Sample Database

Source: https://northwinddatabase.codeplex.com/

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Northwind DB

The Northwind database is used for storing information about product orders, as well as storing info about the employees who "closed the deal" and the supplier who delivered the product.

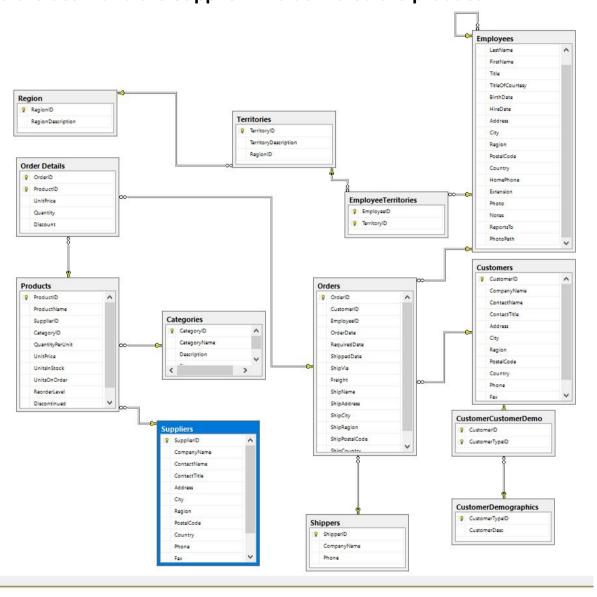


Fig.1 Database Diagram

Primary keys:

- -ProductID in Products
- -CustomerID in Customers
- -ShipperID in Shippers
- -SupplierID in Suppliers

Foreign keys:

- -SupplierID in Products
- -CategoryID in Products
- -CustomerID in Customers
- -RegionID in Territories

Relationships

- ->One-to-many:
 - -One Region can be found in many Territories
 - -One Employee can be involved in many Orders
 - -One Customer can have many Orders
- ->Many-to-Many
 - -CustomerDemographics-Customers
- ->One-to_One-not present in the database

Data examples:

→ Table Products contains information about the the product which had been sold. It stores its name, the supplier's id along with the category, stock quantity, price per unit and others.

	ProductID	ProductName	SupplierID	CategoryID	QuantityPerUnit	Unit Price	Units In Stock	UnitsOnOrder	ReorderLevel	Discontinued
1	1	Chai	1	1	10 boxes x 20 bags	18.00	39	0	10	0
2	2	Chang	1	1	24 - 12 oz bottles	19.00	17	40	25	0
3	3	Aniseed Syrup	1	2	12 - 550 ml bottles	10.00	13	70	25	0
4	4	Chef Anton's Cajun Seasoning	2	2	48 - 6 oz jars	22.00	53	0	0	0
5	5	Chef Anton's Gumbo Mix	2	2	36 boxes	21.35	0	0	0	1
6	6	Grandma's Boysenberry Spread	3	2	12 - 8 oz jars	25.00	120	0	25	0
7	7	Uncle Bob's Organic Dried Pears	3	7	12 - 1 lb pkgs.	30.00	15	0	10	0
8	8	Northwoods Cranberry Sauce	3	2	12 - 12 oz jars	40.00	6	0	0	0
9	9	Mishi Kobe Niku	4	6	18 - 500 g pkgs.	97.00	29	0	0	1
10	10	lkura	4	8	12 - 200 ml jars	31.00	31	0	0	0
11	11	Queso Cabrales	5	4	1 kg pkg.	21.00	22	30	30	0
12	12	Queso Manchego La Pastora	5	4	10 - 500 g pkgs.	38.00	86	0	0	0

→ Customers Table contains information about the customers that bought the products. Every customer has a unique ID, a company name, a contact name which represents the company's spokesman along with its title. Moreover, every company has an address, a city in which is placed, a region, postal code and a country in which it is found. For contacting the customer, the buyer can use the last two columns which store the telephone number and the fax.

