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Customization Guide - SAP C4C

Version

This article was created by SAP C4C (1702) Version

Brief Description

This article will address the communication between 2 objects, passing parameters that will be used Data filters between these objects. They can return a set of data, or even guide the solution for automatic decision making based on settings made by system administrators.

I hope you enjoy!!

Author

Claudio Goulart has been working since 1992 with the implementation of corporate solutions. Since 1999, he began his career with CRM deployments, with the most widely used Market Suites such as Vantive, PeopleSoft and Siebel. And since 2008, it has been active with SAP CRM, Hybris and On Premise and Cloud Systems Integration.

Specialist in evaluation, process definition, and adherence of customer needs to SAP on Premise and Cloud solutions.

Extensive knowledge in implementations of SAP and Hybris solutions in the areas of Call Center, Services, Marketing and Sales.

Experienced integrator of SAP on Premise Solutions (ECC and CRM) and SAP Hybris Cloud for Customer (C4C), using SAP Hana Connection Integration, SAP PI / PO and SOA Architecture.

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1. Customization

1.1. Description

On this document, I will create 2 Business Object as follow:

- BONormal
  This BO represent a main screen, which will call the BOTransient passing as parameter the UserID.
- BOTransient
  This BO represent some temporary data, which could be feed by a web service or even some configurations used to guide CRM Solutions in Customers Process.

  With User ID passed by parameter from BONormal, only records with the correspondent UserID will be returned, and it will be available to be selected.

1.2. Defining the Business Objects involved

On this section, I will define the base of our article. The Business Objects involved are the follow:

- BONormal21

  This object represents our main BO, and it related with BOTransient21 by field named **IDBOTTransient**.

  There is a particularity on relationship between those objects. To access BOTransient21, it's necessary provide the UserID, and only access data belongs to this User.

BoNormal21.bo

```
import AP.Common.GDT as apCommonGDT;

businessobject BoNormal21 {

    [Label("ID")] [AlternativeKey] element ID:ID;
    [Label("Description")] element Description:LANGUAGEINDEPENDENT_ENCRYPTED_MEDIUM_Description;
    [Label("IDBOTransient")] element IDBOTransient:LANGUAGEINDEPENDENT_ENCRYPTED_SHORT_Description;
    [Label("UsuCreated")] element UsuCreated:UserAccountID;

}
```

- BOTransient21

  This object represents our BO related of user configuration. On this object, it will be storage many configurations. And it segregates by User ID.

BOTransient21.bo

```
import AP.Common.GDT as apCommonGDT;

businessobject BOTransient21 {

     [Label("User ID")] [AlternativeKey] element User:ID;
     [Label("GlobalUserID")]  [AlternativeKey] element GlobalUser:LANGUAGEINDEPENDENT_SHORT_Description;
     [Label("Date Reference")] element DateReference:LANGUAGEINDEPENDENT_SHORT_Description;
     [Label("Date Created")] element DateCreated:Date;

}
```

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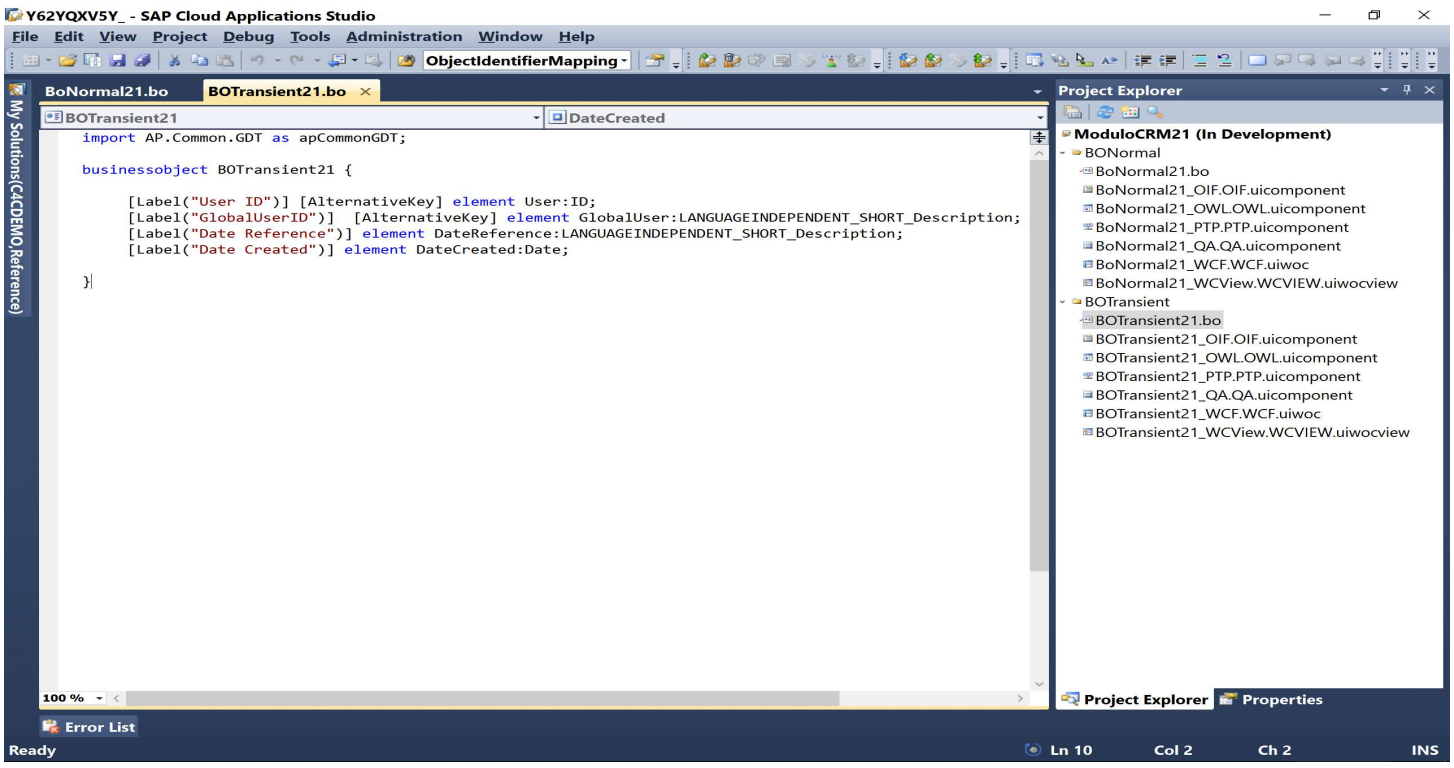
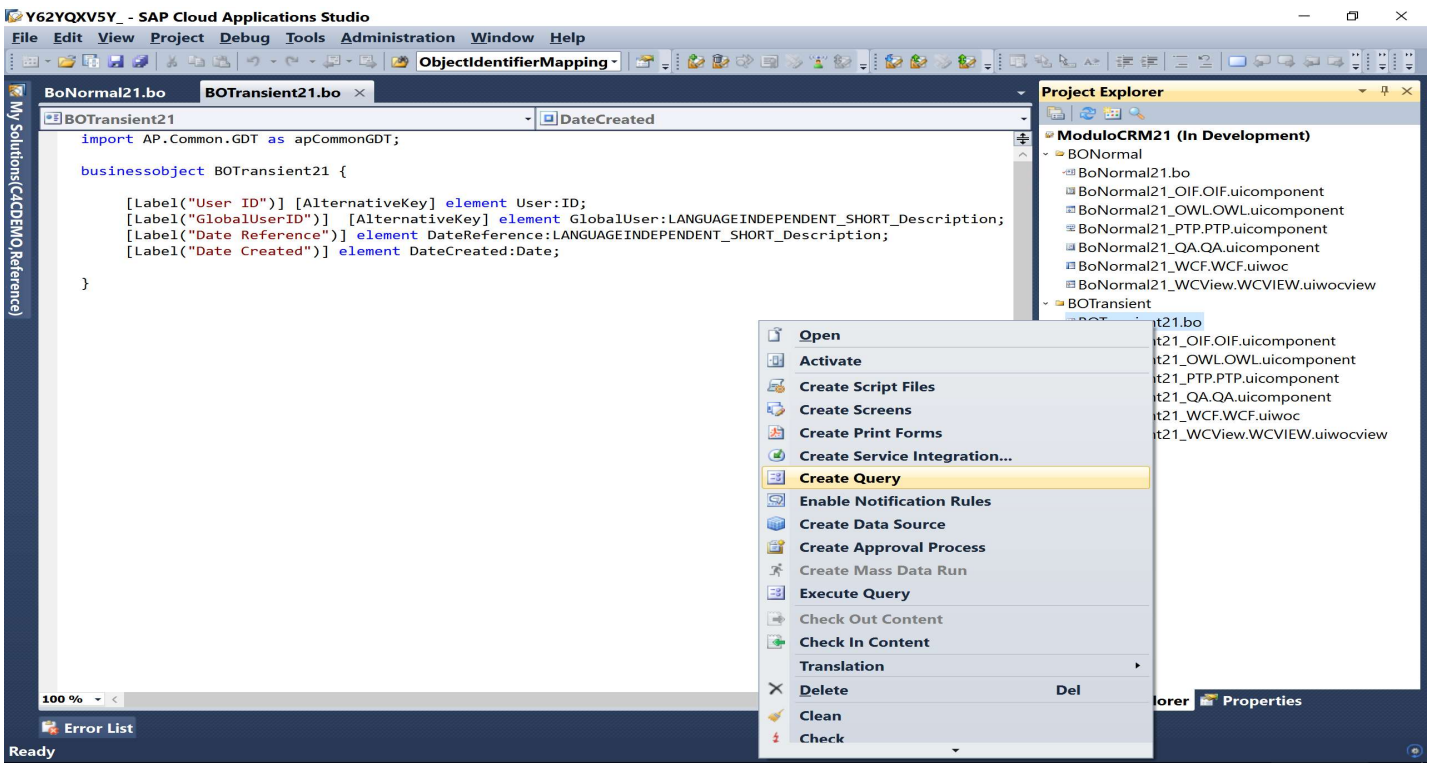
For those objects, I created screens to every BO mentioned before.



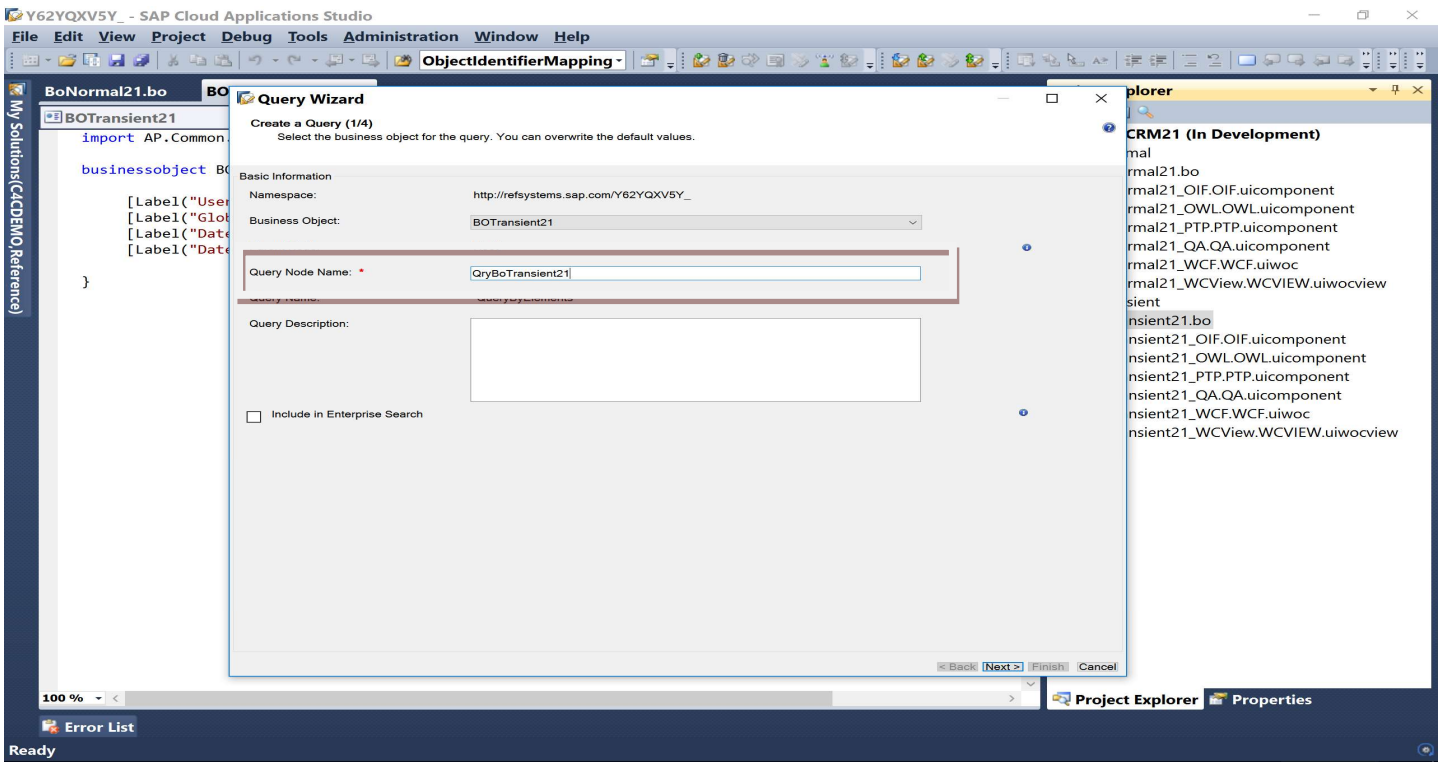
1.3. Creating Query for Business Object (BOTransient21)

To Allow the restrict access of Business Object (BOTransient21) Data by UserID, it's necessary create a Query.

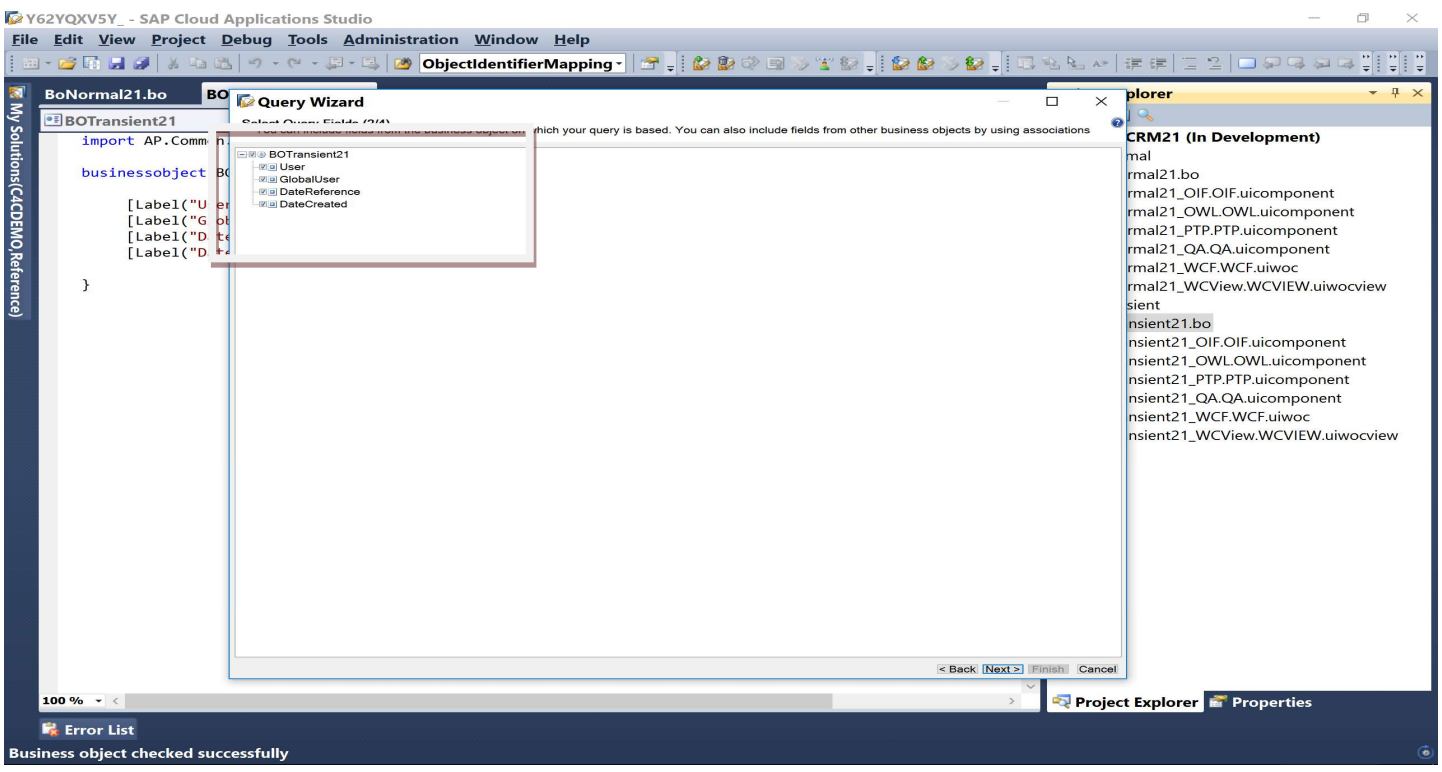
So, select the BO BOTransient21, and mouse right click, choose "Create Query" option



Type a succinct name for this query, and then Next.



Elect all fields that you intend to use on this Query. For our example, I will select all of it.



