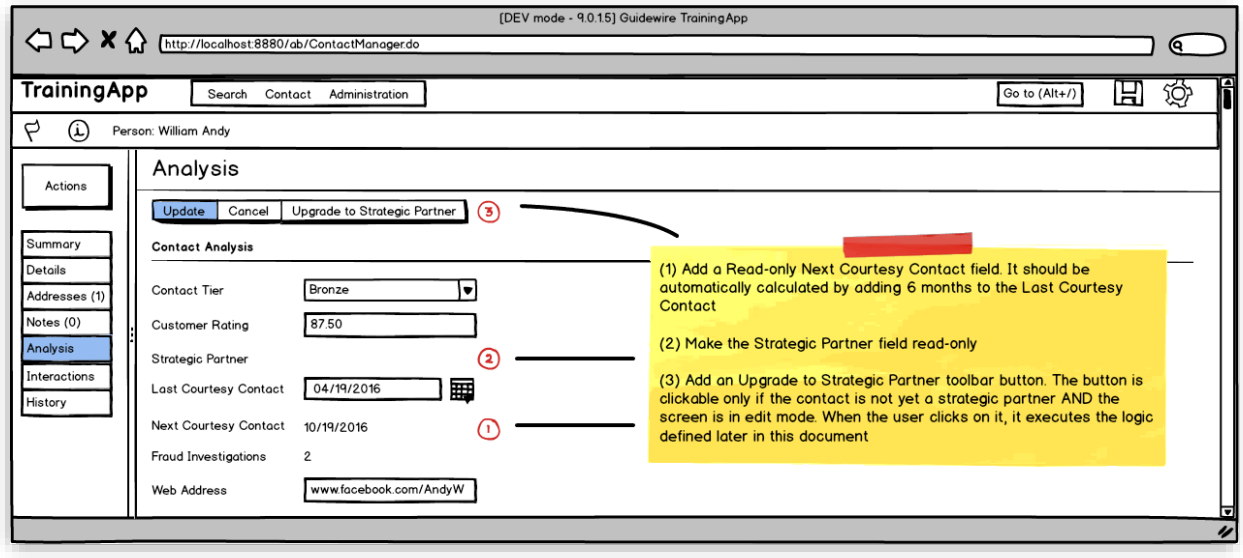
Lesson 10 **Enhancements**

At the insurance company, business requirements necessitate that all contacts of the type ABContact should receive a courtesy call once every six months. This information needs to appear with contact analysis details. In addition, business requirements require that there is easy way to upgrade contacts to the level of strategic partner. We have just received the following wireframe and user stories from the business analysts:



"At our insurance company, we want our end users to be able to see the recommended Next Courtesy Contact date in the UI. This date should be calculated automatically and the users shouldn't be able to edit it. We also want the Strategic Partner field to be read-only because we want to automatically calculate the customer rating when a contact a becomes a strategic partner. To achieve this, add a new button that will calculate the customer rating and perform the upgrade." – Insurance company business analysts

In this lab, you will create a Gosu enhancement for the ABContact entity and make related changes for various PCF Files.

10.1 Prerequisites

You must first complete the following previous module(s):

- Extending Base Application Entities
- Atomic Widgets
- Detail Views

For this exercise, use TrainingApp, Guidewire Studio, and a supported web browser.
`http://localhost:8880/ab/ContactManager.do` is the default URL for TrainingApp. To view, edit, and

delete various contacts, log in to TrainingApp as Alice Applegate. The login/password for Alice Applegate is `aapplegate/gw`.

10.2 Lab: Create a new enhancement

As a configuration developer, you want to be able to create or modify entity enhancements; and work with getter/setter properties and functions. In this exercise, you will create an enhancement for the ABContact entity related to analysis. The enhancement will contain a getter property and a method.

1. **Open Guidewire Studio for TrainingApp**
   a) From Studio, if your server is not already running, start the server using Debug 'Server'.
   b) Review the Debug console for errors and verify that the application is running in the Debug console.
2. **In Guidewire Studio, create the package and the enhancement**
   a) In Guidewire Studio, create a package called `succeedlab.ta.enhancements.entity`
   b) Create an enhancement for the ABContact entity that conveys that this enhancement relates to analysis.
3. **Create a getter property named NextCourtesyContact()**
   a) Create a getter property named NextCourtesyContact() that returns a date that is six (6) months in the future of the Last Courtesy Contact date. If Last Courtesy Contact date is null, then the property must return null.
4. **Create a method named upgradeToStrategicPartner()**
   a) Create a method named upgradeToStrategicPartner() that, for a given contact, does the following:
      - Sets the IsStrategicPartner_Ext field to true.
      - If the value of the CustomerRating_Ext field is null, sets the value to 25.
      - If the value of the CustomerRating_Ext field is between 0 and 989.9, increments that value by 10.
      - If the value of the CustomerRating_Ext field is more than 989.9, sets the value to 999.9.

