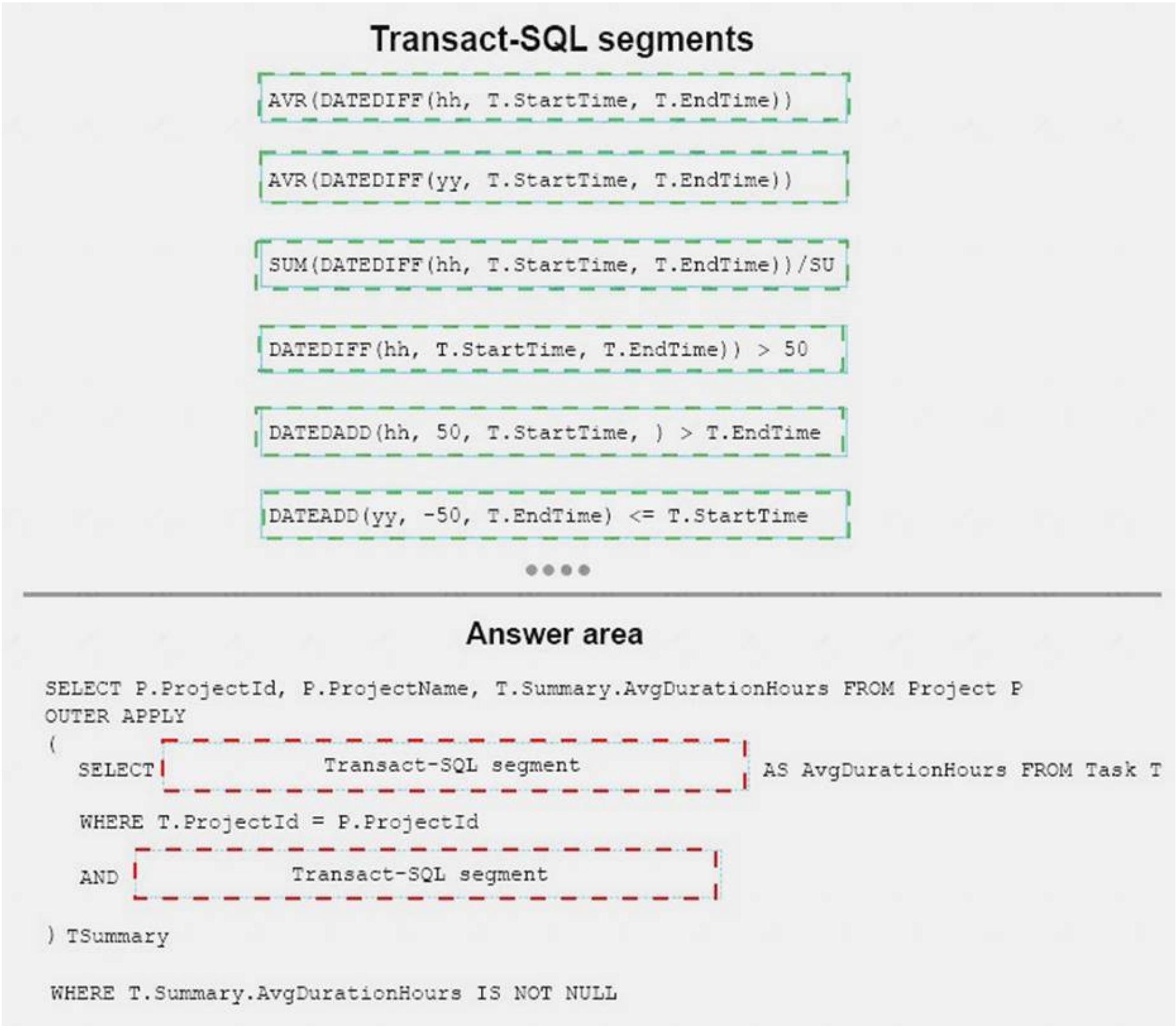
You need to find all projects that have at least one task that took more than 50 hours to complete. You must also determine the average duration of the tasks that took more that took more than 50 hours to complete for each project.
How should you complete the Transact-SQL statement? To answer, drag the 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.



A. Mastered
B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 74
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
```

A. Mastered
B. Not Mastered

Answer: A

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 76
You have a disk-based table that contains 15 columns.

You query the table for the number of new rows created during the current day.
You need to create an index for the query. The solution must generate the smallest possible index. Which type of index should you create?

A. clustered
B. filtered nonclustered with a getdate() predicate in the WHERE statement clause
C. hash
D. nonclustered with compression enabled

Answer: B

Explanation:
A filtered index is an optimized nonclustered index especially suited to cover queries that select from a well-defined subset of data. It uses a filter predicate to index a portion of rows in the table. A well-designed filtered index can improve query performance as well as reduce index maintenance and storage costs compared with full-table indexes.
Creating a filtered index can reduce disk storage for nonclustered indexes when a full-table index is not necessary.
References: https://docs.microsoft.com/en-us/sql/relational-databases/indexes/create-filtered-indexes

NEW QUESTION 80
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.

A. Mastered
B. Not Mastered

Answer: A

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 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 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+ISNULL(UnitsOnOnrder,0)) AS
TotalUnitPrice FROM Products
```

Does the solution meet the goal?

A. Yes
B. No

Answer: A

Explanation:
ISNULL (check_expression , replacement_value) Arguments:
check_expression
Is the expression to be checked for NULL. check_expression can be of any type. replacement_value
Is the expression to be returned if check_expression is NULL. replacement_value must be of a type that is implicitly convertible to the type of check_expresssion.
References: https://docs.microsoft.com/en-us/sql/t-sql/functions/isnull-transact-sql

NEW QUESTION 88
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 90
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 audit all customer data.
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 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 G

Answer: B

Explanation:
The FOR SYSTEM_TIME ALL clause returns all the row versions from both the Temporal and History table. Note: A system-versioned temporal table defined through is a new type of user table in SQL Server 2016, here defined on the last line WITH (SYSTEM_VERSIONING = ON…, is designed to keep a full history of data changes and allow easy point in time analysis.
To query temporal data, the SELECT statement FROM<table> clause has a new clause FOR SYSTEM_TIME with five temporal-specific sub-clauses to query data across the current and history tables.
References: https://msdn.microsoft.com/en-us/library/dn935015.aspx

