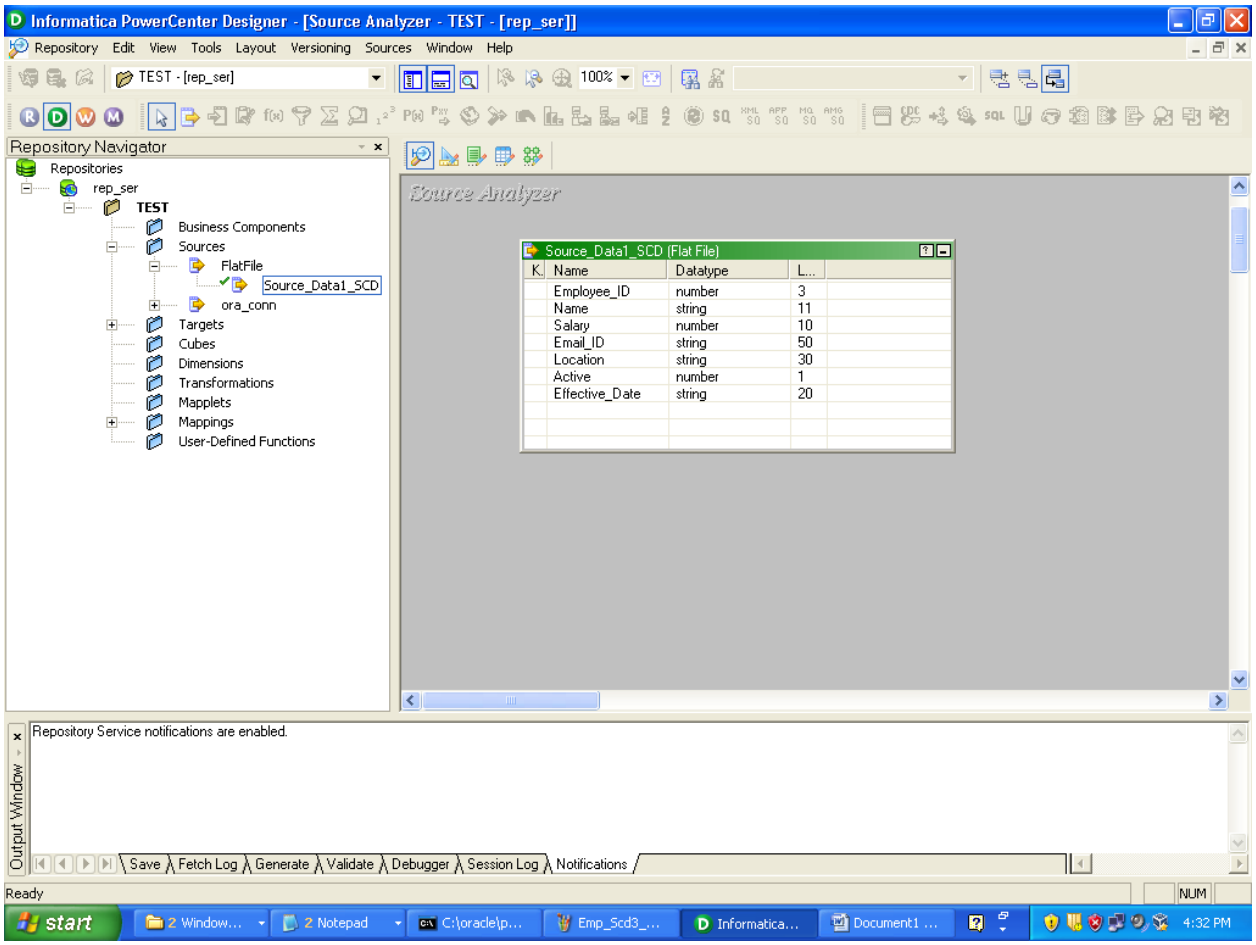
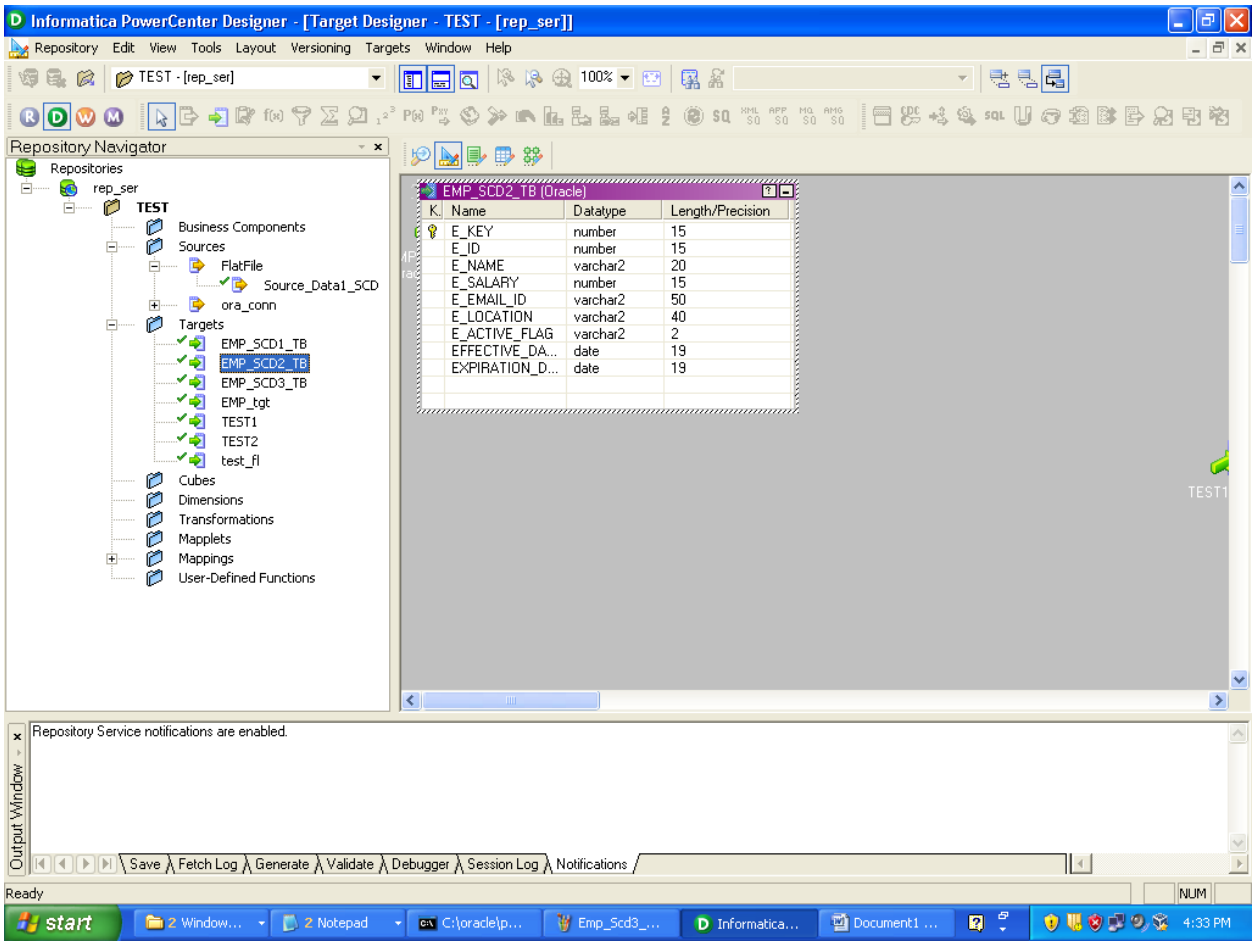
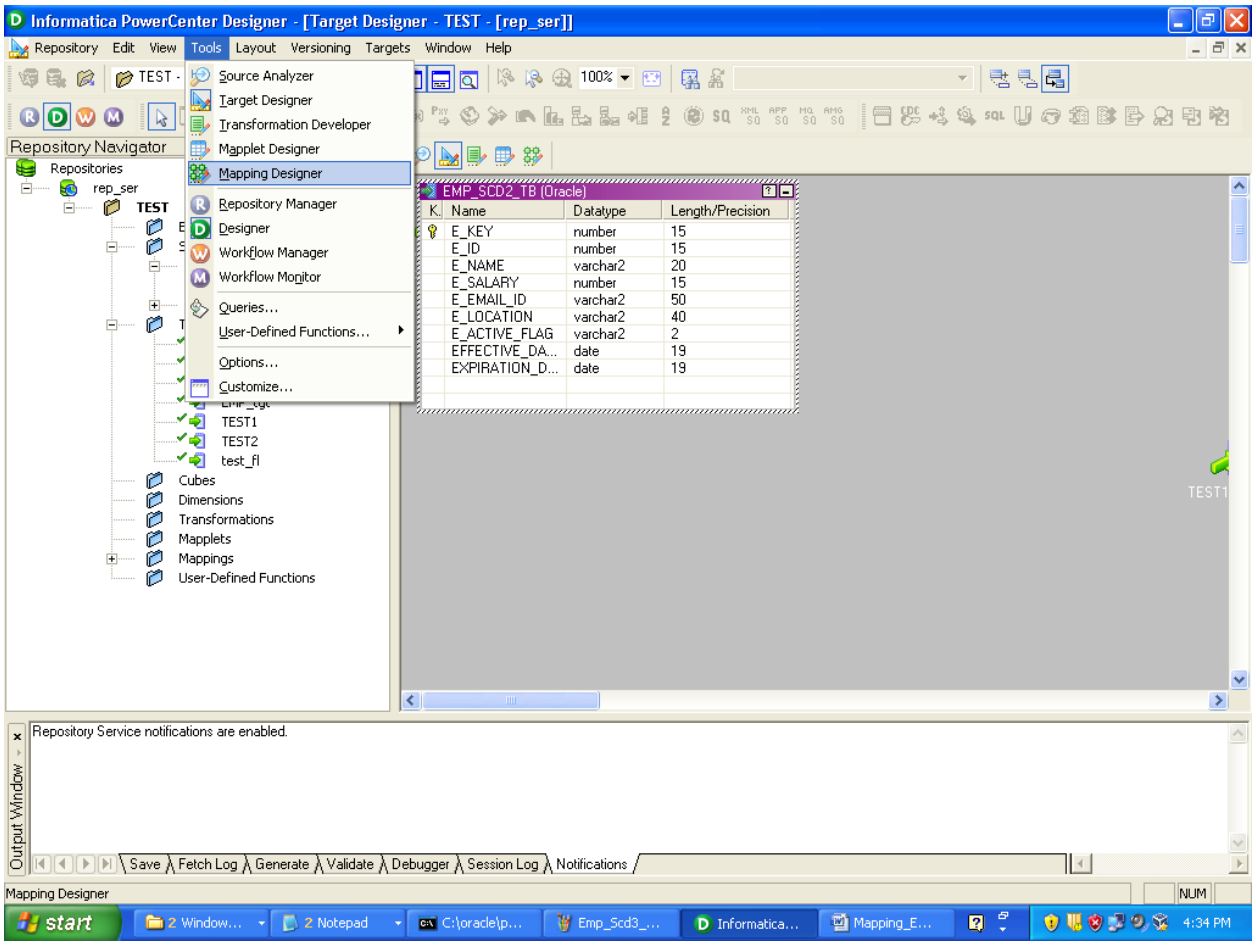
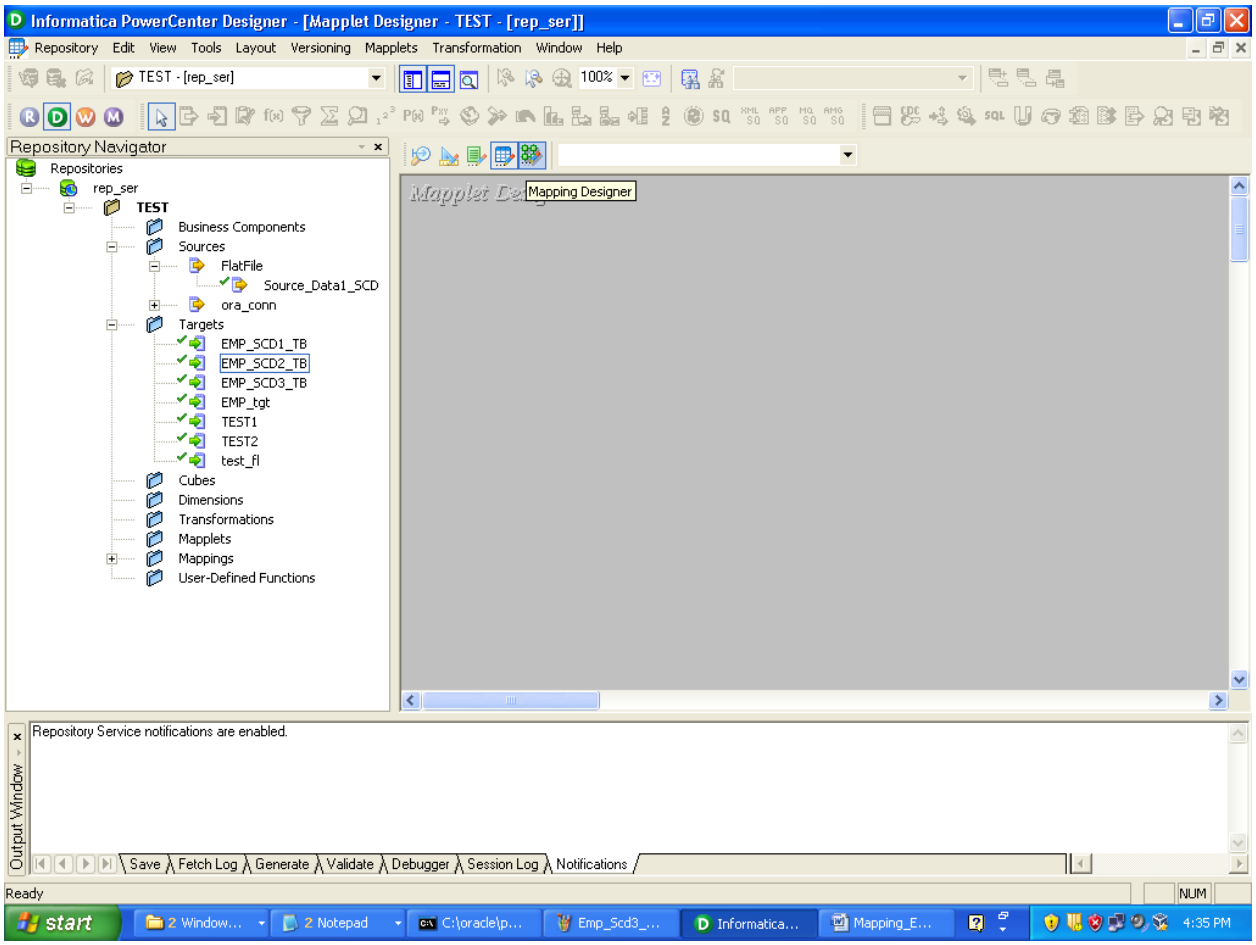
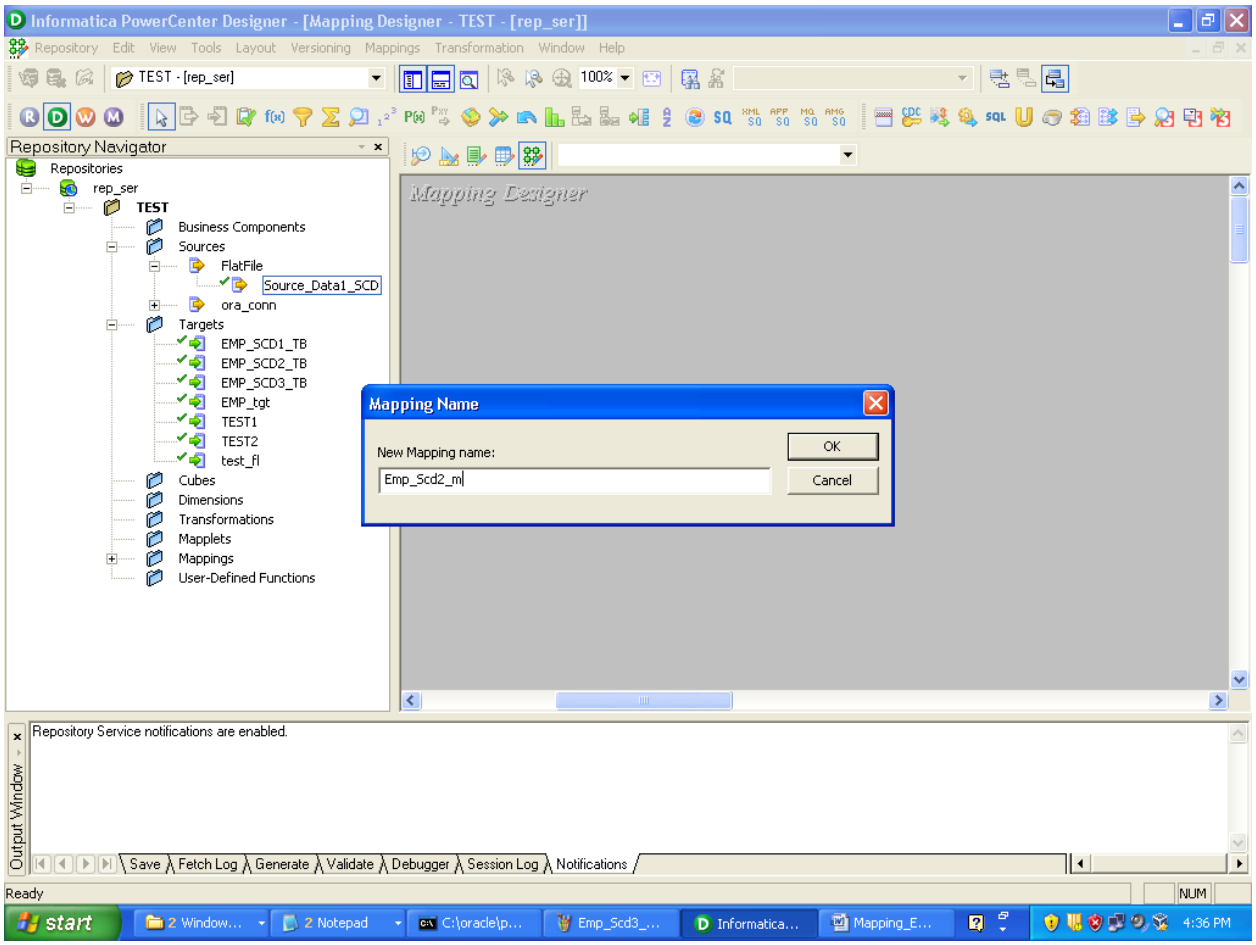
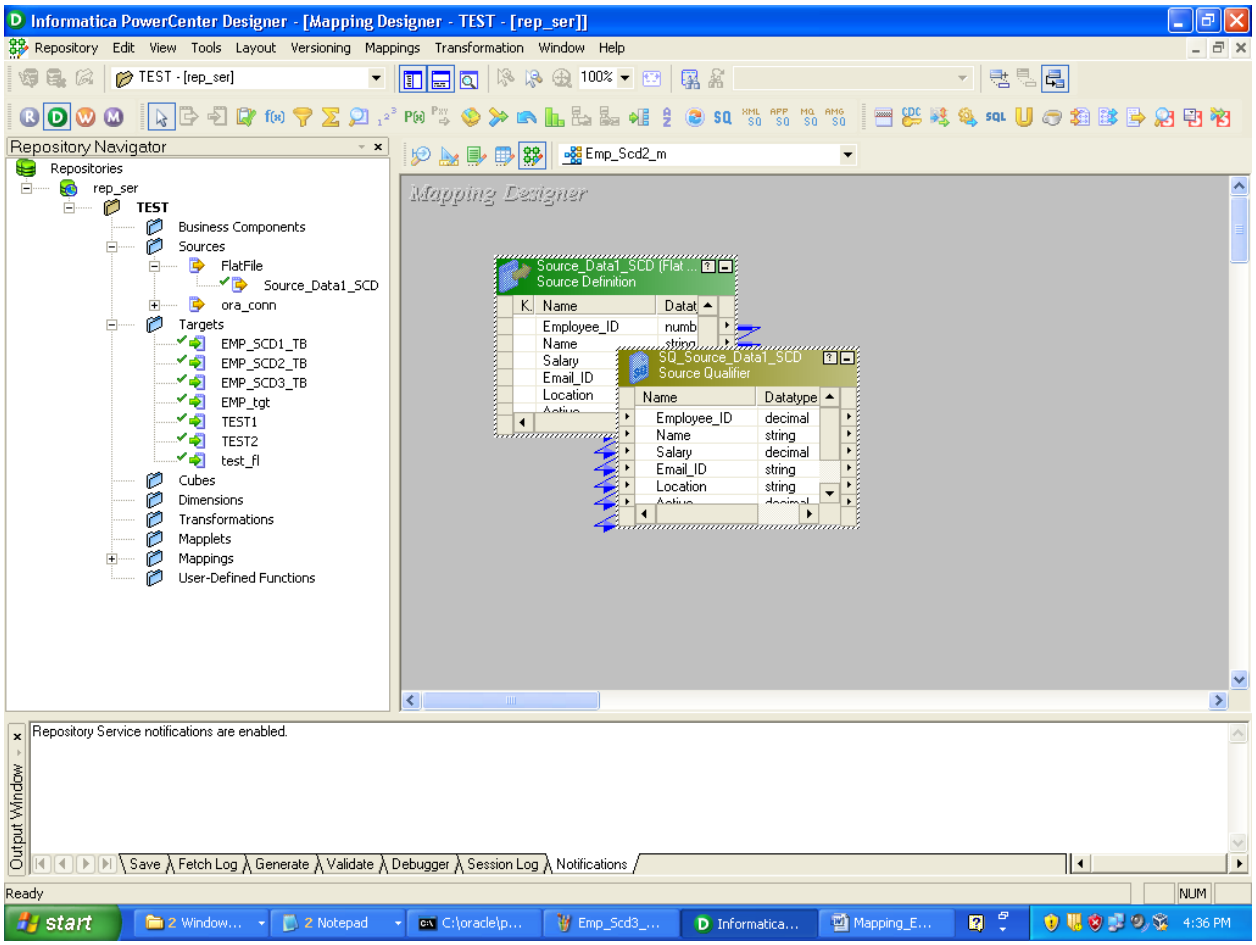

Informatica PowerCenter Designer - [Source Analyzer - TEST - [rep_ser]]
Repository Edit View Tools Layout Versioning Sources Window Help
TEST - [rep_ser]
Repository Navigator
Repositories
rep_ser
TEST
Business Components
Sources
FlatFile
Source_Data1_SCD
ora_conn
Targets
Cubes
Dimensions
Transformations
Mapplets
Mappings
User-Defined Functions
Source Analyzer
Source_Data1_SCD (Flat File)
K. Name Datatype L...
Employee_ID number 3
Name string 11
Salary number 10
Email_ID string 50
Location string 30
Active number 1
Effective_Date string 20
Output Window
Repository Service notifications are enabled.
Save Fetch Log Generate Validate Debugger Session Log Notifications
Ready
NUM
start
2 Window...
2 Notepad
C:\oracle\p...
Emp_Scd3_...
Informatica...
Document1 ...
4:32 PM

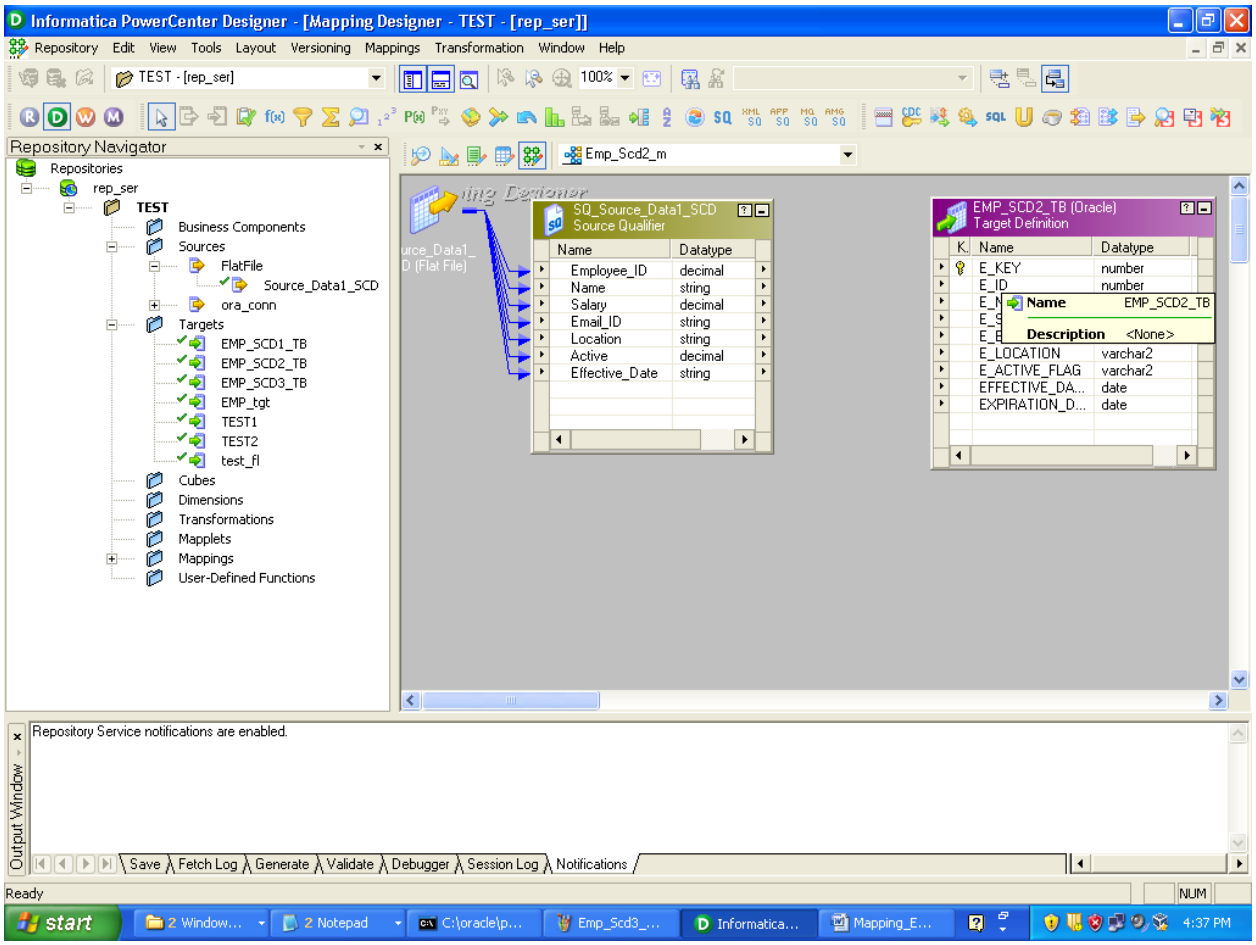

Informatica PowerCenter Designer - [Target Designer - TEST - [rep_ser]]
Repository Edit View Tools Layout Versioning Targets Window Help
TEST - [rep_ser]
Repository Navigator
Repositories
rep_ser
TEST
Business Components
Sources
FlatFile
Source_Data1_SCD
ora_conn
Targets
EMP_SCD1_TB
EMP_SCD2_TB
EMP_SCD3_TB
EMP_tgt
TEST1
TEST2
test_fl
Cubes
Dimensions
Transformations
Mapplets
Mappings
User-Defined Functions
EMP_SCD2_TB (Oracle)
K. Name Datatype Length/Precision
E_KEY number 15
E_ID number 15
E_NAME varchar2 20
E_SALARY number 15
E_EMAIL_ID varchar2 50
E_LOCATION varchar2 40
E_ACTIVE_FLAG varchar2 2
EFFECTIVE_DA... date 19
EXPIRATION_D... date 19
TEST1
Repository Service notifications are enabled.
Output Window
Save Fetch Log Generate Validate Debugger Session Log Notifications
Ready
NUM
start
2 Window...
2 Notepad
C:\oracle\p...
Emp_Scd3_...
Informatica...
Document1 ...
4:33 PM


Informatica PowerCenter Designer - [Target Designer - TEST - [rep_ser]]
Repository Edit View Tools Layout Versioning Targets Window Help
Source Analyzer
Target Designer
Transformation Developer
Mapplet Designer
Mapping Designer
Repository Manager
Designer
Workflow Manager
Workflow Monitor
Queries...
User-Defined Functions...
Options...
Customize...
Repository Navigator
Repositories
rep_ser
TEST
TEST1
TEST2
test_fl
Cubes
Dimensions
Transformations
Mapplets
Mappings
User-Defined Functions
EMP_SCD2_TB (Oracle)
K. Name Datatype Length/Precision
E_KEY number 15
E_ID number 15
E_NAME varchar2 20
E_SALARY number 15
E_EMAIL_ID varchar2 50
E_LOCATION varchar2 40
E_ACTIVE_FLAG varchar2 2
EFFECTIVE_DA... date 19
EXPIRATION_D... date 19
TEST1
Output Window
Repository Service notifications are enabled.
Save Fetch Log Generate Validate Debugger Session Log Notifications
Mapping Designer
NUM
start
2 Window...
2 Notepad
C:\oracle\p...
Emp_Scd3_...
Informatica...
Mapping_E...
4:34 PM