10.2.1 Modify the PCF configuration

As a configuration developer, you want to use atomic widgets to display enhancement properties and to invoke enhancement functions. In this exercise, you will modify the ABContactAnalysisDV.pcf file to display the value of the getter property. Next, you will modify the ABContactAnalysisPage.pcf file. You will add a toolbar button to the toolbar. You will configure the button to call the enhancement method.

Review

How to work with atomic widgets

Note: If needed, revisit the *Atomic Widgets* lesson for examples, tips and keyboard shortcuts.

1. **Modify ABContactAnalysisDV**
   a) In Studio, open ABContactAnalysisDV.pcf.
   b) Modify the Strategic Partner widget to be read-only.
   c) To display Next Courtesy Contact, add the appropriate read-only input widget below Last Courtesy Contact.
   d) Create a displaykey for the widget's label property that reads Next Courtesy Contact.
   e) Configure the widget to display the enhancement property value.
2. **Modify ABContactAnalysisPage**
   a) In Studio, open ABContactAnalysisPage.pcf.
   b) In the existing toolbar, add a toolbar button.
   c) Create a displaykey for the button's label property that reads Upgrade to Strategic Partner.
   d) Configure the toolbar button so that it calls the upgradeToStrategicPartner() method when clicked.
   e) Configure the button so that it is only clickable when the contact is not a strategic partner and when the page is in edit mode.

Hint

No special syntax is required to reference entity enhancement elements

To reference properties or methods, just simply use the dot notation.

Examples:

```
var anABPerson = trainingapp.base.QueryUtil.findPerson("ab:5")
print(anABPerson.Age) // defined in acme.ta.enhancements.entity.ABPersonEnhancement
print(anABPerson.DateOfBirth) //defined in ABPerson.eti
```

Guidewire API

Test if the Location is in edit more or not.

`CurrentLocation` is an implicit object that represents the currently displayed location in the browser and it is available to use in every PCF file. You could use it to determine if the location - that the end user is looking at – is in edit mode or read-only mode.

Syntax: `CurrentLocation.InEditMode`

This expression:

- Returns true if current location is in edit mode
- Returns false if current location is in read-only mode

Guidewire API

Making a widget clickable or not clickable based on a condition

Most atomic widgets have the `available` property. This can be set to a Boolean expression which, if false, grays out the widget and all its children. For example, to disable an action in read-only mode, you can set

```
available=CurrentLocation.InEditMode || <action-available-condition>
```

