

# Microsoft

## Exam Questions 70-761

Querying Data with Transact-SQL (beta)



#### NEW QUESTION 1

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

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

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

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

You have the following stored procedure:

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

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

Insert product records as a single unit of work.

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

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

Solution: You run the following Transact-SQL statement:

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

Does the solution meet the goal?

- A. Yes
- B. No

Answer: B

**NEW QUESTION 2**

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

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

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

The tables include the following records: Customer\_CRMSystem

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

Customer\_HRSystem

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

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

tables.

Which Transact-SQL statement should you run?

A

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

B

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

C

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

D

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

E

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

F

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

G

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

H

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

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

**Answer:** H

**Explanation:**

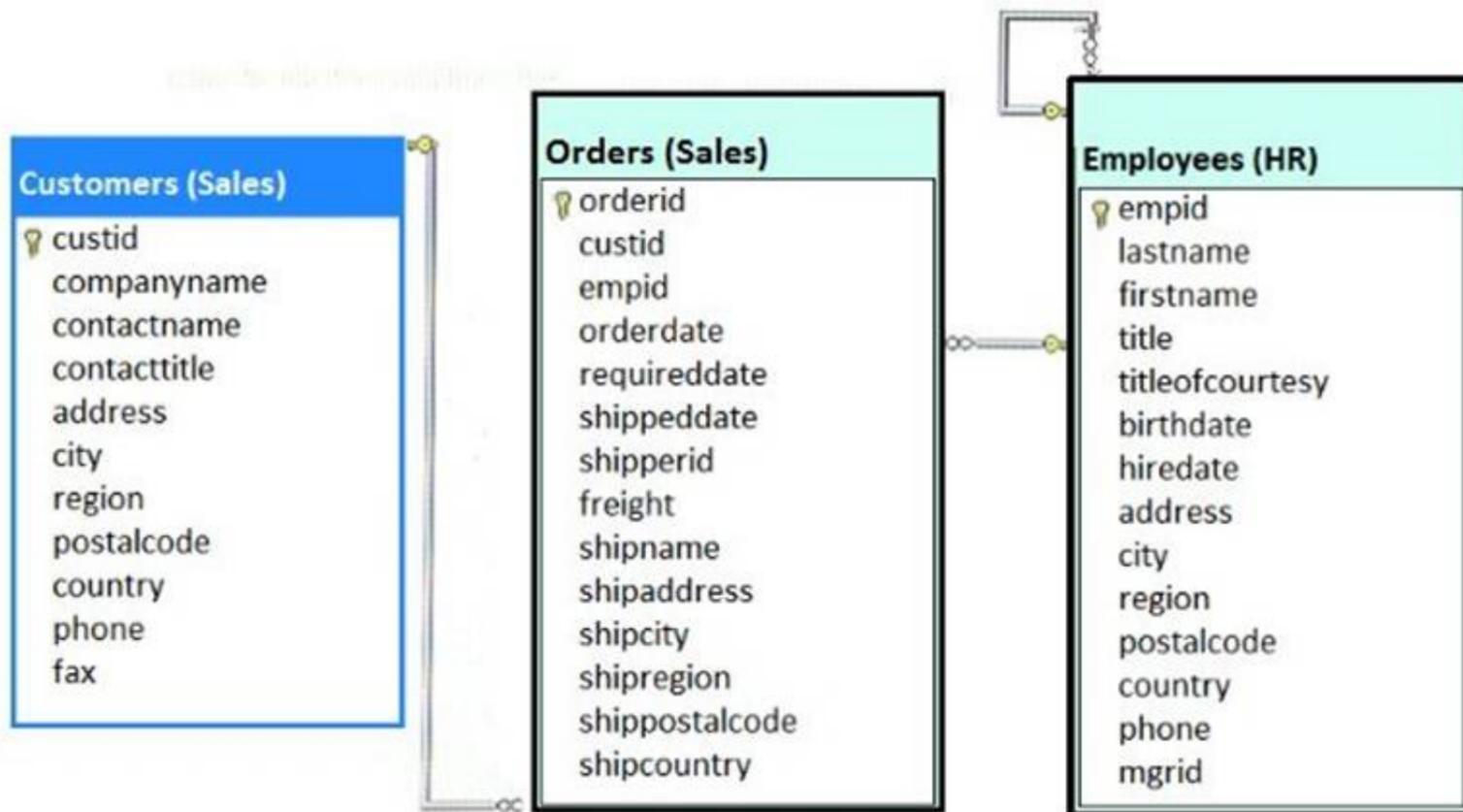
To retain the nonmatching information by including nonmatching rows in the results of a join, use a full outer join. SQL Server provides the full outer join operator, FULL OUTER JOIN, which includes all rows from both tables, regardless of whether or not the other table has a matching value.

**NEW QUESTION 3**

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

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

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



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

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

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

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

Does the solution meet the goal?

- A. Yes
- B. No

**Answer: B**

**Explanation:**

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

**NEW QUESTION 4**

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

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

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

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

**Answer: C**

**Explanation:**

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

#### NEW QUESTION 5

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

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

You 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**

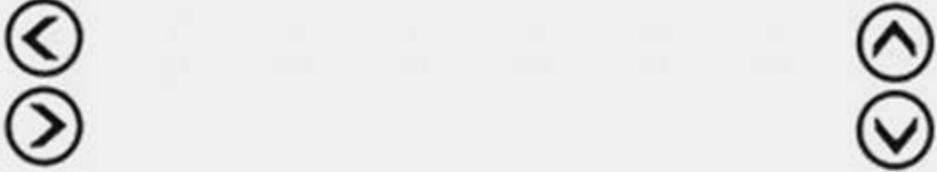
#### NEW QUESTION 6

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

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

A TRY block must be immediately followed by an associated CATCH block. Including any other statements between the END TRY and BEGIN CATCH statements generates a syntax error.

References: <https://msdn.microsoft.com/en-us/library/ms175976.aspx>

**NEW QUESTION 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 are building a stored procedure that will be used by hundreds of users concurrently.

You need to store rows that will be processed later by the stored procedure. The object that stores the rows must meet the following requirements:

- Be indexable
- Contain up-to-date statistics
- Be able to scale between 10 and 100,000 rows

The solution must prevent users from accessing one another's data. Solution: You create a table variable in the stored procedure.

Does this meet the goal?

- A. Yes
- B. No

**Answer:** B

**NEW QUESTION 8**

You have a database named DB1 that contains a table named HR.Employees. HR.Employees contains two columns named ManagerID and EmployeeID. ManagerID refers to EmployeeID.

You need to create a query that returns a list of all employees, the manager of each employee, and the numerical level of each employee in your organization's hierarchy.

Which five statements should you add to the query in sequence? To answer, move the appropriate statements from the list of statements to the answer area and arrange them in the correct order.