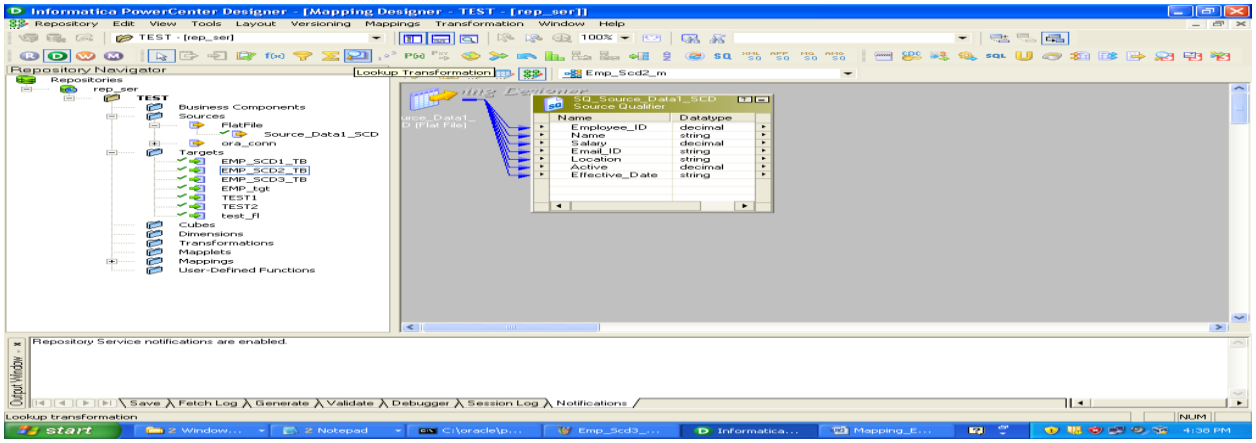

Informatica PowerCenter Designer - [Mapplet Designer - TEST - [rep_ser]]
Repository Edit View Tools Layout Versioning Mapplets Transformation Window Help
TEST - [rep_ser]
100%
Repository Navigator
Repositories
rep_ser
TEST
Business Components
Sources
FlatFile
Source_Data1_SCD
ora_conn
Targets
EMP_SCD1_TB
EMP_SCD2_TB
EMP_SCD3_TB
EMP_tgt
TEST1
TEST2
test_fl
Cubes
Dimensions
Transformations
Mapplets
Mappings
User-Defined Functions
Mapping Designer
Repository Service notifications are enabled.
Output Window
Save
Fetch Log
Generate
Validate
Debugger
Session Log
Notifications
Ready
NUM
start
2 Window...
2 Notepad
C:\oracle\p...
Emp_Scd3_...
Informatica...
Mapping_E...
4:35 PM


Informatica PowerCenter Designer - [Mapping Designer - TEST - [rep_ser]]
Repository Navigator
Repositories
rep_ser
TEST
Business Components
Sources
FlatFile
Source_Data1_SCD
ora_conn
Targets
EMP_SCD1_TB
EMP_SCD2_TB
EMP_SCD3_TB
EMP_tgt
TEST1
TEST2
test_fl
Cubes
Dimensions
Transformations
Mapplets
Mappings
User-Defined Functions
Mapping Designer
Mapping Name
New Mapping name:
Emp_Scd2_m
OK
Cancel
Repository Service notifications are enabled.
Output Window
Save
Fetch Log
Generate
Validate
Debugger
Session Log
Notifications
Ready
NUM
start
2 Window...
2 Notepad
C:\oracle\p...
Emp_Scd3_...
Informatica...
Mapping_E...
4:36 PM

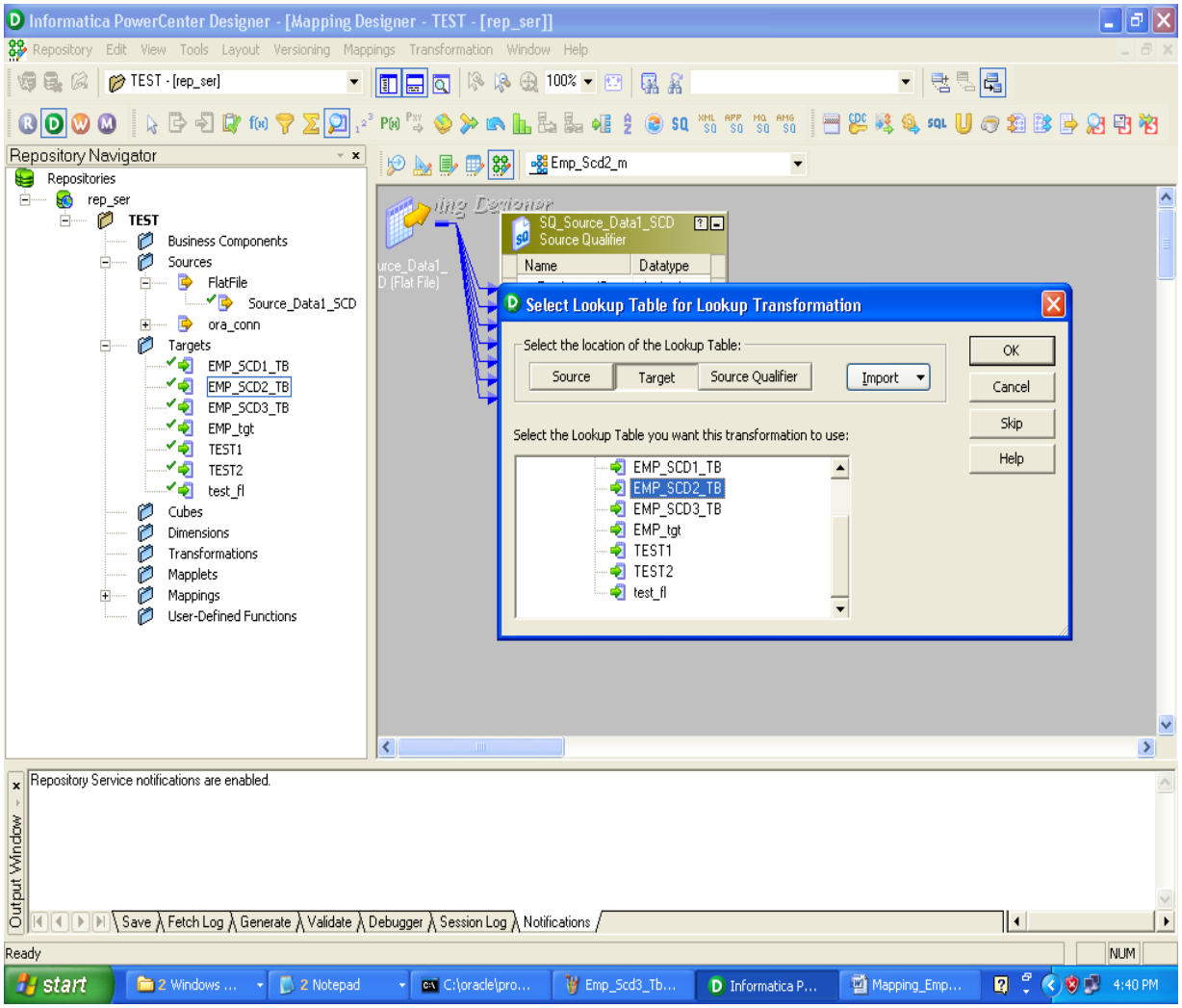

Informatica PowerCenter Designer - [Mapping Designer - TEST - [rep_ser]]
Repository Edit View Tools Layout Versioning Mappings Transformation Window Help
Repository Navigator
Repositories
rep_ser
TEST
Business Components
Sources
FlatFile
Source_Data1_SCD
ora_conn
Targets
EMP_SCD1_TB
EMP_SCD2_TB
EMP_SCD3_TB
EMP_tgt
TEST1
TEST2
test_fl
Cubes
Dimensions
Transformations
Mapplets
Mappings
User-Defined Functions
Emp_Scd2_m
Mapping Designer
Source_Data1_SCD (Flat ...
Source Definition
Employee_ID
Name
Salary
Email_ID
Location
SQ_Source_Data1_SCD
Source Qualifier
Datatype
decimal
string
Repository Service notifications are enabled.
Output Window
Save
Fetch Log
Generate
Validate
Debugger
Session Log
Notifications
Ready
NUM
start
2 Window...
2 Notepad
C:\oracle\p...
Emp_Scd3_...
Informatica...
Mapping_E...
4:36 PM

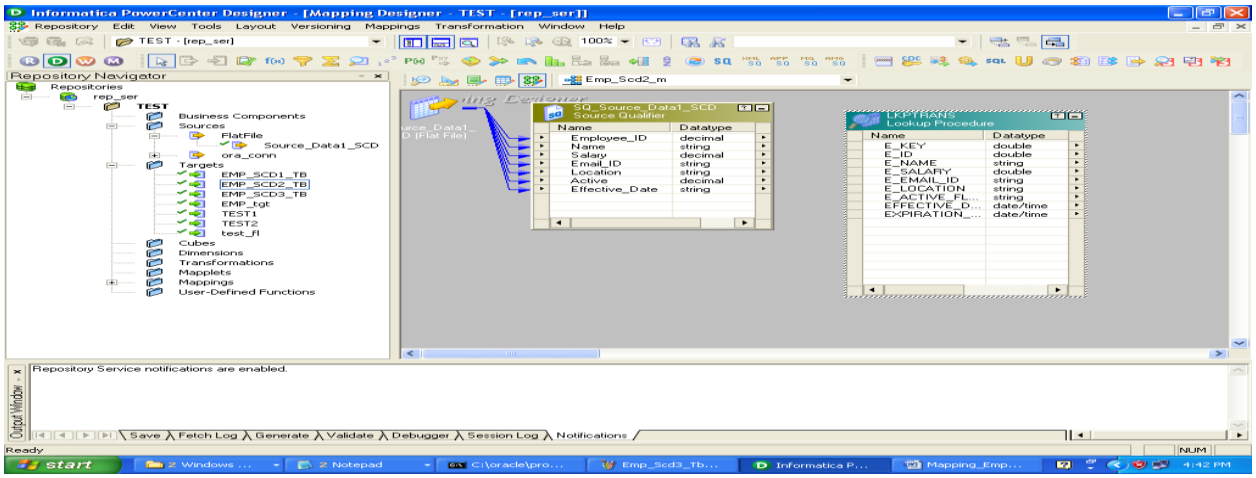

Informatica PowerCenter Designer - [Mapping Designer - TEST - [rep_ser]]
Repository Edit View Tools Layout Versioning Mappings Transformation Window Help
Repository Navigator
Repositories
rep_ser
TEST
Business Components
Sources
FlatFile
Source_Data1_SCD
ora_conn
Targets
EMP_SCD1_TB
EMP_SCD2_TB
EMP_SCD3_TB
EMP_tgt
TEST1
TEST2
test_fl
Cubes
Dimensions
Transformations
Mapplets
Mappings
User-Defined Functions
Emp_Scd2_m
SQ_Source_Data1_SCD
Source Qualifier
Name Datatype
Employee_ID decimal
Name string
Salary decimal
Email_ID string
Location string
Active decimal
Effective_Date string
EMP_SCD2_TB (Oracle)
Target Definition
K. Name Datatype
E_KEY number
E_ID number
Name EMP_SCD2_TB
Description <None>
E_LOCATION varchar2
E_ACTIVE_FLAG varchar2
EFFECTIVE_DA... date
EXPIRATION_D... date
Repository Service notifications are enabled.
Output Window
Save Fetch Log Generate Validate Debugger Session Log Notifications
Ready
NUM
start
2 Window...
2 Notepad
C:\oracle\p...
Emp_Scd3_...
Informatica...
Mapping_E...
4:37 PM

Create Look Up Transformation in the Mapping Designer

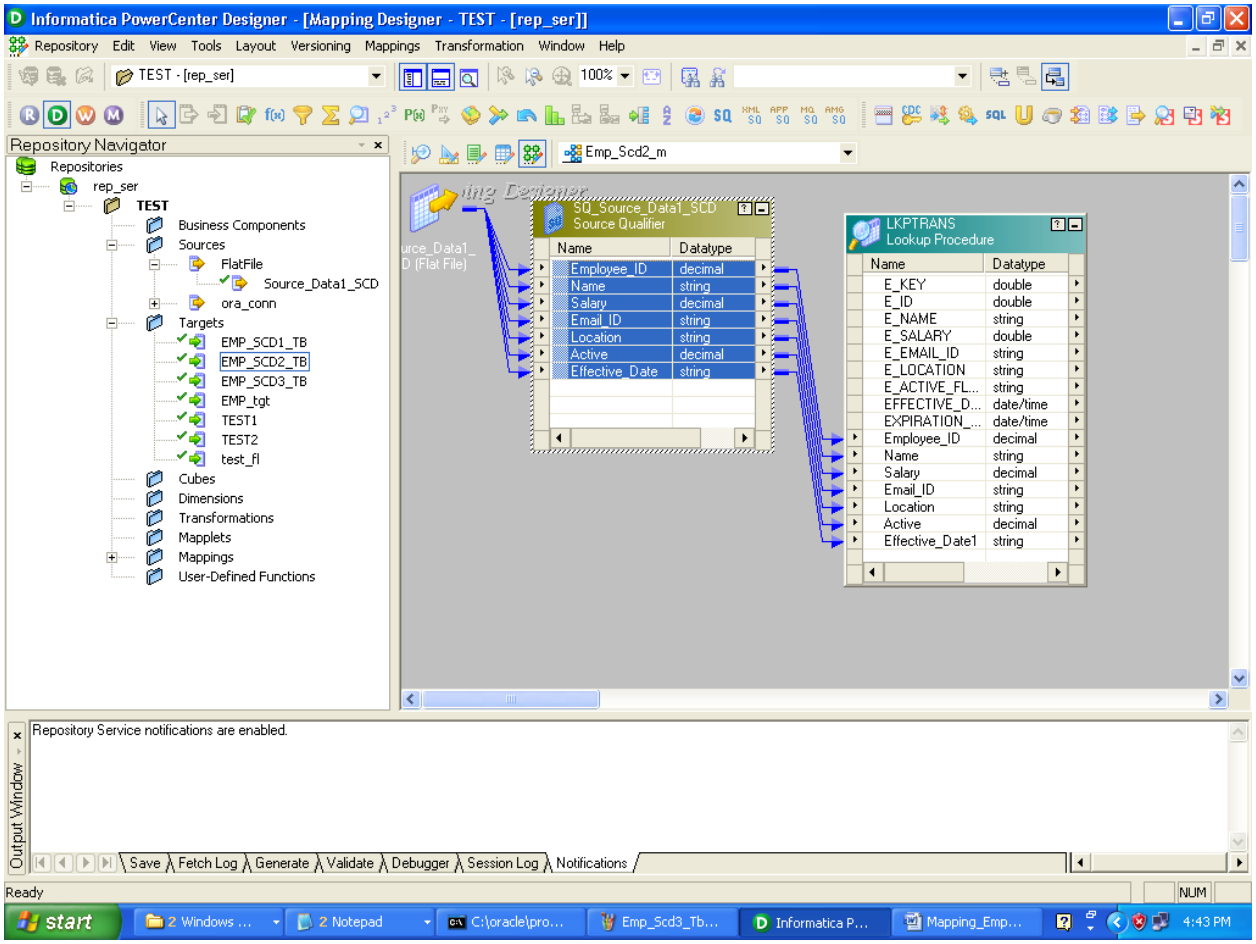


Create a target Look Up transformation on Emp_Scd2_Tb table



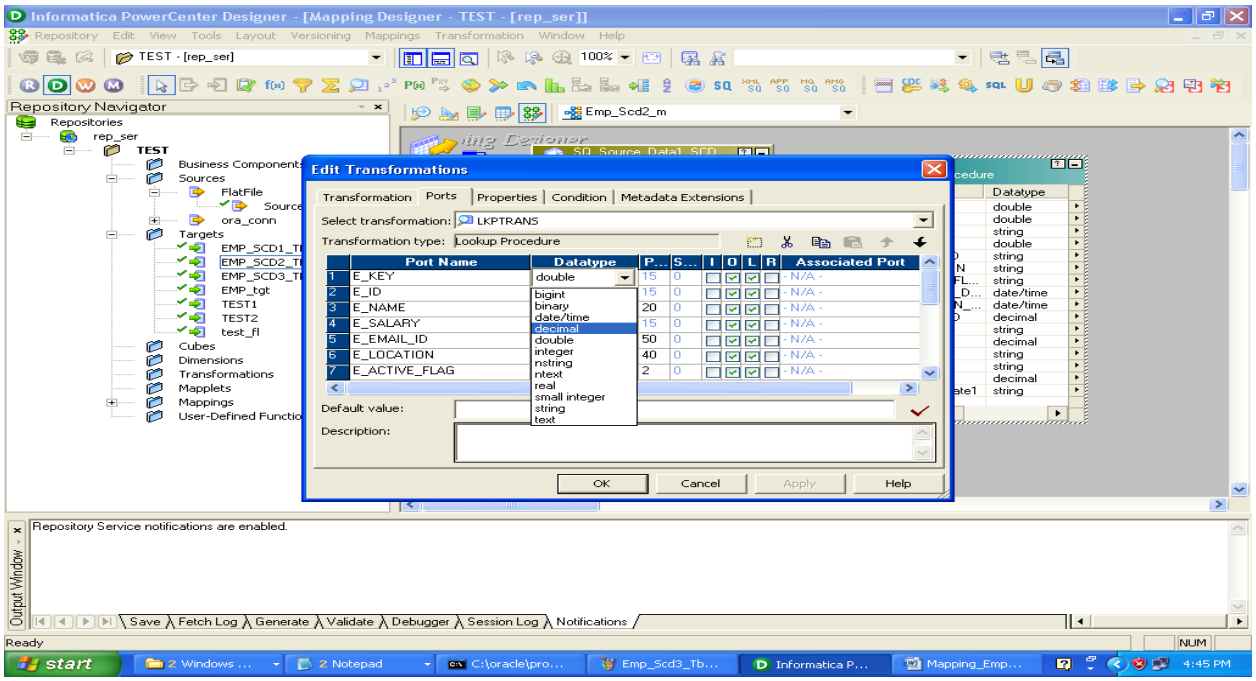


Select all fields from Source to Lookup transformation



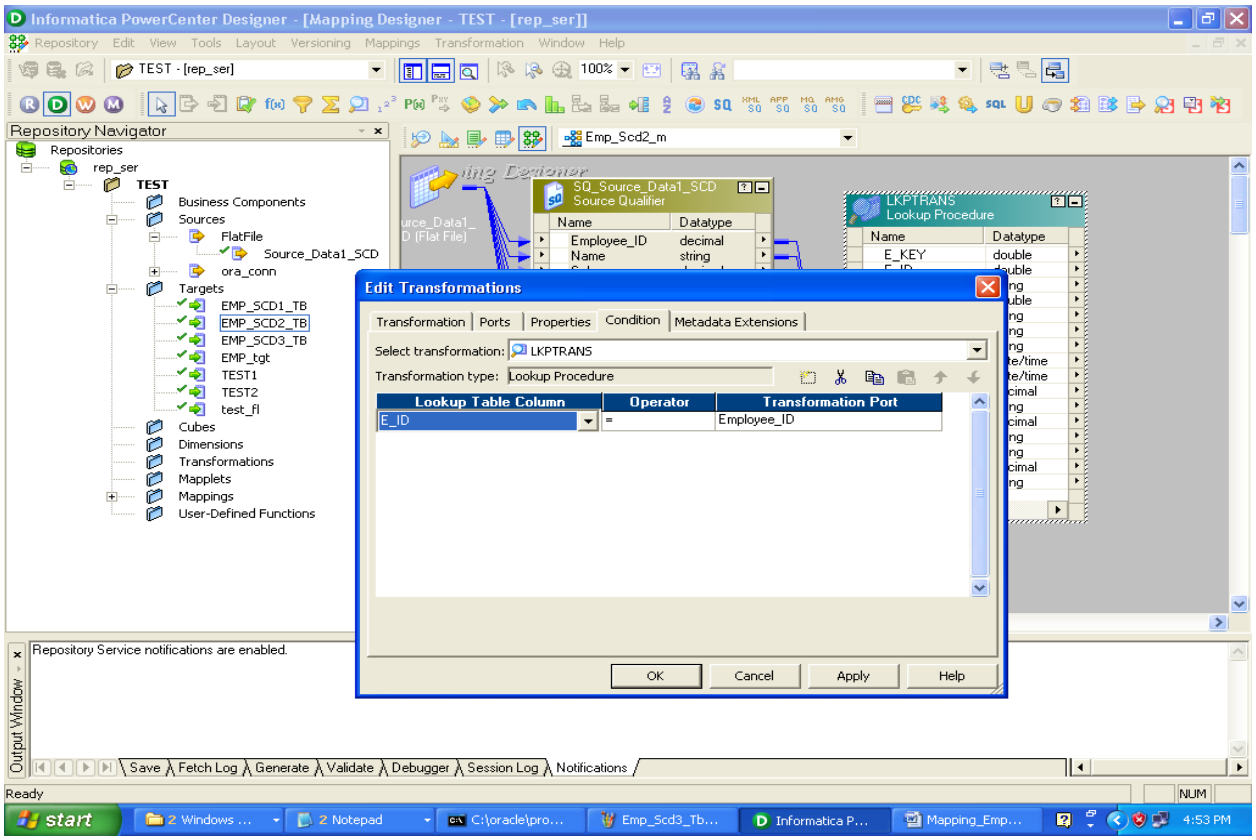
In the Ports tab, change data type appropriately.

E_Key,E_ID and E_Salary From Double to Decimal

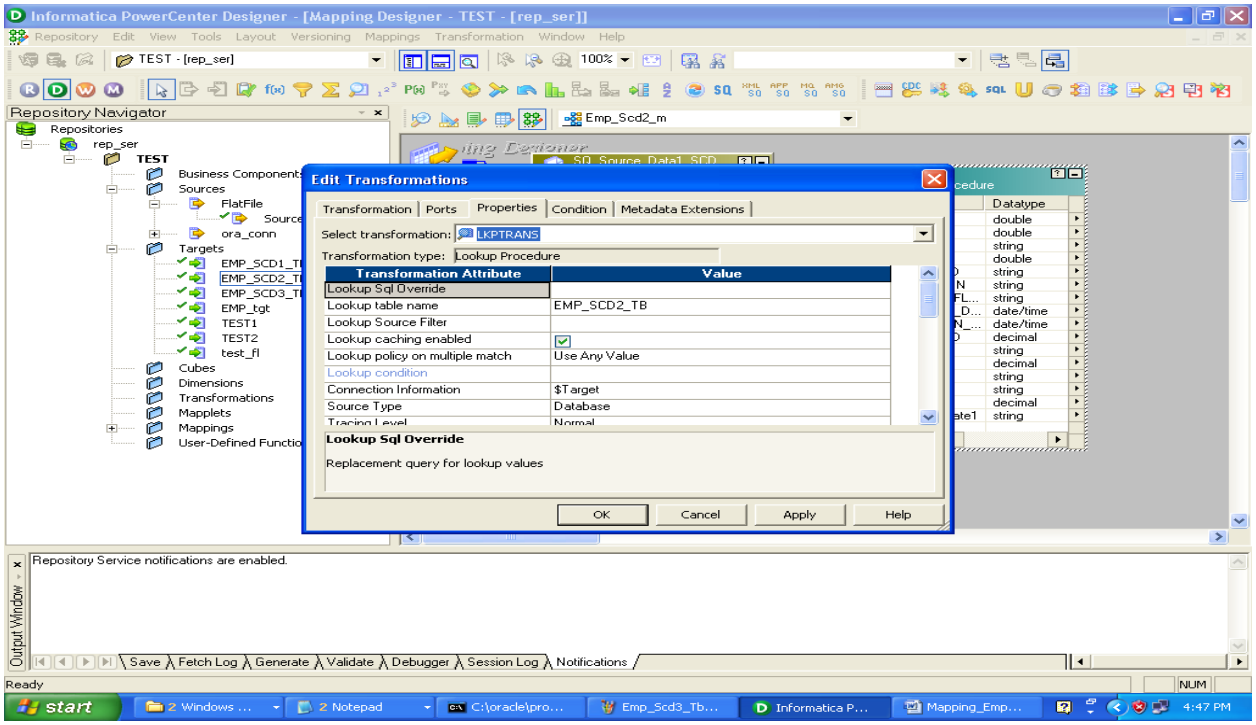


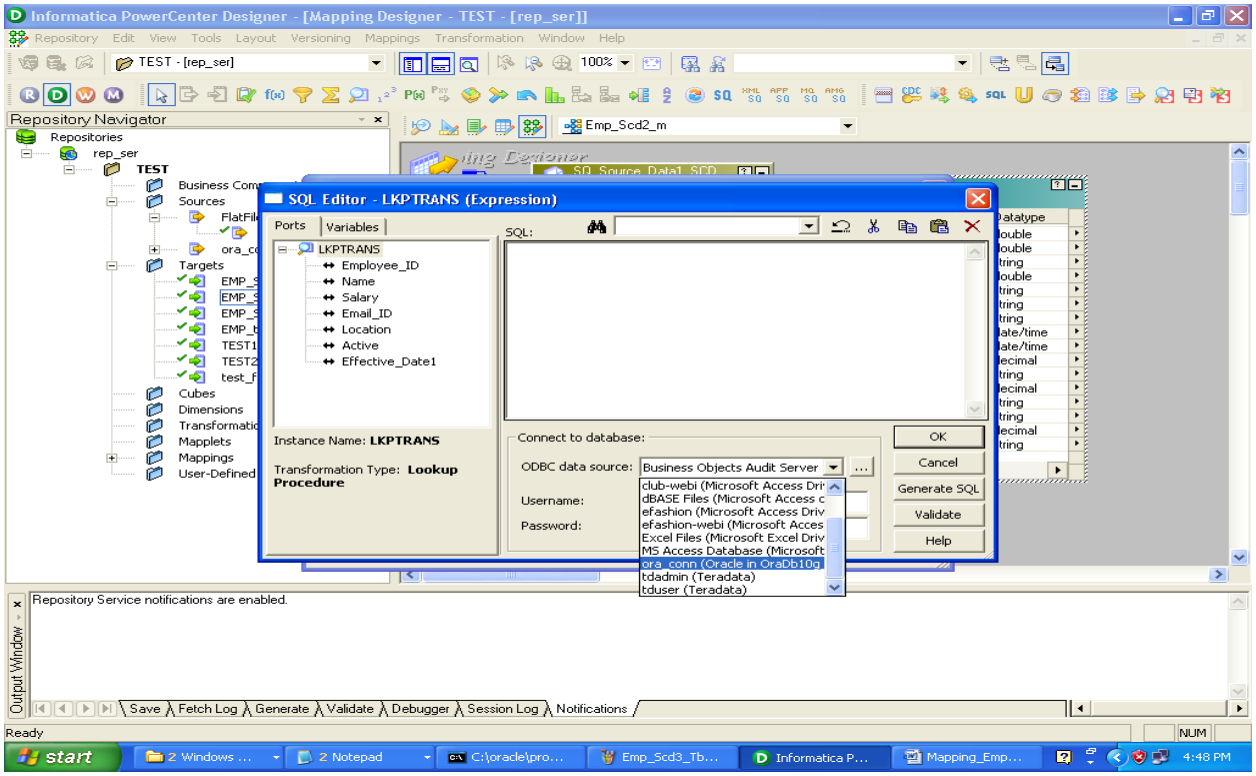
In the Condition tab, provide the look up condition