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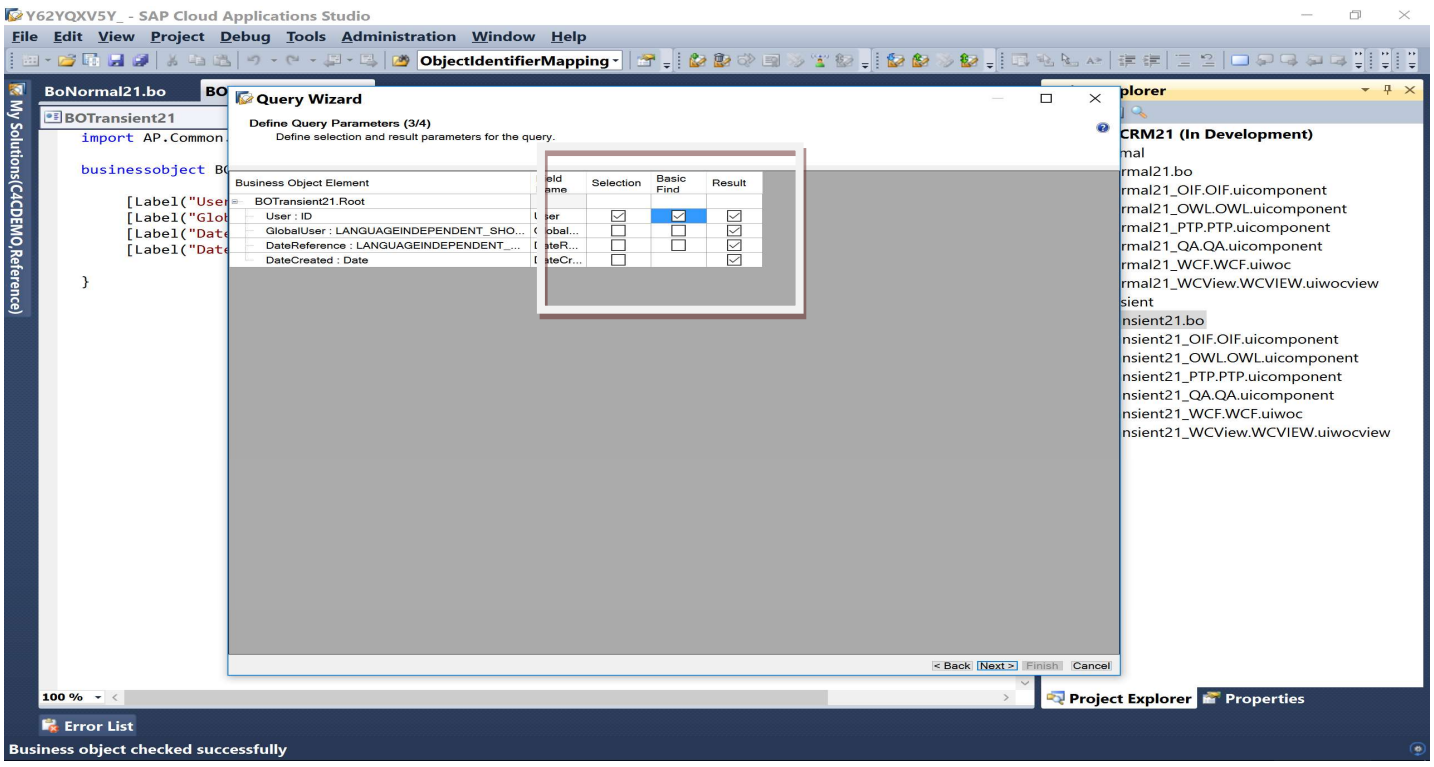
On Selection column, check only User ID field.

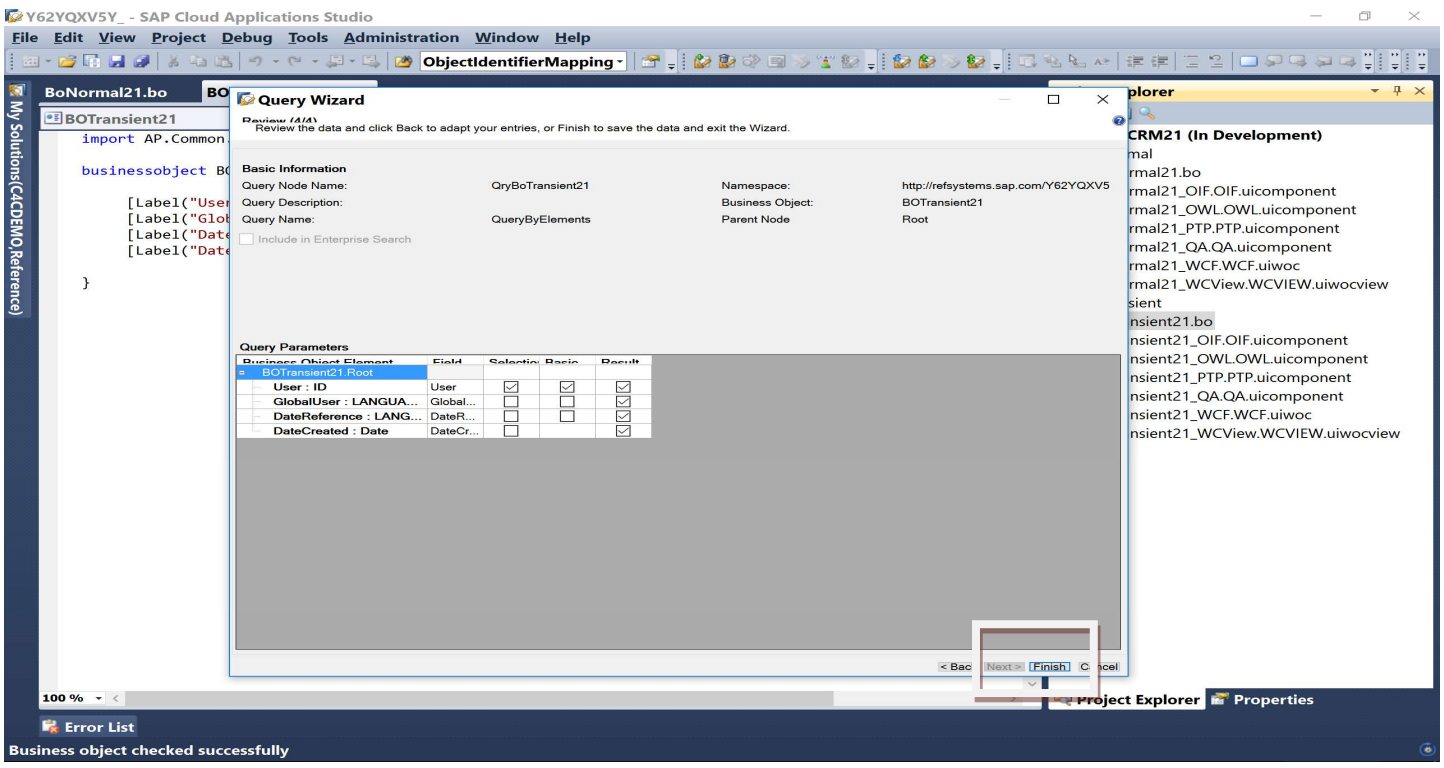
On Basic Find column, check only User ID Field.

On Result column, check all fields

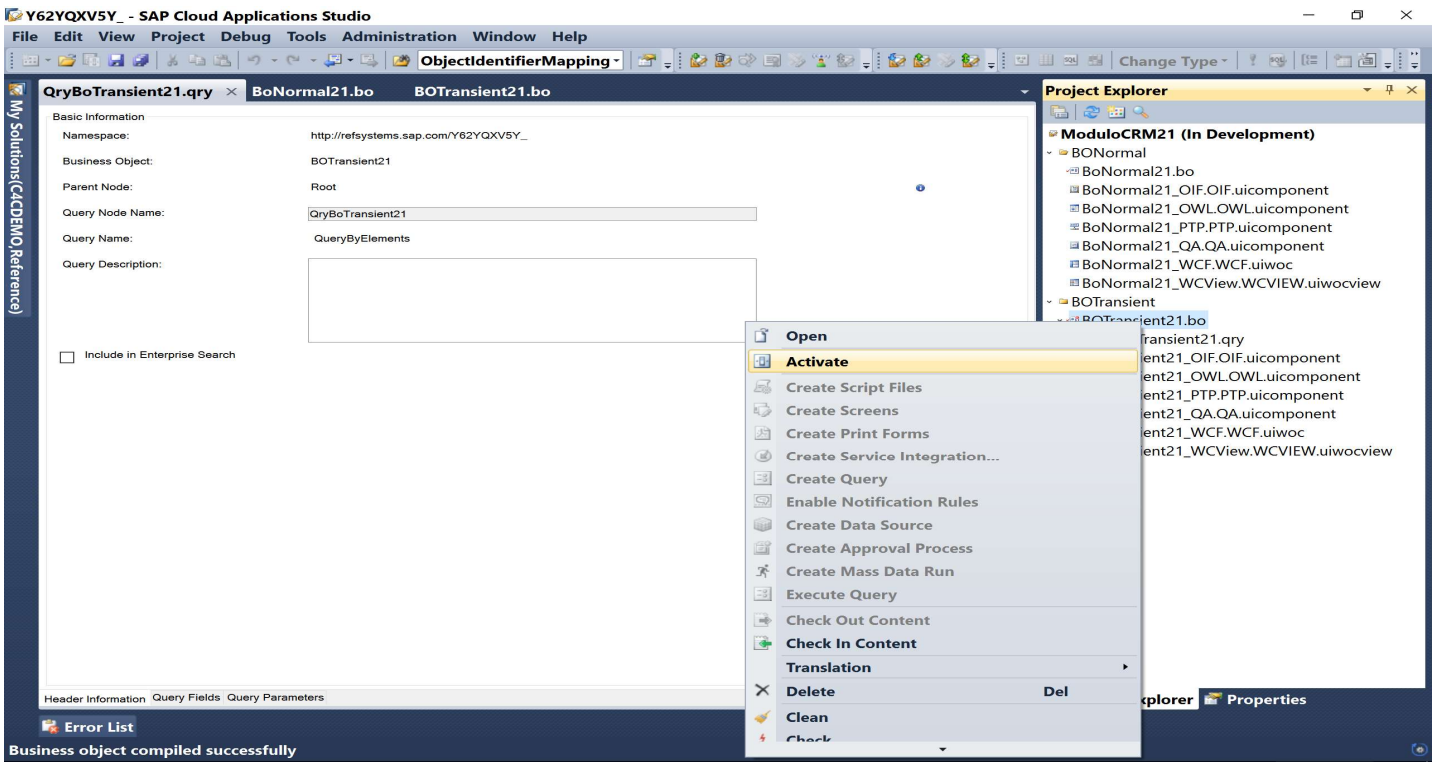
Click on Next button.



Click on Finish Button. And our query was created effectively.



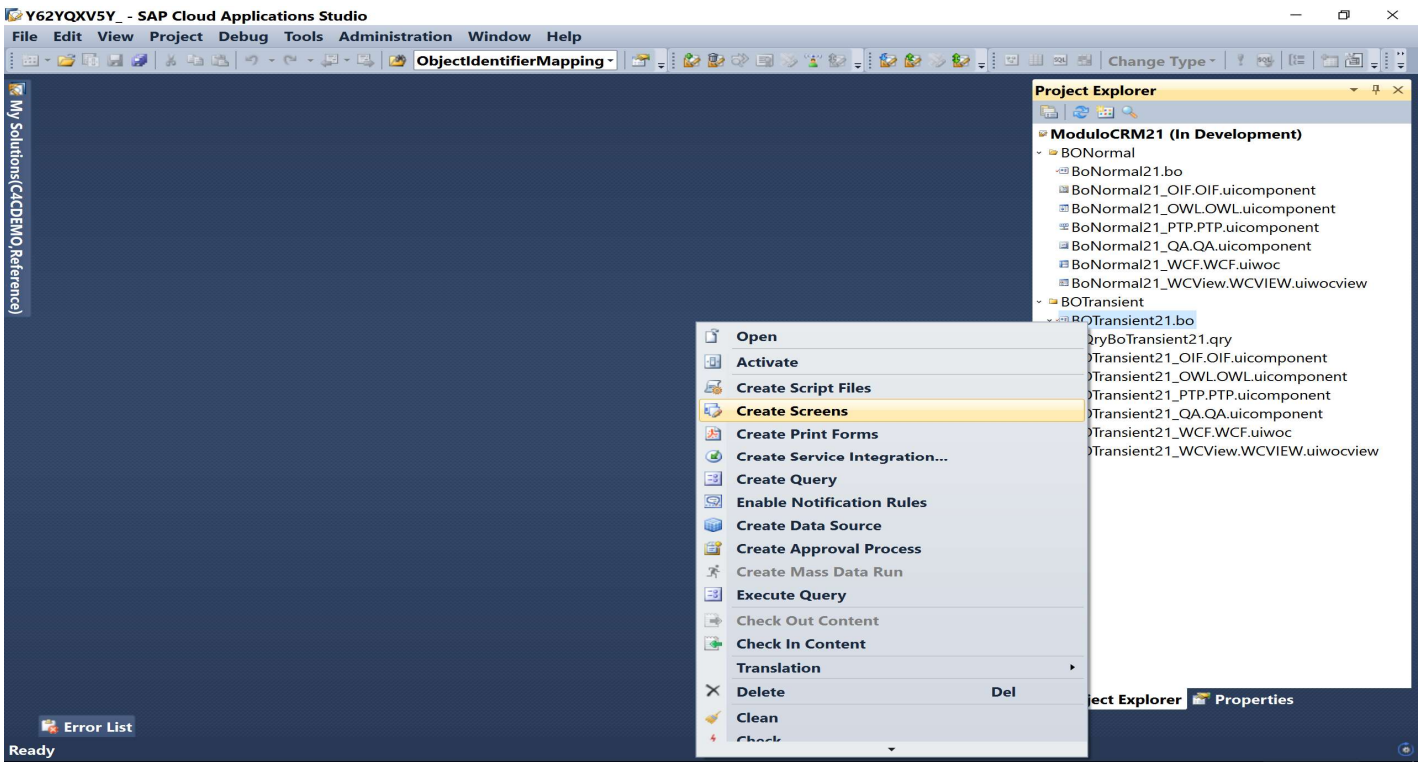
Click on BO BOTransient21, mouse right button, and then choose “Activate”.



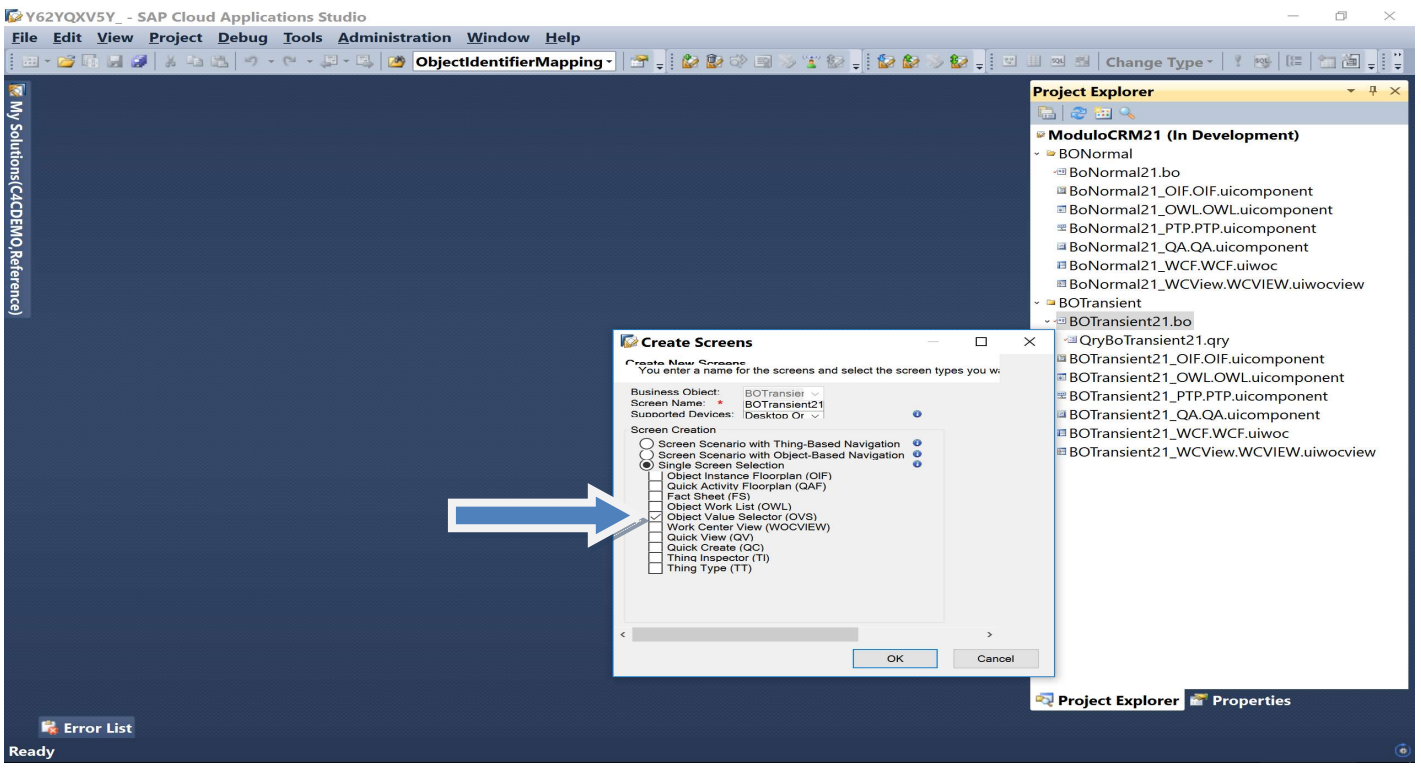
1.4. Creating Object Value Selector Screen to BO BOTransient

Now, I will create the OVS Screen (Object Value Selector). Select BOTransient21, mouse right button, choose “Create Screens”.

