IBM WEBSPHERE MODELER V6 – LAB EXERCISE

Modeling a Process with WebSphere Business Modeler

What this exercise is about

The objective of this lab is to provide you the basic idea of creating a project using the WebSphere Business Integration Modeler V6.

Lab Requirements

List of system and software required for the student to complete the lab.

- WebSphere Business Modeler V6 installed.

- Sample code in the directory C:\Labfiles60 (Windows).

What you should be able to do

At the end of this lab you should be able to:

- Create the "ProjectScenario" Project

- Create the "ProcessScenario" Process

- Construct a process diagram

- Complete the process model

Introduction

In this lab you will learn how to create a model using WebSphere Business Modeler V6. This lab shows you the procedure of creating a simple process diagram and then adding inputs and outputs. It will then show you how to update your business process model by creating/editing data structures for your business items and adding decision expressions.
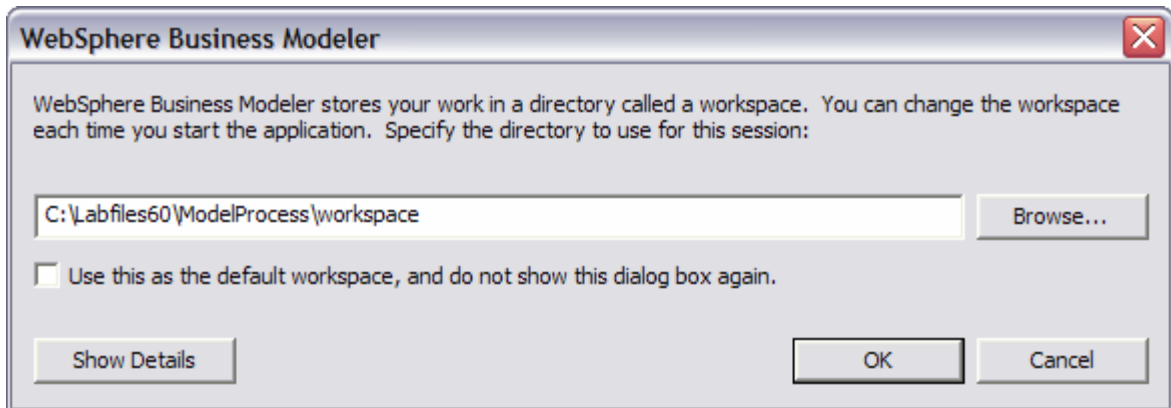
Exercise Instructions

Some instructions in this lab may be Windows operating-system specific. If you plan on running the lab on an operating-system other than Windows, you will need to run the appropriate commands, and use appropriate files (.sh vs. .bat) for your operating system. The directory locations are specified in the lab instructions using symbolic references, as follows:

Reference Variable	Windows Location	AIX/UNIX Location
<LAB_FILES>	C:\Labfiles60	/tmp/Labfiles60

Part 1: Create a Project

____ 1. Start WebSphere Business Modeler.

    __ a. To start the Modeler, click **Start > Programs > WebSphere Business Modeler > WebSphere Business Modeler**.

    __ b. The Modeler workspace window will appear. Click the **Browse** button and select **<LAB_FILES>\ModelProcess\workspace** as your workspace directory.

    __ c. Click **OK**.

WebSphere Business Modeler

WebSphere Business Modeler stores your work in a directory called a workspace. You can change the workspace each time you start the application. Specify the directory to use for this session:

    C:\Labfiles60\ModelProcess\workspace   [Browse...]

☐ Use this as the default workspace, and do not show this dialog box again.

[Show Details]   [OK]   [Cancel]

    __ d. Click **OK**.

____ 2. Create the process and business item for the process.

    __ a. The Quickstart wizard will be displayed. Enter the following:

        o Project name: **ProjectScenario**

        o Process catalog name: **Processes**

        o Process name: **ProcessScenario**

__ b. Uncheck the **Always show this wizard on startup** box if you do not need to create a new project the next time you start the Modeler.

__ c. Click **Next**.

__ d. For the business item, enter the following information:

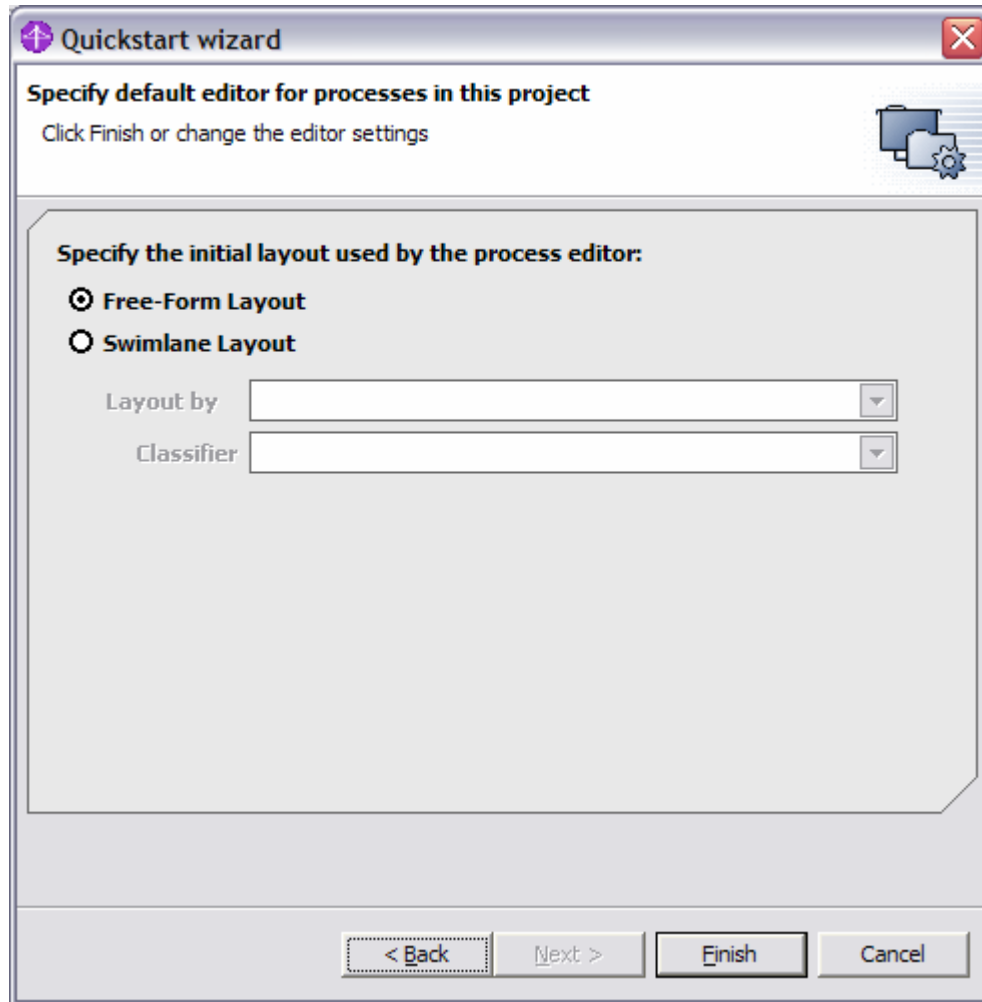   1) Data catalog name: **Business items**