or

```
available=CurrentLocation.InEditMode && <action-available-condition>
```

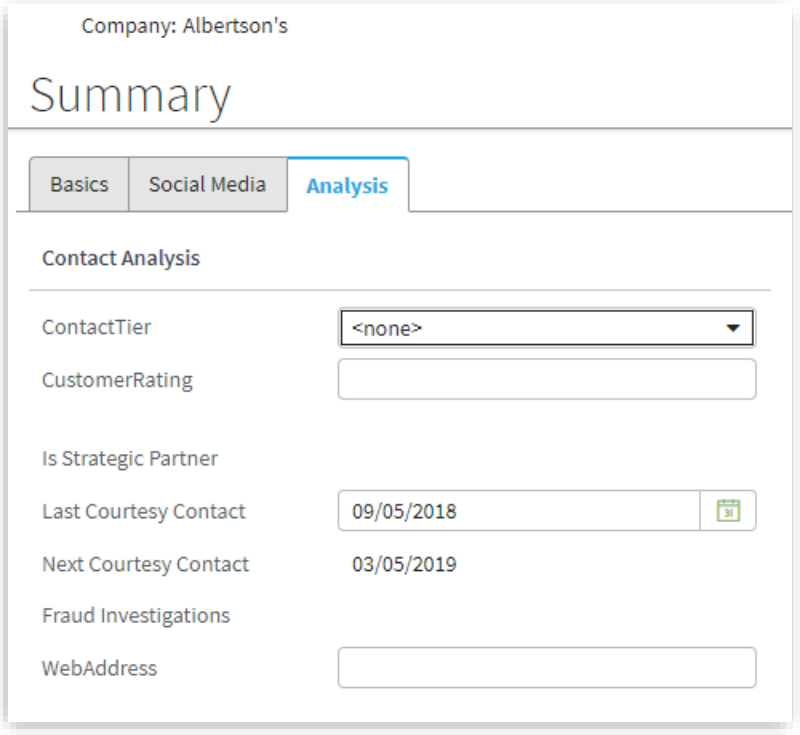
10.2.2 Verification

Activity

Verify the work you have done

1. **Deploy your changes**
   a) Restart the server (Stop / Debug 'Server') in Guidewire Studio.
2. **Verify the enhancement method and PCF behavior**
   a) Log in to TrainingApp as Alice Applegate.
   b) Search for and open the Albertson's contact.
   c) For the contact, navigate to the Analysis page.
   d) Click Edit.
   e) Set the Last Courtesy Contact field to today's date. Click Update.

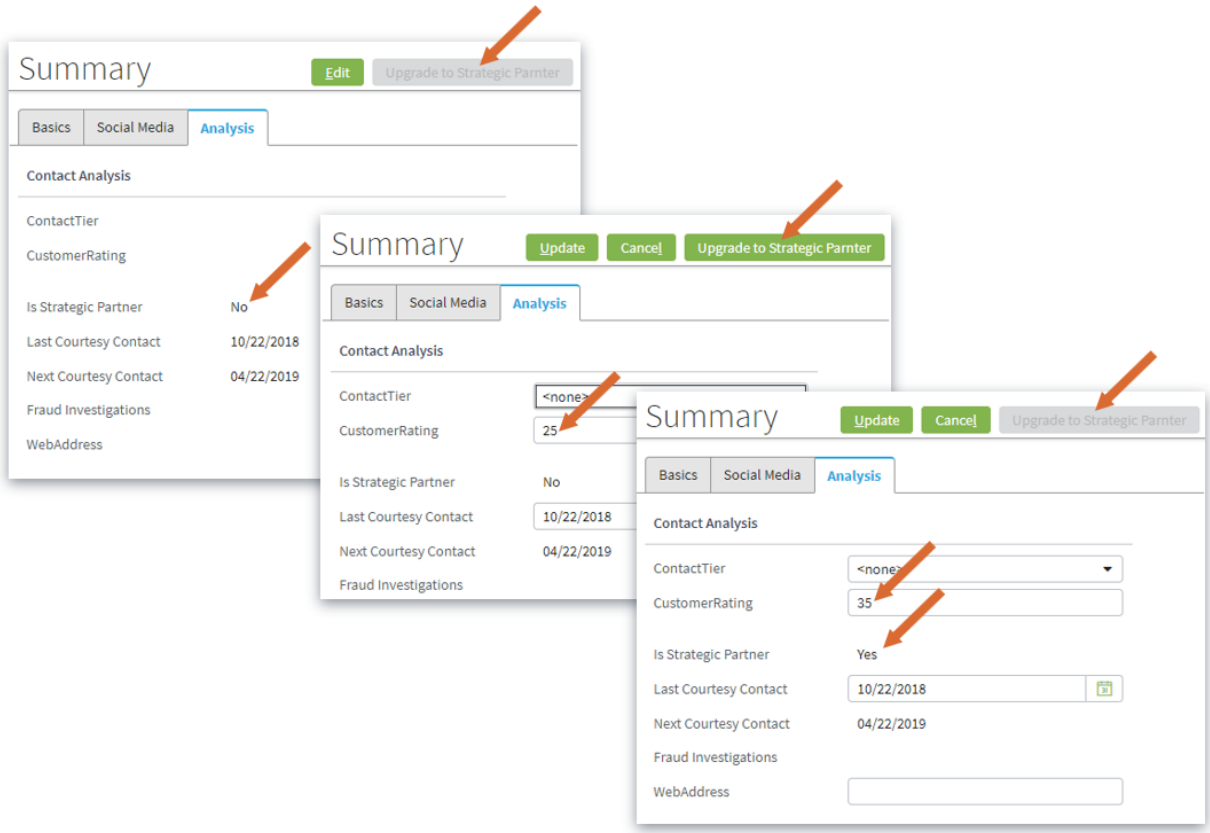
f) Verify that the Next Courtesy Contact field shows a date that is six (6) months from today's date.



g) Search for and open the Albertson's contact.

h) For the contact, navigate to the Analysis page.

i) Verify that the Upgrade to Strategic Partner button is clickable only when the user is editing the page and the Strategic Partner field is not equal to Yes.