## Statements

```
SELECT Employees.ManagerId, Employees.EmployeeId,
EmployeeLevel+1
FROM Employees
JOIN Managers ON Employees.EmployeeId =
Managers.ManagerId)
```

```
WITH Managers AS (
```

```
SELECT*
FROM Managers
ORDER BY ManagerID
```

```
SELECT ManagerId, EmployeeId, 0 AS EmployeeLevel
FROM Employees
WHERE ManagerId IS NULL
```

```
UNION ALL
```

```
UNION
```

## Answer Area



- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

References:

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

**NEW QUESTION 9**

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

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

```
CREATE TABLE Customers (
    CustomerID int NOT NULL PRIMARY KEY CLUSTERED,
    FirstName nvarchar(100) NOT NULL,
    LastName nvarchar(100) NOT NULL,
    TaxIdNumber varchar(20) NOT NULL,
    Address nvarchar(1024) NOT NULL,
    AnnualRevenue decimal(19,2) NOT NULL,
    DateCreated datetime2(2) NOT NULL,
    ValidFrom datetime2(2) GENERATED ALWAYS AS ROW START NOT NULL,
    ValidTo datetime2(2) GENERATED 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 CustomerID, FirstName, LastName, TaxIdNumber, Address, AnnualRevenue, DateCreated  
 FROM Customers  
 GROUP BY GROUPING SETS((FirstName, LastName), (Address), (CustomerID, AnnualRevenue), (CustomerID), ())  
 ORDER BY CustomerID, FirstName, LastName, Address, AnnualRevenue
- B** SELECT FirstName, LastName, Address  
 FROM Customers  
 FOR SYSTEM\_TIME ALL ORDER BY ValidFrom
- C** SELECT c.CustomerID, c.FirstName, c.LastName, c.Address, c.ValidFrom, c.ValidTo  
 FROM Customers AS c  
 ORDER BY c.CustomerID  
 FOR JSON AUTO, ROOT('Customers')
- D** SELECT \* FROM (SELECT CustomerID, FirstName, LastName, Address, AnnualRevenue, DateCreated  
 FROM Customers) AS Customers PIVOT(AVG(AnnualRevenue)  
 FOR DateCreated IN([2014])) AS PivotCustomers  
 ORDER BY LastName, FirstName
- E** SELECT CustomerID, AVG(AnnualRevenue)  
 AS AverageAnnualRevenue, FirstName, LastName, Address, DateCreated  
 FROM Customers WHERE YEAR(DateCreated) >= 2014  
 GROUP BY CustomerID, FirstName, LastName, Address, DateCreated

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

**Answer:** G

**Explanation:**

The following query searches for row versions for Employee row with EmployeeID = 1000 that were active at least for a portion of period between 1st January of 2014 and 1st January 2015 (including the upper boundary):

```
SELECT * FROM Employee FOR SYSTEM_TIME
BETWEEN '2014-01-01 00:00:00.0000000' AND '2015-01-01 00:00:00.0000000'
WHERE EmployeeID = 1000 ORDER BY ValidFrom;
```

References: <https://msdn.microsoft.com/en-us/library/dn935015.aspx>

**NEW QUESTION 10**

You have a database that includes the following tables. HumanResources.Employee

Column	Data type	Notes
BusinessEntityID	int	primary key

Sales.SalesPerson

Column	Data type	Notes
BusinessEntityID	int	primary key
CommissionPct	smallmoney	does not allow null values

The HumanResources.Employee table has 2,500 rows, and the Sales.SalesPerson table has 2,000 rows.

You review the following Transact-SQL statement:

```
SELECT e.BusinessEntityID
FROM HumanResources.Employee AS e
WHERE 0.015 IN
    (SELECT CommissionPct
     FROM Sales.SalesPerson AS sp
     WHERE e.BusinessEntityID = sp.BusinessEntityID)
```

You need to determine the performance impact of the query.

How many times will a lookup occur on the primary key index on the Sales.SalesPerson table?

- A. 200
- B. 2,000
- C. 2,500
- D. 5,500

Answer: C

#### NEW QUESTION 10

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

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

- A. an extended stored procedure
- B. a user-defined table-valued function
- C. a user-defined stored procedure that has an OUTPUT parameter
- D. a memory-optimized table that has updated statistics

Answer: B

#### NEW QUESTION 14

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

You run the following Transact-SQL statement:

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

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

A

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

B

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

C

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

D

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

E

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

F

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

G

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

H

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

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

Answer: A

**NEW QUESTION 16**

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

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

You must insert the following data into the Customer table:

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

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

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

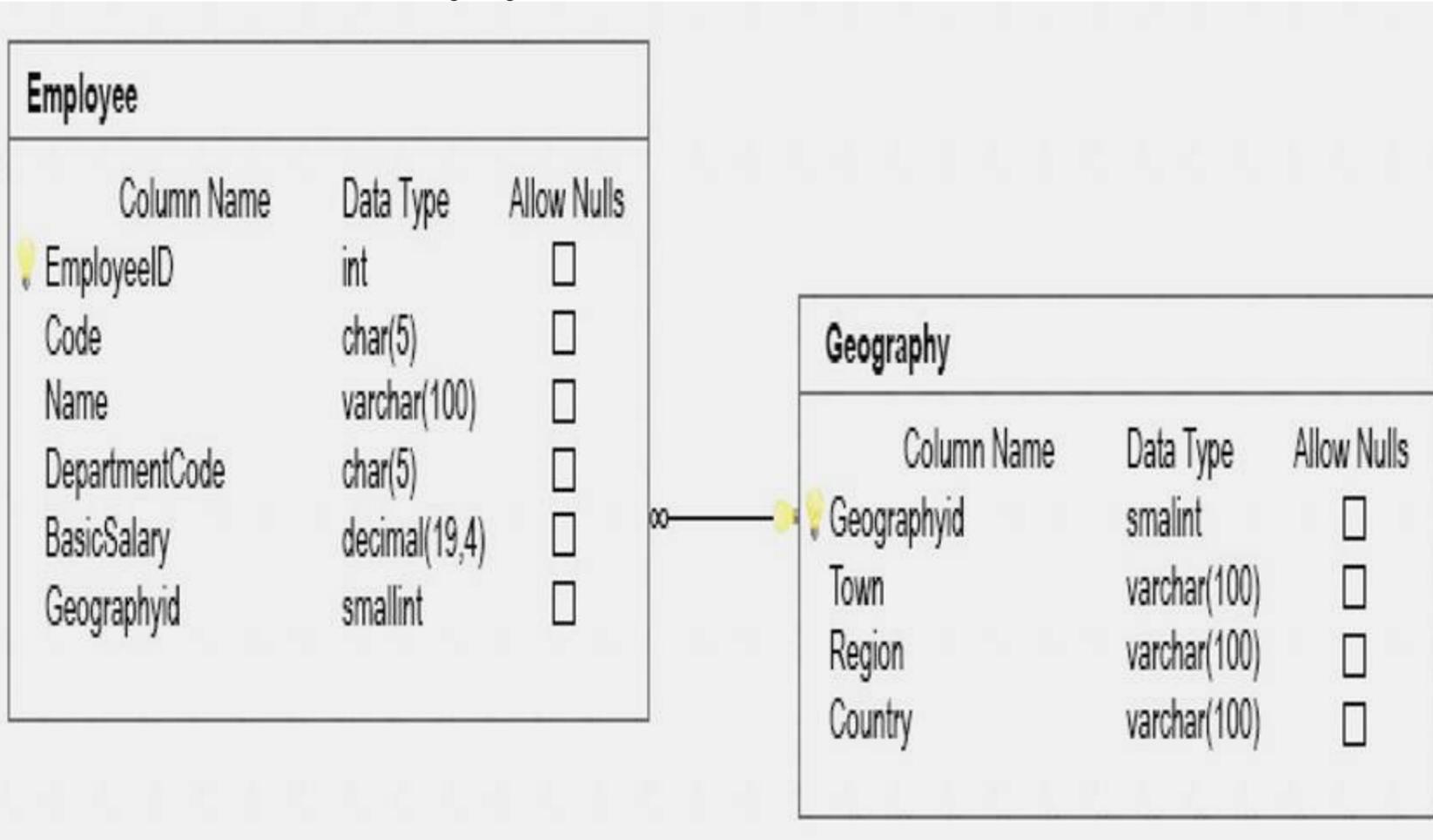
Does the solution meet the goal?

- A. Yes
- B. No

Answer: B

**NEW QUESTION 20**

You have two tables as shown in the following image:



You need to analyze the following query. (Line numbers are included for reference only.)