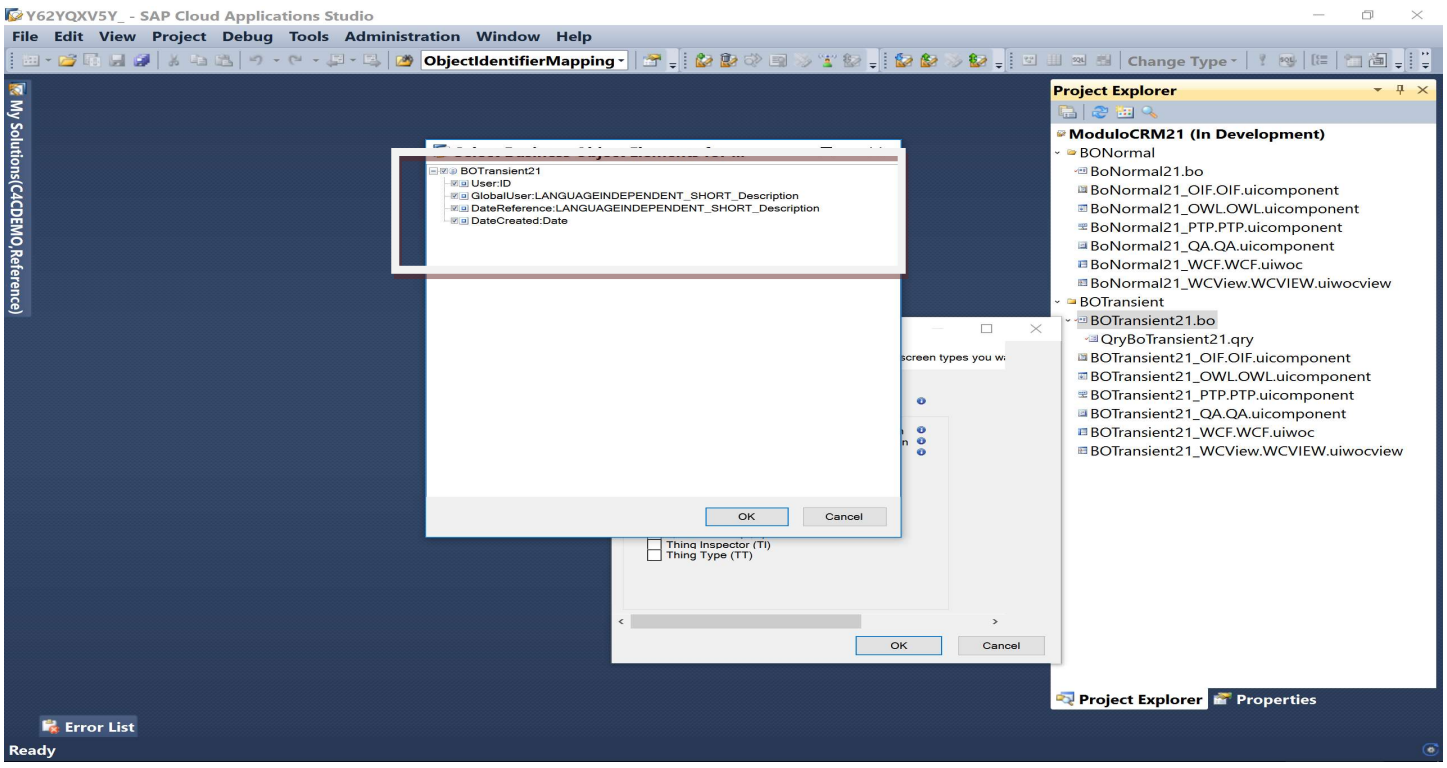
Important: That screen will be responsible to get in User ID and filter all BOTransient records.



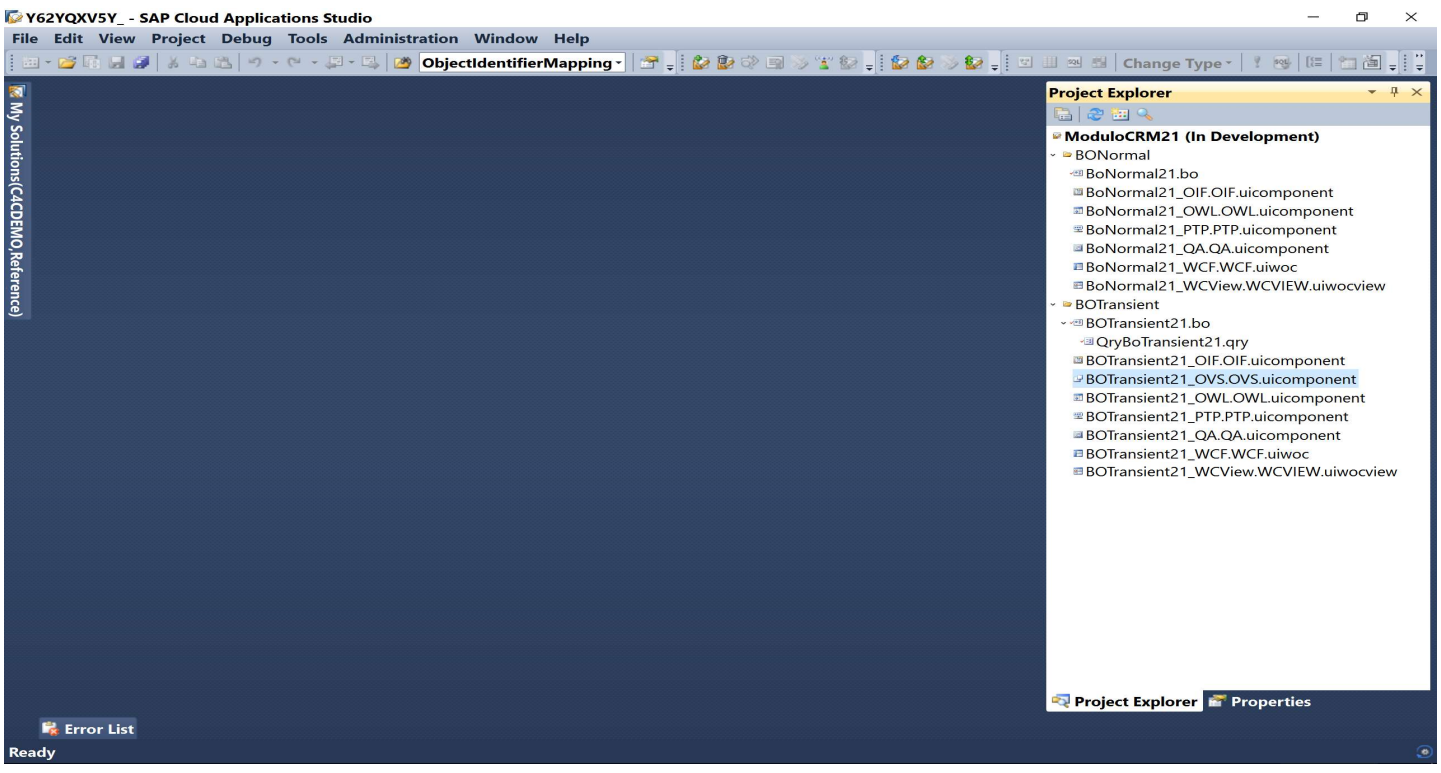
Choose Object Value Selector (OBS), and then OK.



Select all fields that will be display for the user on screen. In our case, I will select it all. And then OK.



Screen Created!!



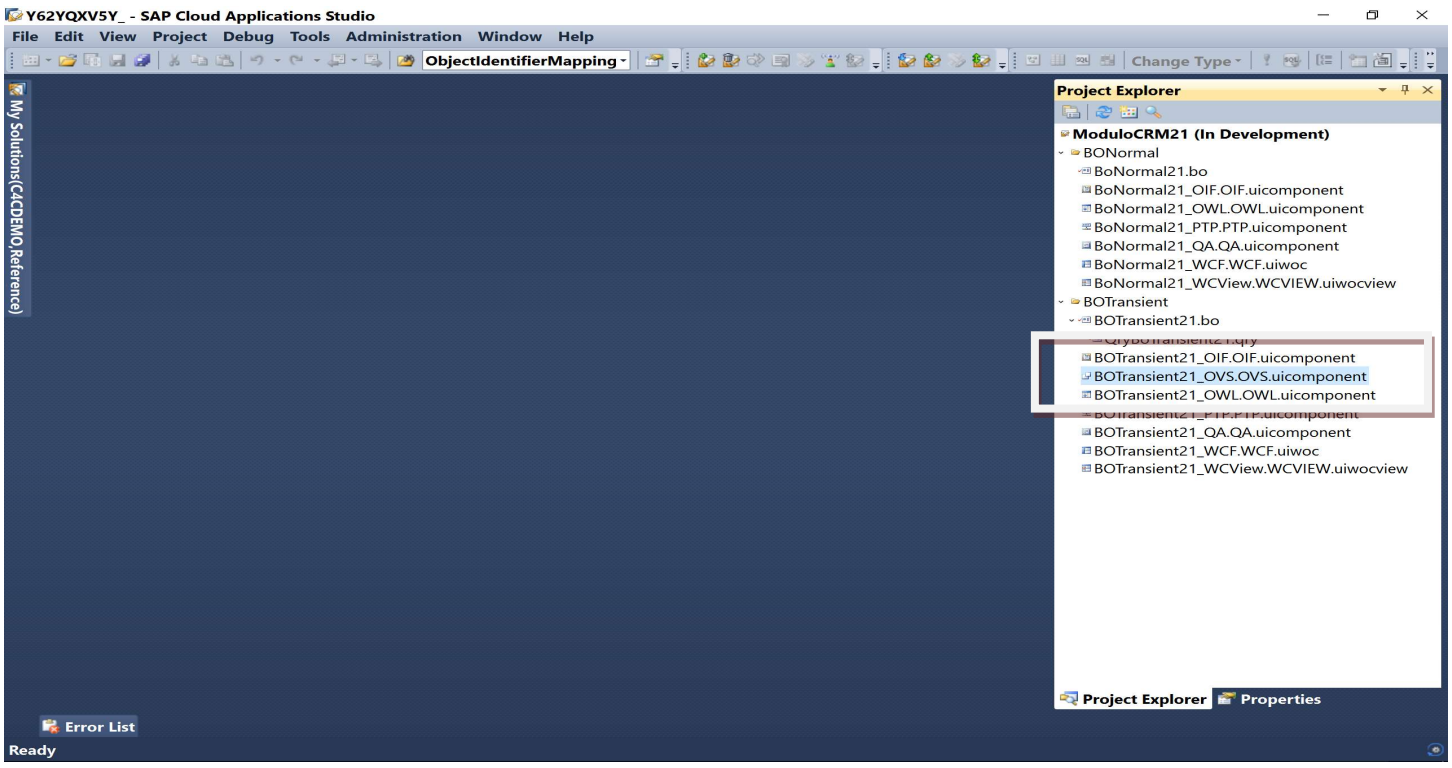
1.5. Configuring the OVS Screen

Now, on OVS Screen, I will configure the follow items:

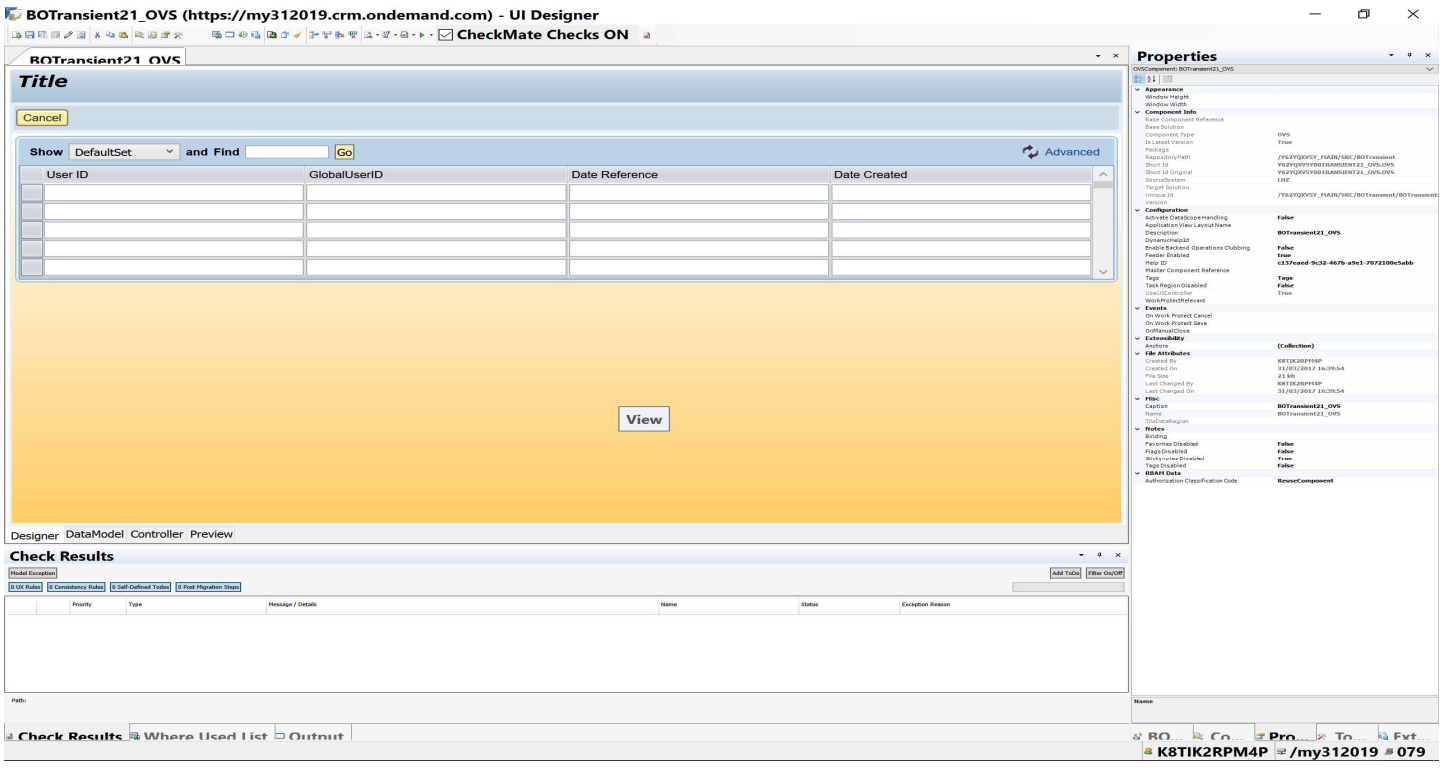
- Prepare the Screen to receive the User ID
- Repass the User ID to the Query created before.

With those configuration, it's will be possible filter all records on BOTransient by User ID

So, to do it, select the OVS Screen, and double click to call UI Designer



The UI Designer show OVS Screen up.



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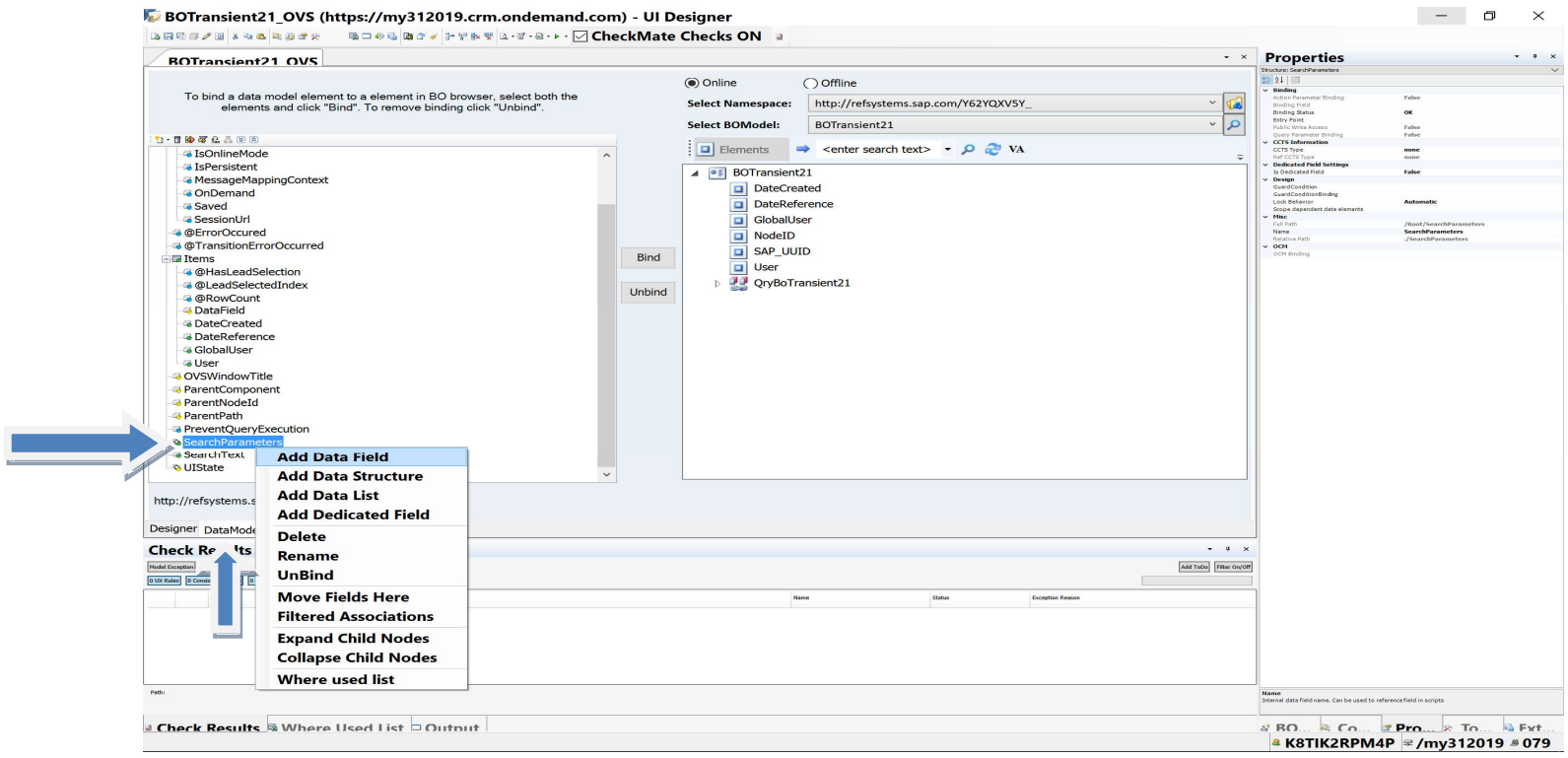
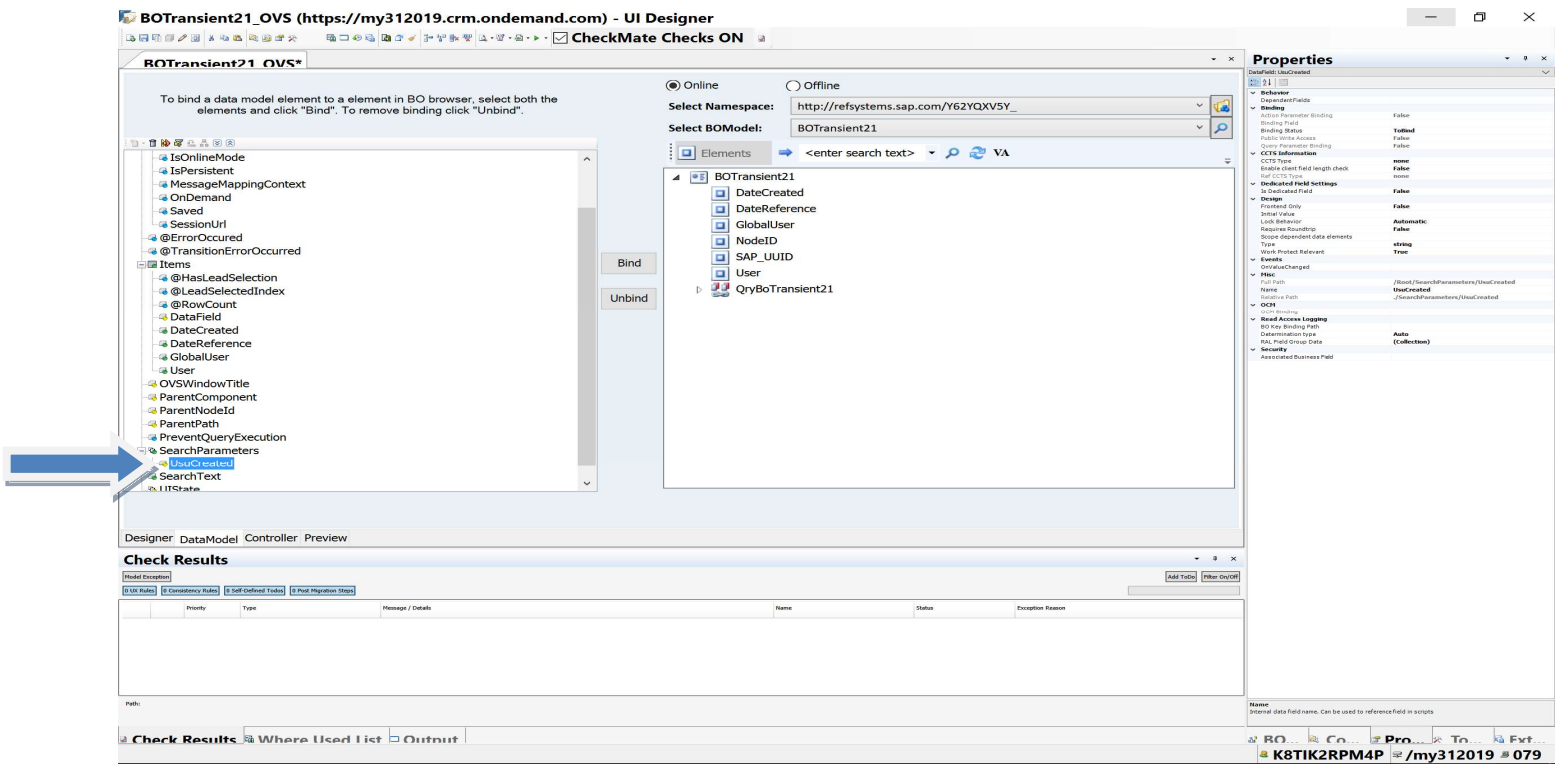
On Data Model tab, select the SearchParameters, and then mouse right button, choose the “Add Data Field”

