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## **Informatica Power Center 9.0.1**

### **Building Financial Data Mode - Lab#13**

### **Hands-on Guide on Lookup Transformation**

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#### **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 Lookup Transformation. [Join our professional training program and learn from experts.](#)

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#### **History:**

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<b>Version</b>	<b>Description Change</b>	<b>Author</b>	<b>Publish Date</b>
<b>0.1</b>	<b>Initial Draft</b>	<b>Upendra Upadhyay</b>	<b>10/01/2011</b>
<b>0.1</b>	<b>Review#1</b>	<b>Amit Sharma</b>	<b>11/01/2011</b>

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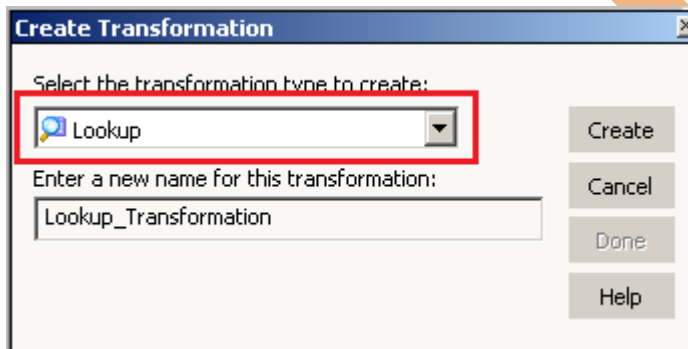
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# Introduction

## Lookup Transformation in Informatica.

Lookup transformation is used to look up data in a flat file, relational table, view or synonym. Lookup is a passive/active transformation and can be used in both connected/unconnected modes. From Informatica version 9 onwards lookup is an active transformation. The lookup transformation can return a single row or multiple rows.

## Lookup Transformation.



## Description :

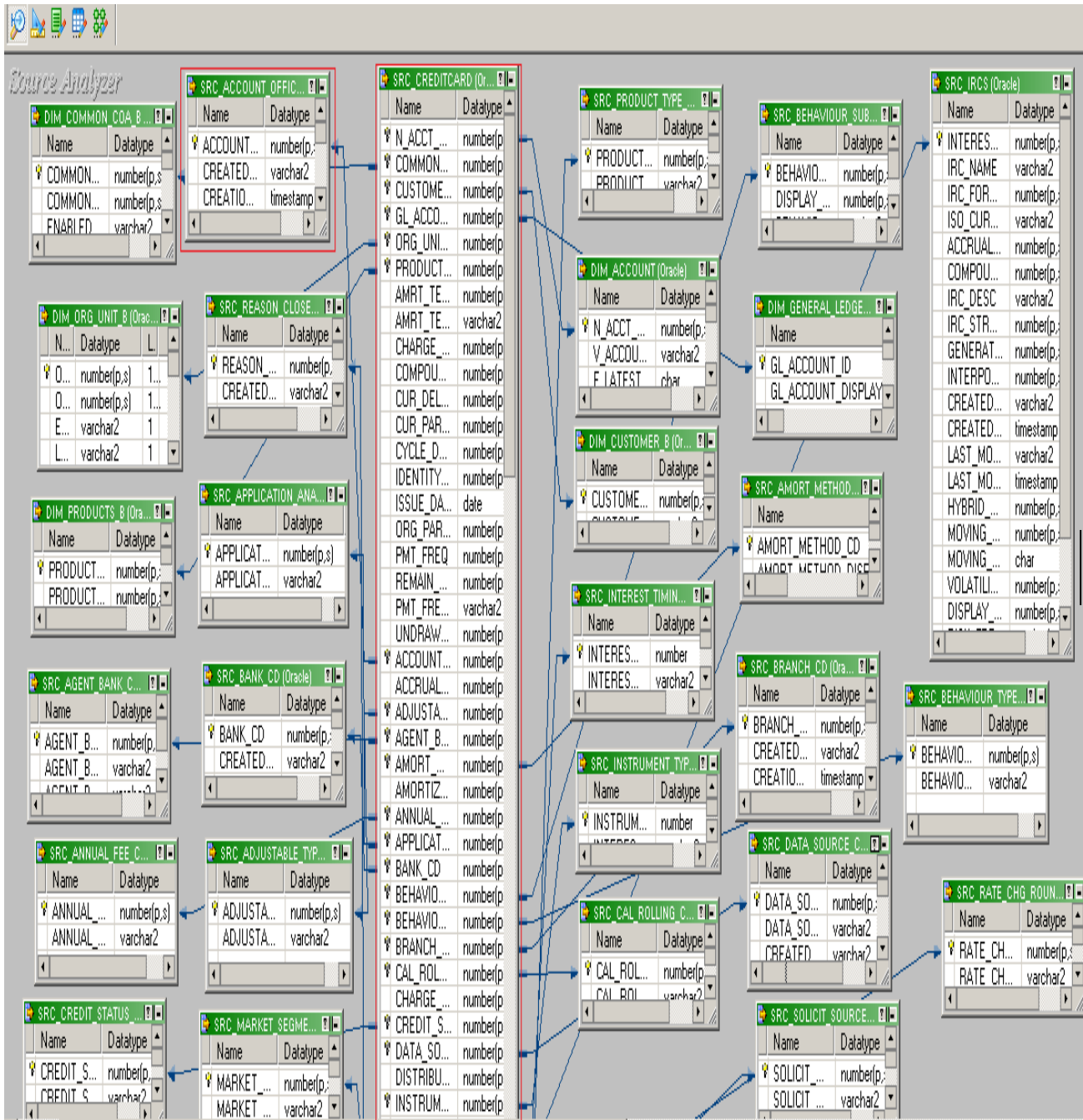
Source Table Name - SRC\_CREDITCARD

Lookup Table Name - SRC\_ACCOUNT\_OFFICER\_CD [Account Officer CD]

Target Table Name - TRG\_CREDITCARD\_EXAMPLE

In this example, account\_officer\_cd the data from source table SRC\_CREDITCARD goes to target table TRG\_CREDITCARD\_EXAMPLE provided that there is a corresponding records available in SRC\_ACCOUNT\_OFFICER\_CD table.

# Source Model.



## Source Table

Source Analyzer

Name	Datatype
N_ACCT_SKEY	number(p,s)
COMMON_CO...	number(p,s)
CUSTOMER_ID	number(p,s)
GL_ACCOUNT...	number(p,s)
ORG_UNIT_ID	number(p,s)
PRODUCT_ID	number(p,s)
AMRT_TERM	number(p,s)
AMRT_TERM...	varchar2
CHARGE_OFF...	number(p,s)
COMPOUND_...	number(p,s)
CUR_DELQ_B...	number(p,s)
CUR_PAR_BAL	number(p,s)
CYCLE_DAY_...	number(p,s)
IDENTITY_CO...	number(p,s)
ISSUE_DATE	date
ORG_PAR_BAL	number(p,s)
PMT_FREQ	number(p,s)
REMAIN_NO_...	number(p,s)
PMT_FREQ_...	varchar2
UNDRAWN_A...	number(p,s)
ACCOUNT_O...	number(p,s)
ACCRUAL_BA...	number(p,s)
ADJUSTABLE...	number(p,s)
AGENT_BAN...	number(p,s)
AMORT_MET...	number(p,s)
AMORTIZATI...	number(p,s)
ANNUAL_FEE...	number(p,s)
APPLICATION...	number(p,s)
BANK_CD	number(p,s)
BEHAVIOUR_...	number(p,s)
BEHAVIOUR	number(p,s)

## Lookup Table

Source Analyzer

Name	Datatype
ACCOUNT_O	number(p,s)
CREATED_BY	varchar2
CREATION_D...	timestamp
DEFINITION_...	varchar2
ENABLED_FL...	varchar2
LAST_MODIFI...	varchar2
LAST_MODIFI...	timestamp
LEAF_ONLY_...	varchar2
ACCOUNT_O...	varchar2

## Target Table

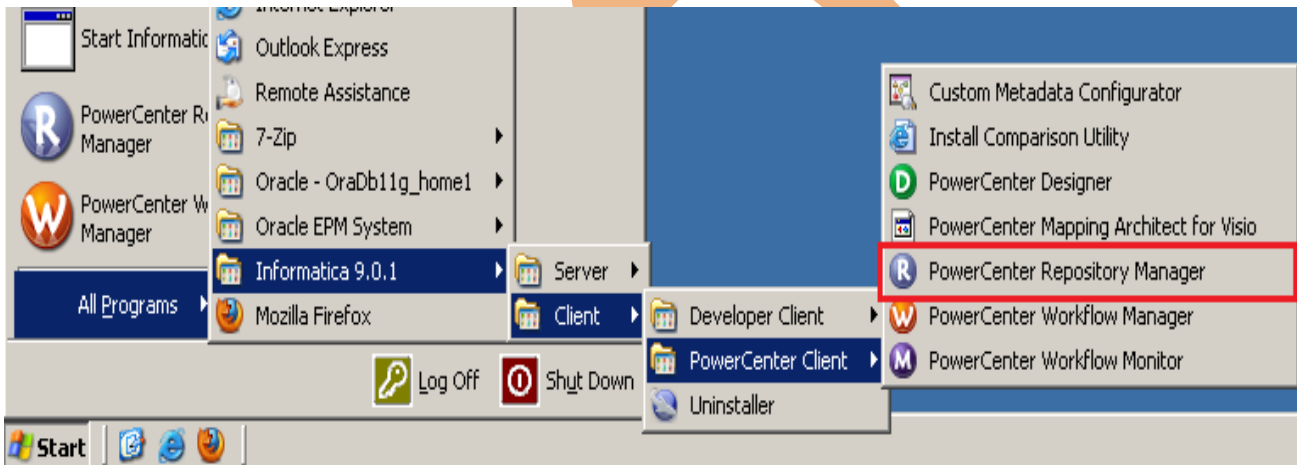
TRG\_CREDITCARD\_EXAM...

K.	Name	Datatype
	N_ACCT_SKEY	number(p,s)
	COMMON_COA...	number(p,s)
	CUSTOMER_ID	number(p,s)
	GL_ACCOUNT_...	number(p,s)
	ORG_UNIT_ID	number(p,s)
	PRODUCT_ID	number(p,s)
	AMRT_TERM	number(p,s)
	AMRT_TERM_...	varchar2
	CHARGE_OFF_...	number(p,s)
	COMPOUND_B...	number(p,s)
	CUR_DELQ_BAL	number(p,s)
	CUR_PAR_BAL	number(p,s)
	CYCLE_DAY_D...	number(p,s)
	IDENTITY_CODE	number(p,s)
	ISSUE_DATE	date
	ORG_PAR_BAL	number(p,s)
	PMT_FREQ	number(p,s)
	REMAIN_NO_P...	number(p,s)
	PMT_FREQ_M...	varchar2
	UNDRAWN_AMT	number(p,s)
	ACCOUNT_OFF...	number(p,s)
	ACCRUAL_BAS...	number(p,s)
	ADJUSTABLE_...	number(p,s)
	AGENT_BANK	

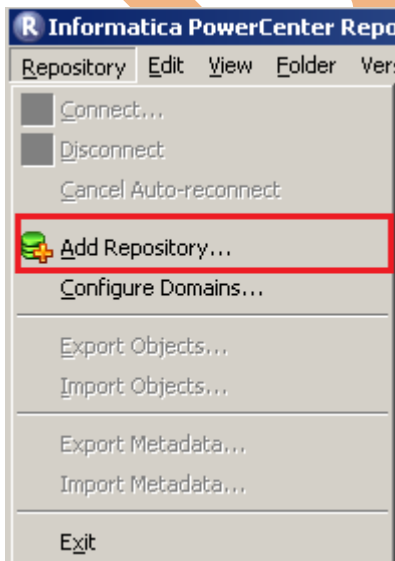
# Creating Repository and Folder

## Creating Repository & Connecting it.

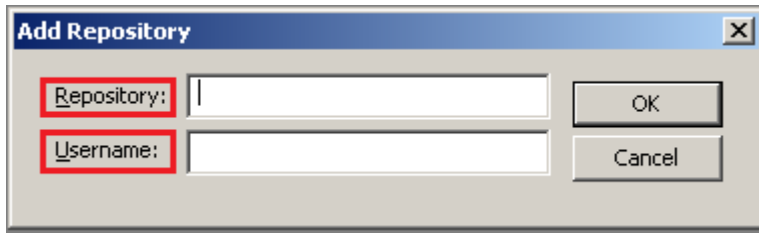
**Step-1** First create repository, Click on Start -> All Programs -> Informatica 9.0.1 -> Client -> Power Center Client -> Power Center Repository Manager.



