HW 4
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-- 1: Show a list the Company Name and Country for all Suppliers located in Japan or Germany.
select companyname, country
   from hwsuppliers
   where country in ('Japan', 'Germany');

companyname	country
Tokyo Traders	Japan
Mayumi's	Japan
Heli Süßwaren GmbH & Co. KG	Germany
Plutzer Lebensmittelgroßmärkte AG	Germany
Nord-Ost-Fisch Handelsgesellschaft mbH	Germany

-- 2: Show a list of Product Name, Quantity per Unit and Unit Price for products with a UnitPrice less than $7 but more than $4.
select productname, quantityperunit, unitprice
   from hwproducts
   where unitprice>4 and unitprice<7;

productname	quantityperunit	unitprice
Konbu	2 kg box	6.00
Guaraná Fantástica	12 - 355 ml cans	4.50

-- 3: Show a list of Company Name, City and Country for Customers whose Country is USA and City is Portland, OR Country is Canada and City is Vancouver.
select companyname, city, country
   from hwcustomers
   where (country='USA' and city='Portland')
      or (country='Canada' and city='Vancouver');

companyname	city	country
Laughing Bacchus Wine Cellars	Vancouver	Canada
Lonesome Pine Restaurant	Portland	USA
The Big Cheese	Portland	USA

-- 4: Show a list the Contact Name and Contact Title for all Suppliers with a SupplierID from 5 to 8 (inclusive) and sort in descending order by ContactName.

```
select contactname, contacttitle
        from hwsuppliers
        where supplierid between 5 and 8
        order by contactname desc;
```

contactname	contacttitle
Peter Wilson	Sales Representative
Mayumi Ohno	Marketing Representative
Ian Devling	Marketing Manager
Antonio del Valle Saavedra	Export Administrator

-- 5: Show a product name and unit price of the least expensive product (i.e., lowest unit price). You MUST use a Sub Query.

```
select productname, unitprice
        from hwproducts
        where unitprice =
                (select min(unitprice) from hwproducts);
```

productname	unitprice
Geitost	2.50

-- 6: Display Ship Country and their Order Count for all Ship Country except USA for ShippedDate between May 4th and 10th 2015 whose Order Count is greater than 3.

```
select shipcountry, count(orderid) as 'Order Count'
        from hworders
         where (shipcountry != 'USA') and (shippeddate between '2015-05-04' and '2015-05-10')
        group by shipcountry
        having count(orderid) > 3;
```

shipcount...	Order Count
Brazil	4
Venezuela	4

-- 7: Show a list of all employees with their first name, last name and hiredate (formated to mm/dd/yyyy) who are NOT living in the USA and have been employed for at least 5 years.

select firstname, lastname, date_format(hiredate, '%m/%d/%Y') as 'hiredate'
      from hwemployees
      where (country != 'USA') and ((datediff(current_date(), hiredate)/365) >= 5);

firstname	lastname	hiredate	
Steven	Buchanan	10/17/2013	
Michael	Suyama	10/17/2011	
Robert	King	09/02/2012	
Anne	Dodsworth	11/15/2004	

-- 8: Show a list of Product Name and their 'Inventory Value' (Inventory Value = units in stock multiplied by their unit price) for products whose 'Inventory Value' is over 3000 but less than 4000.

select productname, sum(unitprice*unitsinstock) as 'Inventory Value'
      from hwproducts
      group by productname
      having sum(unitprice*unitsinstock) > 3000 and sum(unitprice*unitsinstock) < 4000;

productname	Inventory Value	
Queso Manchego La Pastora	3268.00	
Sir Rodney's Marmalade	3240.00	
Sirop d'érable	3220.50	

-- 9: Show a list of Products' product Name, Unit in Stock and ReorderLevel level whose Product Name starts with 'S' that are currently in stock (i.e., at least one Unit in Stock) and Unit in Stock is at or below the reorder level.

select productname, unitsinstock, reorderlevel
      from hwproducts
      where (upper(productname) like 'S%') and (unitsinstock>=1) and
      (unitsinstock<=reorderlevel);

productname	unitsinsto...	reorderlevel	
Sir Rodney's Scones	3	5	
Scottish Longbreads	6	15	

