

SSIS-SCD

Step1: Intial records

The screenshot shows a SQL Server Management Studio window with four tabs at the top: SQLQuery4.sql - loc...ASE (info6210 (58)*), SQLQuery3.sql - loc...ASE (info6210 (59))*, SQLQuery2.sql - loc...ASE (info6210 (53))*, and SQLQuery1.sql - loc...ASE (info6210 (52))*.

The SQLQuery3.sql tab contains the following script:

```
use SOURCE_DATABASE
select * from EMPLOYEE;

--Do not execute untill directed
-----
-- for SCD 1 and 2 with current flag destination dimEMPLOYEE_2-----
insert into Employee values(105,'NAME5','SKILL5','CITY5','PHONE5')

update Employee
set Address = 'NEW_CITY5'
where EMP_NO = 105

update Employee
set Phone = 'NEW_PHONE5'
where EMP_NO = 105

-- for SCD 1 and 2 with start and End date destination dimEMPLOYEE_1-----
insert into Employee values(106,'NAME6','SKILL6','CITY6','PHONE6')

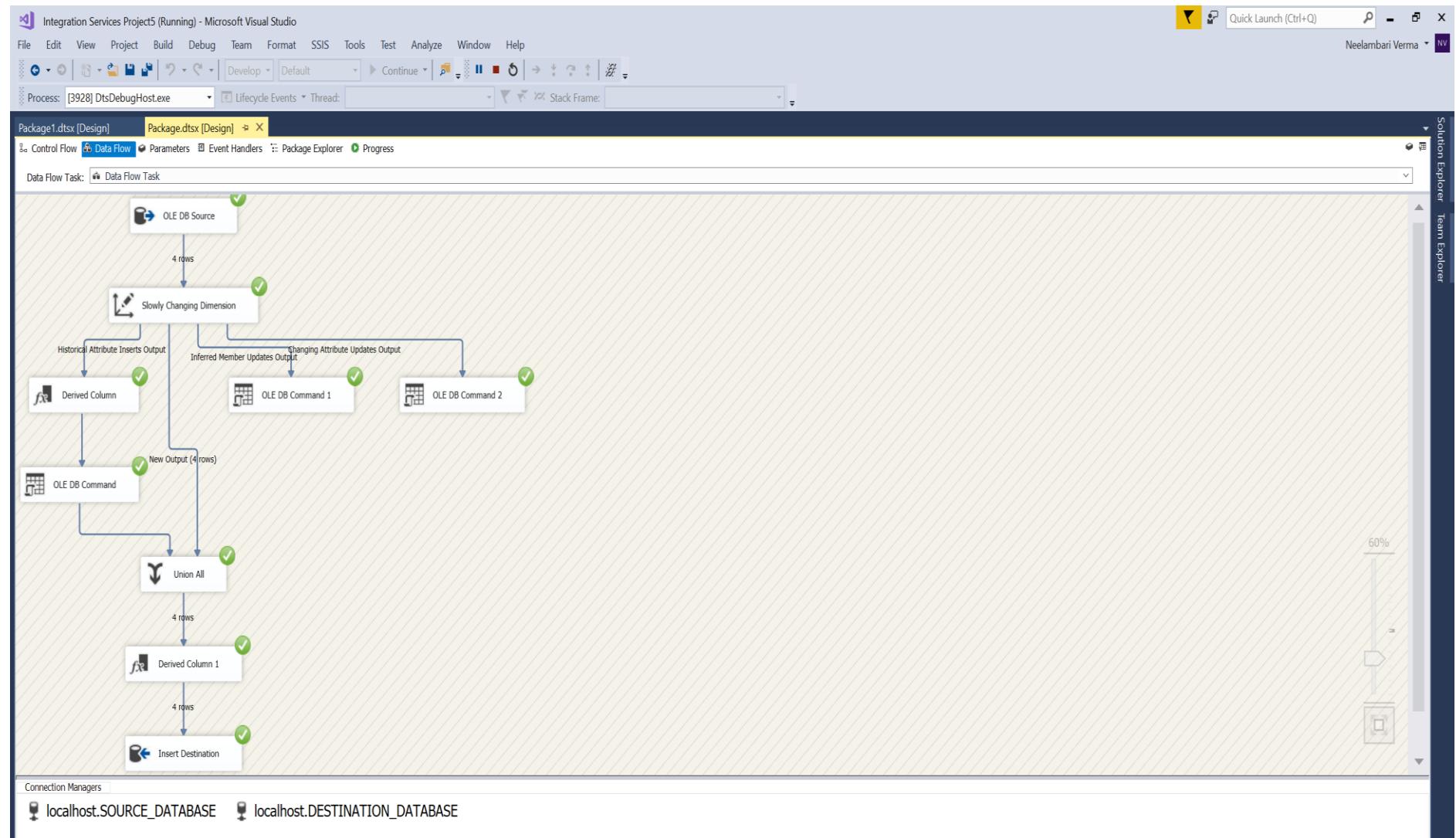
update Employee
set Address = 'NEW_CITY6'
where EMP_NO = 106

update Employee
set Phone = 'NEW_PHONE6'
where EMP_NO = 106
```

The Results tab displays the initial records from the EMPLOYEE table:

	EMP_NO	NAME	SKILL	ADDRESS	PHONE
1	101	NAME1	SKILL1	CITY1	NEW_PHONE1
2	102	NAME2	SKILL2	NEW_CITY3	PHONE2
3	103	NAME3	SKILL3	CITY3	PHONE3
4	104	NAME4	SKILL4	CITY4	PHONE4

Step2:



Step3: Inserting

The screenshot shows a SQL Server Management Studio (SSMS) interface with four tabs at the top: SQLQuery4.sql, SQLQuery3.sql, SQLQuery2.sql, and SQLQuery1.sql. The SQLQuery4.sql tab is active and contains the following T-SQL script:

```
use SOURCE_DATABASE
select * from EMPLOYEE;
--Do not execute untill directed
-- for SCD 1 and 2 with current flag destination dimEMPLOYEE_2-----
insert into Employee values(105,'NAME5','SKILLS5','CITY5','PHONES')

update Employee
set Address = 'NEW_CITY5'
where EMP_NO = 105

update Employee
set Phone = 'NEW_PHONE5'
where EMP_NO = 105

-- for SCD 1 and 2 with start and End date destination dimEMPLOYEE_1-----
insert into Employee values(106,'NAME6','SKILL6','CITY6','PHONE6')

update Employee
set Address = 'NEW_CITY6'
where EMP_NO = 106

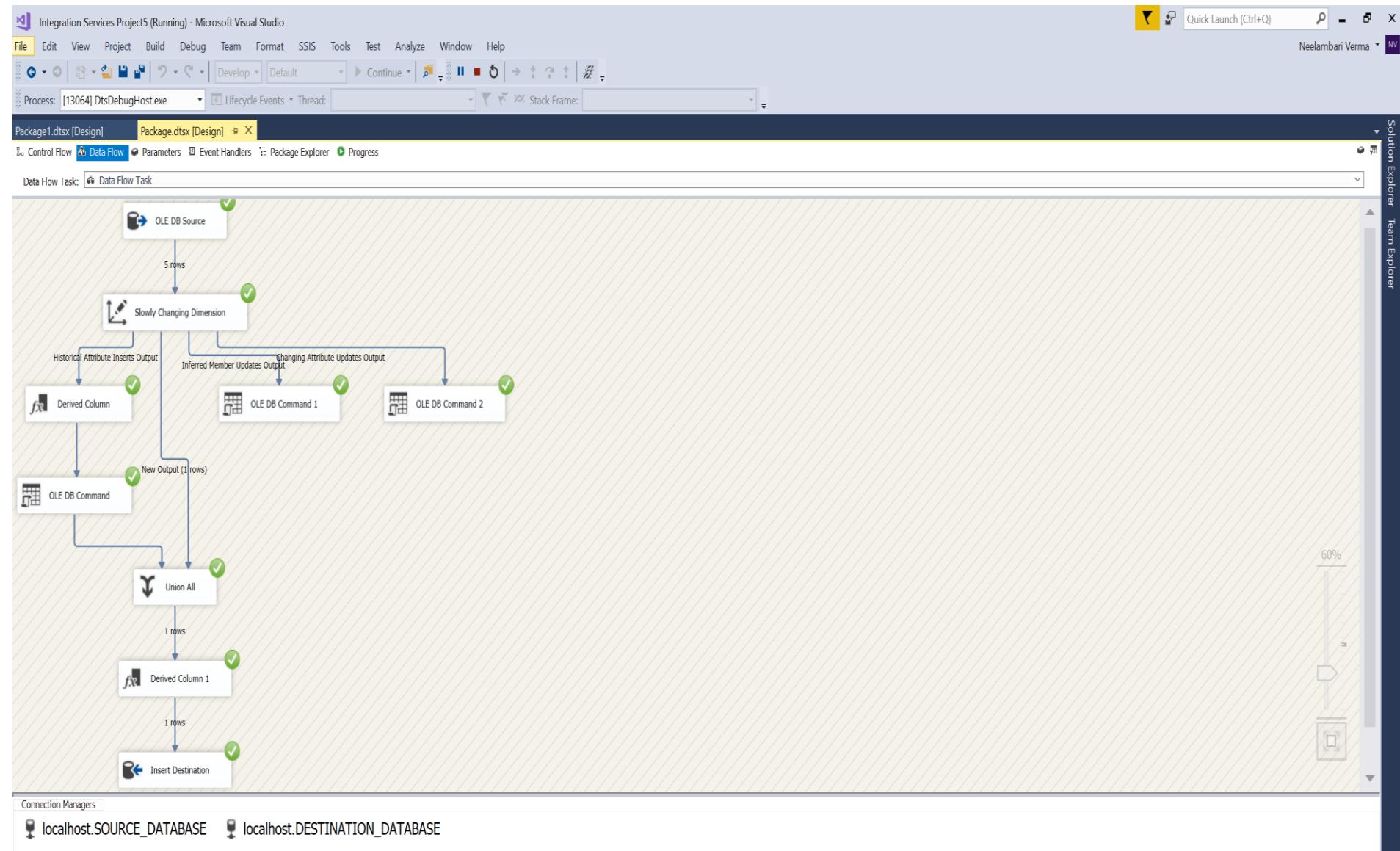
update Employee
set Phone = 'NEW_PHONE6'
where EMP_NO = 106
```

