

# SAP01

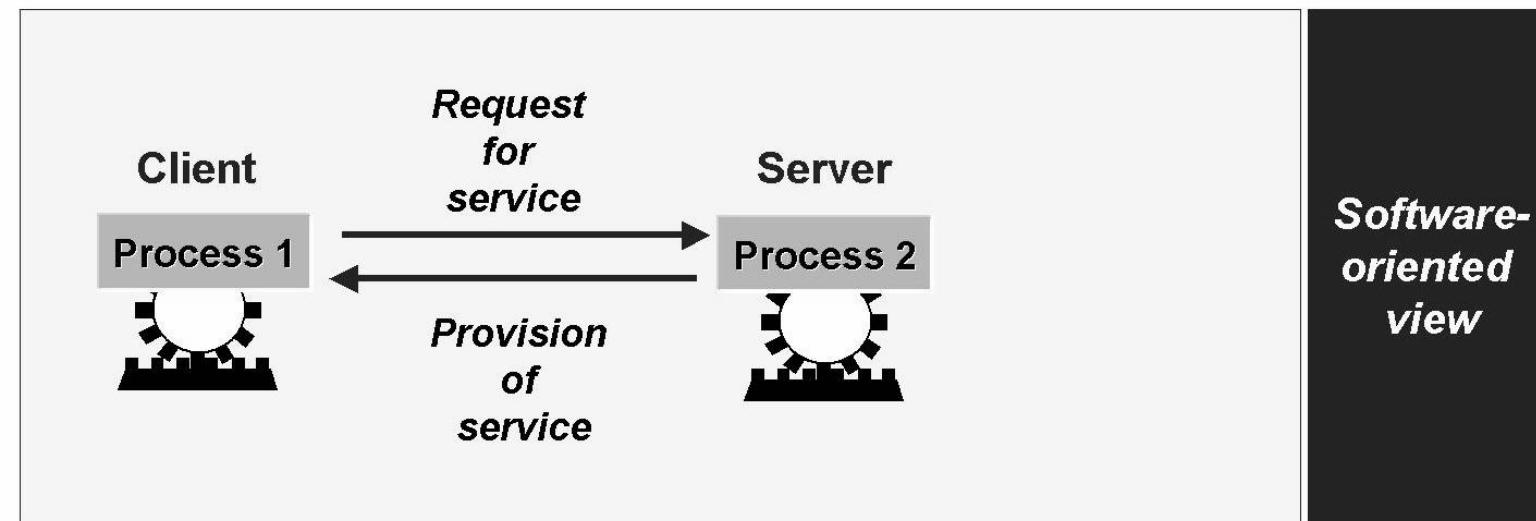
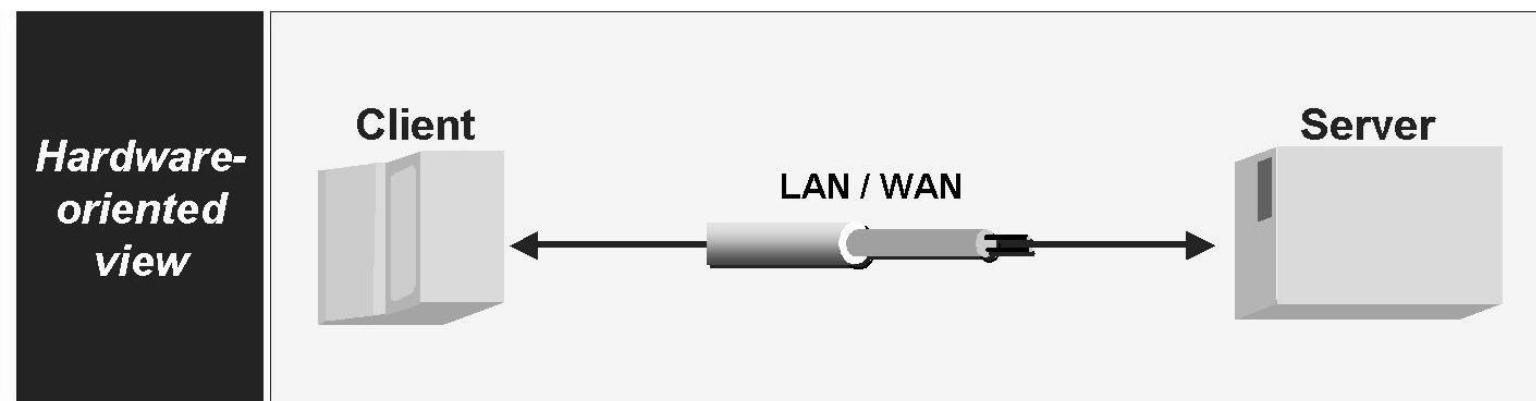
mySAP Technologies

# Outline

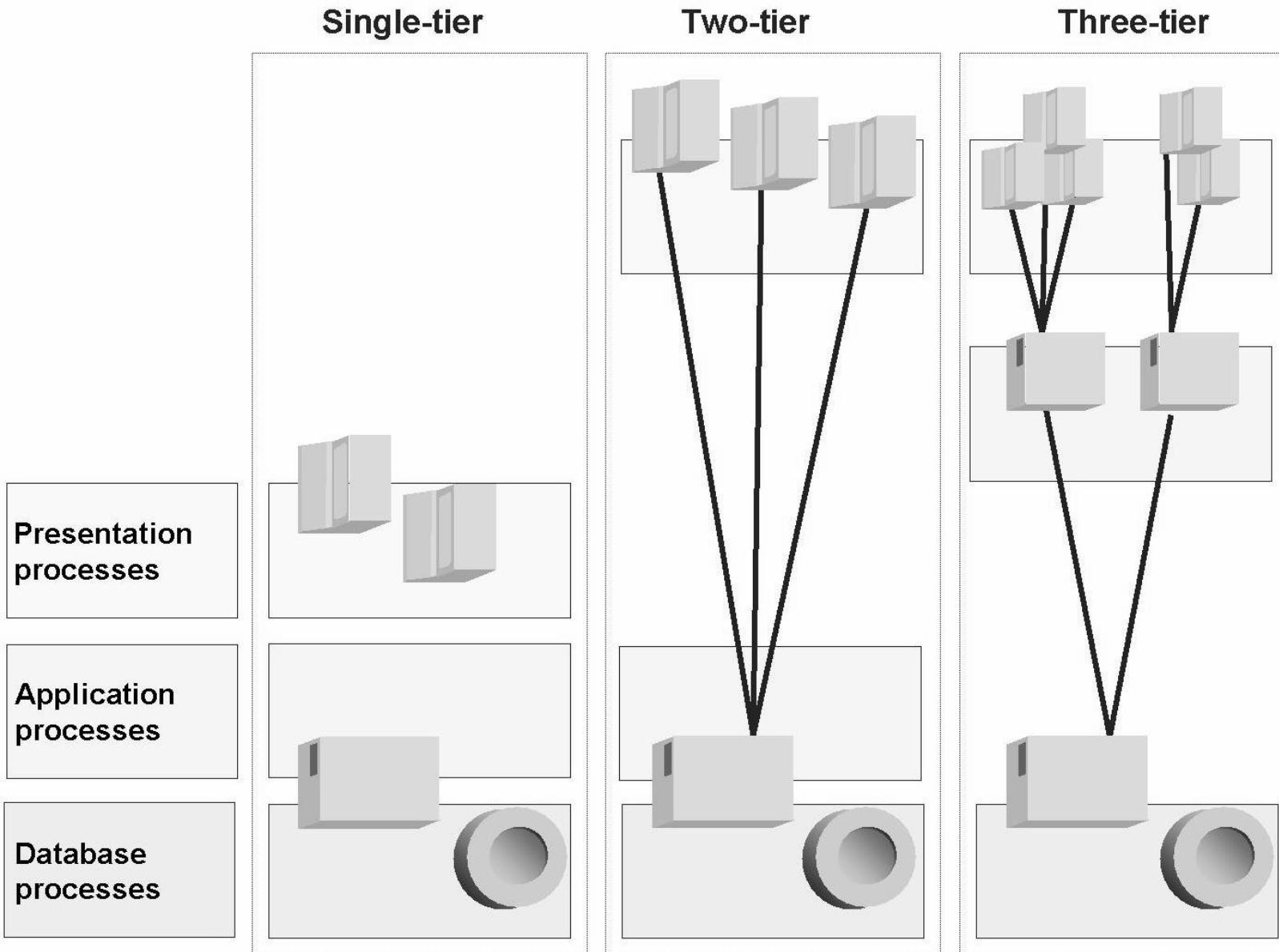
- Multi-Tier: Client – Server Technology
- Client – Server in SAP
- Data Structures of SAP Systems
- Change Management
- SAP Transactions
- ABAP