NEW QUESTION 93
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 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 96
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 99
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 101
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'
```

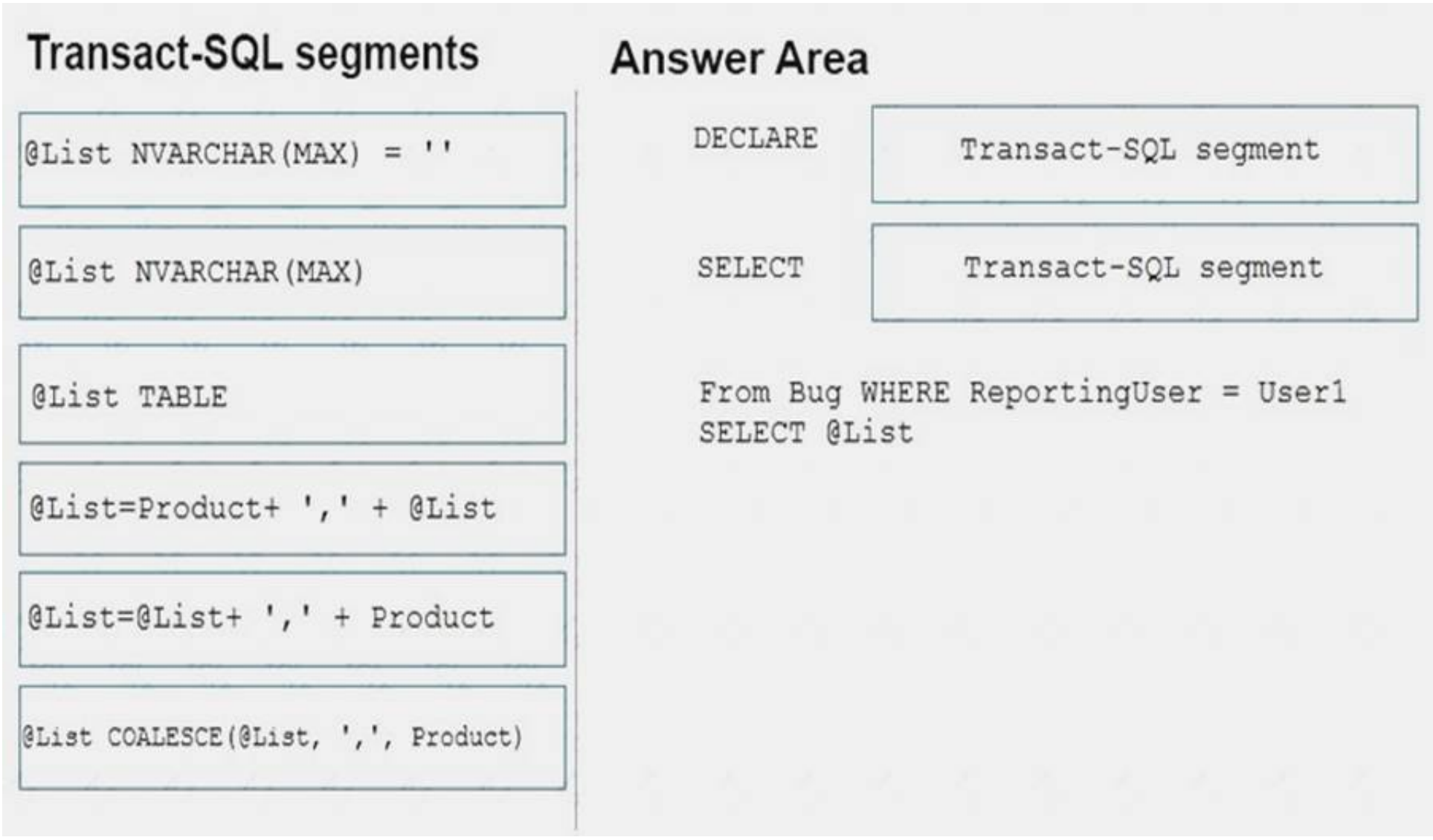
A. Option A
B. Option B
C. Option C
D. Option D
E. Option E
F. Option F
G. Option G
H. Option H

Answer: F

NEW QUESTION 102
You have a project management application. The application uses a Microsoft SQL Server database to store data. You are developing a software bug tracking add-on for the application.
The add-on must meet the following requirements:
Allow case sensitive searches for product.
Filter search results based on exact text in the description.
Support multibyte Unicode characters.
You run the following Transact-SQL statement:

```
CREATE TABLE Bug (
      Id UNIQUEIDENTIFIER NOT NULL,
      Product NVARCHAR(255) NOT NULL,
      Description NVARCHAR(max) NOT NULL,
      DateCreated DATETIME NOT NULL,
      ReportingUser VARCHAR(50) NULL
)
```

You need to display a comma separated list of all product bugs filed by a user named User1.
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.



A. Mastered
B. Not Mastered

Answer: A

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

NEW QUESTION 104
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.
All the sales data is stored in a table named table1. You have a table named table2 that contains city names. You need to create a query that lists only the cities that have no sales.
Which statement clause should you add to the query?

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

Answer: D

NEW QUESTION 107
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 SalesOrders.
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(*)
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 111
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.

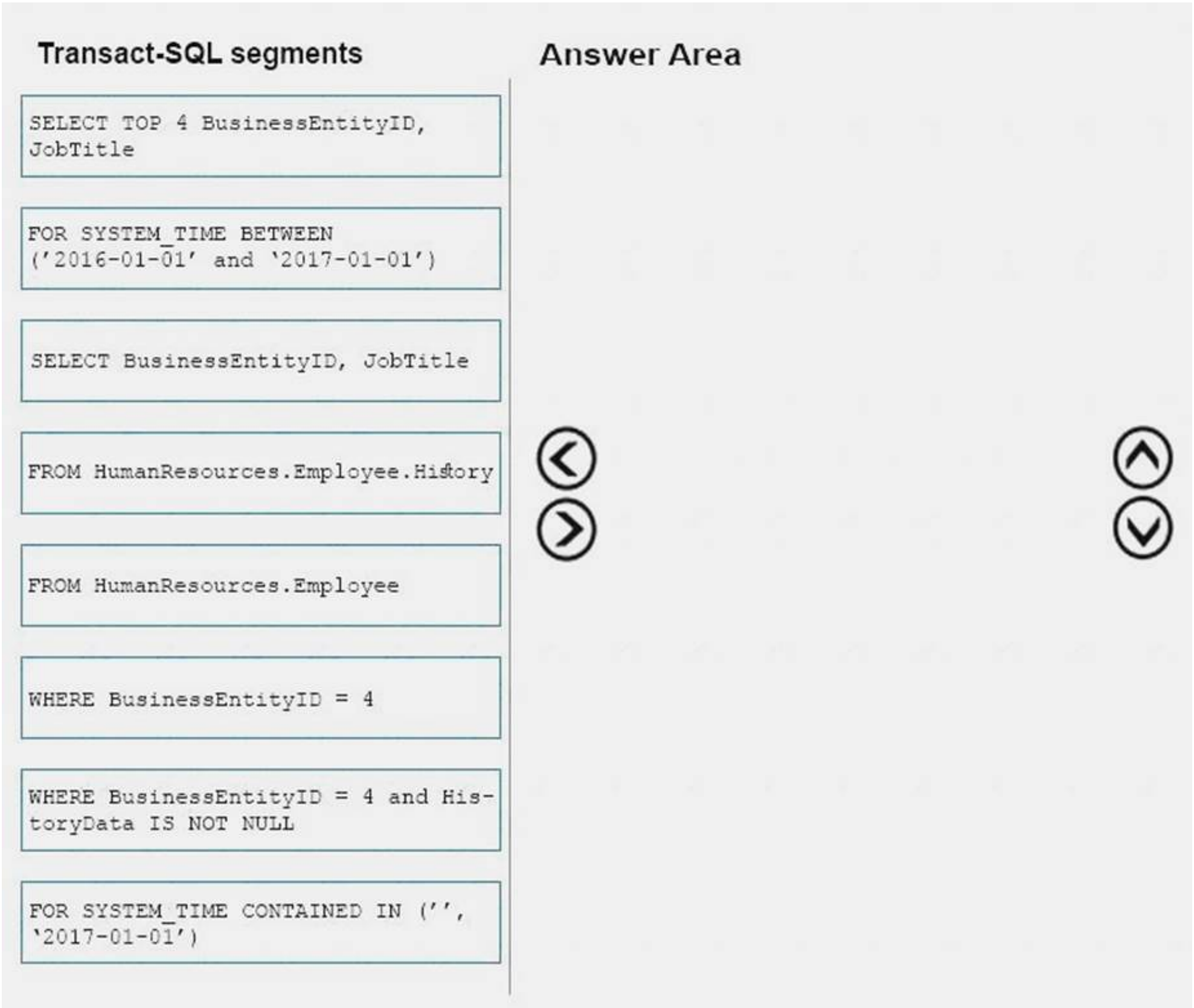
CountryName	StateProvinceName	CityName	TotalSales
United States	Alabama	Bazemore	$34402.00
United States	Alabama	Belgreen	$51714.65
United States	Alabama	Broomtown	$59.349.20
United States	Alabama	Coker	$26409.50
United States	Alabama	Eulaton	$54225.35

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 115
You have a table named HumanResources.Employee. You configure the table to use a default history table that contains 10 years of data.
You need to write a query that retrieves the values of the BusinessEntityID and JobTitle fields. You must retrieve all historical data up to January 1, 2017 where the value of the BusinessEntityID column equals 4.
Which four Transact-SQL segments should you use to develop the solution? To answer, move the appropriate Transact-SQL segments to the answer area and arrange them in the correct order.



A. Mastered
B. Not Mastered

Answer: A

Explanation:
References:
https://docs.microsoft.com/en-us/sql/relational-databases/tables/querying-data-in-a-system-versioned-temporal-t

NEW QUESTION 120
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
```