The Results pane below the script displays a table with the following data:

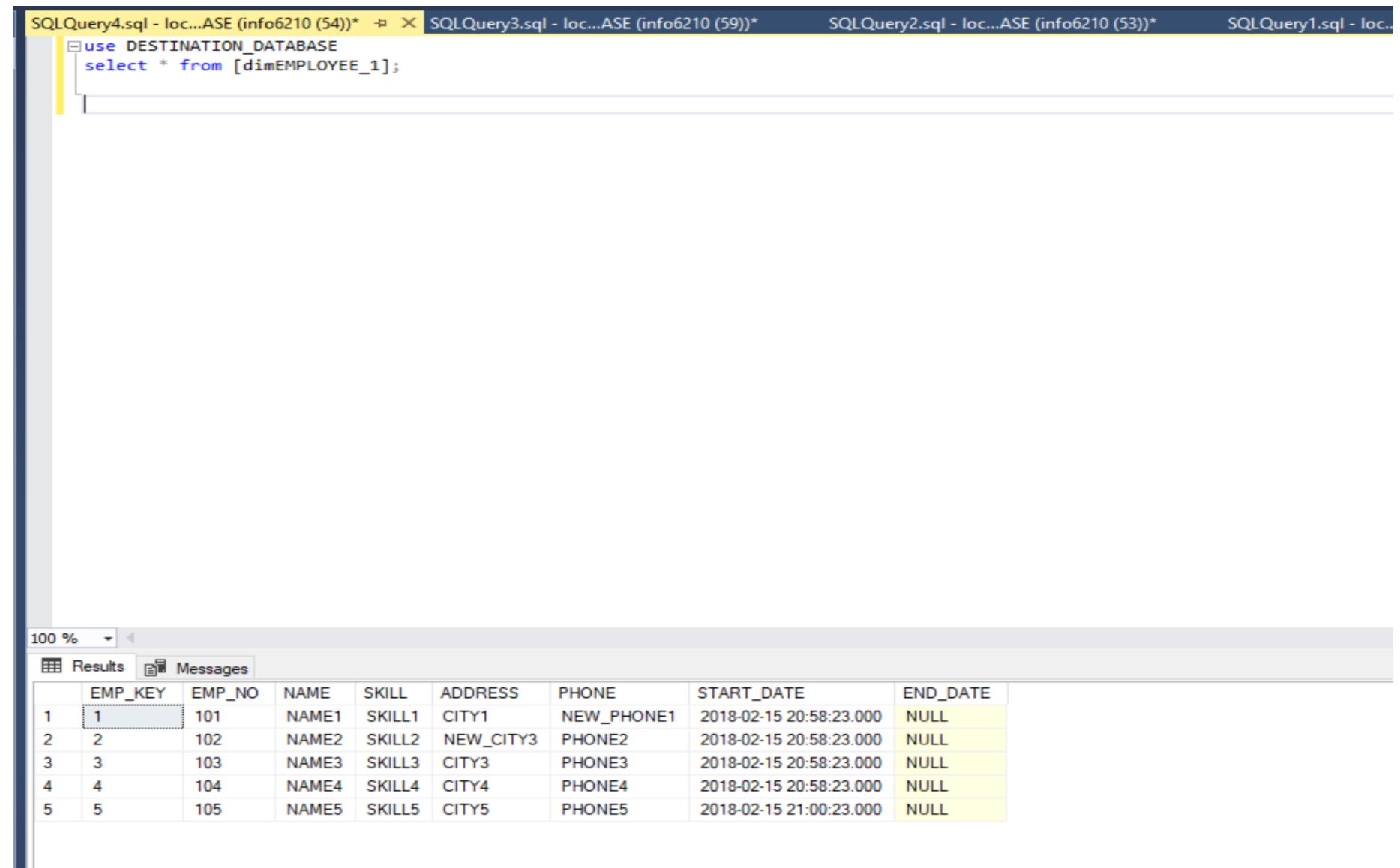
	EMP_NO	NAME	SKILL	ADDRESS	PHONE
1	101	NAME1	SKILL1	CITY1	NEW_PHONE1
2	102	NAME2	SKILL2	NEW_CITY3	PHONE2
3	103	NAME3	SKILL3	CITY3	PHONE3
4	104	NAME4	SKILL4	CITY4	PHONE4
5	105	NAME5	SKILLS5	CITY5	PHONE5

The status bar at the bottom right shows "Active" and "Go to S".

Step4: After running the job



Step5: Checking the destination



The screenshot shows a SQL Server Management Studio (SSMS) interface. At the top, there are four tabs: 'SQLQuery4.sql - loc...ASE (info6210 (54))' (selected), 'SQLQuery3.sql - loc...ASE (info6210 (59))', 'SQLQuery2.sql - loc...ASE (info6210 (53))', and 'SQLQuery1.sql - loc...'. Below the tabs, a query window contains the following T-SQL code:

```
use DESTINATION_DATABASE
select * from [dimEMPLOYEE_1];
```

The results pane at the bottom displays a table with the following data:

	EMP_KEY	EMP_NO	NAME	SKILL	ADDRESS	PHONE	START_DATE	END_DATE
1	1	101	NAME1	SKILL1	CITY1	NEW_PHONE1	2018-02-15 20:58:23.000	NULL
2	2	102	NAME2	SKILL2	NEW_CITY3	PHONE2	2018-02-15 20:58:23.000	NULL
3	3	103	NAME3	SKILL3	CITY3	PHONE3	2018-02-15 20:58:23.000	NULL
4	4	104	NAME4	SKILL4	CITY4	PHONE4	2018-02-15 20:58:23.000	NULL
5	5	105	NAME5	SKILL5	CITY5	PHONE5	2018-02-15 21:00:23.000	NULL

Step6: Updating the address

The screenshot shows the SQL Server Management Studio interface. The top bar has four tabs: 'SQLQuery4.sql - loc...ASE (info6210 (54))*', 'SQLQuery3.sql - loc...ASE (info6210 (59))*', 'SQLQuery2.sql - loc...ASE (info6210 (53))*', and 'SQLQuery1.sql - loc...ASE (info6210 (52))*'. The main area contains a block of T-SQL code for updating the 'EMPLOYEE' table. The results pane below shows a table with five rows of data.

```
use SOURCE_DATABASE
select * from EMPLOYEE;

--Do not execute untill directed
-----
-- for SCD 1 and 2 with current flag destination dimEMPLOYEE_2
insert into Employee values(105,'NAME5','SKILL5','CITY5','PHONES5')

update Employee
set Address = 'NEW_CITY5'
where EMP_NO = 105

update Employee
set Phone = 'NEW_PHONE5'
where EMP_NO = 105

-- for SCD 1 and 2 with start and End date destination dimEMPLOYEE_1-----
insert into Employee values(106,'NAME6','SKILL6','CITY6','PHONE6')

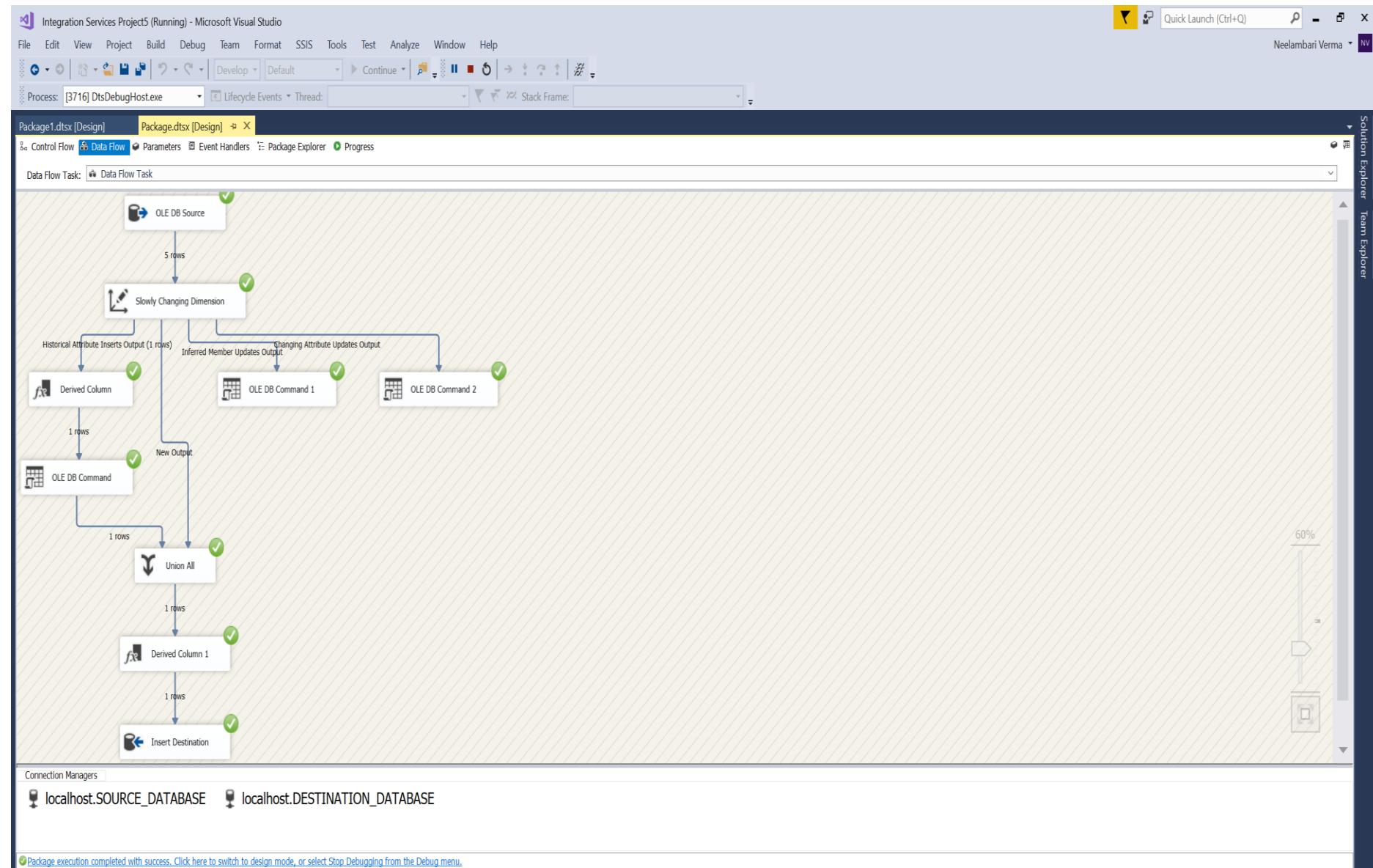
update Employee
set Address = 'NEW_CITY6'
where EMP_NO = 106

update Employee
set Phone = 'NEW_PHONE6'
where EMP_NO = 106
```

