EXERCISE 01A - CREATE A CUSTOM BUSINESS OBJECT

SAP Partner Workshop	⏱ 15 min

Description

In this exercise, you'll learn how

- to create a custom business object that has a simple data structure and publish it
- to define the data structure and create the database persistence of a custom business object

Target group

- Developers
- People interested in learning about S/4HANA Cloud In-App extensions.

Goal

The goal of this exercise is to create a custom business object.

Prerequisites

Below are the prerequisites for this exercise.

- Google Chrome: Please complete this exercise using the Google Chrome browser
- **Authorizations:** Your user needs a business role with business catalog **Extensibility** (ID: `SAP_CORE_BC_EXT`)

Steps

Starting "Custom Business Objects" application

A several tutorials spanning example will show extensibility along custom Bonus Management applications.

As applications are based on business objects, it all starts with custom business object creation.

In the first parts a Manager wants to define business objects "Bonus Plan" for employees. A Bonus Plan is there to save employee specific rules for bonus entitlement.

Start with checking the prerequisite role.

1. Logon to the S/4HANA Cloud system. The presenter will provide you the logon user and password.

   The **XX** is the number that you have been assigned to use for the exercise.

Log On

E-Mail

DeveloperXX

Password

••••••••••

☐ Remember me

Log On

Forgot password?

SAP S/4HANA Cloud for SAP
Partner Solution Center

Powered by

SAP Cloud Platform

2. Click on the **Maintain Business Users** tile.

Maintain Business
Users
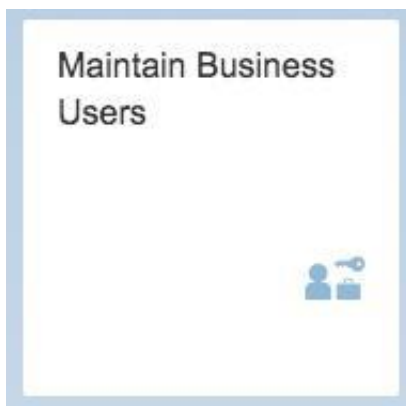
3. Type in the User in the User Name Field and hit enter to search. Your user will be displayed. Click on the error at the end of your user row to show the detail.

4. On the "Assigned Business Roles" session. Check if you have the Extensibility Business Role. If you don't see the role, click on "Add" at the right hand side of the "Assigned Business Roles" to add the role.

5. Search for "Extensibility". Click on the checkbox for Extensibility and click OK.

Add Business Roles

Business Roles

	Business Role	Business Role ID
☐	Extensibility Demo	EXTENSIBILITY_DEMO
☐	ATP_Release for Delivery	ATPRFD
☑	Extensibility	EXTENSIBILITY

Search: Extensibility

OK   Apply   Cancel

6. You will see the Extensibility business role added. Click on "Save".

demo03

DEMO03

Personal Data

Last Name:	demo03
First Name:	demo03
Person ID:	9980000695
E-Mail:	
Telephone:	
Location:	

User Data

User Name:	DEMO03
User ID:	CB9980000695
Valid From:	08/04/2016
Valid To:	12/30/9999
Locked:	☐

Regional Settings

Decimal Notation:	1,234,567.89
Date Format:	MM/DD/YYYY (Gregorian Date)
Time Zone:	
Time Format:	24 Hour Format (Example: 12:0...
Language:	English United States

Assigned Business Roles (2)

Add   Remove

	Business Role	Business Role ID
☐	Extensibility	EXTENSIBILITY
☐	SE Demo Build Team	SE_DEMO_BUILD

