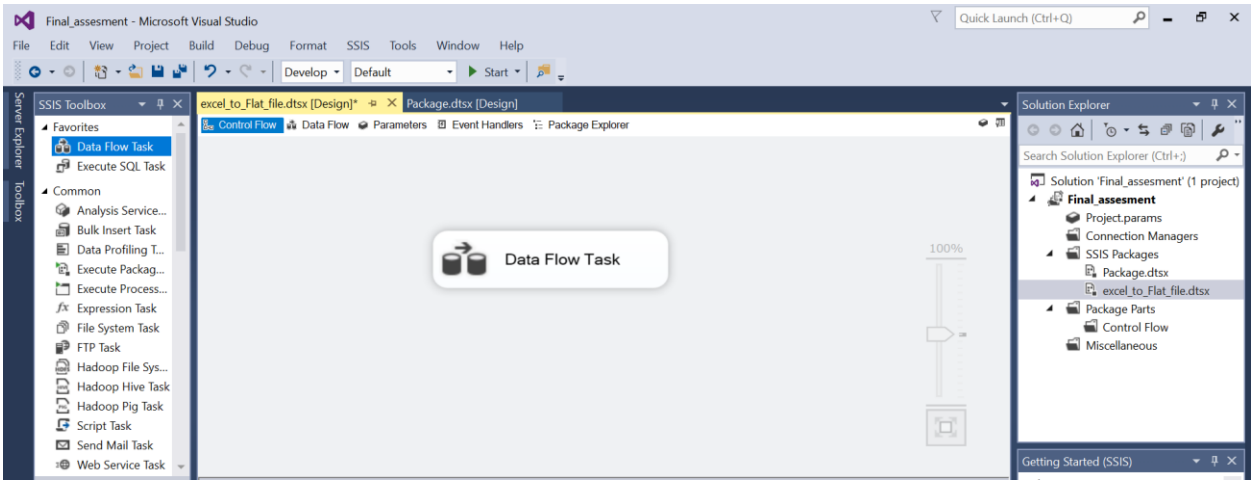
Module 2 SSIS

Qn1. Make connection to different data source

Solution:

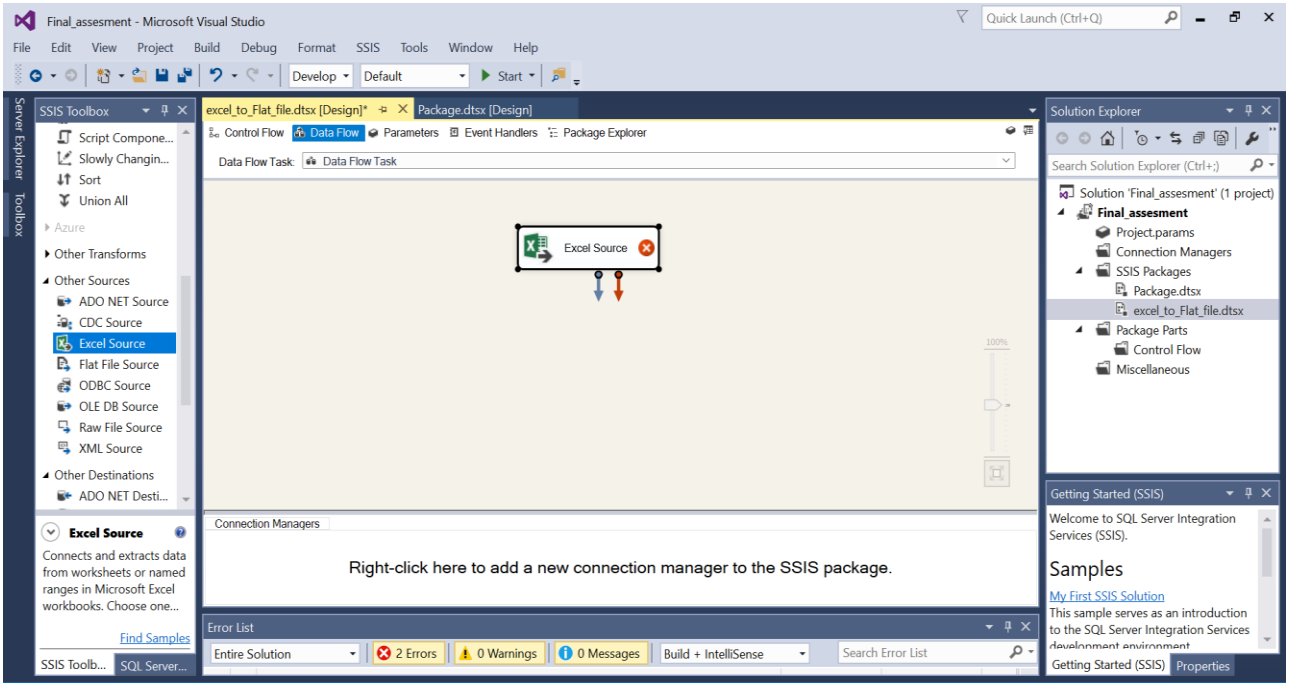
1.Extractiong the data from excel source, loading into the FLAT file

Step1: drag and drop the data flow task from ssis tool box



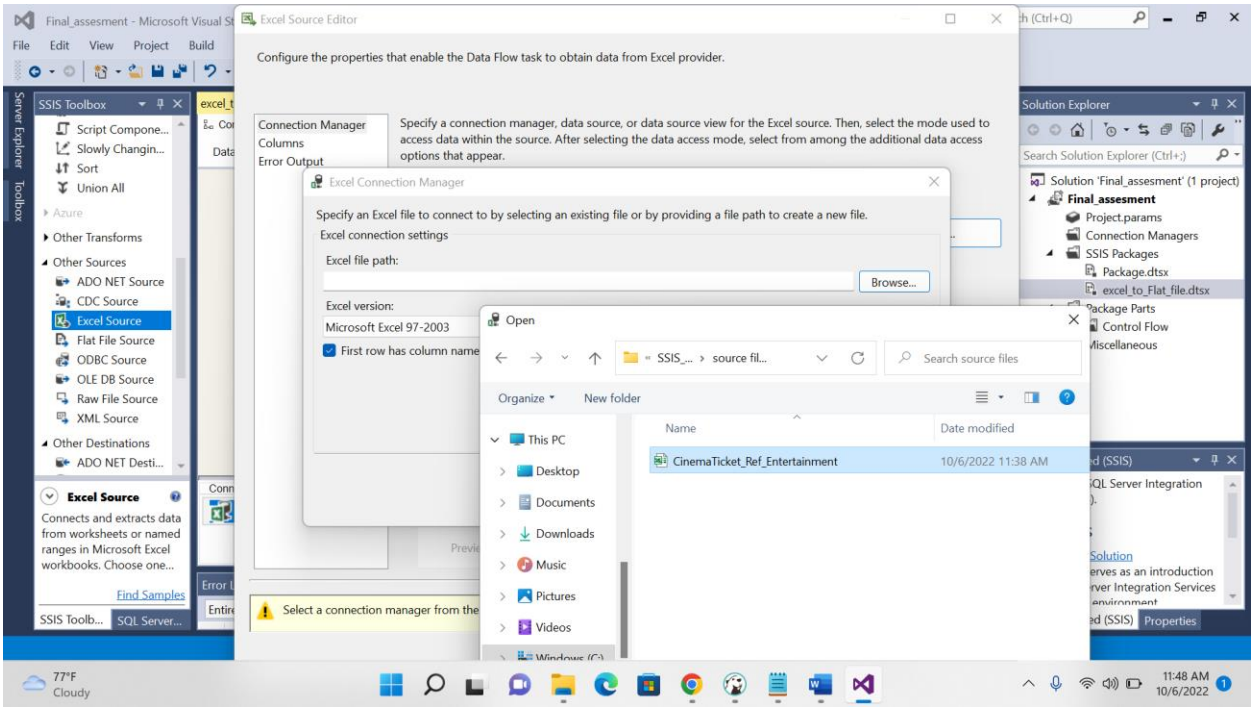
Step2: Double click on the data flow task

Step3: drag and drop the Excel source from the ssis tool box

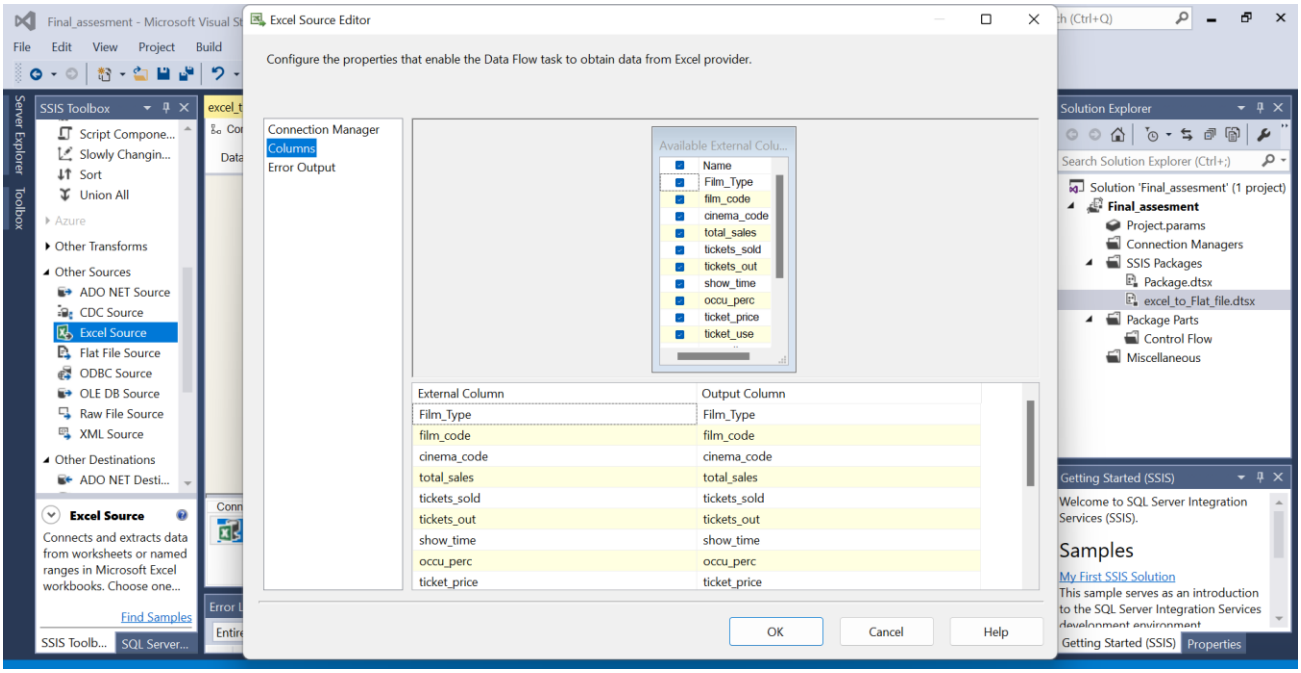


Step3: Double click on excel source we will get new window click on new.