-- 10: Show a list of Product Name, Unit Price and Quantity Per Unit for all products, whose Quantity Per Unit has/measure in 'box' that have been discontinued (i.e., discontinued = 1).

select productname, unitprice, quantityperunit, discontinued
   from hwproducts
   where (upper(quantityperunit) like '%BOX%') and (discontinued=1);

productname	unitprice	quantityperu...
Chef Anton's Gumbo Mix	21.35	36 boxes

-- 11: Show a list of Product Name and their TOTAL inventory value (inventory value = UnitsInStock * UnitPrice) for Supplier's Country from Japan.

select productname, sum(unitprice*unitsinstock) as 'Inventory Value'
   from hwproducts
   where supplierid in
     (select supplierid from hwsuppliers where country='Japan')
   group by productname;

productname	Inventory Value
Mishi Kobe Niku	2813.00
Ikura	961.00
Konbu	144.00
Tofu	813.75
Genen Shouyu	604.50
Longlife Tofu	40.00

-- 12: Show a list of customer's country and their count that is greater than 8.

select country, count(*) as 'cust. count'
   from hwcustomers
   group by country
   having count(*) > 8;

country	cust. count
Germany	11
Brazil	9
USA	13

-- 13: Show a list of Orders' Ship Country, Ship City and their Order count for Ship Country 'Austria' or 'Argentina'.

select shipcountry, shipcity, count(orderid) as 'Country Order Count'
    from hworders
    where shipcountry in ('Austria', 'Argentina')
    group by shipcountry, shipcity;

shipcount...	shipcity	Country Order Co...	
Austria	Graz	30	
Austria	Salzburg	10	
Argentina	Buenos Aires	16	

-- 14: Show a list of Supplier's Company Name and Product's Product Name for supplier's country from Spain.

select s.companyname, p.productname, s.country
    from hwsuppliers s
    inner join hwproducts p on s.supplierid = p.supplierid
    where country = 'Spain';

companyname	productname	
Cooperativa de Quesos 'Las Cabras'	Queso Cabrales	
Cooperativa de Quesos 'Las Cabras'	Queso Manchego La Pastora	

-- 15: What is the 'Average Unit Price' (rounded to two decimal places) of all the products whose ProductName ends with 'T'?

select avg(unitprice)
    from hwproducts
    where upper(productname) like '%T';

Avg. unitprice
39.421111

-- 16: Show a list of employee's full name (i.e., firstname, lastname, e.g., Harrison Ford), title and their Order count for employees who has more than 120 orders.

select e.firstname, e.lastname, e.title, count(o.orderid) as 'Order Count'
      from hwemployees e
      left outer join hworders o on e.employeeid = o.employeeid
      group by e.firstname, e.lastname, e.title
      having count(o.orderid)>120;

firstname	lastname	title	Order Count	
Nancy	Davolio	Sales Representative	123	
Janet	Leverling	Sales Representative	127	
Margaret	Peacock	Sales Representative	156	

-- 17: Show a list customer's company Name and their country who has NO Orders on file (i.e., NULL Orders).

select customerid, companyname, country
      from hwcustomers
      where customerid not in
               (select customerid from hworders);

companyname	country	
FISSA Fabrica Inter. Salchichas S.A.	Spain	
Paris specialites	France	

-- 18: Show a list of Category Name and Product Name for all products that are currently out of stock (i.e. UnitsInStock = 0).

select c.categoryname, p.productname
      from hwcategories c
      inner join hwproducts p on c.categoryid = p.categoryid
      where p.unitsinstock=0;

categoryname	productname
Condiments	Chef Anton's Gumbo Mix
Meat/Poultry	Alice Mutton
Meat/Poultry	Thüringer Rostbratwurst
Dairy Products	Gorgonzola Telino
Meat/Poultry	Perth Pasties

-- 19: Show a list of products' Product Name and Quantity Per Unit, which are measured in 'pkg' or 'pkgs' or 'jars' for a supplier's country from Japan.

select productname, quantityperunit
       from hwproducts
       where ((upper(quantityperunit) like '%PKG%') or (upper(quantityperunit) like '%PKGS%')
              or (upper(quantityperunit) like '%JARS%'))
         and supplierid in
            (select supplierid from hwsuppliers where country='Japan');

productname	quantityperunit	
Mishi Kobe Niku	18 - 500 g pkgs.	
Ikura	12 - 200 ml jars	
Tofu	40 - 100 g pkgs.	
Longlife Tofu	5 kg pkg.	

