CPSC 304 - Tutorial 9 Data Warehousing

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Exercise 1

Being able to drill down into a hierarchy allows for invesitgating datasets at both the high level, and the low level. You can focus in on specific areas of interest.

Being able to roll up, is also important in case someone goes too deep, or realizes they want to see related areas. For instance, someone interested in weekend sales may later realize that weekday sales provide an important reference.

Exercise 2

1) For this product, what is the grand total of unit sales?o

426 Unit Sales

2)

(a) Which day has the highest number of sales for that product?

Sunday has the highest number of sales with 91.

(b) Are the sales evenly distributed? Explain.

No, the sales are not evenly distributed. Some days have many more sales than others.

3) Why would a business want to track the total number of unit sales on a particular day?

It could be useful for businesses to know exactly how many are sold on each day to predict consumption numbers in the future and when to restock areas.

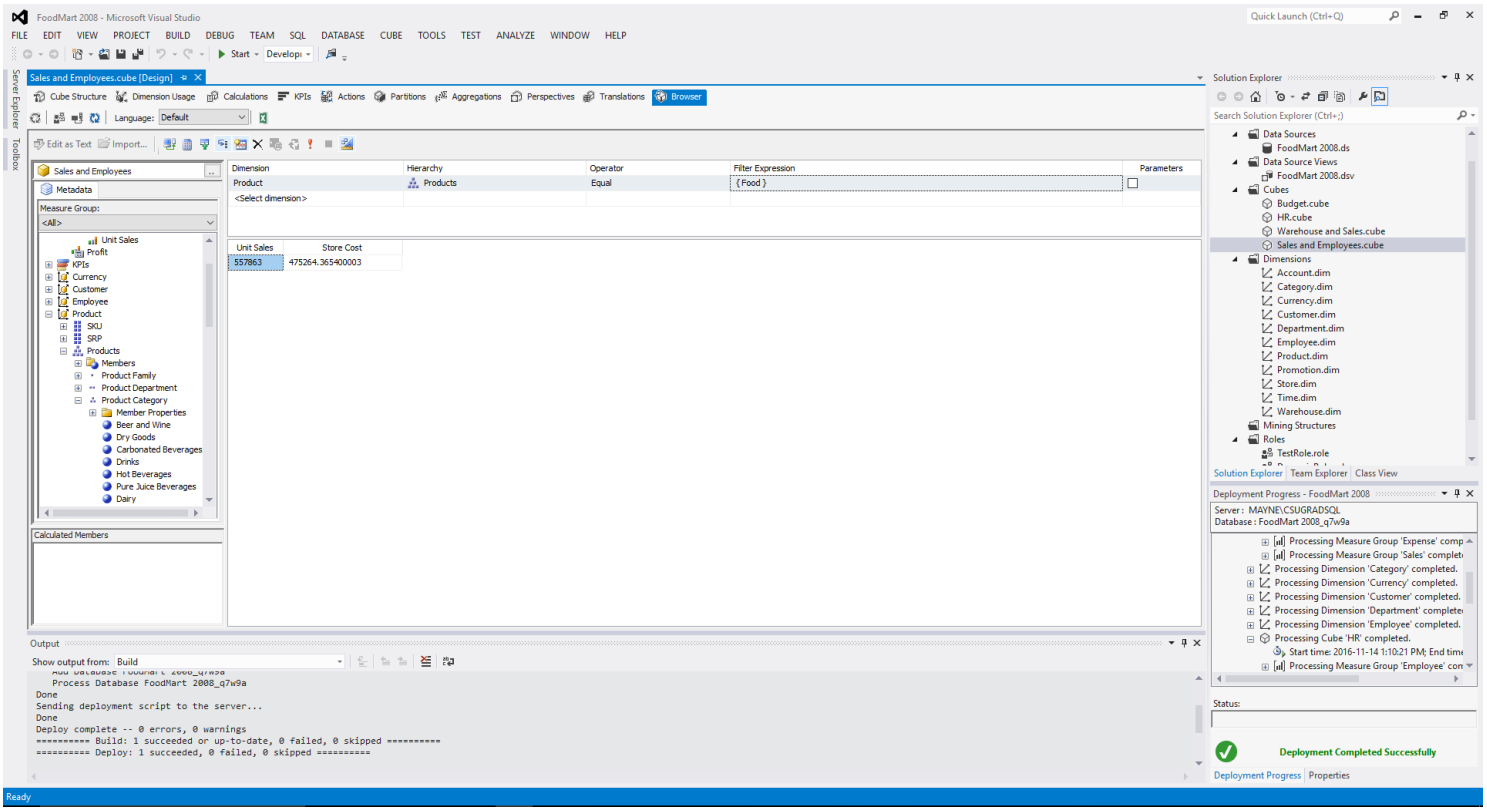
4) Why would a business want to identify any outliers (anomalies)? Provide some examples of what a manager might do with this information.

