Assignments – list 2

Some helpful information about SQL queries to use:
- PIVOT http://technet.microsoft.com/en-us/library/ms177410%28v=sql.105%29.aspx
- GROUP BY ROLL UP, CUBE and GROUPING SETS http://technet.microsoft.com/en-us/library/bb522495%28v=sql.105%29.aspx
- CASE http://msdn.microsoft.com/en-us/library/ms181765.aspx

General querying information – T-SQL querying: http://technet.microsoft.com/en-us/library/ms181080(v=sql.105).aspx

Prepare SQL queries within SQL Management Studio against *DIMProduct* table (AdventureWorksDW), that as a result:

1. provides information about product's name, product's colour and number of items in stock (RebalancePoint or so) – do not use PIVOT yet;
2. provides information about number of items in stock for different colours of products; please put colours on columns, products' names on rows, and items in stock as values (use PIVOT)
3. provides information about average sales subtotal amounts in years due to months; please put months on columns, years on rows, and subtotal as values (use PIVOT)

Prepare SQL queries (using grouping operator) within SQL Management Studio against *FactIntenetSales* table, that as a result:

4. provides information about sales value (TotalDue) for different years (aggregated) along with a total value of sales (TotalDue); (use either ROLLUP, CUBE or GROUPING SETS)
5. provides information about sales value for different products and different years, months and days – please provide sales summaries after each month, each year, and total value; (use a single SQL query with either ROLLUP, CUBE or GROUPING SETS)
6. that calculates total values over all possible groupings of location attributes – country, region, city (we need all possible sub totals, e.g., by different countries, different regions, different cities); (use a single SQL query with either ROLLUP, CUBE or GROUPING SETS)

Prepare SQL queries within SQL Management Studio against *DIMProduct,* that as a result (use CASE):

7. provides information about different product's price categories:
    a. ListPrice < 20.00 – Inexpensive
    b. 20.00 < ListPrice < 75.00 – Regular
    c. 75 < ListPrice < 750.00 – High
    d. 750.00 < ListPrice – Expensive
8. provides information about product's name and weight displayed in kilograms (!!!). If the we ight is unavailable utilise 0.

9. Analyze data in one table (containing product categories) in AdventureWorks and one table (DimProduct) in AdventureWorksDW. You have at least three approaches possible:
    a. use DataQualityService on SQL Server, or
    b. use Visual Studio and in a project for Integration Services use Data Profiling Task (and Data Profile Viewer), or
    c. you can also write appropriate SQLs on your own to check

For the names of categories, determine the number of NULL values, most and least common value (with count), how many different values there are, the neutral category name (is it NULL or anything else?).