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Informatica Power Center 9.0.1

Building Financial Data Mode - Lab#19
Update Strategy transformation

Description:

BISP is committed to provide BEST learning material to the beginners and advance learners. In the same series, we have prepared a complete end-to end Hands-on Guide for building financial data model in Informatica. The document focuses on how the real world requirement should be interpreted. The mapping document template with very simplified steps and screen shots makes the complete learning so easy. The document focuses on XML Transformations. Join our professional training program and learn from experts.

History:

Version	Description Change	Author	Publish Date
0.1	Initial Draft	Upendra Upadhyay	12th Aug 2011
0.1	Review#1	Amit Sharma	18th Aug 2011

Table of Content

Contents

XML Transformation in Informatica

The XML Parser transformation lets you extract XML data from messaging systems, such as TIBCO or MQ Series, and from other sources, such as files or databases. The XML Parser transformation functionality is similar to the XML source functionality, except it parses the XML in the pipeline.

Types of XML Transformations

- XML Source Qualifier Transformation
- XML Parser Transformation
- XML Generator Transformation Overview

XML Source Qualifier Transformation:

It is an active transformation, as well as connected transformation . Just like the normal Source Qualifier Transformation we can use the XML Source Qualifier Transformation by dragging an XML source definition to the Mapping Designer workspace or by manually creating one. The source definition needs to be connected to the target via XML Source Qualifier Transformation. This Source qualifier defines the data elements that the Integration Service reads when it executes a session. XML Source Qualifier has one input or output port for every column in the source. If you remove an XML source definition from a mapping, the Designer also removes the corresponding XML Source Qualifier transformation.

XML Parser Transformation

It's an also active transformation, as well as Connected. We use an XML Parser transformation to extract XML inside a pipeline and then pass this to the target. The XML is extracted from the source systems such as files or databases. The XML Parser transformation reads XML data from a single input port and writes data to one or more output ports.

XML Generator Transformation Overview:

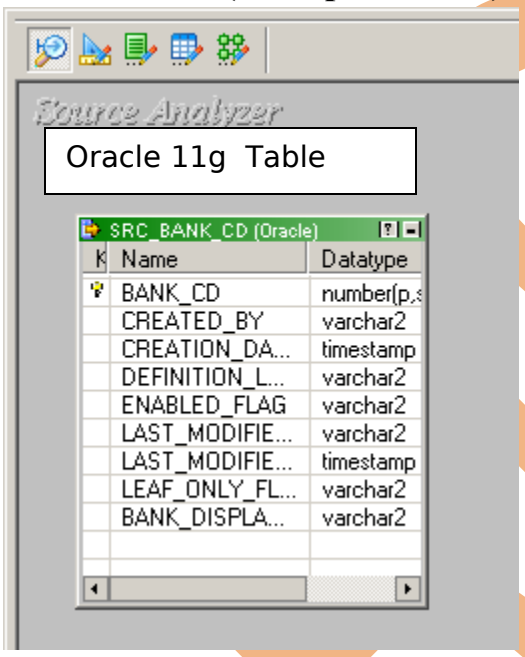
It's an also active transformation, as well as connected. We use XML Generator Transformation Overview to create XML inside a pipeline. It reads data from source such as files and databases and generates XML in the pipeline. The XML Generator transformation accepts data from multiple ports and writes XML through a single output port.

Steps to performing XML Transformation:

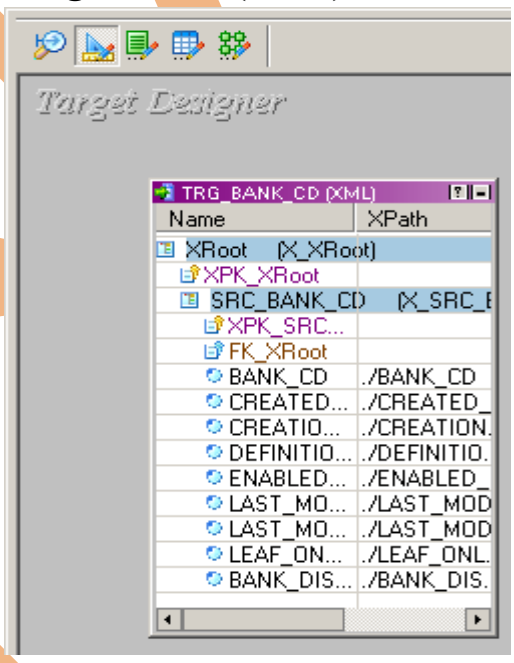
In this example, we use source as a oracle and target as a XML.

- Import source table.
- Create target table in target designer. (if target same as a source then select Non-XML Source).
- Drag and drop both source and target table in mapping designer window and then create mapping and save it.
- Create workflow and assign task and specify connection and then save it.
- Preview data and check execution log.

Source Table (Multiple Source)



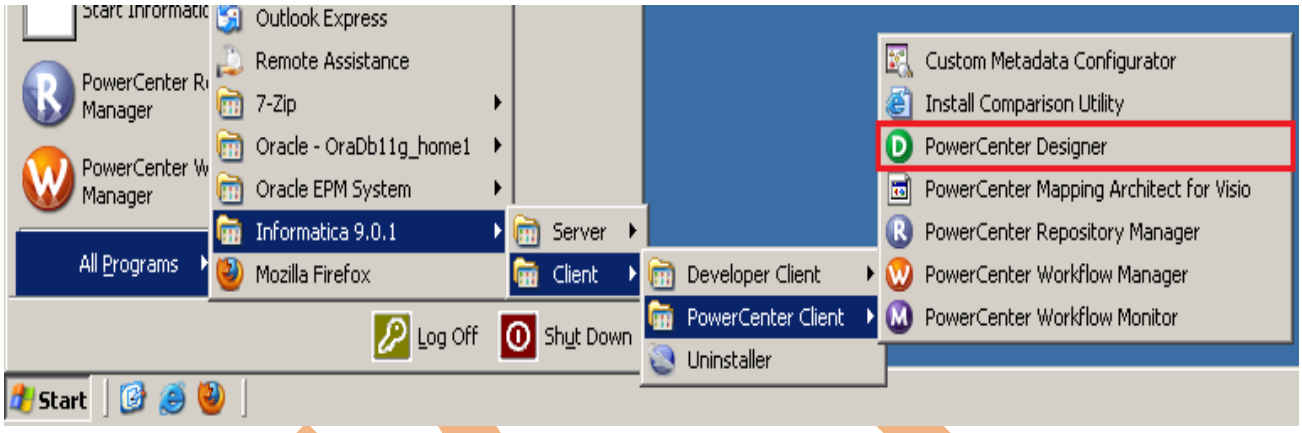
Target Table. (XML)



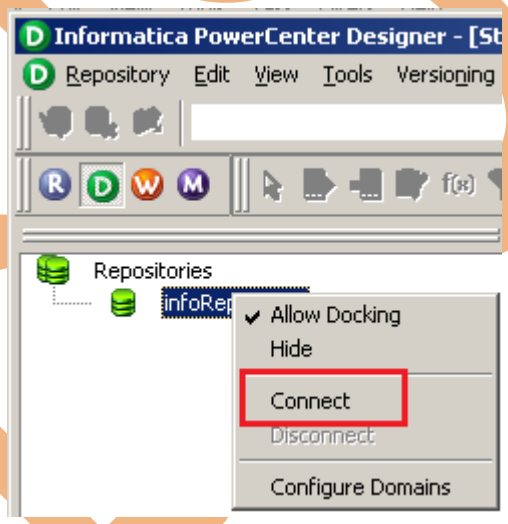
Importing Source and Target Table

Step-1 Click on Start -> All Programs -> Informatica 9.0.1 -> Client -> Power Center Client -> Power

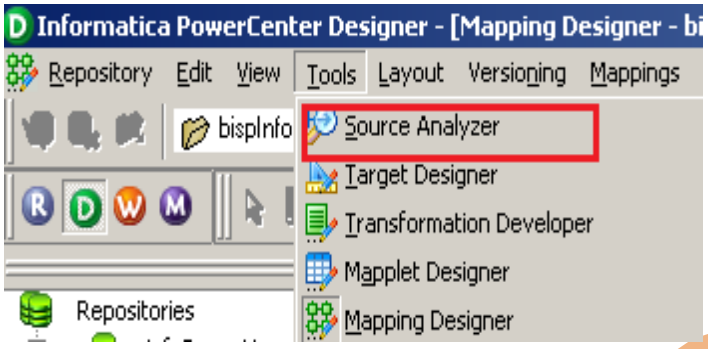
Center Designer.



Step-2 Then Connect to Repository in Informatica Power Center Designer Right click on repository name and click on Connect.

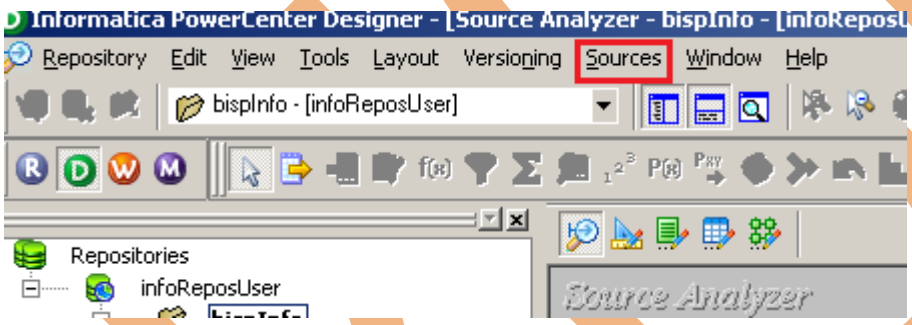


Step-3 Then go to Tools Menu and click on Source Analyzer to import source table. First create ODBC Connection for the RDBMS Source.