      2) Business item name: **CustomerOrder**

__ e. Click **Next**.

__ f. Select **Free-Form Layout**.

__ e. Click **Finish**. It will take a few moments for the process model to finish loading.

Part 2: Create/Edit your Process Diagram

In this section, you will create your process diagram for CustomerOrder. In this process, there are Receive Order, Approve Order, Package and Ship Order tasks.

_____ 1.   Ensure that the Basic mode is selected. This mode is intended for the business analyst or other user who wants to work at the high level view of a business process model. It focuses on creating and displaying sequence flows, and does not show low-level details of data modeling.

__ a. Select the Basic modeling mode by selecting **Modeling > Mode > Basic** from the main menu.
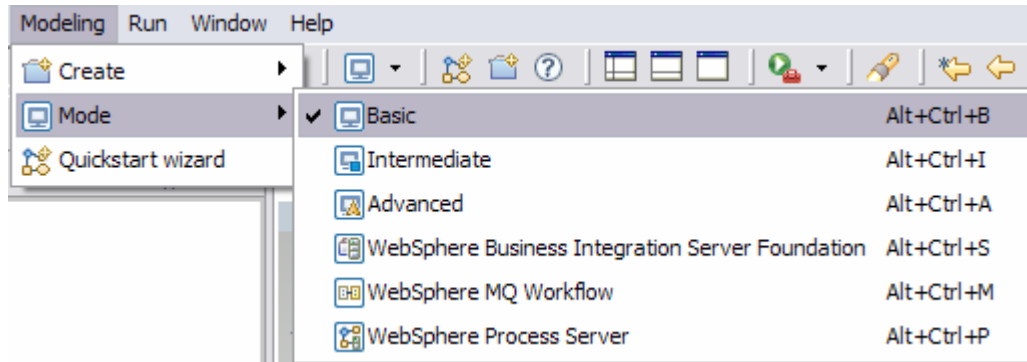
_____ 2.   Remove the Process start element by selecting and pressing the [Delete] key.

In this process model, there will be incoming data to start the process; therefore, it is not necessary to have a Start node in the diagram.
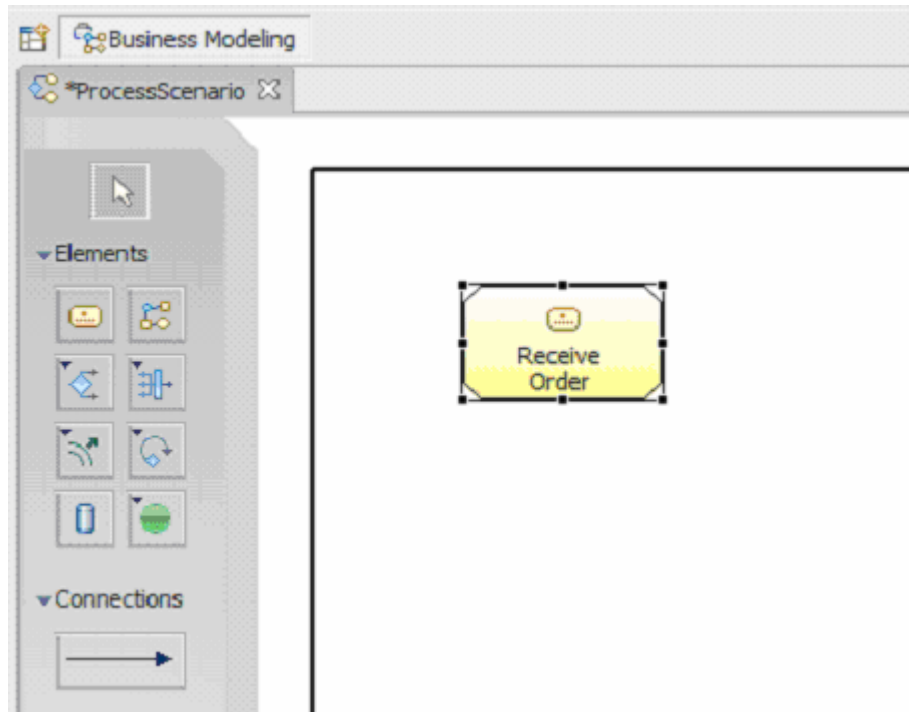
_____ 3.   Add tasks to the process.

