Using Informatica to perform a simple Filter Mapping

In Informatica PowerCenter, creating a simple filter mapping allows you to selectively filter rows from a source dataset based on specified criteria, and then load the filtered data into a target dataset. Here’s a step-by-step guide on how to perform a simple Filter Mapping in Informatica:

**Steps to Create a Simple Filter Mapping in Informatica PowerCenter:**

1. **Launch Informatica PowerCenter Designer**:
   * Open Informatica PowerCenter Designer client on your workstation.
2. **Create or Open a Mapping**:
   * Create a new mapping or open an existing one where you want to apply the filter.
3. **Add Source and Target Definitions**:
   * Drag and drop the source and target definitions into the mapping workspace.
     + **Source Definition**: Represents the dataset from which data will be filtered.
     + **Target Definition**: Represents the dataset where filtered data will be loaded.
4. **Add a Filter Transformation**:
   * From the Transformation palette, drag and drop a Filter transformation onto the mapping canvas between the source and target.
5. **Connect Source to Filter Transformation**:
   * Draw a line from the output of the source qualifier (or source definition) to the input of the Filter transformation.
6. **Configure the Filter Transformation**:
   * Double-click on the Filter transformation to open its properties.
   * Define the filter condition in the Filter Transformation Editor:
     + Specify the condition based on your criteria. For example, if you want to filter out rows where the Product\_Category is not 'Electronics', you would set the condition like:

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Product\_Category = 'Electronics'

* + - Click OK to save the filter condition.

1. **Connect Filter Transformation to Target**:
   * Draw a line from the output of the Filter transformation to the input of the target definition.
2. **Map Source and Target Columns**:
   * Drag columns from the source qualifier (source definition) to the target definition to map them. Ensure that the columns you are mapping are compatible and correctly aligned based on your filter condition.
3. **Validate the Mapping**:
   * Validate the mapping to check for any errors or warnings. Resolve any issues that may arise.
4. **Save the Mapping**:
   * Once validated, save the mapping in Informatica PowerCenter.
5. **Run the Workflow**:
   * Create or open a workflow that contains this mapping.
   * Start the workflow to execute the mapping, which will apply the filter transformation to the source data and load the filtered data into the target.

**Example Scenario:**

Assume you have a source table Sales\_Data with columns Product\_ID, Product\_Name, Product\_Category, Quantity, and Sales\_Amount. You want to filter out rows where the Product\_Category is not 'Electronics' and load only those rows into a target table Filtered\_Sales\_Data.

* **Filter Condition**: Product\_Category = 'Electronics'

**Additional Considerations:**

* **Complex Filters**: Informatica allows you to create complex filter conditions using logical operators (AND, OR, NOT) and parentheses for grouping conditions.
* **Error Handling**: Implement error handling strategies within your workflow to manage any potential issues during execution, such as data type mismatches or null values.
* **Performance Optimization**: Consider performance tuning options such as partitioning, session configuration settings (e.g., buffer size), and database optimization for large datasets.

By following these steps, you can effectively create and execute a simple filter mapping in Informatica PowerCenter to filter data based on specified criteria and load the filtered results into a target dataset.

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* Using Informatica to perform Mapping a complex Filter Mapping with the results bring routed through other transformations

Performing a complex filter mapping in Informatica PowerCenter involves setting up a mapping where data passes through multiple transformations, including a Filter transformation, before being routed to the target. This allows you to apply intricate filtering criteria and manipulate data before loading it into the target dataset. Here’s a detailed guide on how to achieve this:

**Steps to Create a Complex Filter Mapping in Informatica PowerCenter:**

1. **Launch Informatica PowerCenter Designer**:
   * Open Informatica PowerCenter Designer client on your workstation.
2. **Create or Open a Mapping**:
   * Create a new mapping or open an existing one where you want to apply the complex filtering logic.
3. **Add Source and Target Definitions**:
   * Drag and drop the source and target definitions into the mapping workspace.
     + **Source Definition**: Represents the dataset from which data will be filtered.
     + **Target Definition**: Represents the dataset where filtered data will be loaded.
4. **Add Transformations**:
   * Drag and drop the necessary transformations onto the mapping canvas. For a complex filter mapping, you might include:
     + **Filter Transformation**: To apply primary filtering conditions.
     + **Expression Transformation**: To derive or manipulate data based on business rules.
     + **Aggregator Transformation**: To perform aggregate calculations if needed.
     + **Router Transformation**: To route data based on different conditions or business logic.
5. **Connect Source to First Transformation**:
   * Draw a line from the output of the source qualifier (or source definition) to the input of the first transformation in your sequence (e.g., Filter Transformation).
6. **Configure the Filter Transformation**:
   * Double-click on the Filter transformation to open its properties.
   * Define the filter condition(s) based on your complex criteria. For example:
     + Use logical operators (AND, OR, NOT) to combine multiple conditions.
     + Utilize functions and expressions to evaluate complex data transformations.
7. **Connect Transformations**:
   * Connect the output of each transformation to the input of the next transformation in your sequence. Ensure the data flow follows the correct logical order based on your mapping requirements.
8. **Map Source and Target Columns**:
   * Drag columns from the source qualifier (source definition) to the target definition to map them. Adjust mappings as needed to accommodate transformations applied in between.
9. **Validate the Mapping**:
   * Validate the mapping to check for any errors or warnings. Address any issues that may arise during validation.
10. **Save the Mapping**:
    * Once validated, save the mapping in Informatica PowerCenter.
11. **Create a Workflow**:
    * Create or open a workflow that includes this mapping. Workflows orchestrate the execution of mappings and their associated tasks.
12. **Execute the Workflow**:
    * Start the workflow to execute the mapping. This triggers the data flow through the defined transformations, applying complex filtering logic, data manipulation, and routing based on your mapping design.