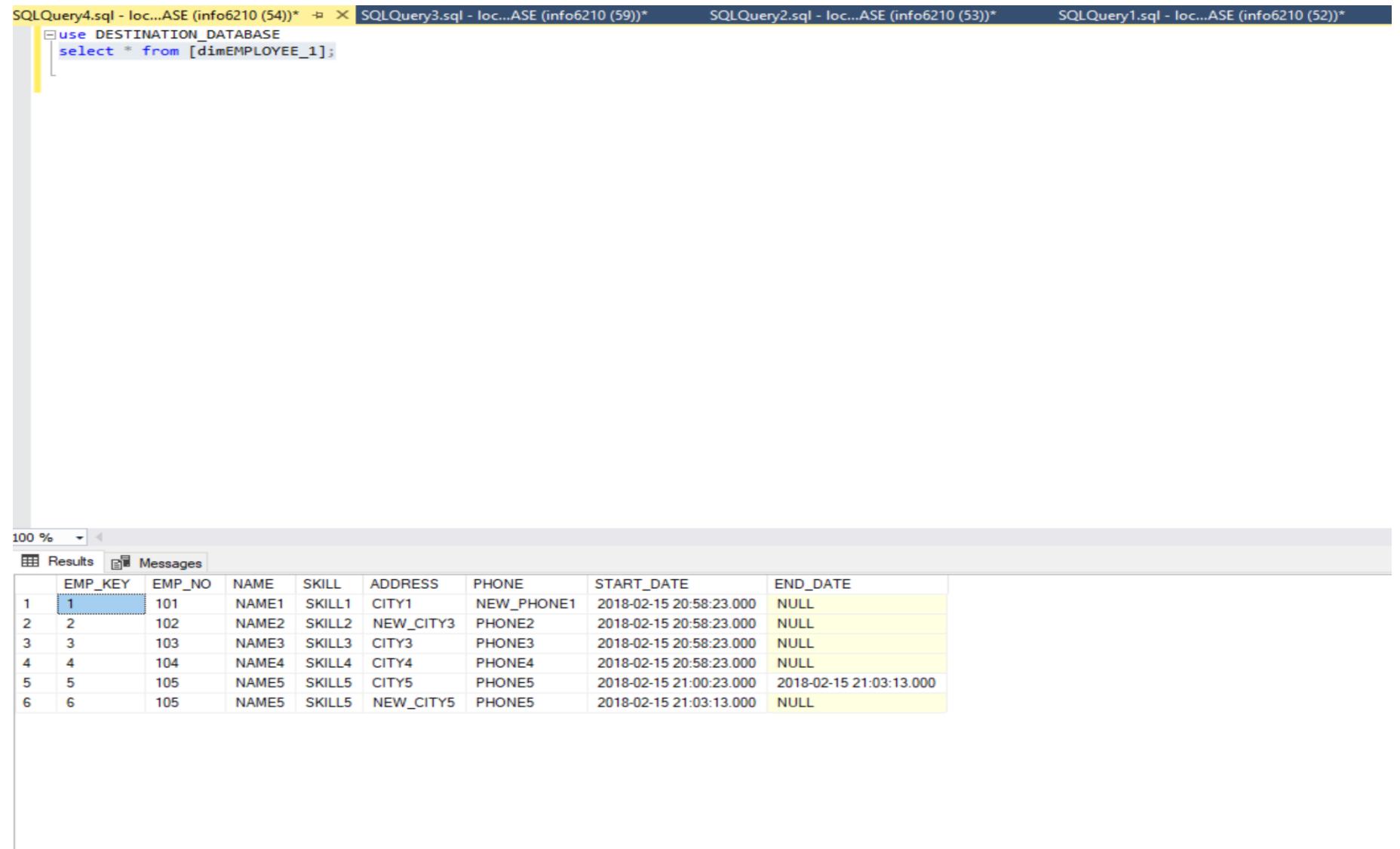
Results

	EMP_NO	NAME	SKILL	ADDRESS	PHONE
1	101	NAME1	SKILL1	CITY1	NEW_PHONE1
2	102	NAME2	SKILL2	NEW_CITY3	PHONE2
3	103	NAME3	SKILL3	CITY3	PHONE3
4	104	NAME4	SKILL4	CITY4	PHONE4
5	105	NAME5	SKILL5	NEW_CITY5	PHONE5

Step7: Running the job



Step8: Checking the destination database



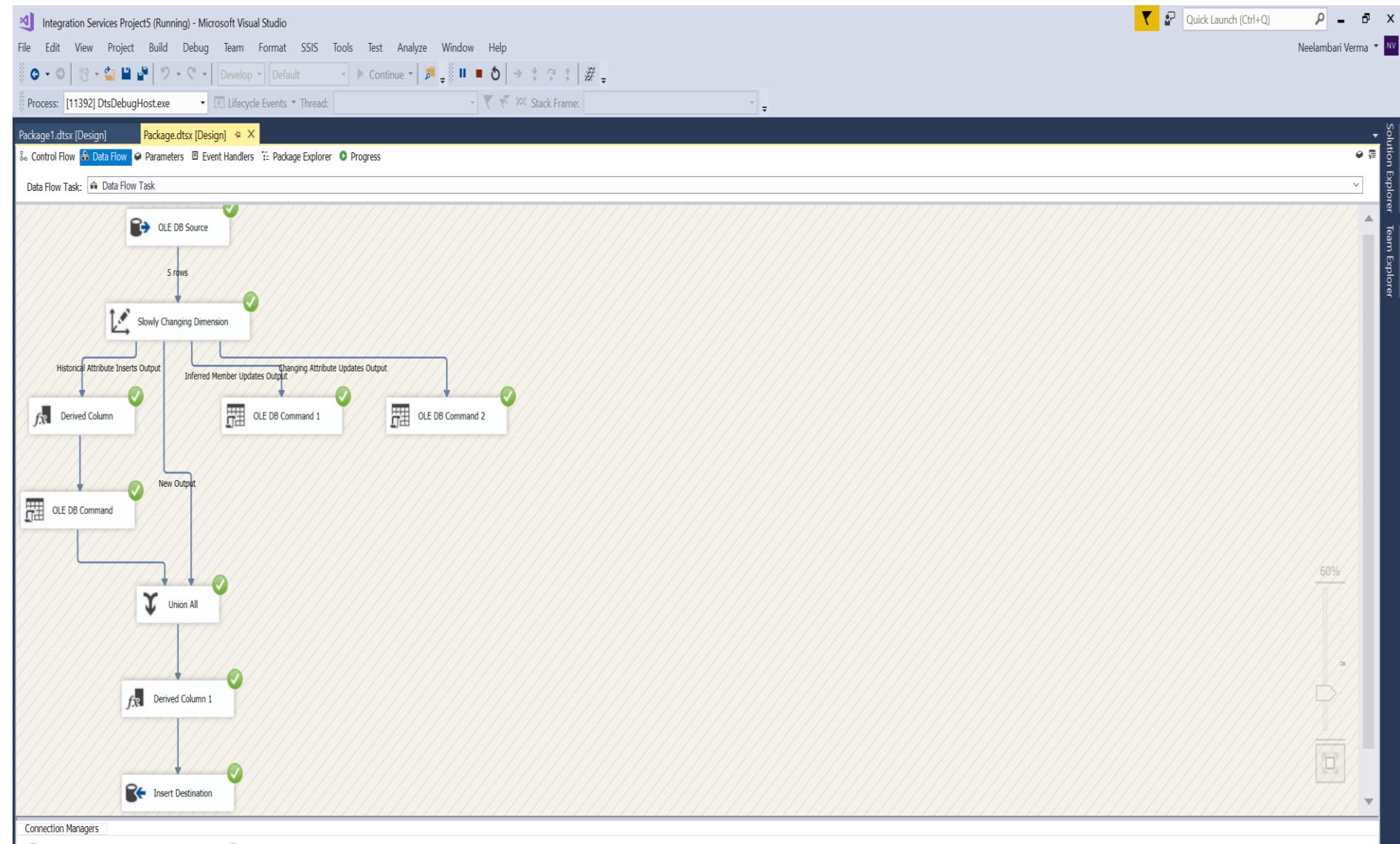
The screenshot shows a SQL Server Management Studio window with four tabs at the top: SQLQuery4.sql - loc...ASE (info6210 (54)), SQLQuery3.sql - loc...ASE (info6210 (59)), SQLQuery2.sql - loc...ASE (info6210 (53)), and SQLQuery1.sql - loc...ASE (info6210 (52)). The SQLQuery4.sql tab is active, displaying the following T-SQL code:

```
use DESTINATION_DATABASE
select * from [dimEMPLOYEE_1];
```

