**Lab 2-1: Creating a Simple Mapping – Using a Source, Filter, and Multiple Targets**

**Scenario:**

You would like to create a task that writes data to two targets. This is not something that can be accomplished using the Data Synchronization app. Therefore, you will create a one-time use mapping in the Mapping Designer.

In the next module, you will create a Mapping Configuration Task for the mapping. You have been asked to export opportunity data so that it can be further analyzed using a third-party tool. When you export the data, you need to export to separate files – one for high probability opportunities, and one for low probability opportunities.

**Objective:**

In this lab, you will:

Create a simple mapping using the Mapping Designer.

Practice adding Sources and Targets to a mapping.

Practice using the Filter transformation.

**Prerequisites:**

1. Save the following lab files to your flat file directory (C:\IICSLabFiles):

HighProbabilityOpportunities.csv and LowProbabilityOpportunities.csv

**Note:** These files should contain a header row only.

1. In your Salesforce Developer org, create several (5-10) opportunities.

**Note:**

i. Create opportunities on more than one account.

ii. Enter a variety of probabilities for the opportunities you create.

iii. The probability is tied to Stage in Salesforce. You will be filtering on opportunities above and below a probability of 70.

**Tasks:**

1. **Create a Mapping:**

a. Log in to the Informatica Intelligent Cloud Services (IICS).

b. Select the **Data Integration** service.

c. To create a new Asset, in the left navigation pane, click **New**.

d. To create a new mapping, click **Mappings** on the left side of the New Asset window and select the **Mapping** option.

e. Click the **Create** button.

**Note:** A mapping page appears. **Note:** A Source (**NewSource**) and a Target (**NewTarget**) are already present in the appeared mapping

f. In the Name field, enter **XX\_MultiTarget** (where XX is your name or initials).

2. **Configure Source in the Mapping:**

a. In the mapping, select the **NewSource** transformation.

b. In the General properties section, for the Name field, enter **SO\_Salesforce.**

c. In the source properties pane, click **Source**.

d. From the Connection dropdown, select **XX\_SFDCDeveloper** (where XX is your name or initials).

e. Keep the Source Type as Single Object.

f. To select the source object, click the **Select** button.

g. From the appeared Select Source Object window, select **Opportunity** and click **OK**.

3. **Add a Filter (1 of 2) to the Mapping:**

a. Click the link joining the source transformation **SO\_Salesforce** and the target transformation **NewTarget**. To remove the link, click the bin icon.

**Note:** You can also add the transformations onto the canvas between the existing transformations by dragging and dropping the transformation on the link joining the transformations.

b. Drag and drop the Filter transformation from the list of available transformations onto the canvas.

c. **Link** the source transformation SO\_Salesforce to the filter transformation NewFilter.

d. In the Filter properties pane, under General properties, enter the filter name as **FIL\_RouteHighProbOpptys**.

e. In the Filter properties pane, click **Filter**.

f. Keep the Filter Condition set to Simple.

g. To add a new filter condition, in the right side of the properties pane, click the + icon.

h. Enter the filter condition as below:

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Operator** | **Value** |
| Probability | >= (Greater than or equals) | 70 |

4. **Configure a Target (1 of 2) in the Mapping:**

a. **Link** the filter transformation FIL\_RouteHighProbOpptys to the target transformation NewTarget.

b. Select the target transformation NewTarget.

c. In the Target properties pane, under General properties, enter the Name as **TG\_HighProbOpptys**.

d. To arrange all the transformations on the canvas, click the Arrange All ( ) icon. **Note:** After you click the Arrange All icon, the transformations will be arranged automatically.

e. In the Target properties pane, click **Target**.

f. From the Connection dropdown, select the **XX\_LocalCSVFiles** (where XX is your name or initials).

g. Keep the Target Type as Single Object.

h. To select the target object, click the **Select** button.

i. From the appeared Target Object window, select **HighProbabilityOpportunities.csv** and click **OK**.

j. In the Target properties pane, click **Field Mapping**.

k. To maximize the view, in the properties pane, click the **Maximize** icon.

l. To automatically match the fields, click the **Automatch** button.

m. To save and continue working, click the **Save** button.

