

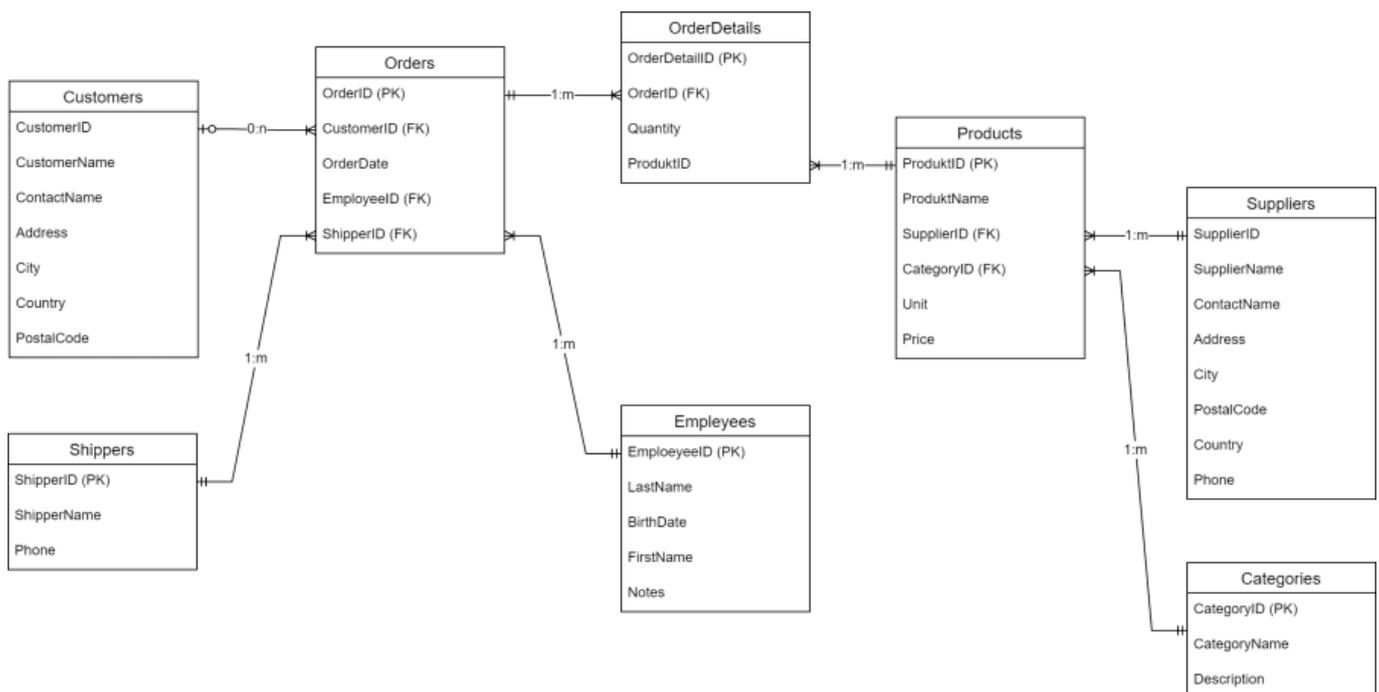
# LU04.A02 - SQL-DQL: Select from multiple tables

## Requirements

- Work type: individual
- Timeframe: 30 Minutes
- Means of aid:
  - only teaching materials, no websearch, no use of ai.
  - [W3Schools | SQL Editor](#)
- Expected result: Semantically and syntactically correct SQL statements according to the requirements of the case studies.

## Case studies / Assignments

The following ERD describes a order database for a a shop.



## Assignments

Your general assignment is to develop DQL commands that match the requirements below:

- a) Supplier and PrWe need a list with product details as following:
  - Supplier name
  - Supplier phone
  - ProductID

- ProductName
- Units
- Price
- Ordered by SupplierName descending

```
SELECT s.SupplierName, s.SupplierID, s.phone, p.ProductID, p.ProductName,
p.Unit, p.Price
FROM Suppliers s, Products p
WHERE p.SupplierID = s.SupplierID
ORDER BY s.SupplierName DESC;
```