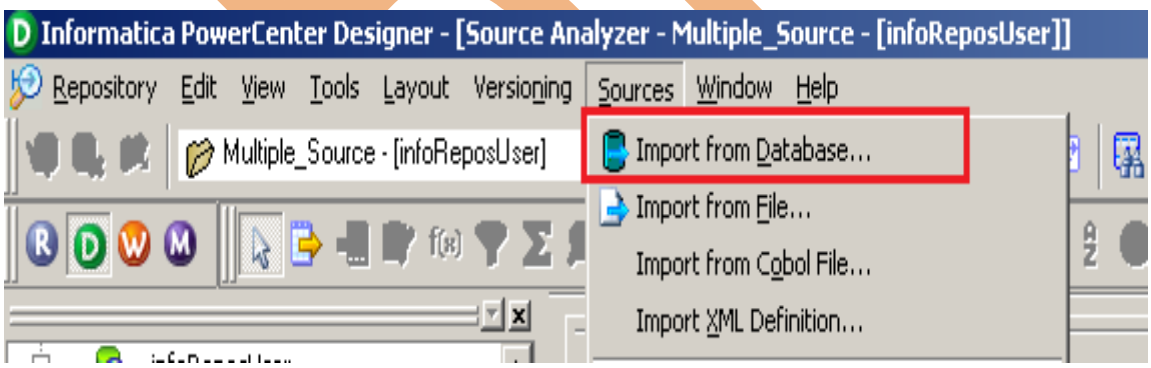


Step-4 And then go to Sources Menu in Informatica Power Center Designer. When you click on Source, there are various option available for import source table but these four option are most important to import source table,

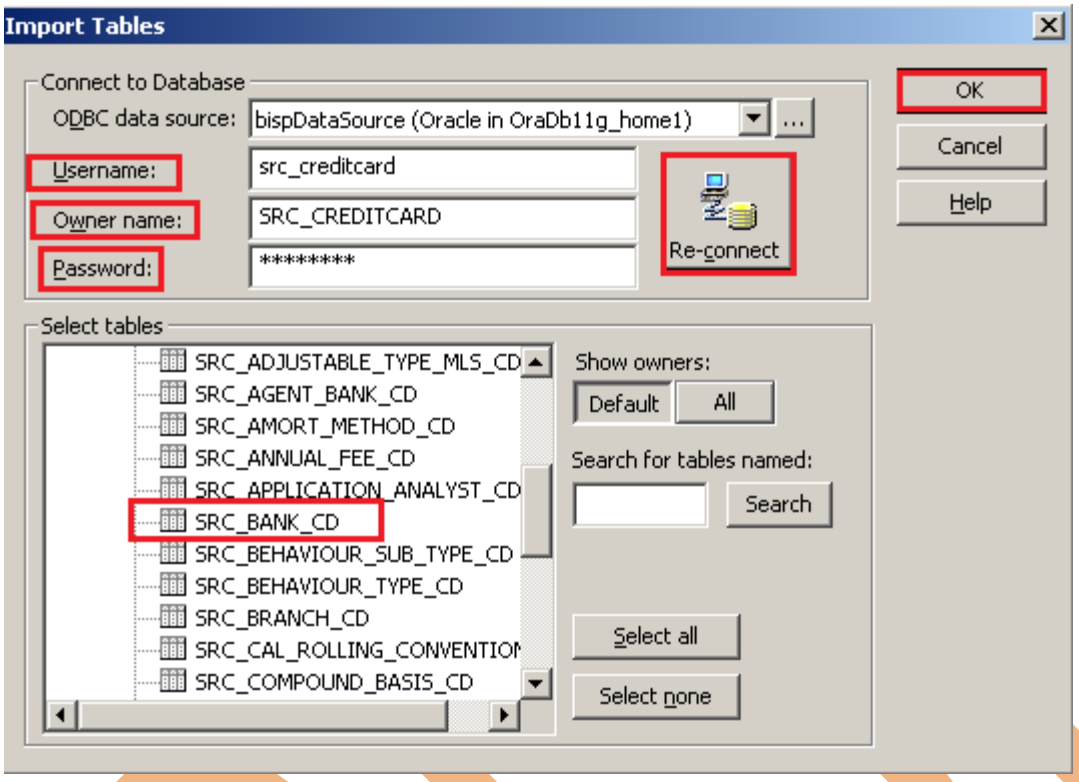
- Import from Database - Import source table form RDBMS.
- Import from File - Import source table from Flatfile.
- Import from Cobol File - Import source table from Cobol source.
- Import XML Definition - Import source table from XML Source.

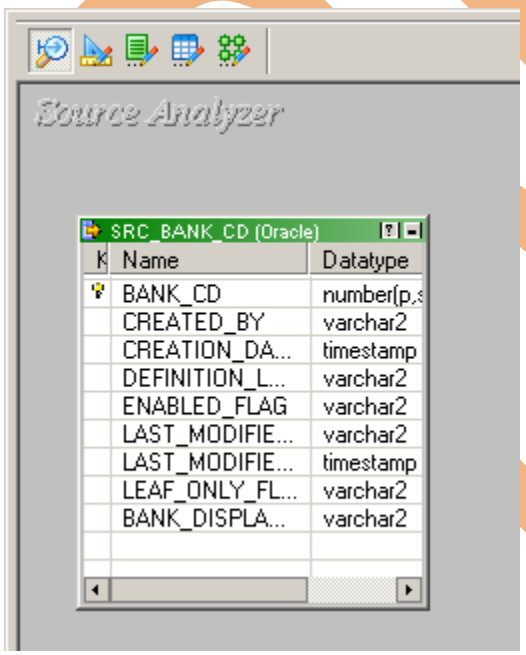


Step-5 Then click on Import from Database to import table from RDBMS Source database.

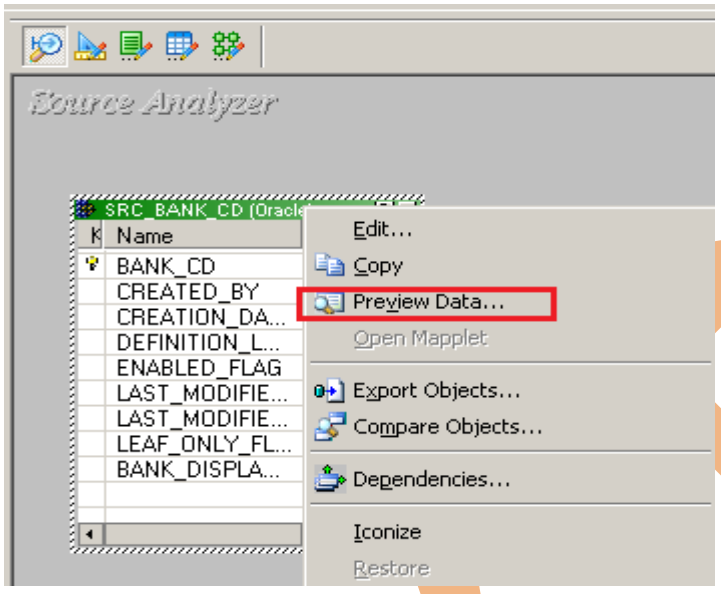


Step-6 Select ODBC data source (first create ODBC Connection for RDBMS Source) and then specify Username, Owner name and password. Then click OK.

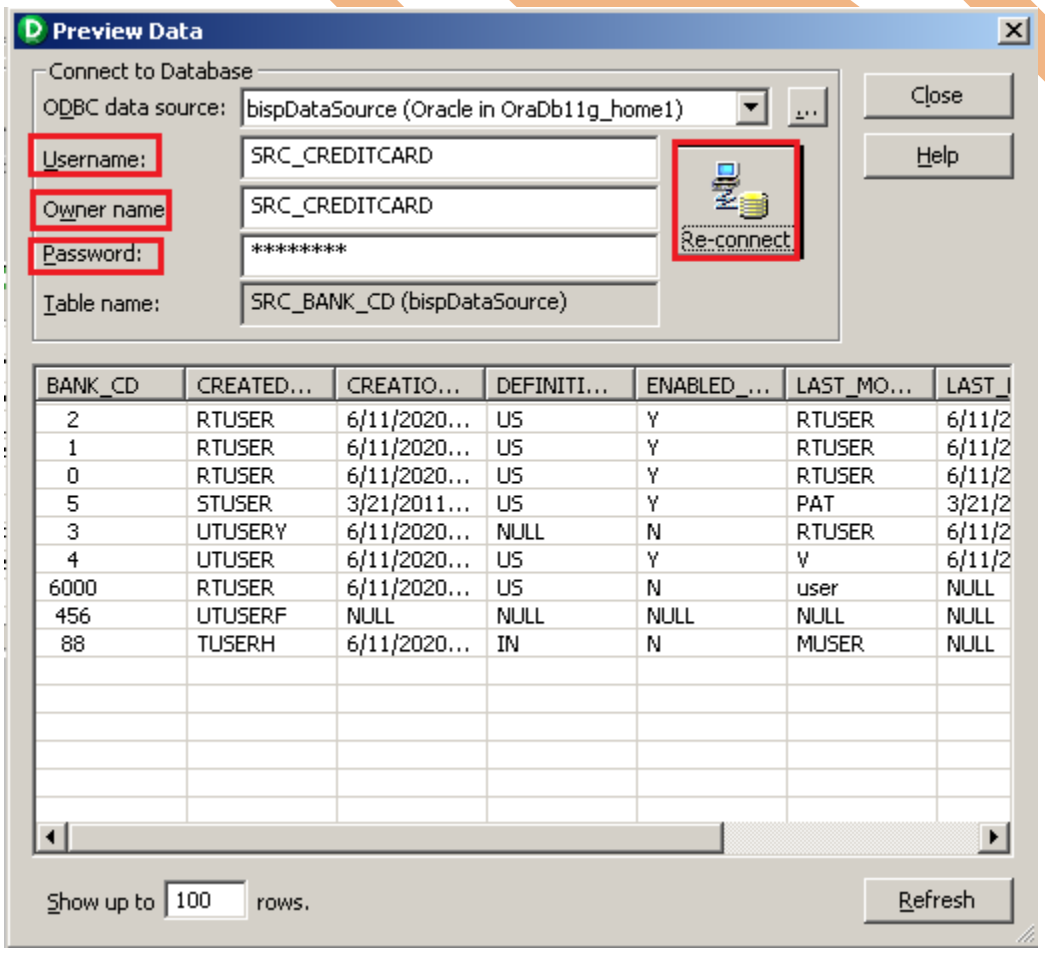




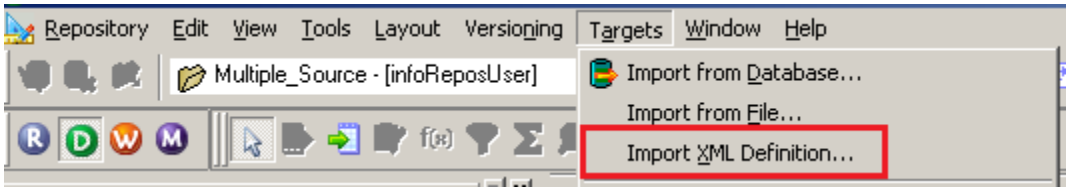
Step-7 Right click on table and select Preview Data to View data of source table.



Step-8 Specify Username, Owner name and password. Then click connect.



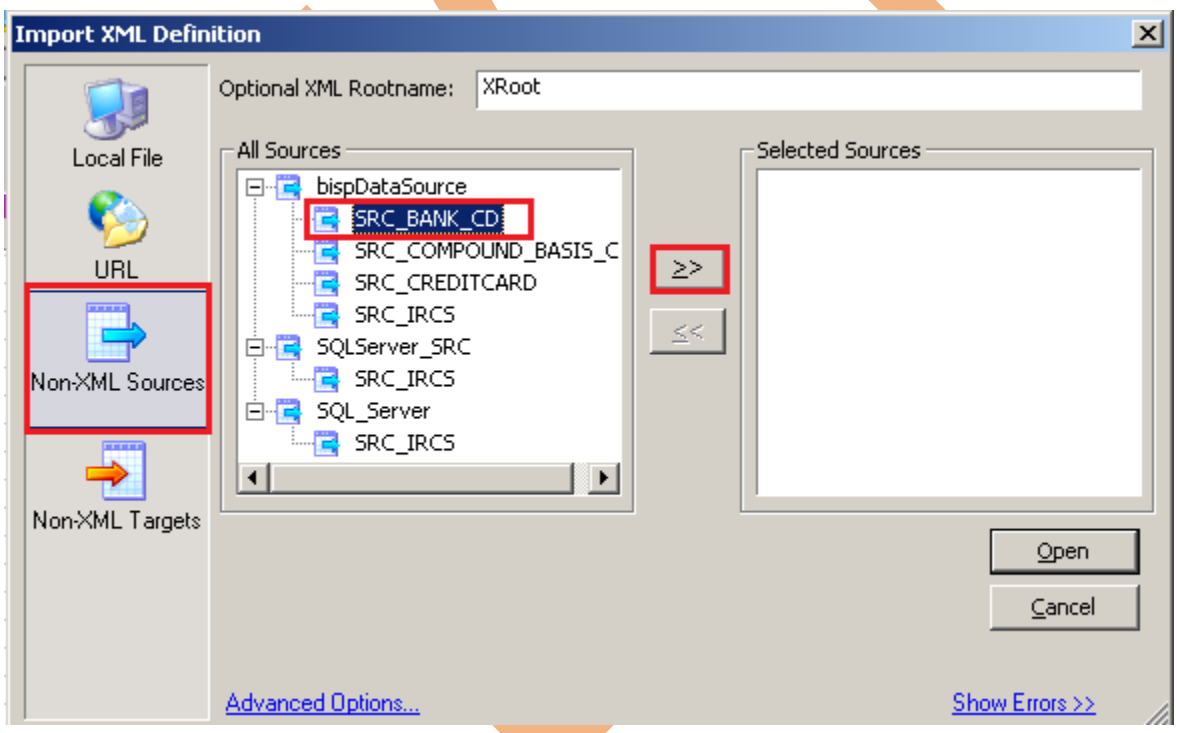
Step-9 Now go to Targets Designer in Informatica Power Center Designer and click on target menu. In target menus also available various options and click on Import XML Definition.