**Note:** A message appears ‘Mapping was saves successfully’.

5. **Add a Filter (2 of 2) to the Mapping:**

a. Drag and drop the Filter transformation from the list of available transformations onto the canvas.

b. **Link** the source transformation SO\_Salesforce to the filter transformation NewFilter

c. In the Filter properties pane, under General properties, enter the filter name as **FIL\_RouteLowProbOpptys**.

d. In the Filter properties pane, click **Filter**.

e. Keep the Filter Condition set to Simple.

f. To add a new filter condition, in the right side of the properties pane, click the + icon.

g. Enter the filter condition as below:

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Operator** | **Value** |
| Probability | < (Less than) | 70 |

6. **Add a Target (2 of 2) in the Mapping:**

a. Drag and drop the Target transformation from the list of available transformations onto the canvas.

b. **Link** the filter transformation FIL\_RouteLowProbOpptys to the target transformation NewTarget.

c. Select the target transformation NewTarget.

d. In the Target properties pane, under General properties, enter the Name as **TG\_LowProbOpptys**.

e. To arrange all the transformations on the canvas, click the Arrange All ( ) icon. **Note:** After you click the Arrange All icon, the transformations will be arranged automatically.

f. In the Target properties pane, click **Target**.

g. From the Connection dropdown, select the **XX\_LocalCSVFiles** (where XX is your name or initials).

h. Keep the Target Type as Single Object.

i. To select the target object, click the **Select** button.

j. From the appeared Target Object window, select **LowProbabilityOpportunities.csv** and click **OK**.

k. In the Target properties pane, click **Field Mapping**.

l. To maximize the view, in the properties pane, click the **Maximize** icon.

m. To automatically match the fields, click the **Automatch** button.

n. To save and continue working, click the **Save** button.

**Note:** A message appears ‘Mapping was saves successfully’.

7. **Validate, Save and Run the Mapping:**

**Note:** After you save the mapping, the mapping status (Valid or Invalid) is automatically displayed next to the mapping name. **Note:** To check for the validity of a mapping while working with the mapping, click the validation ( ) icon.

a. To run the mapping, click **Run**.

**Note:** The Run mapping window appears.

b. Select the active secure agent group from the Runtime Environment dropdown.

c. Click **Run**.

**Note:** At this point, the IICS actually generates a temporary Mapping Task for the mapping and runs it.

8. **Verify Results:**

a. Verify that the task has completed successfully.

b. Open the **HighProbabilityOpportunities.csv** and **LowProbabilityOpportunities.csv** files and verify that the correct opportunities were written to each.

**Lab 2-2: Creating a Mapping configuration Task**

**Scenario:**

In the previous module, you created a mapping that writes data to multiple targets. You would like to schedule this task to run every day at the same time. To do this, you must create a Mapping Task for the mapping.

**Objective:**

In this lab, you will:

Create a mapping task.

Schedule the task to run on a regular basis.

**Tasks:**

1. **Create a Mapping Task:**

a. Log in to the Informatica Intelligent Cloud Services (IICS).

b. Select the **Data Integration** service.

c. To create a new Asset, in the left navigation pane, click **New**.

**Note:** The **Mapping Task** option is selected by default.

d. Click the **Create** button.

e. In the Task Name field, enter **XX\_MultiTarget** (where XX is your name or initials).

f. Keep the location set to Default.

g. From the Runtime Environment dropdown, select the active secure agent group.

h. To select the mapping for the Mapping Task, click the **Select** button.

i. From the appeared Select a Mapping window, select **XX\_MultiTarget**.

j. Click **Select**.

2. **Schedule the Mapping Task:**

**Note:** There are only two steps in the wizard because this mapping does not include any parameters.

a. Click **Next**.

b. Under the Schedule Details section, select the Run this task on a schedule option.

c. From the dropdown menu, select the **XX\_Daily** option.

**Note:** You can also define email notifications, pre-and post-processing commands, and a parameter file for a Mapping Task.

d. To save and close the mapping task, click **Finish**.

