

# 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 an 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:

The wireframe shows a web browser window for 'http://localhost:8880/ab/ContactManager.do' in 'DEV mode - 9.0.15'. The page title is 'TrainingApp'. The main content area is titled 'Analysis' and contains a 'Contact Analysis' section. The section includes fields for 'Contact Tier' (set to 'Bronze'), 'Customer Rating' (set to '87.50'), 'Strategic Partner' (with a red circle containing '②'), 'Last Courtesy Contact' (set to '04/19/2016'), 'Next Courtesy Contact' (set to '10/19/2016'), 'Fraud Investigations' (set to '2'), and 'Web Address' (set to 'www.facebook.com/AndyW'). On the left, a sidebar lists 'Actions', 'Summary', 'Details', 'Addresses (1)', 'Notes (0)', 'Analysis' (highlighted in blue), 'Interactions', and 'History'. At the top right, there are buttons for 'Update', 'Cancel', and 'Upgrade to Strategic Partner' (with a red circle containing '③'). A yellow callout box with a red border and arrow points to the 'Strategic Partner' field, listing three requirements: (1) Add a Read-only Next Courtesy Contact field. It should be automatically calculated by adding 6 months to the Last Courtesy Contact; (2) Make the Strategic Partner field read-only; (3) Add an Upgrade to Strategic Partner toolbar button. The button is clickable only if the contact is not yet a strategic partner AND the screen is in edit mode. When the user clicks on it, it executes the logic defined later in this document.

*"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 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

- From Studio, if your server is not already running, start the server using Debug 'Server'.
- 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

- In Guidewire Studio, create a package called `succeedlab.ta.enhancements.entity`
- Create an enhancement for the ABContact entity that conveys that this enhancement relates to analysis.

### 3. Create a getter property named `NextCourtesyContact()`

- 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()`

- 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 mode 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

- Restart the server (Stop / Debug 'Server') in Guidewire Studio.

#### 2. Verify the enhancement method and PCF behavior

- Log in to TrainingApp as Alice Applegate.
- Search for and open the Albertson's contact.
- For the contact, navigate to the Analysis page.
- Click Edit.
- 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.

Company: Albertson's

## Summary

Basics Social Media **Analysis**

Contact Analysis

ContactTier	<none>
CustomerRating	
Is Strategic Partner	
Last Courtesy Contact	09/05/2018
Next Courtesy Contact	03/05/2019
Fraud Investigations	
WebAddress	

- 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.

**Summary**

**Contact Analysis**

ContactTier	<none>
CustomerRating	25
Is Strategic Partner	No
Last Courtesy Contact	10/22/2018
Next Courtesy Contact	04/22/2019
Fraud Investigations	
WebAddress	

**Summary**

**Contact Analysis**

ContactTier	<none>
CustomerRating	35
Is Strategic Partner	Yes
Last Courtesy Contact	10/22/2018
Next Courtesy Contact	04/22/2019
Fraud Investigations	
WebAddress	

**Summary**

**Contact Analysis**

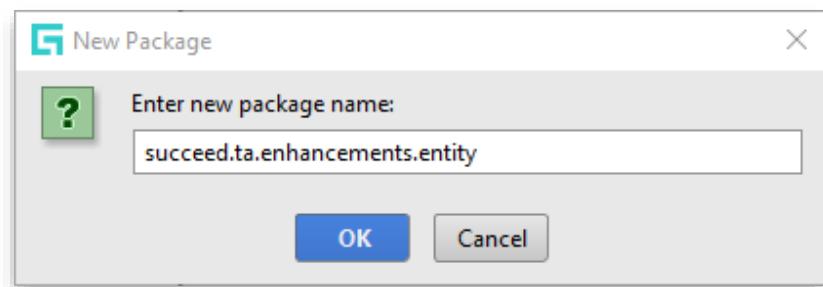
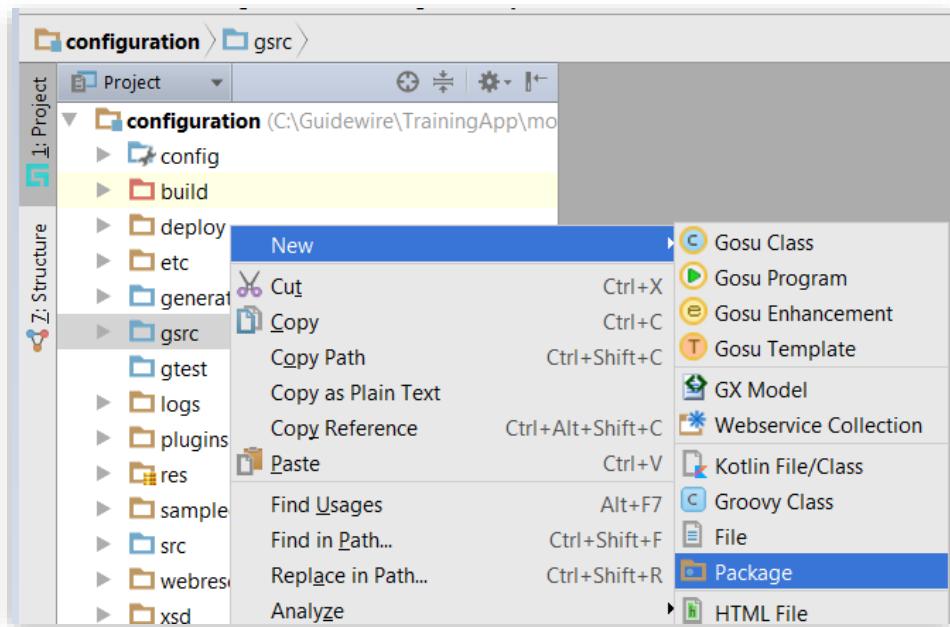
ContactTier	<none>
CustomerRating	35
Is Strategic Partner	Yes
Last Courtesy Contact	10/22/2018
Next Courtesy Contact	04/22/2019
Fraud Investigations	
WebAddress	

