

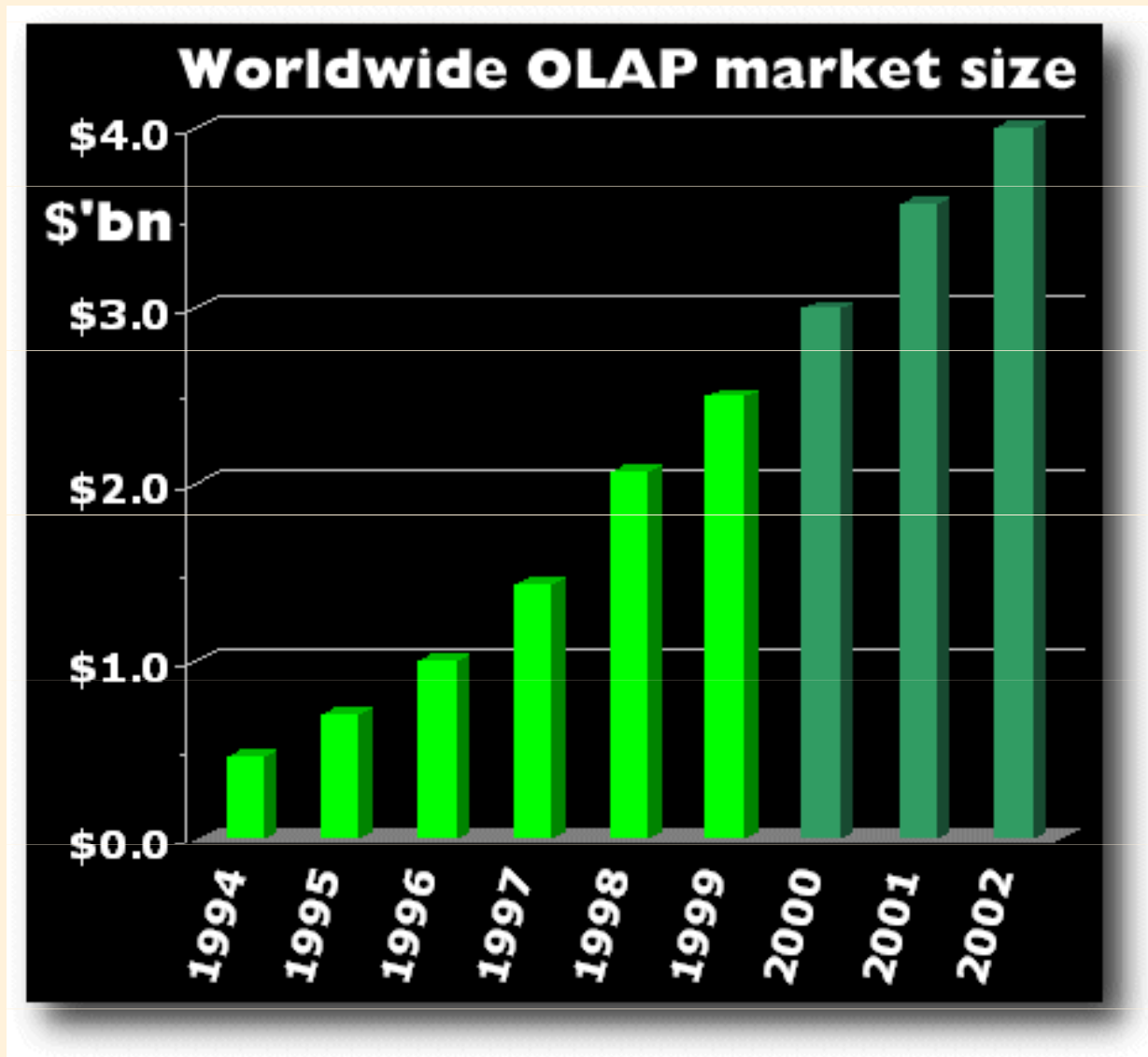
***OLAP Theory-English version***  
***supplement to OLAP 20050425***

[Ing.Skorkovský,CSc]  
Katedra aplikované  
matematiky a informatiky

# ***Agenda***

- The Market / obchod/ marketing
- Why OLAP / proč OLAP
- Introduction to OLAP / úvod
- OLAP Terms and Concepts/ terminologie
- Summary / Závěr

# ***OLAP market size***



# ***Why OLAP***

- **The Right Information In The Right Place  
At The Right Time**
- **Why**
  - More self-sufficient Business users
  - Keep the integrity of the data
  - Reduces the query drag(přítěž) and network traffic (zatížení na síti)
  - Organization can respond more quickly to market demands

