

Week 3 Unit 3: Core Data Services: What's in It for You?

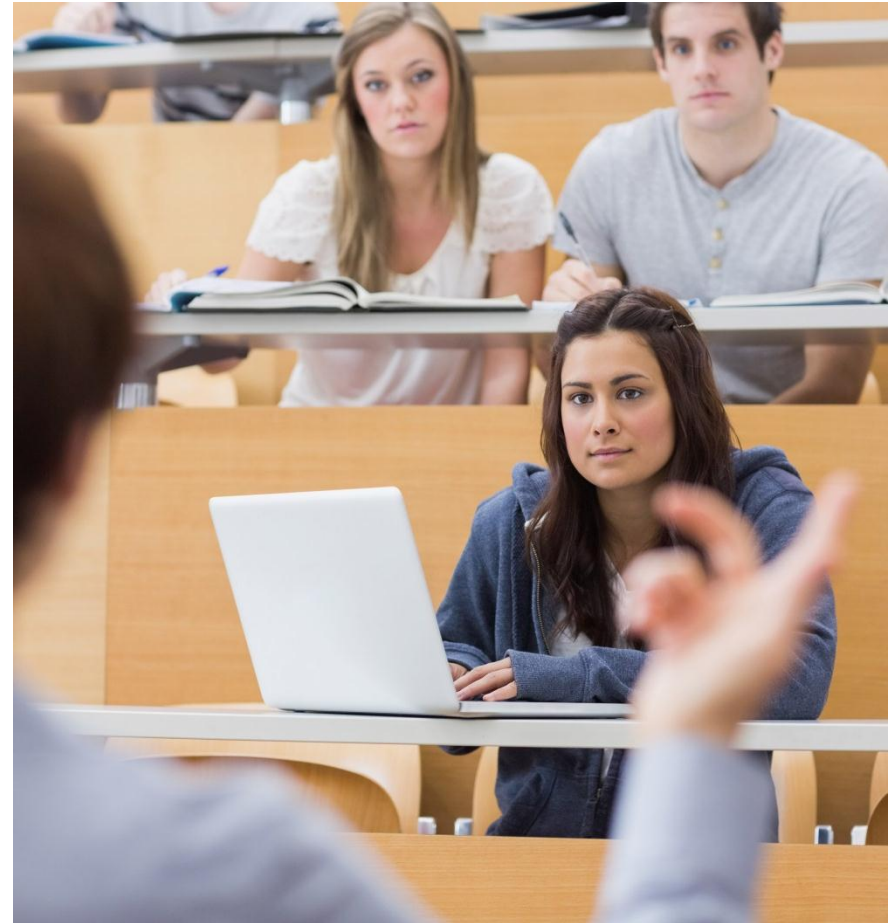


Core Data Services: What's in It for You?

Outline

Content

- Introduction to Core Data Services (CDS)
- Core Data Services in ABAP
- Consumption of CDS views
- CDS vs. Open SQL



Core Data Services: What's in It for You?