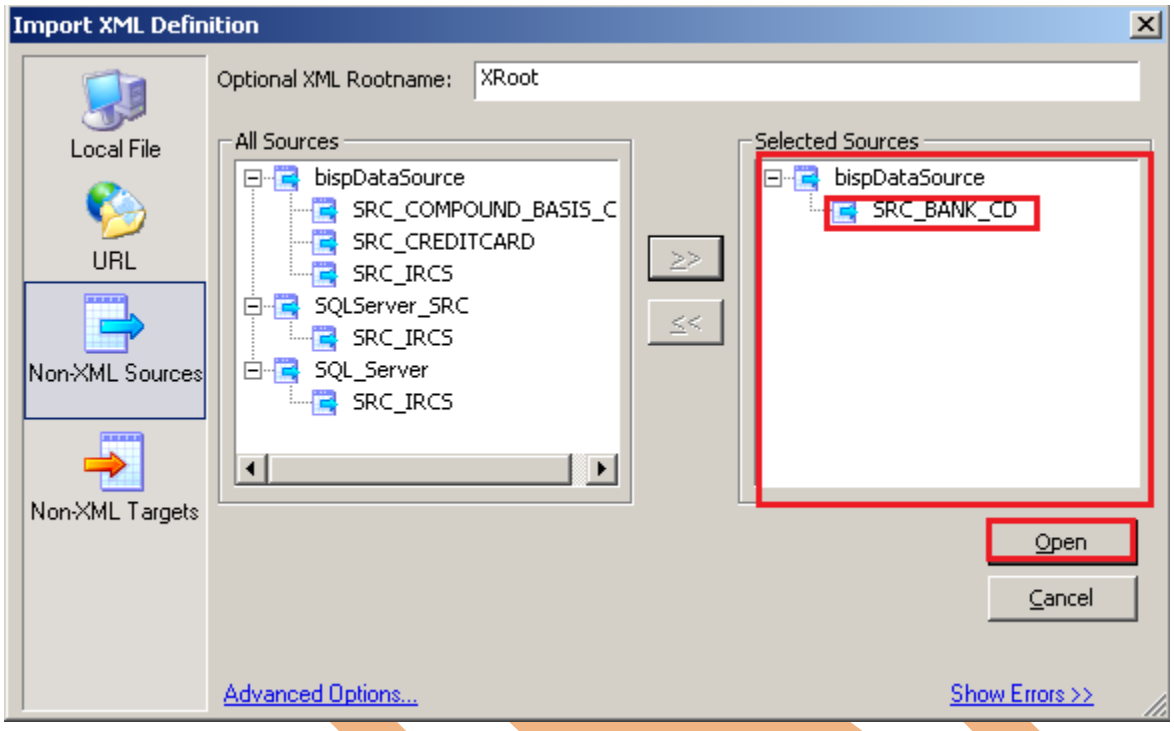
Step-10 Here we have four options available in XML Definition, They are followings.

- Local File - Used local file as a target.
- URL - Give URL for Target
- Non-XML Sources - Used target as a source table.
- Non- XML Targets - Target table as a specified target table.

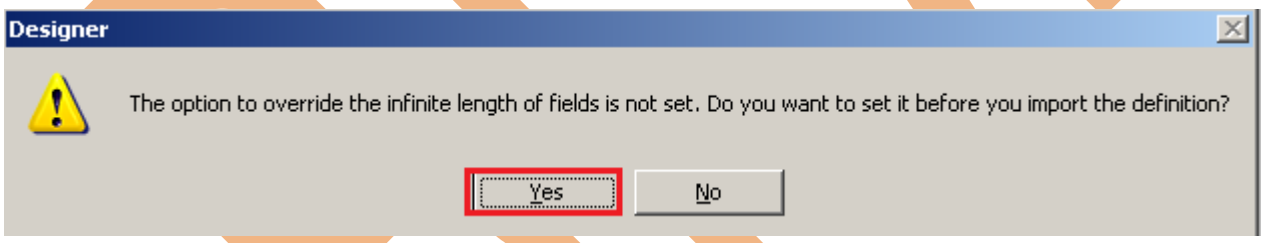
If your target table same as a source then select Non-XML Sources and select Source table.



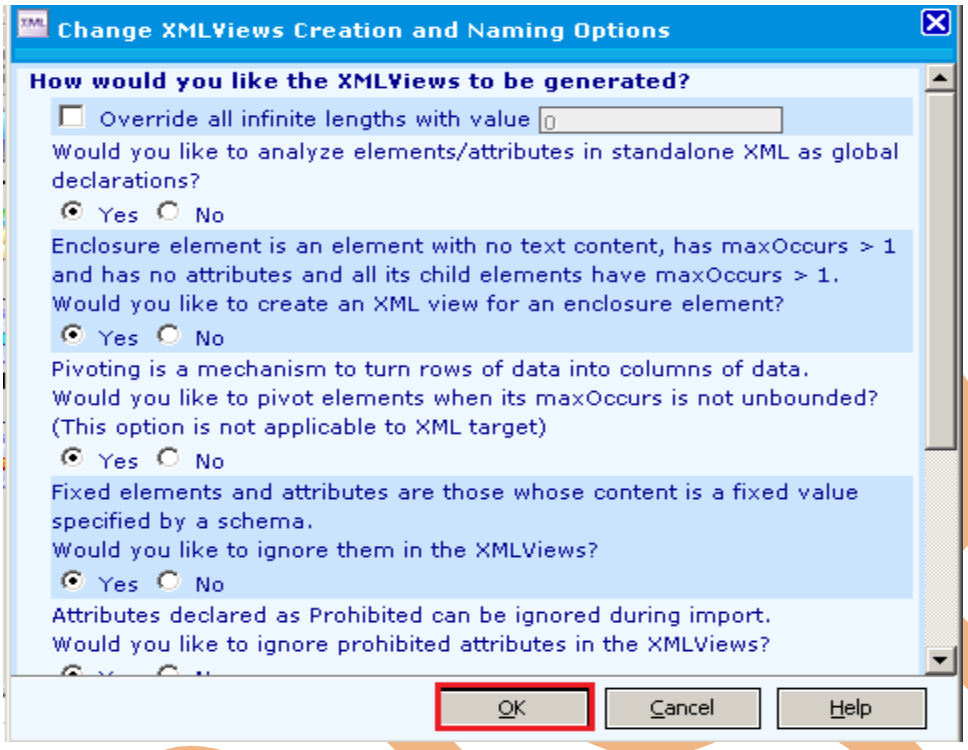
Step-11 Select table and click on Open.



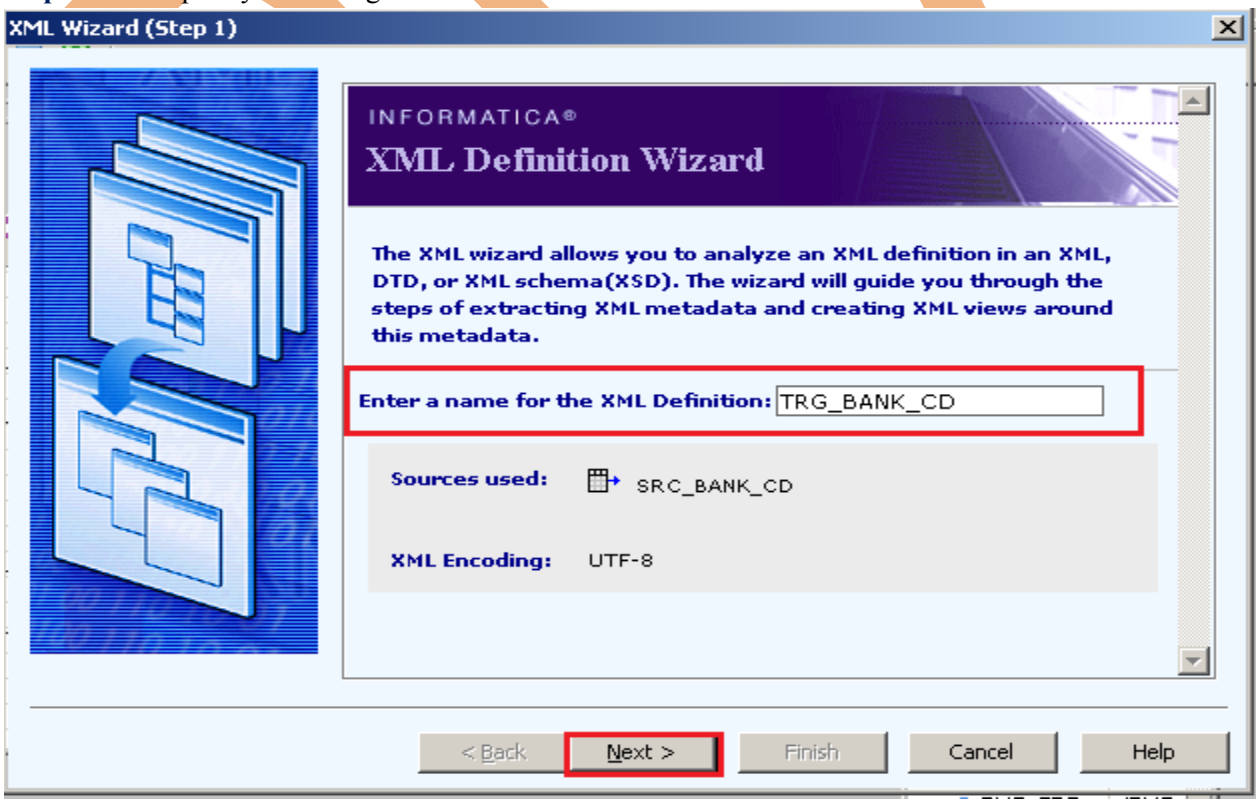
Step-12 Click Yes on open window..