```

01 DECLARE @DepartmentCode nchar(5) = N'DEP01'
02 DECLARE @RoundedUpSalary int
03 DECLARE @EmployeeName nvarchar(100)
04 SELECT
05     Name,
06     CONVERT(int, Code) EmployeeCode,
07     BasicSalary
08 FROM dbo.Employee e
09 INNER JOIN dbo.Geography g
10 ON e.GeographyId = g.GeographyId
11 WHERE DepartmentCode = @DepartmentCode

```

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.  
 NOTE: Each correct selection is worth one point.

## Answer Area

### Statements

An implicit conversion exists at [answer choice].

### Answer choices

▼
line number 6
line number 10
line number 11

An explicit conversion exists at [answer choice].

▼
line number 6
line number 10
line number 11

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

To compare char(5) and nchar(5) an implicit conversion has to take place. Explicit conversions use the CAST or CONVERT functions, as in line number 6.

References:

<https://docs.microsoft.com/en-us/sql/t-sql/data-types/data-type-conversion-database-engine#implicit-and-explici>

**NEW QUESTION 23**

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

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

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

```

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

```

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

```

DECLARE cur CURSOR
FOR
SELECT LastName, CreditLimit
FROM Customer

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

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

```

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

Does the solution meet the goal?

- A. YES
- B. NO

Answer: B

Explanation:

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

**NEW QUESTION 28**

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

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

You need to determine the total number of customers who have only loan accounts. Which Transact-SQL statement should you run?

- A. SELECT COUNT(\*)FROM (SELECT AcctNoFROM tblDepositAcctINTERSECTSELECTAcctNoFROM tblLoanAcct) R
- B. SELECT COUNT(\*)FROM (SELECT CustNoFROM tblDepositAcctUNIONSELECT CustNoFROMtblLoanAcct) R
- C. SELECT COUNT(\*)FROM (SELECT CustNoFROM tblDepositAcctUNION ALLSELECTCustNoFROM tblLoanAcct) R
- D. SELECT COUNT (DISTINCT D.CustNo)FROM tblDepositAcct D, tblLoanAcct LWHERE D.CustNo= L.CustNo
- E. SELECT COUNT(DISTINCT L.CustNo)FROM tblDepositAcct DRIGHT JOIN tblLoanAcct L ON D.CustNo = L.CustNoWHERE D.CustNo IS NULL
- F. SELECT COUNT(\*)FROM (SELECT CustNoFROM tblDepositAcctEXCEPTSELECT CustNoFROMtblLoanAcct) R

G. SELECT COUNT (DISTINCT COALESCE(D.CustNo, L.CustNo))FROM tblDepositAcct DFULLJOIN tblLoanAcct L ON D.CustNo = L.CustNoWHERE D.CustNo IS NULL OR L.CustNo IS NULL  
 H. SELECT COUNT(\*)FROM tblDepositAcct DFULL JOIN tblLoanAcct L ON D.CustNo = L.CustNo

**Answer:** E

**Explanation:**

The RIGHT JOIN keyword returns all records from the right table (table2), and the matched records from the left table (table1). The result is NULL from the left side, when there is no match.

References: [https://www.w3schools.com/sql/sql\\_join\\_right.asp](https://www.w3schools.com/sql/sql_join_right.asp)

**NEW QUESTION 33**

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: @@TRANCOUNT returns the number of BEGIN TRANSACTION statements that have occurred on the current connection.  
 References: <https://msdn.microsoft.com/en-us/library/ms187967.aspx>

**NEW QUESTION 34**

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

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

Does this meet the goal?

- A. Yes
- B. No

**Answer:** A

**NEW QUESTION 38**

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
FROM (
  SELECT
  StandardDiscountPercentage,
  FROM Sales.Customers
) AS SourceTable
(
  AVG(CreditLimit)
  FOR StandardDiscountPercentage IN (
  ) 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 42**

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

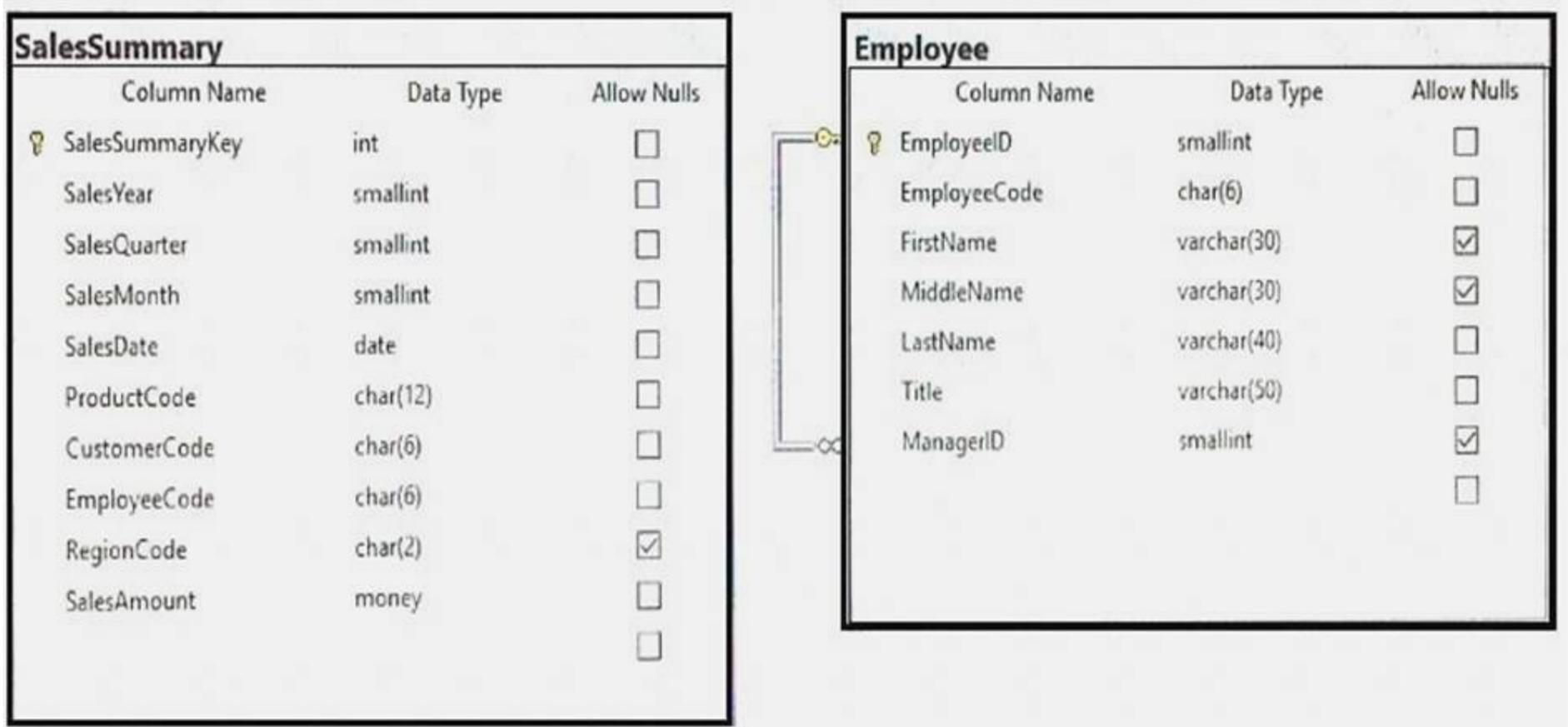
Answer: A

#### NEW QUESTION 43

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 46**

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
)
```

Users report that searches for the product Salt also return results for the product salt. You need to ensure that the query returns the correct results. How should you complete the Transact-SQL statement? To answer, select the appropriate Transact-SQL segments in the answer area.

