

SAP01

mySAP Technologies

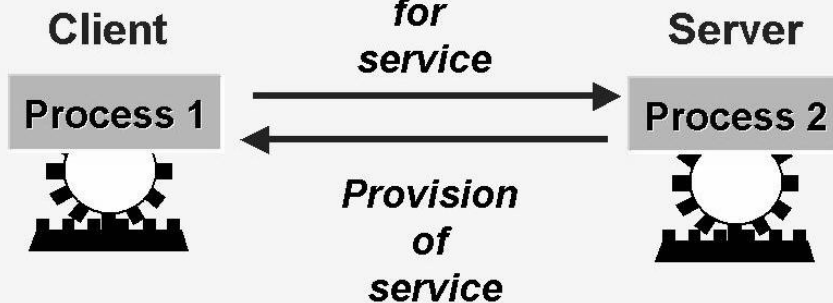
Outline

- 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

Hardware-oriented view



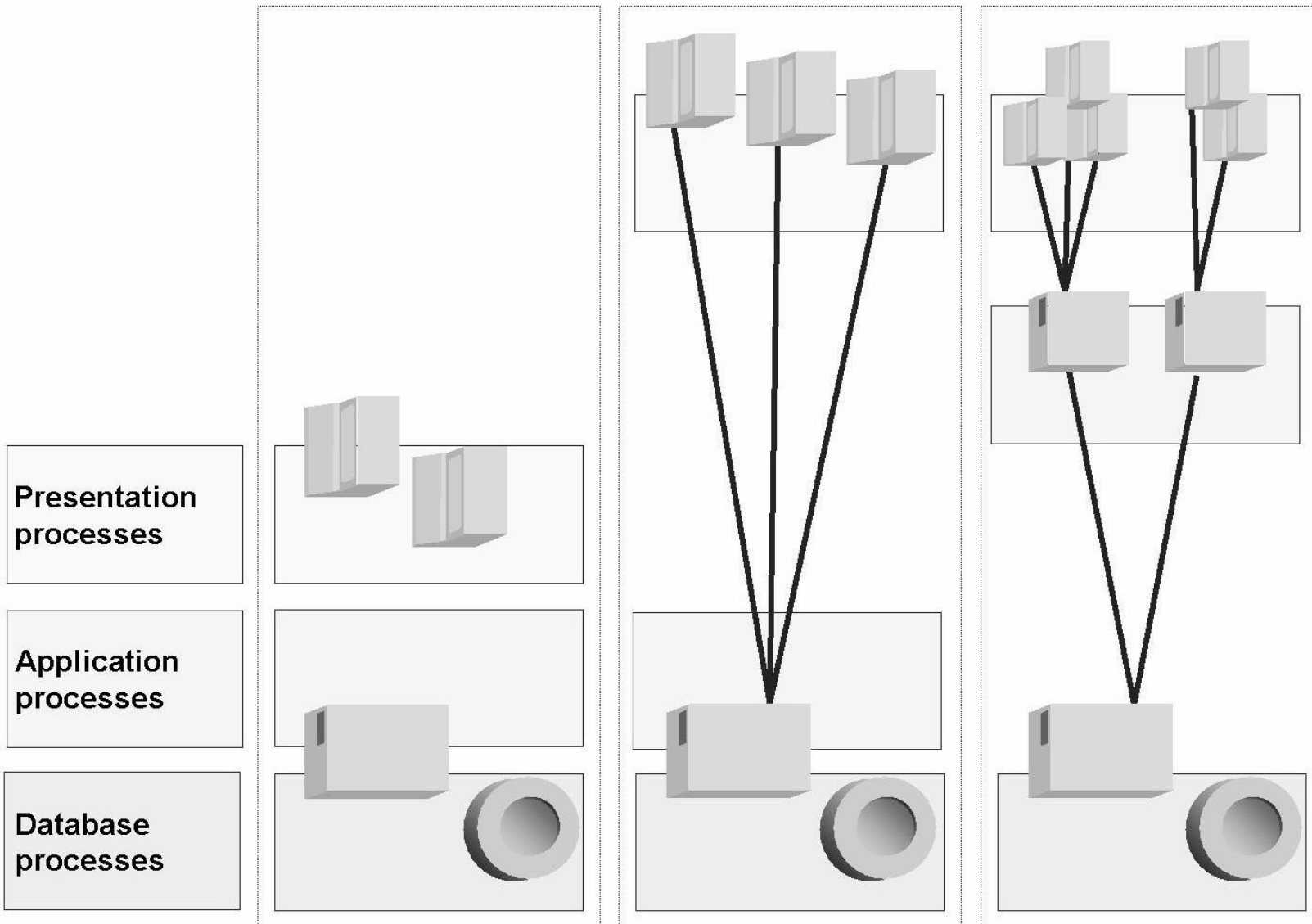
Software-oriented view

Multi-Tier Client – Server

Single-tier

Two-tier

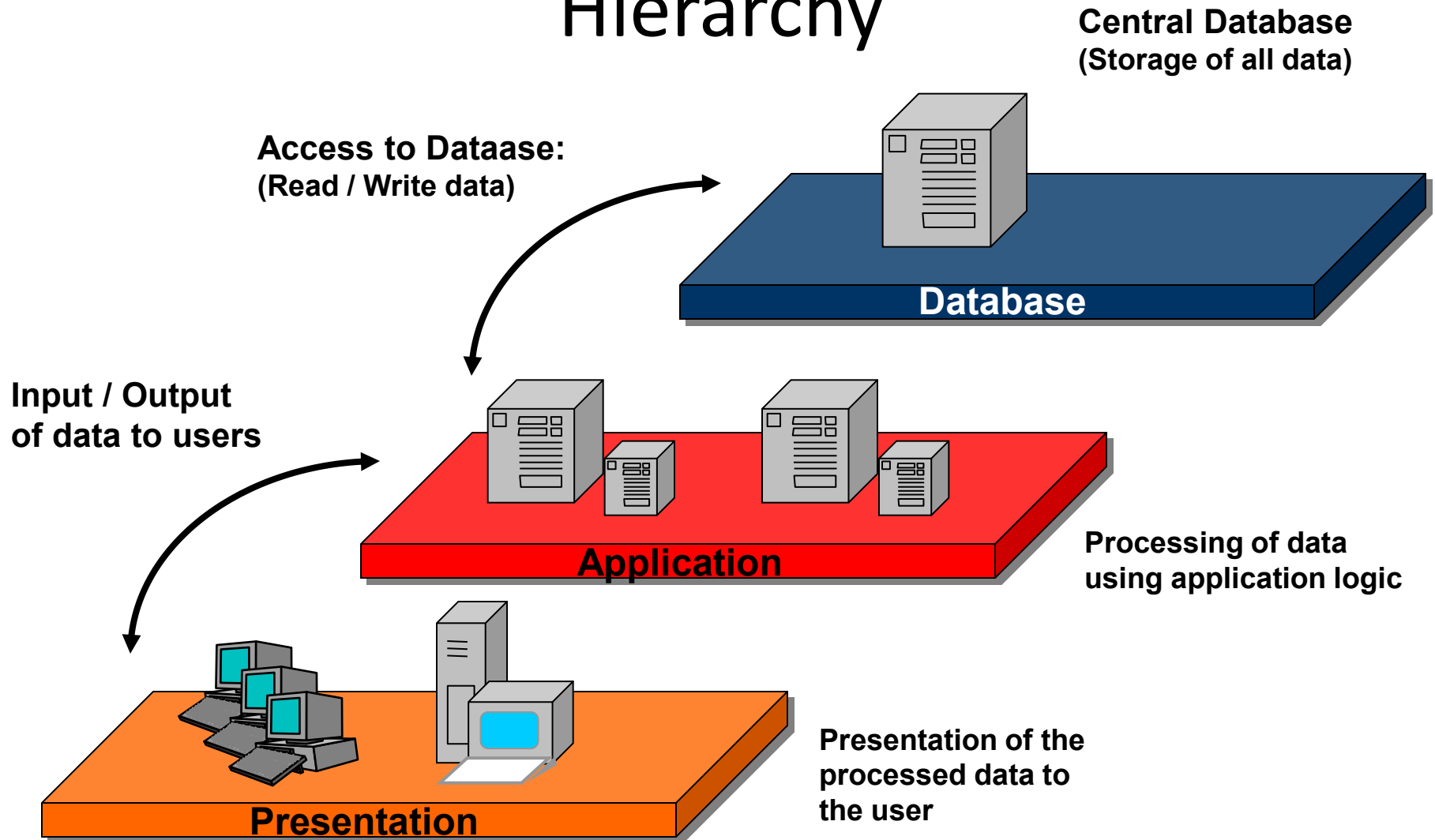
Three-tier



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 **fungsi** tertentu

