

## 70-761 Dumps

### Querying Data with Transact-SQL (beta)

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



**NEW QUESTION 1**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section. You will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You create a table named Products by running the following Transact-SQL statement:

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

You have the following stored procedure:

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

You need to modify the stored procedure to meet the following new requirements:

Insert product records as a single unit of work.

Return error number 51000 when a product fails to insert into the database.

If a product record insert operation fails, the product information must not be permanently written to the database.

Solution: You run the following Transact-SQL statement:

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

Does the solution meet the goal?

- A. Yes
- B. No

**Answer:** B

## NEW QUESTION 2

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

You have a database that contains tables named Customer\_CRMSystem and Customer\_HRSystem. Both tables use the following structure:

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

The tables include the following records: Customer\_CRMSystem

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

Customer\_HRSystem

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

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

tables.

Which Transact-SQL statement should you run?

**A**

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

**B**

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

**C**

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

**D**

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

**E**

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

**F**

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

**G**

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

**H**

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

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

**Answer:** H

**Explanation:**

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

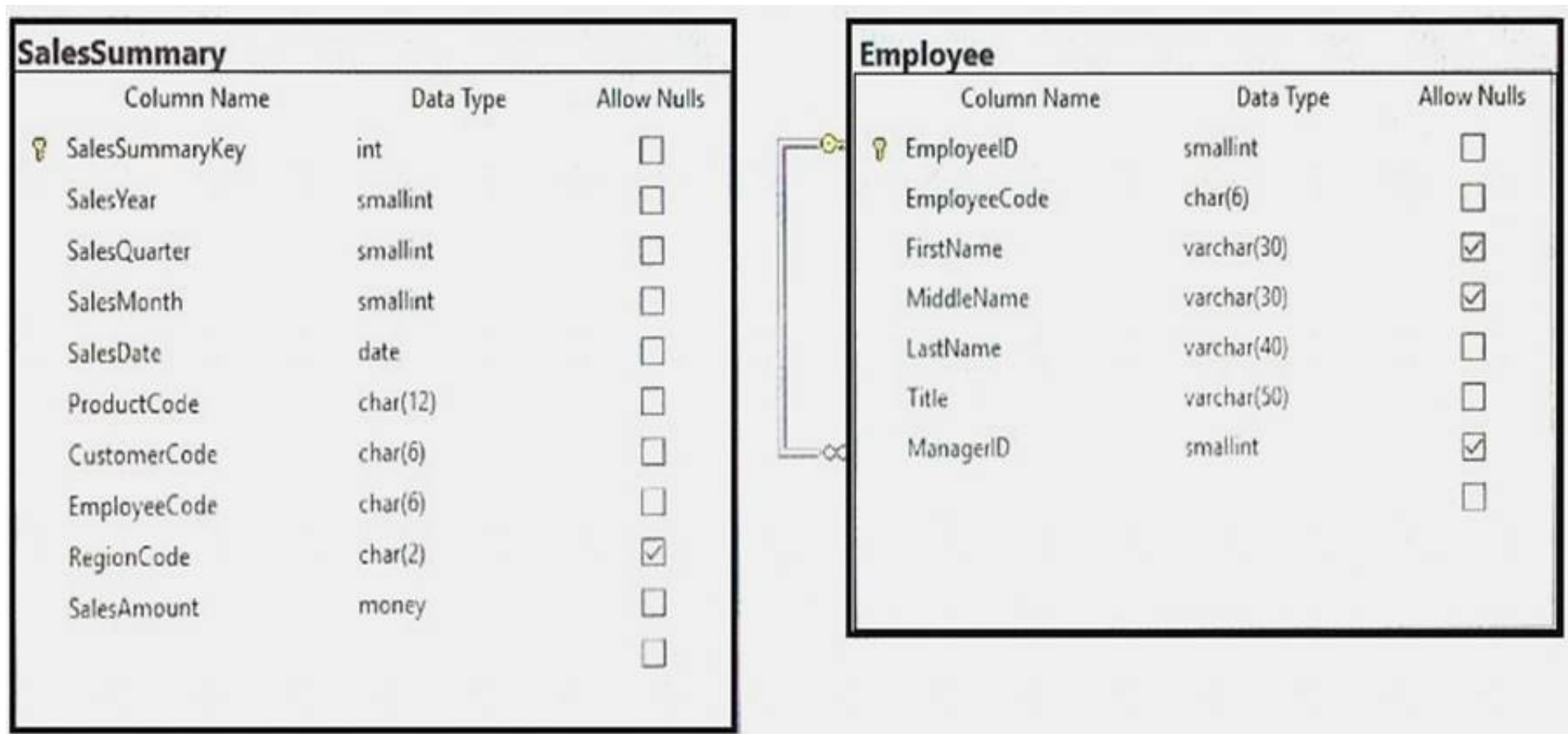
**NEW QUESTION 3**

Note: This question is part of a series of questions that 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 word 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.

Objects	Answer area	
<div>view</div>	Report	Object
<div>indexed view</div>	Report1	<div>Object</div>
<div>subquery</div>	Report2	<div>Object</div>
<div>scalar function</div>		
<div>table-valued function</div>		
<div>stored procedure</div>		
<div>derived table</div>		
<div>common table expression (CTE)</div>		

- 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](https://technet.microsoft.com/en-us/library/ms190766(v=sql.105).aspx)

NEW QUESTION 4

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.

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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 CURRENT OF cur
```

Does the solution meet the goal?

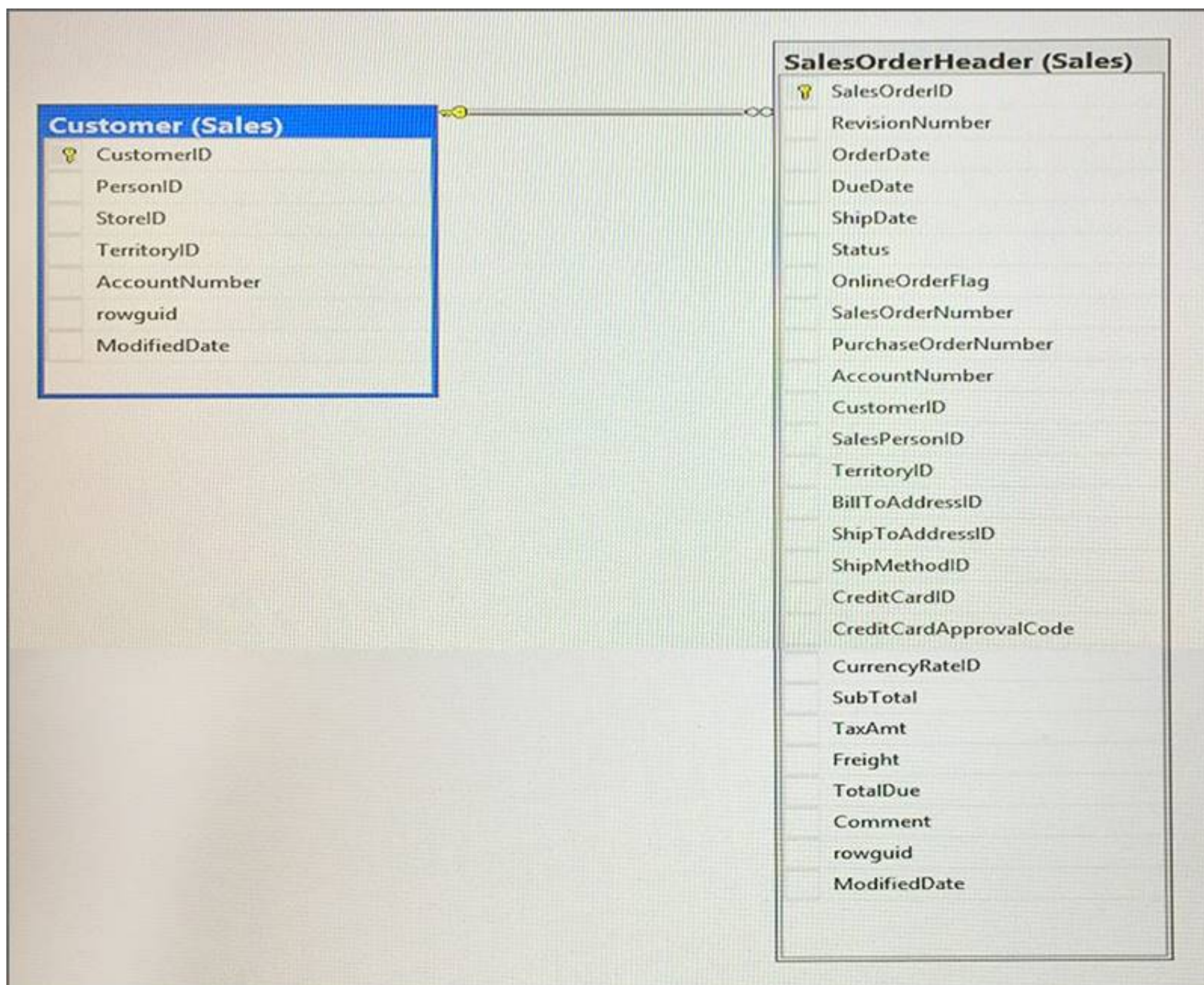
- A. YES
- B. NO

**Answer:** B

#### NEW QUESTION 5

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





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



A

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

B

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

C

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

D

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

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

**Answer:** A

**Explanation:**

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

**NEW QUESTION 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 database object that calculates the total price of an order including the sales tax. The database object must meet the following requirements:

- Reduce the compilation cost of Transact-SQL code by caching the plans and reusing them for repeated execution.

- Return a value.

- Be callable from a SELECT statement.

How should you complete the Transact-SQL statements? To answer, select the appropriate Transact-SQL segments in the answer area.

## Answer Area

CREATE ▼ Sales.CalculateOrderPrice

PROCEDURE  
VIEW  
FUNCTION

(  
    @orderID int  
)

▼  
WITH EXECUTE AS OWNER  
RETURNS decimal(18,2)  
RETURNS TABLE

AS

▼  
BEGIN TRAN  
BEGIN  
RETURN

DECLARE @OrderPrice decimal(18,2)  
DECLARE @CalculatedTaxRate decimal(18,2)  
SET @OrderPrice = (SELECT SUM(Quantity \* UnitPrice) FROM Sales.OrderLines WHERE OrderID = @OrderID)  
SET @CalculatedTaxRate = (SELECT 1 + (MAX(TaxRate) / 100) FROM Sales.OrderLines WHERE OrderID = @OrderID)

RETURN ( ▼ )

@OrderPrice \* @CalculatedTaxRate  
SELECT (#OrderPrice \* #CalculatedTaxRate) AS CalculatedOrderPrice  
CalculateOrderPrice

▼  
RETURN  
COMMIT  
END

- A. Mastered  
B. Not Mastered

**Answer:** A

### Explanation:

Box 1: FUNCTION

To be able to return a value we should use a scalar function.

CREATE FUNCTION creates a user-defined function in SQL Server and Azure SQL Database. The return value can either be a scalar (single) value or a table.

Box 2: RETURNS decimal(18,2)

Use the same data format as used in the UnitPrice column. Box 3: BEGIN

Transact-SQL Scalar Function Syntax include the BEGIN ..END construct.

CREATE [ OR ALTER ] FUNCTION [ schema\_name. ] function\_name

( [ { @parameter\_name [ AS ][ type\_schema\_name. ] parameter\_data\_type [ = default ] [ READONLY ] } ]

[ ,...n ]

)

RETURNS return\_data\_type