NOTE: Each correct selection is worth one point.

```
DECLARE @product NVARCHAR(255)
```

```
. . .
SELECT
```

Id

,

	▼
Product	
Description	
DateCreated	
ReportingUser	

```
FROM MS1.dbo.Bug
```

WHERE

	▼	like @product
ASCII(Product)		
CAST(Id AS TEXT)		
TRANSLATED(Id,'CI','CS')		
Product COLLATE SQL_Latin1_General_CP1_CS_AS		

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

References:

<https://stackoverflow.com/questions/1831105/how-to-do-a-case-sensitive-search-in-where-clause-im-using-sql-s>

**NEW QUESTION 50**

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 54**

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
```

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:**

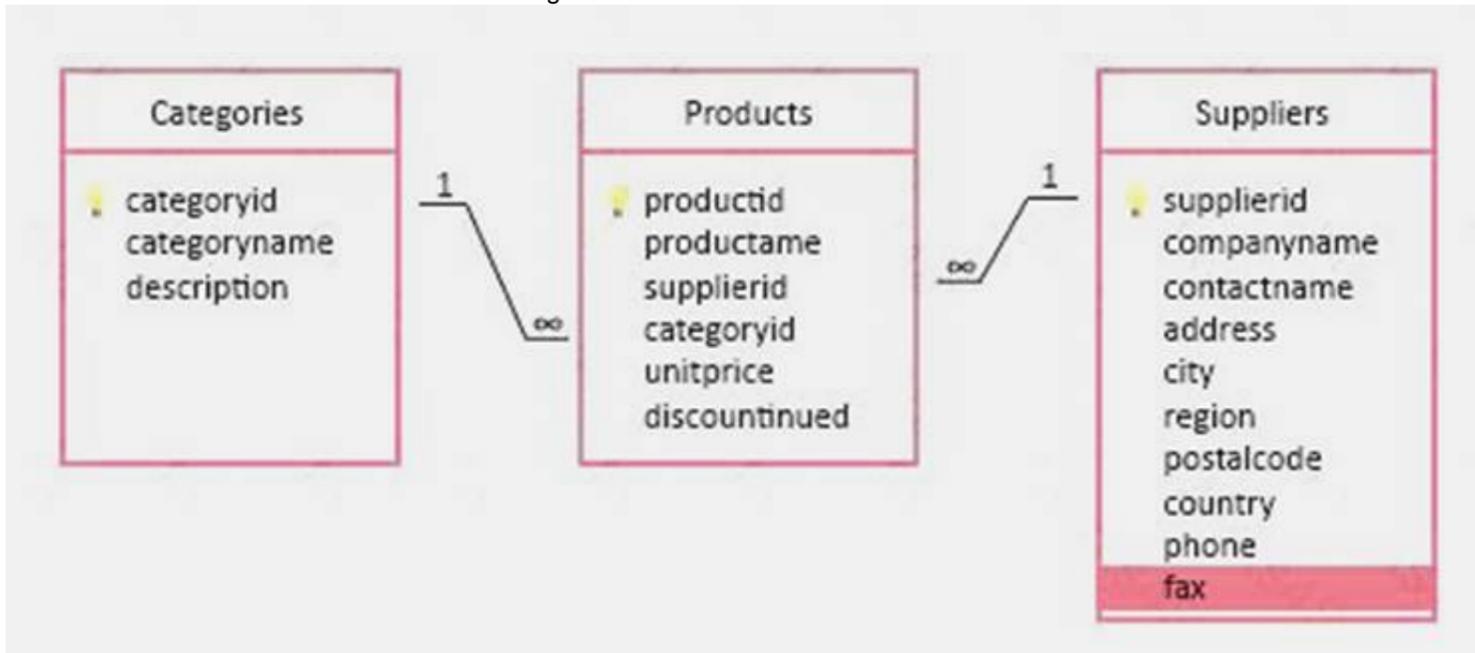
GROUP BY is a SELECT statement clause that divides the query result into groups of rows, usually for the purpose of performing one or more aggregations on each group. The SELECT statement returns one row per group.