　　__ a. Drop a new **Task** from the left toll bar in the Process Editor onto the diagram.
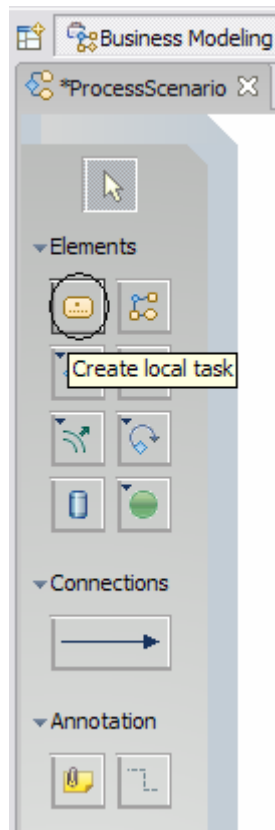
　　__ b. Note that the **Attributes view** now focuses on your newly created task. If the Attributes View pane is not displayed on the screen, make sure you are in either a 2-pane or 4-pane view.
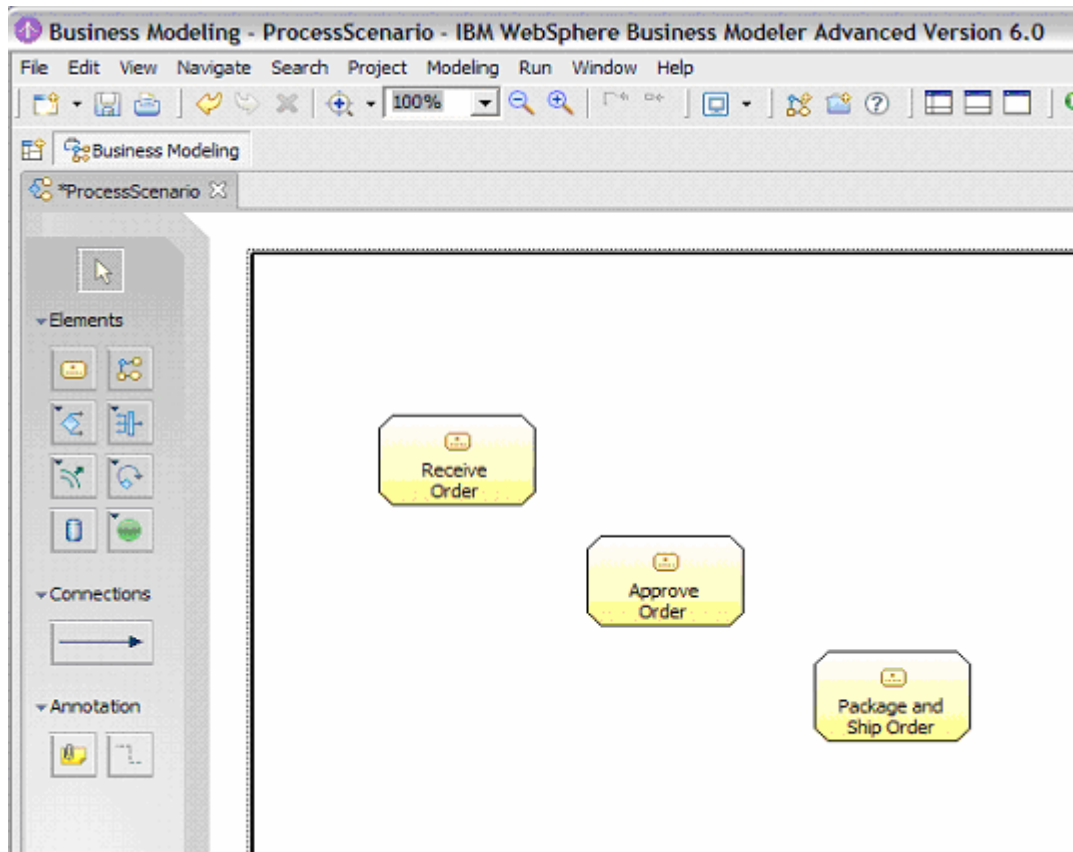
__ c. Name the task as **Receive Order**.

You can create multiple tasks by left-clicking while holding down the Shift key.
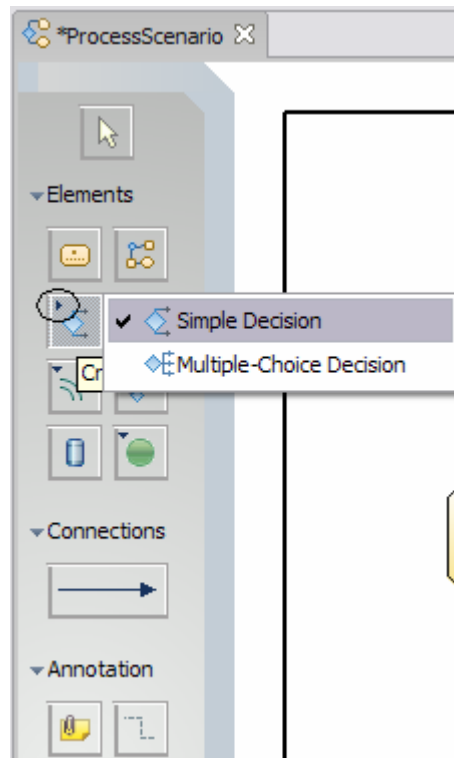
__ d. Add the following tasks onto the diagram:

- **Approve Order**

- **Package and Ship Order**

The diagram should now have the following tasks:

_____ 5.   Add a Simple Decision activity to the process.

   __ a. Click and drop a new **Simple Decision** element from the toolbar onto the process diagram.

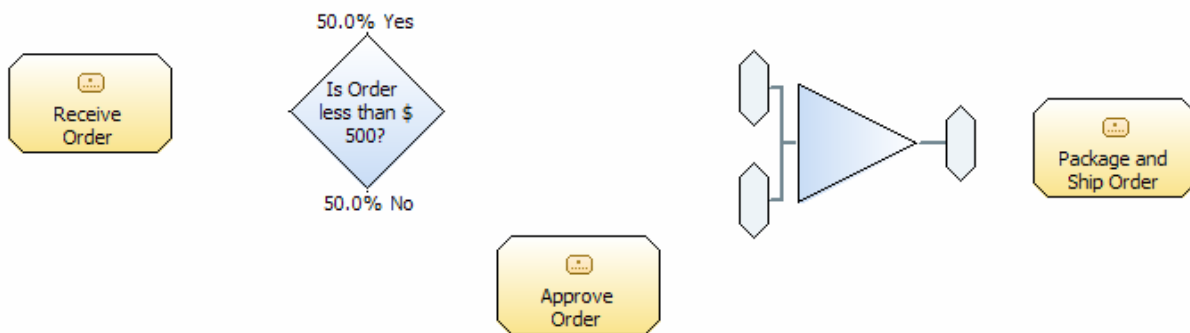   __ b. Label the Decision as **Is Order less than $500?**.

_____ 6.   Add a Merge activity to the process.

   __ a. Click and drop a **Merge** from the toolbar. A merge is used for redirecting multiple processing paths to a single connection.

