

Cursos SQL Server 2008 R2

Funciones Tabulares

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Ejemplos

Lista de funciones creadas:

CrearLista

DetalleCompletoPedidos

Crear Lista

Convierte una cadena que contiene una lista de elementos en una tabla de una sola columna en la que cada elemento está en una fila separada. Cualquier carácter sirve como separador.

Código

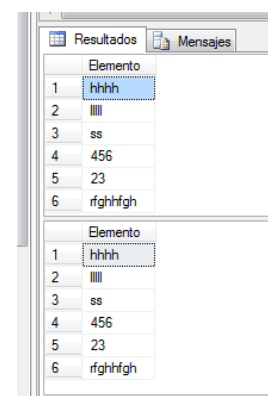
```
USE Northwind
GO
CREATE FUNCTION dbo.CrearLista
    (@ArrayDeParam as nvarchar(4000)
    , @Separador as char(1) = '|')
RETURNS @Lista TABLE
    (Elemento sql_variant)
AS
BEGIN
    DECLARE @pos int, @pos0 int
    SET @pos0 = 0

    WHILE 1=1
    BEGIN
        SET @pos = CHARINDEX(@Separador, @ArrayDeParam, @pos0 + 1)

        INSERT @Lista
            SELECT CASE @pos
                WHEN 0 THEN SUBSTRING(@ArrayDeParam, @pos0+1,
                    LEN(@ArrayDeParam) - @pos - 1)
                ELSE SUBSTRING(@ArrayDeParam, @pos0+1, @pos -
                    @pos0-1)
            END
        IF @pos = 0 BREAK
        SET @pos0 = @pos
    END
    RETURN
END
GO
```

Ejecutar ejemplo

```
select *
FROM
dbo.CrearLista('hhhh|1111|ss|456|23|rfghhfhg','|')
GO
select *
FROM
dbo.CrearLista('hhhh11111111ssa456a23arfhghfhg','a')
GO
```



	Elemento
1	hhhh
2	1111
3	ss
4	456
5	23
6	rfghhfhg

	Elemento
1	hhhh
2	1111
3	ss
4	456
5	23
6	rfghhfhg

DetalleCompletoPedidos

Genera una lista de pedidos con información descriptiva completa:

ProductName, CategoryName, CompanyName, OrderDate y TotalValue
con todas las claves principales para vincular con otras tablas.

La lista puede ser generada para cada

Order (@Clave = 'ORD'),

Product (@Clave = 'PRO'),

Customer (@Clave = 'CUS'),

Category (@Clave = 'CAT')

o la lista completa (@Clave NOT IN ('ORD', 'PRO', 'CUS', 'CAT'))

Tabla Order Details

Detalle de los productos, cantidades y precios para cada pedido en la tabla Orders.

Name	Type	Description
Discount	Single	Discount percentage applied.
🔑 OrderID	Long Integer	Same as Order ID in Orders table.
🔑 ProductID	Long Integer	Same as Product ID in Products table.
Quantity	Integer	Number of units.
UnitPrice	Currency	Price per unit.