Basis System: Three-Tier Computer Hierarchy



Client – Server in SAP

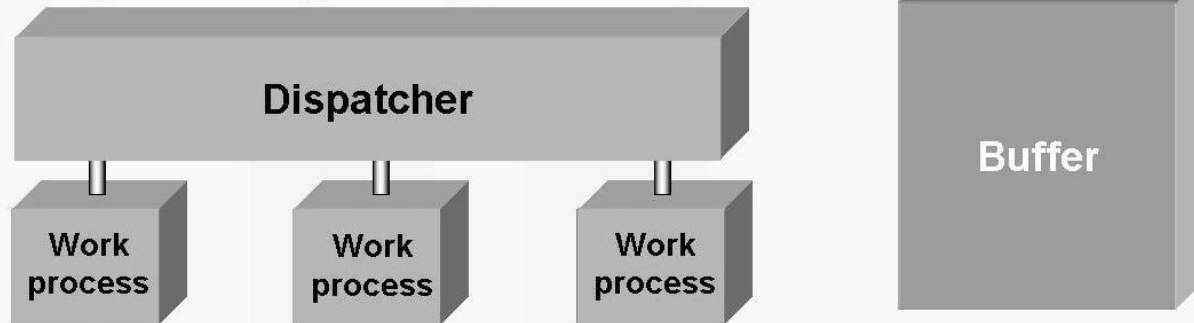
- Terdapat 3 layer:
 - **Presentation:** berhubungan dgn interface yg dilihat client
 - Berguna untuk menerima input & menampilkan output
 - **Application:** berhubungan dgn pemrosesan request dari client
 - Berisi: coding & business process
 - **Database:**
 - Berisi: data dan managementnya