You may have to use the small arrow to find Merge because the button is initialized to create a Join.
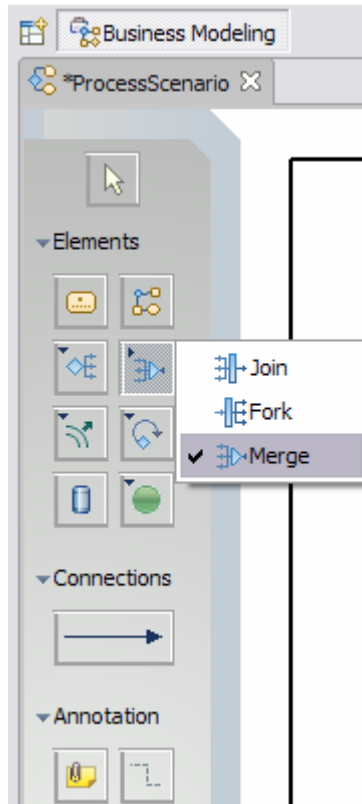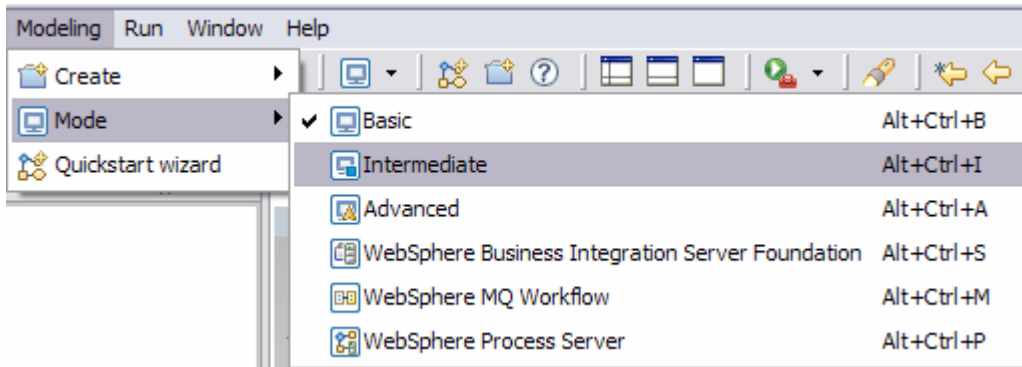

_____ 7.   Arrange the elements as follows:

Part 3: Add Additional Information to the Process

Some more technical details will now be added to the process models. Switch to the Intermediate Business Modeling mode. This mode is more technically focused and user can specify and view additional details of process and data models.

____ 1.   From menu bar, click **Modeling > Mode > Intermediate**.

Modeling	Run	Window	Help													
📁 Create			▶		💻 ▾	🖧 📑 ❓	🔲 🔳 🔲	🔋 ▾	🖌	⇔ ⇐

✔ 💻 Basic	Alt+Ctrl+B
📘 Intermediate	Alt+Ctrl+I
📕 Advanced	Alt+Ctrl+A
📒 WebSphere Business Integration Server Foundation	Alt+Ctrl+S
📷 WebSphere MQ Workflow	Alt+Ctrl+M
🖧 WebSphere Process Server	Alt+Ctrl+P

(Modeling menu showing: 📁 Create ▶, 💻 Mode ▶, 🖧 Quickstart wizard)

You will see two new small boxes on the left and right sides of each element in the process diagram, and also outside the diagram boundary. These are the inputs and outputs defined for each task and the process. These icons do not appear if you are within the Basic Modeling Mode.
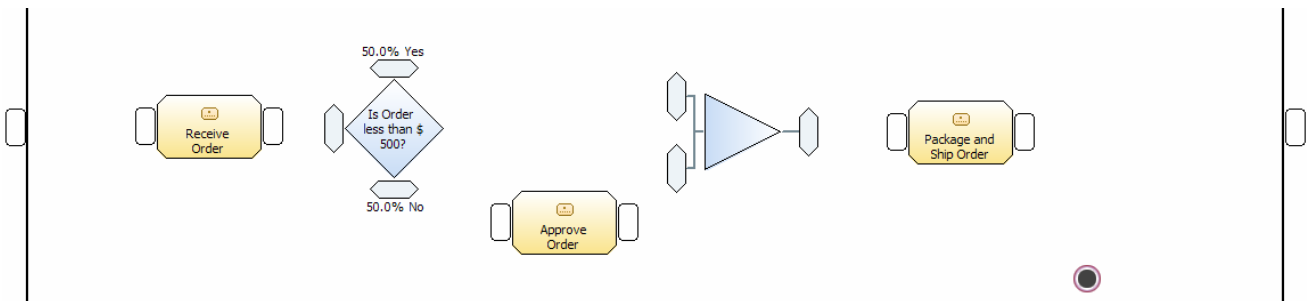

____ 2.   You should be using a 4-pane view. If not, click the **Apply 4-pane layout** button from the toolbar at the top.

_____ 3.   Click on the process diagram background, and notice that the **Attributes View** now focuses on the process itself. This is focus on the attributes view of the **ProcessScenario** process.
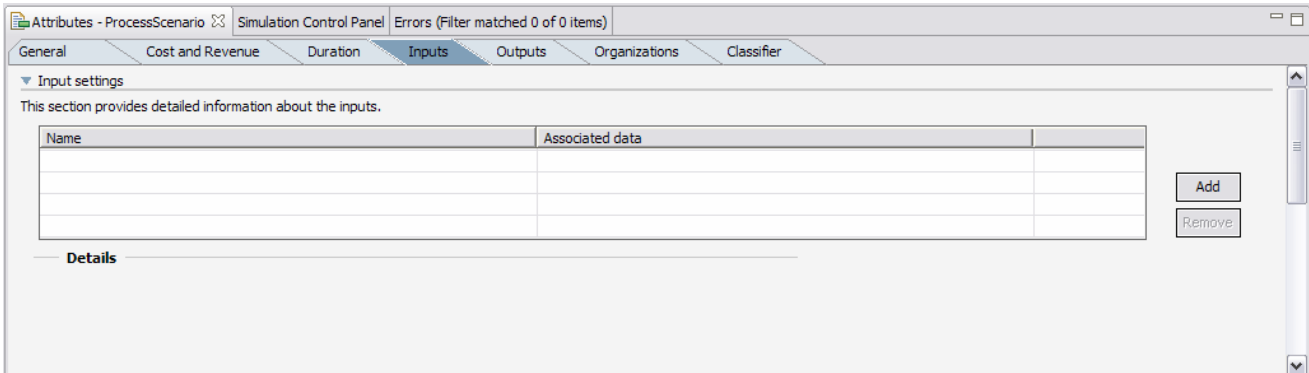

_____ 4.   In the **Attributes View** pane, select the **Inputs** tab and click the **Add** button. A new row is created in the **Input Settings** table.

