



Informatica Power Center 9.0.1

Building Financial Data Mode - Lab#6

Hands-on Guide Implementing Router 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 implementing Router Transformation. [Join our professional training program and learn from experts.](#)

History:

Version	Description Change	Author	Publish Date
0.1	Initial Draft	Upendra Upadhyay	1st July 2011
0.1	Review#1	Amit Sharma	10th July 2011

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Introduction

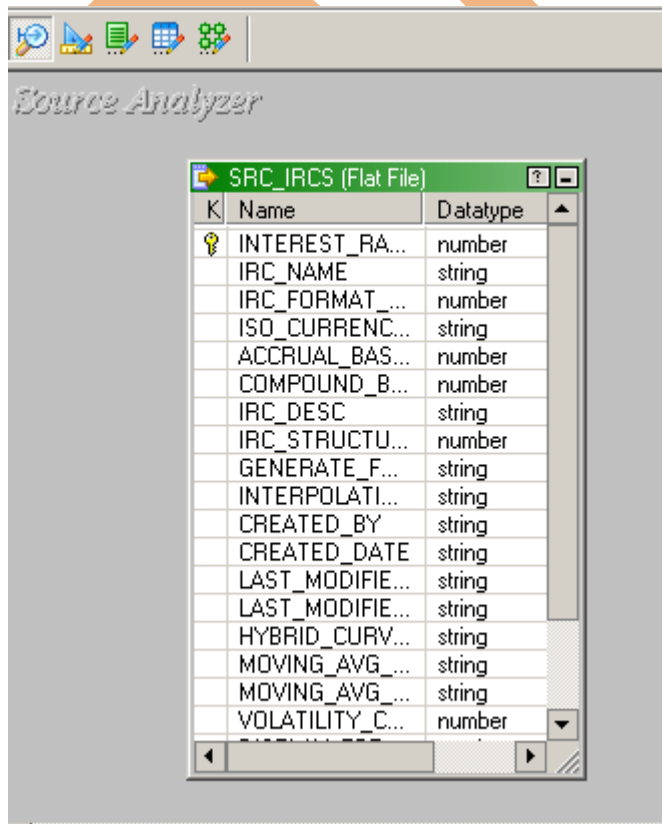
Router Transformation in Informatica.

Router transformation is an active and connected transformation. It is similar to the filter transformation used to test a condition and filter the data. But in a filter transformation, you can specify only one condition and drops the rows that do not satisfy the condition, where as in a router transformation, you can specify more than one condition and provides the ability for route the data that meet the test condition.

Filter Condition.

Definition Name	Router Transformation				
Source Name	SRC_IRCS				
Target Name	TRG_IRCS_USD, TRG_IRCS_HKD, TRG_IRCS_INR				
Source Details				Target Details	
Entity Name	Field/Expression Name	Data Type	Filter Condition	Destination Entity Name	Destination Field Name
Expression	ISO_CURRENCY_CD	VARCHAR2(10)	UPPER(ISO_CURRENCY_CD = 'USD')	TRG_IRCS_USD	ISO_CURRENCY_CD
Expression	ISO_CURRENCY_CD	VARCHAR2(10)	UPPER(ISO_CURRENCY_CD = 'HKD')	TRG_IRCS_HK	ISO_CURRENCY_CD
Expression	ISO_CURRENCY_CD	VARCHAR2(10)	UPPER(ISO_CURRENCY_CD = 'INR')	TRG_IRCS_INR	ISO_CURRENCY_CD

Source Table.



Target Table.

Target Designer

K	Name	Datatype
	INTEREST_R...	number(p,
	IRC_NAME	varchar2
	IRC_FORMA...	number(p,
	ISO_CURRE...	varchar2
	ACCRUAL_B...	number(p,
	COMPOUND...	number(p,
	IRC_DESC	varchar2
	IRC_STRUCT...	number(p,
	GENERATE_...	number(p,
	INTERPOLAT...	number(p,
	CREATED_BY	varchar2
	CREATED_D...	timestamp
	LAST_MODIF...	varchar2
	LAST_MODIF...	timestamp
	HYBRID_CU...	number(p,
	MOVING_AV...	number(p,
	MOVING_AV...	char
	VOLATILITY_...	number(p,

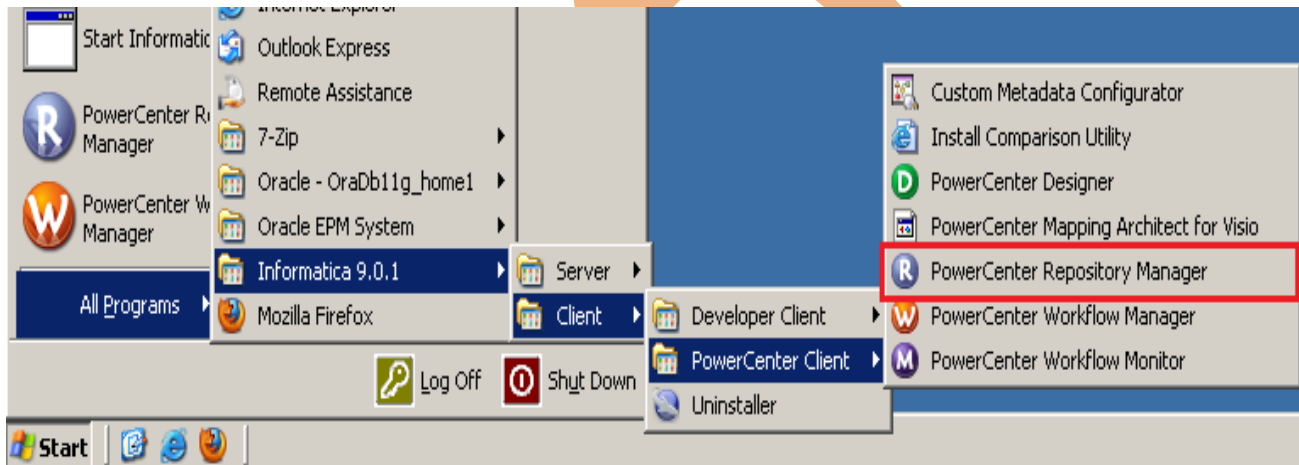
K	Name	Datatype
	INTEREST_RATE_CD	
	IRC_NAME	
	IRC_FORMAT_CD	
	ISO_CURRENCY_CD	
	ACCRUAL_BASIS_CD	
	COMPOUND_BASIS_CD	
	IRC_DESC	
	IRC_STRUCTURE_TYPE	
	GENERATE_FREQUENCY	
	INTERPOLATION_TYPE_FL	
	CREATED_BY	
	CREATED_DATE	
	LAST_MODIFIED_BY	
	LAST_MODIFIED_DATE	
	HYBRID_CURVE_TYPE_CC	
	MOVING_AVG_TERM	
	MOVING_AVG_TERM_MUL	
	VOLATILITY_CURVE_FLG	
	DISPLAY FOR ALL CCY F	

K	Name	Datatype
	INTEREST_R...	number(p,
	IRC_NAME	varchar2
	IRC_FORMA...	number(p,
	ISO_CURRE...	varchar2
	ACCRUAL_B...	number(p,
	COMPOUND...	number(p,
	IRC_DESC	varchar2
	IRC_STRUCT...	number(p,
	GENERATE_...	number(p,
	INTERPOLAT...	number(p,
	CREATED_BY	varchar2
	CREATED_D...	timestamp
	LAST_MODIF...	varchar2
	LAST_MODIF...	timestamp
	HYBRID_CU...	number(p,
	MOVING_AV...	number(p,
	MOVING_AV...	char
	VOLATILITY_...	number(p,
	DISPLAY FO...	number(p,

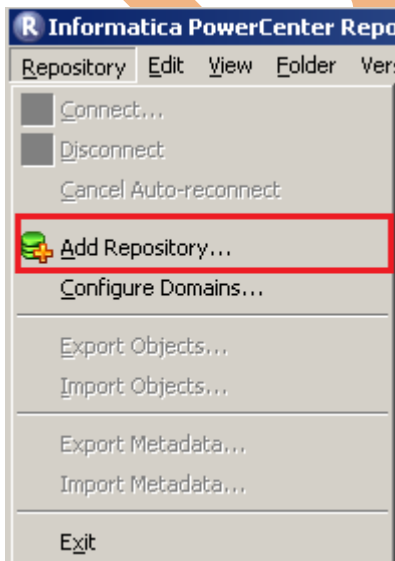
Creating Repository and Folder

Creating Repository & Connecting it.

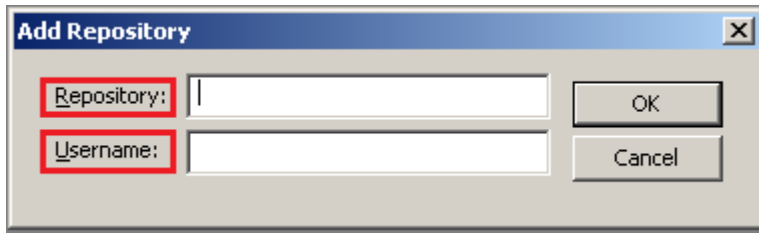
Step-1 First create repository, Click on Start -> All Programs -> Informatica 9.0.1 -> Client -> Power Center Client -> Power Center Repository Manager.



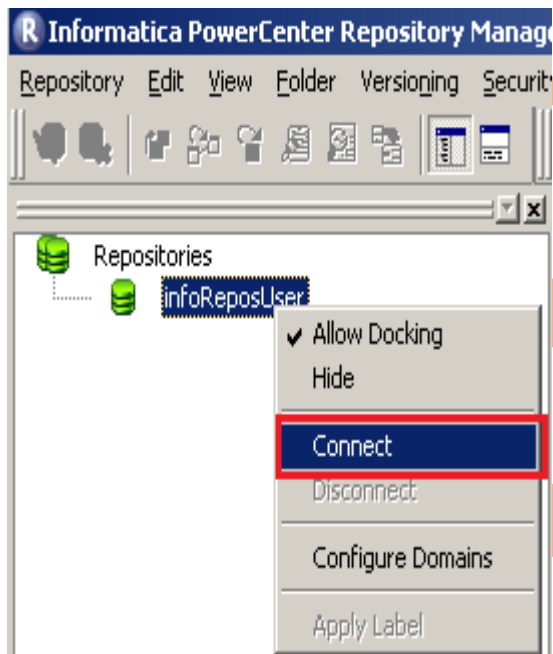
Step-2 Then click on Repository Menu and click on Add Repository.



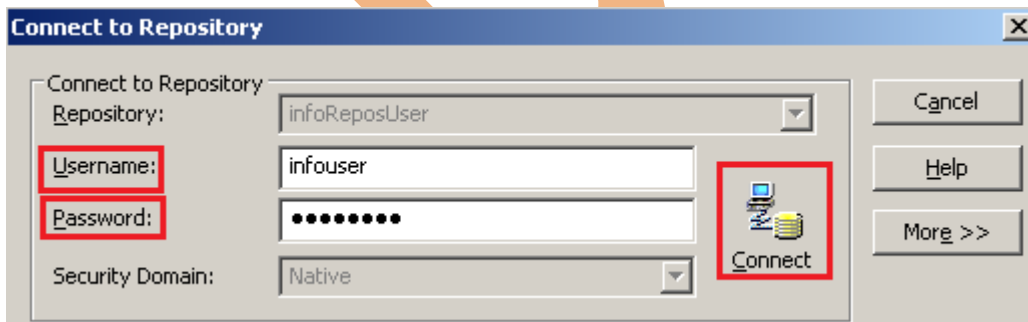
Step-3 Give information like Repository Name and Username. Then click on ok button and repository created successfully.



Step-4 Now connect repository. Right click on newly created repository and click on connect.

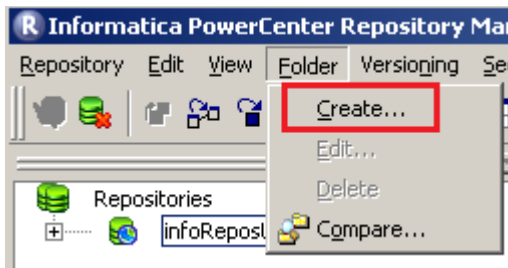


Step-5 Give Username & password and click on Connect.

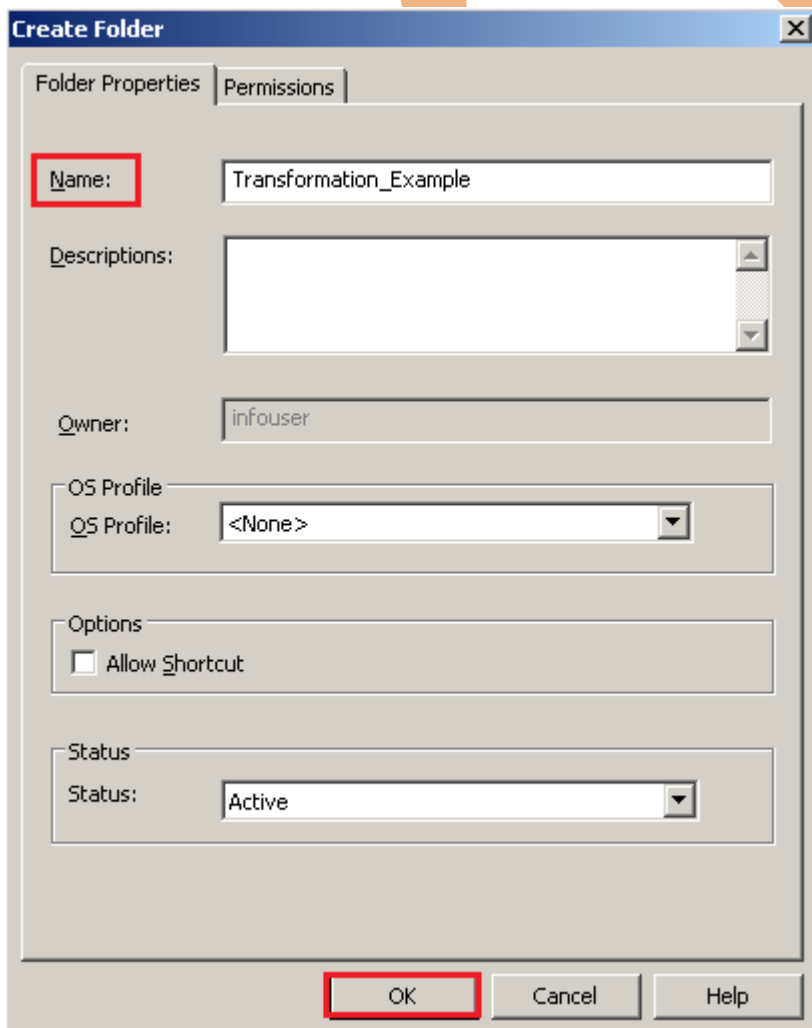


Creating Folder.