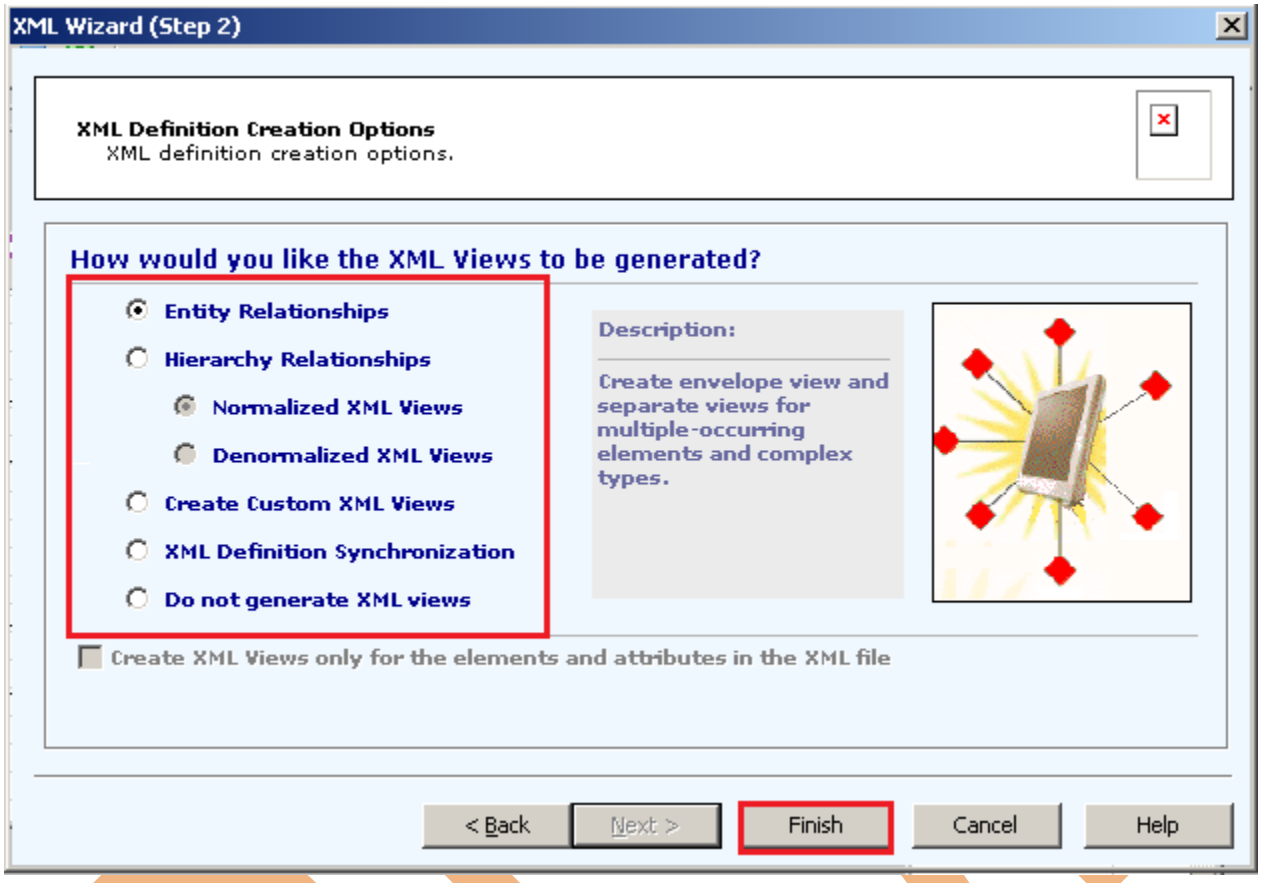


Step-13 Here some options for change XMLViews and creating and naming options so select options as your target base and click OK.

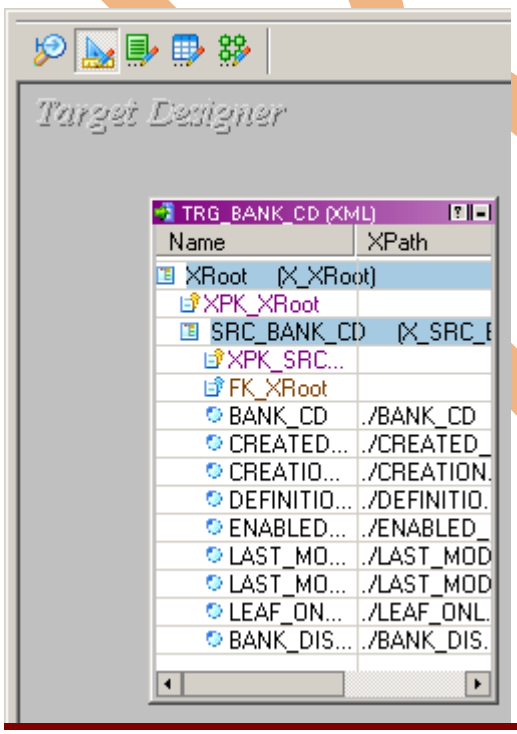


Step-13 Here specify XML target table name.





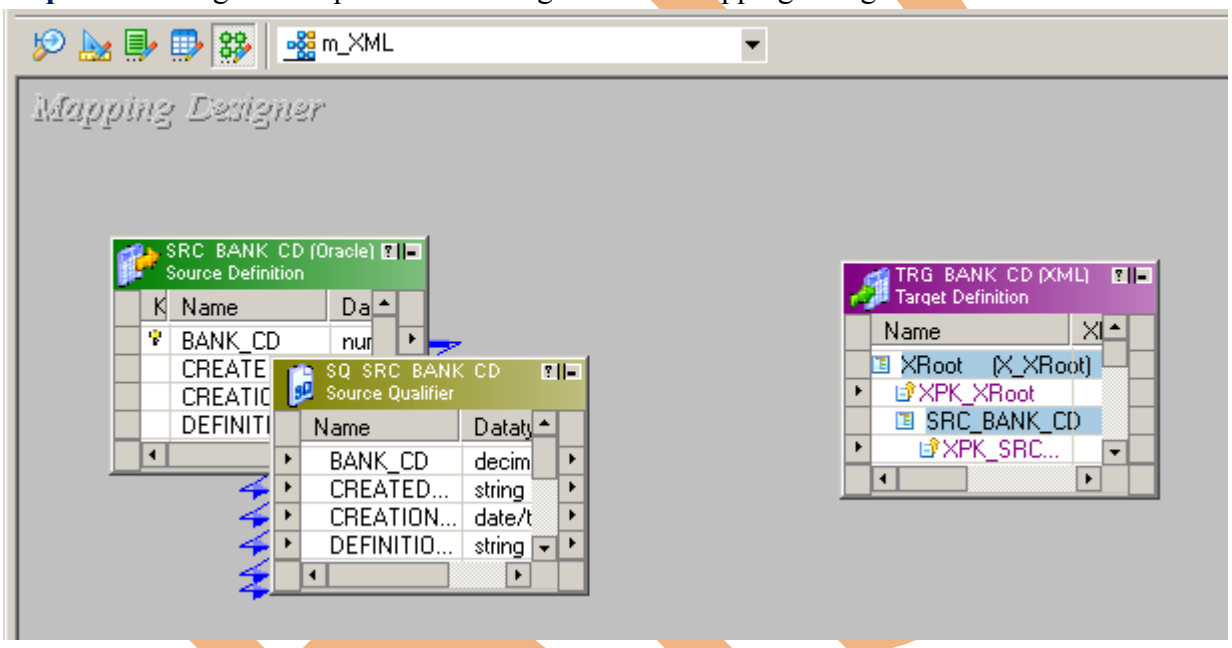
Step-11 Right click on table and select Preview Data to View the data.



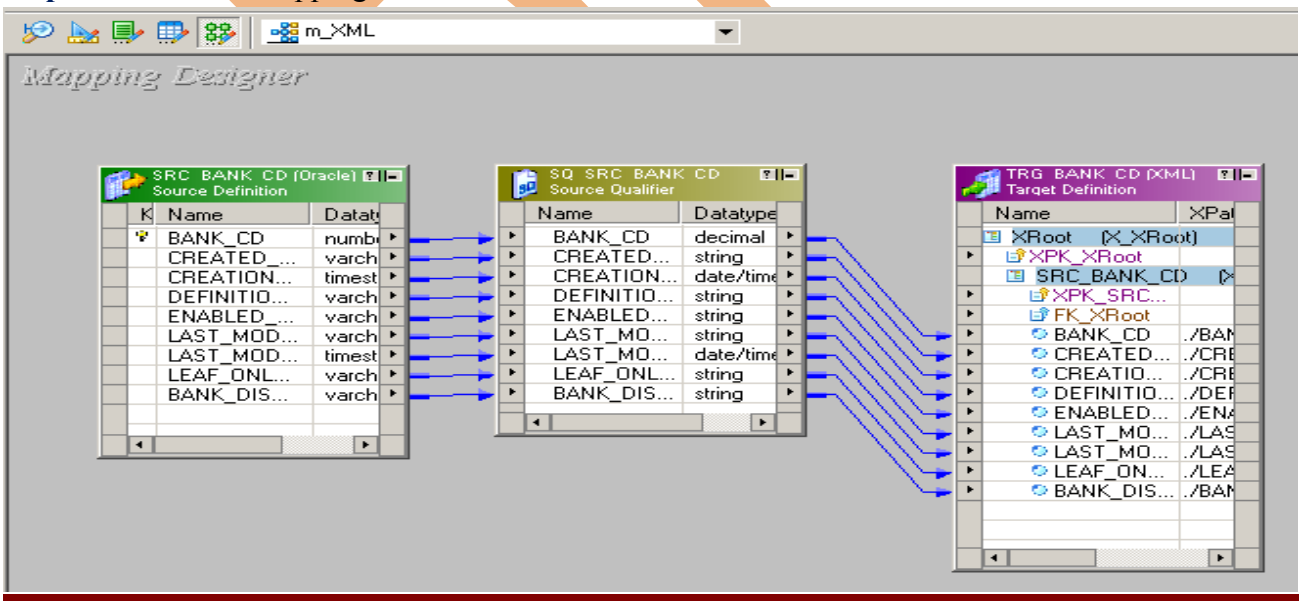
Create Mapping

Step-1 Go to Mapping Designer  and Create New Mapping and then name of mapping and click OK.

Step-2 Then drag and drop source and target data in Mapping Designer.



Step-3 Then create mapping.

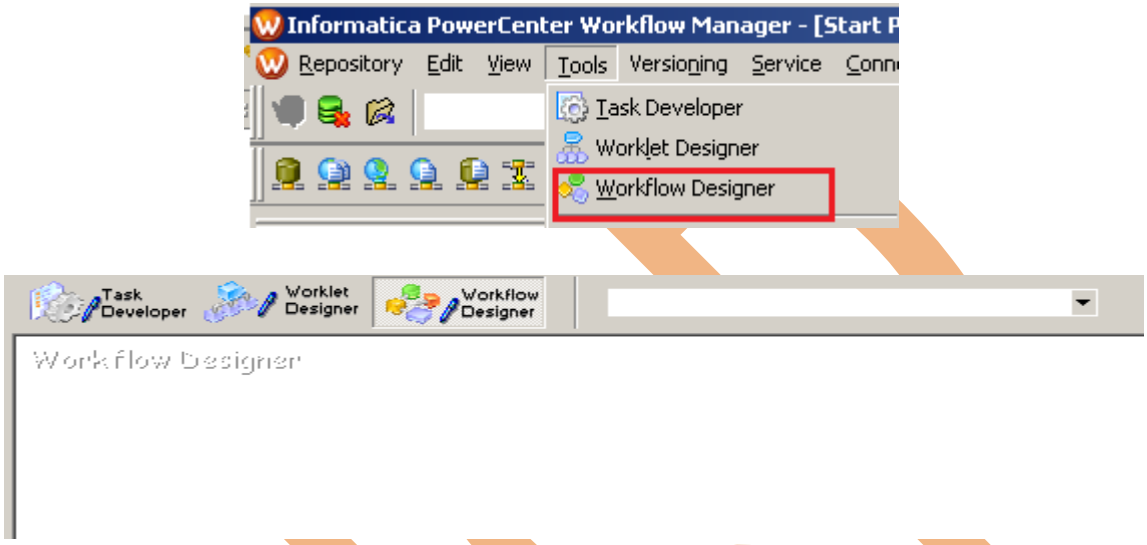


Step-9 And then save it (ctrl+s) and check mapping is VALID.