**Note:** The mapping task is now scheduled to run daily.

**Lab 2-3: Adding Parameters to a Mapping**

**Scenario:**

You wish to make the mapping that you created in the previous module reusable, so that it can be used with multiple Salesforce orgs, and the filter criteria can be easily changed. To do this, you will copy the mapping. You will then edit the mapping and make the source connection and object parameters, as well as add parameters to the filter conditions.

**Objective:**

In this lab, you will:

Copy an existing mapping.

Use parameters in a mapping.

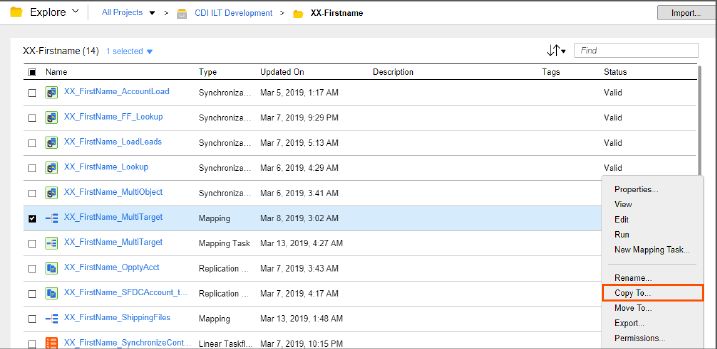
**Tasks:**

1. **Copy a Mapping Task:**

a. In the Explore page, select the **Default** project.

b. For the mapping **XX\_MultiTarget**, click on the **Ellipsis icon**.

c. From the appeared dropdown, select **Copy To**.



d. From the appeared **Copy To** window, select the **Project1** project. Click **Select**.

2. **Rename the Copied Mapping:**

a. In the Project1 folder, for the mapping **XX\_MultiTarget**, click on the **Actions** icon .

b. From the appeared dropdown, select **Rename**.

c. In the appeared Rename Asset window, enter the Name as **XX\_MultiTarget\_Parameters.**

d. Click **Save**.

3. **Add a Parameter for the Source:**

a. Go to the edit mode for the mapping **XX\_MultiTarget\_Parameters.**

b. Select the Source transformation **SO\_Salesforce**.

c. In the source properties pane, click **Source**.

d. To create a new connection parameter, click the **New Parameter** button.

e. In the appeared New Input parameter window, specify the details as below: Name: **P\_SalesforceConnection**

Display Label: **Salesforce**

Connection Type: **Salesforce** (from the dropdown)

f. Click **OK**.

g. From the Source Type dropdown,

Select **Parameter**. **Note:** In the appeared Change source type window, click **Yes.**

h. To create a new parameter, click the **New Parameter** button.

i. In the appeared New Input parameter window, specify the details as below: Name: **P\_SalesforceObject**

Display Label: **Salesforce**

j. Click **OK**.

4. **Add a Parameter to the First Filter Condition:**

a. Select the Filter transformation **FIL\_RouteHighProbOpptys**.

b. In the filter properties pane, click **Filter**.

c. Click on the value ‘70’ in the Value column.

d. From the dropdown, select **New Parameter**.

e. In the appeared New Input parameter window, specify the details as below: Name: **P\_HighProbValue**

Display Label: **High Probability Value**

f. Click **OK**.

**Note:** The filter condition after defining the parameter should look as shown below:

g. To save and continue working, click **Save**.

5. **Add a Parameter to the Second Filter Condition:**

a. Select the Filter transformation **FIL\_RouteLowProbOpptys**.

b. In the filter properties pane, click **Filter**.

c. Click on the value ‘70’ in the Value column.

d. From the dropdown, select **New Parameter**.

e. In the appeared New Input parameter window, specify the details as below: Name: **P\_LowProbValue**

Display Label: **Low Probability Value**

f. Click **OK**.

**Note:** The filter condition after defining the parameter should look as shown below:

g. To save and continue working, click **Save**.

6. **Examine Parameter List:**

a. To view the list of all the parameters in a mapping, click the Parameters ( ) icon.