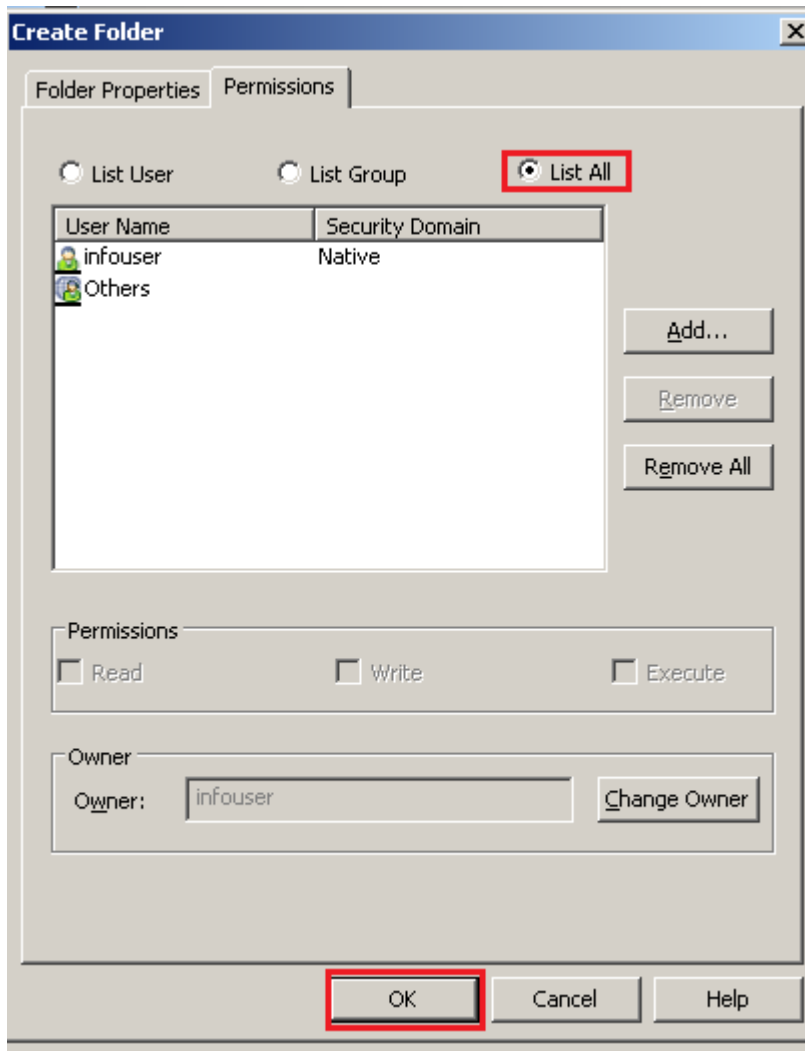
Step-1 Go to Informatica Power Center Repository Manager and click on Folder Menu and click on Create.



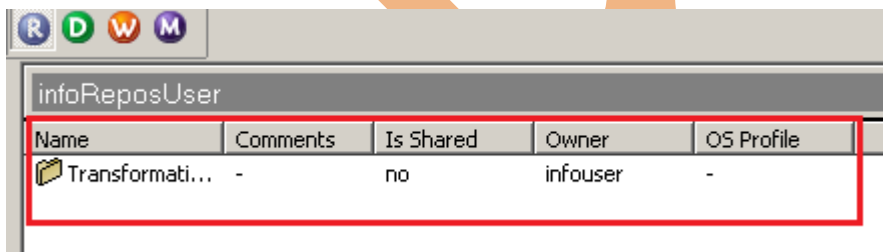
Step-2 Specify Name of Folder, Description, Owner, OS Profile, Options, Status and got to permissions tab.



Step-3 This is permission tab to give permission for this folder.

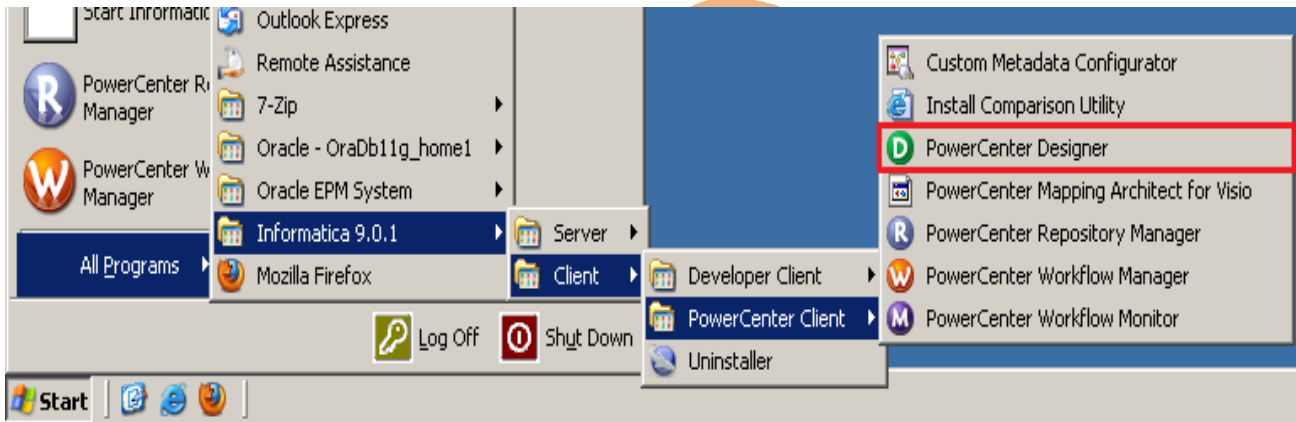


Step-4 This is newly created Folder

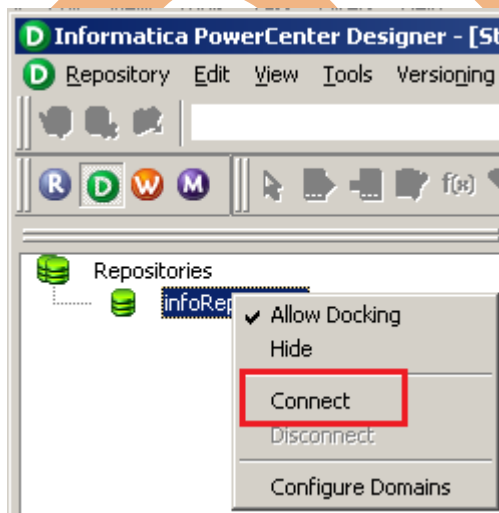


Importing Source and Target Table

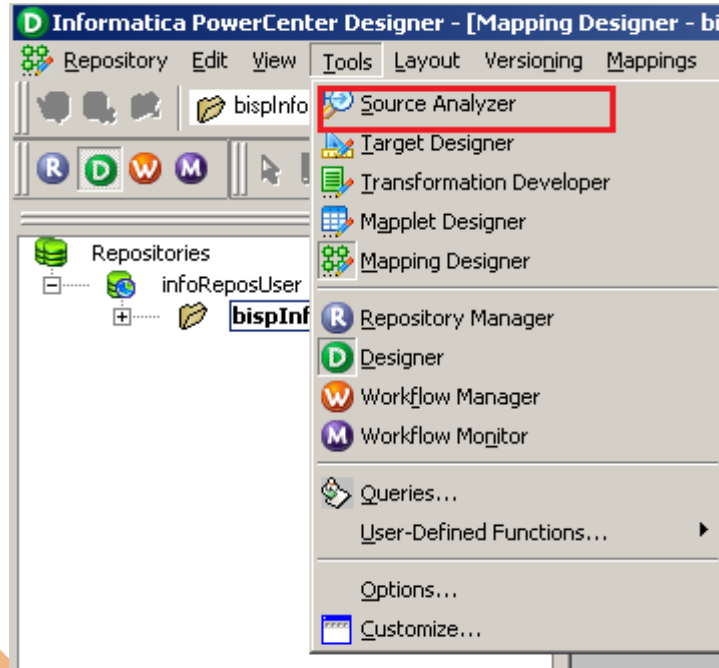
Step-1 Click on Start -> All Programs -> Informatica 9.0.1 -> Client -> Power Center Client -> Power Center Designer..



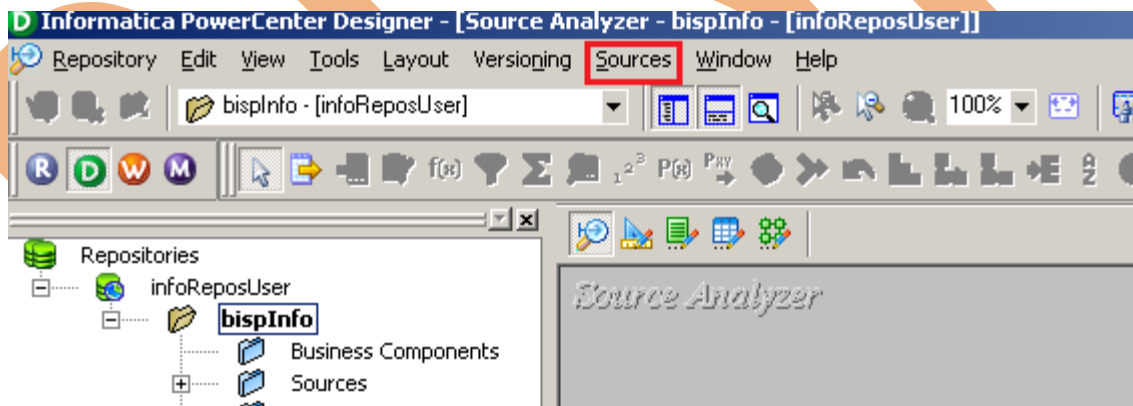
Step-2 Then Connect to Repository in Informatica Power Center Designer Right click on repository name and click on Connect.



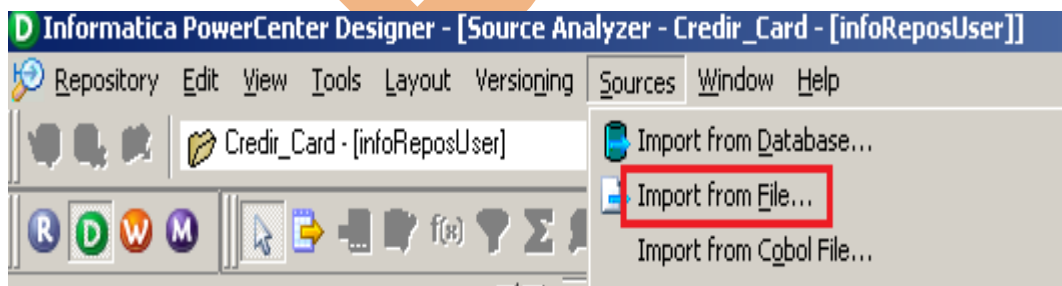
Step-3 Go to Tools Menu and click on Source Analyzer to import source table.



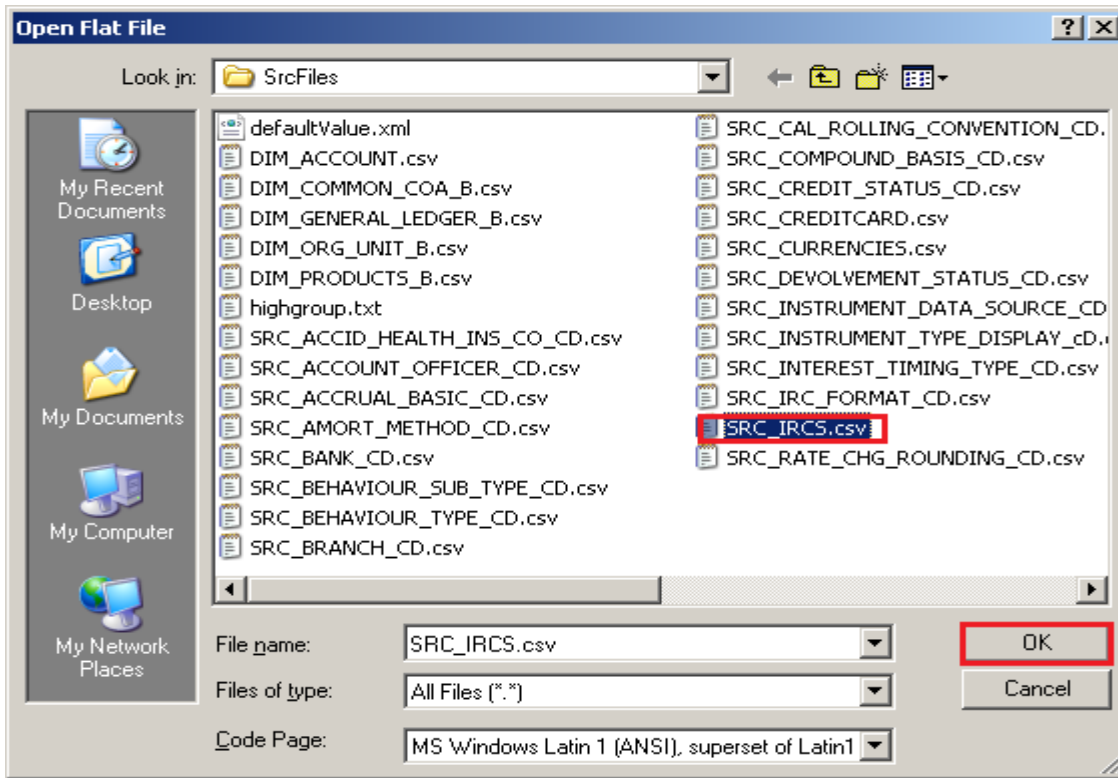
Step-4 And then go to Sources Menu in Informatica Power Center Designer.



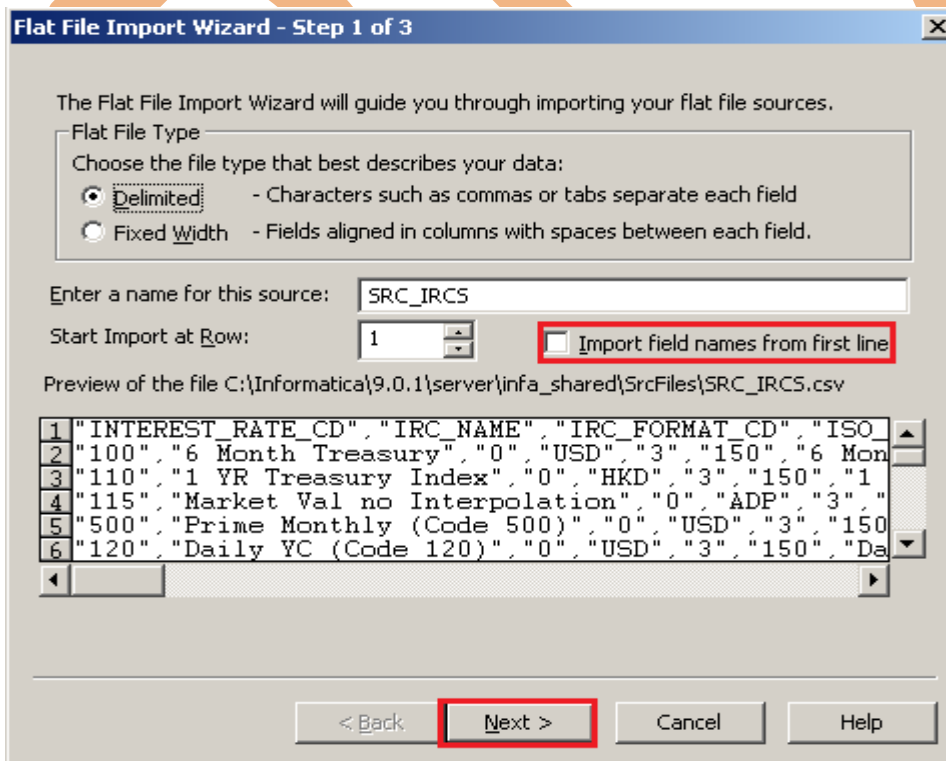
Step-5 And then click on Source menu and select Import from file.