Client – Server in SAP

Presentation layer



Application layer



Database layer

DB processes



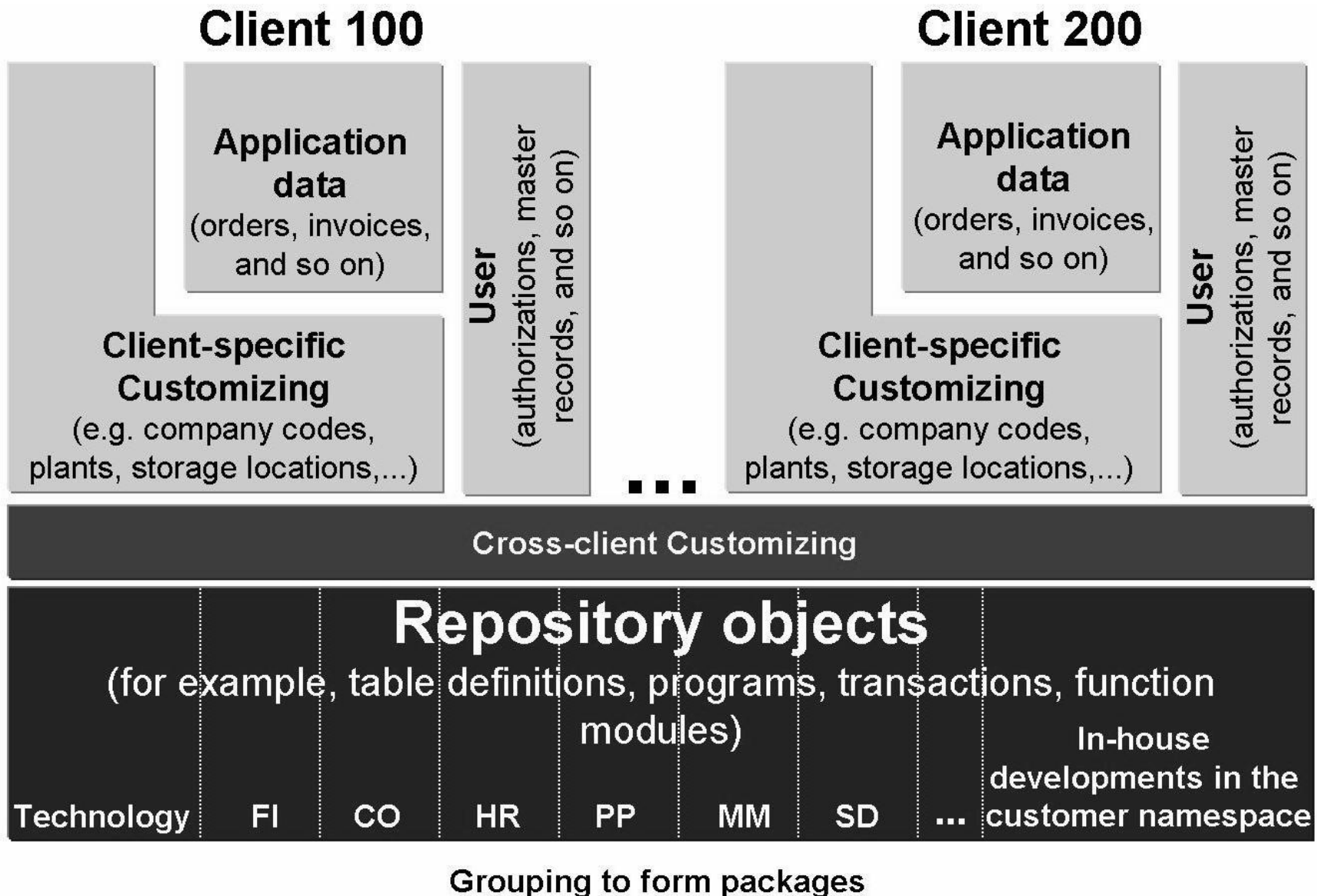
Data Structures of SAP System

- 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

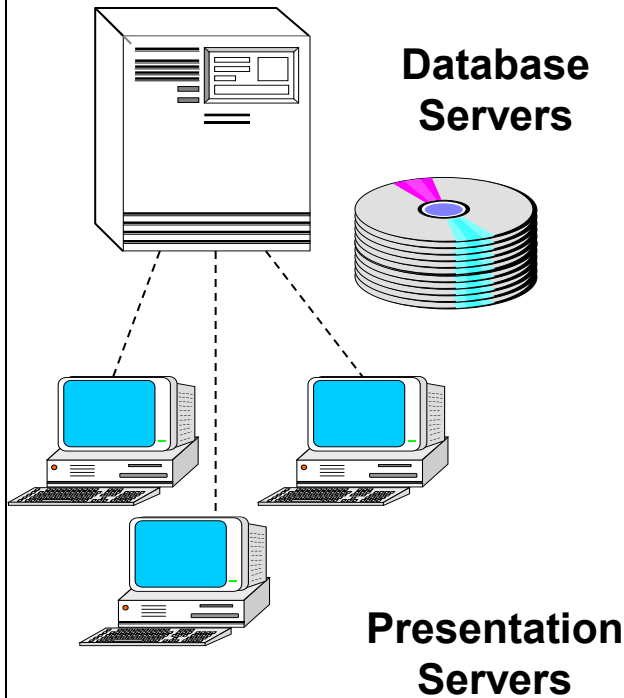
- Setiap waktu tertentu perusahaan melakukan perubahan atau penyesuaian sistem
- Perubahan tadi harus bisa diikuti oleh sistem SAP
- Setiap terjadi perubahan berarti harus mengubah sistem yang sedang berjalan, dengan resiko perubahan membawa kekacauan (inkonsistensi) 😊

Change Management

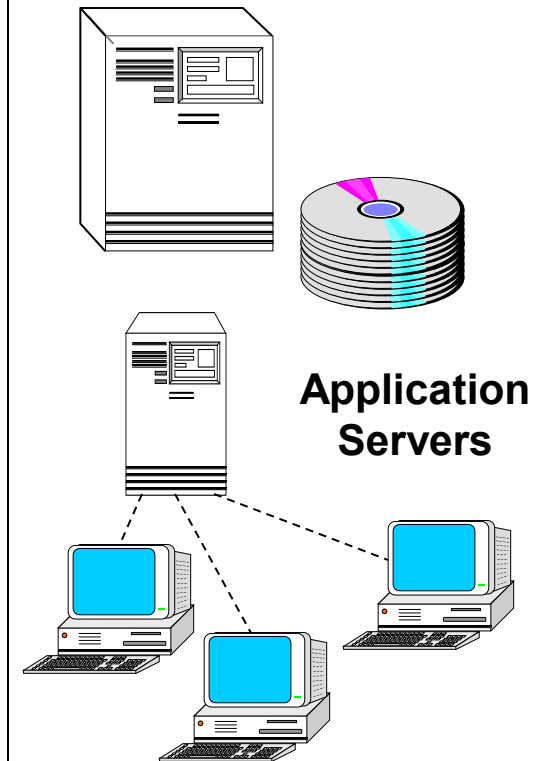
- Untuk menghindari inkonsistensi, SAP merekomendasikan untuk menggunakan **three-system landscape**
- Pemisahan Three-system landscape:
 - Development
 - Quality Assurance
 - Production