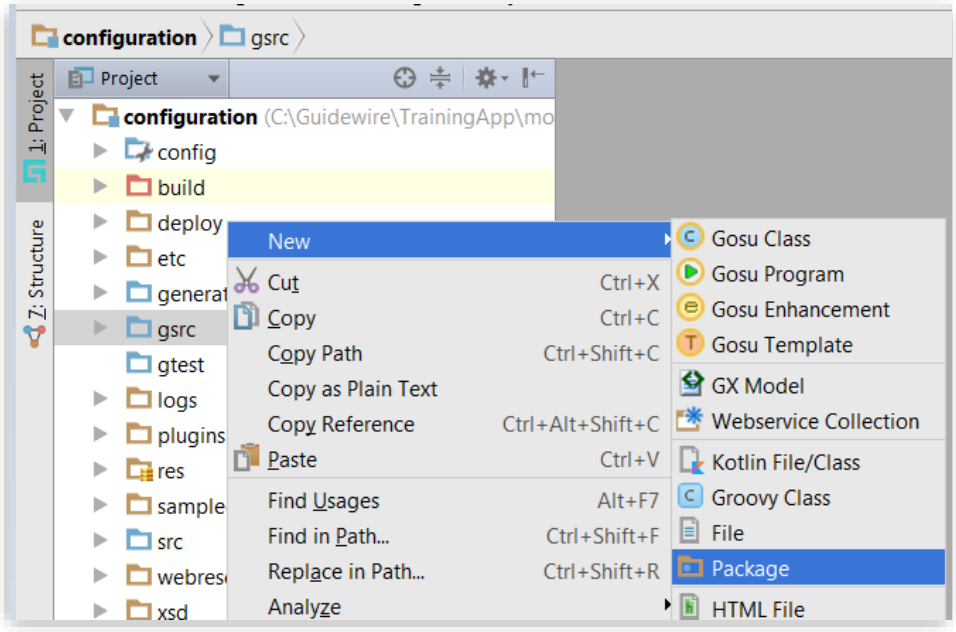


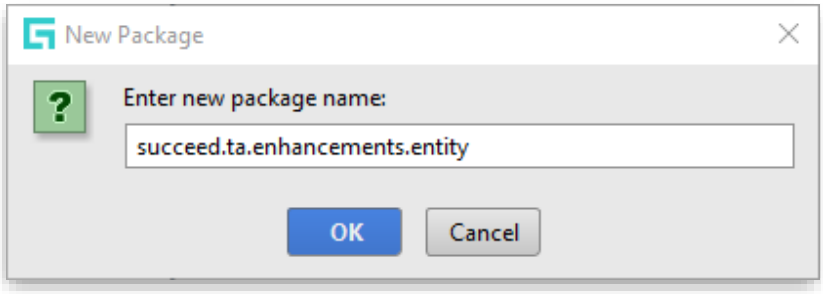
10.3 Lab Solution: Create a new enhancement

Solution

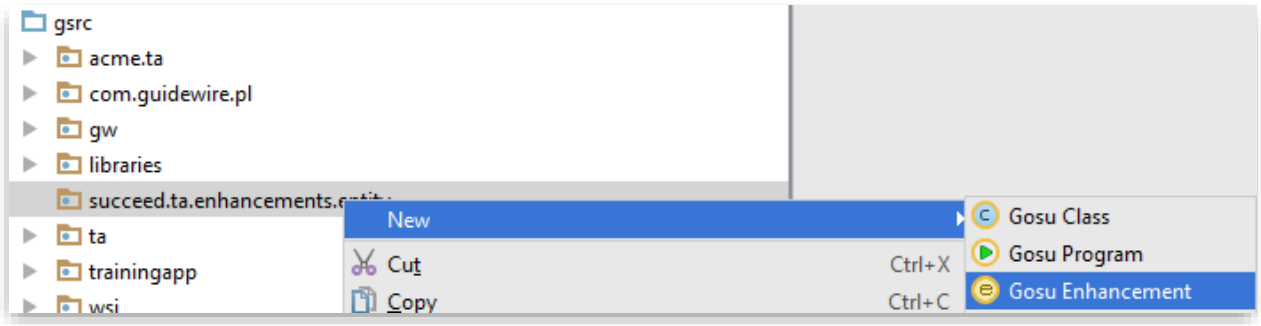
1. **In Guidewire Studio, create the package and the enhancement**