The results pane below shows a table with 6 rows of data:

	EMP_KEY	EMP_NO	NAME	SKILL	ADDRESS	PHONE	START_DATE	END_DATE
1	1	101	NAME1	SKILL1	CITY1	NEW_PHONE1	2018-02-15 20:58:23.000	NULL
2	2	102	NAME2	SKILL2	NEW_CITY3	PHONE2	2018-02-15 20:58:23.000	NULL
3	3	103	NAME3	SKILL3	CITY3	PHONE3	2018-02-15 20:58:23.000	NULL
4	4	104	NAME4	SKILL4	CITY4	PHONE4	2018-02-15 20:58:23.000	NULL
5	5	105	NAME5	SKILL5	CITY5	PHONE5	2018-02-15 21:00:23.000	2018-02-15 21:03:13.000
6	6	105	NAME5	SKILL5	NEW_CITY5	PHONE5	2018-02-15 21:03:13.000	NULL

Step9: Running the job



Step10: Updating the phone number

SQLQuery4.sql - loc...ASE (info6210 (54))*

```
use SOURCE_DATABASE
select * from EMPLOYEE;

--Do not execute untill directed
-----
-- for SCD 1 and 2 with current flag destination dimEMPLOYEE_2-----
insert into Employee values(105, 'NAME5', 'SKILLS5', 'CITY5', 'PHONES5')

update Employee
set Address = 'NEW_CITY5'
where EMP_NO = 105

update Employee
set Phone = 'NEW_PHONE5'
where EMP_NO = 105

-- for SCD 1 and 2 with start and End date destination dimEMPLOYEE_1-----
insert into Employee values(106, 'NAME6', 'SKILL6', 'CITY6', 'PHONE6')

update Employee
set Address = 'NEW_CITY6'
where EMP_NO = 106

update Employee
set Phone = 'NEW_PHONE6'
where EMP_NO = 106
```

SQLQuery3.sql - loc...ASE (info6210 (59))*

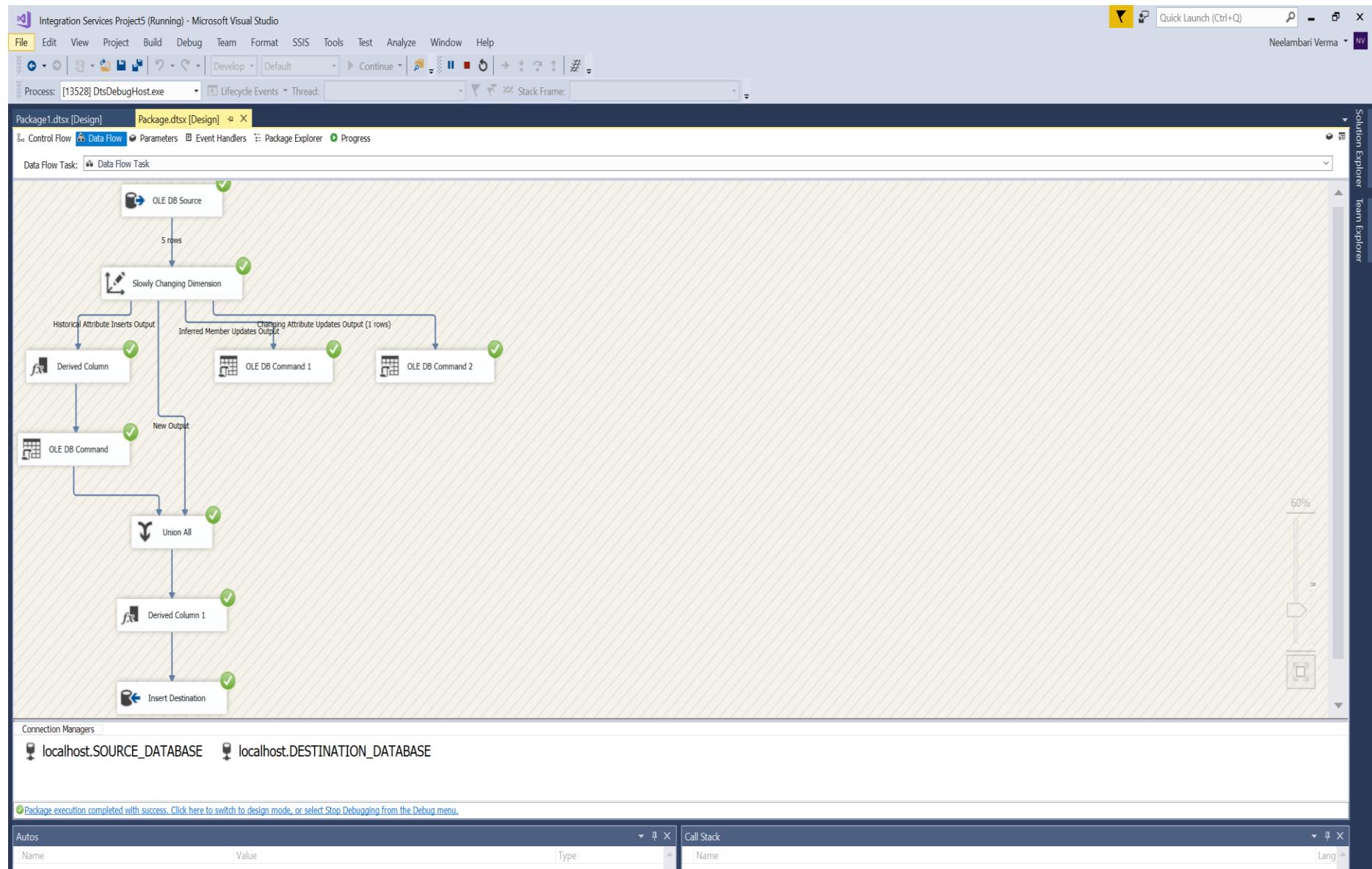
SQLQuery2.sql - loc...ASE (info6210 (53))*

SQLQuery1.sql - loc...A

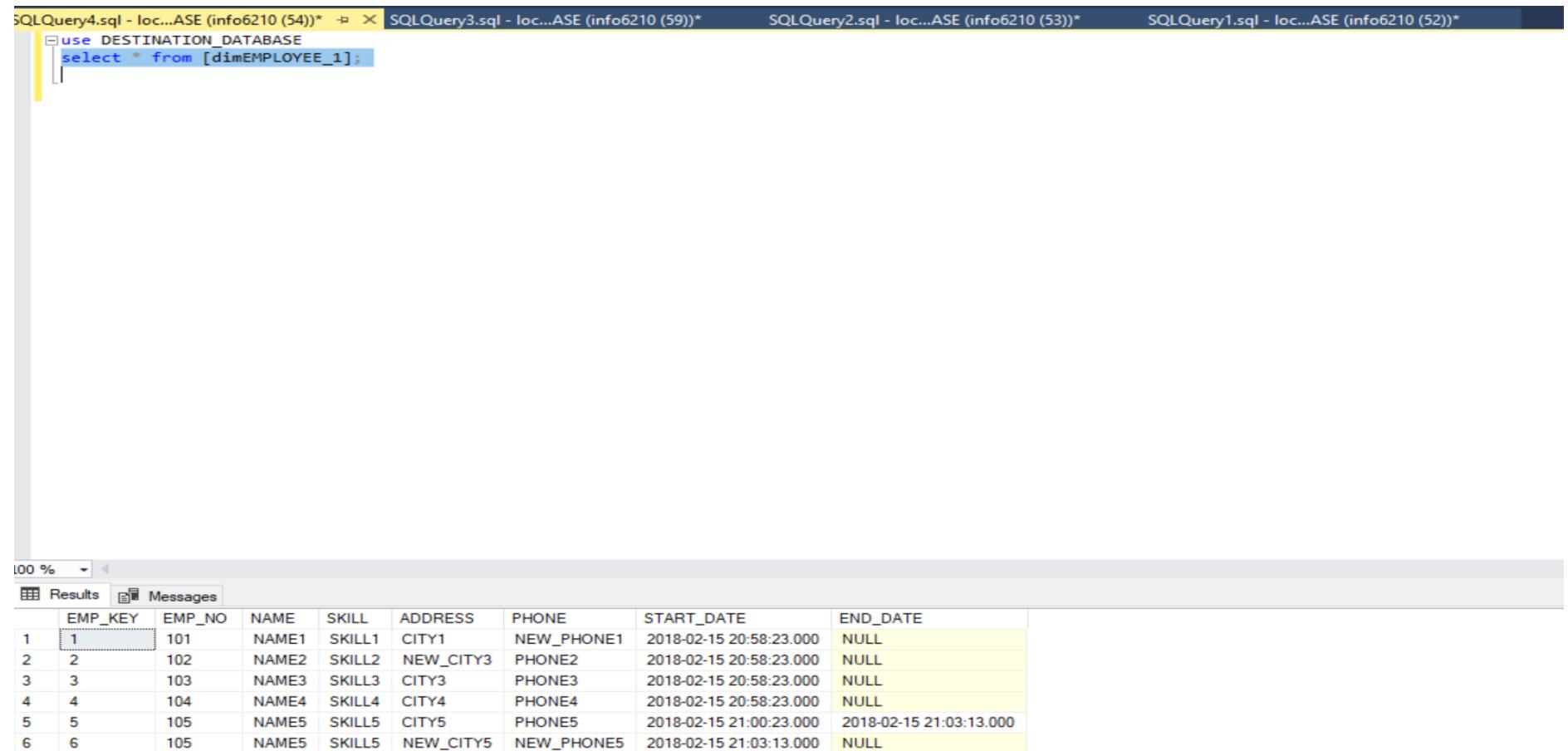
Results Messages

	EMP_NO	NAME	SKILL	ADDRESS	PHONE
1	101	NAME1	SKILL1	CITY1	NEW_PHONE1
2	102	NAME2	SKILL2	NEW_CITY3	PHONE2
3	103	NAME3	SKILL3	CITY3	PHONE3
4	104	NAME4	SKILL4	CITY4	PHONE4
5	105	NAME5	SKILLS5	NEW_CITY5	NEW_PHONE5

