



SAP Fiori Elements

Webinar, 25.9.2020, 10:00 Uhr

- **Einleitung** (FöB)
- **Fiori History** (Sören)
- **Evolution von OData Modell** (Sören)
- **CAP** (Domi)
- **Fiori Elements** (FöB)
 - Demo 1 – List Report CDS View -> Visual Code Studio
- **IDEs** (Domi)
 - Demo 2 – WebIDE Generierung
- **SAP Fiori Tools** (FöB)
 - Demo 3 – Fiori Tools – Excel Button
- **SAPUI5 Flexibilty** (FöB)
- **Erweiterungsmöglichkeiten** (Domi)



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Themenschwerpunkte

- Konzeption & Management von Entwicklungsprojekten
- SAP Architektur moderner Anwendungen
- SAP Change Management and S/4HANA
- SAP CDS, oData und Cloud



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Themenschwerpunkte

- Konzeption & Management von Entwicklungsprojekten
- Qualitymanagement & Performanceoptimierung
- Clean Code
- S/4HANA Custom Development
- SAP Champion 



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Themenschwerpunkte

- Konzeption & Management von Entwicklungsprojekten
- Qualitymanagement & Performanceoptimierung
- ABAP Units
- SAP Fiori, SAP UI5

MUNICH & VIENNA

SAP Online Track 2020



- **SAP Online Track Munich & Vienna**

- 2 Termine

- Donnerstag, 22. Oktober 17:30 – 21:30
 - Donnerstag, 29. Oktober 14:00 – 18:00

<https://wiki.scn.sap.com/wiki/display/events/SAP+Online+Track+Munich+and+Vienna+2020>

Twitter Hashtag: [#sofMUCVIE](#) und [#SAPOnlineTrackMUCVIE](#)

History

UI5, Fiori

2009 – SAP UI5 startet als „Project Phoenix“

2011 – SAP UI5 @TechEd

2013 – SAP Fiori (als Produkt – mit 25 Apps)

- Basiert auf SAP UI5
- Fiori Launchpage (Vorgänger des Launchpads)
- Damals kosteten die OData-Calls in SAP Gateway noch Geld!

2014 – Fiori Launchpad

2015 – Fiori UX Guidelines

2016 – Fiori Harmonization and SAP Fiori 2.0 with SAP Belize

- Beginn Partnerschaft Apple
- SAP Fiori for iOS

2017 – SAP Fiori Apps „für jedermann“

- Bis dahin konnten Kunden nur „Fiori-like“ Apps bauen

2018 – SAP Web Components

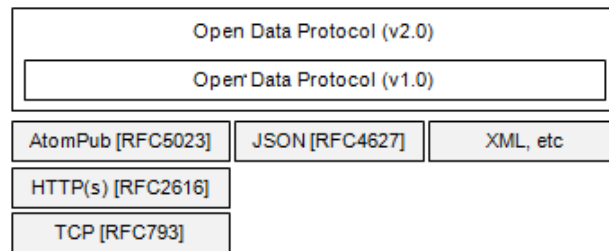
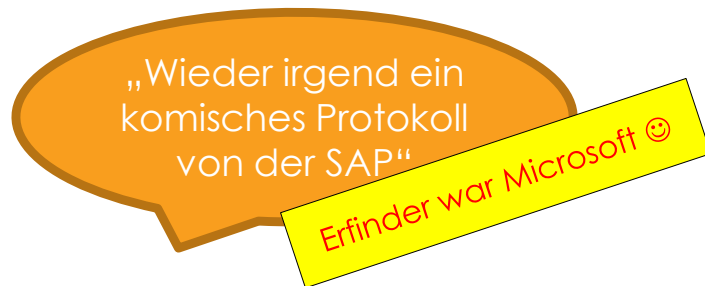
2019 – SAP Fiori 3.0

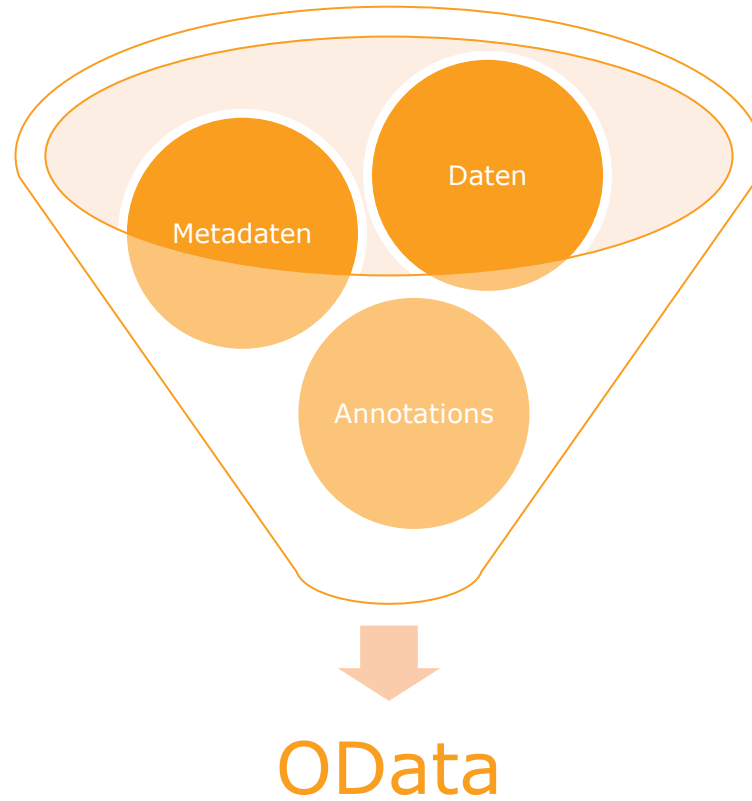
OData

Was ist OData?



- HTTP-basiertes Protokoll
- Baut auf ODBC und JDBC auf
- Beschrieben durch Metadaten-Dokument
 - EDM: Entity Data Model





OData & ABAP

Freestyle

ABAP 7.0

ABAP 7.4

ABAP 7.5

ABAP Platform 1808 (7.53)

SEGW

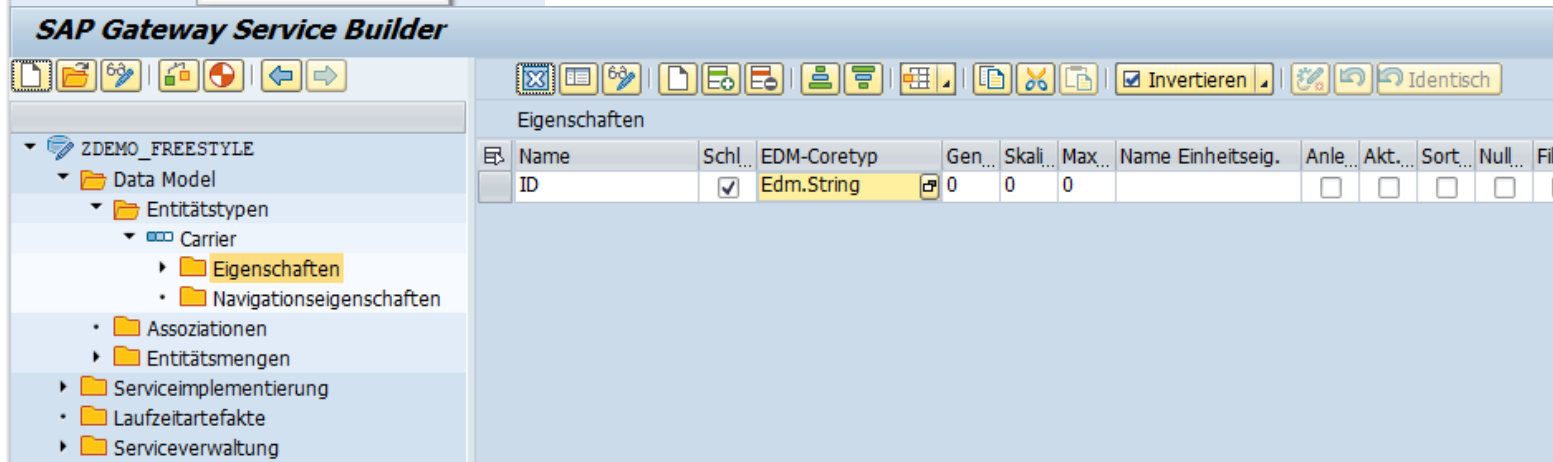
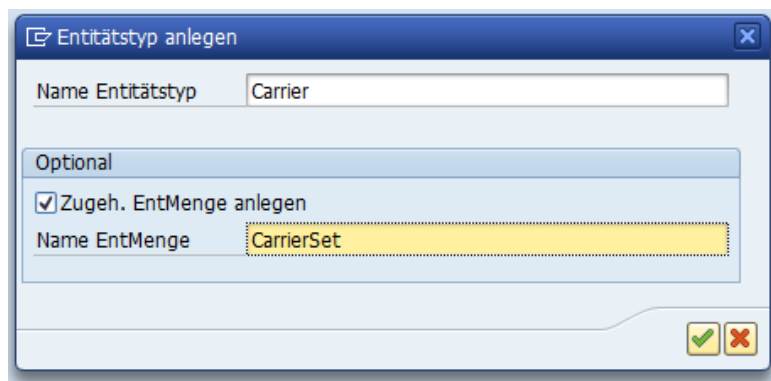
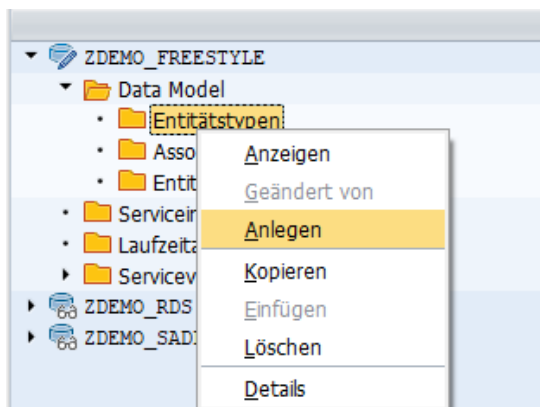
Manual implementation of
MPC and DPC

Annotations:

- Vocabulary
- MPC_EXT

Logic:

- Everything: Manual!



