



Informatica Power Center 9.0.1

Building Financial Data Mode - Lab#12

Hands-on Guide on Aggregator 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 Aggregator Transformation.

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History:

Version	Description Change	Author	Publish Date
0.1	Initial Draft	Upendra Upadhyay	10th Aug 2011
0.1	Review#1	Amit Sharma	12th Aug 2011

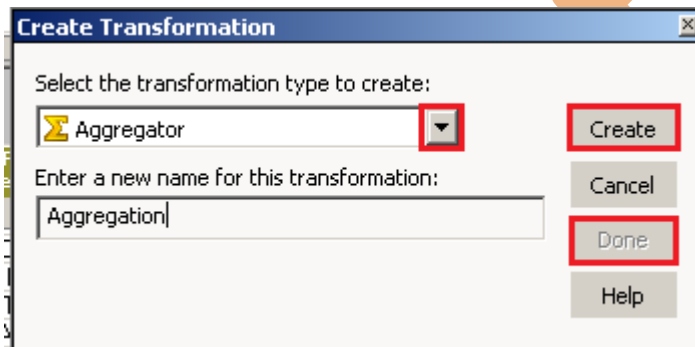
TABLE OF CONTENTS

S.NO	TITLE	PAGE. NO.
1	<u>Introduction.</u>	3-5
2	<u>Creating Repository & Folder.</u>	6-9
3	<u>Import Data Source.</u>	10-16
4	<u>Create Mapping and Aggregation.</u>	17-23
5	<u>Create Workflow.</u>	24-29
6	<u>Workflow Monitor & Review data.</u>	30-31

Introduction

Aggregator Transformation in Informatica.

Aggregator transformation is an active transformation used to perform calculations such as sums, averages, counts on groups of data. The integration service stores the data group and row data in aggregate cache.



Description

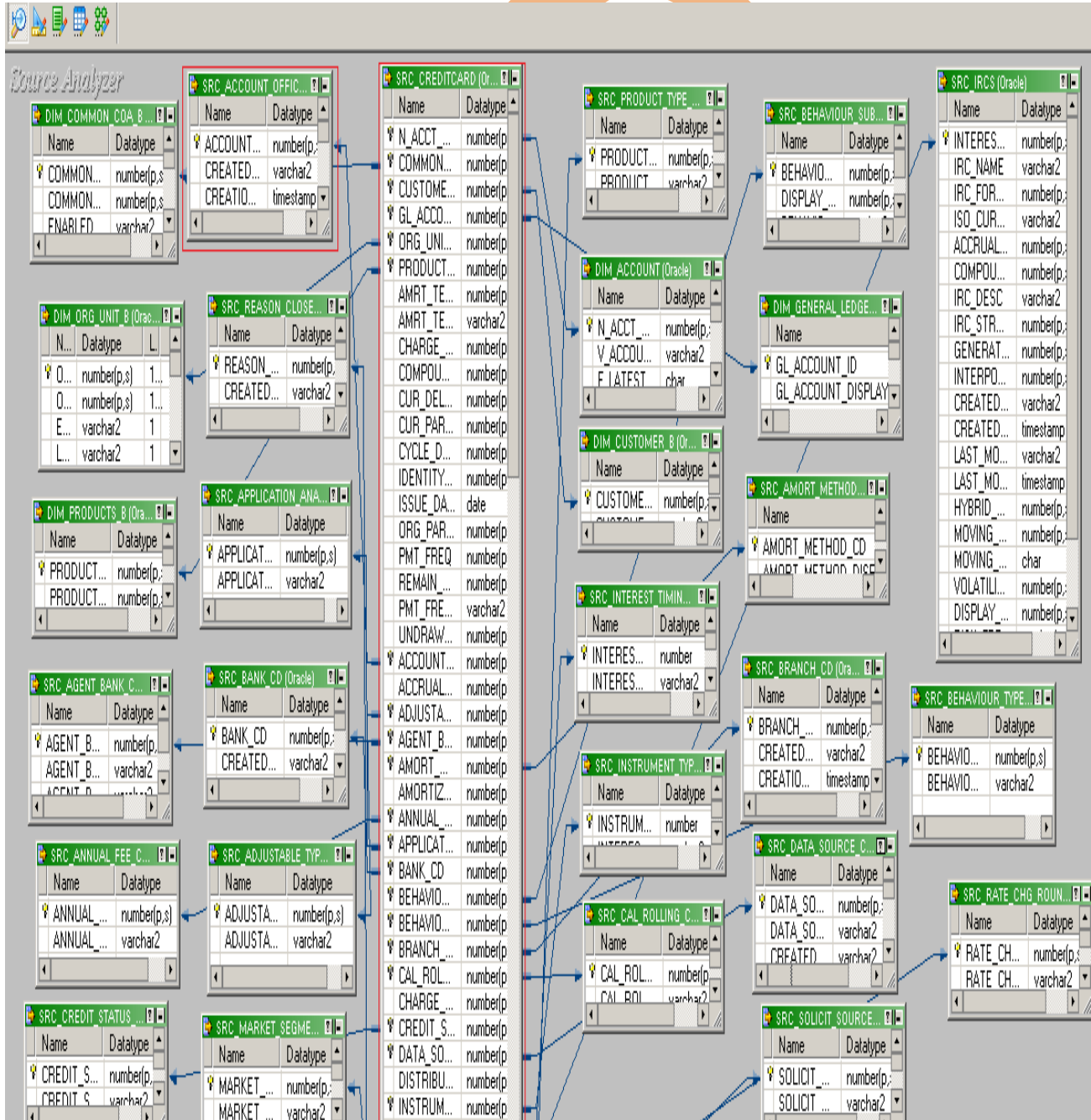
A Source Qualifier Transformation.

- Used Oracle 11g as a source database
- Used Oracle 11g as a target database.

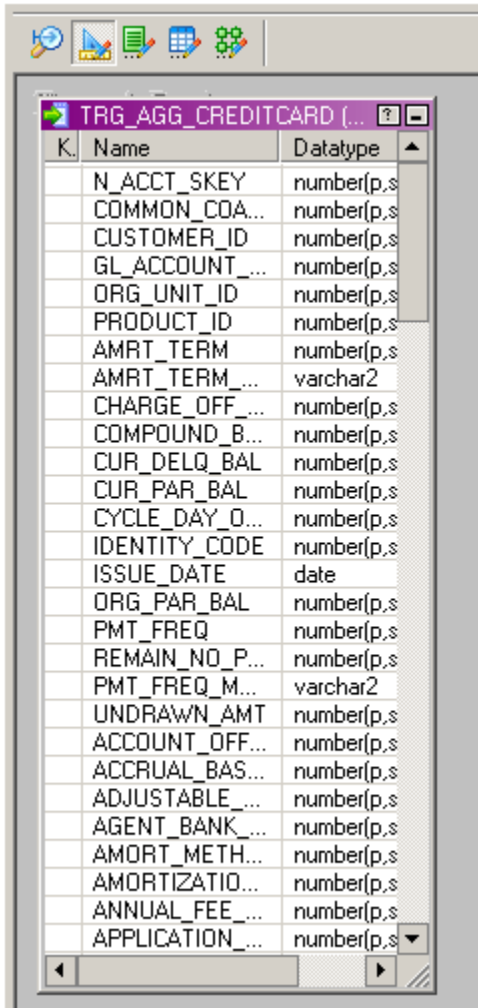
Aggregation Query.

Definition Name	Aggregation Transformation				
Source Name	SRC_CREDITCARD				
Target Name	TRG_AGG_CREDITCARD				
Source Details					Target Details
Entity Name	Field/Expression Name	Data Type	Aggregation Query	Destination Entity Name	Destination Field Name
Expression	CHARGE_OFF_BAL	Number	IIF(SUM(CHARGE_OFF_BAL1)<10000,SUM(CHARGE_OFF_BAL1),0)	TRG_AGG_CREDITCARD	CHARGE_OFF_BAL
Expression	COMPOUND_BASIS_CD	Number	COUNT(COMPOUND_BASIS_CD)	TRG_AGG_CREDITCARD	COMPOUND_BASIS_CD
Expression	N_AVG_BAL_MTD	Number	SUM(N_AVG_BAL_MTD)	TRG_AGG_CREDITCARD	N_AVG_BAL_MTD

Source Table



Target Table



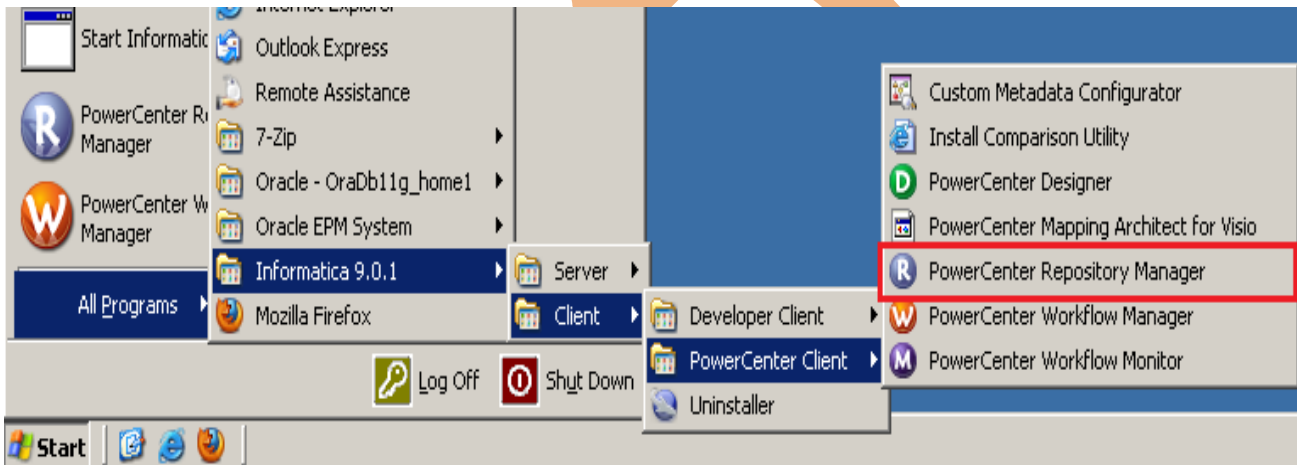
K.	Name	Datatype
	N_ACCT_SKEY	number(p,s)
	COMMON_COA...	number(p,s)
	CUSTOMER_ID	number(p,s)
	GL_ACCOUNT_...	number(p,s)
	ORG_UNIT_ID	number(p,s)
	PRODUCT_ID	number(p,s)
	AMRT_TERM	number(p,s)
	AMRT_TERM_...	varchar2
	CHARGE_OFF_...	number(p,s)
	COMPOUND_B...	number(p,s)
	CUR_DELQ_BAL	number(p,s)
	CUR_PAR_BAL	number(p,s)
	CYCLE_DAY_O...	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_...	number(p,s)
	AMORT METH...	number(p,s)
	AMORTIZATIO...	number(p,s)
	ANNUAL_FEE_...	number(p,s)
	APPLICATION_...	number(p,s)

```
SELECT A.account_officer_cd, Sum(B.n_avg_bal_mtd)
FROM SRC_CREDITCARD.SRC_ACCOUNT_OFFICER_CD A,
SRC_CREDITCARD.SRC_CREDITCARD B
where A.ACCOUNT_OFFICER_CD=B.ACCOUNT_OFFICER_CD
group by A.account_officer_cd
```

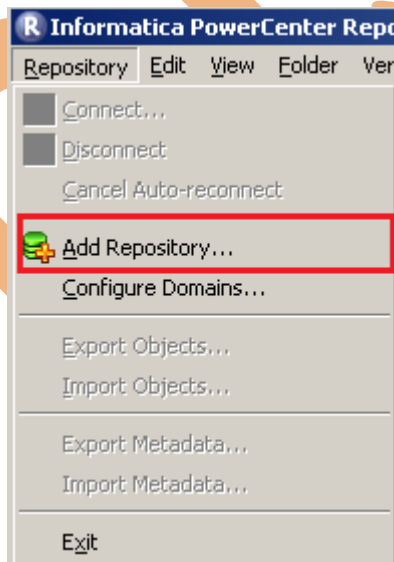
Creating Repository and Folder

Creating Repository & Connecting it.

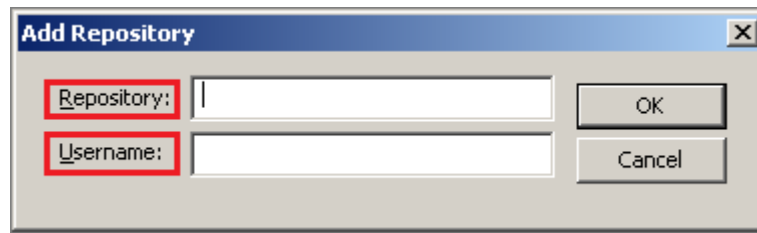
Step-1 First create repository, Click on Start -> All Programs -> Informatica 9.0.1 -> Client -> Power Center Client -> Power Center Repository Manager.



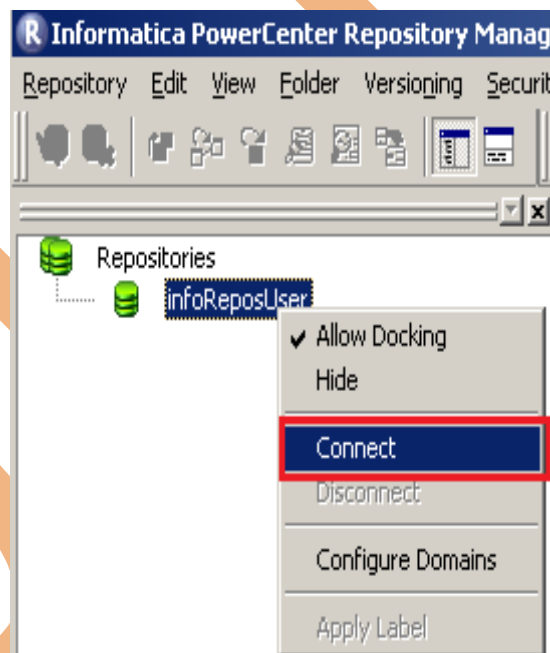
Step-2 Then click on Repository Menu and click on Add Repository.