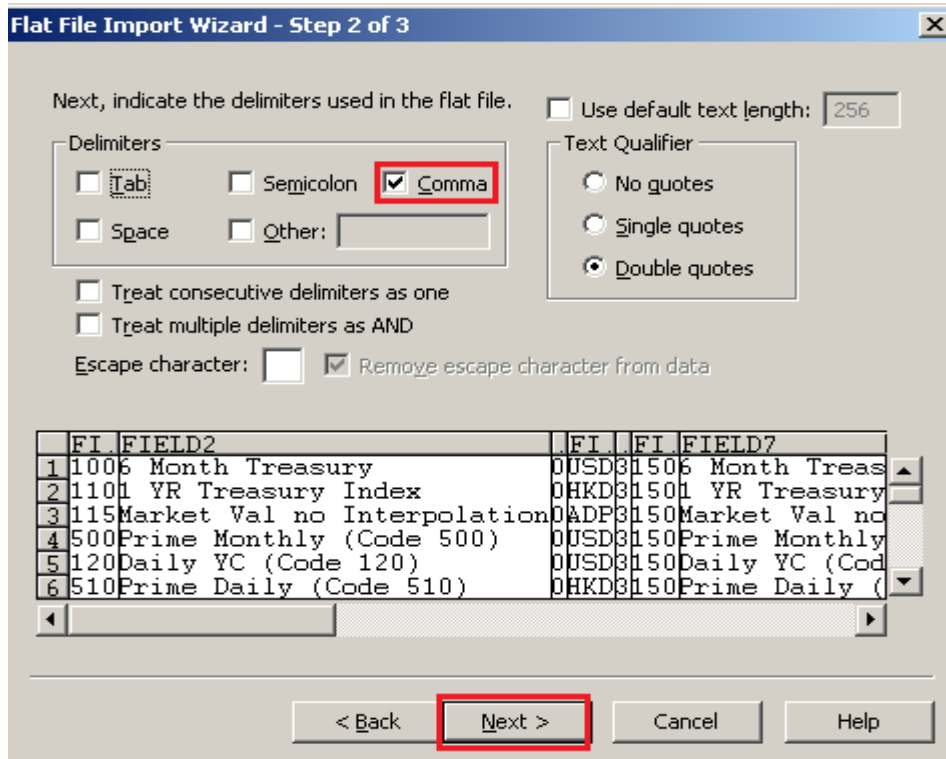
Step-6 Select Flat file which you want to import, Select location in Look in and select file and click OK.



Step-7 Choose the file type - Delimited, click on Import field names from first line. and the click Next.



Step-8 Specify Delimiters and click Next Button.



Next, indicate the delimiters used in the flat file. Use default text length: 256

Delimiters

Tab Semicolon Comma

Space Other: _____

Treat consecutive delimiters as one

Treat multiple delimiters as AND

Escape character: Remove escape character from data

Text Qualifier

No quotes

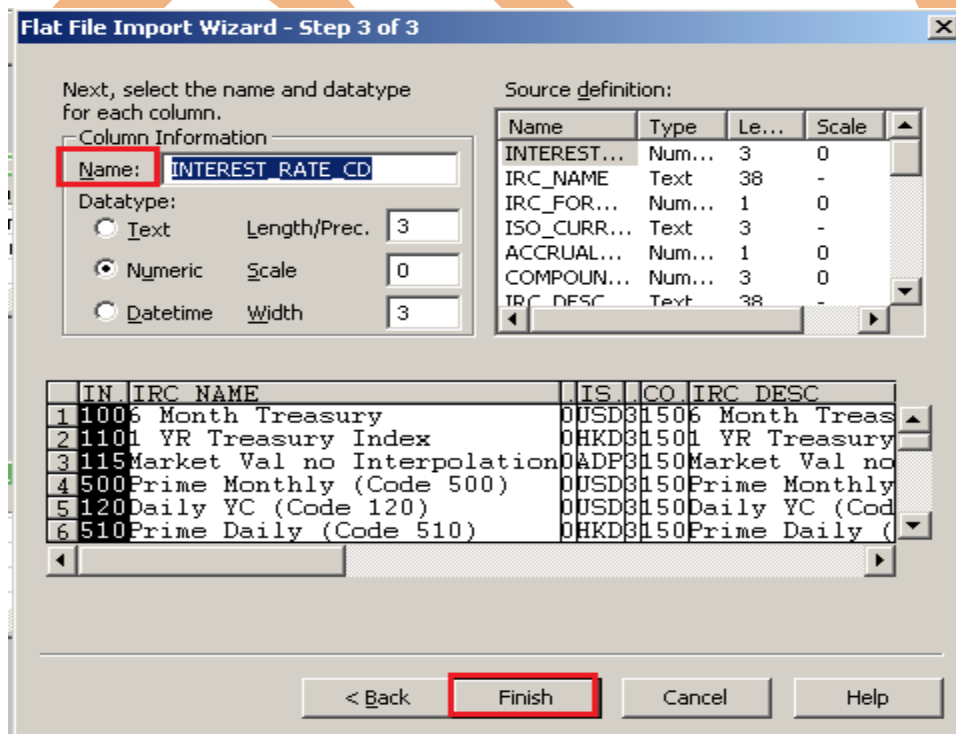
Single quotes

Double quotes

FI	FIELD2	FI	FI	FIELD7
1	1006 Month Treasury	0	USD3	1506 Month Treas
2	1101 YR Treasury Index	0	HKD3	1501 YR Treasury
3	115Market Val no Interpolation	0	ADP3	150Market Val no
4	500Prime Monthly (Code 500)	0	USD3	150Prime Monthly
5	120Daily YC (Code 120)	0	USD3	150Daily YC (Cod
6	510Prime Daily (Code 510)	0	HKD3	150Prime Daily (

< Back **Next >** Cancel Help

Step-9 Specify Name of Column and Click Finish.



Next, select the name and datatype for each column.

Column Information

Name: INTEREST_RATE_CD

Datatype:

Text Length/Prec. 3

Numeric Scale 0

Datetime Width 3

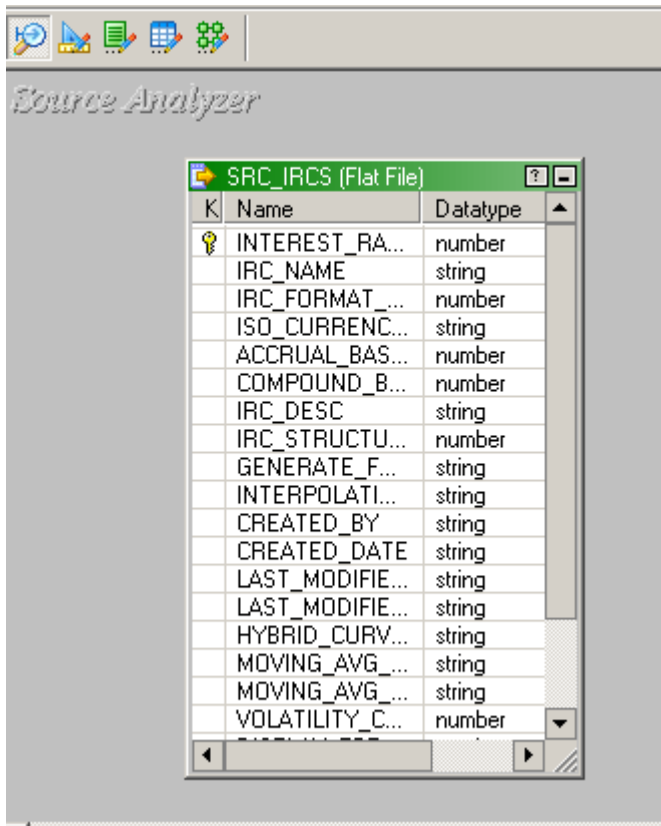
Source definition:

Name	Type	Le...	Scale
INTEREST...	Num...	3	0
IRC_NAME	Text	38	-
IRC_FOR...	Num...	1	0
ISO_CURR...	Text	3	-
ACCRUAL...	Num...	1	0
COMPOUN...	Num...	3	0
IRC_DESC	Text	38	-

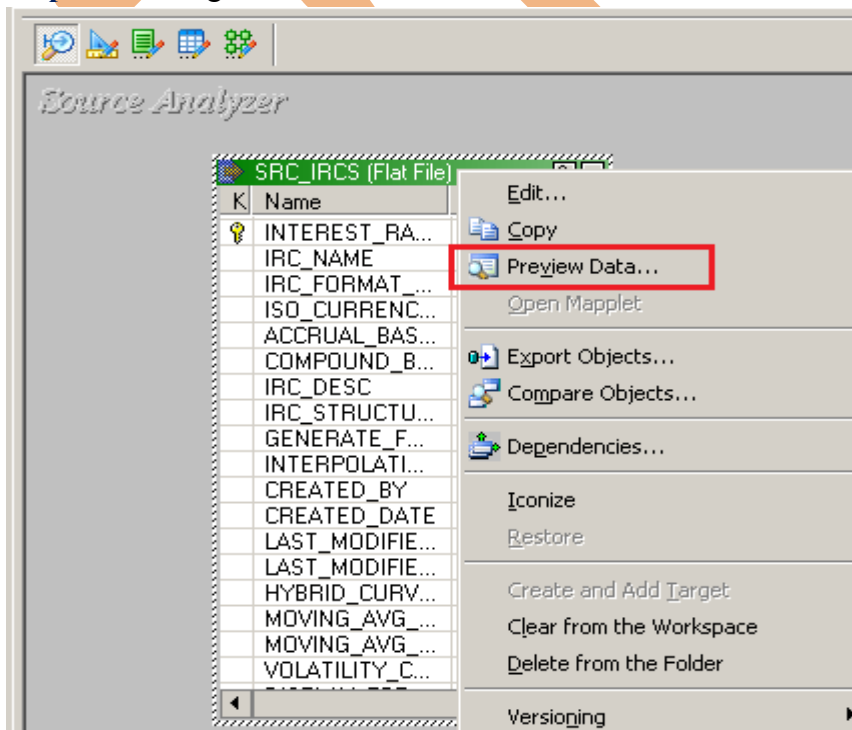
IN	IRC NAME	IS	CO	IRC DESC
1	1006 Month Treasury	0	USD3	1506 Month Treas
2	1101 YR Treasury Index	0	HKD3	1501 YR Treasury
3	115Market Val no Interpolation	0	ADP3	150Market Val no
4	500Prime Monthly (Code 500)	0	USD3	150Prime Monthly
5	120Daily YC (Code 120)	0	USD3	150Daily YC (Cod
6	510Prime Daily (Code 510)	0	HKD3	150Prime Daily (

< Back **Finish** Cancel Help

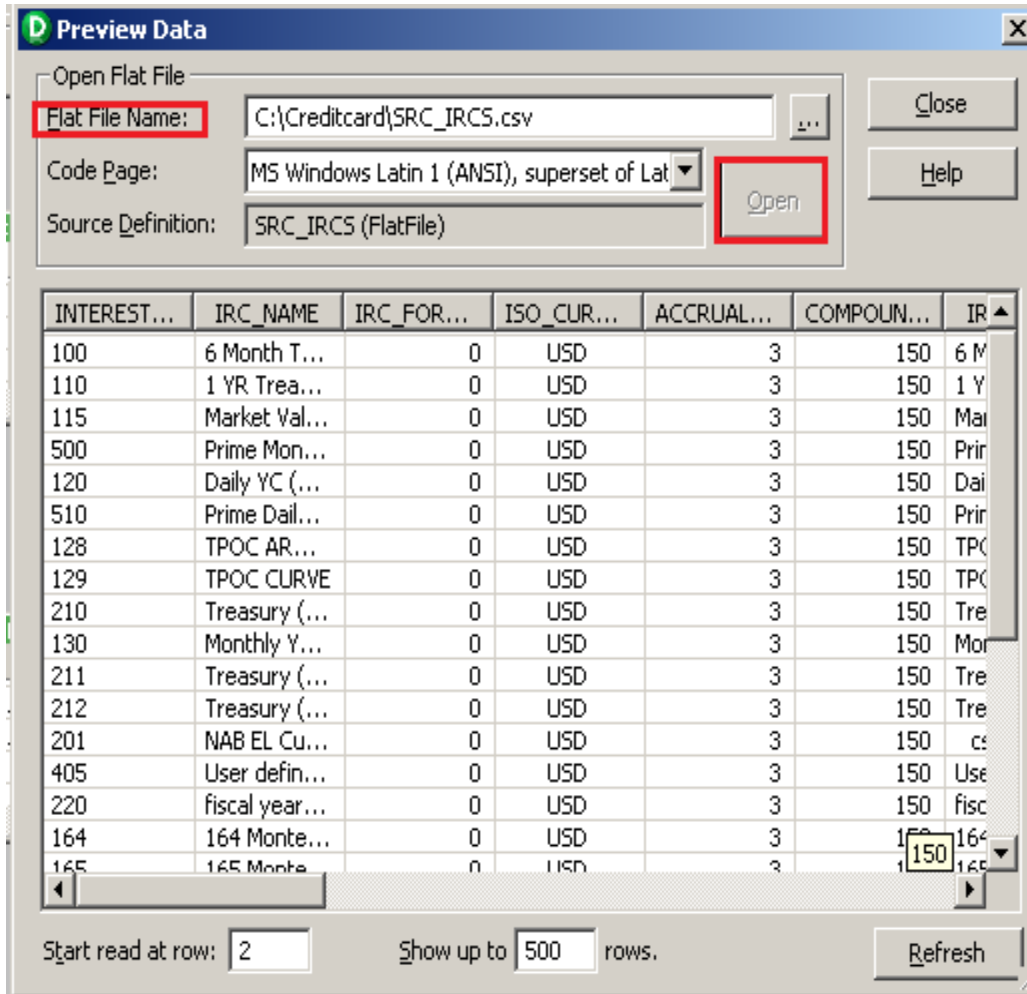
Step-11 This is Source table.



Step-12 Now right click on table to see Preview Data.

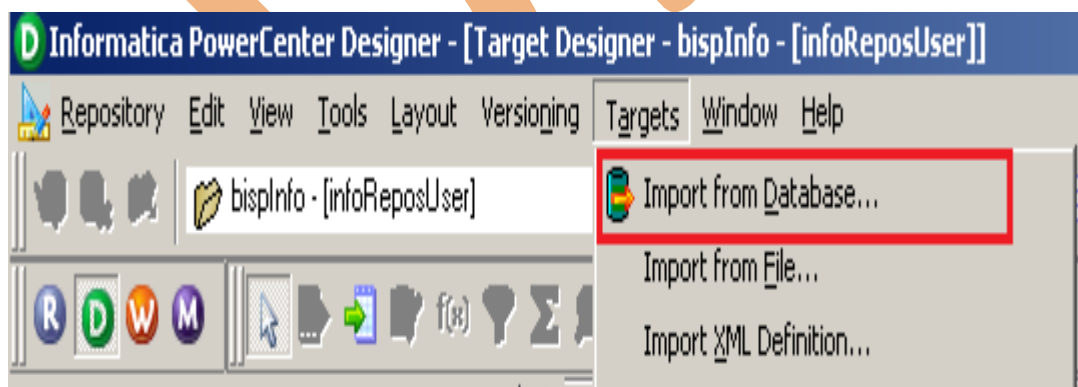


Step-13 Select Flatfile Location and open it.