Step11: Running the job



Step12: Checking the destination database



The screenshot shows a SQL Server Management Studio window with four tabs at the top: SQLQuery4.sql, SQLQuery3.sql, SQLQuery2.sql, and SQLQuery1.sql. The SQLQuery4.sql tab is active, displaying the following T-SQL code:

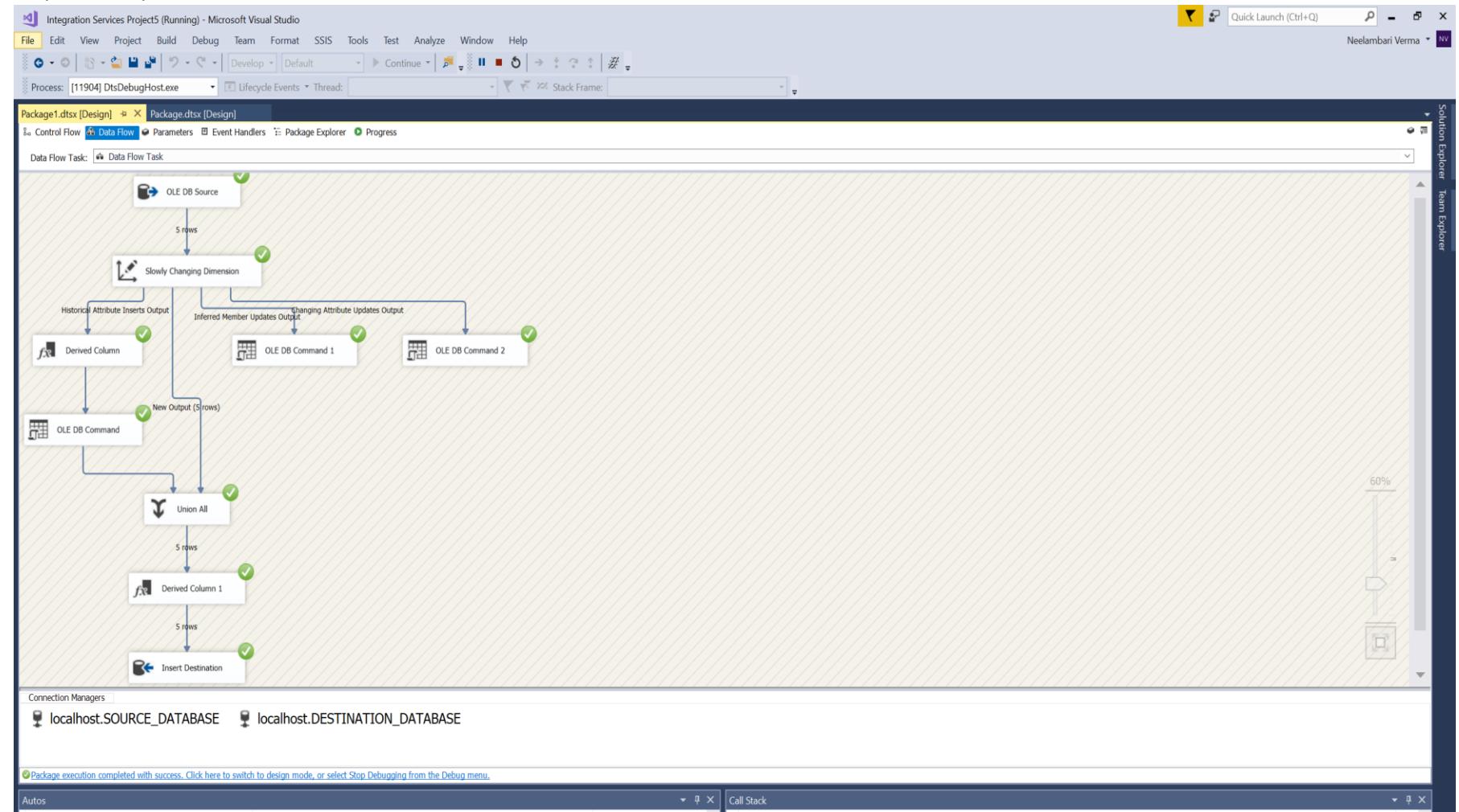
```
use DESTINATION_DATABASE
select * from [dimEMPLOYEE_1];
```

Below the code, the Results tab is selected, showing a table with six rows of data. The columns are labeled: EMP_KEY, EMP_NO, NAME, SKILL, ADDRESS, PHONE, START_DATE, and END_DATE. The data is as follows:

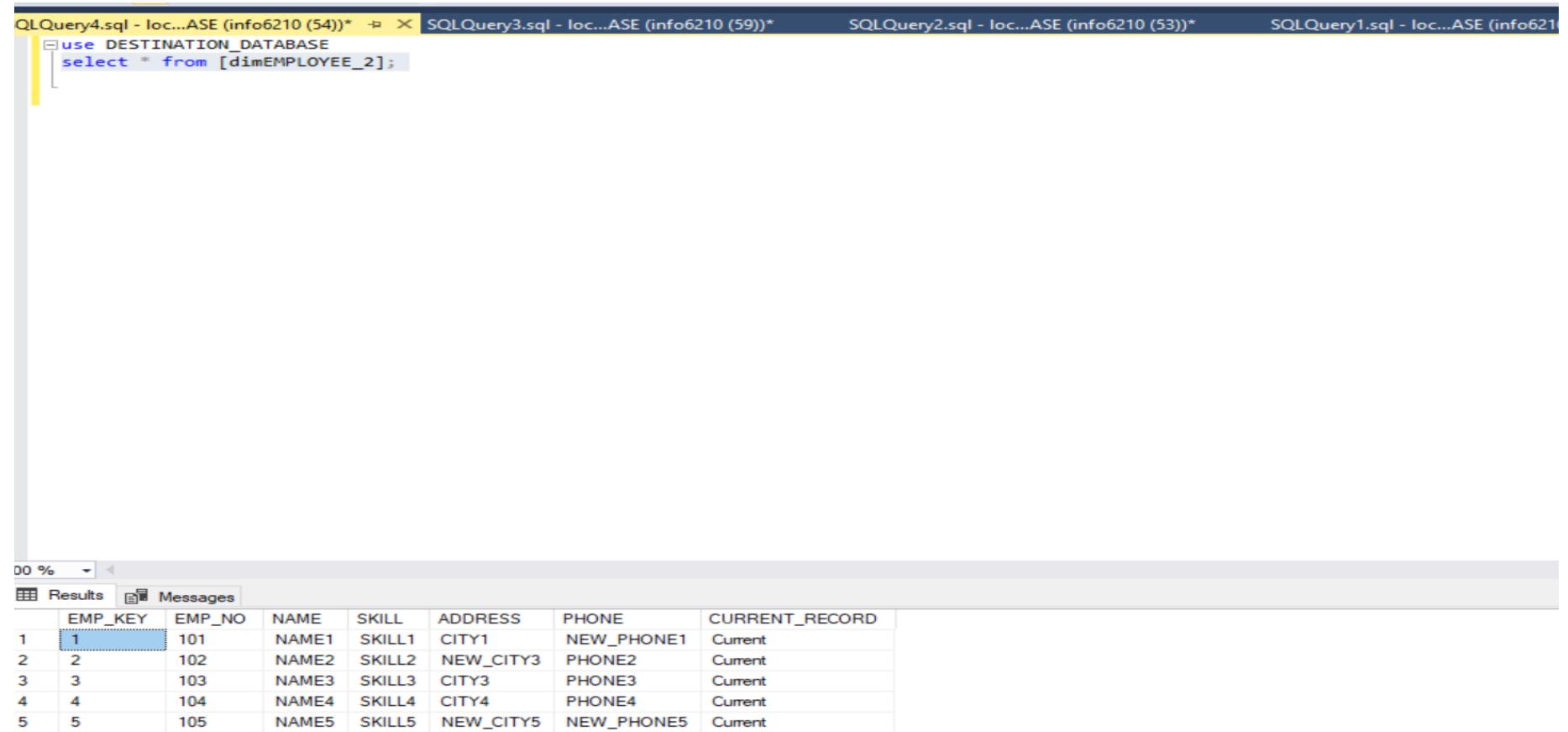
	EMP_KEY	EMP_NO	NAME	SKILL	ADDRESS	PHONE	START_DATE	END_DATE
1	1	101	NAME1	SKILL1	CITY1	NEW_PHONE1	2018-02-15 20:58:23.000	NULL
2	2	102	NAME2	SKILL2	NEW_CITY3	PHONE2	2018-02-15 20:58:23.000	NULL
3	3	103	NAME3	SKILL3	CITY3	PHONE3	2018-02-15 20:58:23.000	NULL
4	4	104	NAME4	SKILL4	CITY4	PHONE4	2018-02-15 20:58:23.000	NULL
5	5	105	NAME5	SKILL5	CITY5	PHONE5	2018-02-15 21:00:23.000	2018-02-15 21:03:13.000
6	6	105	NAME5	SKILL5	NEW_CITY5	NEW_PHONE5	2018-02-15 21:03:13.000	NULL