_____ 5.   Under **Input Settings**, in the column of **Associated Data**, select **String**, and then click the small button ⌨ that is displayed to the right of the field.
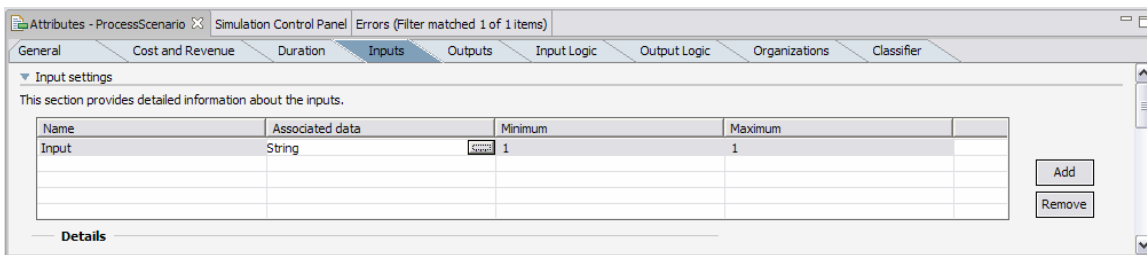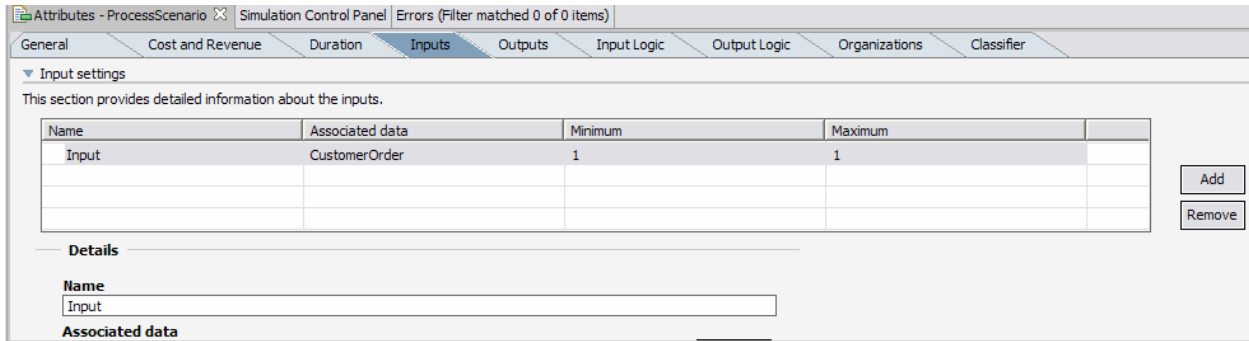
A dialog box will be displayed as follows:
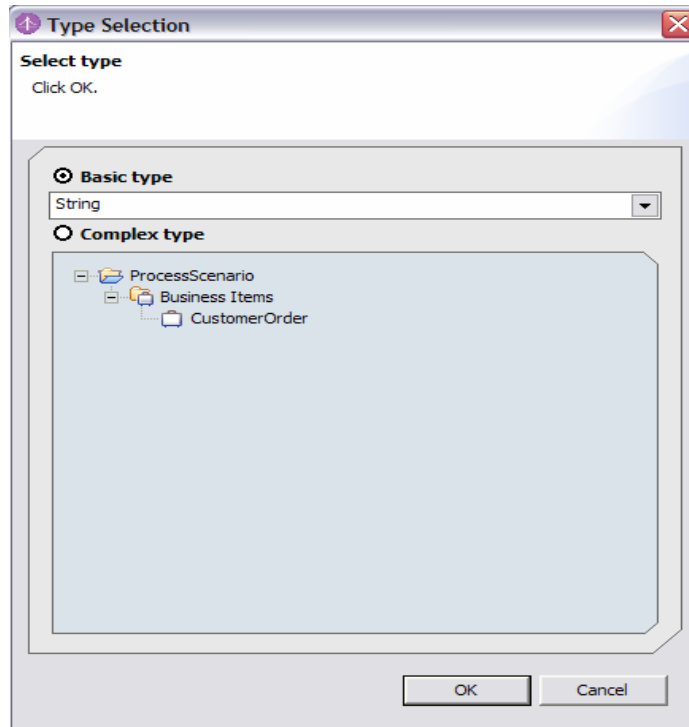
____ 6.   Select the **Complex type** radio button, select **ProjectScenario > Business Items** and then select **CustomerOrder**.
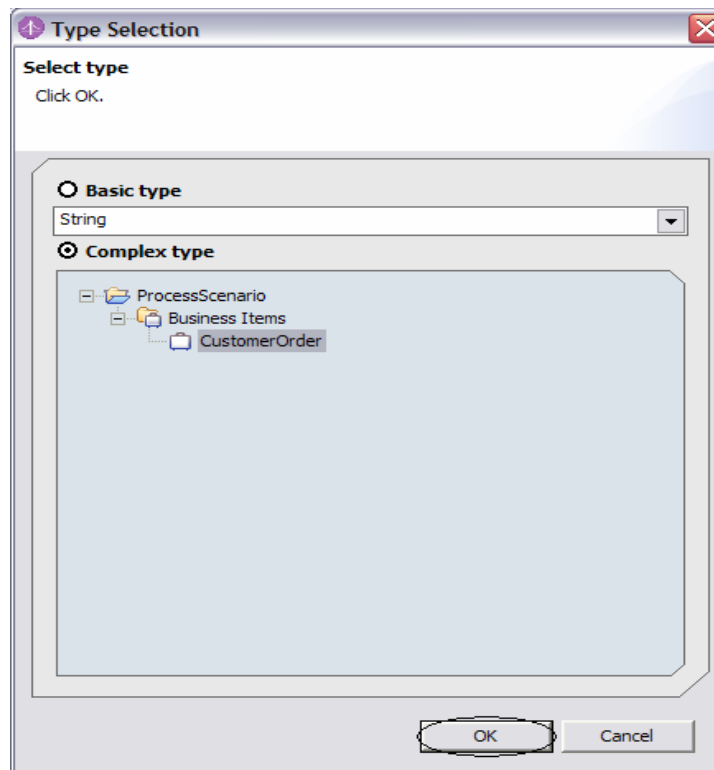
_____ 7.   Click **OK**.

CustomerOrder is now associated as an input for the **ProjectScenario** process.

	Attributes - ProcessScenario ⊠	Simulation Control Panel	Errors (Filter matched 0 of 0 items)					

General	Cost and Revenue	Duration	Inputs	Outputs	Input Logic	Output Logic	Organizations	Classifier

▼ Input settings
This section provides detailed information about the inputs.