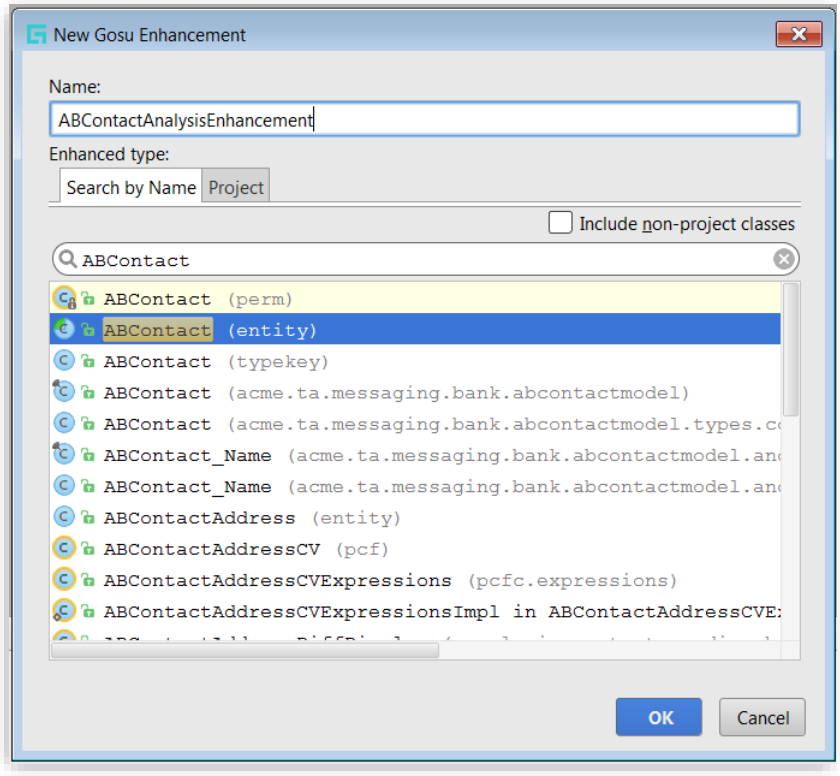
   a) In Guidewire Studio, create a package called `succeed.ta.enhancements.entity`





b) Create an enhancement for the ABContact entity that conveys that this enhancement relates to analysis.





2. Create a getter property named NextCourtesyContact()

a) Create a getter property named NextCourtesyContact() that returns a date that is six (6) months in the future of the Last Courtesy Contact date. If Last Courtesy Contact date is null, then the property must return null.

```
property get NextCourtesyContact() : Date {
  var nextCourtesyDate : Date = null

  if(this.LastCourtesyContact_Ext != null) {
    nextCourtesyDate = this.LastCourtesyContact_Ext.addMonths(6)
  }

  return nextCourtesyDate
}
```

3. Create a method named upgradeToStrategicPartner()

a) Create a method named upgradeToStrategicPartner() that, for a given contact, does the following:

- Sets the IsStrategicPartner_Ext field to true.
- If the value of the CustomerRating_Ext field is null, sets the value to 25.
- If the value of the CustomerRating_Ext field is between 0 and 989.9, increments that value by 10.
- If the value of the CustomerRating_Ext field is more than 989.9, sets the value to 999.9.

