

# 1 LINQ EXERCISES ON NORTHWIND

## 1.1 ORDER SUBTOTALS

For each order, calculate a subtotal for each Order (identified by OrderID).

Here is the query result. 830 records returned.

| OrderID | Subtotal |
|---------|----------|
| 10248   | 440.00   |
| 10249   | 1,863.40 |
| 10250   | 1,552.60 |
| 10251   | 654.06   |
| 10252   | 3,597.90 |
| 10253   | 1,444.80 |
| 10254   | 556.62   |
| 10255   | 2,490.50 |
| 10256   | 517.80   |
| 10257   | 1,119.90 |
| 10258   | 1,614.88 |
| 10259   | 100.80   |
| 10260   | 1,504.65 |

## 1.2 EMPLOYEE SALES BY COUNTRY

For each employee, get their sales amount, broken down by country name.

Here is the query result. 296 records returned.

| ShippedDate | OrderID | Subtotal | Year |
|-------------|---------|----------|------|
| 1996-12-24  | 10389   | 1,832.80 | 1996 |
| 1996-12-24  | 10371   | 72.96    | 1996 |
| 1996-12-25  | 10386   | 166.00   | 1996 |
| 1996-12-26  | 10390   | 2,090.88 | 1996 |
| 1996-12-27  | 10370   | 1,117.60 | 1996 |
| 1996-12-30  | 10366   | 136.00   | 1996 |
| 1996-12-31  | 10391   | 86.40    | 1996 |
| 1997-01-01  | 10392   | 1,440.00 | 1997 |
| 1997-01-02  | 10397   | 716.72   | 1997 |
| 1997-01-03  | 10394   | 442.00   | 1997 |

## SALES BY CATEGORY

For each category , we get the list of products sold and the total sales amount.

Here is the query result. 77 records returned.

| CategoryID | CategoryName | ProductName               | ProductSales |
|------------|--------------|---------------------------|--------------|
| 1          | Beverages    | Chai                      | 4887.00      |
| 1          | Beverages    | Chang                     | 7038.55      |
| 1          | Beverages    | Chartreuse verte          | 4192.20      |
| 1          | Beverages    | Côte de Blaye             | 49198.08     |
| 1          | Beverages    | Guaraná Fantástica        | 1630.12      |
| 1          | Beverages    | Ipooh Coffee              | 11069.90     |
| 1          | Beverages    | Lakkalikööri              | 7379.10      |
| 1          | Beverages    | Laughing Lumberjack Lager | 910.00       |
| 1          | Beverages    | Outback Lager             | 5468.40      |
| 1          | Beverages    | Röhnbräu Klosterbier      | 4485.54      |

## 1.3 CUSTOMERS AND SUPPLIERS BY CITY

This query shows how to use UNION to merge Customers and Suppliers into a result set by identifying them as having different relationships to Northwind Traders - Customers and Suppliers.

Here is the query result. 120 records returned.

| City         | CompanyName                | ContactName      | Relationship |
|--------------|----------------------------|------------------|--------------|
| Aachen       | Drachenblut Delikatessen   | Sven Ottlieb     | Customers    |
| Albuquerque  | Rattlesnake Canyon Grocery | Paula Wilson     | Customers    |
| Anchorage    | Old World Delicatessen     | Rene Phillips    | Customers    |
| Ann Arbor    | Grandma Kelly's Homestead  | Regina Murphy    | Suppliers    |
| Annecy       | Gai pâturage               | Eliane Moz       | Suppliers    |
| Århus        | Vaffeljernet               | Palle Ibsen      | Customers    |
| Barcelona    | Galería del gastrónomo     | Eduardo Saavedra | Customers    |
| Barquisimeto | LILA-Supermercado          | Carlos González  | Customers    |
| Bend         | Bigfoot Breweries          | Cheryl Saylor    | Suppliers    |

Hint:

```
select City, CompanyName, ContactName, 'Customers' as Relationship
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