

## Taller transformaciones – Brayan Estiven Atis Revelo

### Parte 1.

- Cargar las siguientes fuentes de datos a SQL server, usando los archivos .bak

Crea una base de datos NorthwindDb y restaura el script Instwnd.sql

- Realiza un recorrido sobre las tablas de la base de datos e identifica las relaciones y dependencias existentes.

- Que tablas están relacionadas y con que campos o llaves foráneas están relacionadas, indica cuales y sus campos de relación.

### **Respuesta:**

#### *Claves foráneas:*

CustomerCustomerDemo tiene dos llaves foráneas la primera referente a CustomerDemographics y la segunda referente a Customers.

EmployeeTerritories tiene dos llaves foráneas la primera referente a Employees y la segunda referente a Territories.

Employees tiene una llave foránea que hace referencia a la misma tabla Employees.

Order Details tiene dos llaves foráneas la primera referente a Orders y la segunda referente a Products

Orders tiene tres claves foráneas la primera referente a Customers la segunda referente a Employees la tercera referente a Shippers.

Products tiene dos claves foráneas la primera referente a Categories y la segunda referente a Suppliers.

Territories tiene una clave foránea referente a Region

Las demás tablas no poseen llaves foráneas.

#### *Relaciones entre tablas:*

Customers tiene una relación varios a varios con la tabla CustomerDemographics.

Employees tiene una relación varios a varios con la tabla Territories.

Order Details con Products – Orders

Orders con Shippers – Employees - Customers

Products con Categories – Suppliers

Employees con Territories – Employees

Territories con Region

Customers con CustomerDemographics

Tablas auxiliaries:

CustomerCustomerDemo

EmployeeTerritories

Ejecuta la siguiente consulta y analiza su resultado:

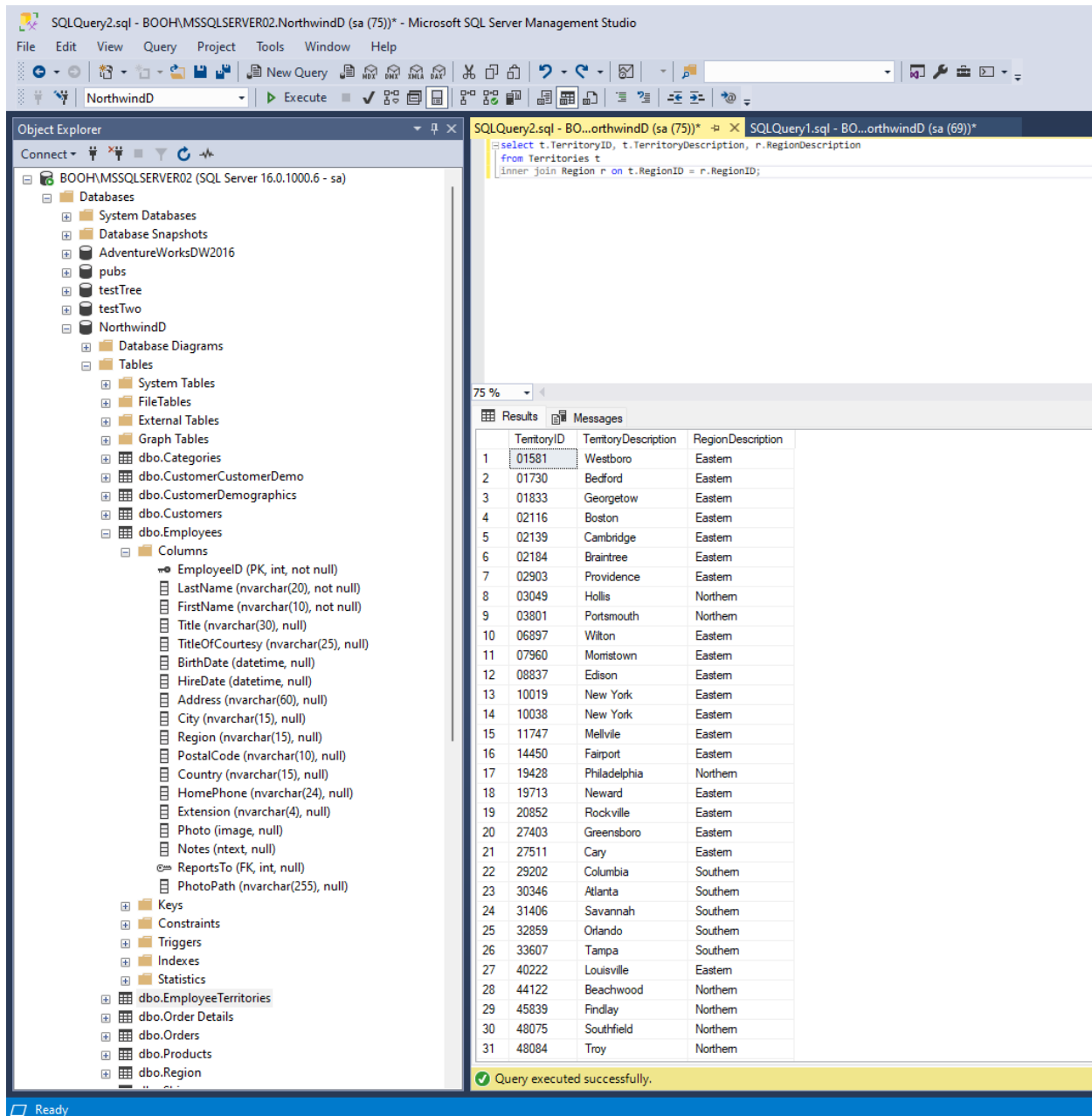
```
select t.TerritoryID, t.TerritoryDescription, r.RegionDescription
```

```
from Territories t
```

```
inner join Region r on t.RegionID = r.RegionID;
```