	CustomerID	CompanyName	Contact Name	Contact Title	Address	City	Region	PostalCode	Country	Phone	Fax
1	ALFKI	Alfreds Futterkiste	Maria Anders	Sales Representative	Obere Str. 57	Berlin	NULL	12209	Germany	030-0074321	030-0076545
2	ANATR	Ana Trujillo Emparedados y helados	Ana Trujillo	Owner	Avda. de la Constitución 2222	México D.F.	NULL	05021	Mexico	(5) 555-4729	(5) 555-3745
3	ANTON	Antonio Moreno Taquería	Antonio Moreno	Owner	Mataderos 2312	México D.F.	NULL	05023	Mexico	(5) 555-3932	NULL
4	AROUT	Around the Hom	Thomas Hardy	Sales Representative	120 Hanover Sq.	London	NULL	WA1 1DP	UK	(171) 555-7788	(171) 555-6750
5	BERGS	Berglunds snabbköp	Christina Berglund	Order Administrator	Berguvsvägen 8	Luleå	NULL	S-958 22	Sweden	0921-12 34 65	0921-12 34 67
6	BLAUS	Blauer See Delikatessen	Hanna Moos	Sales Representative	Forsterstr. 57	Mannheim	NULL	68306	Germany	0621-08460	0621-08924
7	BLONP	Blondesddsl père et fils	Frédérique Citeaux	Marketing Manager	24, place Kléber	Strasbourg	NULL	67000	France	88.60.15.31	88.60.15.32
8	BOLID	Bólido Comidas preparadas	Mart in Sommer	Owner	C/ Araquil, 67	Madrid	NULL	28023	Spain	(91) 555 22 82	(91) 555 91 99
9	BONAP	Bon app'	Laurence Lebihan	Owner	12, rue des Bouchers	Marseille	NULL	13008	France	91.24.45.40	91.24.45.41
10	BOTTM	Bottom-Dollar Markets	Elizabeth Lincoln	Accounting Manager	23 Tsawassen Blvd.	Tsawassen	BC	T2F 8M4	Canada	(604) 555-4729	(604) 555-3745
11	BSBEV	B's Beverages	Victoria Ashworth	Sales Representative	Fauntleroy Circus	London	NULL	EC2 5NT	UK	(171) 555-1212	NULL
12	CACTU	Cactus Comidas para llevar	Patricio Simpson	Sales Agent	Cerrito 333	Buenos Aires	NULL	1010	Argentina	(1) 135-5555	(1) 135-4892
13	CENTC	Centro comercial Moctezuma	Francisco Chang	Marketing Manager	Sierras de Granada 9993	México D.F.	NULL	05022	Mexico	(5) 555-3392	(5) 555-7293
14	CHOPS	Chop-suey Chinese	Yang Wang	Owner	Hauptstr. 29	Bem	NULL	3012	Switzerland	0452-076545	NULL

External Views

1.Display the shipper who brought the product and the company that bought it

SELECT dbo.Orders.OrderID, dbo.Customers.CustomerID, dbo.Customers.CompanyName, dbo.Products.ProductName, dbo.Shippers.ShipperID

FROM dbo.Customers INNER JOIN

dbo.Orders ON dbo.Customers.CustomerID = dbo.Orders.CustomerID INNER JOIN

dbo.Shippers ON dbo.Orders.ShipVia = dbo.Shippers.ShipperID CROSS JOIN dbo.Products

OrderID	CustomerID	CompanyName	ProductName	Expr1
10248	VINET	Vins et alcools	Chai	Federal Shipping
10248	VINET	Vins et alcools	Chang	Federal Shipping
10248	VINET	Vins et alcools	Aniseed Syrup	Federal Shipping
10248	VINET	Vins et alcools	Chef Anton's C	Federal Shipping
10248	VINET	Vins et alcools	Chef Anton's G	Federal Shipping
10248	VINET	Vins et alcools	Grandma's Boy	Federal Shipping
10248	VINET	Vins et alcools	Uncle Bob's Or	Federal Shipping
10248	VINET	Vins et alcools	Northwoods Cr	Federal Shipping
10248	VINET	Vins et alcools	Mishi Kobe Niku	Federal Shipping
10248	VINET	Vins et alcools	Ikura	Federal Shipping
10248	VINET	Vins et alcools	Queso Cabrales	Federal Shipping
10248	VINET	Vins et alcools	Queso Manche	Federal Shipping
10248	VINET	Vins et alcools	Konbu	Federal Shipping
10248	VINET	Vins et alcools	Tofu	Federal Shipping