```
SELECT SensorID, NearestMountain(Location) FROM GroundSensors
WHERE TREMOR <> 0 AND NormalizedReading IS NOT NULL
GROUP BY SensorID, NearestMountain(Location)
```

References: <https://msdn.microsoft.com/en-us/library/ms177673.aspx>

**NEW QUESTION 58**

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

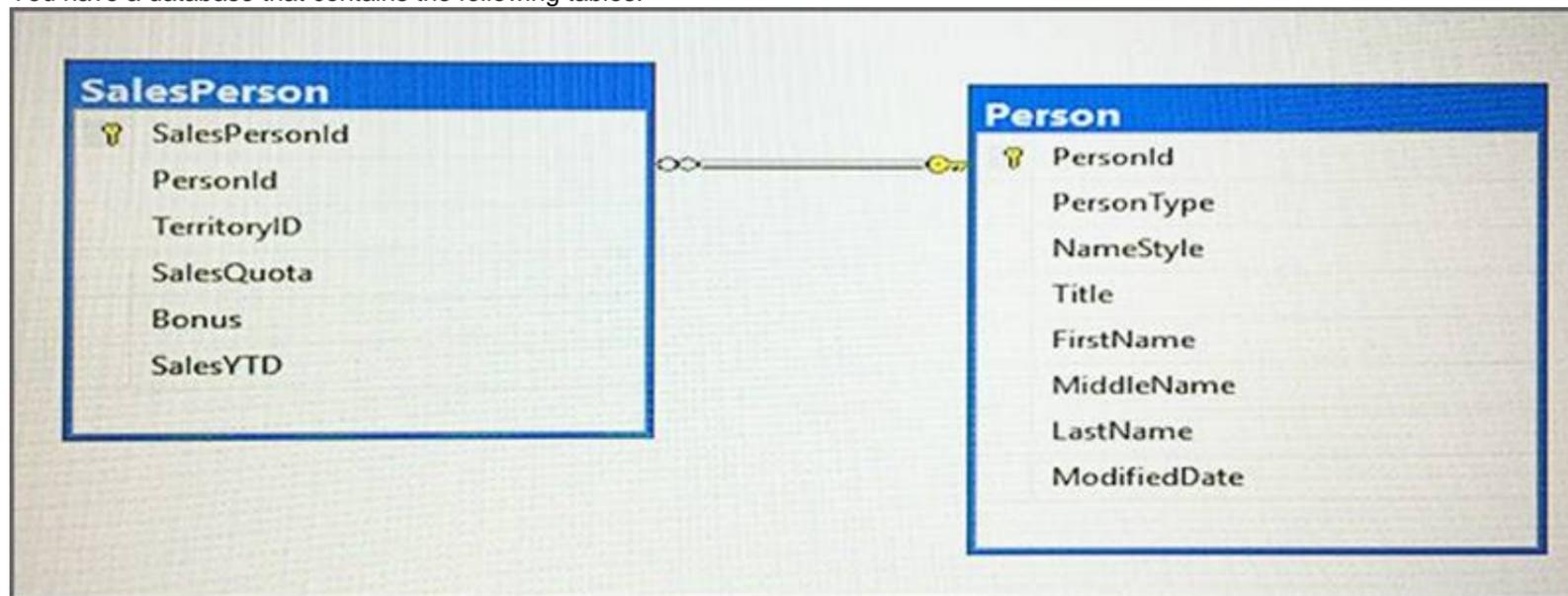
Answer: A

**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 61**

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 62**

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
NULL	NULL	NULL	\$23395792.75
Unites States	NULL	NULL	\$23395792.75
Unites States	Alabama	NULL	\$646508.75
Unites States	Alabama	Bazemore	\$34402.00
Unites States	Alabama	Belgreen	\$51714.65

Which statement clause should you add at line 3?

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

**Answer:** E

**Explanation:**

Example of GROUP BY CUBE result set:

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

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

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

**NEW QUESTION 65**

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

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

You are building a stored procedure that will be used by hundreds of users concurrently.

You need to store rows that will be processed later by the stored procedure. The object that stores the rows must meet the following requirements:

Be indexable

Contain up-to-date statistics

Be able to scale between 10 and 100,000 rows

The solution must prevent users from accessing one another's data. Solution: You create a global temporary table in the stored procedure. Does this meet the goal?

- A. Yes
- B. No

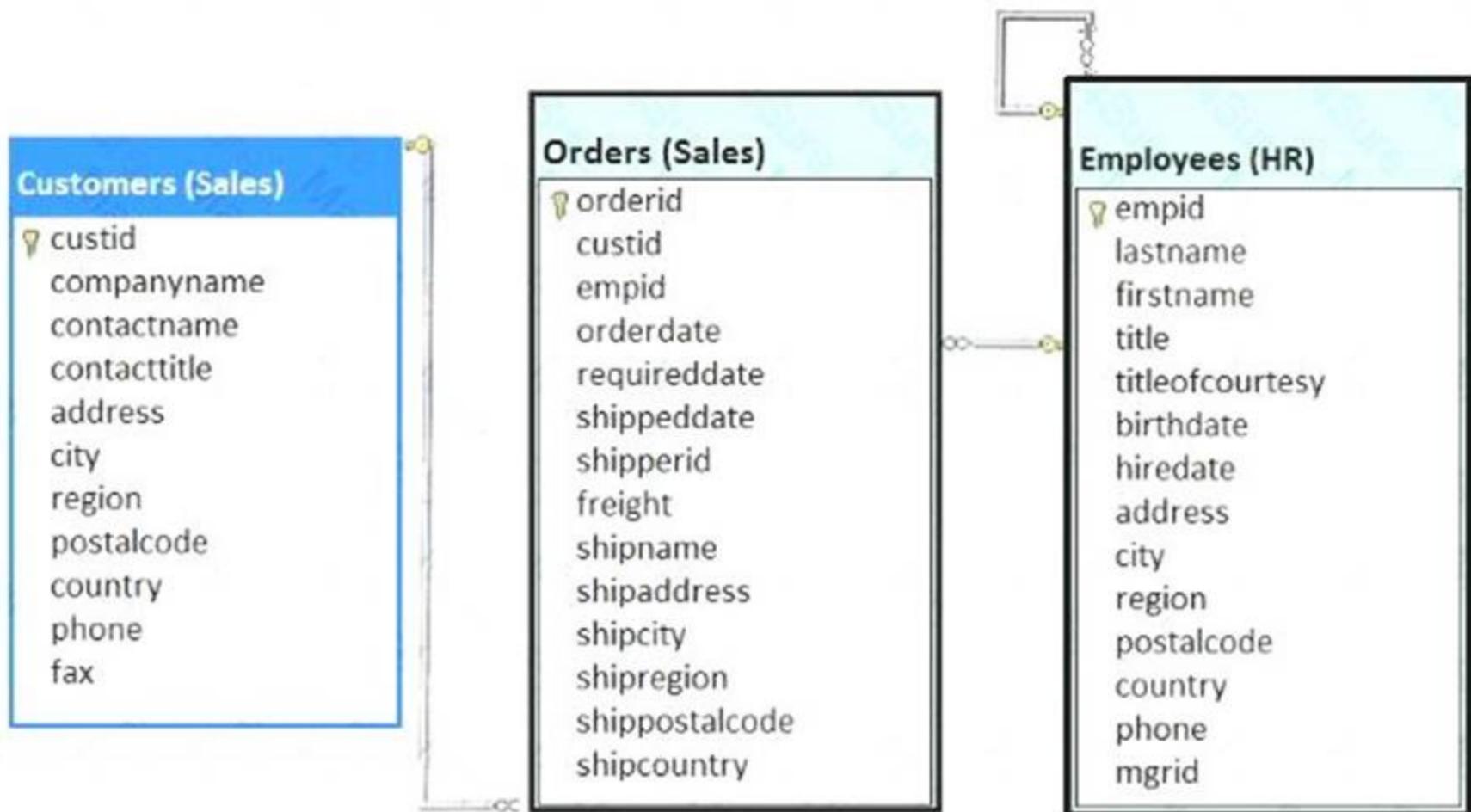
**Answer:** A

**NEW QUESTION 70**

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 74**

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

You query the table for the number of new rows created during the current day.

You need to create an index for the query. The solution must generate the smallest possible index. Which type of index should you create?

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

**Answer:** B

**Explanation:**

A filtered index is an optimized nonclustered index especially suited to cover queries that select from a well-defined subset of data. It uses a filter predicate to index a portion of rows in the table. A well-designed filtered index can improve query performance as well as reduce index maintenance and storage costs compared with full-table indexes.

Creating a filtered index can reduce disk storage for nonclustered indexes when a full-table index is not necessary.

References: <https://docs.microsoft.com/en-us/sql/relational-databases/indexes/create-filtered-indexes>

**NEW QUESTION 79**

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	Answer Area
Sales	SELECT
TerritoryID	ID
RANK() OVER	TerritoryID,
GROUP BY	Sales,
EntryDate	YEAR(EntryDate),
RANKING	Segment (
PARTITION BY	Segment
	Segment
	, YEAR ( Segment ) ORDER BY Segment )
	FROM SalesPerson

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Transact-SQL segments	Answer Area
Sales	SELECT
TerritoryID	ID
RANK() OVER	TerritoryID,
GROUP BY	Sales,
EntryDate	YEAR(EntryDate),
RANKING	RANK() OVER
PARTITION BY	(
	PARTITION BY TerritoryID
	, YEAR(EntryDate) ORDER BY Sales
	)
	FROM SalesPerson

**NEW QUESTION 80**

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(UnitsOnOrder,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 85**

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 audit all customer data.

Which Transact-SQL statement should you run?

- A 

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

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

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

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

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

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

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

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

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

Answer: B

**Explanation:**

The FOR SYSTEM\_TIME ALL clause returns all the row versions from both the Temporal and History table. Note: A system-versioned temporal table defined through is a new type of user table in SQL Server 2016, here defined on the last line WITH (SYSTEM\_VERSIONING = ON..., is designed to keep a full history of data changes and allow easy point in time analysis.

To query temporal data, the SELECT statement FROM<table> clause has a new clause FOR SYSTEM\_TIME with five temporal-specific sub-clauses to query data

across the current and history tables.

References: <https://msdn.microsoft.com/en-us/library/dn935015.aspx>

**NEW QUESTION 90**

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

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

```
CREATE TABLE Customers (
    CustomerID int NOT NULL PRIMARY KEY CLUSTERED,
    FirstName nvarchar(100) NOT NULL,
    LastName nvarchar(100) NOT NULL,
    TaxIdNumber varchar(20) NOT NULL,
    Address nvarchar(1024) NOT NULL,
    AnnualRevenue decimal(19,2) NOT NULL,
    DateCreated datetime2(2) NOT NULL,
    ValidFrom datetime2(2) GENERATED ALWAYS AS ROW START NOT NULL,
    ValidTo datetime2(2) GENERATED 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 displays customer information. The report must contain a grand total column. You need to write a query that returns the data for the report.

Which Transact-SQL statement should you run?

- A 

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

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

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

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

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

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

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

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

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

**Answer:** E

**Explanation:**

Calculate aggregate column through AVG function and GROUP BY clause.

**NEW QUESTION 91**

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
<code>@List NVARCHAR (MAX) = ''</code>	DECLARE <input type="text" value="Transact-SQL segment"/>
<code>@List NVARCHAR (MAX)</code>	SELECT <input type="text" value="Transact-SQL segment"/>
<code>@List TABLE</code>	From Bug WHERE ReportingUser = User1 SELECT @List
<code>@List=Product+ ',' + @List</code>	
<code>@List=@List+ ',' + Product</code>	
<code>@List COALESCE(@List, ',', Product)</code>	

- 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 92**

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 95**

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

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

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

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

You must insert the following data into the Customer table:

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

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

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

Does the solution meet the goal?