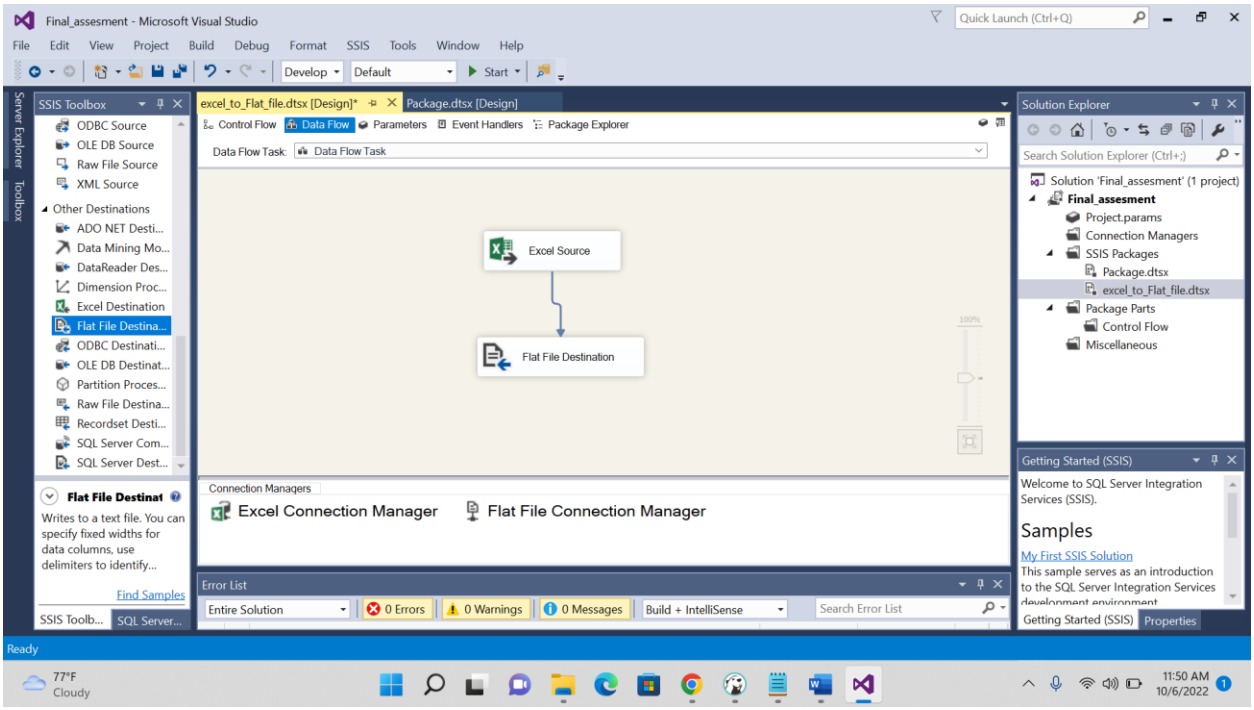
Step4: Browse for the file in local computer and select the file



Step 5: check the columns and data in the excel file

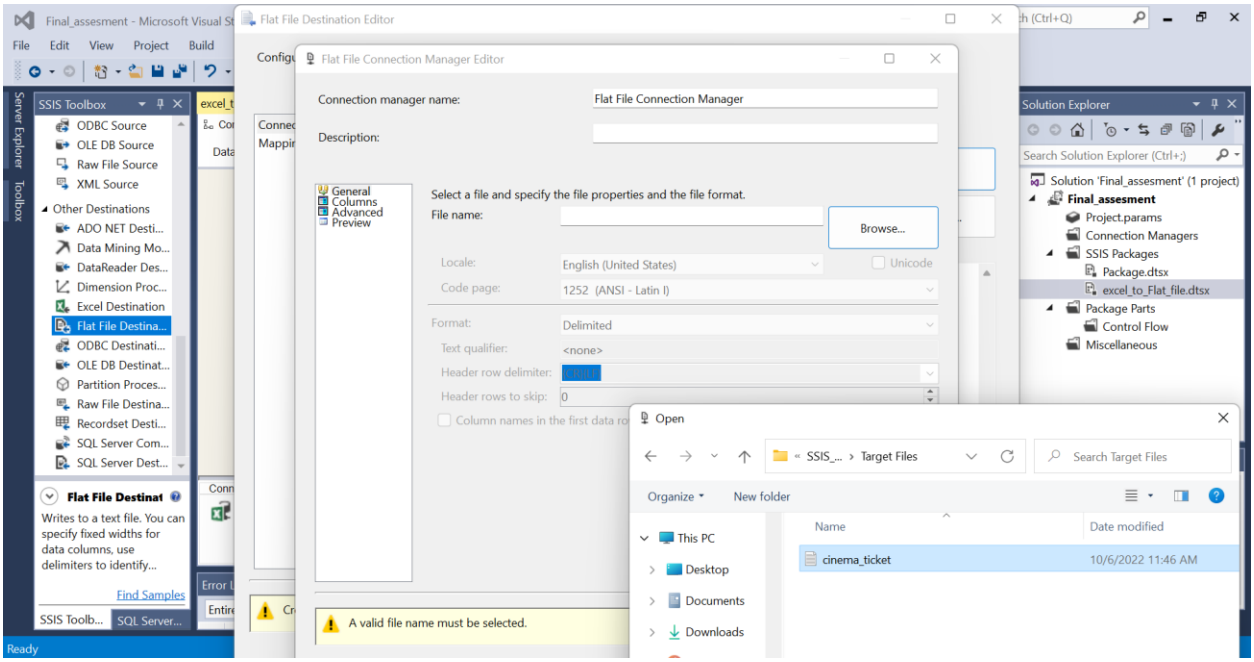


Step6: drag and drop the flat file Destination then connect to the source



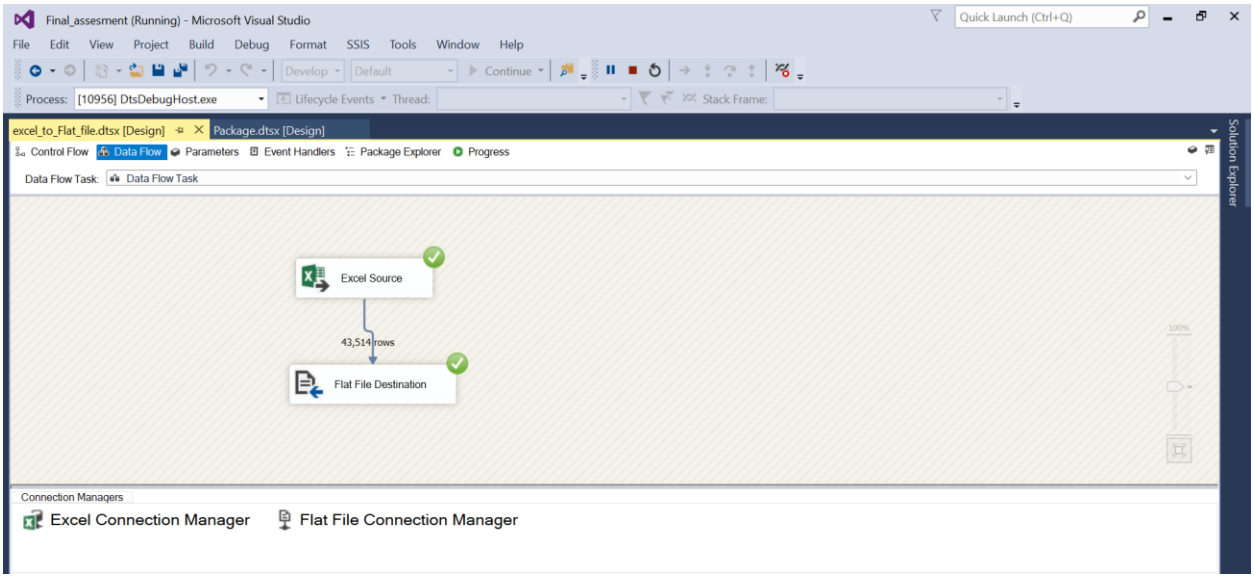
Step7: double click on the flat file destination