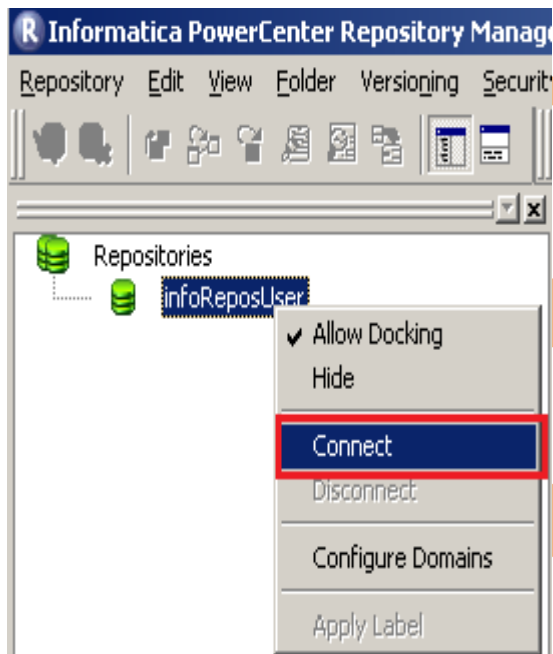
**Step-2** Then click on Repository Menu and click on Add Repository.



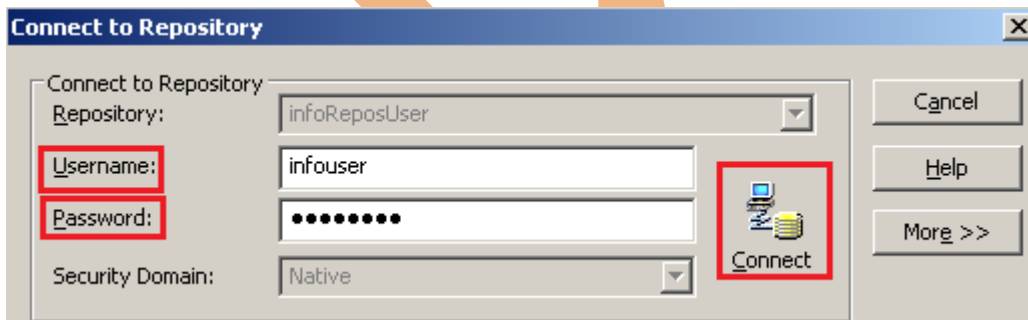
**Step-3** Give information like Repository Name and Username. Then click on ok button and repository created successfully.



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

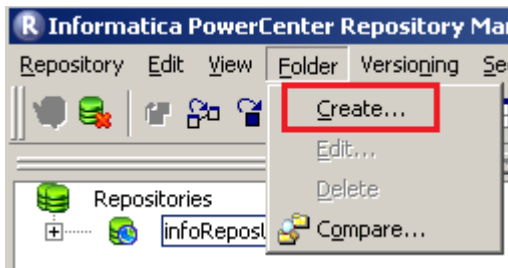


**Step-5** Give Username & password and click on Connect.

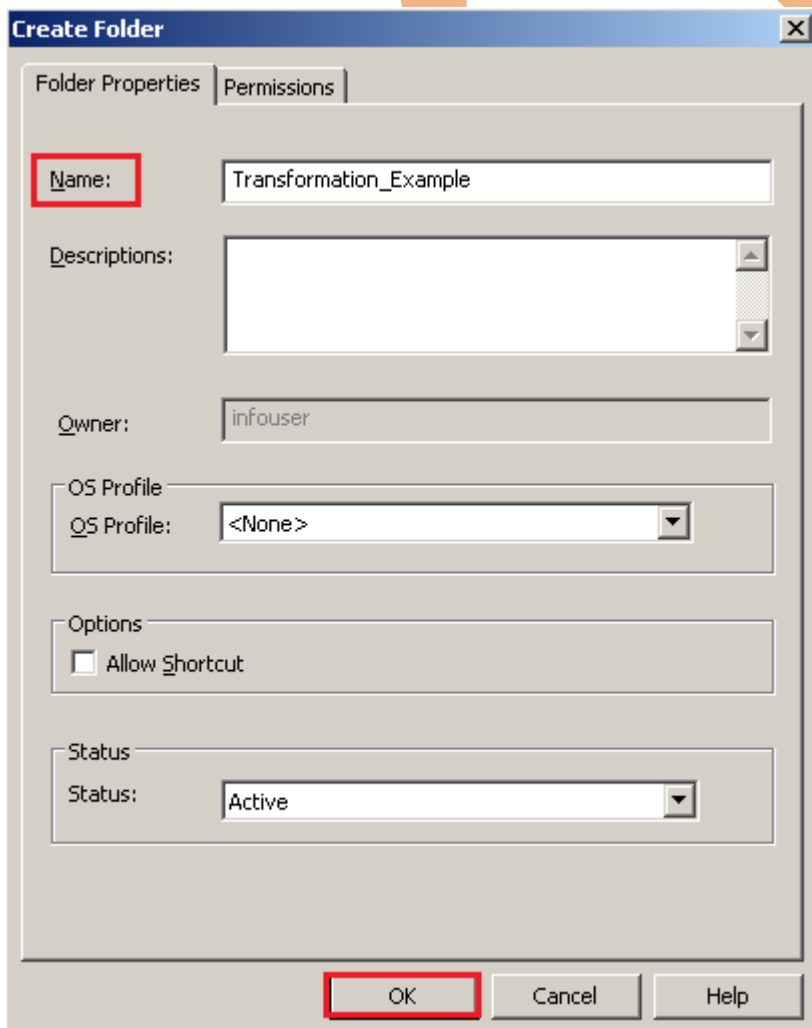


## Creating Folder.

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

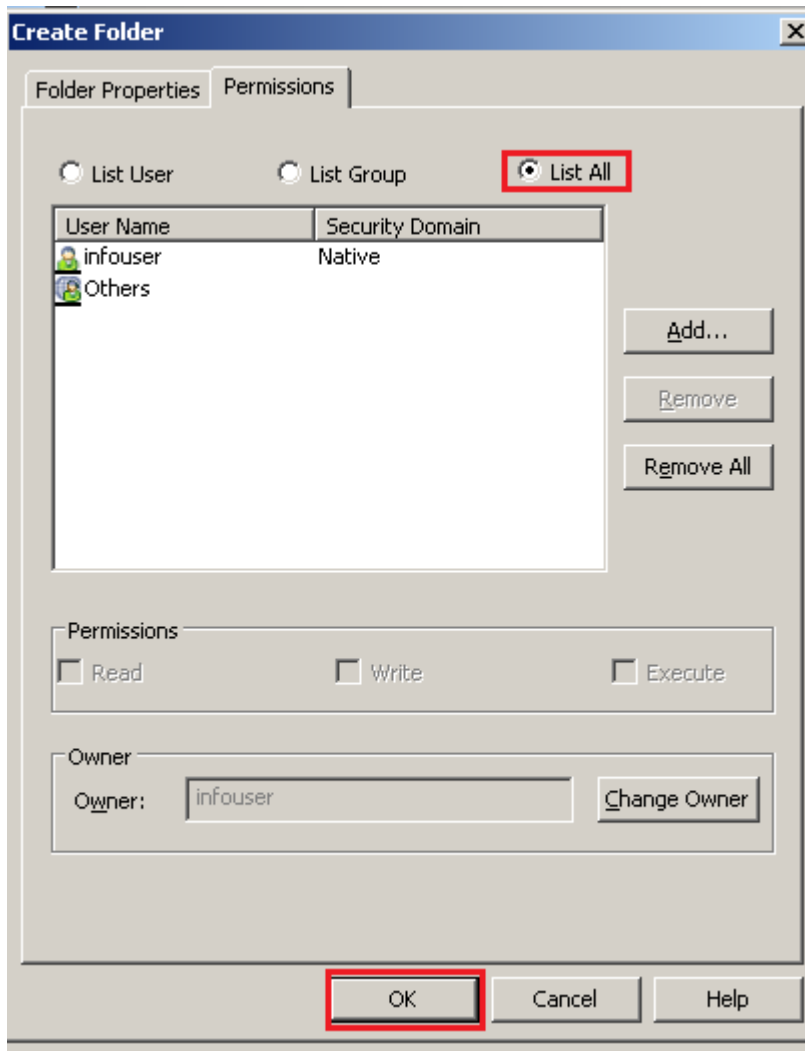


**Step-2** Specify Name of Folder, Description, Owner, OS Profile, Options, Status and got to permissions tab.

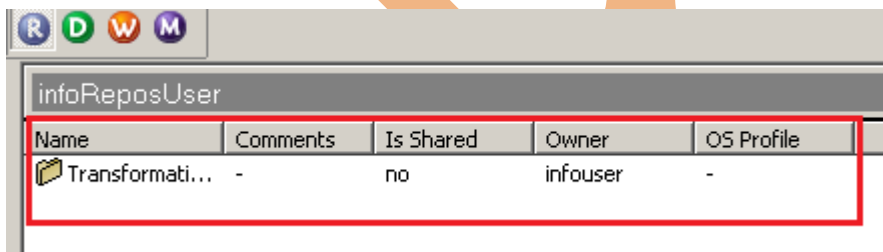




**Step-3** This is permission tab to give permission for this folder.

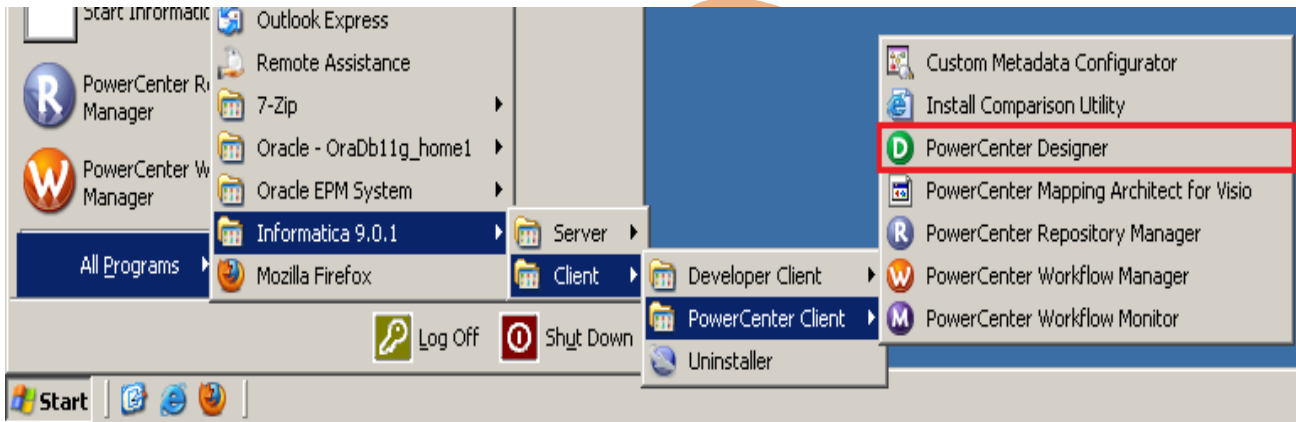


**Step-4** This is newly created Folder

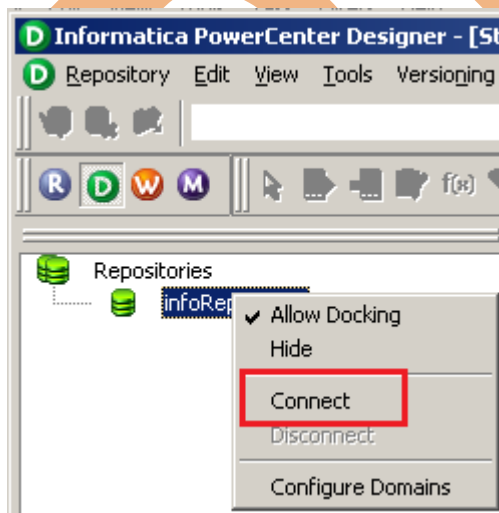


## Importing Source and Target Table

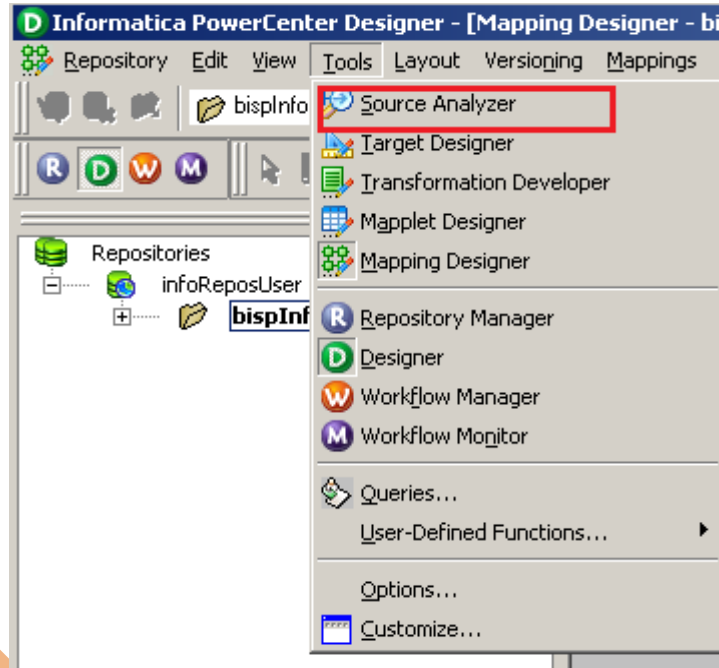
**Step-1** Click on Start -> All Programs -> Informatica 9.0.1 -> Client -> Power Center Client -> Power Center Designer..