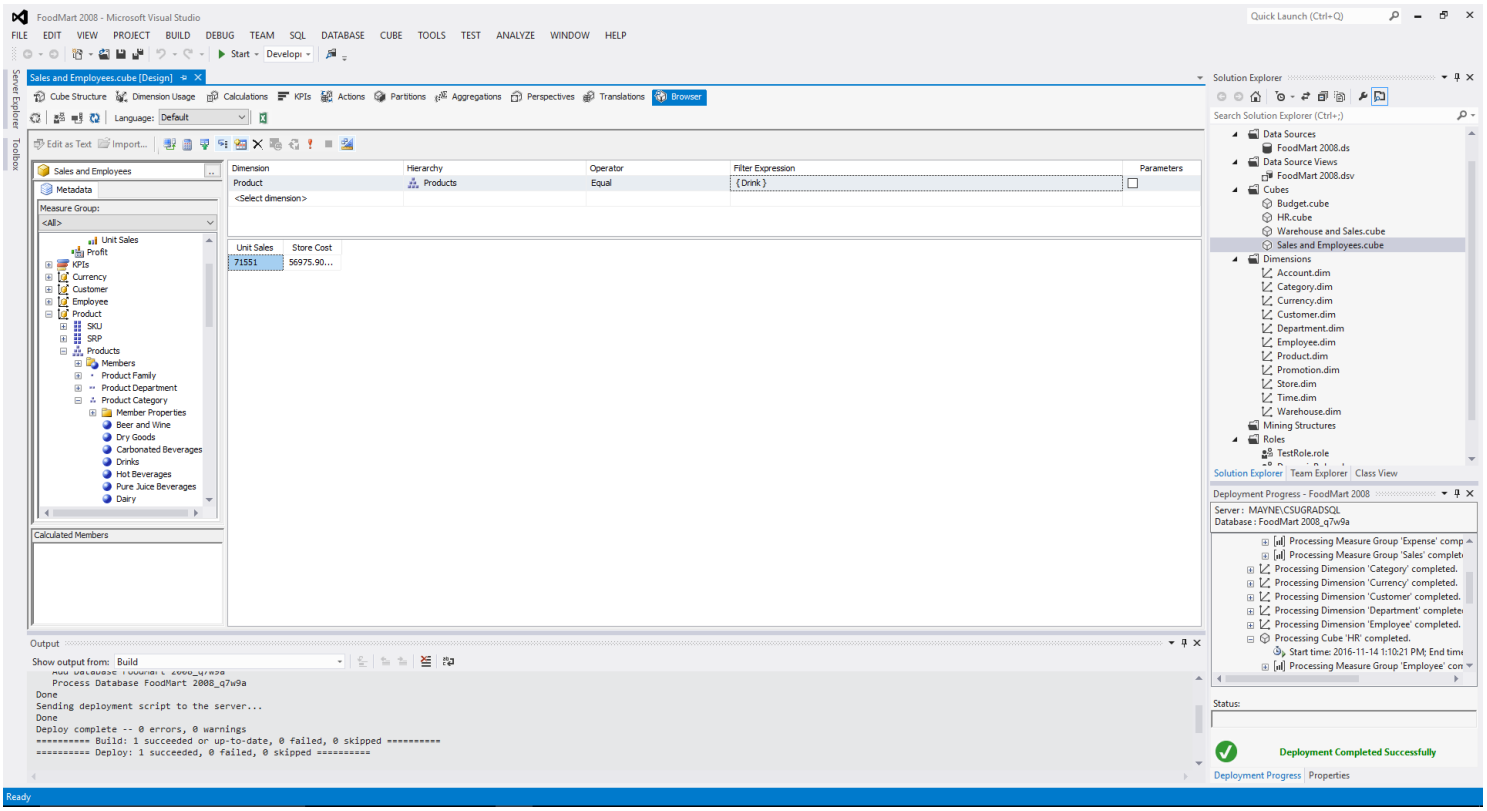
Identifying outliers can identify important trends. If there's always a high sale rate on Sunday, a manager could ensure that there's plenty of a certain item in stock.

