Q20. Categories, and the total products in each category

For this problem, we’d like to see the total number of products in each category. Sort the results by the total number of products, in descending order.

Ans 20: select categories.category\_name,

count(product\_id) from products

join categories where categories.category\_id = products.category\_id

group by products.category\_id order by count(product\_id) desc;

Q21. Total customers per country/city

In the Customers table, show the total number of customers per Country and City.

Ans 21 : select country,city,count(customer\_id) from customers

group by city,country;

Q22. Products that need reordering

What products do we have in our inventory that should be reordered?

For now, just use the fields UnitsInStock and ReorderLevel, where UnitsInStock is less than the ReorderLevel, ignoring the fields UnitsOnOrder and Discontinued.

Order the results by ProductID.

Ans 22 :

select product\_id , product\_name,units\_in\_stock,reorder\_level

from products

where units\_in\_stock < reorder\_level order by product\_id;

Q23. Products that need reordering, continued

Now we need to incorporate these fields—UnitsInStock, UnitsOnOrder, ReorderLevel, Discontinued—into our calculation. We’ll define “products that need reordering” with the following:

UnitsInStock plus UnitsOnOrder are less than or equal to ReorderLevel .

The Discontinued flag is false (0).

Ans 23 :

select product\_id,product\_name,units\_in\_stock,

units\_on\_order,reorder\_level,discontinued

from products where units\_in\_stock + units\_on\_order <= reorder\_level

and discontinued = 0

25. High freight charges

Some of the countries we ship to have very high freight charges.

We'd like to investigate some more shipping options for our customers, to be able to offer them lower freight charges.

Return the three ship countries with the highest average freight overall, in descending order by average freight.

Ans 25 : select ship\_country ,

avg(freight) from orders

group by ship\_country order by avg(freight) desc limit 3 ;

26. High freight charges - 2015

We're continuing on the question above on high freight charges.

Now,instead of using all the orders we have, we only want to see orders from the year 2015.

Ans 26 :

To the time period : from 2015

select ship\_country ,

avg(freight) from orders where order\_date > '2015-01-01'

group by ship\_country

order by avg(freight) desc limit 3 ;

But as the current database does not have orders ran after 2015,considering a different time period – from 1997

select ship\_country ,

avg(freight) from orders where order\_date > '1997-01-01'

group by ship\_country

order by avg(freight) desc limit 3 ;

Q27. High freight charges with between

Another (incorrect) answer to the problem above is this:

Select Top 3

ShipCountry

,AverageFreight = avg(freight)

From Orders

Where

OrderDate between '1/1/2015' and '12/31/2015'

Group By ShipCountry

Order By AverageFreight desc;

Notice when you run this, it gives Sweden as the ShipCountry with the third highest freight charges. However, this is wrong - it should be France.

What is the OrderID of the order that the (incorrect) answer above is missing?

Ans 27 : As the current database does not have orders ran after 2015,considering a different time period - 1997 and comparing with the result set of Q26

Select ship\_country, avg(freight)

From orders Where

order\_date between '1997-01-01' and '1997-12-31'

Group By ship\_country

Order By avg(freight) desc limit 3 ;

So, All the orders of 1998 year will be excluded in this scenario.

Q28. High freight charges - last

We're continuing to work on high freight charges. We now want to get the three ship countries with the highest average freight charges.

But instead of filtering for a particular year, we want to use the last 12 months of order data, using as the end date the last OrderDate in Orders

Ans 28 : select ship\_country ,

avg(freight) from orders

where order\_date between '1997-05-06' and '1998-05-06'

group by ship\_country

order by avg(freight) desc limit 3 ;

'1998-05-06' = select max(order\_date) from orders;

Q29.Inventory list

We're doing inventory, and need to show information like the below, for all orders. Sort by OrderID and Product ID.

EmployeeID LastName OrderID ProductName Quantity

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5 Buchanan 10248 Queso Cabrales 12

5 Buchanan 10248 Singaporean Hokkien Fried Mee 10

Ans 29 : select a.employee\_id,b.last\_name,a.order\_id ,c.product\_name,c.quantity\_per\_unit

from orders a , employees b ,products c, order\_details d

where a.employee\_id = b.employee\_id and d.order\_id = a.order\_id

and c. product\_id = d.product\_id

group by a.employee\_id,b.last\_name,a.order\_id ,c.product\_name,c.quantity\_per\_unit

order by b.last\_name ;

Q30. Customers with no orders

There are some customers who have never actually placed an order.Show these customers.

Ans 30 : select customer\_id,contact\_name from customers

where customer\_id not in (select customer\_id from orders);

Q31.Customers with no orders for EmployeeID 4

One employee (Margaret Peacock, EmployeeID 4) has placed the most orders. However, there are some customers who've never placed an order with her.

Show only those customers who have never placed an order with her.

Ans 31 : select distinct(a.customer\_id)

from orders a

where a.employee\_id != 4;