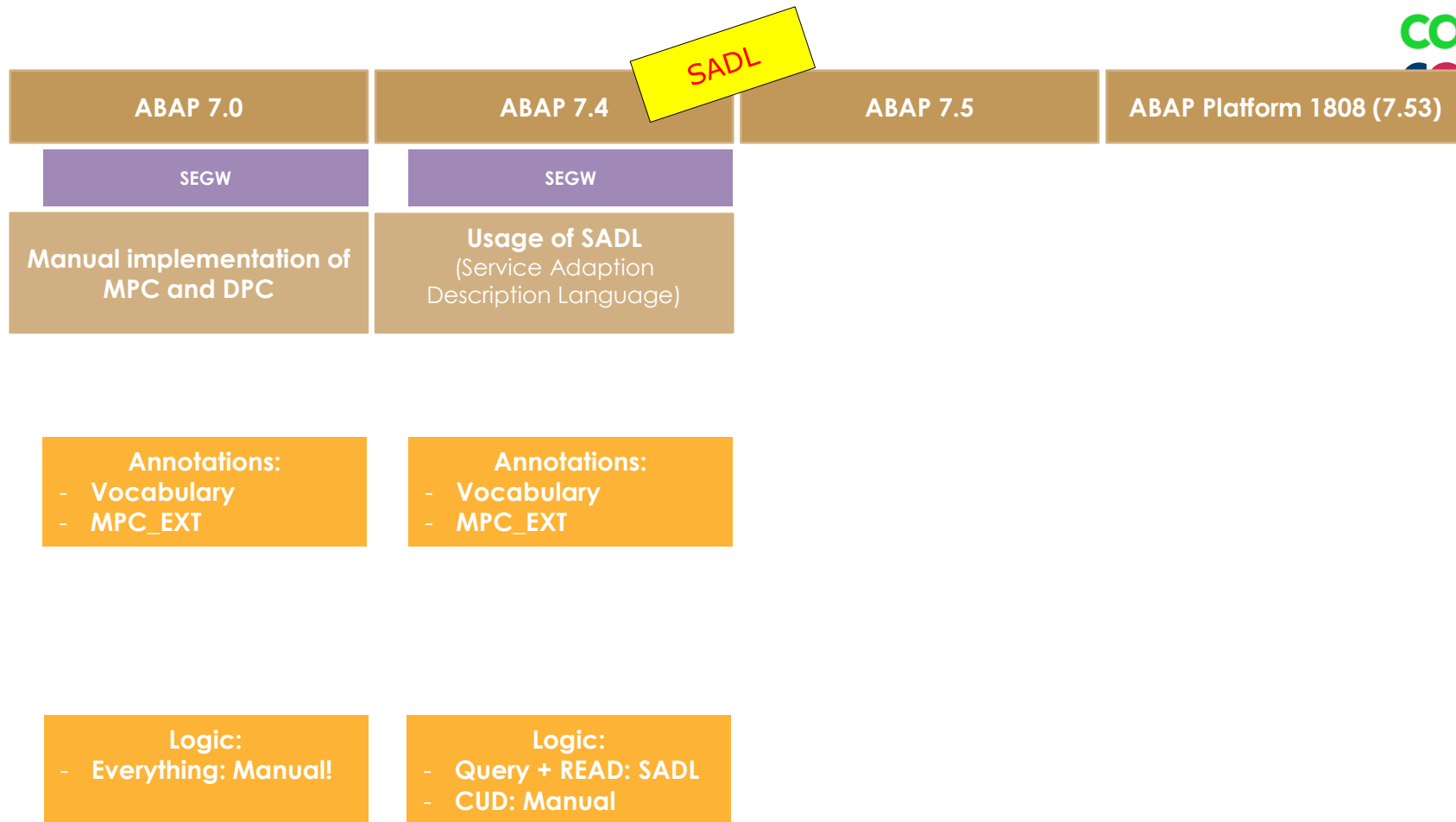
Modell- und Servicedefinition

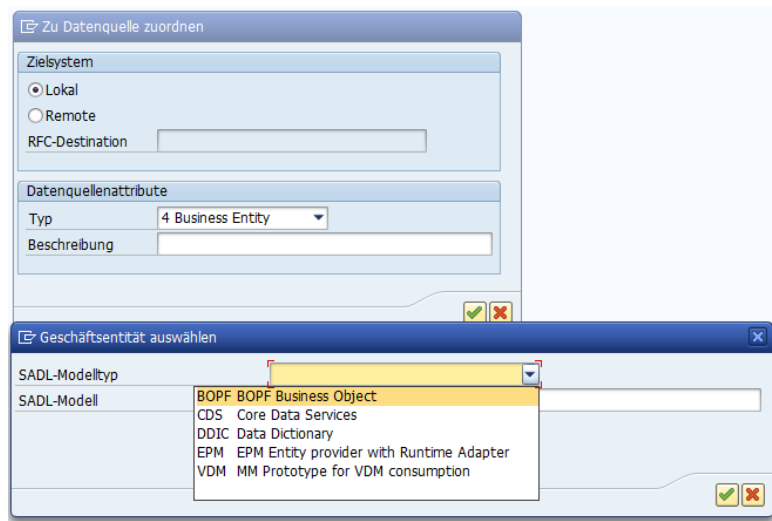
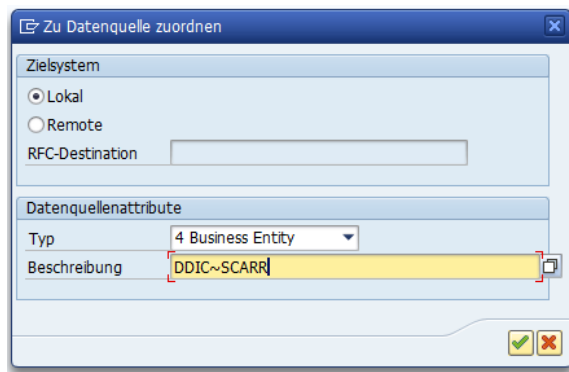
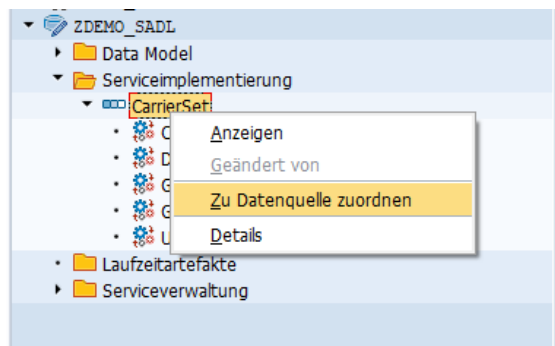
Modellanbieterklasse	
Klassenname	ZCL_ZDEMO_FREESTYLE_MPC_EXT
Basisklassenname	ZCL_ZDEMO_FREESTYLE_MPC
Datenanbieterklasse	
<input checked="" type="checkbox"/> Klassen erzeugen	
Klassenname	ZCL_ZDEMO_FREESTYLE_DPC_EXT
Basisklassenname	ZCL_ZDEMO_FREESTYLE_DPC
Serviceregistrierung	
Techn. Modellname	ZDEMO_FREESTYLE_MDL
Modellversion	1
Name des techn. Service	ZDEMO_FREESTYLE_SRV
Serviceversion	1

```

504 method CARRIERSET_CREATE_ENTITY.
505 RAISE EXCEPTION TYPE /iwbsp/cx_mgw_not_impl_exc
506 EXPORTING
507     textid = /iwbsp/cx_mgw_not_impl_exc=>method_not_implemented
508     method = 'CARRIERSET_CREATE_ENTITY'.
509 endmethod.
510
511
512 method CARRIERSET_DELETE_ENTITY.
513 RAISE EXCEPTION TYPE /iwbsp/cx_mgw_not_impl_exc
514 EXPORTING
515     textid = /iwbsp/cx_mgw_not_impl_exc=>method_not_implemented
516     method = 'CARRIERSET_DELETE_ENTITY'.
517 endmethod.
518
519
520 method CARRIERSET_GET_ENTITY.
521 RAISE EXCEPTION TYPE /iwbsp/cx_mgw_not_impl_exc
522 EXPORTING
523     textid = /iwbsp/cx_mgw_not_impl_exc=>method_not_implemented
524     method = 'CARRIERSET_GET_ENTITY'.
525 endmethod.
526
527
528 method CARRIERSET_GET_ENTITYSET.
529 RAISE EXCEPTION TYPE /iwbsp/cx_mgw_not_impl_exc
530 EXPORTING
531     textid = /iwbsp/cx_mgw_not_impl_exc=>method_not_implemented
532     method = 'CARRIERSET_GET_ENTITYSET'.
533 endmethod.

```





SAP Gateway Service Builder

Icons: [File] [Folder] [New] [Save] [Undo] [Redo]

Buttons: [Eigenschaften] [Assoziationen] [Aktionen] [Zuordnung generieren]

SADL-Modell Elemente zu Eigenschaften zuordnen

Eigenschaft	ABAP-Feldname	Schl...	Element
Carrid	CARRID	<input checked="" type="checkbox"/>	CARRID
Carrname	CARRNAME	<input type="checkbox"/>	CARRNAME
Currcode	CURRCODE	<input type="checkbox"/>	CURRCODE
Url	URL	<input type="checkbox"/>	URL

Drag and Drop für Eigenschaften und Navigationseigenschaften

Icons: [Tree] [Table] [List] [Grid]

SADL-Modell	Beschreibung	Konsu...
SCARR	Fluggesellschaft	<input type="checkbox"/>
• CARRID	Kurzbezeichnung der Fluggesellschaft	<input checked="" type="checkbox"/>
• CARRNAME	Name einer Fluggesellschaft	<input checked="" type="checkbox"/>
• CURRCODE	Hauswährung der Fluggesellschaft	<input checked="" type="checkbox"/>
• URL	URL einer Fluggesellschaft	<input checked="" type="checkbox"/>
• Primärschlüssel		<input checked="" type="checkbox"/>
• CURRCODE~SCURX		<input checked="" type="checkbox"/>

Left Panel Tree:

- ZDEMO_00
 - ZDEMO_RDS
 - ZDEMO_SADL
 - Data Model
 - Serviceimplementierung
 - CarrierSet
 - Mapping
 - Create
 - Delete
 - GetEntity (Read)
 - GetEntitySet (Query)
 - Update
 - Laufzeitartefakte
 - Serviceverwaltung

Repository Browser

Klasse / Interface
ZCL_ZDEMO_SADL_DPC

Objektname Beschreibung

- ZCL_ZDEMO_SADL_DPC Datenanbieter-Basiskl.
 - Superklassen
 - Subklassen
 - Interfaces
 - Attribute
 - Methoden
 - Geerbte Methoden
 - Redefinitionen
 - /IWBEP/IF_SB_DPC_COMM_SERV DPC Common Service
 - IF_SADL_GW_DPC_UTIL SADL Utilities for gene
 - IF_SADL_GW_EXTENSION_CONTI Extension for fields ge
 - IF_SADL_GW_QUERY_CONTROL SADL Utilities for gene
 - CARRIERSET_CREATE_ENTITY Zug. EntitätsmengNar
 - CARRIERSET_DELETE_ENTITY Zug. EntitätsmengNar**
 - CARRIERSET_GET_ENTITY Zug. EntitätsmengNar
 - CARRIERSET_GET_ENTITYSET Zug. EntitätsmengNar
 - CARRIERSET_UPDATE_ENTITY Zug. EntitätsmengNar
 - Typen

Methode **CARRIERSET_DELETE_ENTITY** aktiv

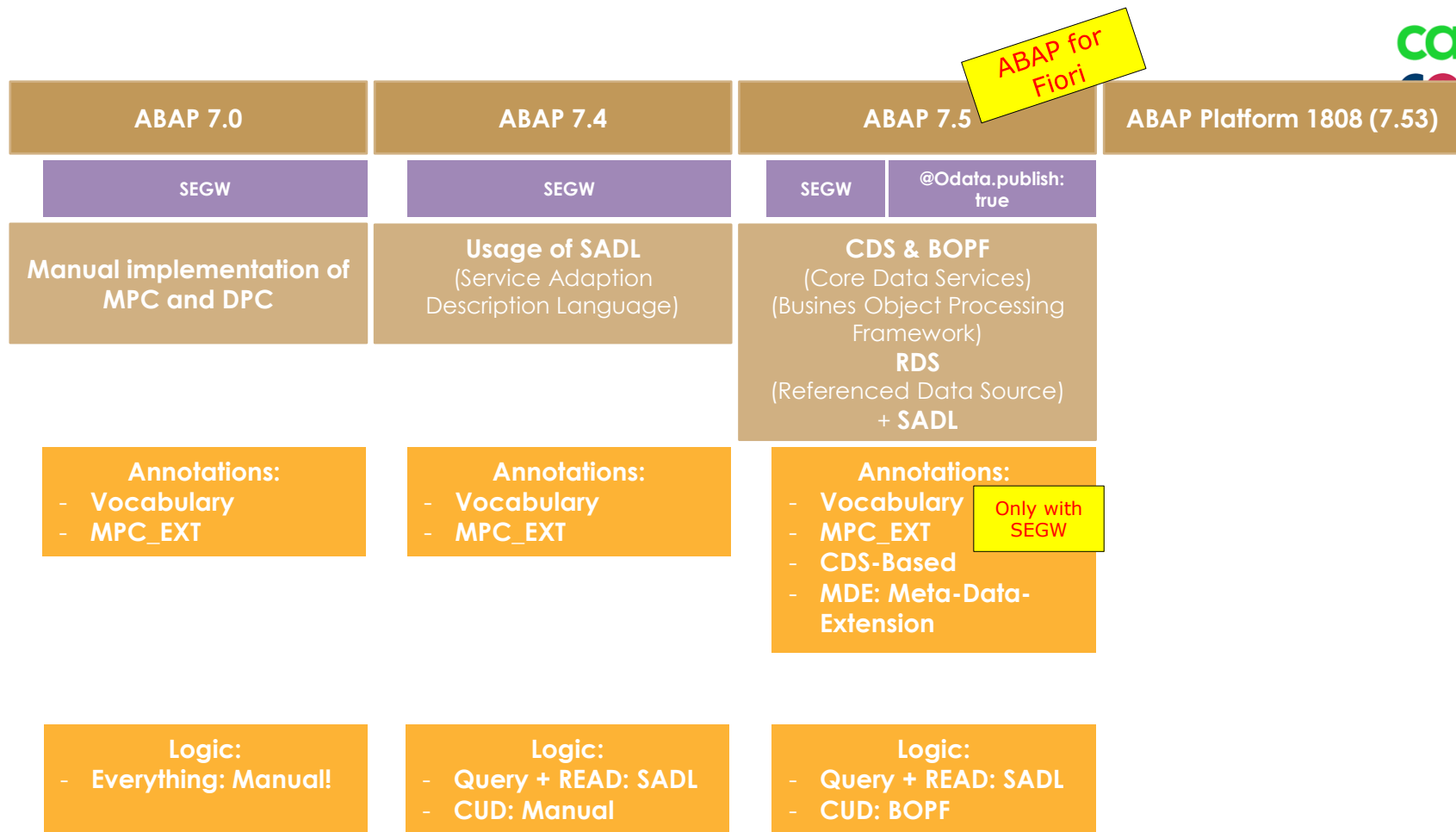
```

1 method CARRIERSET_DELETE_ENTITY.
2   if_sadl_gw_dpc_util~get_dpc( )->delete_entity( io_tech_request_context ).
3   endmethod.
```

