

```

---Cau 1.1
CREATE TRIGGER [dbo].[Trigger_OrderDelete]
ON [dbo].[OrderItem]
FOR DELETE
AS

DECLARE @DeletedOrderId INT
SELECT @DeletedOrderId = OrderId FROM deleted

ALTER TABLE [OrderItem] DROP CONSTRAINT FK_ORDERITE_REFERENCE_ORDER

DELETE FROM OrderItem WHERE OrderId = 26

```

100 %

Messages

Commands completed successfully.

Completion time: 2022-06-06T14:35:54.1235329+07:00

100 %

Query executed successfully. | DUY\SQLEXPRESS (15.0 RTM) | DUY\ADMIN (52) | Northwind | 00:00:00 | 0 rows

```

---Cau 1.2
CREATE TRIGGER [dbo].[Trigger_Order1Delete]
ON [dbo].[Order]
FOR DELETE
AS

DECLARE @DeletedOrderId INT
SELECT @DeletedOrderId = CustomerId FROM deleted

IF (@DeletedOrderId = 1)
BEGIN
    RAISERROR ('Order nay khong the xoa',
        16,
        1
    );
    ROLLBACK TRANSACTION
END

EXEC sp_settriggerorder @triggername = 'Trigger_Order1Delete', @order = 'First', @stmttype = 'DELETE';

DELETE FROM [Order] WHERE Id = 396

SELECT
FROM [Order] where CustomerId = 1

```

75 %

Results

	Id	OrderDate	OrderNumber	CustomerId	TotalAmount
1	396	2013-08-25 00:00:00.000	542773	1	1086.00
2	445	2013-10-03 00:00:00.000	542822	1	878.00
3	455	2013-10-13 00:00:00.000	542832	1	330.00
4	588	2014-01-15 00:00:00.000	542965	1	851.00
5	705	2014-03-16 00:00:00.000	543082	1	491.20
6	764	2014-04-09 00:00:00.000	543141	1	960.00

75 %

Query executed successfully. | DUY\SQLEXPRESS (15.0 RTM) | DUY\ADMIN (55) | Northwind | 00:00:00 | 6 rows

```

--- Cau 1.3
CREATE TRIGGER [dbo].[Trigger_SupplierUpdate]
ON [dbo].[Supplier]
FOR UPDATE
AS
DECLARE @UpdatePhone NVARCHAR(30)
IF UPDATE (Phone)
BEGIN
    SELECT @UpdatePhone = Phone FROM inserted
    IF @UpdatePhone IS NULL OR @UpdatePhone LIKE '%[^0-9]%'
    BEGIN
        RAISERROR ('Phone không được NULL hay có chu',
            16,
            1
        );
        ROLLBACK TRANSACTION
    END
END

UPDATE Supplier SET Phone = NULL WHERE Id = 1

UPDATE Supplier SET Phone = '' WHERE Id = 1

UPDATE Supplier SET Phone = 'abcde' WHERE Id = 1

UPDATE Supplier SET Phone = '0909400733a' WHERE Id = 1

UPDATE Supplier SET Phone = '0909400733' WHERE Id = 1

SELECT * FROM Supplier

```

75 %

Results Messages

	Id	CompanyName	ContactName	ContactTitle	City	Country	Phone	Fax
1	1	Exotic Liquids	Charlotte Cooper	NULL	London	UK	0909400733	NULL
2	2	New Orleans Cajun Delights	Shelley Burke	NULL	New Orleans	USA	(100) 555-4822	NULL
3	3	Grandma Kelly's Homestead	Regina Murphy	NULL	Ann Arbor	USA	(313) 555-5735	(313) 555-3349
4	4	Tokyo Traders	Yoshi Nagase	NULL	Tokyo	Japan	(03) 3555-5011	NULL
5	5	Cooperativa de Quesos 'Las Cabras'	Antonio del Valle Saavedra	NULL	Oviedo	Spain	(98) 598 76 54	NULL
6	6	Mavumi's	Mavumi Ohno	NULL	Osaka	Japan	(06) 431-7877	NULL