## 10.3 Lab Solution: Create a new enhancement

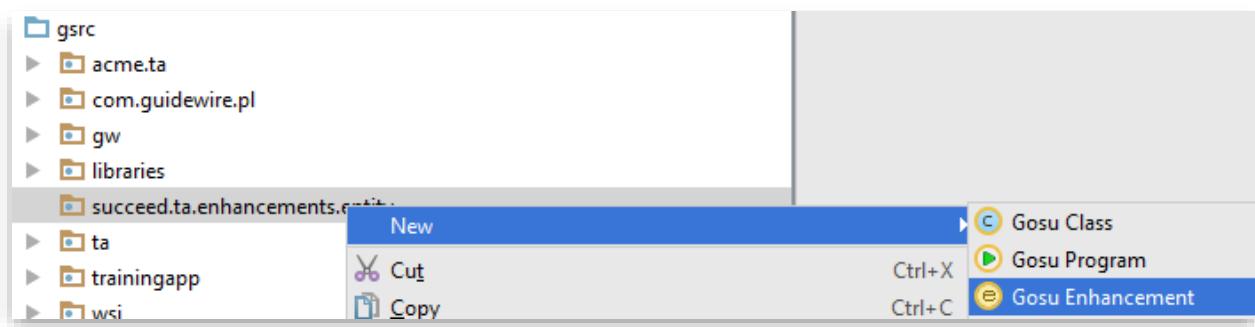


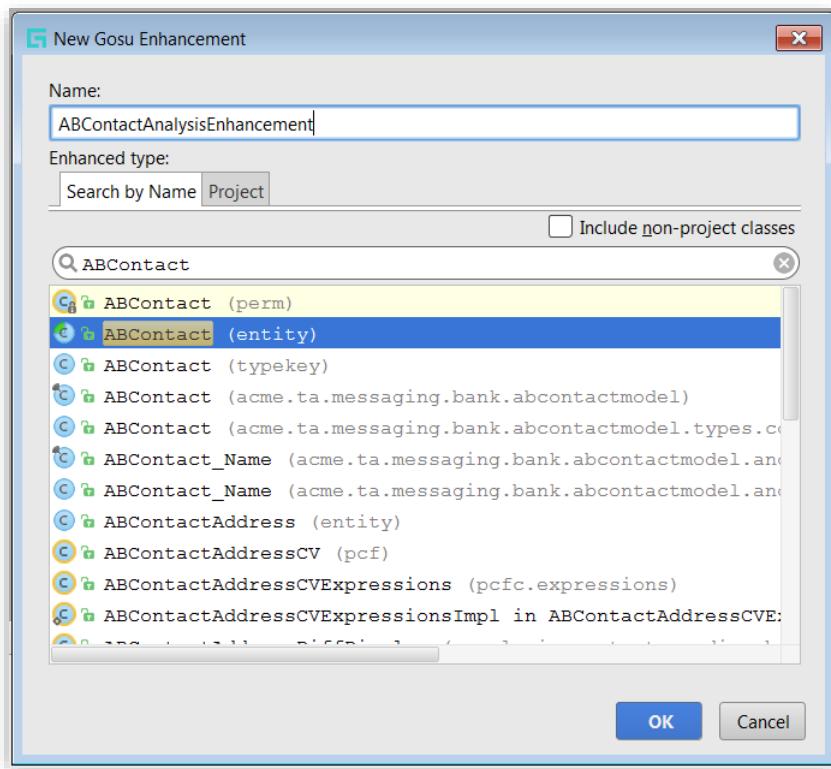
### 1. In Guidewire Studio, create the package and the enhancement