SCD Task 2: Current and Expired

Step1: Initially



Step2: Checking the initial state of Employee2



The screenshot shows a SQL Server Management Studio window with four tabs at the top: 'SQLQuery4.sql - loc...ASE (info6210 (54))' (selected), 'SQLQuery3.sql - loc...ASE (info6210 (59))', 'SQLQuery2.sql - loc...ASE (info6210 (53))', and 'SQLQuery1.sql - loc...ASE (info6210 (52))'. The main area displays a query result grid for the table 'dimEMPLOYEE_2'. The grid has columns: EMP_KEY, EMP_NO, NAME, SKILL, ADDRESS, PHONE, and CURRENT_RECORD. The data is as follows:

	EMP_KEY	EMP_NO	NAME	SKILL	ADDRESS	PHONE	CURRENT_RECORD
1	1	101	NAME1	SKILL1	CITY1	NEW_PHONE1	Current
2	2	102	NAME2	SKILL2	NEW_CITY3	PHONE2	Current
3	3	103	NAME3	SKILL3	CITY3	PHONE3	Current
4	4	104	NAME4	SKILL4	CITY4	PHONE4	Current
5	5	105	NAME5	SKILL5	NEW_CITY5	NEW_PHONE5	Current

Step3: Inserting the address

The screenshot shows a SQL Server Management Studio window with four tabs at the top: 'SQLQuery4.sql - loc...ASE (info6210 (54))*', 'SQLQuery3.sql - loc...ASE (info6210 (59))*', 'SQLQuery2.sql - loc...ASE (info6210 (53))*', and 'SQLQuery1.sql - loc...ASE'. The main pane displays the following T-SQL script:

```
use SOURCE_DATABASE
select * from EMPLOYEE;

--Do not execute untill directed
-----
-- for SCD 1 and 2 with current flag destination dimEMPLOYEE_2-----
insert into Employee values(105,'NAME5','SKILL5','CITY5','PHONE5')

update Employee
set Address = 'NEW_CITY5'
where EMP_NO = 105

update Employee
set Phone = 'NEW_PHONE5'
where EMP_NO = 105

-- for SCD 1 and 2 with start and End date destination dimEMPLOYEE_1-----
insert into Employee values(106,'NAME6','SKILL6','CITY6','PHONE6')

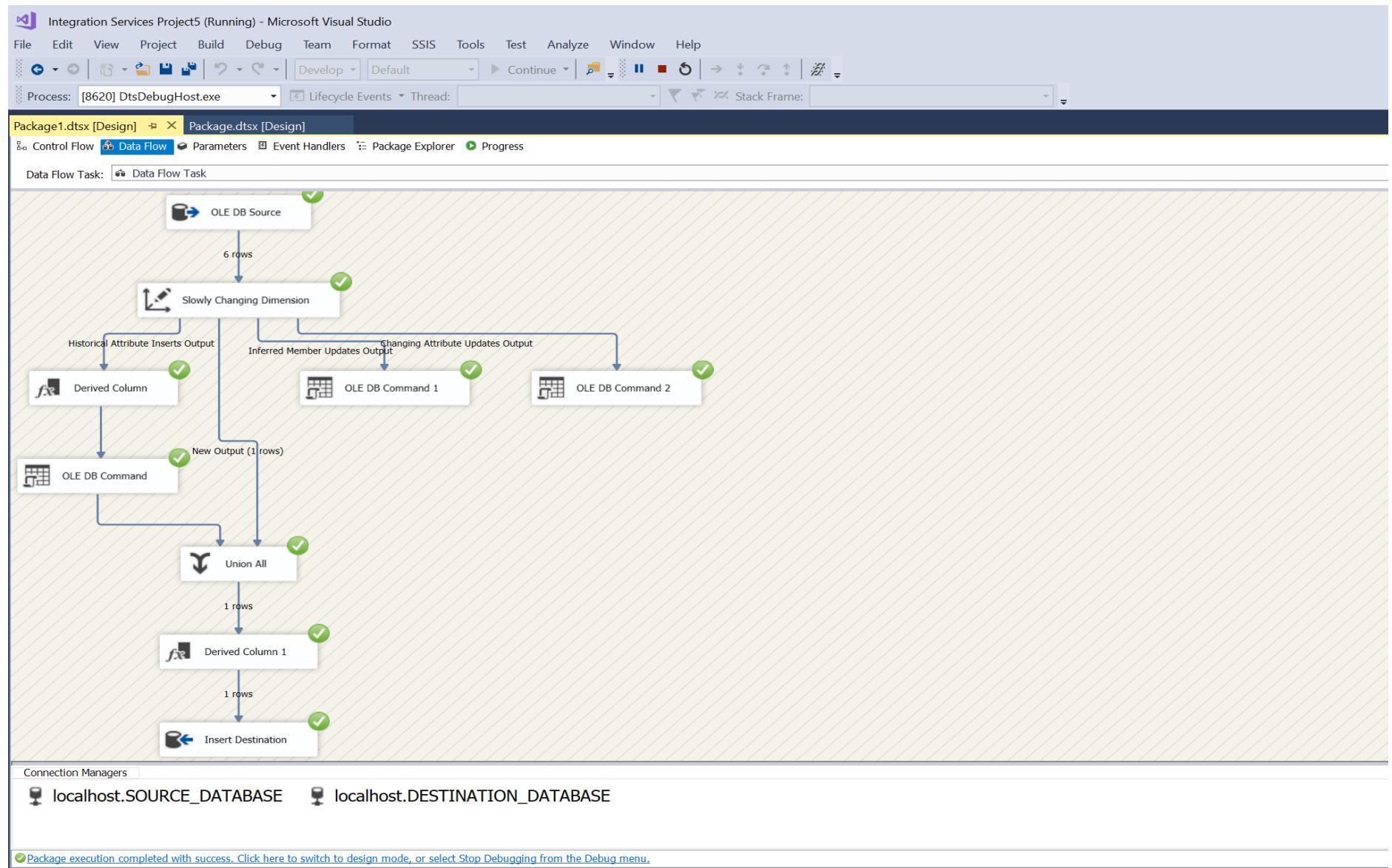
update Employee
set Address = 'NEW_CITY6'
where EMP_NO = 106

update Employee
set Phone = 'NEW_PHONE6'
where EMP_NO = 106
```

Below the script, there are two tabs: 'Results' and 'Messages'. The 'Results' tab is selected and shows a table with the following data:

	EMP_NO	NAME	SKILL	ADDRESS	PHONE
1	101	NAME1	SKILL1	CITY1	NEW_PHONE1
2	102	NAME2	SKILL2	NEW_CITY3	PHONE2
3	103	NAME3	SKILL3	CITY3	PHONE3
4	104	NAME4	SKILL4	CITY4	PHONE4
5	105	NAME5	SKILL5	NEW_CITY5	NEW_PHONE5
6	106	NAME6	SKILL6	CITY6	PHONE6