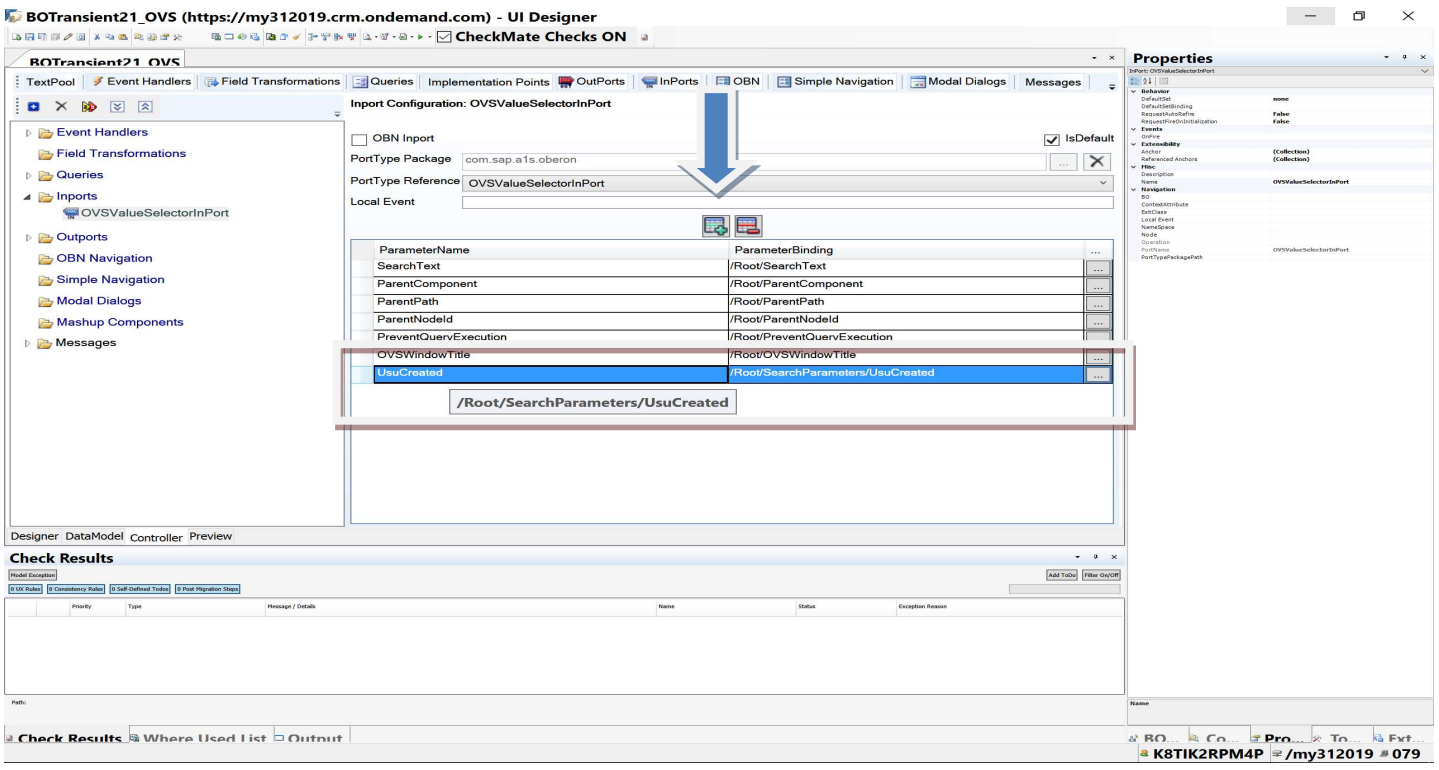


Rename it to UserCreated.



Select the Controller tab, expand the Imports folder on the left. There will be only on item, named OVSValueSelectionInPort. Select it.

On the box in the center, add on item, named UserCreated, and bind it with the path below.



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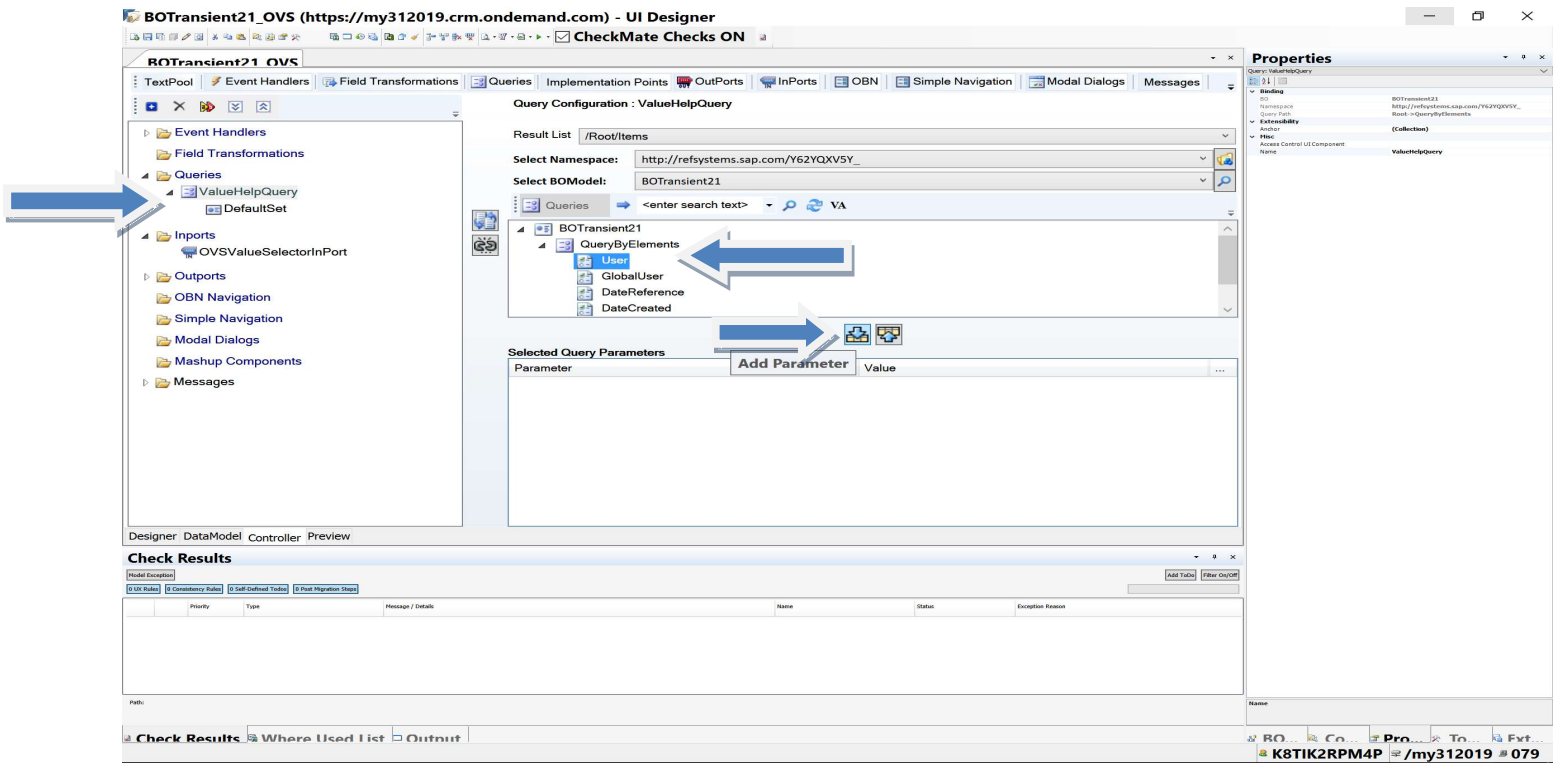
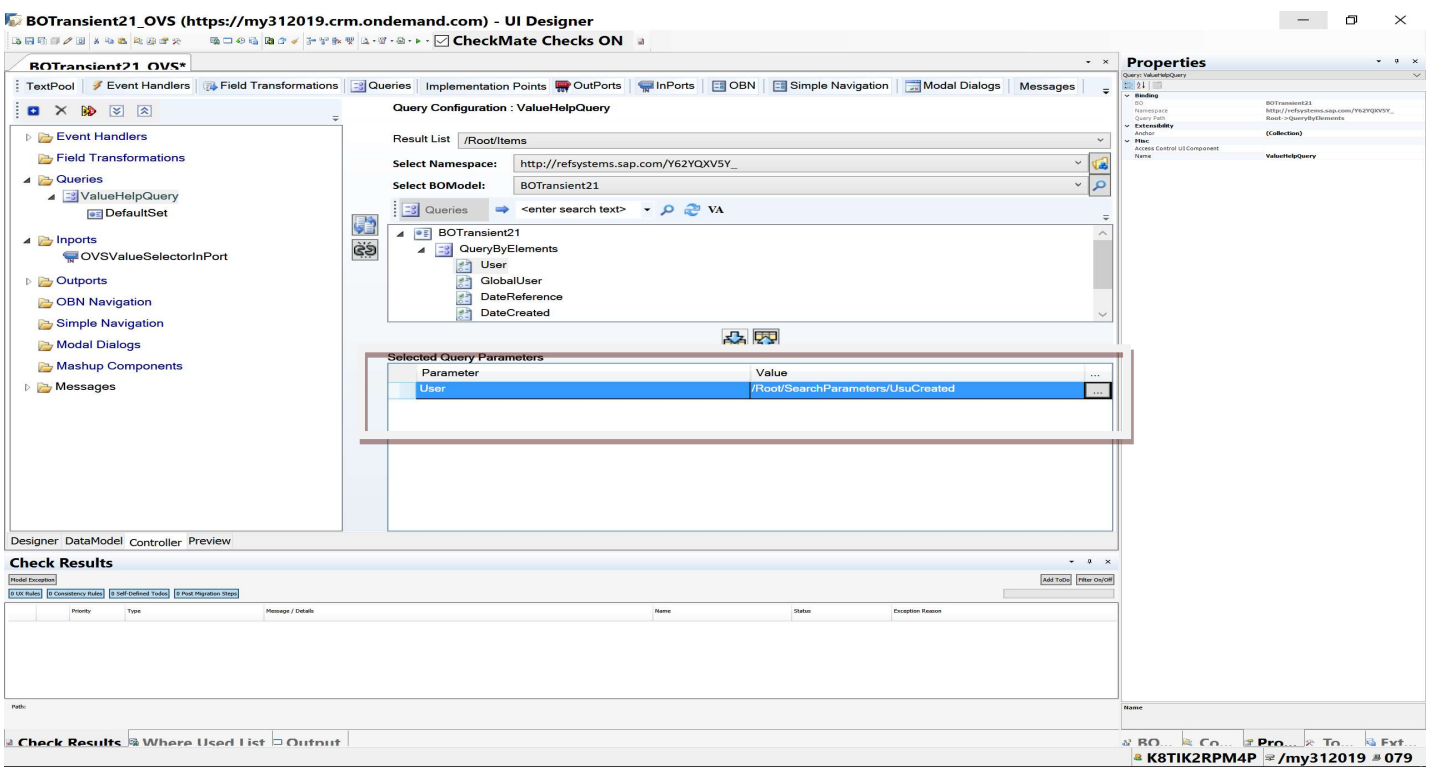
Open the Queries folder, and select the ValueHelpQuery item.

On the center, open the QueryByElements, and select User filter, and then click on button Add below.



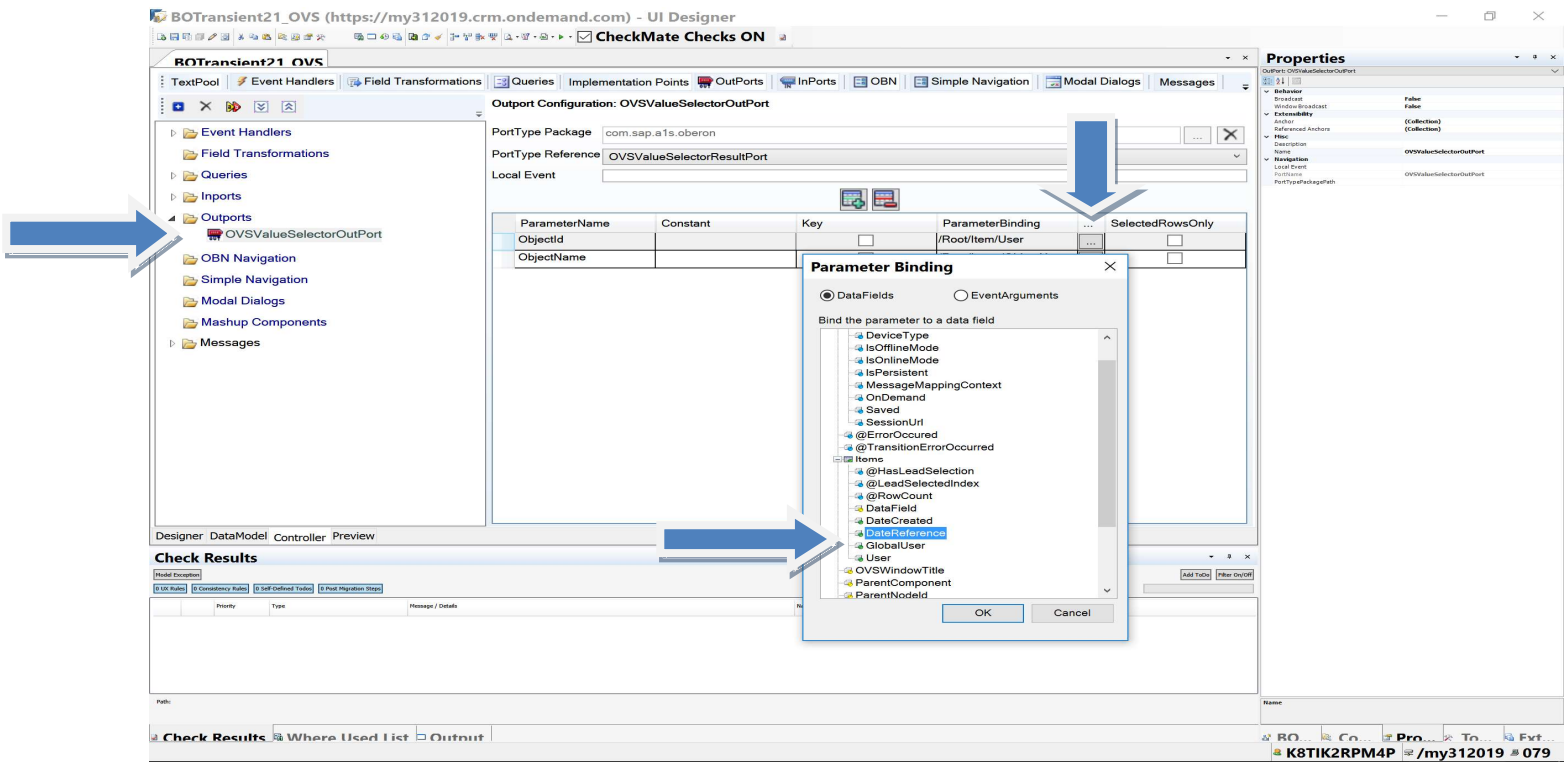
On Value column, choose the appropriate path for UserCreated.



Open Outports folder, and select the OVSValueSelectorOutport item, there are 2 items. Object ID and ObjectName.

Select the ObjectID item, and on ParameterBindind column, select the column that you want to return to the main screen.

In our case, I will select the DateReference.