# Multi-Tier Client – Server

## Client – Server



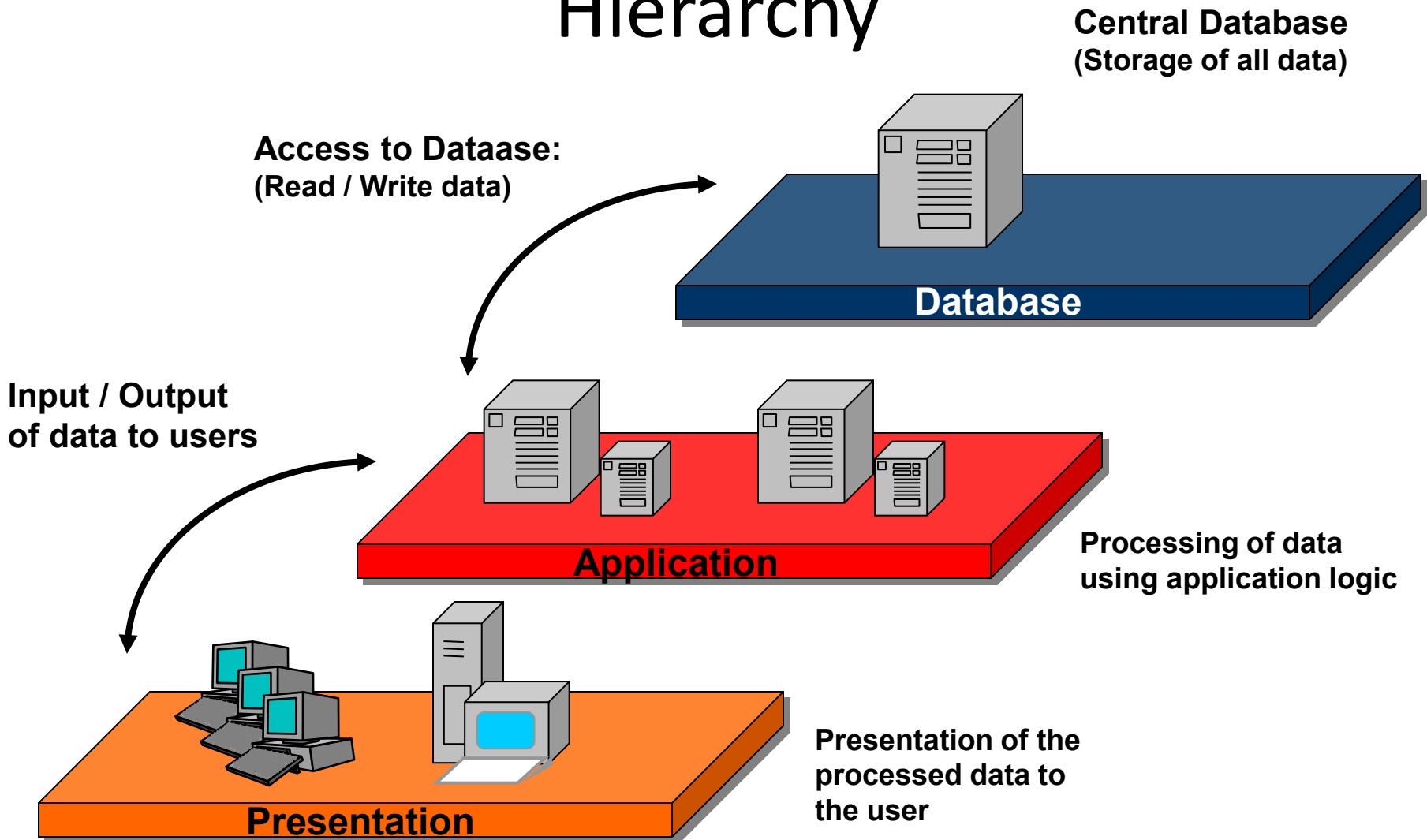
# Multi-Tier Client – Server



# Multi-Tier Client – Server

- Single-tier
  - **Satu** komputer melakukan semua proses
- Two-tier
  - Satu komputer sebagai **server**, komputer lainnya sebagai **client**
- Three-tier
  - Terdapat lebih dari dua tingkatan relasi, digunakan untuk pengelompokan berdasarkan **fungsionalitas** tertentu

# Basis System: Three-Tier Computer Hierarchy



# Client – Server in SAP

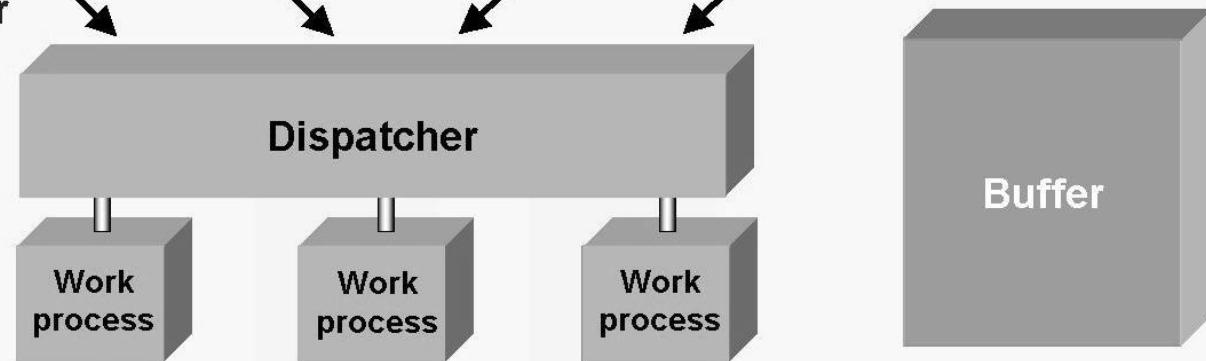
- Terdapat 3 layer:
  - **Presentation:** berhubungan dgn interface yg dilihat client
    - Berguna untuk menerima input & menampilkan output
  - **Application:** berhubungan dgn pemrosesan request dari client
    - Berisi: coding & business process
  - **Database:**
    - Berisi: data dan managementnya