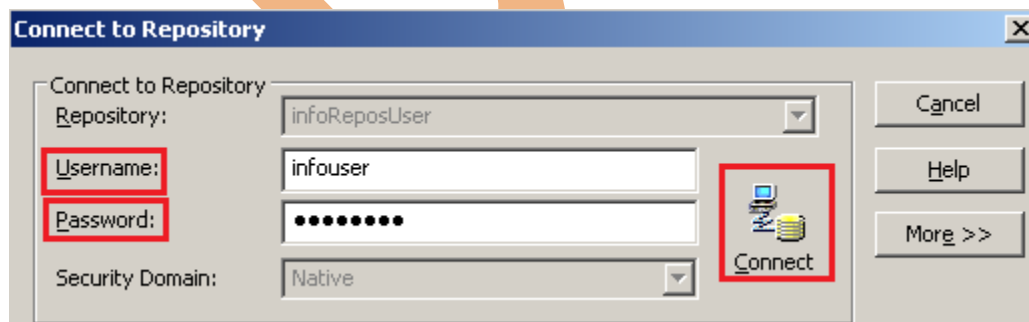
Step-3 Give information like Repository Name and Username. Then click on ok button and repository created successfully.



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



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

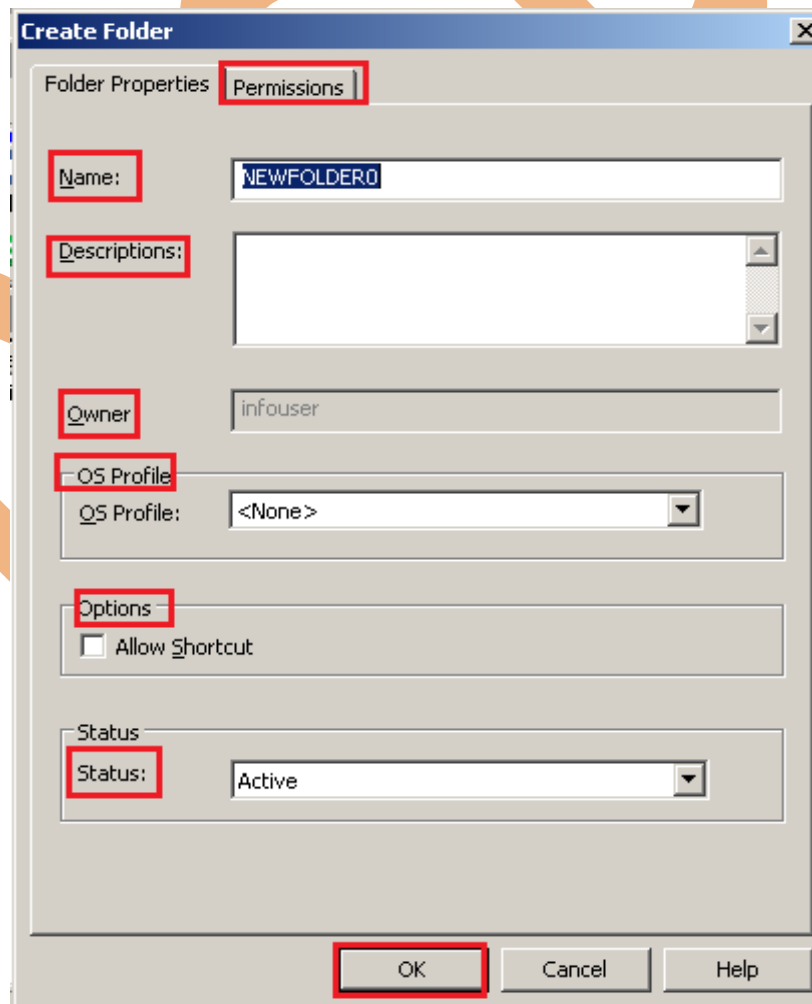


Creating Folder.

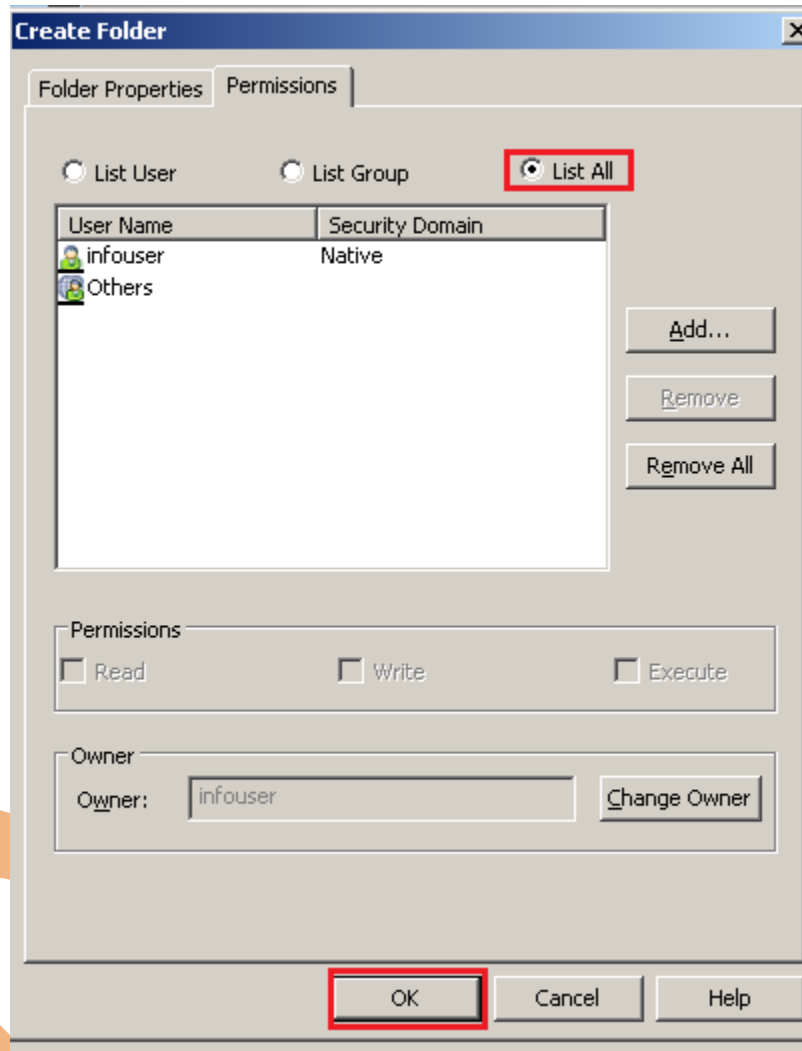
Step-1 Go to Informatica Power Center Repository Manager and click on Folder Menu and click on Create.



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.

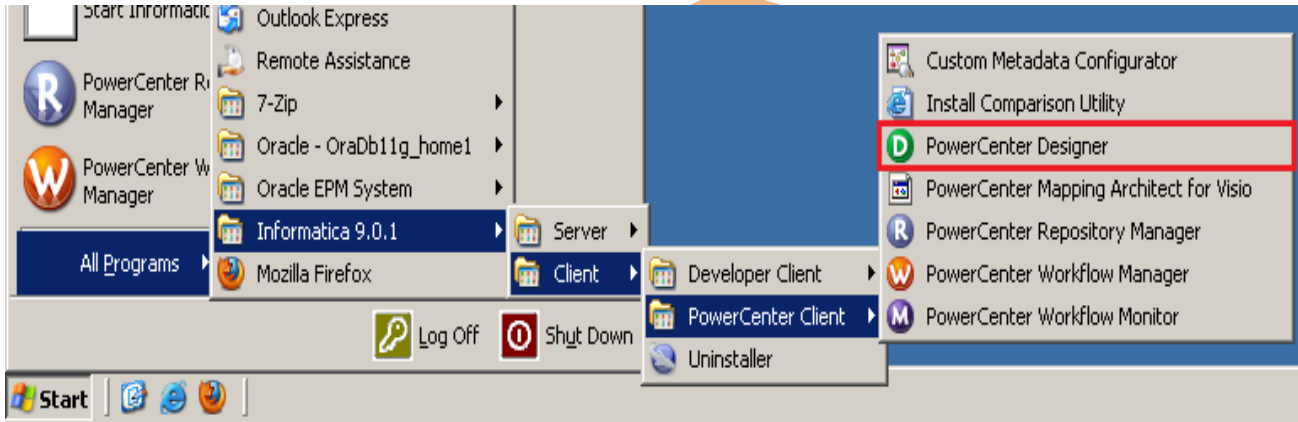


Step-4 This is newly created Folder

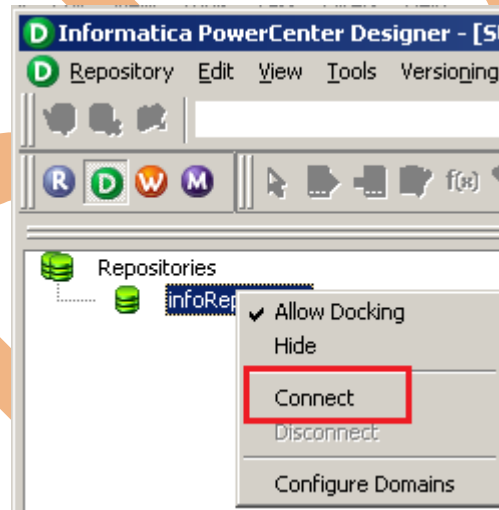
Name	Comments	Is Shared	Owner	OS Profile
bispInfo	-	no	infouser	-
Transformation	-	no	infouser	-

Importing Source and Target Table

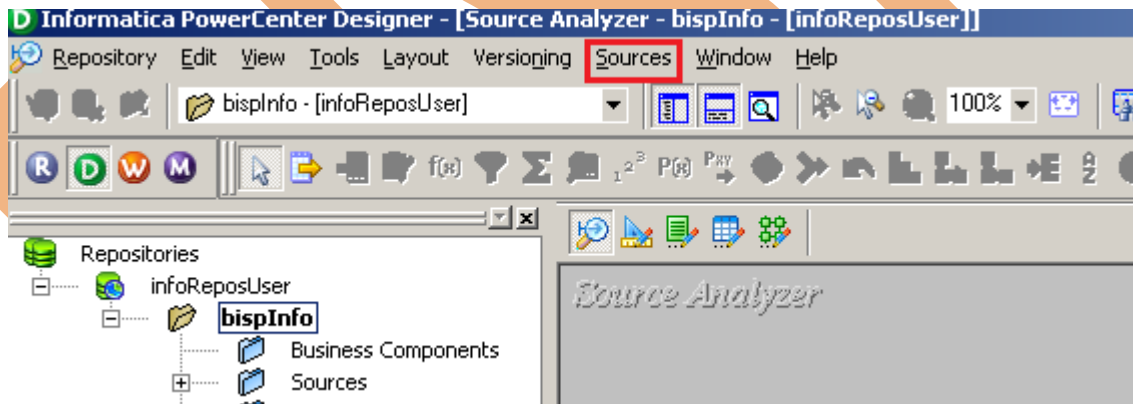
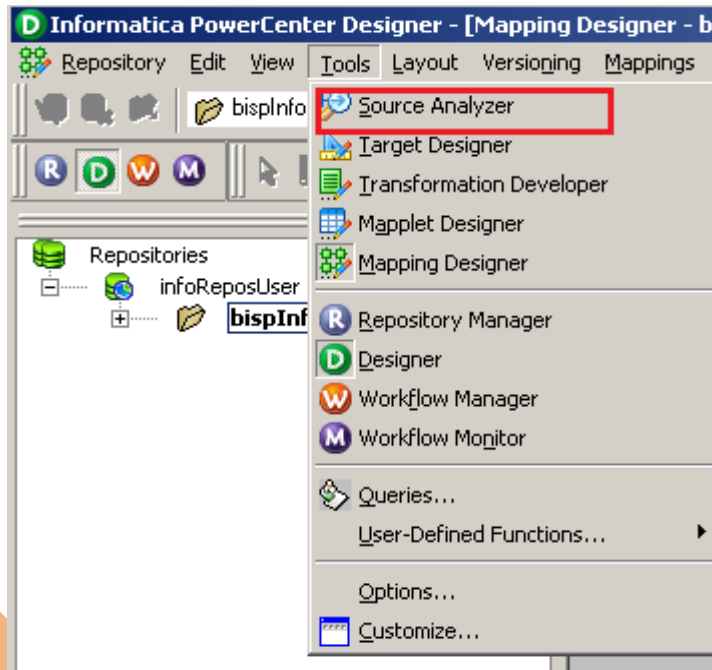
Step-1 Click on Start -> All Programs -> Informatica 9.0.1 -> Client -> Power Center Client -> Power Center Designer..



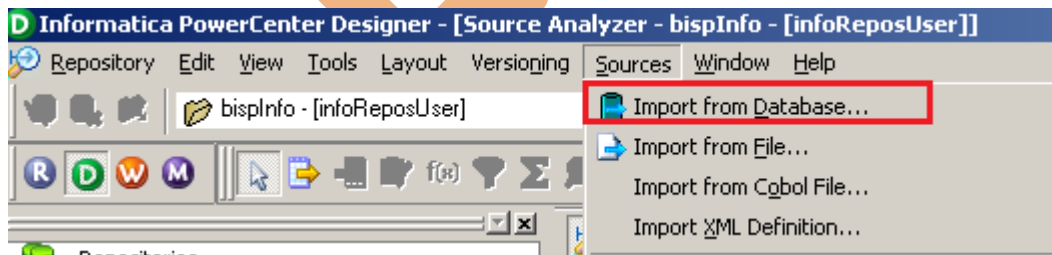
Step-2 Then Connect to Repository in Informatica Power Center Designer Right click on repository name and click on Connect.