- A. Yes
- B. No

**Answer:** B

**Explanation:**

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

**NEW QUESTION 100**

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 102**

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
```

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

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

Which statement clause should you add at line 3?

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

**Answer: F**

**Explanation:**

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

**NEW QUESTION 106**

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

- RAISERROR ('Warning: Credit limit is over 7,000!', 16, 1)
- RAISERROR ('Warning: Credit limit is over 7,000!', 10, 1)
- THROW 51000, 'Warning: Credit limit is over 7,000!', 1
- THROW
- RAISERROR (@ErrorMessage, 16, 1)
- RAISERROR (@ErrorMessage, 10, 1)
- THROW 51000, @ErrorMessage, 1
- RAISERROR (@ErrorMessage, 20, 1) WITH LOG

### Answer Area

```
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
```

- 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 111

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 OrderID  
)
```

You need to write a query that removes orders from the table that have a Status of Canceled. Construct the query using the following guidelines:

## Keywords

ADD	EXIT	PROC
ALL	EXTERNAL	PROCEDURE
ALTER	FETCH	PUBLIC
AND	FILE	RAISERROR
ANY	FILLFACTOR	READ
AS	FORFOREIGN	READTEXT
ASC	FREETEXT	RECONFIGURE
AUTHORIZATION	FREETEXTTABLE	REFERENCES
BACKUP	FROM	REPLICATION
BEGIN	FULL	RESTORE
BETWEEN	FUNCTION	RESTRICT
BREAK	GOTO	RETURN
BROWSE	GRANT	REVERT
BULK	GROUP	REVOKE
BY	HAVING	RIGHT
CASCADE	HOLDLOCK	ROLLBACK
CASE	IDENTITY	ROWCOUNT
CHECK	IDENTITY_INSERT	ROWGUIDCOL
CHECKPOINT	IDENTITYCOL	RULE
CLOSE	IF	SAVE
CLUSTERED	IN	SCHEMA
COALESCE	INDEX	SECURITYAUDIT
COLLATE	INNER	SELECT
COLUMN	INSERT	SEMANTICKEYPHRASETABLE
COMMIT	INTERSECT	SEMANTICSIMILARITYDETAILSTABLE
COMPUTE	INTO	SEMANTICSIMILARITYTABLE
CONCAT	IS	SESSION_USER
CONSTRAINT	JOIN	SET
CONTAINS	KEY	SETUSER
CONTAINSTABLE	KILL	SHUTDOWN
CONTINUE	LEFT	SOME
CONVERT	LIKE	STATISTICS
CREATE	LINENO	SYSTEM_USER
CROSS	LOAD	TABLE
CURRENT	MERGE	TABLESAMPLE
CURRENT_DATE	NATIONAL	TEXTSIZE
CURRENT_TIME	NOCHECK	THEN
CURRENT_TIMESTAMP	NONCLUSTERED	TO
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 from sales.orders where status='calceled'
```

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. DELETE from sales.orders where status='Canceled' Note: On line 1 change calceled to Canceled

Example: Using the WHERE clause to delete a set of rows

The following example deletes all rows from the ProductCostHistory table in the AdventureWorks2012 database in which the value in the StandardCost column is more than 1000.00.

DELETE FROM Production.ProductCostHistory WHERE StandardCost > 1000.00;

References: <https://docs.microsoft.com/en-us/sql/t-sql/statements/delete-transact-sql>

**NEW QUESTION 112**

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 115**

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

- For customers that are not on a credit hold, return the CustomerID and the latest recorded population for the delivery city that is associated with the customer.
- For customers that are on a credit hold, return the CustomerID and the latest recorded population for the postal city that is associated with the customer.

Which two Transact-SQL queries will achieve the goal? Each correct answer presents a complete solution.

- A**
- ```
SELECT CustomerID, LatestRecordedPopulation
FROM Sales.Customers
CROSS JOIN Application.Cities
WHERE (IsOnCreditHold = 0 AND DeliveryCityID = CityID)
OR (IsOnCreditHold = 1 AND PostalCityID = CityID)
```
- B**
- ```
SELECT CustomerID, LatestRecordedPopulation
FROM Sales.Customers
INNER JOIN Application.Cities AS A
ON A.CityID = IIF(IsOnCreditHold = 0, DeliveryCityID, PostalCityID)
```
- C**
- ```
SELECT CustomerID, ISNULL(A.LatestRecordedPopulation, B.LatestRecorded Population)
FROM Sales.Customers
INNER JOIN Application.Cities AS A ON A.CityID = DeliveryCityID
INNER JOIN Application.Cities AS B ON B.CityID = PostalCityID
WHERE IsOnCreditHold = 0
```
- D**
- ```
SELECT CustomerID, LatestRecordedPopulation,
IIF(IsOnCreditHold = 0, DeliveryCityID, PostalCityID) As CityId
FROM Sales.Customers
INNER JOIN Application.Cities AS A ON A.CityID = CityId
```

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

**Answer:** AB

**Explanation:**

Using Cross Joins

A cross join that does not have a WHERE clause produces the Cartesian product of the tables involved in the join. The size of a Cartesian product result set is the number of rows in the first table multiplied by the number of rows in the second table.

However, if a WHERE clause is added, the cross join behaves as an inner join. B: You can use the IIF in the ON-statement.

IIF returns one of two values, depending on whether the Boolean expression evaluates to true or false in SQL Server.

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) <https://msdn.microsoft.com/en-us/library/hh213574.aspx>

**NEW QUESTION 120**

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

You have a database that contains 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 123**

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

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

The Task table includes the following columns:

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

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

**A**

```

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

**B**

```

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

**C**

```

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

**D**

```

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

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

**Answer:** B

**NEW QUESTION 127**

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

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

Errors

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

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

**Transact-SQL segments**

- svr.ServerID
- errs.ServerID
- INNER JOIN
- CROSS APPLY
- WITHIN GROUP
- WHERE ServerID = svr.ServerID
- WHERE ServerID = errs.ErrorID

**Answer Area**

```

SELECT      Transact-SQL segment , errs.LogMessage
FROM Servers AS svr
    Transact-SQL segment
(
    SELECT TOP 3 LogMessage
    FROM Errors
        Transact-SQL segment
    ORDER BY Occurrences
) AS errs
                
```

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

**Transact-SQL segments**

- svr.ServerID
- errs.ServerID
- INNER JOIN
- CROSS APPLY
- WITHIN GROUP
- WHERE ServerID = svr.ServerID
- WHERE ServerID = errs.ErrorID

**Answer Area**

```

SELECT      svr.ServerID , errs.LogMessage
FROM Servers AS svr
    CROSS APPLY
(
    SELECT TOP 3 LogMessage
    FROM Errors
        WHERE ServerID = svr.ServerID
    ORDER BY Occurrences
) AS errs
                