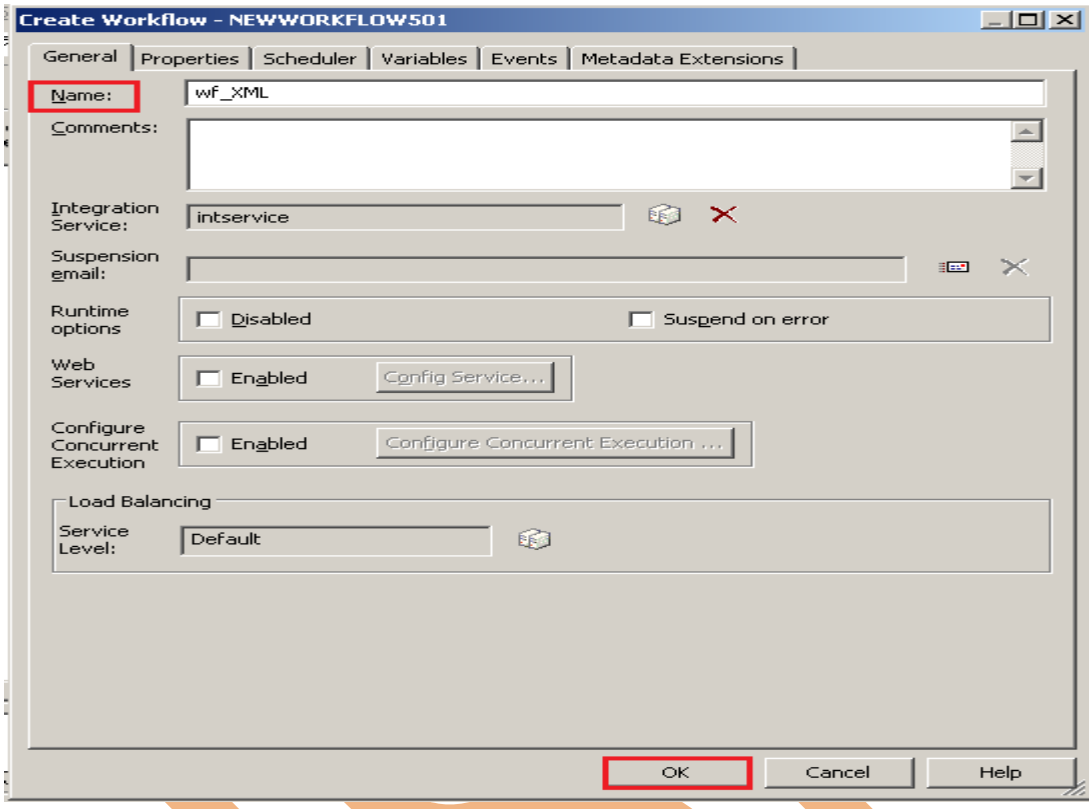
```
------------------------------------------------------------
source bispDataSource:SRC_BANK_CD inserted.
source bispDataSource:SRC_CREDITCARD updated.
Target TRG_BANK_CD inserted.
Validating transformations of mapping m_XML...
...transformation validation completed with no errors.
Validating data flow of mapping m_XML...
Validating XML target definitions of mapping m_XML ...
... Performing mapping connection validation for [TRG_BANK_CD]
   ... Root XML element: XRoot
   ... Root XML view(s): X_XRoot
   ... (Warning) The primary key [XPK_SRC_BANK_CD] of XML view [X_SRC_BANK_CD] is not projected. Duplicate rows will not be detected for this view.
...data flow validation completed with no errors.
Parsing mapping m_XML...
...parsing completed with no errors.

******** Mapping m_XML is VALID ********
mapping  m_XML inserted.
------------------------------------------------------------
```

Create Workflow

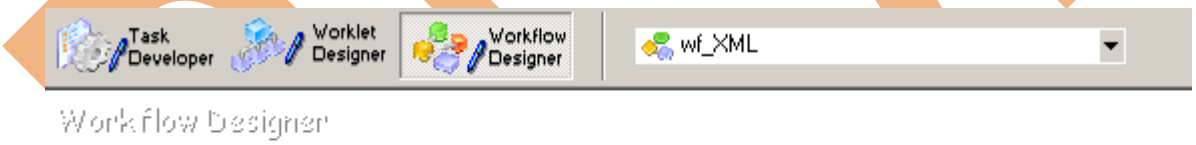
Step-1 Now go to Informatica Power Center Workflow Manager, and go to Tools menu and select Workflow Designer.



Step-2 Now to create workflows, go to Workflows menu and select Create. Then Name of workflow and click OK buttons.



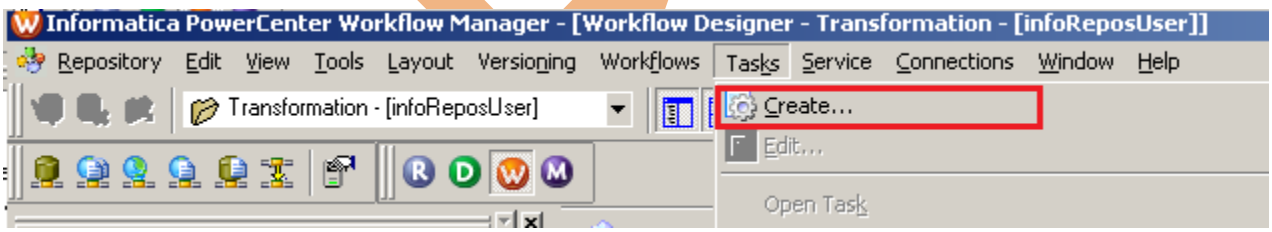
Step-3 Work flow Designer windows



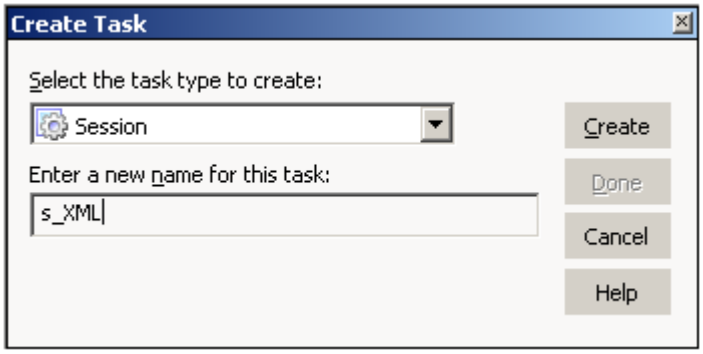
Workflow Designer

Start

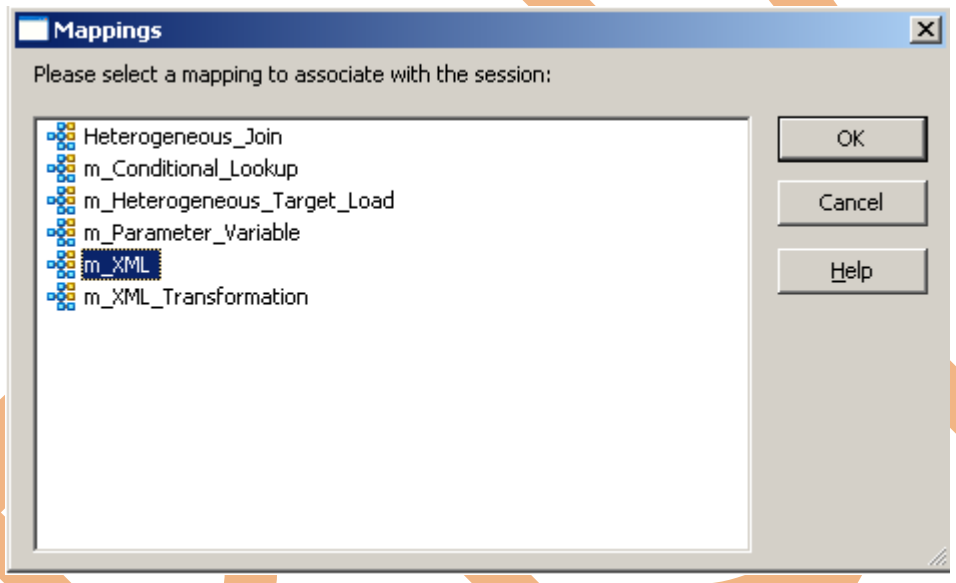
Step-4 Then create Task, Go to Tasks Menu and click Create.



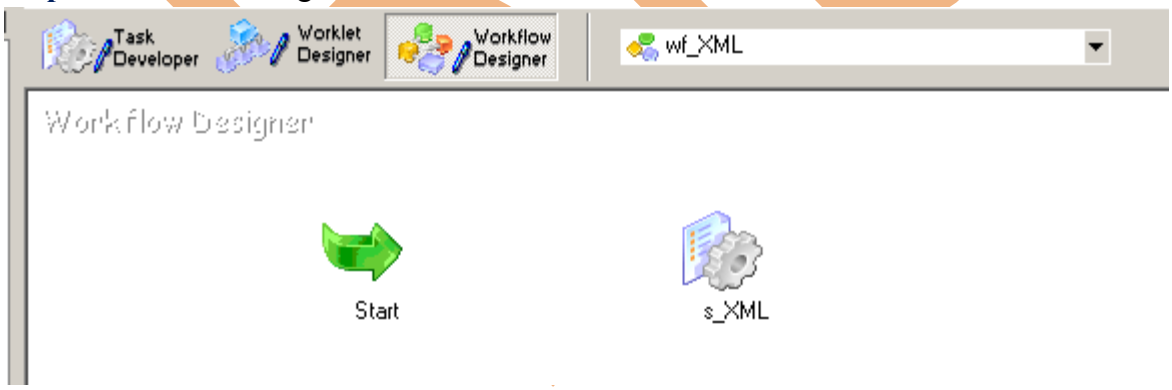
Step-5 Now select session and insert Name of task.



Step-6 Select Mapping to associate with the session.

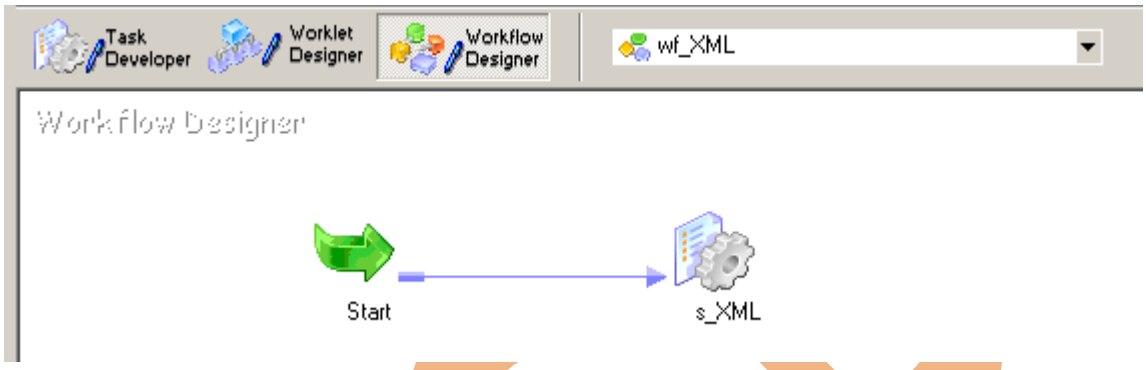


Step-7 Workflow Designer Window.