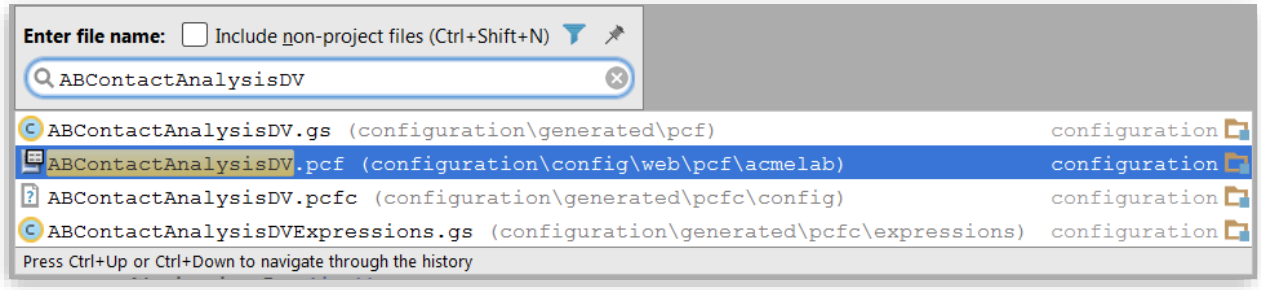
```
function upgradeToStrategicPartner() : void {
  if (this.IsStrategicPartner_Ext != true) {
    this.IsStrategicPartner_Ext = true
  }

  if (this.CustomerRating_Ext == null) {
    this.CustomerRating_Ext = 25
  }  else if (this.CustomerRating_Ext >= 0 and this.CustomerRating_Ext <= 989.9) {
    this.CustomerRating_Ext += 10
  } else {
    this.CustomerRating_Ext = 999.9
  }
}
```

