# Lab 4 Home Tasks

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# 1 Introduction

## Query 1

SELECT Products.ProductName
FROM Products
GROUP BY ProductName, UnitPrice
HAVING UnitPrice > AVG(UnitPrice)

ProductName

## Query 2

SELECT \*
FROM Orders
WHERE ShippedDate IS NOT NULL
ORDER BY ShippedDate ASC

|    | OrderID | CustomerID | EmployeeID | OrderDate               | RequiredDate            | ShippedDate             |
|----|---------|------------|------------|-------------------------|-------------------------|-------------------------|
| 1  | 10249   | TOMSP      | 6          | 1996-07-05 00:00:00.000 | 1996-08-16 00:00:00.000 | 1996-07-10 00:00:00.000 |
| 2  | 10252   | SUPRD      | 4          | 1996-07-09 00:00:00.000 | 1996-08-06 00:00:00.000 | 1996-07-11 00:00:00.000 |
| 3  | 10250   | HANAR      | 4          | 1996-07-08 00:00:00.000 | 1996-08-05 00:00:00.000 | 1996-07-12 00:00:00.000 |
| 4  | 10251   | VICTE      | 3          | 1996-07-08 00:00:00.000 | 1996-08-05 00:00:00.000 | 1996-07-15 00:00:00.000 |
| 5  | 10255   | RICSU      | 9          | 1996-07-12 00:00:00.000 | 1996-08-09 00:00:00.000 | 1996-07-15 00:00:00.000 |
| 6  | 10253   | HANAR      | 3          | 1996-07-10 00:00:00.000 | 1996-07-24 00:00:00.000 | 1996-07-16 00:00:00.000 |
| 7  | 10248   | VINET      | 5          | 1996-07-04 00:00:00.000 | 1996-08-01 00:00:00.000 | 1996-07-16 00:00:00.000 |
| 8  | 10256   | WELLI      | 3          | 1996-07-15 00:00:00.000 | 1996-08-12 00:00:00.000 | 1996-07-17 00:00:00.000 |
| 9  | 10257   | HILAA      | 4          | 1996-07-16 00:00:00.000 | 1996-08-13 00:00:00.000 | 1996-07-22 00:00:00.000 |
| 10 | 10254   | CHOPS      | 5          | 1996-07-11 00:00:00.000 | 1996-08-08 00:00:00.000 | 1996-07-23 00:00:00.000 |
| 11 | 10259   | CENTC      | 4          | 1996-07-18 00:00:00.000 | 1996-08-15 00:00:00.000 | 1996-07-25 00:00:00.000 |
| 10 | 10000   | DATTO      | 0          | 1000 07 22 00 00 00 00  | 1000 00 10 00 00 00 000 | 1000 07 05 00 00 00 000 |

## Query 3

SELECT s.Country FROM Suppliers s, Suppliers s1 WHERE s.Country = s1.Country GROUP BY s.Country HAVING COUNT(s.Country) > 2

|   | Country   |
|---|-----------|
| 1 | Australia |
| 2 | Canada    |
| 3 | France    |
| 4 | Germany   |
| 5 | Italy     |
| 6 | Japan     |
| 7 | Sweden    |
| 8 | UK        |
| 9 | USA       |
|   |           |

Query 4

SELECT MONTH(ShippedDate) AS 'Month Number', COUNT(OrderID) AS 'Orders Delayed' FROM Orders
WHERE ShippedDate > RequiredDate
GROUP BY MONTH(ShippedDate);

|    | Month Number | Orders Delayed |
|----|--------------|----------------|
| 1  | 1            | 4              |
| 2  | 2            | 4              |
| 3  | 3            | 3              |
| 4  | 4            | 5              |
| 5  | 5            | 2              |
| 6  | 6            | 1              |
| 7  | 7            | 1              |
| 8  | 8            | 4              |
| 9  | 9            | 1              |
| 10 | 10           | 6              |
| 11 | 11           | 1              |
| 12 | 12           | 3              |

Query 5

SELECT OrderID, SUM(Discount) AS 'Discount' FROM [Order Details] WHERE Discount > 0 GROUP BY OrderID;

|    | OrderID | Discount           |
|----|---------|--------------------|
| 1  | 10250   | 0.300000011920929  |
| 2  | 10251   | 0.100000001490116  |
| 3  | 10252   | 0.100000001490116  |
| 4  | 10254   | 0.300000011920929  |
| 5  | 10260   | 0.75               |
| 6  | 10262   | 0.200000002980232  |
| 7  | 10263   | 0.75               |
| 8  | 10264   | 0.150000005960464  |
| 9  | 10266   | 0.0500000007450581 |
| 10 | 10267   | 0.300000011920929  |
| 11 | 10269   | 0.100000001490116  |
| 12 | 10273   | 0.200000002980232  |
|    |         |                    |