```
[ WITH <function_option> [ ,...n ] ][ AS ]  
BEGIN  
function_body  
RETURN scalar_expression END  
[ ; ]
```

Box 4: @OrderPrice \* @CalculatedTaxRate Calculate the price including tax.

Box 5: END

Transact-SQL Scalar Function Syntax include the BEGIN ..END construct. References: <https://msdn.microsoft.com/en-us/library/ms186755.aspx>

#### NEW QUESTION 7

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You create a table named Products by running the following Transact-SQL statement:

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

You have the following stored procedure:

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

You need to modify the stored procedure to meet the following new requirements:

- Insert product records as a single unit of work.
- Return error number 51000 when a product fails to insert into the database.
- If a product record insert operation fails, the product information must not be permanently written to the database.

Solution: You run the following Transact-SQL statement:

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

Does the solution meet the goal?

- A. Yes
- B. No

**Answer: B**

**Explanation:**



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

#### NEW QUESTION 8

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 stores sales and order information.

Users must be able to extract information from the tables on an ad hoc basis. They must also be able to reference the extracted information as a single table.

You need to implement a solution that allows users to retrieve the data required, based on variables defined at the time of the query.

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: C**

#### Explanation:

User-defined functions that return a table data type can be powerful alternatives to views. These functions are referred to as table-valued functions. A table-valued user-defined function can be used where table or view expressions are allowed in Transact-SQL queries. While views are limited to a single SELECT statement, user-defined functions can contain additional statements that allow more powerful logic than is possible in views.

A table-valued user-defined function can also replace stored procedures that return a single result set. References: [https://technet.microsoft.com/en-us/library/ms191165\(v=sql.105\).aspx](https://technet.microsoft.com/en-us/library/ms191165(v=sql.105).aspx)

#### NEW QUESTION 9

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.

Transact-SQL segments

0, 1, 2, 3, 4

(0...4)

BETWEEN 0 AND 4

PIVOT

GROUP BY

[CreditLimit]

AVG(CreditLimit)

Answer Area

SELECT

Transact-SQL segment

FROM (

SELECT

StandardDiscountPercentage,

Transact-SQL segment

FROM Sales.Customers

) AS SourceTable

Transact-SQL segment

(

AVG(CreditLimit)

FOR StandardDiscountPercentage IN (

Transact-SQL segment

) AS CreditLimitTable

- 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](https://technet.microsoft.com/en-us/library/ms177410(v=sql.105).aspx)

NEW QUESTION 10

You are developing a database to track employee progress relative to training goals. You run the following Transact-SQL statements:

```
CREATE TABLE Employees(  
    EmployeeID INT IDENTITY(1,1) NOT NULL,  
    Name VARCHAR(150) NULL,  
    CONSTRAINT PK_Employees PRIMARY KEY CLUSTERED (  
        EmployeeID ASC  
    ) WITH (STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF) ON PRIMARY  
    ) ON PRIMARY  
  
CREATE TABLE CoursesTaken(  
    CourseID INT NOT NULL,  
    EmployeeID INT NOT NULL,  
    CourseTakenOn DATE NULL,  
    CONSTRAINT PK_CoursesTaken PRIMARY KEY CLUSTERED (  
        CourseID ASC, EmployeeID ASC  
    ) WITH (STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF) ON PRIMARY  
    ) ON PRIMARY
```

You must build a report that shows all Employees and the courses that they have taken. Employees that have not taken training courses must still appear in the report. The report must display NULL in the course column for these employees.

You need to create a query for the report.

A)

```
SELECT e.Name, c.Course  
FROM dbo.Courses c  
JOIN dbo.CoursesTaken ct ON c.CourseID = ct.CourseID  
INNER JOIN dbo.Employees e ON ct.EmployeeID = e.EmployeeID
```

B)

```
SELECT e.Name, c.Course  
FROM dbo.Courses c  
JOIN dbo.CoursesTaken ct ON c.CourseID = ct.CourseID  
JOIN dbo.Employees e ON ct.EmployeeID = e.EmployeeID
```

C)

```
SELECT e.Name, c.Course  
FROM dbo.Courses c  
JOIN dbo.CoursesTaken ct ON c.CourseID = ct.CourseID  
LEFT JOIN dbo.Employees e ON ct.EmployeeID = e.EmployeeID
```

D)

```
SELECT e.Name, c.Course  
FROM dbo.Courses c  
JOIN dbo.CoursesTaken ct ON c.CourseID = ct.CourseID  
RIGHT JOIN dbo.Employees e ON ct.EmployeeID = e.EmployeeID
```

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

**Answer:** A

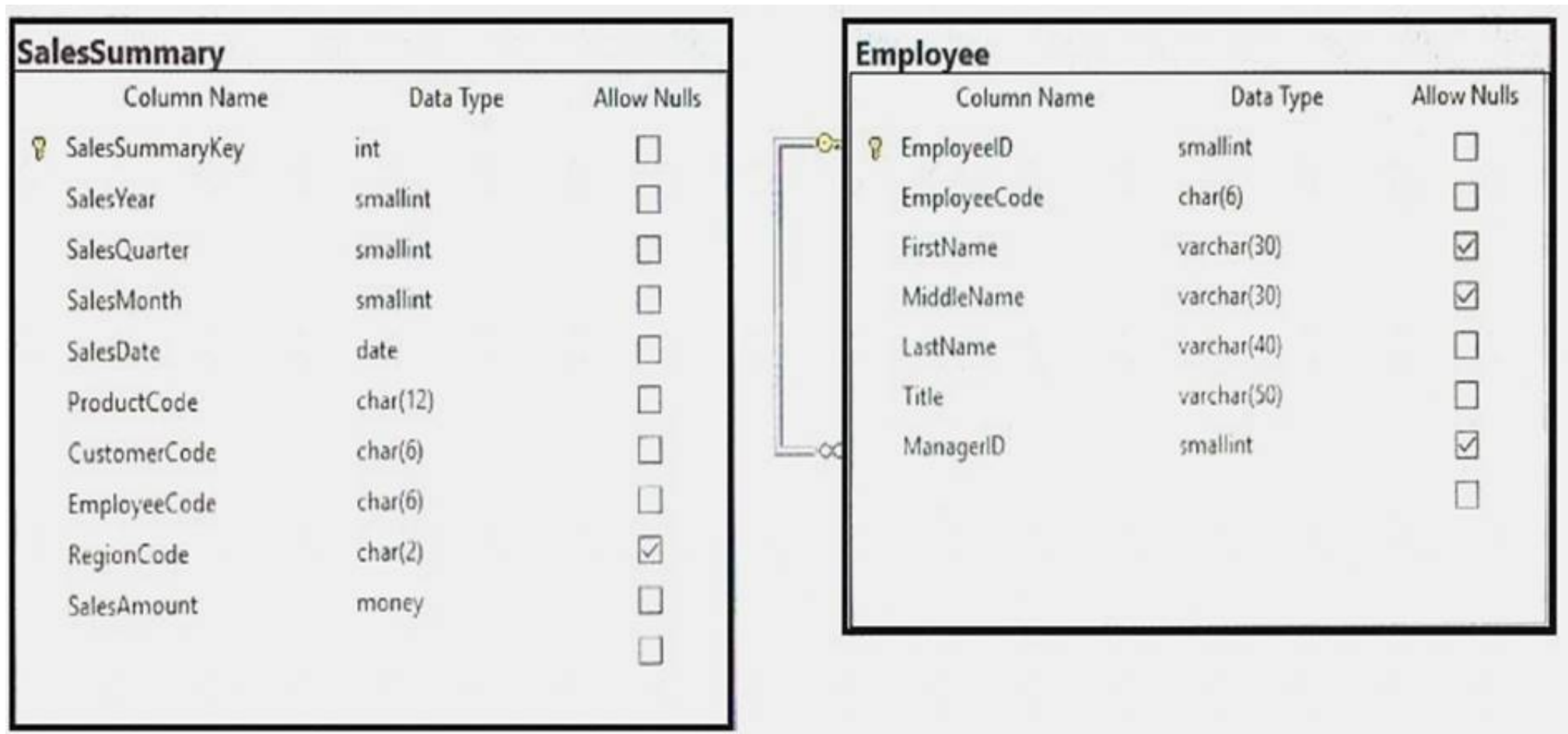
#### NEW QUESTION 10

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 word 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 a query to return the data for the Sales Summary report.

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

## Transact-SQL segments

## Answer Area

```
SalesQuarter_cte (SalesYear, SalesQuarter,
QuarterSalesAmount)
AS
(
    SELECT SalesYear, SalesQuarter, SUM
(SalesAmount) QuarterSalesAmount
    FROM dbo.SalesSummary
    GROUP BY SalesYear, SalesQuarter
)
```

```
SELECT y.SalesYear, q.SalesQuarter,
y.YearSalesAmount, q.QuarterSalesAmount
FROM SalesYear_cte y
INNER JOIN SalesQuarter_cte q
ON y.SalesYear = q.SalesYear;
```

```
SELECT SalesYear, 0 AS SalesQuarter, SUM
(SalesAmount) YearSalesAmount, 0
QuarterSalesAmount
FROM dbo.SalesSummary
GROUP BY SalesYear
```