Name	Associated data	Minimum	Maximum	
Input	CustomerOrder	1	1	

Add
Remove

── Details ──

Name
Input

Associated data

_____ 8.   Click the **Outputs** tab and repeat steps 4 through 7 to select **CustomerOrder** as associated data.

You will see the input and output icons ⊠ on the outer boundaries of the **ProjectScenario** process diagram.

_____ 9.   To create an input for the **Receive Order** task, select the task.

___ a. In the **Attributes View**, click the **Inputs** tab, and click the **Add** button.

___ b. Click the cell under **Associated data** and click the small button ⊞ to the right of the field.

___ c. Select the **Complex type** radio button, select **ProjectScenario > Business Items** and then select **CustomerOrder**.

___ d. Click **OK**.

_____ 10.   To create an output for the **Receiver Order** task, select the task.

___ a. In the **Attributes View**, click the **Outputs** tab, and click the **Add** button.

___ b. Click the cell under **Associated data** for *output*, and click the small button ⊞ to the right of the field.

___ c. Select the **Complex type** radio button, select **ProjectScenario > Business Items** and then select **CustomerOrder**.

___ d. Click **OK**.

You will now see two new small icons ⊠ on the left and right sides of the task in the process diagram.


_____ 11.   Select **Approve Order** task and repeat steps 9.a through 9.d and 10.a through 10.d to add **CustomerOrder** as an input and output to that task.

____ 12. Select **Package and Ship Order** task and repeat steps 9.a through 9.d and 10.a through 10.d to add **CustomerOrder** as an input and output to that task.

____ 13. For the Package and Ship Order task, you must add another output as this will be connected to the Stop activity which will signify the end of the process.

__ a. From the Attributes view of Package and Ship Order, select **Outputs** tab.

__ b. Under the Output settings click **Add** button.

You will now see a new row with the name Output:2 under the Output settings. The Associated data can be left blank for this output.

__ c. Arrange your elements to make your Process diagram look like this:
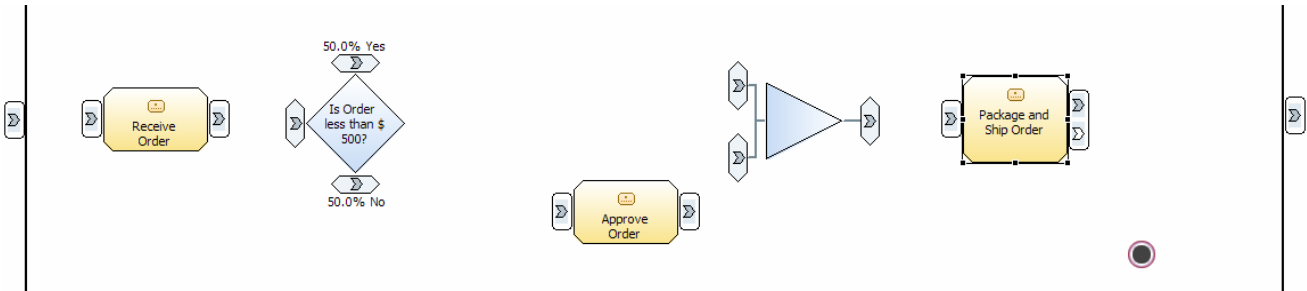
____ 14. Create the connection between the Process **Input** (CustomerOrder) and the Input of the task **Receive Order**.

__ a. First, select the **Connector** icon on the toolbar.

__ b. Click the input ⬚ outside the black boundary line to define process **input**, and then click the input (left side) ⬚ of the **Receive Order** task to define the destination of the data flow. See below:
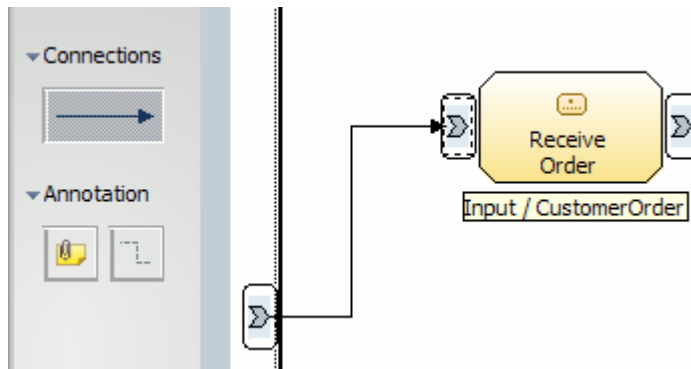
____ 15. Select the **Connector** icon and create connections for all the elements.

____ 16. Repeat the pervious step to connect the output of the task **Package and Ship Order** to the **Process Output** (CustomerOrder). You will also need to connect the second output to the **Stop** task.

Your Process diagram will now look like this:
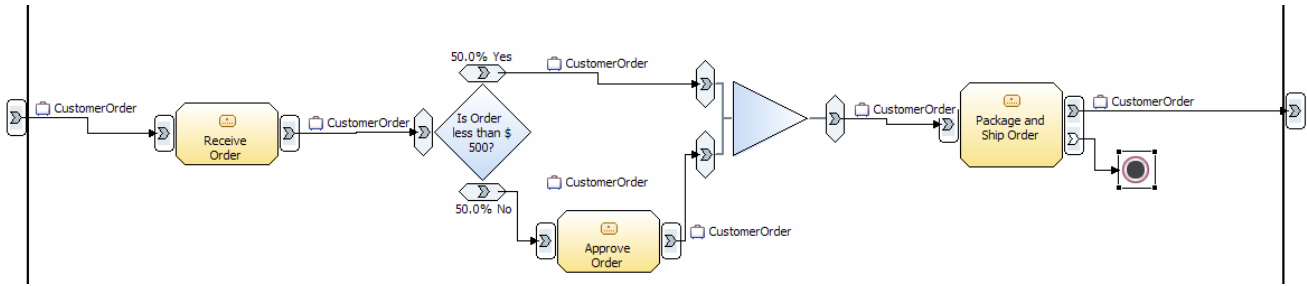
____ 17. Save your work **(Ctrl+S)**.

Part 4: Edit/Create Data Structures

We will now update the business process model by defining a data structure to the business item that we created.

____ 1.   In the **Project Tree**, double-click the existing **CustomerOrder** business item under **ProcessScenario > Business Items**.