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

CountryName	StateProvinceName	CityName	TotalSales
United States	Wyoming	Yoder	$7638.11
United States	Wyoming	NULL	$1983745.99
United States	NULL	NULL	$2387435981.22
NULL	NULL	NULL	$2387435981.22

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: F

Explanation:
A cross join that does not have a WHERE clause produces the Cartesian product of the tables involved in the join. The size of a Cartesian product result set is the number of rows in the first table multiplied by the number of rows in the second table.
References: https://technet.microsoft.com/en-us/library/ms190690(v=sql.105).aspx

NEW QUESTION 124
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:

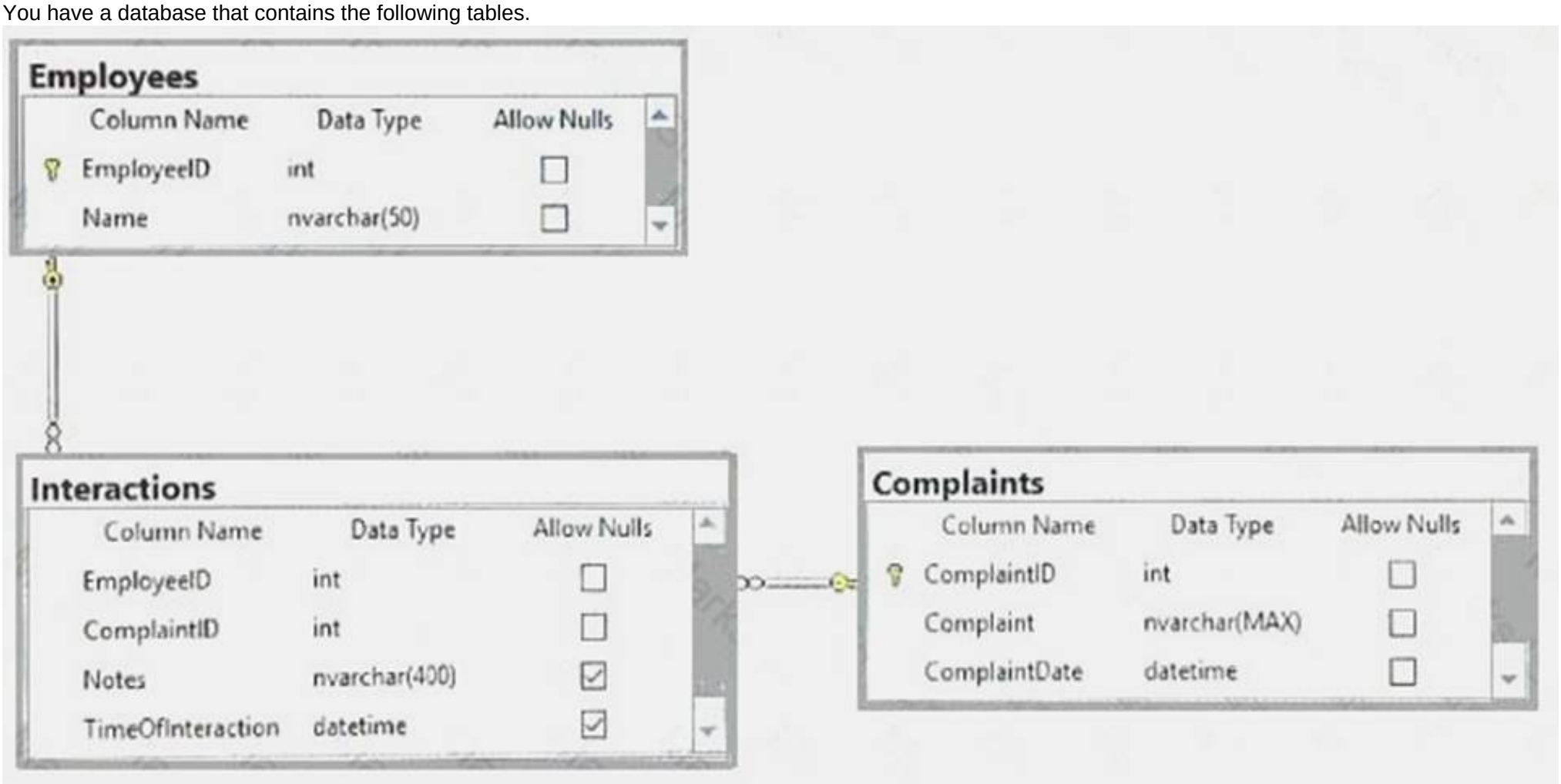
```
UPDATE Production.Products
SET ListPrice = ListPrice * 1.1
WHERE ListPrice
BETWEEN .01 and 99.99
```

Does the solution meet the goal?