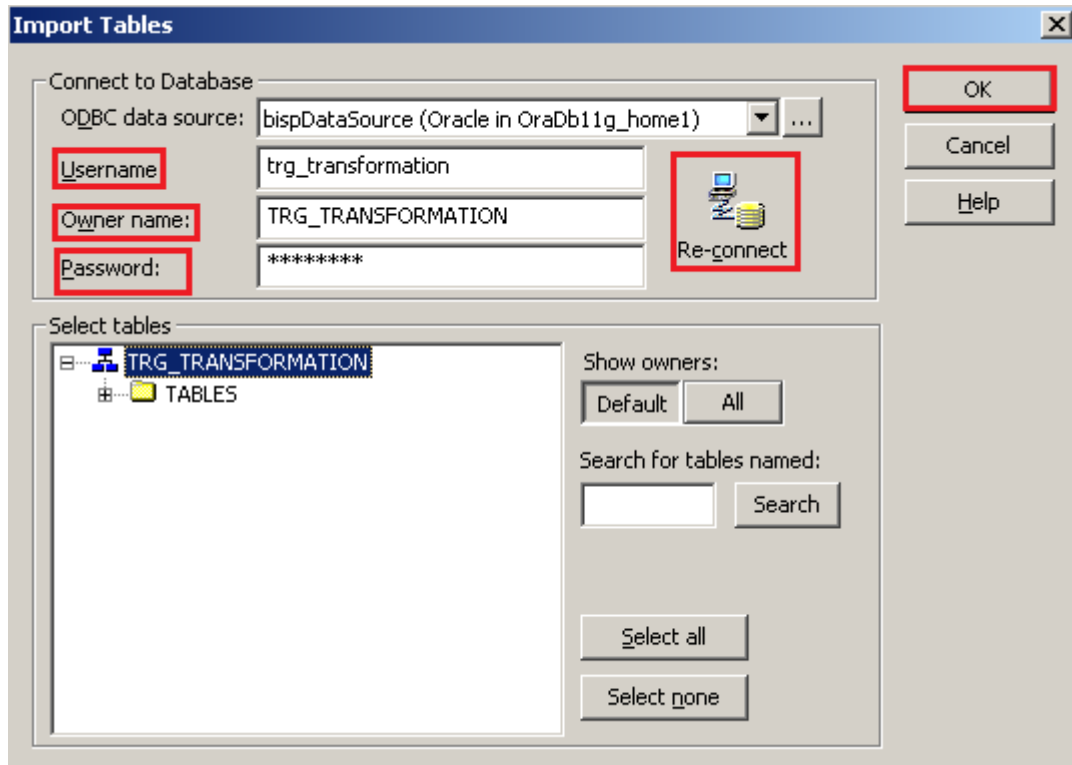


Step-14 Now click on Target Designer.

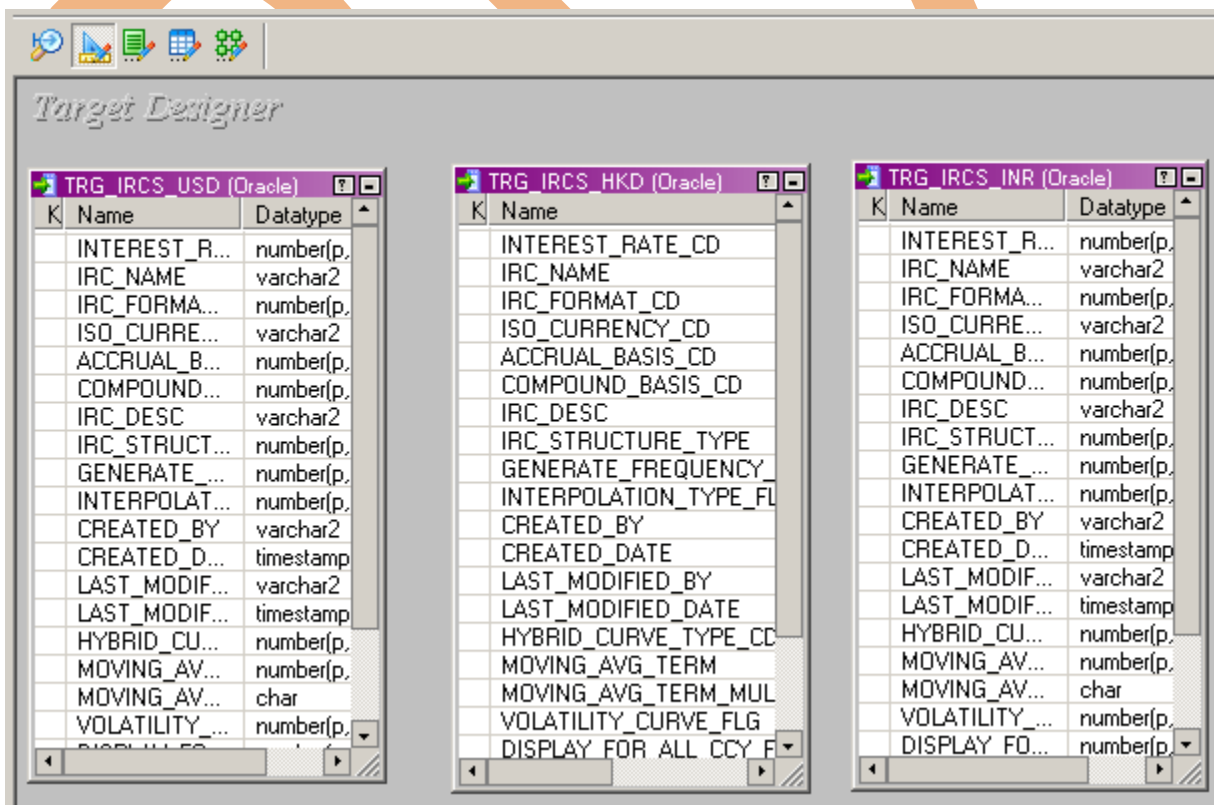
Step-15 And then select Target menu and click on Import from database to import target table.



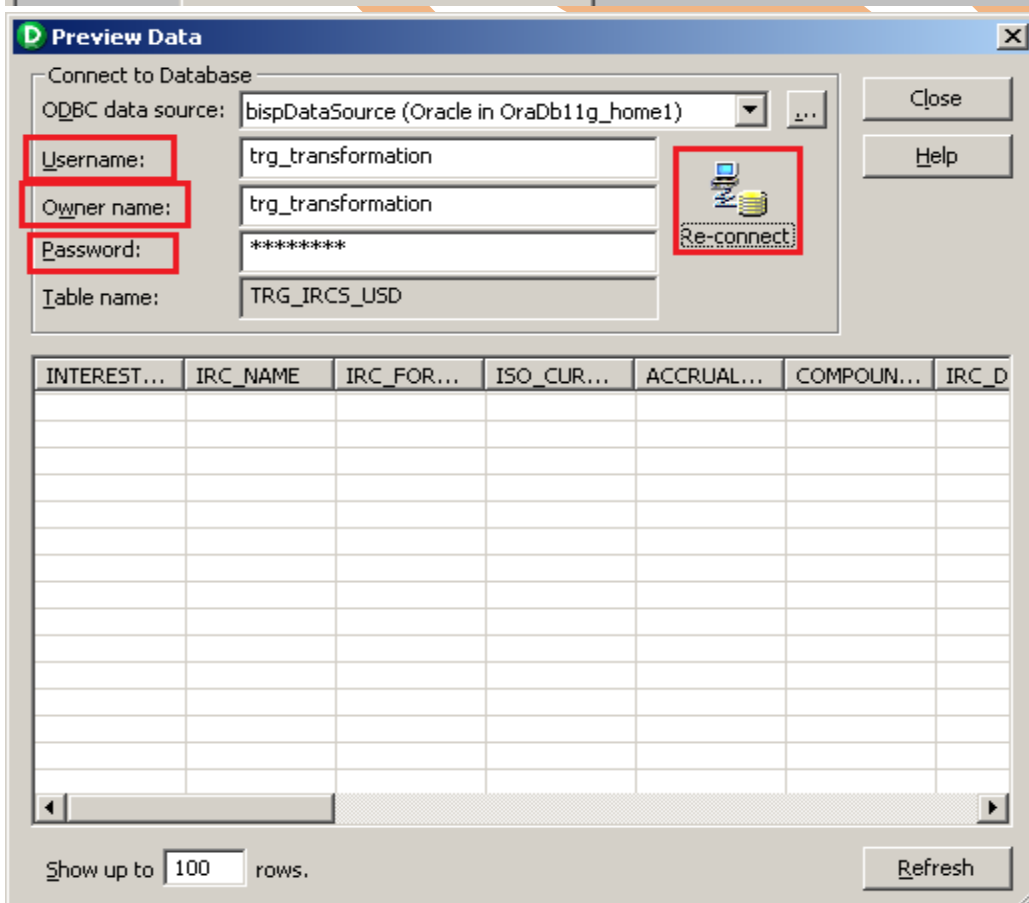
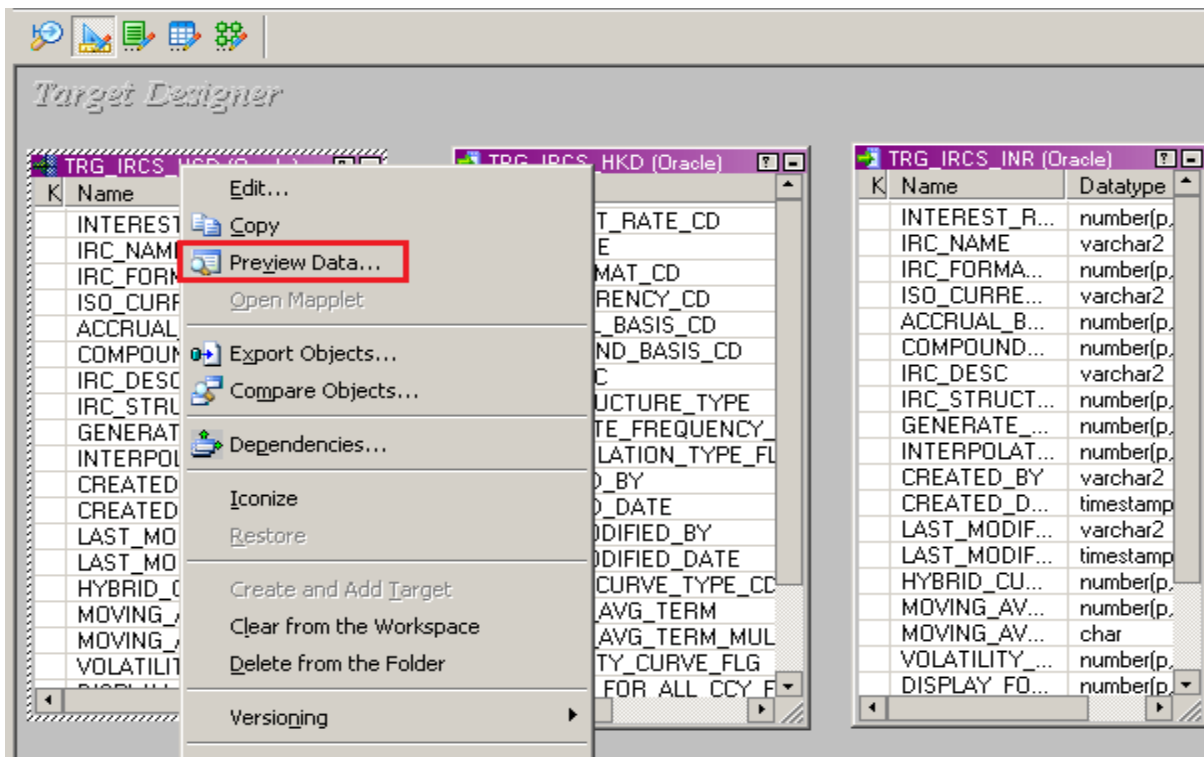
Step-16 Specify Username, Owner name, password and then click on connect and then select table and then OK.



Step-17 Target table in Target Designer.



Step-18 To Preview Data select table and Right click on that table and the specify Username and Password and then connect it. Then Close.



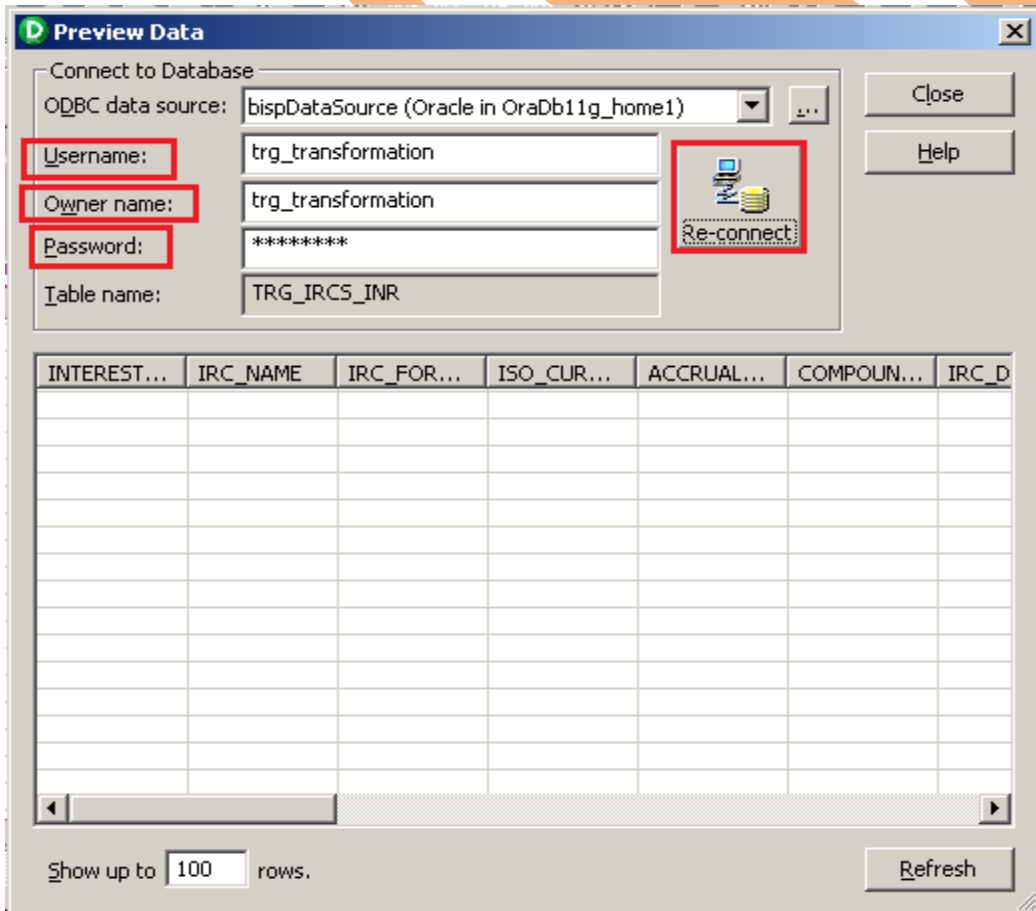
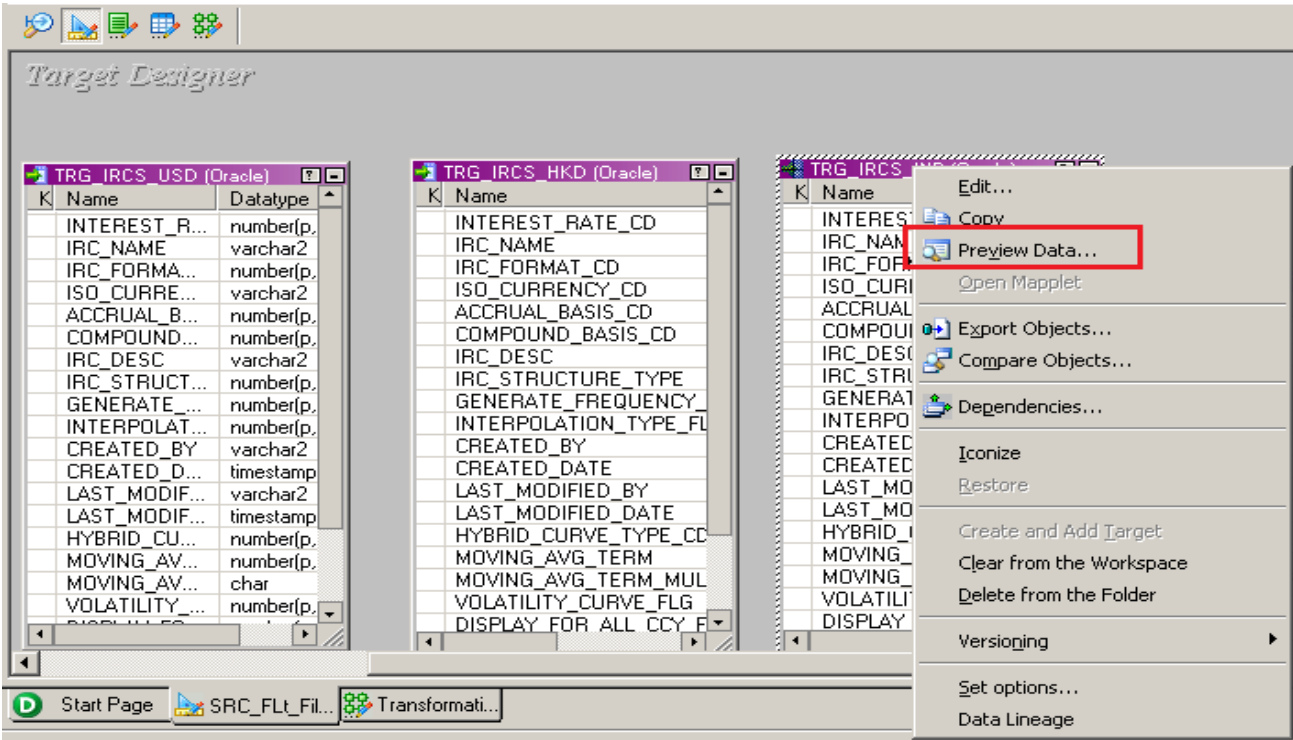
Step-19 To Preview Data, select table and Right click on that table and the specify Username and Password and then connect it. Then Close.

