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Duration: 10 minutes

This tutorial introduces the **BRANCH** operation, which supports conditional processing. In this tutorial, you will apply conditional logic to grant a 20% discount to a premium customer.

Note: The **BRANCH** operation is analogous to an "if-then-else" statement in languages such as Java.

Prerequisites

This tutorial builds on concepts, techniques, and objects covered previously in:

- *1. Create an IS Package and Folders*
- *2. Create and Run a Flow Service*
- *3. Create Document Types*
- *4. Create a LOOP Operation*
- The tutorials above must be completed or you can import the solution: Completed Export of 4. Create a LOOP Operation.zip (http://techcommunity.softwareag.com/protected/download/developer-communities/webmethods/FreeTrial/Completed Export of 4. Create a LOOP Operation.zip) using these instructions: **Import an IS Package** (http://softwareag.com/)
- The IS must be started. Instructions on how to start the IS are found in the **Prerequisites** part of the 1. Create an IS Package and Folders (http://techcommunity.softwareag.com/pwiki/-/wiki/Main/webMethods+Flow+Tutorial+-+Create+an+IS+Package+and+Folders) FLOW tutorial.

Step Outline

You create the **BRANCH** operation by:

- Adding the **BRANCH** step to the service
- Setting the **BRANCH** condition
- Adding logic to perform a transformation when the condition is met

Step 1: Add Conditional Logic to the Data Mapping Service

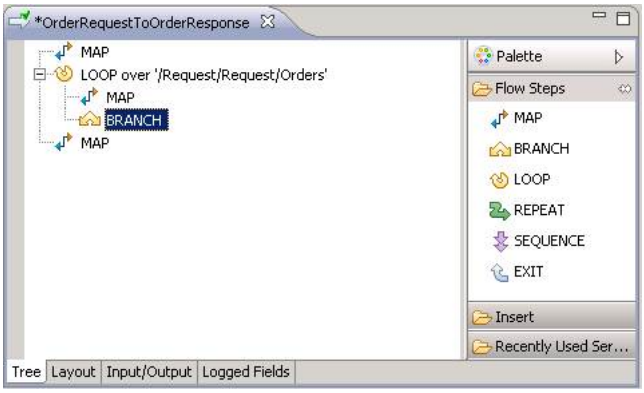
In this step: You will add a **BRANCH** step to the previously created data mapping service, **OrderRequestToOrderResponse.**

To add a **BRANCH** step:

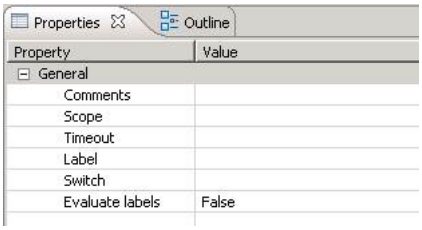
- Open the data mapping service **FLOW_Tutorial.services:OrderRequestToOrderResponse**

The **BRANCH** tool enables you to change processing based on conditions that you set within the **BRANCH** properties.

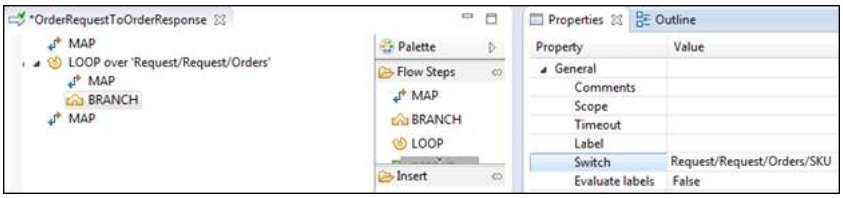
- add a **BRANCH** step below the **MAP** step that is a child of the **LOOP** step:



Designer creates the **BRANCH** step and displays its **Properties:**



- Set the **Switch** property of the **BRANCH** step to **Request/Request/Orders/SKU:**



Important: If you copy the **Request/Request/Orders/SKU** element from the **Pipeline** tab, you must copy it from within the **LOOP** step; for example, select the nested **MAP** step, select the **Pipeline** tab, then select the element.

