MIS 420 T-SQL #2

Table

Description automatically generatedWrite your answers to the following questions on this document, and upload this document for grading. Currently the AdventureWorksDW2014 database is on CB-OT-DEVST06.AD.WSU.EDU. You cand access it with userID = mfstudent, Password = BIanalyst. Please review Page 9 of Module 2 documentation #1 to identify which fields from the FactResellerSales table are to be counted, summed, or averaged. In general you can count any column (as its counting rows), revenue is in the SalesAmount column, and units are in the Quantity column.  
  
Calculate all values using measure fields from the Fact tables, and textual descriptors from the dimension tables. The dimension tables used are dimReseller, dimGeography and the fact table is FactResellerSales. If you see numbers in the dimension tables, its best not to use these numbers, the convention is to use numbers from transaction tables.

***Chart

Description automatically generatedGraphical user interface, text

Description automatically generatedNote***: each row of the factReseller table represents one row on an invoice, and has a SalesOrderLineNumber. So the data does not easily provide totals by invoice# (aka SalesOrderNumber) In the image to the left you can see that the SalesOrderNumber is repeated. To grab the invoice number just once (for example to count invoices, or calculate an average by invoice) be sure to use COUNT(DISTINCT([column])) to grab one unique instance from a column that has repeating values. Please review Page 9 of Module 2 documentation #1 for further information.

A) What is the name of the **Reseller** that had the highest Dollar Sales Amount **(highest total sales -** use a GROUP BY query of the SalesAmount column**)** calculated from the FactReseller table?   
For this reseller  
B) What is their city, state, country location?   
C) What was the grand total in dollars?   
D) What kind of business are they/ Bike shop? Warehouse store? Or Value Added Reseller?   
E) For this reseller what is the average $ amount of an invoice (use the SalesAmount column)?   
F) What is their average # **units** purchased (use the OrderQty column)?  
  
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
  
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
  
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. A) What is the name of the **Reseller** that had the highest average # line items per invoice? (this is similar to the number of items on a receipt at Walmart – count the items of the SalesOrderLineNumber column, and divide that by the number of invoices – this is demonstrated on pg. 9 of module 2.  
     
   B) What is their city, state, Country location?   
   C) What was the grand total in dollars?   
   D) How many invoices?  
   E) what kind of business are they/ Bike shop? Warehouse store? Or Value Added Reseller?   
     
   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
     
   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
     
   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. A) What is the name of **the city** that had the highest total sales?   
   B) How many invoices for this city?   
   C) What was the grand total in dollars revenue for this city? (SalesAmount column)  
   D) What is their average # line items per invoice for this city?  
   E) What are the business types for this city? Bike shop? Warehouse store? Value Added Reseller? All?  
     
   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
     
   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
     
   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. A) What is the name of **state or province from France** that had the highest total sales?   
   B) How many invoices? (Count(Distinct([SalesOrderNumber]))  
   C) What was the grand total in dollars?   
   D) What is their average # line items per invoice   
     
   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
     
   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
     
   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Compare the **total sales by country**.   
   A) If you add the European countries sales together are they greater than the United States?   
   (do this calculation in SQL using an IN statement)  
   B) What countries are in the top 3 based on the grand total?   
   C) What are the total # units sold to American (USA only) resellers?  
   D) what countries have higher numbers than the United States for average # line items per invoice?  
     
   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
     
   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
     
   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Change to the FactInternetSales table to examine individual customers. Total the sales and units, # Invoices, and Invoice average by **City in the United Kingdom**.

***Note: Pull the data from the factInternetSales table connecting that to the customers table and then connecting the DimCustomers table to the DimGeography table.***  
  
A) What city has the most commerce?   
B) Record their total units, total revenue, and Average invoice amount.   
C) The sales manager once claimed “London records more invoices than the next 5 UK cities combined!” Is it true?   
  
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
  
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
  
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_