Migration to SAP HANA

1. Detect

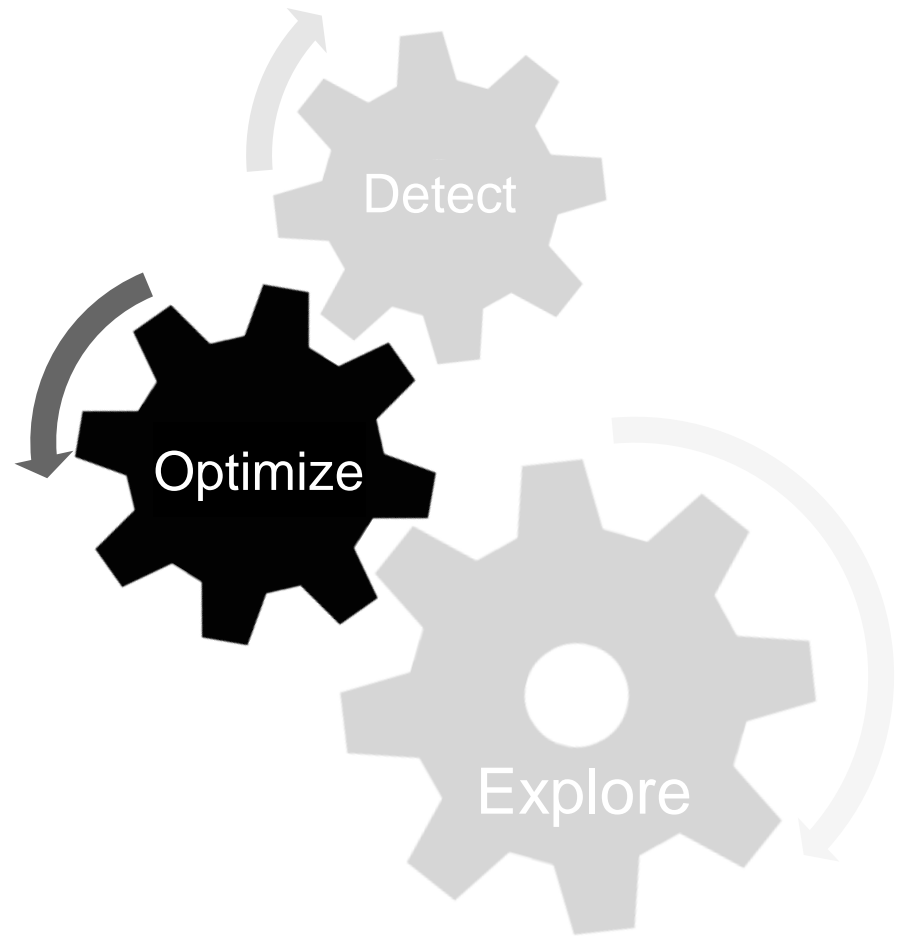
- Functional correctness
- Performance optimization potential