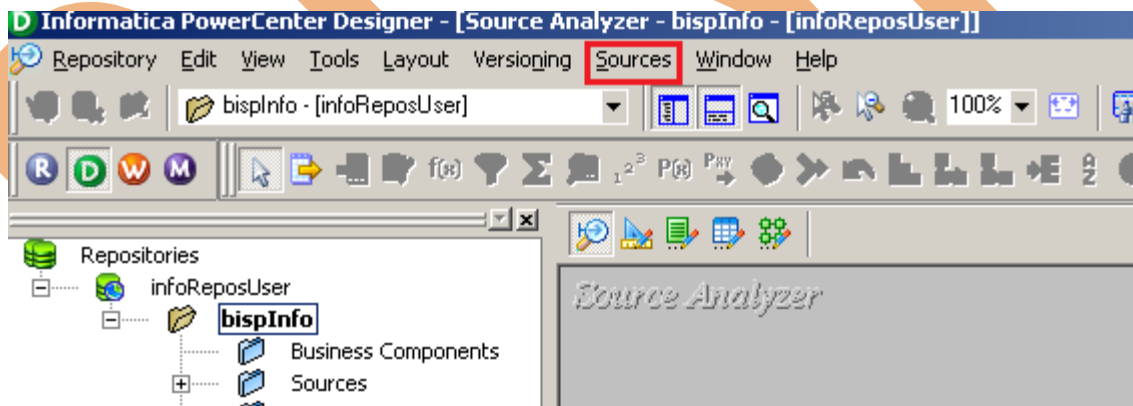
**Step-2** Then Connect to Repository in Informatica Power Center Designer Right click on repository name and click on Connect.



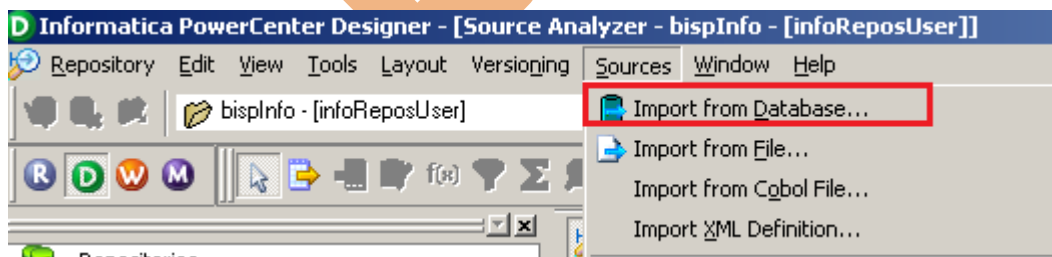
**Step-3** Go to Tools Menu and click on Source Analyzer to import source table.



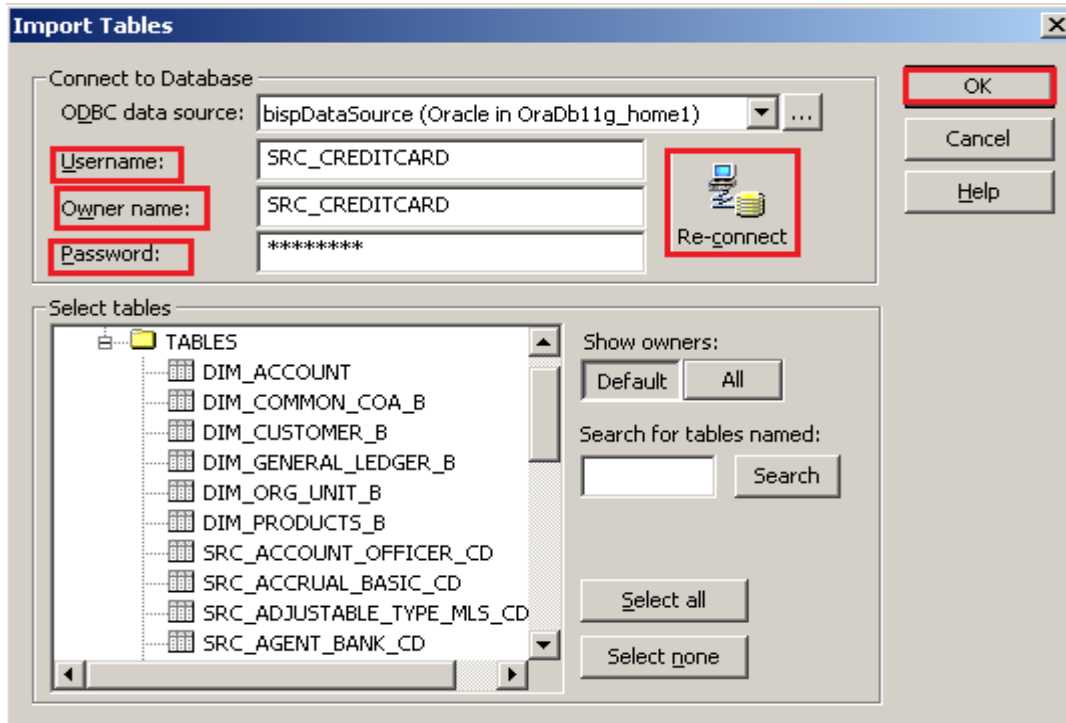
**Step-4** And then go to Sources Menu in Informatica Power Center Designer.