- Agrega una captura del resultado de la consulta.

Captura de ejecución del comando:



SQLQuery2.sql - BOOH\MSSQLSERVER02\NorthwindD (sa (75))\* - Microsoft SQL Server Management Studio

Object Explorer

Connect > BOOH\MSSQLSERVER02 (SQL Server 16.0.1000.6 - sa)

Databases

- System Databases
- Database Snapshots
- AdventureWorksDW2016
- pubs
- testTree
- testTwo
- NorthwindD
  - Database Diagrams
  - Tables
    - System Tables
    - FileTables
    - External Tables
    - Graph Tables
    - dbo.Categories
    - dbo.CustomerCustomerDemo
    - dbo.CustomerDemographics
    - dbo.Customers
    - dbo.Employees
      - EmployeeID (PK, int, not null)
      - LastName (nvarchar(20), not null)
      - FirstName (nvarchar(10), not null)
      - Title (nvarchar(30), null)
      - TitleOfCourtesy (nvarchar(25), null)
      - BirthDate (datetime, null)
      - HireDate (datetime, null)
      - Address (nvarchar(60), null)
      - City (nvarchar(15), null)
      - Region (nvarchar(15), null)
      - PostalCode (nvarchar(10), null)
      - Country (nvarchar(15), null)
      - HomePhone (nvarchar(24), null)
      - Extension (nvarchar(4), null)
      - Photo (image, null)
      - Notes (ntext, null)
      - ReportsTo (FK, int, null)
      - PhotoPath (nvarchar(255), null)
    - Keys
    - Constraints
    - Triggers
    - Indexes
    - Statistics
  - dbo.EmployeeTerritories
  - dbo.Order Details
  - dbo.Orders
  - dbo.Products
  - dbo.Region

SQLQuery2.sql - BO...orthwindD (sa (75))\* SQLQuery1.sql - BO...orthwindD (sa (69))\*

```
select t.TerritoryID, t.TerritoryDescription, r.RegionDescription
from Territories t
inner join Region r on t.RegionID = r.RegionID;
```