# ***Introduction to OLAP***

“OLAP enables analysts, managers, and executives to gain insight into data through fast, consistent, interactive access to a wide variety of possible views of information. OLAP transforms raw data so that it reflects the real dimensionality of the enterprise as understood by the user. “

# ***Introduction to OLAP***

- Users
  - Analysts, managers and executive
- Access
  - Fast consistent, interactive
  - Wide variety of possible views
- Transformation
  - Raw data
  - Real dimensionality of enterprise

# ***Introduction to OLAP***

- Organizational functions
  - Finance
    - Budgeting
    - Performance analysis
  - Sales
    - Sales analysis and forecasting
  - Marketing
    - Market research analysis
    - Market/customer segmentation
  - Purchase
    - Cost of materials
  - Production
    - Cost of conversion
  - Distribution
    - Cost of shipping
  - etc

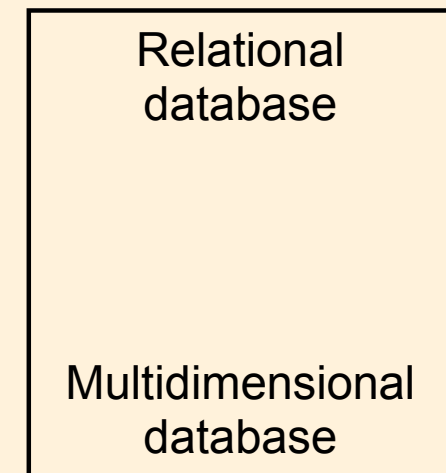
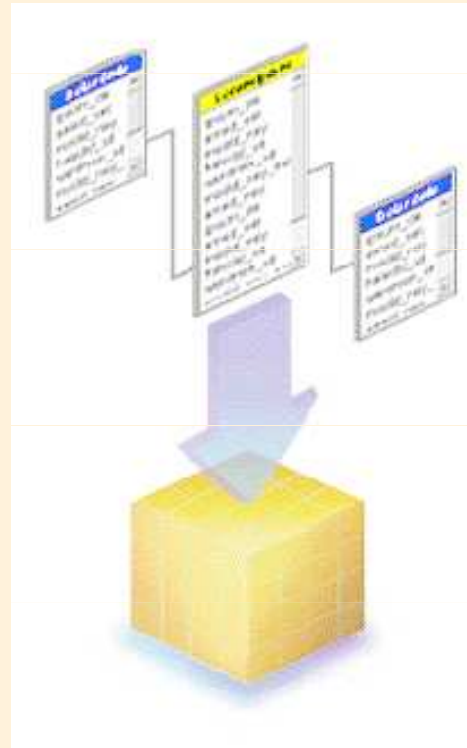
# ***OLAP Terms and Concepts***