Función PrecioTotal o TotalPrice

Código

```
CREATE FUNCTION dbo.DetalleCompletoPedidos
    (@ID sql_variant = NULL,
     @Clave char(3) = NULL)
RETURNS @Detalles TABLE
    (OrderID int
    , ProductID int
    , CustomerID nchar(5) NULL
    , CategoryID int NULL
    , OrderDate smalldatetime NULL
    , Value money NULL
    , Category nvarchar(15) NULL
    , Product nvarchar(40) NULL
    , Company nvarchar(40) NULL)
AS
BEGIN
    IF @Clave = 'ORD'
    BEGIN
        INSERT @Detalles (OrderID, ProductID, Value)
        SELECT OrderID, ProductID,
            dbo.ImporteTotal (Quantity, UnitPrice, Discount)
        FROM [Order Details]
        WHERE OrderID = @ID
    END
    ELSE IF @Clave = 'PRO'
    BEGIN
        INSERT @Detalles
            (OrderID, ProductID, Value)
    END
END
```

```

        SELECT OrderID, ProductID,
               dbo. ImporteTotal (Quantity, UnitPrice, Discount)
        FROM [Order Details]
        WHERE ProductID = @ID
END
ELSE IF @Clave = 'CUS'
BEGIN
    INSERT @Detalles
        (OrderID, ProductID, CustomerID, Value)
    SELECT O.OrderID, ProductID, CustomerID,
           dbo. ImporteTotal (Quantity, UnitPrice, Discount)
    FROM [Order Details] OD
        JOIN Orders O
            ON O.OrderID = OD.OrderID
    WHERE CustomerID = @ID
END
ELSE IF @Clave = 'CAT'
BEGIN
    INSERT @Detalles
        (OrderID, ProductID, CategoryID, Value)
    SELECT OD.OrderID, P.ProductID, CategoryID,
           dbo. ImporteTotal (Quantity, OD.UnitPrice, Discount)
    FROM [Order Details] OD
        JOIN Products P
            ON P.ProductID = OD.ProductID
    WHERE CategoryID = @ID
END
ELSE
BEGIN
    INSERT @Detalles
        (OrderID, ProductID, Value)
    SELECT OrderID, ProductID,
           dbo. ImporteTotal (Quantity, UnitPrice, Discount)
    FROM [Order Details]

END
UPDATE D
SET D.CustomerID = O.CustomerID
    , D.OrderDate = O.OrderDate
FROM @Detalles D
    JOIN Orders O
        ON O.OrderID = D.OrderID
WHERE D.CustomerID IS NULL
UPDATE D
SET D.CategoryID = P.CategoryID
    , D.Product = P.ProductName
FROM @Detalles D
    JOIN Products P
        ON P.ProductID = D.ProductID
WHERE D.CategoryID IS NULL
UPDATE D
SET D.Category = C.CategoryName
FROM @Detalles D
    JOIN Categories C
        ON C.CategoryID = D.CategoryID
UPDATE D
SET D.Company = C.CompanyName
FROM @Detalles D
    JOIN Customers C
        ON C.CustomerID = D.CustomerID

RETURN

```

```

END
GO

```

Ejecutar Ejemplos

```
select *
FROM dbo.DetalleCompletoPedidos (6, 'PRO')
GO
```

	OrderID	ProductID	CustomerID	CategoryID	OrderDate	Value	Category	Product	Company
1	10309	6	HUNGO	2	1996-09-19 00:00:00	600,00	Condiments	Grandma's Boysenberry Spread	Hungry Owl All-Night Grocers
2	10325	6	KOENE	2	1996-10-09 00:00:00	120,00	Condiments	Grandma's Boysenberry Spread	Königlich Essen
3	10618	6	MEREP	2	1997-08-01 00:00:00	1750,00	Condiments	Grandma's Boysenberry Spread	Mère Paillarde
4	10734	6	GOURL	2	1997-11-07 00:00:00	750,00	Condiments	Grandma's Boysenberry Spread	Gourmet Lanchonetes
5	10830	6	TRADH	2	1998-01-13 00:00:00	150,00	Condiments	Grandma's Boysenberry Spread	Tradição Hipermarcados
6	10871	6	BONAP	2	1998-02-05 00:00:00	1187,50	Condiments	Grandma's Boysenberry Spread	Bon app'
7	10934	6	LEHMS	2	1998-03-09 00:00:00	500,00	Condiments	Grandma's Boysenberry Spread	Lehmanns Marktstand
8	10949	6	BOTTM	2	1998-03-13 00:00:00	300,00	Condiments	Grandma's Boysenberry Spread	Bottom-Dollar Markets

```
select *
FROM dbo.DetalleCompletoPedidos ('ANTON', 'CUS')
GO
```