E_ID = Employee_ID

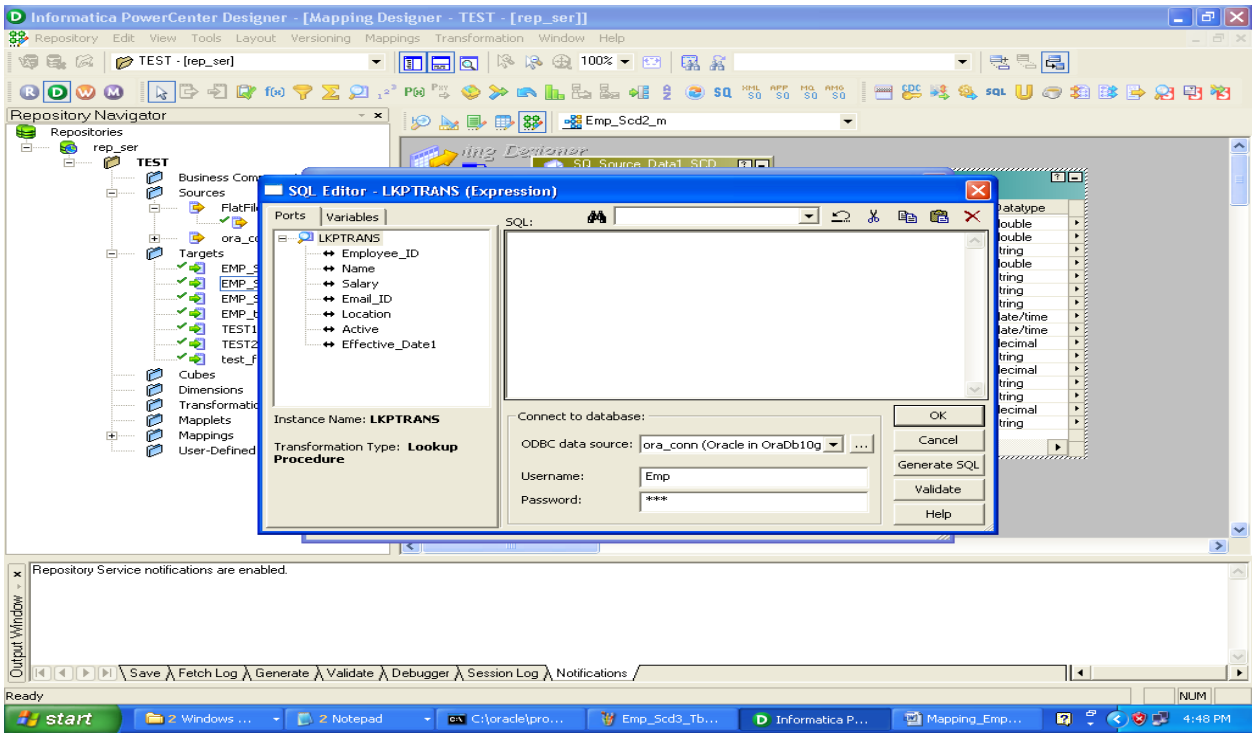


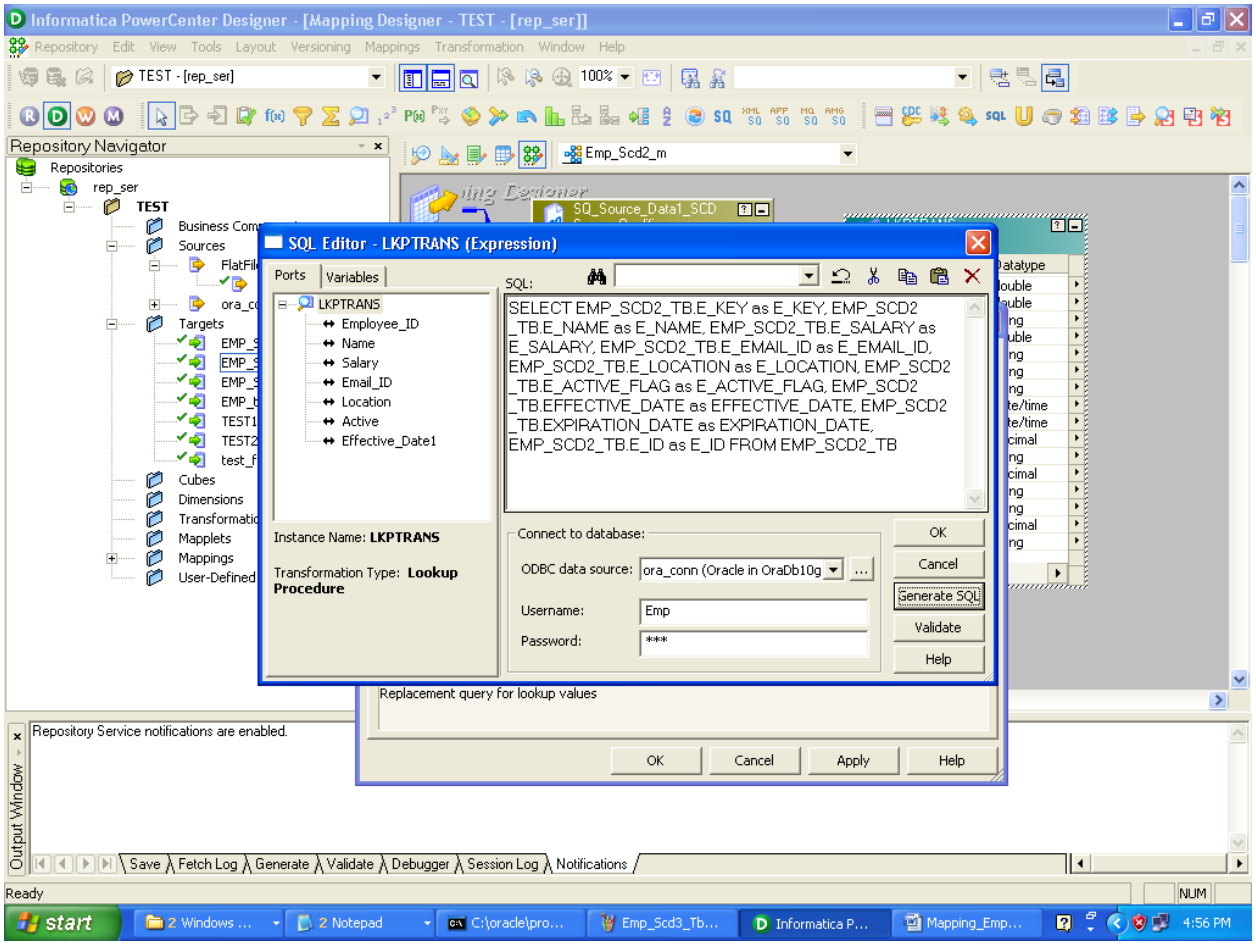
In the Properties tab, override the Lookup condition





Generate Sql command to select fields from Emp_Scd2_Tb table

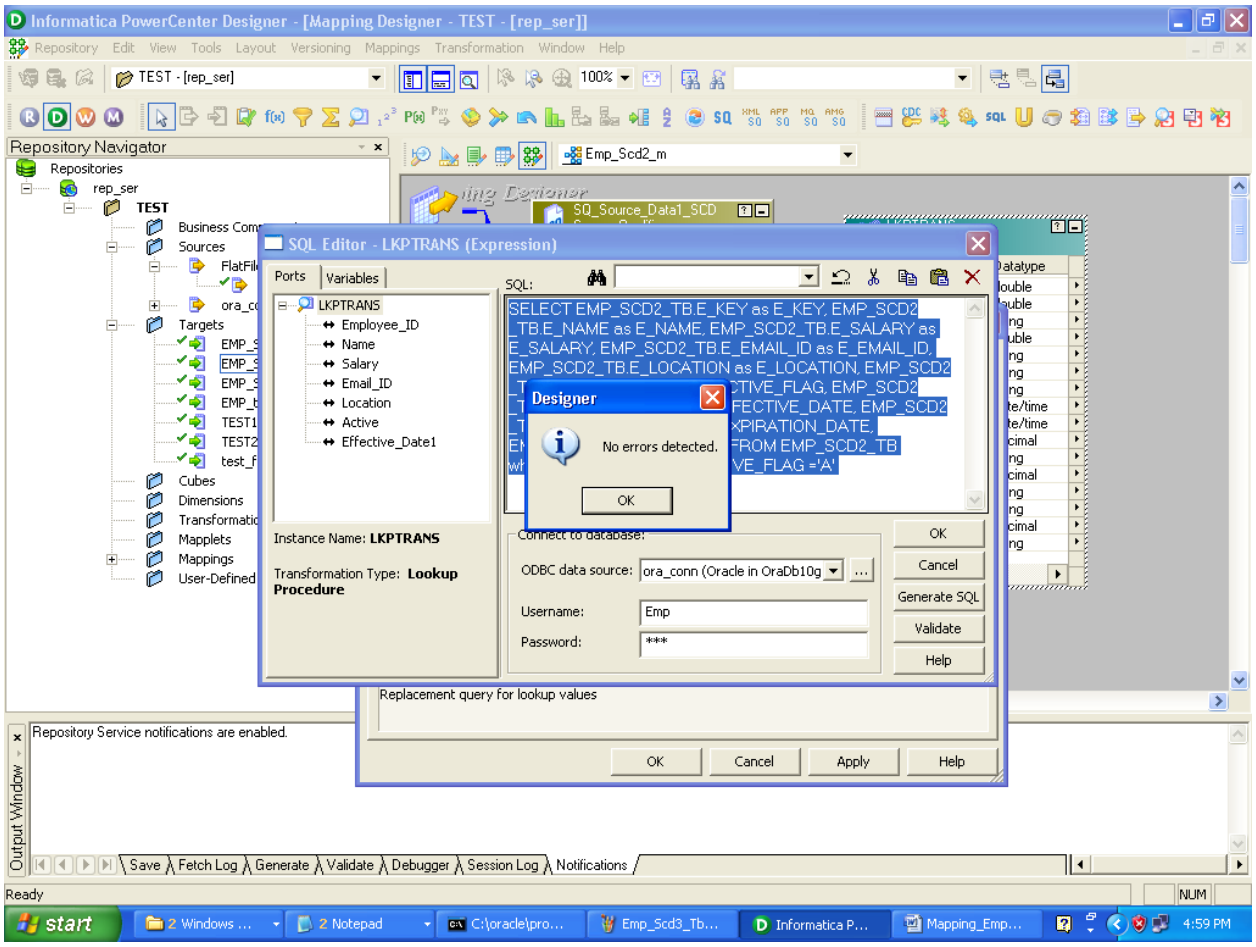

Informatica PowerCenter Designer - [Mapping Designer - TEST - [rep_ser]]
SQL Editor - LKPTRANS (Expression)
Ports
Variables
LKPTRANS
Employee_ID
Name
Salary
Email_ID
Location
Active
Effective_Date1
SQL:
Instance Name: LKPTRANS
Transformation Type: Lookup Procedure
Connect to database:
ODBC data source: ora_conn (Oracle in OraDb10g
Username: Emp
Password: ***
OK
Cancel
Generate SQL
Validate
Help
Repository Service notifications are enabled.
Save
Fetch Log
Generate
Validate
Debugger
Session Log
Notifications
Ready
start
4:48 PM


Informatica PowerCenter Designer - [Mapping Designer - TEST - [rep_ser]]
SQL Editor - LKPTRANS (Expression)
Ports
Variables
LKPTRANS
Employee_ID
Name
Salary
Email_ID
Location
Active
Effective_Date1
SQL:
SELECT EMP_SCD2_TB.E_KEY as E_KEY, EMP_SCD2_TB.E_NAME as E_NAME, EMP_SCD2_TB.E_SALARY as E_SALARY, EMP_SCD2_TB.E_EMAIL_ID as E_EMAIL_ID, EMP_SCD2_TB.E_LOCATION as E_LOCATION, EMP_SCD2_TB.E_ACTIVE_FLAG as E_ACTIVE_FLAG, EMP_SCD2_TB.EFFECTIVE_DATE as EFFECTIVE_DATE, EMP_SCD2_TB.EXPIRATION_DATE as EXPIRATION_DATE, EMP_SCD2_TB.E_ID as E_ID FROM EMP_SCD2_TB
Instance Name: LKPTRANS
Transformation Type: Lookup Procedure
Connect to database:
ODBC data source: ora_conn (Oracle in OraDb10g
Username: Emp
Password: ***
OK
Cancel
Generate SQL
Validate
Help
Replacement query for lookup values
OK
Cancel
Apply
Help
Repository Service notifications are enabled.
Save
Fetch Log
Generate
Validate
Debugger
Session Log
Notifications
Ready
start
4:56 PM

Override the SQL statement to select only Active records from the Emp_Scd2_Tb table

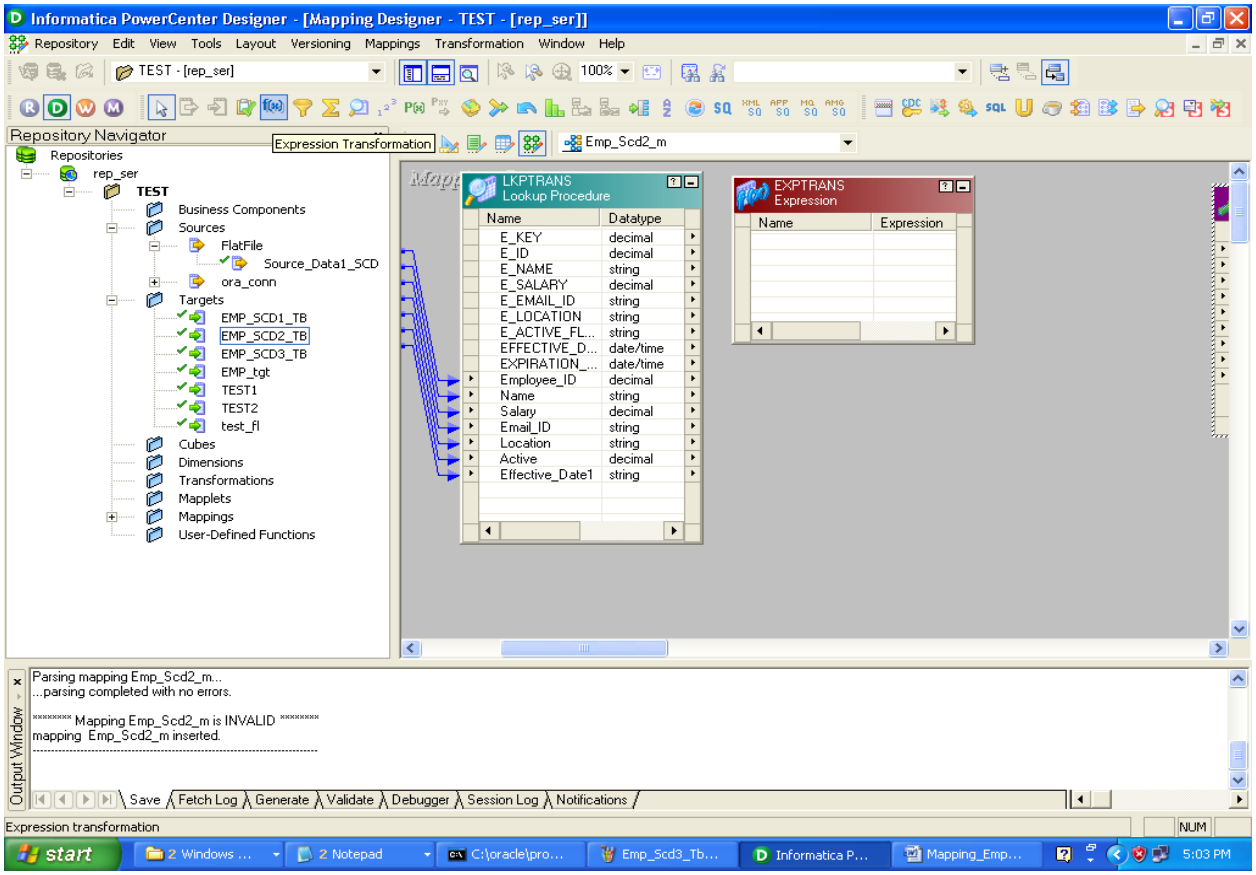
SELECT EMP_SCD2_TB.E_KEY as E_KEY, EMP_SCD2_TB.E_NAME as E_NAME, EMP_SCD2_TB.E_SALARY as E_SALARY, EMP_SCD2_TB.E_EMAIL_ID as E_EMAIL_ID, EMP_SCD2_TB.E_LOCATION as E_LOCATION, EMP_SCD2_TB.E_ACTIVE_FLAG as E_ACTIVE_FLAG, EMP_SCD2_TB.EFFECTIVE_DATE as EFFECTIVE_DATE, EMP_SCD2_TB.EXPIRATION_DATE as EXPIRATION_DATE, EMP_SCD2_TB.E_ID as E_ID FROM EMP_SCD2_TB
where EMP_SCD2_TB.E_ACTIVE_FLAG ='A'

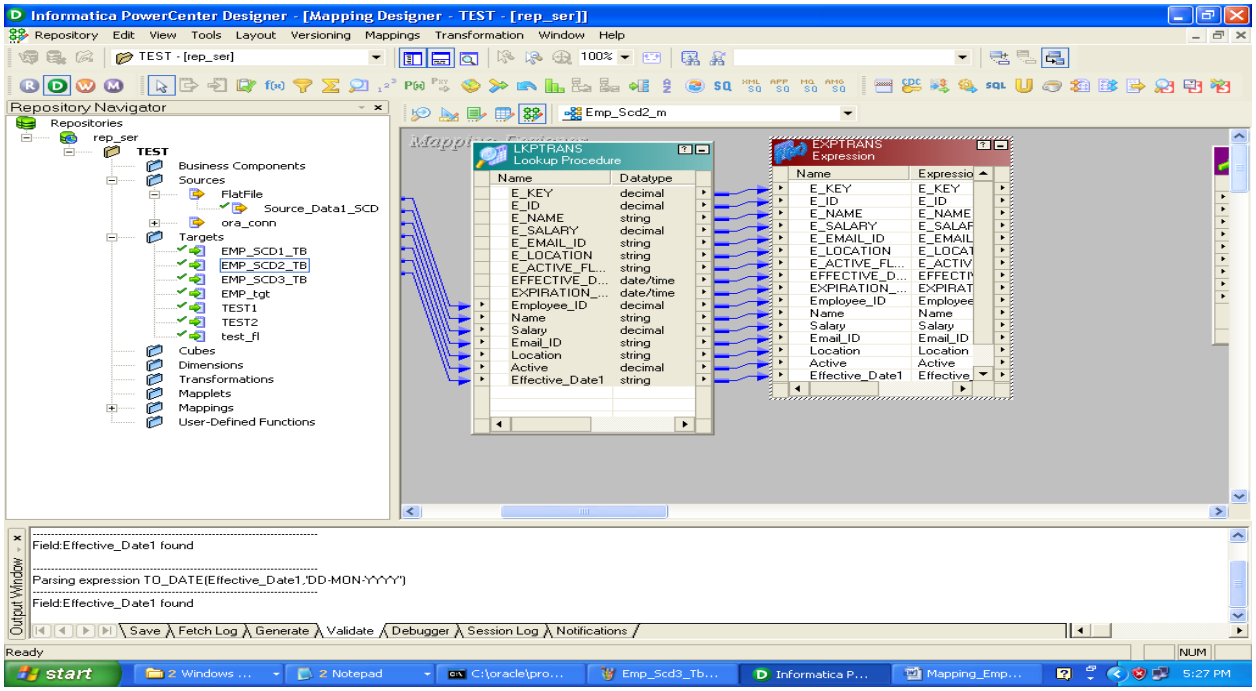
Validate it. No errors should detect.



Apply. Ok

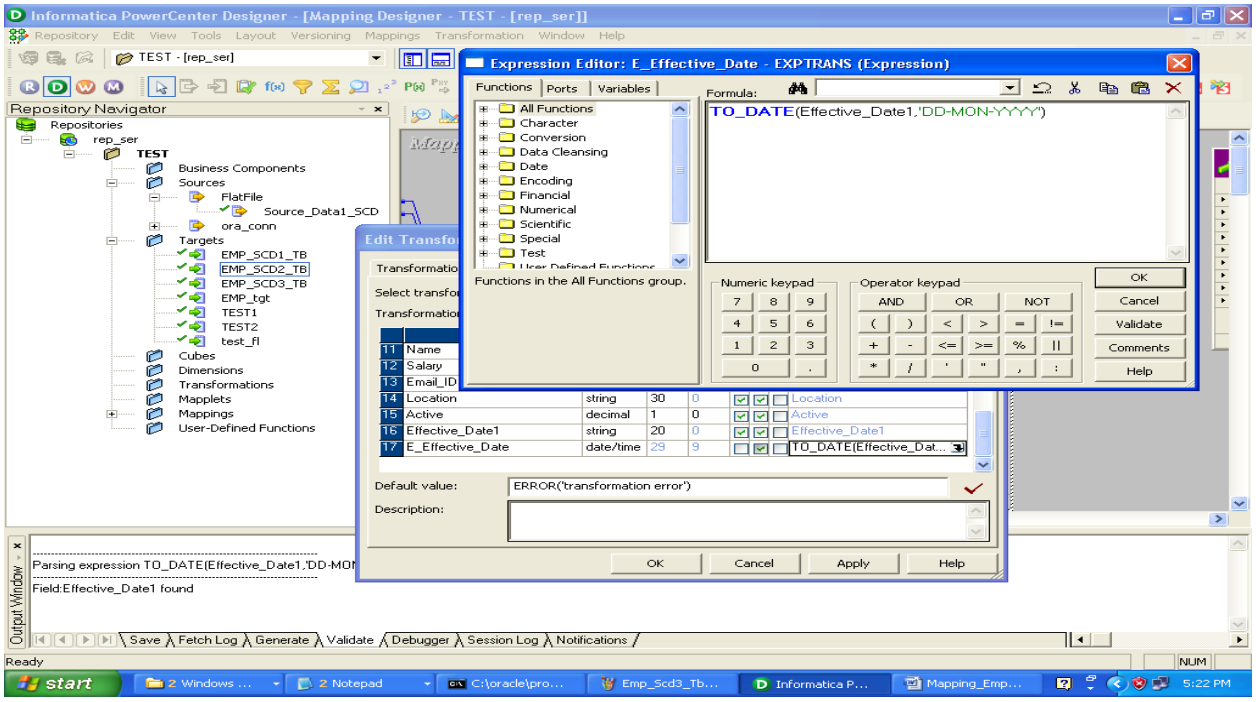
Create an Expression transformation in the Mapping designer. And select all the fields from Lookup transformation to the Expression transformation.



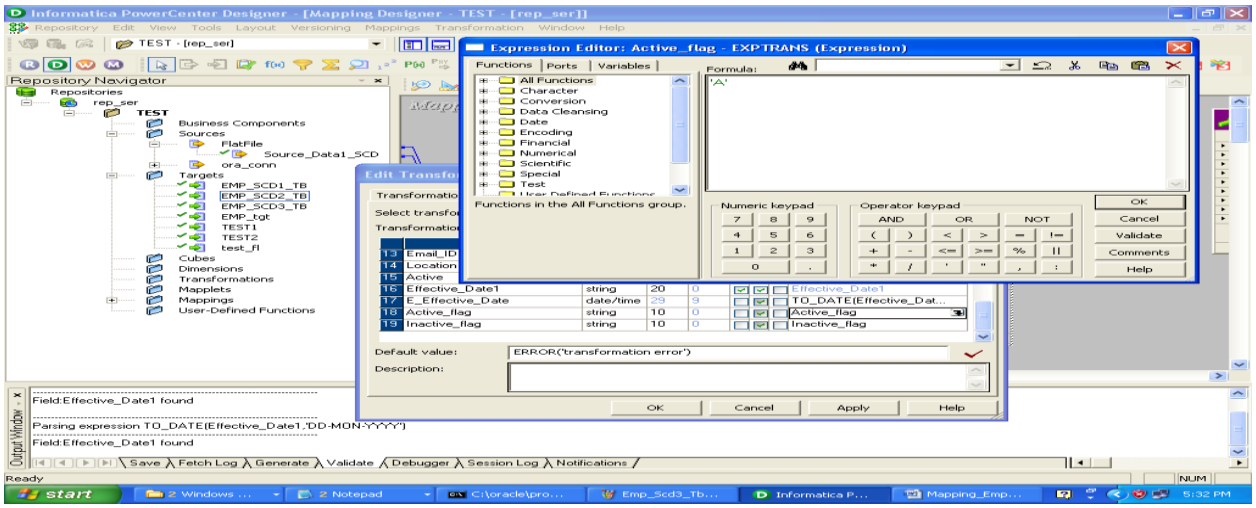


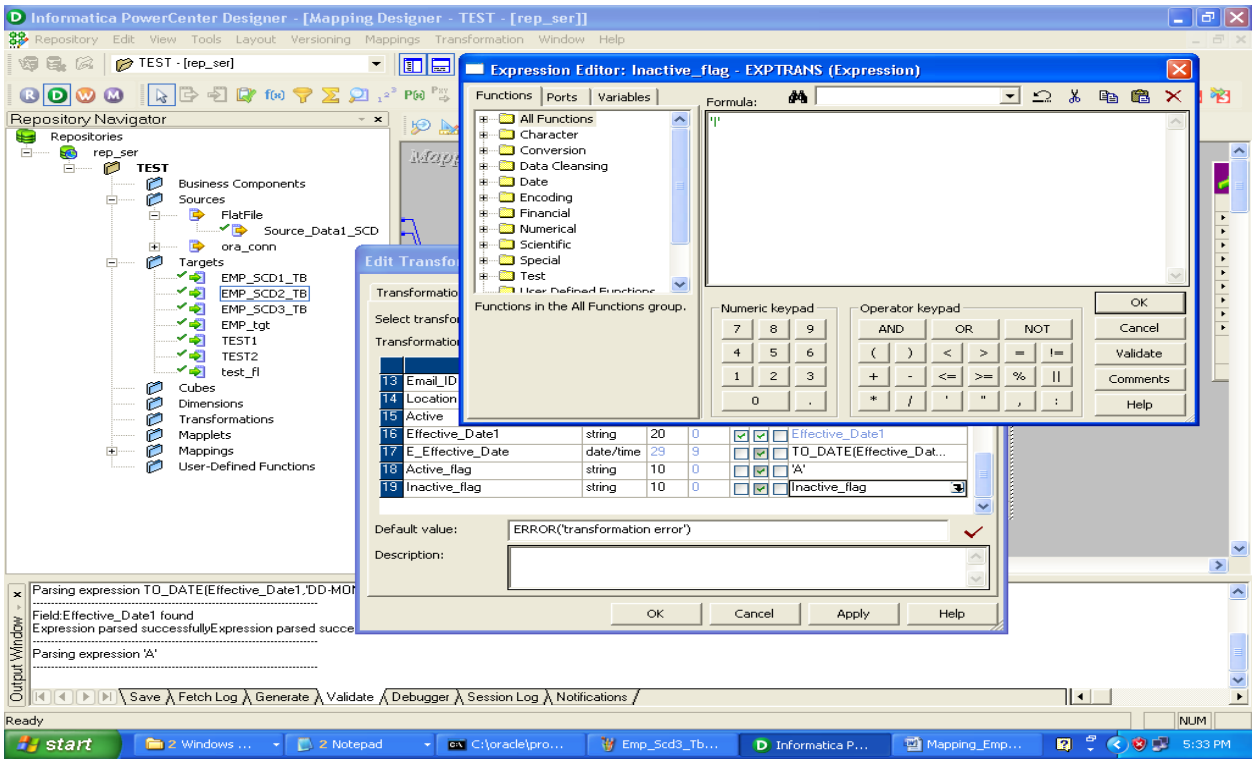
Add a new Output Port to the Expression Transformation to convert source Effective_date from string to DateTime.

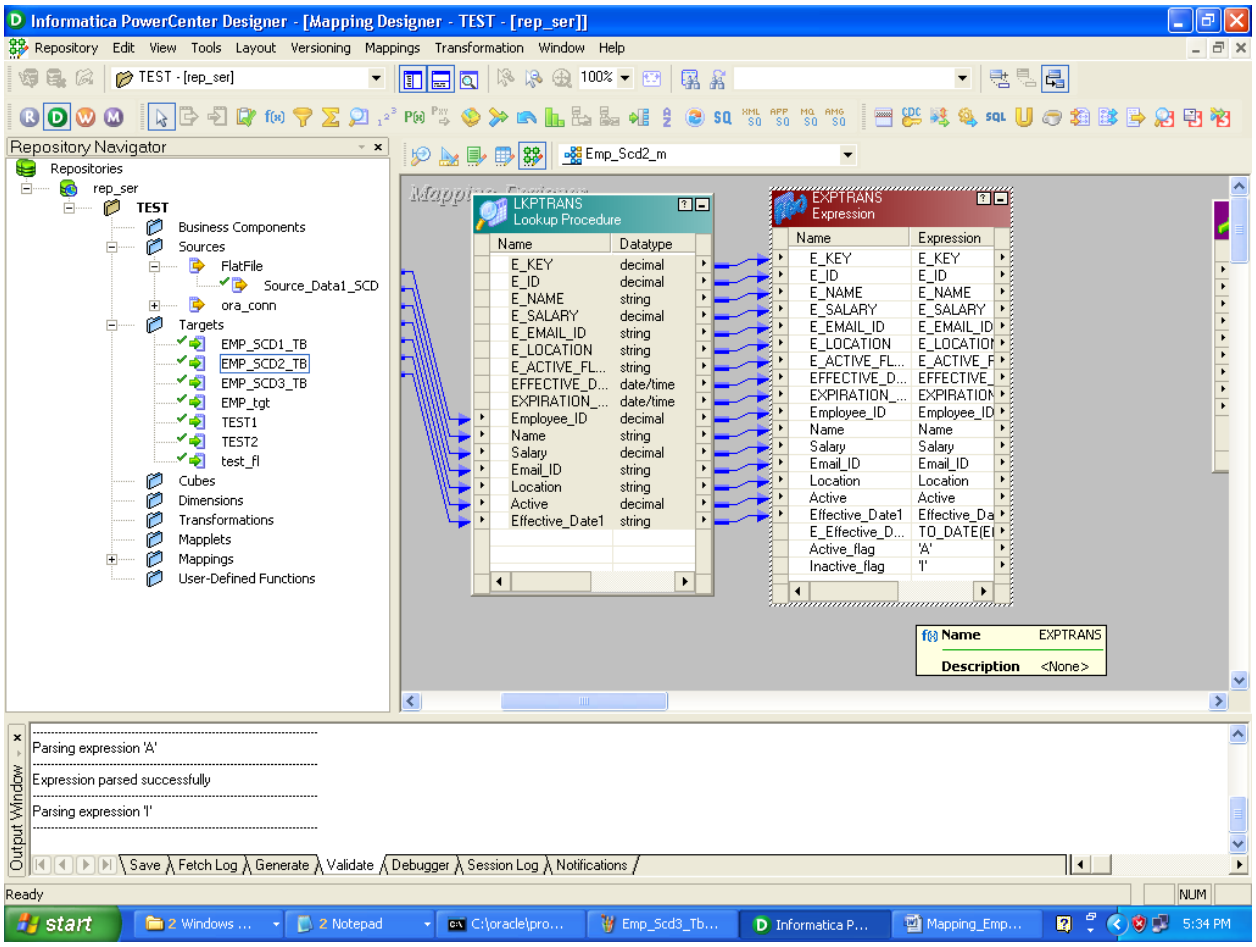
```
TO_DATE(Effective_Date1,'DD-MON-YYYY')
```



Create 2 more String type Output Ports(Active_flag, Inactive_flag), to store values ‘A’ and ‘I’