Add Business Roles   Remove Business Roles   **Save**   Cancel

7. Go back to the Launchpad Home page by clicking on the Home icon.

8. Refresh the browser. You will see more applications for the catalog of Extensibility.
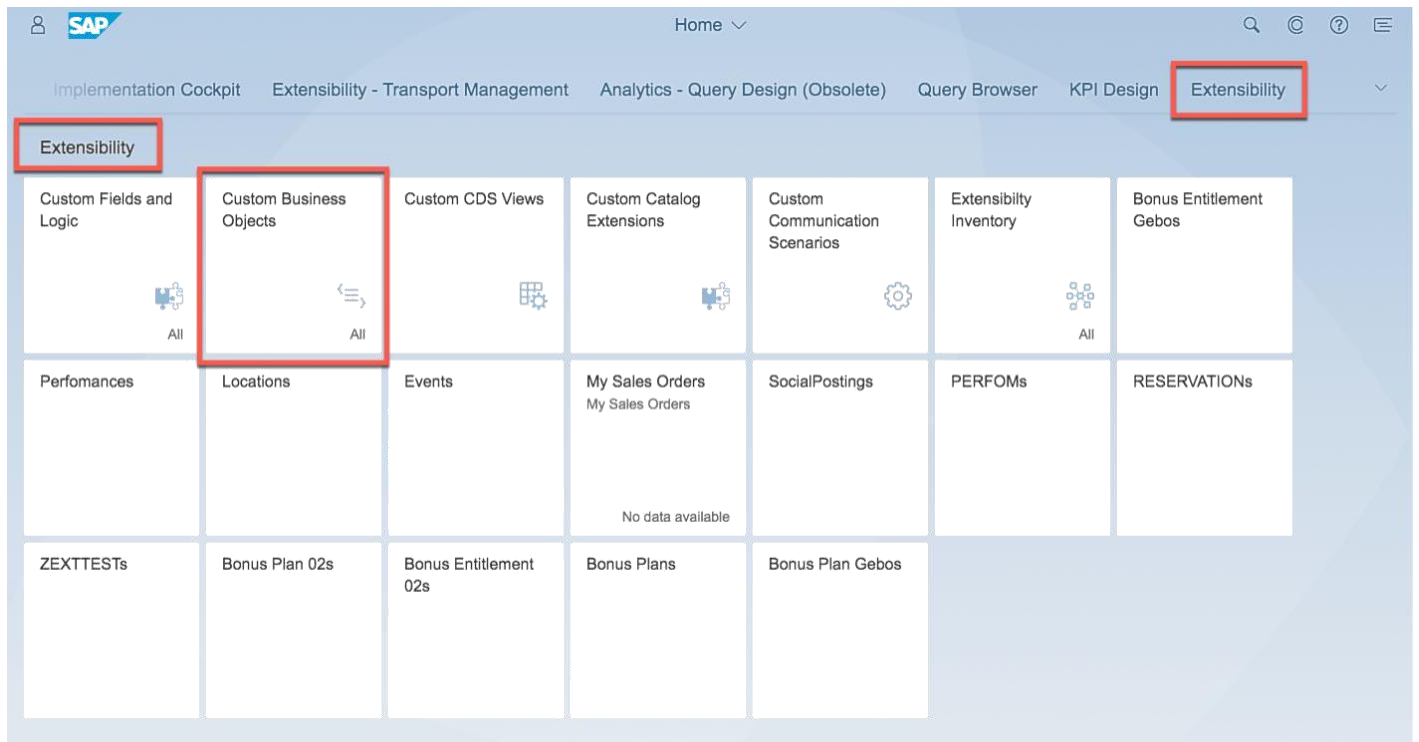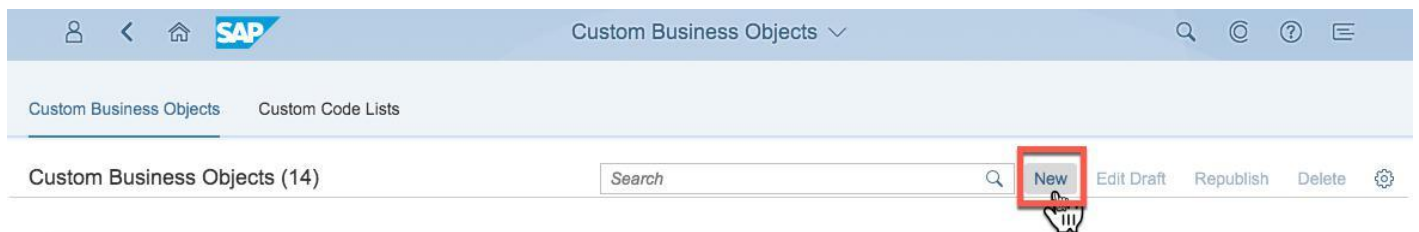
Creating a new Custom Business Object

1. **Create** the Custom Business Object's application by clicking its tile

2. Press the **New** action to start creation of a Custom Business Object

3. In the opening Pop Up **fill** in the Name "Bonus PlanXX". The other editable fields will get proposals automatically but can be changed.

New Custom Business Object

*Name:	Bonus Plan03
*Identifier:	YY1_ BONUSPLAN03
*Name in Plural:	Bonus Plan03s

Create   Cancel

4. Execute the **Create** action.

Defining the data structure

1. In the following view for editing the custom business object **Go to Fields and Logic** of the root node

   "Bonus PlanXX".

Structure			New Delete ⚙
Name	Identifier	Name in Plural	Details
Bonus Plan03	BONUSPLAN03	Bonus Plan03s	Go to Fields and Logic

2. Click on **New** to create new field for the object.

Bonus Plan03 BONUSPLAN03

FIELDS   ACTIONS

Fields		New Delete ⚙
Naming	Definition	Further Properties
No results found. Adjust your search and filter settings.		

3. Enter "ID" for the Naming. Choose "Numeric Identifier" for the Type. Keep 10 for the Length. Check the

   Key checkbox.