# Client – Server in SAP

## Presentation layer

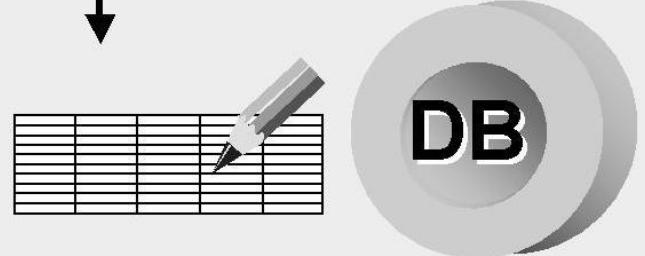


## Application layer



## Database layer

DB processes



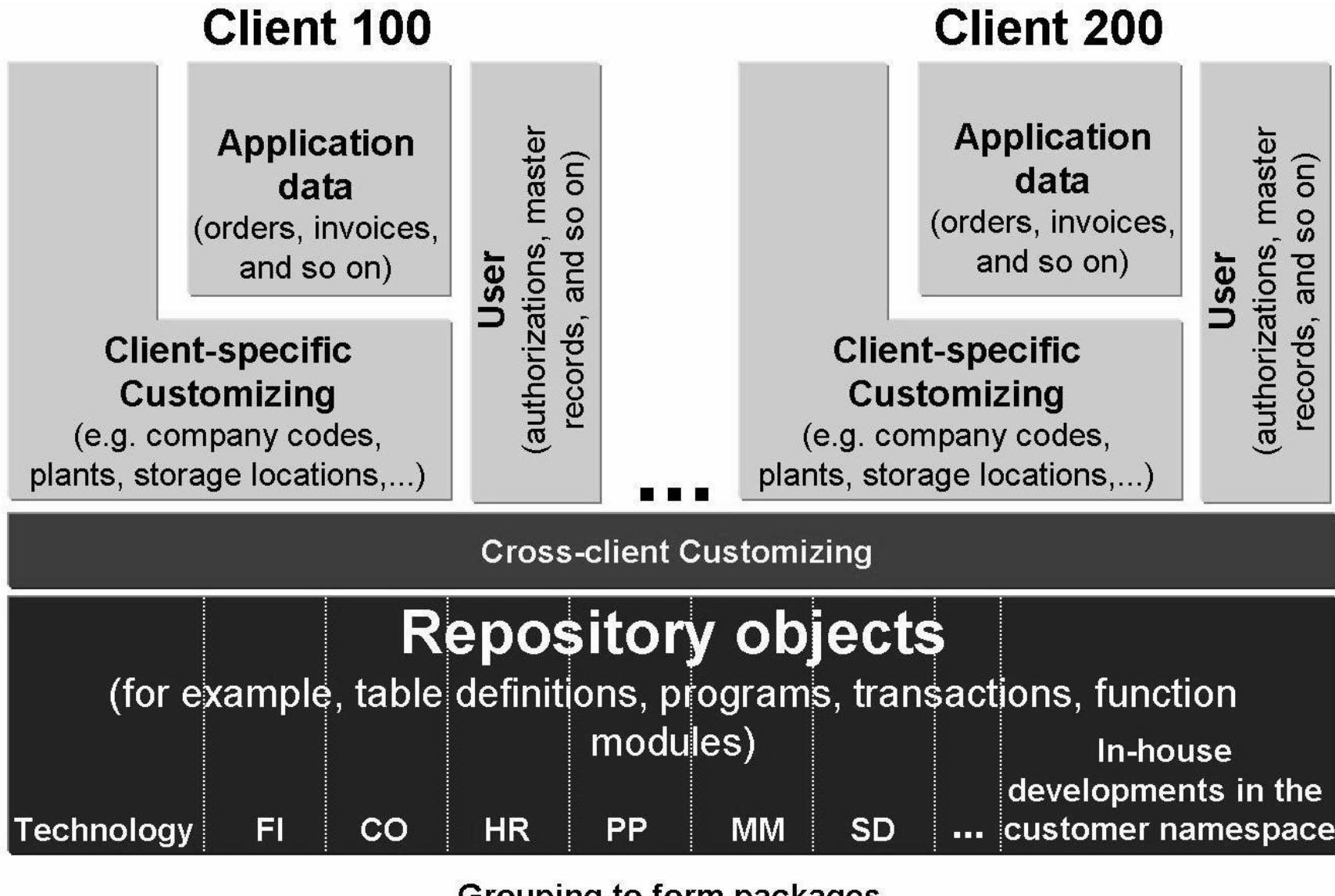
# Data Structures of SAP System

- Terdapat **3 layer** untuk SAP Data Structures
  - Client
  - Customized Data
  - Repository

# Data Structures of SAP System

- **Client**
  - Data unit tertentu dalam sistem SAP (Business, Organization, Data).
  - Tidak dapat mengakses data client yang lain - private
- **Customized Data**
  - Setting/option yang dapat diakses oleh client yang lain (shared setting) seperti struktur organisasi, parameter, default values.
  - Contoh: kalender liburan
- **Repository**
  - Pusat penyimpanan (ABAP Storage), meliputi Dictionary objects (tables, data elements, domain, etc), seluruh program ABAP (programs, menu, screens).
  - Perubahan di repository akan **berdampak** ke seluruh client

# Data Structures of SAP System





# Change Management

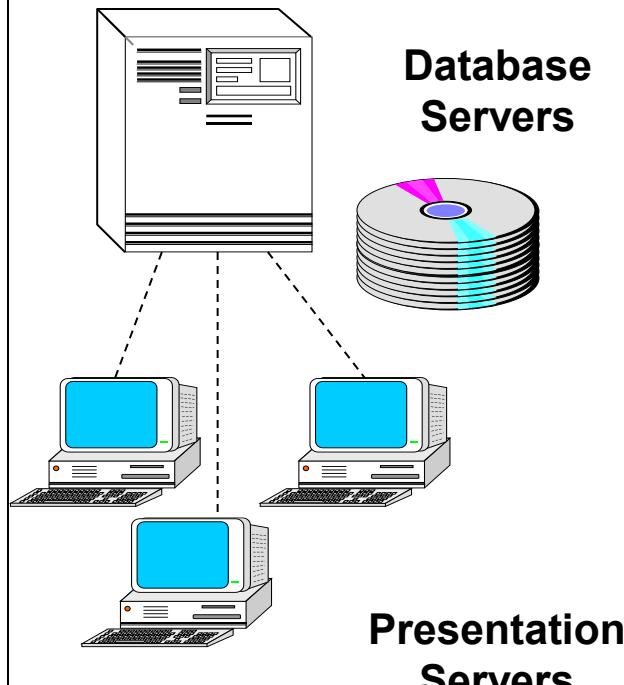
- Setiap waktu tertentu perusahaan melakukan perubahan atau penyesuaian sistem
- Perubahan tadi harus bisa diikuti oleh sistem SAP
- Setiap terjadi perubahan berarti harus mengubah sistem yang sedang berjalan, dengan resiko perubahan membawa kekacauan (inkonsistensi) ☺