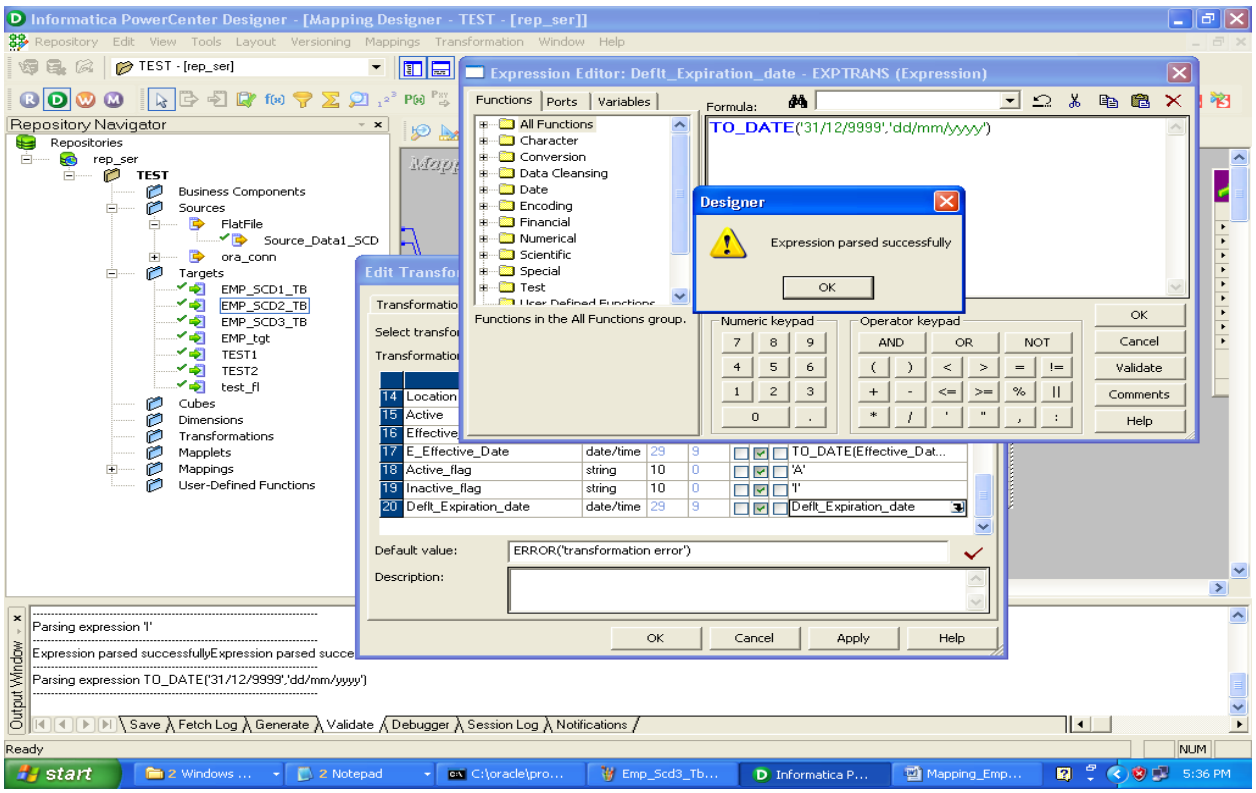


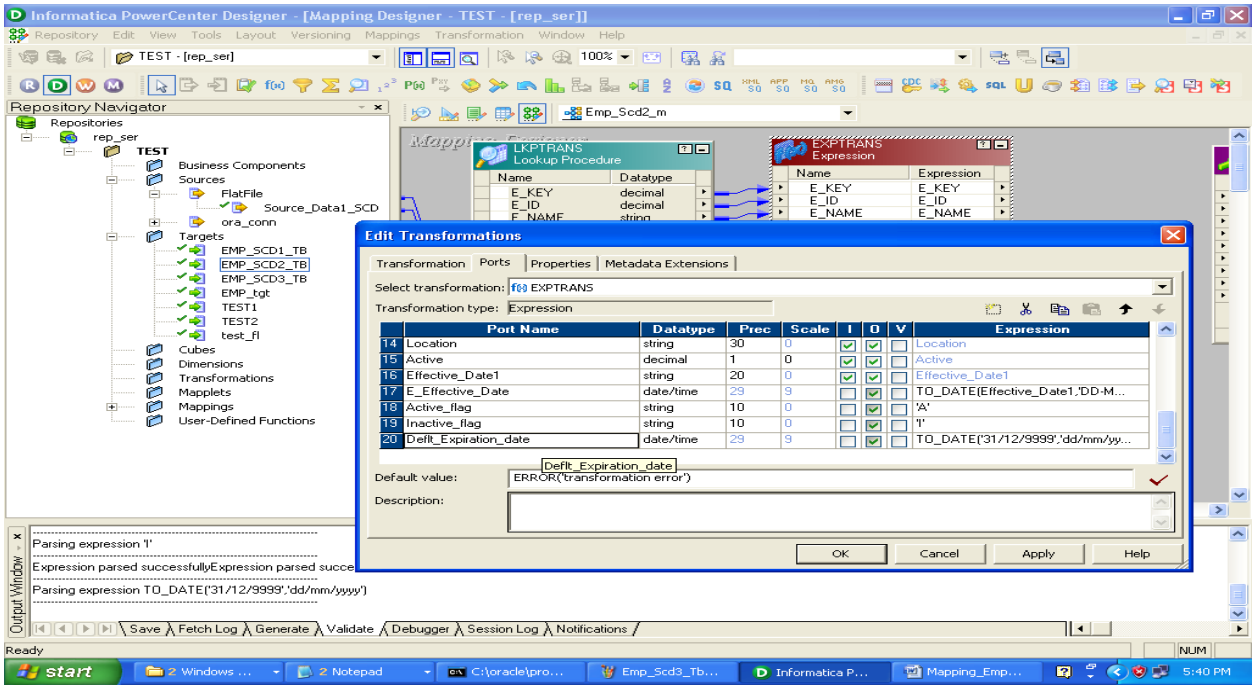

Informatica PowerCenter Designer - [Mapping Designer - TEST - [rep_ser]]
Expression Editor: Inactive_flag - EXPTRANS (Expression)
Repository Navigator
Edit Transfo
Parsing expression TO_DATE(Effective_Date1,'DD-MO
Field:Effective_Date1 found
Expression parsed successfullyExpression parsed succe
Parsing expression 'A'
Save
Fetch Log
Generate
Validate
Debugger
Session Log
Notifications
Ready
start
5:33 PM


Informatica PowerCenter Designer - [Mapping Designer - TEST - [rep_ser]]
Repository Navigator
Emp_Scd2_m
LKPTRANS
Lookup Procedure
EXPTRANS
Expression
Parsing expression 'A'
Expression parsed successfully
Parsing expression '1'
Save
Fetch Log
Generate
Validate
Debugger
Session Log
Notifications
Ready
start
5:34 PM

Create a default Expiration_date Output Port of DateTime datatype with a value ‘31/12/9999’. This should be used for every new Emp records while inserting.

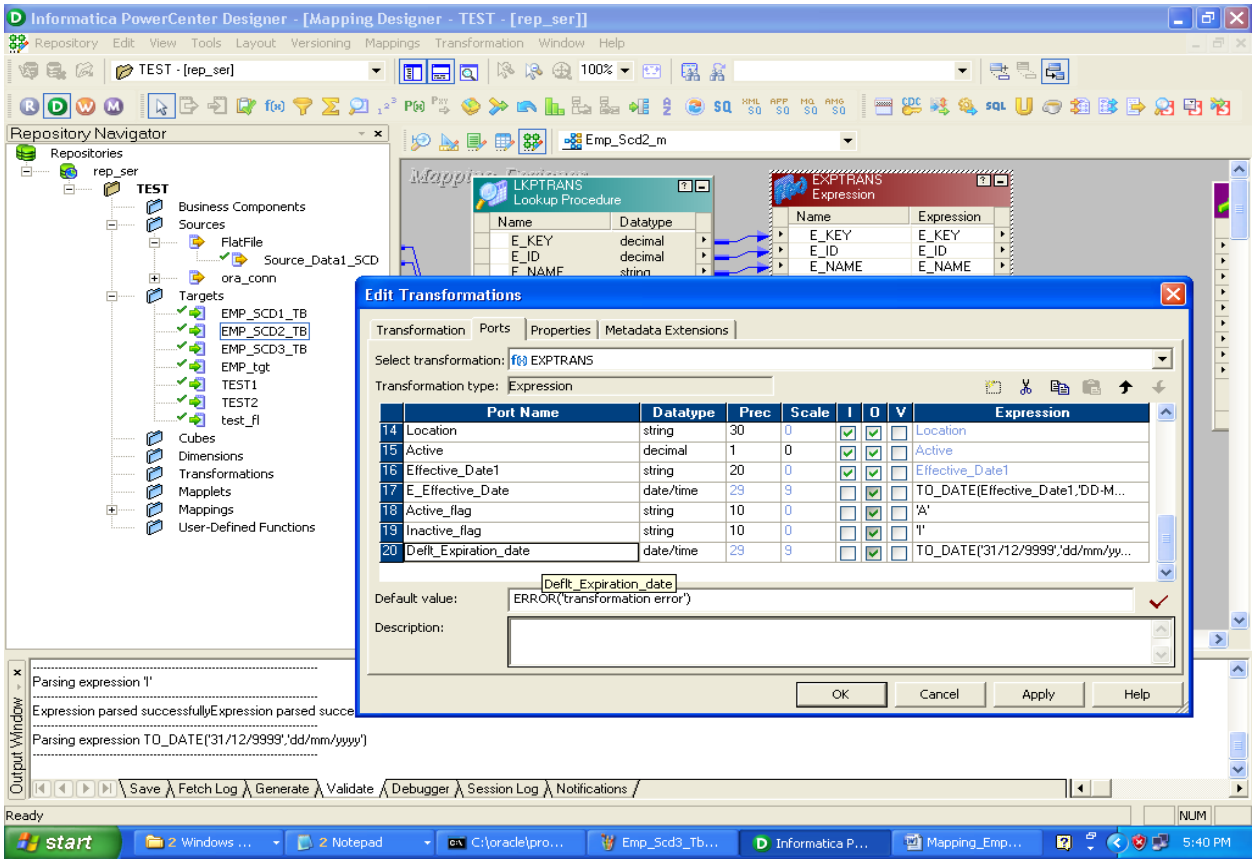
TO_DATE('31/12/9999','dd/mm/yyyy')

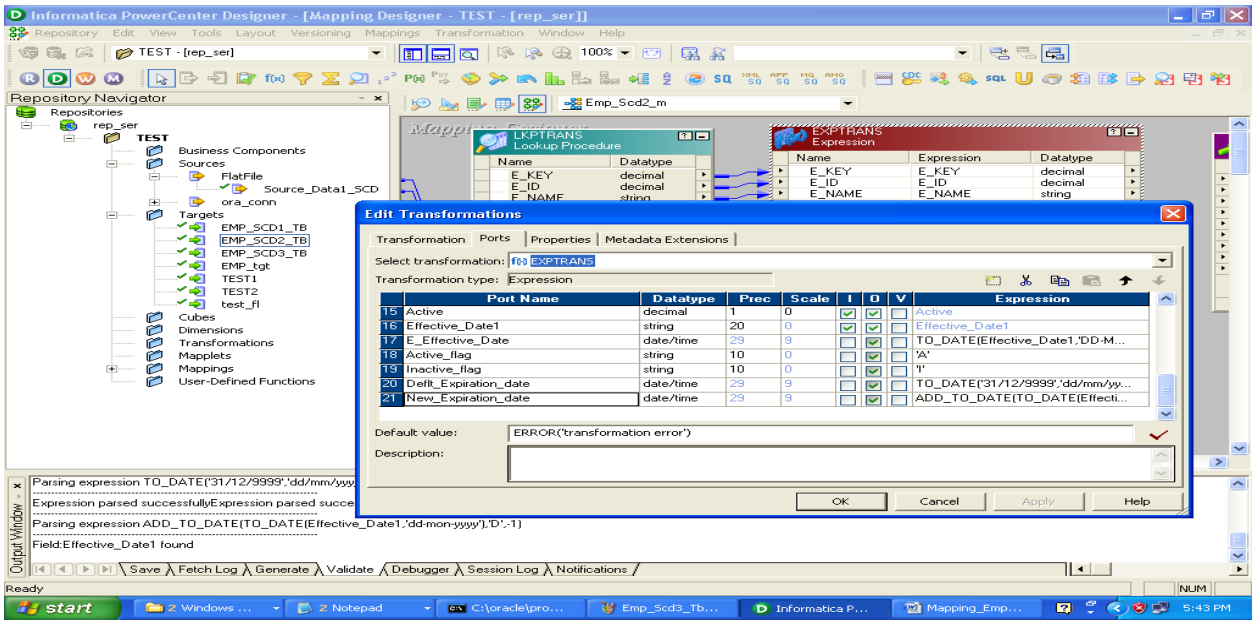




Create a New_Expiration_date Output Port of DateTime datatype with a value calculated as **New Effective_date -1**. This should be used for every changed Emp records while updating.

```
ADD_TO_DATE(TO_DATE(Effective_Date1,'dd-mon-yyyy'),'D',-1)
```



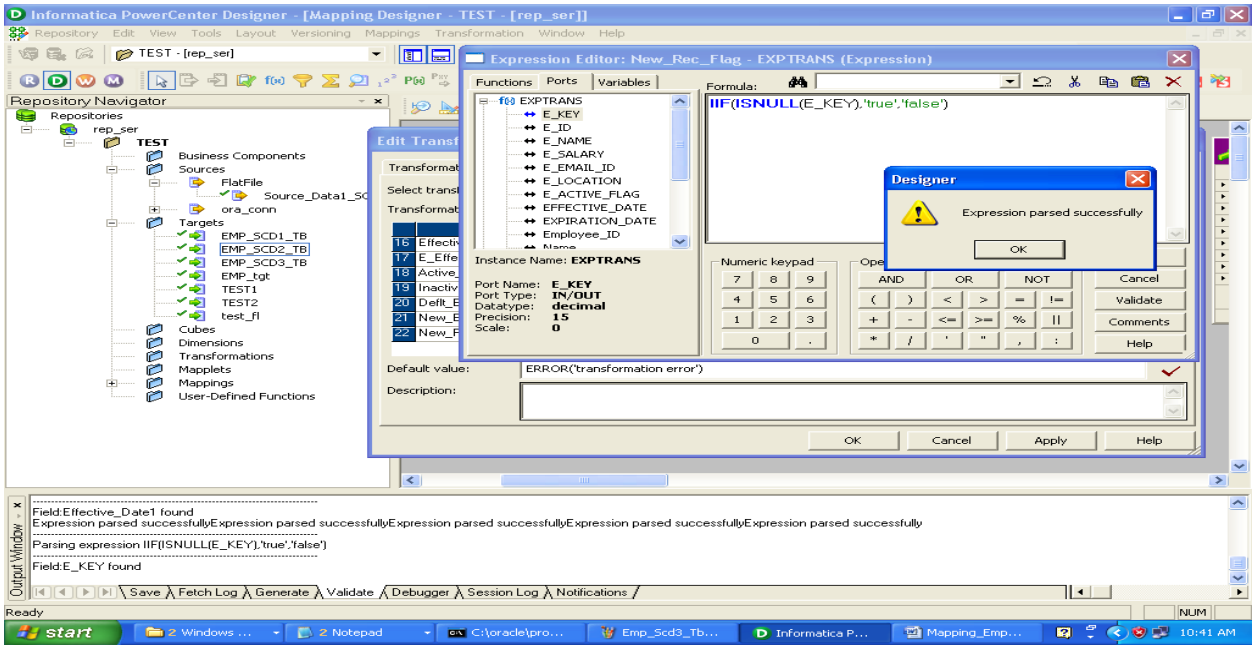


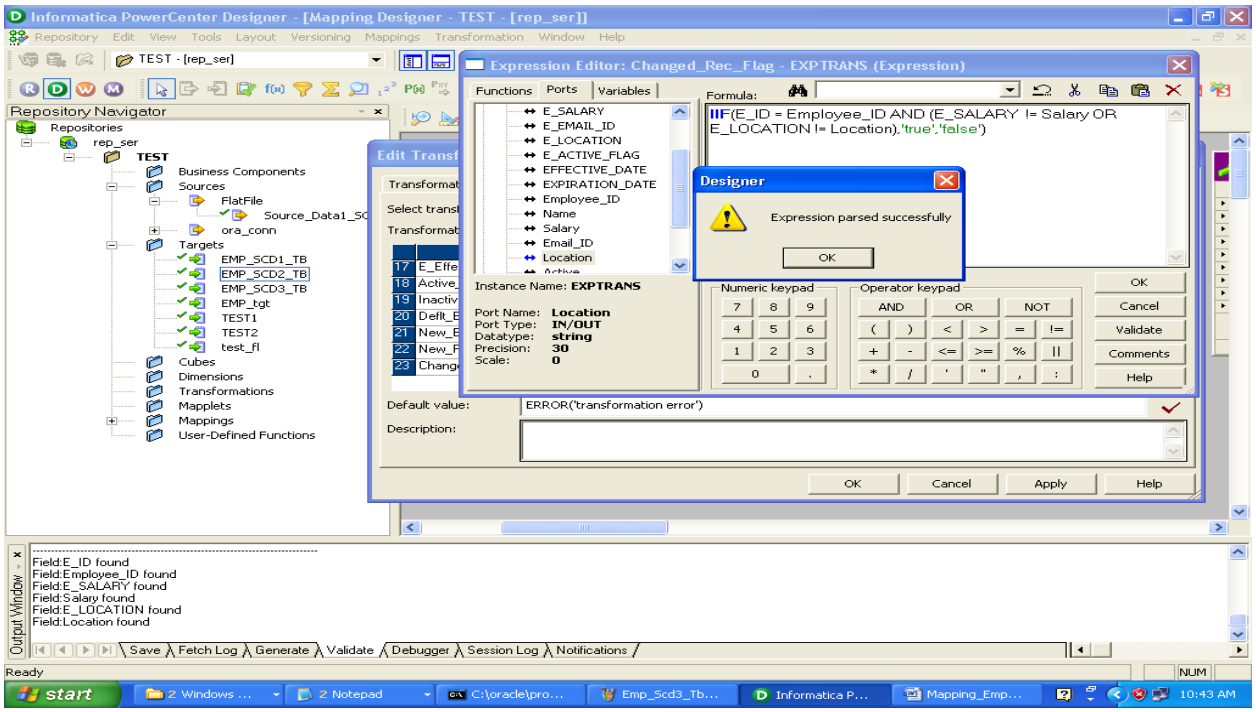
Create two more Output Ports. New_Rec_flag and Changed_Rec_flag.

They are actually the flag_variables for the filters .

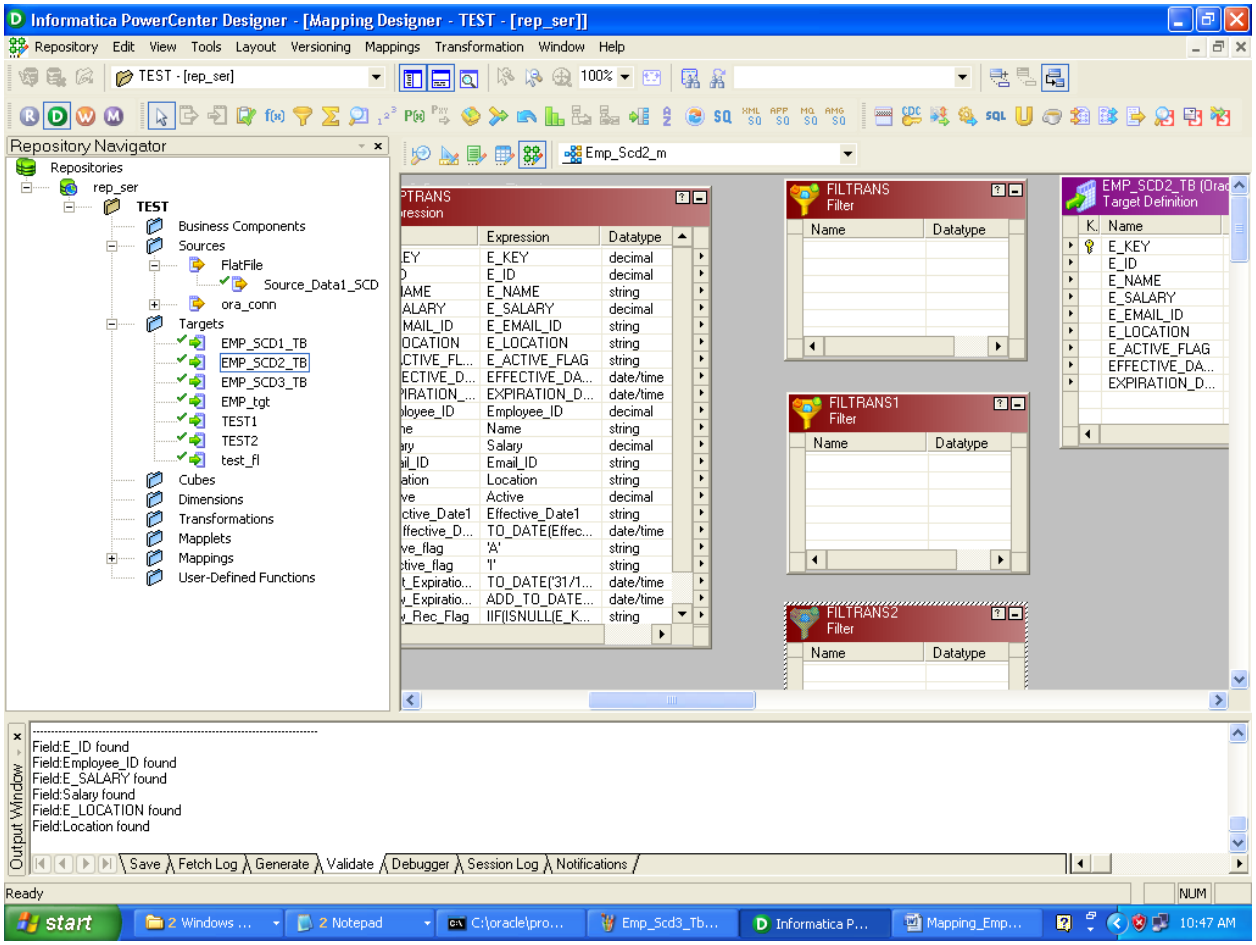
New_Rec_flag = IIF(ISNULL(E_KEY),'true','false')

Changed_Rec_flag = IIF(E_ID = Employee_ID AND (E_SALARY != Salary OR E_LOCATION != Location),'true','false')





Create 3 Filter Transformations .(FILTRANS, FILTRANS1, FILTRANS2)

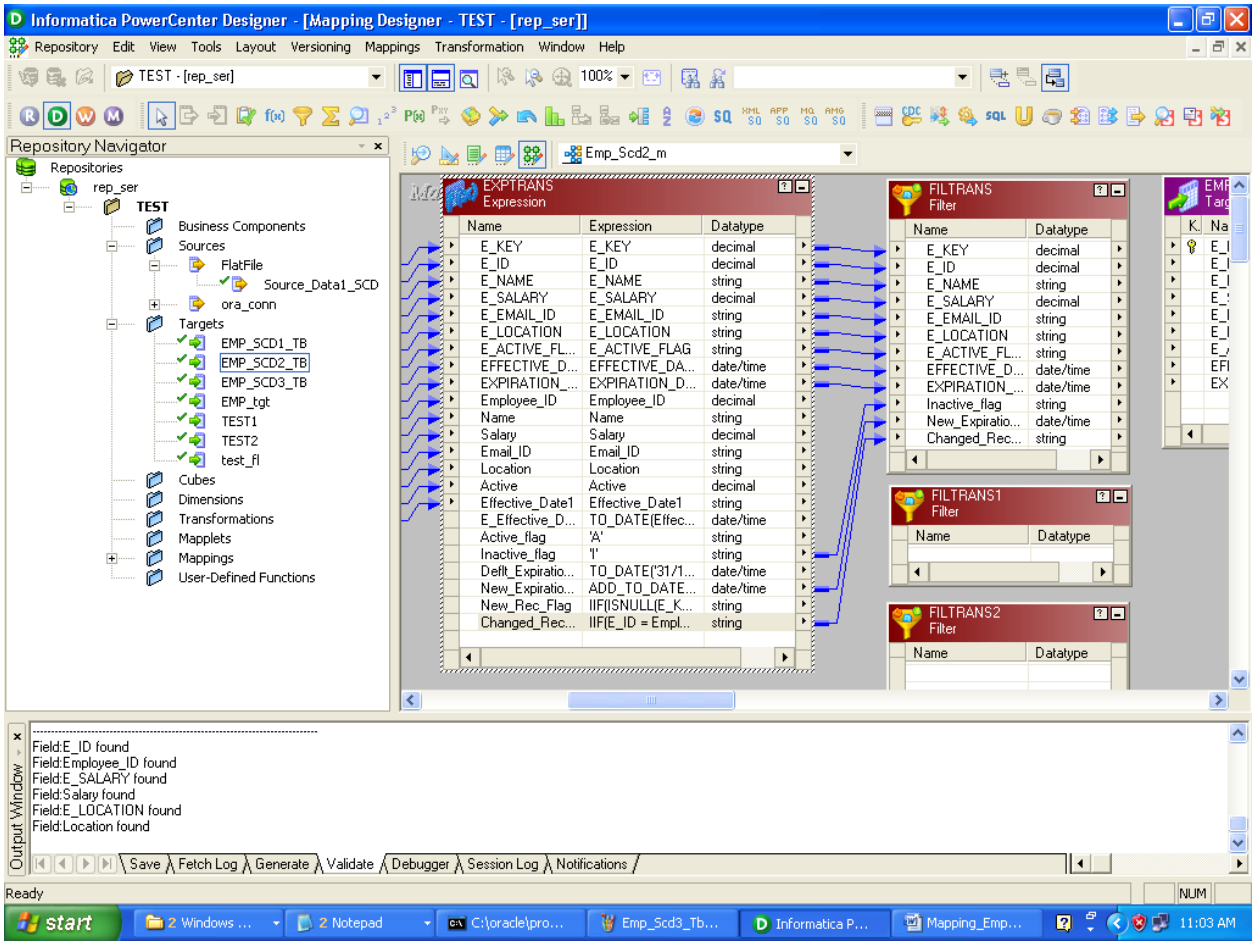


FILTRANS: Data will flow through this Filter, only during Incremental Loading. Use it for filtering Changed Records. These are the existing records of Employees, which are to be updated for the fields E_Active_Flag with 'I' and Expiration_Date as 'New_Expiration_Date' since their values have been updated in the source fields - Salary and Location. Input records for this will be coming from the Lookup.

FILTRANS1: Data will flow through this Filter, only during Incremental Loading. Use it for filtering Changed Records. These are the records of Employees, whose details are already existing in the table but details have been updated again for the fields Salary and Location. Input records will be coming from the Source and will get inserted as new records in the table with the default value for the Expiration_Date and Active_flag with 'A'

FILTRANS2: Data will flow through this Filter, during Initial as well as Incremental Loading. Use it for loading all new Employee records. Records should be inserted with a default value for the Expiration_Date and Active_flag with 'A'. Input records for this will be coming from the Source.

Configure FILTRANS:

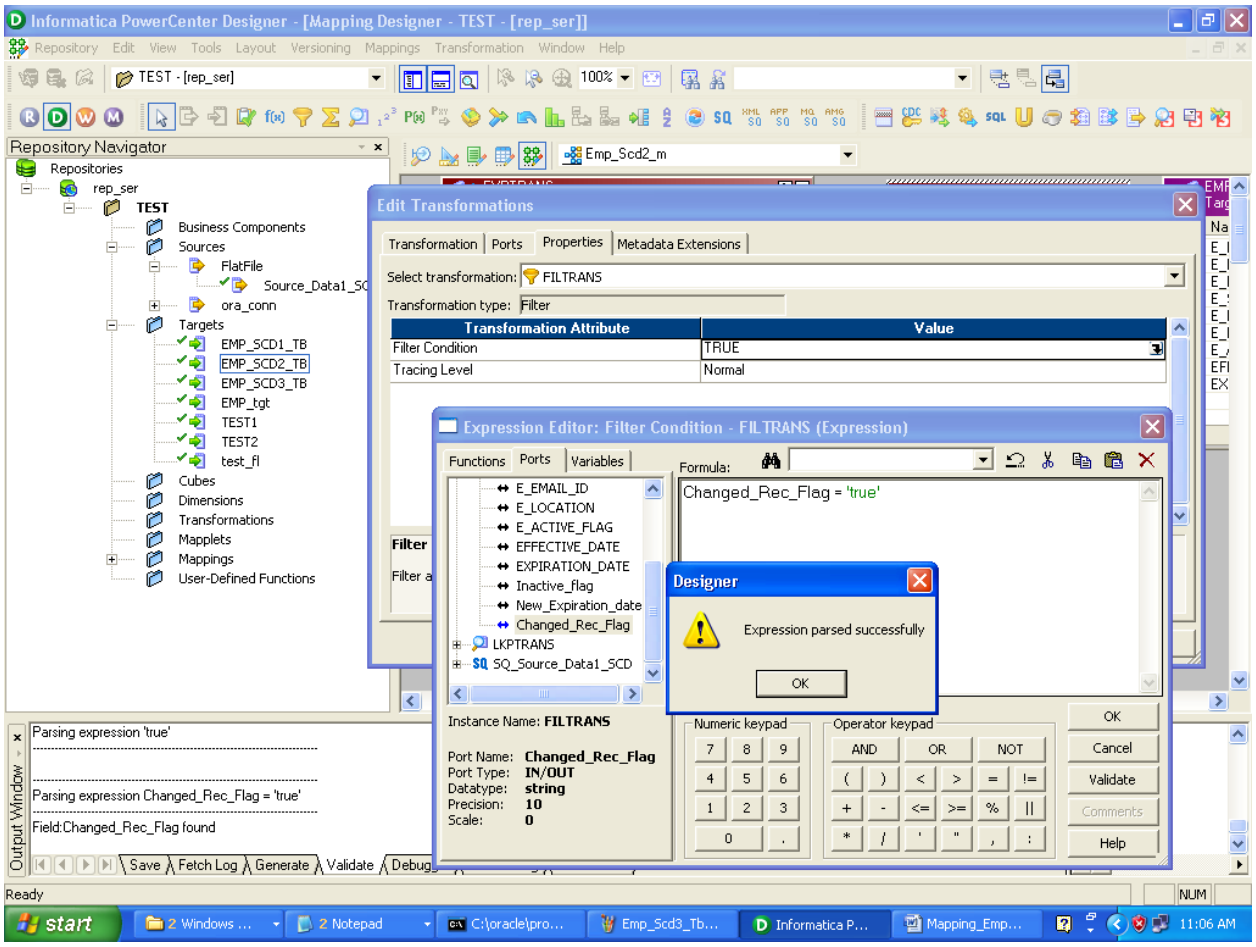


Take all the LookUp fields from Expression Transformation.