Sample SAP System Landscape

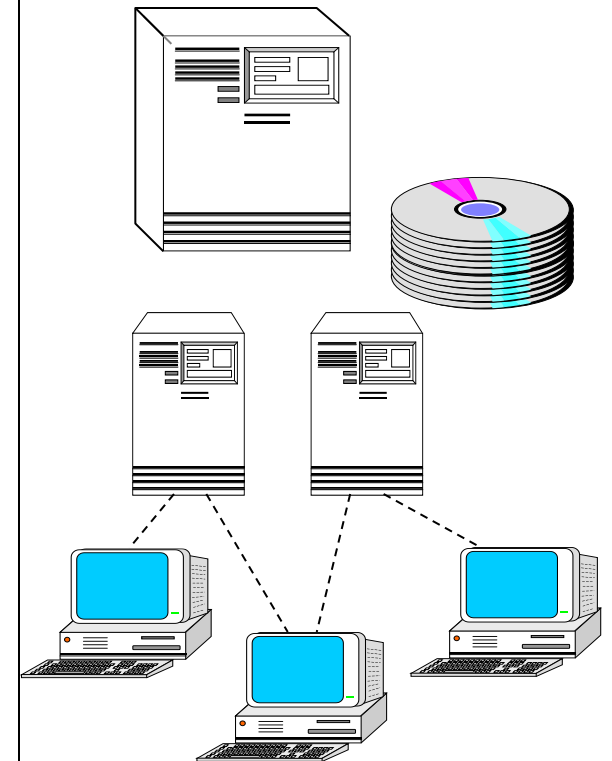
Development



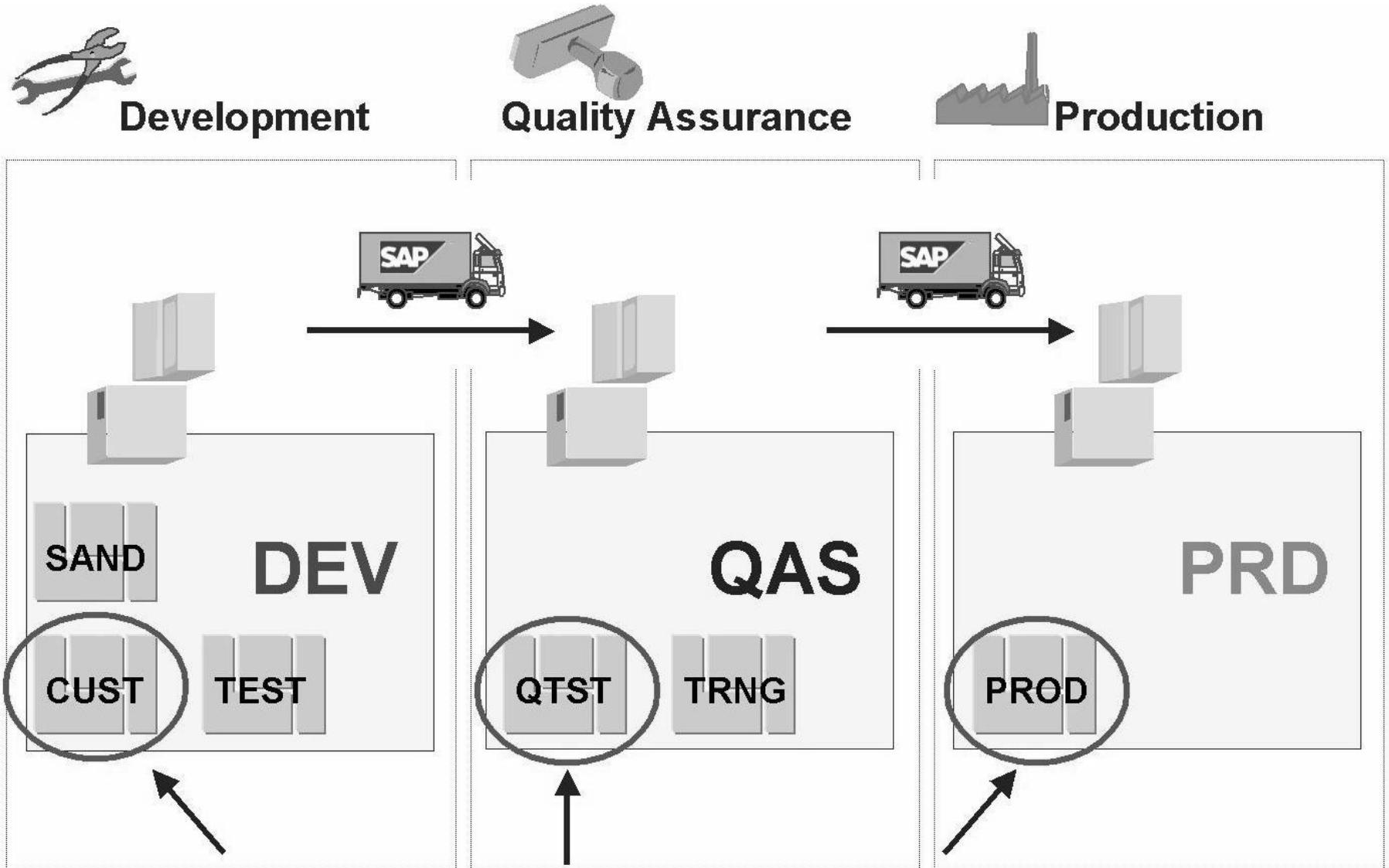
Testing



Production



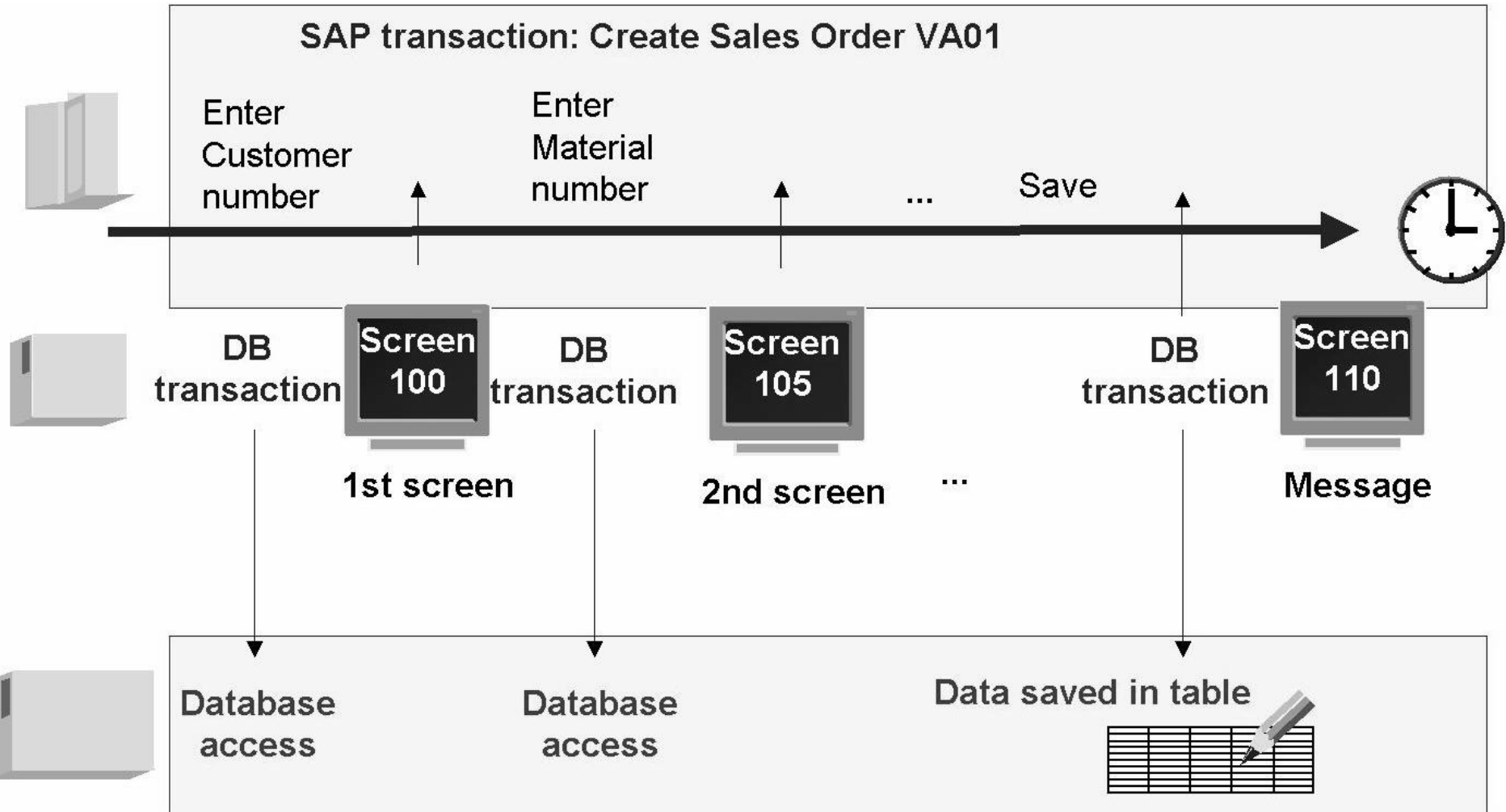
Change Management



