**DAB203 Lab#4 [Marks 10]**

**Use the SQLBook database for this lab.**  
**Your query along with the results of the query should be pasted in Excel**. There are 5 questions, and each question should be answered on a different worksheet in Excel. Thus, each worksheet will have query, results, and corresponding chart, as applicable. The worksheets should be named as Q1, Q2 and so on. **The first worksheet should have your Name and Student ID written.**  
Make sure to properly format the charts with Axis titles and legends where appropriate.  
**Each question is worth 2 Marks.  
Upload the Excel file.**   
  
**Q1.** Here is a query for OrderDate and BillDate from Orders and OrderLines tables.  
SELECT DATEDIFF(day, o.OrderDate, ol.billDate) as days, COUNT(\*) as numol  
FROM Orders o JOIN OrderLines ol  
ON o.OrderId = ol.OrderId  
GROUP BY DATEDIFF(day, o.OrderDate, ol.billDate)  
ORDER BY days

Run the query and copy and paste the results in Excel. In Excel, create a cumulative column and a cumulative percentage column. Create a Scatter with straight lines combo chart for days, numol (on primary vertical axis), and cumulative percentage (on secondary vertical axis). Horizontal axis should be from 1 to 60 with intervals of 10. Color both the vertical axis with different colors. Add at least one data label to the chart. Show percentage on the secondary vertical axis properly.

**Q2.** Write a SQL query to get the weekly distribution for the year 2011 for number of orders, number of customers (Distinct) and sum of TotalPrice. Use the Orders table to get the distribution. Make sure you group and order by week. Copy and paste the results in Excel and create an appropriate line chart for sum of TotalPrice and weeks. I want to see all the weeks in the chart. Format the chart appropriately by adding the axis titles. Comment on the distribution.

**Q3.** Write a SQL query to get the daily (day of the year) distribution for the first six months of the year 2012 for number of orders, number of customers (Distinct) and sum of TotalPrice. Use the Orders table to get the distribution. Make sure you group and order by day of the year**.** Copy and paste the results in Excel and create an appropriate line chart for sum of TotalPrice and day of the year. Format the chart appropriately by adding the axis titles. Comment on the distribution.

**Q4.** Write a SQL query to give weekly distribution of how many customers started the service in each week for the years 2004, 2005, and 2006. Use the Subscribers table. (Hint: Use StartDate and Case statements for grouping). Make sure to use group by and order by week. Copy and paste the results in Excel and create appropriate line chart which includes lines for all the three years. Format the chart appropriately by adding the axis titles. Comment on the distribution.

**Q5**. Write a SQL query to give quarterly distribution of sum of TotalPrice with respect to BillDate. Use the OrderLines table. Make sure to use group by and order by quarter. Copy and paste the results in Excel and create clustered column chart and format the chart appropriately.

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