Bonus Plan03 BONUSPLAN03

FIELDS   **ACTIONS**

Fields   New   Delete   ⇑   ^   ⌄   ⇟   ⚙

Naming	Definition	Further Properties
Label: ID	Type: Numeric Identifier ⌄	Read O...: ☐
Identifier: ID	Length: 10	Transp...: No
Tooltip: ID	Key: ☑	

4. Repeat the above 2 steps to **create** following fields by clicking on **New** for each field.

Field Name	Field Properties	Tooltip
ID	Numeric Identifier of length 10, key field	
Validity Start Date	Date	
Validity End Date	Date	
Target Amount	Amount with Currency	
Low Bonus Assignment Factor	Number of length 4, decimals 2	Actual revenue must meet target more than that many times
High Bonus Assignment Factor	Number of length 4, decimals 2	Actual revenue must meet target more than that many times
Low Bonus Percentage	Quantity with Unit	
High Bonus Percentage	Quantity with Unit	
Is Consistent	Checkbox, Read Only	
Employee ID	Text of length 12	
Employee Name	Text of length 40, Read Only	

5. The UI for maintaining fields looks as follows.

Bonus Plan03
BONUSPLAN03

FIELDS   ACTIONS

Fields			New Delete ≫ ∧ ∨ ≫ ⚙
	Naming	Definition	Further Properties
○	Label: ID Identifier: ID Tooltip: ID	Type: Numeric Identifier ∨ Length: 10 Key: ☑	Read Only: ☐ Transported: No
○	Label: Validity Start Date Identifier: ValidityStartDate Tooltip: Validity Start Date	Type: Date ∨ Key: ☐	Read Only: ☐ Transported: No
○	Label: Validity End Date Identifier: ValidityEndDate Tooltip: Validity End Date	Type: Date ∨ Key: ☐	Read Only: ☐ Transported: No
○	Label: Target Amount Identifier: TargetAmount Tooltip: Target Amount	Type: Amount with Currency ∨ Key: ☐	Read Only: ☐ Transported: No
○	Label: Low Bonus Assignment Factor Identifier: LowBonusAssignmentFactor Tooltip: Low Bonus Assignment Factor	Type: Number ∨ Length: 4 Decimal Places: 2 Key: ☐	Read Only: ☐ Transported: No
○	Label: High Bonus Assignment Factor Identifier: HighBonusAssignmentFactor Tooltip: High Bonus Assignment Factor	Type: Number ∨ Length: 4 Decimal Places: 2 Key: ☐	Read Only: ☐ Transported: No
○	Label: Low Bonus Percentage Identifier: LowBonusPercentage Tooltip: Low Bonus Percentage	Type: Quantity with Unit ∨ Key: ☐	Read Only: ☐ Transported: No
○	Label: High Bonus Percentage Identifier: HighBonusPercentage Tooltip: High Bonus Percentage	Type: Quantity with Unit ∨ Key: ☐	Read Only: ☐ Transported: No
○	Label: Is Consistent Identifier: IsConsistent Tooltip: Is Consistent	Type: Checkbox ∨ Key: ☐	Read Only: ☑ Transported: No
○	Label: Employee ID Identifier: EmployeeID Tooltip: Employee ID	Type: Text ∨ Length: 12 Key: ☐	Read Only: ☐ Transported: No
○	Label: Employee Name Identifier: EmployeeName Tooltip: Employee Name	Type: Text ∨ Length: 40 Key: ☐	Read Only: ☑ Transported: No

6. Go back via the application's **Back** button.

Adding standard data to the structure

1. Back in the business Object's definition overview, **check** the System Administrative Data box to add standardized fields for `Created On`, `Created By`, `Last Changed On` and `Last Changed By`.

| *Name: | Bonus Plan03 | | Created: | 10/31/2017, 13:01:26, demo03 |

*Name: Bonus Plan03   Created: 10/31/2017, 13:01:26, demo03

*Name in Plural: Bonus Plan03s   Changed: 10/31/2017, 13:01:26, demo03

Determination and Validation: ☐   Original Language: English

UI Generation: ☐   Can Be Associated: ☐

Service Generation: ☐   System Administrative Data: ☑

By checking this box the four fields also appear as uneditable in the field list. 1These fields will be filled and updated automatically, so that you do not need to implement logic for this. Logic implementations for these fields even would be ignored.

Creating the database persistence

1. **Publish** the Business Object `Bonus PlanXX` .

Structure   New   Delete   ⚙

Name	Identifier	Name in Plural	Details
Bonus Plan03	BONUSPLAN03	Bonus Plan03s	Go to Fields and Logic

💬 1   Publish Save Draft Cancel Delete

This creates the database persistence of the Business Object.

2. You will **Published"** in green for this object when the publishing is completed.

Bonus Plan03

YY1_BONUSPLAN03   Published

Name: Bonus Plan03   Created: 10/31/2017, 13:01:26, demo03

Name in Plural: Bonus Plan03s   Changed: 10/31/2017, 13:55:05, demo03

Determination and Validation: ☐   Original Language: English

UI Generation: ☐   Can Be Associated: ☐

Service Generation: ☐   System Administrative Data: ☑

Structure   New   Delete   ⚙

Name	Identifier	Name in Plural	Details
Bonus Plan03	BONUSPLAN03	Bonus Plan03s	Go to Fields and Logic

Summary

This concludes the exercise. You should have learned how to create a custom business object that has a simple data structure and publish it. At the end there will exist a database table for the business object. Please proceed with exercise 01B.