

OLAP methods

① Stored Procedure (Programming Solution) (e.g. Analysis Manager)

~~facilitates~~ facilitate OLAP command

② MDX (OLAP language)

③ SQL

OLTP ⇒ Online Transaction Processing

OLAP ⇒ Online Analytical Processing

In Project Assignment

Recommendation

① use MS SQL Analysis Manager to facilitate OLAP command buttons

② use MDX to generate Report { Roll up, Drill down, slice, dice

③ use SQL to validate Report data (e.g. Drill through operation)

OLAP language is a DML

(Data Manipulation language)

which defines schema in its operation.

OLAP language is more powerful (higher level) than SQL.

Example 1	Gender	Male	Female
Product	Members	<u>Unit</u>	<u>\$ Sales</u>
Sales			

Example 2	Amount	
Store	<u>Sales</u>	<u>Amount</u>
Kowloon		

Difference between Stored procedure and MDX and SQL in implementing OLAP

- ① Stored procedure works for Roll up and Drill down only
- ② MDX can work on Roll up, Drill down, SLICE & DICE.
- ③ SQL can ~~only~~ work on one column with multiple rows. It cannot work on ~~many~~ multiple columns & multiple Rows.

In Summary

OLAP Language such as MDX is a comprehensive solution for

OLAP

OLAP needs to work with Data Warehouse (i.e. Star Schema.)

Cross Join \Rightarrow Combinations of
Columns OR Rows
in Output screen layout

Measure \Rightarrow Measurable data fields
in Fact table