Information Systems II

PowerBI
A Simple Dashboard for the Fabrics OLTP Database

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This is an small application project for using PowerBI as a front end tool to display data from a database. Here we'll use the Fabrics SQL Server OLTP database.

PowerBI – Dashboard Creation

If you still don't have PowerBI, start by downloading PowerBI Desktop and installing it. This is a free version with no time limit. Then:

1. Restore de Fabrics database (fabrics.bak). This is a very simple OLTP from a fabrics factory;

2. Using PowerBI import the data from this database and create a dashboard with three sheets:
    a. Sheet1: A map with the average credit rating per city (credit rating is na integer from 0 to 9 that shows the credit rating). Use the ArcGis object
    b. Sheet2: A map with the total of orders by city, using the object Map. You'll notice that the total shown by city, by PowerBI, atomatically it is the sum of all the customers from the same city. Using a query SQL on SSMS try it.
    c. Sheet3:
        i. A bar graph with the sales total by job (aggregate) and sex (etail level) with a filter by job and sex. Explor the sheet clickin on the filters. Right click on the columns of the graphic, expand, aggregate. Look the values.
        ii. Two pie charts, the former for sales by job and the second for sales by sex
    d. Sheet4:
        i. Pivot table for sales by product family (column labels) and along time (line labels). Click the line labels and navigate to other hierarchie's levels (drill or rol up - month, day, year…)
        ii. A scattre chart for x=longitude, y=latitude, values = total orders, colorlevel = total orders. For testing the formatting of colors use the option of visualizations
        iii. Line chart for Total Orders versus Time. Test drill down and roll up untol the year level. Click on lines and choose Analysis (this can be done on any point of th line, where it goes up or down): choose Explainwhy it climbs or goes down. Choose Paste the explanation shown by the system on the dashboard. On the option "…" of the explanation choose "Spotlight". Look the results and try to understand them.

3. Test everything. Save all, publish and access it using your browser.