```
SELECT SalesYear, SalesQuarter, 0
YearSalesAmount, SUM(SalesAmount)
QuarterSalesAmount
FROM dbo.SalesSummary
GROUP BY SalesYear, SalesQuarter
```

```
WITH SalesYear_cte (SalesYear, SalesQuarter,
QuarterSalesAmount, YearSalesAmount )
AS
(
    SELECT SalesYear, SalesQuarter, 0
QuarterSalesAmount, SUM (SalesAmount)
YearSalesAmount
    FROM dbo.SalesSummary
    GROUP BY SalesYear, SalesQuarter
),
```

UNION ALL

```
WITH SalesYear_cte (SalesYear, YearSalesAmount)
AS
(
    SELECT SalesYear, SUM (SalesAmount)
YearSalesAmount
    FROM dbo.SalesSummary
    GROUP BY SalesYear
),
```



- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Use two CTE expressions, one for salesYear and one for SalesQuarter, and combine them with a SELECT statement.

Note: A common table expression (CTE) can be thought of as a temporary result set that is defined within the execution scope of a single SELECT, INSERT, UPDATE, DELETE, or CREATE VIEW statement. A CTE is similar to a derived table in that it is not stored as an object and lasts only for the duration of the query.

References: [https://technet.microsoft.com/en-us/library/ms190766\(v=sql.105\).aspx](https://technet.microsoft.com/en-us/library/ms190766(v=sql.105).aspx)

### NEW QUESTION 13

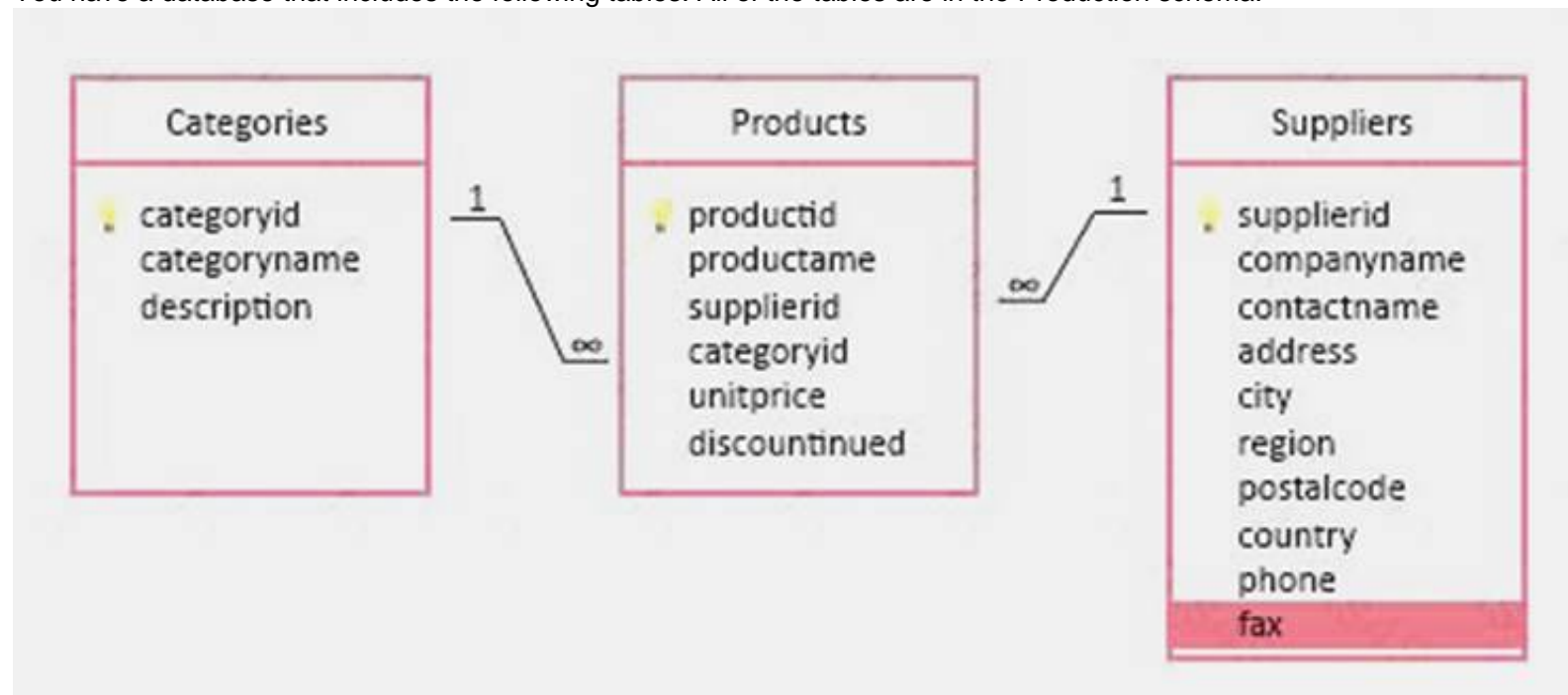
You need to create an indexed view that requires logic statements to manipulate the data that the view displays. Which two database objects should you use? Each correct answer presents a complete solution.

- A. a user-defined table-valued function
- B. a CLR function
- C. a stored procedure
- D. a user-defined scalar function

**Answer:** AC

### NEW QUESTION 17

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 =

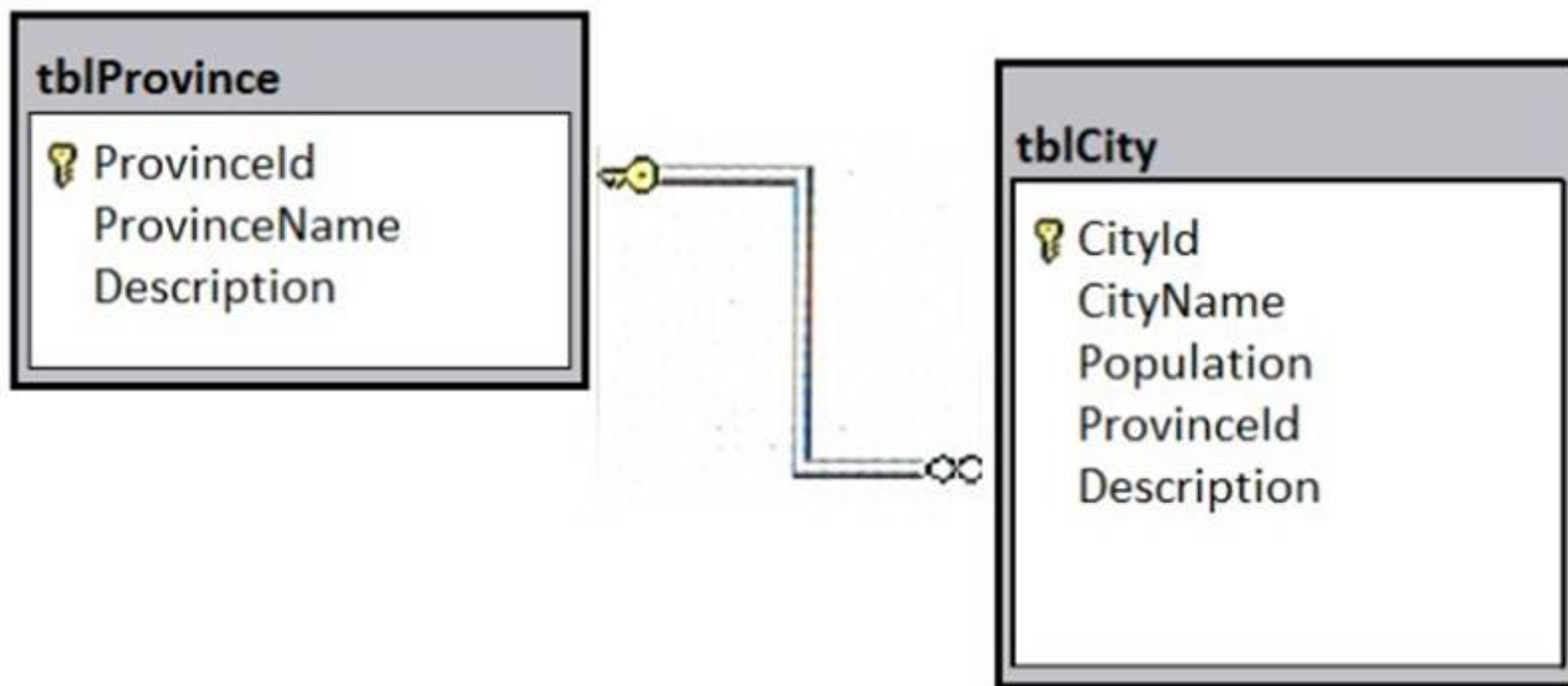
### NEW QUESTION 20

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.Provinceld`
- `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 22

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

Column name	Requirements
SalesID	<ul style="list-style-type: none"> <li>- uniquely identify the row of data</li> <li>- automatically generate when data is inserted</li> <li>- use the least amount of storage space</li> </ul>
SalesDate	<ul style="list-style-type: none"> <li>- store the date and time of the sale based on 24-hour clock</li> <li>- use an ANSI SQL compliant data type</li> </ul>
SalesAmount	<ul style="list-style-type: none"> <li>- store the amount of the sale</li> <li>- avoid rounding errors when used in arithmetic calculations</li> </ul>

Which Transact-SQL statement should you run?

**A**

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

**B**

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

**C**

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

**D**

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

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

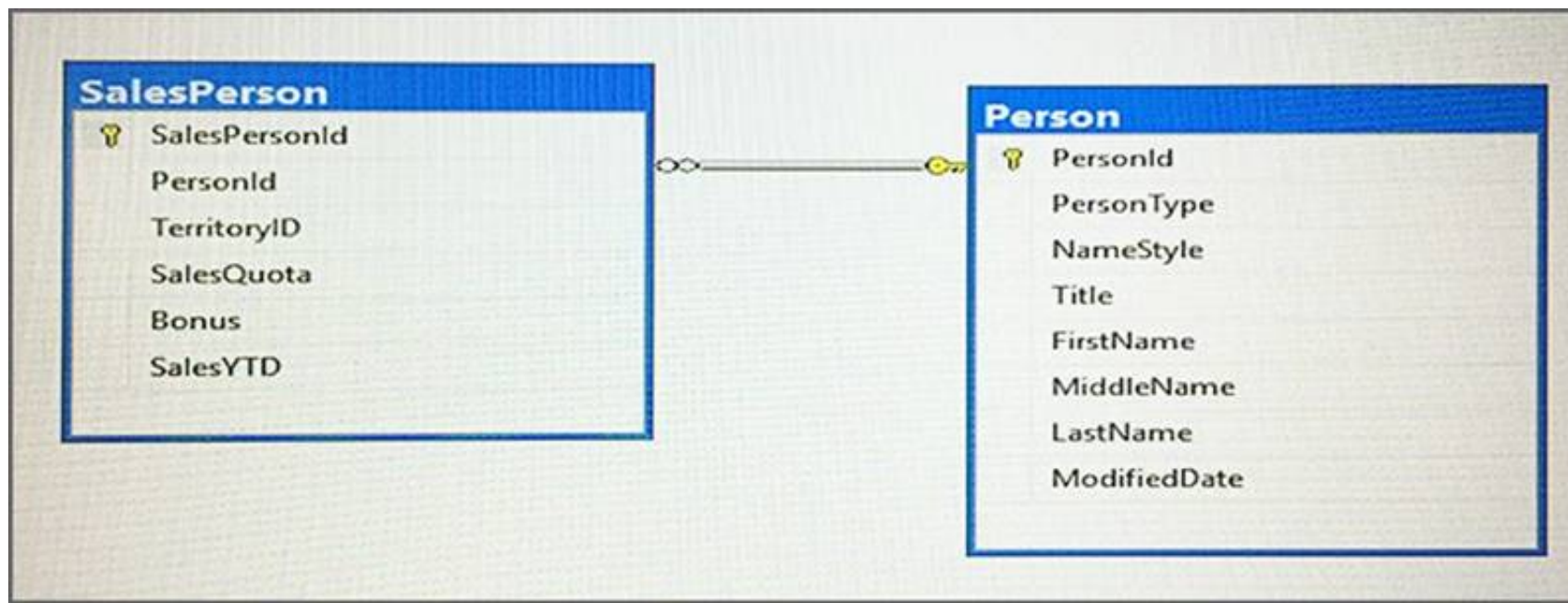
**Answer: B****Explanation:**

References:

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

**NEW QUESTION 24**

You have a database that contains the following tables.



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

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



## Keywords

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

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

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