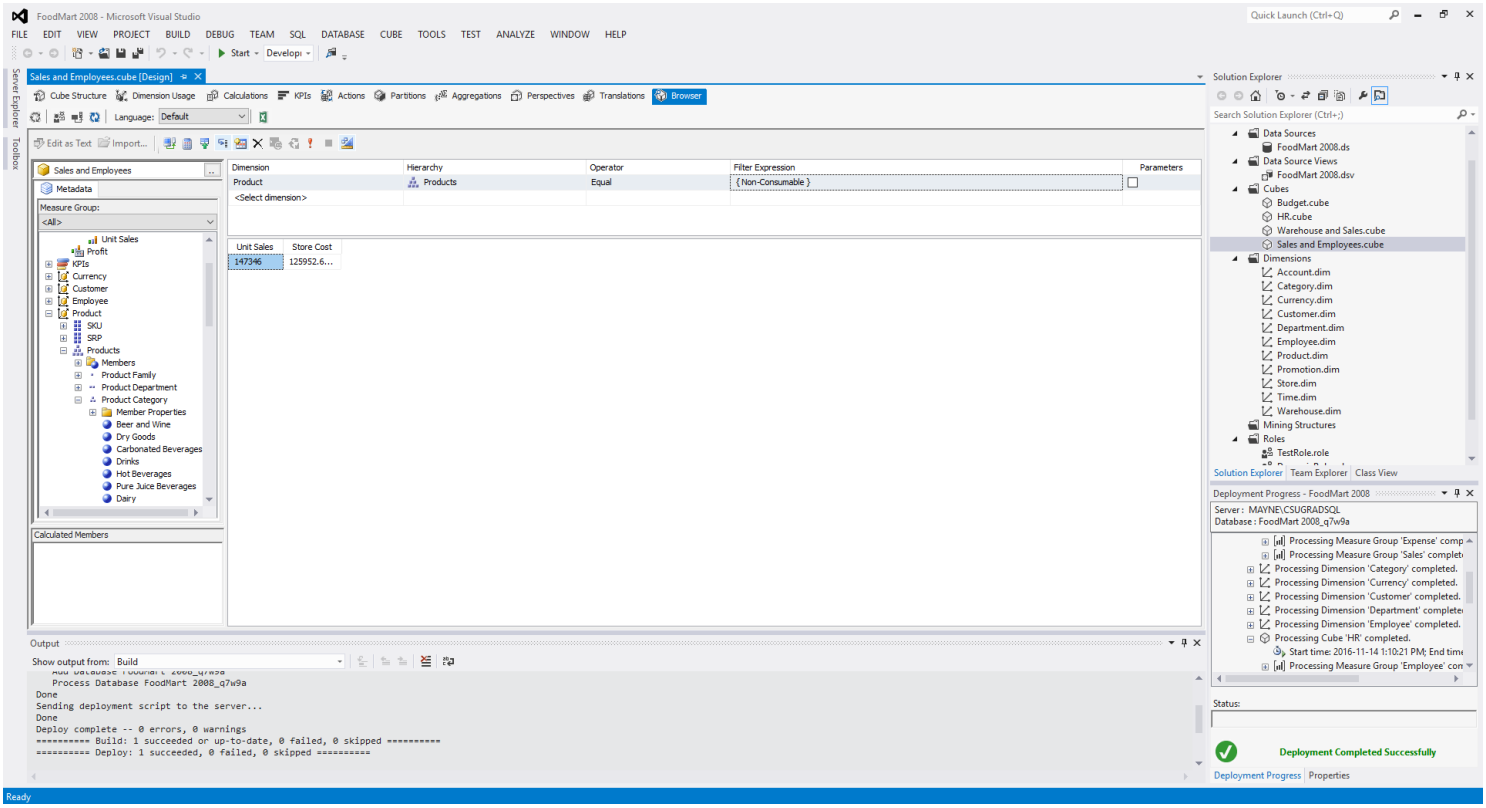
Exercise 3

MDX is a way of programatically returning results that you would want from the Data Cube in Step 4. This allows you to get the same type of aggregation results across multiple rows and columns.