Methode **IF_SADL_GW_DPC_UTIL~GET_DPC** aktiv

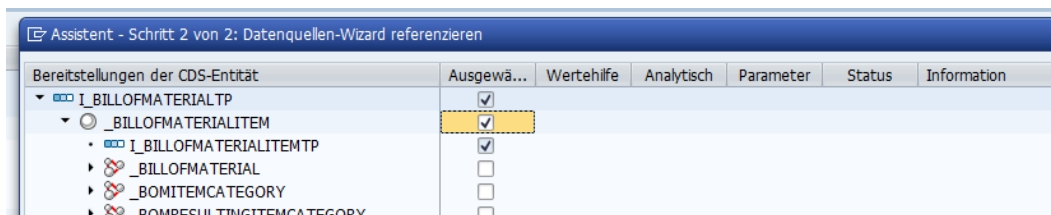
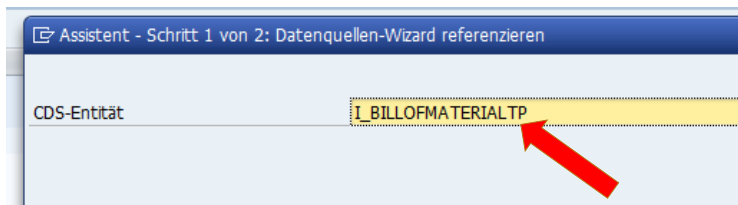
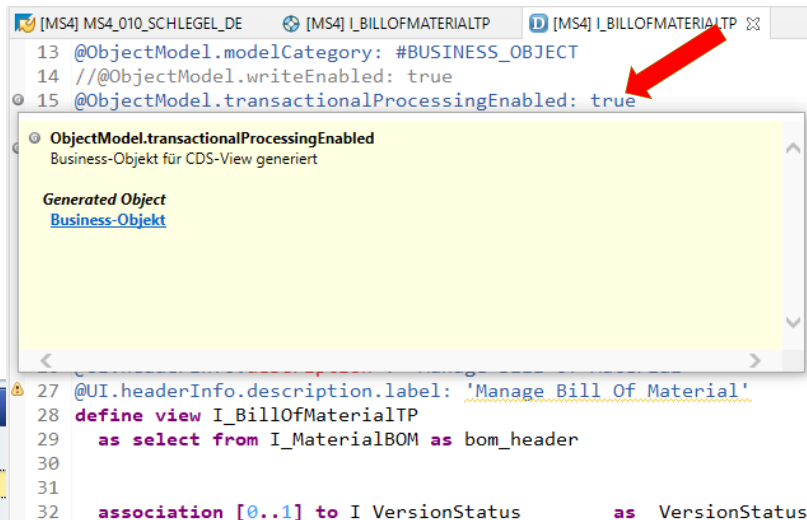
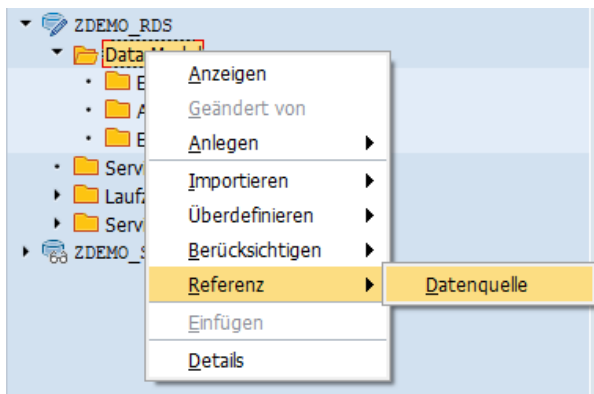
```

1 method IF_SADL_GW_DPC_UTIL~GET_DPC.
2   TYPES ty_scarr_l TYPE scarr ##NEEDED. " reference for where-used list
3
4   DATA(lv_sadl_xml) =
5     |<?xml version="1.0" encoding="utf-16"?>| &
6     |<sadl:definition xmlns:sadl="http://sap.com/sap.nw.f.sadl" syntaxVersion="V2" >| &
7     |<sadl:dataSource type="DDIC" name="CarrierSet" binding="SCARR" />| &
8     |<sadl:resultSet>| &
9     |<sadl:structure name="CarrierSet" dataSource="CarrierSet" maxEditMode="RO" >| &
10    |<sadl:query name="EntitySetDefault">| &
11    |</sadl:query>| &
12    |<sadl:attribute name="CARRID" binding="CARRID" isKey="TRUE" />| &
13    |<sadl:attribute name="CARRNAME" binding="CARRNAME" isKey="FALSE" />| &
14    |<sadl:attribute name="CURRCODE" binding="CURRCODE" isKey="FALSE" />| &
15    |<sadl:attribute name="URL" binding="URL" isKey="FALSE" />| &
16    |</sadl:structure>| &
17    |</sadl:resultSet>| &
18    |</sadl:definition>| .
19
20    ro_dpc = cl_sadl_gw_dpc_factory=>create_for_sadl( iv_sadl_xml = lv_sadl_xml
21      iv_timestamp = 20200922083621
22      iv_uuid = 'ZDEMO_SADL'
23      io_query_control = me
24      io_extension_control = me
25      io_context = me->mo_context ).
26
27  endmethod.
```