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

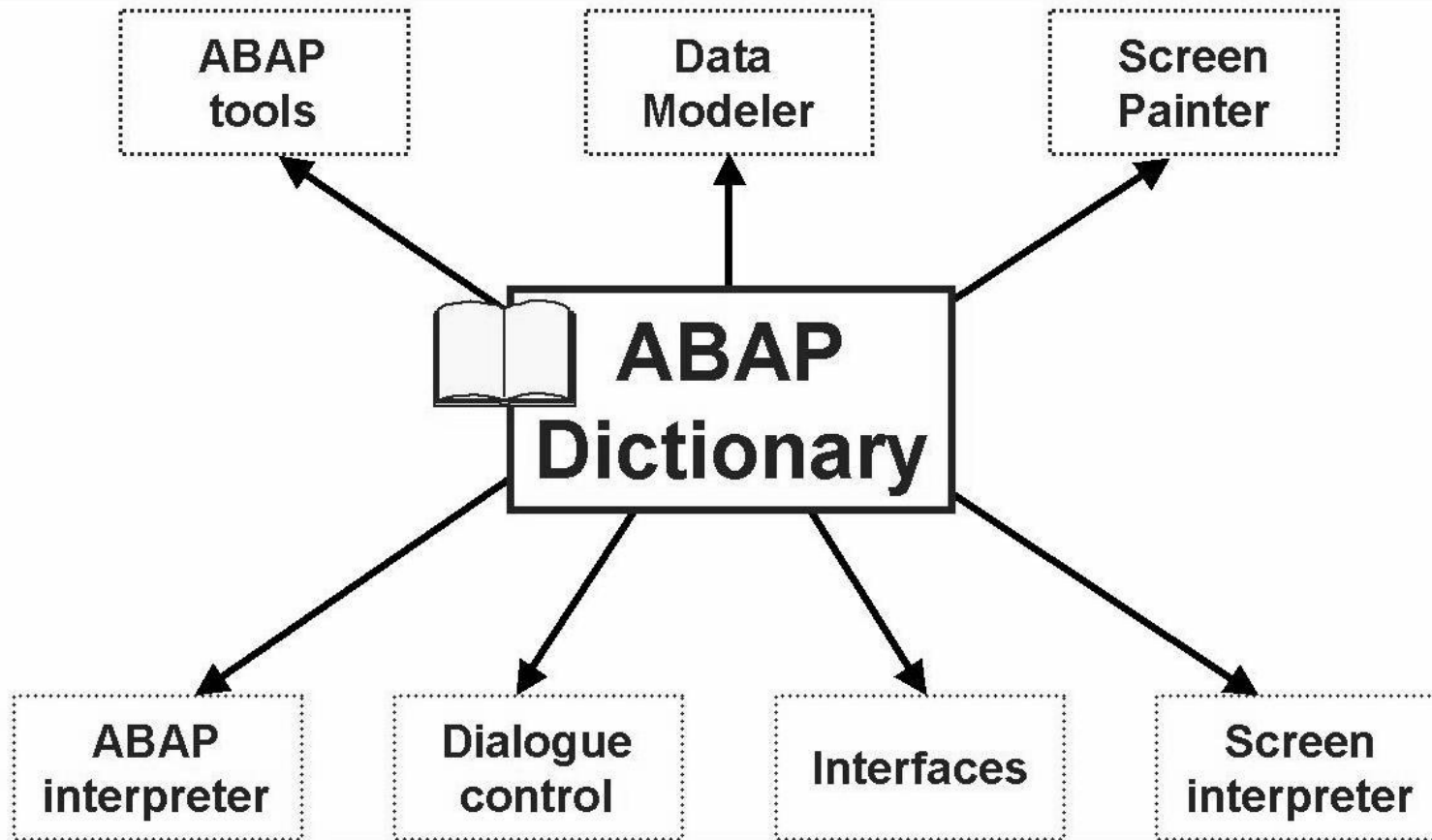


ABAP

- 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

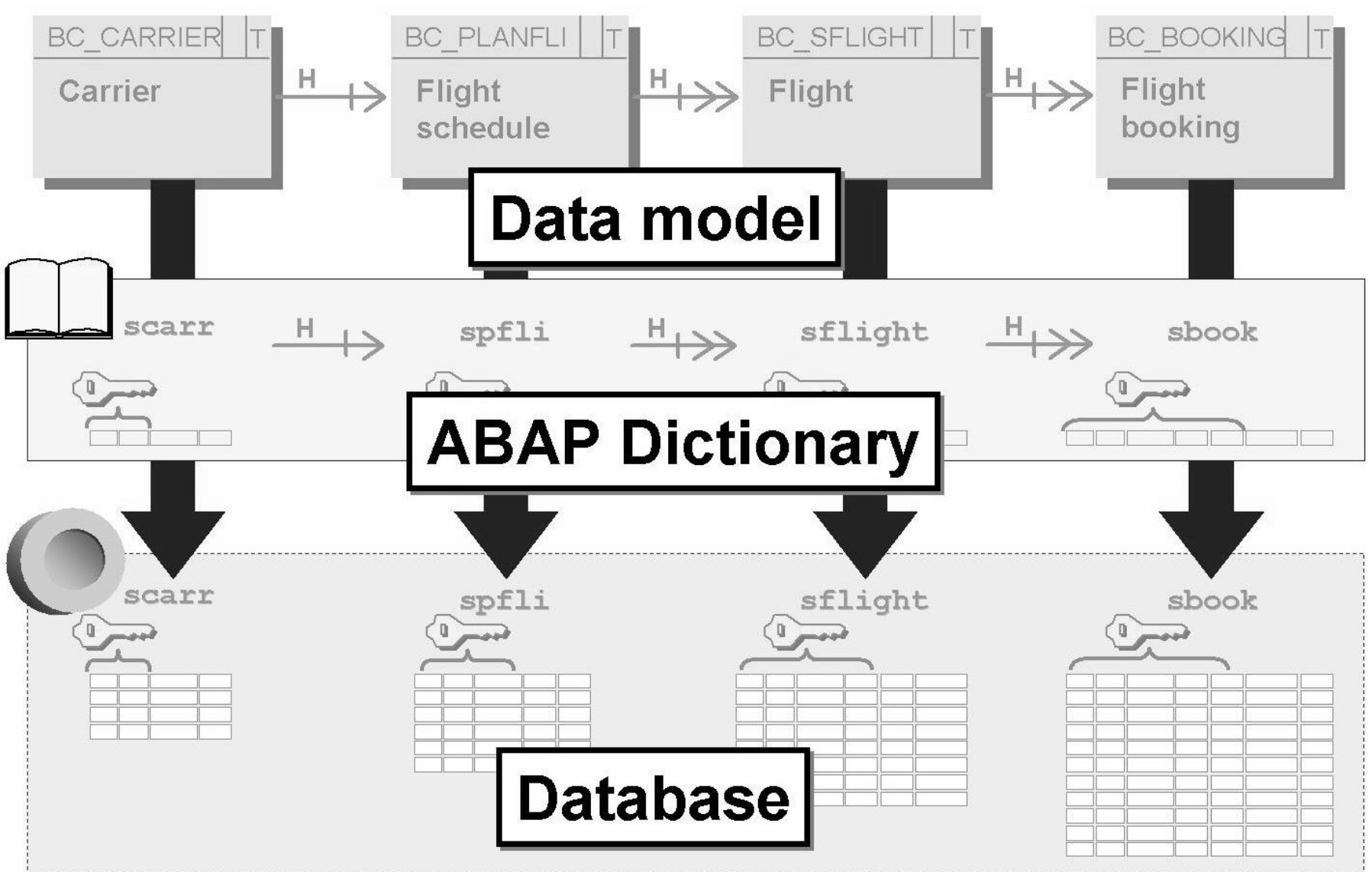
ABAP

Development environment

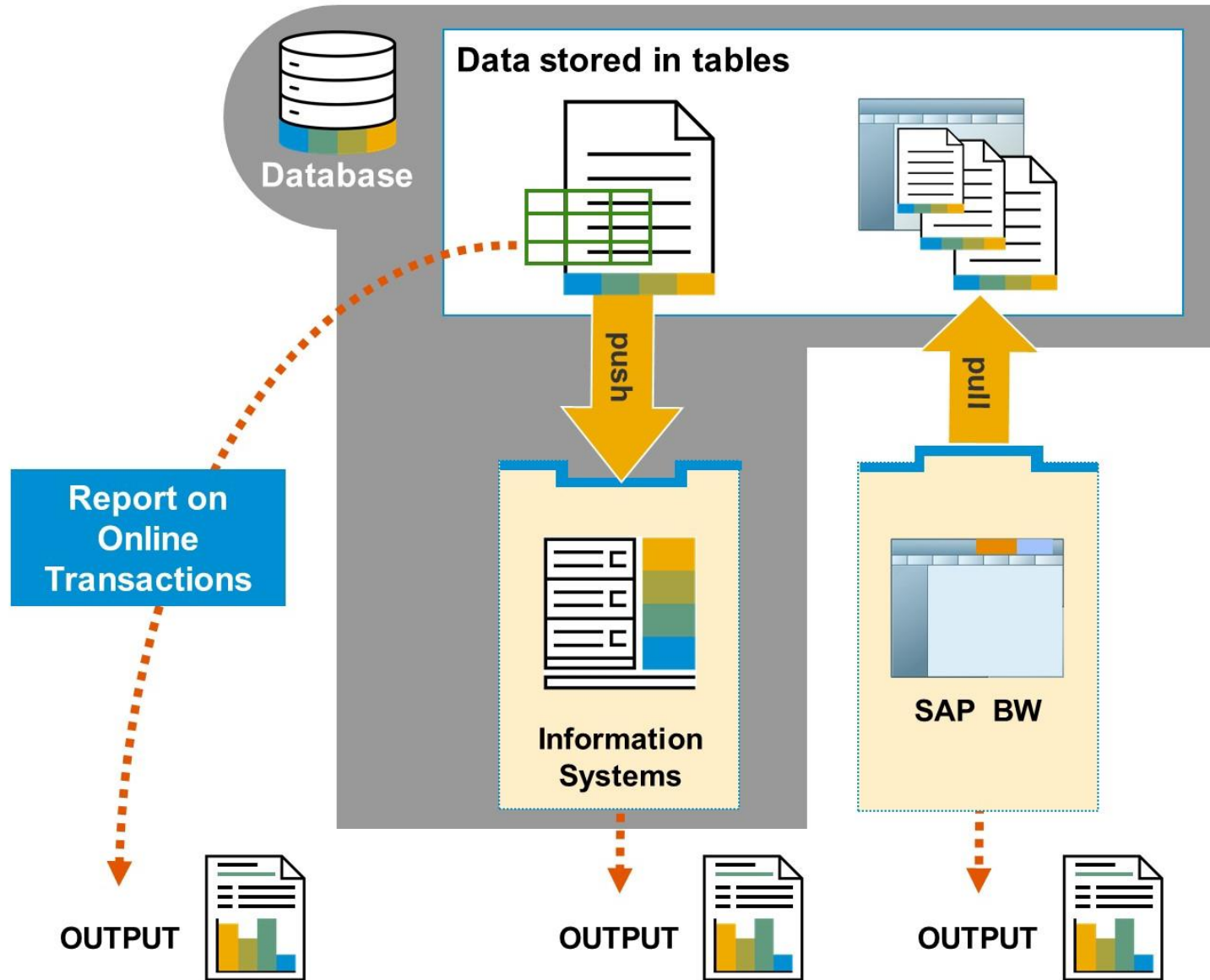