	OrderID	ProductID	CustomerID	CategoryID	OrderDate	Value	Category	Product	Company
1	10365	11	ANTON	4	NULL	403,20	Dairy Products	Queso Cabrales	Antonio Moreno Taquería
2	10507	43	ANTON	1	NULL	586,50	Beverages	Ipoh Coffee	Antonio Moreno Taquería
3	10507	48	ANTON	3	NULL	162,00	Confections	Chocolade	Antonio Moreno Taquería
4	10535	11	ANTON	4	NULL	945,00	Dairy Products	Queso Cabrales	Antonio Moreno Taquería
5	10535	40	ANTON	8	NULL	165,60	Seafood	Boston Crab ...	Antonio Moreno Taquería
6	10535	57	ANTON	5	NULL	87,75	Grains/Cereals	Ravioli Angelo	Antonio Moreno Taquería
7	10535	59	ANTON	4	NULL	742,50	Dairy Products	Raclette Cour...	Antonio Moreno Taquería
8	10573	17	ANTON	6	NULL	702,00	Meat/Poultry	Alice Mutton	Antonio Moreno Taquería

```
select *
FROM dbo.DetalleCompletoPedidos (6, 'CAT')
GO
```

	OrderID	ProductID	CustomerID	CategoryID	OrderDate	Value	Category	Product	Company
1	10254	55	CHOPS	6	1996-07-11 00:00:00	342,72	Meat/Poultry	NULL	Chop-suey Chinese
2	10256	53	WELLI	6	1996-07-15 00:00:00	393,00	Meat/Poultry	NULL	Wellington Importadora
3	10265	17	BLONP	6	1996-07-25 00:00:00	936,00	Meat/Poultry	NULL	Blondesdls père et fils
4	10268	29	GROSR	6	1996-07-30 00:00:00	990,00	Meat/Poultry	NULL	GROSELLA-Restaur...
5	10279	17	LEHMS	6	1996-08-13 00:00:00	351,00	Meat/Poultry	NULL	Lehmanns Marktstand
6	10280	55	BERGS	6	1996-08-14 00:00:00	384,00	Meat/Poultry	NULL	Berglunds snabbköp
7	10285	53	QUICK	6	1996-08-20 00:00:00	754,56	Meat/Poultry	NULL	QUICK-Stop
8	10288	54	REGGC	6	1996-08-23 00:00:00	53,10	Meat/Poultry	NULL	Reggiani Caseifici

```
select *
FROM dbo.DetalleCompletoPedidos (10248, 'ORD')
GO
```

	OrderID	ProductID	CustomerID	CategoryID	OrderDate	Value	Category	Product	Company
1	10248	11	VINET	4	1996-07-04 00:00:00	168,00	Dairy Products	Queso Cabrales	Vins et alcools Chevalier
2	10248	42	VINET	5	1996-07-04 00:00:00	98,00	Grains/Cereals	Singaporean Hokkien Fried Mee	Vins et alcools Chevalier
3	10248	72	VINET	4	1996-07-04 00:00:00	174,00	Dairy Products	Mozzarella di Giovanni	Vins et alcools Chevalier

```
select *
FROM dbo.DetalleCompletoPedidos (6, 'cc')
GO
```

	OrderID	ProductID	CustomerID	CategoryID	OrderDate	Value	Category	Product	Company
1	10248	11	VINET	4	1996-07-04 00:00:00	168,00	Dairy Products	Queso Cabrales	Vins et alcools Chevalier
2	10248	42	VINET	5	1996-07-04 00:00:00	98,00	Grains/Cereals	Singaporean Hokkien Fried Mee	Vins et alcools Chevalier
3	10248	72	VINET	4	1996-07-04 00:00:00	174,00	Dairy Products	Mozzarella di Giovanni	Vins et alcools Chevalier
4	10249	14	TOMSP	7	1996-07-05 00:00:00	167,40	Produce	Tofu	Toms Spezialitäten
5	10249	51	TOMSP	7	1996-07-05 00:00:00	169,60	Produce	Manjimup Dried Apples	Toms Spezialitäten
6	10250	41	HANAR	8	1996-07-08 00:00:00	77,00	Seafood	Jack's New England Clam Cho...	Hanari Cames
7	10250	51	HANAR	7	1996-07-08 00:00:00	1261,00	Produce	Manjimup Dried Apples	Hanari Cames
8	10250	65	HANAR	2	1996-07-08 00:00:00	214,20	Condiments	Louisiana Fiery Hot Peoper Sa...	Hanari Cames

Más información

C/ Miracruz, 10 (Bº de Gros) 20001 Donostia

Telf.: 943 275819

email: seim@centroseim.com