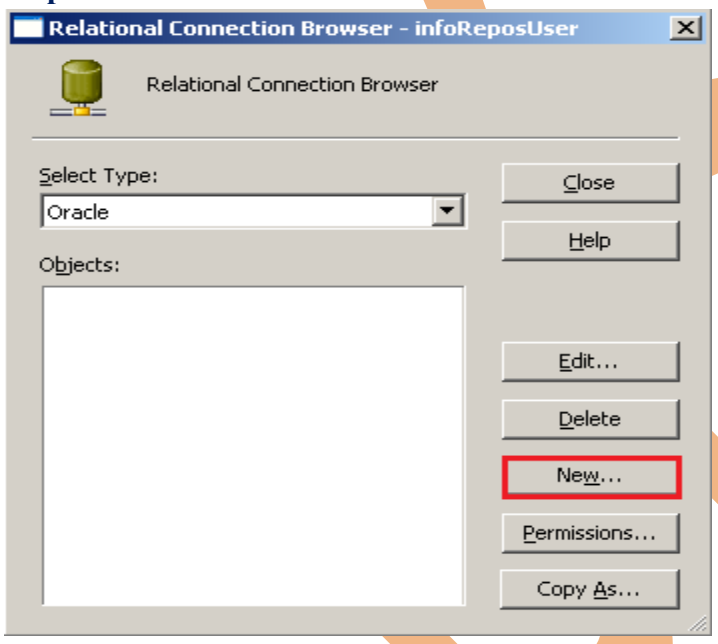


Step-8 Now create flow B/W Workflow to Task. Select Link Task and link to start to s_XML. Link task use to connect each workflow task(session). We can specify conditions with link to create branches in the workflow. The Workflow Manager does not allow us to use links to create loops in the workflow. Each link in the workflow can run only once.

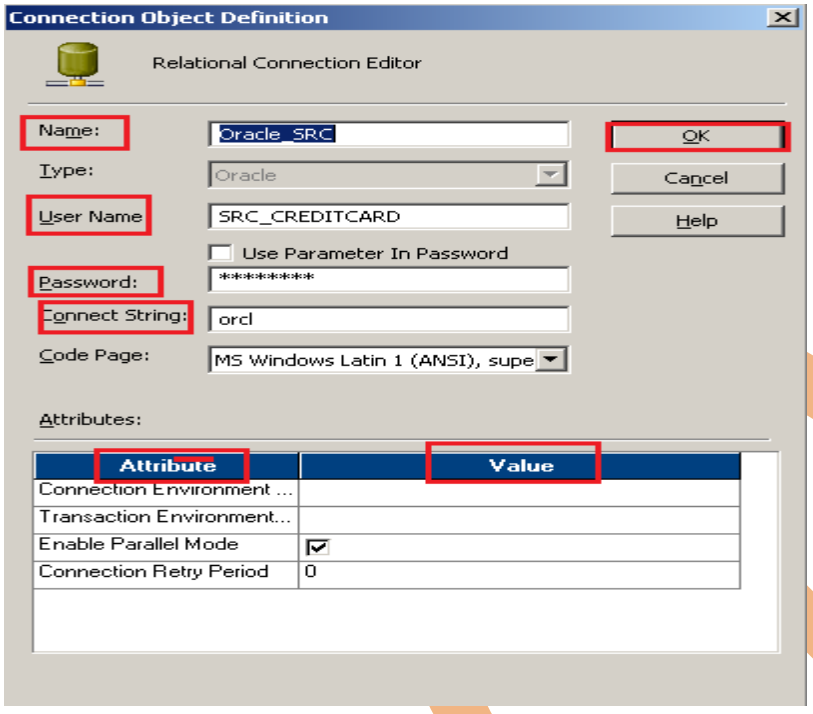
Step-9 Work Designer Windows



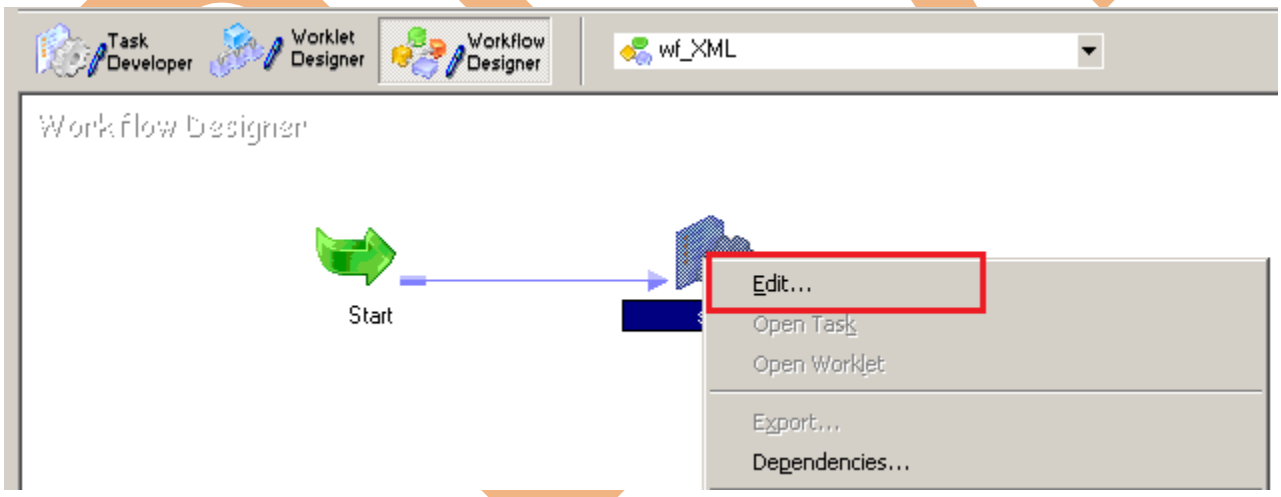
Step-10 After that create relational connection for Oracle.



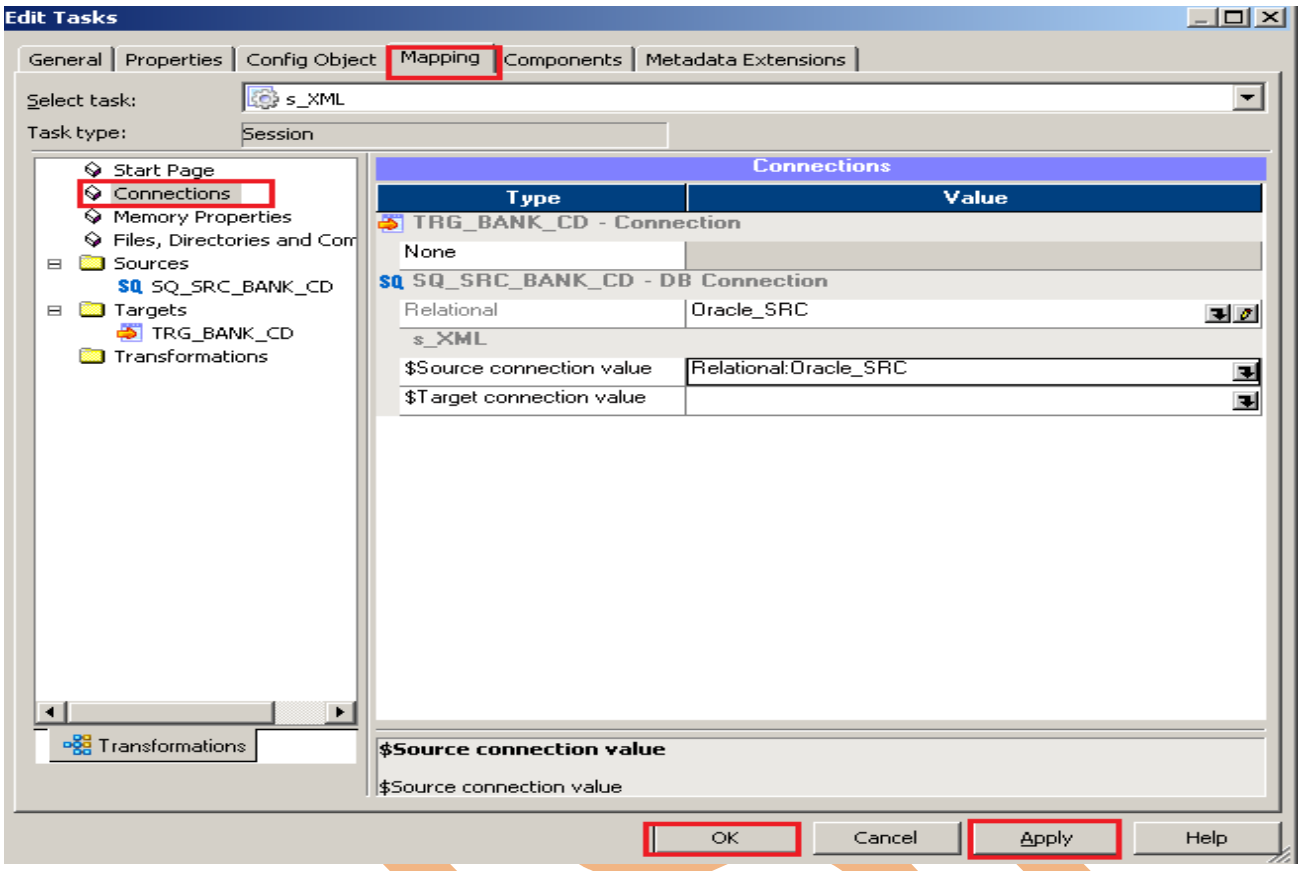
Step-11 Then specify Name, User Name, Password, Connection String and Attribute and then click OK.