Take additional fields like Inactive_flag, New_Expiration_Date and Changed_Rec_Flag.

In the Properties Tab of FILTRANS, set the Filter Condition as

Changed_Rec_Flag = 'true'



Take an Update Strategy Transformation (UPDTRANS) and take the following fields from the FILTRANS.

E_KEY, E_ID

E_NAME

E_SALARY

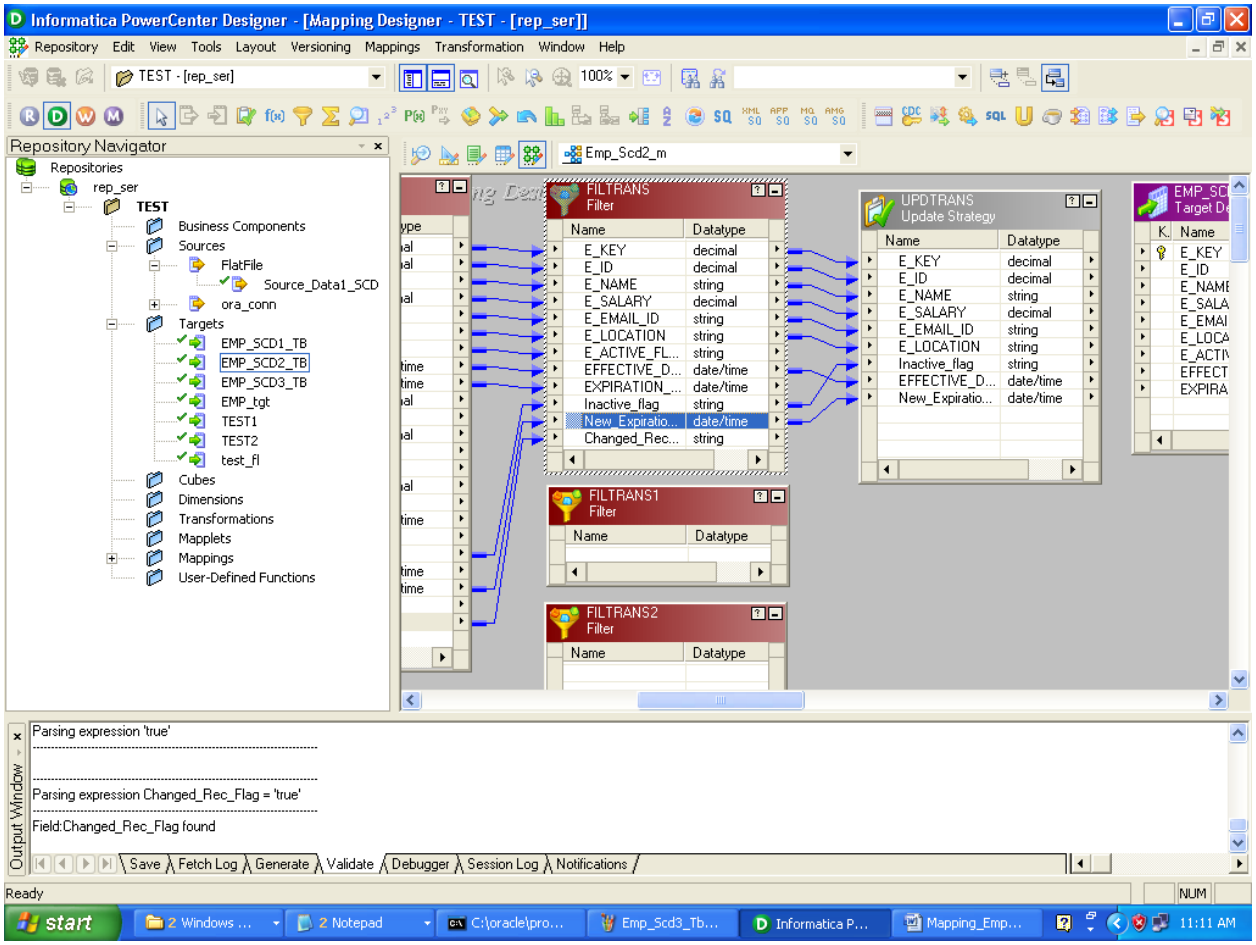
E_EMAIL_ID

E_LOCATION

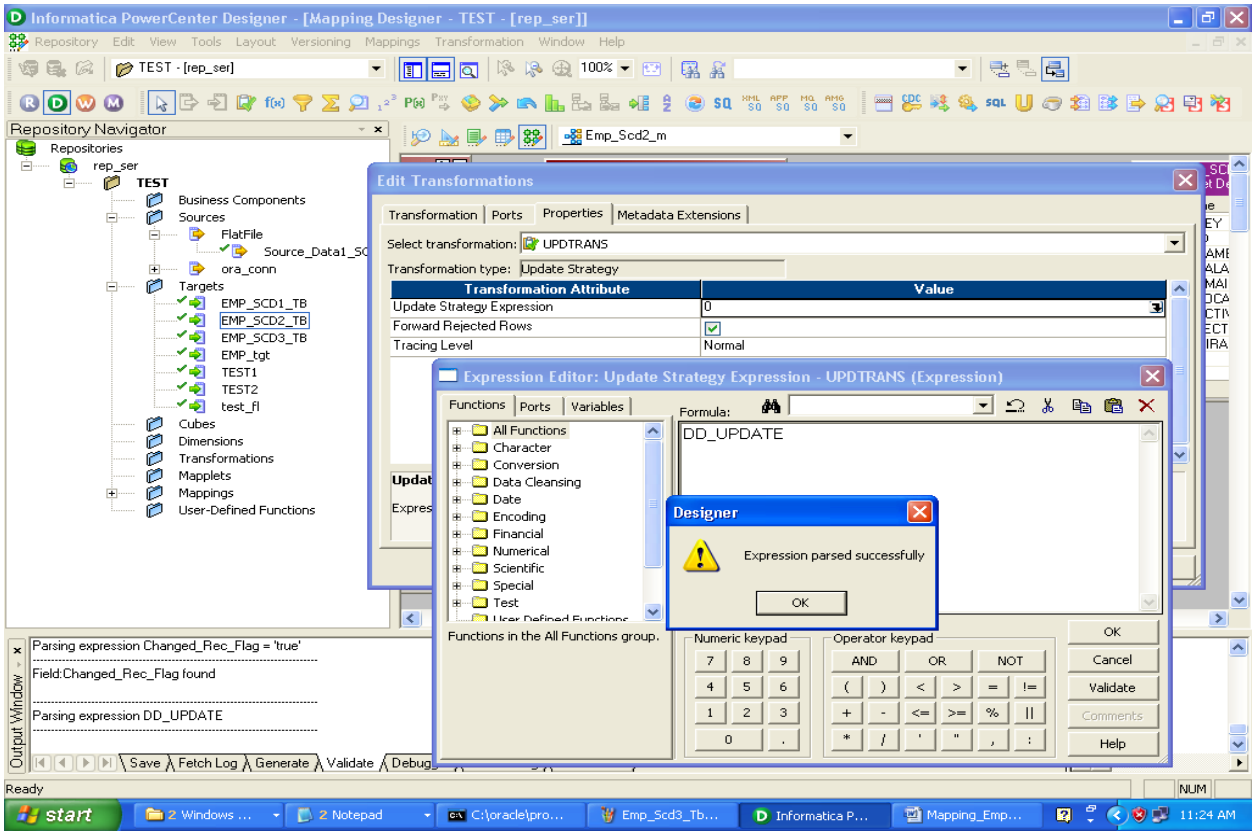
Inactive_Flag

EFFECTIVE_DATE

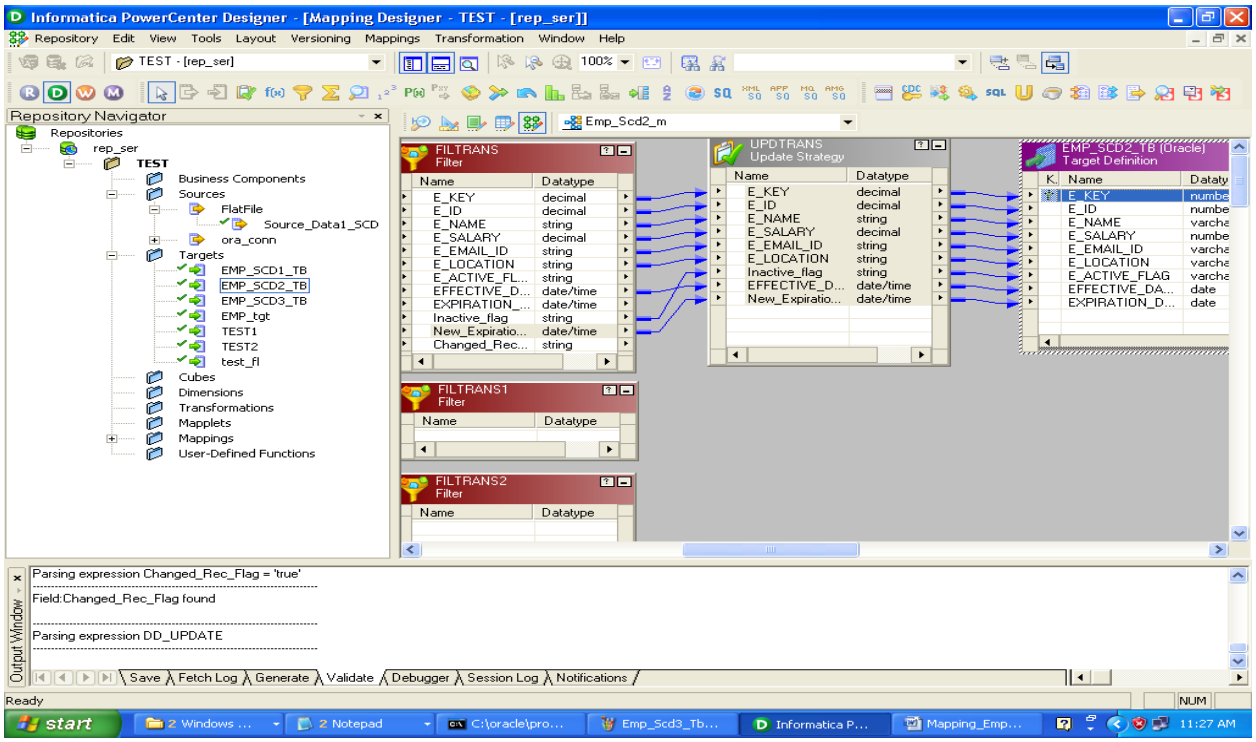
New_Expiration_Date



Set the Properties Tab of UPDTRANS and set the Update strategy Expression as DD_UPDATE.



Connect all the fields to the Target Emp Table appropriately.



Configure FILTRANS1 for inserting Changed Records.

Select following ports from the Expression Transformation.

Employee_ID

Name

Salary

Email_ID

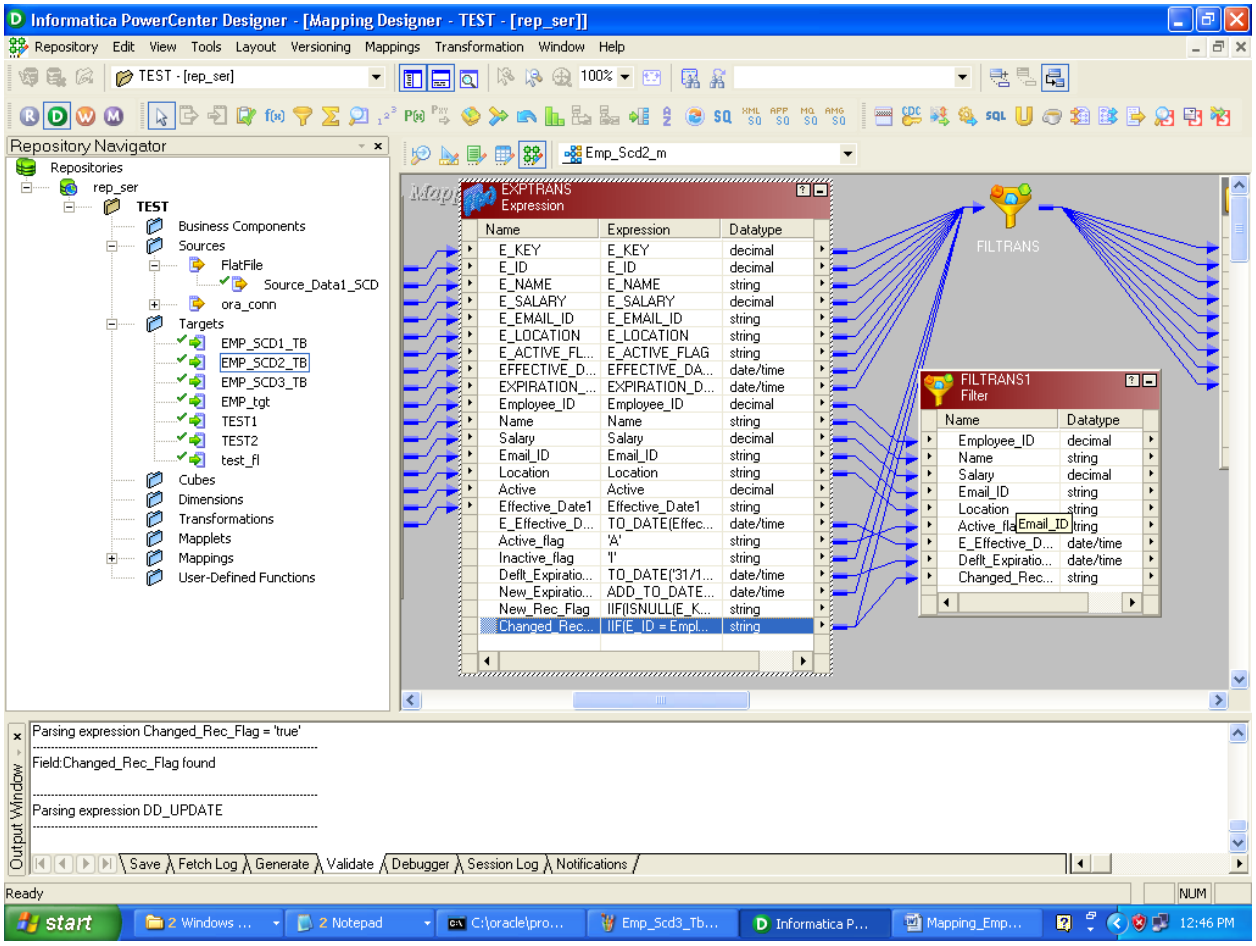
Location

Active_Flag

E_Effective_Date

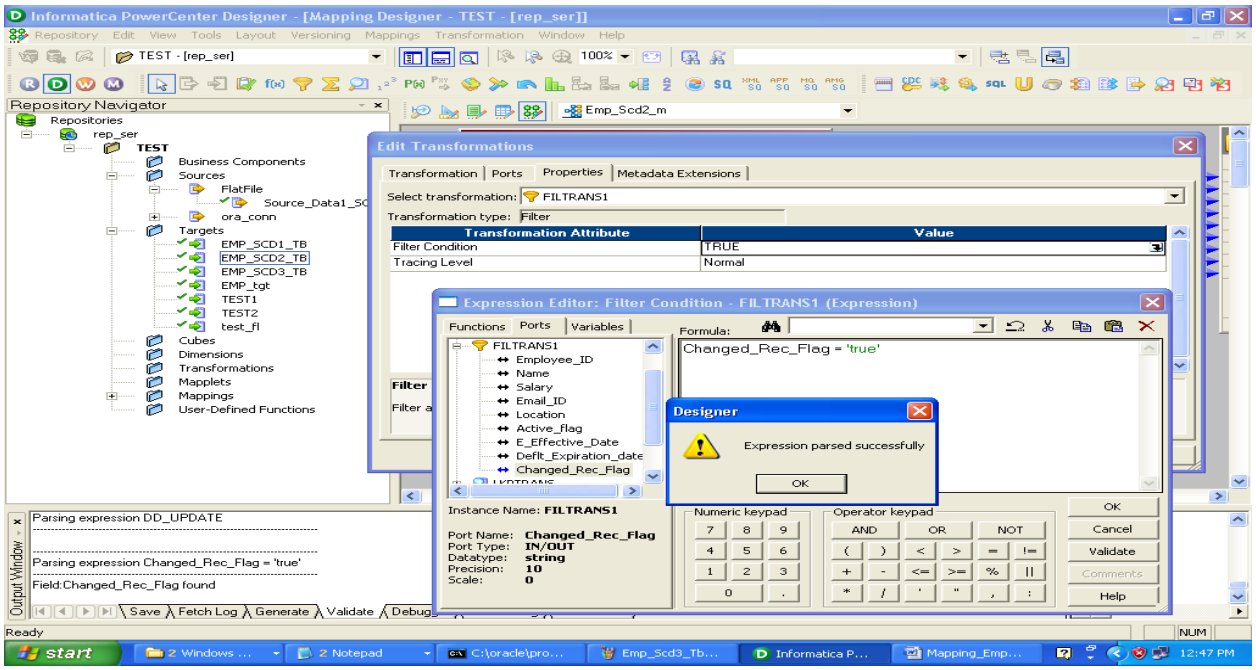
Defl t_Expiration_Date

Changed_Rec_Flag

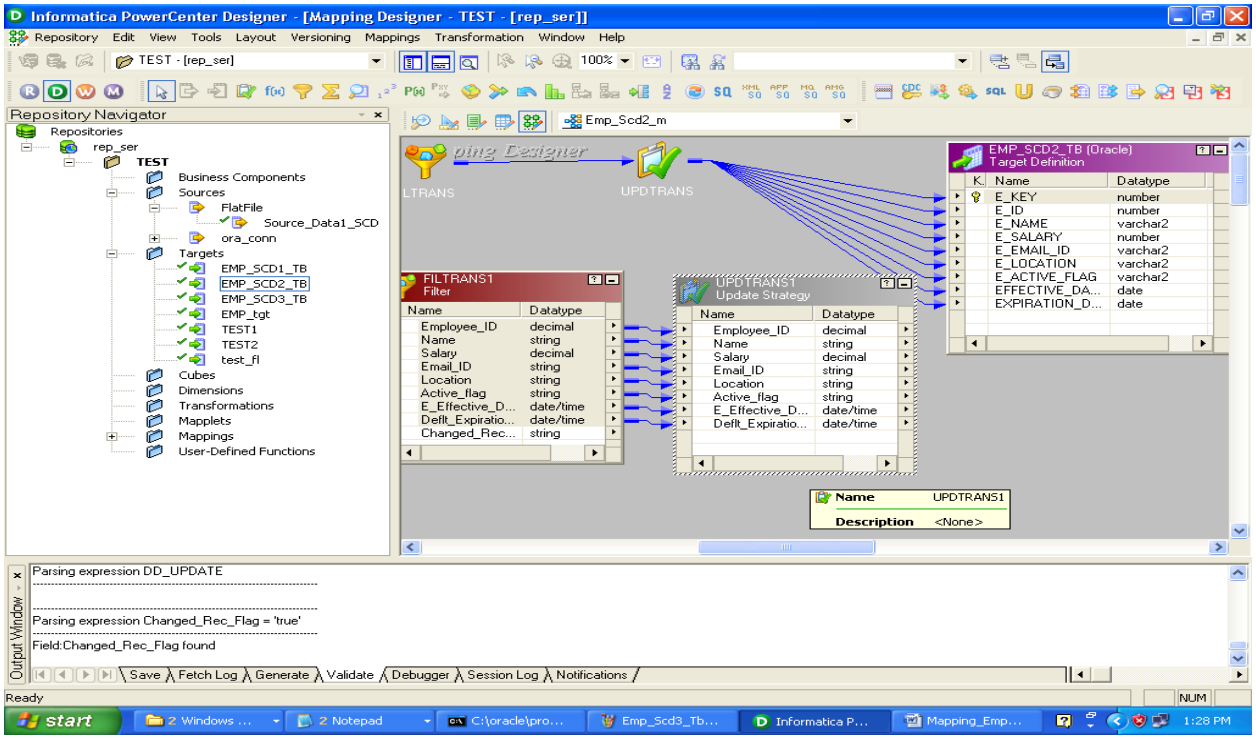


Set the FILTRANS1 Filter Condition in the Properties Tab.

Changed_Rec_Flag = 'true'

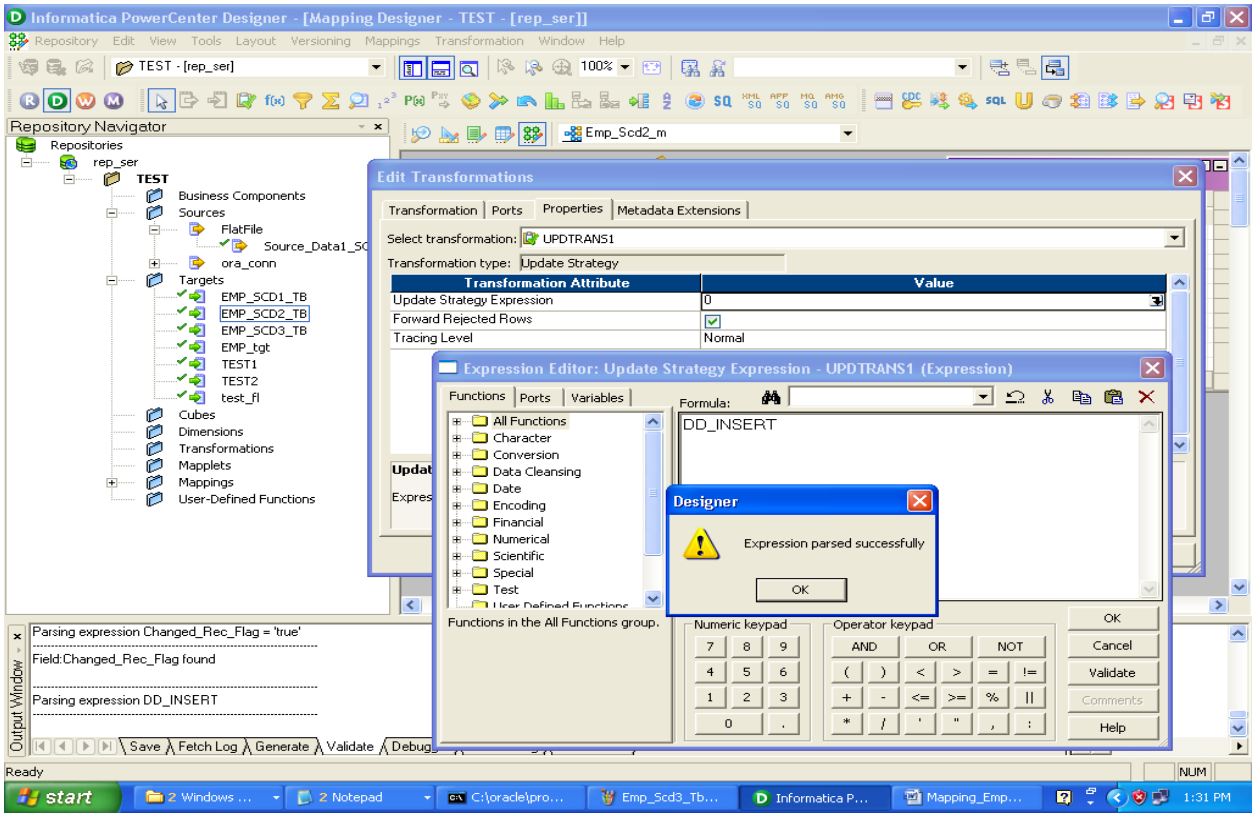


Take another Update strategy Transformation (UPDTRANS1)

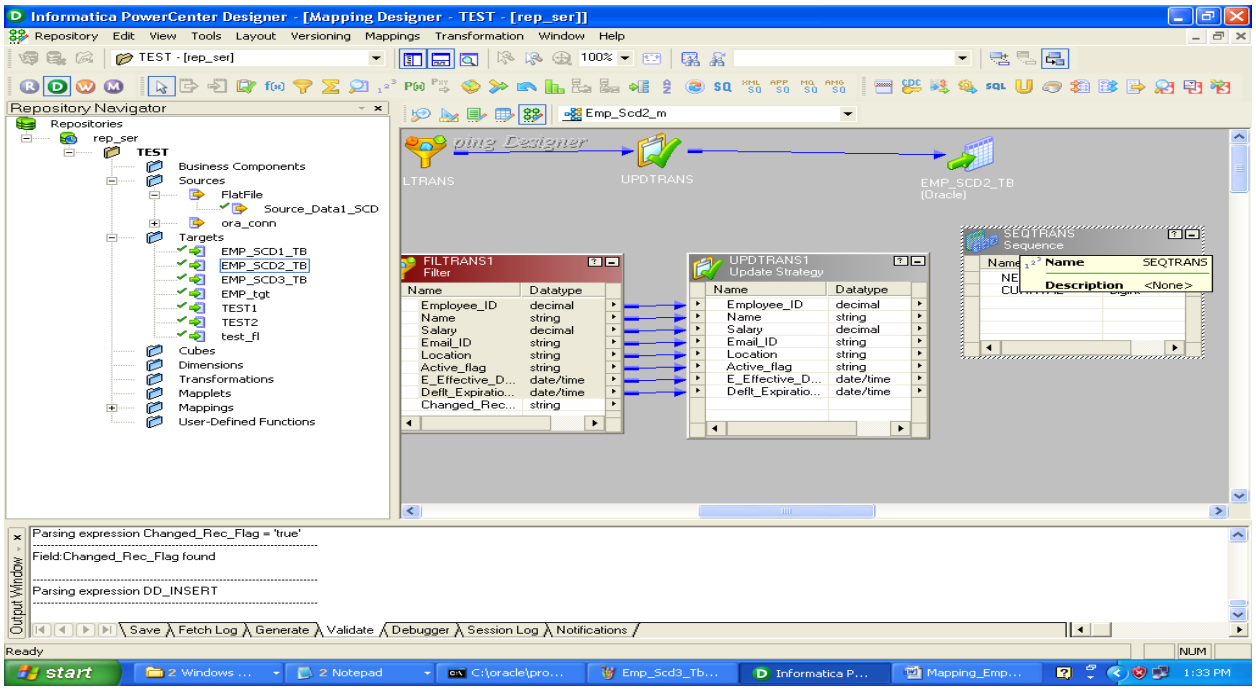


Select all the fields from FILTRANS1 except Changed_Rec_Flag

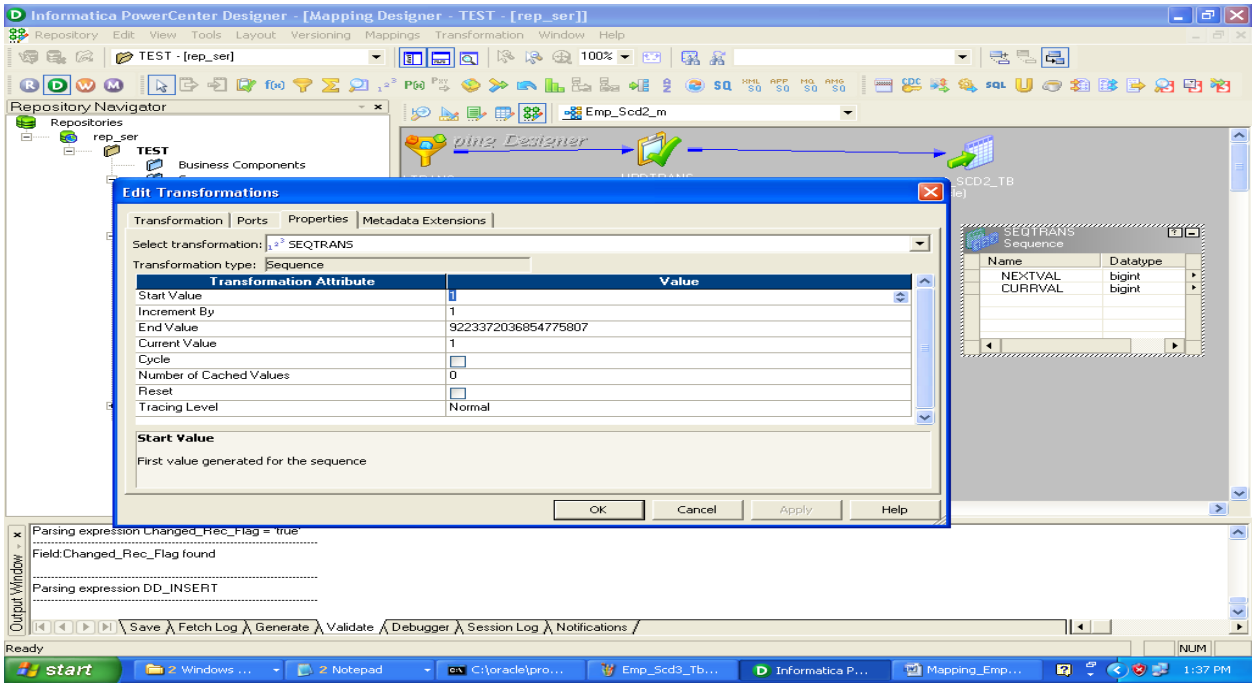
In UPDTRANS1 set the Update strategy Expression in Properties Tab to DD_INSERT



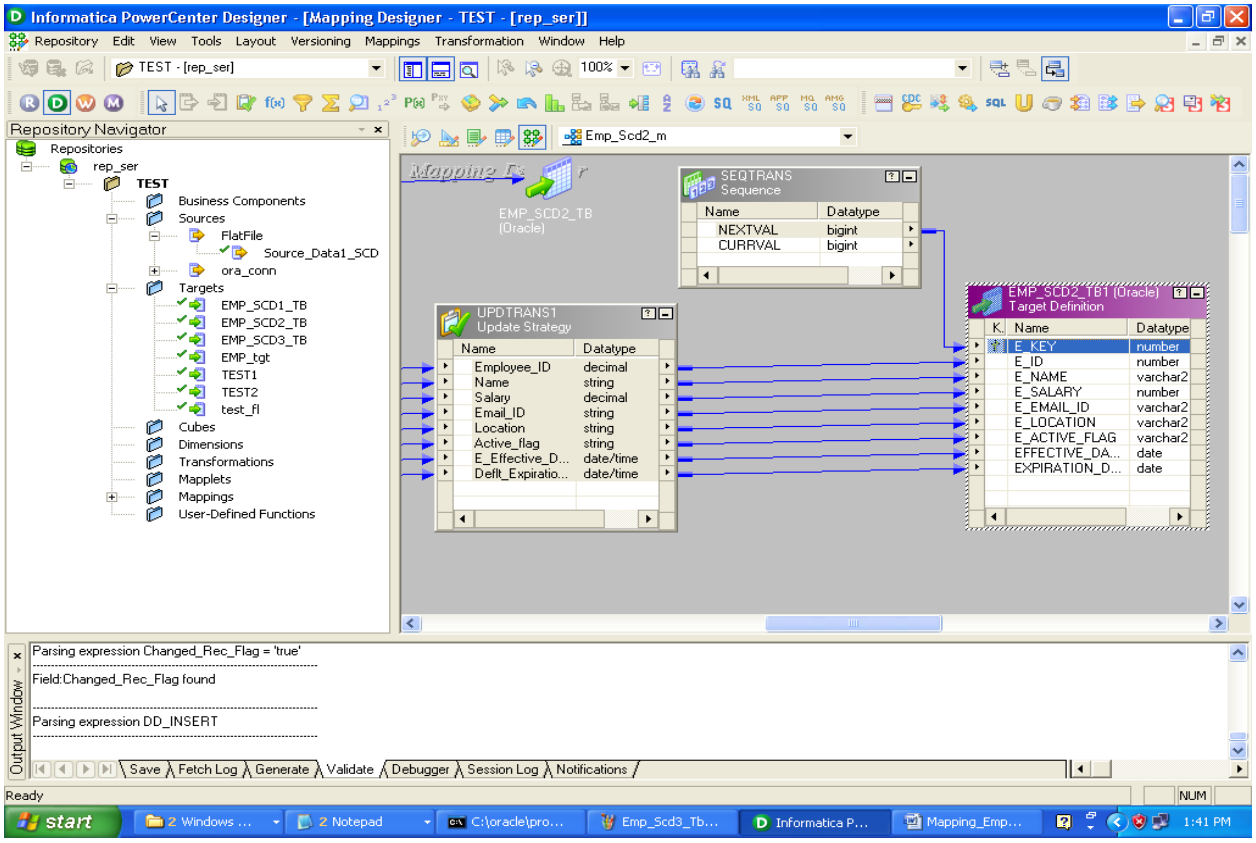
Select a Sequence Generator Transformation (SEQTRANS). This is to generate unique Emp_Key for any Employee record while inserting.