10.3.1 Modify the PCF configuration

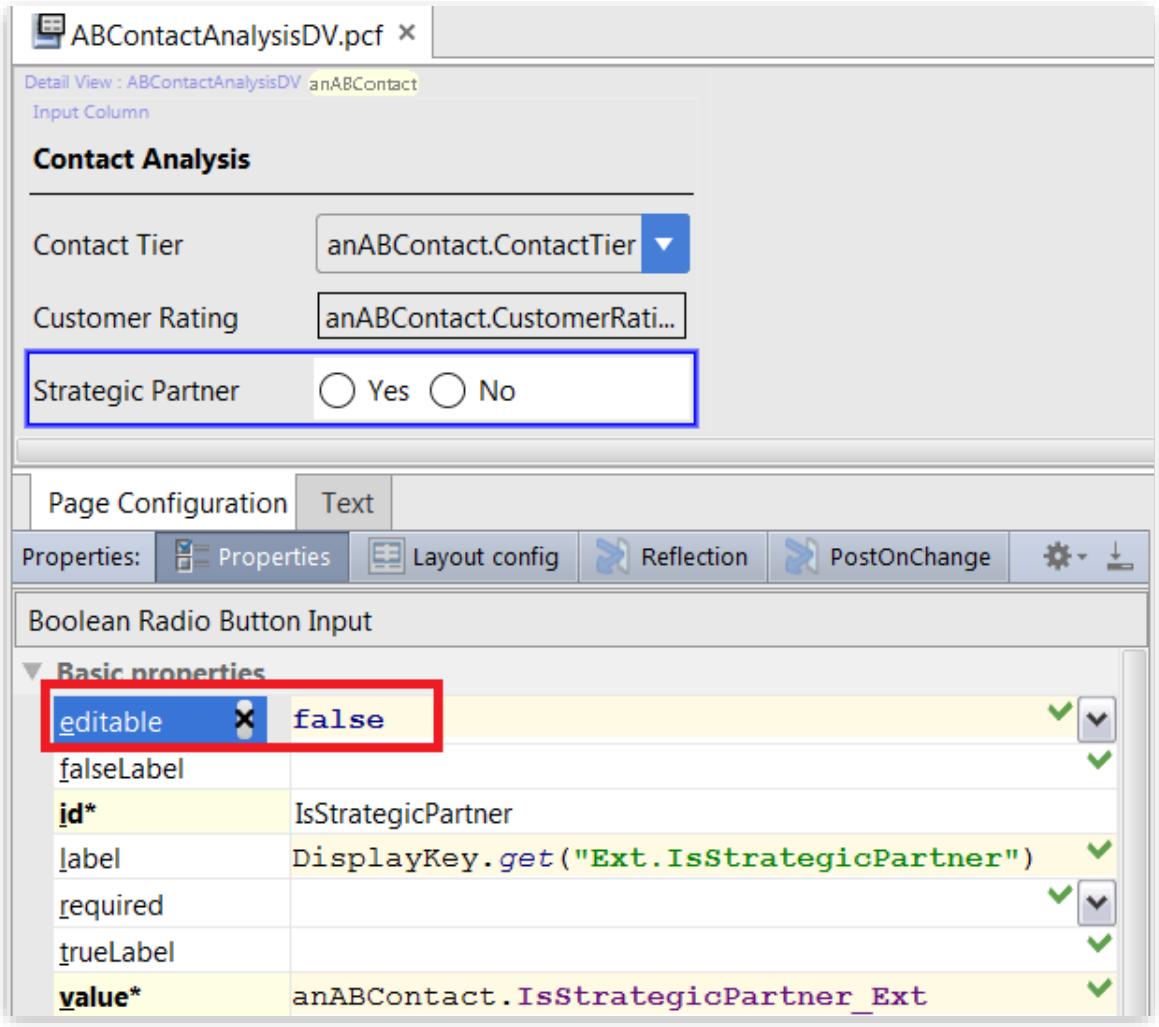
Solution

1. Modify ABContactAnalysisDV

a) In Studio, open ABContactAnalysisDV.pcf. Use `CTRL + SHIFT + N` shortcut in Studio to search for the PCF file:



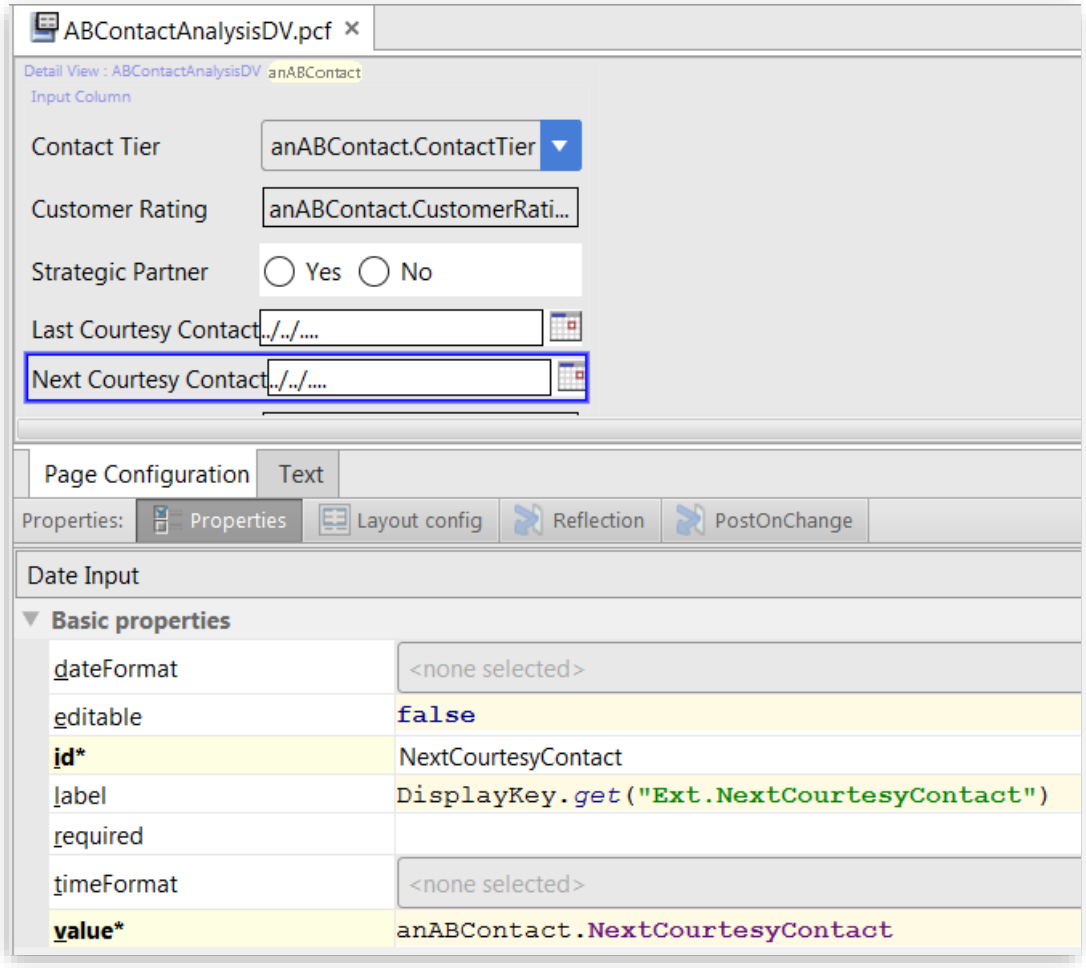
b) Modify the Strategic Partner widget to be read-only.



c) Add the appropriate read-only input widget below Last Courtesy Contact.

d) Create a displaykey for the widget's label property that reads Next Courtesy Contact.

e) Configure the widget to display the enhancement property value.