75 %

Results Messages

	TerritoryID	TerritoryDescription	RegionDescription
1	01581	Westboro	Eastern
2	01730	Bedford	Eastern
3	01833	Georgetown	Eastern
4	02116	Boston	Eastern
5	02139	Cambridge	Eastern
6	02184	Braintree	Eastern
7	02903	Providence	Eastern
8	03049	Hollis	Northern
9	03801	Portsmouth	Northern
10	06897	Wilton	Eastern
11	07960	Monistown	Eastern
12	08837	Edison	Eastern
13	10019	New York	Eastern
14	10038	New York	Eastern
15	11747	Melville	Eastern
16	14450	Fairport	Eastern
17	19428	Philadelphia	Northern
18	19713	Neward	Eastern
19	20852	Rockville	Eastern
20	27403	Greensboro	Eastern
21	27511	Cary	Eastern
22	29202	Columbia	Southern
23	30346	Atlanta	Southern
24	31406	Savannah	Southern
25	32859	Orlando	Southern
26	33607	Tampa	Southern
27	40222	Louisville	Eastern
28	44122	Beachwood	Northern
29	45839	Findlay	Northern
30	48075	Southfield	Northern
31	48084	Troy	Northern

Query executed successfully.

Ready

```
inner join Territories tr on t.TerritoryID = tr.TerritoryID;
```

SQL Query2.sql - BOOHHMSQLSERVER02\NorthwindID (sa (75)) - Microsoft SQL Server Management Studio

Object Explorer

- NorthwindID
  - Photo (image, null)
  - Notes (text, null)
  - PhotoPath (FK, int, null)
  - ReportsTo (FK, int, null)
  - PhotoPath (nvarchar(255), null)
  - Keys
  - Constraints
  - Triggers
  - Indexes
  - Statistics
  - dbo.EmployeeTerritories
  - dbo.Order Details
  - dbo.Orders
  - dbo.Products
  - dbo.Region
  - dbo.Shippers
  - Columns
    - ShipperID (FK, int, not null)
    - CompanyName (nvarchar(40), not null)
    - Phone (nvarchar(24), null)
  - Keys
  - Constraints
  - Triggers
  - Indexes
  - Statistics
  - dbo.Sales
  - dbo.Territories
  - Columns
    - TerritoryID (FK, nvarchar(20), not null)
    - TerritoryDescription (nvarchar(50), not null)
    - RegionID (FK, int, not null)
  - Keys
  - Constraints
  - Triggers
  - Indexes
  - Statistics
  - Dropped Ledger Tables
  - Views
  - External Resources
  - Synonyms
  - Programmability
  - Query Store
  - Service Broker
  - Storage
  - Security
    - Security
    - Server Objects
    - Replication
    - Always On High Availability
    - Management

SQL Query1.sql - BOOHHMSQLSERVER02\NorthwindID (sa (75))