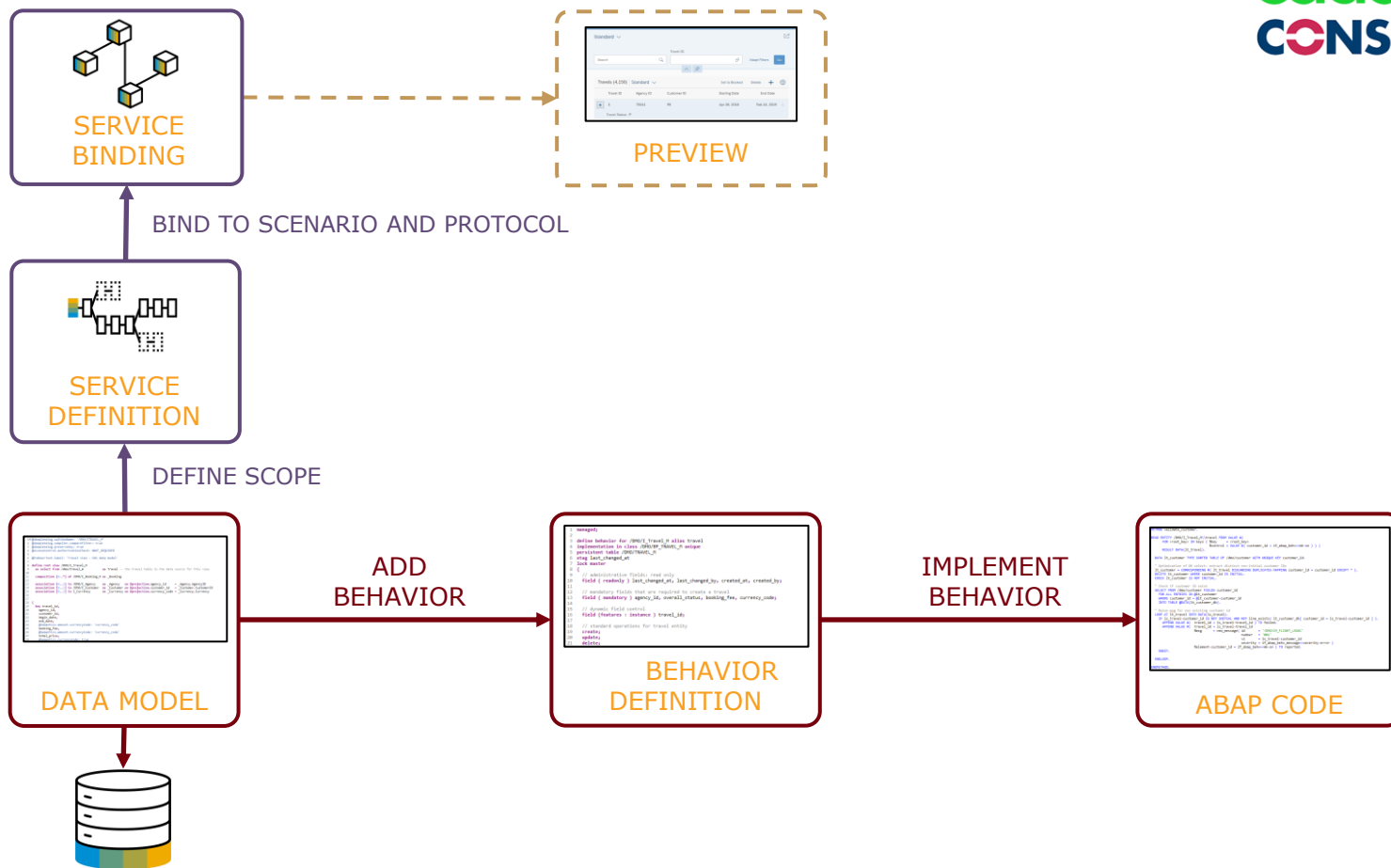
ABAP for Fiori

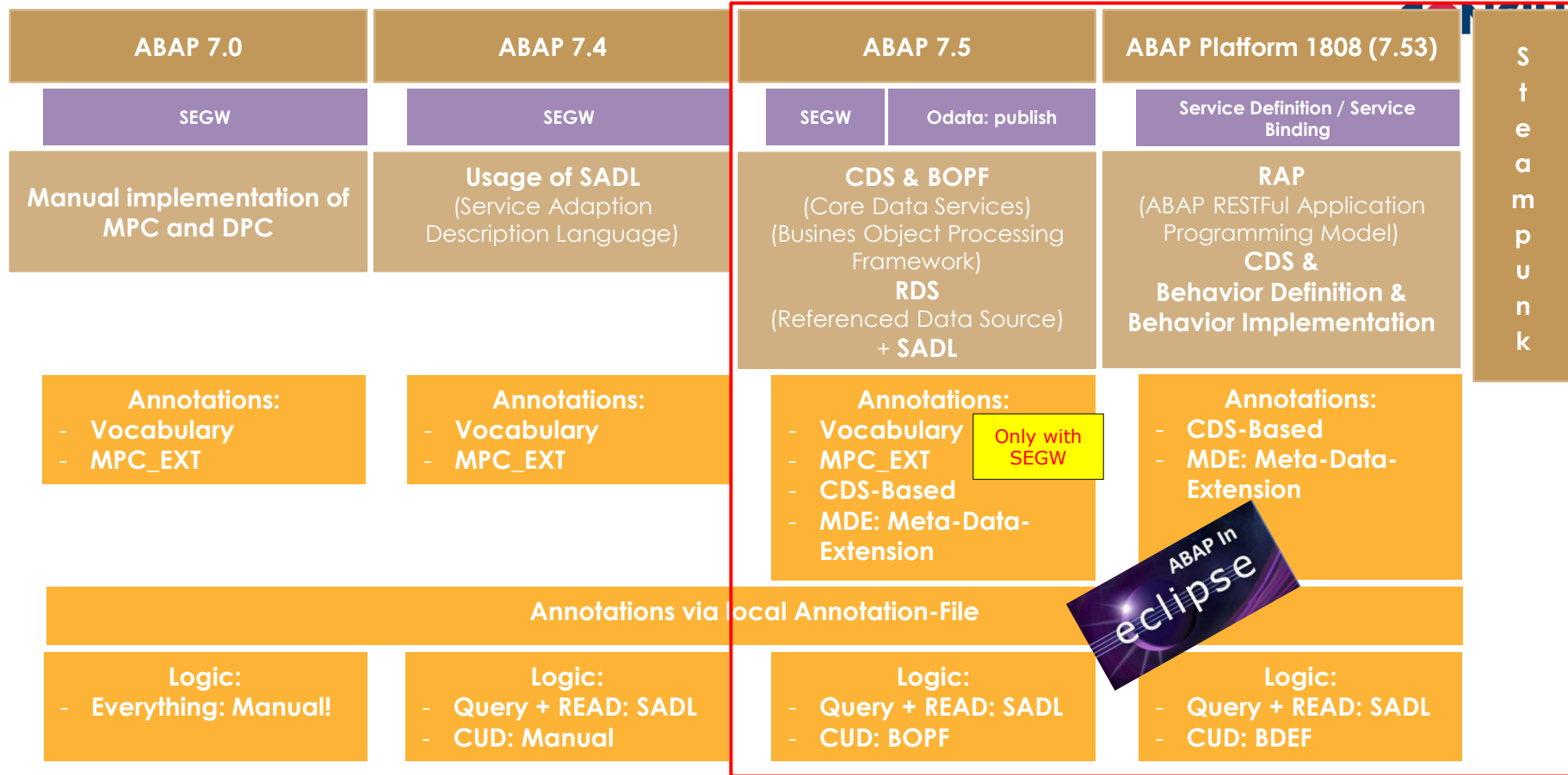
Only with SEGW



ABAP 7.0	ABAP 7.4	ABAP 7.5		ABAP Platform 1808 (7.53)
SEGW	SEGW	SEGW	Odata: publish	Service Definition / Service Binding
Manual implementation of MPC and DPC	Usage of SADL (Service Adaption Description Language)	CDS & BOPF (Core Data Services) (Business Object Processing Framework) RDS (Referenced Data Source) + SADL		RAP (ABAP RESTful Application Programming Model) CDS & Behavior Definition & Behavior Implementation
Annotations: - Vocabulary - MPC_EXT	Annotations: - Vocabulary - MPC_EXT	Annotations: - Vocabulary - MPC_EXT - CDS-Based - MDE: Meta-Data-Extension <div>Only with SEGW</div>		Annotations: - CDS-Based - MDE: Meta-Data-Extension
Logic: - Everything: Manual!	Logic: - Query + READ: SADL - CUD: Manual	Logic: - Query + READ: SADL - CUD: BOPF		Logic: - Query + READ: SADL - CUD: BDEF

RAP

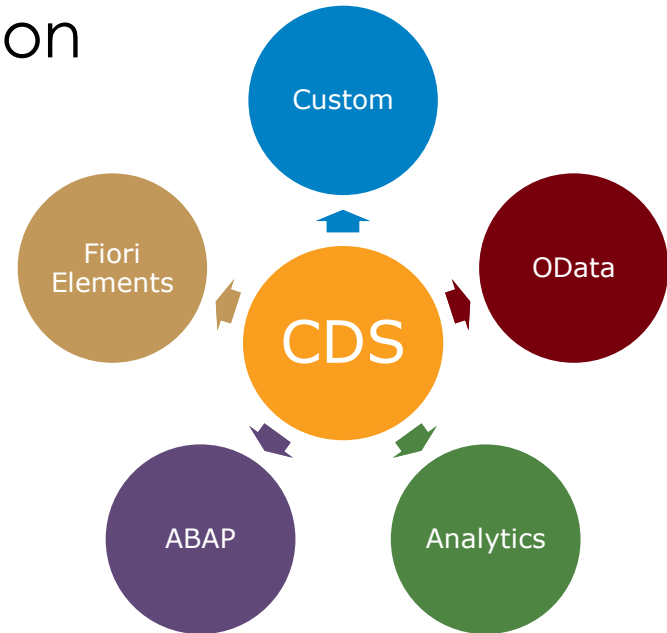




Annotations

● CDS View Annotations

- Ermöglicht das Anreichern von Metadaten direkt im View
 - SAP Pufferung aktiv
 - Mandantenbehandlung
 - Textinformationen
 - ...



ABAP Annotationen

- Werden von der **ABAP Laufzeit-umgebung** ausgewertet
- Beispiele:
 - Tabellenpufferung
 - Mandantenbehandlung
 - Erweiterbarkeit von CDS Views
 - Datenbankviewname
 - ...

Framework-spezifisch Annotationen

- Werden von **Software-Komponenten** benötigt/ausgewertet
- Frameworks:
 - Fiori Elements
 - BOPF
 - SADL
 - ABAP Entwicklung
 - ...

Core Annotations



```
@AbapCatalog.sqlViewName: 'zcdsview_foe2_db'  
@AbapCatalog.compiler.CompareFilter: true  
@AccessControl.authorizationCheck: #CHECK  
define view Zcdsview_Foe2  
  with parameters exc_date: abap.dats,  
                  to_curr: abap.cuky(5)  
  as select from zdatentypen {  
    zdatentypen.curr as original,  
    @EndUserText.label: Currency`  
    zdatentypen.cuky as currency,  
    ...  
  }
```

Element Annotations



• OData Annotations

- Ermöglicht das Anreichern von Metadaten für
 - Service
 - Entity
 - Felder

```
<Annotations Target="EPM_REF_APPS_SHOP.Review" xmlns="http://docs.oasis-open.org/odata/ns/edm">
  <Annotation Term="UI.HeaderInfo">
    <Record>
      <PropertyValue Property="TypeName" String="Review"/>
      <PropertyValue Property="TypeNamePlural" String="Reviews"/>
      <PropertyValue Property="Title">
        <Record Type="UI.DataField">
          <PropertyValue Property="Value" Path="UserDisplayName"/>
        </Record>
      </PropertyValue>
      <PropertyValue Property="Description">
        <Record Type="UI.DataField">
          <PropertyValue Property="Value" Path="Comment"/>
        </Record>
      </PropertyValue>
      <PropertyValue Property="TypeImageUrl" String="sap-icon://comment"/>
    </Record>
  </Annotation>
</Annotations>
```

<https://developers.sap.com/tutorials/odata-04-basic-annotations.html>

SADL als Mapper im ABAP

CAP

Welcome to CAP

SAP Cloud Application Programming Model



<https://cap.cloud.sap/docs/>

● **Framework und Toolsammlung**

- Services und Anwendungen
- CDS Views (CDL – „Dialekt“)
 - DB Tabellen werden erstellt
- Node.js und Java
- lokale Entwicklung + Tests
- Visual Studio Code / Eclipse / Business Application Studio
- Deploy to SCP / Cloud Foundry

The screenshot shows the Visual Studio Code interface with the REST client extension. The Explorer on the left shows the project structure. The main editor displays a REST client request in `Objects.http` for a DELETE operation on `/cmds/CDSViews/101`. The response on the right shows a 200 OK status with an OData JSON response.

```

1  ### read
2  Send Request
3  GET http://localhost:4004/cmds/CDSViews HTTP/1.1
4
5  ### delete
6  Send Request
7  DELETE http://localhost:4004/cmds/CDSViews/101 HTTP/1.1
8
9
10
11

```

```

1  HTTP/1.1 200 OK
2  X-Powered-By: Express
3  OData-Version: 4.0
4  content-type: application/json;odata.metadata=minimal
5  Date: Thu, 24 Sep 2020 09:34:25 GMT
6  Connection: close
7  Content-Length: 476
8
9  {
10   "@odata.context": "$metadata#CDSViews",
11   "value": [
12     {
13       "ID": 101,
14       "name": "I_BusinessPartner",
15       "type": "VIEW",
16       "containername": "I_BusinessPartner"
17     },
18     {
19       "ID": 103,
20       "name": "I_AcademicTitle",
21       "type": "VIEW",
22       "containername": "I_BusinessPartner"
23     },
24     {
25       "ID": 104,
26       "name": "E_BP_D",
27       "type": "VIEW",
28       "containername": "I_BusinessPartner"
29     },
30     {
31       "ID": 105,
32       "name": "I_BPCurrentDefaultAddress",
33       "type": "VIEW",
34       "containername": "I_BPCurrentDefaultAddress"
35     }
36   ]
37 }

```

„Postman“ built-in – besser als GW Client ;)



```

1 HTTP/1.1 200 OK
2 X-Powered-By: Express
3 OData-Version: 4.0
4 content-type: application/json;odata.metadata=minimal
5 Date: Thu, 24 Sep 2020 09:34:25 GMT
6 Connection: close
7 Content-Length: 476
8
9 {
10   "@odata.context": "$metadata#CDSViews",
11   "value": [

```

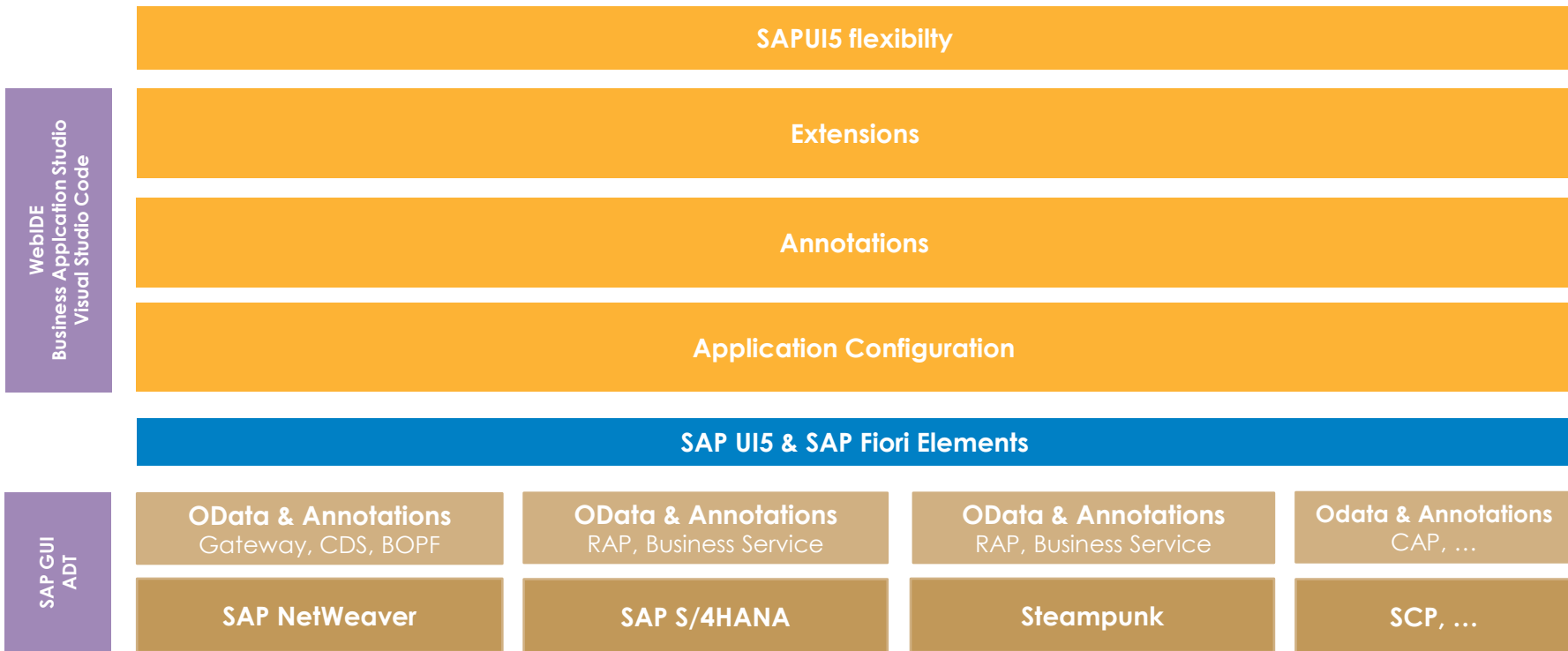
• OData V2 Proxy

<https://cap.cloud.sap/docs/advanced/odata#odata-v2-support>

SAP Fiori Elements

- **SAP Fiori Elements**

- Bei SAP Fiori Elements handelt es sich um **Metadatengetriebenes Framework**
- Basierend auf **Annotations und Konfigurationen** werden dynamisch die Oberflächen gerendert
- Technisch basieren Fiori Elements auf **Smart Controls der SAPUI5 Bibliothek**
- Kein JavaScript notwendig