```

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

```

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

- A. SELECT TOP 3(p.FirstName + '&#39; &#39; + p.LastName) AS FullName, s.SalesYTD FROM Person AS p INNER JOIN SalesPerson AS s ON p.PersonID = s.PersonID WHERE
- B. TerritoryID IS NOT NULL ORDER BY
- C. SalesYTD DESC

**Answer:** A

#### NEW QUESTION 28

You need to create a database object that meets the following requirements:

- accepts a product identifies as input
- calculates the total quantity of a specific product, including quantity on hand and quantity on order
- caches and reuses execution plan
- returns a value
- can be called from within a SELECT statement
- can be used in a JOIN clause

What should you create?

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

**Answer:** B

#### Explanation:

A table-valued user-defined function can also replace stored procedures that return a single result set. The table returned by a user-defined function can be referenced in the FROM clause of a Transact-SQL statement, but stored procedures that return result sets cannot.

References: [https://technet.microsoft.com/en-us/library/ms191165\(v=sql.105\).aspx](https://technet.microsoft.com/en-us/library/ms191165(v=sql.105).aspx)

#### NEW QUESTION 32

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section. You will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have a database that tracks orders and deliveries for customers in North America. The database contains the following tables:

Sales.Customers



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

Application.Cities

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

Sales.CustomerCategories

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

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

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

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

- A. Yes
- B. No

**Answer: B**

### NEW QUESTION 33

You run the following Transact-SQL statement:

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

You need to create a stored procedure that meets the following requirements:

Inserts data into the Employees table.

Processes all data changes as a single unit of work.

Sets the exception severity level to 16 and an error number of 60, 000 when any error occurs.

If a Transact-SQL statement raises a runtime error, terminates and reverts the entire unit of work, and indicates the line number in the statement where the error occurred.

Inserts the value New Employee for the Title column if no title is provided.

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

NOTE: Each correct selection is worth one point.



## Transact-SQL segments

RAISERROR (60000, 16, 1)

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

IF XACT\_STATE () <> 0 ROLLBACK TRANSACTION

IF @@TRANCOUNT > 0 ROLLBACK TRANSACTION

SAVE TRANSACTION AddEmployee

COMMIT TRANSACTION

## Answer Area

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

        Transact-SQL segment

    END TRY

    BEGIN CATCH

        Transact-SQL segment

        Transact-SQL segment

    END CATCH
```

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

## Transact-SQL segments

RAISERROR (60000, 16, 1)

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

IF XACT\_STATE () <> 0 ROLLBACK TRANSACTION

IF @@TRANCOUNT > 0 ROLLBACK TRANSACTION

SAVE TRANSACTION AddEmployee

COMMIT TRANSACTION

## Answer Area

CREATE PROCEDURE ADDEmployee

@FirstName nvarchar(30),

@LastName nvarchar(40),

@Title nvarchar(50) = 'New Employee',

@DepartmentID smallint,

@ManagerID int

AS

BEGIN

BEGIN TRY

BEGIN TRANSACTION

INSERT INTO Employees(FirstName, LastName, Title, DepartmentID, ManagerID

VALUES (@FirstName, @LastName, @Title, @DepartmentID, @ManagerID

COMMIT TRANSACTION

END TRY

BEGIN CATCH

IF @@TRANCOUNT > 0 ROLLBACK TRANSACTION

RAISERROR (60000, 16, 1)

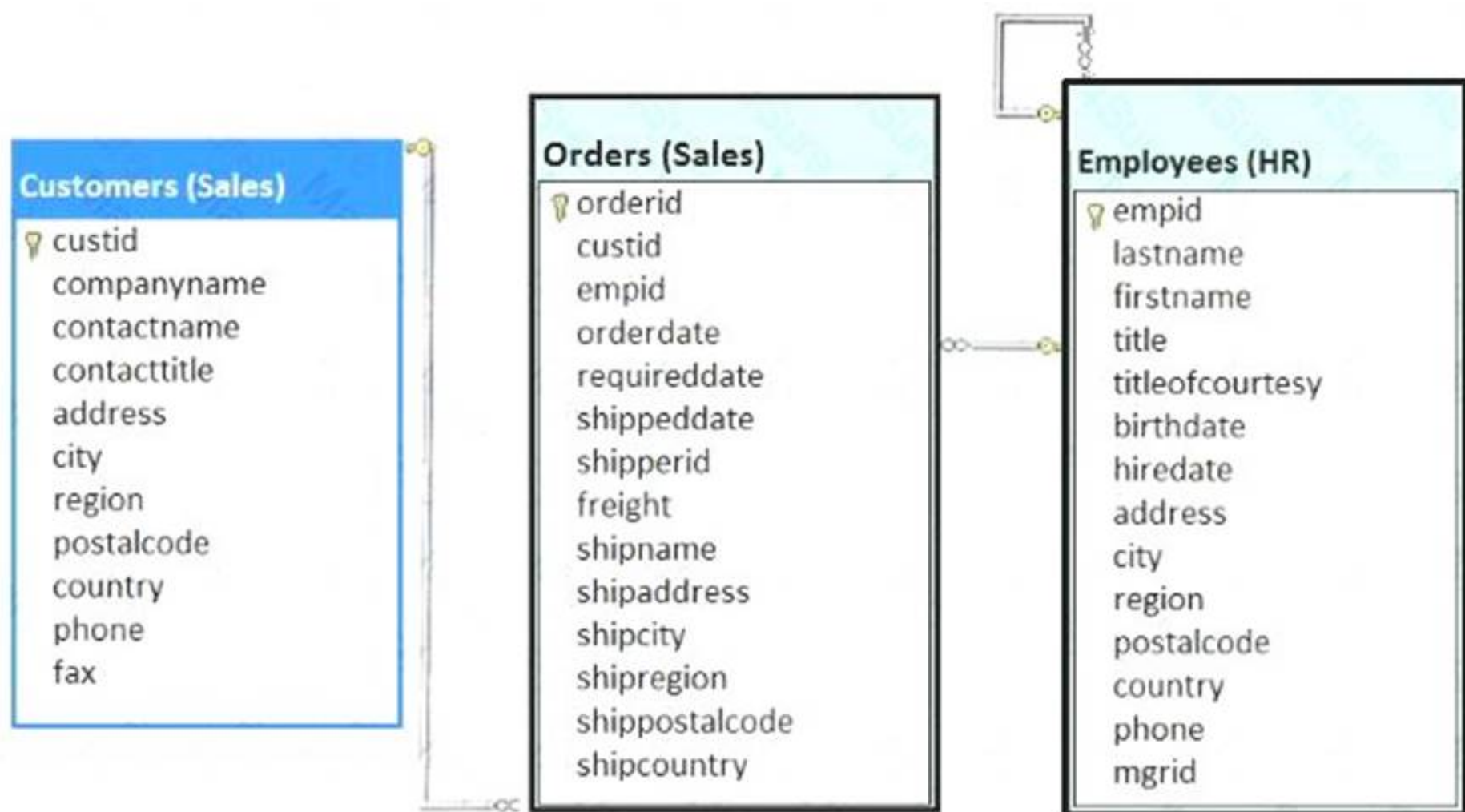
END CATCH

### NEW QUESTION 36

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section. You will NOT be able to return to it. As a result, these questions will not appear in the review screen.

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



You need to create a Transact-SQL query that returns the following information:

- the customer number
- the customer contact name
- the date the order was placed, with a name of DateofOrder
- a column named Salesperson, formatted with the employee first name, a space, and the employee last name
- orders for customers where the employee identifier equals 4

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

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

Does the solution meet the goal?

- A. Yes
- B. No

**Answer: A**

**Explanation:**

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

**NEW QUESTION 38**

You create a table to track sales persons by running the following Transact-SQL statement:

```
CREATE TABLE SalesPerson(
    ID INT NOT NULL,
    TerritoryID INTNULL,
    Sales MONEY NOT NULL,
    EntryDate DATETIME NOT NULL
)
```

You need to create a report that shows the sales people within each territory for each year. The report must display sales people in order by highest sales amount. 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.