```

**NEW QUESTION 131**

You have the following Transact-SQL statement: DELETE FROM Person

WHERE PersonID = 5

You need to implement error handling.

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

NOTE: Each correct selection is worth one point.

**BEGIN TRANSACTION**

<input type="checkbox"/>	END TRY
<input type="checkbox"/>	COMMIT TRANSACTION
<input type="checkbox"/>	END CATCH
<input type="checkbox"/>	BEGIN TRY
<input type="checkbox"/>	ROLLBACK TRANSACTION
<input type="checkbox"/>	BEGIN CATCH

**DELETE FROM Person  
WHERE PersonID = 5**

<input type="checkbox"/>	END TRY
<input type="checkbox"/>	COMMIT TRANSACTION
<input type="checkbox"/>	END CATCH
<input type="checkbox"/>	BEGIN TRY
<input type="checkbox"/>	ROLLBACK TRANSACTION
<input type="checkbox"/>	BEGIN CATCH

<input type="checkbox"/>	END TRY
<input type="checkbox"/>	COMMIT TRANSACTION
<input type="checkbox"/>	END CATCH
<input type="checkbox"/>	BEGIN TRY
<input type="checkbox"/>	ROLLBACK TRANSACTION
<input type="checkbox"/>	BEGIN CATCH

**IF @@TRANCOUNT > 0**

<input type="checkbox"/>	END TRY
<input type="checkbox"/>	COMMIT TRANSACTION
<input type="checkbox"/>	END CATCH
<input type="checkbox"/>	BEGIN TRY
<input type="checkbox"/>	ROLLBACK TRANSACTION
<input type="checkbox"/>	BEGIN CATCH

<input type="checkbox"/>	END TRY
<input type="checkbox"/>	COMMIT TRANSACTION
<input type="checkbox"/>	END CATCH
<input type="checkbox"/>	BEGIN TRY
<input type="checkbox"/>	ROLLBACK TRANSACTION
<input type="checkbox"/>	BEGIN CATCH

**IF @@TRANCOUNT > 0  
COMMIT TRANSACTION**

- A. Mastered
- B. Not Mastered

**Answer: A**

**Explanation:**

BEGIN TRANSACTION

END TRY
COMMIT TRANSACTION
END CATCH
BEGIN TRY
ROLLBACK TRANSACTION
BEGIN CATCH

DELETE FROM Person  
 WHERE PersonID = 5

END TRY
COMMIT TRANSACTION
END CATCH
BEGIN TRY
ROLLBACK TRANSACTION
BEGIN CATCH

END TRY
COMMIT TRANSACTION
END CATCH
BEGIN TRY
ROLLBACK TRANSACTION
BEGIN CATCH

IF @@TRANCOUNT > 0

END TRY
COMMIT TRANSACTION
END CATCH
BEGIN TRY
ROLLBACK TRANSACTION
BEGIN CATCH

END TRY
COMMIT TRANSACTION
END CATCH
BEGIN TRY
ROLLBACK TRANSACTION
BEGIN CATCH

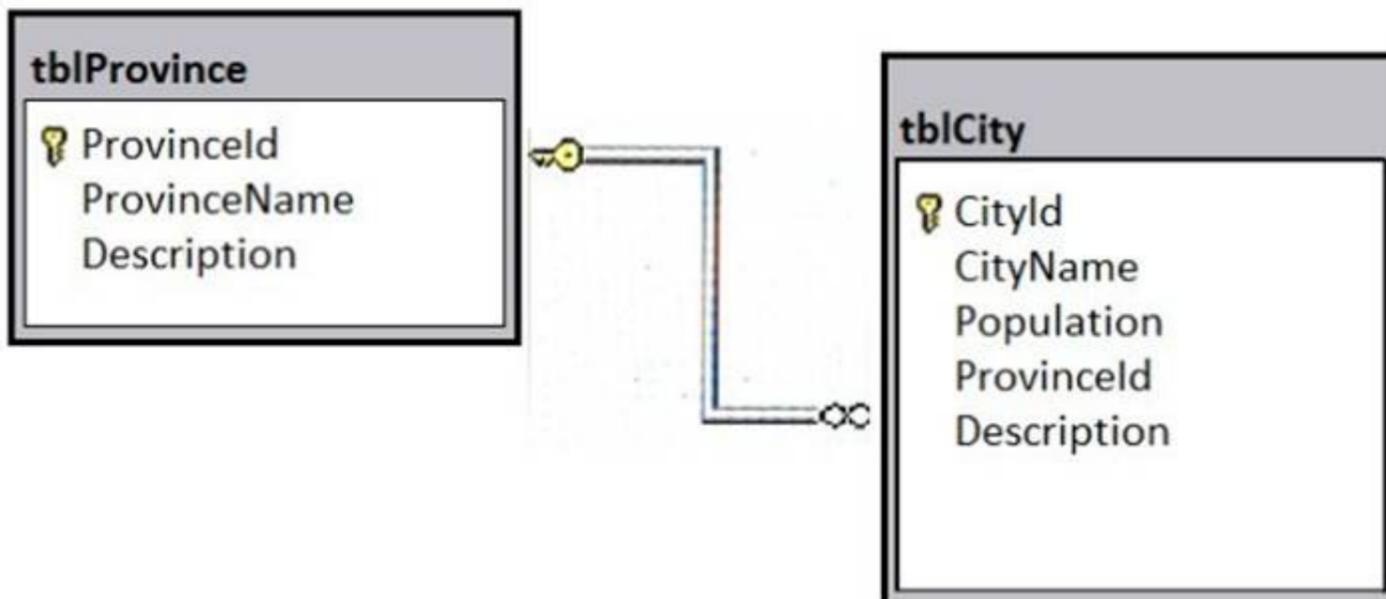
IF @@TRANCOUNT > 0  
 COMMIT TRANSACTION

**NEW QUESTION 132**

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

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

A database has two tables as shown in the following database diagram:



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

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

Solution: You run the following Transact-SQL statement:

```
SELECT P.ProvinceId, P.ProvinceName, CitySummary.LargeCityCount
FROM tblProvince P
CROSS 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.

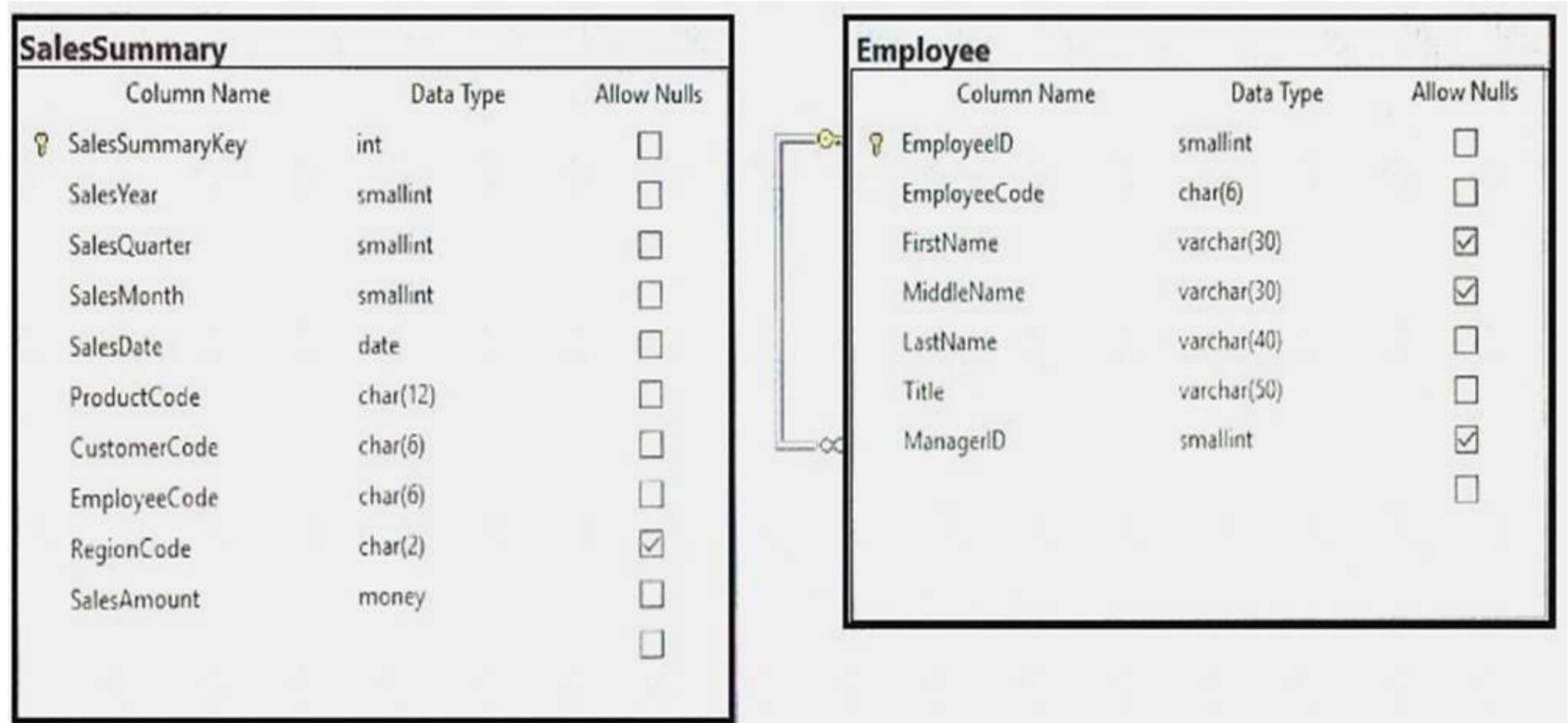
References: [https://technet.microsoft.com/en-us/library/ms190690\(v=sql.105\).aspx](https://technet.microsoft.com/en-us/library/ms190690(v=sql.105).aspx)