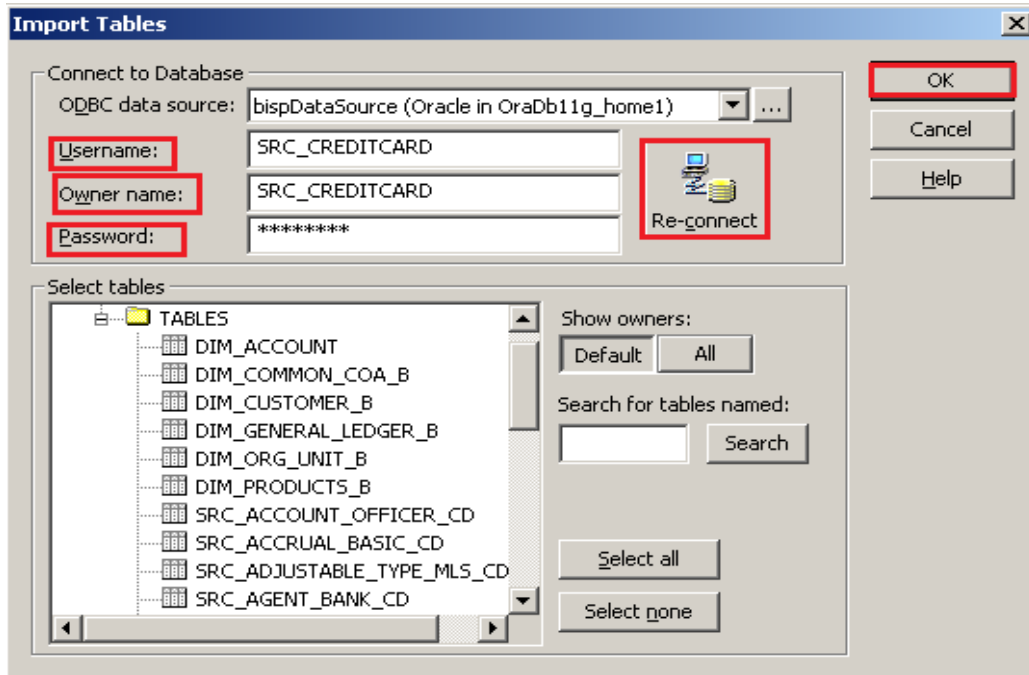
Step-3 Go to Tools Menu and click on Source Analyzer to import source table. And then go to Sources Menu in Informatica Power Center Designer.

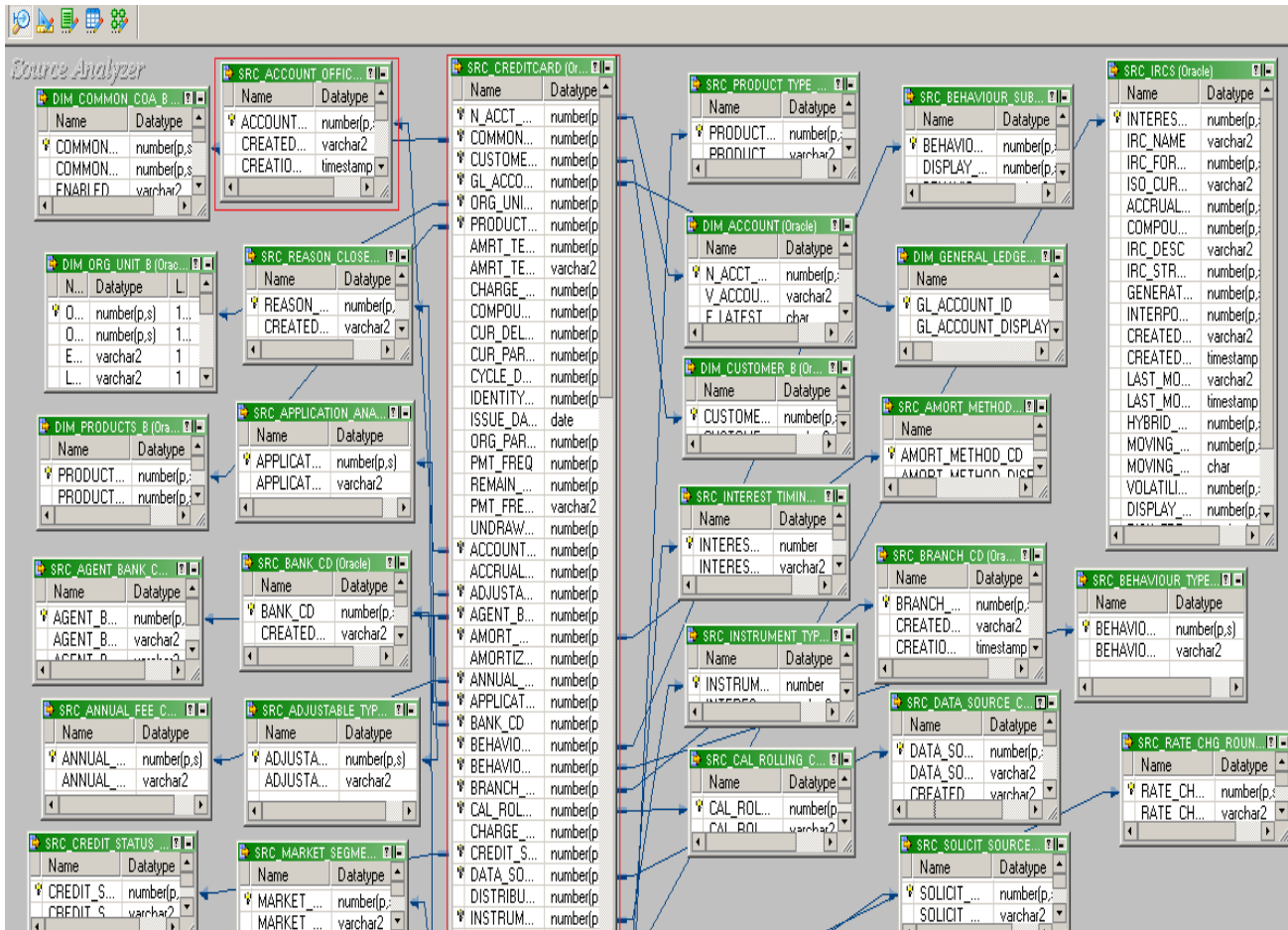


Step-4 And then select Source menu and select Import from database.

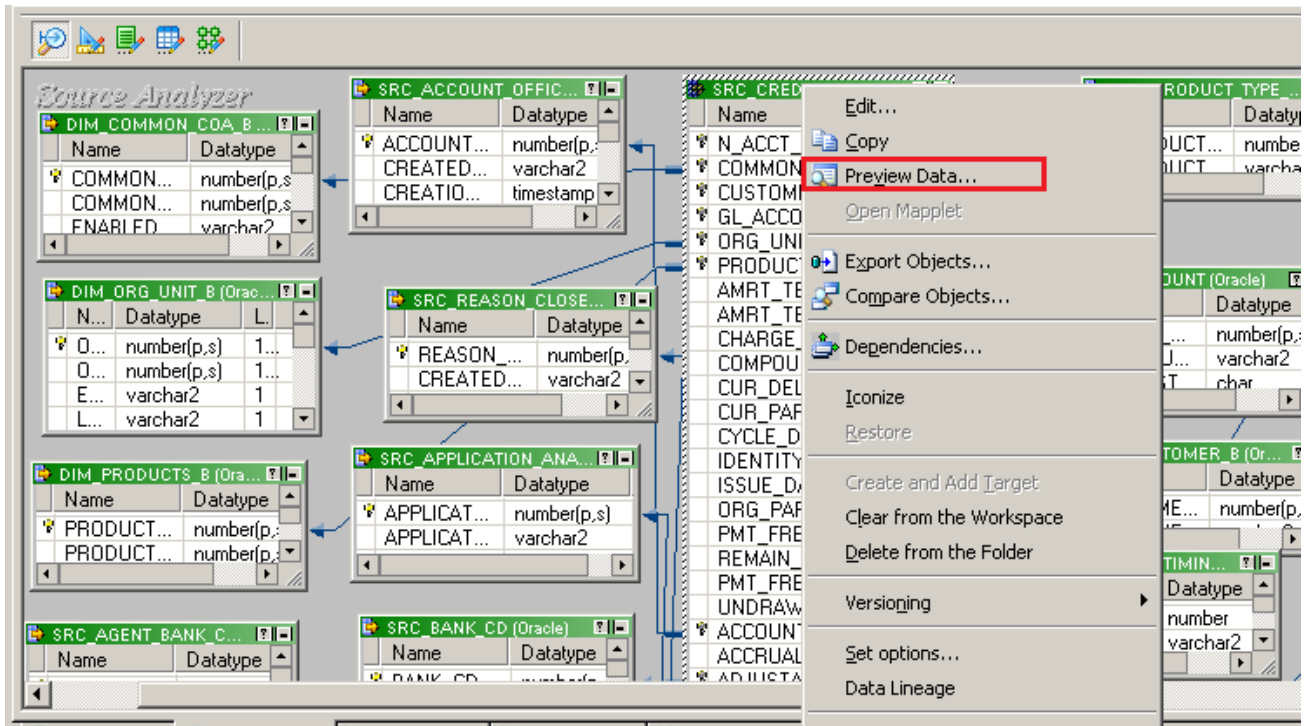


Step-5 Specify Username, Owner name, password and then connect. Then select source table and click OK.

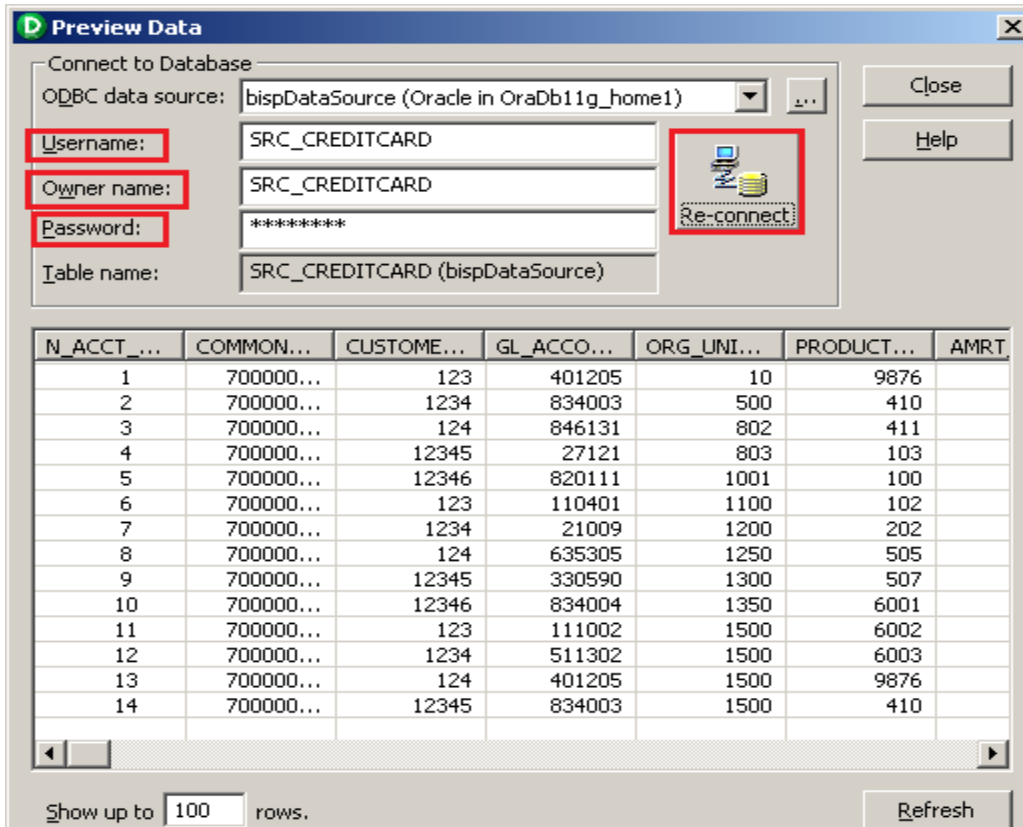




Step-6 View data in source analyzer, Right click on SRC_CREDITCARD and select Preview Data.

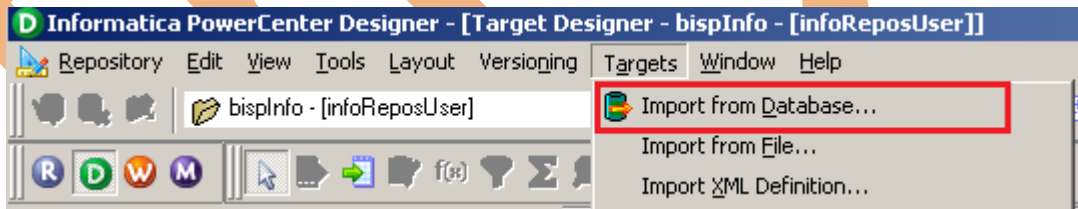


Step-7 Specify Username and Password and connect it. Then Close it.