- **Entwicklungsbeschleunigung**
 - Standardisierte Page Types
 - Fokus auf Businessanforderung
 - Konsistentes Userinterface
 - Fiori Elements beruhen auf bewährten UI Konzepten
 - Zentrale Verwaltung
 - Änderungen werden zentral vorgenommen

● Konsistentes Userinterface

- Navigation
- Suche
- Filter & Sortierung
- Ändern
- Fehlermeldungen
- ...

movie_id	Movie title list	publishing_date	Rating	revenue
1	Terminator	Oct 26, 1984	★★★★★	450,000,000.00 USD
2	Kindergarten Cop	Dec 21, 1990	★★★★★	500,000.00 USD
3	Hercules in New York	Feb 25, 1970	★★★★★	150,000.00 USD
4	Pizcarnido	Mar 5, 1982	★★★★★	150,000.00 EUR
5	Nosferatu - Phantom der Nacht	Jan 17, 1979	★★★★★	250,000.00 EUR
6	Didi - Der Doppelgänger	Feb 17, 1984	★★★★★	500,000.00 EUR
7	Steb langsam	Nov 10, 1989	★★★★★	1,000,000.00 USD
8	The Expendables 2	Aug 8, 2012	★★★★★	2,000,000.00 USD

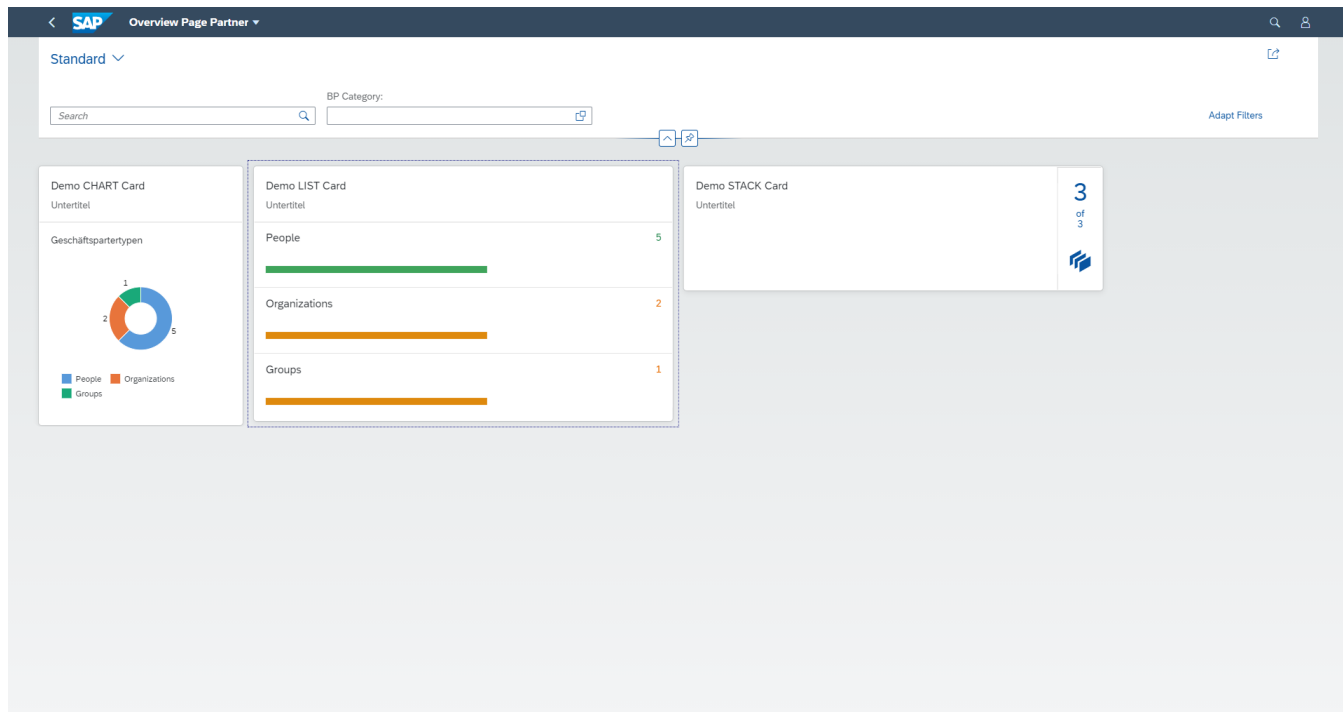
Pagetypen

- **SAP Fiori Pagetypen**

- Pagetypen sind **vordefinierte SAP Fiori Floorplans**
- Aktuell gibt es 5 Pagetypen
 - Overview Page
 - List Report
 - Worklist
 - Object Page
 - Analytical List Page

Overview Page

Darstellung von wichtigen Informationen in Form von Kacheln. In der Regel dienen die Kacheln als Einstieg in detailliertere Applikationen.



List Report

Darstellung von
Informationen in
tabellarischer Form.
Umfangreiche Filter-
und Such-
möglichkeiten.
Oft als Einstieg in
Object Pages.

The screenshot shows the SAP Fiori List Report for 'Movie List'. The interface includes a search bar, filter fields for 'Movie title search', 'publishing_data', and 'currency', and a table of movie data. The table has columns for 'movie_id', 'Movie title list', 'publishing_data', 'Rating', and 'revenue'.

movie_id	Movie title list	publishing_data	Rating	revenue
1	Terminator	Oct 26, 1984	★★★★★	450,000,000.00 USD
2	Kindergarten Cop	Dec 21, 1990	★★★★☆	500,000.00 USD
3	Herkules in New York	Feb 25, 1970	★★★★☆	150,000.00 USD
4	Fitzcarraldo	Mar 5, 1982	★★★★☆	150,000.00 EUR
5	Nosferatu – Phantom der Nacht	Jan 17, 1979	★★★★★	250,000.00 EUR
6	Didi – Der Doppelgänger	Feb 17, 1984	★★★★☆	500,000.00 EUR
7	Stirb langsam	Nov 10, 1988	★★★★★	1,000,000.00 USD
8	The Expendables 2	Aug 8, 2012	★★★★☆	2,000,000.00 USD

Worklist

Eignet sich wenn
Anwender eine Liste
mit Aufgaben
bearbeiten sollen .

Fiori Elements 2

movie_id	Movie title list	publishing_data	Rating	revenue
1	Terminator	Oct 26, 1984	★★★★★	450,000,000.00 USD
2	Kindergarten Cop	Dec 21, 1990	★★★★★	500,000.00 USD
3	Herkules in New York	Feb 25, 1970	★★★★★	150,000.00 USD
4	Fitzcaraldo	Mar 5, 1982	★★★★★	150,000.00 EUR
5	Nosferatu – Phantom der Nacht	Jan 17, 1979	★★★★★	250,000.00 EUR
6	Didi – Der Doppelgänger	Feb 17, 1984	★★★★★	500,000.00 EUR
7	Stirb langsam	Nov 10, 1988	★★★★★	1,000,000.00 USD
8	The Expendables 2	Aug 8, 2012	★★★★★	2,000,000.00 USD

Object Page

Mit diesem Typ können Daten bzw. Objekte angezeigt oder geändert werden.

Flori Elements 2

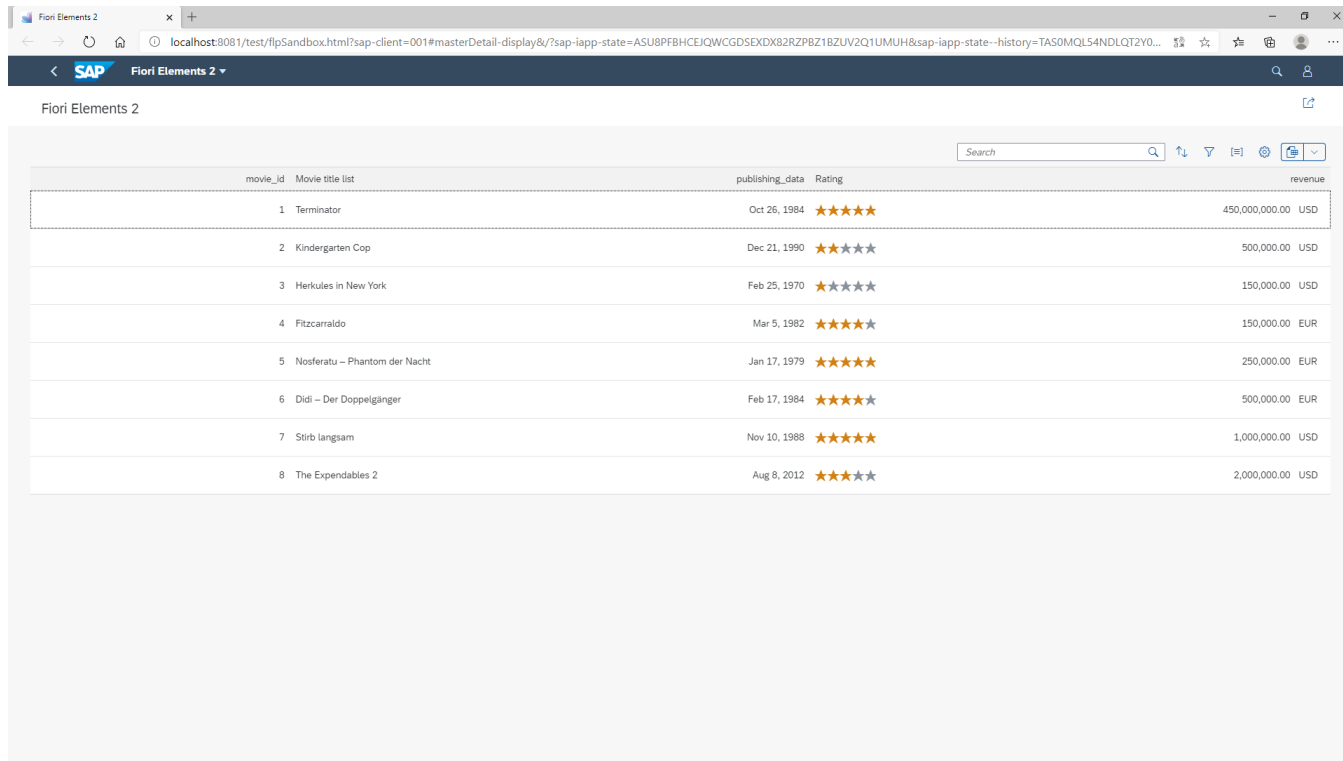
localhost:8081/test/flpSandbox.html?sap-client=001#masterDetail-display&/?sap-iapp-state=ASU8PFBHCEJQWCGDSEXD82RZPBZ1BZUV2Q1UMUH&sap-iapp-state--history=TA50MQL54NDLQT2Y0...