Step8: click on new and select the empty flat file

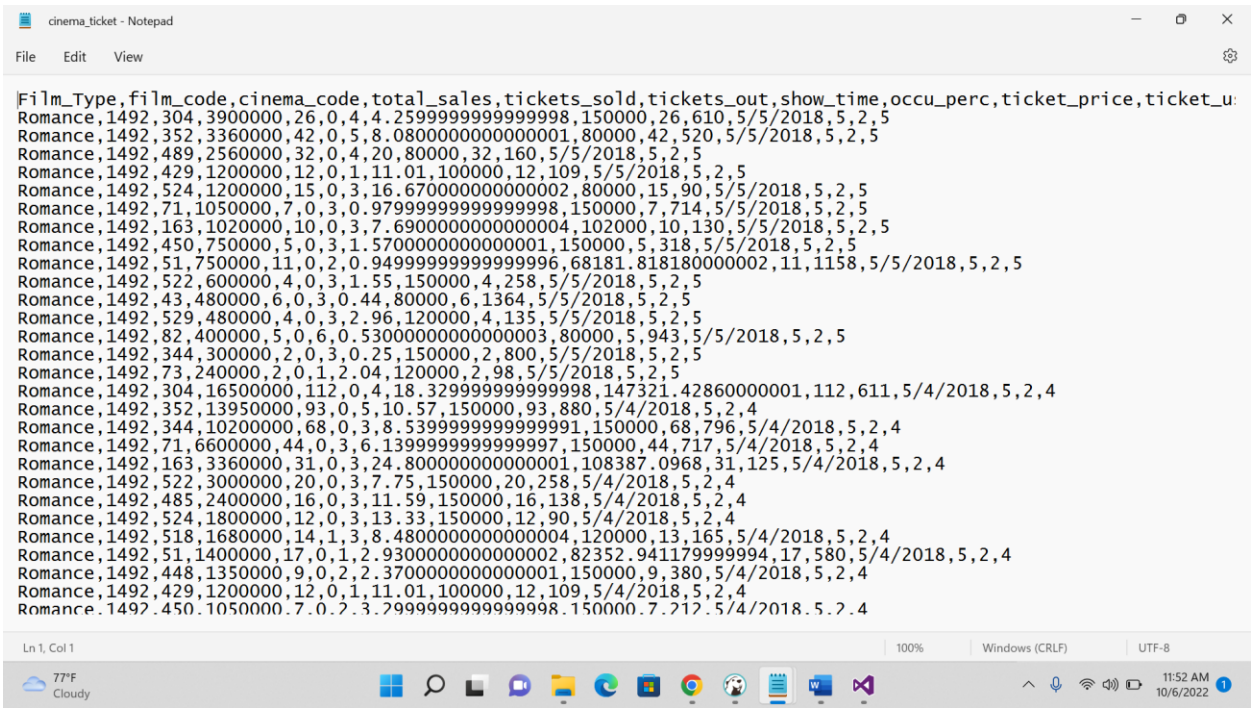


Step9: run the package

Result of successful execution

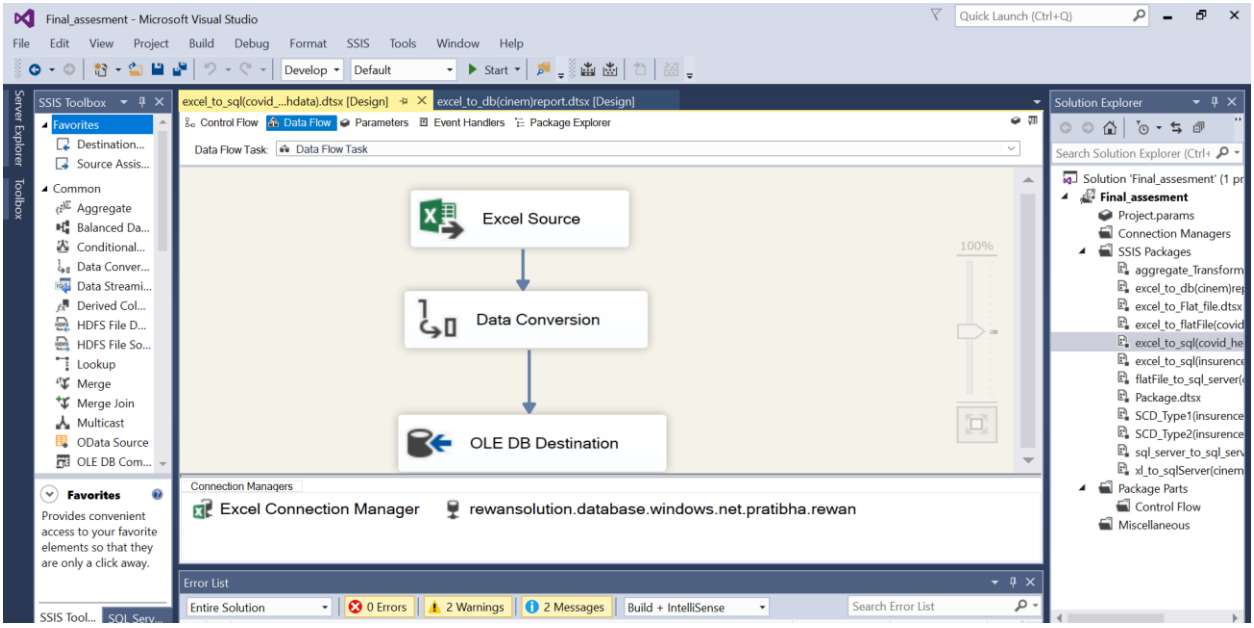


Below snapshot shows the data loaded in the flat file



2.Extractiong the data from excel source, loading into the SQL server

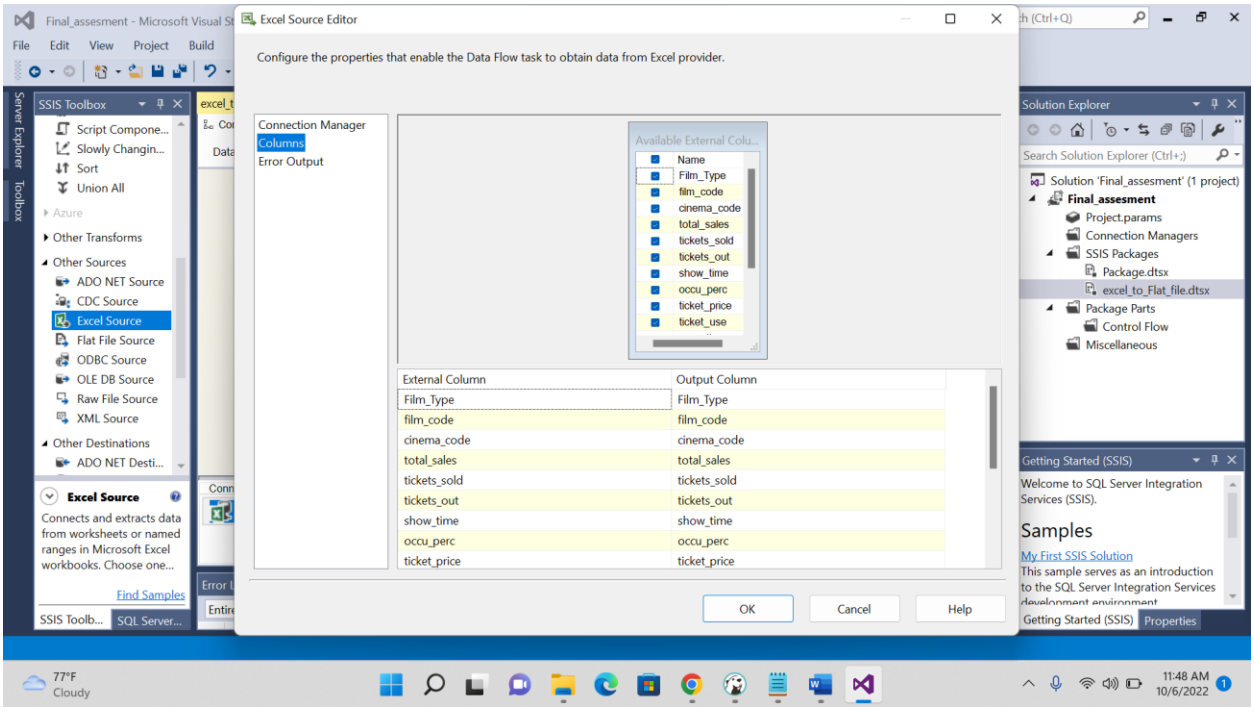
Step1: make connection ass shown in the below



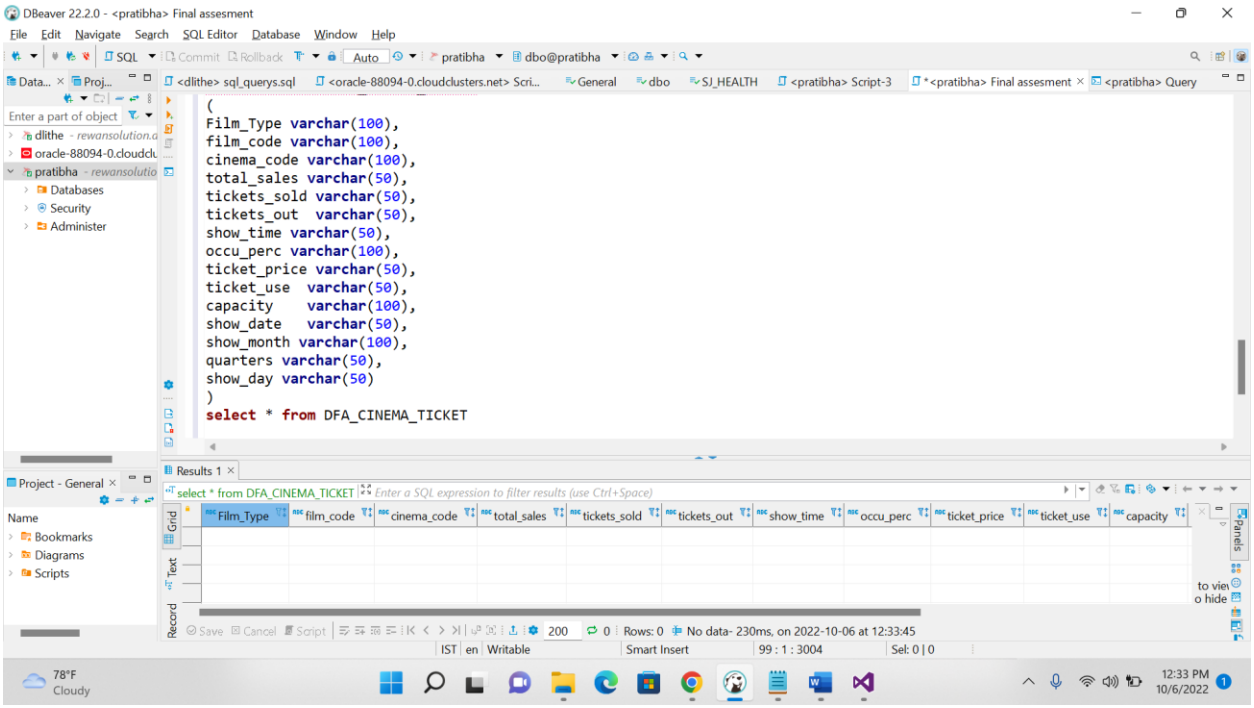
Step2: double click on excel source and choose the source file

Step3: double click on the data conversion you will get below window

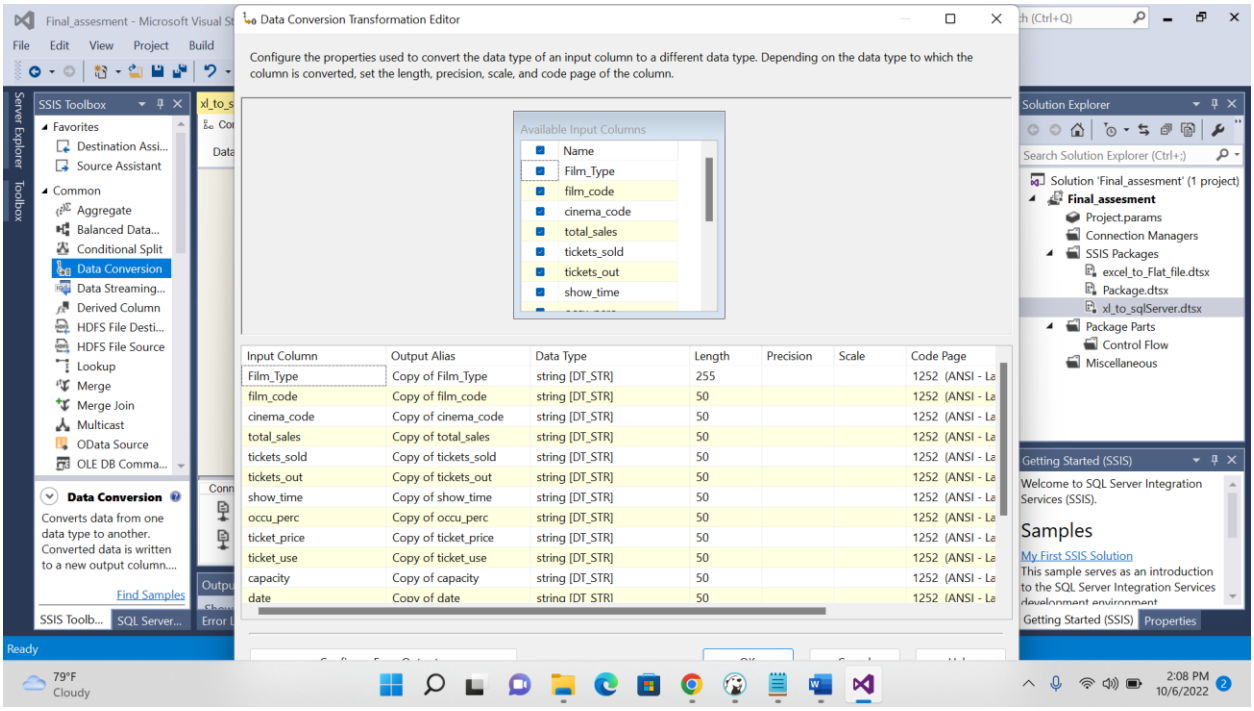
Ste4: change the data type as per the sql server data tpe