A. Yes
B. No

Answer: A

NEW QUESTION 125
You have a database that contains the following tables.



You need to create a query that returns each complaint, the names of the employees handling the complaint, and the notes on each interaction. The Complaint field must be displayed first, followed by the employee's name and the notes. Complaints must be returned even if no interaction has occurred.
Construct the query using the following guidelines:
- Use two-part column names.
- Use one-part table names.
- Use the first letter of the table name as its alias.
- Do not Transact-SQL functions.
- Do not use implicit joins.

- Do not surround object names with square brackets.

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.

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
```

1 SELECT c.Complaint, e.Name, i.Notes 2 FROM Complaints c
3 JOIN
4 JOIN

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

A. Mastered
B. Not Mastered

Answer: A

Explanation:
1 SELECT c.Complaint, e.Name, i.Notes
2 FROM Complaints c
3 JOIN Interactions i ON c.ComplaintID = i.ComplaintID
4 JOIN Employees e ON i.EmployeeID = E.EmployeeID

NEW QUESTION 128
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	Almudena
3	CUS4	Jack
4	NULL	Jane
5	NULL	Francisco

Customer_HRSystem

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

Records that contain null values for CustomerCode can be uniquely identified by CustomerName. You need to display a list of customers that do not appear in the Customer_HRSystem table. 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: D

Explanation:
EXCEPT returns distinct rows from the left input query that aren't output by the right input query. References: https://msdn.microsoft.com/en-us/library/ms188055.aspx

NEW QUESTION 129
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:

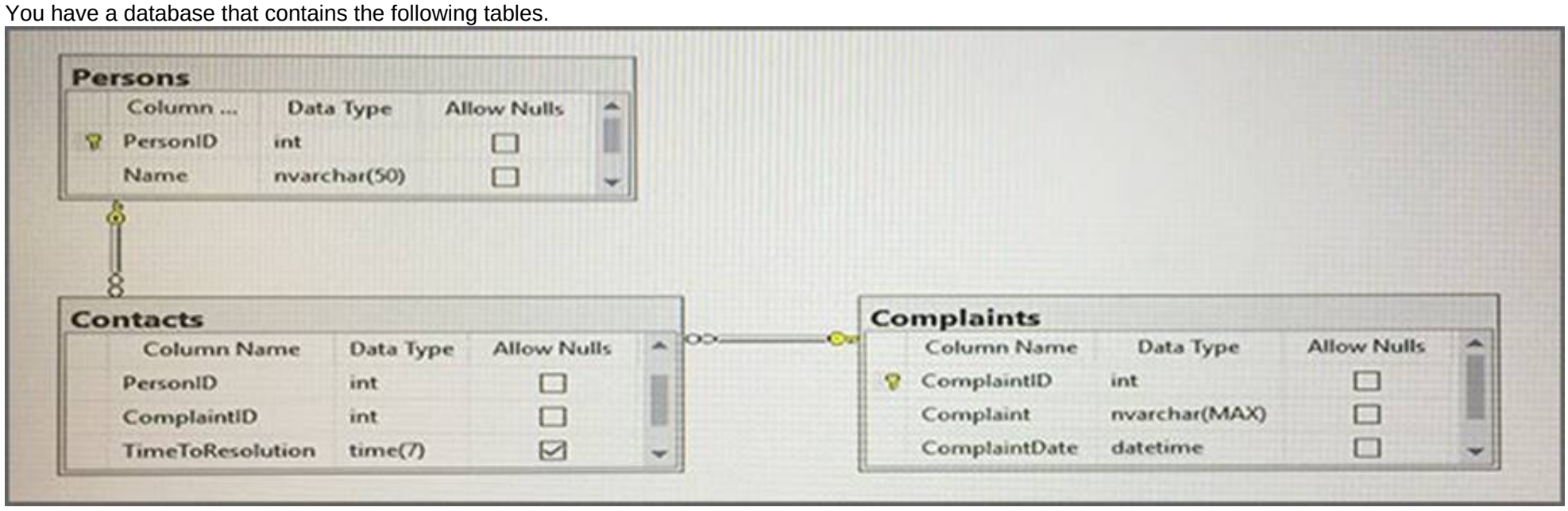
```
ALTER PROCEDURE InsertProduct
@ProductName nvarchar (100),
@UnitPrice decimal (18, 2),
@UnitsInStock int,
@UnitsOnOrder int
AS
BEGIN
  BEGIN TRY
    BEGIN TRANSACTION
      INSERT INTO Products (ProductName, UnitPrice, UnitsInStock, UnitsOnOrder)
      VALUES (@ProductName, @UnitPrice, @UnitsInStock, @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 131
You have a database that contains the following tables.



You need to create a query that lists all complaints from the Complaints table, and the name of the person handling the complaints if a person is assigned. The ComplaintID must be displayed first, followed by the person name.
Construct the query using the following guidelines:
- Use two-part column names.
- Use one-part table names.
- Do not use aliases for column names or table names.
- Do not use Transact-SQL functions.
- Do not use implicit joins.
- Do not surround object names with square brackets.

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.

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
```

```
1 SELECT Complaints.ComplaintId,
2 FROM
3 JOIN
4 JOIN
```

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

A. Mastered
B. Not Mastered

Answer: A

Explanation:
SELECT
Complaints.ComplaintID, Persons.Name FROM
Complaints LEFT OUTER JOIN Contacts ON Complaints.ComplaintID = Contacts.ComplaintID
LEFT OUTER JOIN Persons ON Contacts.PersonID = Persons.PersonID

NEW QUESTION 136
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
```

