Intermediate Problems

**20.** **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.**Queries (SELECT a.category\_name,Count(b.product\_name) FROM northwind\_db.categories as a

Inner Join products as b

ON a.category\_id=b.category\_id

Group By a.category\_name

Order by Count(b.product\_name) desc; )

**21. In the Customers table, show the total number of customers per Country**

**and City?**

1. Query(SELECT Country,City,count(customer\_id) FROM northwind\_db.customers

Group by Country,City;)

**22.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?**

**A.** Query(**SELECT product\_id,product\_name,units\_in\_stock,reorder\_level FROM northwind\_db.products**

**where units\_in\_stock < reorder\_level; )**

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

**1.UnitsInStock plus UnitsOnOrder are less than or equal to ReorderLevel**

**2.The Discontinued flag is false (0).**

**A.** Query(SELECT product\_id,product\_name,units\_in\_stock,units\_on\_order,reorder\_level,discontinued FROM northwind\_db.products

Where (units\_in\_stock+units\_on\_order) <= reorder\_level

and discontinued = 0; )

**24.A salesperson for Northwind is going on a business trip to visit**

**customers, and would like to see a list of all customers, sorted by**

**region, alphabetically.**

**However, he wants the customers with no region (null in the Region**

**field) to be at the end, instead of at the top, where you’d normally find**

**the null values. Within the same region, companies should be sorted by**

**CustomerID?**

**A.** **SELECT customer\_id,company\_name,region,Case when Region is null then 1 else 0**

**End as Final**

**FROM northwind\_db.customers**

**Order by Final,region**

**25.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.**

1. Query ( SELECT ship\_country,round(avg(freight),2) as Freight\_avg FROM northwind\_db.orders

Group by ship\_country

order by avg(freight) desc

limit 3; )

**26.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.?**

**A.**

Query (SELECT ship\_country,round(avg(freight),2) as Freight\_avg FROM northwind\_db.orders

Where order\_date like '%1997%'

Group by ship\_country

order by avg(freight) desc

Limit 3)

**27. 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 Average Freight 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?**

**A.** Query(SELECT order\_id, ship\_country,avg(freight) as l FROM northwind\_db.orders

Where ship\_country='France'

group by ship\_country

order by l desc)

**28.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?**

Query(Select ship\_country,round(avg(freight),2) from orders

Where order\_date between ('1997-05-07') and ('1998-05-06')

Group by ship\_country

Order by avg(freight) desc

limit 3; )

29.We're doing inventory, and need to show information like the below, for

all orders. Sort by OrderID and Product ID?

1. **Query** (Select a.employee\_id,a.last\_name,b.order\_id,d.product\_name,c.quantity From employees as a

Left Join orders as b

ON a.employee\_id = b.employee\_id

left join order\_details as c

On b.order\_id= c.order\_id

Left Join products as d

On c.product\_id = d.product\_id

order by order\_id;

)

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

Show these customers?

1. Query (select a.customer\_id,b.customer\_id from customers as a

Left join orders as b

On a.customer\_id=b.customer\_id

Where b.customer\_id is null; )

31.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.

A.

with cte as

(Select customers.customer\_id

from customers

where customer\_id not in

(select orders.customer\_id from orders where orders.employee\_id = '4'))

select \*

from cte left join

(select Customer\_ID from Orders where orders.employee\_id = '4') O

on cte.Customer\_ID = O.Customer\_ID