- b) Extend the select, so that the list contains only have the products of the supplier „Leka Trading“ on our list.
  - There are two possible solutions.
  - b1) The first one is to search for the ID (SupplierID = 20) of the supplier and take that ID into our SELECT as follows:

```
SELECT s.SupplierName, s.SupplierID, s.phone, p.ProductID, p.ProductName,
p.Unit, p.Price
FROM Suppliers s, Products p
WHERE p.SupplierID = s.SupplierID
AND s.SupplierID = 20;
```

- b2) The second solution take the name directly into the SELECT statemeng:

```
SELECT s.SupplierName, s.SupplierID, s.phone, p.ProductID, p.ProductName,
p.Unit, p.Price
FROM Suppliers s, Products p
WHERE p.SupplierID = s.SupplierID
AND s.SupplierName = 'Leka Trading';
```

The result set is in both cases, as the figure below shows:

```
SELECT s.SupplierName, s.SupplierID, s.phone, p.ProductID, p.ProductName, p.Unit, p.Price
FROM Suppliers s, Products p
WHERE p.SupplierID = s.SupplierID
AND s.SupplierID = 20;
```

Edit the SQL Statement, and click "Run SQL" to see the result.

[Run SQL +](#)

Result:

Number of Records: 3

SupplierName	SupplierID	phone	ProductID	ProductName	Unit	Price
Leka Trading	20	555-8787	42	Singaporean Hokkien Fried Mee	32 - 1 kg pkgs.	14
Leka Trading	20	555-8787	43	Ipoh Coffee	16 - 500 g tins	46
Leka Trading	20	555-8787	44	Gula Malacca	20 - 2 kg bags	19.45

\* c) We would like to know what products the customer "Hanari Carnes" has

ordered in the past. Sort the list by the quantity.

\* In detail we require the following data: CustomerID, CustomerName, OrderID, OorderDate, Quantity, ProductName, CategoryName

- c1) Like in assignment b) here a two approaches possible: 1. find the customerID (34) and select according to the customer id.

```
select c.CustomerID, c.CustomerName , o.OrderID, o.orderDate, od.Quantity,
p.ProductName, ct.CategoryName
FROM customers c, orders o, OrderDetails od, Products p, Categories ct
WHERE c.CustomerID = o.CustomerID
AND o.OrderID = od.OrderID
AND od.ProductID = p.ProductID
AND p.CategoryID = ct.CategoryID
AND c.CustomerID = 34
ORDER BY od.Quantity;
```

- C1) The second approach, as in b2), is to filter the result set directly by customer name.

```
select c.CustomerID, c.CustomerName , o.OrderID, o.orderDate, od.Quantity,
p.ProductName, ct.CategoryName
FROM customers c, orders o, OrderDetails od, Products p, Categories ct
WHERE c.CustomerID = o.CustomerID
AND o.OrderID = od.OrderID
AND od.ProductID = p.ProductID
AND p.CategoryID = ct.CategoryID
AND c.CustomerName = "Hanari Kanés"
ORDER BY od.Quantity;
```

The result set is in both cases as shown in the following figure.

WHERE c.CustomerID = o.CustomerID  
AND o.OrderID = od.OrderID  
AND od.ProductID = p.ProductID  
AND p.CategoryID = ct.CategoryID  
AND c.CustomerName = "Hanari Carnes"  
ORDER BY od.Quantity;

Edit the SQL Statement, and click "Run SQL" to see the result.

**Run SQL >**

Result:

Number of Records: 6

CustomerID	CustomerName	OrderID	orderDate	Quantity	ProductName	CategoryName
34	Hanari Carnes	10250	7/8/1996	10	Jack's New England Clam Chowder	Seafood
34	Hanari Carnes	10250	7/8/1996	15	Louisiana Fiery Hot Pepper Sauce	Condiments
34	Hanari Carnes	10253	7/10/1996	20	Gorgonzola Telino	Dairy Products
34	Hanari Carnes	10250	7/8/1996	35	Manjimup Dried Apples	Produce
34	Hanari Carnes	10253	7/10/1996	40	Maxilaku	Confections
34	Hanari Carnes	10253	7/10/1996	42	Chartreuse verte	Beverages

# Solution

Lösung

## Vocabulary

English	German
respectively	beziehungsweise
assignment	Auftrag

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Last update: **2024/09/03 14:36**