**Transact-SQL segments**

Sales

TerritoryID

RANK() OVER

GROUP BY

EntryDate

RANKING

PARTITION BY

**Answer Area**

```

SELECT
  ID
  TerritoryID,
  Sales,
  YEAR(EntryDate),
  (
    Segment
    (
      Segment
      Segment
    )
    , YEAR ( Segment ) ORDER BY Segment )
FROM SalesPerson
          
```

- A. Mastered  
B. Not Mastered

**Answer:** A

**Explanation:**

**Transact-SQL segments**

Sales

TerritoryID

RANK() OVER

GROUP BY

EntryDate

RANKING

PARTITION BY

**Answer Area**

```

SELECT
  ID
  TerritoryID,
  Sales,
  YEAR(EntryDate),
  (
    RANK() OVER
    (
      PARTITION BY TerritoryID
      , YEAR ( EntryDate ) ORDER BY Sales )
    )
FROM SalesPerson
          
```

#### NEW QUESTION 40

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	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
CURRENT_USER	NOT	TOP
CURSOR	NULL	TRAN
DATABASE	NULLIF	TRANSACTION
DBCC	OF	TRIGGER
DEALLOCATE	OFF	TRUNCATE
DECLARE	OFFSETS	TRY_CONVERT



DEFAULT	ON	TSEQUAL
DELETE	OPEN	UNION
DENY	OPENDATASOURCE	UNIQUE
DESC	OPENQUERY	UNPIVOT
DISK	OPENROWSET	UPDATE
DISTINCT	OPENXML	UPDATETEXT
DISTRIBUTED	OPTION	USE
DOUBLE	OR	USER
DROP	ORDER	VALUES
DUMP	OUTER	VARYING
ELSE	OVER	VIEW
END	PERCENT	WAITFOR
ERRLVL	PIVOT	WHEN
ESCAPE	PLAN	WHERE
ESCEPT	PRECISION	WHILE
EXEC	PRIMARY	WITH
EXECUTE	PRINT	WITHIN GROUP
EXISTS		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 44**

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\_expression.  
References: <https://docs.microsoft.com/en-us/sql/t-sql/functions/isnull-transact-sql>

**NEW QUESTION 45**

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.

Transact-SQL segments	Answer Area
<div>@List NVARCHAR(MAX) = ''</div>	<div>DECLARE<div>Transact-SQL segment</div></div>
<div>@List NVARCHAR(MAX)</div>	<div>SELECT<div>Transact-SQL segment</div></div>
<div>@List TABLE</div>	<div>From Bug WHERE ReportingUser = User1</div>
<div>@List=Product+ ',' + @List</div>	<div>SELECT @List</div>
<div>@List=@List+ ',' + Product</div>	
<div>@List COALESCE(@List, ',', Product)</div>	

- 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 48**

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 Products that contains information about the products that your company sells. The table contains many columns that do not always contain values.  
You need to implement an ANSI standard method to convert the NULL values in the query output to the phrase “Not Applicable”.

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:** F

**Explanation:**

The ISNULL function replaces NULL with the specified replacement value. References: <https://msdn.microsoft.com/en-us/library/ms184325.aspx>

**NEW QUESTION 52**

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 (*)
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 56**

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, StateProvinceName, 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 59

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You are creating indexes in a data warehouse.

You have a dimension table named Table1 that has 10,000 rows. The rows are used to generate several reports. The reports join a column that is the primary key. The execution plan contains bookmark lookups for Table1. You discover that the reports run slower than expected.

You need to reduce the amount of time it takes to run the reports.

Solution: You create a nonclustered index on the primary key column that does NOT include columns. Does this meet the goal?

- A. YES
- B. NO

**Answer:** A

#### Explanation:

References:

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

#### NEW QUESTION 63

You need to create a stored procedure that meets the following requirements:

\*Produces a warning if the credit limit parameter is greater than 7,000

\*Propagates all unexpected errors to the calling process

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

Transact-SQL segments	Answer Area
<div>RAISERROR ('Warning: Credit limit is over 7,000!', 16, 1)</div> <div>RAISERROR ('Warning: Credit limit is over 7,000!', 10, 1)</div> <div>THROW 51000, 'Warning: Credit limit is over 7,000!', 1</div> <div>THROW</div> <div>RAISERROR (@ErrorMessage, 16, 1)</div> <div>RAISERROR (@ErrorMessage, 10, 1)</div> <div>THROW 51000, @ErrorMessage, 1</div> <div>RAISERROR (@ErrorMessage, 20, 1) WITH LOG</div>	<pre> CREATE PROC dbo.UpdateCustomer @CustomerID int, @CreditLimit money AS BEGIN     DECLARE @ErrorMessage varchar(1000)     BEGIN TRY         T         UPDATE dbo.Customer         SET CreditLimit = @CreditLimit         WHERE CustomerID = @CustomerID     END TRY     BEGIN CATCH         SET @ErrorMessage = ERROR_MESSAGE()         INSERT INTO dbo.ErrorLog (ApplicationID, [Date], ErrorMessage)         VALUES (1, GETDATE(), @ErrorMessage)         Transact-SQL segment     END CATCH END         </pre>

- A. Mastered
- B. Not Mastered

**Answer:** A

#### Explanation:

Box 1: THROW 51000, 'Warning: Credit limit is over 7,000!',1

THROW raises an exception and transfers execution to a CATCH block of a TRY...CATCH construct in SQL Server.

THROW syntax:

```

THROW [ { error_number | @local_variable },
{ message | @local_variable },
{ state | @local_variable } ] [ ; ]
        
```

Box 2: RAISERROR (@ErrorMessage, 16,1)

RAISERROR generates an error message and initiates error processing for the session. RAISERROR can either reference a user-defined message stored in the sys.messages catalog view or build a message dynamically. The message is returned as a server error message to the calling application or to an associated CATCH block of a TRY...CATCH construct. New applications should use THROW instead.

Severity levels from 0 through 18 can be specified by any user. Severity levels from 19 through 25 can only be specified by members of the sysadmin fixed server role or users with ALTER TRACE permissions. For severity levels from 19 through 25, the WITH LOG option is required.

On Severity level 16. Using THROW to raise an exception

The following example shows how to use the THROW statement to raise an exception. Transact-SQL

THROW 51000, 'The record does not exist.', 1;

Here is the result set.

Msg 51000, Level 16, State 1, Line 1 The record does not exist.

Note: RAISERROR syntax:

RAISERROR ( { msg\_id | msg\_str | @local\_variable }

{ ,severity ,state }

[ ,argument [ ,...n ] ] )

[ WITH option [ ,...n ] ]

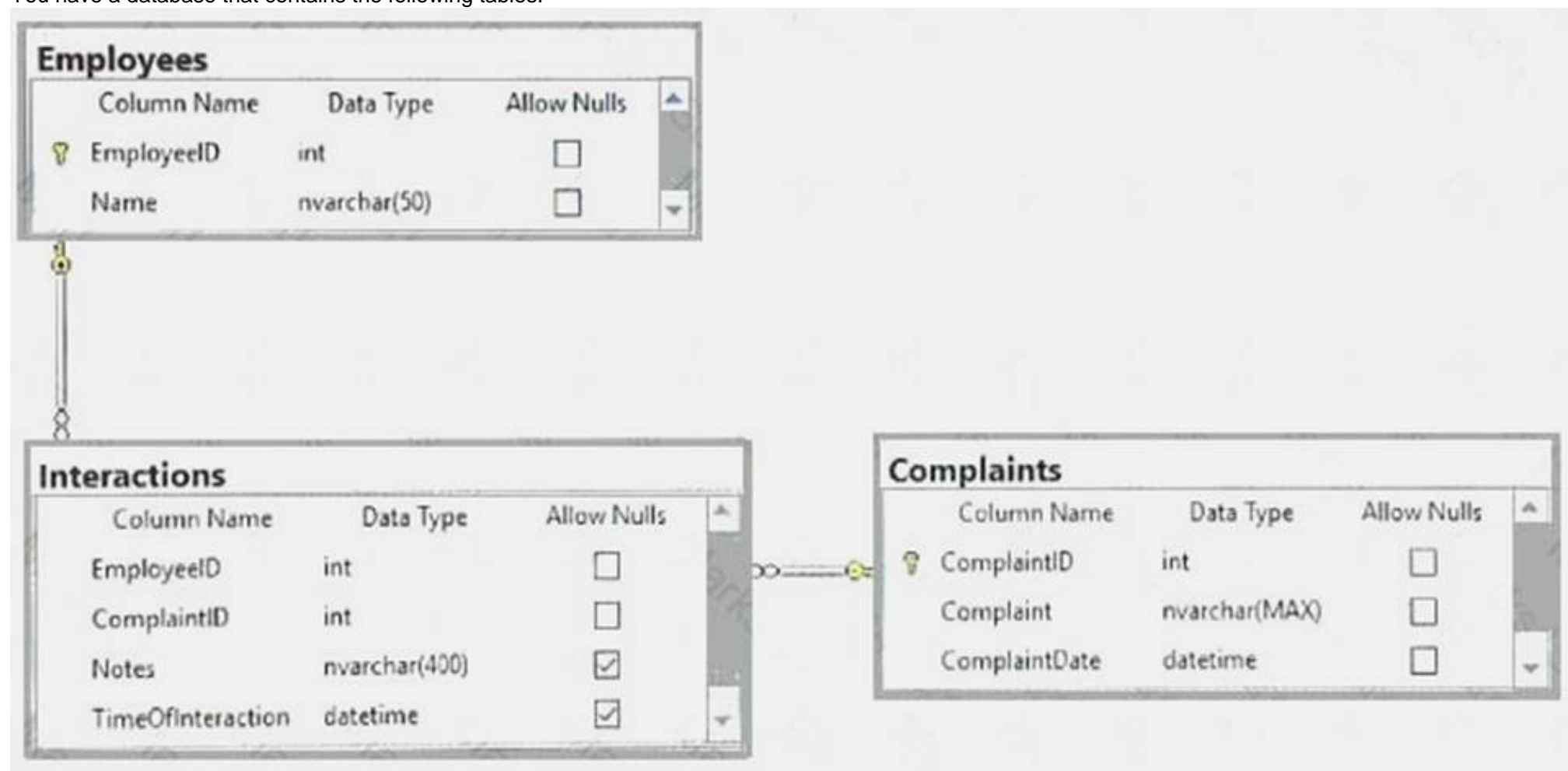
Note: The ERROR\_MESSAGE function returns the message text of the error that caused the CATCH block of a TRY...CATCH construct to be run.