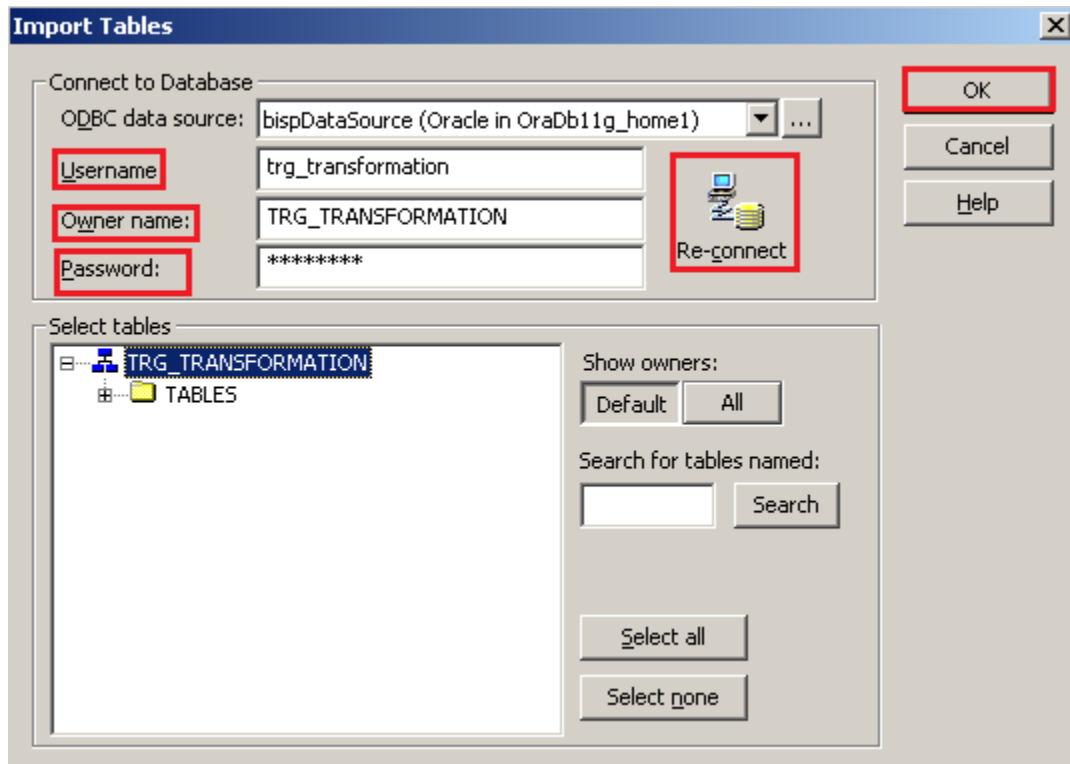


Step-8 Now click on Target Designer.

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

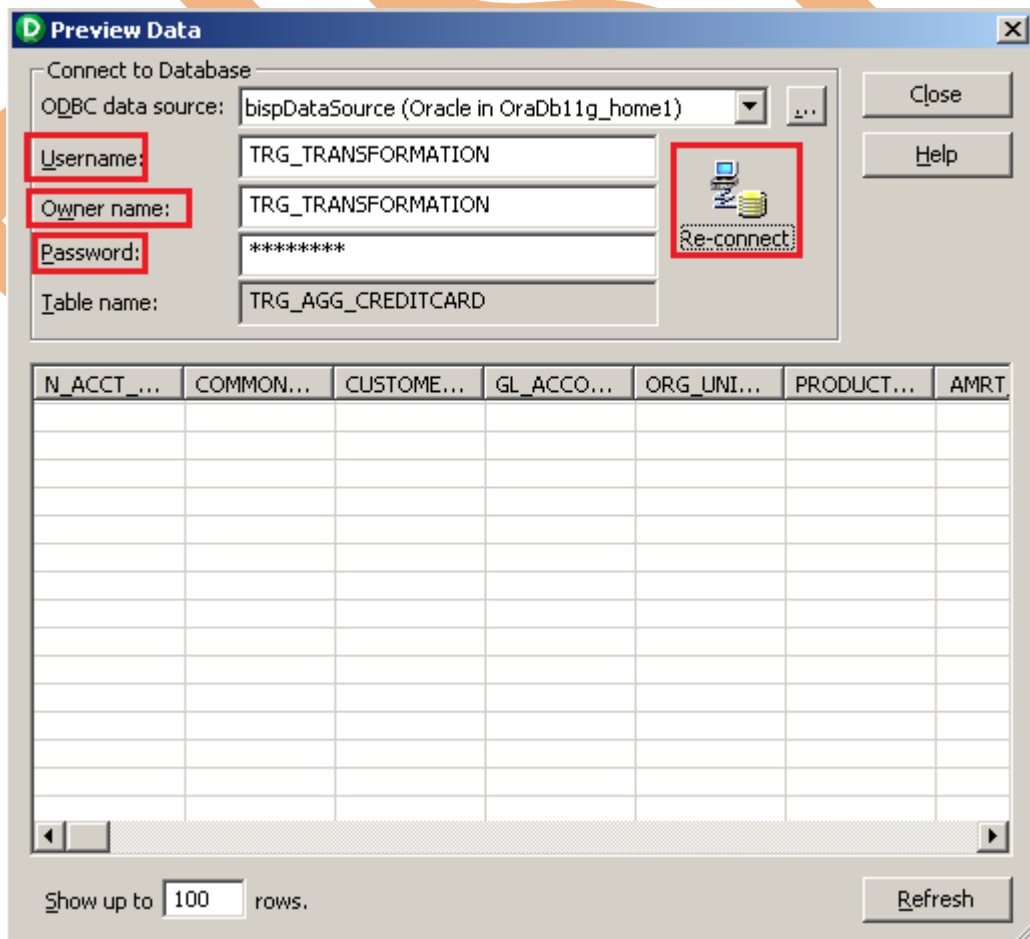
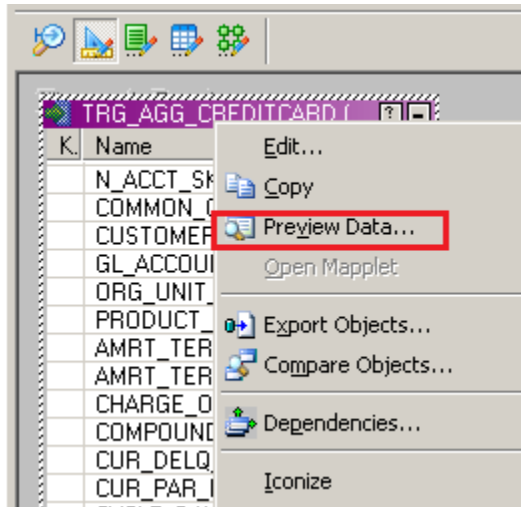


Step-10 Specify Username, Owner name, password and then click on connect and then select table and then OK.




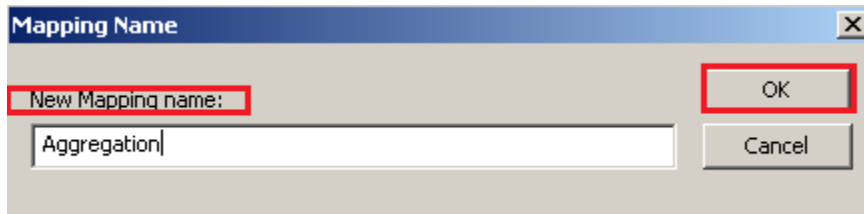
K.	Name	Datatype
	N_ACCT_KEY	number(p,s)
	COMMON_COA...	number(p,s)
	CUSTOMER_ID	number(p,s)
	GL_ACCOUNT_...	number(p,s)
	ORG_UNIT_ID	number(p,s)
	PRODUCT_ID	number(p,s)
	AMRT_TERM	number(p,s)
	AMRT_TERM_...	varchar2
	CHARGE_OFF_...	number(p,s)
	COMPOUND_B...	number(p,s)
	CUR_DELQ_BAL	number(p,s)
	CUR_PAR_BAL	number(p,s)
	CYCLE_DAY_O...	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_...	number(p,s)
	AMORT METH...	number(p,s)
	AMORTIZATIO...	number(p,s)
	ANNUAL_FEE_...	number(p,s)
	APPLICATION_...	number(p,s)

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.

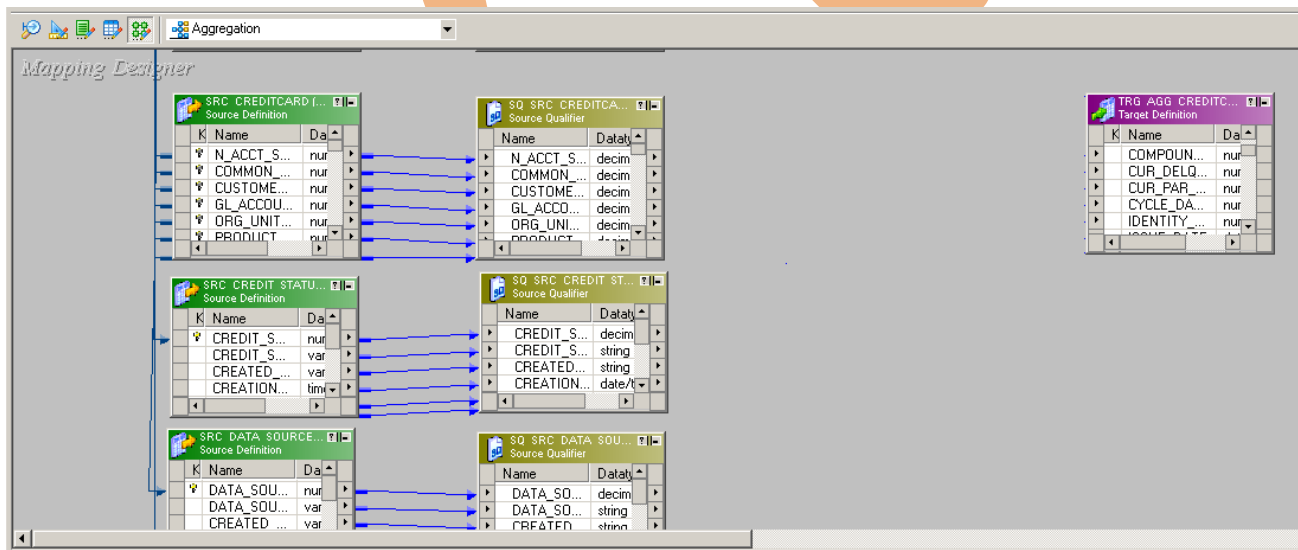


CREATE MAPPING AND AGGREGATION

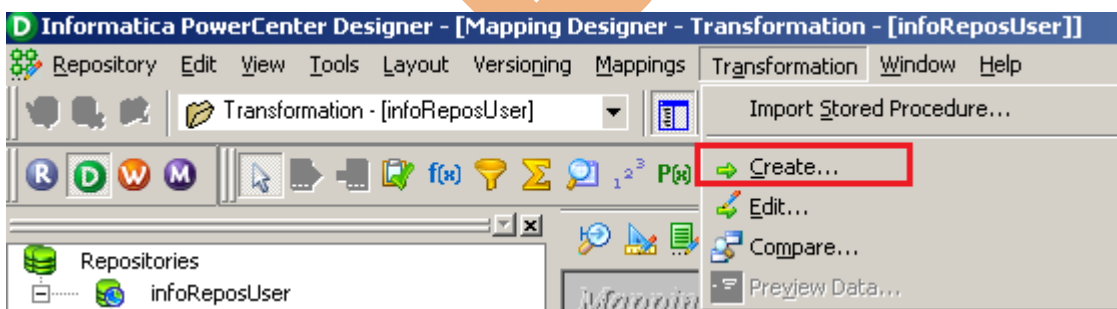
Step-1 Go to Mapping Designer  and Create New Mapping and then name of mapping and click OK.

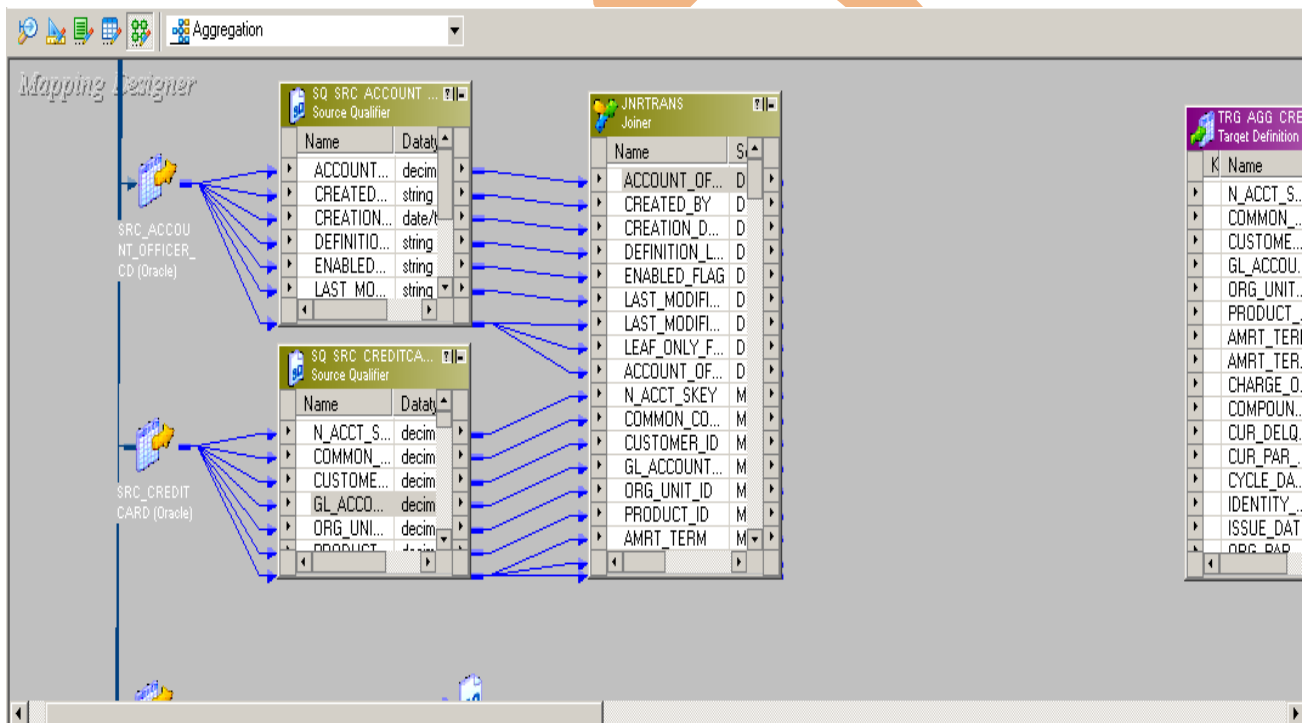
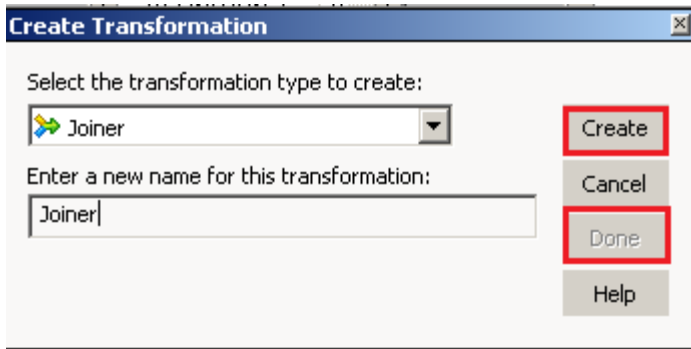