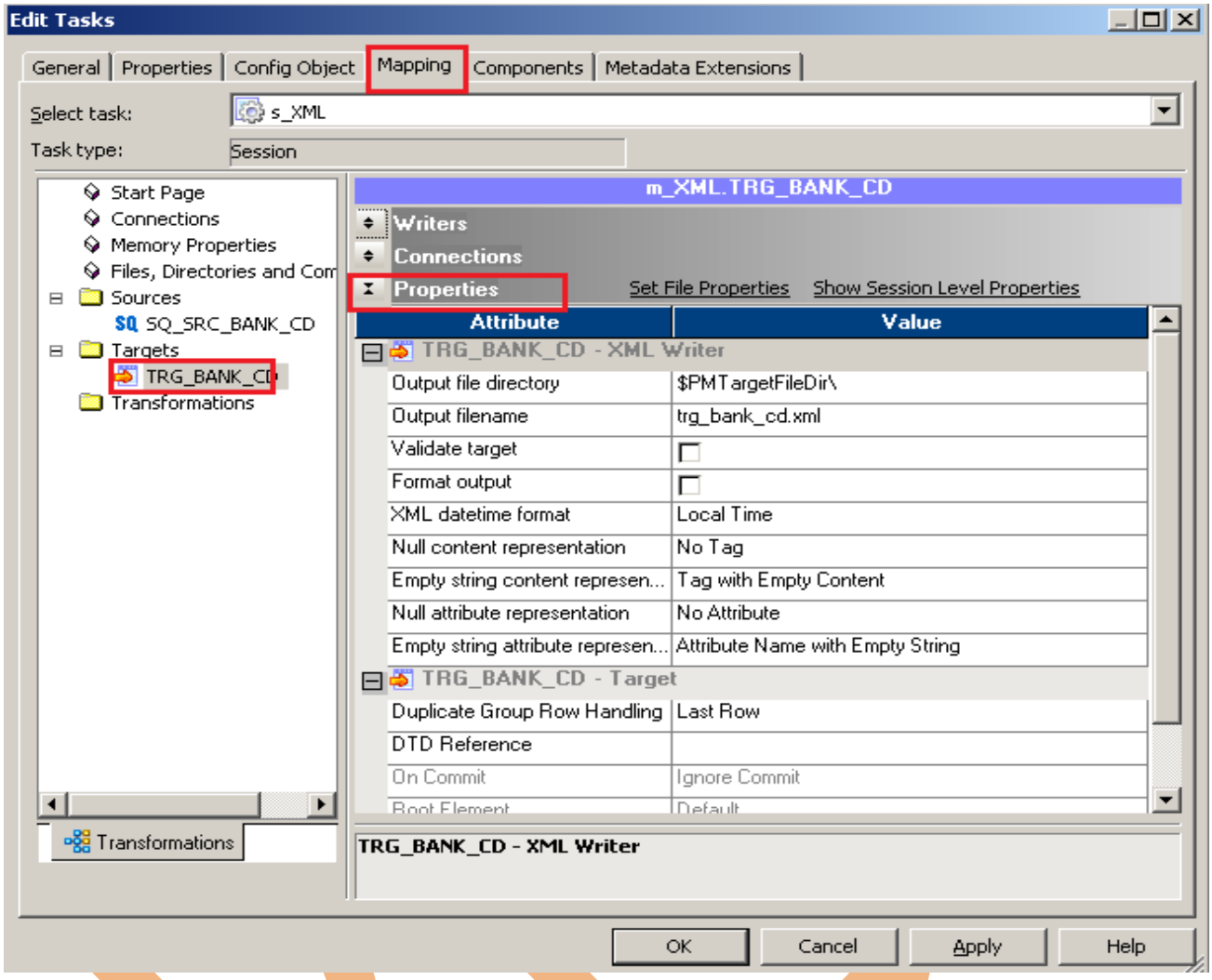
Step-12 Now Configure Connection to Source and Target, Then Right Click on Filter and Edit, Then Click Mapping tab and configure connection for your source and target table schema in oracle 11g RDBMS. And then click OK.



Step-13 Select DBConnection for Source and Target Relation Database.



Step-14 Set Property of Target Table. In property tab, we set property according to target requirement. Here set target attribute and its value.

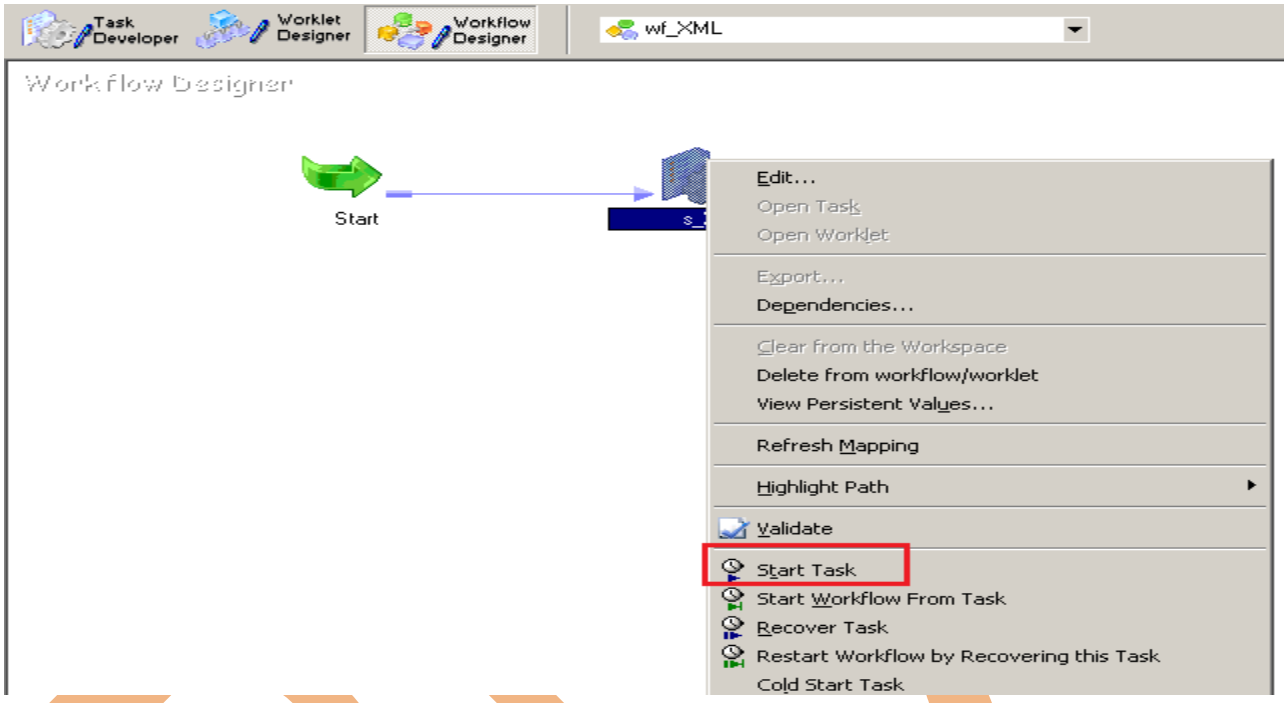


Step-15 Now save (ctrl+s) this workflow and check it.

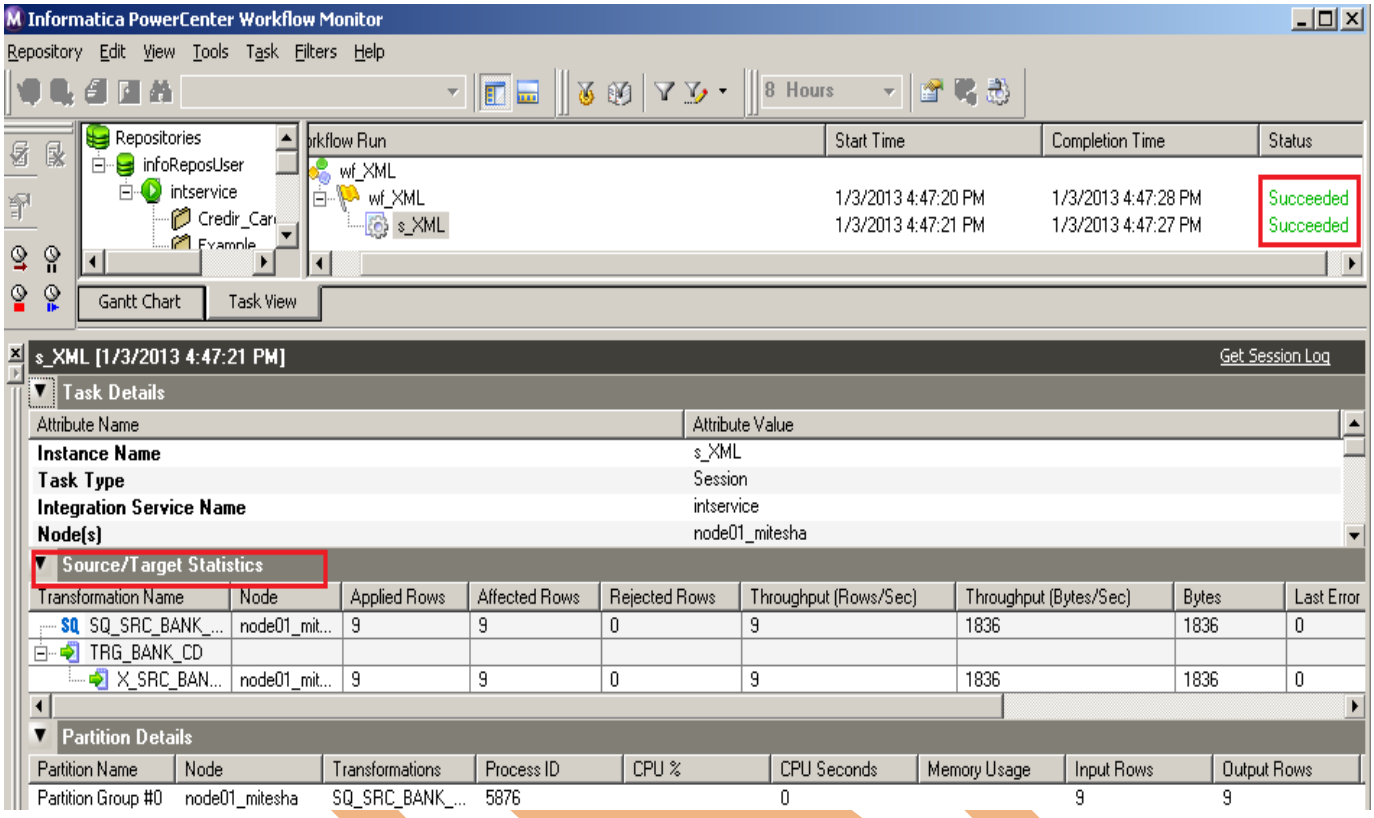
```
------------------------------------------------------------
01/03/2013 16:46:34 *** Saving... Repository infoReposUser, Folder Multiple_Source
------------------------------------------------------------
Validating the flow semantics of Workflow wf_XML...
...flow semantics validation completed with no errors.

Validating tasks of Workflow wf_XML...
...Workflow wf_XML tasks validation completed with no errors.

******** Workflow wf_XML is VALID ********

Workflow wf_XML inserted.
------------------------------------------------------------
```

Workflow Monitor and View Target Data

Step-1 Now Start Workflow, Right click on Workflow Designer Window and Click on Start Workflow.



Step-2 Check session in Informatica PowerCenter Workflow Monitor.



Step-3 Now check execution log.