The screenshot shows the Target Designer interface with three table lists. The middle table list has a context menu open with 'Preview Data...' highlighted. Below it, the 'Preview Data' dialog box is shown with the following details:


- Connect to Database: ODBC data source: bispDataSource (Oracle in OraDb11g_home1)
- Username: trg_transformation
- Owner name: trg_transformation
- Password: *****
- Table name: TRG_IRCS_HKD

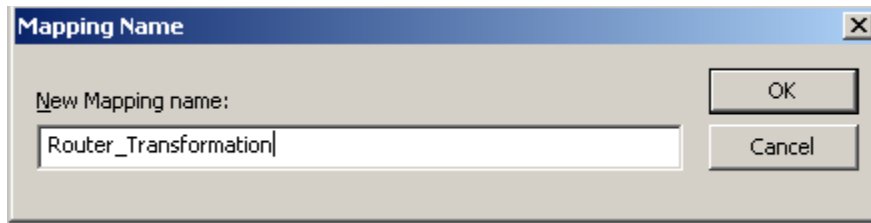
The dialog also features a 'Re-connect' button and a data grid with columns: INTEREST..., IRC_NAME, IRC_FOR..., ISO_CUR..., ACCRUAL..., COMPOUN..., IRC_D. At the bottom, it shows 'Show up to 100 rows.' and a 'Refresh' button.

Step-20 To Preview Data, select table and Right click on that table and the specify Username and Password and then connect it. Then Close.

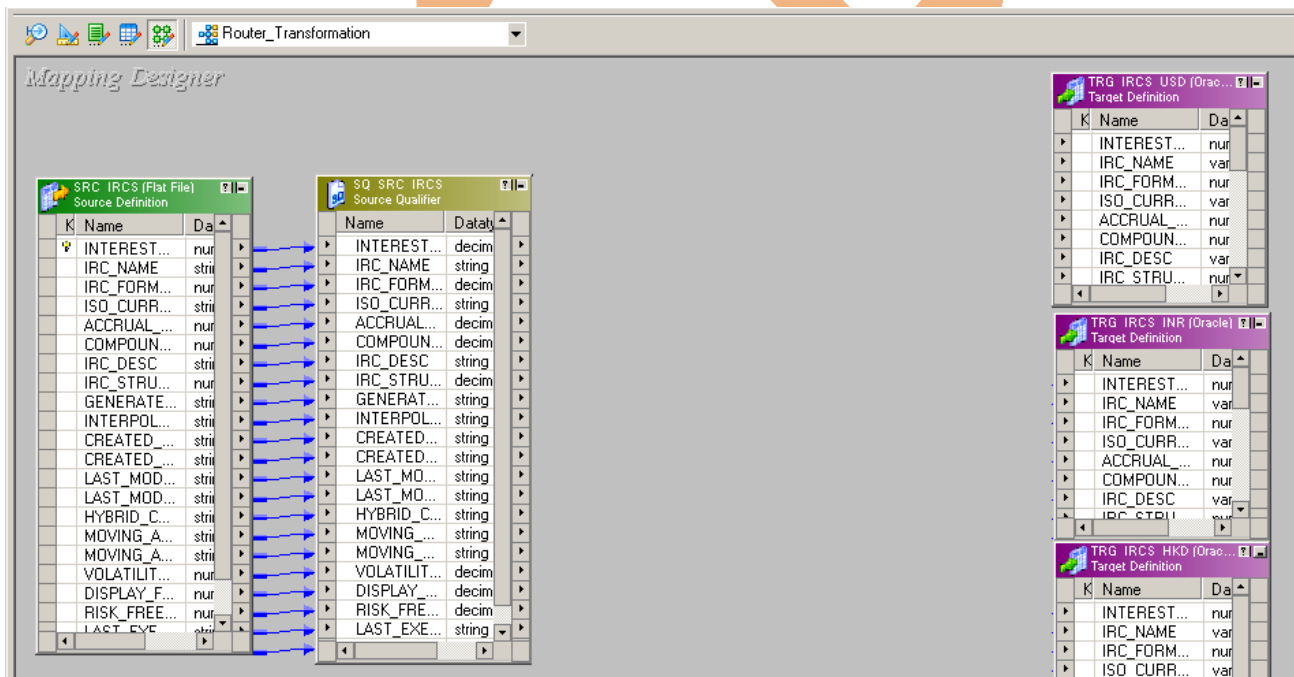


CREATE MAPPING

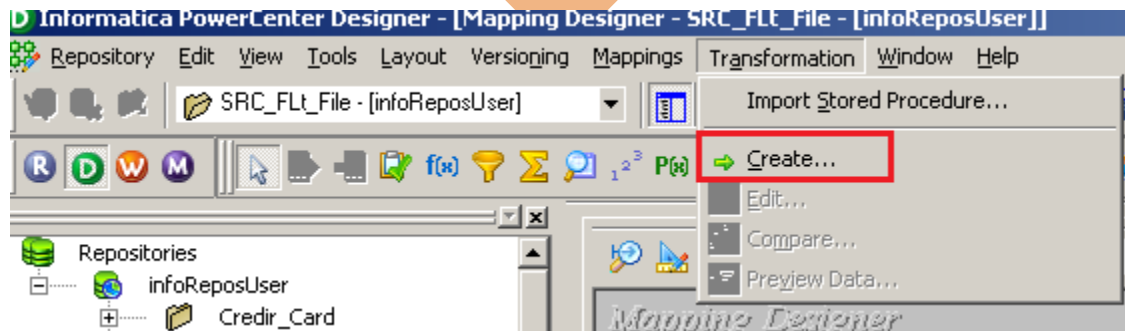
Step-1 Go to Mapping Designer  and Create New Mapping and then name of mapping and click OK.



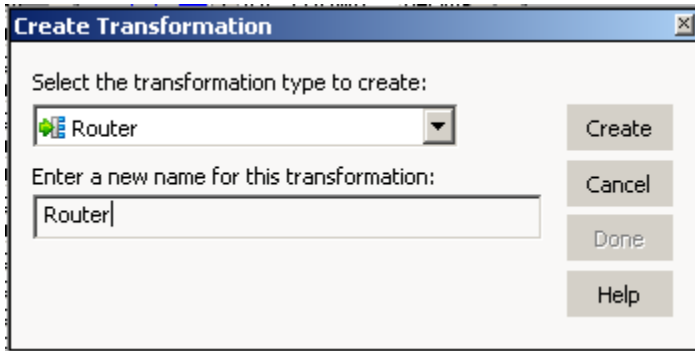
Step-2 Then drag and drop source and target data in Mapping Designer.



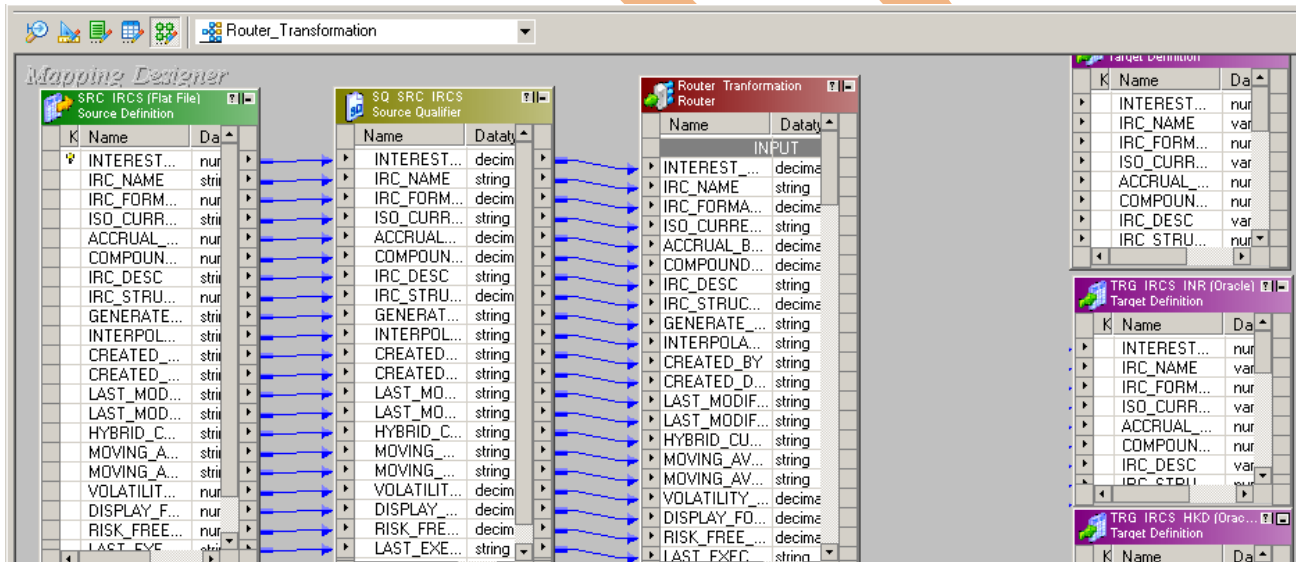
Step-3 Now, Create Transformation, Click on Transformation menu and select Create.



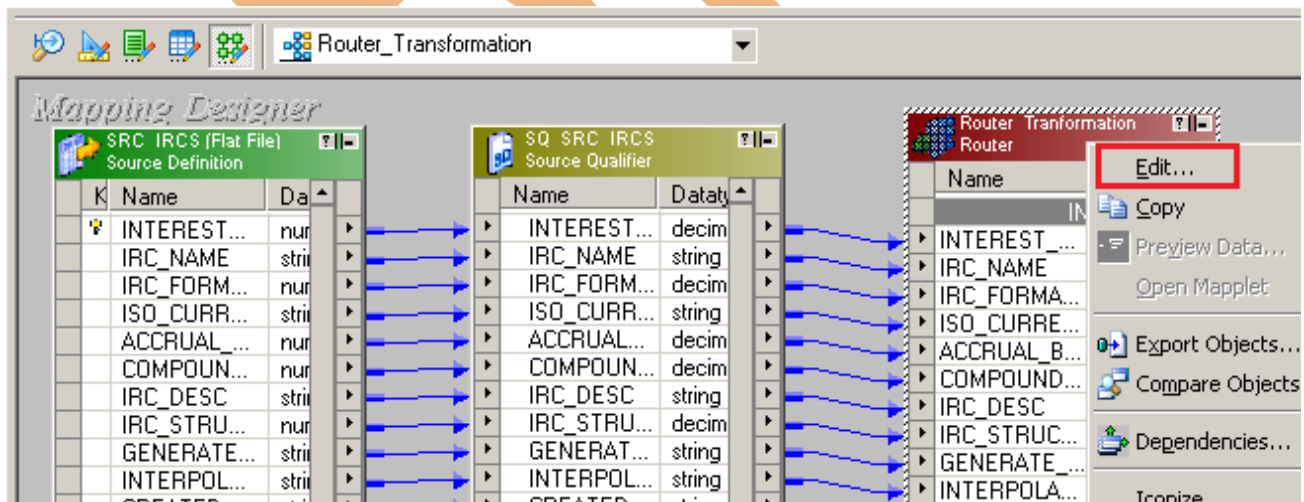
Step-4 Select Transformation and name of transformation.



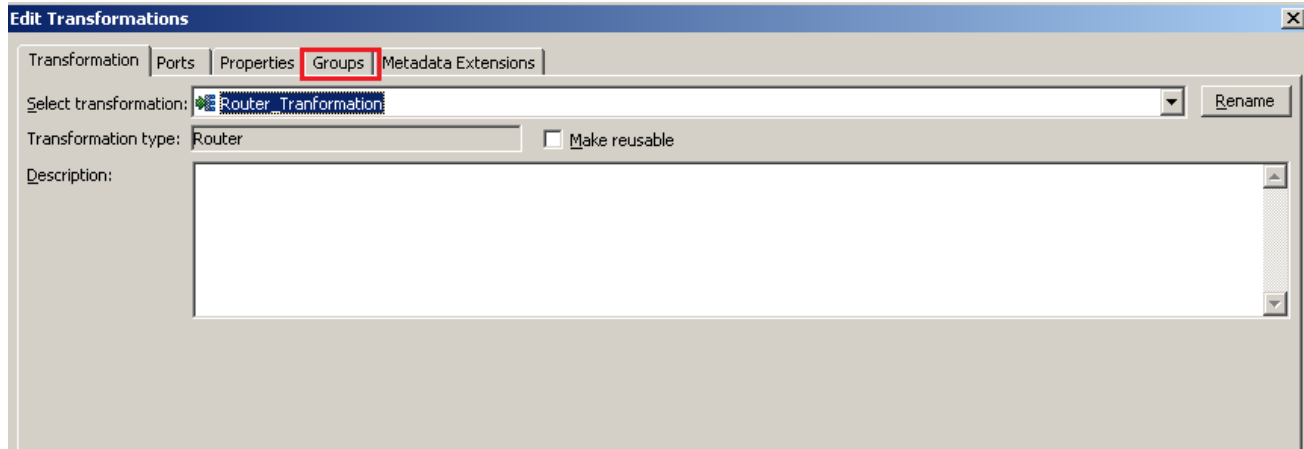
Step-5 Then drop all column from SQ_SRC_IRCS Table to Router Transformation table.