Query executed successfully. DUY\SQLEXPRESS (15.0 RTM) DUY\ADMIN (55) Northwind 00:00:00 29 rows

```

--- Cau 2
CREATE FUNCTION dbo.unf_ListCompanyByCountry (@CountryDescr NVARCHAR(MAX))
RETURNS NVARCHAR(MAX)
AS
BEGIN
    DECLARE @CompanyList NVARCHAR(MAX) = 'Companies in ' + @CountryDescr + ' are :';
    DECLARE @Id INT;
    DECLARE @CompanyName NVARCHAR(MAX);

    DECLARE CompanyCursor CURSOR READ_ONLY
    FOR
    SELECT Id, CompanyName
    FROM Company
    WHERE Country LIKE @CountryDescr

    OPEN CompanyCursor

    FETCH NEXT FROM CompanyCursor INTO @Id, @CompanyName

    WHILE @@FETCH_STATUS = 0
    BEGIN
        SET @CompanyList = @CompanyList + @CompanyName + '(ID: ' + LTRIM(STR(@Id)) + ') ' + ' ; ' ;
        FETCH NEXT FROM CompanyCursor INTO @Id, @CompanyName
    END

    CLOSE CompanyCursor
    DEALLOCATE CompanyCursor

    RETURN @CompanyList
END

SELECT dbo.unf_ListCompanyByCountry('USA')

```

85 %

Results Messages

	(No column name)
1	Companies in USA are :New Orleans Cajun Delights...

Query executed successfully. DUY\SQLEXPRESS (15.0 RTM) DUY\ADMIN (52)

```
---Cau 3
BEGIN TRY
    BEGIN TRANSACTION UpdateQuantityTrans

        SET NOCOUNT ON;

        DECLARE @NumOfUpdateRecords INT = 0;
        DECLARE @DFactor INT;
        SET @DFactor = 1;

        UPDATE OI SET Quantity = Quantity / @DFactor
        FROM OrderItem OI
        INNER JOIN [Order] O on OI.OrderId = O.Id
        INNER JOIN Customer C on O.CustomerId = C.Id
        WHERE C.Country LIKE 'USA';

        SET @NumOfUpdateRecords = @@ROWCOUNT
        PRINT 'Cap Nhat Thanh Cong ' + LTRIM(STR(@NumOfUpdateRecords)) + ' dong trong bang OrderItem';

    COMMIT TRANSACTION UpdateQuantityTrans
END TRY
BEGIN CATCH
    ROLLBACK TRAN UpdateQuantityTrans
    PRINT 'Cap Nhat That Bai. Xem Chi Tiet :';
    PRINT ERROR_MESSAGE();
END CATCH
```