**Example Scenario:**

Assume you have a source table Order\_Details with columns Order\_ID, Product\_ID, Quantity, and Order\_Date. You want to create a mapping that:

* Filters out orders where Quantity <= 0.
* Calculates the total sales amount (Quantity \* Unit\_Price) using an Expression transformation.
* Routes orders based on their Order\_Date into different target tables (Past\_Orders for older orders and Recent\_Orders for recent orders).

**Additional Considerations:**

* **Optimization**: Consider optimizing the mapping for performance by using partitioning, increasing buffer sizes, and configuring session properties in Informatica PowerCenter.
* **Error Handling**: Implement error handling strategies within your workflow to manage data integrity issues, transformation failures, or other potential errors.
* **Logging and Monitoring**: Monitor workflow execution and logging to track data flow, transformation results, and overall job performance.

By following these steps and leveraging Informatica PowerCenter’s capabilities, you can build and execute complex filter mappings that involve multiple transformations, ensuring data meets business requirements before loading it into target datasets.

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Using Informatica to perform Mapping with the Lookup Transformation

Performing mapping with the Lookup Transformation in Informatica involves using one or more sources to look up data in another source and then integrate or transform this data as needed. Here’s a step-by-step guide on how to do this:

**Step 1: Create or open a mapping**

1. **Open Informatica PowerCenter Designer**: Launch the Informatica PowerCenter Designer tool.
2. **Create or open a mapping**: Create a new mapping or open an existing one where you want to use the Lookup Transformation.

**Step 2: Add the Lookup Transformation**

1. **Drag and drop Lookup Transformation**: From the Toolbox pane, drag the Lookup Transformation to the mapping designer workspace.
2. **Connect input/output**: Connect the output of a source qualifier or another transformation to the input of the Lookup Transformation.

**Step 3: Configure the Lookup Transformation**

1. **Double-click Lookup Transformation**: Double-click on the Lookup Transformation to open its properties.
2. **Configure General Tab**:
   * **Lookup Source**: Select the source from where you want to look up data (e.g., a table in a database).
   * **Lookup Condition**: Define the condition that matches records in the input stream with records in the lookup source.
3. **Configure Ports Tab**:
   * **Input Ports**: Specify the input ports that you want to use for lookup.
   * **Output Ports**: Define which lookup columns you want to pass through to the output pipeline.
4. **Configure Lookup Options**:
   * **Lookup Policy**: Decide how the transformation should handle multiple matches (e.g., First match, All matches, Error).
   * **Lookup SQL Override**: Optionally, you can provide SQL override to customize the lookup query.

**Step 4: Connect the Lookup Transformation**

1. **Connect output ports**: Connect the output ports of the Lookup Transformation to the next transformation or target in your mapping.

**Step 5: Validate and Save the Mapping**

1. **Validate**: Click on Validate to ensure there are no errors in the mapping.
2. **Save**: Save your mapping once validation is successful.

**Step 6: Run the Mapping**

1. **Workflow Manager**: Open the Workflow Manager and create a workflow that includes your mapping.
2. **Run the Workflow**: Start the workflow to execute the mapping, which will perform the lookup transformation based on your configurations.

**Additional Tips:**

* **Cache Management**: Informatica provides options to cache lookup data for performance optimization. Configure caching based on your lookup data size and frequency of usage.
* **Error Handling**: Implement error handling mechanisms to manage cases where lookup values are not found or multiple values are found (if not handled in the transformation properties).

By following these steps, you can effectively use the Lookup Transformation in Informatica to enrich or transform your data mappings based on lookup values from another source. Adjust configurations based on your specific data integration requirements and performance considerations.

* Using Informatica to perform a Mapping with the Joiner Transfomation

Performing mapping with the Joiner Transformation in Informatica allows you to join data from multiple sources based on a common key. Here’s a detailed guide on how to use the Joiner Transformation:

**Step-by-Step Guide to Using Joiner Transformation in Informatica:**

**Step 1: Open Informatica PowerCenter Designer**

1. Launch Informatica PowerCenter Designer.

**Step 2: Create or Open a Mapping**

1. **Create a new mapping** or open an existing one where you want to use the Joiner Transformation.