2. Modify ABContactAnalysisPage

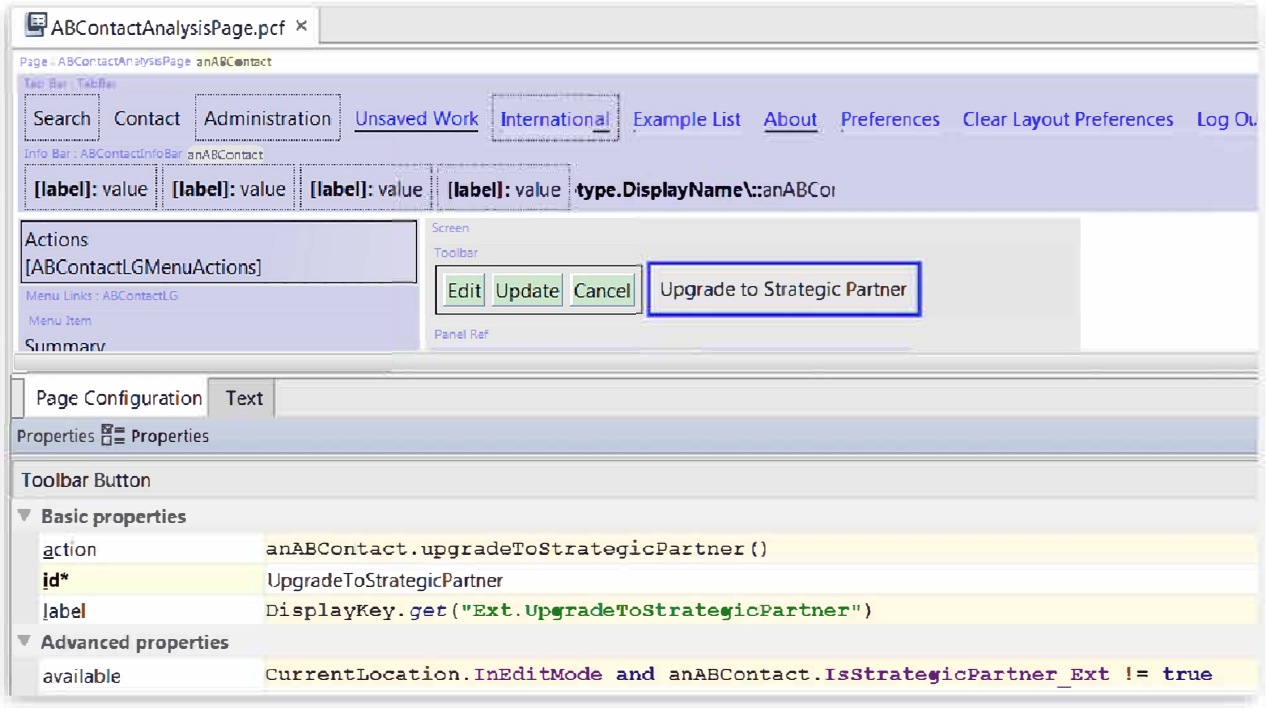
a) In Studio, open ABContactAnalysisPage.pcf.

b) In the existing toolbar, add a toolbar button.

c) Create a displaykey for the button's label property that reads Upgrade to Strategic Partner.

d) Configure the toolbar button so that it calls the upgradeToStrategicPartner() method when clicked.

e) Configure the button so that it is only clickable when the contact is not a strategic partner and when the page is in edit mode.


ABContactAnalysisPage.pcf
Search
Contact
Administration
Unsaved Work
International
Example List
About
Preferences
Clear Layout Preferences
[label]: value
Actions
[ABContactLGMenuActions]
Summary
Edit
Update
Cancel
Upgrade to Strategic Partner
Page Configuration
Text
Properties
Toolbar Button
Basic properties
action
anABContact.upgradeToStrategicPartner()
id*
UpgradeToStrategicPartner
label
DisplayKey.get("Ext.UpgradeToStrategicPartner")
Advanced properties
available
CurrentLocation.InEditMode and anABContact.IsStrategicPartner_Ext != true