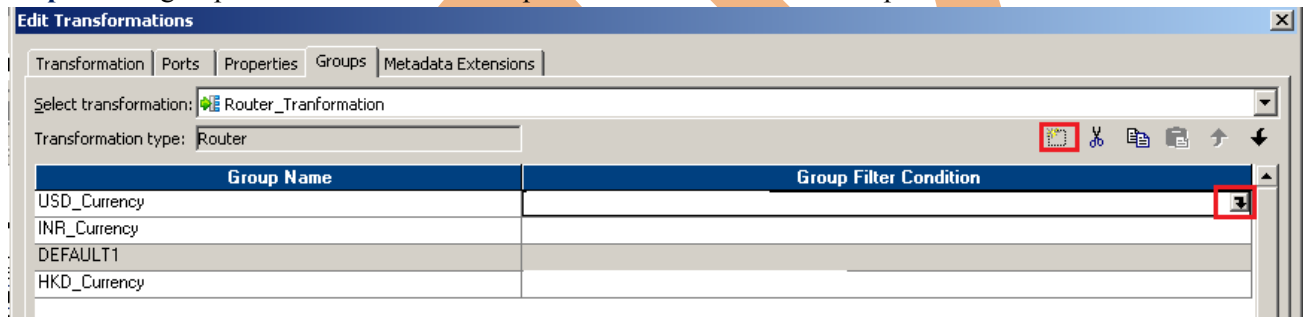
Step-6 Now, Right click on Router Transformation and select Edit.



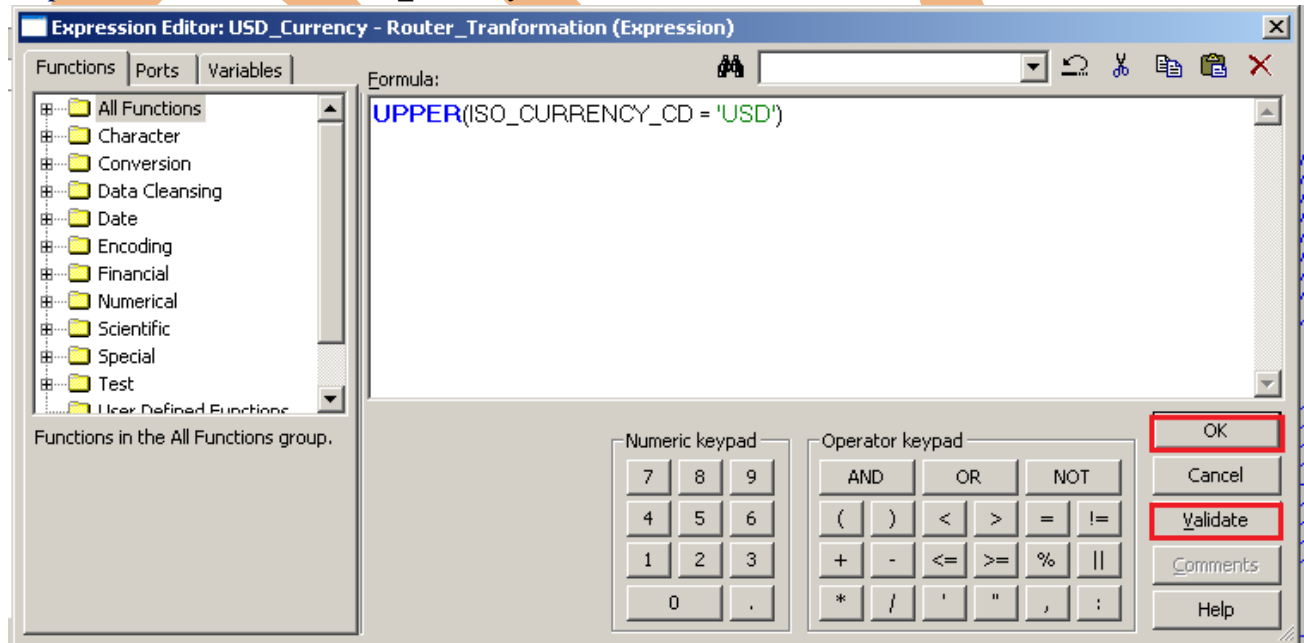
Step-7 Go to Groups tab.

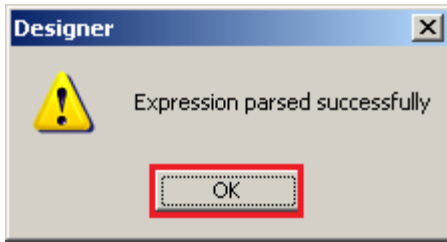


Step-8 Add group and Insert name of Group and Write Condition in Group Filter Condition.

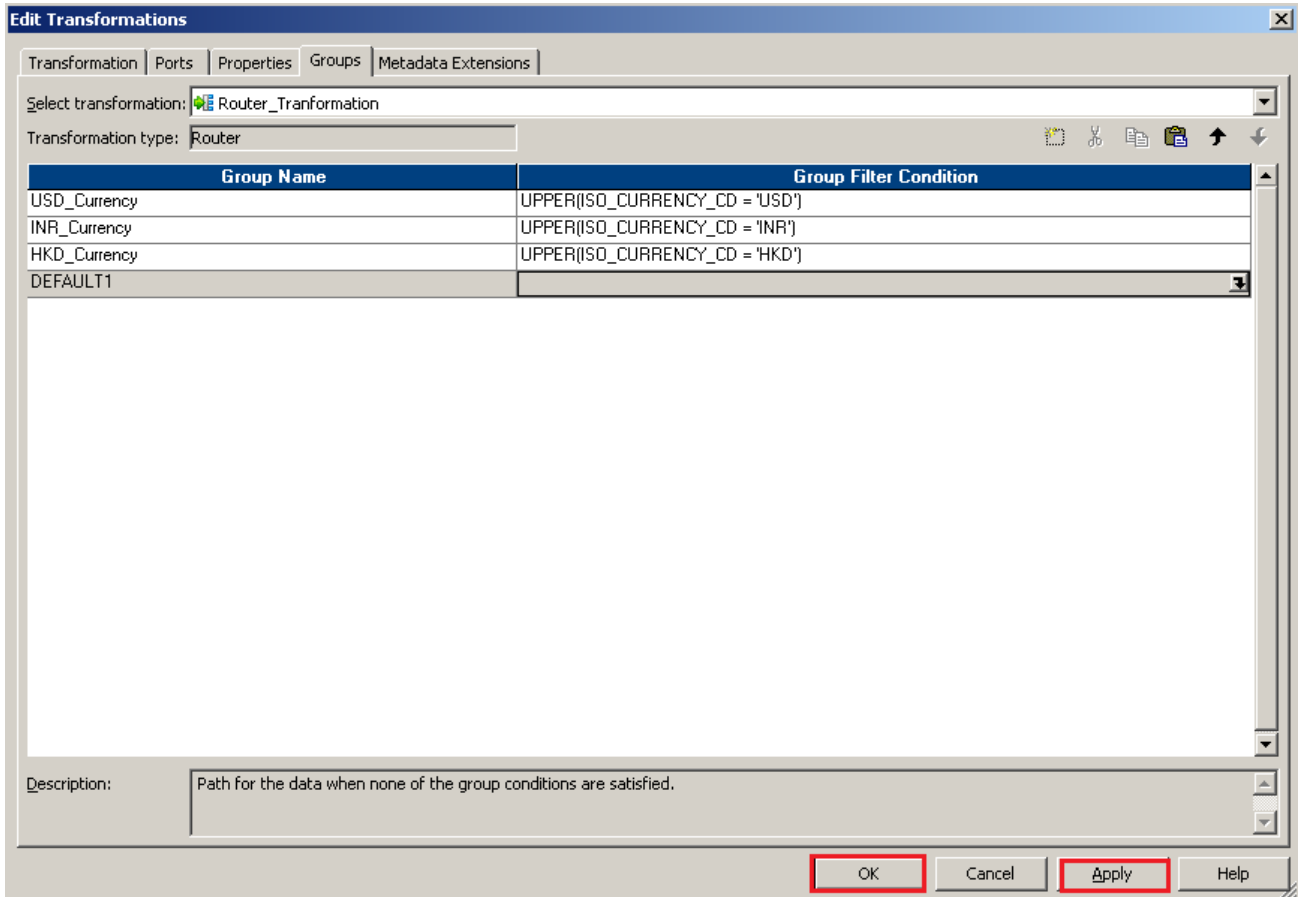


Step-9 Filter Condition for USD_Currency and Validate it.





Step-10 Write all Group filter condition and click on Apply and OK.



Step-11 Then Create Mapping.

The screenshot shows the 'Mapping Designer' window for a 'Router_Transformation' process. It features three main panels:

- SRC_IRCS (Flat File) Source Definition:** A table with columns 'Name' and 'Data'. Fields include INTEREST..., IRC_NAME..., IRC_FORM..., ISO_CURR..., ACCRUAL..., COMPOUN..., IRC_DESC, IRC_STRU..., GENERATE..., INTERPOL..., CREATED..., LAST_MOD..., LAST_EXE..., HYBRID_C..., MOVING_A..., VOLATILIT..., RISK_FRE..., and LAST_EXE...
- SQ_SRC_IRCS Source Qualifier:** A table with columns 'Name' and 'Data'. Fields mirror the source table, such as INTEREST..., IRC_NAME..., IRC_FORM..., ISO_CURR..., ACCRUAL..., COMPOUN..., IRC_DESC, IRC_STRU..., GENERATE..., INTERPOL..., CREATED..., LAST_MOD..., LAST_EXE..., HYBRID_C..., MOVING_A..., VOLATILIT..., RISK_FRE..., and LAST_EXE...
- Router Transformation Router:** A central component with a 'Name' and 'Data' column. It lists fields from both source tables, including a section for 'USD Currency' (INTEREST..., IRC_NAME1, IRC_FORMA..., ISO_CURR..., ACCRUAL_B..., COMPOUN..., IRC_DESC1, IRC_STRUC..., GENERATE..., INTERPOLA..., CREATED_B..., and CREATED.D).
- Target Definitions:** Three tables on the right:
 - TRG_IRCS_USD (Oracle):** Fields include INTEREST..., IRC_NAME, IRC_FORM..., ISO_CURR..., ACCRUAL..., COMPOUN..., IRC_DESC, and IRC_STRU...
 - TRG_IRCS_INR (Oracle):** Fields include INTEREST..., IRC_NAME, IRC_FORM..., ISO_CURR..., ACCRUAL..., COMPOUN..., IRC_DESC, and IRC_STRU...
 - TRG_IRCS_HKD (Oracle):** Fields include INTEREST..., IRC_NAME, IRC_FORM..., ISO_CURR..., ACCRUAL..., COMPOUN..., IRC_DESC, and IRC_STRU...

Blue arrows show the flow of data from the source tables through the Router Transformation to the three target tables.

Step-12 Iconize view of mapping.

The screenshot shows the 'Iconize' view of the mapping in the 'Mapping Designer'. The components are represented by icons:

- SRC_IRCS (Flat File):** Represented by a flat file icon.
- SQ_SRC_IRCS:** Represented by a source qualifier icon.
- Router_Transformation:** Represented by a router icon.
- TRG_IRCS_USD (Oracle):** Represented by a target table icon.
- TRG_IRCS_HK (Oracle):** Represented by a target table icon.
- TRG_IRCS_INR (Oracle):** Represented by a target table icon.

Blue arrows indicate the data flow from SRC_IRCS to SQ_SRC_IRCS, then to Router_Transformation, and finally to the three target tables.

Step-13 Save this mapping.

11/17/2012 12:09:38 ** Saving... Repository infoReposUser, Folder SRC_FLT_File

Validating transformations of mapping Router_Transformation...

...transformation validation completed with no errors.

Validating data flow of mapping Router_Transformation...

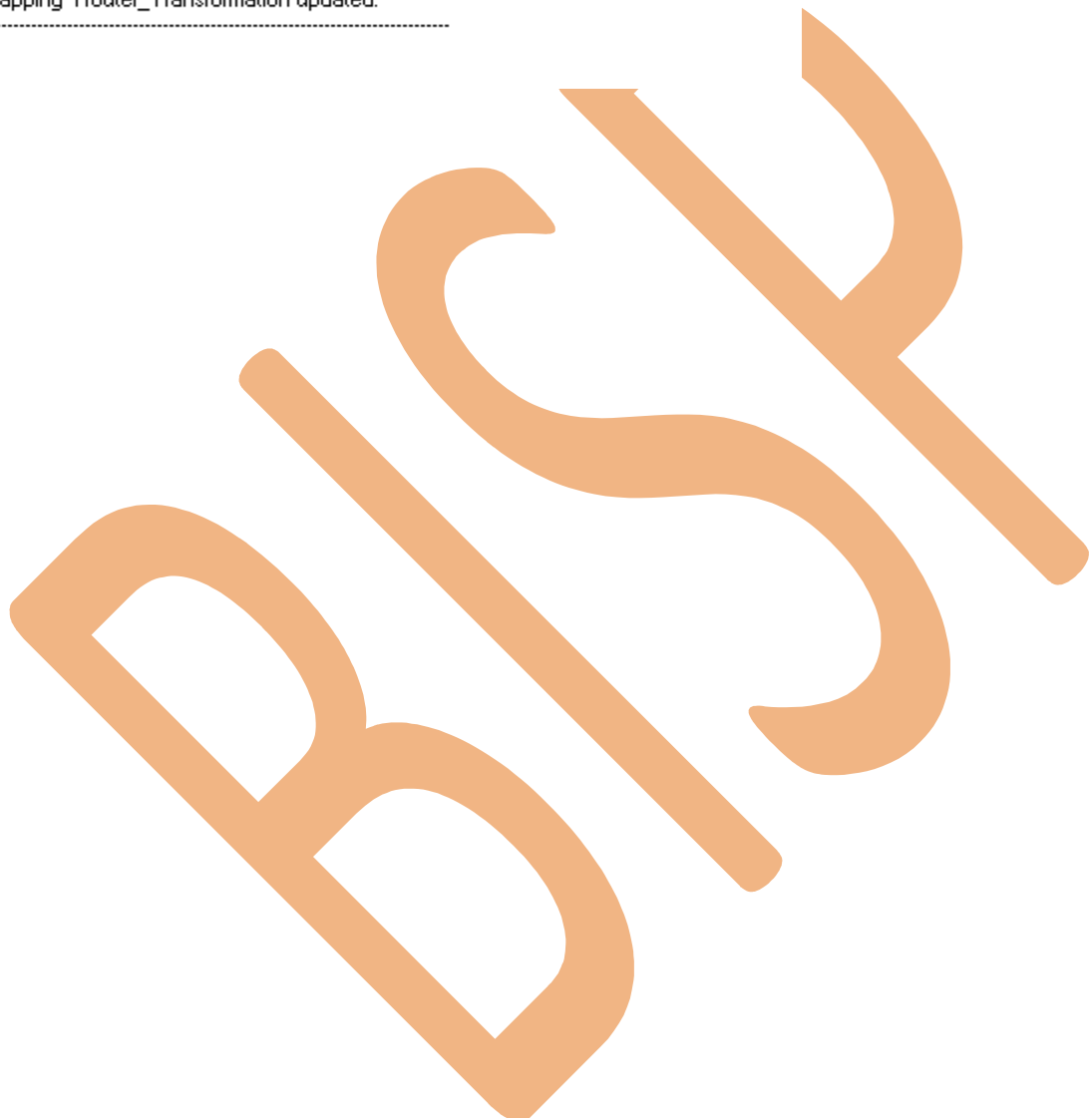
...data flow validation completed with no errors.