- 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
    }
}

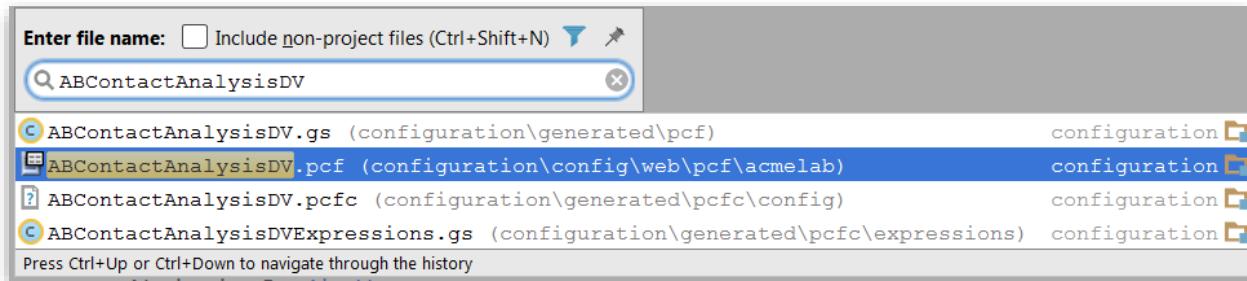
```

### 10.3.1 Modify the PCF configuration



#### 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.

ABContactAnalysisDV.pcf

Detail View : ABContactAnalysisDV anABContact

Contact Analysis

Contact Tier anABContact.ContactTier

Customer Rating anABContact.CustomerRati...

Strategic Partner  Yes  No

Page Configuration Text

Properties: Properties Layout config Reflection PostOnChange

Boolean Radio Button Input

Basic properties

editable	false
falseLabel	
<b>id*</b>	IsStrategicPartner
label	DisplayKey.get("Ext.IsStrategicPartner")
required	
trueLabel	
<b>value*</b>	anABContact.IsStrategicPartner_Ext

- 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.

ABContactAnalysisDV.pcf

Detail View : ABContactAnalysisDV anABContact

**Input Column**

Contact Tier	anABContact.ContactTier
Customer Rating	anABContact.CustomerRati...
Strategic Partner	<input type="radio"/> Yes <input type="radio"/> No
Last Courtesy Contact	././....
Next Courtesy Contact	././....

**Page Configuration** **Text**

Properties: **Properties** **Layout config** **Reflection** **PostOnChange**

Date Input

**Basic properties**

<u>dateFormat</u>	<none selected>
<u>editable</u>	false
<b>id*</b>	NextCourtesyContact
<u>label</u>	DisplayKey.get("Ext.NextCourtesyContact")
<u>required</u>	
<u>timeFormat</u>	<none selected>
<b>value*</b>	anABContact.NextCourtesyContact

## 2. Modify ABContactAnalysisPage

- In Studio, open ABContactAnalysisPage.pcf.
- In the existing toolbar, add a toolbar button.
- Create a displaykey for the button's label property that reads Upgrade to Strategic Partner.
- Configure the toolbar button so that it calls the upgradeToStrategicPartner() method when clicked.
- 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

Page : ABContactAnalysisPage anABCContact

Tab Bar : TabBar

Search Contact Administration Unsaved Work International Example List About Preferences Clear Layout Preferences Log Out

Info Bar : ABContactInfoBar anABCContact

[label]: value [label]: value [label]: value [label]: value type.DisplayNames::anABCOr

Actions [ABContactLGMenuActions]

Screen Toolbar

Menu Links : ABContactLG

Menu Item

Summary

Edit Update Cancel Upgrade to Strategic Partner

Panel Ref

Page Configuration Text

Properties Properties

Toolbar Button

**Basic properties**

- action anABCContact.upgradeToStrategicPartner()
- id\*** UpgradeToStrategicPartner
- label DisplayKey.get("Ext.UpgradeToStrategicPartner")

**Advanced properties**

- available CurrentLocation.InEditMode and anABCContact.IsStrategicPartner\_Ext != true