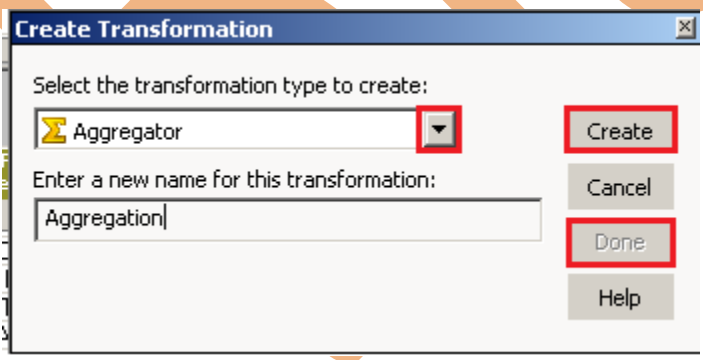
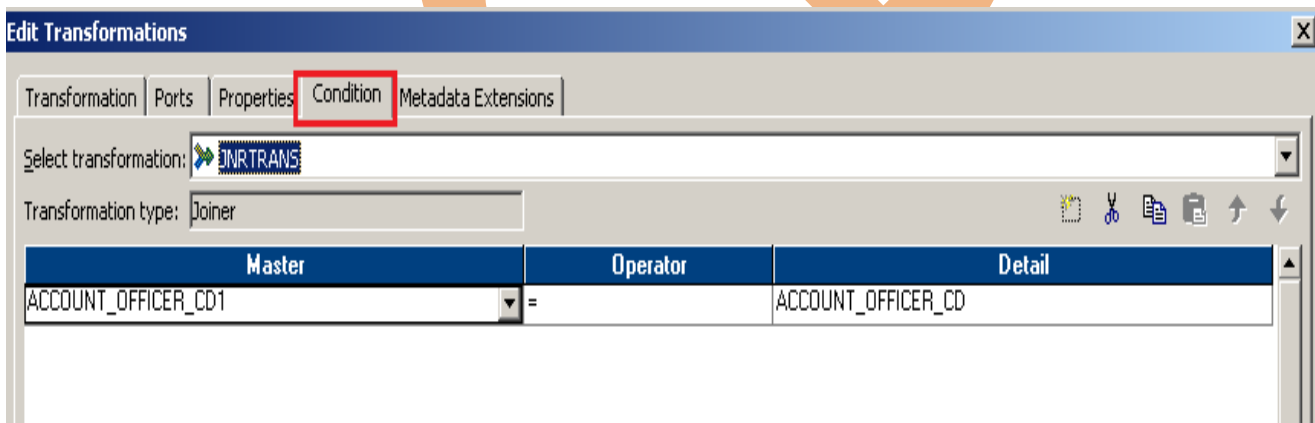
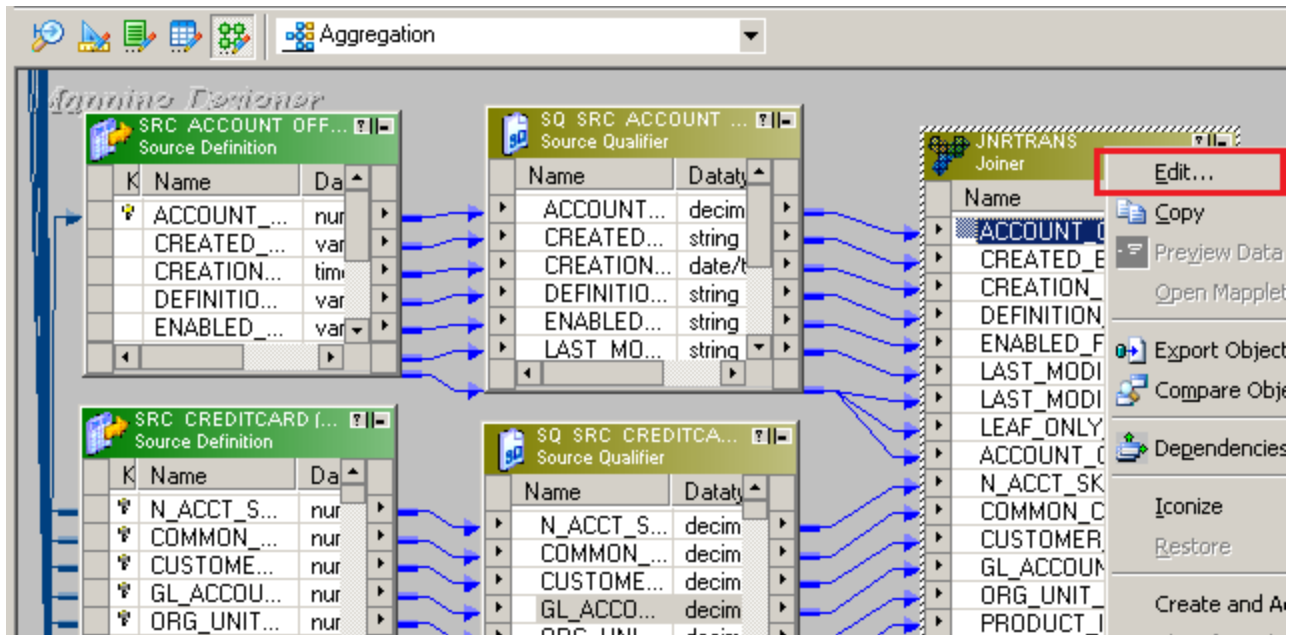
Step-2 Then drag and drop source and target data in Mapping Designer.



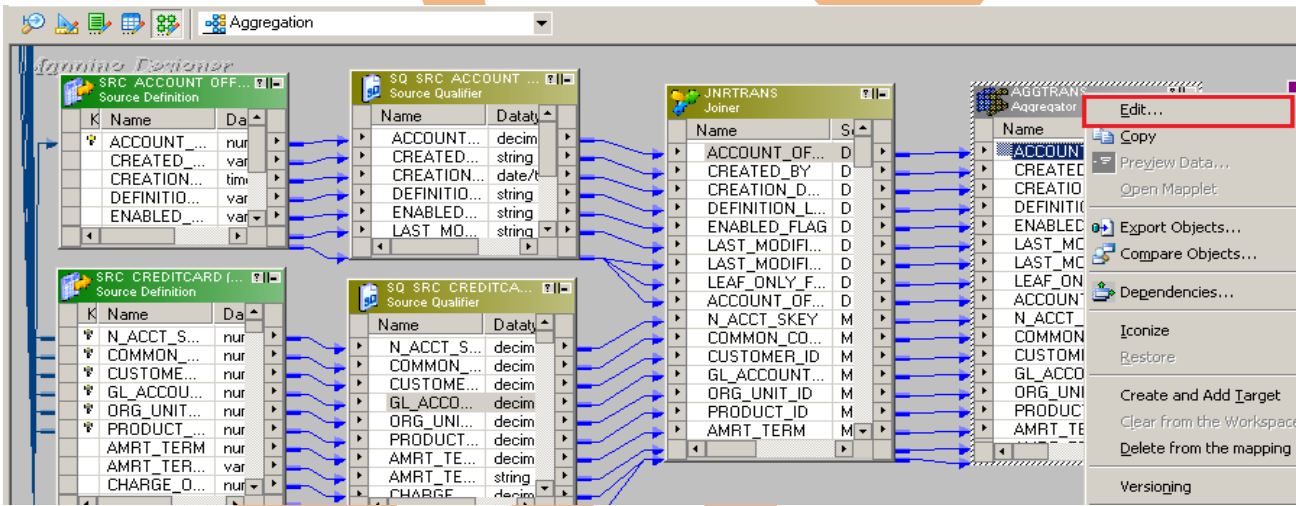
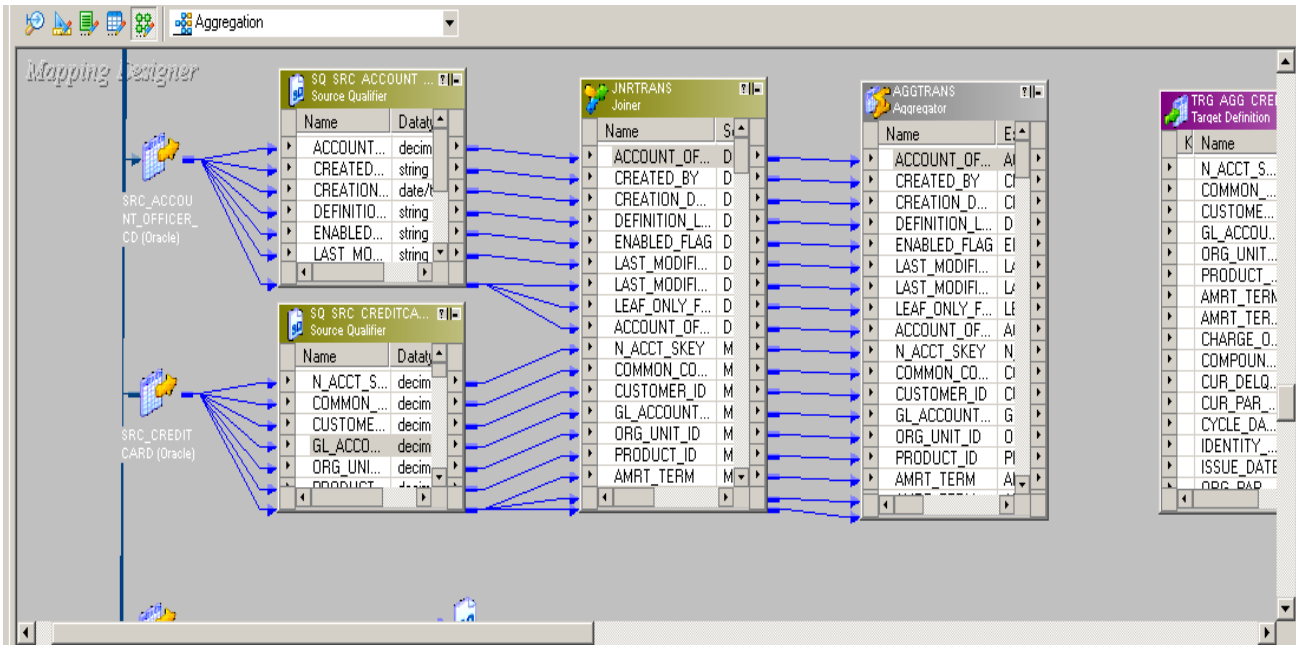
Step-3 Then create transformation, Click on Transformation menu and click on Create. Then select transformation and Name of transformation and click Create and then Done.



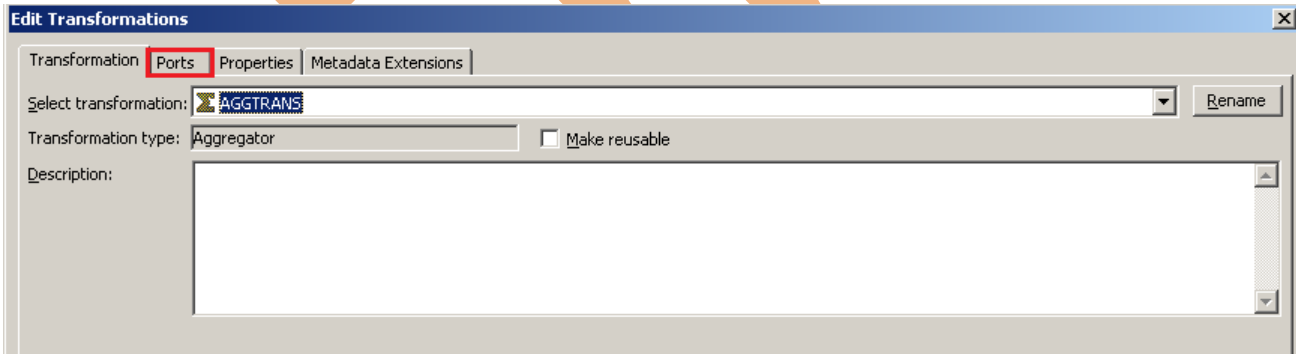




Step-4 Then drag and drop all column in Aggregation Transformation table. then right click on aggregation transformation table and select edit, then go to ports tab and write aggregation query in Expression Editor.



Step-5 Go to Ports tab and write Aggregation Query.



Step-6 Select Column and in Expression Editor, Write query.

