Project Assignment - Part 3

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Introduction & Delivery Rules

In **Part 3** of the project you are required to answer some business questions on a datacube that you will create on the database you prepared. Document how you build your datacube in your report and solve the business questions using MultiDimensional eXpressions (MDX) in SQL management studio. Each group has to solve only three assignments. Look at the section with your *groupid* to find which assignments you need to do. For the delivery prepare a folder with the name LDS_Part3_groupid. Since this is the **final delivery** each student must create a single folder named LDS_groupid containing the following folders:

- LDS_Part1_groupid containing the solutions to the assignments of the first part
- LDS_Part2_groupid containing the solutions to the assignments of the second part
- LDS_Part3_groupid containing the solutions to the assignments of the third part

Then, the student must compress the folder and create a single .zip file, named LDS_groupid.zip. Note that students can update the previous assignments and deliver the updated version. In this case, within the corresponding folder student must add a .txt file discussing the changes.

Groups from 1 to 8

Assignment 0

Build a datacube from the data of the tables: gpu_sales, gpu_product, time, geography and vendor. Define the appropriate hierarchies for tables geography and time.

Assignment 1

Show the total sales for each country and vendor and the grand total with respect to the continent.

Assignment 2

Let *diff* be the difference between the sales_usd and sales_currency. Show the total sales_usd, total sales_currency, total *diff* for each month and the running *diff* starting from the same year in Germany.

Assignment 3

Show the top 5 gpu brands w.r.t the monthly average sales for each region in Europe.

Assignment 4

Create a dashboard that shows how sales change over time, giving the user the opportunity to see the sales behavior for different time granularity.

Assignment 5

Show the geographical distribution of sales and of the number of products purchased.

Assignment 6

Create a plot/dashboard of your choosing, that you deem interesting w.r.t. the data available in your cube

Groups from 9 to 16

Assignment 0

Build a datacube from the data of the tables: cpu_sales, cpu_product, time, geography and vendor. Define the appropriate hierarchies for tables geography and time.

Assignment 1

Show the ratio between weekdays sales and weekend sales for each month and cpu brand.

Assignment 2

For each vendor, show the difference between the total sales of each month and the total sales of the previous month.

Assignment 3

For each country show the cpu series with the highest total sales and the sales ratio between that cpu series and the total sales for that country.

Assignment 4

Create a dashboard that shows how sales change over time, giving the user the opportunity to see the sales behavior for different time granularity.

Assignment 5

Show the geographical distribution of sales and of the number of products purchased.

Assignment 6

Create a plot/dashboard of your choosing, that you deem interesting w.r.t. the data available in your cube

Groups from 17 to 26

Assignment 0

Build a datacube from the data of the tables: ram_sales, ram_product, time, geography and vendor. Define the appropriate hierarchies for tables geography and time.

Assignment 1

Show the percentage increase in total sales with respect to the previous month for each ram brand and each country.

Assignment 2

For each region and ram brand show the total sales in percentage with respect to the total sales of the corresponding country.

Assignment 3

Show the ram memory types having a total sales greater than 10% of the totals sales in each continent by continent and year.

Assignment 4

Create a dashboard that shows how sales change over time, giving the user the opportunity to see the sales behavior for different time granularity.

Assignment 5

Show the geographical distribution of sales and of the number of products purchased.

Assignment 6

Create a plot/dashboard of your choosing, that you deem interesting w.r.t. the data available in your cube