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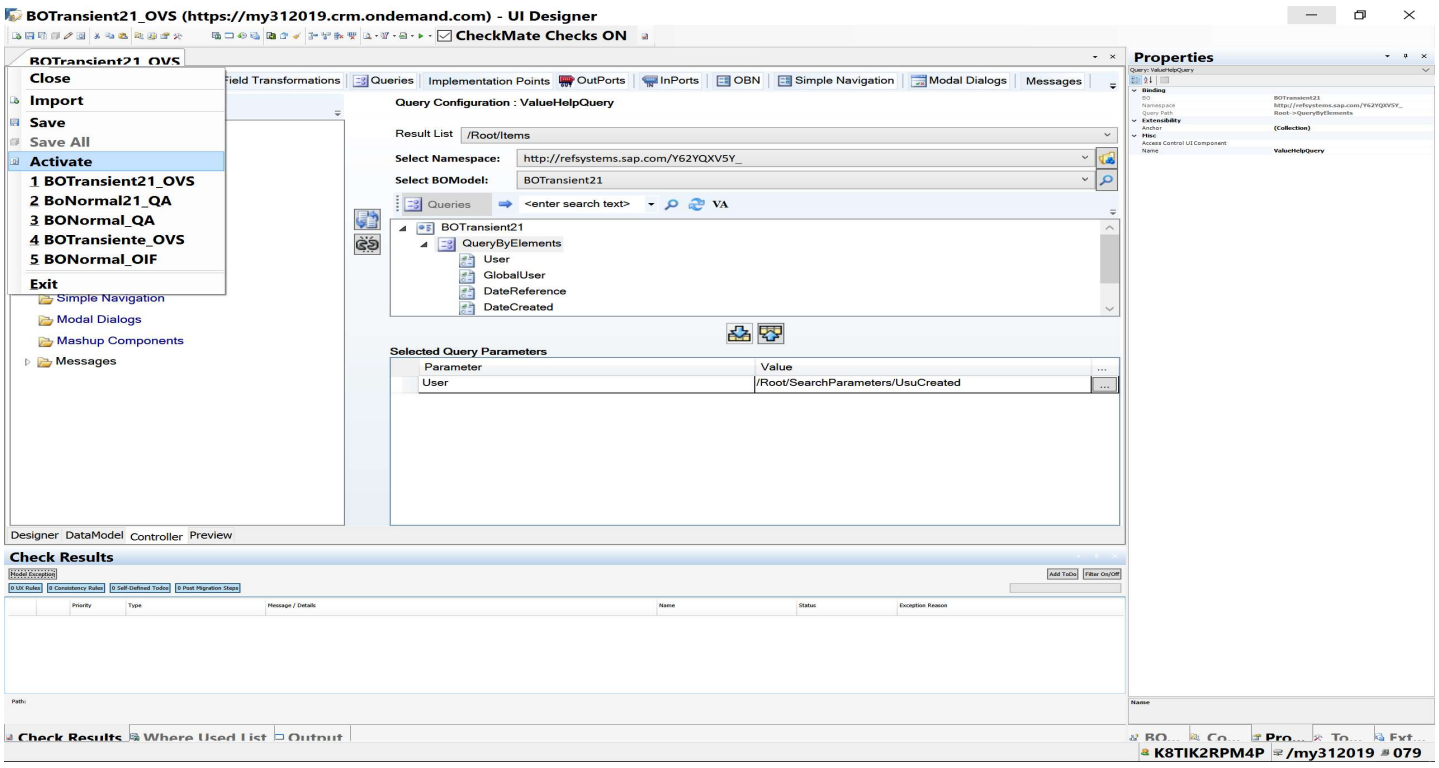
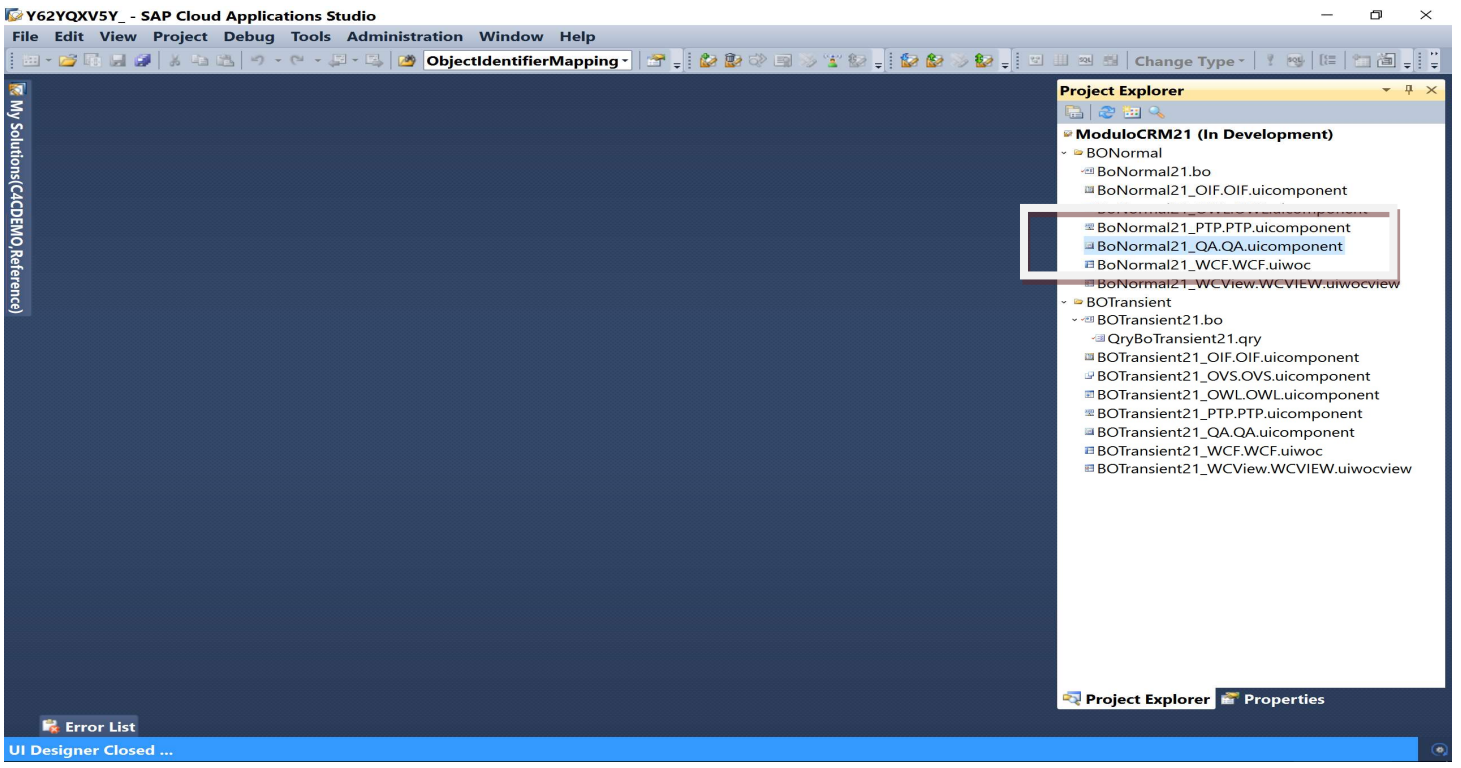
Activate our screen, and the job here is finished.



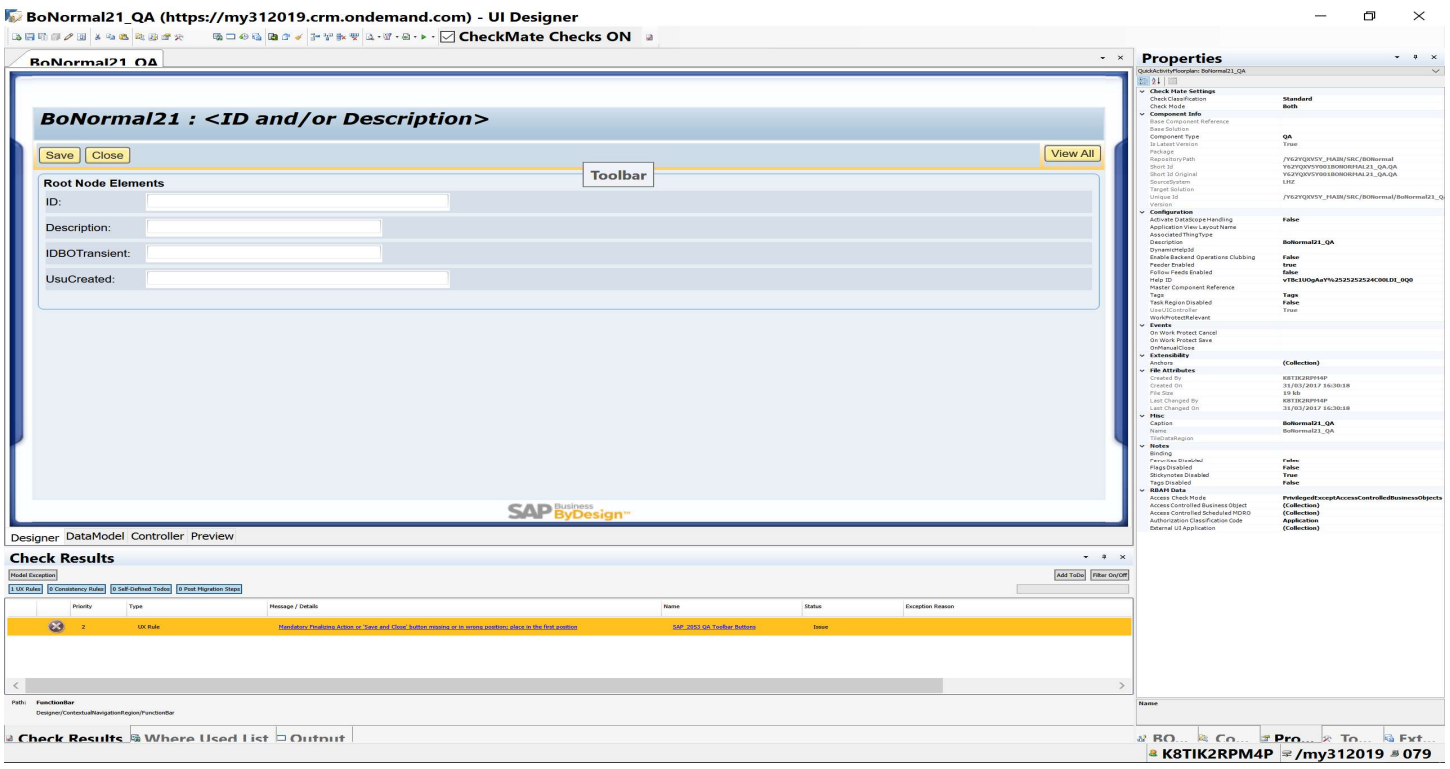
1.6. Configuring the relationship between both Business Objects

On BO BoNormal21, I will create a relationship between BONormal21 and BOTransient21.

Select BONormal21_QA, and double click.



The UI Designer is open.



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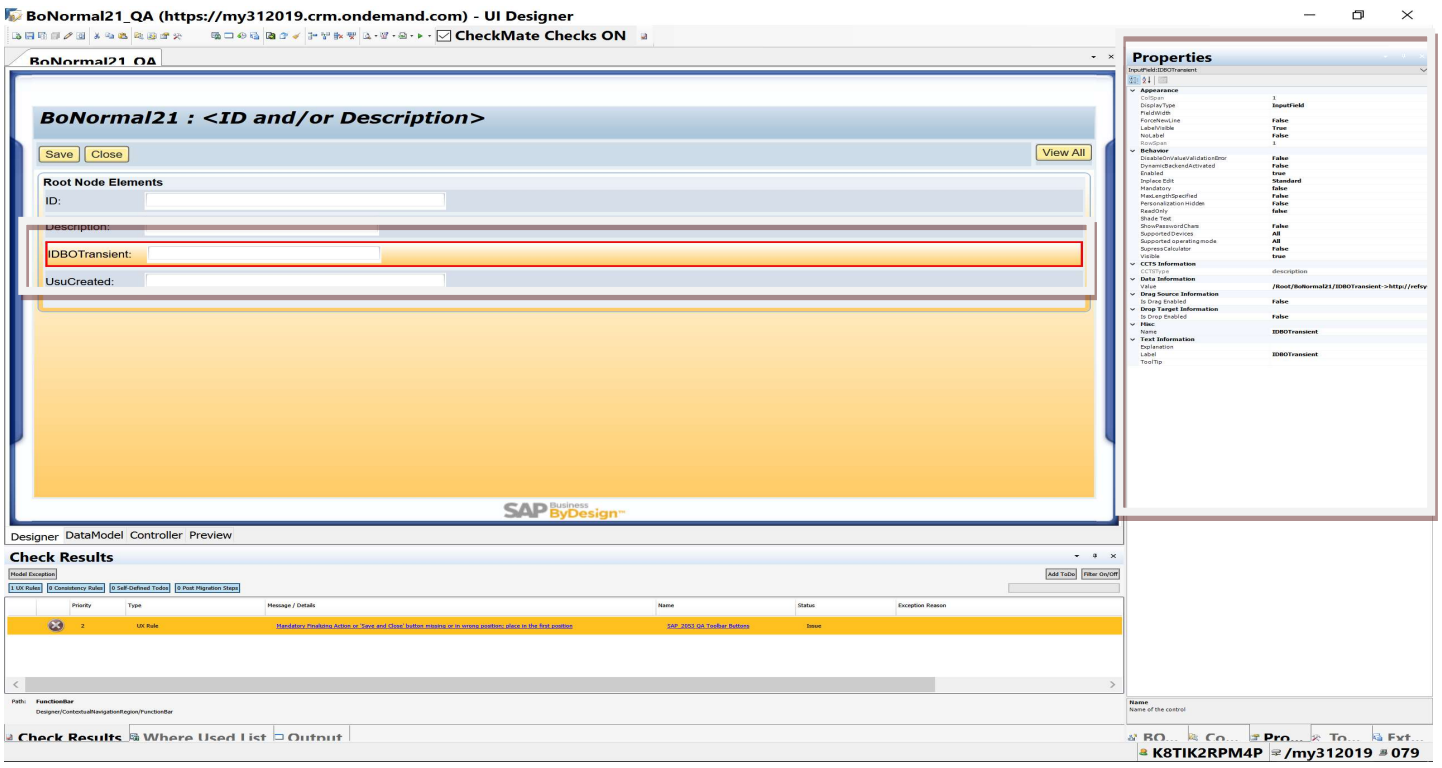
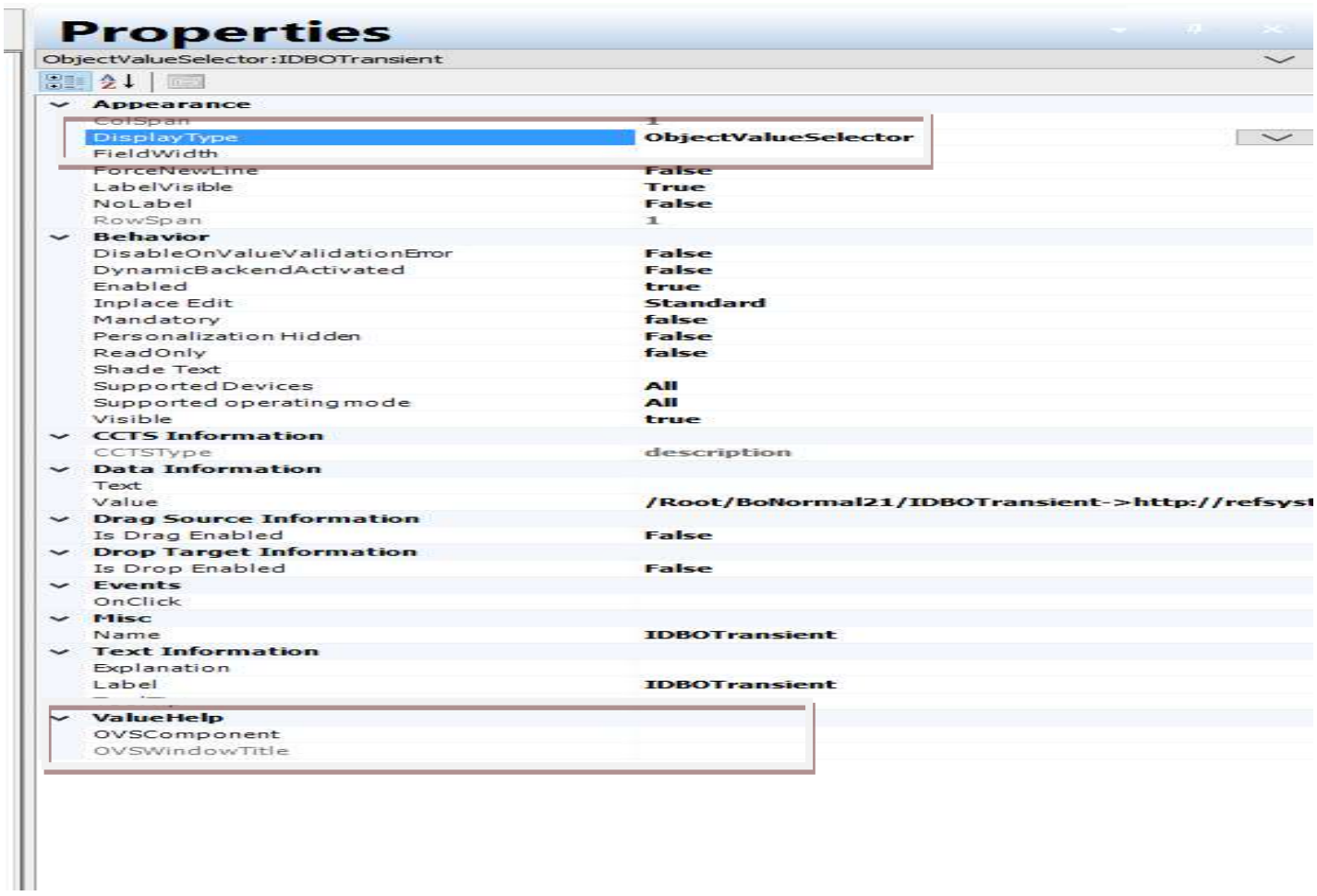
Select the field IDBOTransient, and on the right, will be display all properties of this field.



Change the DisplayType Property to ObjectValueSelector.

And on OVSComponent property, click on matchcode.