2.Display all the info regarding a product along with its supplier and category

SELECT dbo.Products.*, dbo.Categories.CategoryName, dbo.Suppliers.CompanyName

FROM dbo.Categories INNER JOIN

dbo.Products ON dbo.Categories.CategoryID =

dbo.Products.CategoryID INNER JOIN

dbo.Suppliers ON dbo.Products.SupplierID =

dbo.Suppliers.SupplierID

ProductID	ProductName	SupplierID	CategoryID	QuantityPerUnit	UnitPrice	UnitsInStock	UnitsOnOrder	ReorderLevel	Discontinued	CategoryName	CompanyName
1	Chai	1	1	10 boxes x 20 b	18.0000	39	0	10	False	Beverages	Exotic Liquids
2	Chang	1	1	24 - 12 oz bottles	19.0000	17	40	25	False	Beverages	Exotic Liquids
3	Aniseed Syrup	1	2	12 - 550 ml bott	10.0000	13	70	25	False	Condiments	Exotic Liquids
4	Chef Anton's C	2	2	48 - 6 oz jars	22.0000	53	0	0	False	Condiments	New Orleans C
5	Chef Anton's G	2	2	36 boxes	21.3500	0	0	0	True	Condiments	New Orleans C
6	Grandma's Boy	3	2	12 - 8 oz jars	25.0000	120	0	25	False	Condiments	Grandma Kelly'
7	Uncle Bob's Or	3	7	12 - 1 lb pkgs.	30.0000	15	0	10	False	Produce	Grandma Kelly'
8	Northwoods Cr	3	2	12 - 12 oz jars	40.0000	6	0	0	False	Condiments	Grandma Kelly'
9	Mishi Kobe Niku	4	6	18 - 500 g pkgs.	97.0000	29	0	0	True	Meat/Poultry	Tokyo Traders

3.Display which Employees checked out for a specific company SELECT dbo.Employees.LastName, dbo.Employees.FirstName, dbo.Customers.CompanyName FROM dbo.Employees INNER JOIN

dbo.EmployeeTerritories ON dbo.Employees.EmployeeID = dbo.EmployeeTerritories.EmployeeID INNER JOIN

dbo.Orders ON dbo.Employees.EmployeeID =

dbo.Orders.EmployeeID INNER JOIN

dbo.Territories ON dbo.EmployeeTerritories.TerritoryID =

dbo.Territories.TerritoryID INNER JOIN

dbo.Customers ON dbo.Orders.CustomerID =

dbo.Customers.CustomerID

WHERE (dbo.Customers.CompanyName = 'Ernst Handel')

LastName	FirstName	CompanyName		
Davolio	Nancy	Ernst Handel		
Davolio	Nancy	Ernst Handel		
Dodsworth	Anne	Ernst Handel		
Dodsworth	Anne	Ernst Handel		
Dodsworth	Anne	Ernst Handel		
Dodsworth	Anne	Ernst Handel		
Dodsworth	Anne	Ernst Handel		
Dodsworth	Anne	Ernst Handel		
Dodsworth	Anne	Ernst Handel		
Davolio	Nancy	Ernst Handel		
Davolio	Nancy	Ernst Handel		

4. View what every supplier sells and the discount it offers

SELECT dbo.Shippers.CompanyName, dbo.Products.ProductName,

dbo.[Order Details].UnitPrice, dbo.[Order Details].Discount

FROM dbo.[Order Details] INNER JOIN

dbo.Orders ON dbo.[Order Details].OrderID =

dbo.Orders.OrderID INNER JOIN

dbo.Products ON dbo.[Order Details].ProductID =

dbo.Products.ProductID INNER JOIN

dbo.Shippers ON dbo.Orders.ShipVia = dbo.Shippers.ShipperID

CompanyName	ProductName	UnitPrice	Discount
Federal Shipping	Queso Cabrales	14.0000	0
Federal Shipping	Singaporean H	9.8000	0
Federal Shipping	Mozzarella di Gi	34.8000	0
Speedy Express	Tofu	18.6000	0
Speedy Express	Manjimup Drie	42.4000	0
United Package	Jack's New Engl	7.7000	0
United Package	Manjimup Drie	42.4000	0.15
United Package	Louisiana Fiery	16.8000	0.15
Speedy Express	Gustaf's Knäcke	16.8000	0.05
Speedy Express	Ravioli Angelo	15.6000	0.05
Speedy Express	Louisiana Fiery	16.8000	0
United Package	Sir Rodney's M	64.8000	0.05
United Package	Geitost	2,0000	0.05