Step5: create table in sql server as same as source columns

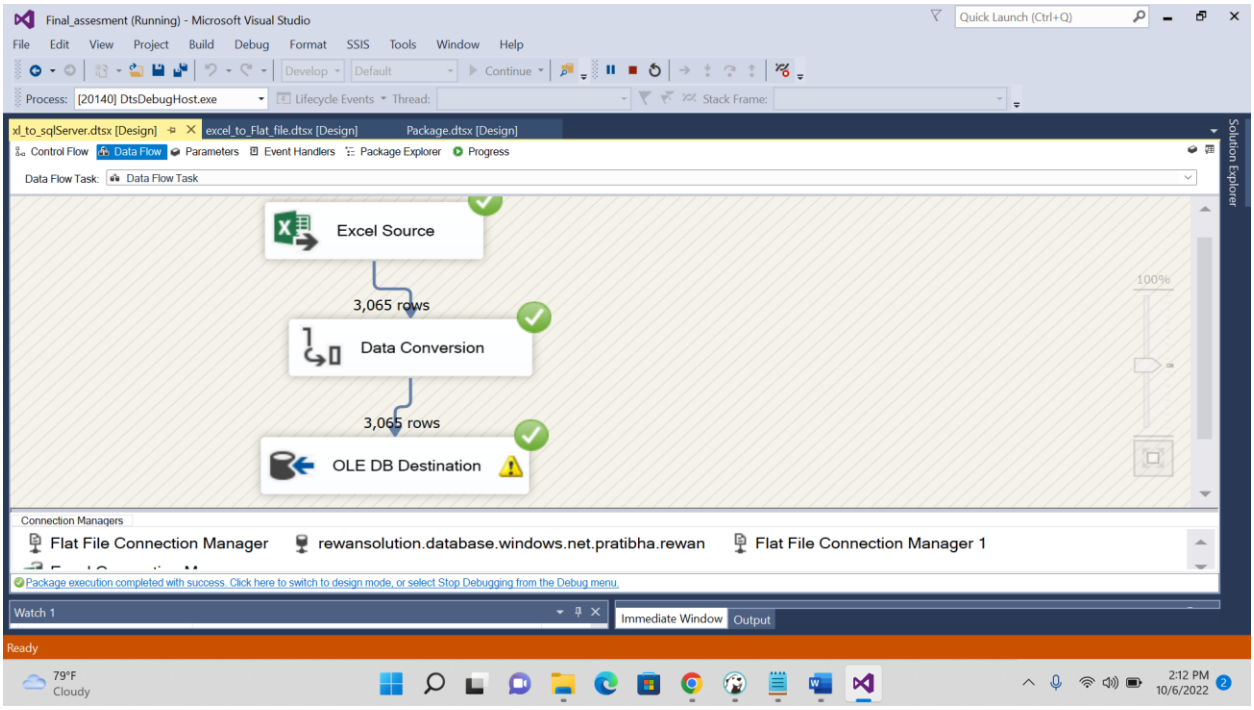


Step6: Double click on the OLDB destination select the column as we have changed in data conversion

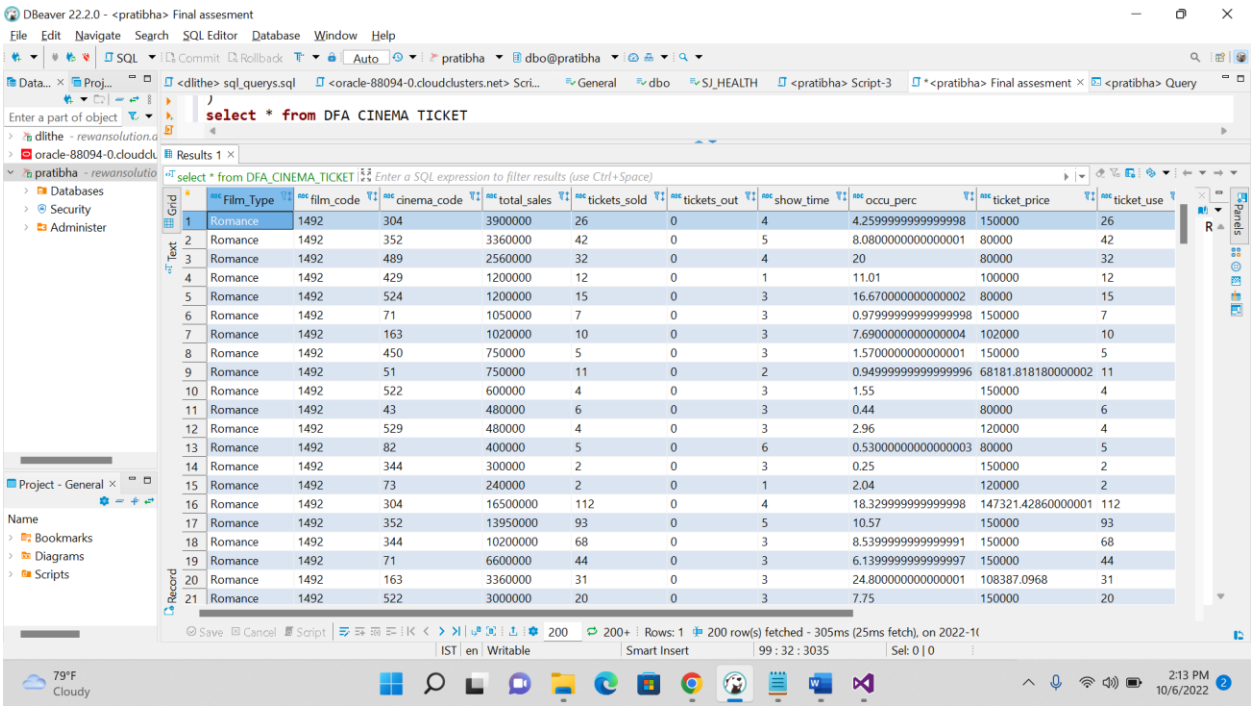


Step7: Run the package

Below snapshot is for execution of package



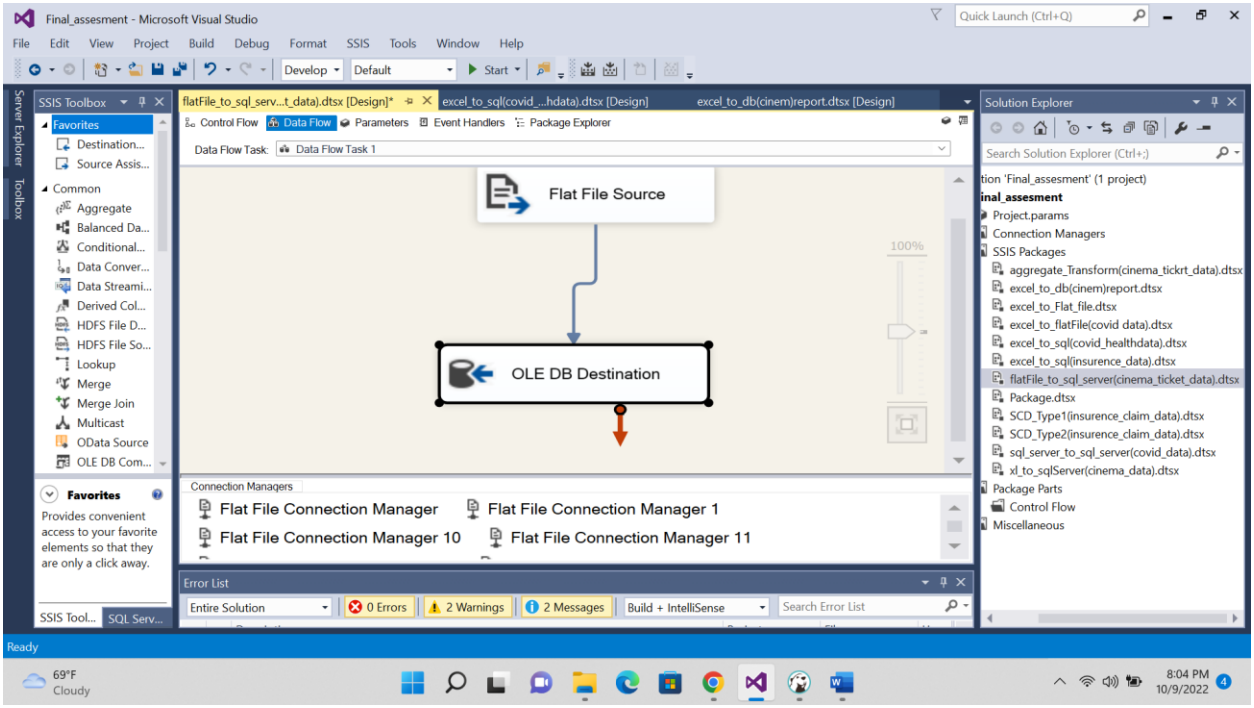
Below snapshot shows the data loaded in to the sql server