85 %

Messages

Cap Nhat Thanh Cong 354 dong trong bang OrderItem

Completion time: 2022-06-06T14:42:39.4325246+07:00

85 %

Query executed successfully. | DUYSQLEXPRESS (15.0 RTM) | DUYSADMIN (52)

```
---Cau 4
BEGIN TRY
    BEGIN TRANSACTION CompareTwoCountryTrans

        SET NOCOUNT ON;
        DECLARE @Country1 NVARCHAR(40)
        DECLARE @Country2 NVARCHAR(40)

        SET @Country1 = 'USA'
        SET @Country2 = 'UK'

        CREATE TABLE #CountryInfo1
        (
            SupplierId INT,
            Country NVARCHAR(40)
        )

        DECLARE @CountryInfo2 TABLE
        (
            SupplierId INT,
            Country NVARCHAR(40)
        )

        INSERT INTO #CountryInfo1
        SELECT P.SupplierId, S.Country
        FROM Product P
        INNER JOIN Supplier S ON P.SupplierId = S.Id
        WHERE S.Country = @Country1

        INSERT INTO @CountryInfo2
        SELECT P.SupplierId, S.Country
        FROM Product P
        INNER JOIN Supplier S ON P.SupplierId = S.Id
        WHERE S.Country = @Country2

        DECLARE @NumProduct1 INT
        SET @NumProduct1 = (SELECT COUNT(SupplierId) FROM #CountryInfo1);
        DECLARE @NumProduct2 INT
        SET @NumProduct2 = (SELECT COUNT(SupplierId) FROM @CountryInfo2);
```

```

PRINT
CASE
    WHEN @NumProduct1 = @NumProduct2
        THEN 'So Luong San Pham Cua ' + @Country1 + ' = ' + @Country2
    WHEN @NumProduct1 > @NumProduct2
        THEN 'So Luong San Pham Cua ' + @Country1 + ' nhieu hon ' + @Country2
    ELSE 'So Luong San Pham Cua ' + @Country1 + ' it hon ' + @Country2
END

PRINT 'So Luong San Pham Cua ' + @Country1 + ' : ' + LTRIM(STR(@NumProduct1))
PRINT 'So Luong San Pham Cua ' + @Country2 + ' : ' + LTRIM(STR(@NumProduct2))

DROP TABLE #CountryInfo1

COMMIT TRANSACTION CompareTwoCountryTrans
END TRY
BEGIN CATCH
    ROLLBACK TRAN CompareTwoCountryTrans
    PRINT 'Co Loi Xay Ra. Xem Chi Tiet :';
    PRINT ERROR_MESSAGE();
END CATCH

SELECT P.SupplierId, S.Country
FROM Product P
INNER JOIN Supplier S ON P.SupplierId = S.Id
WHERE S.Country = 'UK'

```

```

    THEN 'So Luong San Pham Cua ' + @Country1 + ' = ' + @Country2
    WHEN @NumProduct1 > @NumProduct2
        THEN 'So Luong San Pham Cua ' + @Country1 + ' nhieu hon ' + @Country2
    ELSE 'So Luong San Pham Cua ' + @Country1 + ' it hon ' + @Country2
END

PRINT 'So Luong San Pham Cua ' + @Country1 + ' : ' + LTRIM(STR(@NumProduct1))
PRINT 'So Luong San Pham Cua ' + @Country2 + ' : ' + LTRIM(STR(@NumProduct2))

DROP TABLE #CountryInfo1

COMMIT TRANSACTION CompareTwoCountryTrans
END TRY
BEGIN CATCH
    ROLLBACK TRAN CompareTwoCountryTrans
    PRINT 'Co Loi Xay Ra. Xem Chi Tiet :';
    PRINT ERROR_MESSAGE();
END CATCH

```

Messages

```

So Luong San Pham Cua USA nhieu hon UK
So Luong San Pham Cua USA : 12
So Luong San Pham Cua UK : 7

Completion time: 2022-06-06T14:46:29.8465269+07:00

```

Query executed successfully.

DUY\SQLXPRESS (15.0 RTM) DUY\ADMIN (52) Northwind 00:00:00 0 rows

```

PRINT 'So Luong San Pham Cua ' + @Country1 + ' : ' + LTRIM(STR(@NumProduct1))
PRINT 'So Luong San Pham Cua ' + @Country2 + ' : ' + LTRIM(STR(@NumProduct2))

DROP TABLE #CountryInfo1

COMMIT TRANSACTION CompareTwoCountryTrans
END TRY
BEGIN CATCH
    ROLLBACK TRAN CompareTwoCountryTrans
    PRINT 'Co Loi Xay Ra. Xem Chi Tiet :';
    PRINT ERROR_MESSAGE();
END CATCH

SELECT P.SupplierId, S.Country
FROM Product P
INNER JOIN Supplier S ON P.SupplierId = S.Id
WHERE S.Country = 'UK'

```

Results Messages

	SupplierId	Country
1	1	UK
2	1	UK
3	1	UK
4	8	UK
5	8	UK
6	8	UK
7	8	UK

Query executed successfully.

DUY\SQLXPRESS (15.0 RTM) DUY\ADMIN (52) Northwind 00:00:00 7 rows