Edit Transformations

Transformation: Ports Properties Metadata Extensions

Select transformation: **AGGTRANS**

Transformation type: Aggregator

	Port Name	Datatype	Prec	Scale	I	O	V	Expression	GroupBy
1	ACCOUNT_OFFICER_CD	decimal	5	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ACCOUNT_OFFICER_CD	<input checked="" type="checkbox"/>
2	CREATED_BY	string	30	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	CREATED_BY	<input type="checkbox"/>
3	CREATION_DATE	date/time	29	9	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	CREATION_DATE	<input type="checkbox"/>
4	DEFINITION_LANGUAGE	string	4	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	DEFINITION_LANGUAGE	<input type="checkbox"/>
5	ENABLED_FLAG	string	1	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ENABLED_FLAG	<input type="checkbox"/>
6	LAST_MODIFIED_BY	string	30	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LAST_MODIFIED_BY	<input type="checkbox"/>
7	LAST_MODIFIED_DATE	date/time	29	9	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LAST_MODIFIED_DATE	<input type="checkbox"/>
8	LEAF_ONLY_FLAG	string	1	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LEAF_ONLY_FLAG	<input type="checkbox"/>
9	ACCOUNT_OFFICER_DISPLAY_CD	string	10	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ACCOUNT_OFFICER_DISPLAY_CD	<input type="checkbox"/>
10	N_ACCT_SKEY	decimal	14	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	N_ACCT_SKEY	<input type="checkbox"/>
11	COMMON_COA_ID	decimal	14	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	COMMON_COA_ID	<input type="checkbox"/>
12	CUSTOMER_ID	decimal	14	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	CUSTOMER_ID	<input type="checkbox"/>
13	GL_ACCOUNT_ID	decimal	14	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	GL_ACCOUNT_ID	<input type="checkbox"/>
14	ORG_UNIT_ID	decimal	14	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ORG_UNIT_ID	<input type="checkbox"/>
15	PRODUCT_ID	decimal	14	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	PRODUCT_ID	<input type="checkbox"/>
16	AMRT_TERM	decimal	14	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	AMRT_TERM	<input type="checkbox"/>
17	AMRT_TERM_MULT	string	20	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	AMRT_TERM_MULT	<input type="checkbox"/>
18	CHARGE_OFF_BAL	decimal	14	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	CHARGE_OFF_BAL	<input type="checkbox"/>
19	CHARGE_OFF_BAL1	decimal	14	0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	IIF(SUM(CHARGE_OFF_BAL)<1000...	<input type="checkbox"/>
20	COMPOUND_BASIS_CD	decimal	14	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	COMPOUND_BASIS_CD	<input type="checkbox"/>

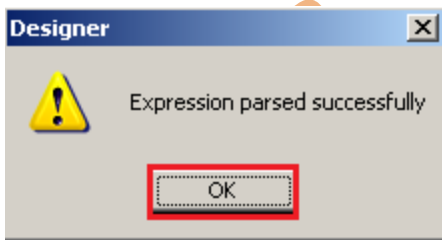
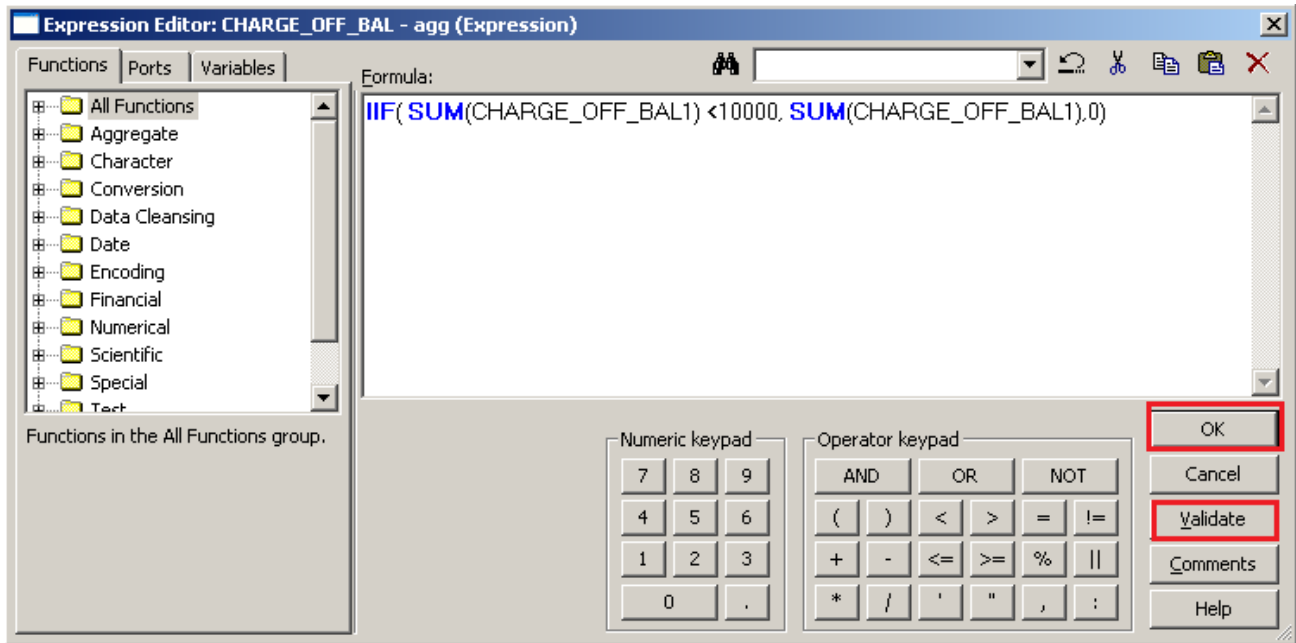
Default value:

Description:

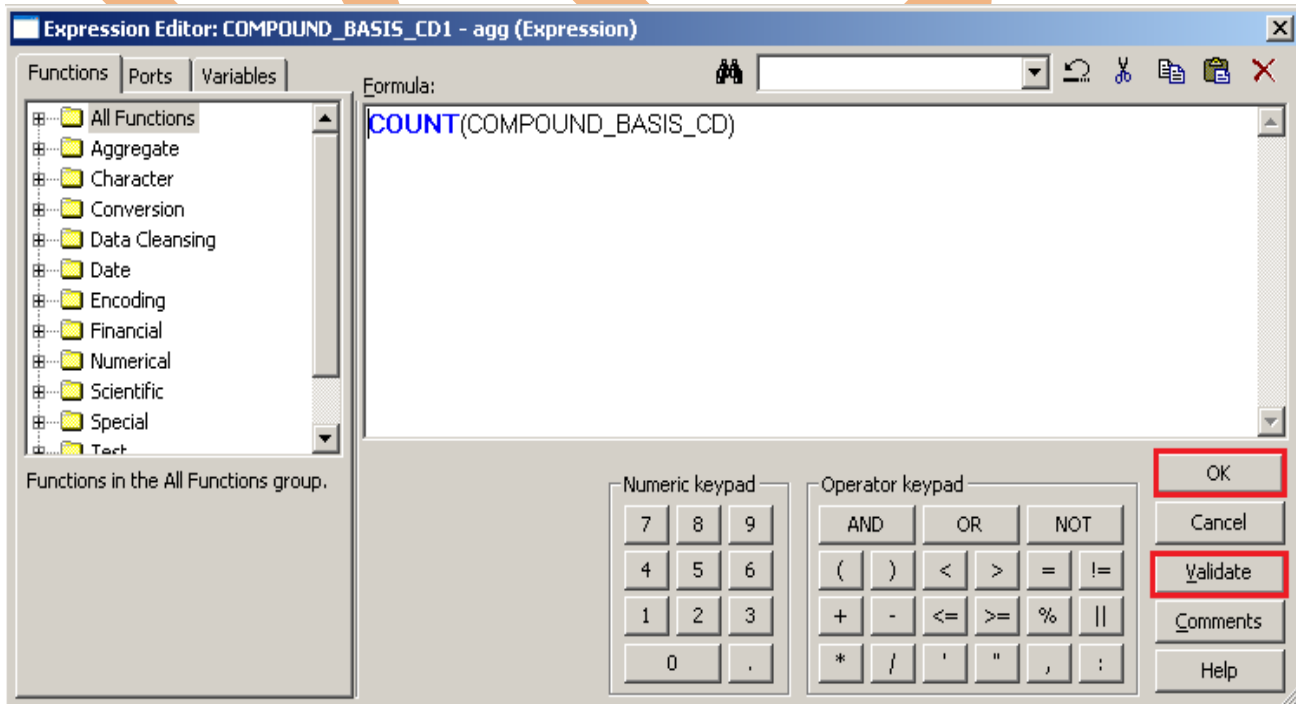
OK Cancel Apply Help

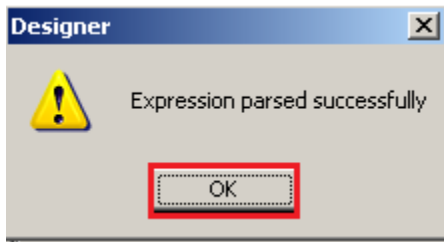


Step-7 Query for CHARGE_OFF_BAL and validate it then click OK.

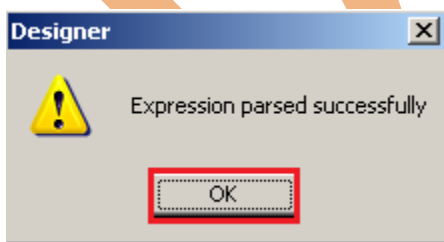
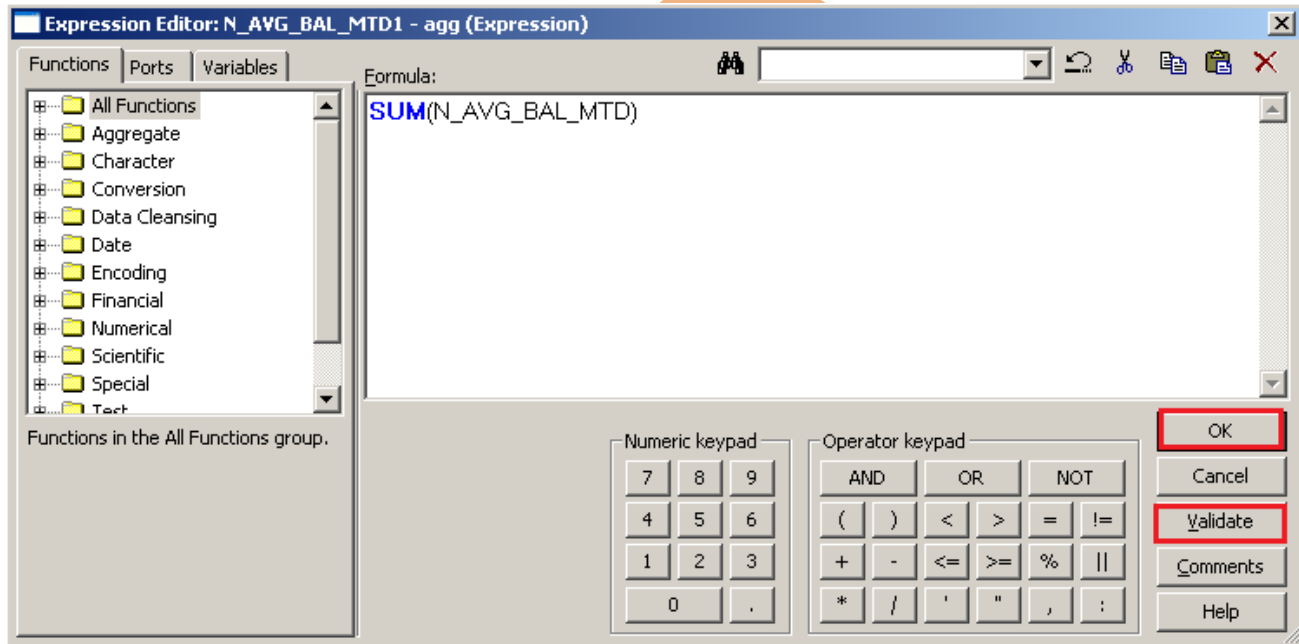


Step-8 Query for COMPOUND_BASIS_CD and validate it then click OK.

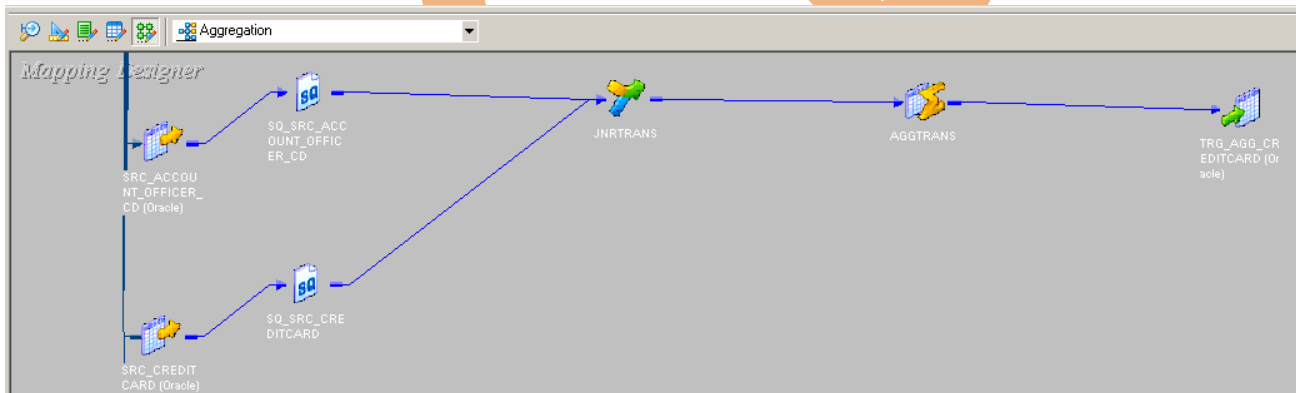
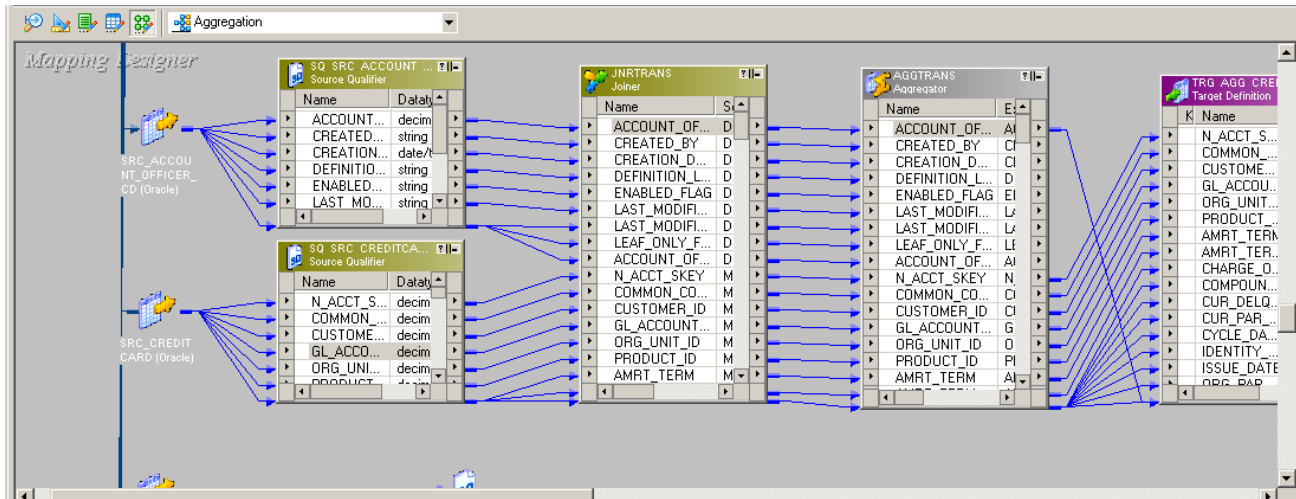




Step-9 Query for N_AVG_BAL_MTD and validate it then click OK.