**Note:** A list of four parameters appears.

b. To view additional information about the parameter (such as where the parameter is used, etc.), click on the arrow to the left of a parameter.

7. **Create a Mapping Task:**

a. To create a new mapping task form the mapping directly, click the **Actions** ( ) icon. From the Actions menu dropdown, select the **New Mapping Task** option

**Note:** A New Mapping task page appears.

b. In the Task Name field, enter **XX\_MultiTargetParameters** (where XX is your name or initials).

c. Keep the location set to Default.

d. From the Runtime Environment dropdown, select the active secure agent group.

e. Click **Next**.

f. In the Sources step (step 2), select the Salesforce connection **XX\_SFDCDeveloper**.

g. Select the Salesforce **Opportunity** object.

h. Click **Next**.

i. In the Input Parameters step (step 3), enter the values as below: High Probability Value (P\_HighProbValue): **70** Low Probability Value (P\_LowProbValue): **70**

j. To validate the template and parameters, click **Validate**

k. To save and close the mapping task wizard, click **Finish**.

8. **Run Task and Verify Results:**

**Note:** Before you run the task, go to your flat file directory (C:\IICSLabFiles) and remove row-level data from:

i. HighProbabilityOpportunities.csv

ii. LowProbabilityOpportunities.csv

1. To run the mapping task, click **Run**

b. Verify that the task has completed successfully.

c. Open the **HighProbabilityOpportunities.csv** and **LowProbabilityOpportunities.csv**

files and verify that the correct opportunities were written.

**Lab 2-4: Advanced Parameterization (Optional)**

**1. Build a Fully Parameterized Mapping:**

a. Login to Informatica Cloud org.

b. In the Data Integration page, select New from the Navigation Panel.

c. To create a new mapping, click Mappings from the New Asset window and then select the Mapping option.

A mapping canvas will appear.

d. In the Mapping properties, enter the name of the mapping as m\_ Parameterized.

**2. Configure the Source in the Mapping:**

a. In the Source Properties pane, in the Name field, enter **Src\_param\_mapping**.

b. Click **New Parameter** under the **Source** tab.

c. The new parameter window pops up. Enter the name as **Source\_parameter**.

d. Display Label as **Data source**.

e. Leave **Connection Type** blank.

f. Click **OK**.

g. From Source Type dropdown, select **Parameter**.

h. The Parameter dropdown appears. Click the **New Parameter** button.

i. In the New Input Parameter window type, enter the Name and Display Label as **Source\_type** and click **OK**.

**3. Add a Filter Transformation**

a. Drag and drop the **Filter Transformation** between the Source and Target.

b. Select the filter transformation.

c. In the General tab of the filter transformation properties pane, enter **fltr\_HighValue** in the Name field.

d. Click the Filter tab in the filter properties pane. From the Filter Condition dropdown, select Completely Parameterized.

e. Click the **New Parameter** button besides Parameter dropdown. In the New Input Parameter window, enter **FilterHigh** for both Name and Display Label fields.

f. Click **OK**.

**4. Add a second Filter Transformation to the Mapping:**

a. Drag and drop the Filter Transformation shape onto the canvas.

b. Link the Source transformation to the Filter transformation.

c. Click the General tab in the NewFilter properties pane.

d. Enter **fltr\_LowValue** in the Name field.

e. Click the Filter tab in filter properties pane. From the Filter Condition dropdown, select Completely Parameterized.

f. Click the New Parameter button besides Parameter dropdown. In the New Input Parameter window, enter **FilterLow** for both Name and Display Label fields. Click OK.

**5. Configure the Target in the Mapping:**

a. Click the General tab of the Target properties pane and enter the name **tgt\_HighValue**.

b. Click the Target tab. Click the **New Parameter** button next to Connection dropdown.

c. In the new parameter pop up window, enter **Target\_High** as Name and Display Label of the parameter.

d. Click **OK**.

e. From the Target Type dropdown, select **Parameter.**

f. Click the **New Parameter** button beside Parameter dropdown**.**

g. In the new parameter pop up window, enter the name **Target\_High\_Conn\_Type**.

h. Click **OK**.

i. Click the **Field Mapping** tab., under field mapping options, Select **Automatic** from the Field map options dropdown.