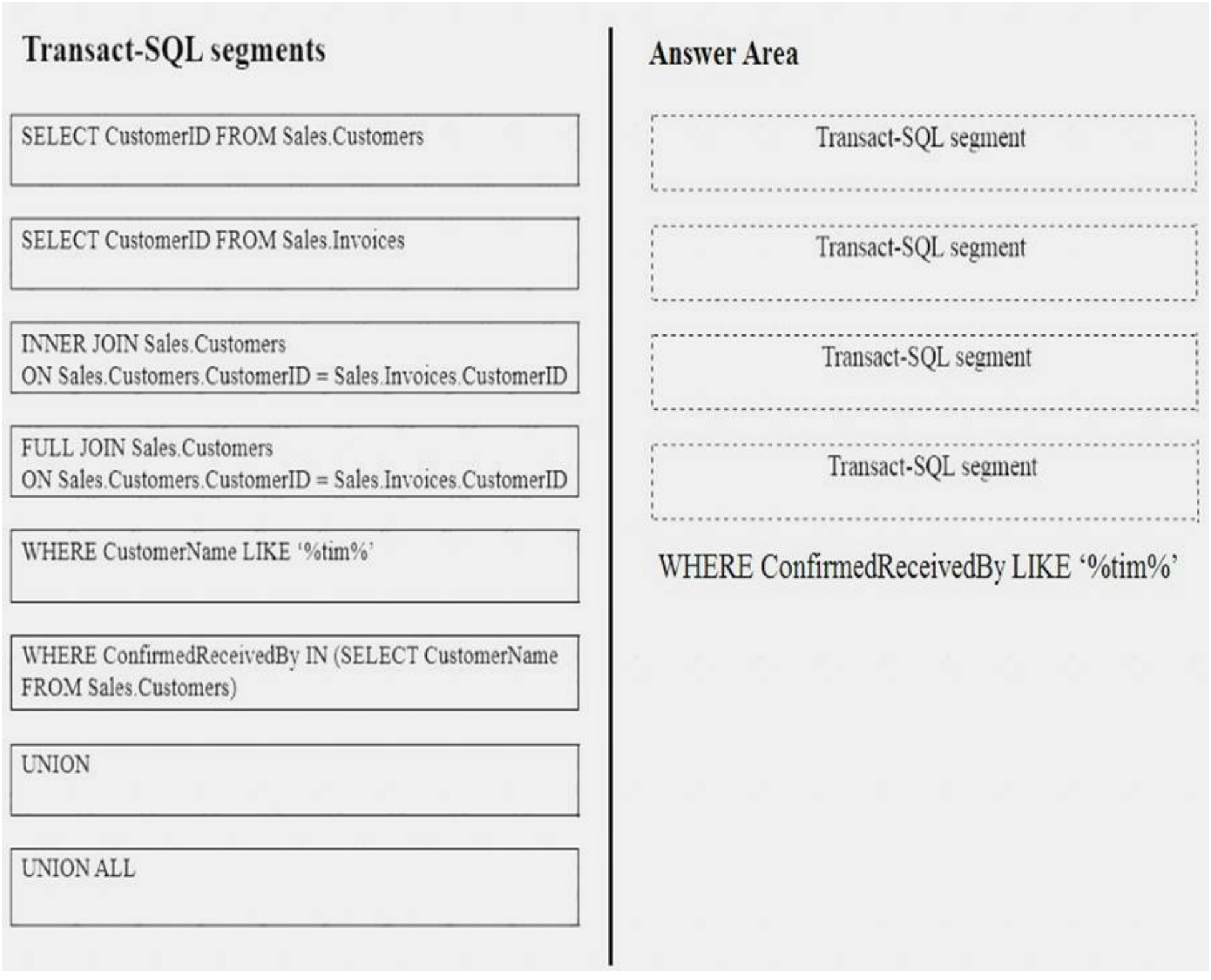
A. Option A
B. Option B
C. Option C
D. Option D

Answer: B

NEW QUESTION 138
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.



A. Mastered
B. Not Mastered

Answer: A

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 143
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 146

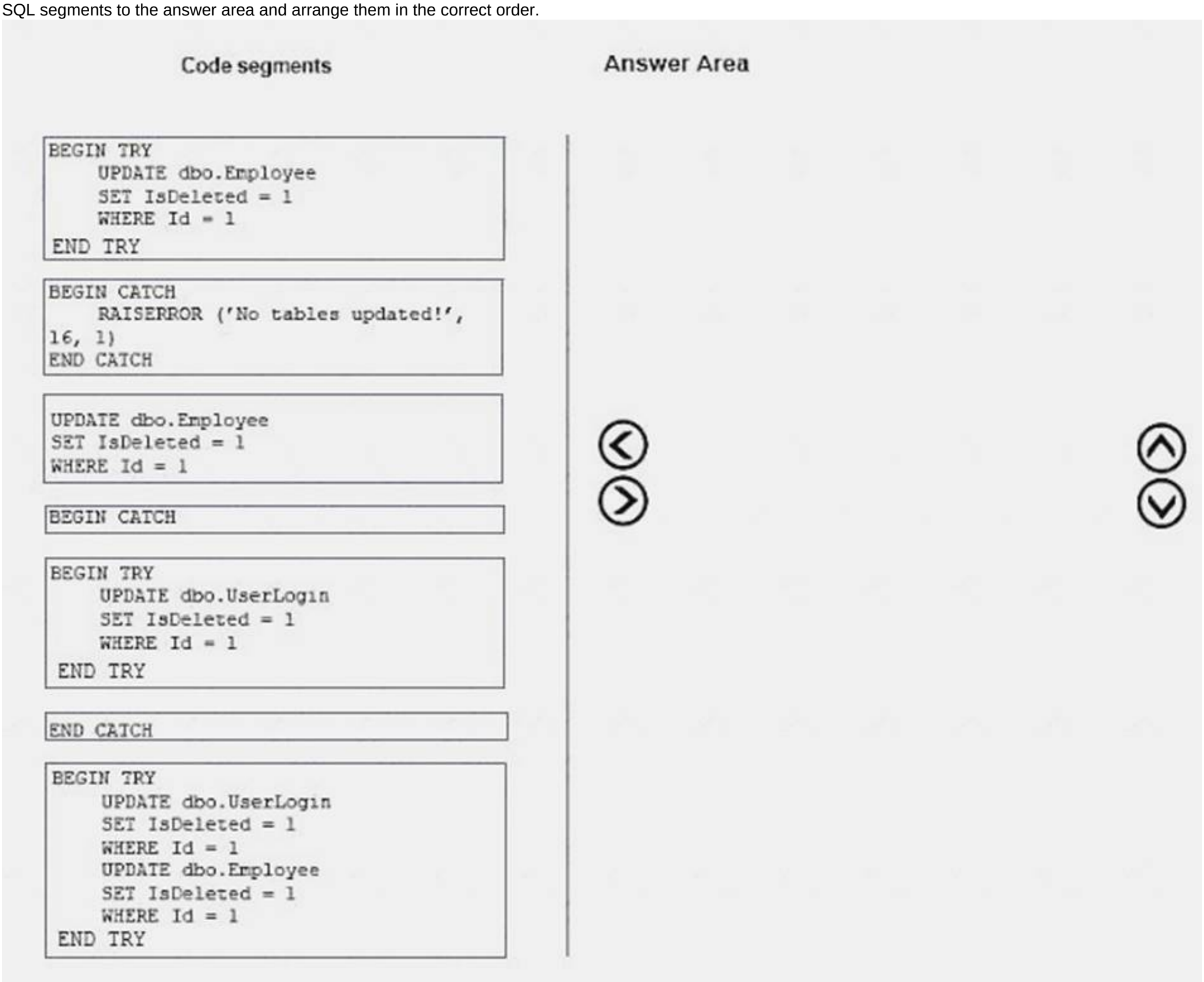
Note: This question is part of a series of questions that use the same or similar answer choices. An answer choice may be correct for more than one question in the series. Each question is independent of the other questions in this series. Information and details provided in a question apply only to that question.
You have a table named Person that contains information about employees. Users are requesting a way to access specific columns from the Person table without specifying the Person table in the query statement. The columns that users can access will be determined when the query is running against the data. There are some records that are restricted, and a trigger will evaluate whether the request is attempting to access a restricted record.
You need to ensure that users can access the needed columns while minimizing storage on the database server. 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: B