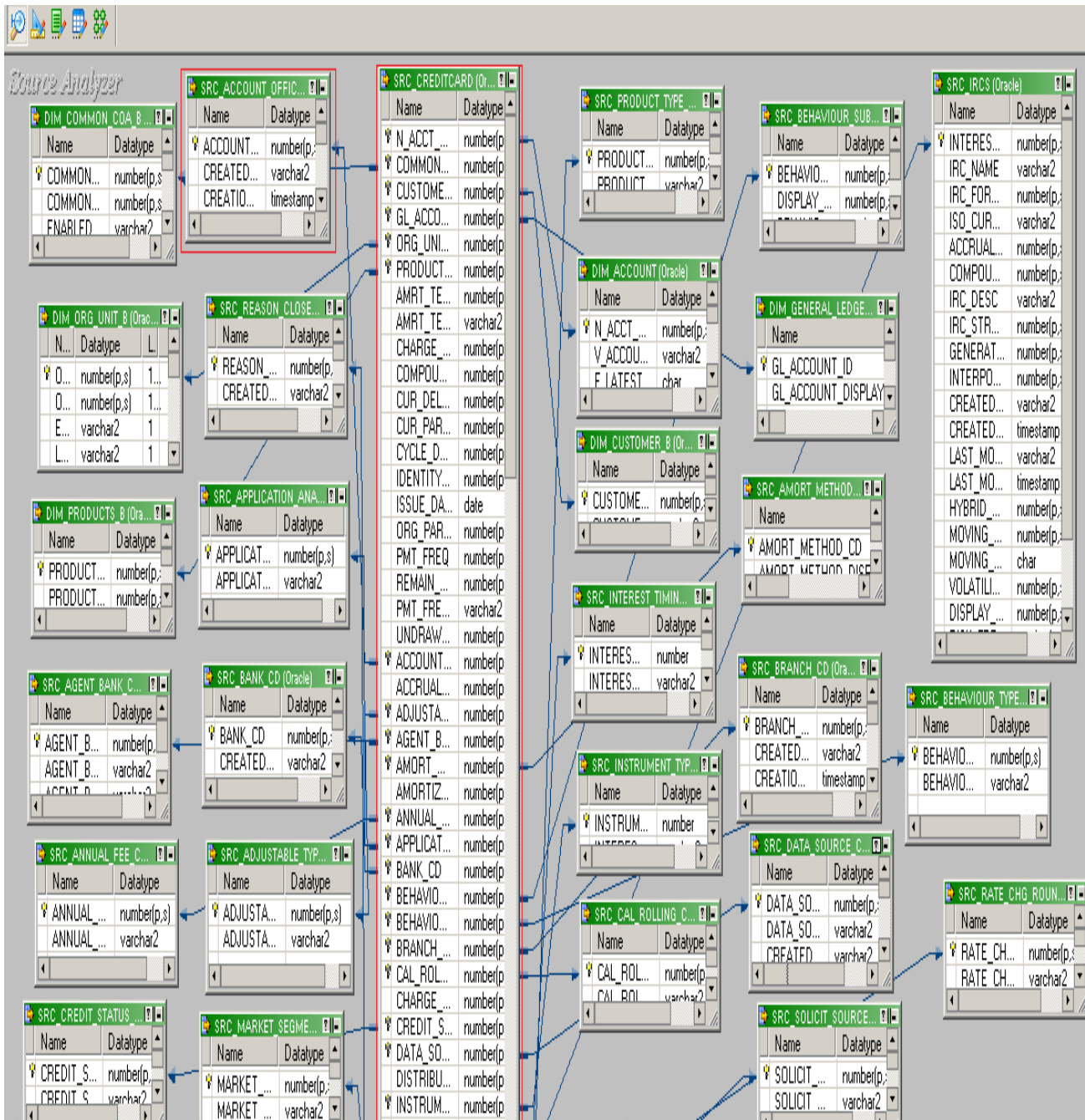


**Step-4** And then select Source menu and click on Import from database

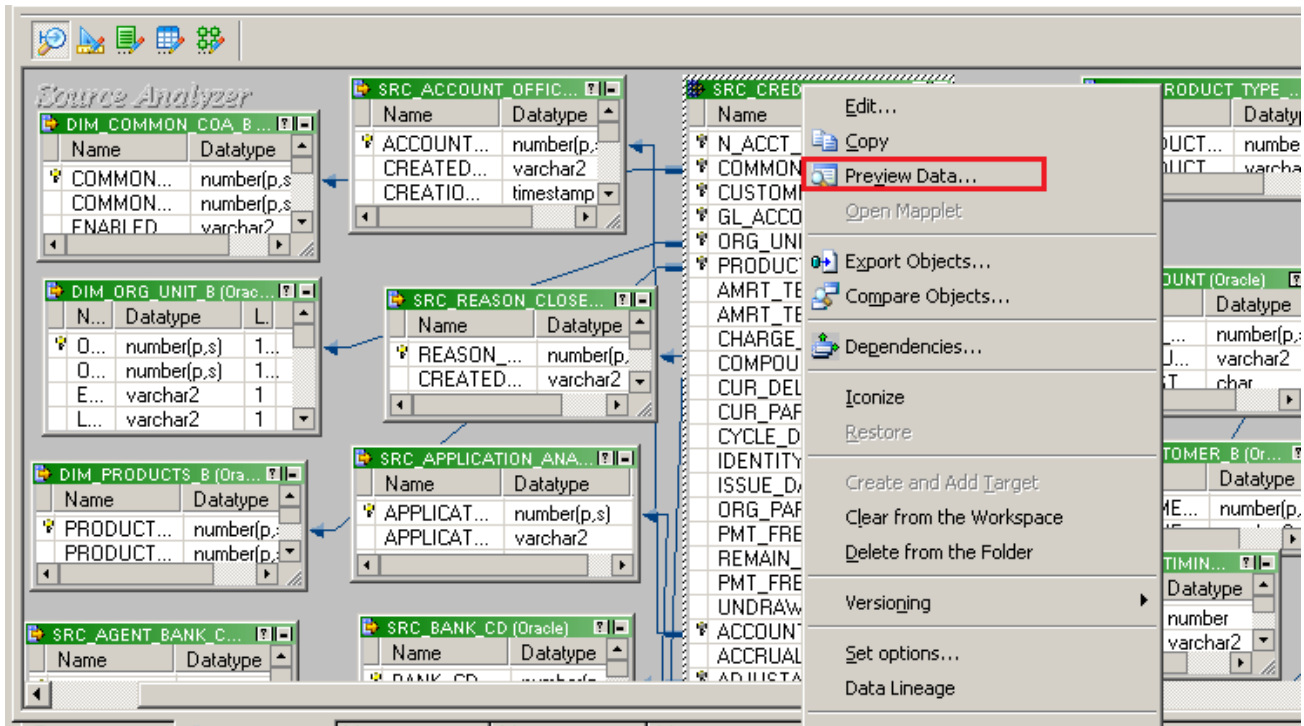


**Step-5** Specify Username, Owner name, password and then connect. Then select source table and click OK.

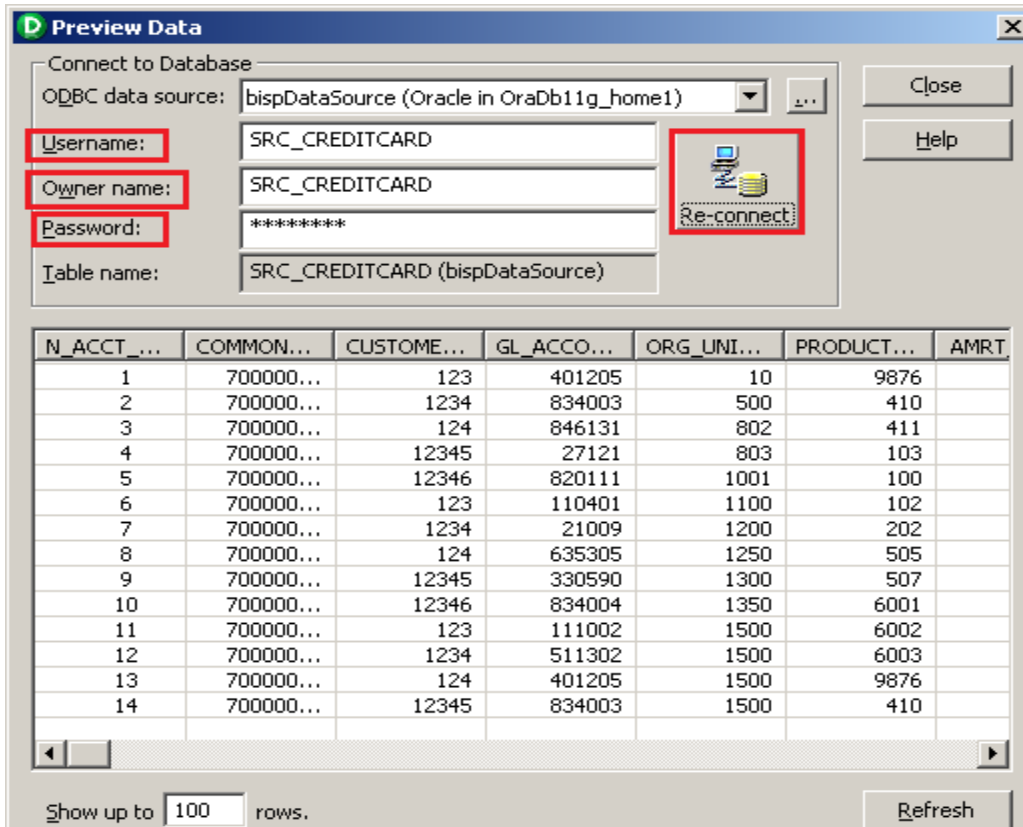




**Step-6** View data in source analyzer, Right click on SRC\_CREDITCARD and select Preview Data.

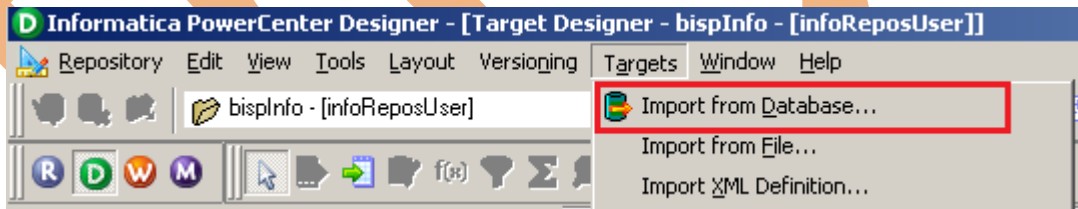


**Step-7** Specify Username and Password and connect it. Then Close it.

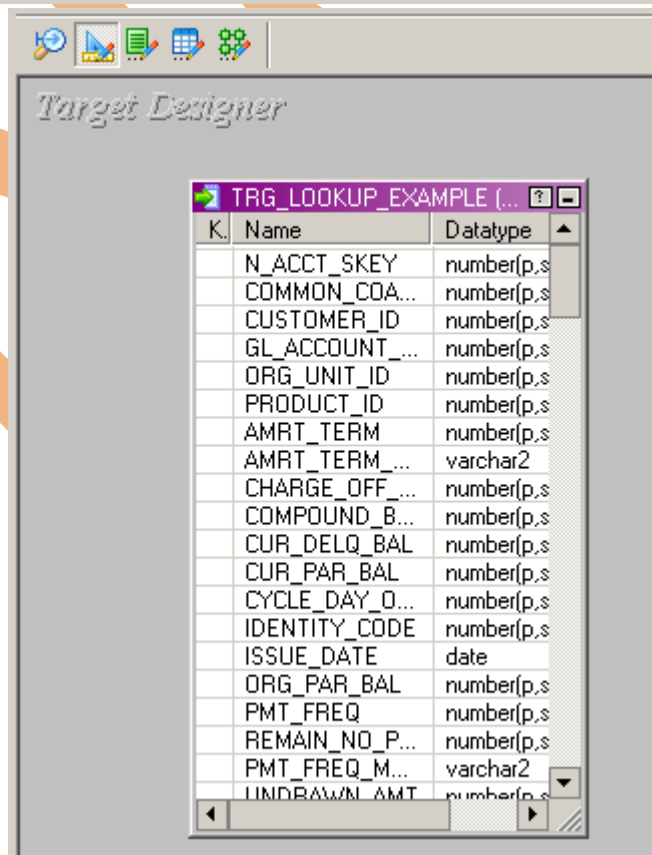
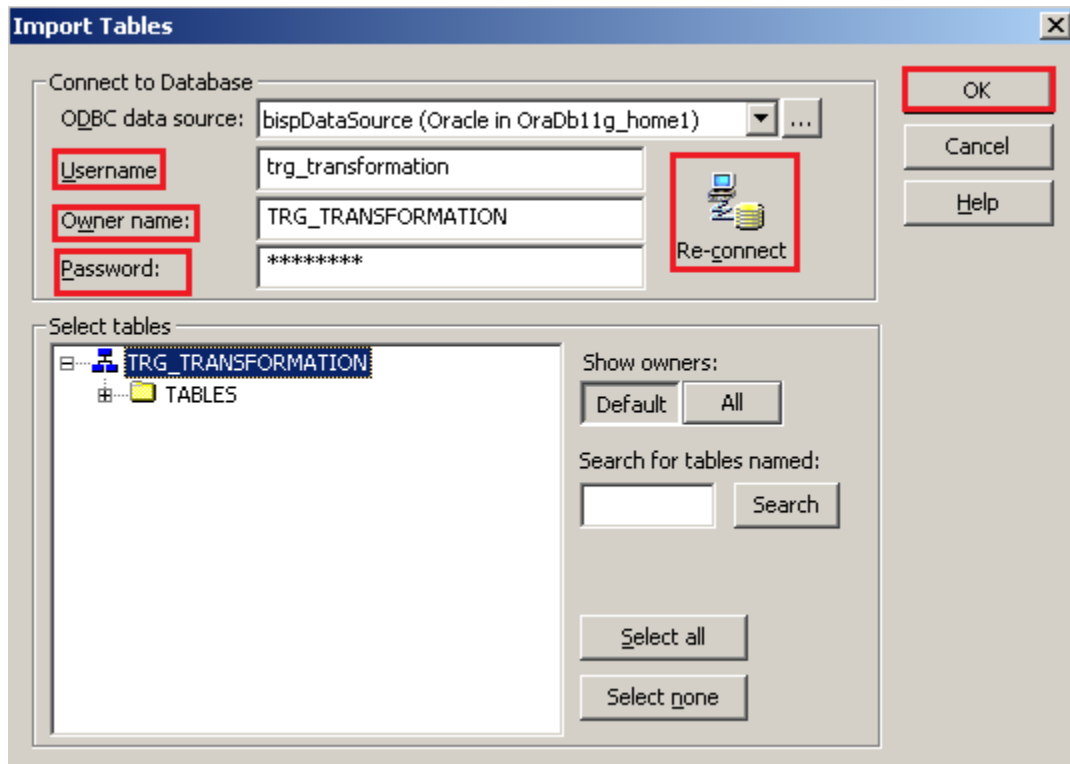


**Step-8** Now click on Target Designer.

**Step-9** And then select Target menu and click on Import from database to import target table.

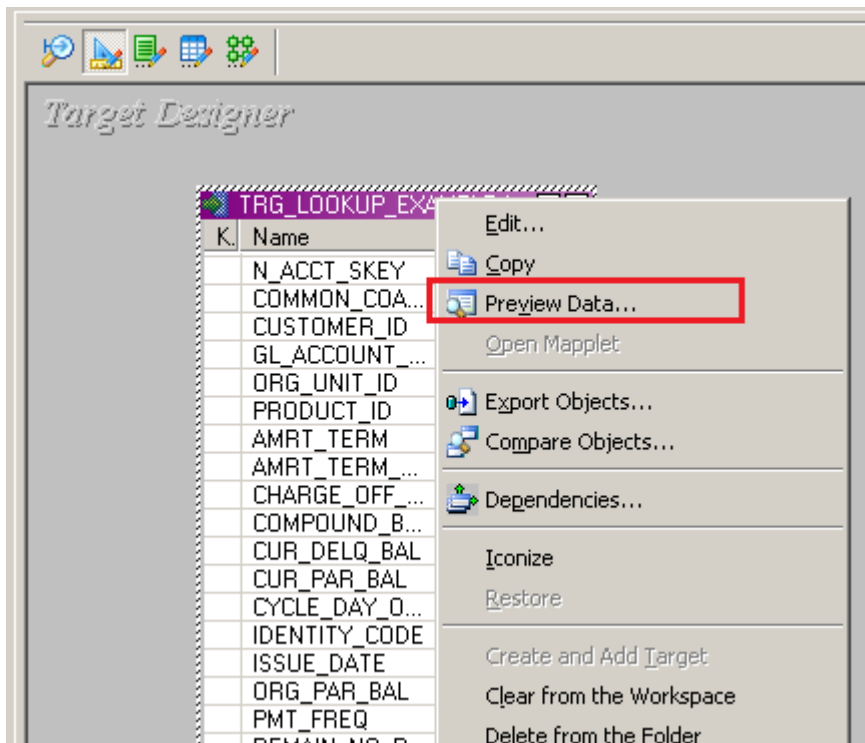


**Step-10** Specify Username, Owner name, password and then click on connect and then select table and then OK.



**Step-11** To view data select table and Right click on that table after that specify Username and Password and connect it. Then Close it.





**Preview Data**

Connect to Database  
ODBC data source: bispDataSource (Oracle in OraDb11g\_home1) ...

Username: TRG\_TRANSFORMATION  
Owner name: TRG\_TRANSFORMATION  
Password: \*\*\*\*\*  
Table name: TRG\_LOOKUP\_EXAMPLE


Close  
Help

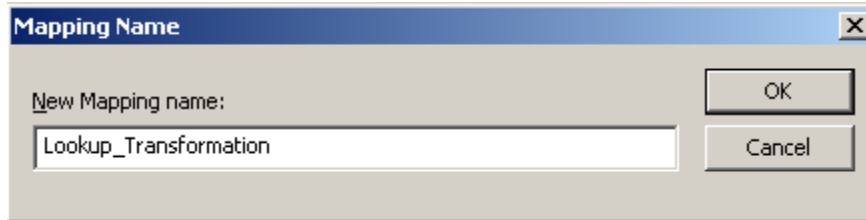
Re-connect

N_ACCT_...	COMMON...	CUSTOME...	GL_ACCO...	ORG_UNI...	PRODUCT...	AMRT

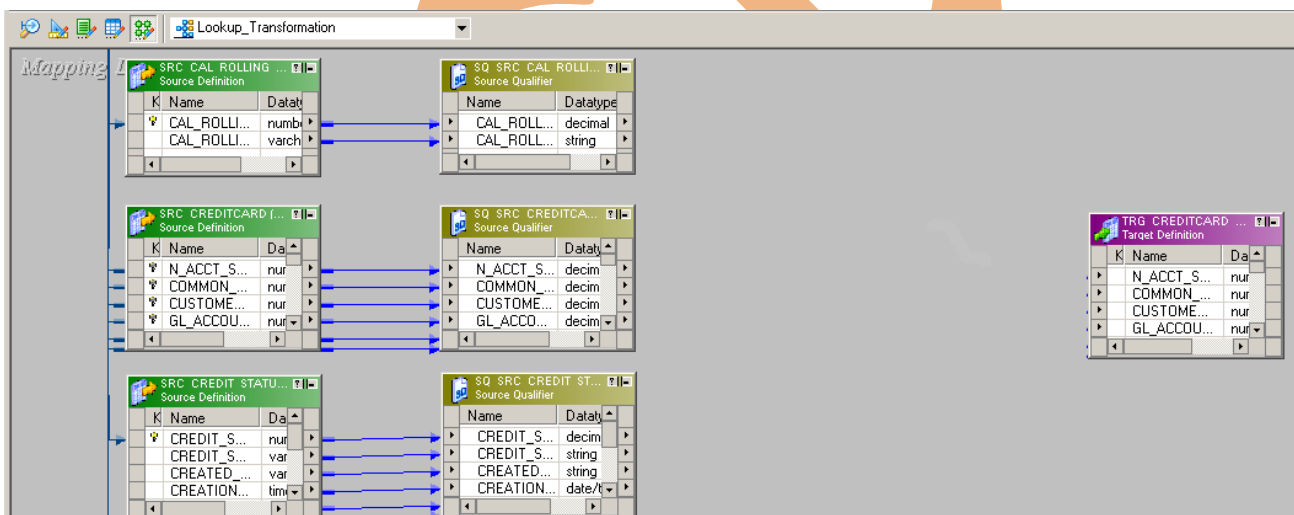
Show up to 100 rows. Refresh

# CREATE MAPPING AND APPLY LOOKUP

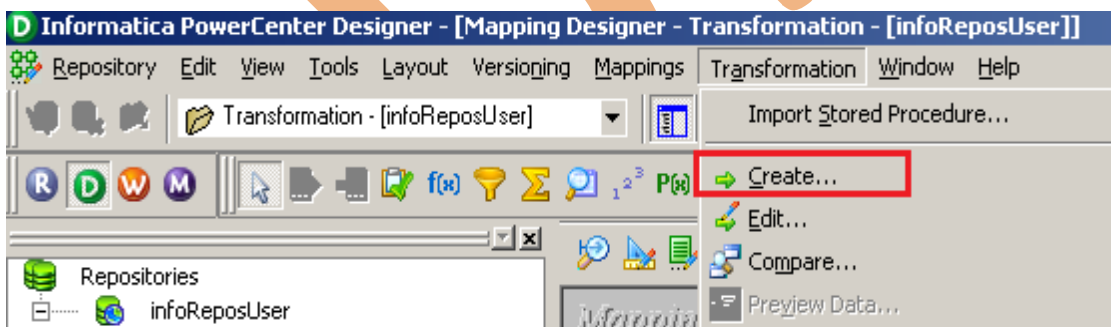
**Step-1** Go to Mapping Designer  and Create New Mapping and then name of mapping and click OK.