	Film_Type	film_code	cinema_code	total_sales	tickets_sold	tickets_out	show_time	occu_perc	ticket_price	ticket_use
1	Romance	1492	304	3900000	26	0	4	4.2599999999999998	150000	26
2	Romance	1492	352	3360000	42	0	5	8.0800000000000001	80000	42
3	Romance	1492	489	2560000	32	0	4	20	80000	32
4	Romance	1492	429	1200000	12	0	1	11.01	100000	12
5	Romance	1492	524	1200000	15	0	3	16.670000000000002	80000	15
6	Romance	1492	71	1050000	7	0	3	0.97999999999999998	150000	7
7	Romance	1492	163	1020000	10	0	3	7.6900000000000004	102000	10
8	Romance	1492	450	750000	5	0	3	1.5700000000000001	150000	5
9	Romance	1492	51	750000	11	0	2	0.94999999999999996	68181.818180000002	11
10	Romance	1492	522	600000	4	0	3	1.55	150000	4
11	Romance	1492	43	480000	6	0	3	0.44	80000	6
12	Romance	1492	529	480000	4	0	3	2.96	120000	4
13	Romance	1492	82	400000	5	0	6	0.53000000000000003	80000	5
14	Romance	1492	344	300000	2	0	3	0.25	150000	2
15	Romance	1492	73	240000	2	0	1	2.04	120000	2
16	Romance	1492	304	16500000	112	0	4	18.329999999999998	147321.42860000001	112
17	Romance	1492	352	13950000	93	0	5	10.57	150000	93
18	Romance	1492	344	10200000	68	0	3	8.5399999999999991	150000	68
19	Romance	1492	71	6600000	44	0	3	6.1399999999999997	150000	44
20	Romance	1492	163	3360000	31	0	3	24.800000000000001	108387.0968	31
21	Romance	1492	522	3000000	20	0	3	7.75	150000	20

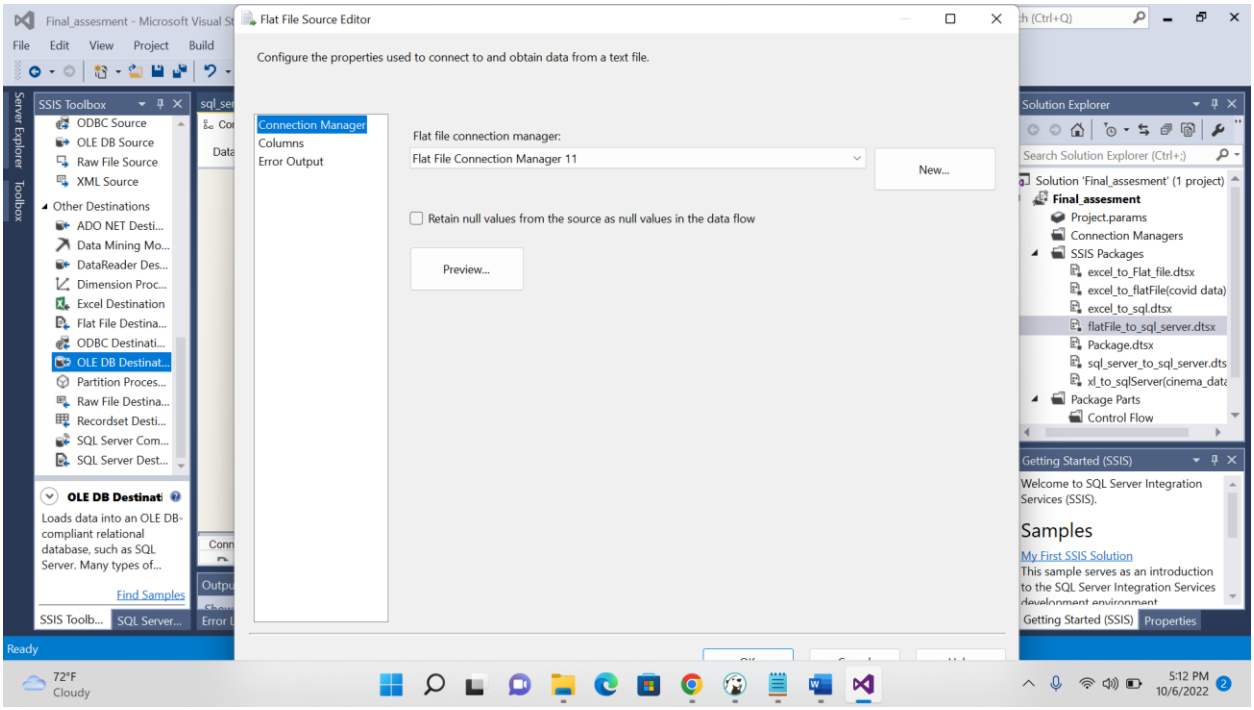
3.Extractiong the data from FLAT file source, loading into the sql server