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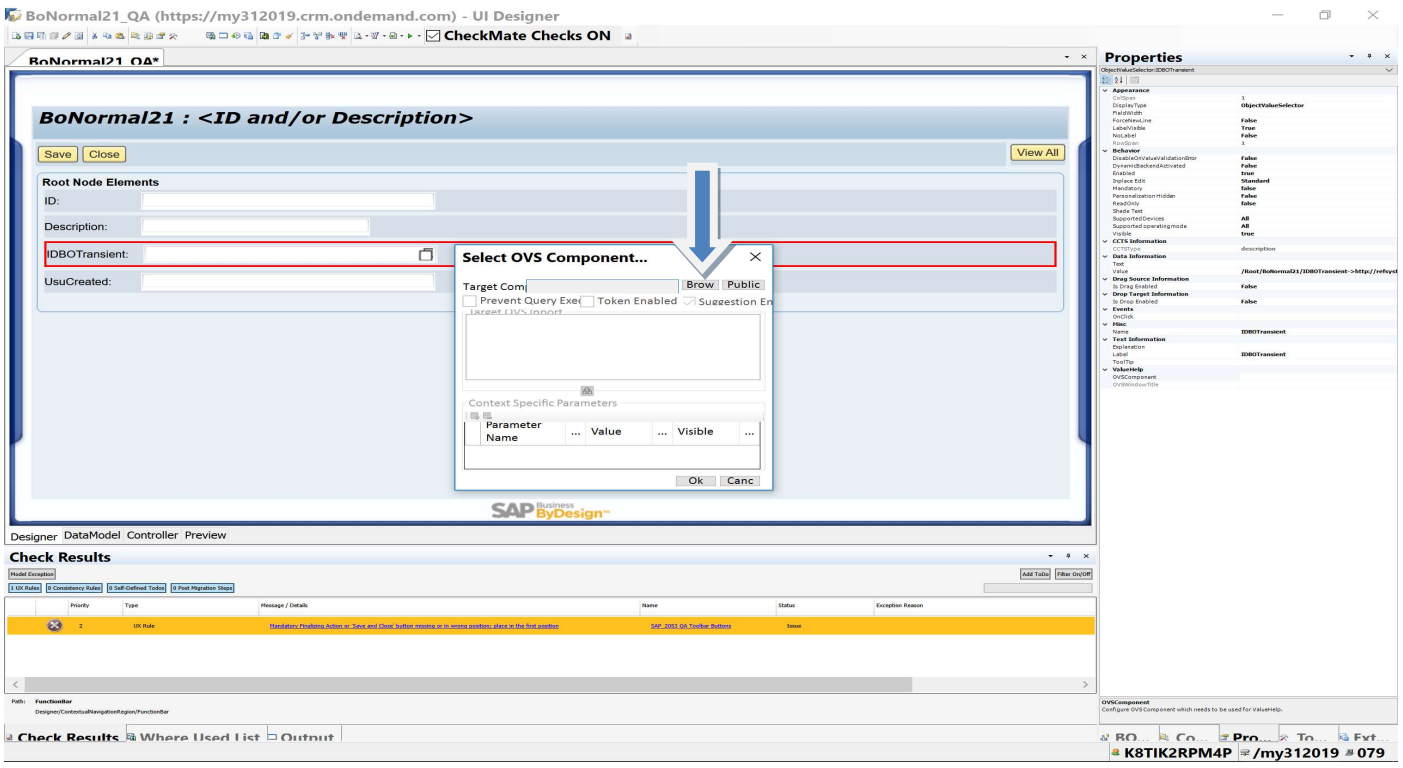
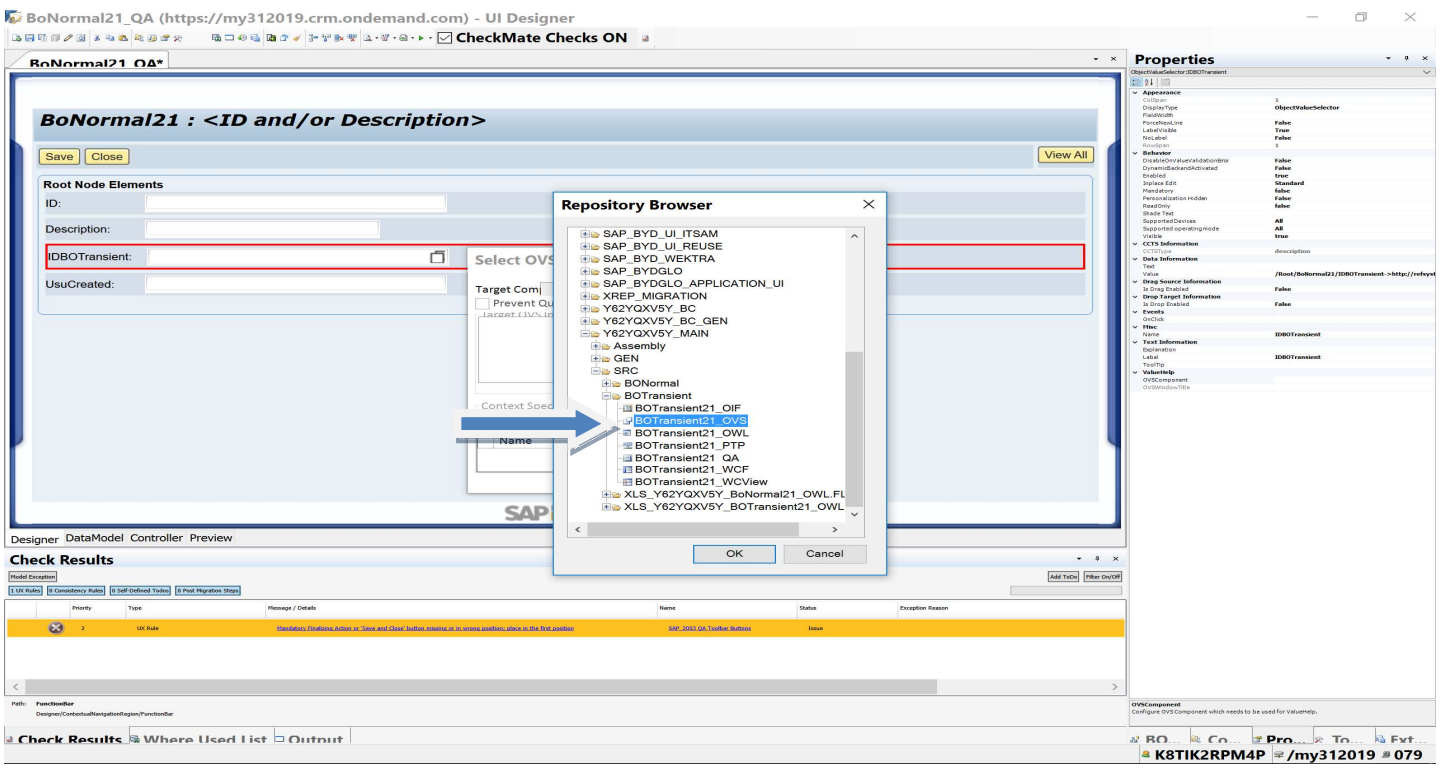
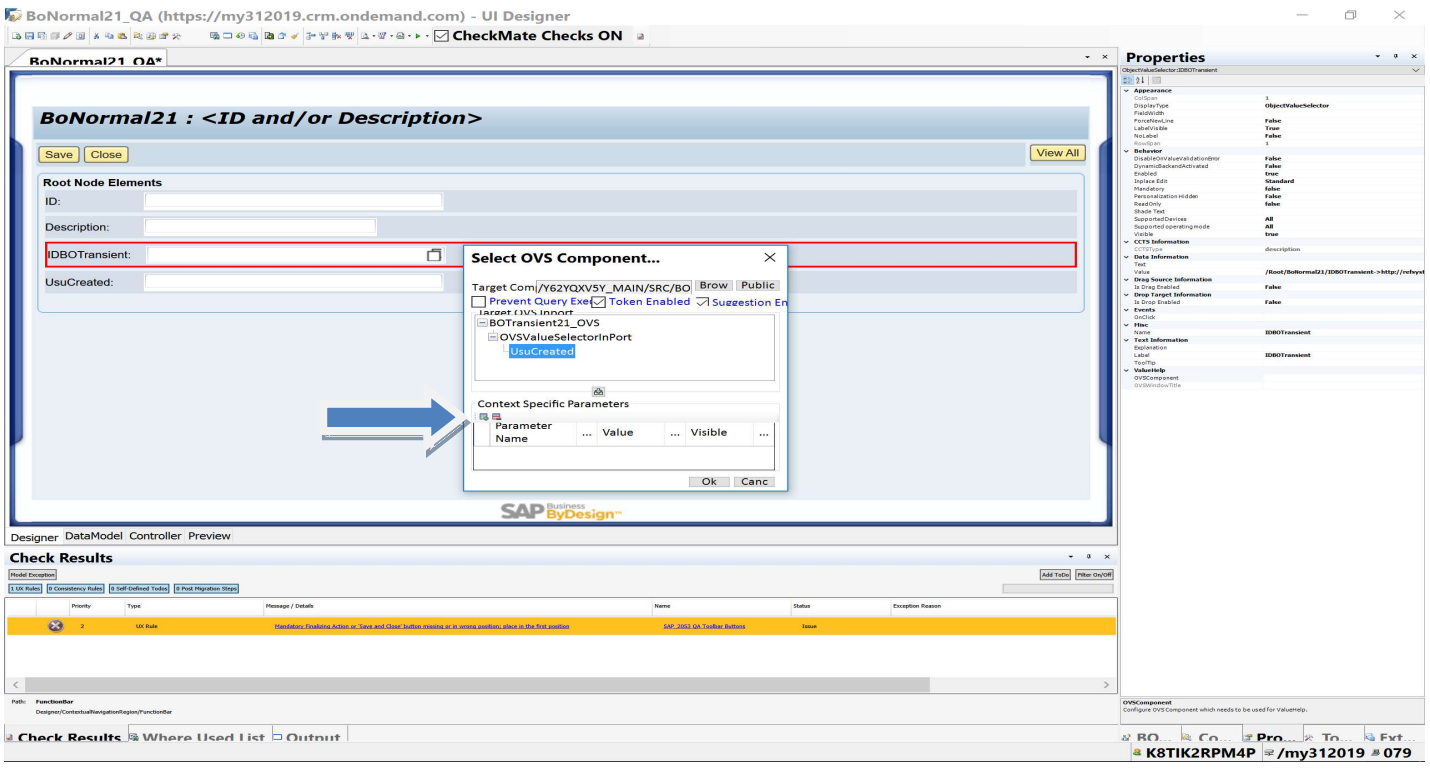
A screen appears, click on button Browser.



On Project folder, choose the OVS Screen of BOTrasient21 demonstrate below.



Note the parameter “UsuCreated” created on OVS Screen appears here. Choose it, and add a parameter to been passed for OVS Screen.



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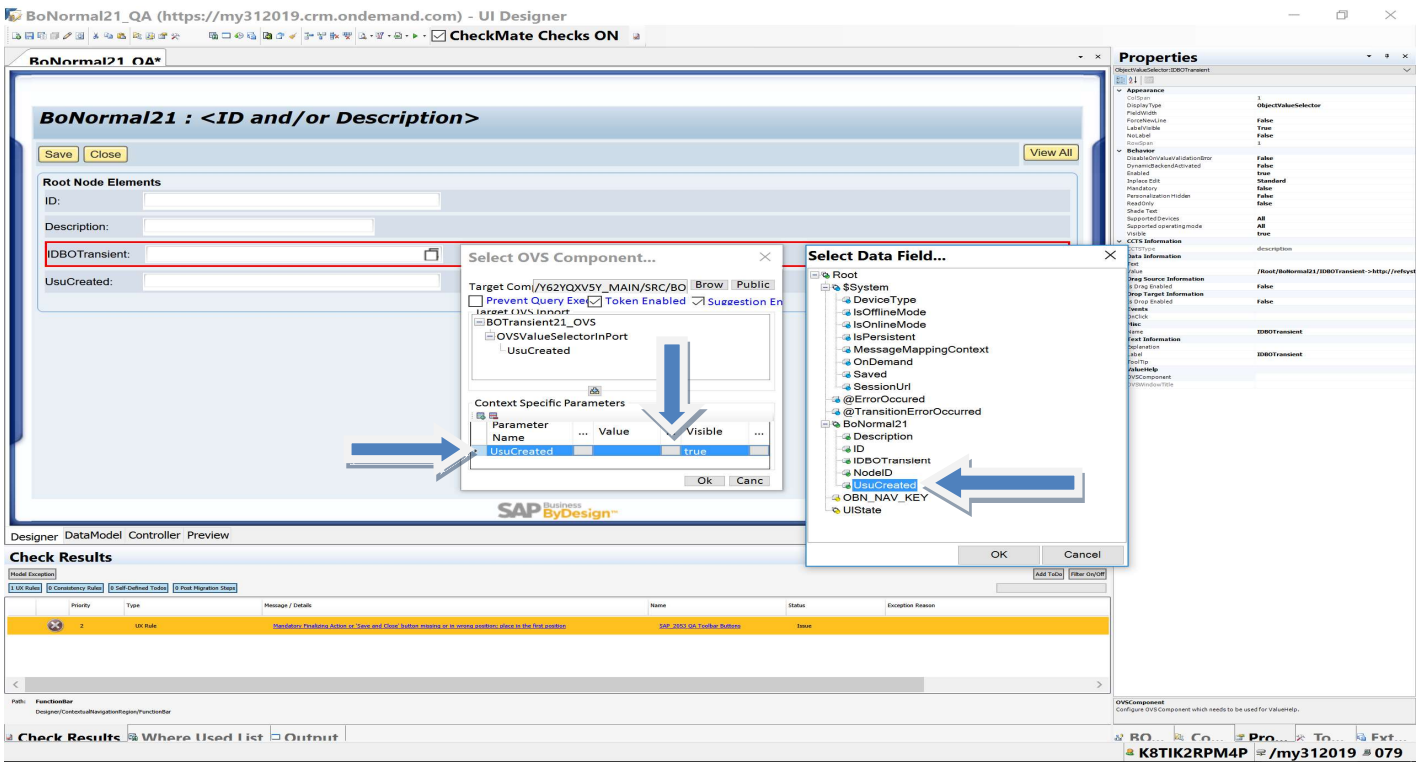
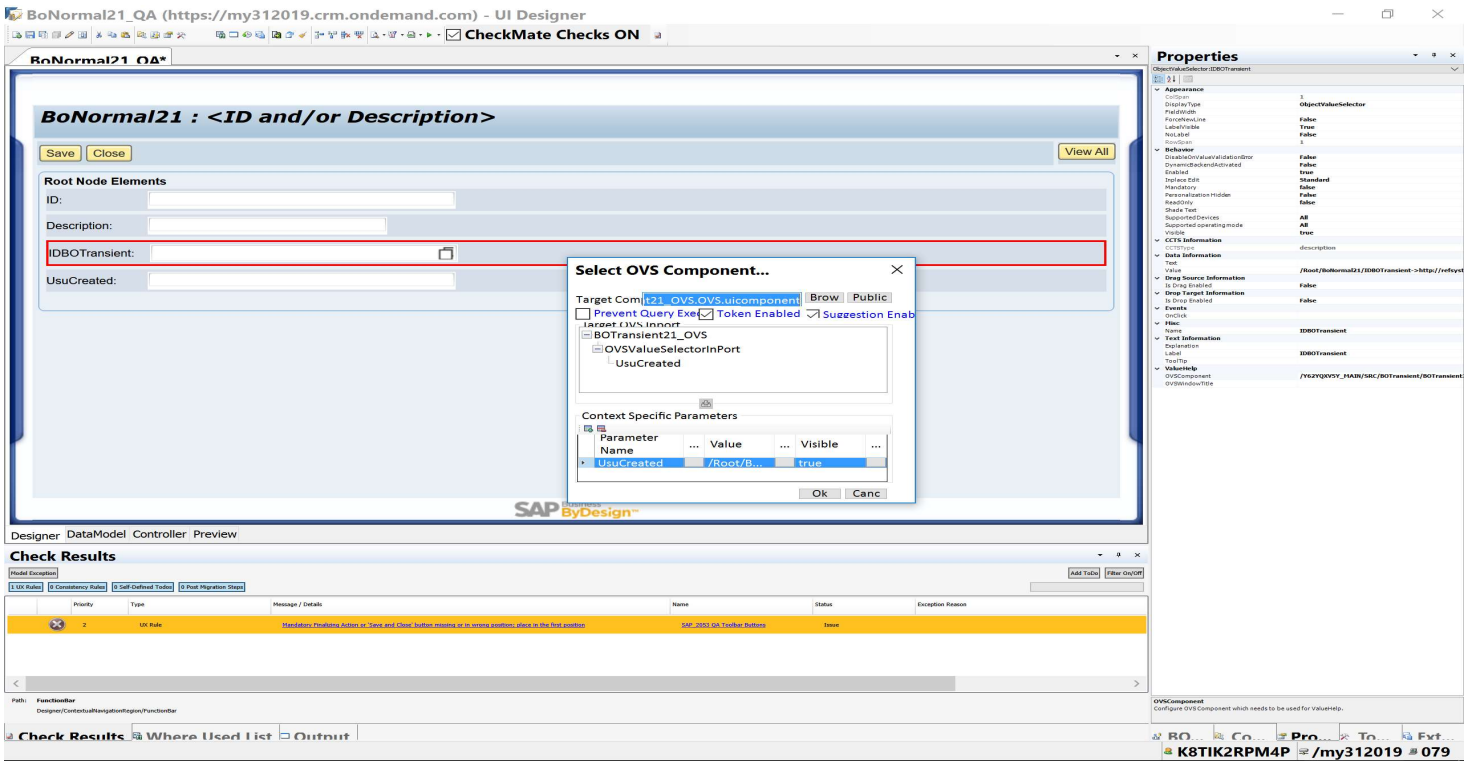
An Item will be available to full fill the follow columns:

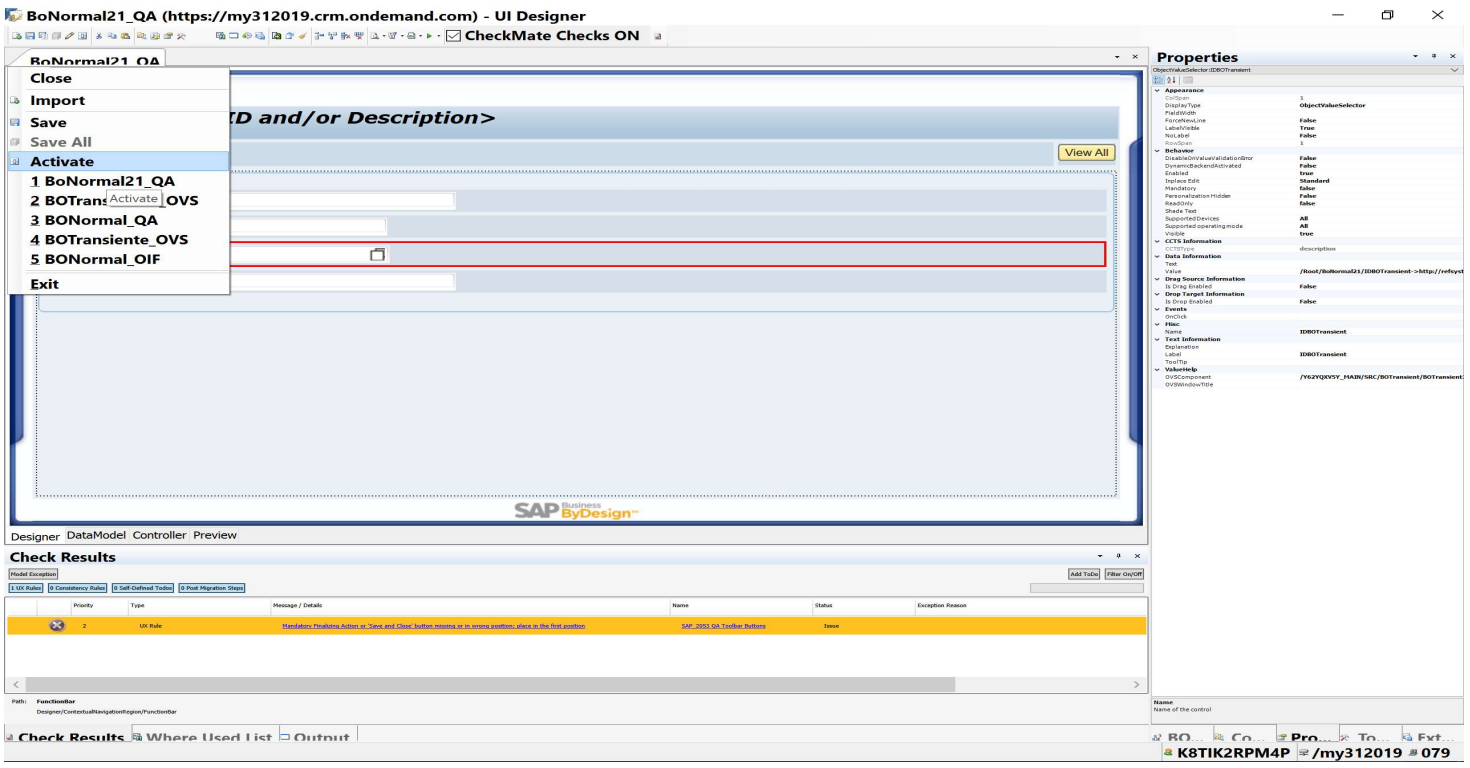
- Parameter Name
  Type UsuCreated
- Value
  Click on matchcode, and then bind to BONormal21-UsuCraeted
- Visible
  Always true



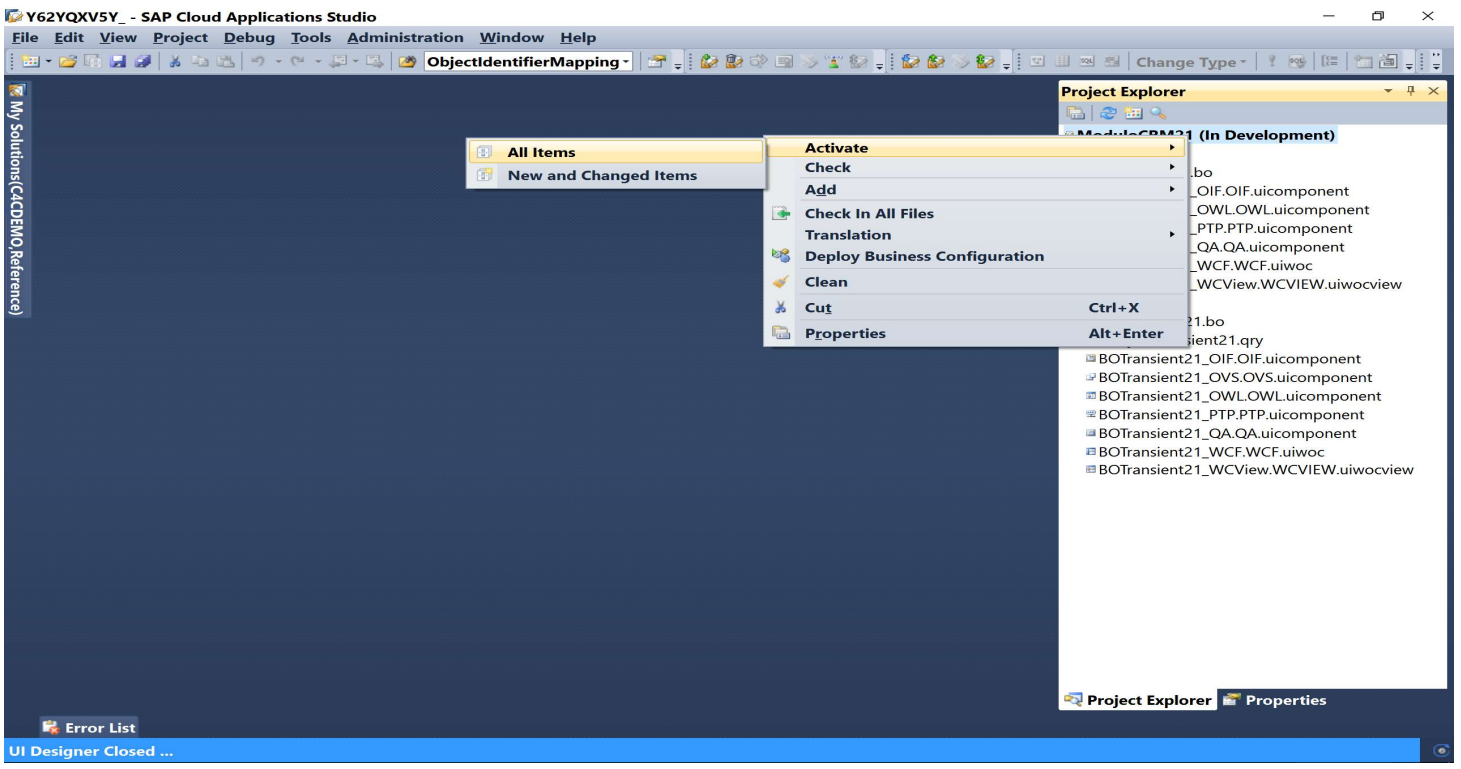
Click on OK.



Activate the screen, and then close UI Designer.

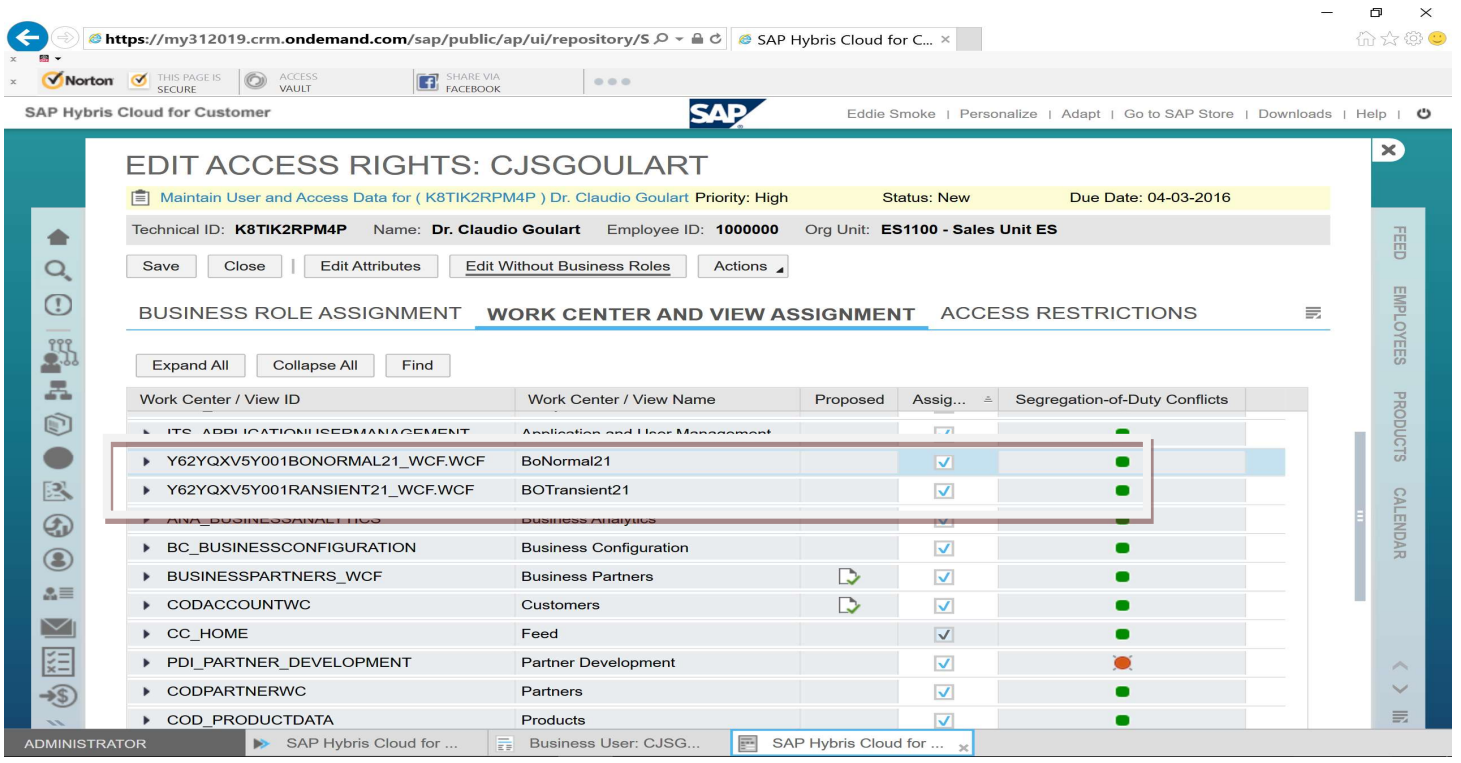


Select the top of project, and activate all of it.



1.7. Making available all Business Objects in C4C.

On Access Rights edition, choose both Business Object created on this document.



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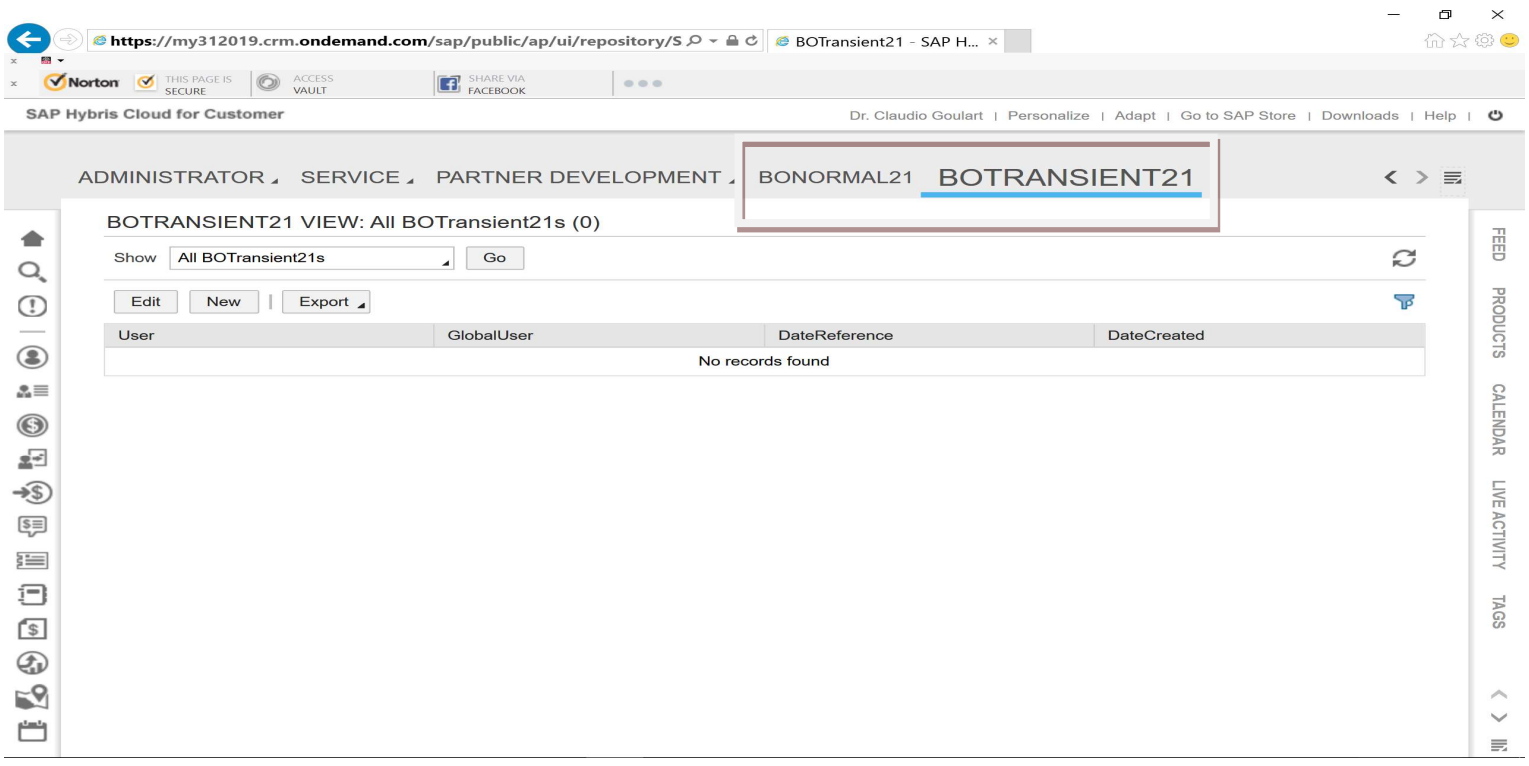
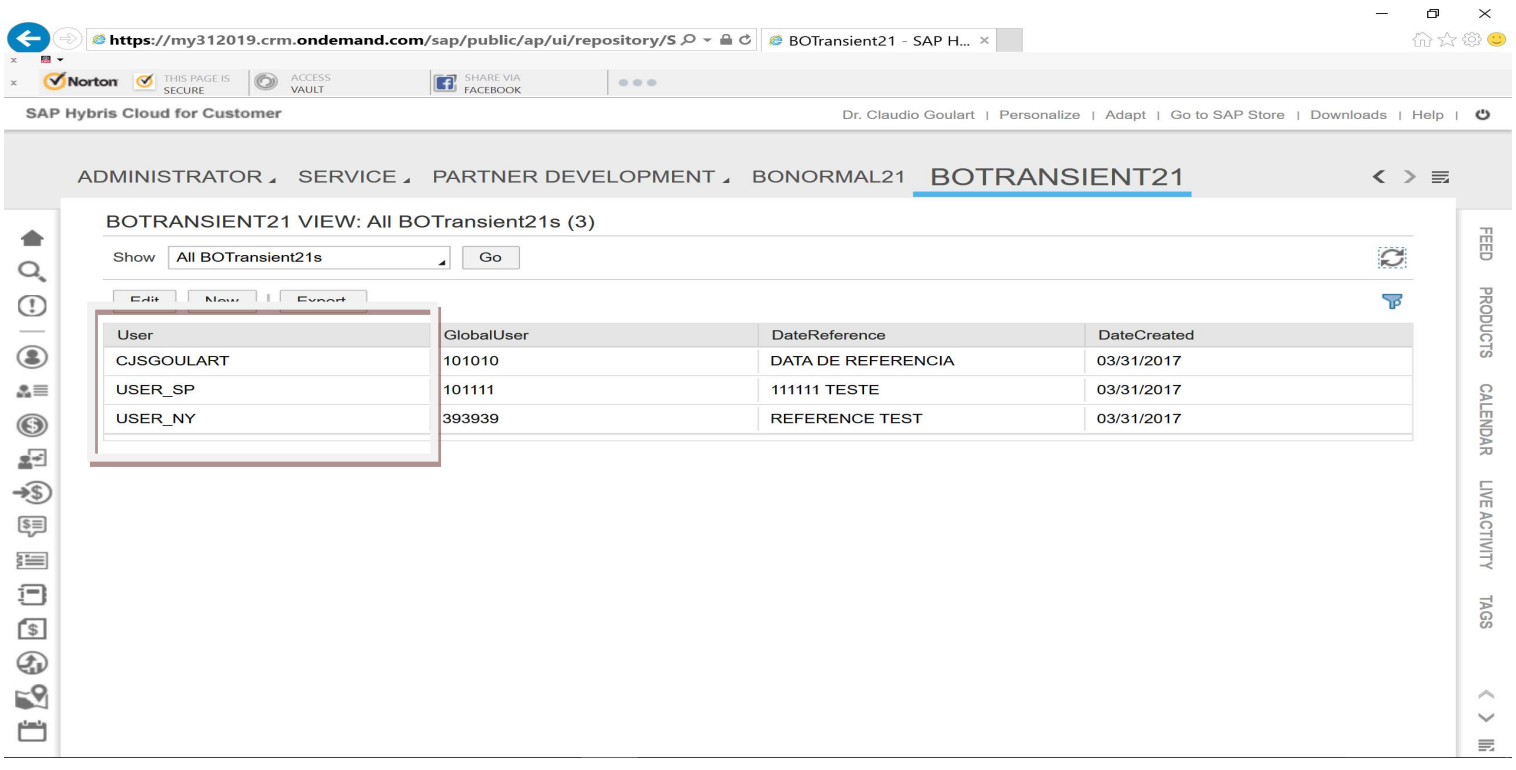
1.8. Testing

Both BOs were available on C4C, and now I will check it out working as designed.