Set the Start Value to 1 in Sequence SEQTRANS.



Connect NEXTVAL port from SEQTRANS to Target EMP_SCD2_Tb, PK_Emp_Key column. Remaining fields can be connected from UPDTRANS1 appropriately.



Configure the 3rd Filter (FILTRANS2), for any new Employee record insertion. Take following fields from the Expression Transformation.

Employee_ID

Name

Salary

Email_ID

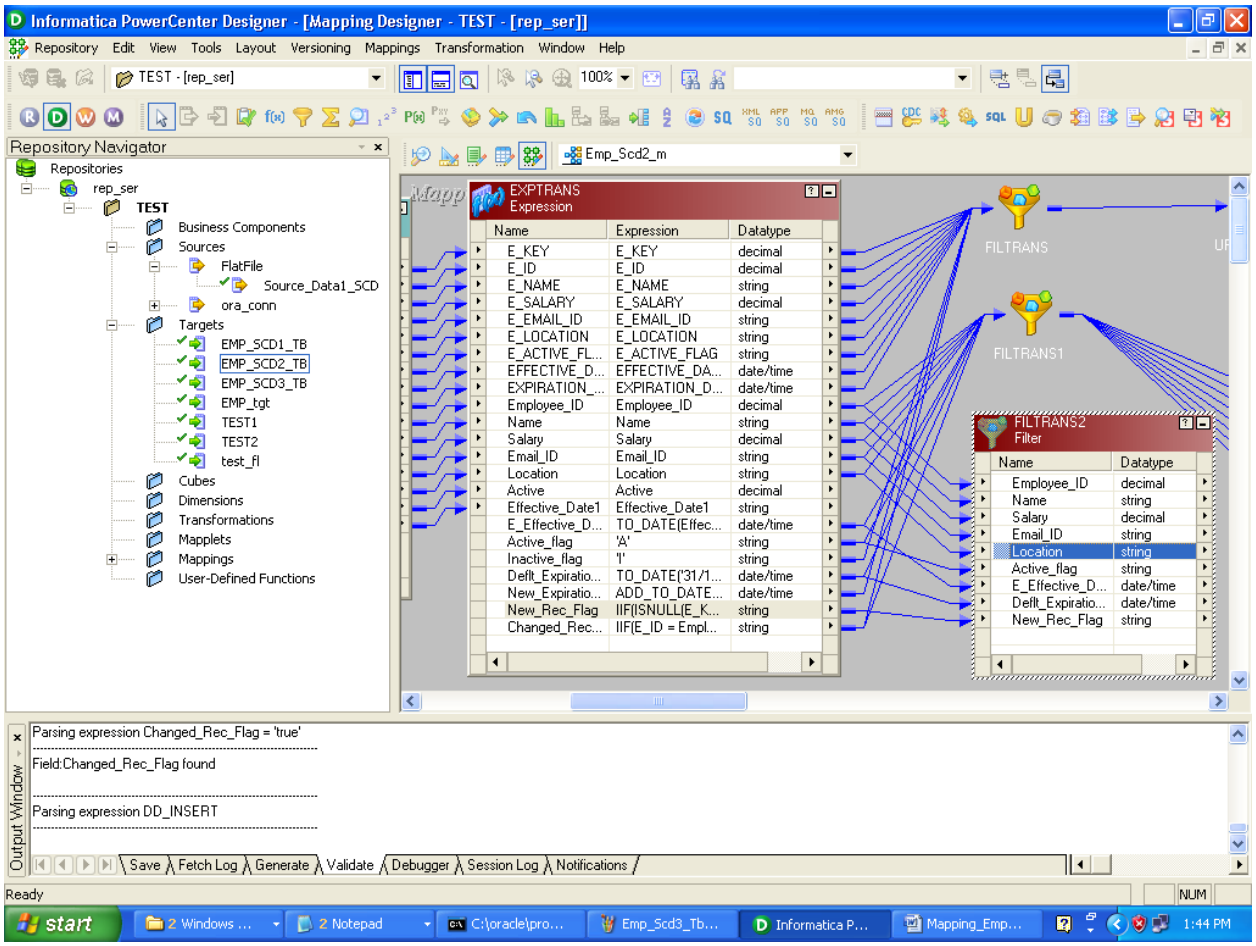
Location

Active_Flag

E_Effective_Date

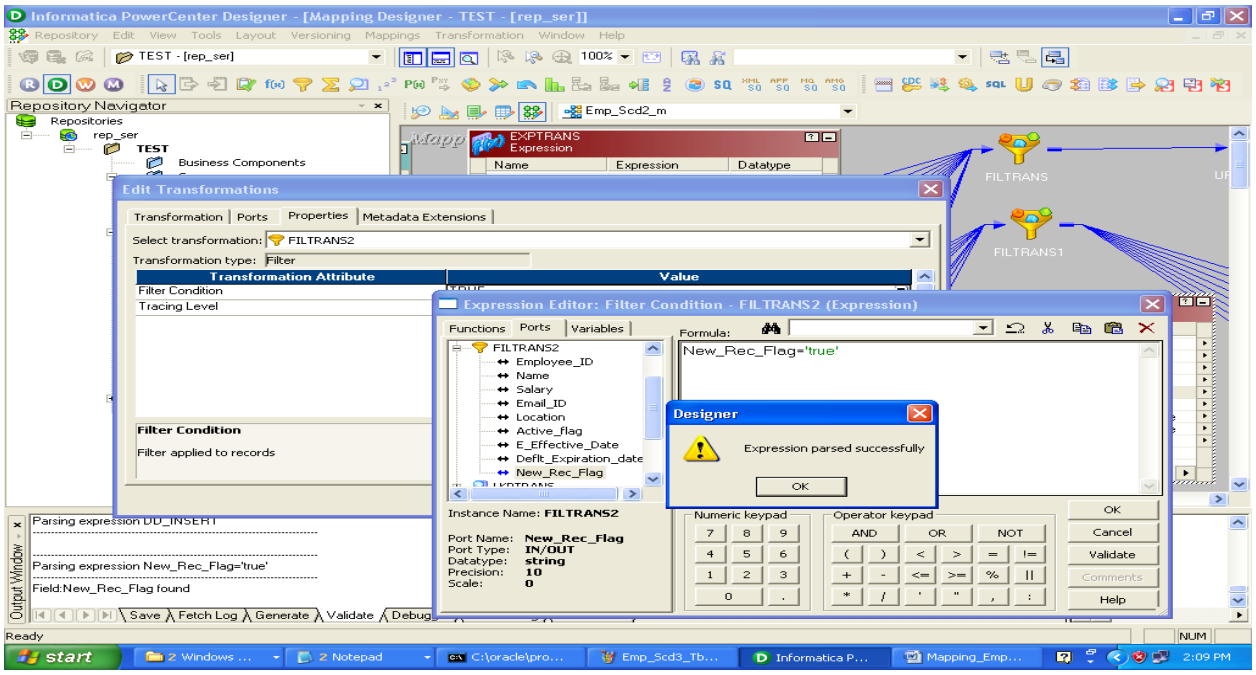
Deflt_Expiration_Date

New_Rec_Flag

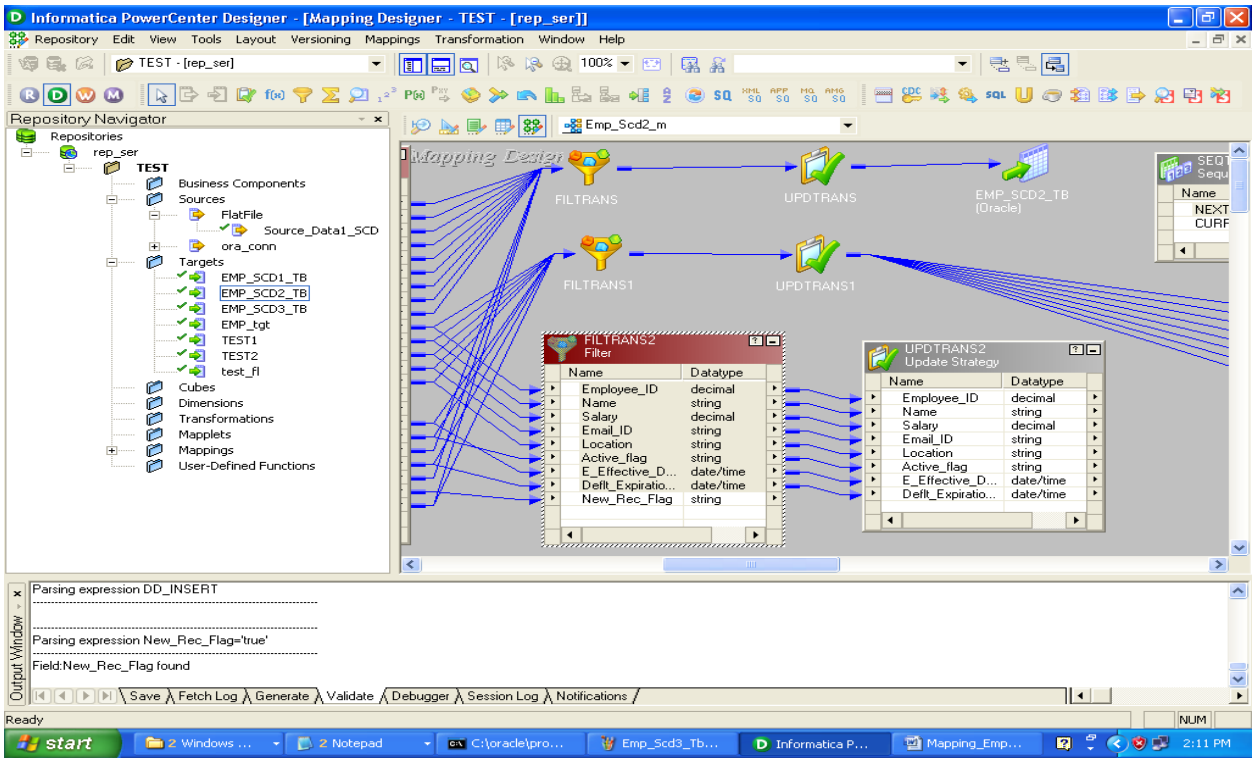


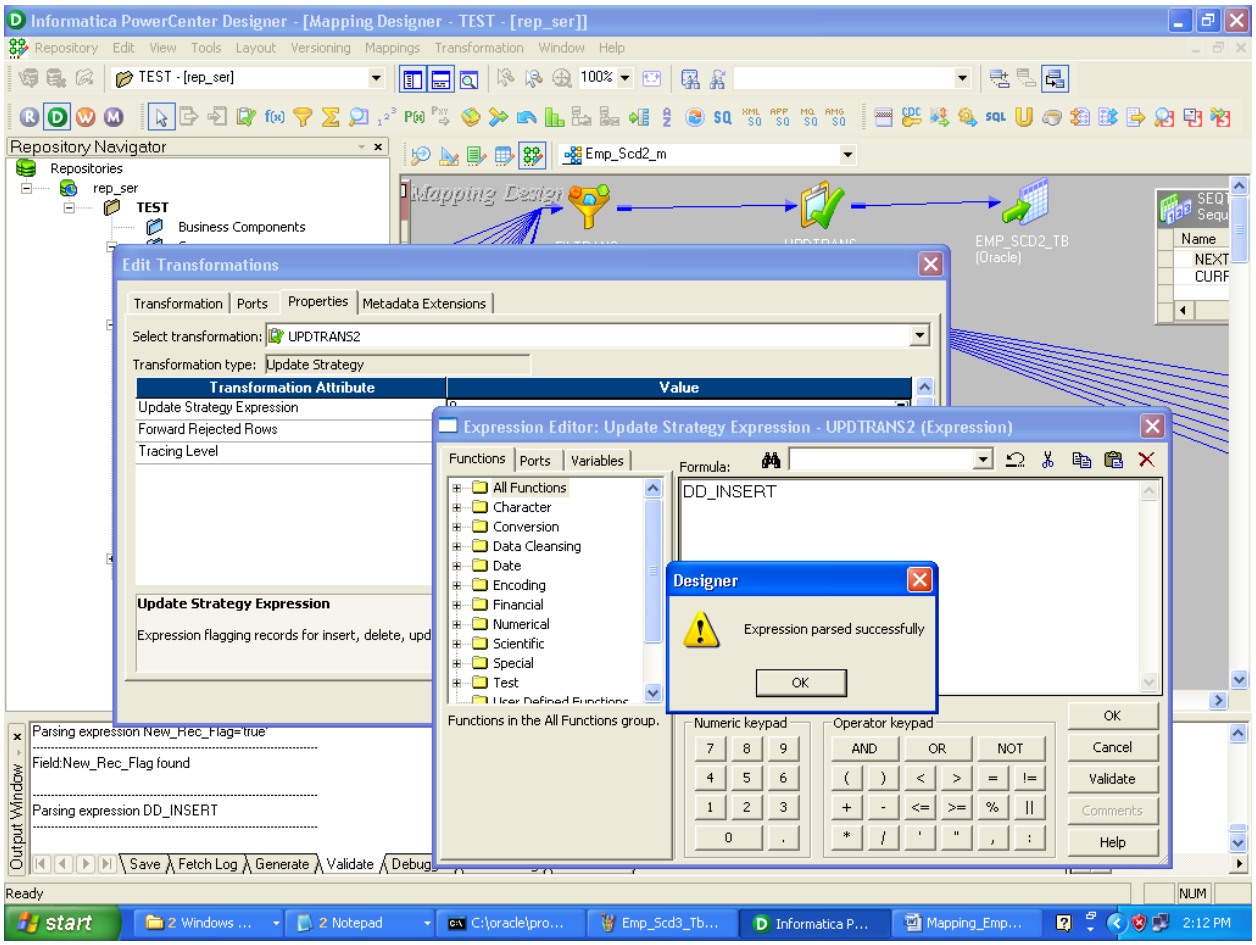
Set the Filter Condition in the Properties Tab.

New_Rec_Flag='true'

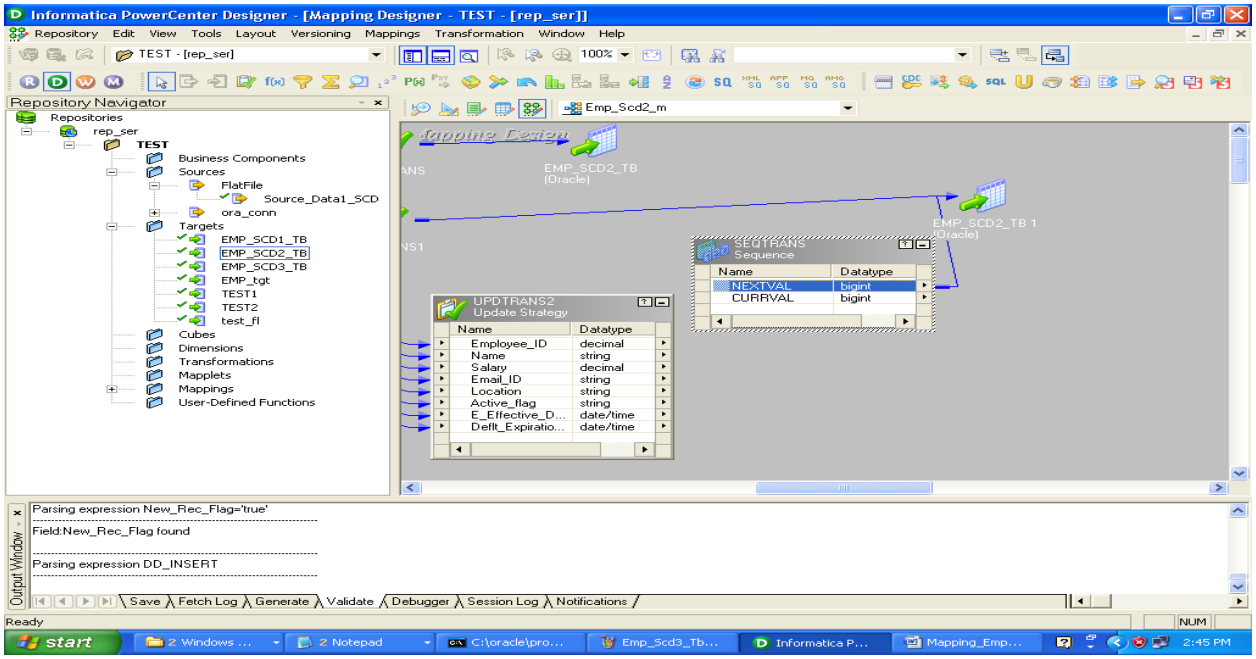


Take another Update strategy Transformation(UPDTRANS2) and select all the fields from FILTRANS2 except New_Rec_Flag

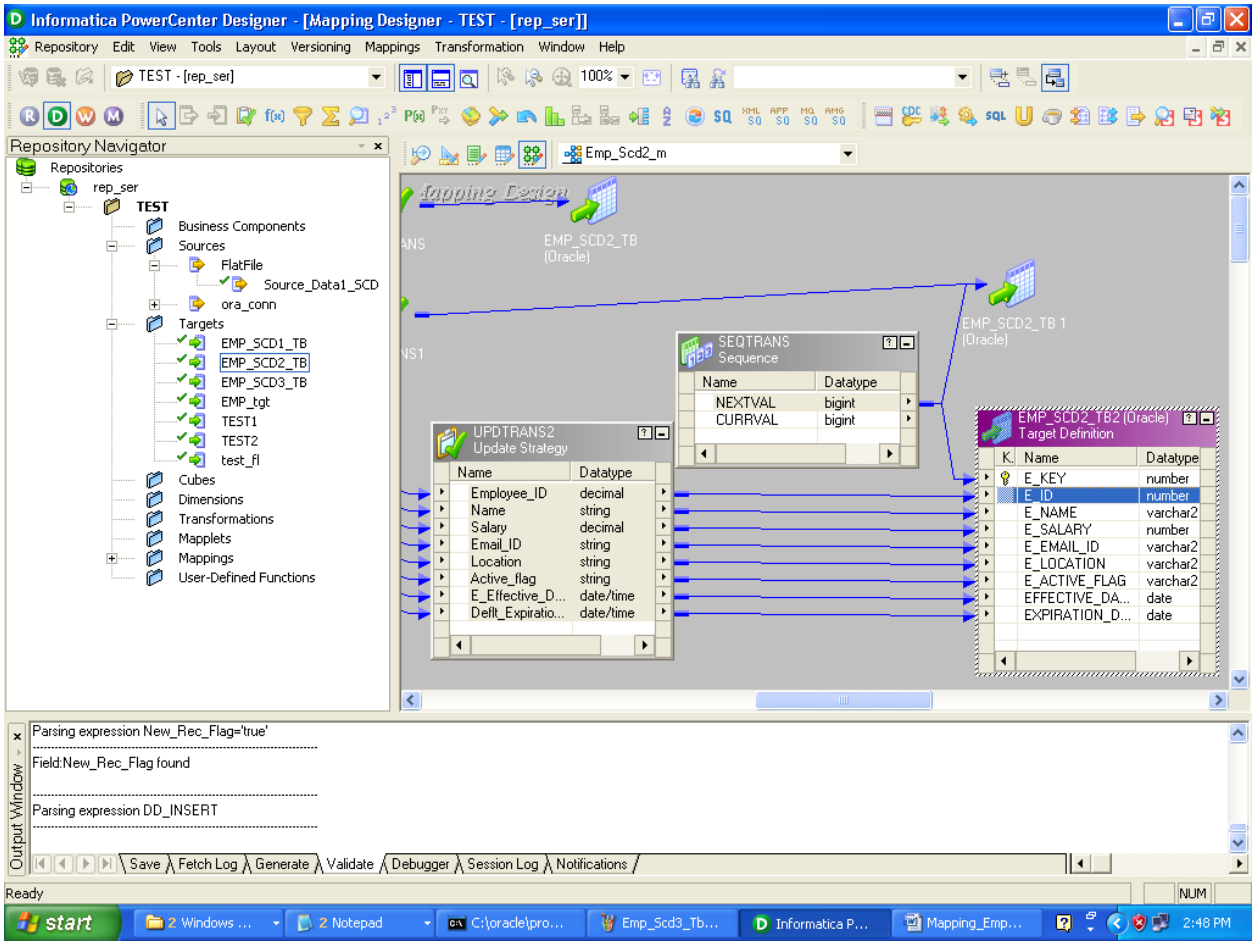




Make use of the same Sequence Generator Transformation to generate continuous unique value for the Emp_Key primary key in the EMP_Scd2_Tb table.

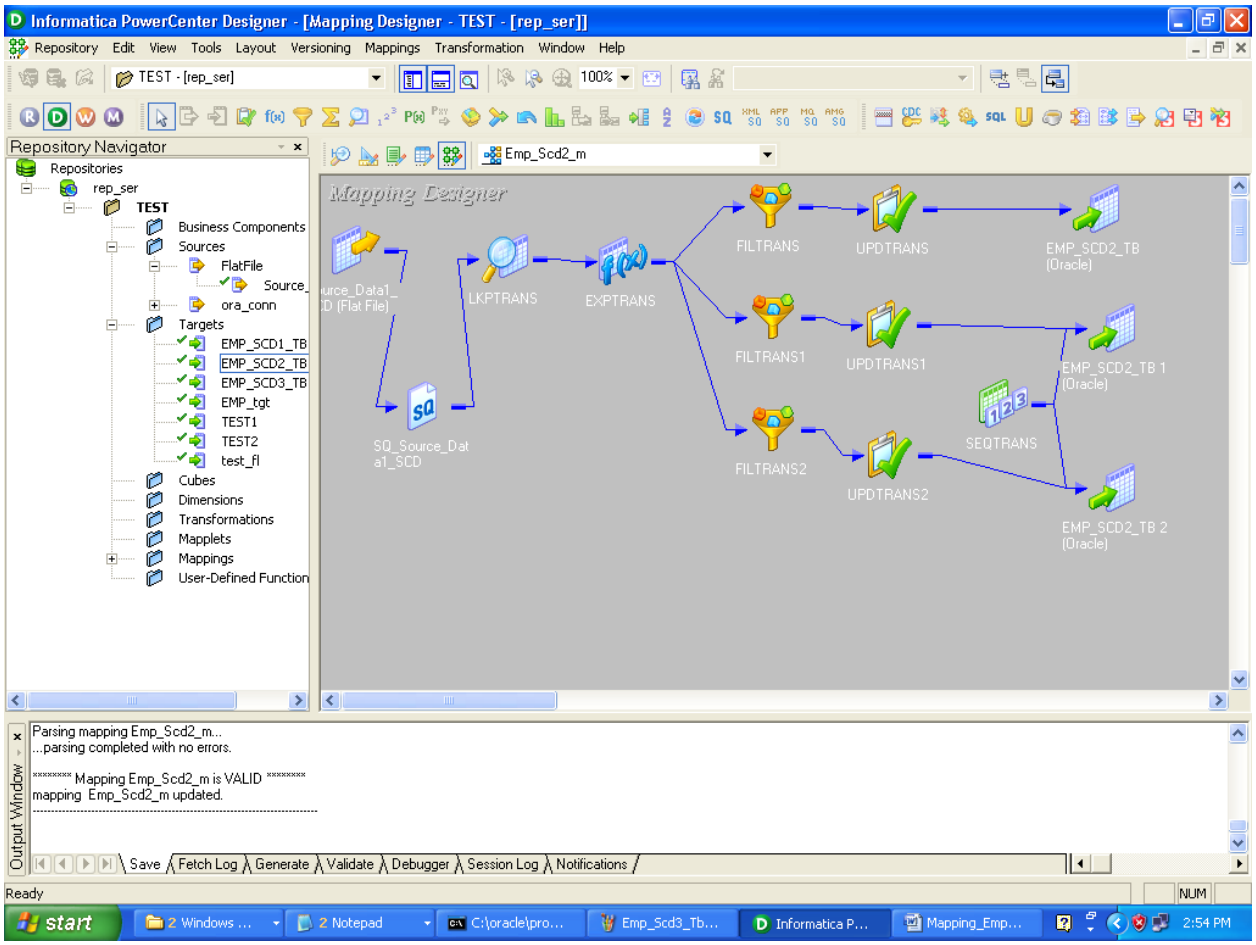


Connect NEXTVAL from SEQTRANS to E_KEY and remaining fields in the target can be connected from UPDTRANS2 appropriately.