**Step 3: Add Sources**

1. **Add sources**: Drag and drop the sources (such as flat files or relational tables) that you want to join onto the mapping designer workspace.
2. **Add Source Qualifiers**: For each source, add a Source Qualifier transformation to ensure data is correctly read.

**Step 4: Add the Joiner Transformation**

1. **Drag and drop Joiner Transformation**: From the Toolbox pane, drag the Joiner Transformation to the mapping designer workspace.
2. **Connect input/output**: Connect the output of the Source Qualifiers (or any other transformations) to the input of the Joiner Transformation.

**Step 5: Configure the Joiner Transformation**

1. **Double-click Joiner Transformation**: Double-click on the Joiner Transformation to open its properties.
2. **Configure General Tab**:
   * **Join Type**: Choose the type of join (e.g., Inner, Left Outer, Right Outer) from the drop-down menu.
   * **Master Source**: Choose one of the sources as the master source. The master source determines the order of data processing.
   * **Detail Source**: Choose the other source as the detail source.
3. **Configure Ports Tab**:
   * **Input Ports**: Specify the ports from both sources that you want to use for joining.
   * **Output Ports**: Define which columns from the joined sources should be passed through to the output pipeline.
4. **Configure Join Condition**:
   * Define the join condition that specifies how rows from the master and detail sources are matched (e.g., common key column).

**Step 6: Connect the Joiner Transformation**

1. **Connect output ports**: Connect the output ports of the Joiner Transformation to the next transformation or target in your mapping.

**Step 7: Validate and Save the Mapping**

1. **Validate**: Click on Validate to ensure there are no errors in the mapping.
2. **Save**: Save your mapping once validation is successful.

**Step 8: Run the Mapping**

1. **Workflow Manager**: Open the Workflow Manager and create a workflow that includes your mapping.
2. **Run the Workflow**: Start the workflow to execute the mapping, which will perform the join operation based on your configurations.

**Additional Tips:**

* **Performance Considerations**: Ensure that you optimize your mapping for performance by using appropriate indexes on join columns, caching lookup data if necessary, and configuring session properties in the Workflow Manager.
* **Error Handling**: Implement error handling mechanisms in the mapping to manage cases where join conditions are not met or data mismatches occur.

By following these steps, you can effectively use the Joiner Transformation in Informatica to join data from multiple sources based on a specified condition, enriching your data mappings as required for your integration processes. Adjust configurations based on your specific data integration requirements and performance considerations.

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Using Informatica to perform a Mapping that uses a database View

Using Informatica to perform a mapping that involves a database view is straightforward and involves treating the view as a source within your mapping. Here’s a step-by-step guide on how to do this:

**Step-by-Step Guide:**

**Step 1: Open Informatica PowerCenter Designer**

1. Launch Informatica PowerCenter Designer.

**Step 2: Create or Open a Mapping**

1. **Create a new mapping** or open an existing one where you want to use the database view.

**Step 3: Add the Database View as a Source**

1. **Add Source**: Drag and drop the "Relational" option from the Sources folder in the Toolbox pane onto the mapping designer workspace.
2. **Choose Database and View**:
   * Configure the relational source by selecting your database connection from the dropdown.
   * Choose "Table or View" as the source type.
   * Select the specific view from the dropdown list of tables and views available in your database.
3. **Configure Source Qualifier**: After adding the view, Informatica will automatically add a Source Qualifier transformation. Double-click on it to configure the columns you want to use and any filter conditions if needed.

**Step 4: Add Transformation (Optional)**

1. **Add any transformations**: If you need to perform any transformations on the data retrieved from the view (such as filtering, aggregating, or joining with other sources), add the appropriate transformations to the mapping.

**Step 5: Connect to Target or Next Transformation**

1. **Connect the output**: Connect the output of the Source Qualifier (or any other transformations) to the next transformation or directly to the target if no further transformations are needed.

**Step 6: Validate and Save the Mapping**

1. **Validate**: Click on Validate to ensure there are no errors in the mapping.
2. **Save**: Save your mapping once validation is successful.

**Step 7: Run the Mapping**

1. **Workflow Manager**: Open the Workflow Manager and create a workflow that includes your mapping.
2. **Run the Workflow**: Start the workflow to execute the mapping, which will fetch data from the database view and perform any specified transformations before loading or processing the data further.

**Additional Tips:**

* **Performance Optimization**: Ensure that the database view is optimized for performance, including appropriate indexes and view definitions in the database itself.
* **Error Handling**: Implement error handling mechanisms within the mapping to manage data quality issues or connectivity problems with the database.

By following these steps, you can effectively use a database view as a source in your Informatica mapping, integrating its data with other sources or performing necessary transformations as part of your ETL (Extract, Transform, Load) processes. Adjust configurations based on specific requirements and ensure alignment with your data integration goals.

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