Step1: make the connection as shown in the beklow

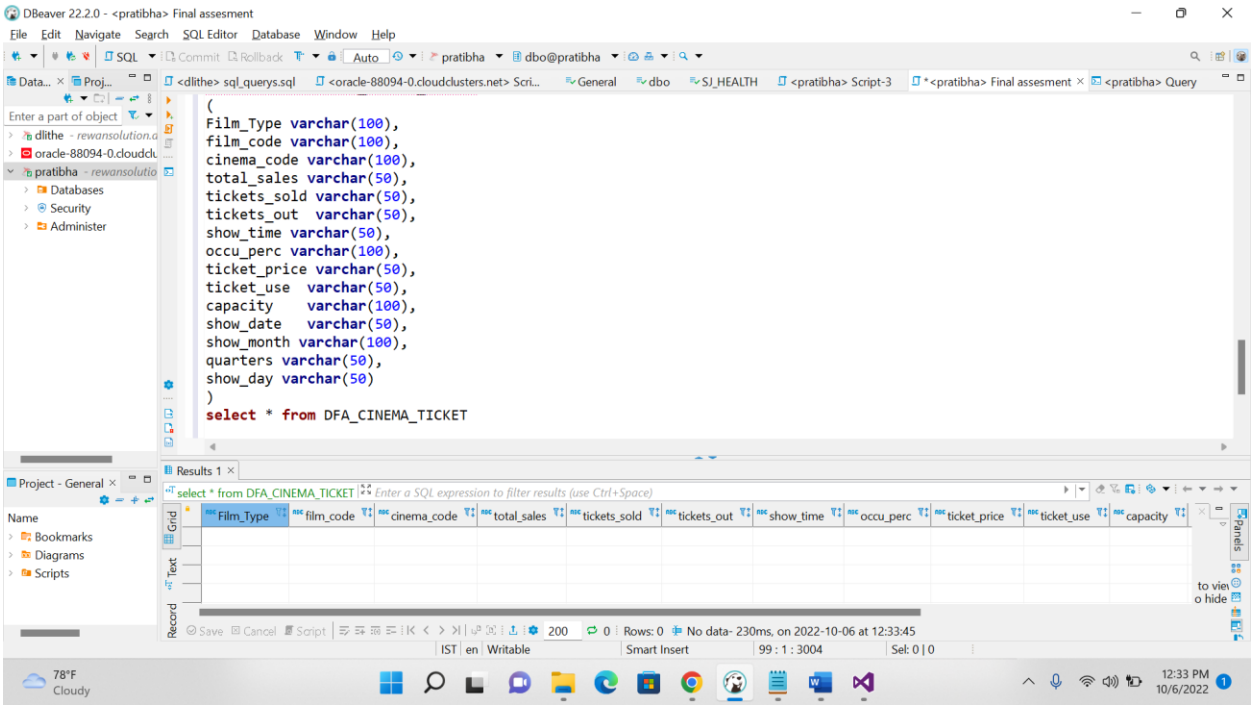


Step2: double click on the flat file

Step3: select the flat file

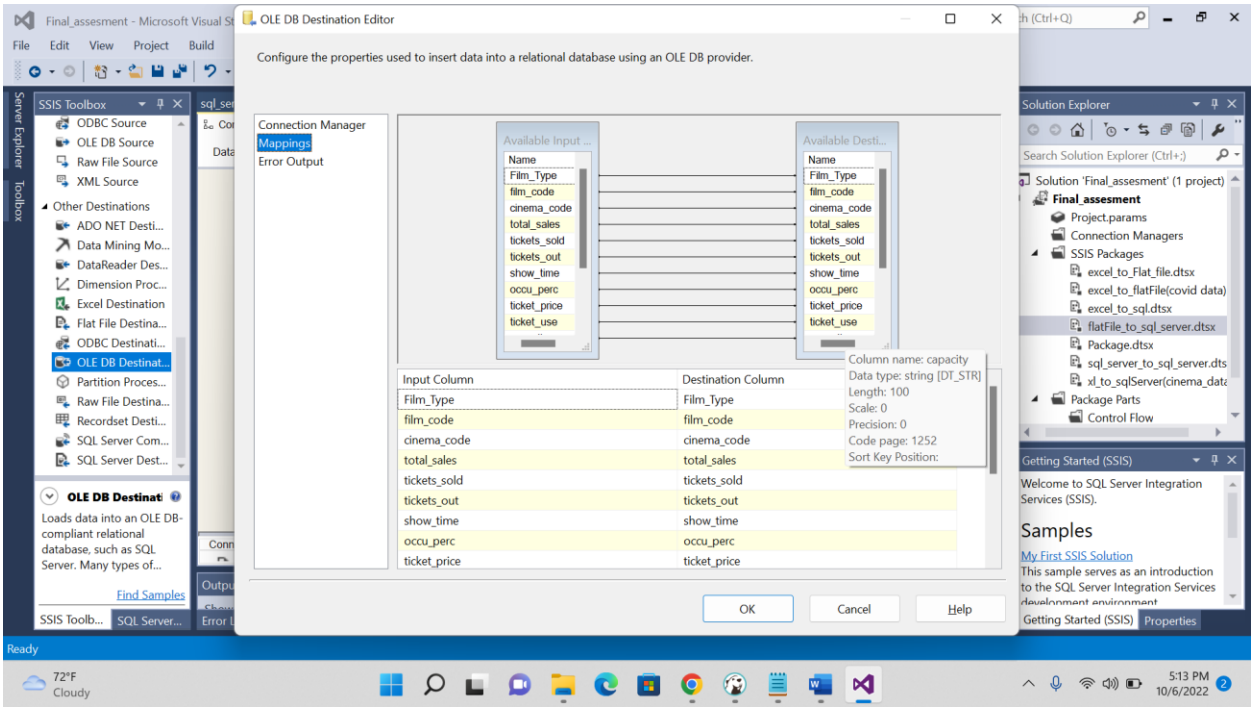


Step4: create destination table in SQL server



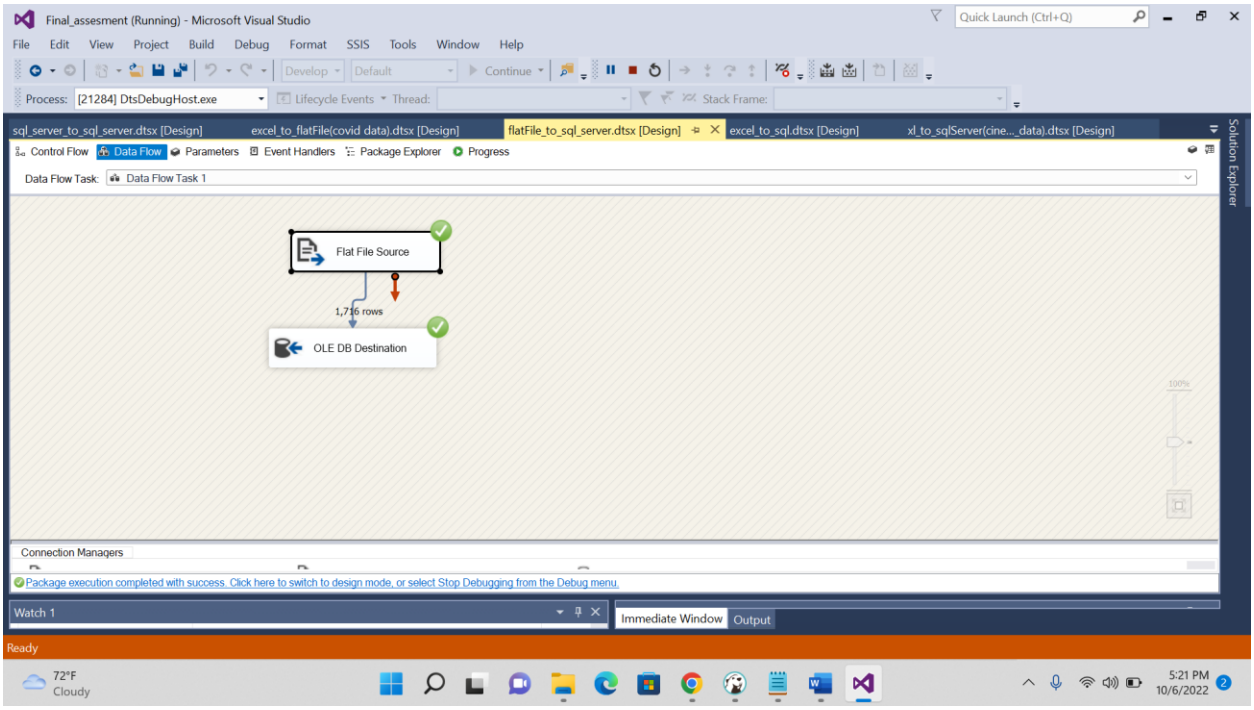
Step5: Double click on the OLDB destinatoiion

Step 6: select the destination table and map the colouns

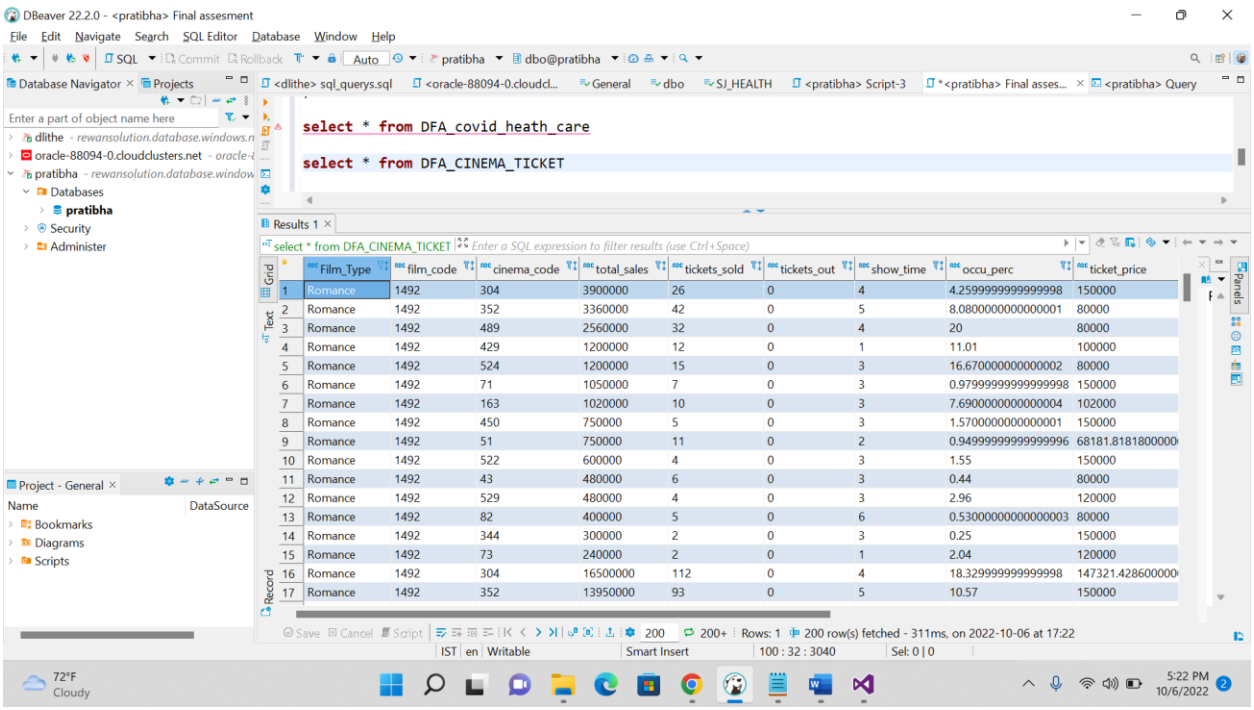


Step8: Run the package

Below snapshot shows the execution of package



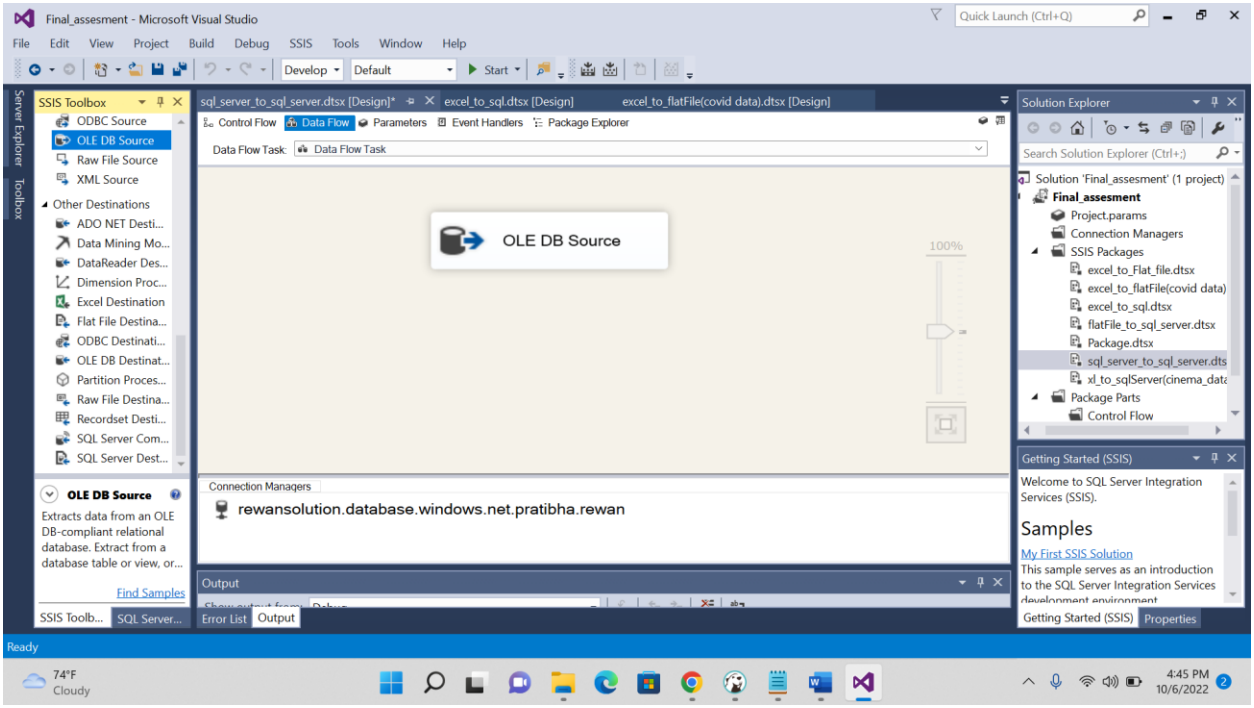
Below snapshot shows the data loaded into the sql server



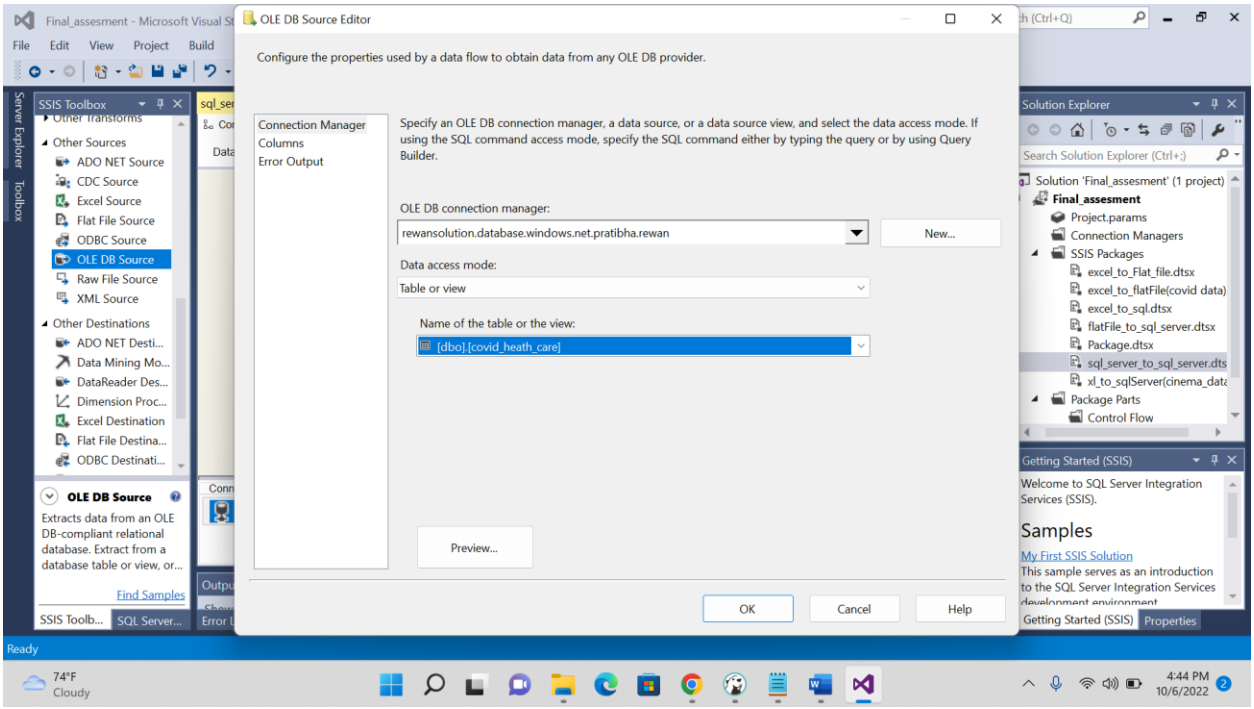
	Film_Type	film_code	cinema_code	total_sales	tickets_sold	tickets_out	show_time	occu_perc	ticket_price
1	Romance	1492	304	3900000	26	0	4	4.2599999999999998	150000
2	Romance	1492	352	3360000	42	0	5	8.0800000000000001	80000
3	Romance	1492	489	2560000	32	0	4	20	80000
4	Romance	1492	429	1200000	12	0	1	11.01	100000
5	Romance	1492	524	1200000	15	0	3	16.670000000000002	80000
6	Romance	1492	71	1050000	7	0	3	0.97999999999999998	150000
7	Romance	1492	163	1020000	10	0	3	7.6900000000000004	102000
8	Romance	1492	450	750000	5	0	3	1.5700000000000001	150000
9	Romance	1492	51	750000	11	0	2	0.94999999999999996	68181.818180000
10	Romance	1492	522	600000	4	0	3	1.55	150000
11	Romance	1492	43	480000	6	0	3	0.44	80000
12	Romance	1492	529	480000	4	0	3	2.96	120000
13	Romance	1492	82	400000	5	0	6	0.53000000000000003	80000
14	Romance	1492	344	300000	2	0	3	0.25	150000
15	Romance	1492	73	240000	2	0	1	2.04	120000
16	Romance	1492	304	16500000	112	0	4	18.329999999999998	147321.428600000
17	Romance	1492	352	13950000	93	0	5	10.57	150000