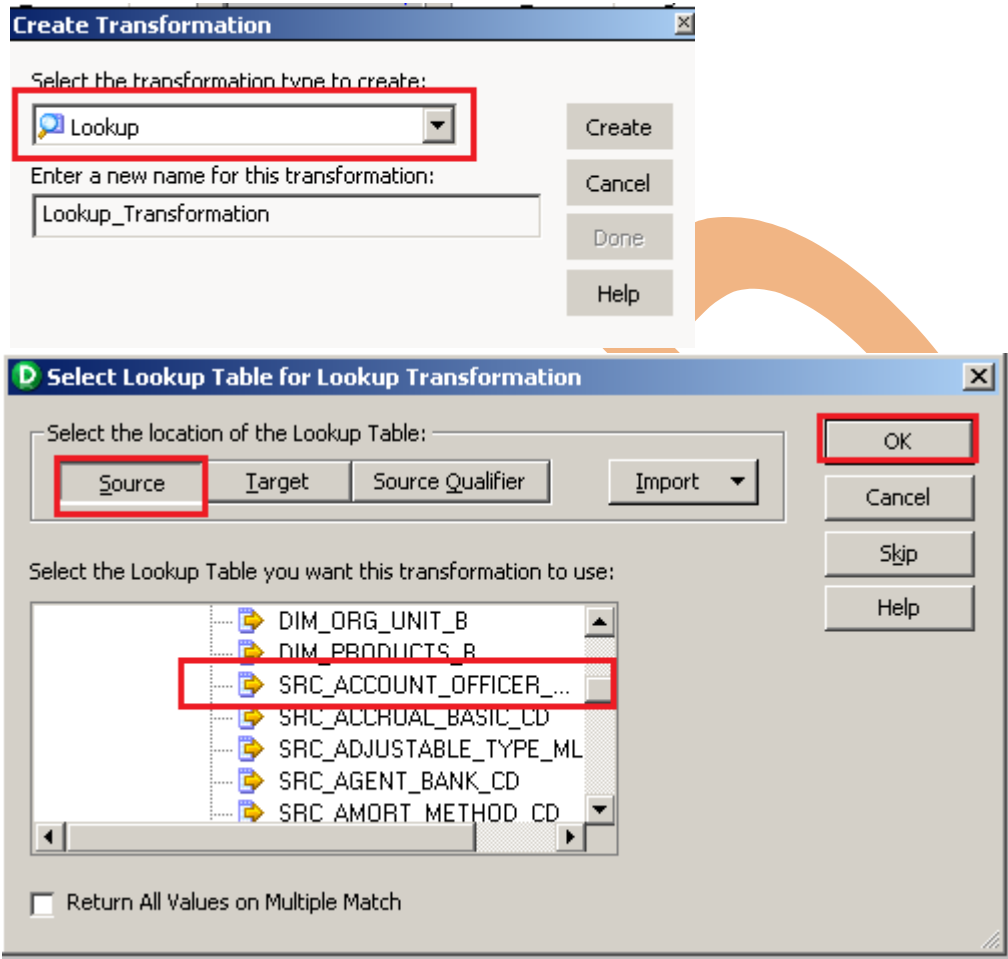
**Step-2** Then drag and drop source and target table in Mapping Designer Window.



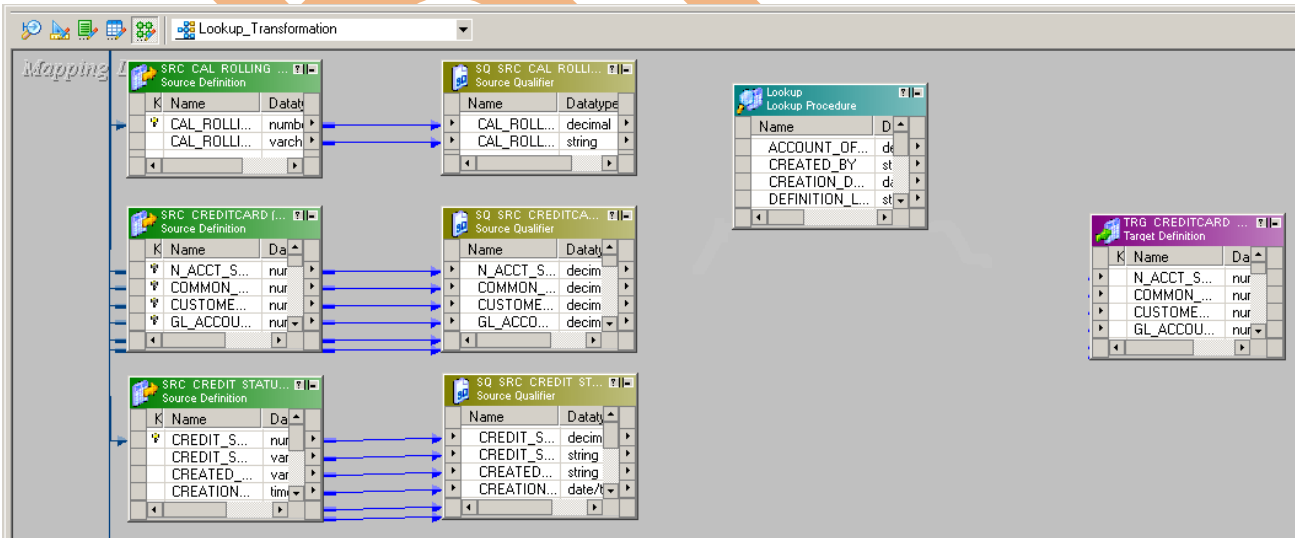
**Step-3** Then create transformation, Click on Transformation menu and select Create



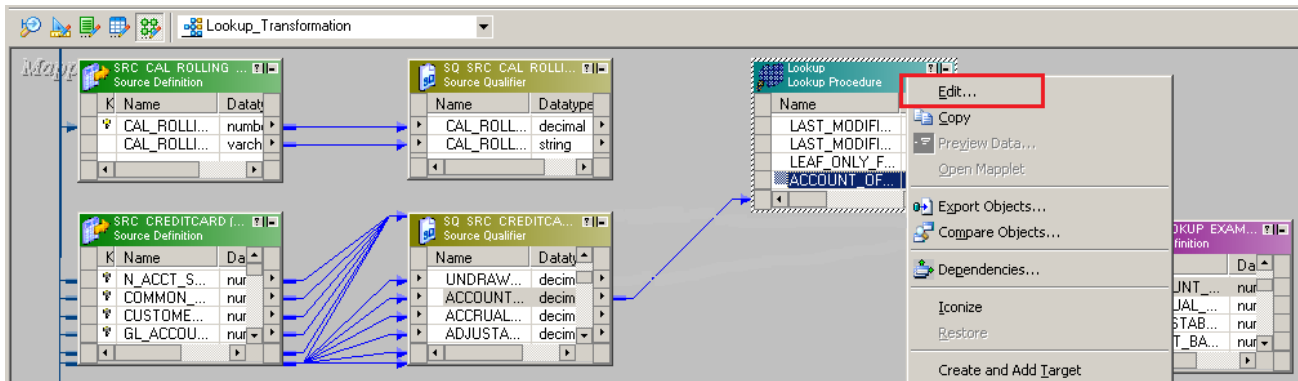
**Step-4** Then select Lookup in dropdown and give name of transformation and click Create, then select lookup table for Lookup Transformation and then click Done.



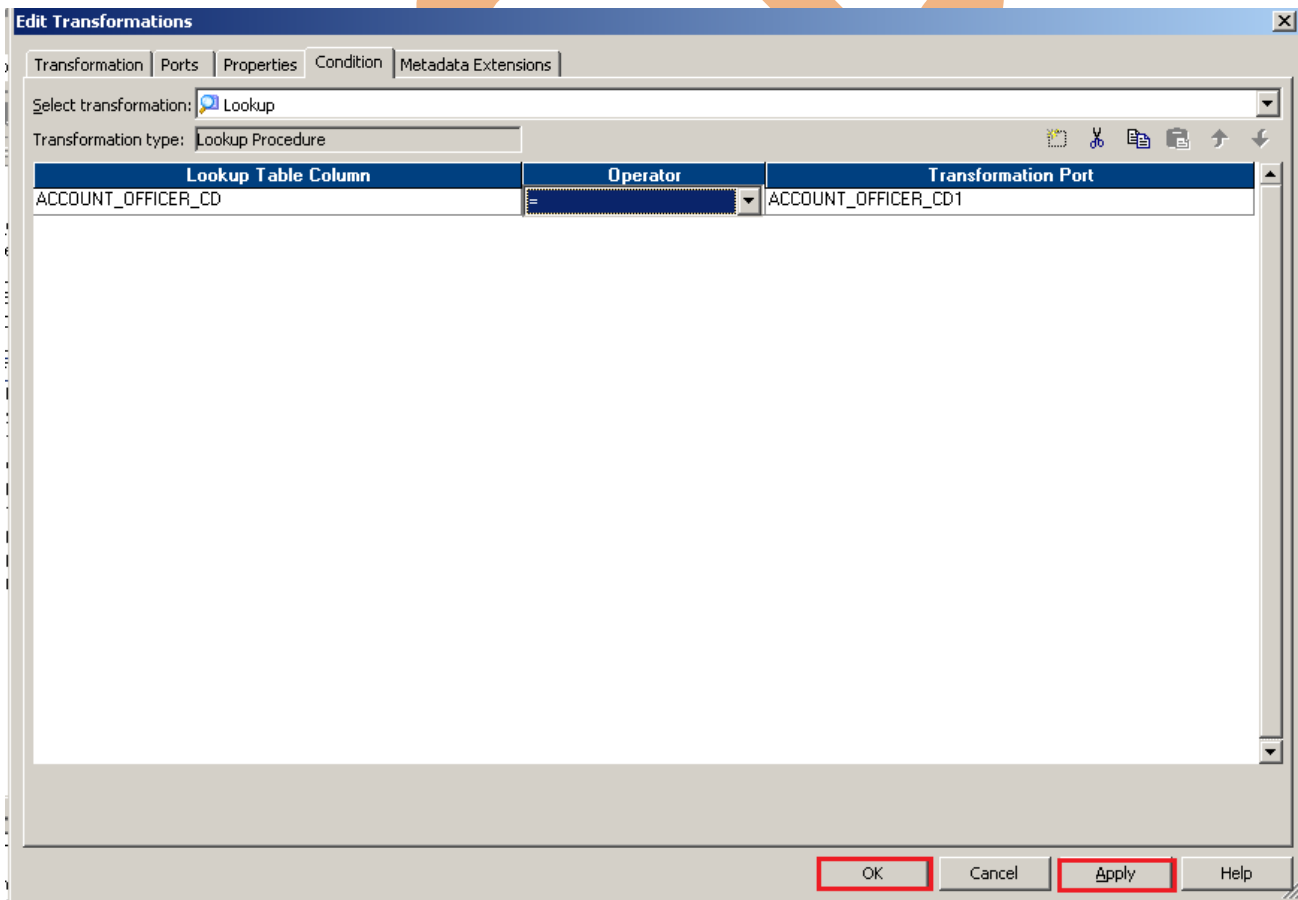
**Step-5** Lookup Table in Mapping Designer window.