Flori Elements 2

movie_id	Movie title list	publishing_data	Rating	revenue
1	Terminator	Oct 26, 1984	★★★★★	450,000,000.00 USD
2	Kindergarten Cop	Dec 21, 1990	★★★★★	500,000.00 USD
3	Herkules in New York	Feb 25, 1970	★★★★★	150,000.00 USD
4	Fitzcaraldo	Mar 5, 1982	★★★★★	150,000.00 EUR
5	Nosferatu – Phantom der Nacht	Jan 17, 1979	★★★★★	250,000.00 EUR
6	Didi – Der Doppelgänger	Feb 17, 1984	★★★★★	500,000.00 EUR
7	Stirb langsam	Nov 10, 1988	★★★★★	1,000,000.00 USD
8	The Expendables 2	Aug 8, 2012	★★★★★	2,000,000.00 USD

Analytical List Page

Für die Darstellung von Reports und KPIs eignet sich eine Analytical List Page. Umfangreiche Features helfen bei der Analyse der Daten



Fiori Elements 2

movie_id	Movie title list	publishing_data	Rating	revenue
1	Terminator	Oct 26, 1984	★★★★★	450,000,000.00 USD
2	Kindergarten Cop	Dec 21, 1990	★★★★★	500,000.00 USD
3	Herkules in New York	Feb 25, 1970	★★★★★	150,000.00 USD
4	Fitzcaraldo	Mar 5, 1982	★★★★★	150,000.00 EUR
5	Nosferatu – Phantom der Nacht	Jan 17, 1979	★★★★★	250,000.00 EUR
6	Didi – Der Doppelgänger	Feb 17, 1984	★★★★★	500,000.00 EUR
7	Stirb langsam	Nov 10, 1988	★★★★★	1,000,000.00 USD
8	The Expendables 2	Aug 8, 2012	★★★★★	2,000,000.00 USD

Demo 1 – List Report

CDS View/Visual Code Studio

IDEs

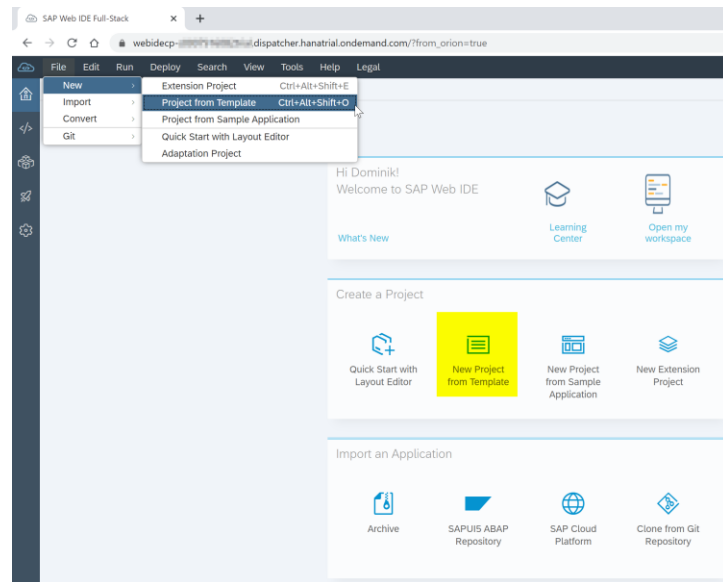
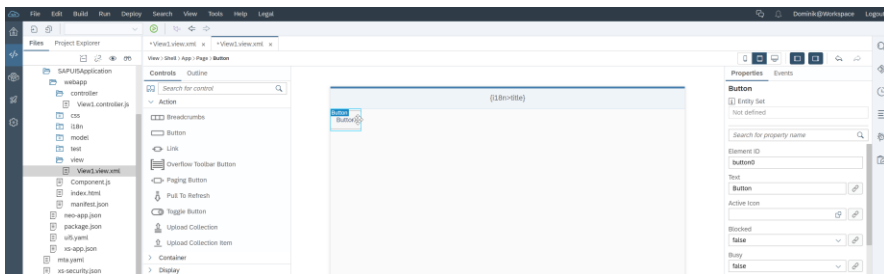
SAP Web IDE Full Stack

SAP Business Application Studio

Visual Code Studio

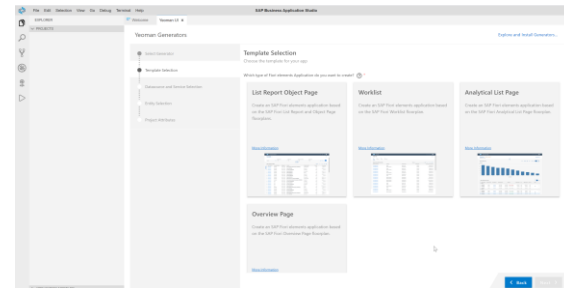
ABAP Development Tools

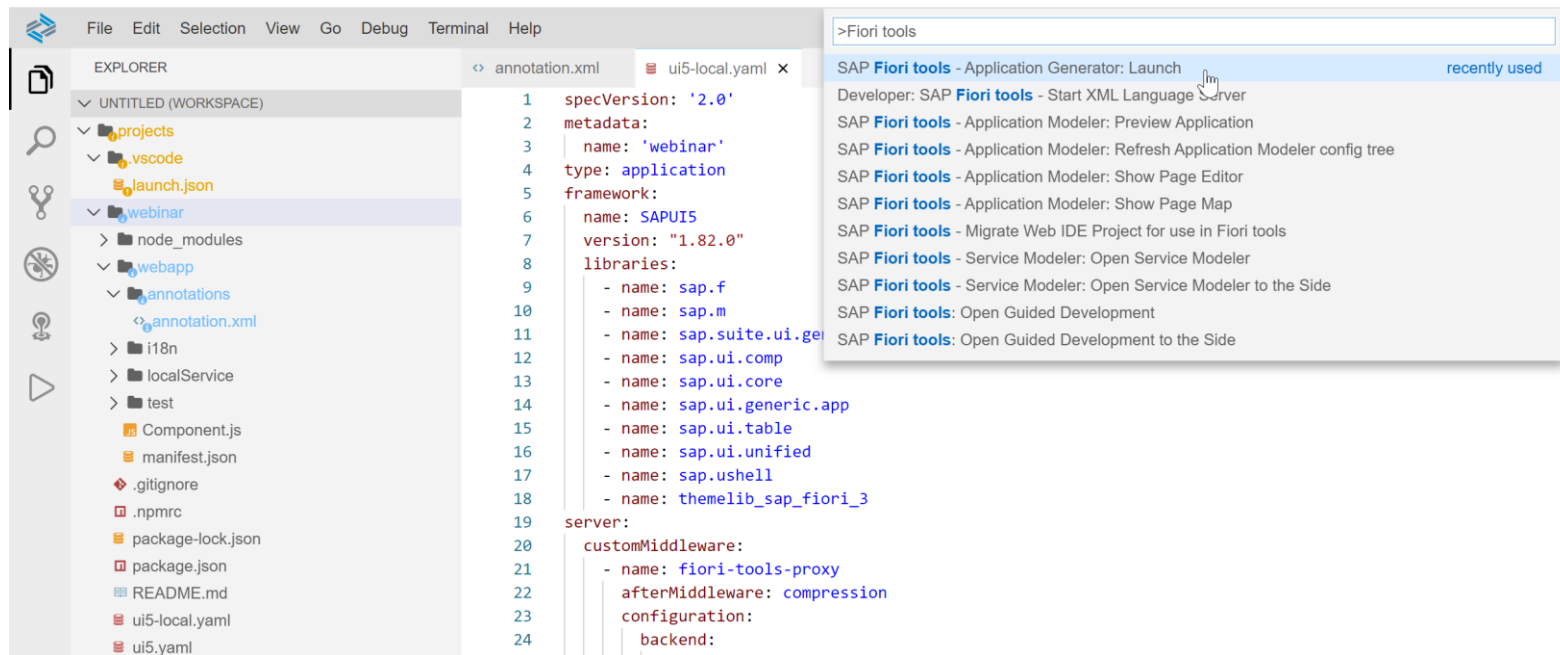
- **SAP Web IDE Full Stack**
 - wird verschwinden => BAS
 - im Trial Account ab 13.10.
 - online
 - killt regelmäßig Browser



● **SAP Business Application Studio**

- Nachfolger der WebIDE
- Eclipse Theia
- online
- Fiori, CAP, HANA,...
- Unterstützt VS Code Extensions





SAP Business Application Studio

File Edit Selection View Go Debug Terminal Help

EXPLORER Welcome Yeoman UI x

PROJECTS

Yeoman Generators

- Select Generator
- Template Selection**
- Datasource and Service Selection
- Entity Selection
- Project Attributes

Explore and Install Generators...

Template Selection


Choose the template for your app

Which type of Fiori elements Application do you want to create? ⓘ *

List Report Object Page

Create an SAP Fiori elements application based on the SAP Fiori List Report and Object Page floorplans.

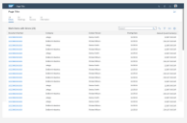
[More Information](#)



Worklist

Create an SAP Fiori elements application based on the SAP Fiori Worklist floorplan.


[More Information](#)



Analytical List Page

Create an SAP Fiori elements application based on the SAP Fiori Analytical List Page floorplan.

[More Information](#)



Overview Page

Create an SAP Fiori elements application based on the SAP Fiori Overview Page floorplan.

[More Information](#)

> APPLICATION MODELER

< Back Next >

- **Visual Code Studio**

- offline
- manuelle Installation SAP Erweiterungen
- Vorbild für Eclipse Theia -> BAS

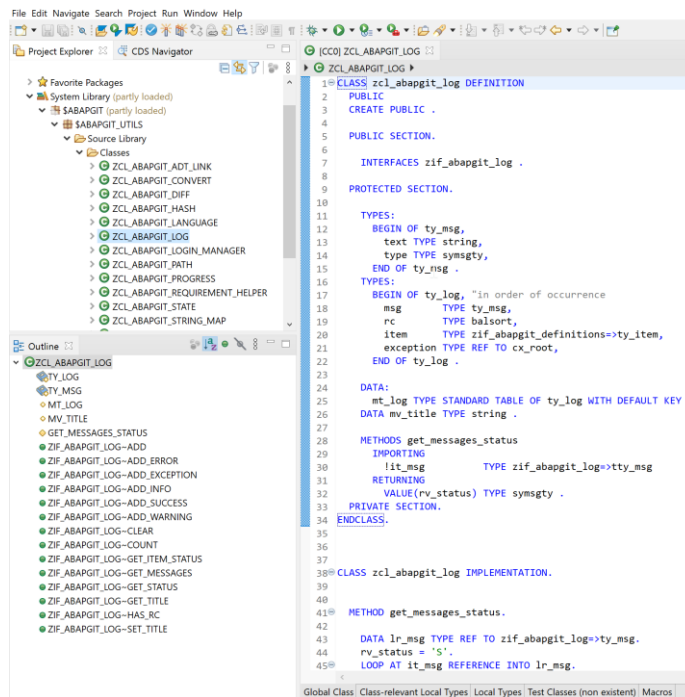
<https://help.sap.com/viewer/42532dbd1ebb434a80506113970f96e9/Latest/en-US>

The screenshot shows the Visual Studio Code interface with the Yeoman UI extension. The left sidebar displays the Explorer view with the project structure for 'Yeoman UI' and 'CMDSIUPOC'. The main area shows the 'Yeoman Generators' panel, which is currently on the 'Template Selection' step. The 'Template Selection' panel prompts the user to 'Choose the template for your app' and asks 'Which type of Fiori elements Application do you want to create?'. It offers four templates: 'List Report Object Page', 'Worklist', 'Analytical List Page', and 'Overview Page'. Each template includes a brief description and a 'More Information' link. The 'List Report Object Page' template is highlighted. The bottom right corner features 'Back' and 'Next' navigation buttons.

• ABAP Development Tools - Eclipse

◦ CDS Views

◦ ...