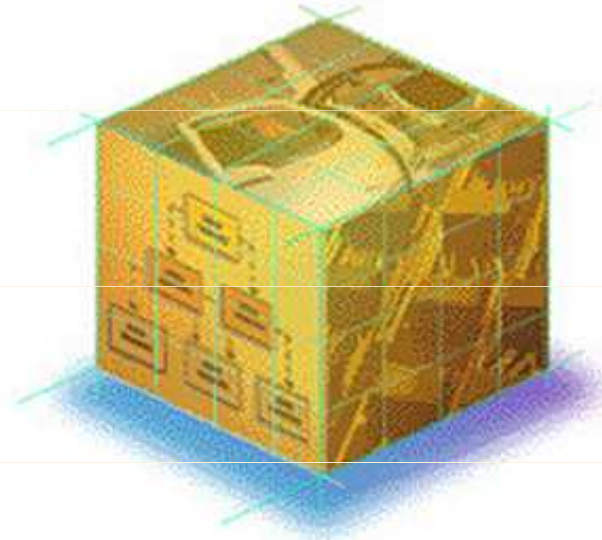
# ***OLAP Terms and Concepts***

- Relational database
- Multidimensional database



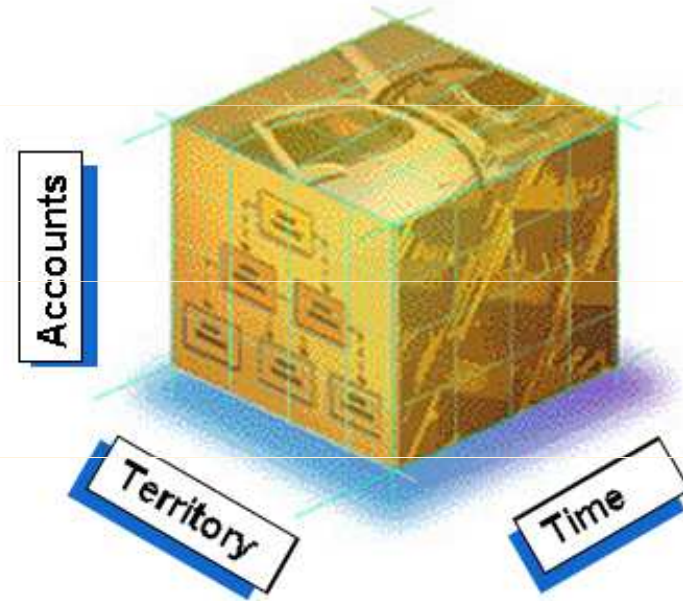
# ***OLAP Terms and Concepts***

- Cube
  - Information is conceptually viewed as cubes.



# ***OLAP Terms and Concepts***

- Cube
  - Information is conceptually viewed as cubes.
- Dimension
  - Distinct categories for business data.