INFO	1/3/2013 4:47:26 PM	node01_mitesh	MANAGER	PETL_24027	PETL_24027 Pre-session task completed successfully. : (Thu Jan 03 16:47:26 2013)
INFO	1/3/2013 4:47:26 PM	node01_mitesh	DIRECTOR	PETL_24006	Starting data movement.
INFO	1/3/2013 4:47:26 PM	node01_mitesh	MAPPING	TM_6660	Total Buffer Pool size is 609824 bytes and Block size is 65536 bytes.
INFO	1/3/2013 4:47:26 PM	node01_mitesh	READER_1_1_1	DBG_21438	Reader: Source is [orcl], user [SRC_CREDITCARD]
INFO	1/3/2013 4:47:26 PM	node01_mitesh	READER_1_1_1	BLKR_16051	Source database connection [Oracle_SRC] code page: [MS Windows Latin 1 (ANSI), superset of Latin1]
INFO	1/3/2013 4:47:26 PM	node01_mitesh	READER_1_1_1	BLKR_16003	Initialization completed successfully.
INFO	1/3/2013 4:47:26 PM	node01_mitesh	WRITER_1_*_1	WRT_8270	Target connection group #1 consists of target(s) [TRG_BANK_CD::X_SRC_BANK_CD]
INFO	1/3/2013 4:47:26 PM	node01_mitesh	WRITER_1_*_1	WRT_8003	Writer initialization complete.
INFO	1/3/2013 4:47:26 PM	node01_mitesh	READER_1_1_1	BLKR_16007	Reader run started.
INFO	1/3/2013 4:47:26 PM	node01_mitesh	READER_1_1_1	RR_4010	SQ instance [SQ_SRC_BANK_CD] SQL Query [SELECT SRC_BANK_CD.BANK_CD, SRC_BANK_CD.CREATED_BY, SRC_BANK_CD.CREATION_DATE, SRC_BANK_CD.DEFINITION_LANGUAGE, SRC_BANK_CD.ENABLED_FLAG, SRC_BANK_CD.LAST_MODIFIED_BY, SRC_BANK_CD.LAST_MODIFIED_DATE, SRC_BANK_CD.LEAF_ONLY_FLAG, SRC_BANK_CD.BANK_DISPLAY_CD FROM SRC_BANK_CD]
INFO	1/3/2013 4:47:26 PM	node01_mitesh	READER_1_1_1	RR_4049	RR_4049 SQL Query issued to database : (Thu Jan 03 16:47:26 2013)
INFO	1/3/2013 4:47:26 PM	node01_mitesh	READER_1_1_1	RR_4050	RR_4050 First row returned from database to reader : (Thu Jan 03 16:47:26 2013)
INFO	1/3/2013 4:47:26 PM	node01_mitesh	READER_1_1_1	BLKR_16019	Read [9] rows, read [0] error rows for source table [SRC_BANK_CD] instance name [SRC_BANK_CD]
INFO	1/3/2013 4:47:26 PM	node01_mitesh	READER_1_1_1	BLKR_16008	Reader run completed.
INFO	1/3/2013 4:47:26 PM	node01_mitesh	WRITER_1_*_1	WRT_8005	Writer run started.

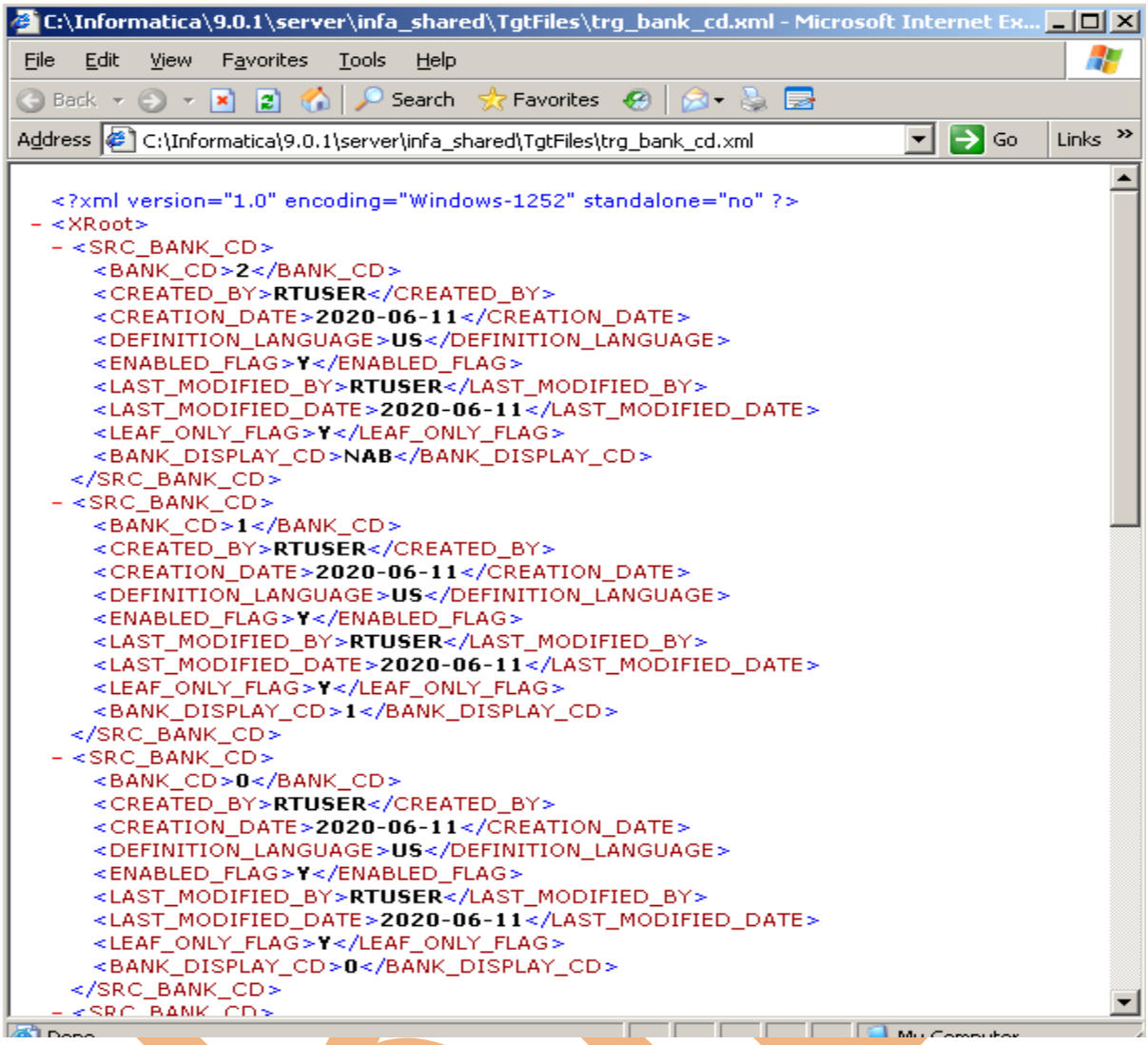
Insert Script.

INFO	1/3/2013 4:47:26 PM	node01_mitesh	READER_1_1_1	BLKR_16008	Reader run completed.
INFO	1/3/2013 4:47:26 PM	node01_mitesh	WRITER_1_*_1	WRT_8005	Writer run started.
INFO	1/3/2013 4:47:26 PM	node01_mitesh	WRITER_1_*_1	WRT_8158	*****START LOAD SESSION*****
					Load Start Time: Thu Jan 03 16:47:26 2013
					Target tables:
					TRG_BANK_CD::X_SRC_BANK_CD
INFO	1/3/2013 4:47:26 PM	node01_mitesh	WRITER_1_*_1	WRT_8167	Start loading table [TRG_BANK_CD::X_SRC_BANK_CD] at: Thu Jan 03 16:47:26 2013
INFO	1/3/2013 4:47:26 PM	node01_mitesh	WRITER_1_*_1	XMLW_31025	Opened file [C:\Informatica\9.0.1\server\infa_shared\TgtFiles\trg_bank_cd.xml] for XML output
INFO	1/3/2013 4:47:26 PM	node01_mitesh	WRITER_1_*_1	XMLW_31037	XMLW_31037 Received all the data for all the XML groups of target [TRG_BANK_CD]. Combining XML groups into final DOM tree... : (Thu Jan 03 16:47:26 2013)
INFO	1/3/2013 4:47:26 PM	node01_mitesh	WRITER_1_*_1	XMLW_31036	XMLW_31036
					==========
					LOAD SUMMARY for XML target [TRG_BANK_CD].
					==========
					[
					XMLW_31033 Detailed load statistics for XML group [X_SRC_BANK_CD]:
INFO	1/3/2013 4:47:26 PM	node01_mitesh	MANAGER	PETL_24005	PETL_24005 Starting post-session tasks. : (Thu Jan 03 16:47:26 2013)
INFO	1/3/2013 4:47:26 PM	node01_mitesh	MANAGER	PETL_24029	PETL_24029 Post-session task completed successfully. : (Thu Jan 03 16:47:26 2013)
INFO	1/3/2013 4:47:26 PM	node01_mitesh	MAPPING	TM_6018	The session completed with [0] row transformation errors.
INFO	1/3/2013 4:47:26 PM	node01_mitesh	MANAGER	PETL_24002	Parallel Pipeline Engine finished.
INFO	1/3/2013 4:47:26 PM	node01_mitesh	DIRECTOR	PETL_24012	Session run completed successfully.
INFO	1/3/2013 4:47:27 PM	node01_mitesh	DIRECTOR	TM_6022	SESSION LOAD SUMMARY
					==========
INFO	1/3/2013 4:47:27 PM	node01_mitesh	DIRECTOR	TM_6252	Source Load Summary.
INFO	1/3/2013 4:47:27 PM	node01_mitesh	DIRECTOR	CMN_1740	Table: [SQ_SRC_BANK_CD] (Instance Name: [SQ_SRC_BANK_CD]) Output Rows [9], Affected Rows [9], Applied Rows [9], Rejected Rows [0]
INFO	1/3/2013 4:47:27 PM	node01_mitesh	DIRECTOR	TM_6253	Target Load Summary.
INFO	1/3/2013 4:47:27 PM	node01_mitesh	DIRECTOR	CMN_1537	Table: [TRG_BANK_CD] (Instance Name: [TRG_BANK_CD]) with group id[1] with view name [X_SRC_BANK_CD] Rows Output [9], Rows Affected [9], Rows Applied [9], Rows Rejected[0]
INFO	1/3/2013 4:47:27 PM	node01_mitesh	DIRECTOR	TM_6023	==========
INFO	1/3/2013 4:47:27 PM	node01_mitesh	DIRECTOR	TM_6020	Session [s_XML] completed at [Thu Jan 03 16:47:26 2013].

Target table path.

Target Load Summary.

Step-4 Now view data in Target.


C:\Informatica\9.0.1\server\infa_shared\TgtFiles\trg_bank_cd.xml - Microsoft Internet Ex...
File Edit View Favorites Tools Help
Back Search Favorites
Address C:\Informatica\9.0.1\server\infa_shared\TgtFiles\trg_bank_cd.xml
Go Links
<?xml version="1.0" encoding="Windows-1252" standalone="no" ?>
<XRoot>
<SRC_BANK_CD>
<BANK_CD>2</BANK_CD>
<CREATED_BY>RTUSER</CREATED_BY>
<CREATION_DATE>2020-06-11</CREATION_DATE>
<DEFINITION_LANGUAGE>US</DEFINITION_LANGUAGE>
<ENABLED_FLAG>Y</ENABLED_FLAG>
<LAST_MODIFIED_BY>RTUSER</LAST_MODIFIED_BY>
<LAST_MODIFIED_DATE>2020-06-11</LAST_MODIFIED_DATE>
<LEAF_ONLY_FLAG>Y</LEAF_ONLY_FLAG>
<BANK_DISPLAY_CD>NAB</BANK_DISPLAY_CD>
</SRC_BANK_CD>
<SRC_BANK_CD>
<BANK_CD>1</BANK_CD>
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</SRC_BANK_CD>
<SRC_BANK_CD>
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<LAST_MODIFIED_DATE>2020-06-11</LAST_MODIFIED_DATE>
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<BANK_DISPLAY_CD>0</BANK_DISPLAY_CD>
</SRC_BANK_CD>
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