



Practical 08 – Exercise 08

Final Practical Exercise (30 marks)

Important Notes:

1. Bring the following to the practical session:
 - a. The Practical Textbook and/or the lecture notes for the exercise class in which the exercise was explained
2. **SQL SCRIPT RESULTS ARE WHAT IS MARKED**
 - a. **Scripts which run and perform what they are supposed to do get full marks**
 - b. **Scripts which do not run will not be marked.**
3. Please refer to previous exercises, as well as the class notes on ClickUP for examples on generic structures as well as specific code. Also refer to previous sections of in your textbook to complete the revision questions. This is the final practical exercise.
4. Practical 09 will be a marking session only. There will be no additional practical exercises to be completed after practical 08 (to be marked during practical session 09). Make use of the opportunity to cover problems, issues and concerns identified in the previous practical sessions.

CONTEXT:

The practical exercise is based on the Northwind database. Run the **northwind.sql** script to create and populate the database.

SPECEFICAITONS

In several instances a client will only request specific results. As such, it will be required of the student in this instance to complete particular results only by means of a requirement (Similar to Section B of practical 07).

As such, the context of this exercise is to satisfy the need of the user to “know” something as found in the Northwind database. The student may make use of any and all scripting techniques to satisfy the requirement. If the result is as stipulated (though the usage of a functional script) the student will receive full marks. If the result does not appear as requested, then no marks will be awarded.

Scripts will be checked to see what the student has done, however the result is what is marked, not the script.

Queries – Northwind

1. Display all the distinct orders where the quantity is in the bottom quartile (in other words, show all the orders which is in the lowest quarter of orders – lowest 25%) (5)

| | OrderId | ProductID |
|----|---------|-----------|
| 1 | 10609 | 1 |
| 2 | 10700 | 1 |
| 3 | 10838 | 1 |
| 4 | 11003 | 1 |
| 5 | 11005 | 1 |
| 6 | 10851 | 2 |
| 7 | 10722 | 2 |
| 8 | 10703 | 2 |
| 9 | 10702 | 3 |
| 10 | 11077 | 3 |

**** 263 results displayed**
**** Last result displayed is 263**

 10602
 77

2. Indicate the products, the product types, how much of the product is available and how many of a particular product is in stock. Sort the alphabetically according to the product types (Category Name). (10)

| | CategoryName | ProductName | UnitPrice | NoOfProducts |
|----|--------------|---------------------------|-----------|--------------|
| 1 | Beverages | Chai | 18.00 | 12 |
| 2 | Beverages | Chang | 19.00 | 12 |
| 3 | Beverages | Guaraná Fantástica | 4.50 | 12 |
| 4 | Beverages | Sasquatch Ale | 14.00 | 12 |
| 5 | Beverages | Steeleye Stout | 18.00 | 12 |
| 6 | Beverages | Côte de Blaye | 263.50 | 12 |
| 7 | Beverages | Chartreuse verte | 18.00 | 12 |
| 8 | Beverages | Ipoh Coffee | 46.00 | 12 |
| 9 | Beverages | Laughing Lumberjack Lager | 14.00 | 12 |
| 10 | Beverages | Outback Lager | 15.00 | 12 |

**** 77 results displayed**
**** Last result is 7**

 Seafood
 Röd Kaviar
 15.00
 12

3. Provide the user of Northwind with information related to the Company from which Northwind purchases its products. What the user would like to know is the Name of the Company, the Contact Person linked to the company, the product ID linked to the company's products, the products that the supplier supplies, the price of each product, and finally the quantity of the product that Northwind currently has in stock. (10)

| | CompanyName | ContactName | ProductID | ProductName | UnitPrice | Quantity |
|----|---------------------------|---------------|-----------|----------------------------------|-----------|----------|
| 1 | Vins et alcools Chevalier | Paul Henriot | 11 | Queso Cabrales | 14.00 | 12 |
| 2 | Vins et alcools Chevalier | Paul Henriot | 42 | Singaporean Hokkien Fried Mee | 9.80 | 10 |
| 3 | Vins et alcools Chevalier | Paul Henriot | 72 | Mozzarella di Giovanni | 34.80 | 5 |
| 4 | Toms Spezialitäten | Karin Josephs | 14 | Tofu | 18.60 | 9 |
| 5 | Toms Spezialitäten | Karin Josephs | 51 | Manjimup Dried Apples | 42.40 | 40 |
| 6 | Hanari Cames | Mario Pontes | 41 | Jack's New England Clam Chowder | 7.70 | 10 |
| 7 | Hanari Cames | Mario Pontes | 51 | Manjimup Dried Apples | 42.40 | 35 |
| 8 | Hanari Cames | Mario Pontes | 65 | Louisiana Fiery Hot Pepper Sauce | 16.80 | 15 |
| 9 | Victuailles en stock | Mary Saveley | 22 | Gustaf's Knäckebröd | 16.80 | 6 |
| 10 | Victuailles en stock | Mary Saveley | 57 | Ravioli Angelo | 15.60 | 15 |

**** 2155 results displayed**

**** Last result displayed is 2155**

 Rattlesnake Canyon Grocery
 Paula Wilson
 77
 Original Frankfurter grüne Soße
 13.00
 2

4. As part of the planning process to expand the database that supports Northwind operations, the IT manager would like to know how many rows are currently in specific tables so that s/he can conduct capacity planning. (5)

| | TableName | Rows |
|----|----------------------|------|
| 1 | Order Details | 2155 |
| 2 | Orders | 830 |
| 3 | Customers | 91 |
| 4 | Products | 77 |
| 5 | Territories | 53 |
| 6 | EmployeeTerritories | 49 |
| 7 | Suppliers | 29 |
| 8 | Employees | 9 |
| 9 | Categories | 8 |
| 10 | Region | 4 |
| 11 | Shippers | 3 |
| 12 | CustomerCustomerDemo | 0 |
| 13 | CustomerDemographics | 0 |

**** All results shown**

TOTAL

(30)