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

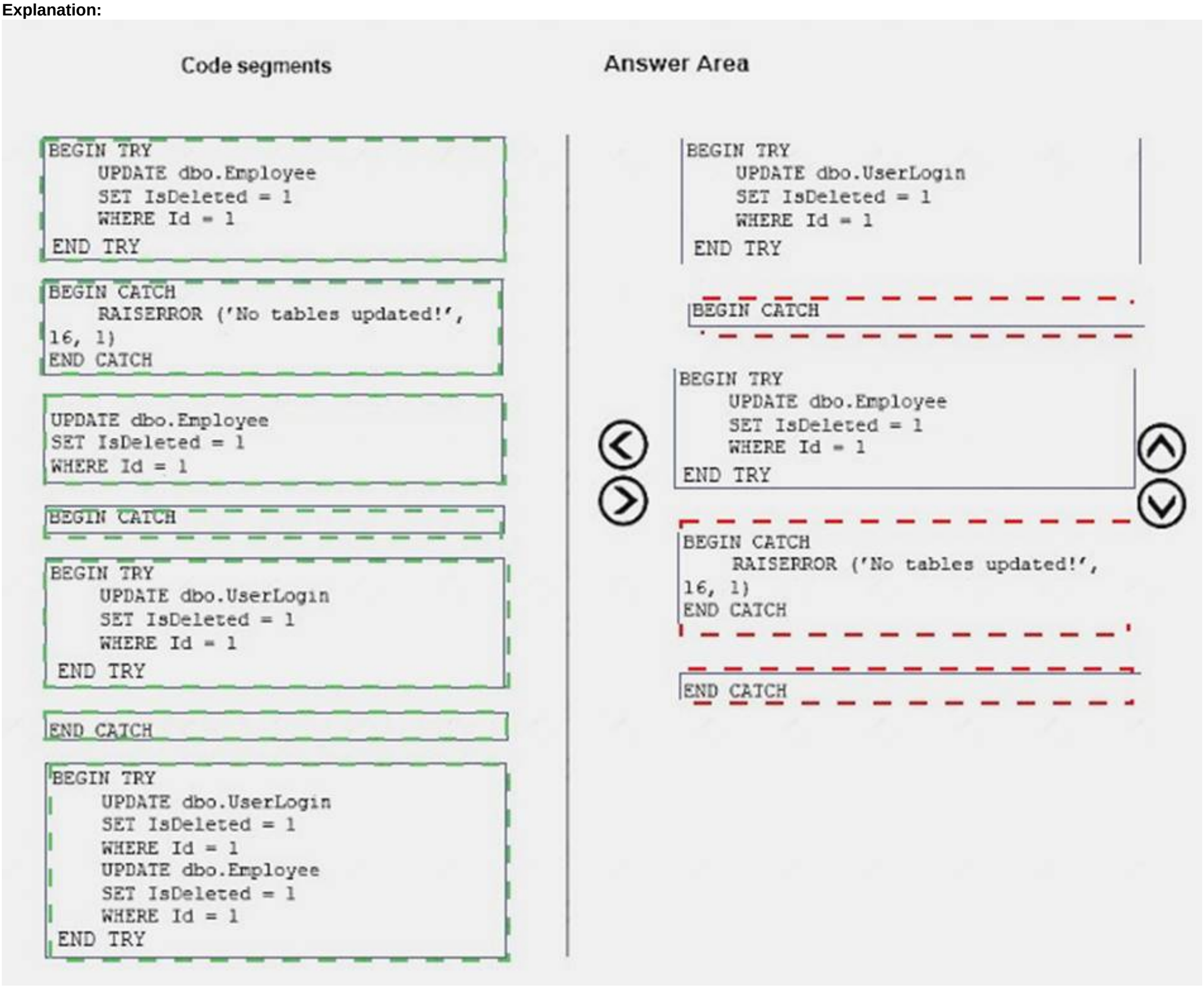
NEW QUESTION 147
You have two tables named UserLogin and Employee respectively.
You need to create a Transact-SQL script that meets the following requirements:
- The script must update the value of the IsDeleted column for the UserLogin table to 1 if the value of the Id column for the UserLogin table 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.