Demo 2 – List Report

CDS View/Web IDE

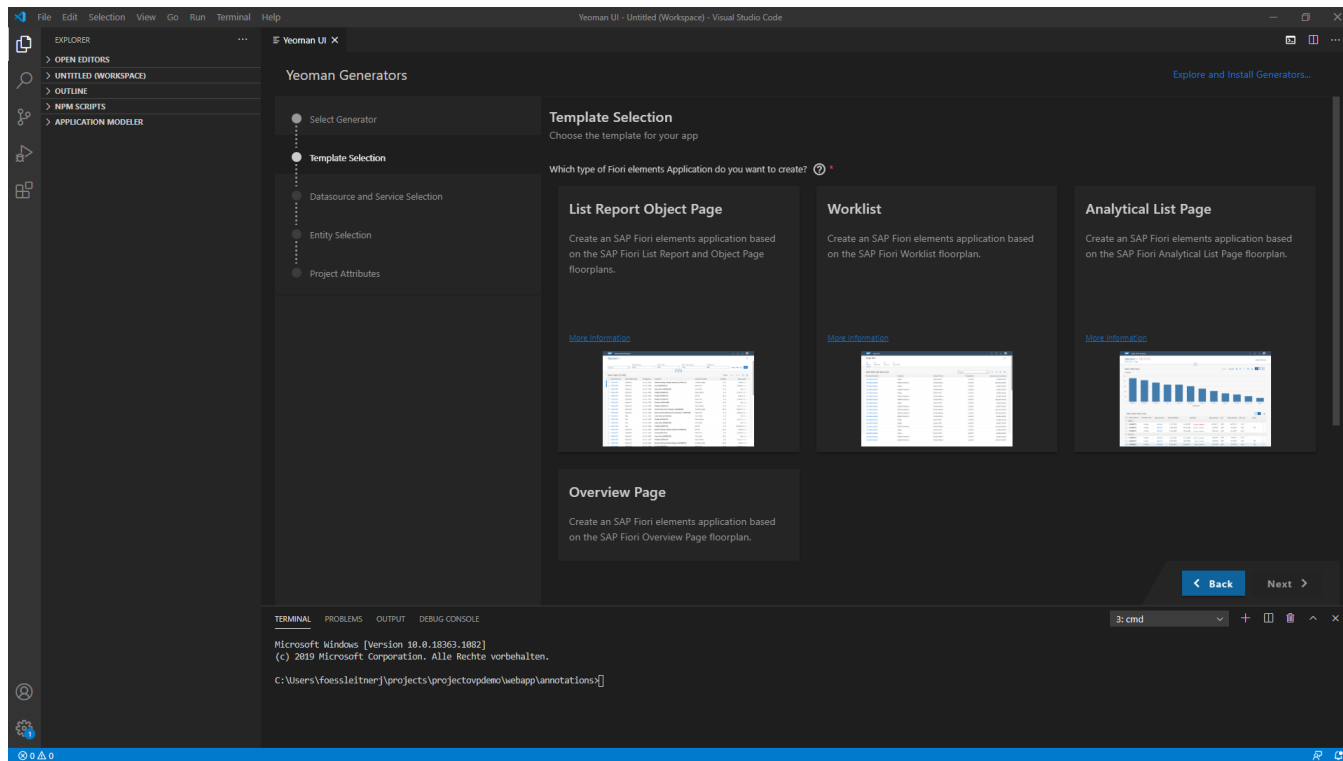
SAP Fiori Tools

- **SAP Fiori Tools**

- Sammlung von Funktionen zur **Beschleunigung von bei der Entwicklung** von Fiori Elements
- Extension ist derzeit für **Visual Code Studio** und **Business Application Studio** verfügbar
 - Seit Sommer 2020 generell verfügbar

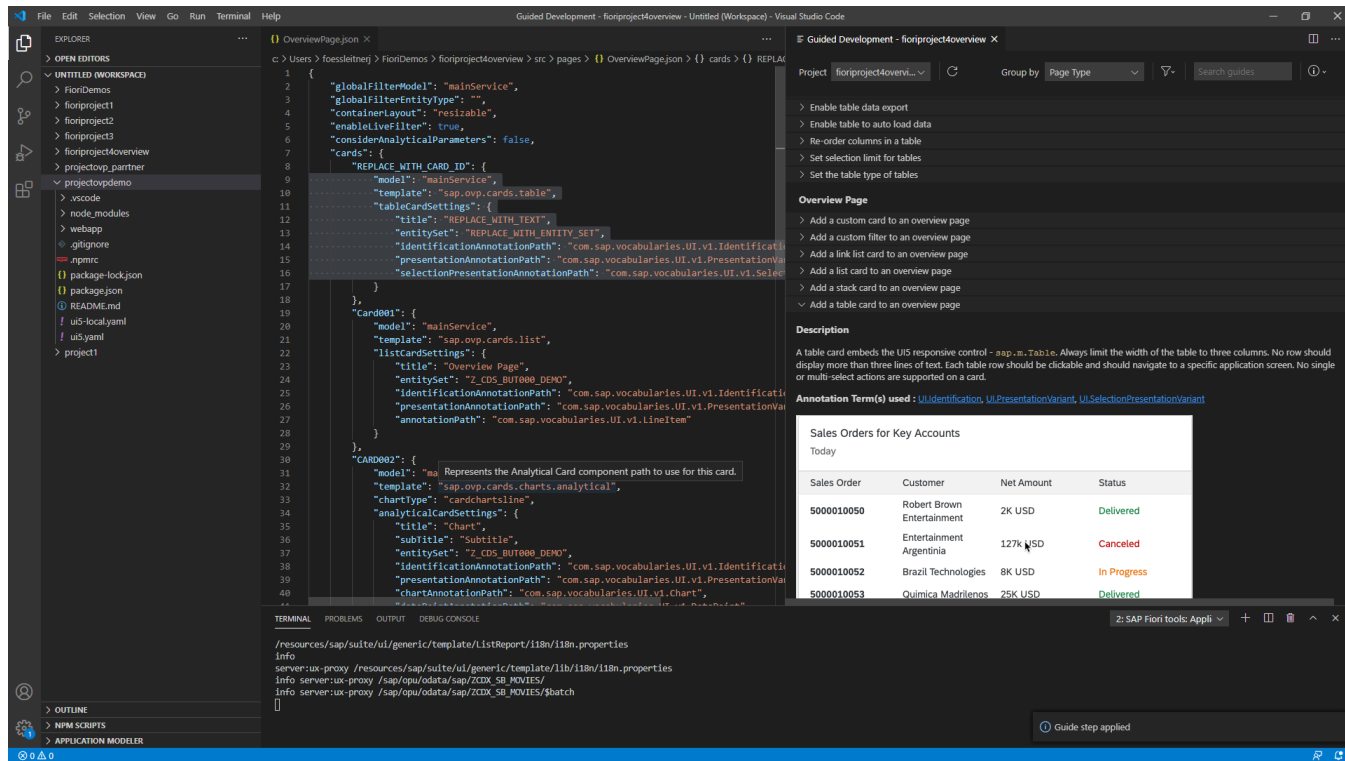
Application Generator

Unterstützung bei der Erstellung und Konfiguration neuer SAP Fiori Elements Projekte



Guided Development

Sammlung von Wizards um neue Funktionen in Fiori Elements Anwendungen zu ergänzen

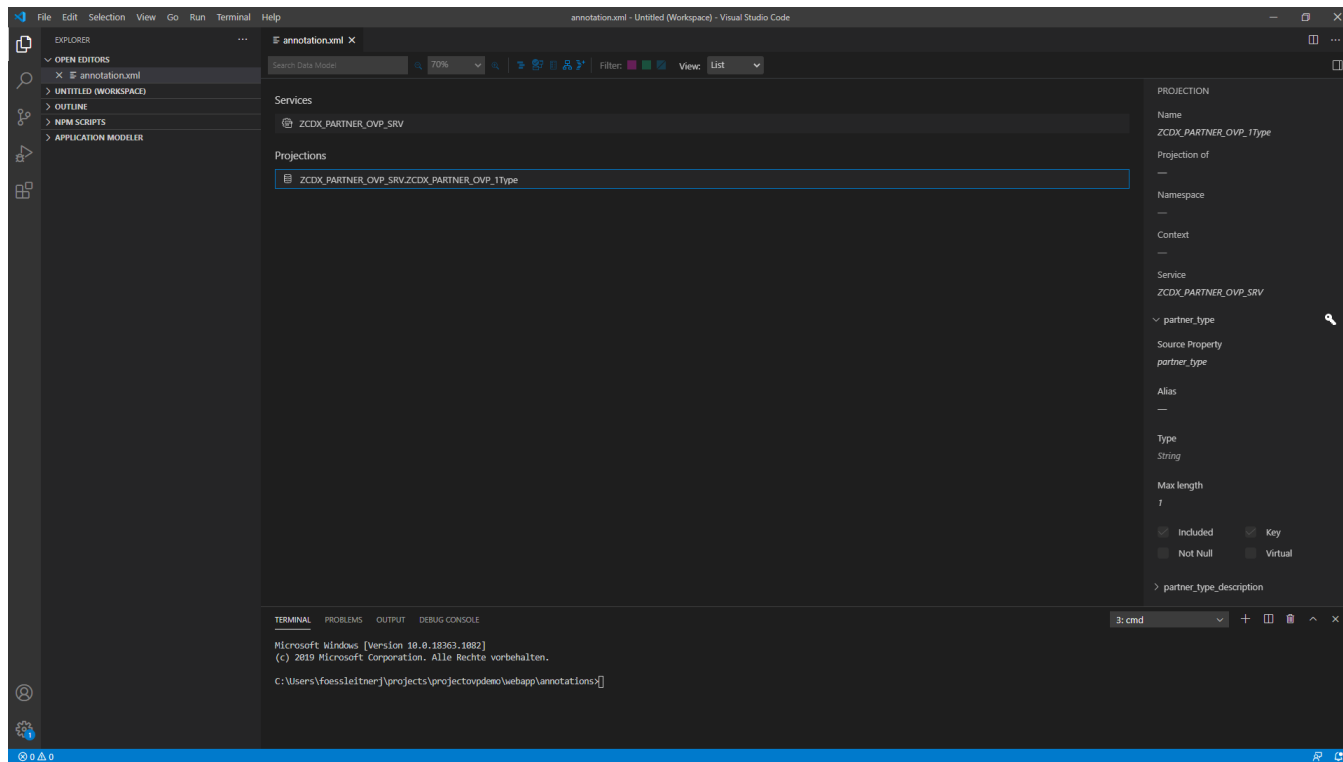


The screenshot displays the SAP Fiori Guided Development environment within Visual Studio Code. The central editor shows the JSON configuration for 'OverviewPage.json', which defines the structure and data of the application. The right-hand pane provides guided development options, including 'Enable table data export', 'Enable table to auto load data', and 'Re-order columns in a table'. Below these options, a preview of a table titled 'Sales Orders for Key Accounts' is shown, displaying columns for Sales Order, Customer, Net Amount, and Status.