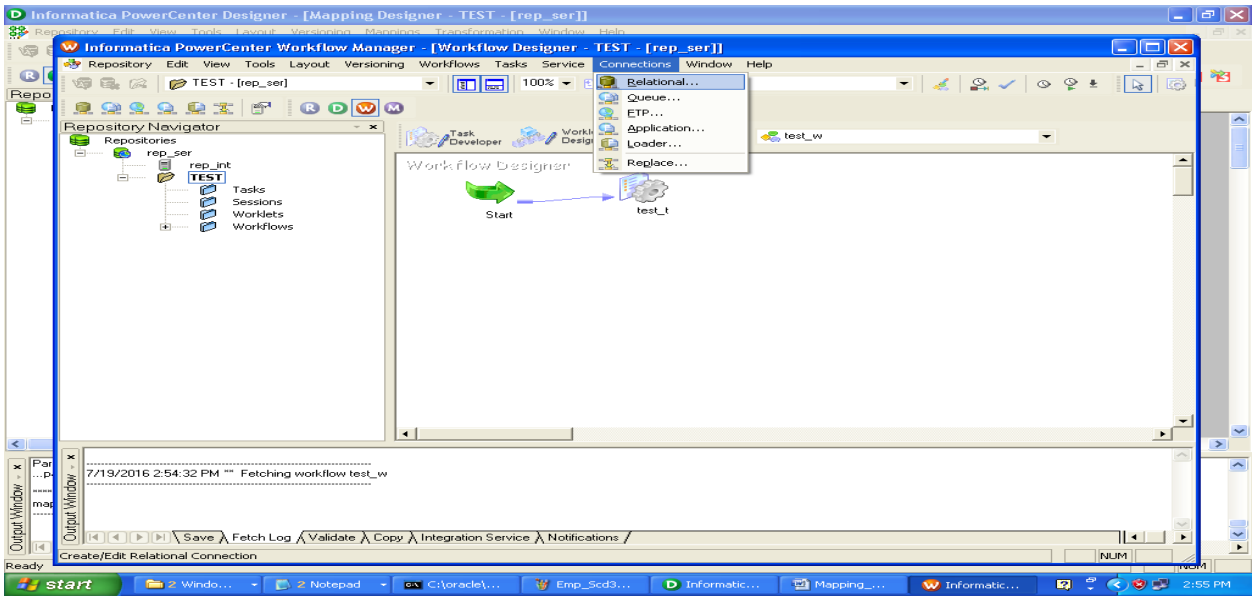


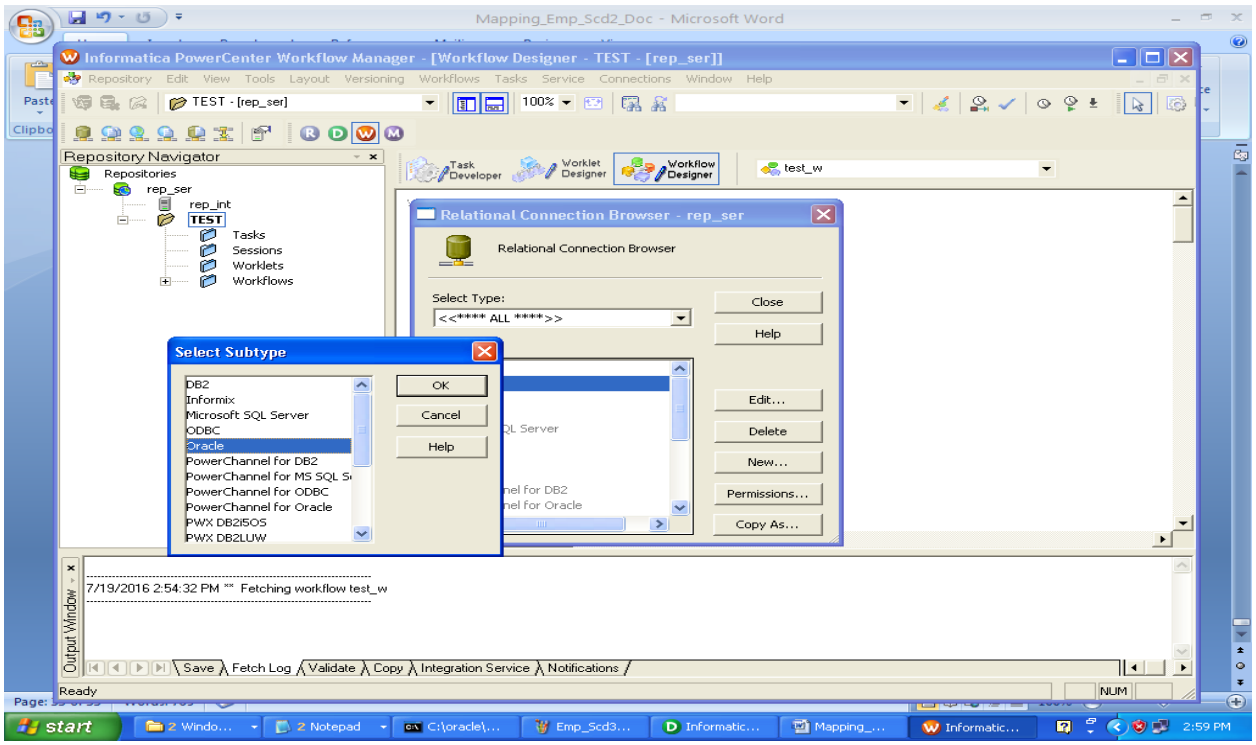
Save the Mapping. It should be valid.

Create a Session Task in the workflow for this mapping. Configure the Task. And Run.

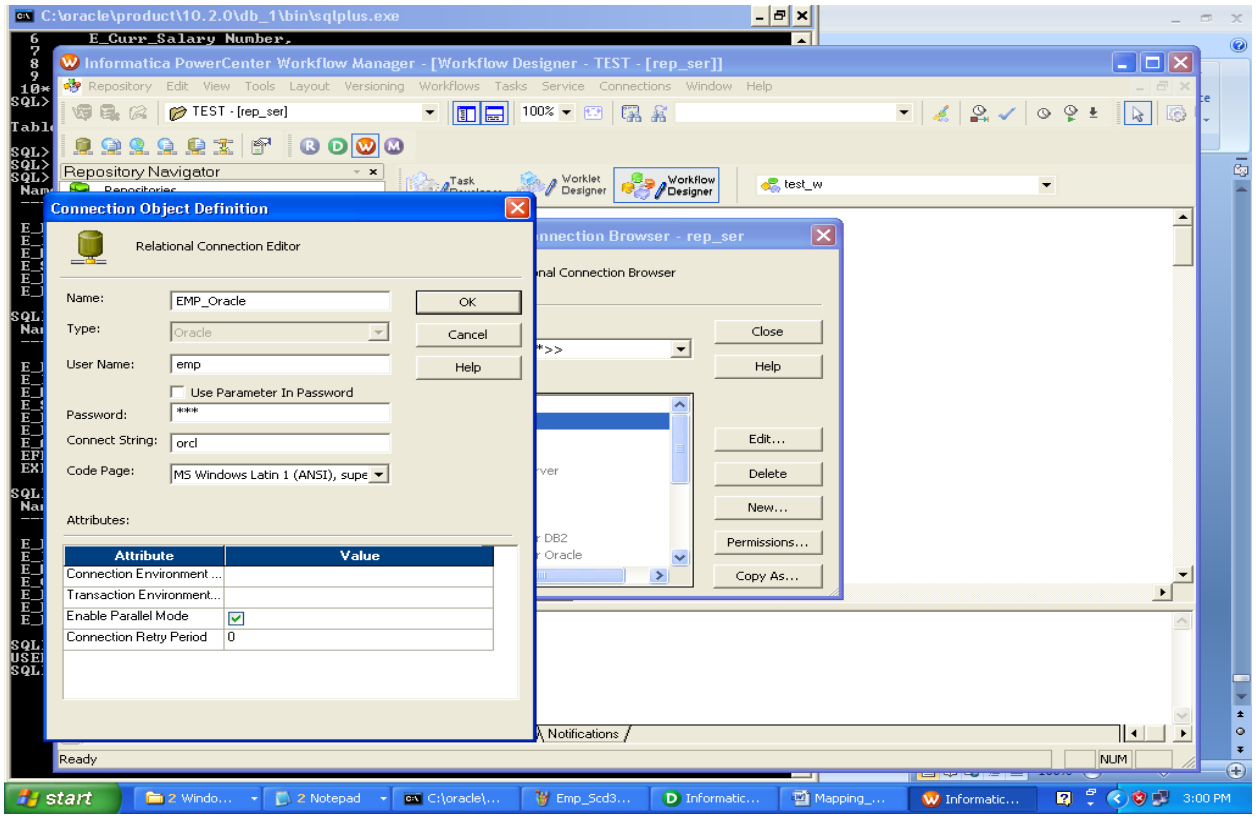


To create session task, open Workflow . Create a new relational connector to the Oracle schema.



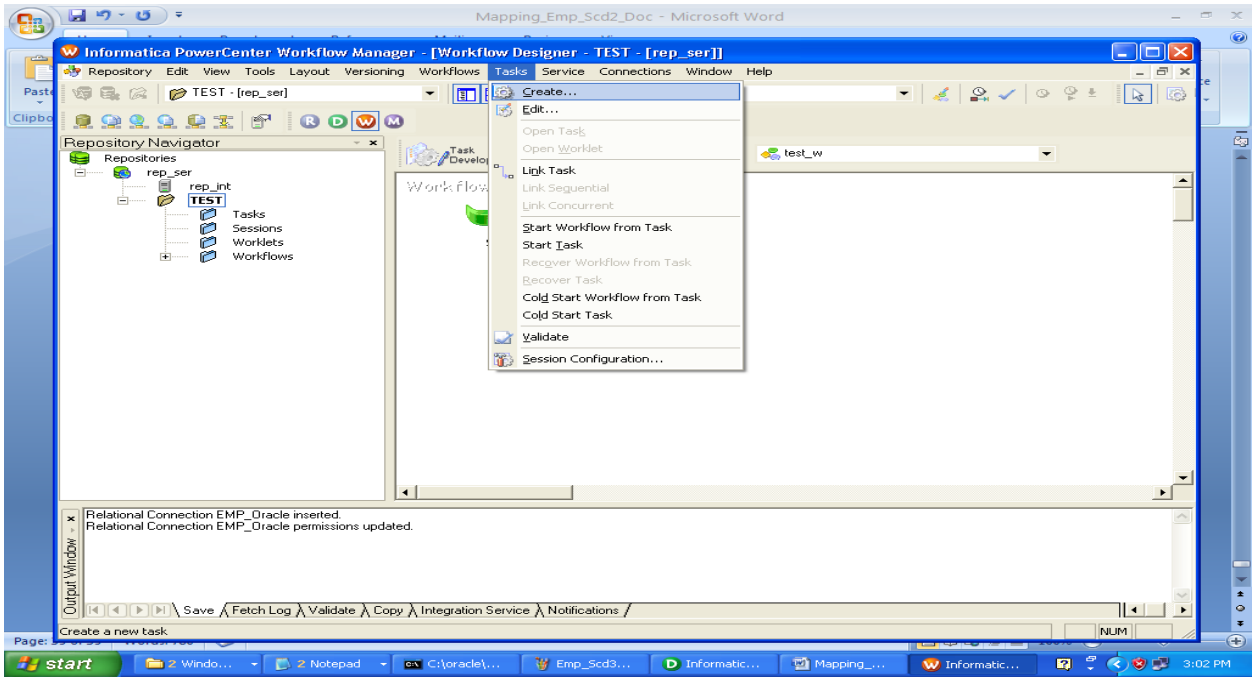


Set the connection properties in the Relational Connector Editor.

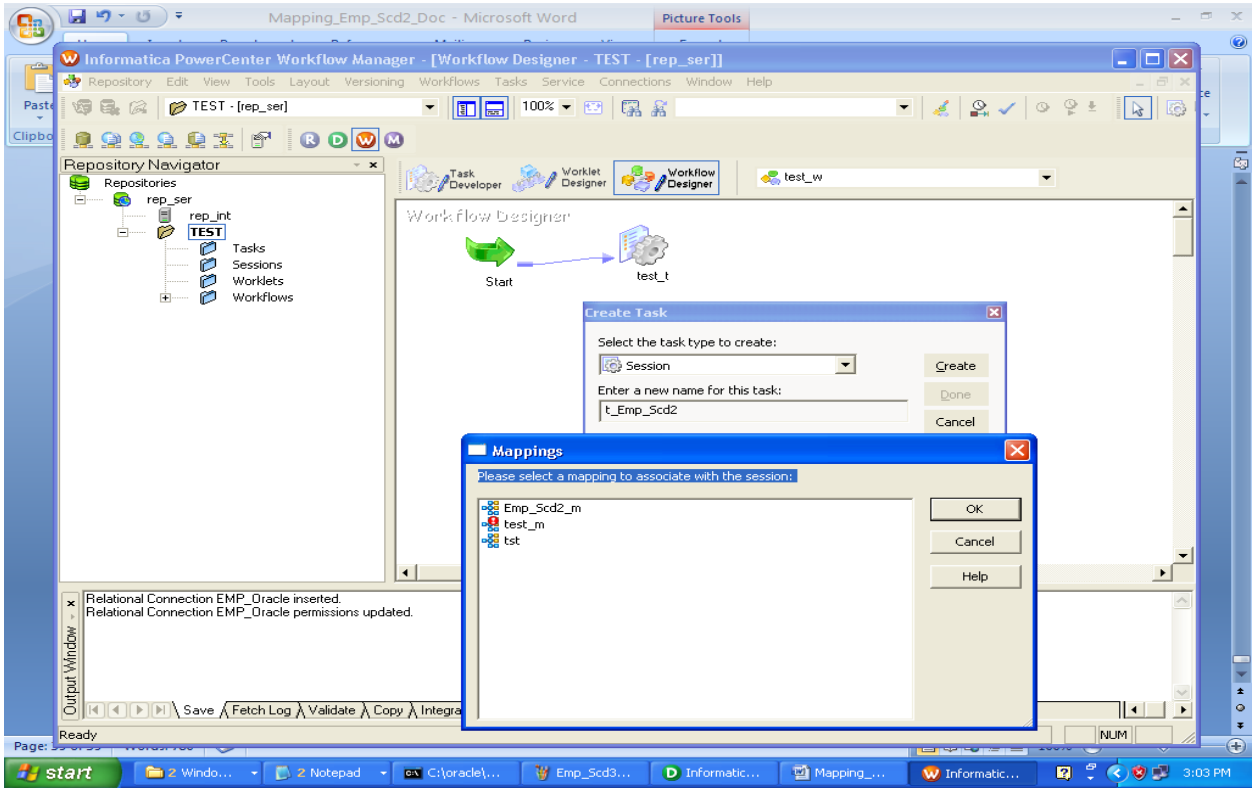


Close it.

Create a new task

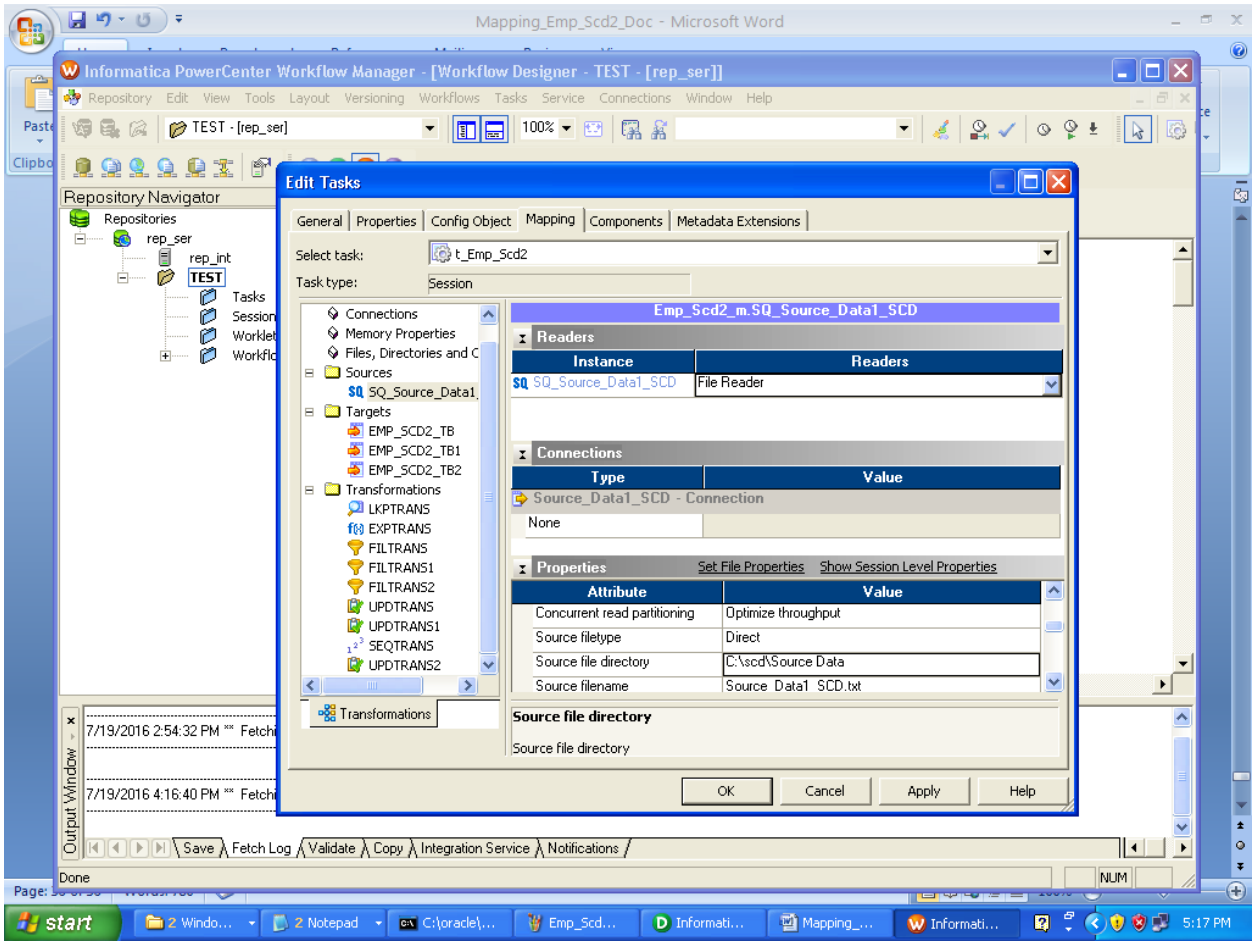


Select the mapping Emp_Scd2_m



Set the Task Mapping Property.

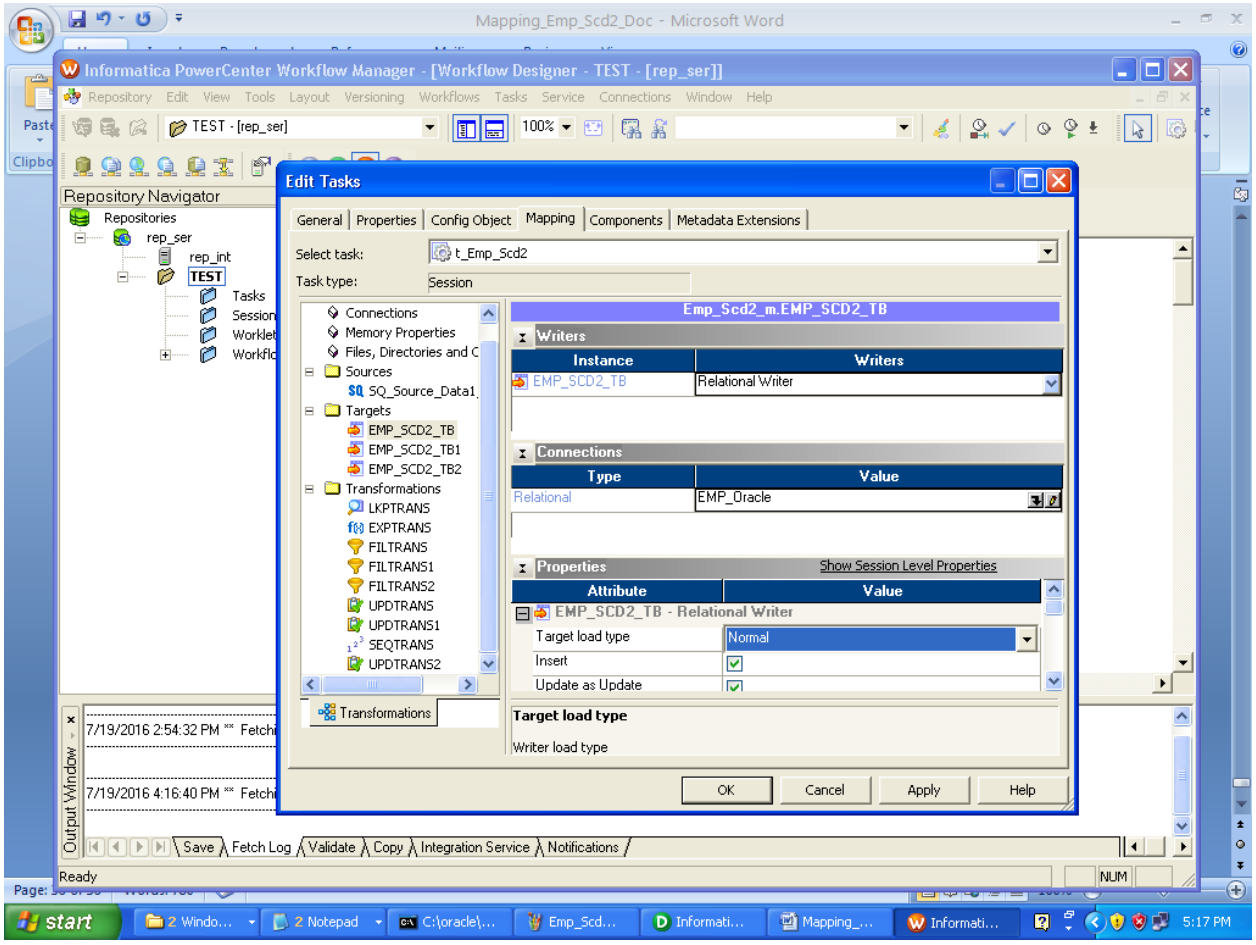
Set the Source File Directory and File Name(Source_Data1_SCD.txt).