# Change Management

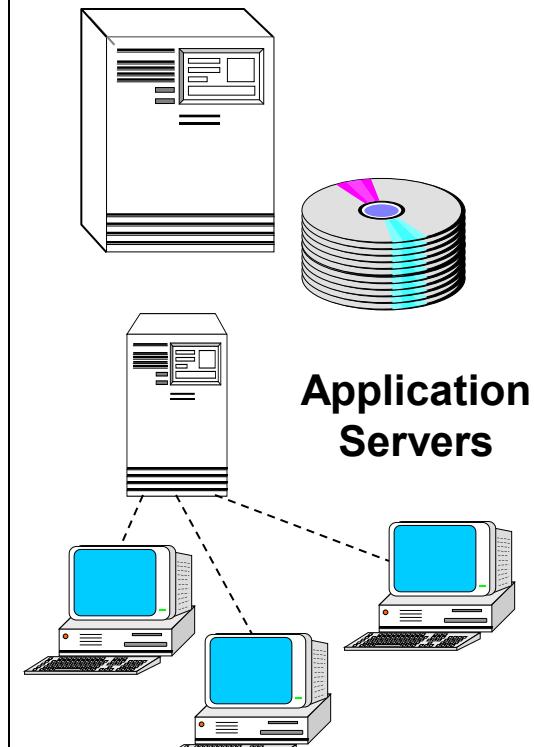
- Untuk menghindari inkonsistensi, SAP merekomendasikan untuk menggunakan **three-system landscape**
- Pemisahan Three-system landscape:
  - Development
  - Quality Assurance
  - Production