**6. Add a Second Target to the Mapping:**

a. Drag and drop a new **Target** onto the canvas.

b. Link the **fltr\_LowValue** to the **NewTarget**.

c. Click the **General** tab of the Target properties pane and enter the name **tgt\_LowValue**.

d. Click the **Target** tab. Click the **New Parameter** button next to Connection dropdown.

e. In the new parameter pop up window type **Target\_Low** as Name and Display Label of the parameter. Click **OK**.

f. From the **Target Type** dropdown, select **Parameter.**

g. Click the **New Parameter** button beside Parameter dropdown**.**

h. In the new parameter pop up window, enter the name **Target\_Low\_Conn\_Type**. Click **OK**.

i. Click the **Field Mapping** tab.

j. Select **Automatic** from Field map options dropdown.

**7. Validate, Save and Run the Mapping:**

a. Click the Validate icon to validate the mapping

b. Click the Save button to save the mapping.

c. Click Run to run the mapping.

d. Select your Active Secure Agent from Runtime Environment dropdown and then click **Next** to setup **Source**.

**8. Create a Parameter File:**

a. Locate Informatica Cloud Secure Agent install folder (E.g. C:\Program Files (x86)\Informatica Cloud Secure Agent)

b. Navigate to the **apps\Data\_Integration\_Server\data\userparameters**

**Note:** Create a new folder called **userparameters** if it does not exist (So the full path will resemble the following:

C:\Program Files(x86)\Informatica Cloud Secure Agent\ apps\Data\_Integration\_Server\data\userparameters)

c. Create a text file with name **userparameters.txt** and add the following contents to it.

**$$FilterHigh=100000**

**$$FilterLow=100000**

**9. Create a Mapping Configuration task with Parameters using a stored Parameter File:**

a. Open your Informatica Cloud org**.**

b. Locate your previously created mapping from the **Recent Assets** section**.** Click the mapping to open it.

c. From the **Actions** button on the top right, select **New Mapping Task**.

d. In the New Mapping Task window, enter **Parameterized Mapping Configuration.**

e. Select your run time environment. Click **Next**.

f. From the Data source Connection dropdown, select your Salesforce connection and select **Single** from the Source Type dropdown.

g. Click the **Select** button next to **Source\_type Object** label.

h. From **Select Source Object** window, select **Opportunity** and click **Select.**

i. Click **Next** to configure the Target.

j. From the **Target\_High** dropdown, select your existing flat file connection. Click **Select** button next to Target\_High\_Conn\_Type object. Select **Target\_High.csv** from the pop-up window and click **Select**.

k. From the Target\_Low dropdown, select your existing flat file connection. Click **Select** button next to Target\_Low\_Conn\_Type object. Select **Target\_Low.csv** from the pop-up window and click **Select**.

l. Click the **Next** button.

m. For **FilterHigh Parameter Details**, click the **New** button.

n. In the Data Filter window, click the **Advanced** button.

o. Now, the Advanced Data Filter window will pop up. Enter the following expression in the Filter Expression field:

**Amount >= to\_decimal($$FilterHigh)**

p. Click **OK.**



q. Similarly, for the **FilterLow Parameter Details**, click the New Button.

r. In the Data Filter window, click the **Advanced** button.

s. The Advanced Data Filter window will pop up. Enter the following expression in the Filter Expression field:

**Amount < to\_decimal($$FilterLow)**

t. Click **OK**.

u. Click **Next**.

v. In the Parameter File Name field, provide the name of the parameter file stored inside **apps\Data\_Integration\_Server\data\userparameters** directory.

w. Click **Finish** to save and close the mapping.

x. Click **Run** to run the mapping

y. You can check the status of the task while it is running from the **My Jobs** window.

z. You can check that the task ran successfully with zero error rows and no warning. The number of success rows may vary depending on the number of rows present in your source, in this case it is Opportunity object of Salesforce.

**End of Exercise 2**