3.Extractiong the data from sql server, loading into the sql server

Step1: drag and drop the OLE DB source and connect to the OLEDB desination

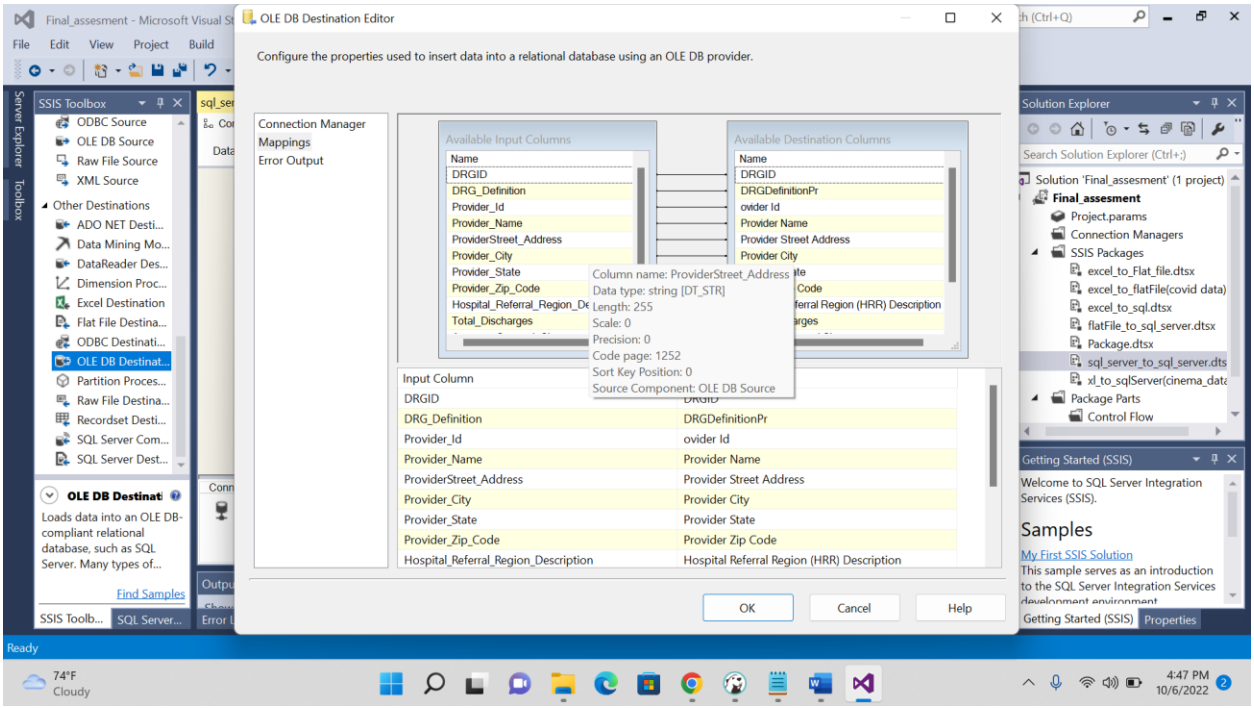


Step2: Double click on the source and select the source table

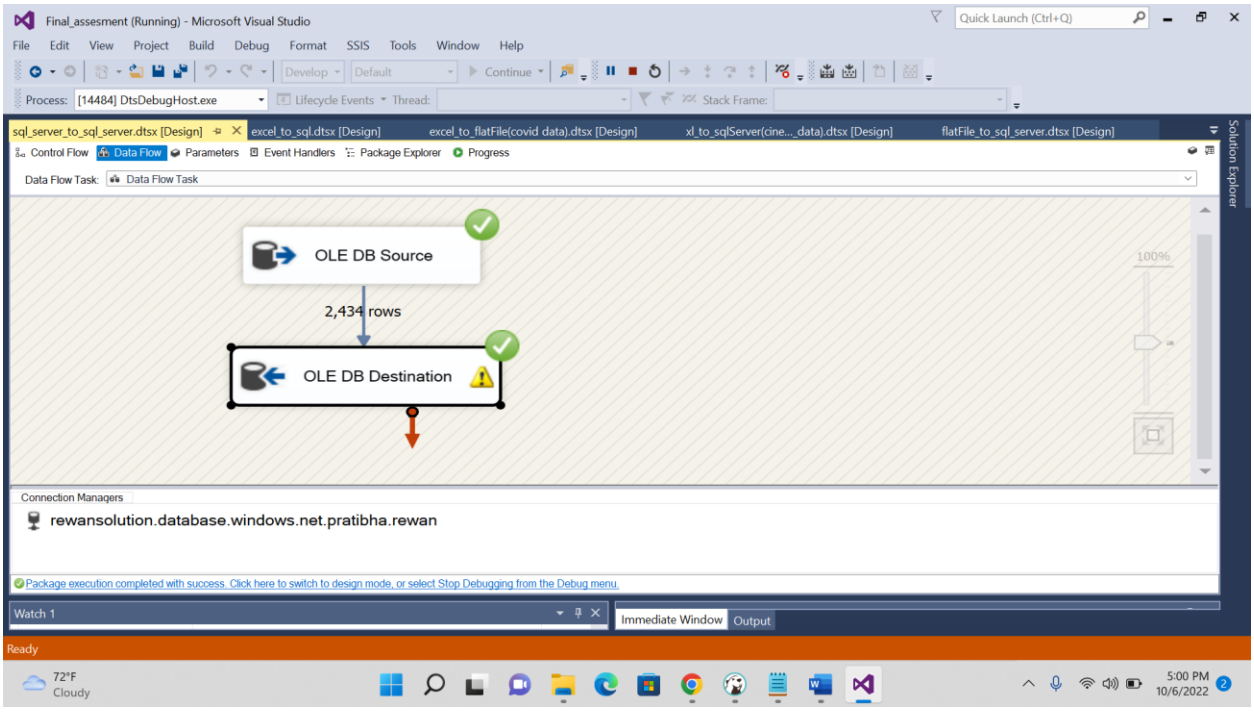


Step3: double click on the OLE DB destination

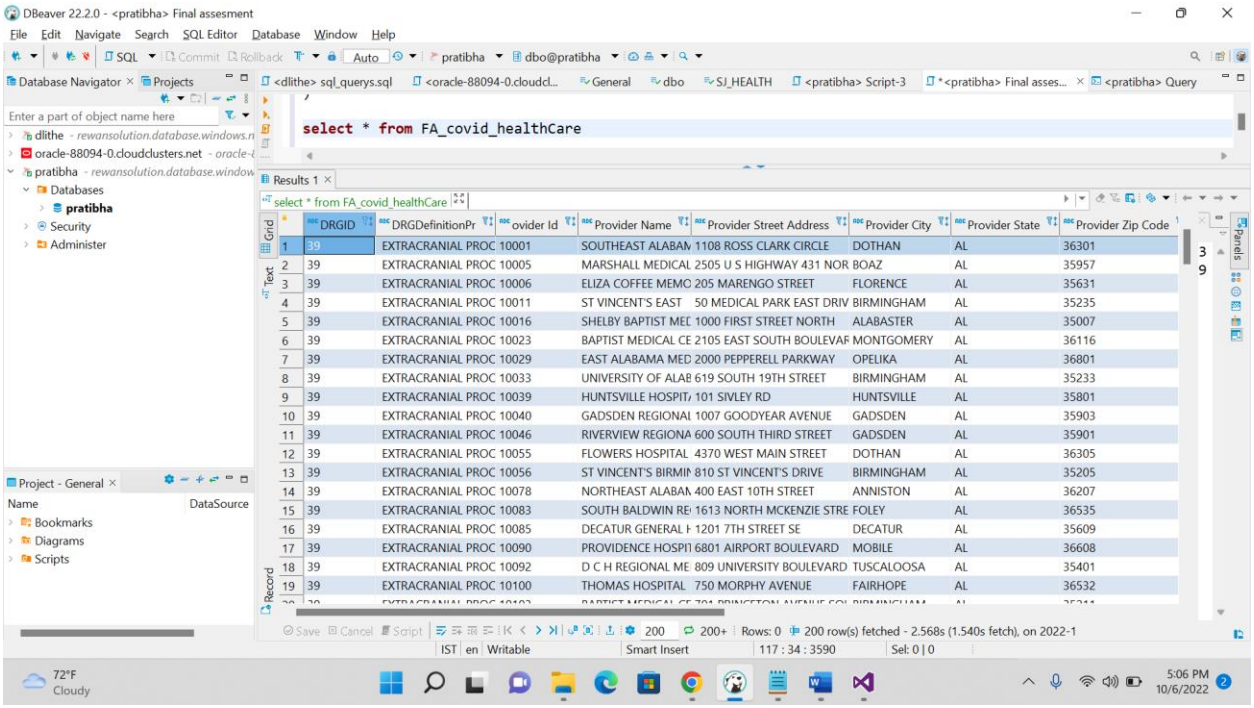
Step4: Map the columns



Step5: RUN the package



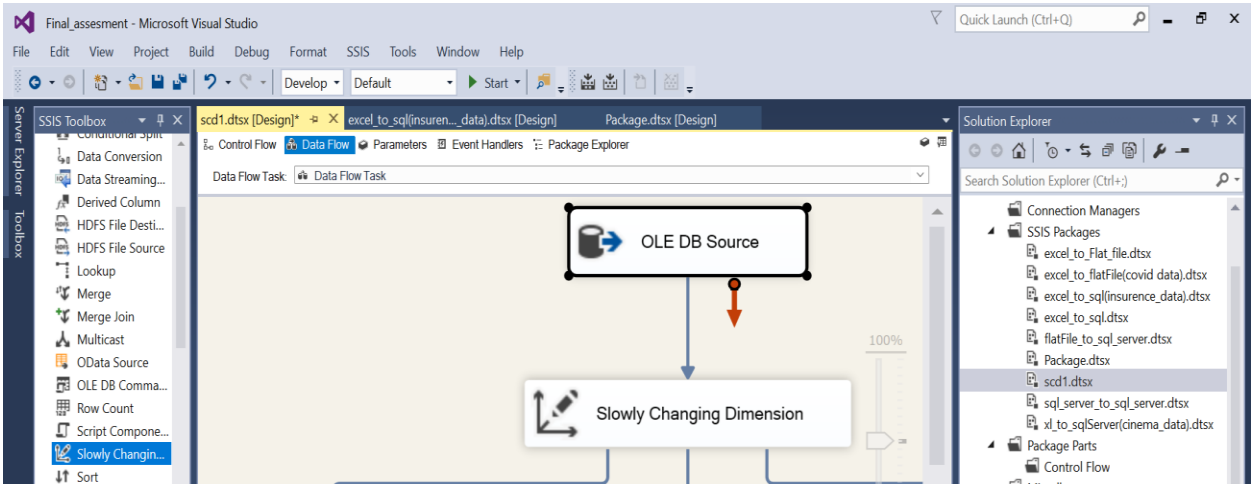