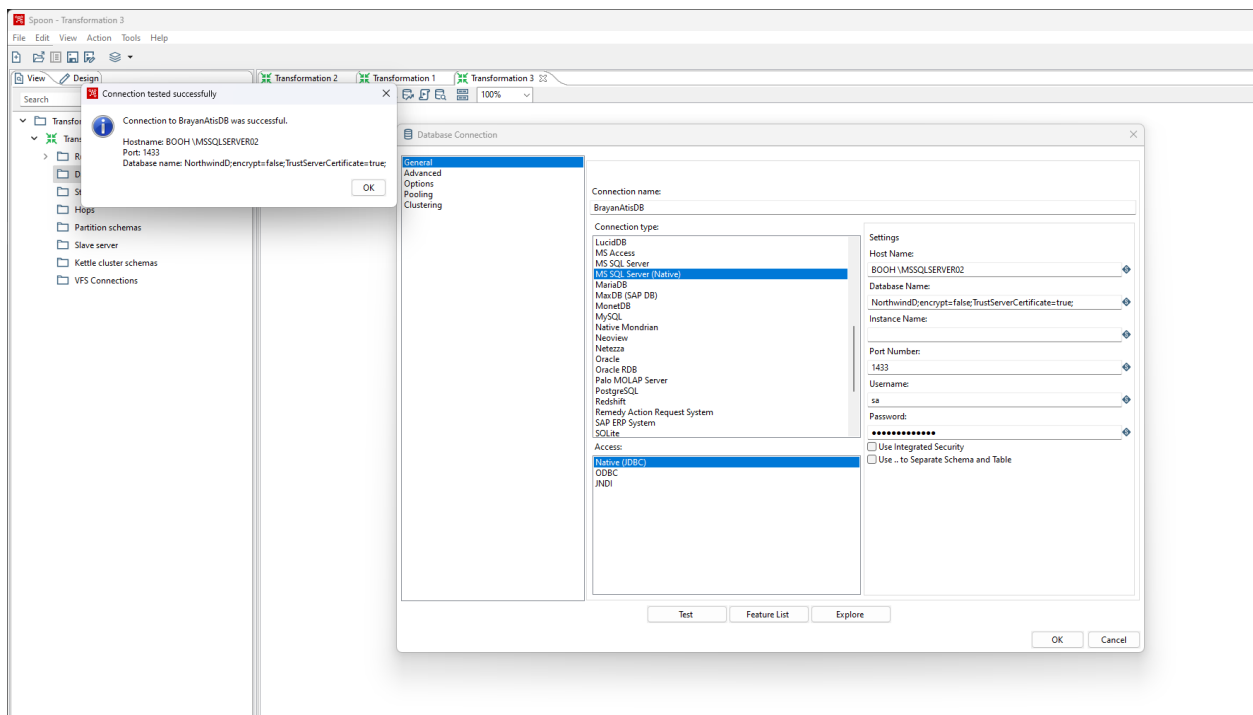
```
select e.*, t.TerritoryID, tr.TerritoryDescription
from Employees e
inner join EmployeeTerritories t on e.EmployeeID = t.EmployeeID
inner join Territories tr on t.TerritoryID = tr.TerritoryID;
```