Step-10 Create Mapping.



Step-11 And then save it (ctrl+s) and check mapping is VALID.

11/21/2012 13:02:02 *** Saving... Repository infoReposUser, Folder Transformation_Example

Validating transformations of mapping Aggregation...

...transformation validation completed with no errors.

Validating data flow of mapping Aggregation...

...data flow validation completed with no errors.

Parsing mapping Aggregation...

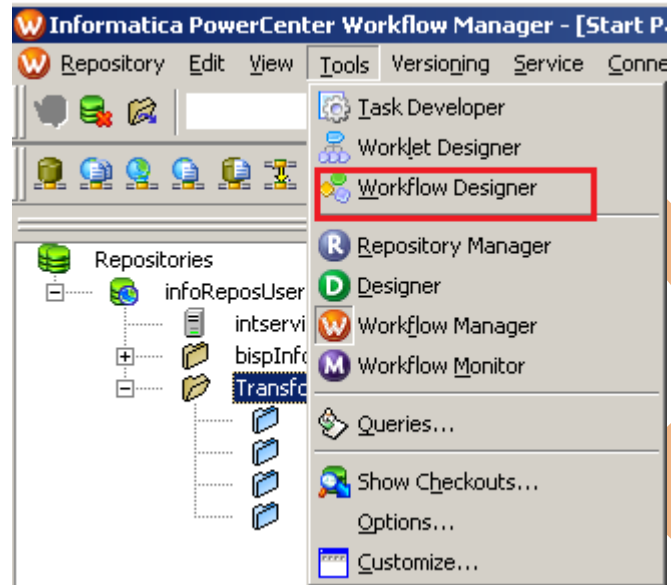
...parsing completed with no errors.

***** Mapping Aggregation is VALID *****

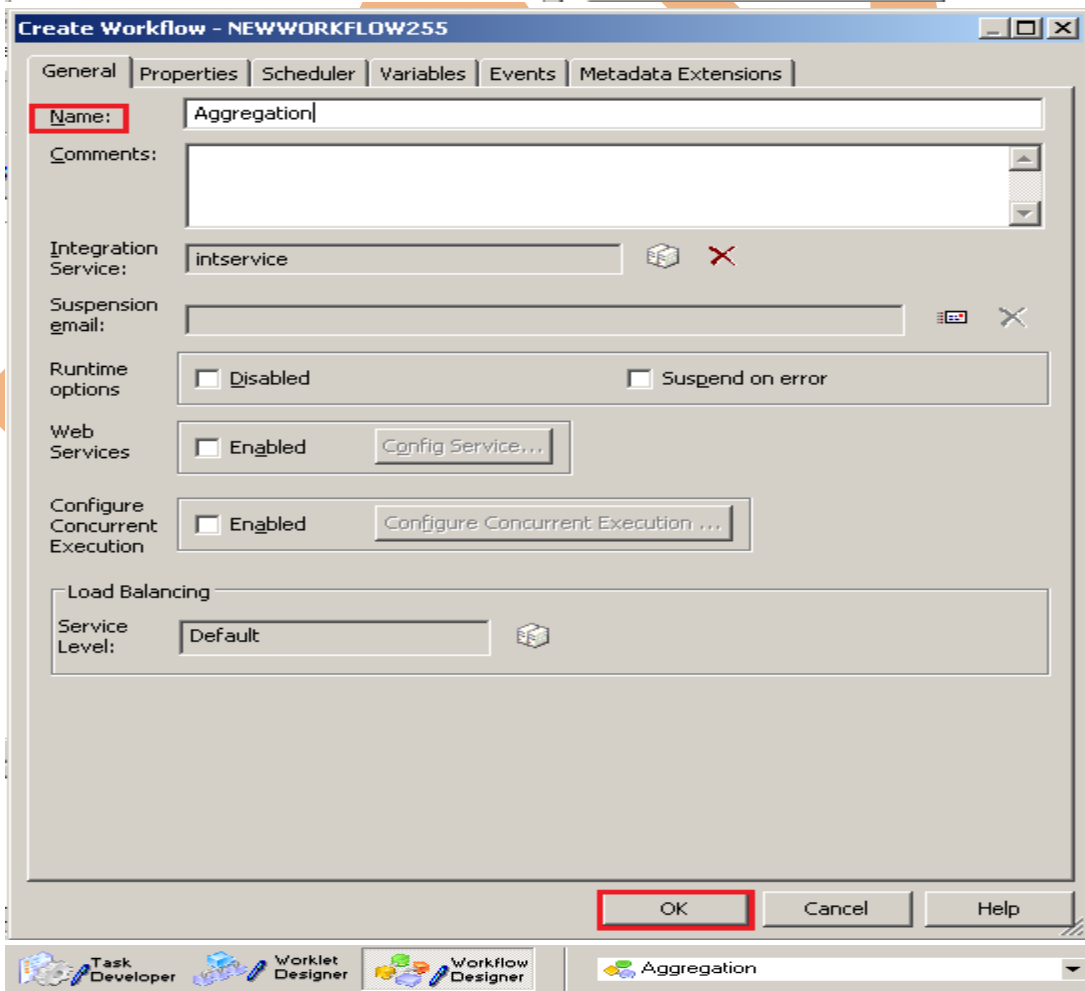
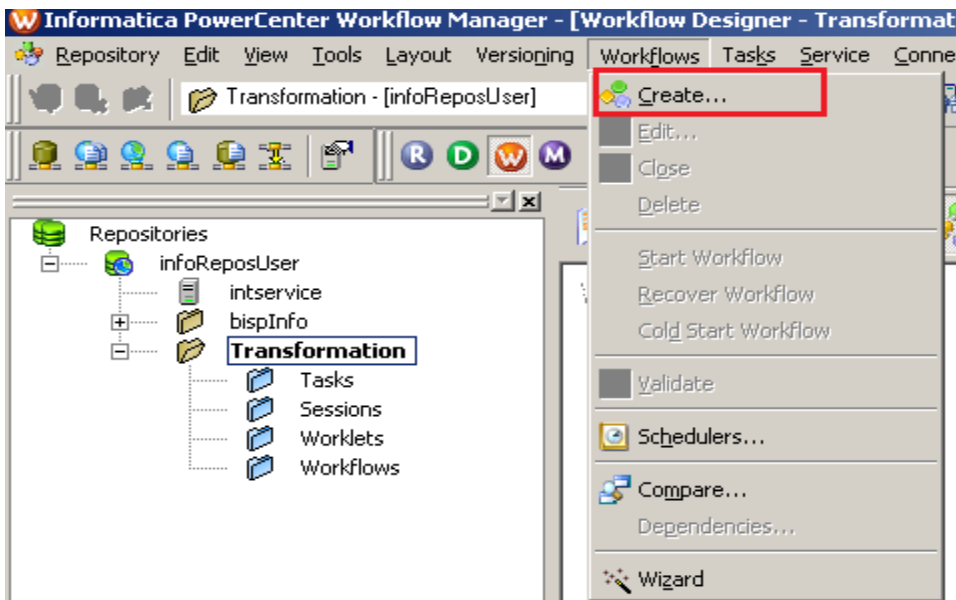
mapping Aggregation updated.

CREATE WORKFLOW

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



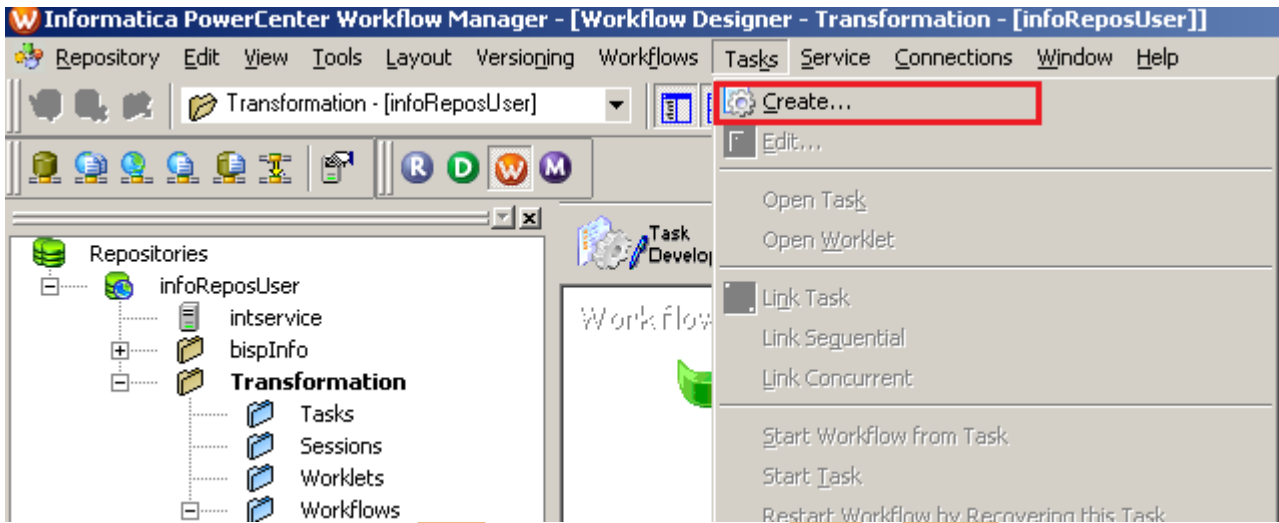
Step-2 Now to create workflows, Go to Workflows menu and select Create. After that Name of workflow and click OK buttons.



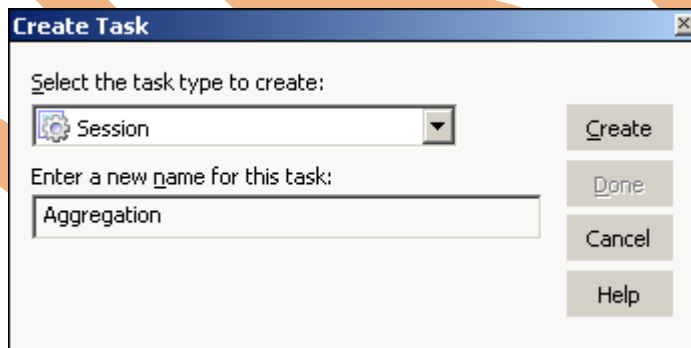
Workflow Designer



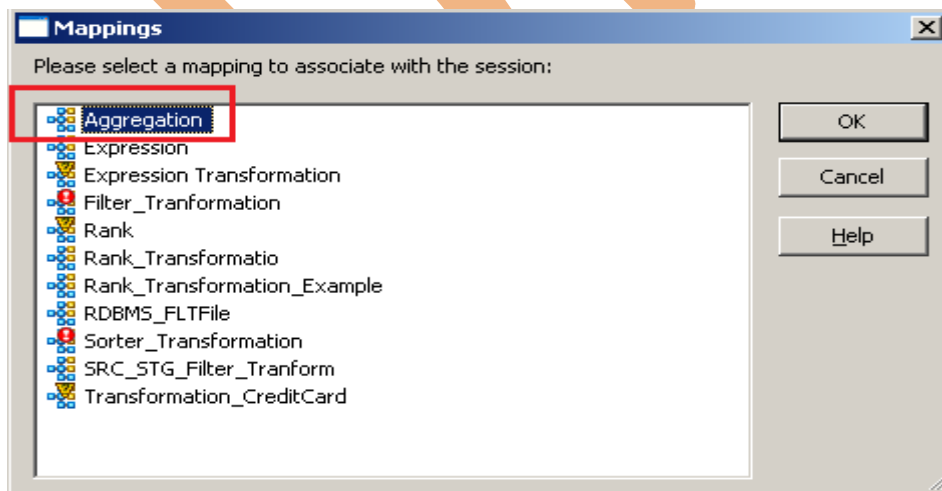
Step-3 Now create Task, Go to Tasks Menu and click Create.



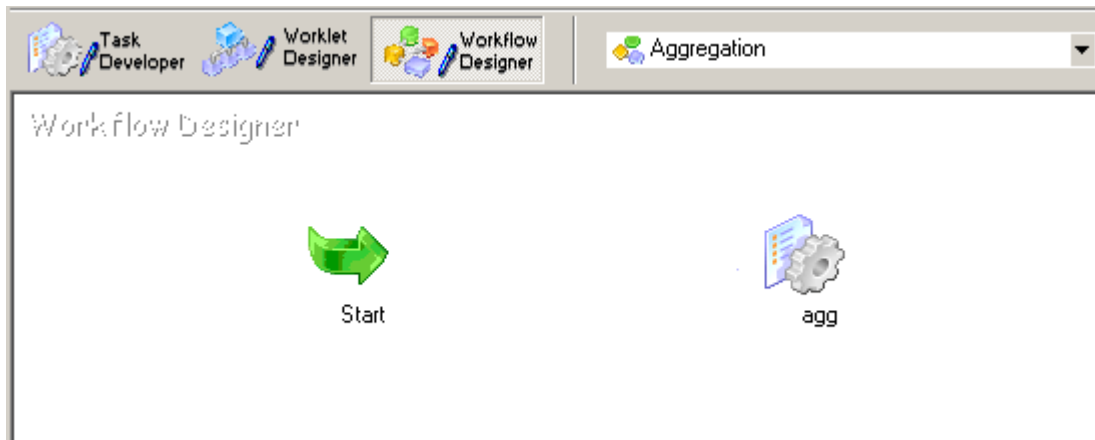
Step-4 Now select session and insert Name of task.