Note: To create a new Data structure, from the **Project Tree view**, right-click the **ProcessScenario > Business Items** and select **New > Business Item** and then enter the new Data structure name you want to create and click **Finish**.
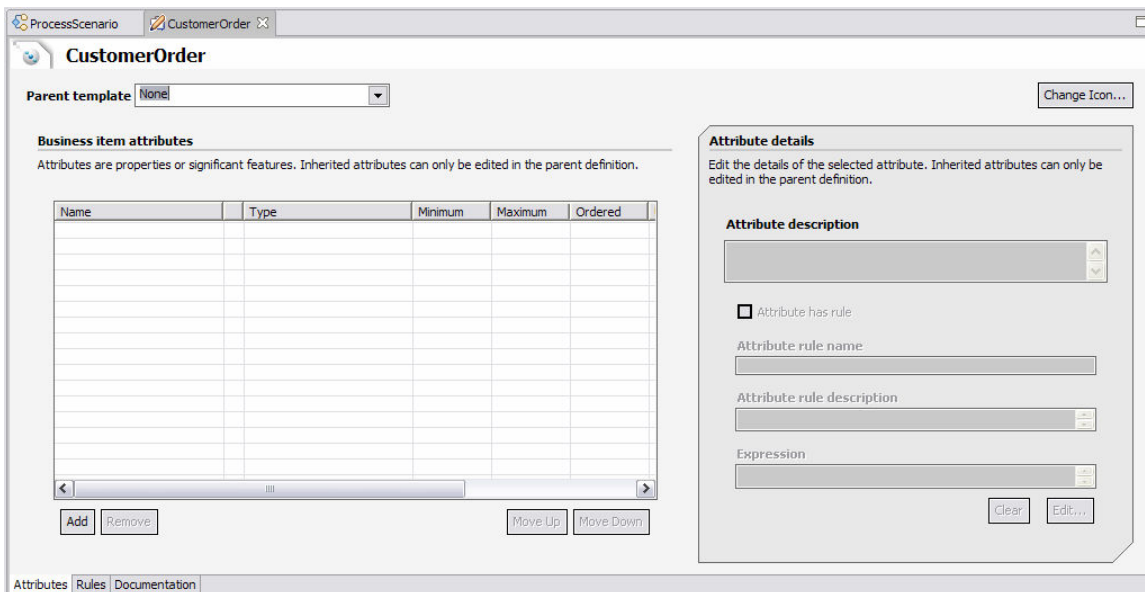
   __ a. Click **Add** button to create new attribute for your business item.

   __ b. Double-click the gray attribute field and name it **CustomerName**. Leave the default Type as **String**.

____ 2.   Repeat the previous step to add the following business item attributes.
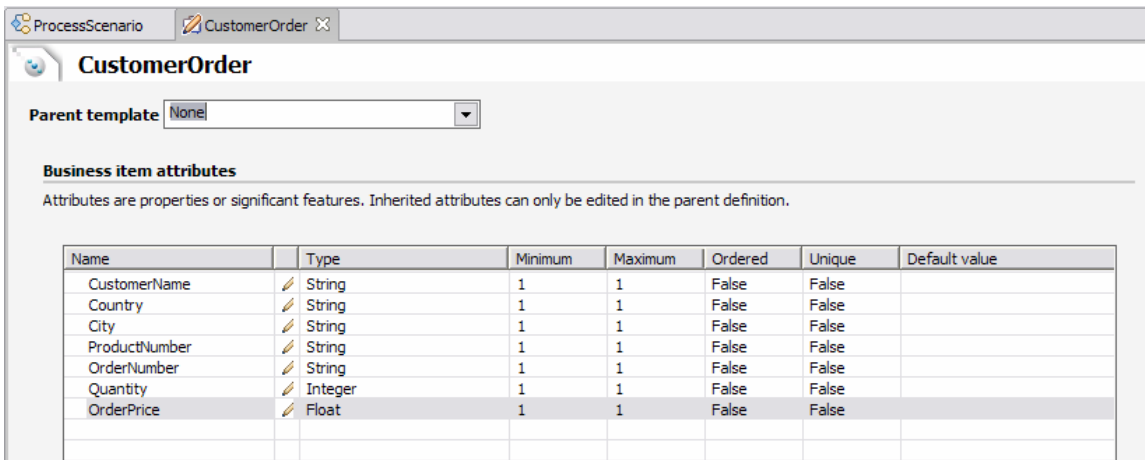
__ a. Save the business item attributes **(Ctrl+S)**.

__ b. Close the business item CustomerOrder editor by clicking the **X** in the **CustomerOrder** tab at the top of the window.

Part 5: Define Decision Expressions

_____ 1.	Select the **CustomerOrder** editor pane or open the CustomerOrder process editor if it was previously closed.

_____ 2.	Click the **Error View** tab from the bottom of the **Attributes View** panel.

There should be no errors at this time.

_____ 3.	Select the Is **Order less than $500?** decision in the process diagram.

_____ 4.	Open the **Attributes View** and select the **Output branches** Tab.

_____ 5.	Select the row with condition **Yes**.
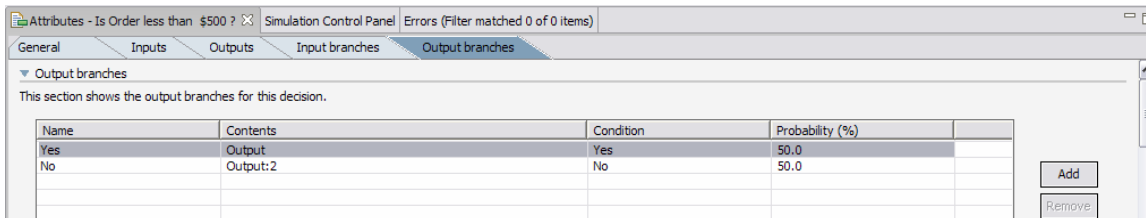
_____ 6.	Scroll to the bottom of the **Attributes View** pane and click the **Edit** Expression button to open the Expression Builder.

Note: If you do not see the Edit Expression button, check that you are in either the Intermediate or Advanced mode.

_____ 7.	Select **Modeling artifact** from the First term drop-down list.

_____ 8.	Expand Modeling artifact and select **OrderPrice** under Processes **> ProcessScenario > Is Order less than 500? > Input**.