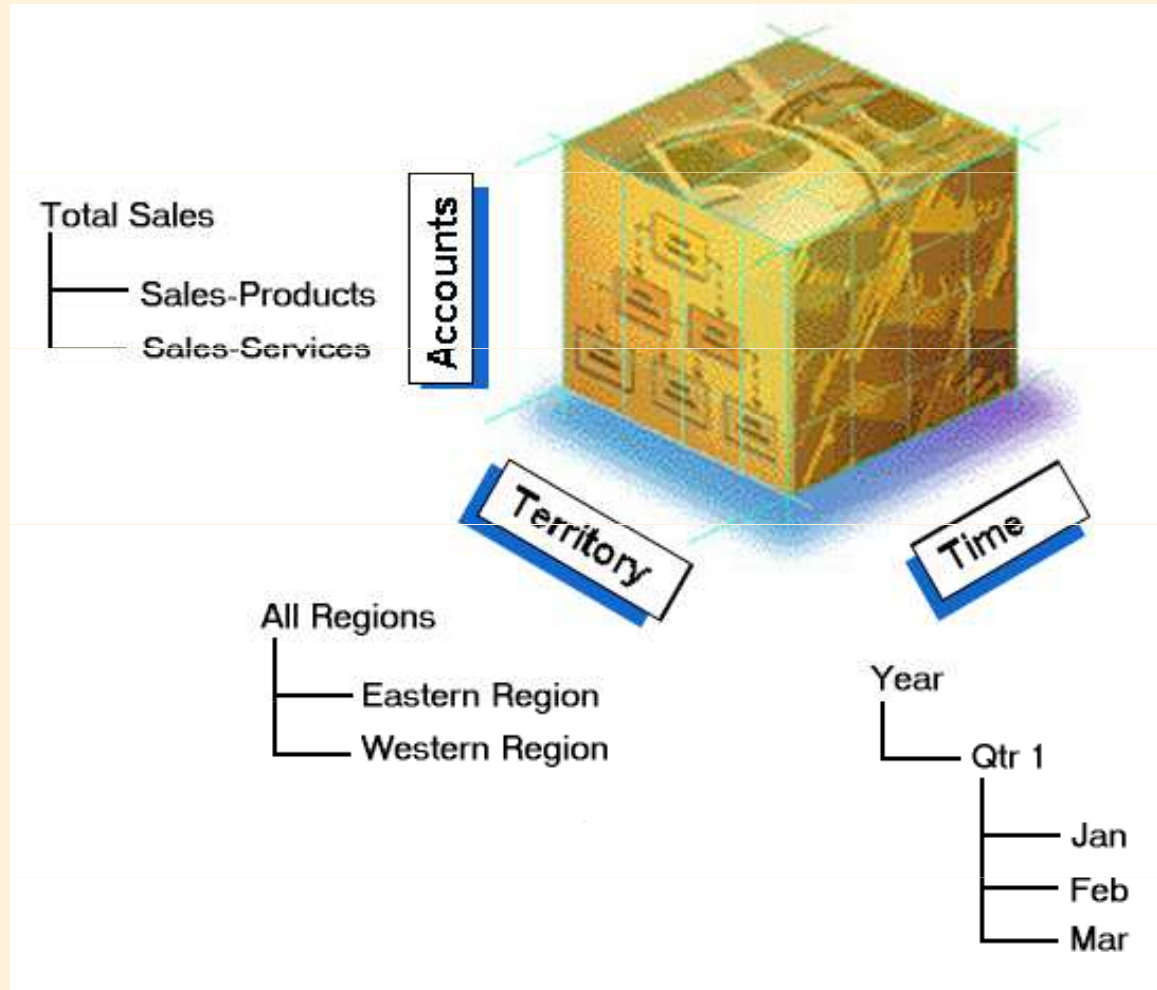
# ***OLAP Terms and Concepts***

- Cube
  - Information is conceptually viewed as cubes.
- Dimension
  - Distinct categories for business data.
- Hierarchy
  - Levels of details on the data.



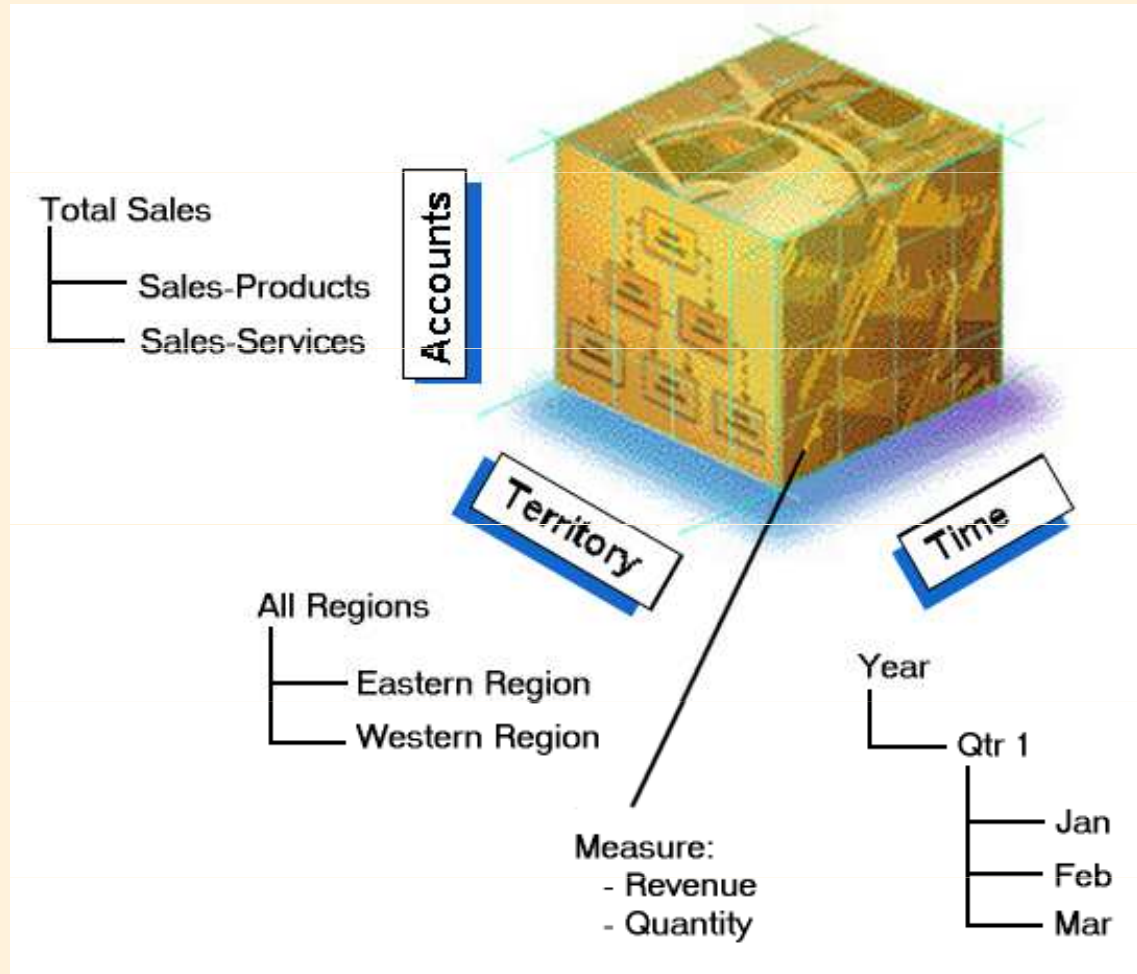
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- Cube
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- Dimension
  - Distinct categories for business data.
- Hierarchy
  - Levels of details on the data.
- Measure
  - Quantitative values.



