Cursos SQL Server 2008 R2

Funciones Tabulares

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Ejemplos

Cómo crear funciones tabulares similares a las que creamos en las funciones en línea.

Funciones creadas:

> tabular_ClientesDelPais
>
> tabular_ClientesDeUsa
>
> Tabular_PedidosDeLaFecha
>
> Tabular_PedidosDeHoy
>
> Tabular_PedidosConImporte
>
> Tabular_PedidosPorImporte
>
> Tabular_DiezPedidosMasImportantes

Tabla Customers

Datos de clientes nombre, dirección, teléfono.

Name	Type	Description
Address	Text(60)	Street or post-office box.
City	Text(15)	Name of city where customer is located.
CompanyName	Text(40)	Name of customer company.
ContactName	Text(30)	Name of contact person.
ContactTitle	Text(30)	Title of contact person.
Country	Text(15)	Name of country where customer is located.
🔑 CustomerID	Text(5)	Unique five-character code based on customer name.
Fax	Text(24)	Phone number includes country code or area code.
Phone	Text(24)	Phone number includes country code or area code.
PostalCode	Text(10)	ZIP code where customer is located.
Region	Text(15)	State or province.

ClientesDelPais

```
-- Devuelve los clientes del país enviado como parámetro
CREATE FUNCTION dbo.tabular_ClientesDelPais
     (@Pais nvarchar(15))
RETURNS @Lista TABLE
     (CustomerID nchar(5)
     , CompanyName nvarchar(40)
     , Country nvarchar(15))
AS
BEGIN
     INSERT @Lista
          SELECT CustomerID, CompanyName, Country
          FROM Customers
          WHERE Country = @Pais

     RETURN
END

GO
```

ClientesDeUsa

```sql
-- Devuelve los clientes de USA
CREATE FUNCTION dbo.tabular_ClientesDeUsa
()
RETURNS @Lista TABLE
     (CustomerID nchar(5)
     , CompanyName nvarchar(40)
     , Country nvarchar(15))
AS
BEGIN
     INSERT @Lista
          SELECT CustomerID, CompanyName, Country
          FROM dbo.ClientesDelPais(N'USA')

     RETURN
END
GO
```

Tabla Orders

Name	Type	Description
CustomerID	Text(5)	Same entry as in Customers table.
EmployeeID	Long Integer	Same entry as in Employees table.
Freight	Currency	Shipping cost.
OrderDate	Date/Time	Date of order.
🔑 OrderID	AutoNumber	Unique order number.
RequiredDate	Date/Time	Required by date.
ShipAddress	Text(60)	Street address only -- no post-office box allowed.
ShipCity	Text(15)	Name of city where order was shipped.
ShipCountry	Text(15)	Name of country where order was shipped.
ShipName	Text(40)	Name of person or company to receive the shipment.
ShippedDate	Date/Time	Date that order was shipped.
ShipPostalCode	Text(10)	ZIP code where order was shipped.
ShipRegion	Text(15)	State or province.
ShipVia	Long Integer	Same as Shipper ID in Shippers table.

PedidosDeLaFecha

```sql
-- Devuelve los pedidos de una fecha particular
CREATE FUNCTION dbo.Tabular_PedidosDeLaFecha
     (@fecha as smalldatetime)
RETURNS @list TABLE
     (OrderID int
     , OrderDate datetime)
AS
BEGIN
     INSERT @List
          SELECT OrderID, OrderDate
          FROM Orders
          WHERE DATEDIFF(day, OrderDate, @fecha) = 0

     RETURN
END

GO
```

PedidosDeHoy

```sql
-- Devuelve los pedidos del día actual
CREATE FUNCTION dbo.Tabular_PedidosDeHoy
()
RETURNS @list TABLE
    (OrderID int
    , OrderDate datetime)
AS
BEGIN
    INSERT @List
        SELECT OrderID, OrderDate
        FROM Orders
        WHERE DATEDIFF(day, OrderDate, dbo.DiaHora()) = 0

    RETURN
END

GO
```

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.

PedidosConImporte

```sql
-- Devuelve los pedidos con el importe total
CREATE FUNCTION dbo.PedidosConImporte
()
RETURNS TABLE
AS
    RETURN (
        SELECT O.*, ImporteTotal
        FROM Orders O
            JOIN (
                SELECT OrderID
                    , SUM(dbo.ImporteTotal(Quantity, UnitPrice, Discount))
                        AS ImporteTotal
                FROM [Order Details]
                GROUP BY OrderID
            ) AS OD
                ON O.OrderID = OD.OrderID
    )
GO
```

PedidosPorImporte

```sql
-- Devuelve los pedidos cuyo importe supera un valor dado
CREATE FUNCTION dbo.Tabular_PedidosPorImporte
      (@total money)
RETURNS @lista TABLE
      (OrderID int
      , CustomerID nchar(5)
      , OrderDate datetime
      , ImporteTotal money)
AS
BEGIN
      INSERT @Lista
            SELECT OrderID, CustomerID, OrderDate, ImporteTotal
            FROM dbo.PedidosConImporte()
            WHERE ImporteTotal > @total

      RETURN
END
GO
```

DiezPedidosMasImportantes

```sql
-- Devuelve los 10 pedidos con mayor importe
CREATE FUNCTION dbo.Tabular_DiezPedidosMasImportantes
()
RETURNS @lista TABLE
      (OrderID int
      , CustomerID nchar(5)
      , OrderDate datetime
      , ImporteTotal money)
AS
BEGIN
      INSERT @Lista
            SELECT TOP 10 WITH TIES
                  OrderID, CustomerID, OrderDate, ImporteTotal
            FROM dbo.PedidosConImporte()
            ORDER BY ImporteTotal DESC

      RETURN
END
GO
```

Ejecutar Ejemplos

5.1 Tabular-3.sql

Más información

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S.E.I.M.