**NEW QUESTION 133**

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 135**

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
<pre>BEGIN TRY   UPDATE dbo.Employee   SET IsDeleted = 1   WHERE Id = 1 END TRY</pre>	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">    </div> <div style="text-align: center;">    </div> </div>
<pre>BEGIN CATCH   RAISERROR ('No tables updated!',   16, 1) END CATCH</pre>	
<pre>UPDATE dbo.Employee SET IsDeleted = 1 WHERE Id = 1</pre>	
<pre>BEGIN CATCH</pre>	
<pre>BEGIN TRY   UPDATE dbo.UserLogin   SET IsDeleted = 1   WHERE Id = 1 END TRY</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>	

- 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 138**

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 Cartesian product, combining 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:** G

**Explanation:**

A cross join that does not have a WHERE clause produces the Cartesian product of the tables involved in the join. The size of a Cartesian product result set is the number of rows in the first table multiplied by the number of rows in the second table.

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

**NEW QUESTION 141**

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

You have a database for a banking system. The database has two tables named tblDepositAcct and tblLoanAcct that store deposit and loan accounts, respectively/ Both tables contain the following columns:

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

You need to run a query to find the total number of customers who have both deposit and loan accounts. Which Transact-SQL statement should you run?

- A. SELECT COUNT(\*)FROM (SELECT AcctNoFROM tblDepositAcctINTERSECTSELECTAcctNoFROM tblLoanAcct) R
- B. SELECT COUNT(\*)FROM (SELECT CustNoFROM tblDepositAcctUNIONSELECT CustNoFROMtblLoanAcct) R
- C. SELECT COUNT(\*)FROM (SELECT CustNoFROM tblDepositAcctUNION ALLSELECTCustNoFROM tblLoanAcct) R
- D. SELECT COUNT (DISTINCT D.CustNo)FROM tblDepositAcct D, tblLoanAcct LWHERE D.CustNo= L.CustNo
- E. SELECT COUNT(DISTINCT L.CustNo)FROM tblDepositAcct DRIGHT JOIN tblLoanAcct L ON D.CustNo = L.CustNoWHERE D.CustNo IS NULL
- F. SELECT COUNT(\*)FROM (SELECT CustNoFROM tblDepositAcctEXCEPTSELECT CustNoFROMtblLoanAcct) R
- G. SELECT COUNT (DISTINCT COALESCE(D.CustNo, L.CustNo))FROM tblDepositAcct DFULLJOIN tblLoanAcct L ON D.CustNo = L.CustNoWHERE D.CustNo IS NULL OR L.CustNo IS NULL
- H. SELECT COUNT(\*)FROM tblDepositAcct DFULL JOIN tblLoanAcct L ON D.CustNo = L.CustNo

**Answer:** A

**Explanation:**

The SQL INTERSECT operator is used to return the results of 2 or more SELECT statements. However, it only returns the rows selected by all queries or data sets. If a record exists in one query and not in the other, it will be omitted from the INTERSECT results.

References: <https://www.techonthenet.com/sql/intersect.php>

**NEW QUESTION 142**

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

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

You 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 145**

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

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

You have a table named Products that stores information about products your company sells. The table has a column named ListPrice that stores retail pricing information for products.

Some products are used only internally by the company. Records for these products are maintained in the Products table for inventory purposes. The price for each of these products is \$0.00. Customers are not permitted to order these products.

You need to increase the list price for products that cost less than \$100 by 10 percent. You must only increase pricing for products that customers are permitted to order.

Solution: You run the following Transact-SQL statement:

```
UPDATE Production.Products
SET ListPrice = (ListPrice* .1)
WHERE ListPrice <100
```

Does the solution meet the goal?

- A. Yes
- B. No

**Answer:** B

**Explanation:**

Mathematical equation will only return 10 % of the value.

**NEW QUESTION 147**

You have a project management application. The application uses a Microsoft SQL Server database to store data. You are developing a software bug tracking add-on for the application.

The add-on must meet the following requirements:

- Allow case sensitive searches for product.
- Filter search results based on exact text in the description.
- Support multibyte Unicode characters.

You run the following Transact-SQL statement:

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

Users connect to an instance of the bug tracking application that is hosted in New York City. Users in Seattle must be able to display the local date and time for any bugs that they create.

You need to ensure that the DateCreated column displays correctly. Which Transact-SQL statement should you run?

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

**Answer:** C

**Explanation:**

References:

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

**NEW QUESTION 150**

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

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

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

The following table describes the columns in Sales.Orders.

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

The following table describes the columns in Sales.OrderLines.

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

You need to create a function that accepts a CustomerID as a parameter and returns the following information:

- all customer information for the customer
- the total number of orders for the customer
- the total price of all orders for the customer
- the average quantity of items per order

How should you complete the function definition? To answer, drag the appropriate Transact-SQL segment to the correct locations. 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

- COUNT
- SUM
- AVG
- ORDER BY
- GROUP BY
- RETURNS INT
- RETURNS NULL ON NULL INPUT
- RETURNS TABLE

### Answer Area

```

CREATE FUNCTION Sales.GetCustomerInformation(@CustomerID int)
    Transact-SQL segment
AS
RETURN
(
    SELECT C.CustomerName, C.PhoneNumber, C.AccountOpenedDate,
    C.StandardDiscountPercentage, C.CreditLimit, C.IsOnCreditHold,
    Transact-SQL segment (O.OrderID) AS TotalNumberOfOrders,
    Transact-SQL segment (OL.UnitPrice) AS TotalOrderPrice,
    Transact-SQL segment (OL.Quantity) AS AverageOrderQuantity
    FROM Sales.Customers C
    JOIN Sales.Orders AS O ON O.CustomerID = C.CustomerID
    JOIN Sales.OrderLines AS OL ON OL.OrderID = O.OrderID
    WHERE C.CustomerID = @CustomerID
    Transact-SQL segment C.CustomerName, C.PhoneNumber, C.AccountOpenedDate,
    C.StandardDiscountPercentage, C.CreditLimit, C.IsOnCreditHold
)
        
```

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Box1: RETURNS TABLE

The function should return the following information:

- all customer information for the customer
- the total number of orders for the customer
- the total price of all orders for the customer
- the average quantity of items per order

Box 2: COUNT  
 The function should return the total number of orders for the customer.

Box 3: SUM  
 The function should return the total price of all orders for the customer.

Box 4: AVG  
 The function should return the average quantity of items per order.

Need to use GROUP BY for the aggregate functions.

References: <https://msdn.microsoft.com/en-us/library/ms186755.aspx>

**NEW QUESTION 155**

You have a date related query that would benefit from an indexed view. You need to create the indexed view.

Which two Transact-SQL functions can you use? Each correct answer presents a complete solution. NOTE: Each correct selection is worth one point

- A. DATEADD
- B. AT TIME ZONE
- C. GETUTCDATE
- D. DATEDIFF

**Answer:** A

**NEW QUESTION 158**

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

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

You are creating indexes in a data warehouse.

You have a dimension table named Table1 that has 10,000 rows. The rows are used to generate several reports. The reports join a column that is the primary key.

The execution plan contains bookmark lookups for Table1. You discover that the reports run slower than expected.

You need to reduce the amount of time it takes to run the reports. Solution: You create a clustered index on the primary key column. Does this meet the goal?

- A. Yes
- B. No

**Answer:** A

**NEW QUESTION 159**

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 163**

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 165**

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