Results

Region	PostalCode	Country	HomePhone	Extension	Photo	Notes	ReportsTo	PhotoPath	TerritoryID	TerritoryDescription	
1	WA	98122	USA	(206) 555-8057	5467	Education includes a BA in psychology from Colorado.	2	http://accweb/employees/davolio.bmp	96597	Wilbur	
2	WA	98122	USA	(206) 555-8057	5467	Education includes a BA in psychology from Colorado.	2	http://accweb/employees/davolio.bmp	19713	Neward	
3	WA	98401	USA	(206) 555-9402	3457	Andrew received his BTS commercial in 1974 and a...	NULL	http://accweb/employees/fuller.bmp	01581	Wheatboro	
4	WA	98401	USA	(206) 555-9402	3457	Andrew received his BTS commercial in 1974 and a...	NULL	http://accweb/employees/fuller.bmp	01730	Bedford	
5	WA	98401	USA	(206) 555-9402	3457	Andrew received his BTS commercial in 1974 and a...	NULL	http://accweb/employees/fuller.bmp	01833	Georgetown	
6	WA	98401	USA	(206) 555-9402	3457	Andrew received his BTS commercial in 1974 and a...	NULL	http://accweb/employees/fuller.bmp	02116	Bozton	
7	WA	98401	USA	(206) 555-9402	3457	Andrew received his BTS commercial in 1974 and a...	NULL	http://accweb/employees/fuller.bmp	02139	Cambridge	
8	WA	98401	USA	(206) 555-9402	3457	Andrew received his BTS commercial in 1974 and a...	NULL	http://accweb/employees/fuller.bmp	02194	Branthre	
9	WA	98401	USA	(206) 555-9402	3457	Andrew received his BTS commercial in 1974 and a...	NULL	http://accweb/employees/fuller.bmp	40222	Louisville	
10	d	98033	USA	(206) 555-3412	3355	Janet has a BS degree in chemistry from Boston Colle...	2	http://accweb/employees/ferreling.bmp	30346	Atlanta	
11	d	98033	USA	(206) 555-3412	3355	Janet has a BS degree in chemistry from Boston Colle...	2	http://accweb/employees/ferreling.bmp	31406	Savannah	
12	d	98033	USA	(206) 555-3412	3355	Janet has a BS degree in chemistry from Boston Colle...	2	http://accweb/employees/ferreling.bmp	32859	Orlando	
13	d	98033	USA	(206) 555-3412	3355	Janet has a BS degree in chemistry from Boston Colle...	2	http://accweb/employees/ferreling.bmp	33627	Tampa	
14	nd	98052	USA	(206) 555-8122	5176	Margaret holds a BA in English literature from Concor...	2	http://accweb/employees/peacock.bmp	20952	Rockville	
15	nd	98052	USA	(206) 555-8122	5176	Margaret holds a BA in English literature from Concor...	2	http://accweb/employees/peacock.bmp	27403	Greenabono	
16	nd	98052	USA	(206) 555-8122	5176	Margaret holds a BA in English literature from Concor...	2	http://accweb/employees/peacock.bmp	27511	Cary	
17	1	NULL	SW1 8JR	UK	(71) 555-4048	3453	Steven Buchanan graduated from St. Andrews Unive...	2	http://accweb/employees/buchanan.bmp	02903	Providence
18	1	NULL	SW1 8JR	UK	(71) 555-4048	3453	Steven Buchanan graduated from St. Andrews Unive...	2	http://accweb/employees/buchanan.bmp	07960	Monstern
19	1	NULL	SW1 8JR	UK	(71) 555-4048	3453	Steven Buchanan graduated from St. Andrews Unive...	2	http://accweb/employees/buchanan.bmp	08037	Edson
20	1	NULL	SW1 8JR	UK	(71) 555-4048	3453	Steven Buchanan graduated from St. Andrews Unive...	2	http://accweb/employees/buchanan.bmp	10019	New York
21	1	NULL	SW1 8JR	UK	(71) 555-4048	3453	Steven Buchanan graduated from St. Andrews Unive...	2	http://accweb/employees/buchanan.bmp	10038	New York
22	1	NULL	SW1 8JR	UK	(71) 555-4048	3453	Steven Buchanan graduated from St. Andrews Unive...	2	http://accweb/employees/buchanan.bmp	11747	Malibu
23	1	NULL	SW1 8JR	UK	(71) 555-4048	3453	Steven Buchanan graduated from St. Andrews Unive...	2	http://accweb/employees/buchanan.bmp	14450	Esport
24	1	NULL	EC2 7JR	UK	(71) 555-7773	428	Michael is a graduate of Sussex University (MA, econ...	5	http://accweb/employees/davolio.bmp	85014	Phoenix
25	1	NULL	EC2 7JR	UK	(71) 555-7773	428	Michael is a graduate of Sussex University (MA, econ...	5	http://accweb/employees/davolio.bmp	85201	Scottsdale
26	1	NULL	EC2 7JR	UK	(71) 555-7773	428	Michael is a graduate of Sussex University (MA, econ...	5	http://accweb/employees/davolio.bmp	90504	Bethune
27	1	NULL	EC2 7JR	UK	(71) 555-7773	428	Michael is a graduate of Sussex University (MA, econ...	5	http://accweb/employees/davolio.bmp	90505	Redmond
28	1	NULL	EC2 7JR	UK	(71) 555-7773	428	Michael is a graduate of Sussex University (MA, econ...	5	http://accweb/employees/davolio.bmp	98104	Seattle
29	1	NULL	RG1 5SP	UK	(71) 555-5598	465	Robert King served in the Peace Corps and traveled ...	5	http://accweb/employees/davolio.bmp	60179	Huffman Estates
30	1	NULL	RG1 5SP	UK	(71) 555-5598	465	Robert King served in the Peace Corps and traveled ...	5	http://accweb/employees/davolio.bmp	60601	Chicago

## Parte 2

- Cargue la misma fuente de datos en Pentaho, realice capturas de pantalla de la configuración de la conexión (Ventana DataBase Connection), nombre a Connection name: nombreApellidoDB
- Cree una nueva transformación con nombre: nombreakellidoTR
- Cargue las tablas:
- Customers



Todo lo demás se encuentra en el archivo .ktr

Región nulos

cust