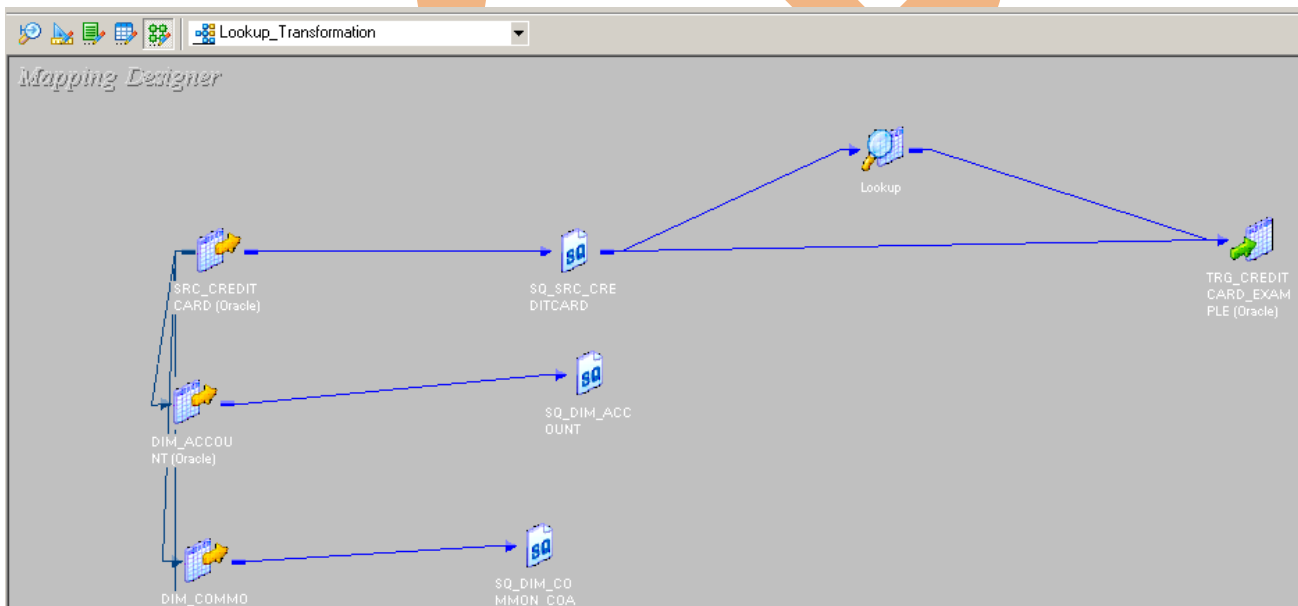
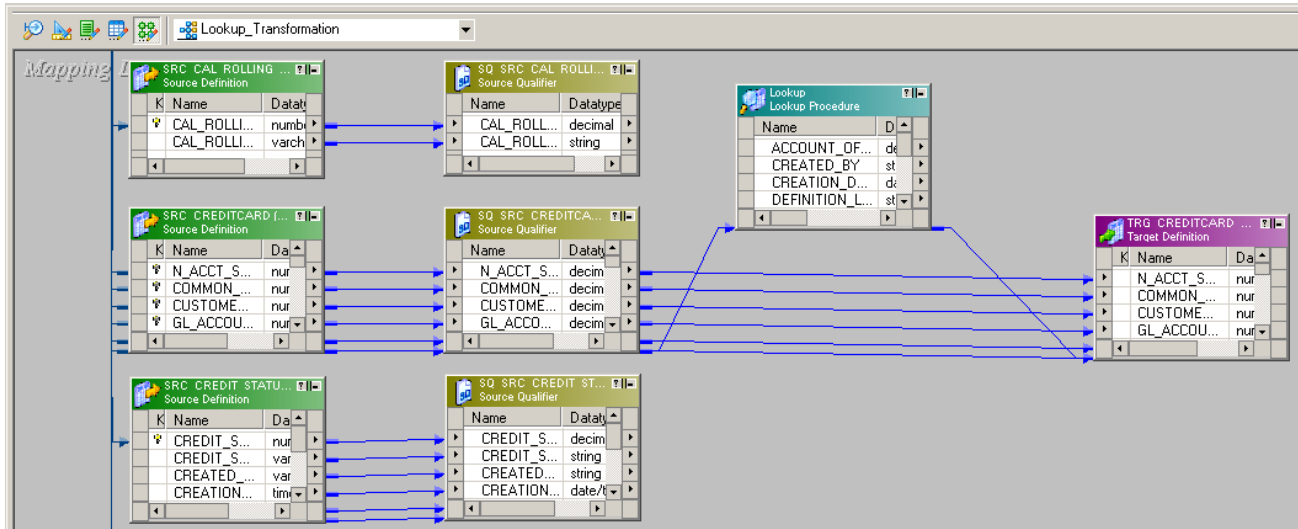
**Step-6** Then drag and drop the column in Lookup Table and right click on Lookup Table and select Edit.



**Step-7** Specify Condition in condition tab and click OK.



## Step-8 Now, Create Mapping.



## Step-9 . Save this mapping.

```
11/22/2012 09:21:42 *** Saving... Repository infoReposUser, Folder Transformation_Example
```

```
Validating transformations of mapping Lookup_Transformation...
```

```
...transformation validation completed with no errors.
```

```
Validating data flow of mapping Lookup_Transformation...
```

```
...data flow validation completed with no errors.
```

```
Parsing mapping Lookup_Transformation...
```

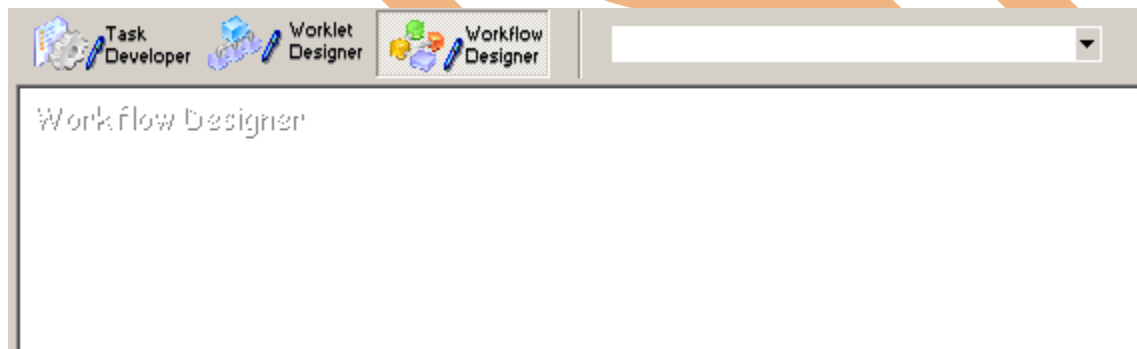
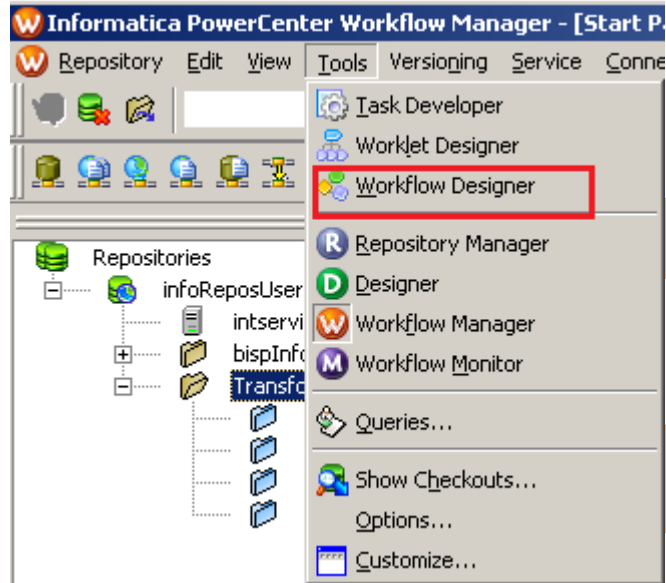
```
...parsing completed with no errors.
```

```
***** Mapping Lookup_Transformation is VALID *****
```

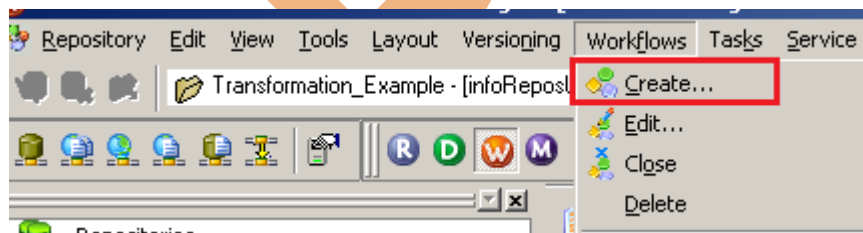
```
mapping Lookup_Transformation updated.
```

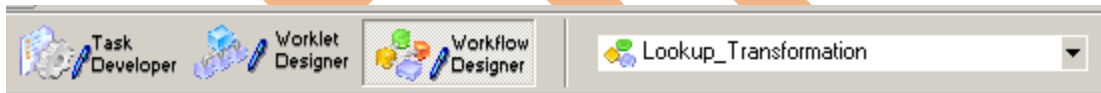
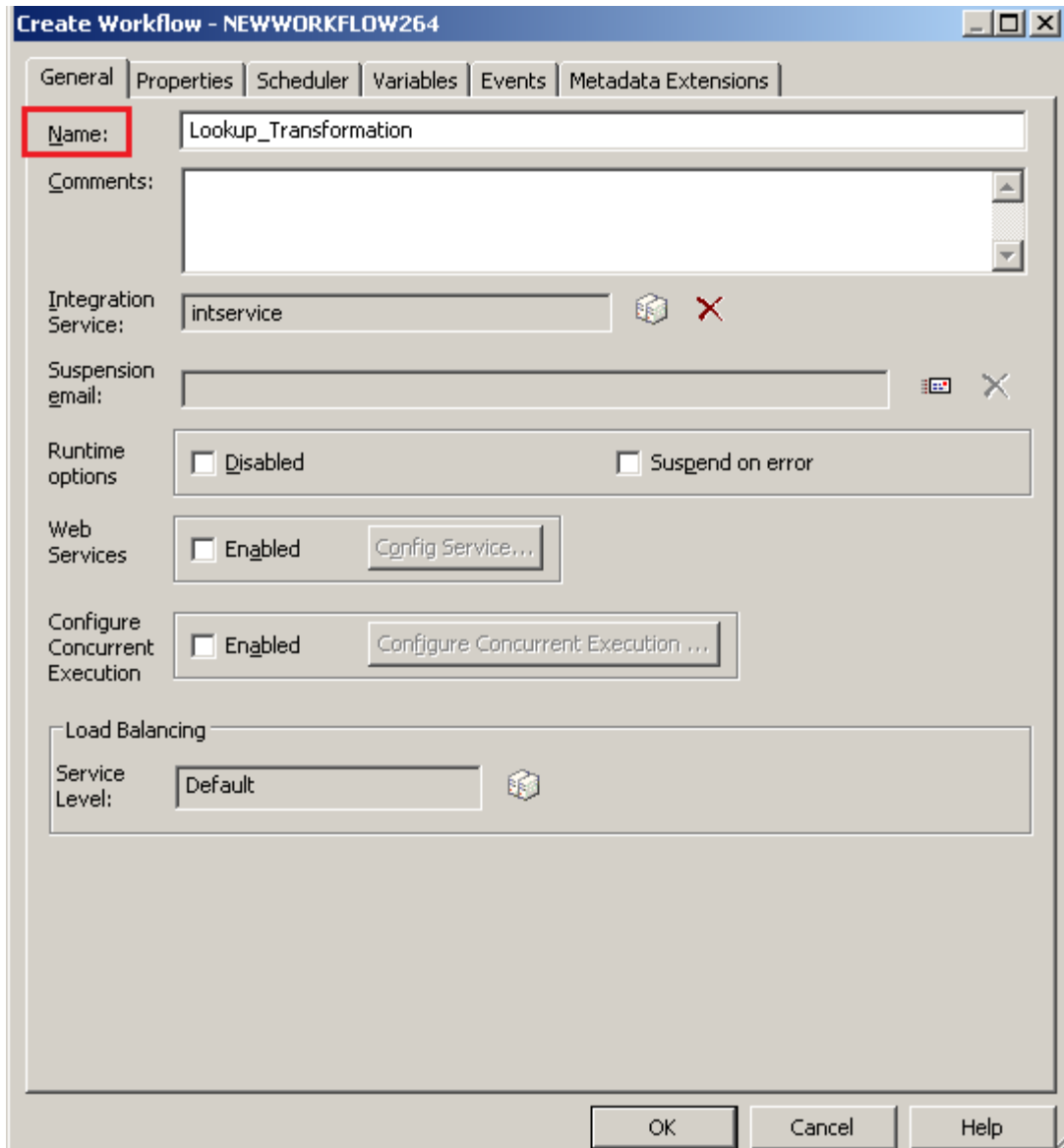
# CREATE WORKFLOW