# Sample SAP System Landscape

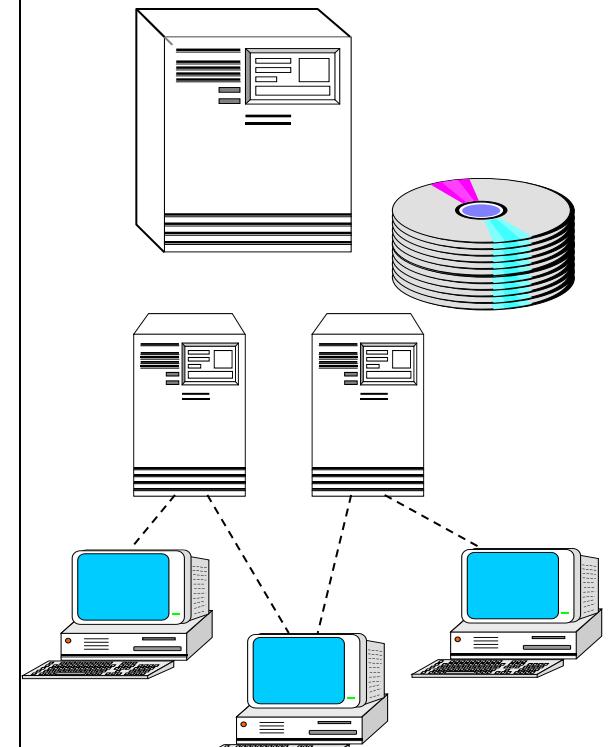
**Development**



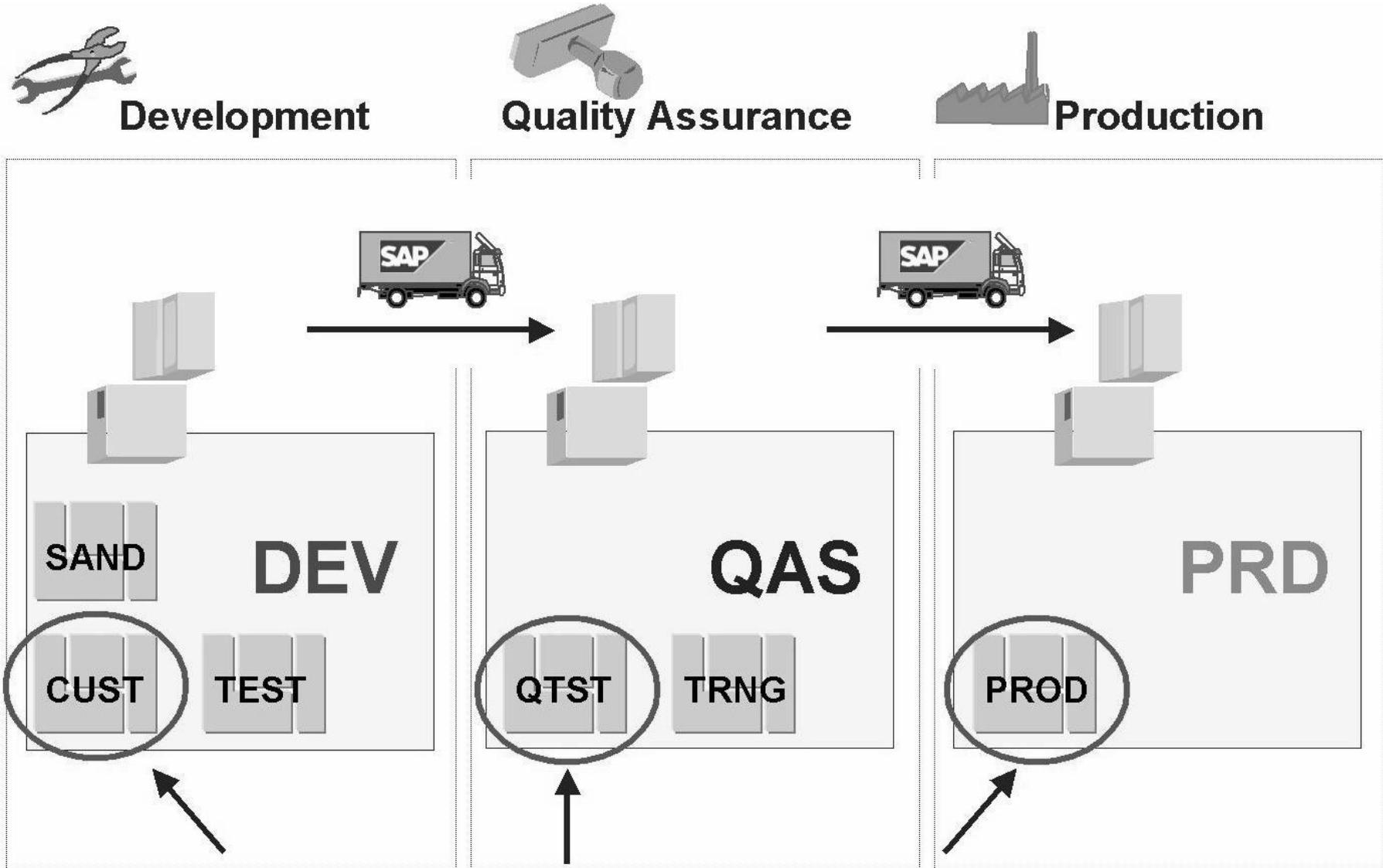
**Testing**



**Production**



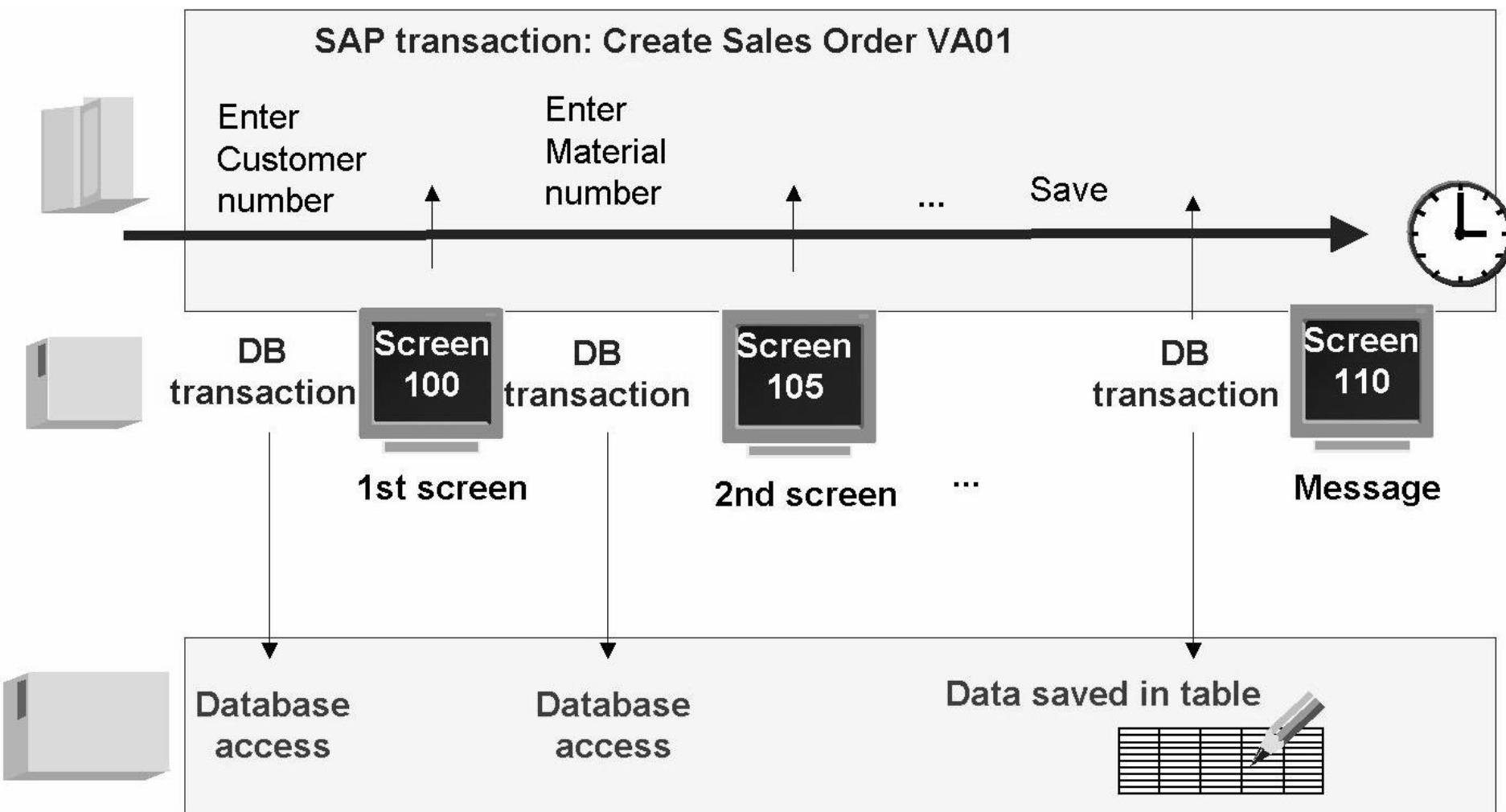
# Change Management



# SAP Transactions

- **Transaction:** sebuah proses terdiri dari beberapa instruksi/bagian yang dikelompokkan berdasarkan fungsinya
- Transaction bersifat **ACID**
  - **Atomic** : berhasil atau tidak berhasil
  - **Consistent** : hasilnya akurat dan konsisten antar proses
  - **Isolated** : antar transaksi tidak bisa saling “melihat”
  - **Durable** : hasil transaksi disimpan