Sales Order	Customer	Net Amount	Status
5000010050	Robert Brown Entertainment	2K USD	Delivered
5000010051	Entertainment Argentina	127K USD	Canceled
5000010052	Brazil Technologies	8K USD	In Progress
5000010053	Quimica Madrilenes	25K USD	Delivered

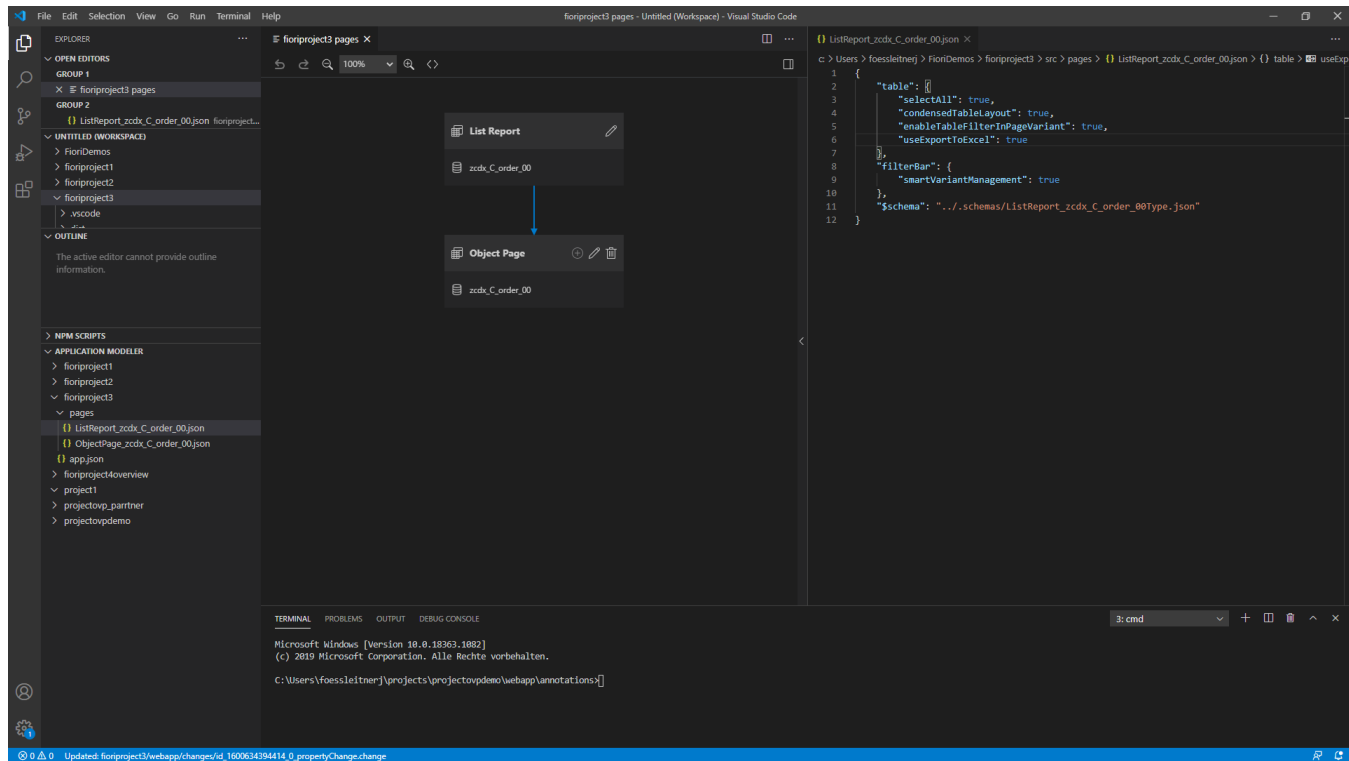
Service Modeler

Visualisierung der
OData Metadaten-
dateien



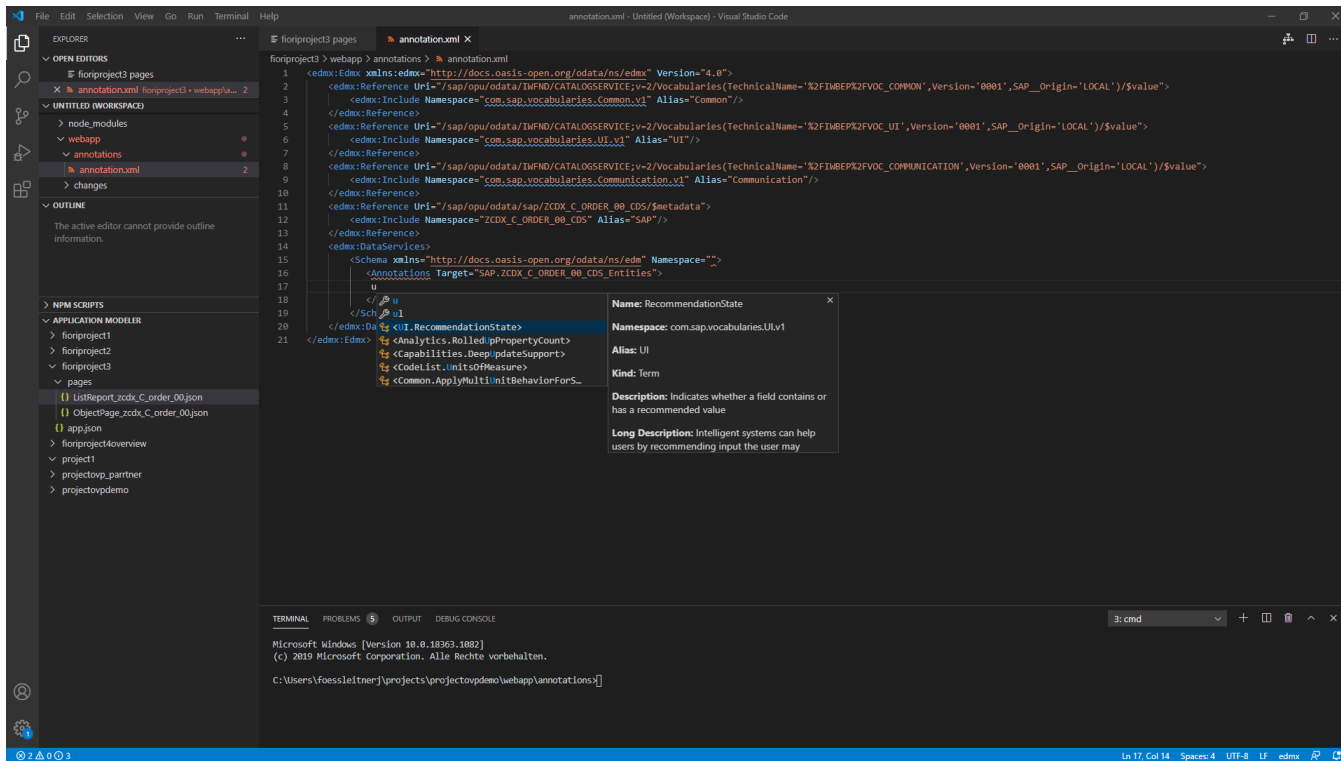
Application Modeler

Darstellung der
Seitenstruktur der
Anwendung und
Möglichkeit diese zu
Ändern



XML Annotation Language Server

Beschleunigt die Änderung von Annotations durch kontext sensitive Code Completion



Demo 3 – Fiori Tools

Excel Export einblenden

Erweiterungen

• Erweiterungsmöglichkeiten

- Verschiedene Erweiterungspunkte stehen für List Reports und Object Pages zur Verfügung
 - Felder oder Spalten hinzufügen
 - Aktionen hinzufügen
 - Vordefinierte Controller Extensions
 - ...



SAP weist an mehreren Stellen darauf hin, dass Erweiterungen **nur mit großer Vorsicht** verwendet werden sollen.

SAP Fiori Elements

- Relativ einfache Entwicklung
- Relativ starres Gerüst
- Relativ geringe Kosten
- Extensions sorgsam einsetzen

Freestyle Fiori

- Komplexe Entwicklung
- Alles ist möglich
- Höher Entwicklungs- und Wartungskosten

Links, Tutorials, Bücher, Sonstiges

● Weitere Informationen

- Übersicht
 - [SAP Fiori Elements – Übersicht](#)
 - [SAP Fiori Elements – Community WIKI](#)
 - [SAP Fiori Design Guidelines](#)
- SAP Blogs
 - [SAP Fiori tools is generally available. Increase the efficiency of developing SAP Fiori elements apps](#)
 - [Blogs with “SAP Fiori Elements” Tag](#)

● Weitere Informationen

○ Videos

- [Using SAP Fiori elements](#) – Serie mit 7 Videos
- [SAP Fiori Elements and SAP Fiori Tools](#) – SAP Online Track
- [How to build SAP Fiori Apps quickly and simply](#) – SAP TechEd 2019
- [SAP Fiori-side Chat Session on Steampunk](#)

○ Tutorials

- <https://developers.sap.com/tutorials/appstudio-fioriapps-create.html>
- <https://developers.sap.com/tutorials/abap-environment-deploy-cf-production.html>
- <https://developers.sap.com/group.appstudio-cap-nodejs.html>

The screenshot shows the SAP Developers website. The main header includes the SAP logo and navigation links: Products, Tutorials, Trials and Downloads, Resources, and Community. Below the header, there's a 'Tutorial Navigator / Group' section. The main content area features a large blue card for the tutorial 'Create and Enhance a CDS View in SAP NetWeaver 7.5 (ABAP)'. This card includes a 'Details' link, a description, and social media sharing icons. Below this, there's a 'Tutorials' section with two smaller cards: 'Create an ABAP Core Data Services (CDS) View in SAP NetWeaver 7.5' (45 min.) and 'Enhance an ABAP Core Data Services (CDS) View in SAP NetWeaver 7.5' (1 hr.). At the bottom, there's a footer with three columns: 'Developer Products' (listing ABAP Platform, SAP Cloud Platform, SAP Data Intelligence, SAP HANA, and SAP Web IDE), 'Trials & Downloads' (listing ABAP Development Tools, SAP NetWeaver AS ABAP 7.52 SP04 Developer Edition on ASE, SAP Cloud Platform, and SAP Data Intelligence, trial edition), and 'Site Information' (listing Privacy, Terms of Use, Legal Disclosure, Copyright, and Trademark).

Developers

Products Tutorials Trials and Downloads Resources Community

Tutorial Navigator / Group

// Explore More Tutorials

Create and Enhance a CDS View in SAP NetWeaver 7.5 (ABAP)

Beginner 1 hr 45 min Tutorial, SAP NetWeaver 7.5, Beginner, ABAP Development

Create and enhance a CDS view using annotations and expressions, to make your applications more powerful and more user-friendly.

Details

f t y in

Tutorials

Provide Feedback

Create an ABAP Core Data Services (CDS) View in SAP NetWeaver 7.5

Create a CDS View, display it in Fiori Elements preview, and enhance its appearance using built-in annotations

45 min.

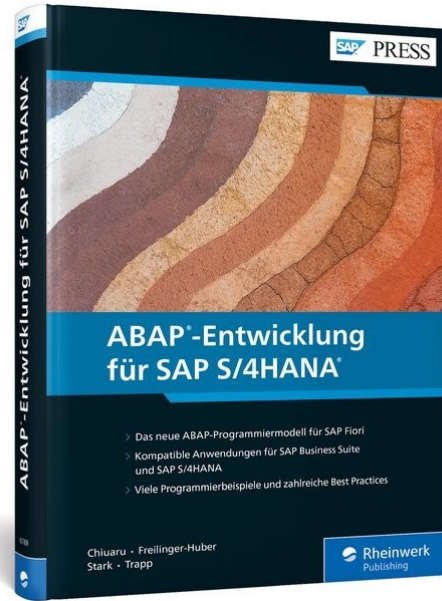
Enhance an ABAP Core Data Services (CDS) View in SAP NetWeaver 7.5

Add features like value help, aggregations, and calculated fields to an existing CDS view

1 hr.

Developer Products	Trials & Downloads	Site Information
ABAP Platform	ABAP Development Tools	Privacy
SAP Cloud Platform	SAP NetWeaver AS ABAP 7.52 SP04 Developer Edition on ASE	Terms of Use
SAP Data Intelligence	SAP Cloud Platform	Legal Disclosure
SAP HANA	SAP Data Intelligence, trial edition	Copyright
SAP Web IDE		Trademark

<https://developers.sap.com/group.abap-dev-cds-view.html>

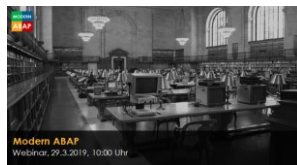
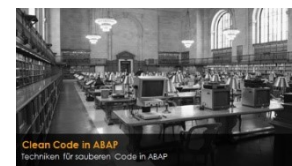


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<https://www.rheinwerk-verlag.de/abap-entwicklung-fuer-sap-s4hana>
<https://www.rheinwerk-verlag.de/dsag>



Zusammenfassung






<http://www.cadaxo.com/blog/>




See you again!

Thank you for participating!





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