**Intro T-SQL Assignment**

Note: Have you run each of the basic queries in the provided Featherman TSQL Primer.docx document. Have you watched SQL videos that explain how to do a GROUP BY query? If you have not then it is futile to continue. You will just be asking others for assistance and guidance. You will complete this assignment much faster if you first get comfortable with basic filtering, GROUP BY, and joining tables together.

Produce a Professional looking report using MS-Word document with the following analysis. Upload your report to the appropriate dropbox. Be sure to crop any screen shots, and use FORMAT() to improve the number displays. The final report should be professional looking. Also do not include your SQL Statements, rather provide your textual analysis and charts, and lists as requested (for the lists, just provide a cropped screenshot image of the first 10 rows. Better grades are give to more professional work, and more thoughtful analysis.

**Part 1**. The marketing department has noticed recent activity in a specific target market. They have now made it a priority to sell more bicycles and gear to a very lucrative target market. Cristiana from the Marketing department has requested a list of customers and their email contact info for customers that have previously purchased from the Internet channel (The customers data is in the dimCustomer table and the Internet Sales data is in the FactInternetSales table). Join the tables so that you can provide the desired results.

Cristiana needs a sorted list of customers that displays the first and last name (-- concatenated into 1 column - use the CONCAT() function - here is an example , CONCAT([FirstName], ' ' , [LastName]) as [Employee] --, email address, #Orders and Total $ in Sales. Sort the list by the total sales amount with the most lucrative customer on top. This list will be fed into the CRM system for an email promotional offer for a new line of children’s bicycles. Use all the following criteria at the same time to ensure the list is filtered - you should generate a list of 207 customers (as an option you can gain higher points if you also add the customer's city and state/region which requires an extra joined table as shown in the example TSQL Primer document.):

1. Yearly income > $100,000
2. Total Children > 2
3. Holding a bachelor’s Degree

*Just provide a screen print of the 10 rows of data.*

**Part 2**. The marketing department senior vice president Joe V. has asked for some basic information about the company’s sales in the Internet sales channel. *Please provide at least one Excel column chart and a paragraph analysis* for each of the following questions (use GROUP BY queries, running each query one at a time - change the grouping phrase for each query)

Provide a count of sales, the average sale $ amount, and a total $ sales in the internet channel:

a) depending on # of children of the purchaser?
b) depending on age of the purchaser?
      (Use DATEDIFF(year, [field name], GETDATE()) as [Age] to calculate by age.
c) depending on gender of the purchaser?
d) depending on education level of the purchaser?
e) depending on marital status of the purchaser?

For each of the above questions, provide your cropped screenprint of the results set (after copying it into Excel), a column chart, textual analysis and interpretation for each of the questions to guide the marketing senior vice president. For this section of the report, feel free to add another

Now the astute analyst would immediately mention that there are probably interactions amongst these demographics, and also that the data will change over time. For now just provide this basic information for next weeks meeting.

**Part 3.** With the *European* road biking season upcoming, the Marketing team has been charged to prepare a sales promotion for **the reseller channel for road wheels (only)**. The Resellers are place orders for bicycle teams that their store's sponsor. The teams like to keep at least 10 extra wheels in their cargo vans (and sometimes overnight delivery is also needed). The Marketing team has asked your analytics team to provide a product list. Write a query that pulls the columns you need from the products table and the product subcategory table. Include the following information (provide professional column names):

* Product, Product ID (this is the product alternate key), and English Description
* Cost, Dealer Price, and list price (format nicely please)
* Color and weight.
* Days to manufacture (in case the promotion goes well the sales team know how long it will take to process orders that are in excess of inventory

*Copy the first 10 rows if the resultset* into the wordprocessing document and add a few sentences of description

**Part 4.**  Marketing is also asking for a rough sales breakdown of each of the **road wheel products in the wheels product subcategory (for only the reseller sales channel** and the European countries, which is the focus of the promotion). Later analysis can introduce the time component, here

a) provide a list of all the reseller sales for the products. In the simple list show all the unique sales for each of the products (this section is not using GROUP BY). Include the:

* Product ID (alternate product key field), sales order #, order date
* Product name, and description,
* Reseller key (you can add the reseller name) , sales order quantity, dealer price and unit price

*Just add a screen shot of the first 10 rows and the column headings*, be sure to use improved column headings using the AS functionality.

b) Using GROUP BY provide a summary count of unit sales and sum of total revenue **for each of the road wheel products in the wheels product subcategory for only the reseller channel.** There is no need now to break out the data by time period or region. Include the:

* Product ID, Product name, product description
* A total count of the unit sales and a sum of the total revenue (sales amount)

Add an Excel column chart for this last query.

 As a final part to your report, add a section that discusses other queries that should be run, or other datasets that are needed to provide the analysis.