2. Optimize

- Database-oriented programming

3. Explore

- Use SAP HANA-specific features
- Rethink & innovate

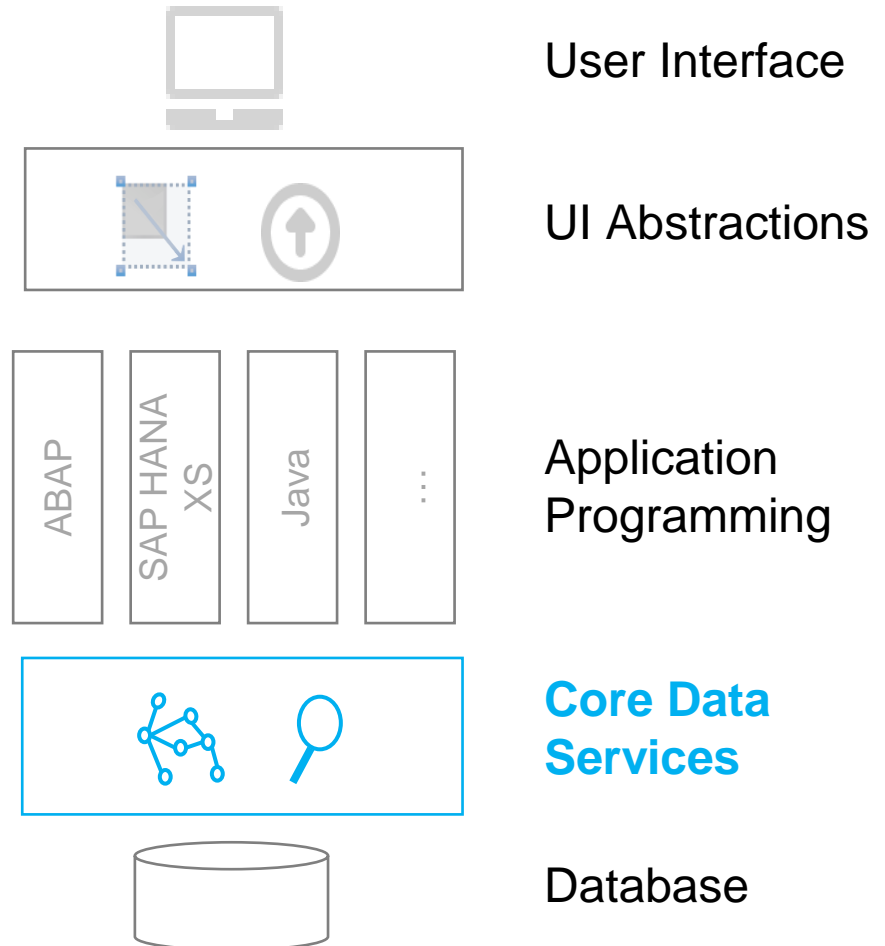


Core Data Services: What's in It for You?

Introduction to Core Data Services (CDS)

Core Data Services

- Next generation of data definition and access for database-centric applications
- Optimized application programming model for all domains (transactional, analytical,...)
- Technically an extension to SQL:
 - Expressions
 - Domain-specific metadata
 - Associations
- CDS includes
 - Data Definition Language (**DDL**)
 - Query language (**QL**)
 - Data Manipulation Language (**DML**)
 - Data control language (**DCL**)



Core Data Services: What's in It for You?

Core Data Services in ABAP

Code-to-Data paradigm

- Supported through extended view functionality

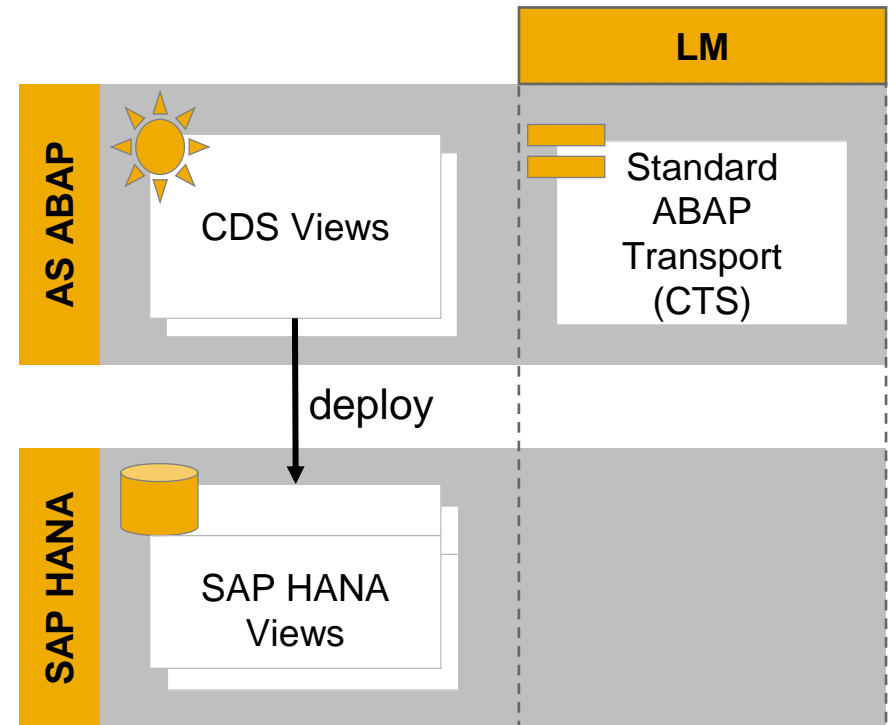
Definition of semantically rich data models in the ABAP Dictionary

- ABAP 'view entities' in DDL source objects (R3TR DDLs)