Application runtime environment

ABAP

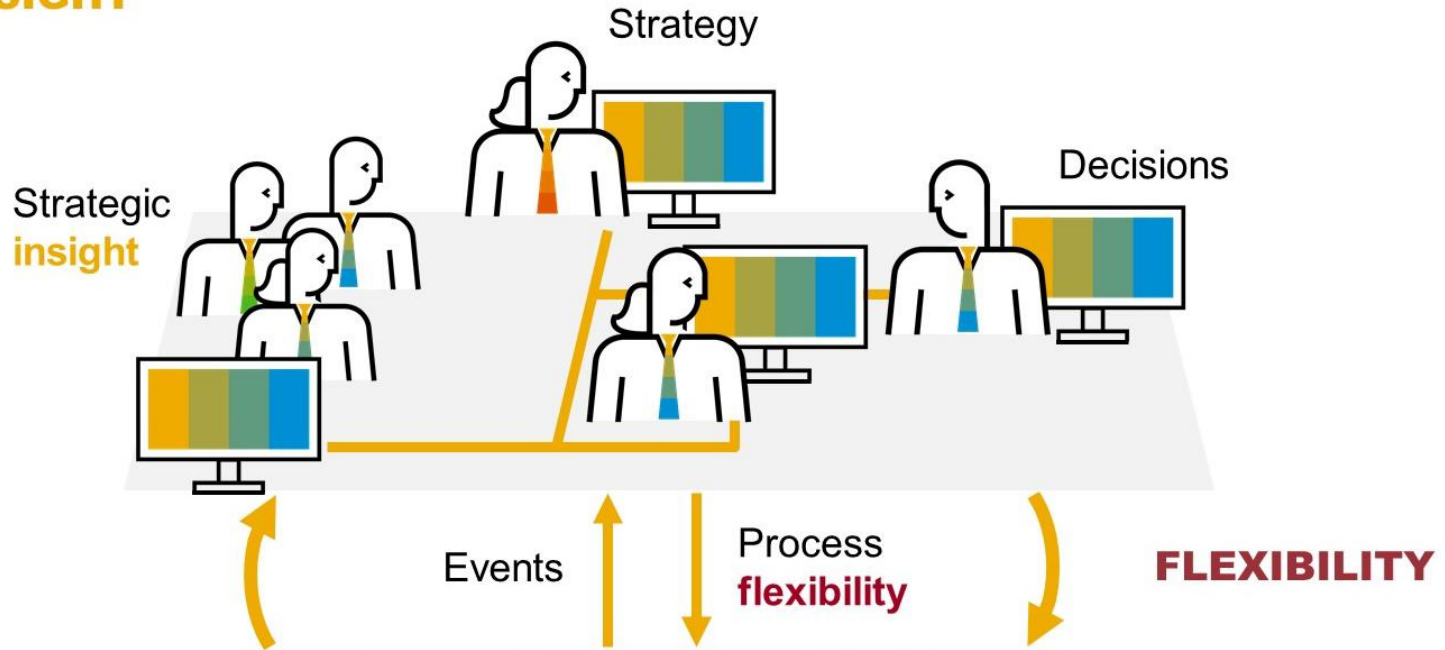


Reporting and Analytics



Business Intelligence

INSIGHT



Monitoring

Process
efficiency

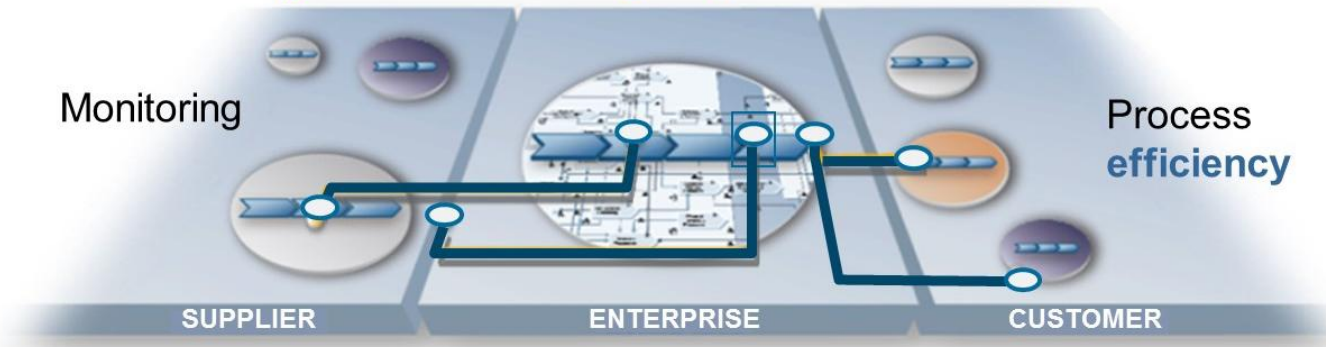