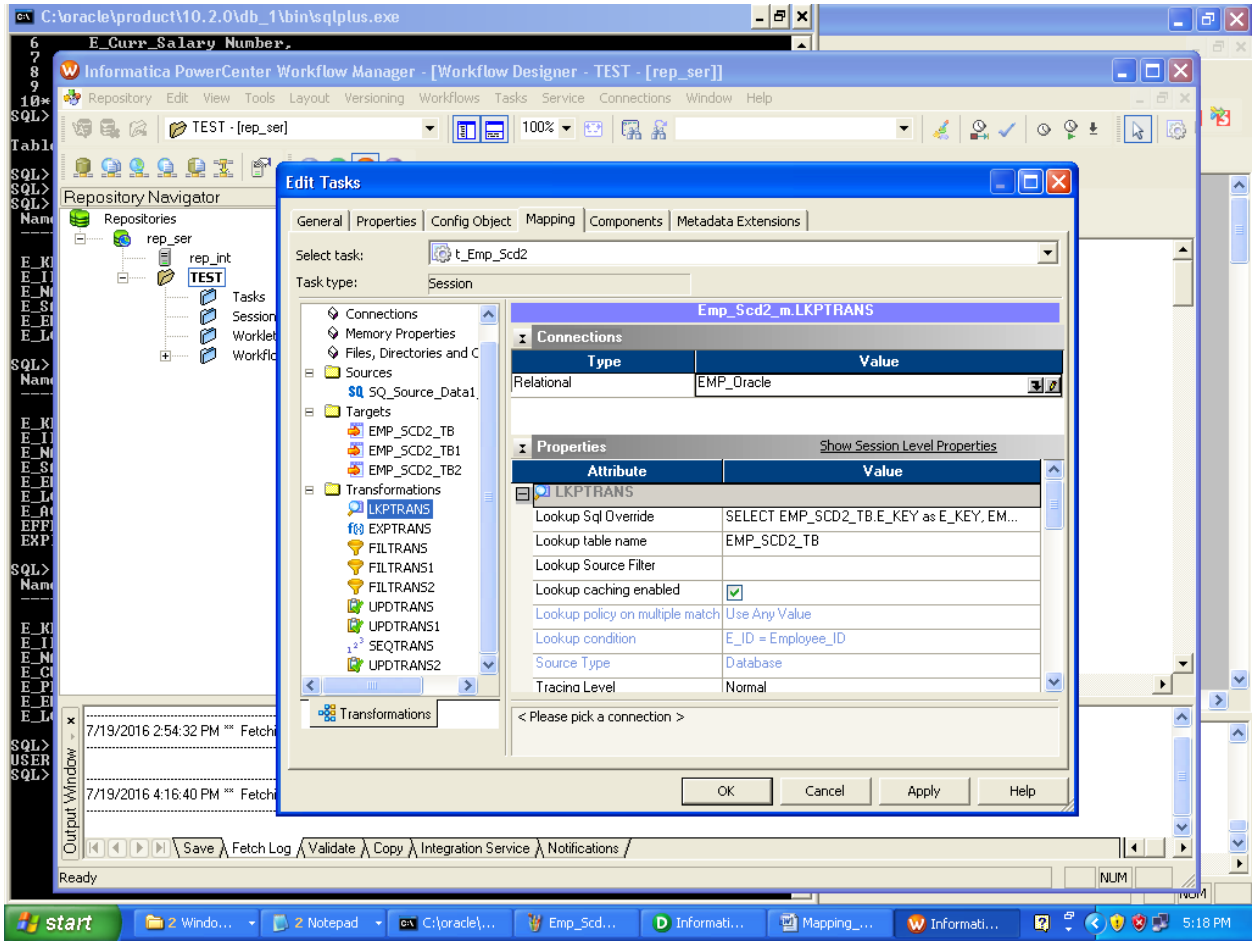
Set all the 3 Targets

Connection : Emp_Oracle

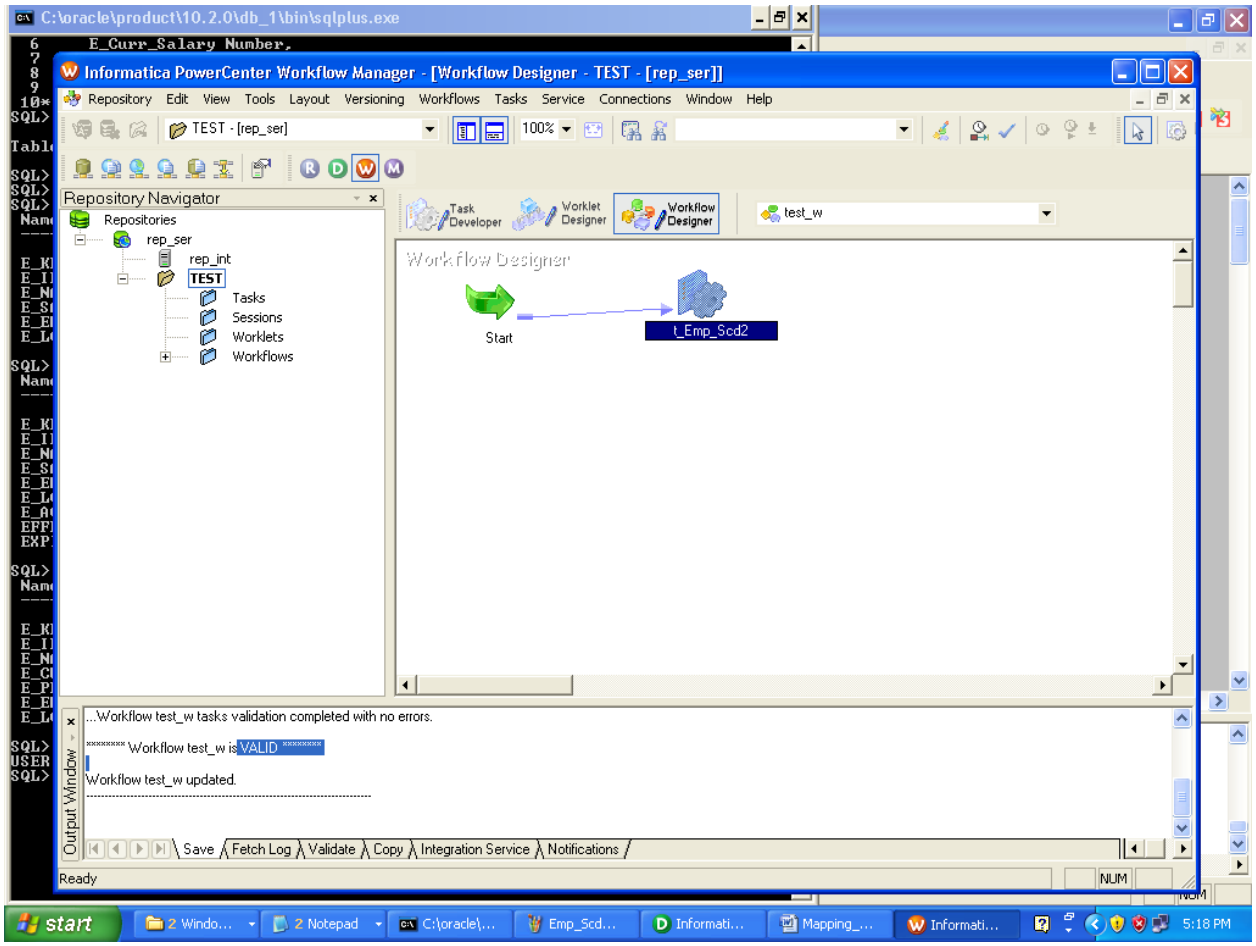
Change Target Load Type to Normal



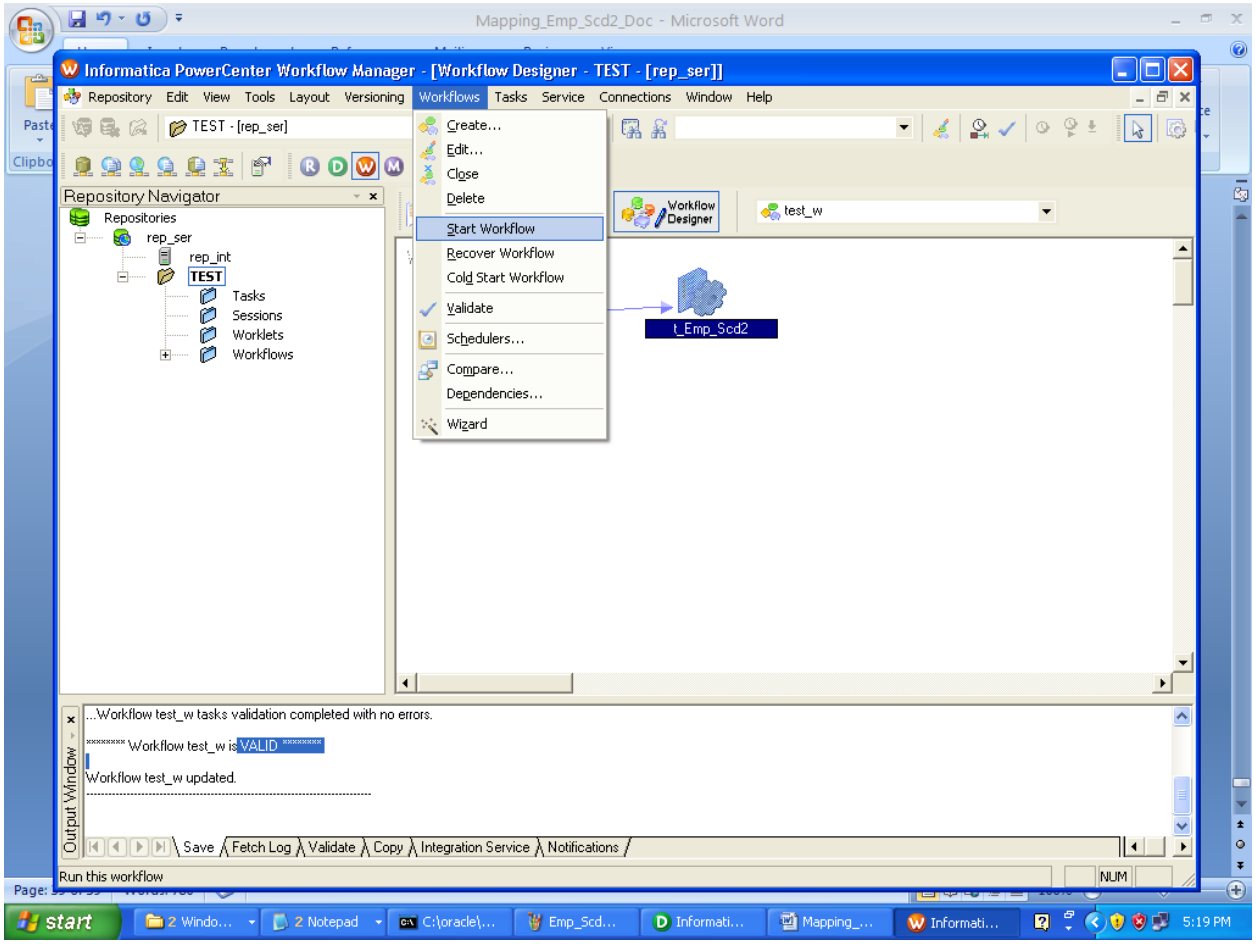
Set Lookup Connection – Emp_Oracle



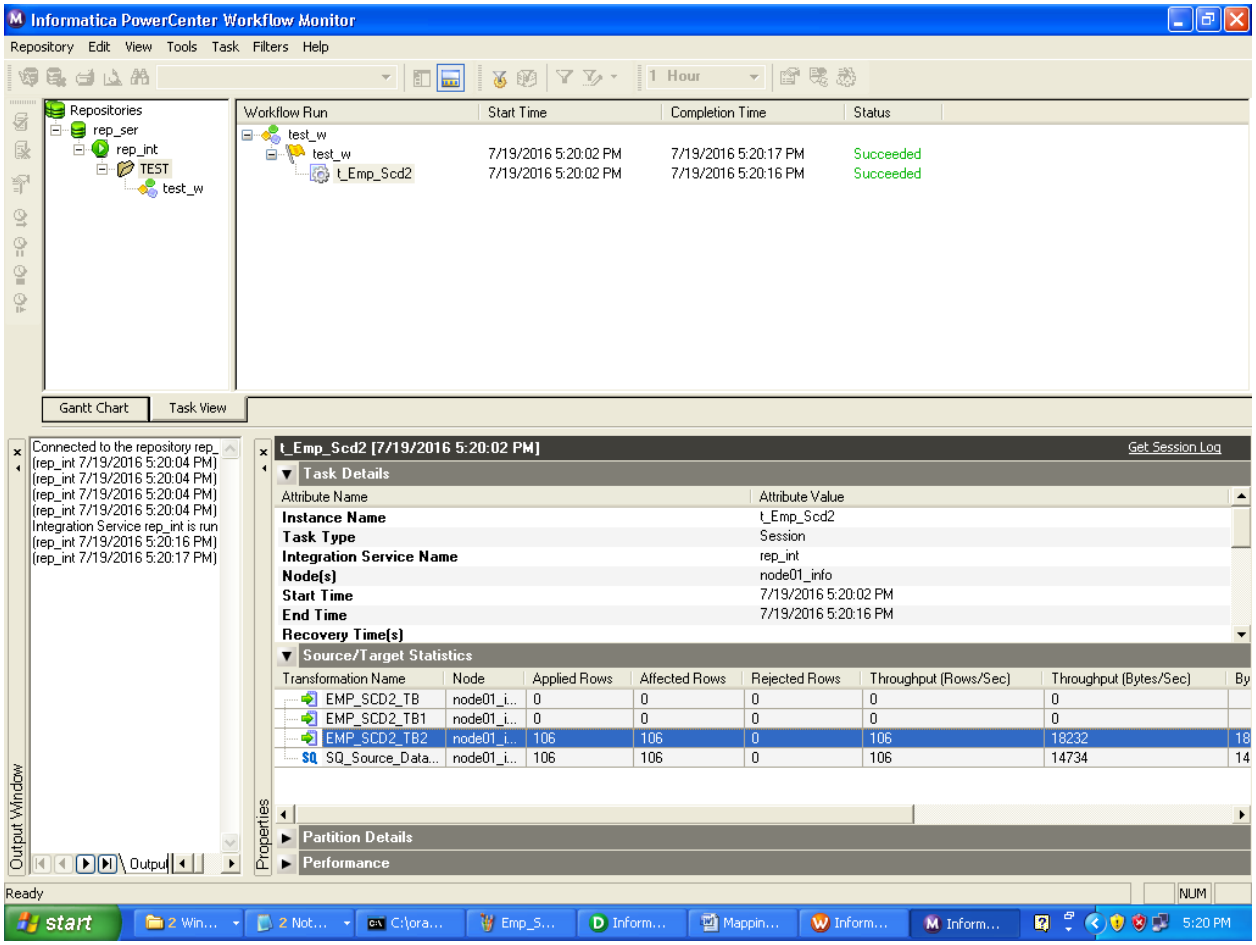
Save the Task. It should be valid.



Start Workflow and check the Monitor.



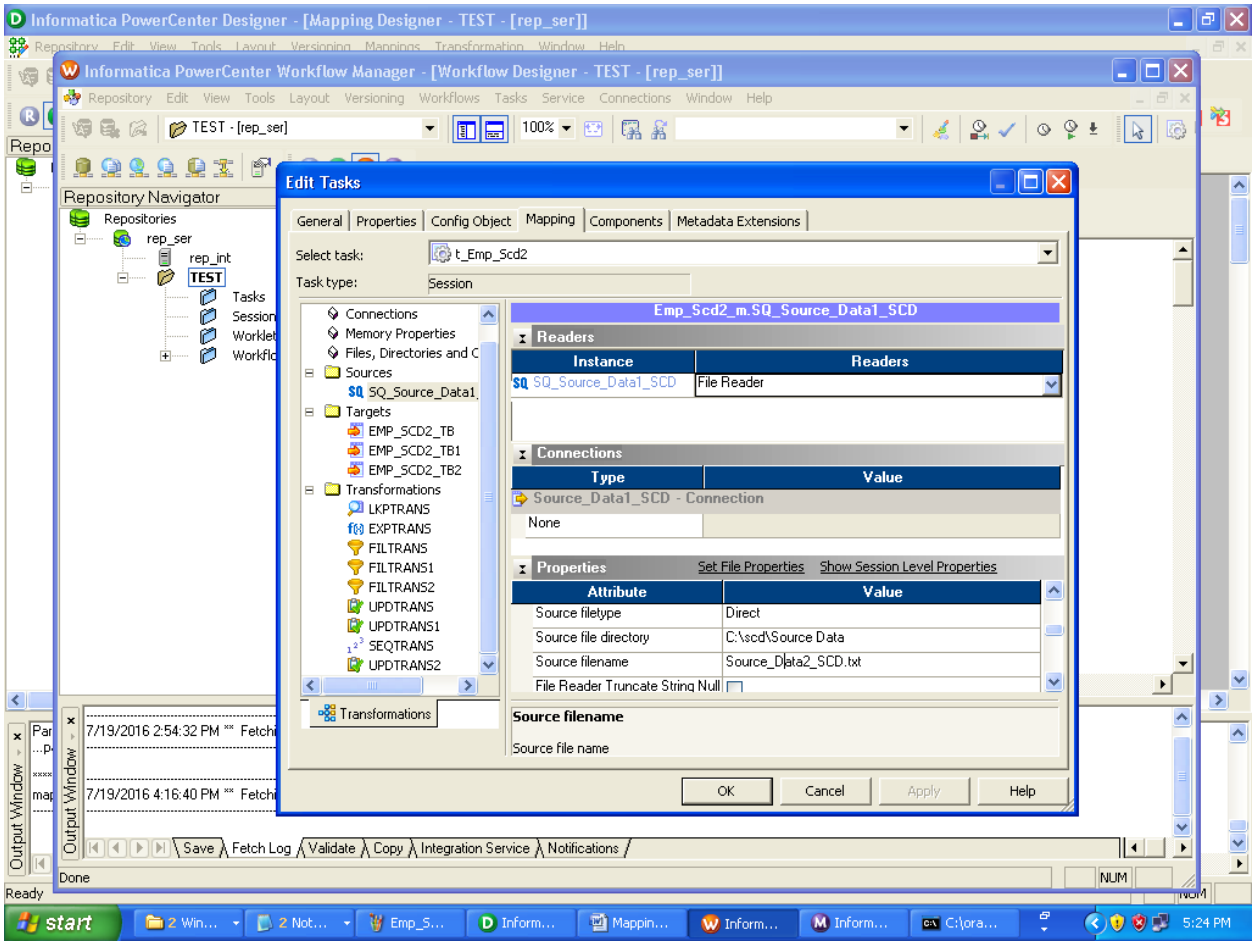
Initial/Full Load successfully completed. Total 106 records should get loaded. All the records will have E_Active_Flag value ‘A’.



Modify the Task Mapping setting for the 1st incremental load in the Workflow.

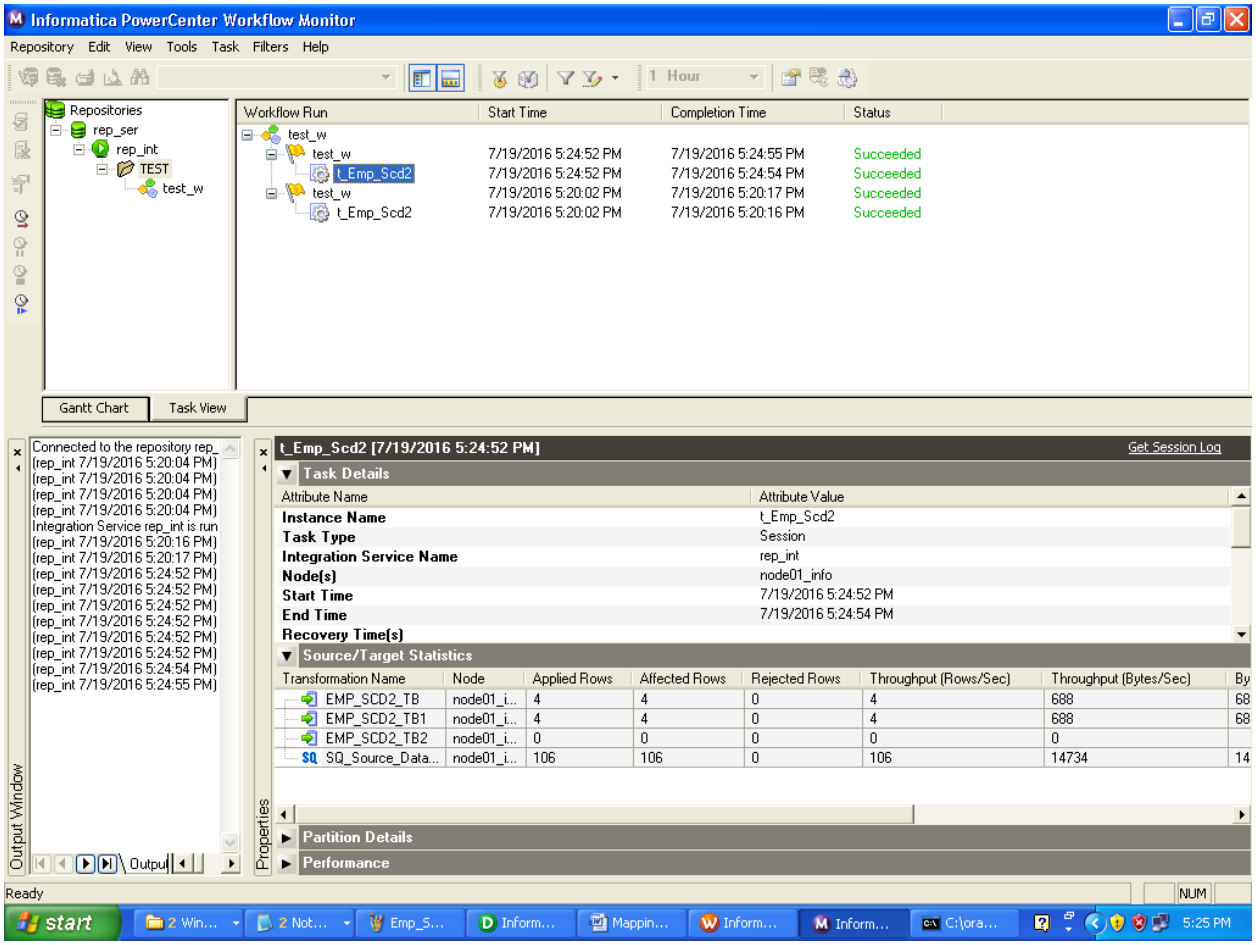
Source : Source_Data2_SCD.txt

Save the Workflow [it should be valid] and start running.

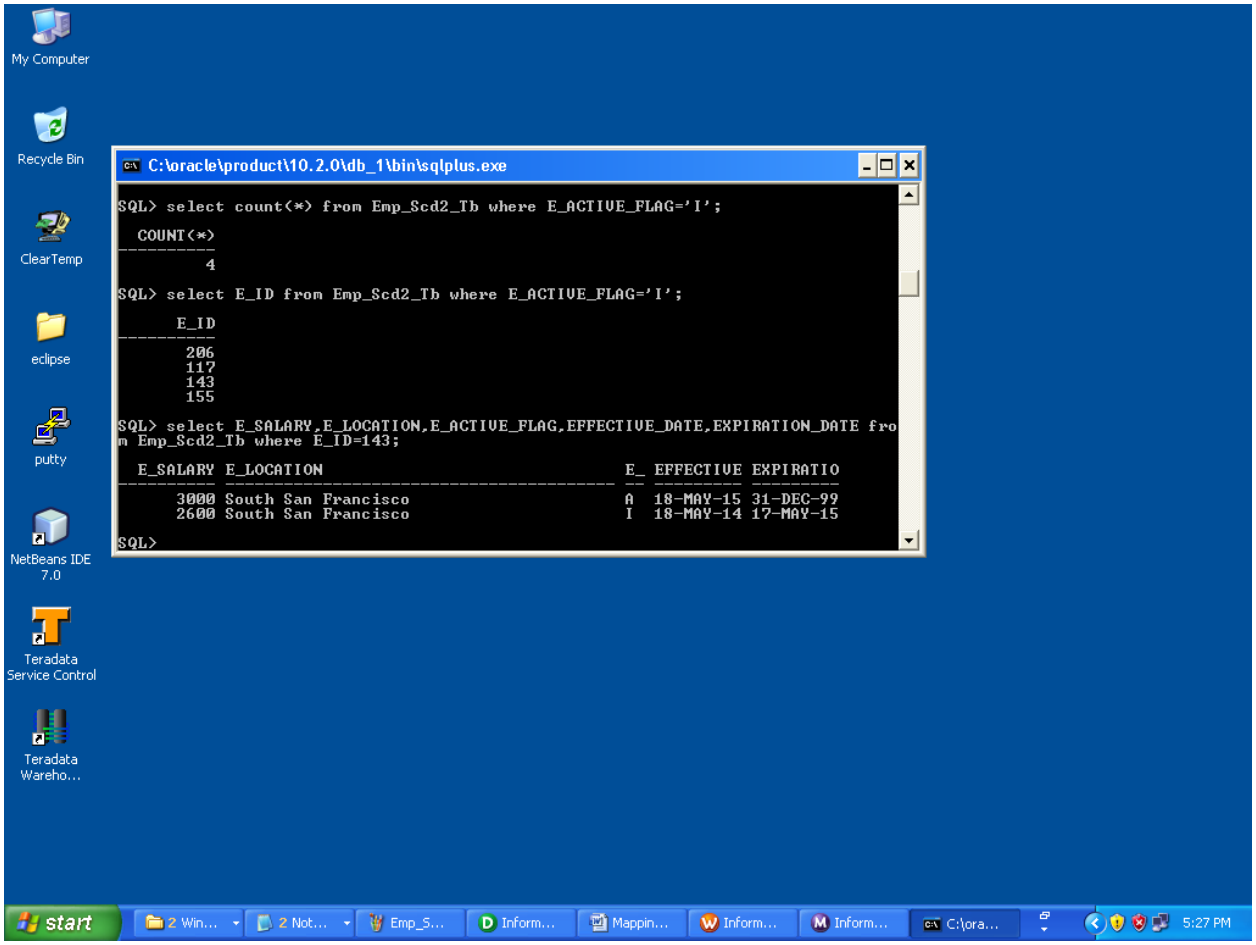


1st Incremental load is successfully completed.

4 records should have been updated.



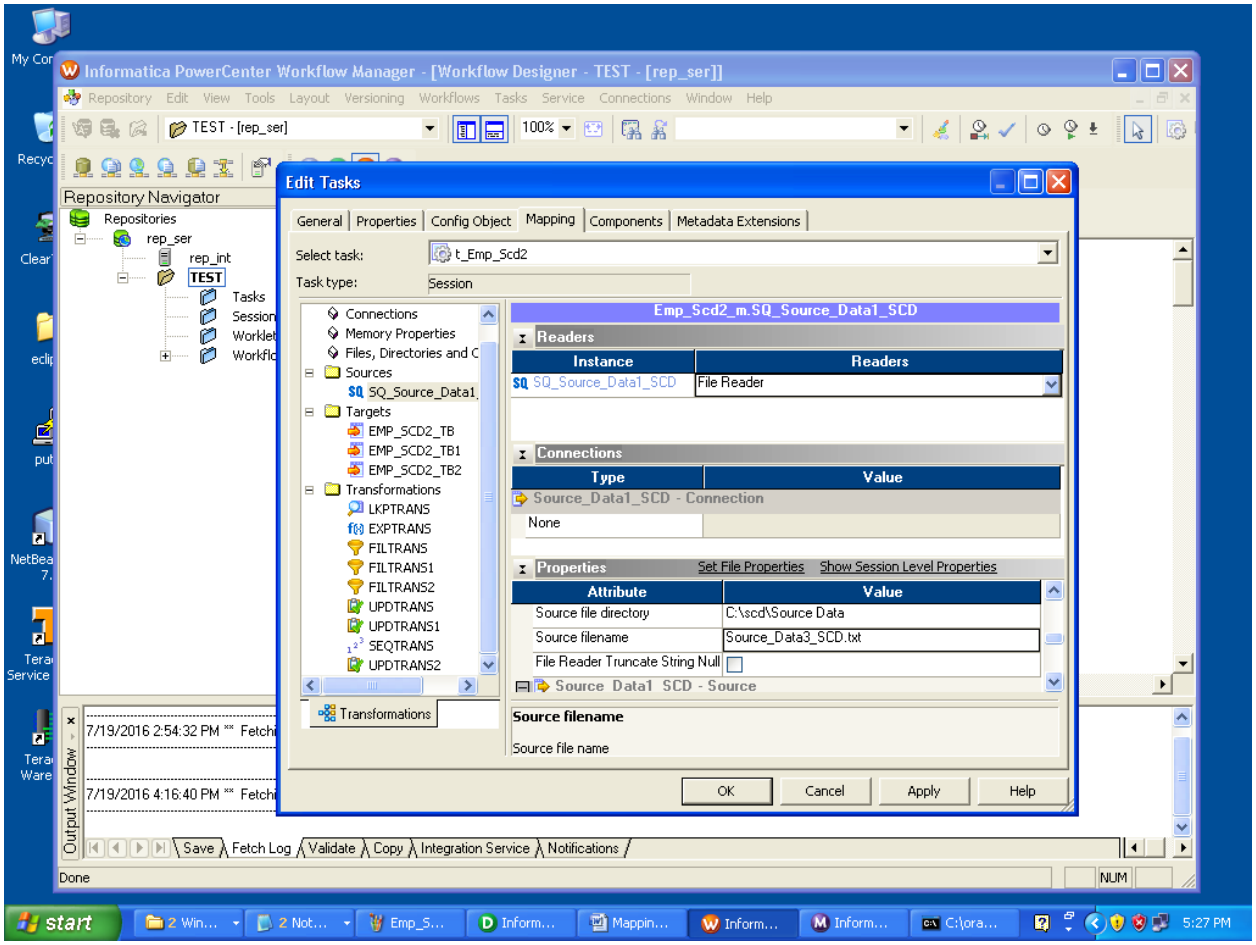
Test:


My Computer
Recycle Bin
ClearTemp
eclipse
putty
NetBeans IDE 7.0
Teradata Service Control
Teradata Wareho...
C:\oracle\product\10.2.0\db_1\bin\sqlplus.exe
SQL> select count(*) from Emp_Scd2_Tb where E_ACTIVE_FLAG='I';
COUNT(*)
4
SQL> select E_ID from Emp_Scd2_Tb where E_ACTIVE_FLAG='I';
E_ID
206
117
143
155
SQL> select E_SALARY,E_LOCATION,E_ACTIVE_FLAG,EFFECTIVE_DATE,EXPIRATION_DATE fro
m Emp_Scd2_Tb where E_ID=143;
E_SALARY E_LOCATION E_ EFFECTIVE EXPIRATIO
3000 South San Francisco A 18-MAY-15 31-DEC-99
2600 South San Francisco I 18-MAY-14 17-MAY-15
SQL>
start
2 Win...
2 Not...
Emp_S...
Inform...
Mappin...
Inform...
Inform...
C:\ora...
5:27 PM

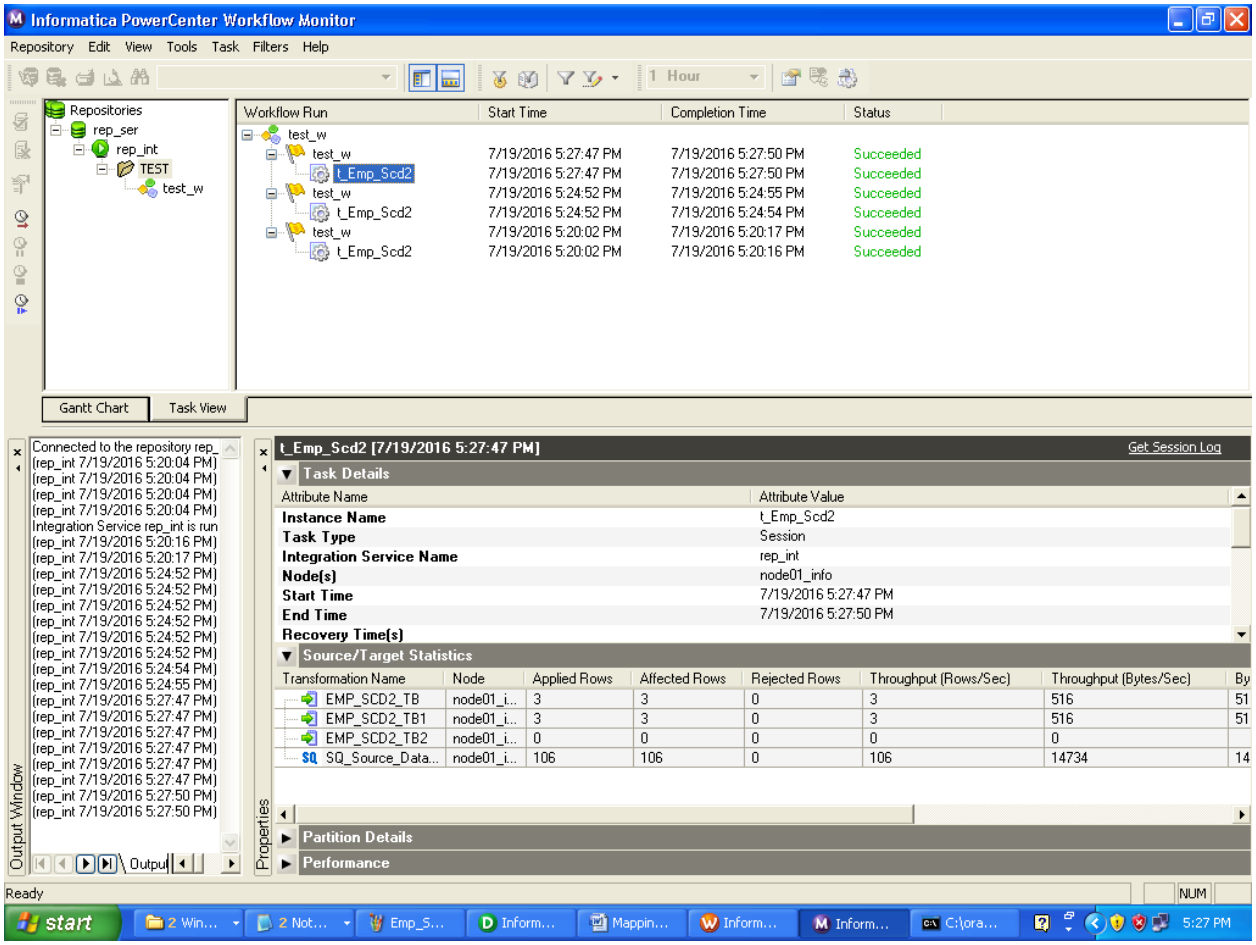
Modify the Task Mapping setting for the 2nd incremental load in the WorkFlow:

Source : Source_Data3_SCD.txt

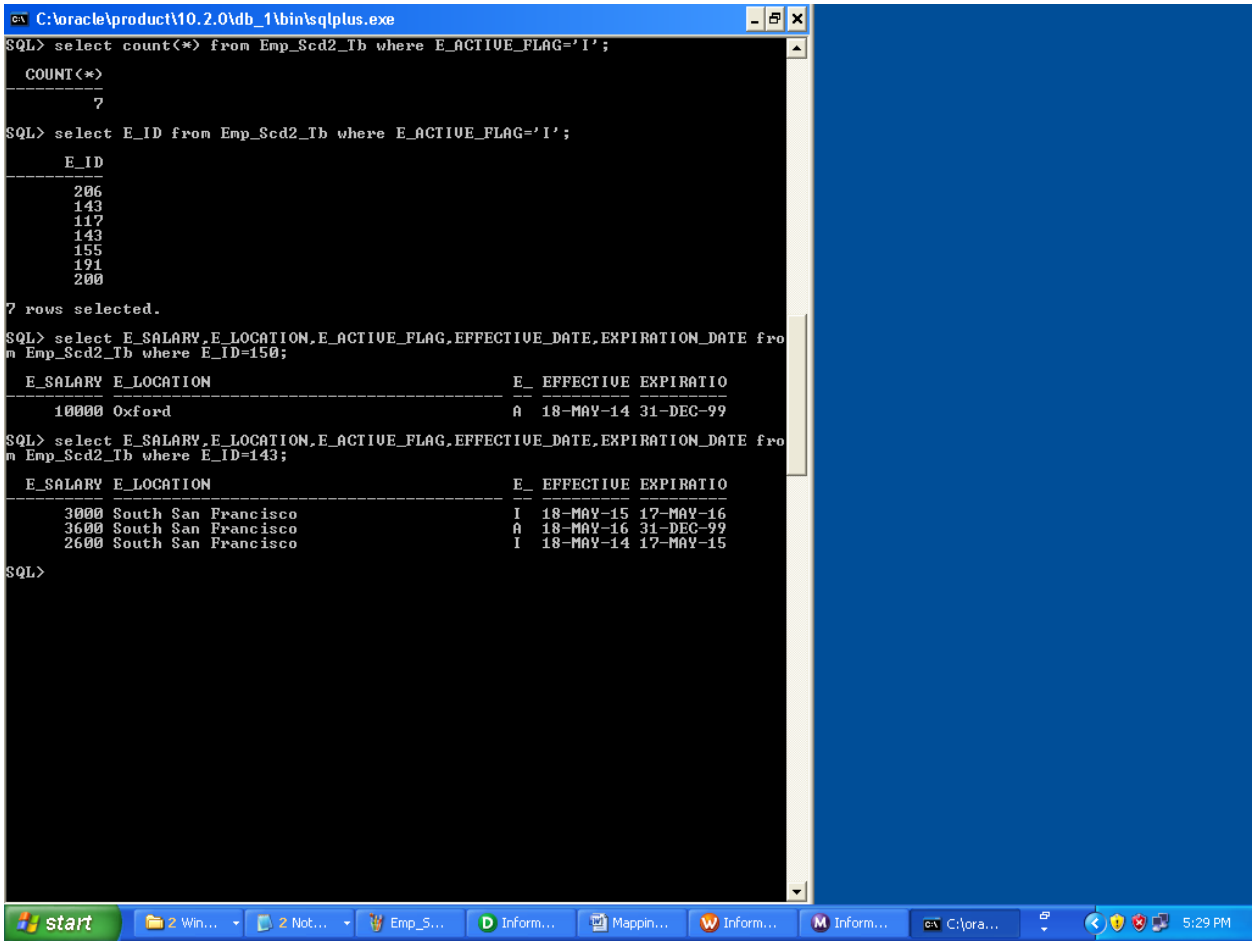
Save the Workflow [it should be valid] and start running.



Mapping running successfully.



Test :



SCD Type 2 implementation on Employee data is completed.

****