A. Mastered
B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 150
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
WHERE CustomerId = 3
INSERT INTO dbo.CustomerAudit (CustomerId, OldCreditLimit, NewCreditLimit)
SELECT CustomerId, CreditLimit, CreditLimit
FROM Customer
WHERE CustomerId = 3
```

B
```
UPDATE Customer
SET CreditLimit = 1000
WHERE CustomerId = 3
INSERT INTO dbo.CustomerAudit (CustomerId, OldCreditLimit, NewCreditLimit)
SELECT CustomerId, CreditLimit, CreditLimit
FROM Customer
```

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

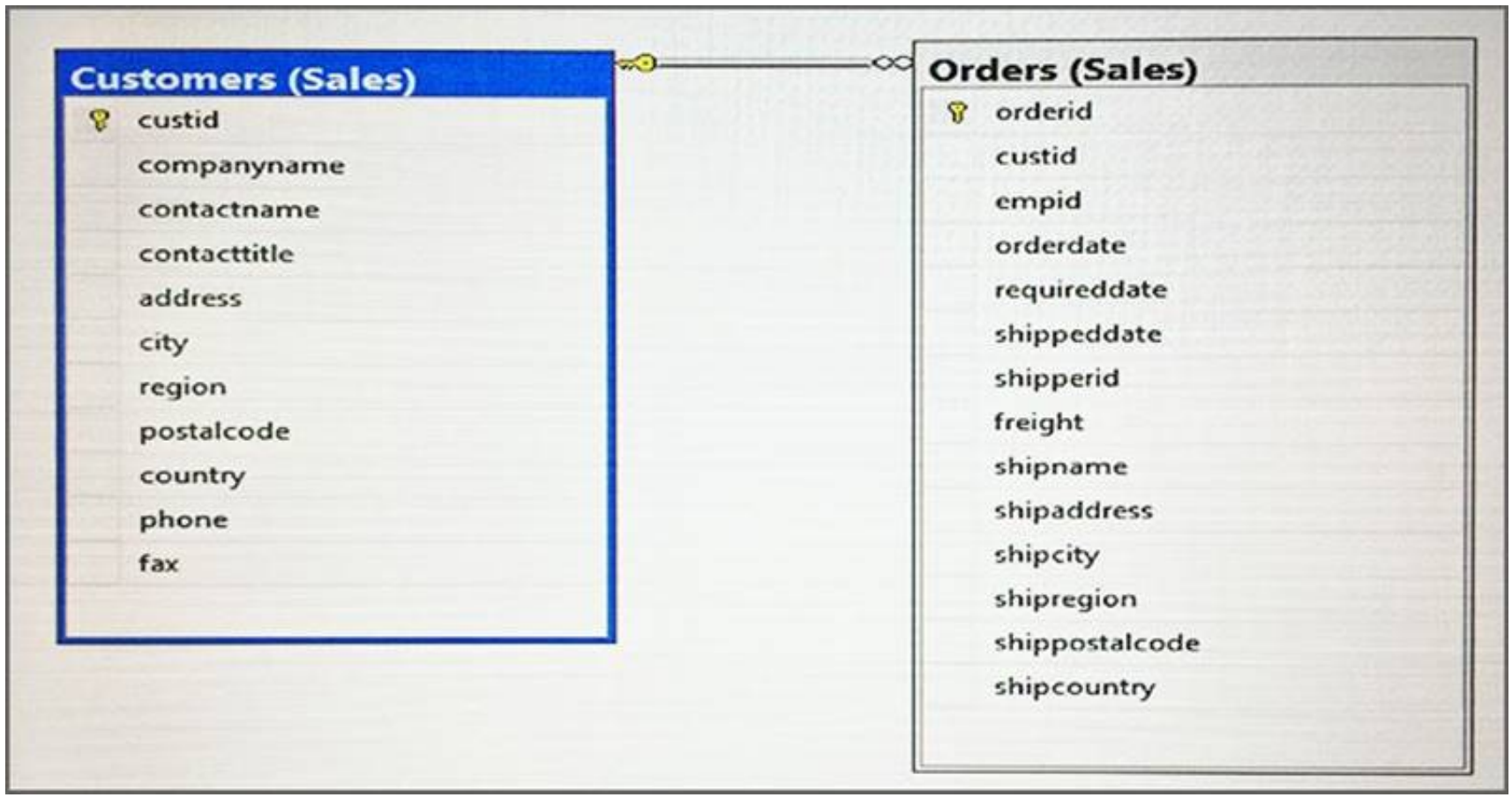
D
```
UPDATE Customer
SET CreditLimit = 1000
OUTPUT inserted.CustomerId, deleted.CreditLimit, inserted.CreditLimit
INTO CustomerAudit (CustomerId, OldCreditLimit, NewCreditLimit)
WHERE CustomerId = 3
```

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

Answer: D

Explanation:
The OUTPUT Clause returns information from, or expressions based on, each row affected by an INSERT, UPDATE, DELETE, or MERGE statement. These results can be returned to the processing application for use in such things as confirmation messages, archiving, and other such application requirements. The results can also be inserted into a table or table variable. Additionally, you can capture the results of an OUTPUT clause in a nested INSERT, UPDATE, DELETE, or MERGE statement, and insert those results into a target table or view.
Note: If the column modified by the .RITE clause is referenced in an OUTPUT clause, the complete value of the column, either the before image in deleted.column_name or the after image in inserted.column_name, is returned to the specified column in the table variable.

NEW QUESTION 152
You have a database that contains the following tables:



You need to write a query that returns a list of all customers who have not placed orders. Which Transact-SQL statement should you run?

A. SELECT c.custidFROM Sales.Customers c INNER JOIN Sales.Order oON c.custid = o.custid
B. SELECT custid FROM Sales.CustomersINTERSECTSELECT custid FROM Sales.Orders
C. SELECT c.custidFROM Sales.Customers c LEFT OUTER Sales.Order oON c.custid = o.custid
D. SELECT c.custidFROM Sales.Customers c LEFT OUTER JOIN Sales.Order o ON c.custid = o.custidWHERE orderid IS NULL

Answer: D

Explanation:
Inner joins return rows only when there is at least one row from both tables that matches the join condition. Inner joins eliminate the rows that do not match with a row from the other table. Outer joins, however, return all rows from at least one of the tables or views mentioned in the FROM clause, as long as those rows meet any WHERE or HAVING search conditions. All rows are retrieved from the left table referenced with a left outer join, and all rows from the right table referenced in a right outer join. All rows from both tables are returned in a full outer join.
References: https://technet.microsoft.com/en-us/library/ms187518(v=sql.105).aspx

NEW QUESTION 157
You need to create a table named MiscellaneousPayment that meets the following requirements:

Column name	Requirements
Id	• primary key of the table • value must be globally unique • value must be automatically generated for INSERTs operations
Reason	• stores reasons for the payment • supports multilingual values • supports values with 1 to 500 characters
Amount	• stores monetary values • must not produce rounding errors with calculations

Which Transact-SQL statement should you run?

A. CREATE TABLE MiscellaneousPayment (Id uniqueidentifier DEFAULT NEWSEQUENTIALID() PRIMARY KEY,Reason varchar(500),Amount money)
B. CREATE TABLE MiscellaneousPayment (Id int identify(1,1)PRIMARY KEY,Reason nvarchar(500),Amount numeric(19,4))
C. CREATE TABLE MiscellaneousPayment (Id uniqueidentifier DEFAULT NEWSEQUENTIALID() PRIMARY KEY,Reason varchar(500),Amount decimal(19,4))
D. CREATE TABLE MiscellaneousPayment (Id uniqueidentifier DEFAULT NEWID() PRIMARY KEY,Reason nvarchar(500),Amount decimal(19,4))

Answer: D

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 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+COALESCE(UnitsOnOrder,
NULL)) AS TotalUnitPrice  FROM Products
```

Does the solution meet the goal?