# SAP Transactions

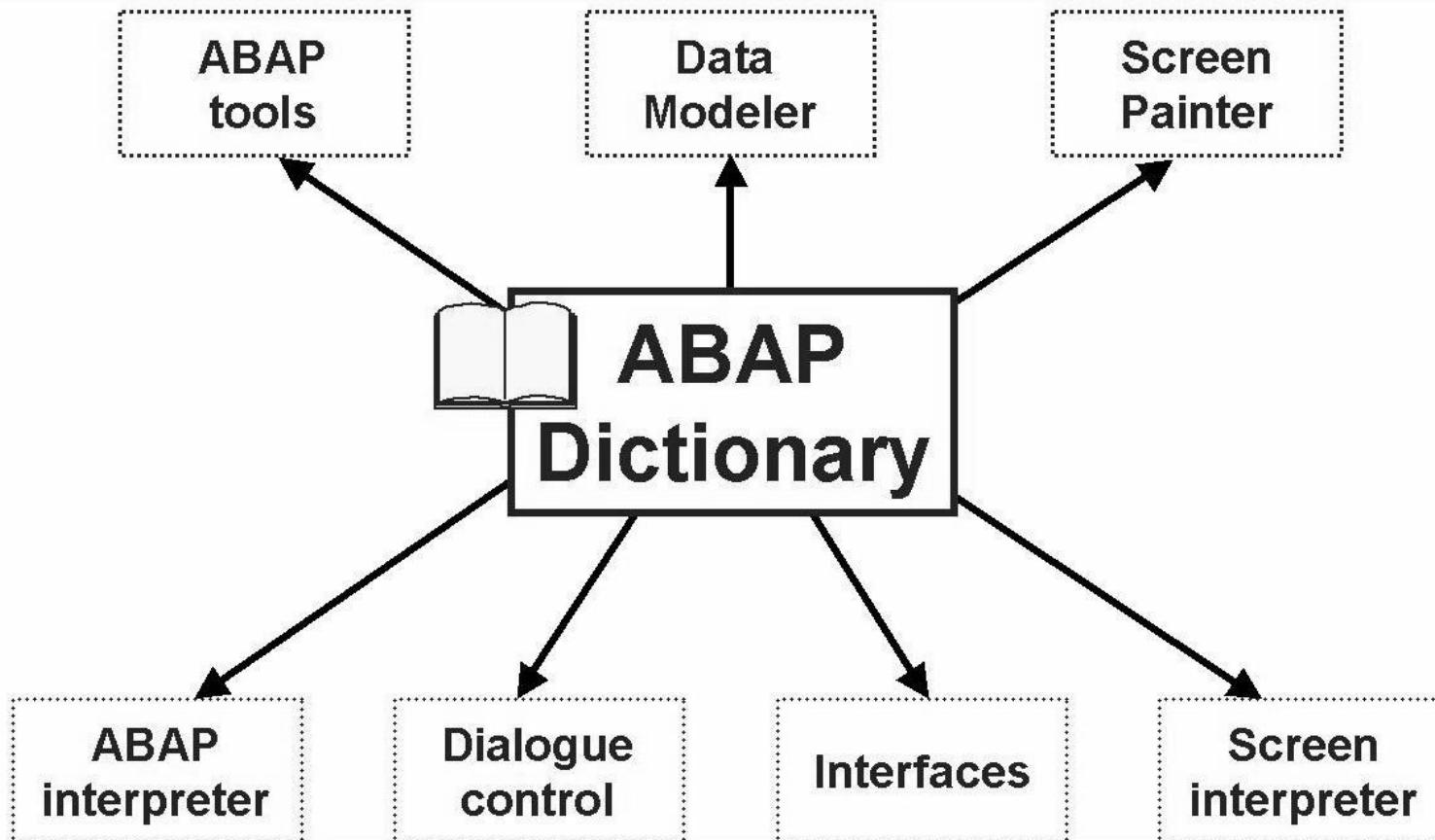


# ABAP

- Advance Business Application Programming Language
- Bahasa pemrograman khusus untuk SAP
- **ABAP Dictionary** : berisi definisi field-field yang ada di sistem SAP
  - Termasuk kode-kode program dan definisi-definisi variabel program