Fully integrated into the ABAP infrastructure

- Consistent lifecycle management with all other ABAP artifacts

Consumption via Open SQL on view entities

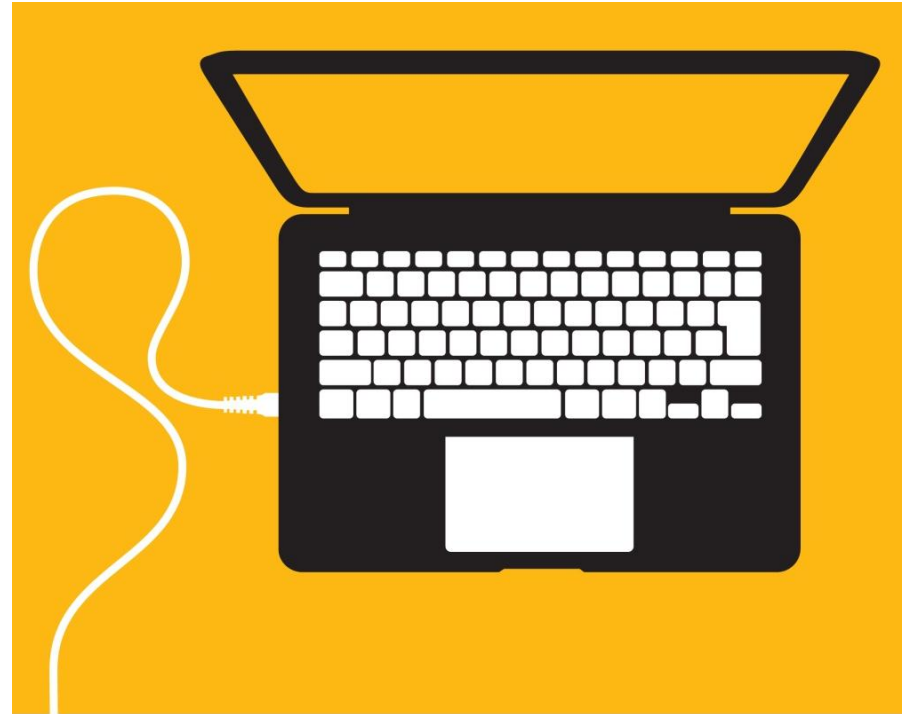


Core Data Services: What's in It for You?

Core Data Services: Demo

ABAP CDS View Demo

- Advanced View Definition in ABAP
- Data Preview
- Open SQL Consumption



Core Data Services: What's in It for You?

Simple CDS View & Open SQL Consumption



Additional
Material

Definition & Consumption of an ABAP CDS View

- Definition in an ABAP DDL Source (R3TR DDLS)
- Definition only possible with ABAP Development Tools in Eclipse (**not** via transaction SE11)
- Consumption via
 - Open SQL
 - Data Preview (context menu in ADT)
 - SAP List Viewer
 - SAP NetWeaver Gateway (OData Model)
 - ...

```
@AbapCatalog.sqlViewName:'ZDDL_S_CDS_00'  
define view zcdsv_simple as  
  select from snwd_so  
{  
  key so_id as order_id,  
  currency_code,  
  gross_amount  
}
```

```
DATA lt_cds TYPE  
  STANDARD TABLE OF zcdsv_simple.  
  
SELECT *  
  FROM zcdsv_simple  
  INTO TABLE @lt_cds.
```

Core Data Services: What's in It for You?

CDS Views vs. Open SQL

~~Competitors?~~
Not at all!

Use “plain” Open SQL if you

- ... only need the query “**once**”, that is, in the coding (which might still be executed several times)
- ... need features only available in Open SQL like `FOR ALL ENTRIES`

Use CDS views if you

- ... have a real **re-use** case (same argument as for “old” dictionary views)
- ... need features currently only available in DDL sources like `UNION`, `UNION ALL`, and so on
- ... want to use features you will learn about in the upcoming units

Core Data Services: What's in It for You?

What's Next?

Week 3 Unit 4

Core Data Services: View Definition





Thank you

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