**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.





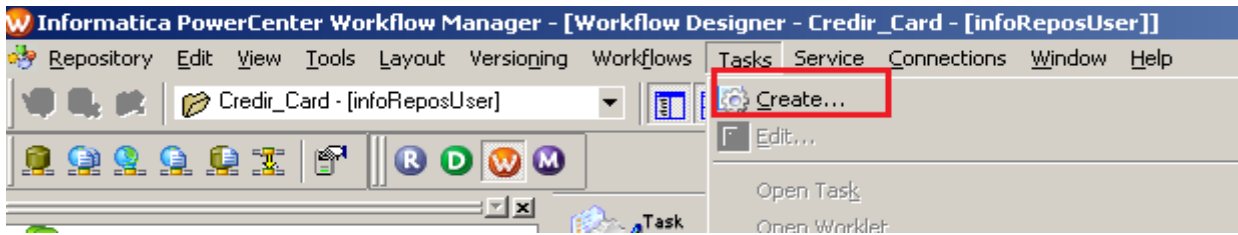
Workflow Designer



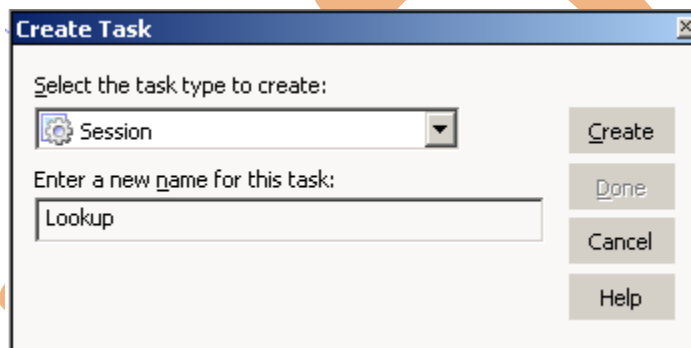
Start



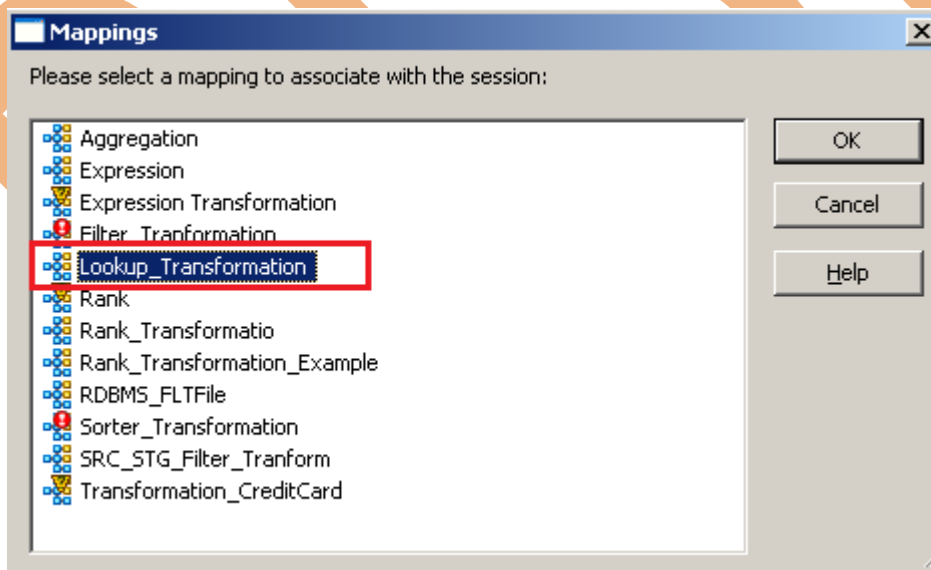
**Step-3** Now create Task, Go to Tasks Menu and click Create.



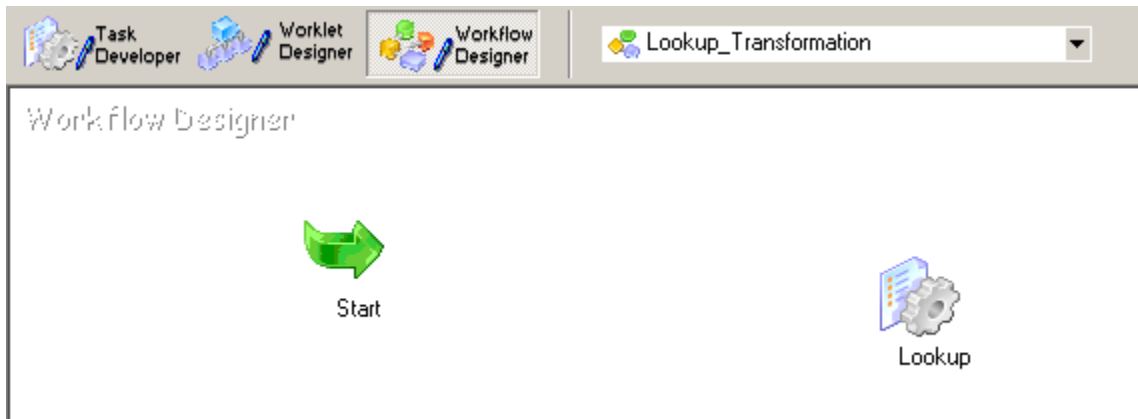
**Step-4** Now select session and insert Name of task.



**Step-5** Select Mapping to associate with the session.



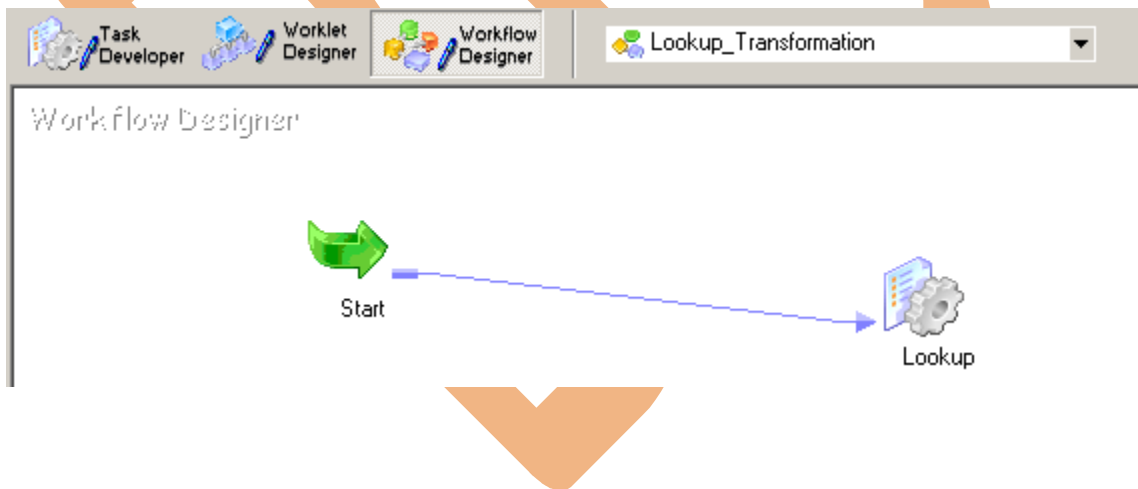
**Step-6** Workflow Designer Window.



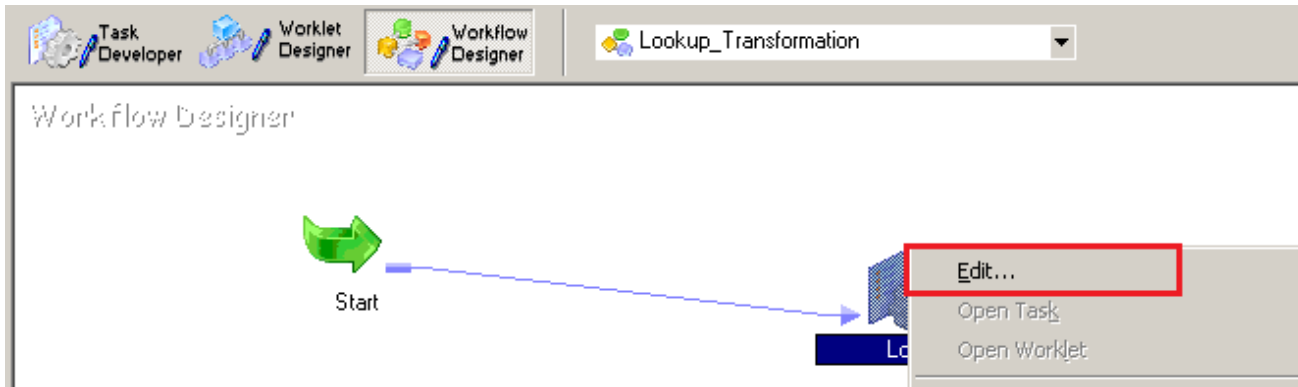
**Step-7** Now create flow B/W Workflow to Task. Select Line Task and link to Start to Filter.



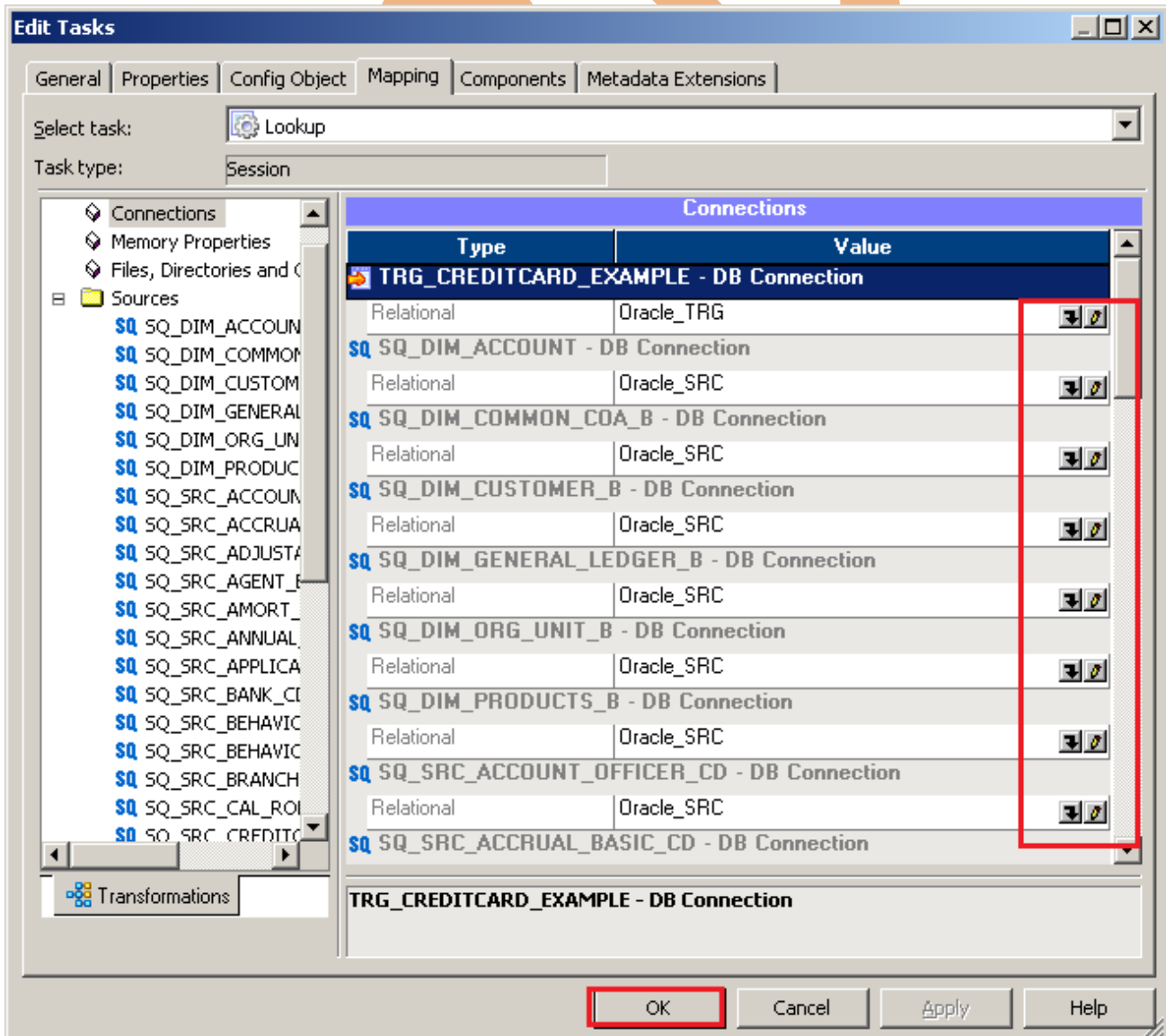
**Step-8** Work Flow Designer Windows.