Parsing mapping Router_Transformation...

...parsing completed with no errors.

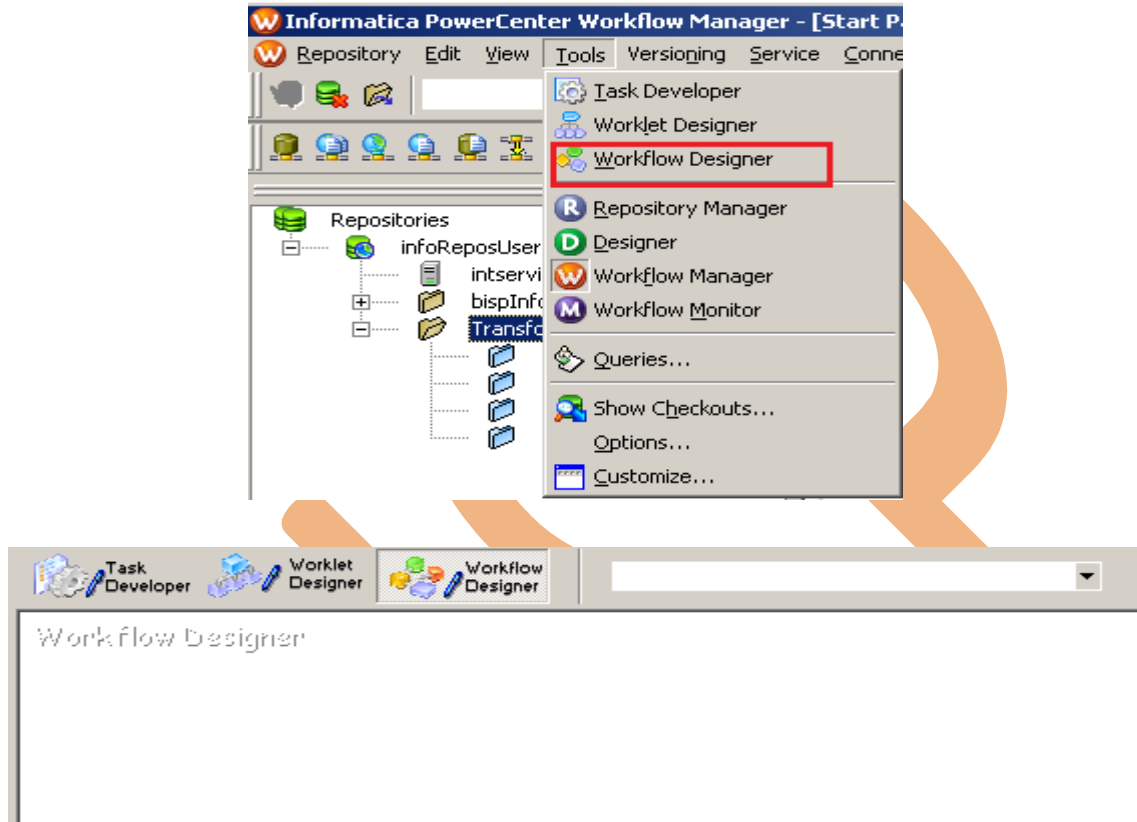
***** Mapping Router_Transformation is VALID *****

mapping Router_Transformation updated.

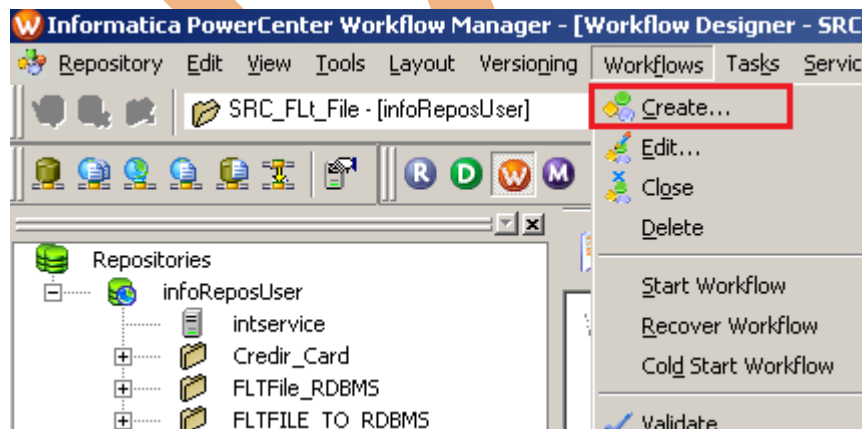


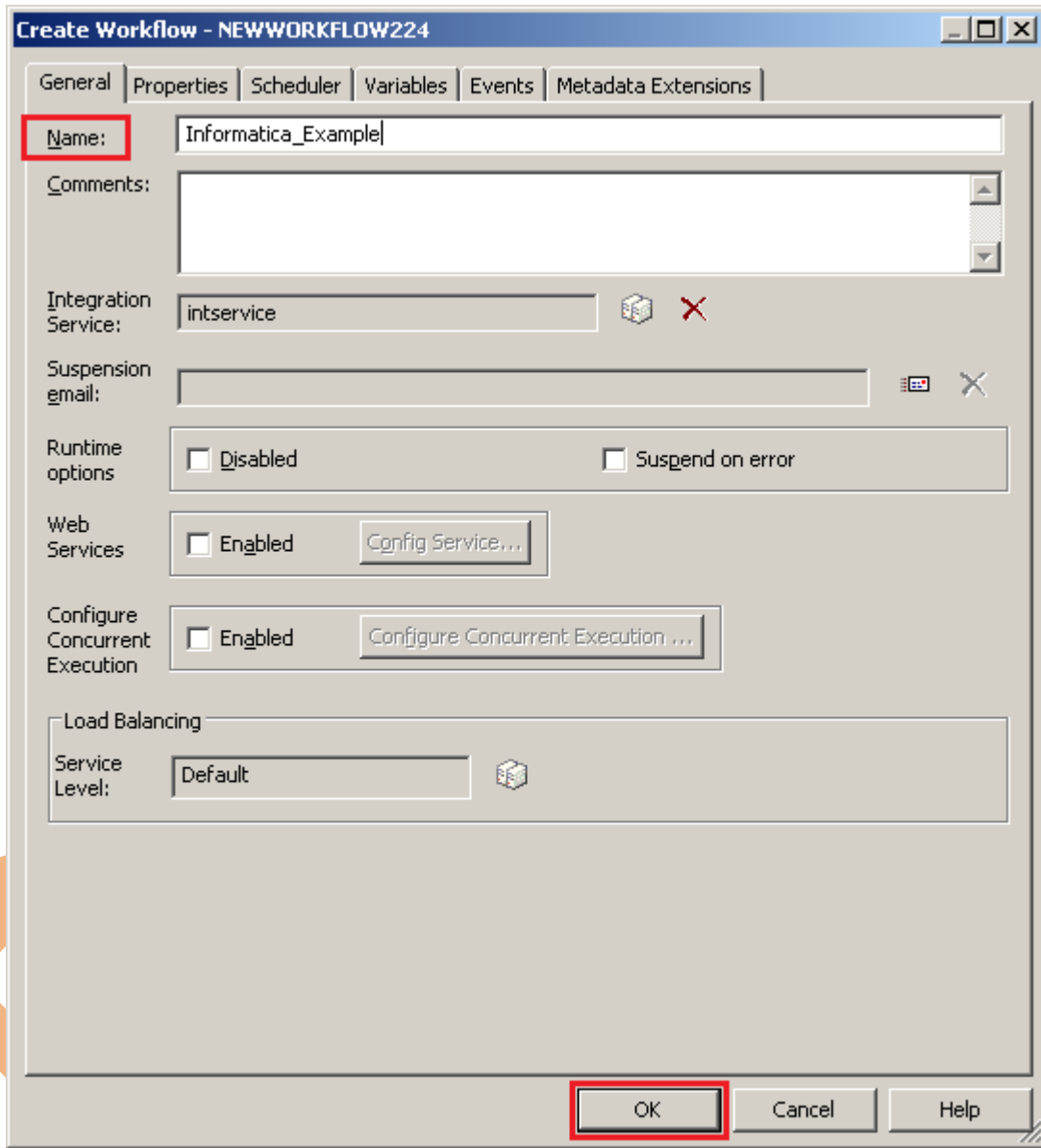
CREATE WORKFLOW

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. After that Name of workflow and click OK buttons.

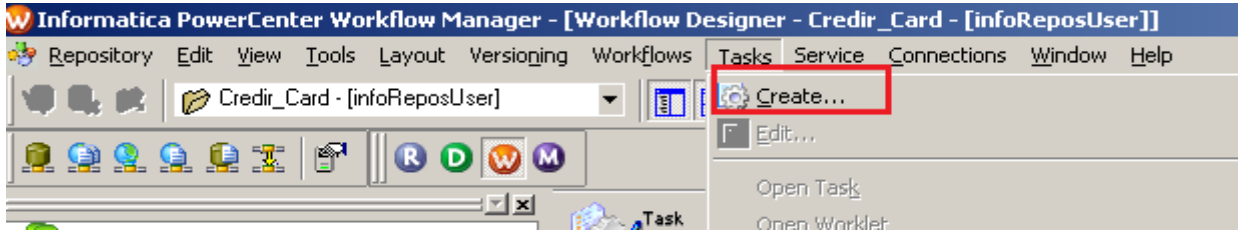




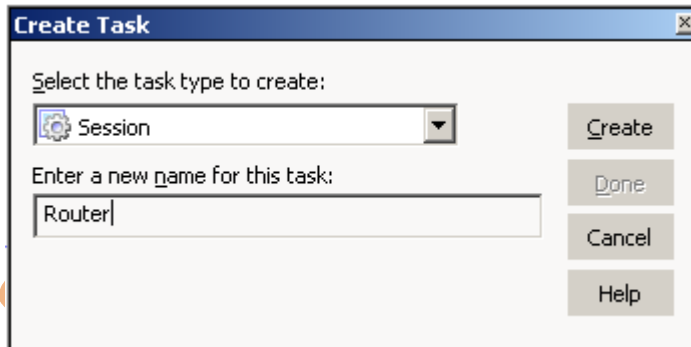
Step-3 Now, workflow created.



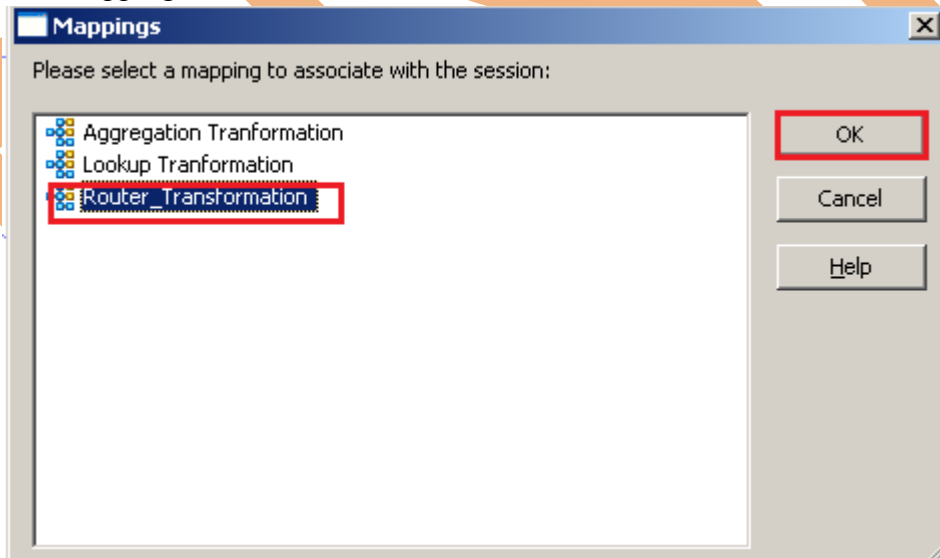
Step-4 Now create Task, Go to Tasks Menu and click Create.



Step-5 Select session and insert Name of task.



Step-6 Select Mapping to associate with the session.



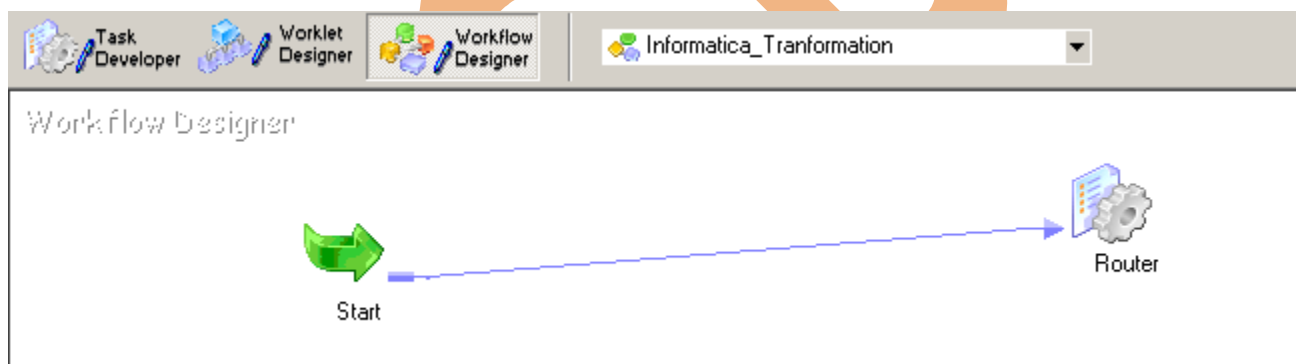
Step-7 Workflow Designer Window.



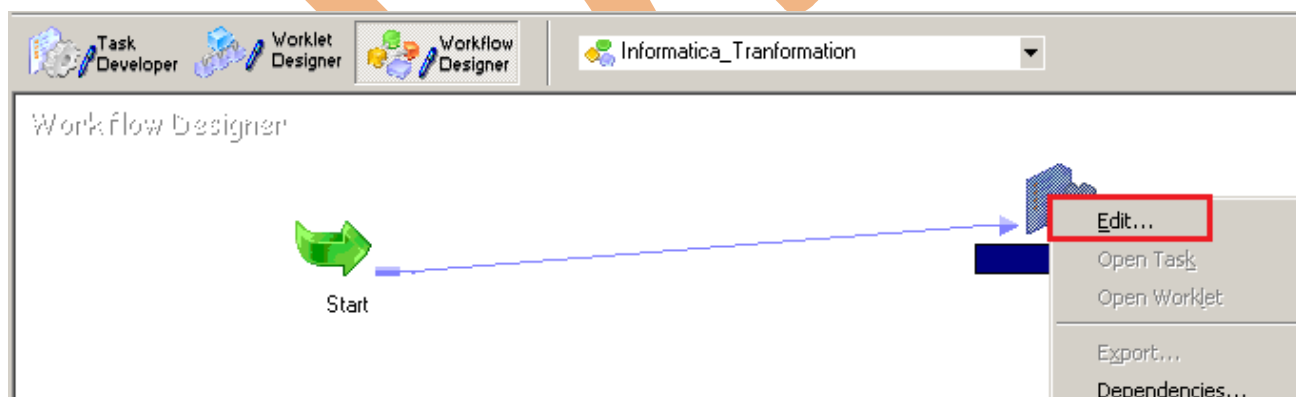
Step-8 Now create flow B/W Workflow to Task. Select Line Task and link to Start to Filter.