_____ 9.	Select **is less than** under **Operator**.

_____ 10.	Select **Number** from the **Second term** drop-down list and enter **500.0** as the **Second term details**.

_____ 11. Click **Apply**.
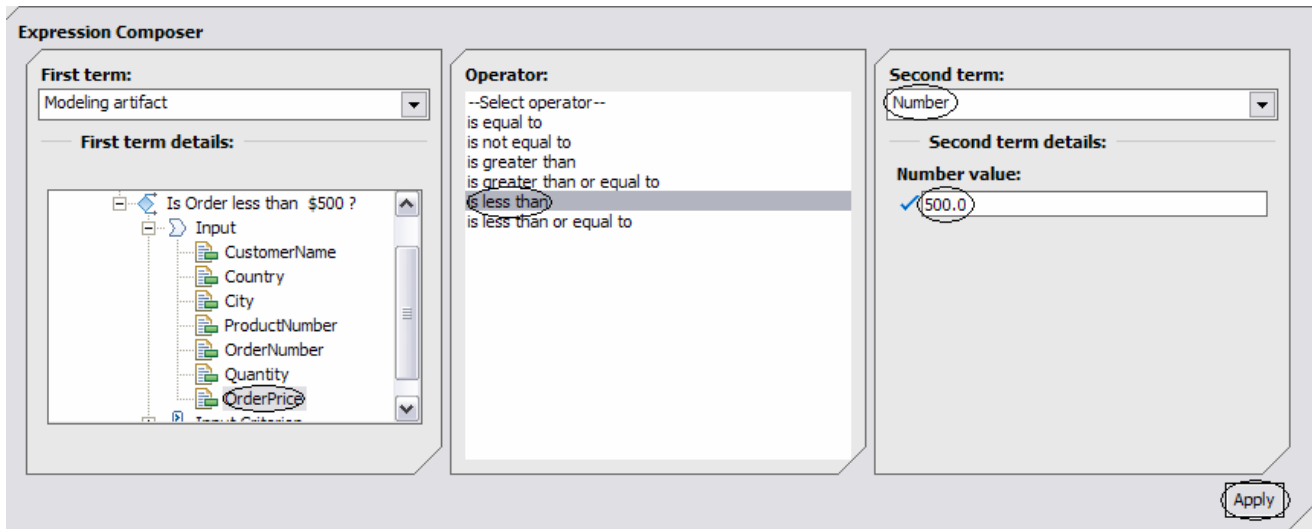
_____ 12. Review and verify the expression under **Expression text**.

'Processes.ProcessScenario.Is Order less than $500?.Input.OrderPrice' is less than 500.0

Expression text:

'Processes.ProcessScenario.Is Order less than $500 ?.Input.OrderPrice' is less than 500.0
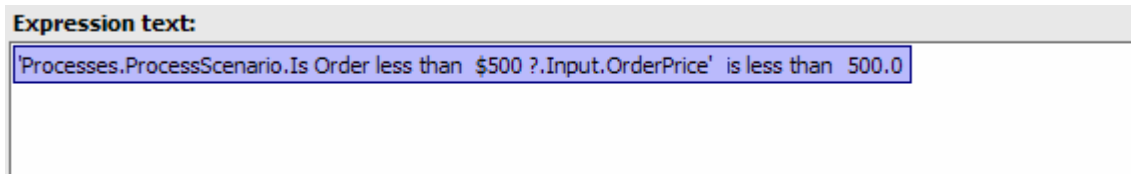
_____ 13. Click **OK**.

_____ 14. Save your work **(Ctrl+S)**.

What you did in this exercise

In this lab, you created your workspace and a project. You then developed your model with the Process editor. You completed your Process diagram by adding additional information such as input and output to the process and also to each task in the process diagram. Finally you completed the definition of a Business Item.

Solution Instructions

____ 1.   Import the ProjectScenario process into WebSphere Business Modeler for viewing.

　　__ a. Select **File > Import…**.

　　__ b. Select **WebSphere Business Modeler Import** and click **Next**.

　　__ c. Select **WebSphere Business Modeler project (.zip)** and click **Next**.

　　__ d. For the Source directory, click **Browse…** and select the folder
　　　　 <LAB_FILES>\ModelProcess\Solution.

　　__ e. Select **ProcessScenario.zip**.

　　__ f. To the right of the Target project field, click **New**.

　　__ g. Change the New project name to **ProjectScenario**.
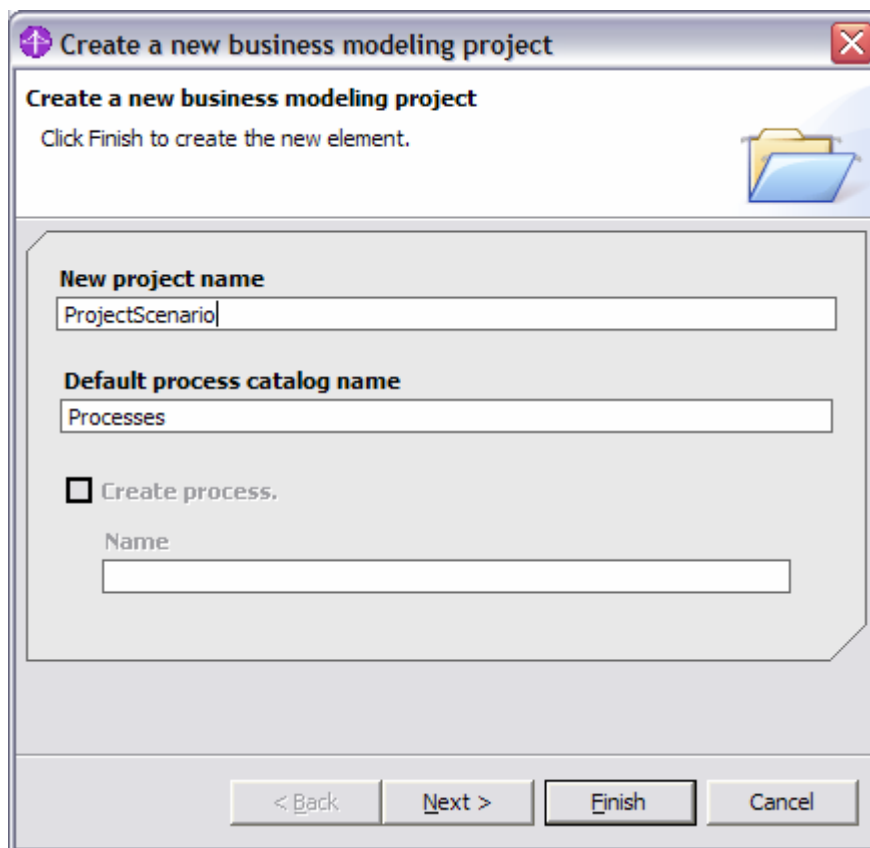
　　__ h. Click **Finish**. The Target project field should be filled in with the ProjectScenario value.

　　__ i. Click **Finish** to complete the import.

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