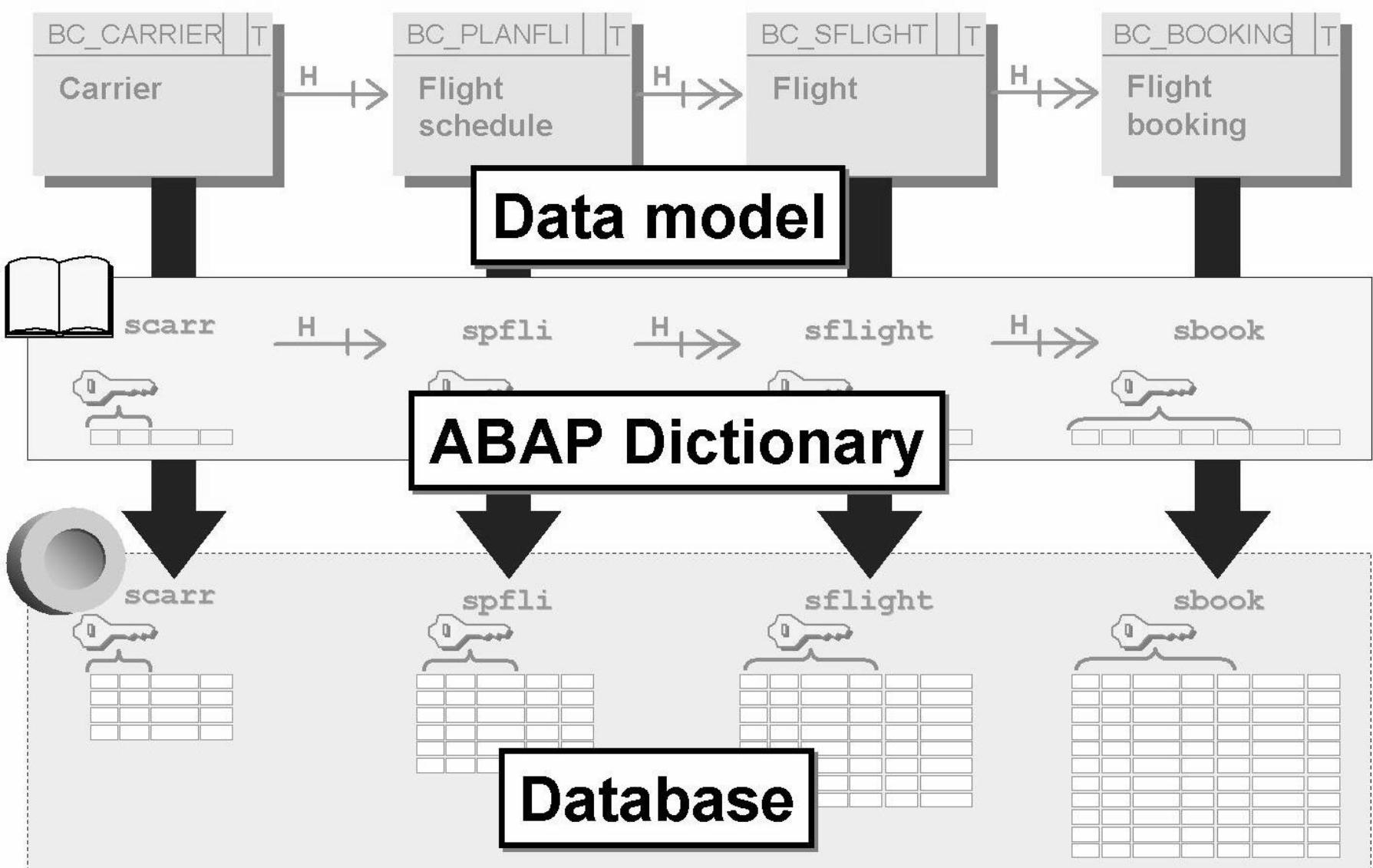
# ABAP

Development environment

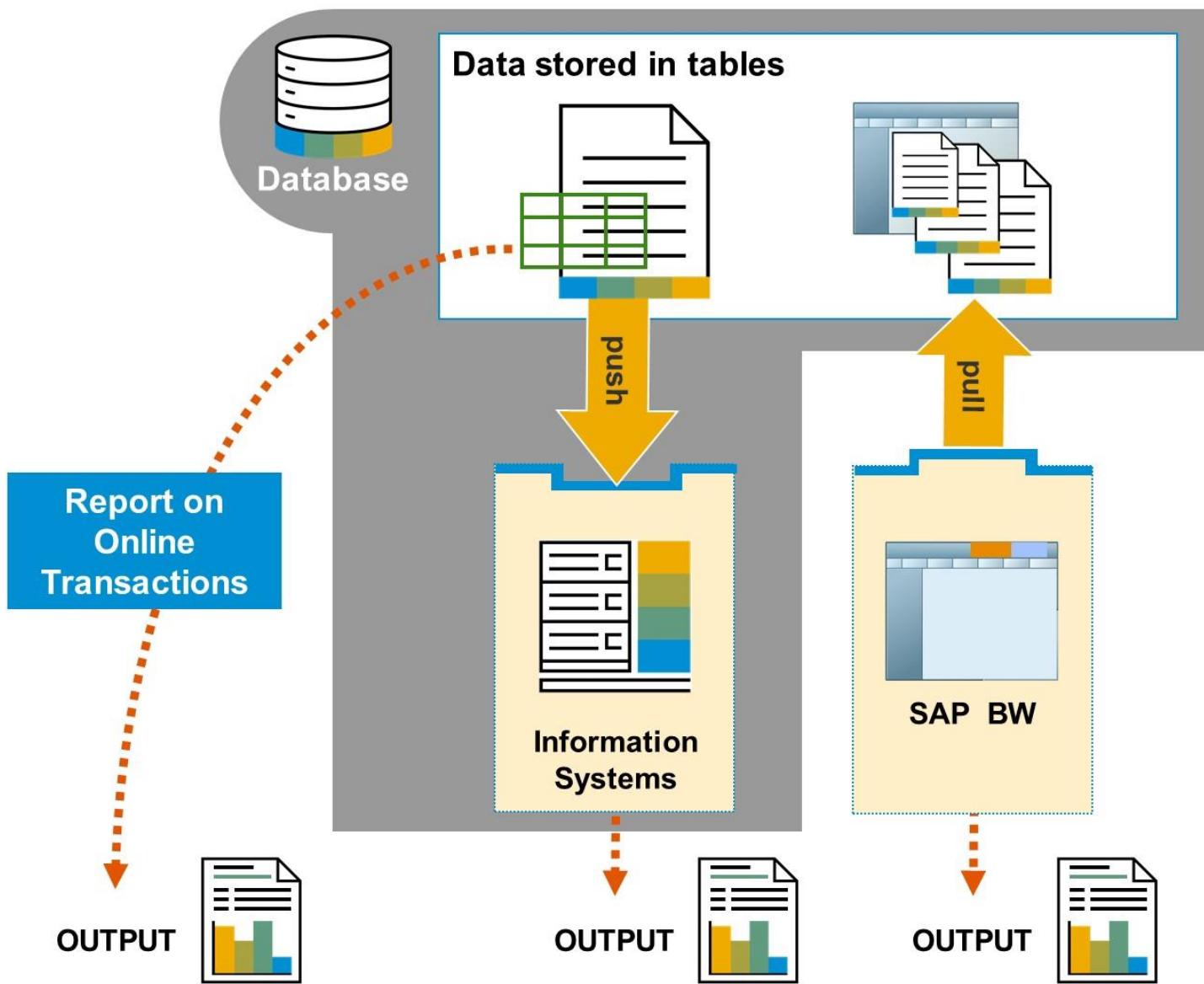


Application runtime environment

# ABAP

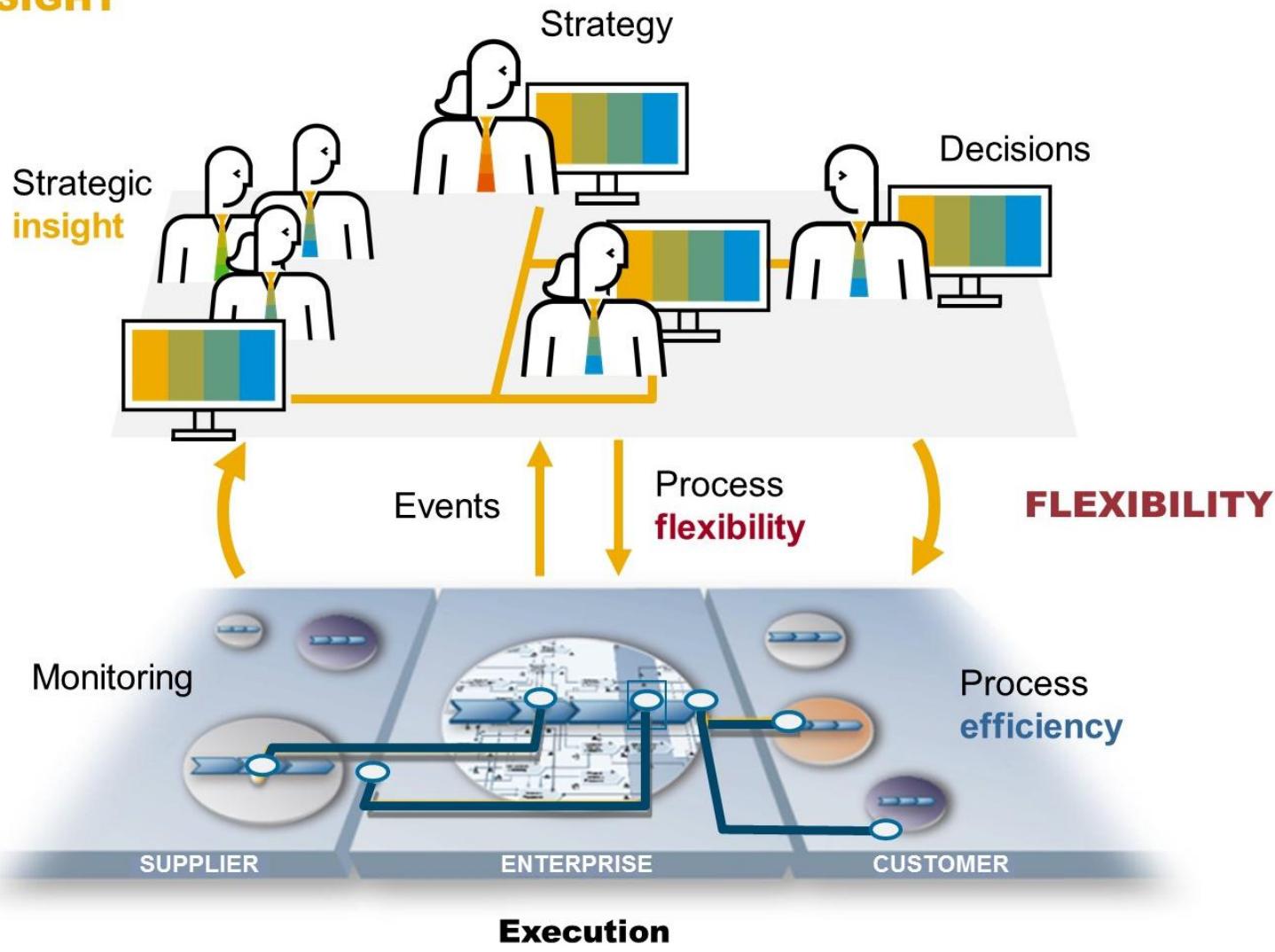


# Reporting and Analytics



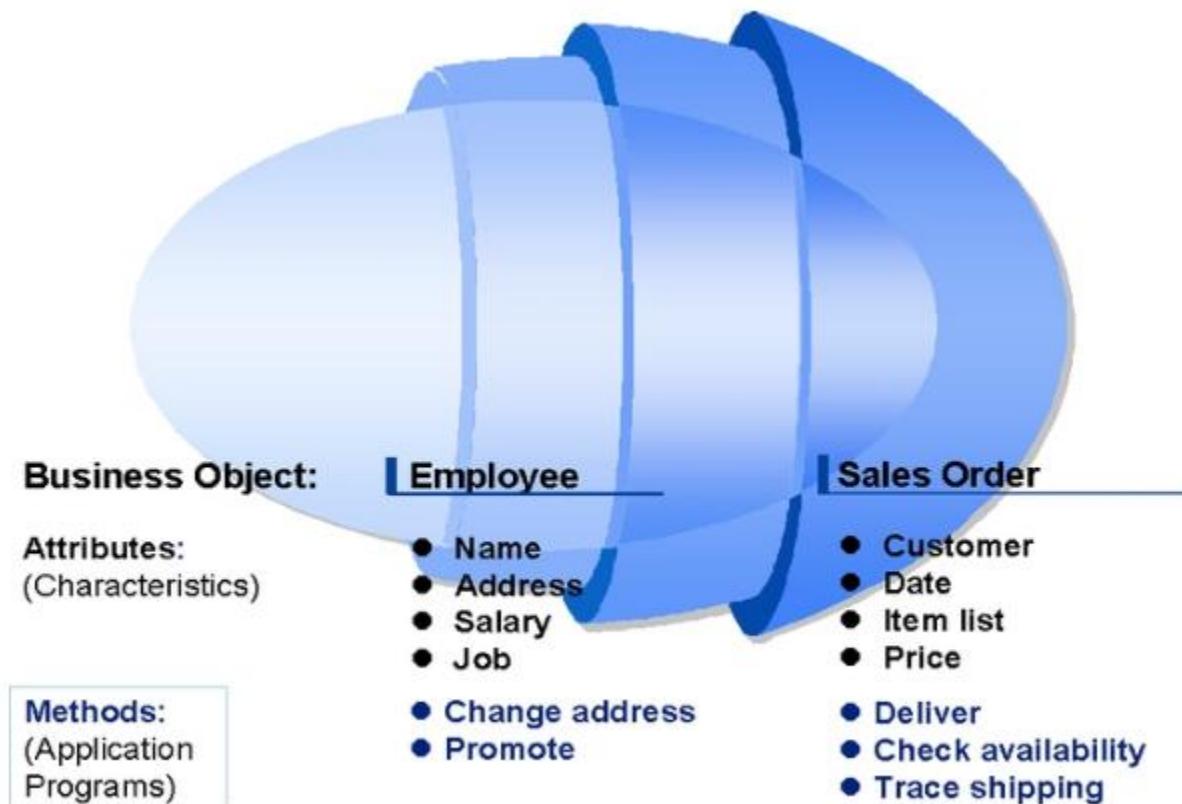
# Business Intelligence

## INSIGHT

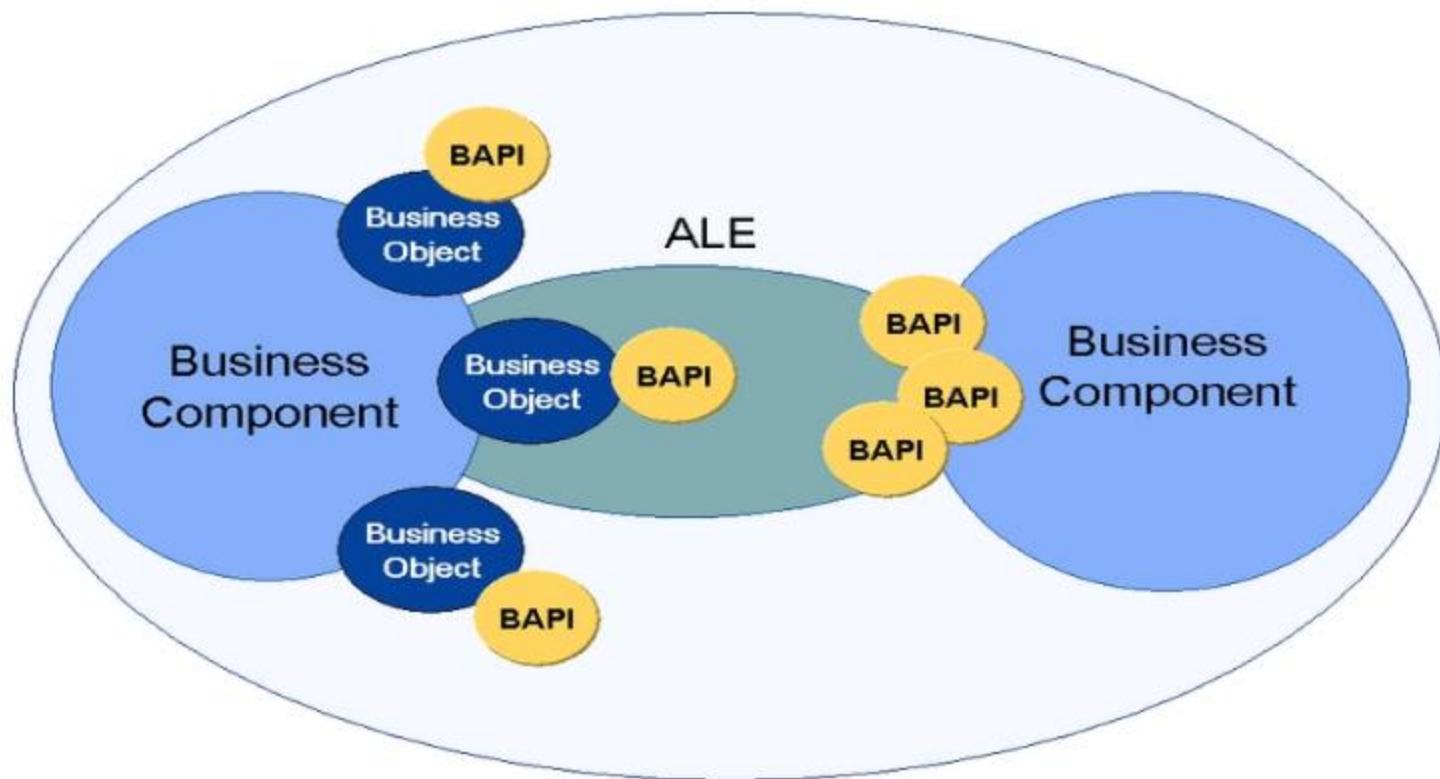


## EFFICIENCY

# SAP Business Objects



# SAP Business Framework



# SAP and SAP BusinessObjects Products



Dashboards,  
Visualization



Web App Designer



SAP BusinessObjects  
Dashboards

Enterprise  
Reporting



Report Designer



Crystal Reports

Ad-Hoc  
Query and  
Reporting



InfoSet Query



Web Intelligence

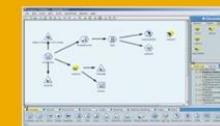
Advanced  
Analysis



BEx Analyzer



SAP BusinessObjects  
Analysis



Predictive

Enterprise Data  
Warehousing  
and BI Platform



SAP BW and SAP BW Accelerator



SAP BusinessObjects Business  
Intelligence Solutions

# Exercise

- Kerjakan Exercise :
  - 7.1 : Locating System Information
  - 7.2 : View A Table's Contents
- Latihan ujian