A. Yes
B. No

Answer: B

NEW QUESTION 165
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. Products
SET ListPrice = (ListPrice* .1)
WHERE ListPrice <100
```

Does the solution meet the goal?

A. Yes
B. No

Answer: B

Explanation:
Mathematical equation will only return 10 % of the value.

NEW QUESTION 167
You are building a stored procedure named sp1 that calls a stored procedure named SP2.
SP2 calls another stored procedure named SP3 that returns a Recordset. The Recordset is stored in a temporary table.
You need to ensure that SP2 returns a text value to sp1. What should you do?

A. Return the text value by using the Retumvaiue when sp2 is called.
B. Create a temporary table in sp2, and then insert the text value into the table.
C. Create a table variable in SP2, and then insert the text value into the table.
D. Add the text value to an output parameter of SP2.

Answer: B

NEW QUESTION 168
You create a table named Sales.Orders by running the following Transact-SQL statement:

```
CREATE TABLE Sales.Orders (
      OrderID int NOT NULL,
      OrderDate date NULL,
      ShippedDate date NULL,
      Status varchar(10),
      CONSTRAINT PK_ORDERS PRIMARY KEY CLUSTERED
)
```

You need to write a query that meets the following requirements:
- removes orders from the table that were placed before January 1, 2012
- uses the date format of YYYYMMDD
- ensures that the order has been shipped before deleting the record Construct the query using the following guidelines:
- use one-part column names and two-part table names
- do not use functions
- do not surround object names with square brackets
- do not use variables
- do not use aliases for column names and table names

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  DELETE
```

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

A. Mastered
B. Not Mastered

Answer: A

Explanation:
DELETE Sales.Orders FROM Sales.Orders
WHERE OrderDate < '20120101' AND ShippedDate IS NOT NULL

NEW QUESTION 169
You have a project management application. The application uses a Microsoft SQL Server database to store data. You are developing a software bug tracking add-on for the application.
The add-on must meet the following requirements:
Allow case sensitive searches for product.
Filter search results based on exact text in the description.
Support multibyte Unicode characters.
You run the following Transact-SQL statement:

```
CREATE TABLE Bug (
      Id UNIQUEIDENTIFIER NOT NULL,
      Product NVARCHAR(255) NOT NULL,
      Description NVARCHAR(max) NOT NULL,
      DateCreated DATETIME NULL,
      ReportingUser VARCHAR(50) NULL
)
```

Users connect to an instance of the bug tracking application that is hosted in New York City. Users in Seattle must be able to display the local date and time for any bugs that they create.
You need to ensure that the DateCreated column displays correctly. Which Transact-SQL statement should you run?

A. SELECT Id,Product,DateCreated AT TIME ZONE 'Pacific Standard Time' FROM Bug
B. SELECT Id,Product, DATEADD(hh, -8, DateCreated) FROM Bug
C. SELECT Id,Product, TODATETIMEOFFSET(DateCreated, -8) FROM Bug
D. SELECT Id,Product,CAST(DateCreated AS DATETIMEOFFSET) FROM Bug

Answer: C

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

NEW QUESTION 173
You have a date related query that would benefit from an indexed view. You need to create the indexed view.
Which two Transact-SQL functions can you use? Each correct answer presents a complete solution. NOTE: Each correct selection is worth one point

A. DATEADD

B. AT TIME ZONE
C. GETUTCDATE
D. DATEDIFF

Answer: A

NEW QUESTION 174
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 clustered index on the primary key column. Does this meet the goal?

A. Yes
B. No

Answer: A

NEW QUESTION 178
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 ALWAYS 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 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 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 180
You have a table named HumanResources.Department that was created with the query shown in the exhibit. (Click the Exhibit button.)

```
CREATE TABLE HumanResources.Department
(
    DepID int IDENTITY(1,1) NOT NULL PRIMARY KEY CLUSTERED
  , DeptName varchar(50) NOT NULL
  , ManagerID INT NULL
  , ParentDeptID int NULL
  , SysStartTime datetime2 GENERATED ALWAYS AS ROW START NOT NULL
  , SysEndTime datetime2 GENERATED ALWAYS AS ROW END NOT NULL
  , PERIOD FOR SYSTEM_TIME (SysStartTime,SysEndTime)
)
WITH (SYSTEM_VERSIONING = ON)
```

You need to query temporal data in the table.
In the table below, identify the Transact-SQL segments that must be used to retrieve the appropriate data. NOTE: Make only one selection in each column.

Answer Area

Clause	At a particular point in time	Only from history table
All	○	○
FROM	○	○
AS OF	○	○
BETWEEN	○	○
CONTAINED IN	○	○

A. Mastered
B. Not Mastered

Answer: A

Explanation:
AS OF: Returns a table with a rows containing the values that were actual (current) at the specified point in time in the past.
CONTAINED IN: If you search for non-current row versions only, we recommend you to use CONTAINED IN as it works only with the history table and will yield the best query performance.

NEW QUESTION 185
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 accepts a parameter of type geography and 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:
Return the average normalized readings named AverageReading.
Return the nearest mountain name named Mountain.
Do not return any other columns.
Exclude sensors for which no normalized reading exists. Construct the query using the following guidelines:
Use one part names to reference tables, columns and functions.
Do not use parentheses unless required.
Define column headings using the AS keyword.
Do not surround object names with square brackets.

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 avg (normalizedreading) as averagereading, location as mountain
2 FROM GroundSensors
3 WHERE normalizedreading is not null
```

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

A. Mastered
B. Not Mastered

Answer: A

Explanation:
1 SELECT avg (normalizedreading) as AverageReading, location as Mountain
2 FROM GroundSensors
3 WHERE normalizedreading is not null
Note: On line 1 change to AverageReading and change to Mountain.

NEW QUESTION 188
You have a table named Cities that has the following two columns: CityID and CityName. The CityID column uses the int data type, and CityName uses nvarchar(max).
You have a table named RawSurvey. Each row includes an identifier for a question and the number of persons that responded to that question from each of four cities. The table contains the following representative data:

QuestionID	Tokyo	Boston	London	New York
Q1	1	42	48	51
Q2	22	39	58	42
Q3	29	41	61	33
Q4	62	70	60	50
Q5	63	31	41	21
Q6	32	1	16	34

A reporting table named SurveyReport has the following columns: CityID, QuestionID, and RawCount, where RawCount is the value from the RawSurvey table.
You need to write a Transact-SQL query to meet the following requirements:
- Retrieve data from the RawSurvey table in the format of the SurveyReport table.
- The CityID must contain the CityID of the city that was surveyed.
- The order of cities in all SELECT queries must match the order in the RawSurvey table.
- The order of cities in all IN statements must match the order in the RawSurvey table. Construct the query using the following guidelines:
- Use one-part names to reference tables and columns, except where not possible.
- ALL SELECT statements must specify columns.
- Do not use column or table aliases, except those provided.
- 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 CityID, QuestionID, RawCount
2 AS t1
3 AS t2
4 JOIN
```

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

A. Mastered
B. Not Mastered

Answer: A

Explanation:
UNPIVOT must be used to rotate columns of the Rawsurvey table into column values. References: https://technet.microsoft.com/en-us/library/ms177410(v=sql.105).aspx

NEW QUESTION 191
You are building a stored procedure named SP1 that calls a stored procedure named SP2.
SP2 calls another stored procedure named SP3 that returns a Recordset. The Recordset is stored in a temporary table.
You need to ensure that SP2 returns a text value to SP1. What should you do?

A. Create a temporary table in SP2, and then insert the text value into the table.
B. Return the text value by using the ReturnValue when SP2 is called.
C. Add the txt value to an OUTPUT parameter of SP2.
D. Create a table variable in SP2, and then insert the text value into the table.

Answer: C

NEW QUESTION 193
.....

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