Designer displays the configured **BRANCH** step:

Note: In this step you used a literal string to create the **BRANCH** label; however, you can set **BRANCH** labels using more complex and dynamic operations, such as regular expressions.

You can now add transformation logic to the **BRANCH** operation.

Step 2: Add Transformation Logic

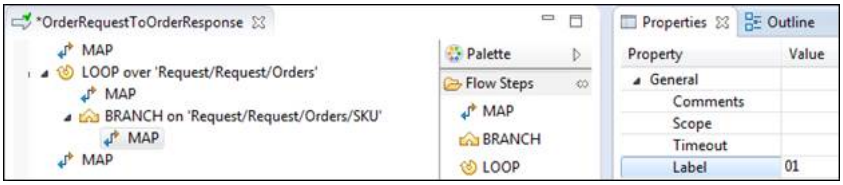
In this step: You will add a transformer, and configure it to apply a discount under a specified condition.

To add transformation logic to the service:

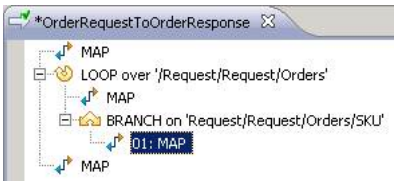
- Add a new **MAP** step under the **BRANCH:**

Note: Ensure that the step is nested correctly so that it is a child of the **BRANCH** step.

- Set the **Label** property of the new **MAP** step to **01:**

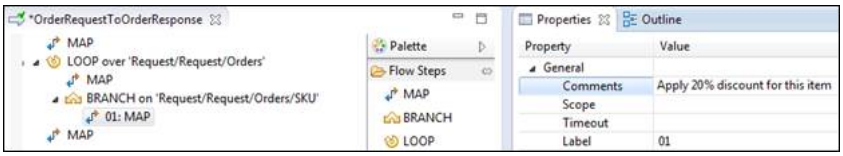


Designer displays the new **MAP** step (you can click the enter button or select anywhere within the flow editor to see the **MAP** step update:

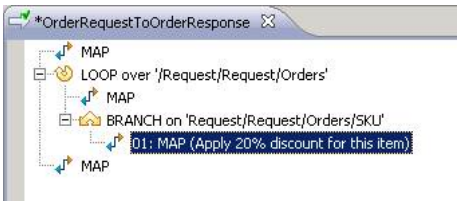


- Add a description to the **MAP** step in the Comments property and click **Enter**, for example:

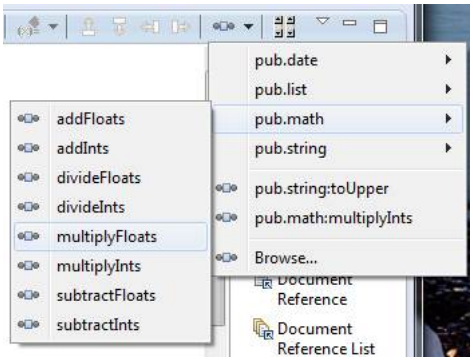
Apply 20% discount for this item



Designer displays the new **MAP** step:



- In the **Pipeline Editor**, add the Transformer **pub.math.multiplyFloats** to this **MAP** step

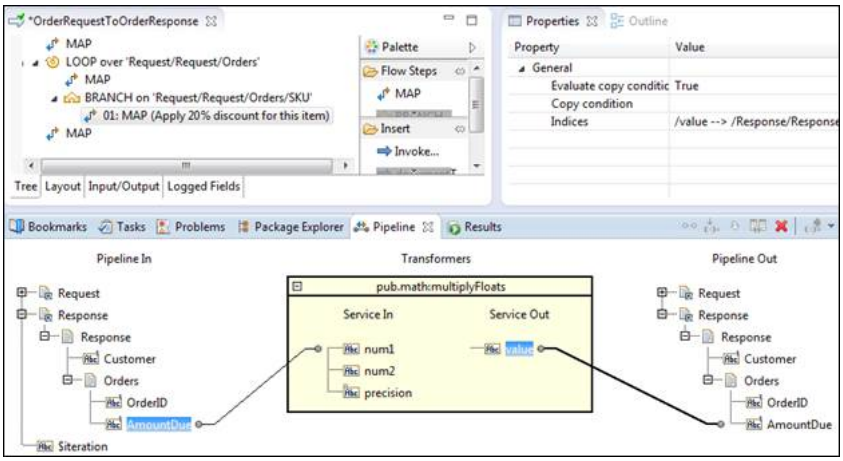


- Expand the **Transformer**, then map the following inputs:

Response/Response/Orders/AmountDue to **num1**

- Map the **Transformer** output value to:

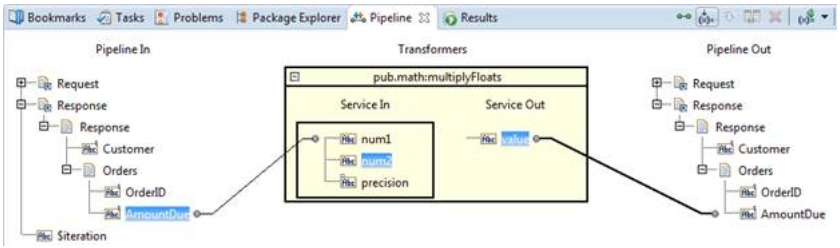
Response/Response/Orders/AmountDue



You can now set the value of transformer input and output using the **Set Value** tool.

To set the value of the transformer input:

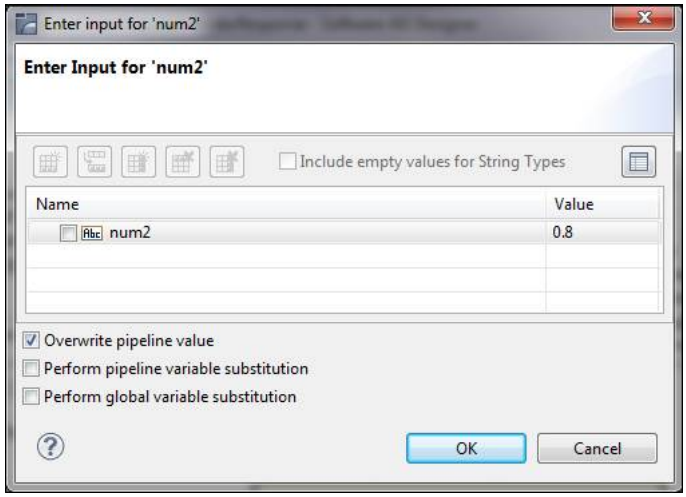
- Select **num2** in the **pub.math.multiplyFloats Service** In column, then select the **Set Value**  toolbar button:



(alternatively, you may double-click **num2** to set its value)

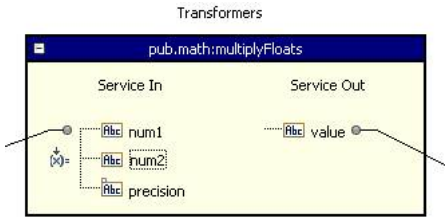
Designer displays the **Set Value** dialog.

- Set the value of **num2** to **0.8**, and click **OK**.



Note: The value of the discount itself is hard-coded, not conditional.

The **num2** input to **multiplyFloats** will now reflect a set value, which may be revealed by hovering the cursor above the set value icon.



- **Save** and **Run** the service using the same input file as in the previous tutorial:

Note: You may need to re-load the input file:

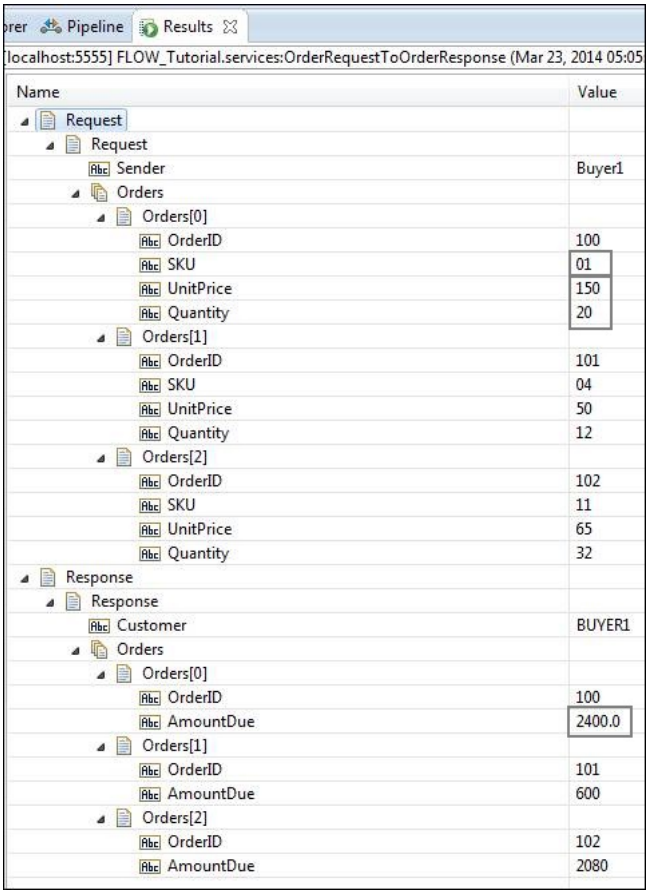
FLOW_Tutorial_4_Input.xml (http://techcommunity.softwareag.com/protected/download/developer-communities/webmethods/FreeTrial/FLOW_Tutorial_4_Input.xml) (http://softwareag.com/) (http://techcommunity.softwareag.com/protected/download/developer-communities/webmethods/FreeTrial/FLOW_Tutorial_4_Input.xml)

Designer displays the data loaded from the input file.

- select **OK**

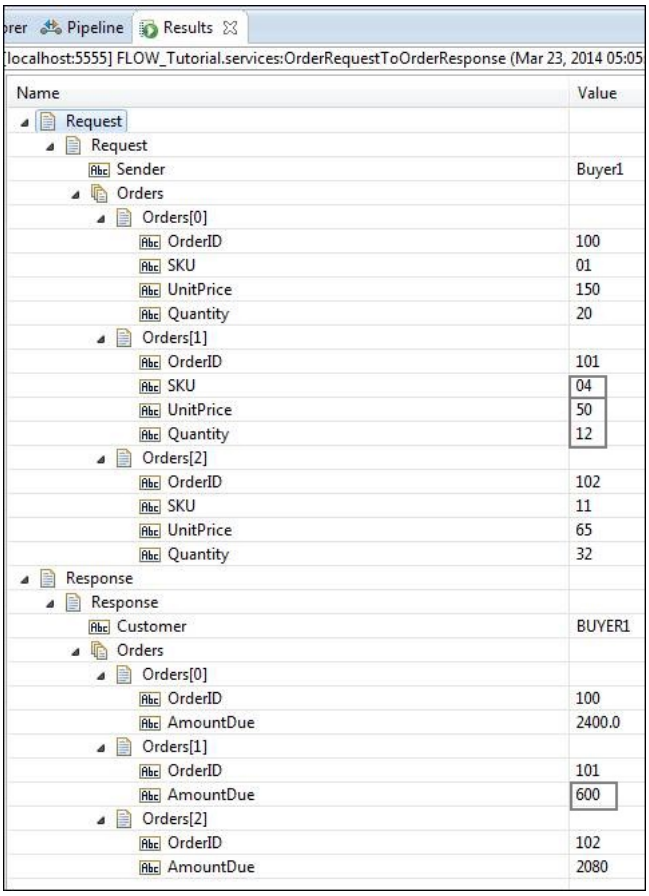
Designer displays the Results, showing the discount applied only to **SKU 01:**

150 * 20 * 0.8 = 2400



The Results show that the discount is not applied to the other orders (no 20% discount):

50 * 12 = 600



Conclusion

You have enhanced the service by incorporating conditional logic to apply a discount to a specified item.