-- 20: Show a list of customer's company name, Order's ship name and total value of all their orders (rounded to 2 decimal places) for customers from Mexico. (value of order = (UnitPrice * Quantity) less discount. Discount is given in % e.g., 0.10 means 10%).

select c.companyname, o.shipname, round(SUM(d.unitprice * d.quantity * (1 - d.discount)),2) as 'total value'
       from hwcustomers c
       inner join hworders o on c.customerid = o.customerid
       inner join hworderdetails d on o.orderid = d.orderid
       where c.country = 'Mexico'
       group by c.companyname, o.shipname;

companyname	shipname	total value	
Centro comercial Moctezuma	Centro comercial Moctezuma	100.8	
Tortuga Restaurante	Tortuga Restaurante	10812.15	
Ana Trujillo Emparedados y helados	Ana Trujillo Emparedados y helados	1402.95	
Pericles Comidas clásicas	Pericles Comidas clásicas	4242.2	
Antonio Moreno Taqueria	Antonio Moreno Taquería	7023.98	

-- 21: Show a list of products' Product Name and suppliers' Region whose product name starts with 'L' and Region is NOT blank/empty.

select p.productname, s.region
      from hwsuppliers s
      inner join hwproducts p on s.supplierid = p.supplierid
      where (upper(p.productname) like 'L%') and (s.region != '');

productname	region
Louisiana Fiery Hot Pepper Sauce	LA
Louisiana Hot Spiced Okra	LA
Laughing Lumberjack Lager	OR

-- 22: Show a list of Order's Ship Country, Ship Name and Order Date (formatted as MonthName and Year, e.g. March 2015) for all Orders from 'Versailles' Ship City whose Customer's record doesn't exists in Customer table.

select o.shipcountry, o.shipname, date_format(o.orderdate, '%M %Y') as 'Order Date'
      from hwcustomers c
      right outer join hworders o on c.customerid = o.customerid
      where (o.shipcity='Versailles') and (c.customerid is null);

shipcount...	shipname	Order Date
France	La corne dabondance	January 2015
France	La corne dabondance	March 2015
France	La corne dabondance	March 2015
France	La corne dabondance	March 2015

-- 23: Show a list of products' Product Name and Units In Stock whose Product Name starts with 'F' and Rank them based on UnitsInStock from highest to lowest (i.e., highest UnitsInStock rank = 1, and so on). Display rank number as well.

select productname, unitsinstock,
      rank() over(order by unitsinstock desc) as 'units rank'
         from hwproducts
         where (upper(productname) like 'F%');

productname	unitsinsto...	units rank
Filo Mix	38	1
Flotemysost	26	2

-- 24: Show a list of products' Product Name and Unit Price for ProductID from 1 to 5 (inclusive) and Rank them based on UnitPrice from lowest to highest. Display rank number as well.
select productname, unitprice, rank() over(order by unitprice asc) as 'price rank'
        from hwproducts
        where productid between 1 and 5;

productname	unitprice	price rank
Aniseed Syrup	10.00	1
Chai	18.00	2
Chang	19.00	3
Chef Anton's Gumbo Mix	21.35	4
Chef Anton's Cajun Seasoning	22.00	5

-- 25: Show a list of employees' first name, last name, country and date of birth (formatted to mm/dd/yyyy) who were born after 1984 and Rank them by date of birth (oldest employee rank 1st, and so on) for EACH country i.e., Rank number should reset/restart for EACH country. Display rank number as well.
select firstname, lastname, country, date_format(birthdate, '%m/%d/%Y') as birthdate,
        rank() over (partition by country order by birthdate) as 'rank'
                from hwemployees
                where year(birthdate) > 1984;

firstname	lastname	country	birthdate	rank
Steven	Buchanan	UK	03/04/1985	1
Robert	King	UK	05/29/1990	2
Margaret	Peacock	USA	09/19/1987	1
Laura	Callahan	USA	01/09/1988	2