SUPPLIER

ENTERPRISE

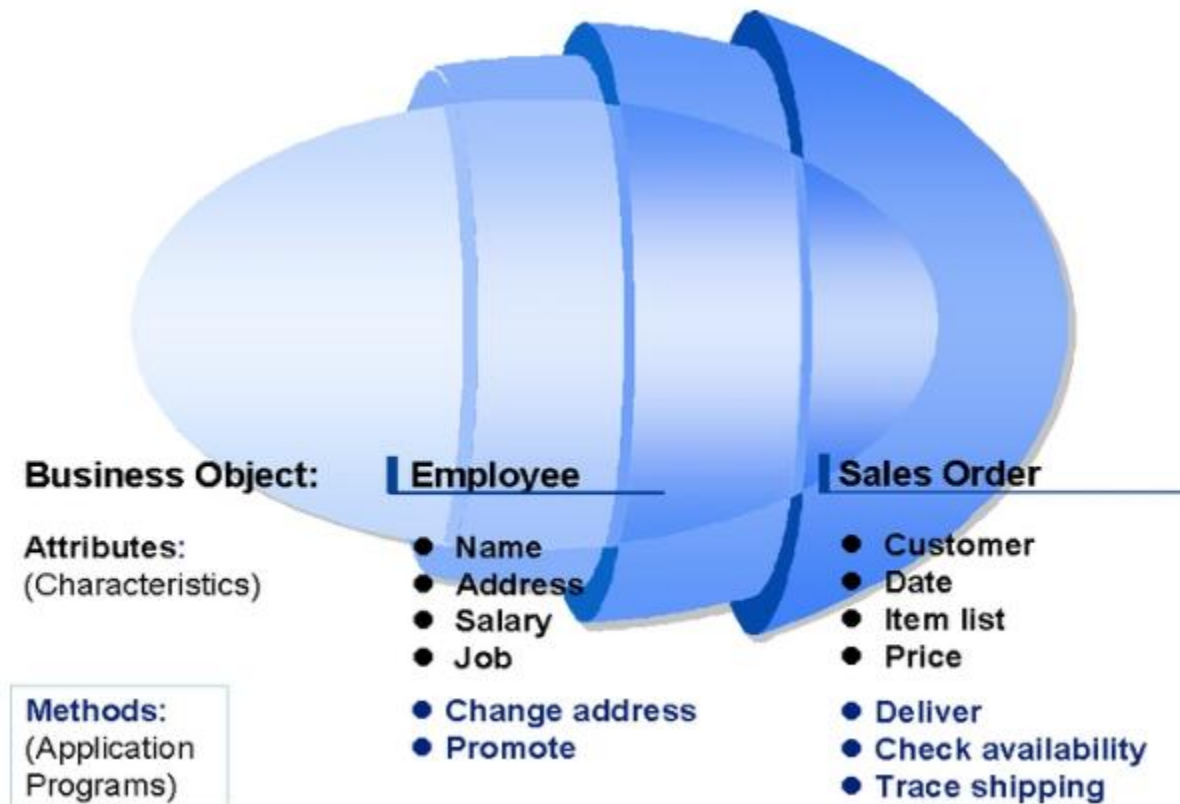
CUSTOMER

Execution

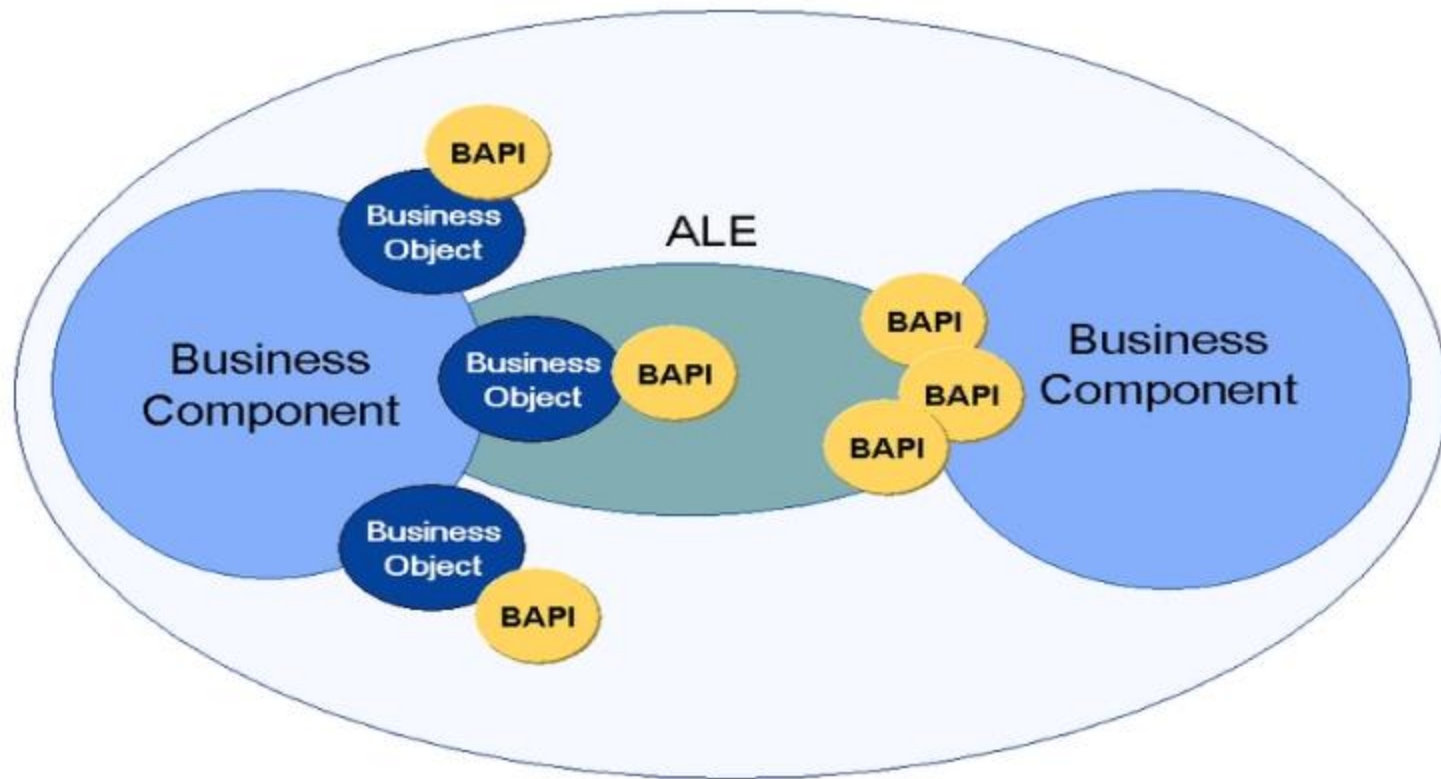
EFFICIENCY



SAP Business Objects



SAP Business Framework



SAP and SAP BusinessObjects Products



Dashboards,
Visualization



Web App Designer



**SAP BusinessObjects
Dashboards**

Enterprise
Reporting



Report Designer

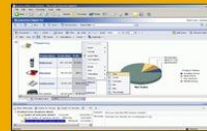


Crystal Reports

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