References:

<https://msdn.microsoft.com/en-us/library/ms178592.aspx> <https://msdn.microsoft.com/en-us/library/ms190358.aspx> <https://msdn.microsoft.com/en-us/library/ee677615.aspx>

#### NEW QUESTION 67

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
CURRENT_USER	NOT	TOP
CURSOR	NULL	TRAN
DATABASE	NULLIF	TRANSACTION
DBCC	OF	TRIGGER
DEALLOCATE	OFF	TRUNCATE
DECLARE	OFFSETS	TRY_CONVERT



DEFAULT	ON	TSEQUAL
DELETE	OPEN	UNION
DENY	OPENDATASOURCE	UNIQUE
DESC	OPENQUERY	UNPIVOT
DISK	OPENROWSET	UPDATE
DISTINCT	OPENXML	UPDATETEXT
DISTRIBUTED	OPTION	USE
DOUBLE	OR	USER
DROP	ORDER	VALUES
DUMP	OUTER	VARYING
ELSE	OVER	VIEW
END	PERCENT	WAITFOR
ERRLVL	PIVOT	WHEN
ESCAPE	PLAN	WHERE
ESCEPT	PRECISION	WHILE
EXEC	PRIMARY	WITH
EXECUTE	PRINT	WITHIN GROUP
EXISTS		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 68

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	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
CURRENT_USER	NOT	TOP
CURSOR	NULL	TRAN
DATABASE	NULLIF	TRANSACTION
DBCC	OF	TRIGGER
DEALLOCATE	OFF	TRUNCATE
DECLARE	OFFSETS	TRY_CONVERT

DEFAULT	ON	TSEQUAL
DELETE	OPEN	UNION
DENY	OPENDATASOURCE	UNIQUE
DESC	OPENQUERY	UNPIVOT
DISK	OPENROWSET	UPDATE
DISTINCT	OPENXML	UPDATETEXT
DISTRIBUTED	OPTION	USE
DOUBLE	OR	USER
DROP	ORDER	VALUES
DUMP	OUTER	VARYING
ELSE	OVER	VIEW
END	PERCENT	WAITFOR
ERRLVL	PIVOT	WHEN
ESCAPE	PLAN	WHERE
ESCEPT	PRECISION	WHILE
EXEC	PRIMARY	WITH
EXECUTE	PRINT	WITHIN GROUP
EXISTS		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 Rawcount
2  from (select cityid,questionid,rawcount) AS t1
3  unpivot
4  (rawcount for questionid in (QuestionID)) AS t2

```

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 Rawcount  
2 from (select cityid,questioned,rawcount) AS t1  
3 unpivot  
4 (rawcount for questioned in (QuestionID)) AS t2  
5 JOIN t2  
6. ON t1.CityName = t2.cityName  
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](https://technet.microsoft.com/en-us/library/ms177410(v=sql.105).aspx)

**NEW QUESTION 70**

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

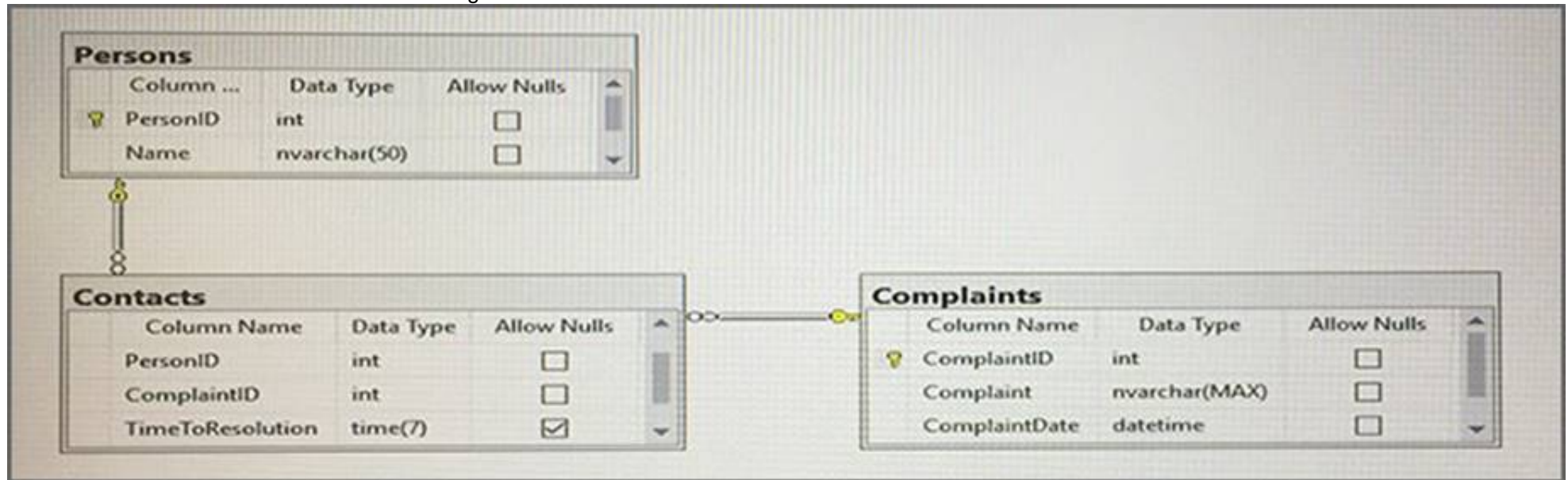
**Answer:** D

**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 75**

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	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
CURRENT_USER	NOT	TOP
CURSOR	NULL	TRAN
DATABASE	NULLIF	TRANSACTION
DBCC	OF	TRIGGER
DEALLOCATE	OFF	TRUNCATE
DECLARE	OFFSETS	TRY_CONVERT



DEFAULT	ON	TSEQUAL
DELETE	OPEN	UNION
DENY	OPENDATASOURCE	UNIQUE
DESC	OPENQUERY	UNPIVOT
DISK	OPENROWSET	UPDATE
DISTINCT	OPENXML	UPDATETEXT
DISTRIBUTED	OPTION	USE
DOUBLE	OR	USER
DROP	ORDER	VALUES
DUMP	OUTER	VARYING
ELSE	OVER	VIEW
END	PERCENT	WAITFOR
ERRLVL	PIVOT	WHEN
ESCAPE	PLAN	WHERE
ESCEPT	PRECISION	WHILE
EXEC	PRIMARY	WITH
EXECUTE	PRINT	WITHIN GROUP
EXISTS		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 76**

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

Employees (HR)	
	empid
	lastname
	firstname
	title
	titleofcourtesy
	birthdate
	hiredate
	address
	city
	region
	postalcode
	country
	phone
	mgrid

You need to write a query that will change the value of the job title column to Customer Representative for any employee who lives in Seattle and has a job title of Sales Representative. If the employee does not have a manager defined, you must not change the title.

Which three Transact-SQL segments should you use to develop the solution? To answer, move the appropriate Transact-SQL segments from the list of Transact-

SQL segments to the answer area and arrange them in the correct order.

### Transact-SQL segments

SET title = 'Customer Representative'

WHERE title = 'Sales Representative'  
AND city = 'Seattle' AND mgrid IS NOT NULL

UPDATE HR.Employees

SET city = 'Seattle' and mgrid = NULL

INSERT INTO HR.Employees

VALUES ('Customer Representative')

WHERE title = 'Sales Representative'

DELETE FROM HR.Employees

### Answer Area

⬅

➡

⬆

⬇

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

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

**NEW QUESTION 80**

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.

Transact-SQL segments	Answer Area
<div>SELECT CustomerID FROM Sales.Customers</div>	<div>Transact-SQL segment</div>
<div>SELECT CustomerID FROM Sales.Invoices</div>	<div>Transact-SQL segment</div>
<div>INNER JOIN Sales.Customers ON Sales.Customers.CustomerID = Sales.Invoices.CustomerID</div>	<div>Transact-SQL segment</div>
<div>FULL JOIN Sales.Customers ON Sales.Customers.CustomerID = Sales.Invoices.CustomerID</div>	<div>Transact-SQL segment</div>
<div>WHERE CustomerName LIKE '%tim%'</div>	<div>WHERE ConfirmedReceivedBy LIKE '%tim%'</div>
<div>WHERE ConfirmedReceivedBy IN (SELECT CustomerName FROM Sales.Customers)</div>	
<div>UNION</div>	
<div>UNION ALL</div>	

- 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 85

You have a database named DB1 that contains a temporal table named Sales.Customers.

You need to create a query that returns the credit limit that was available to each customer in DB1 at the beginning of 2017.

Which query should you execute?



A

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

B

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

C

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

D

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

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

**Answer: B****NEW QUESTION 87**

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:

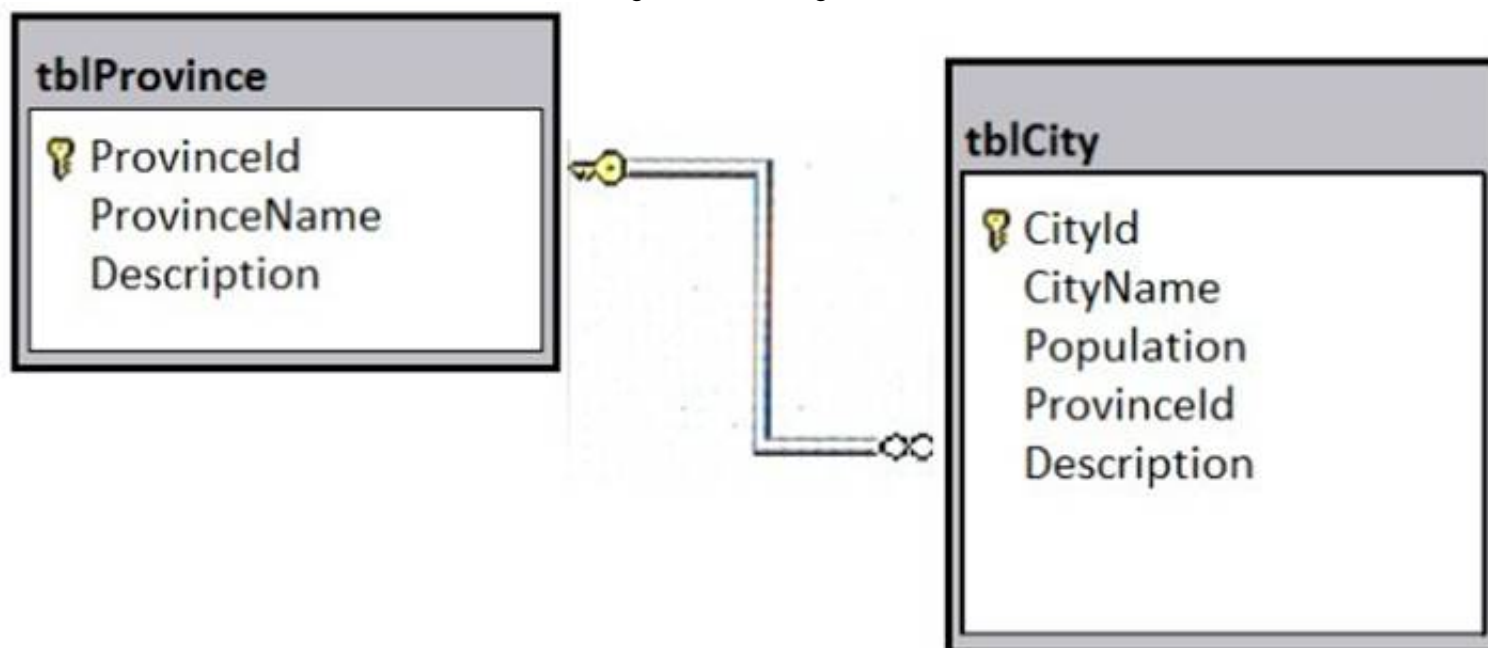
<https://docs.microsoft.com/en-us/sql/t-sql/statements/create-view-transact-sql?view=sql-server-2017>

**NEW QUESTION 88**

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

Solution: You run the following Transact-SQL statement:

```

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

Does the solution meet the goal?

- A. Yes
- B. No

**Answer:** B

**Explanation:**

The SQL CROSS JOIN produces a result set which is the number of rows in the first table multiplied by the number of rows in the second table if no WHERE clause is used along with CROSS JOIN. This kind of result is called as Cartesian Product.

This is not what is required in this scenario.

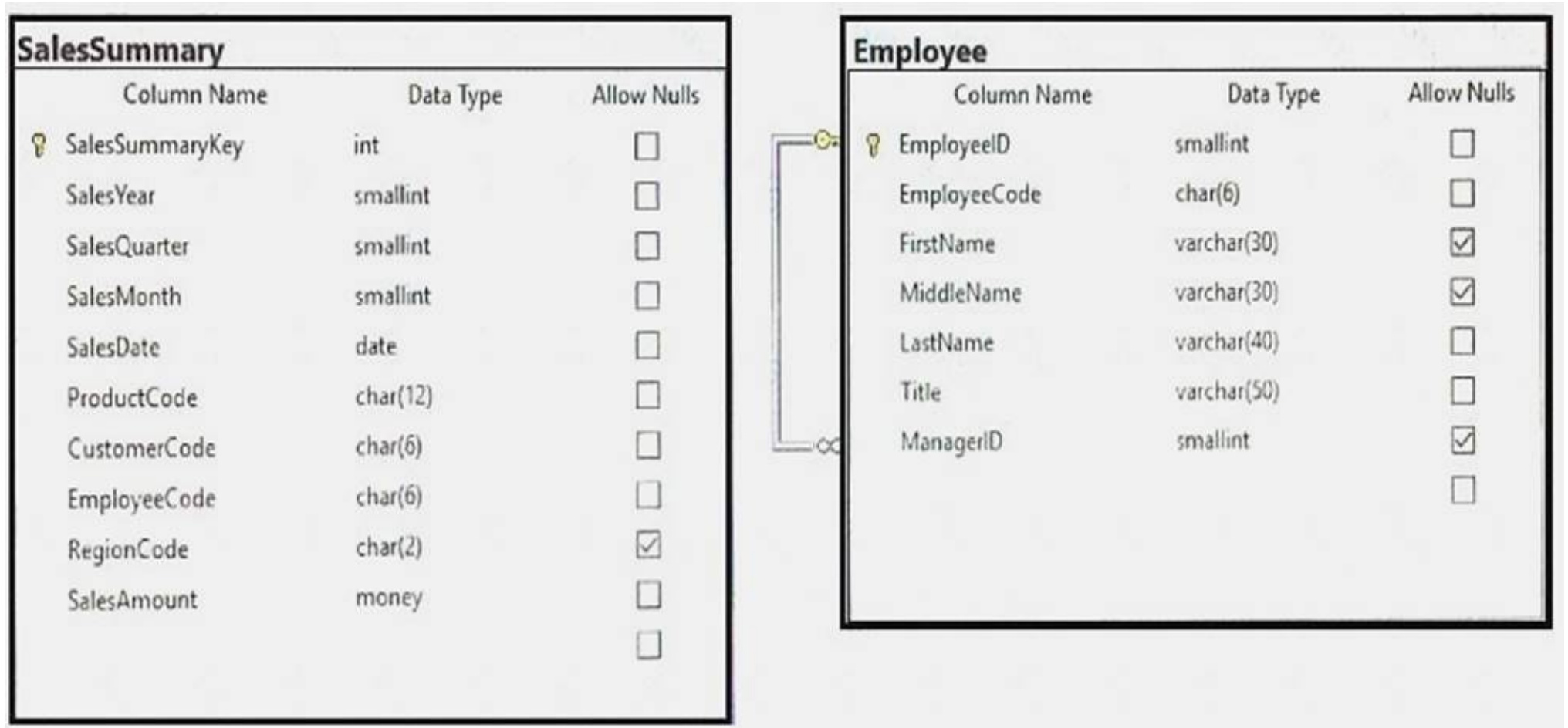
References: [https://technet.microsoft.com/en-us/library/ms190690\(v=sql.105\).aspx](https://technet.microsoft.com/en-us/library/ms190690(v=sql.105).aspx)

**NEW QUESTION 92**

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 word Unknown must be displayed/ If RegionCode is NULL, the word Unknown must be displayed.

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

- be joinable with the SELECT statement that supplies data for the report
- can be used multiple times with the SELECT statement for the report
- be usable only with the SELECT statement for the report
- not be saved as a permanent object

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

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

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

End of Repeated Scenario

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

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



## Transact-SQL segments

## Answer area

```
SELECT e.ManagerID, e.EmployeeID,
e.EmployeeCode, e.Title, cte.SalesAmount
FROM dbo.Employee e
INNER JOIN cte
ON cte.ManagerID = e.EmployeeID
```

```
)
SELECT ManagerID, EmployeeID, EmployeeCode,
Title, SUM(SalesAmount)
FROM cte
GROUP BY ManagerID, EmployeeID, EmployeeCode,
Title
```

UNION ALL

```
SELECT e.ManagerID, e.EmployeeID,
e.EmployeeCode, e.Title, cte.SalesAmount
FROM dbo.Employee e
INNER JOIN cte
ON e.ManagerID = cte.EmployeeID
```

UNION

```
WITH cte (MangerID, EmployeeID, EmployeeCode,
Title, SalesAmount) AS
(
SELECT e.ManagerID, e.EmployeeID,
e.EmployeeCode, e.Title, ss.SalesAmount
FROM dbo.Employee e
INNER JOIN dbo.SalesSummary ss
ON e.EmployeeCode = ss.EmployeeCode
WHERE ManagerID IS NULL
```

```
WITH cte (MangerID, EmployeeID, EmployeeCode,
Title, SalesAmount) AS (
SELECT e.ManagerID, e.EmployeeID,
e.EmployeeCode, e.Title, ss.SalesAmount
FROM dbo.Employee e
INNER JOIN dbo.SalesSummary ss
ON e.EmployeeCode = ss.EmployeeCode
WHERE Title = 'Sales Representative'
```

```
)
SELECT MangerID, EmployeeID, EmployeeCode,
Title, SalesAmount
FROM cte
```



- A. Mastered
- B. Not Mastered

**Answer:** A

### Explanation:

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

Box 1:..WHERE Title='Sales representative'

The valid values for the Title column are Sales Representative manager, and CEO. First we define the CTE expression.

Note: A common table expression (CTE) can be thought of as a temporary result set that is defined within the execution scope of a single SELECT, INSERT, UPDATE, DELETE, or CREATE VIEW statement. A CTE is similar to a derived table in that it is not stored as an object and lasts only for the duration of the query. Unlike a derived table, a CTE can be self-referencing and can be referenced multiple times in the same query.

Box 2:

Use the CTE expression one time. Box 3: UNION

Box 4:

Use the CTE expression a second time. References:

### NEW QUESTION 96

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

A

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

B

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

C

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

D

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

**E**

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

**F**

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

**G**

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

**H**

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

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

**Answer: G****NEW QUESTION 101**

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.



Code segments	Answer Area
<div>BEGIN TRY     UPDATE dbo.Employee     SET IsDeleted = 1     WHERE Id = 1 END TRY</div>	<div><div><div>⏪</div><div>⏩</div></div><div><div>⏴</div><div>⏵</div></div></div>
<div>BEGIN CATCH     RAISERROR ('No tables updated!', 16, 1) END CATCH</div>	
<div>UPDATE dbo.Employee SET IsDeleted = 1 WHERE Id = 1</div>	
<div>BEGIN CATCH</div>	
<div>BEGIN TRY     UPDATE dbo.UserLogin     SET IsDeleted = 1     WHERE Id = 1 END TRY</div>	
<div>END CATCH</div>	
<div>BEGIN TRY     UPDATE dbo.UserLogin     SET IsDeleted = 1     WHERE Id = 1     UPDATE dbo.Employee     SET IsDeleted = 1     WHERE Id = 1 END TRY</div>	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Code segments	Answer Area
<pre>BEGIN TRY     UPDATE dbo.Employee     SET IsDeleted = 1     WHERE Id = 1 END TRY</pre>	<pre>BEGIN TRY     UPDATE dbo.UserLogin     SET IsDeleted = 1     WHERE Id = 1 END TRY</pre>
<pre>BEGIN CATCH     RAISERROR ('No tables updated!', 16, 1) END CATCH</pre>	<pre>BEGIN CATCH     .</pre>
<pre>UPDATE dbo.Employee SET IsDeleted = 1 WHERE Id = 1</pre>	<pre>BEGIN TRY     UPDATE dbo.Employee     SET IsDeleted = 1     WHERE Id = 1 END TRY</pre>
<pre>BEGIN CATCH</pre>	<pre>BEGIN CATCH</pre>
<pre>BEGIN TRY     UPDATE dbo.UserLogin     SET IsDeleted = 1     WHERE Id = 1 END TRY</pre>	<pre>BEGIN CATCH     RAISERROR ('No tables updated!', 16, 1) END CATCH</pre>
<pre>END CATCH</pre>	<pre>END CATCH</pre>
<pre>BEGIN TRY     UPDATE dbo.UserLogin     SET IsDeleted = 1     WHERE Id = 1     UPDATE dbo.Employee     SET IsDeleted = 1     WHERE Id = 1 END TRY</pre>	

#### NEW QUESTION 102

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have a database named DB1 that contains two tables named Sales.Customers and Sales.Orders. Sales.Customers has a foreign key relationship to a column named CustomerID in Sales.Orders.

