NORTHWIND DB

The Northwind database is a sample database that was created by Microsoft to showcase the functionality of their database software, specifically Microsoft Access and Microsoft SQL Server. The database is based on a fictional company called Northwind Traders, which imports and exports specialty foods from around the world.

**Tables:**

The Northwind database consists of the following tables, along with their primary keys and relationships:

**Categories:** Contains information about the product categories. The primary key is CategoryID. There is a one-to-many relationship between Categories and Products, where each category can have many products.

1. **Categories:**

* CategoryID (primary key)
* CategoryName
* Description

**Customers**: Contains information about the customers. The primary key is CustomerID. There is a one-to-many relationship between Customers and Orders, where each customer can have many orders.

1. **Customers:**

* CustomerID (primary key)
* CompanyName
* ContactName
* ContactTitle
* Address
* City
* Region
* PostalCode
* Country
* Phone
* Fax

**Employees:** Contains information about the employees. The primary key is EmployeeID. There is a one-to-many relationship between Employees and Orders, where each employee can have many orders.

1. **Employees:**

* EmployeeID (primary key)
* LastName
* FirstName
* Title
* TitleOfCourtesy
* BirthDate
* HireDate
* Address
* City
* Region
* PostalCode
* Country
* HomePhone
* Extension
* Photo
* Notes
* ReportsTo (foreign key referencing EmployeeID of another record in the same table)

PhotoPath

**Order Details:** Contains information about the individual products ordered as part of an order. The primary key is a composite key consisting of OrderID and ProductID. There is a many-to-one relationship between Order Details and Orders, where each order can have many order details.

1. **Order Details:**

* OrderID (foreign key referencing OrderID in the Orders table)
* ProductID (foreign key referencing ProductID in the Products table)
* UnitPrice
* Quantity
* Discount

**Orders:** Contains information about the orders placed by customers. The primary key is OrderID. There is a many-to-one relationship between Orders and Customers, where each order belongs to one customer. There is also a many-to-one relationship between Orders and Employees, where each order is assigned to one employee.

1. **Orders:**

* OrderID (primary key)
* CustomerID (foreign key referencing CustomerID in the Customers table)
* EmployeeID (foreign key referencing EmployeeID in the Employees table)
* OrderDate
* RequiredDate
* ShippedDate
* ShipVia (foreign key referencing ShipperID in the Shippers table)
* Freight
* ShipName
* ShipAddress
* ShipCity
* ShipRegion
* ShipPostalCode
* ShipCountry

Products: Contains information about the products available for sale. The primary key is ProductID. There is a many-to-one relationship between Products and Categories, where each product belongs to one category. There is also a many-to-one relationship between Products and Suppliers, where each product is supplied by one supplier.

Shippers: Contains information about the shipping companies used by Northwind Traders. The primary key is ShipperID. There is a one-to-many relationship between Shippers and Orders, where each shipper can handle many orders.

Suppliers: Contains information about the suppliers of the products. The primary key is SupplierID. There is a one-to-many relationship between Suppliers and Products, where each supplier can supply many products.

These tables are connected to each other through their primary keys and foreign keys. For example, the Orders table has a foreign key that refers to the primary key of the Customers table, indicating which customer placed the order. Similarly, the Order Details table has foreign keys that refer to both the Orders and Products tables, indicating which products were ordered as part of which orders. These relationships help to ensure data integrity and consistency in the database.

**Attributes:**

Here are the attributes for each table in the Northwind database:

1. **Employees:**

* EmployeeID (primary key)
* LastName
* FirstName
* Title
* TitleOfCourtesy
* BirthDate
* HireDate
* Address
* City
* Region
* PostalCode
* Country
* HomePhone
* Extension
* Photo
* Notes
* ReportsTo (foreign key referencing EmployeeID of another record in the same table)
* PhotoPath

1. **Order Details:**

* OrderID (foreign key referencing OrderID in the Orders table)
* ProductID (foreign key referencing ProductID in the Products table)
* UnitPrice
* Quantity
* Discount

1. **Orders:**

* OrderID (primary key)
* CustomerID (foreign key referencing CustomerID in the Customers table)
* EmployeeID (foreign key referencing EmployeeID in the Employees table)
* OrderDate
* RequiredDate
* ShippedDate
* ShipVia (foreign key referencing ShipperID in the Shippers table)
* Freight
* ShipName
* ShipAddress
* ShipCity
* ShipRegion
* ShipPostalCode
* ShipCountry

1. **Products:**

* ProductID (primary key)
* ProductName
* SupplierID (foreign key referencing SupplierID in the Suppliers table)
* CategoryID (foreign key referencing CategoryID in the Categories table)
* QuantityPerUnit
* UnitPrice
* UnitsInStock
* UnitsOnOrder
* ReorderLevel
* Discontinued

1. **Shippers:**

* ShipperID (primary key)
* CompanyName
* Phone

1. **Suppliers:**

* SupplierID (primary key)
* CompanyName
* ContactName
* ContactTitle
* Address
* City
* Region
* PostalCode
* Country
* Phone
* Fax
* HomePage

These attributes describe the different types of data that can be stored in each table, and provide the foundation for building queries and reports in the database.