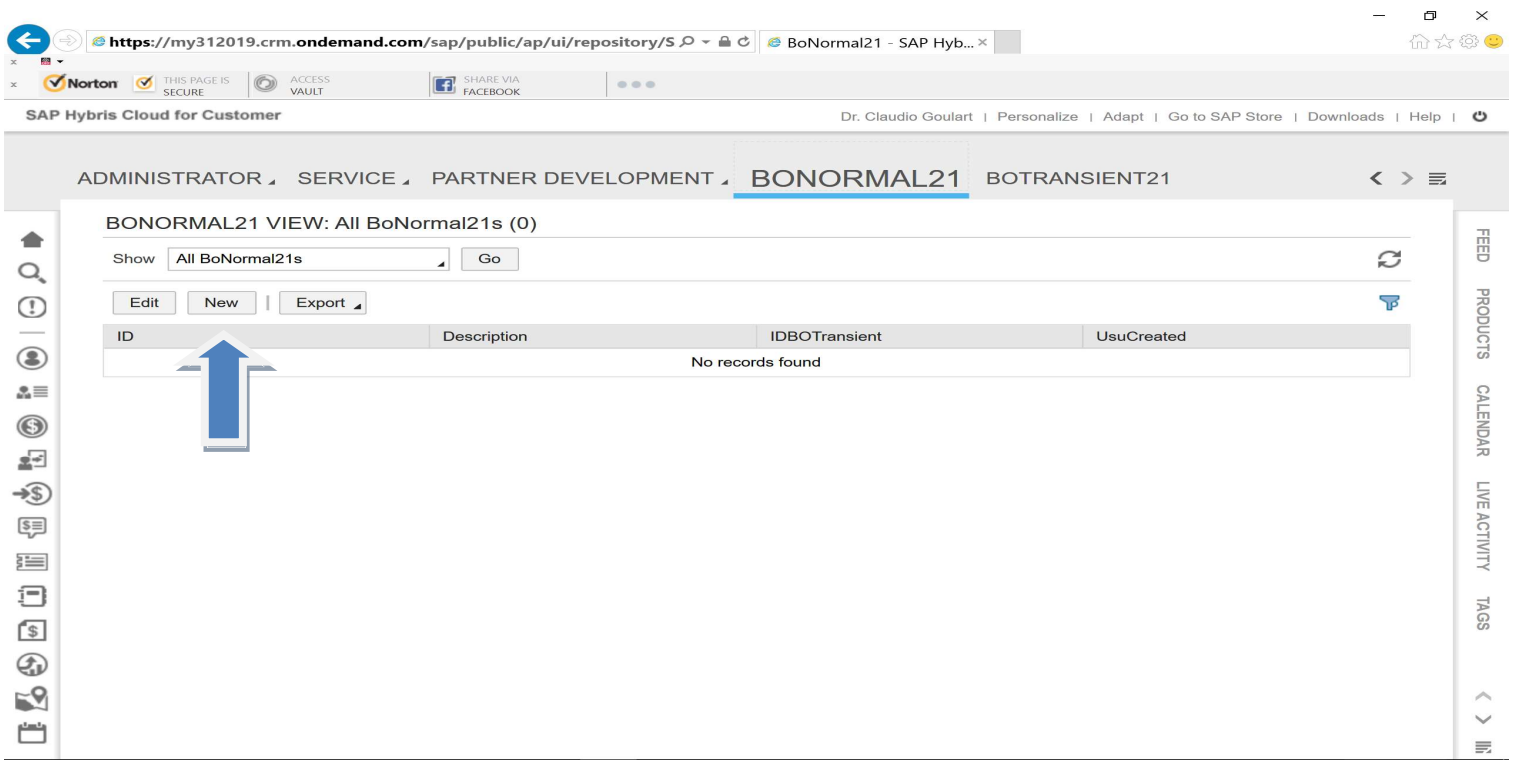
Right now, I will add some records on BOTransient21.



I created 3 records, and note that which on has a User different.



So, I choose the BONormal21, and click on New Button.



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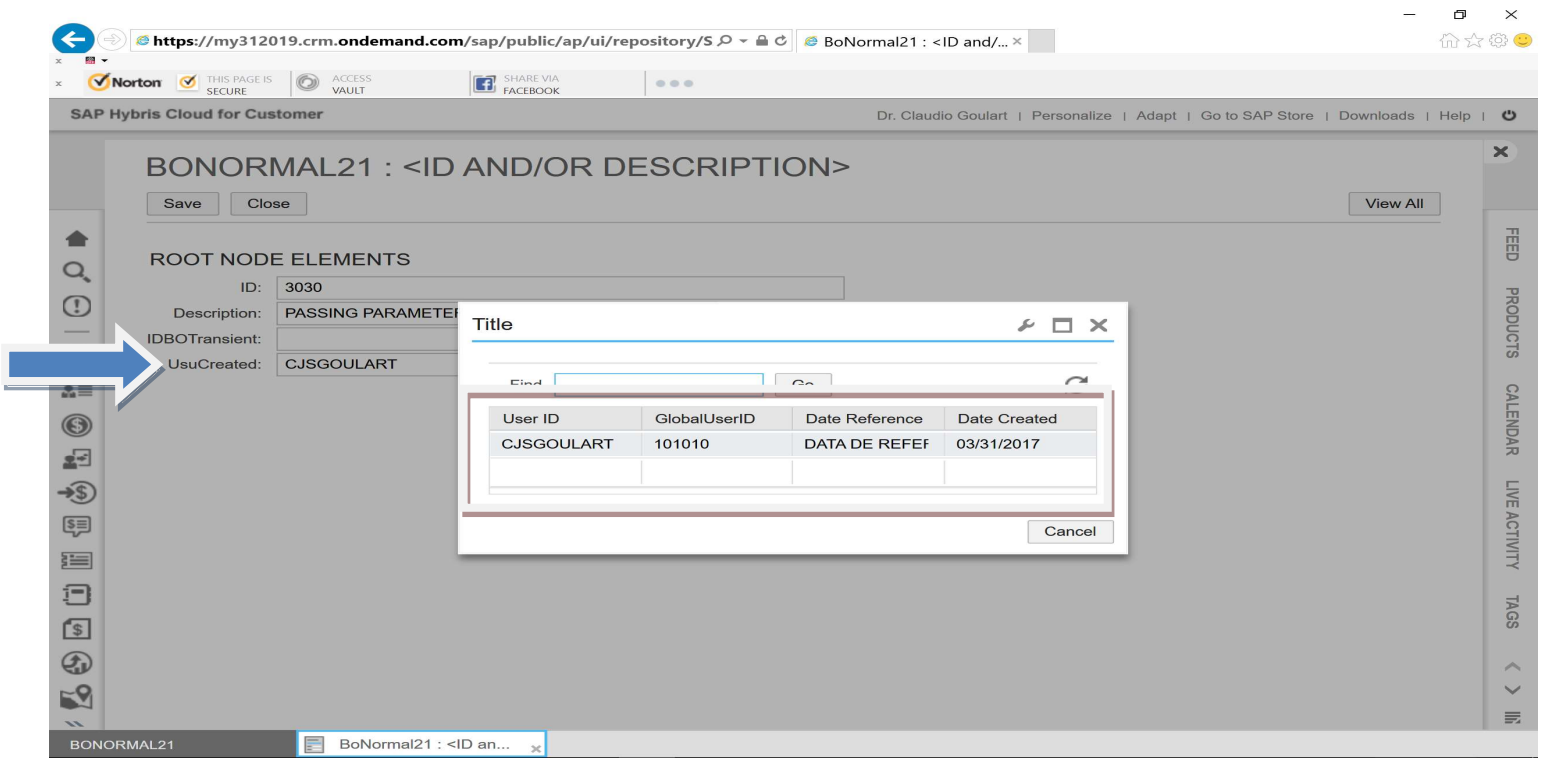
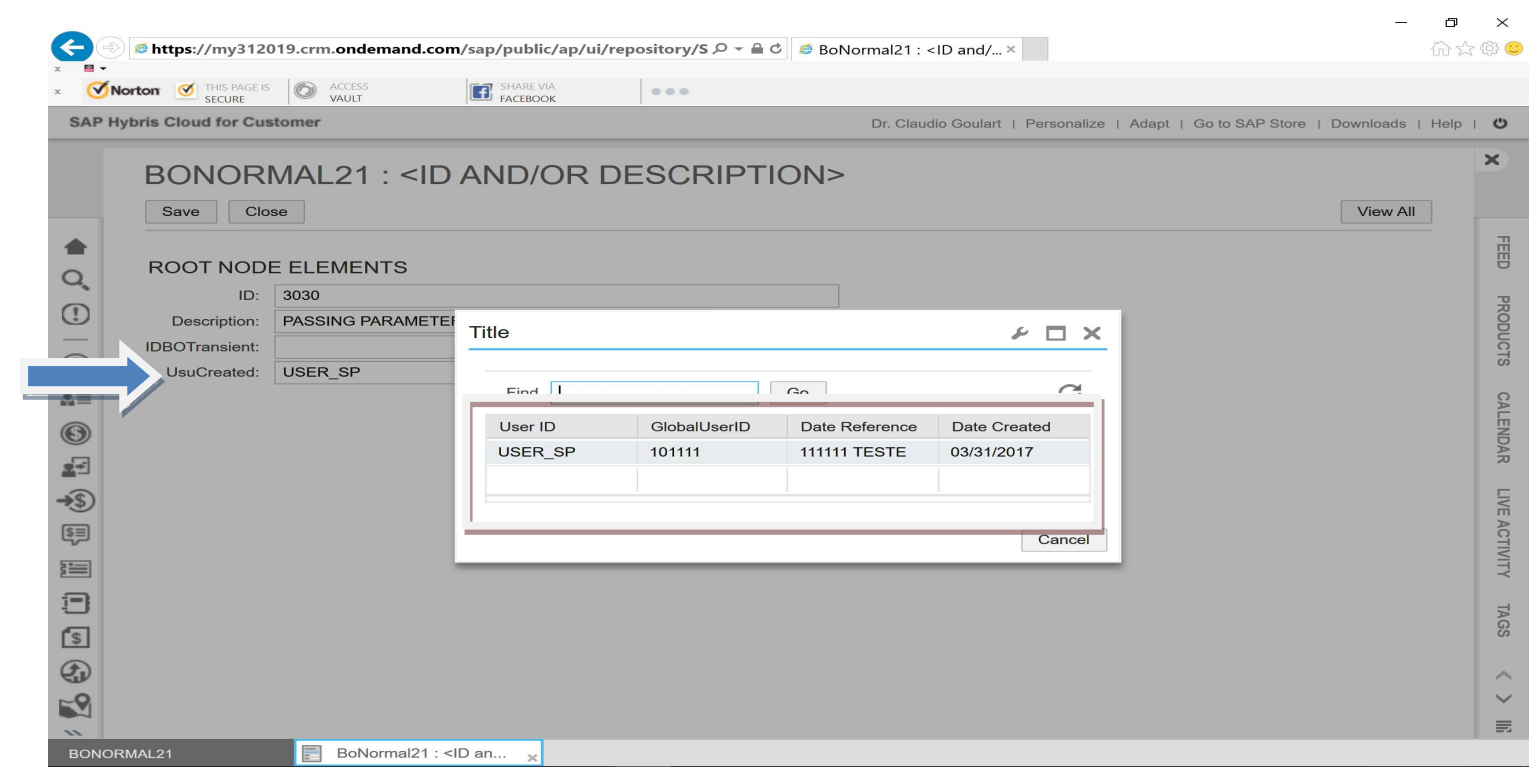
On UsuCreated field, I type CJSGOULART, and click on matchcode.

Note that only one record was return.

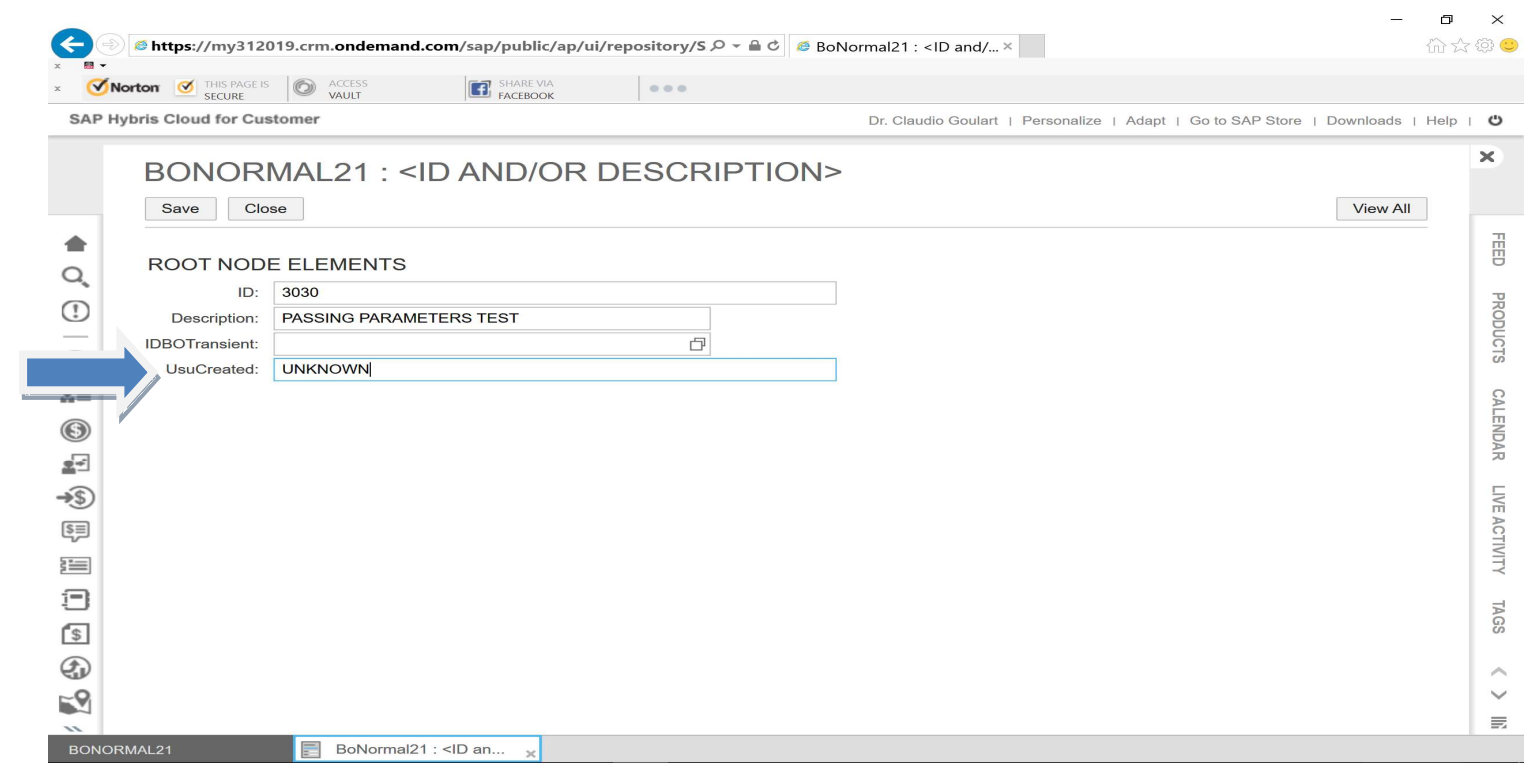


No, I changed the field UsuCreated to USER_SP, and again click on matchcode.

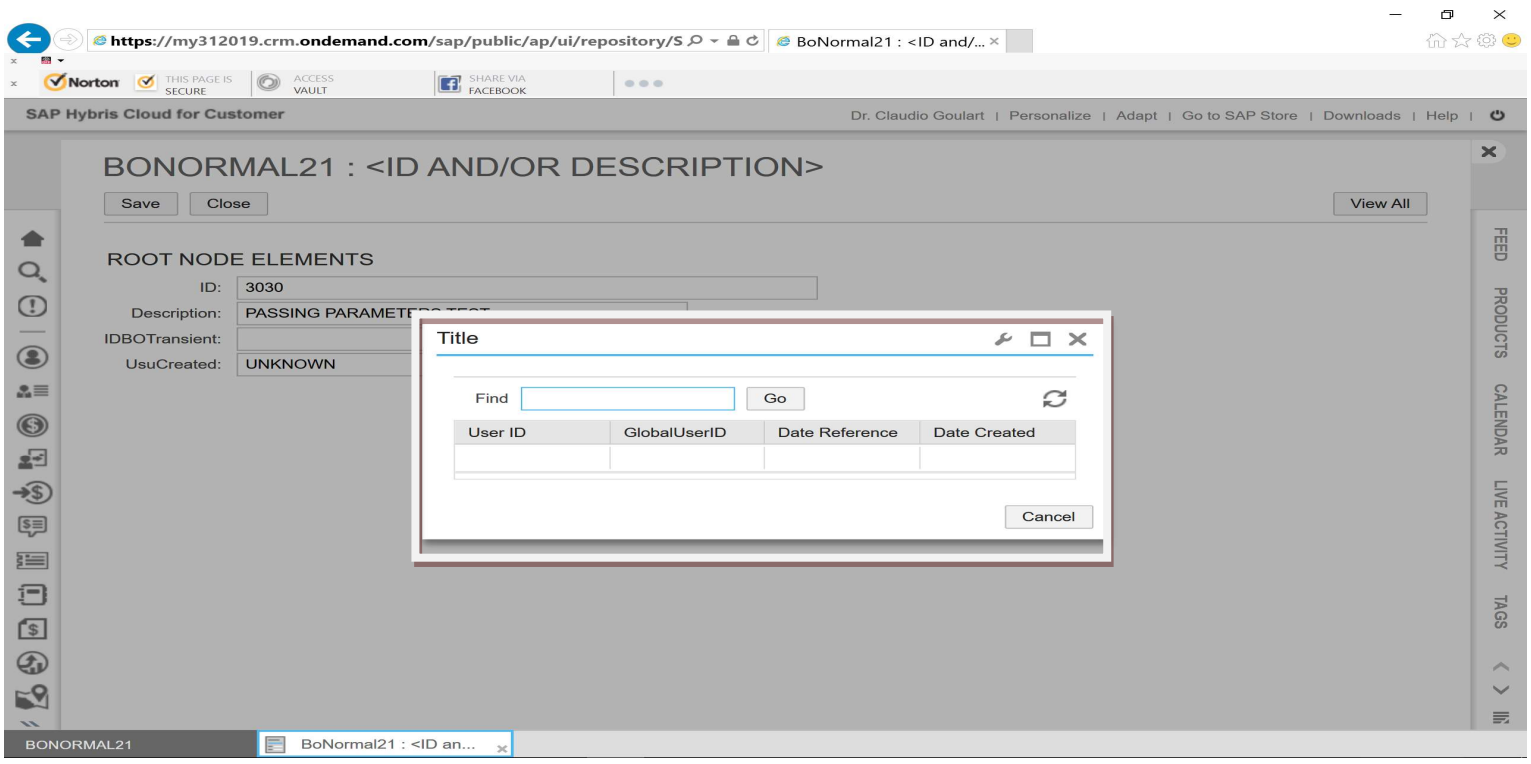
And then, returns another record.



Now, the field UsuCreated was full fill with user UNKNOWN, and I clicked on matchcode.



And Now, none records will be return.



Those scenarios can be used in many cases:

- Returns some records which belongs to a specific Customer
- Returns records relating of a Z Configuration, used to guide the C4C Solution.

Of course, it depends of your need during project implementation.

That's it guys!!