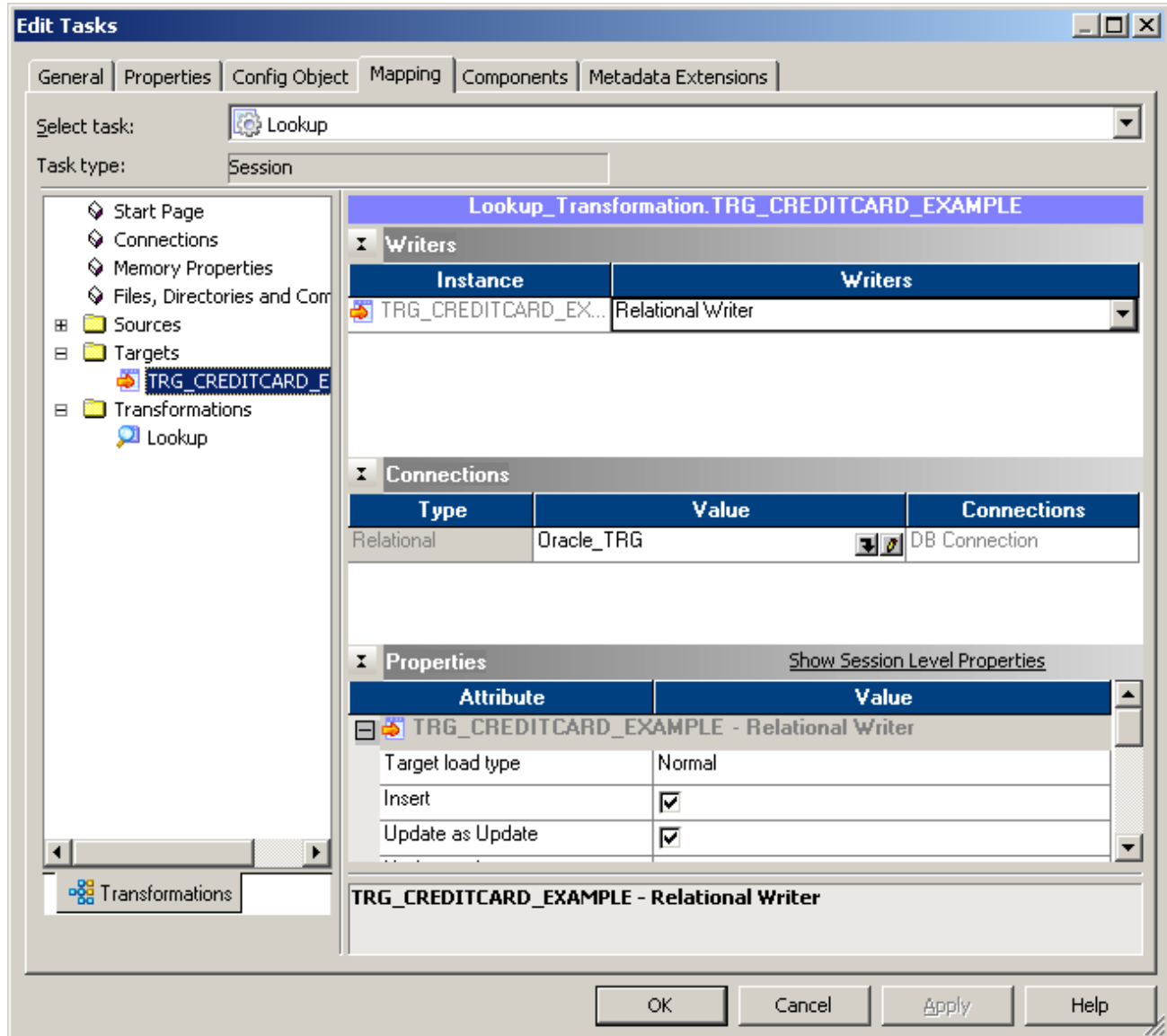
**Step-9** Now Configure Connection to Target, Then Right Click on Expression and Edit, Then Click Mapping tab and configure connection for your Target table schema in oracle 11g RDBMS. And then click OK.



**Step-10** Select DB Connection for Source and Target Relation Database in Mapping tab.



**Step-10** Select Target table Property.



**Step-11** Now save (ctrl+s) this workflow and check it.

```

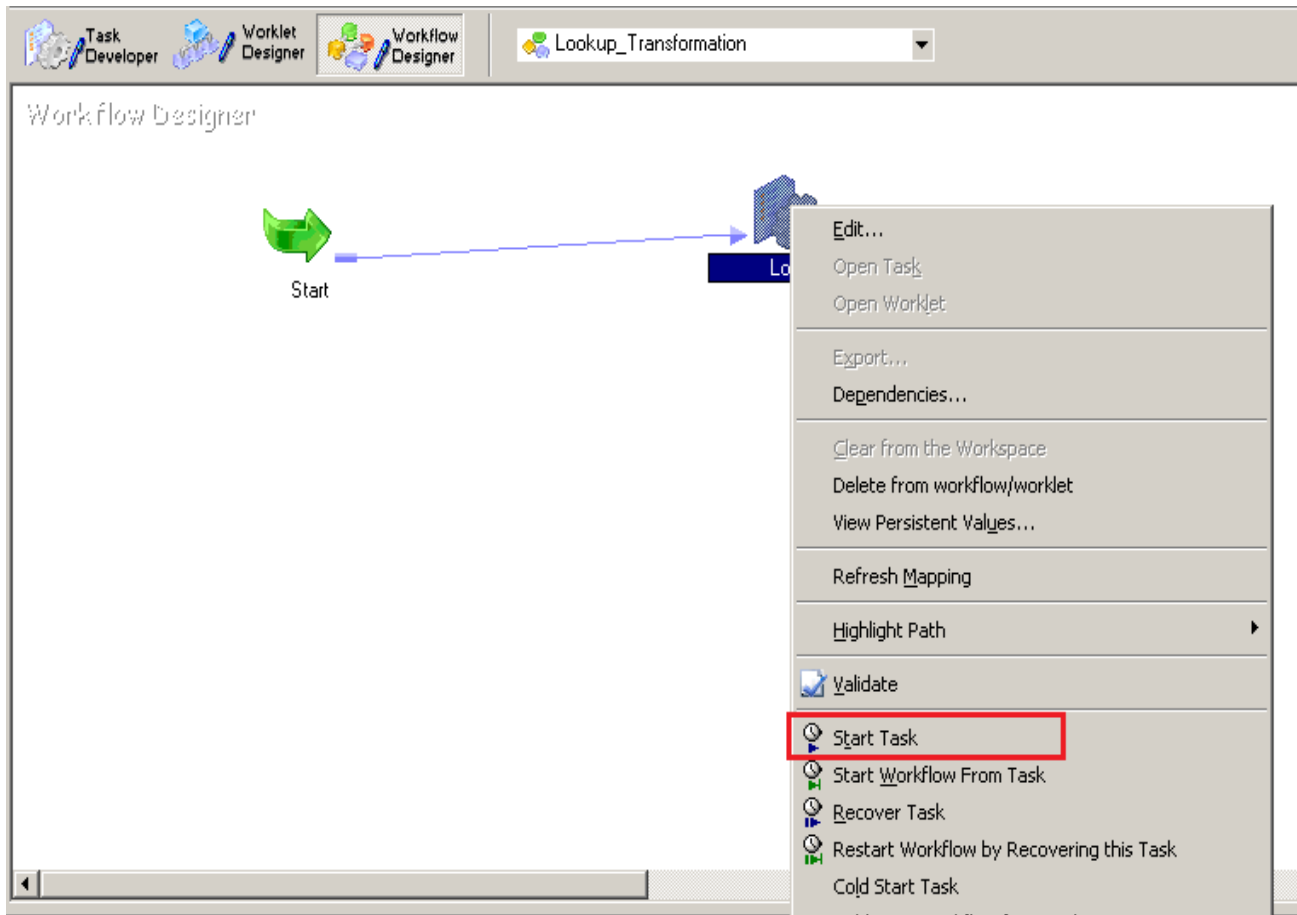
.....
11/22/2012 09:55:52 ** Saving... Repository infoReposUser, Folder Transformation_Example
.....
Validating the flow semantics of Workflow Lookup_Transformation...
...flow semantics validation completed with no errors.

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

***** Workflow Lookup_Transformation is VALID *****
|
Workflow Lookup_Transformation updated.
.....
    
```

# 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.

Task Name	Start Time	End Time	Status
Lookup_Transformation	11/22/2012 9:56:39 AM	11/22/2012 9:56:49 AM	Succeeded
Start	11/22/2012 9:56:39 AM	11/22/2012 9:56:39 AM	Succeeded
Lookup	11/22/2012 9:56:40 AM	11/22/2012 9:56:47 AM	Succeeded

### Step-3 Session log.

Log Events for Session: Lookup

Severity	Timestamp	Node	Thread	Message Co...	Message
INFO	11/22/2012 12:06:25 PM	node01_mitest	WRITER_1_1	WRT_8168	End loading table [TRG_CREDITCARD_EXAMPLE] at Thu Nov 22 12:06:25 2012
INFO	11/22/2012 12:06:25 PM	node01_mitest	TRANSF_1_1	DBG_21216	Finished transformations for Source Qualifier [SQ_SRC_CREDITCARD]. Total errors [0]
INFO	11/22/2012 12:06:25 PM	node01_mitest	WRITER_1_1	WRT_8141	Commit on end-of-data Thu Nov 22 12:06:25 2012 =====
					WRT_8036 Target: TRG_CREDITCARD_EXAMPLE (Instance Name: [TRG_CREDITCARD_EXAMPLE]) WRT_8038 Inserted rows - Requested: 14 Applied: 14 Rejected: 0 Affected: 14
INFO	11/22/2012 12:06:25 PM	node01_mitest	WRITER_1_1	WRT_8035	Load complete time: Thu Nov 22 12:06:25 2012  LOAD SUMMARY =====
					WRT_8036 Target: TRG_CREDITCARD_EXAMPLE (Instance Name: [TRG_CREDITCARD_EXAMPLE]) WRT_8038 Inserted rows - Requested: 14 Applied: 14 Rejected: 0 Affected: 14
INFO	11/22/2012 12:06:25 PM	node01_mitest	WRITER_1_1	WRT_8043	*****END LOAD SESSION*****
INFO	11/22/2012 12:06:25 PM	node01_mitest	WRITER_1_1	WRT_8006	Writer run completed.
INFO	11/22/2012 12:06:25 PM	node01_mitest	MANAGER	PETL_24031	***** RUN INFO FOR TGT LOAD ORDER GROUP [1], CONCURRENT SET [1] ***** Thread [READER_1_1] created for [the read stage] of partition point [SQ_SRC_CREDITCARD] has completed. The total run time was insufficient for any meaningful statistics. Thread [TRANSF_1_1] created for [the transformation stage] of partition point [SQ_SRC_CREDITCARD] has completed. The total run time was insufficient for any meaningful statistics. Thread [WRITER_1_1] created for [the write stage] of partition point [TRG_CREDITCARD_EXAMPLE] has completed. The total run time was insufficient for any meaningful statistics.
INFO	11/22/2012 12:06:25	node01_mitest	MAPPING	CMN_1793	The index cache size that would hold [24] rows in the lookup table for [Lookup], in memory, is [2800] bytes

Severity: INFO  
 Timestamp: 11/22/2012 12:06:25 PM  
 Node: node01\_mitesta  
 Thread: MANAGER  
 Process ID: 412  
 Message Code: PETL\_24000  
 Message: Parallel Pipeline Engine initializing.

**Step-4** Now view data in Target RDBMS (Oracle 11g)

ACCOUNT_OFFICER_CD	N_ACCT_SKEY	COMMON_COA_ID	CUSTOMER_ID	GL_ACCOUNT_ID	ORG_UNIT_ID	PRODUCT_ID	AMRT_TERM	AMRT_...	CHARG...	COM...	CUR_DELO_BAL	CUR_PAR...
1	52223	1	70000561	123	401205	1001	9876	10 10	544	1	1578	
2	53110	2	70000562	1234	834003	1001	410	20 500	1532	2	1100	
3	53110	3	70000563	124	846131	1001	411	30 802	5454	3	1578	
4	55675	4	70000565	12345	27121	1001	103	40 803	132	0	1100	
5	56339	5	70000568	12346	820111	1001	100	50 10	5464	1	1000	
6	52223	6	70000555	123	110401	1001	102	60 500	1253	2	1001	
7	55675	7	70000556	1234	21009	1001	202	10 802	695	3	1578	
8	54706	8	70000557	124	635305	1001	505	20 803	2348	0	1150	
9	55675	4	70000558	12345	330590	1500	507	30 1001	369	1	1001	
10	56339	1	70000559	12346	834004	1500	6001	40 1100	958	2	1100	
11	55675	2	70000560	123	111002	1500	6002	50 1200	21	3	1578	
12	53110	3	70000564	1234	511302	1500	6003	60 1250	12569	0	1150	
13	56339	4	70000571	124	401205	1500	9876	70 1300	9603	1	1100	
14	52223	8	70000561	12345	834003	1500	410	10 1350	999	0	1578	