Step-5 Select Mapping to associate with the session.



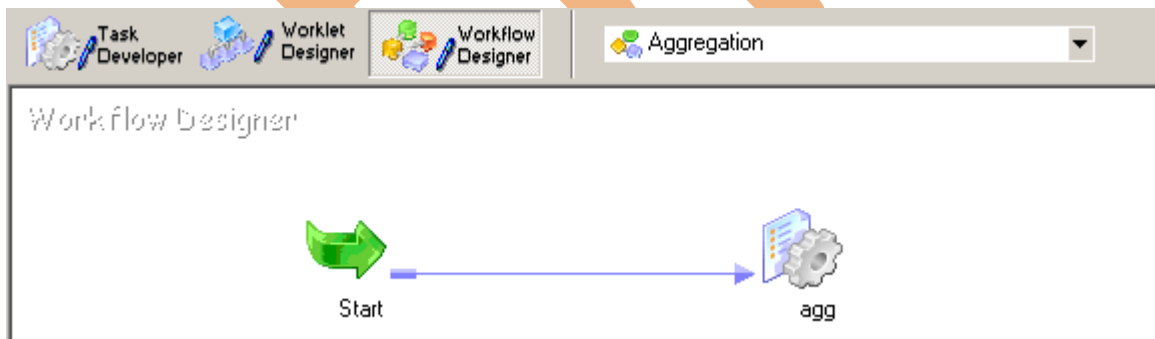
Step-6 Workflow Designer Window.



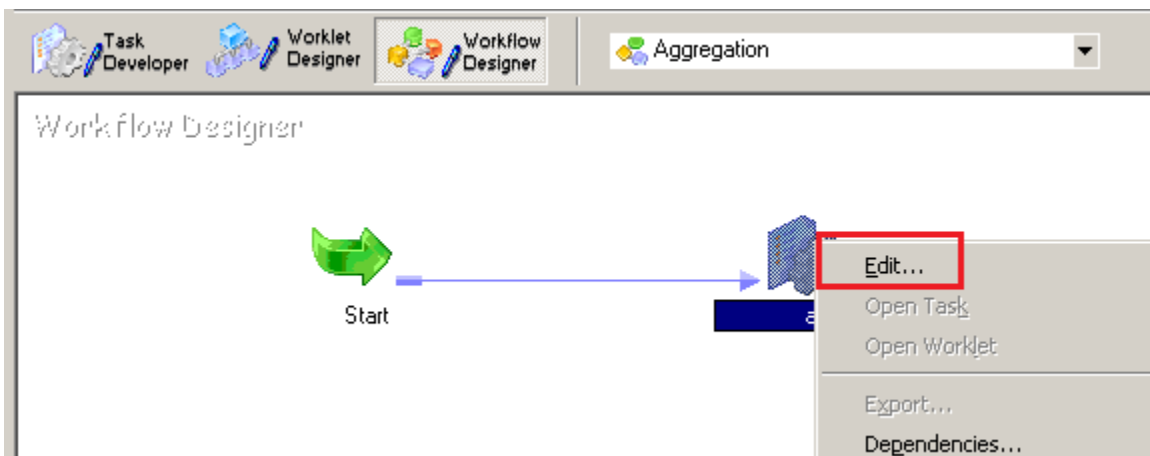
Step-7 Now create flow B/W Workflow to Task. Select Line Task and link to Start to Filter.



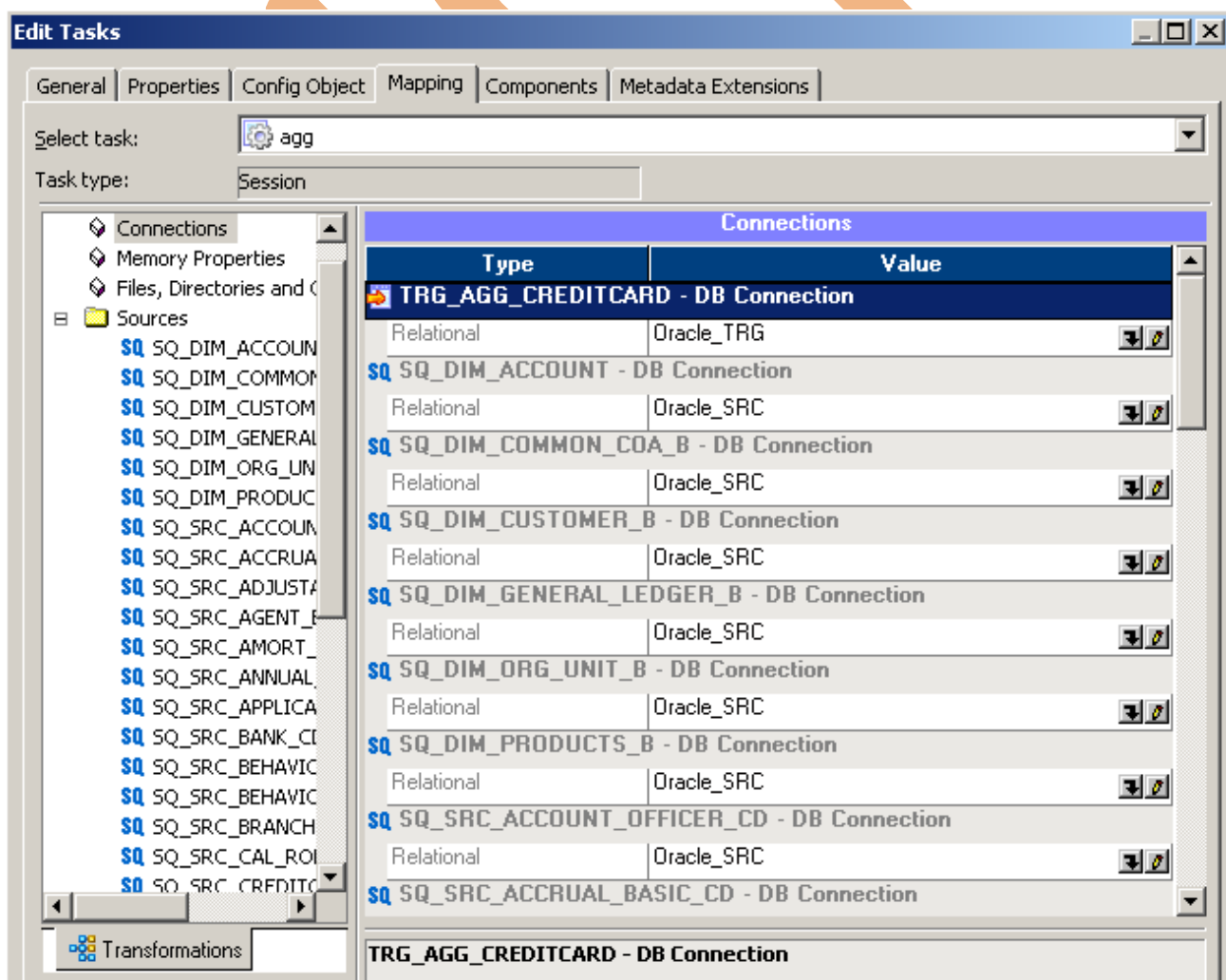
Step-8 Work Designer Windows



Step-9 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-10 Select DBConnection for Source and Target Relation Database.



Properties		Show Session Level Properties	
Attribute		Value	
Update as Insert	<input type="checkbox"/>		
Update else Insert	<input type="checkbox"/>		
Delete	<input checked="" type="checkbox"/>		
Truncate target table option	<input checked="" type="checkbox"/>		

TRG_AGG_CREDITCARD - Relational Writer

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

```

-----
11/21/2012 13:23:25 *** Saving... Repository infoReposUser, Folder Transformation_Example
-----
Validating the flow semantics of Workflow Aggregation...
...flow semantics validation completed with no errors.

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

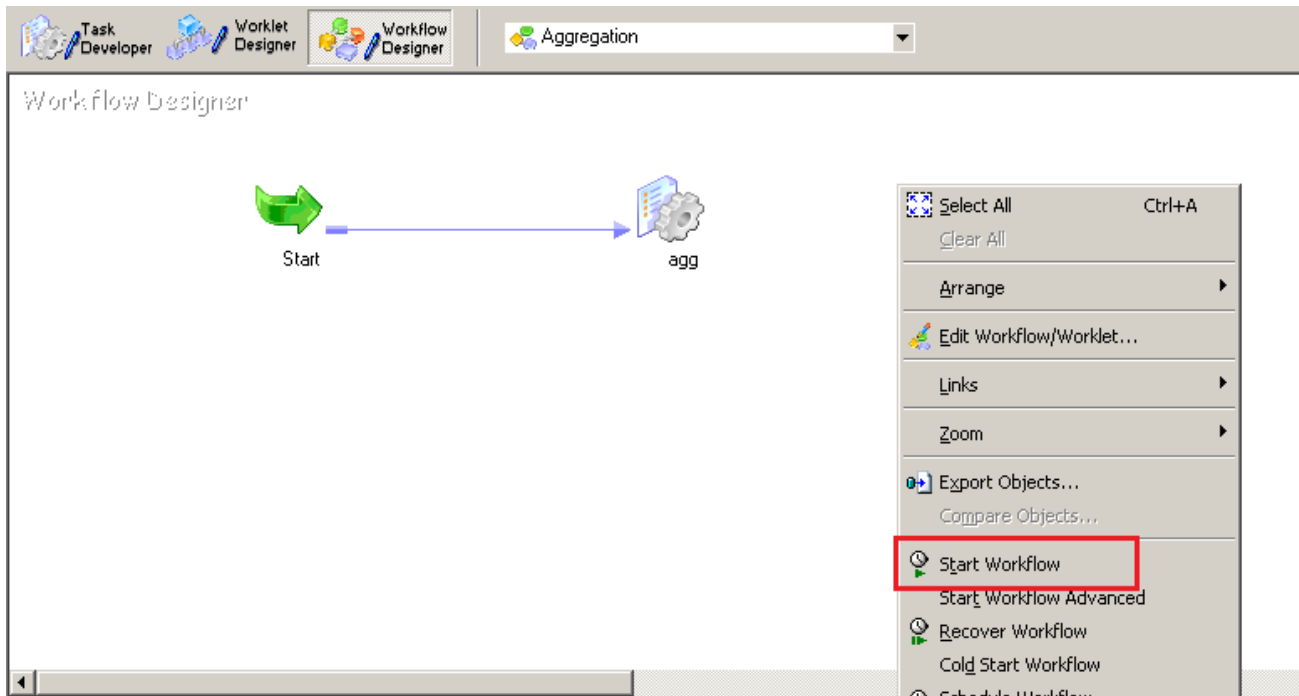
***** Workflow Aggregation is VALID *****

Workflow Aggregation updated.
-----

```

WORKFLOW MONITOR AND VIEW TARGET DATA

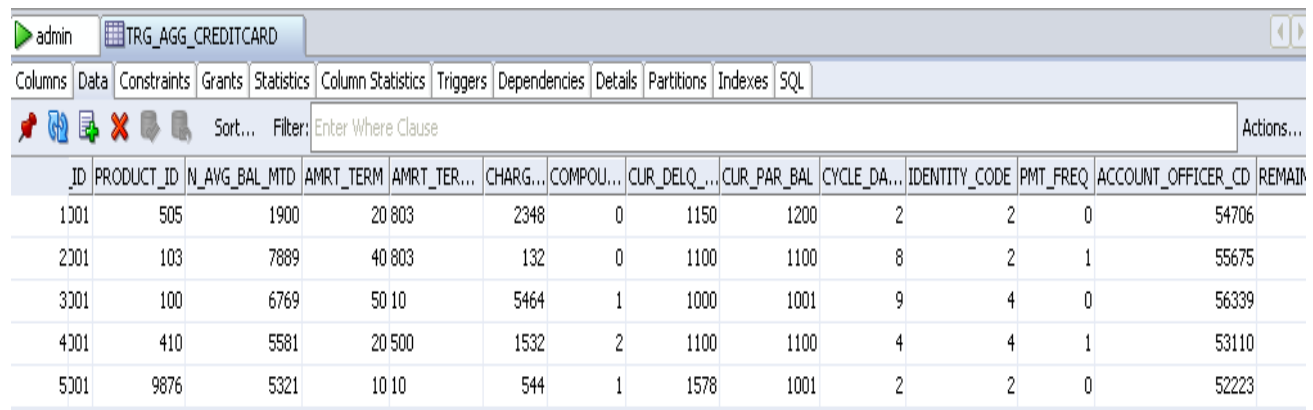
Step-1 Now Start Workflow, Right click on Workflow Designer Window and Click on Start Workflow.



Step-2 Check session in Informatica PowerCenter Workflow Monitor.

Session Name	Start Time	End Time	Status
Aggregation	11/21/2012 1:02:06 PM	11/21/2012 1:02:10 PM	Succeeded
Aggregation	11/21/2012 1:02:06 PM	11/21/2012 1:02:06 PM	Succeeded
Start	11/21/2012 1:02:06 PM	11/21/2012 1:02:06 PM	Succeeded
agg	11/21/2012 1:02:06 PM	11/21/2012 1:02:09 PM	Succeeded

Step-3 Now view data in Target RDBMS (Oracle 11g)



ID	PRODUCT_ID	N_AVG_BAL_MTD	AMRT_TERM	AMRT_TER...	CHARG...	COMPOU...	CUR_DELO...	CUR_PAR_BAL	CYCLE_DA...	IDENTITY_CODE	PMT_FREQ	ACCOUNT_OFFICER_CD	REMAIN
1001	505	1900	20	803	2348	0	1150	1200	2	2	0	54706	
2001	103	7889	40	803	132	0	1100	1100	8	2	1	55675	
3001	100	6769	50	10	5464	1	1000	1001	9	4	0	56339	
4001	410	5581	20	500	1532	2	1100	1100	4	4	1	53110	
5001	9876	5321	10	10	544	1	1578	1001	2	2	0	52223	