# ***OLAP Terms and Concepts***

## **Cube**

Information Is conceptually viewed as cubes.

## **Dimension**

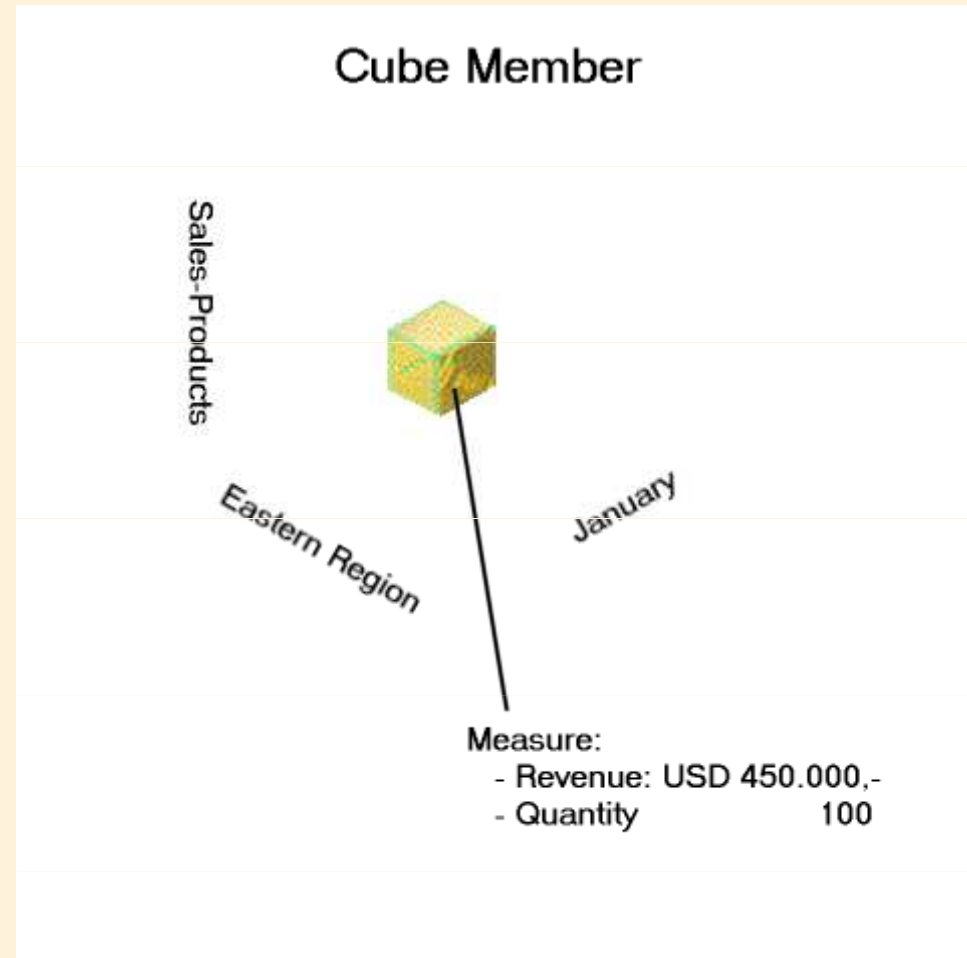
Distinct categories for business data.

## **Hierarchy**

Levels of details on the data.

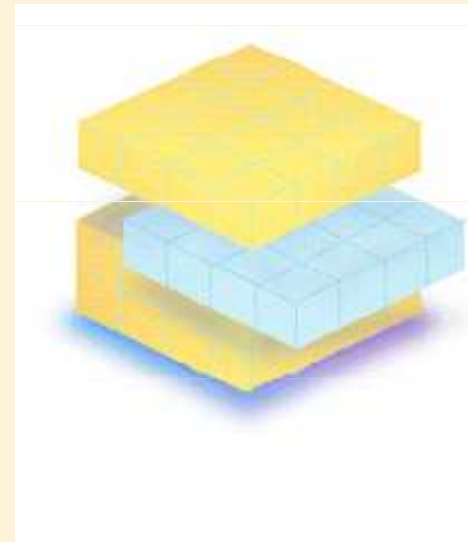
## **Measure**

Quantitative values.



# ***OLAP Terms and Concepts***

- **Cube**
  - Information is conceptually viewed as cubes.
- **Dimension**
  - Distinct categories for business data.
- **Hierarchy**
  - Levels of details on the data.
- **Measure**
  - Quantitative values.
- **Data slice**
  - A subset of the data in a partition.





# OLAP Cube