Step4: Running the job



Step5: Updating the address

The screenshot shows the SQL Server Management Studio interface with four tabs at the top: 'SQLQuery4.sql - loc...ASE (info6210 (54))*', 'SQLQuery3.sql - loc...ASE (info6210 (59))*', 'SQLQuery2.sql - loc...ASE (info6210 (53))*', and 'SQLQuery1.sql - loc...ASE (info6210 (52))'. The 'SQLQuery3.sql' tab is active, displaying the following SQL script:

```
use SOURCE_DATABASE
select * from EMPLOYEE;

--Do not execute untill directed
-----
-- for SCD 1 and 2 with current flag destination dimEMPLOYEE_2-----
insert into Employee values(105,'NAME5','SKILLS5','CITY5','PHONES5')

update Employee
set Address = 'NEW_CITY5'
where EMP_NO = 105

update Employee
set Phone = 'NEW_PHONE5'
where EMP_NO = 105

-- for SCD 1 and 2 with start and End date destination dimEMPLOYEE_1-----
insert into Employee values(106,'NAME6','SKILL6','CITY6','PHONE6')

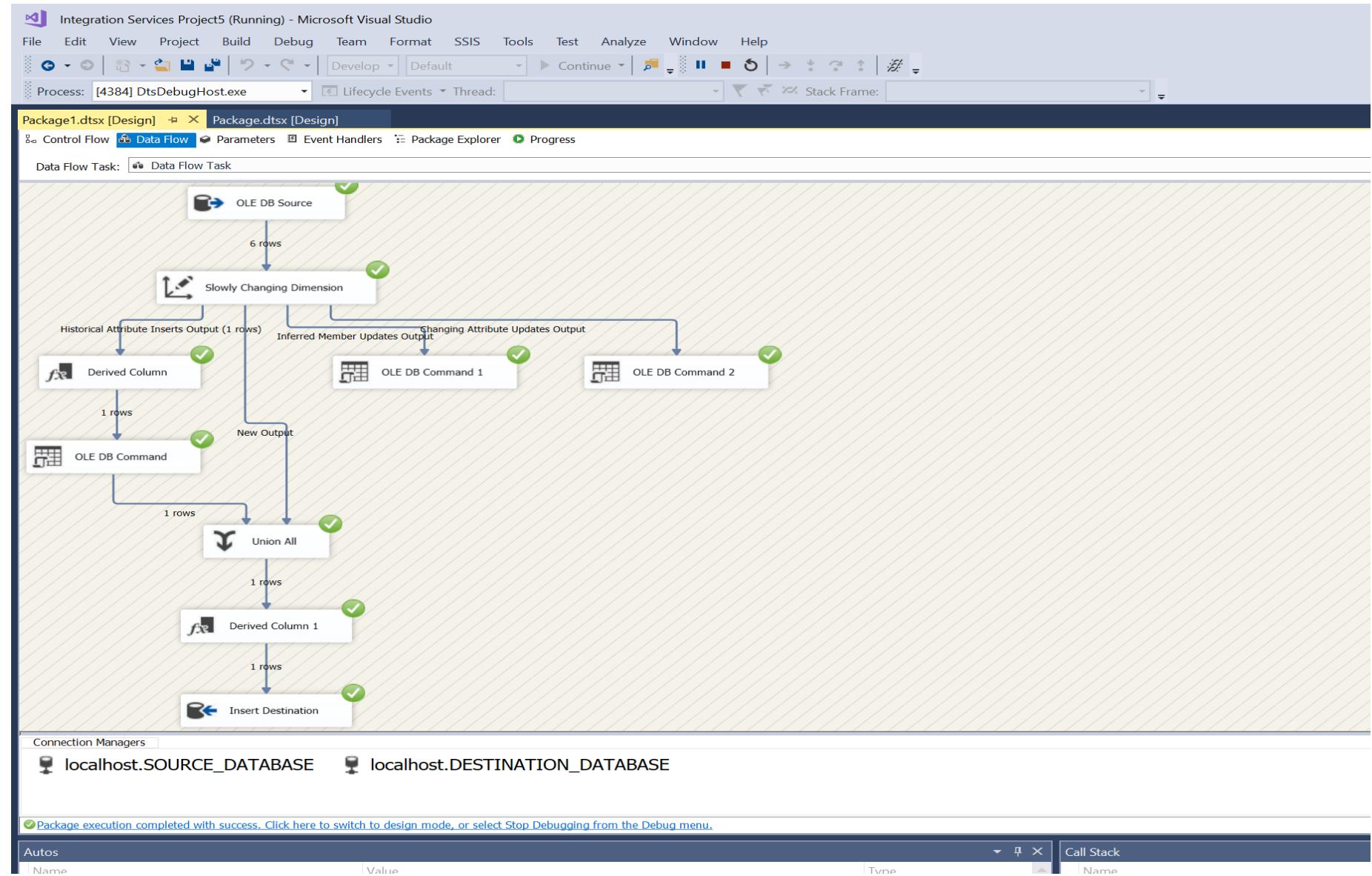
update Employee
set Address = 'NEW_CITY6'
where EMP_NO = 106

update Employee
set Phone = 'NEW_PHONE6'
where EMP_NO = 106
```

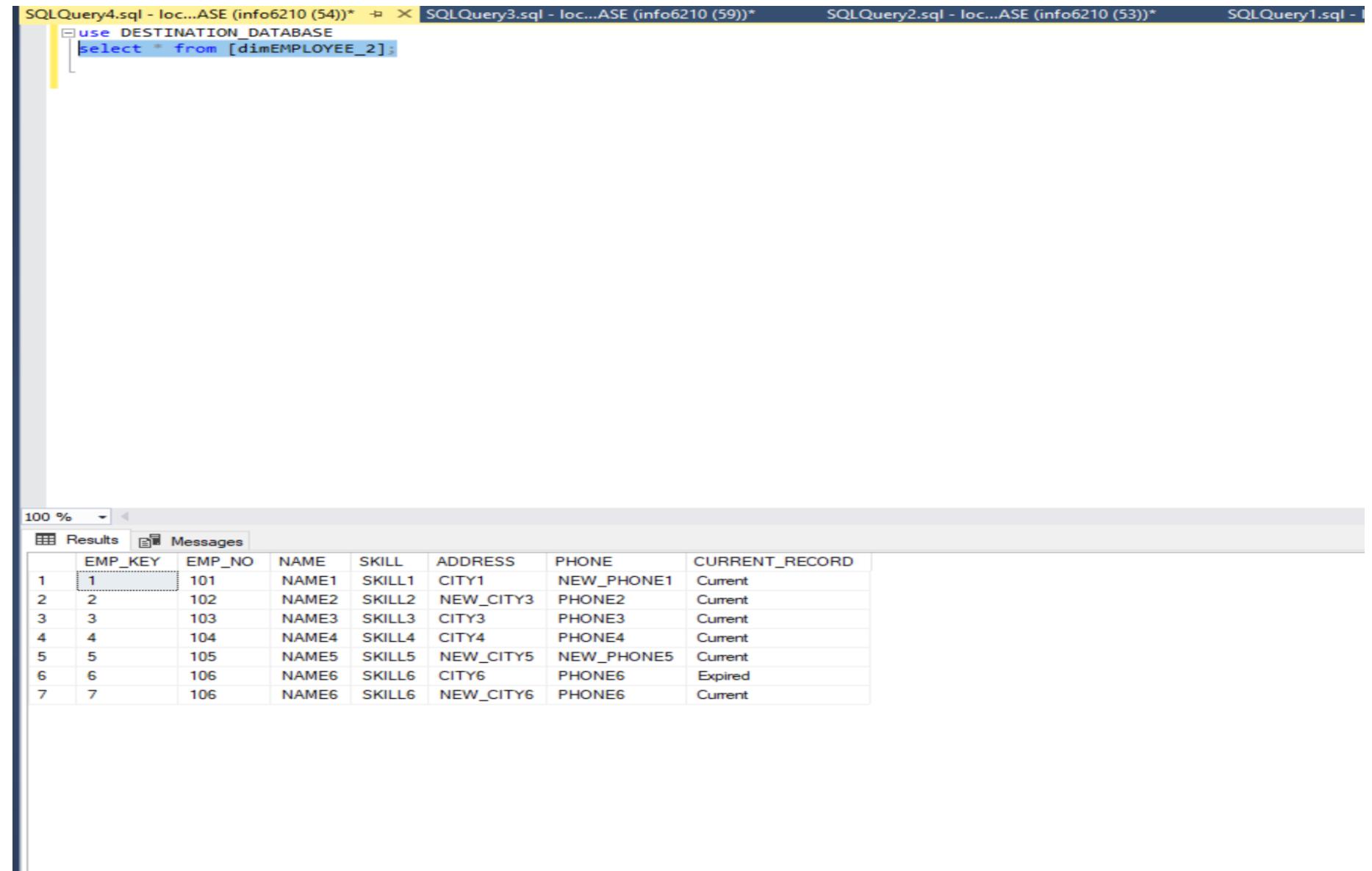
Below the script, the 'Results' tab is selected, showing a table with the following data:

	EMP_NO	NAME	SKILL	ADDRESS	PHONE
1	101	NAME1	SKILL1	CITY1	NEW_PHONE1
2	102	NAME2	SKILL2	NEW_CITY3	PHONE2
3	103	NAME3	SKILL3	CITY3	PHONE3
4	104	NAME4	SKILL4	CITY4	PHONE4
5	105	NAME5	SKILLS5	NEW_CITY5	NEW_PHONE5
6	106	NAME6	SKILL6	NEW_CITY6	PHONE6

Step6: Running the job



Step7: Checking the destination database for employee 2



The screenshot shows a SQL Server Management Studio window with four tabs at the top: 'SQLQuery4.sql - loc...ASE (info6210 (54))*', 'SQLQuery3.sql - loc...ASE (info6210 (59))*', 'SQLQuery2.sql - loc...ASE (info6210 (53))*', and 'SQLQuery1.sql -'. The active tab contains the following SQL code:

```
use DESTINATION_DATABASE
select * from [dimEMPLOYEE_2];
```

The results pane below displays a table with the following data:

	EMP_KEY	EMP_NO	NAME	SKILL	ADDRESS	PHONE	CURRENT_RECORD
1	1	101	NAME1	SKILL1	CITY1	NEW_PHONE1	Current
2	2	102	NAME2	SKILL2	NEW_CITY3	PHONE2	Current
3	3	103	NAME3	SKILL3	CITY3	PHONE3	Current
4	4	104	NAME4	SKILL4	CITY4	PHONE4	Current
5	5	105	NAME5	SKILL5	NEW_CITY5	NEW_PHONE5	Current
6	6	106	NAME6	SKILL6	CITY6	PHONE6	Expired
7	7	106	NAME6	SKILL6	NEW_CITY6	PHONE6	Current

Step8:

The screenshot shows a SQL Server Management Studio interface with four tabs at the top: 'SQLQuery4.sql - loc...ASE (info6210 (54))*', 'SQLQuery3.sql - loc...ASE (info6210 (59))*', 'SQLQuery2.sql - loc...ASE (info6210 (53))*', and 'SQLQuery1.sql - loc...AS'. The main window displays a block of T-SQL code. Below the code is a results grid showing employee data.

```
use SOURCE_DATABASE
select * from EMPLOYEE;

--Do not execute untill directed
-----for SCD 1 and 2 with current flag destination dimEMPLOYEE_2-----
insert into Employee values(105,'NAME5','SKILL5','CITY5','PHONE5')

update Employee
set Address = 'NEW_CITY5'
where EMP_NO = 105

update Employee
set Phone = 'NEW_PHONE5'
where EMP_NO = 105

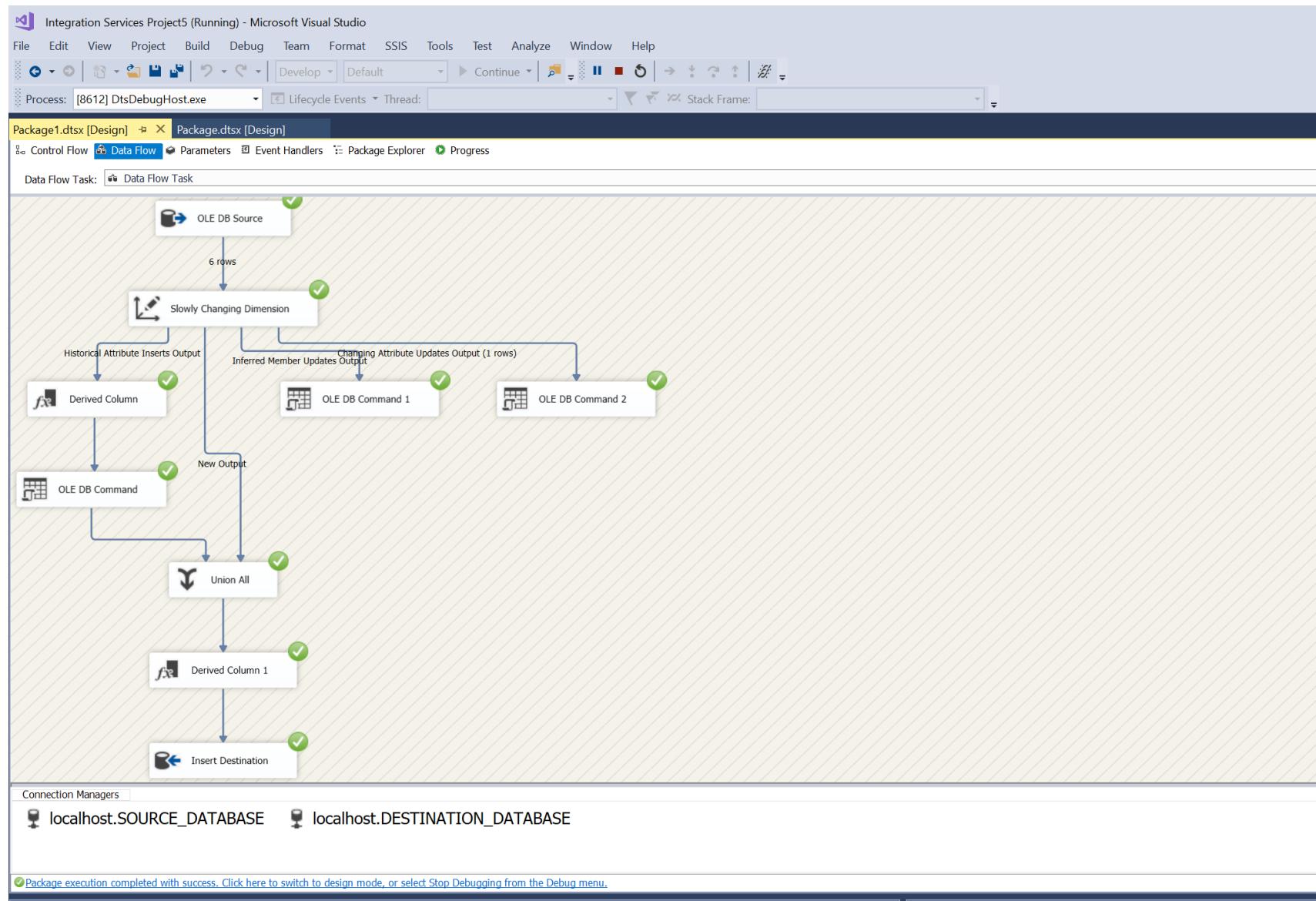
-----for SCD 1 and 2 with start and End date destination dimEMPLOYEE_1-----
insert into Employee values(106,'NAME6','SKILL6','CITY6','PHONE6')

update Employee
set Address = 'NEW_CITY6'
where EMP_NO = 106

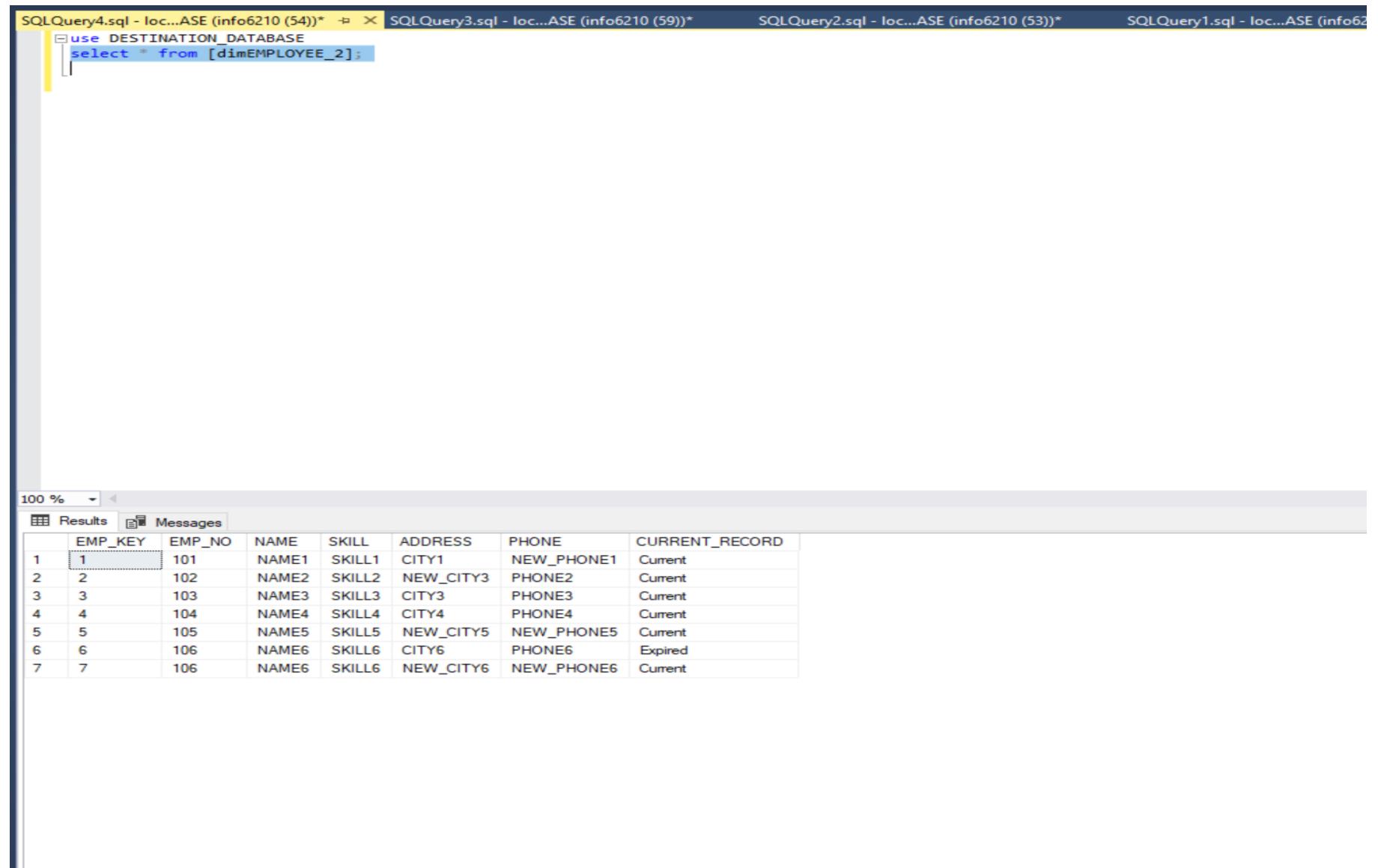
update Employee
set Phone = 'NEW_PHONE6'
where EMP_NO = 106
```

	EMP_NO	NAME	SKILL	ADDRESS	PHONE
1	101	NAME1	SKILL1	CITY1	NEW_PHONE1
2	102	NAME2	SKILL2	NEW_CITY3	PHONE2
3	103	NAME3	SKILL3	CITY3	PHONE3
4	104	NAME4	SKILL4	CITY4	PHONE4
5	105	NAME5	SKILL5	NEW_CITY5	NEW_PHONE5
6	106	NAME6	SKILL6	NEW_CITY6	NEW_PHONE6

Step9:



Step10: Final



The screenshot shows a SQL Server Management Studio window with four tabs at the top: SQLQuery4.sql, SQLQuery3.sql, SQLQuery2.sql, and SQLQuery1.sql. The SQLQuery4.sql tab is active, displaying the following T-SQL code:

```
use DESTINATION_DATABASE
select * from [dimEMPLOYEE_2];
```

The Results tab is selected, showing a grid of data from the dimEMPLOYEE_2 table. The data is as follows:

	EMP_KEY	EMP_NO	NAME	SKILL	ADDRESS	PHONE	CURRENT_RECORD
1	1	101	NAME1	SKILL1	CITY1	NEW_PHONE1	Current
2	2	102	NAME2	SKILL2	NEW_CITY3	PHONE2	Current
3	3	103	NAME3	SKILL3	CITY3	PHONE3	Current
4	4	104	NAME4	SKILL4	CITY4	PHONE4	Current
5	5	105	NAME5	SKILL5	NEW_CITY5	NEW_PHONE5	Current
6	6	106	NAME6	SKILL6	CITY6	PHONE6	Expired
7	7	106	NAME6	SKILL6	NEW_CITY6	NEW_PHONE6	Current