Step-9 Work Flow Designer Windows.



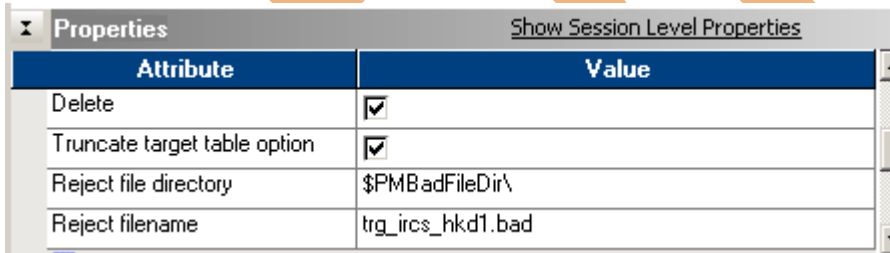
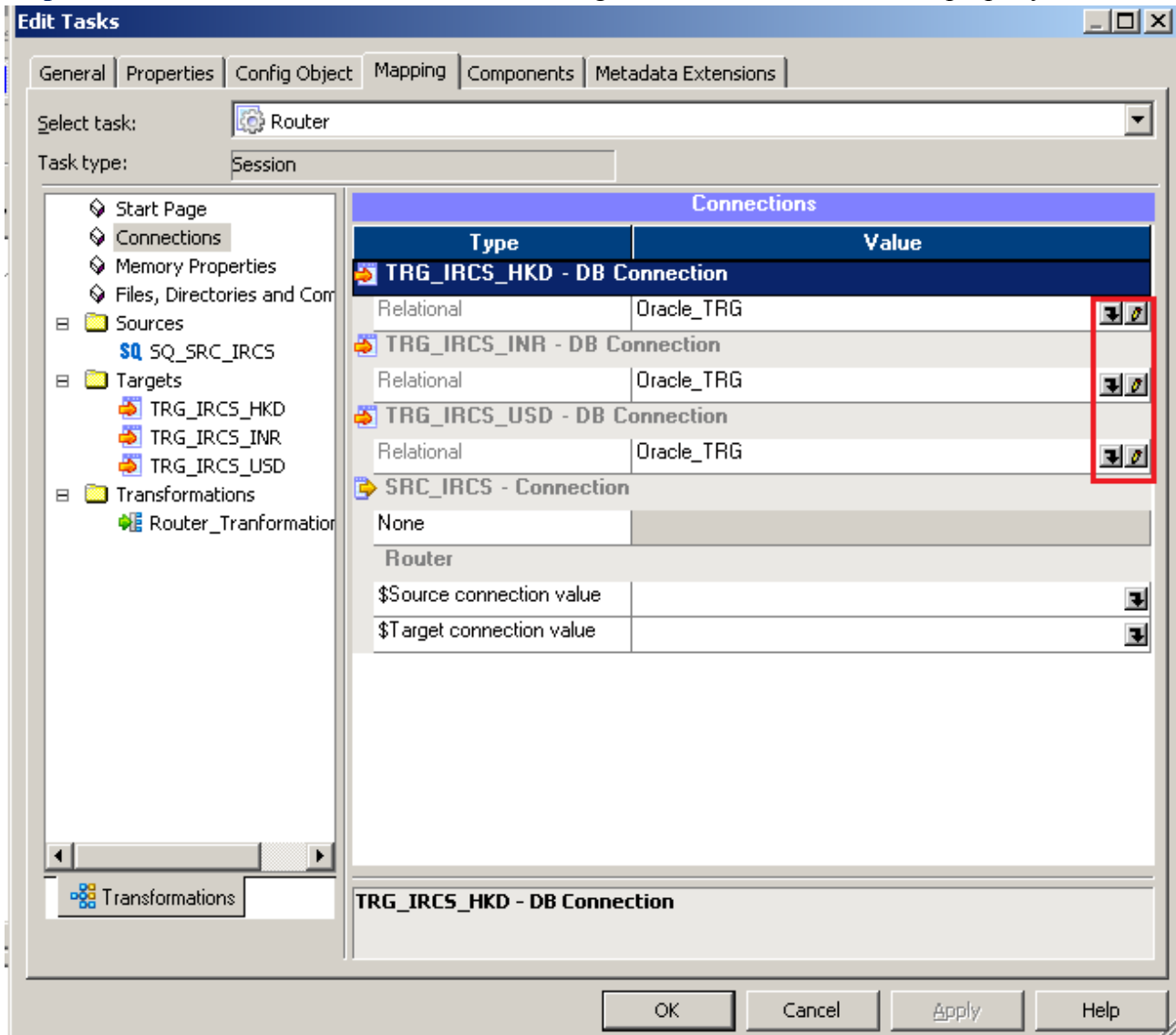
Step-10 Now Configure Connection to Target, Then Right Click on Expression and Edit, Then Click Mapping tab and configure connection for your Target table schema in oracle 11g RDBMS. And then click OK.



Step-11 Go to Mapping tab.

The screenshot shows the 'Edit Tasks' dialog box with the 'Mapping' tab selected. The 'Select task' dropdown menu is set to 'Router'. The 'Task type' is 'Session'. The 'Mapping name' is 'Router_Transformation'. The 'Resources' field is empty. The 'Treat the input links as' section has 'AND' selected. The 'Fail parent if this task fails', 'Fail parent if this task does not run', and 'Disable this task' checkboxes are all unchecked. The 'Make reusable' checkbox is also unchecked. The 'Rename' button is visible next to the 'Select task' dropdown. The 'Edit' button is visible next to the 'Resources' field. The 'OK', 'Cancel', 'Apply', and 'Help' buttons are at the bottom of the dialog box.

Step-11 Select DB Connection for Source and Target Relation Database and set property.



Step-12 Now save (ctrl+s) this workflow and check it.

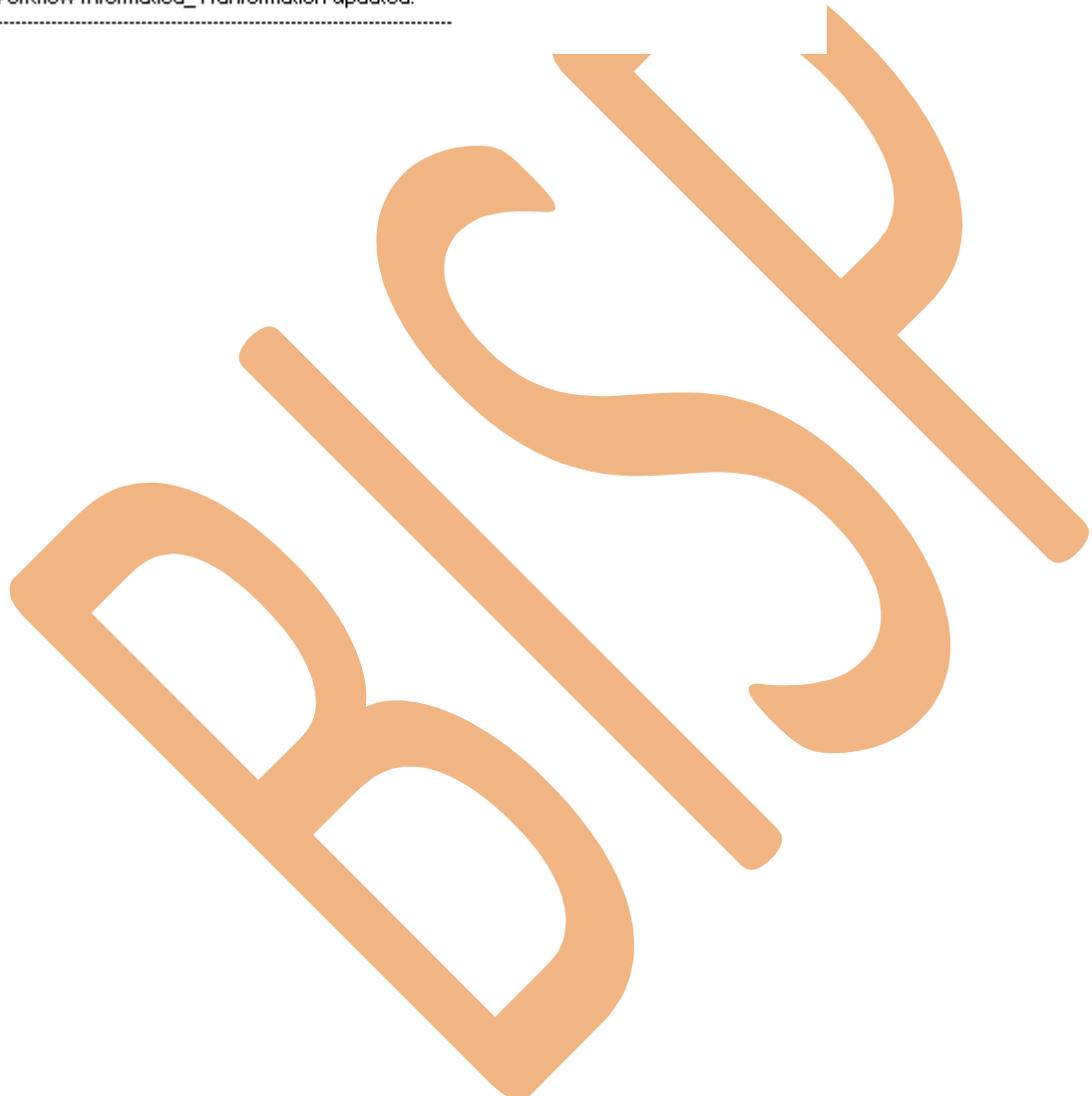
11/17/2012 12:40:15 ** Saving... Repository infoReposUser, Folder SRC_FLt_File

Validating the flow semantics of Workflow Informatica_Transformation...
...flow semantics validation completed with no errors.

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

***** Workflow Informatica_Transformation is VALID *****

Workflow Informatica_Transformation updated.



WORKFLOW MONITOR AND VIEW TARGET DATA

Step-1 Now Start Task, Right click on Task and Click on Start Task.

The screenshot shows the Informatica Workflow Designer interface. A workflow named 'Informatica_Transformation' is open. A 'Start' task is visible on the left, with a blue arrow pointing to a task on the right. A right-click context menu is open over the right task, and the 'Start Task' option is highlighted with a red rectangular box. Other options in the menu include 'Edit...', 'Open Task', 'Open Worklet', 'Export...', 'Dependencies...', 'Clear from the Workspace', 'Delete from workflow/worklet', 'View Persistent Values...', 'Refresh Mapping', 'Highlight Path', 'Validate', and 'Start Workflow From Task'.

iposUser, Folder SRC_FLT_File
 :a_Transformation...
 .
 tion...
 on completed with no errors.

Step-2 Check session in Informatica PowerCenter Workflow Monitor.

Workflow Run	Start Time	Completion Time	Status
Informatica_Transformation	11/17/2012 12:42:32 PM	11/17/2012 12:42:36 PM	Succeeded
Router	11/17/2012 12:42:32 PM	11/17/2012 12:42:34 PM	Succeeded

Step-3 Session log.

INFO	11/17/2012 12:42:34 PM	node01_mitest	WRITER_1_1	WRT_8168	End loading table [TRG_IRCS_INR] at: Sat Nov 17 12:42:34 2012
INFO	11/17/2012 12:42:34 PM	node01_mitest	WRITER_1_1	WRT_8141	Commit on end-of-data Sat Nov 17 12:42:34 2012 ===== WRT_8036 Target: TRG_IRCS_HKD (Instance Name: [TRG_IRCS_HKD]) WRT_8038 Inserted rows - Requested: 3 Applied: 3 Rejected: 0 Affected: 3 WRT_8036 Target: TRG_IRCS_INR (Instance Name: [TRG_IRCS_INR]) WRT_8038 Inserted rows - Requested: 5 Applied: 5 Rejected: 0 Affected: 5 WRT_8036 Target: TRG_IRCS_USD (Instance Name: [TRG_IRCS_USD]) WRT_8038 Inserted rows - Requested: 6 Applied: 6 Rejected: 0 Affected: 6
INFO	11/17/2012 12:42:34 PM	node01_mitest	WRITER_1_1	WRT_8168	End loading table [TRG_IRCS_USD] at: Sat Nov 17 12:42:34 2012
INFO	11/17/2012 12:42:34 PM	node01_mitest	WRITER_1_1	WRT_8035	Load complete time: Sat Nov 17 12:42:34 2012 LOAD SUMMARY ===== WRT_8036 Target: TRG_IRCS_HKD (Instance Name: [TRG_IRCS_HKD]) WRT_8038 Inserted rows - Requested: 3 Applied: 3 Rejected: 0 Affected: 3 WRT_8036 Target: TRG_IRCS_INR (Instance Name: [TRG_IRCS_INR]) WRT_8038 Inserted rows - Requested: 5 Applied: 5 Rejected: 0 Affected: 5 WRT_8036 Target: TRG_IRCS_USD (Instance Name: [TRG_IRCS_USD]) WRT_8038 Inserted rows - Requested: 6 Applied: 6 Rejected: 0 Affected: 6
INFO	11/17/2012 12:42:34	node01_mitest	WRITER_1_1	WRT_8043	*****END LOAD SESSION*****

Step-4 Now view data in Target RDBMS (Oracle 11g) for table TRG_IRCS_HKD

INTEREST_RATE_CD	IRC_NAME	IRC_FORMAT_CD	ISO_CURRENCY_CD	ACCRUAL_BASIS_CD	COMPOUND_BASIS_CD	IRC_DESC	IRC_STRUCTURE_TYPE	GENERATE_FREQUENCY_FLG	INTERP
1	500 Prime Mo...		0 HKD		3	150 Prime M...		1	(null)
2	510 Prime Dai...		0 HKD		3	150 Prime Da...		1	(null)
3	220 fiscal ye...		0 HKD		3	150 fiscal ye...		1	(null)

Step-5 Now view data in Target RDBMS (Oracle 11g) for table TRG_IRCS_INR

INTEREST_RATE_CD	IRC_NAME	IRC_FORMAT_CD	ISO_CURRENCY_CD	ACCRUAL_BASIS_CD	COMPOUND_BASIS_CD	IRC_DESC	IRC_STRUCTURE_TYPE	GENERATE_FREQUENCY_FLG	INTERP
1	120 Daily YC ...		0 INR		3	150 Daily YC ...		1	(null)
2	130 Monthly ...		0 INR		3	150 Monthly ...		1	(null)
3	164 164 Mon...		0 INR		3	150 164 Mon...		1	(null)
4	166 166 Mon...		0 INR		3	150 166 Mon...		1	(null)
5	168 168 Mon...		0 INR		3	150 168 Mon...		1	(null)

Step-6 Now view data in Target RDBMS (Oracle 11g) for table TRG_IRC_USD

INTEREST_RATE_CD	IRC_NAME	IRC_FORMAT_CD	ISO_CURRENCY_CD	ACCRUAL_BASIS_CD	COMPOUND_BASIS_CD	IRC_DESC	IRC_STRUCTURE_TYPE	GENERATE_FREQUENCY_FLG	INTERP
1	100 6 Month ...		0 USD		3	150 6 Month ...		1	(null)
2	212 Treasury...		0 USD		3	150 Treasur...		1	(null)
3	405 User defi...		0 USD		3	150 User def...		1	(null)
4	165 165 Mon...		0 USD		3	150 165 Mon...		1	(null)
5	219 Hull and ...		0 USD		3	150 Hull and ...		1	(null)
6	200 TREASU...		1 USD		3	150 TREASU...		1	(null)