Query 6

SELECT ShipCity, COUNT(OrderID) AS NumberOfOrders FROM Orders
WHERE ShipCountry = 'USA' AND YEAR(ShippedDate) = 1997
GROUP BY ShipCity;

|    | ShipCity      | NumberOfOrders |
|----|---------------|----------------|
| 1  | Albuquerque   | 4              |
| 2  | Anchorage     | 3              |
| 3  | Boise         | 16             |
| 4  | Butte         | 2              |
| 5  | Elgin         | 3              |
| 6  | Eugene        | 5              |
| 7  | Kirkland      | 2              |
| 8  | Lander        | 2              |
| 9  | Portland      | 3              |
| 10 | San Francisco | 2              |
| 11 | Seattle       | 7              |
| 12 | Walla Walla   | 1              |

Query 7

SELECT ShipCountry, COUNT(\*) AS 'Orders Delayed'
FROM Orders
WHERE ShippedDate > RequiredDate
GROUP BY ShipCountry

|    | ShipCountry | Orders Delayed |
|----|-------------|----------------|
| 1  | Argentina   | 1              |
| 2  | Austria     | 1              |
| 3  | Belgium     | 1              |
| 4  | Brazil      | 2              |
| 5  | Finland     | 1              |
| 6  | France      | 2              |
| 7  | Germany     | 4              |
| 8  | Ireland     | 3              |
| 9  | Italy       | 2              |
| 10 | Portugal    | 1              |
| 11 | Spain       | 1              |
| 12 | Sweden      | 3              |

#### Query 8

 $\begin{array}{l} \textbf{SELECT} \ \text{Orders.OrderID}, \ \textbf{SUM}(\text{Discount}) \ \textbf{AS} \ \text{Discount}, \ \textbf{SUM}([\text{Order Details}]. \text{UnitPrice} \ ^* \ \text{Quantity}) \\ \textbf{AS} \ \text{TotalPrice} \end{array}$ 

 $\mathbf{FROM}\ \mathrm{Orders}$ 

 $\bf JOIN$  [Order Details]  $\bf ON$  Orders. Order<br/>ID = [Order Details]. Order<br/>ID  $\bf GROUP~BY$  Orders. Order<br/>ID

|    | OrderID | Discount          | TotalPrice |
|----|---------|-------------------|------------|
| 1  | 10248   | 0                 | 440.00     |
| 2  | 10249   | 0                 | 1863.40    |
| 3  | 10250   | 0.300000011920929 | 1813.00    |
| 4  | 10251   | 0.100000001490116 | 670.80     |
| 5  | 10252   | 0.100000001490116 | 3730.00    |
| 6  | 10253   | 0                 | 1444.80    |
| 7  | 10254   | 0.300000011920929 | 625.20     |
| 8  | 10255   | 0                 | 2490.50    |
| 9  | 10256   | 0                 | 517.80     |
| 10 | 10257   | 0                 | 1119.90    |
| 11 | 10259   | 0                 | 100.80     |
| 12 | 10260   | 0.75              | 1746.20    |

#### Query 9

$$\begin{split} \textbf{SELECT} & \ \text{ShipRegion, ShipCity, } \textbf{COUNT}(OrderID) \ \textbf{AS} \ Orders \\ \textbf{FROM} & \ Orders \\ \textbf{WHERE} & \ \textbf{YEAR}(ShippedDate) = 1997 \\ \textbf{GROUP} & \ \textbf{BY} & \ ShipRegion, ShipCity; \end{split}$$

|    | Ship Region | ShipCity     | Orders |
|----|-------------|--------------|--------|
| 1  | NM          | Albuquerque  | 4      |
| 2  | AK          | Anchorage    | 3      |
| 3  | NULL        | Århus        | 5      |
| 4  | NULL        | Barcelona    | 2      |
| 5  | Lara        | Barquisimeto | 3      |
| 6  | NULL        | Bergamo      | 5      |
| 7  | NULL        | Berlin       | 3      |
| 8  | NULL        | Bem          | 2      |
| 9  | ID          | Boise        | 16     |
| 10 | NULL        | Bräcke       | 7      |
| 11 | NULL        | Brandenburg  | 4      |
| 12 | NULL        | Bruxelles    | 3      |
| 13 | NULL        | Buenos Aires | 6      |
| 14 | MT          | Butte        | 2      |
| 15 | SP          | Campinas     | 5      |