You need to recommend a query that returns all the customers. The query must also return the number of orders that each customer placed in 2016.

Solution: You recommend the following query:

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

Does this meet the goal?

- A. Yes
- B. No

**Answer:** B

**NEW QUESTION 103**

You develop and deploy 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  
)
```

You need to ensure that users can perform searches of descriptions. Which Transact-SQL statement should you run?

- A. `DECLARE @term NVARCHAR(255)`  
    `...`  
    `SELECT Id, Description`  
    `FROM Bug`  
    `WHERE CHARINDEX(@term, Description) > 0`
- B. `DECLARE @term NVARCHAR(255)`  
    `...`  
    `SELECT Id, Description`  
    `FROM Bug`  
    `WHERE DIFFERENCE(@term, Description) > 0`
- C. `DECLARE @term NVARCHAR(255)`  
    `...`  
    `SELECT Id, Description`  
    `FROM Bug`  
    `WHERE CONTAINS (Description, '%@term%')`
- D. `DECLARE @term NVARCHAR(255)`  
    `...`  
    `SELECT Id, Description`  
    `FROM Bug`  
    `WHERE CONTAINS (Description, @term)`

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

**Answer:** D

**Explanation:**

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

**NEW QUESTION 107**

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

You are creating a report to measure the impact of advertising efforts that were designed to attract new customers. The report must show the number of new customers per day for each customer category, but only if the number of new customers is greater than five. You need to write the query to return data for the report.

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

### Transact-SQL segments

CAST (Cust.AccountOpenedDate AS DATE)

DATEPART (day, Cust.AccountOpenedDate)

HAVING

WHERE

COUNT (Cust.CustomerId)

MAX (Cust.CustomerID)

RANK

GROUP BY

### Answer Area

SELECT Count (Cust.CustomerId), CustCat.CustomerCategoryName,
FROM Sales.Customers AS Cust
INNER JOIN Sales.CustomerCategories AS CustCat
ON Cust.CustomerCategoryID = CusCat.CustomerCategoryID

Transact-SQL segment

CustCat.CustomerCategoryName,

Transact-SQL segment

Transact-SQL segment

Transact-SQL segment

> 5

- A. Mastered
- B. Not Mastered

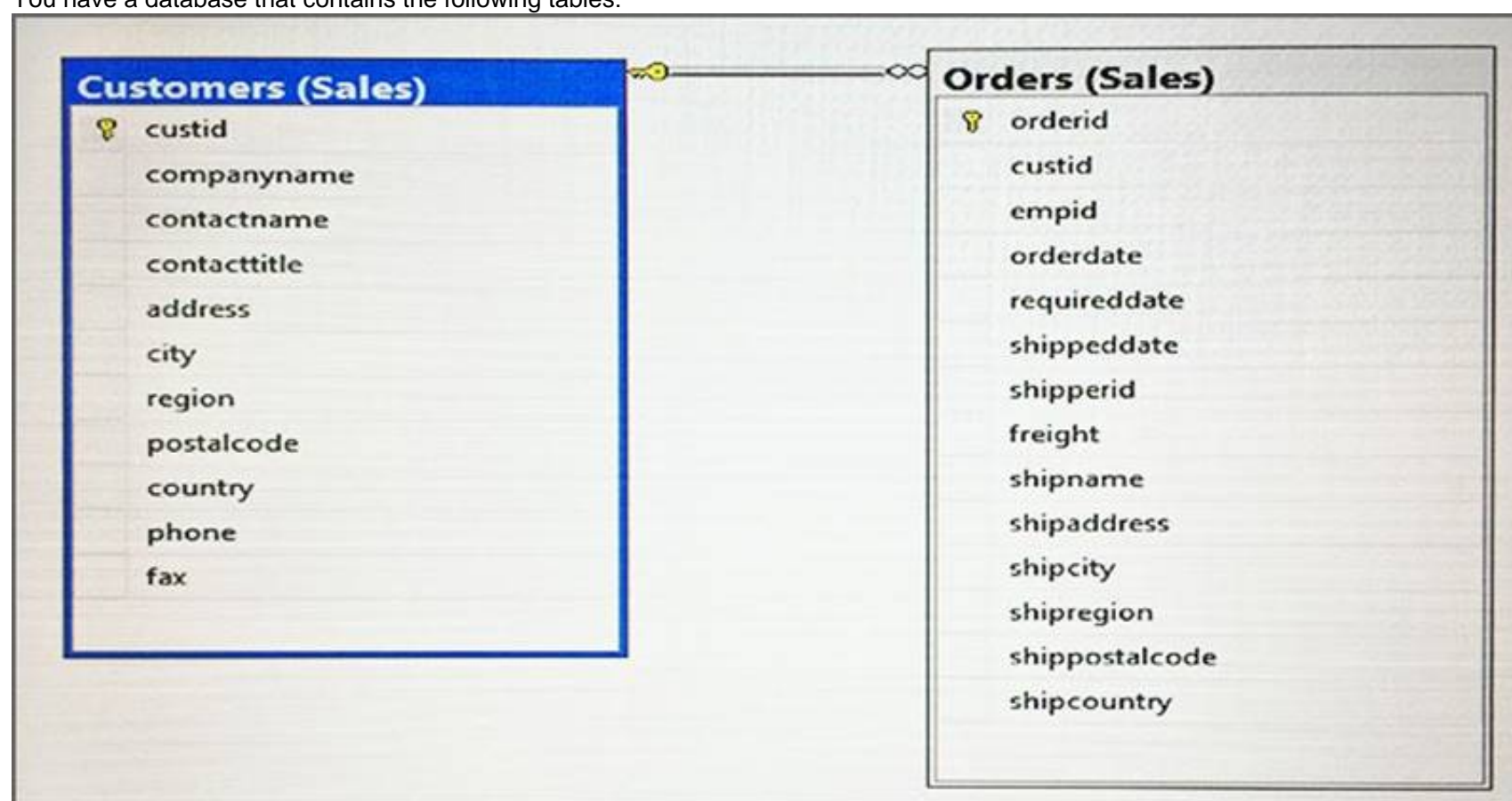
Answer: A

Explanation:

Transact-SQL segments	Answer Area
CAST(Cust.AccountOpenedDate AS DATE)	SELECT Count(Cust.CustomerId), CustCat.CustomerCategoryName, CAST(Cust.AccountOpenedDate AS DATE)
DATEPART(day, Cust.AccountOpenedDate)	FROM Sales.Customers AS Cust
HAVING	INNER JOIN Sales.CustomerCategories AS CustCat
WHERE	ON Cust.CustomerCategoryId = CustCat.CustomerCategoryId
COUNT(Cust.CustomerId)	GROUP BY CustCat.CustomerCategoryName, CAST(Cust.AccountOpenedDate AS DATE)
MAX(Cust.CustomerId)	WHERE COUNT(Cust.CustomerId) > 5
RANK	
GROUP BY	

#### NEW QUESTION 109

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.custid FROM Sales.Customers c INNER JOIN Sales.Order o ON c.custid = o.custid
- B. SELECT custid FROM Sales.Customers INTERSECT SELECT custid FROM Sales.Orders
- C. SELECT c.custid FROM Sales.Customers c LEFT OUTER JOIN Sales.Order o ON c.custid = o.custid
- D. SELECT c.custid FROM Sales.Customers c LEFT OUTER JOIN Sales.Order o ON c.custid = o.custid WHERE 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](https://technet.microsoft.com/en-us/library/ms187518(v=sql.105).aspx)

#### NEW QUESTION 113

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 118

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 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 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:** F

**Explanation:**

In a FOR XML clause, you specify one of these modes: RAW, AUTO, EXPLICIT, and PATH.

\* The EXPLICIT mode allows more control over the shape of the XML. You can mix attributes and elements at will in deciding the shape of the XML. It requires a specific format for the resulting rowset that is generated because of query execution. This rowset format is then mapped into XML shape. The power of EXPLICIT mode is to mix attributes and elements at will, create wrappers and nested complex properties, create space-separated values (for example, OrderID attribute may have a list of order ID values), and mixed contents.

\* The PATH mode together with the nested FOR XML query capability provides the flexibility of the EXPLICIT mode in a simpler manner.

References: <https://msdn.microsoft.com/en-us/library/ms178107.aspx>

**NEW QUESTION 121**

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 Returnvalue 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 124

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	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
CURRENT_USER	NOT	TOP
CURSOR	NULL	TRAN
DATABASE	NULLIF	TRANSACTION
DBCC	OF	TRIGGER
DEALLOCATE	OFF	TRUNCATE
DECLARE	OFFSETS	TRY_CONVERT



DEFAULT	ON	TSEQUAL
DELETE	OPEN	UNION
DENY	OPENDATASOURCE	UNIQUE
DESC	OPENQUERY	UNPIVOT
DISK	OPENROWSET	UPDATE
DISTINCT	OPENXML	UPDATETEXT
DISTRIBUTED	OPTION	USE
DOUBLE	OR	USER
DROP	ORDER	VALUES
DUMP	OUTER	VARYING
ELSE	OVER	VIEW
END	PERCENT	WAITFOR
ERRLVL	PIVOT	WHEN
ESCAPE	PLAN	WHERE
ESCEPT	PRECISION	WHILE
EXEC	PRIMARY	WITH
EXECUTE	PRINT	WITHIN GROUP
EXISTS		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 126**

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 127

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 0 and 100
```

Does the solution meet the goal?

- A. Yes
- B. No

**Answer: B**

#### **NEW QUESTION 128**

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 132**

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