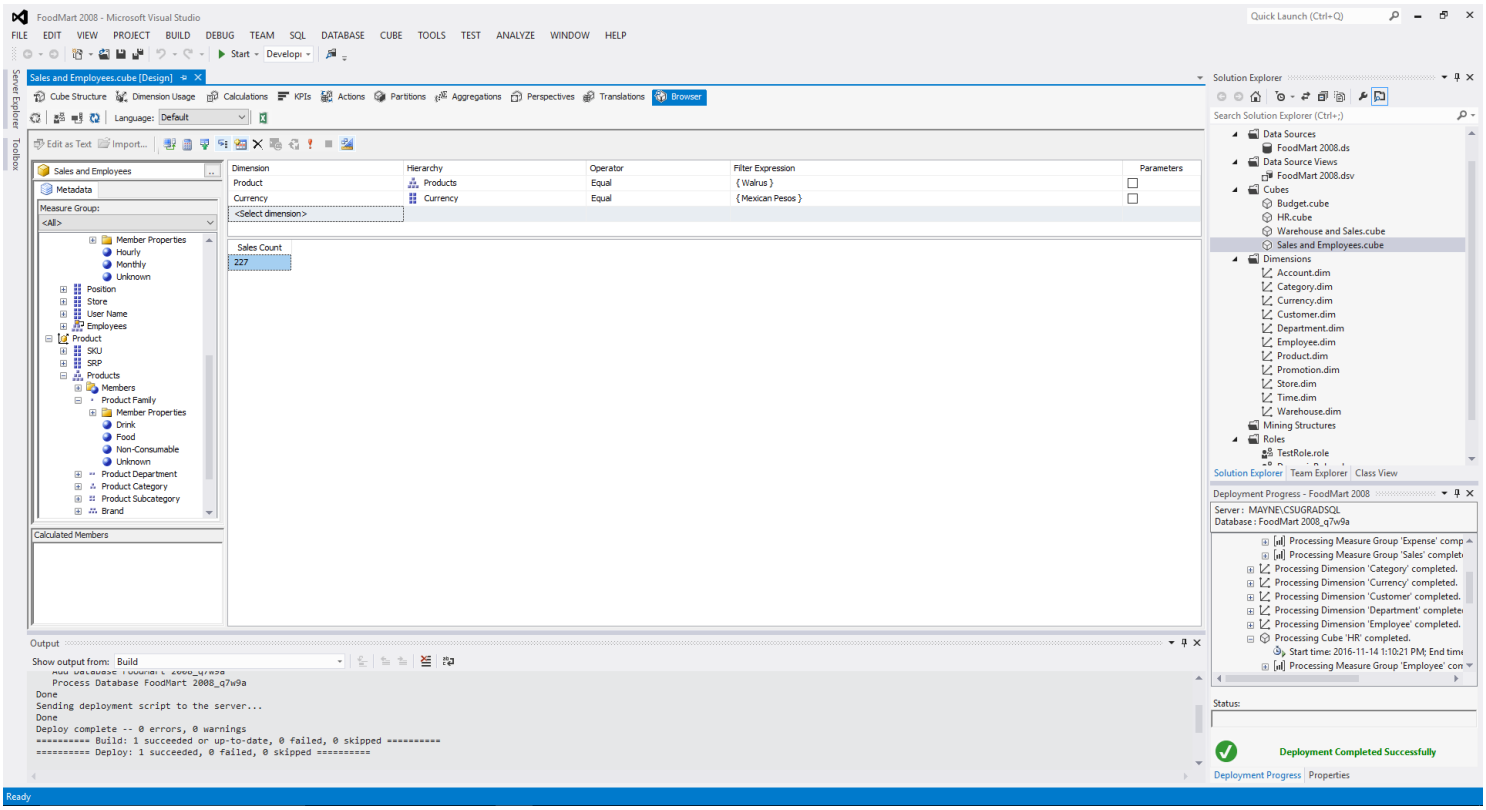
Exercise 4


FoodMart 2008 - Microsoft Visual Studio
Sales and Employees.cube [Design]
Dimension
Hierarchy
Operator
Filter Expression
Parameters
Product
Products
Equal
{Food}
Unit Sales
Store Cost
557863
475264.365400003
Solution Explorer
Deployment Progress - FoodMart 2008
Server : MAYNE\CSUGRADSQL
Database : FoodMart 2008_q7w9a
Deployment Completed Successfully
Output
Build: 1 succeeded or up-to-date, 0 failed, 0 skipped
Deploy: 1 succeeded, 0 failed, 0 skipped
Ready


FoodMart 2008 - Microsoft Visual Studio
Sales and Employees.cube [Design]
Dimension
Hierarchy
Operator
Filter Expression
Parameters
Product
Products
Equal
{Drink}
Unit Sales
Store Cost
71551
56975.90...
Solution Explorer
Deployment Progress - FoodMart 2008
Server : MAYNE\CSUGRADSQL
Database : FoodMart 2008_q7w9a
Deployment Completed Successfully
Output
Build: 1 succeeded or up-to-date, 0 failed, 0 skipped
Deploy: 1 succeeded, 0 failed, 0 skipped
Ready



Exercise 5



This query finds the number of “Walrus” products that have been bought using Mexican Pesos. These results could be useful for determining the demographic of those purchasing the products.