Snapshot shows the data loaded to the target table



Perform SCD 1 & SCD2 dimension table modelling

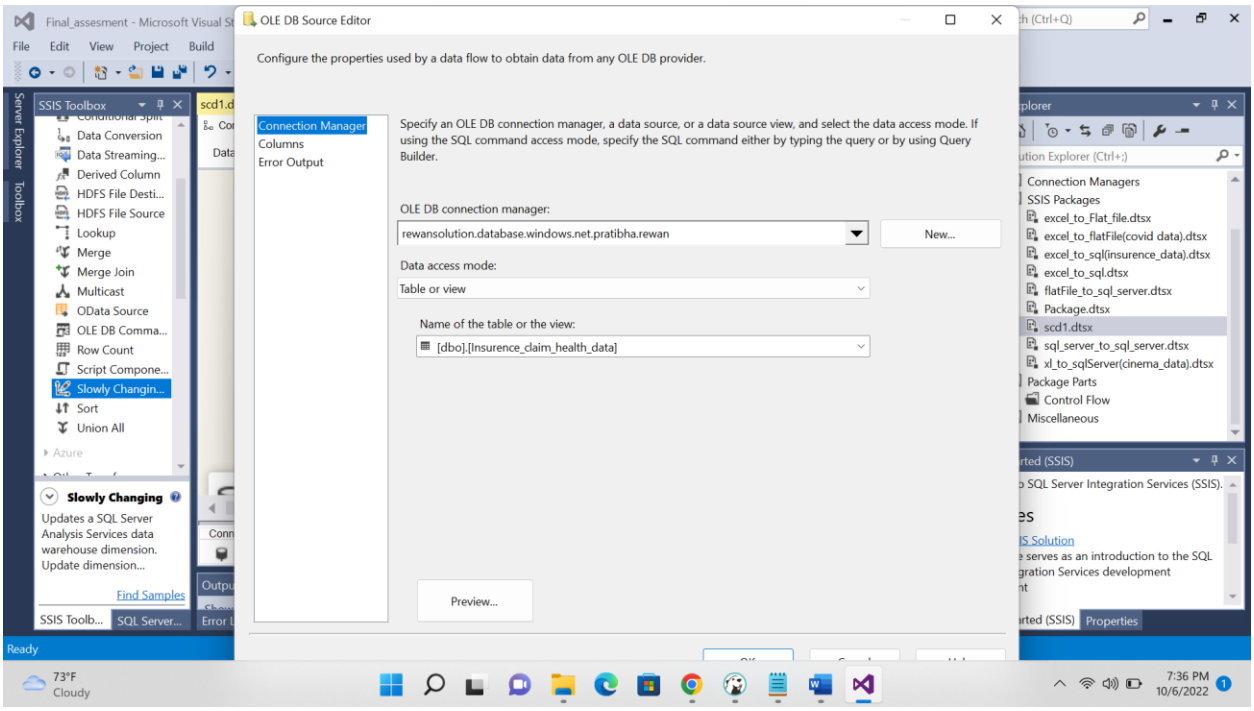
Solution:

Step1: make the as shown in the below



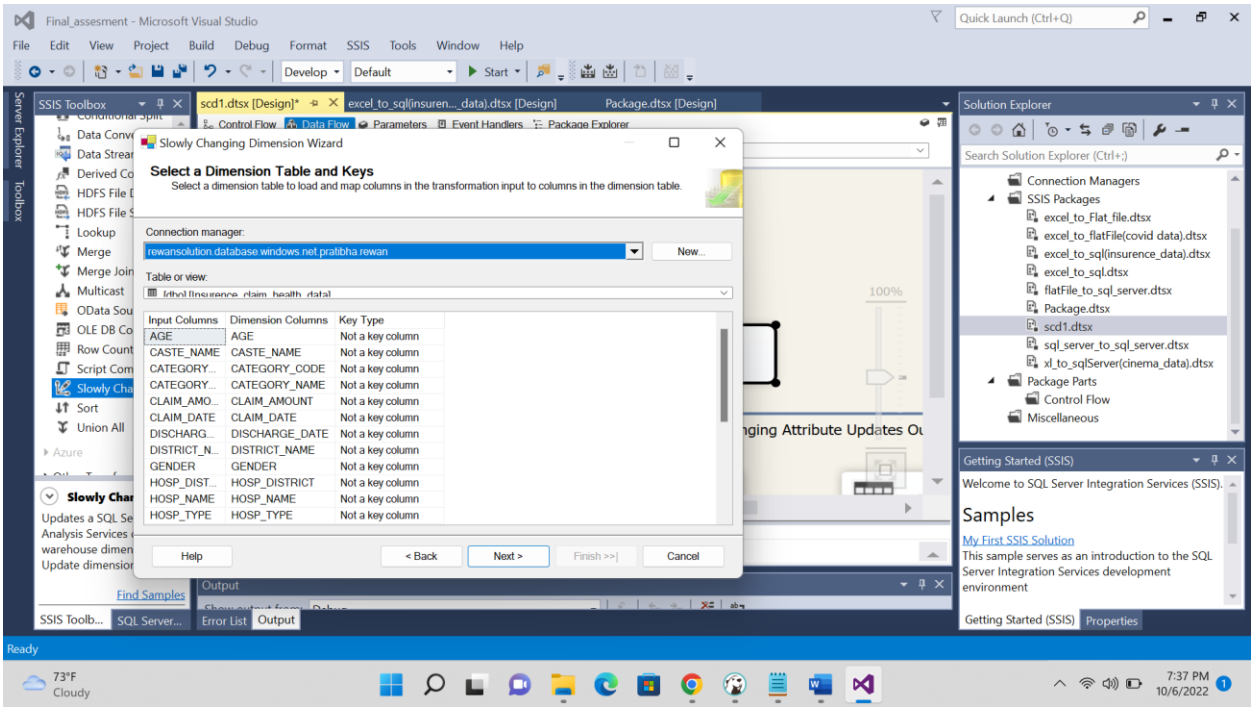
Step2: click on the OLE DB source and select the source table

Step3: check the column and preview the data

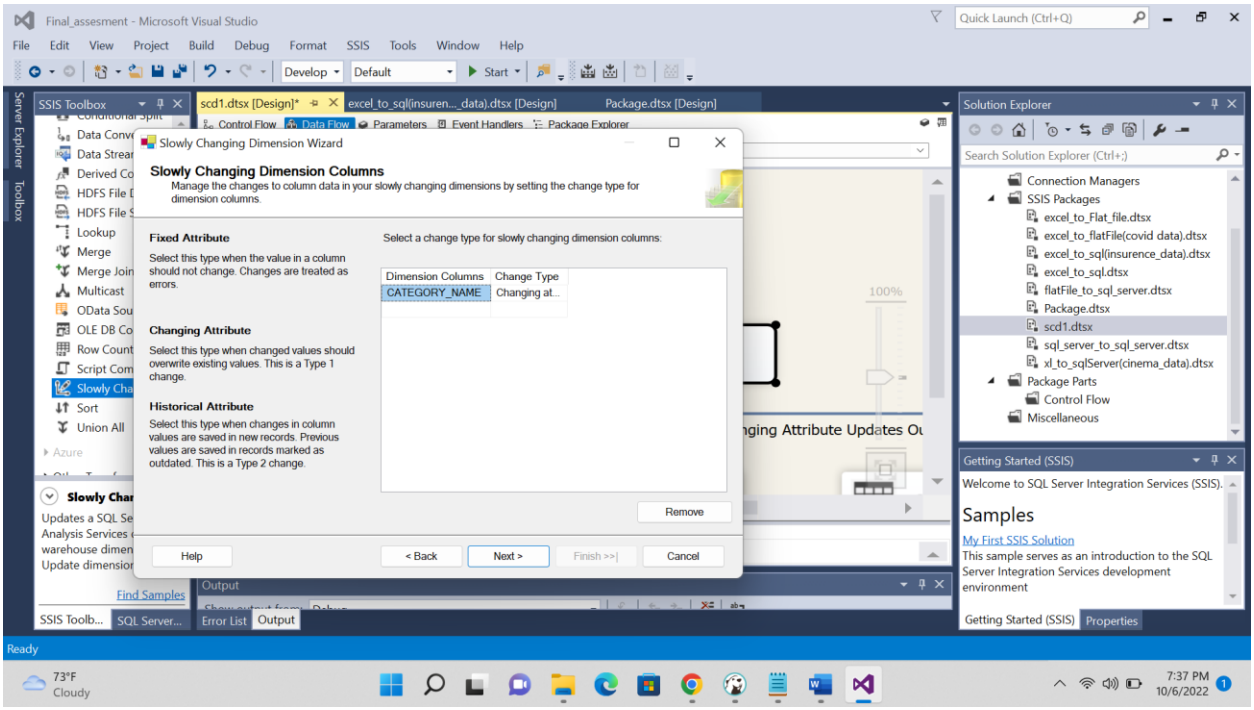


Step4: Double click on the slowly changing Dimension and choose the target table

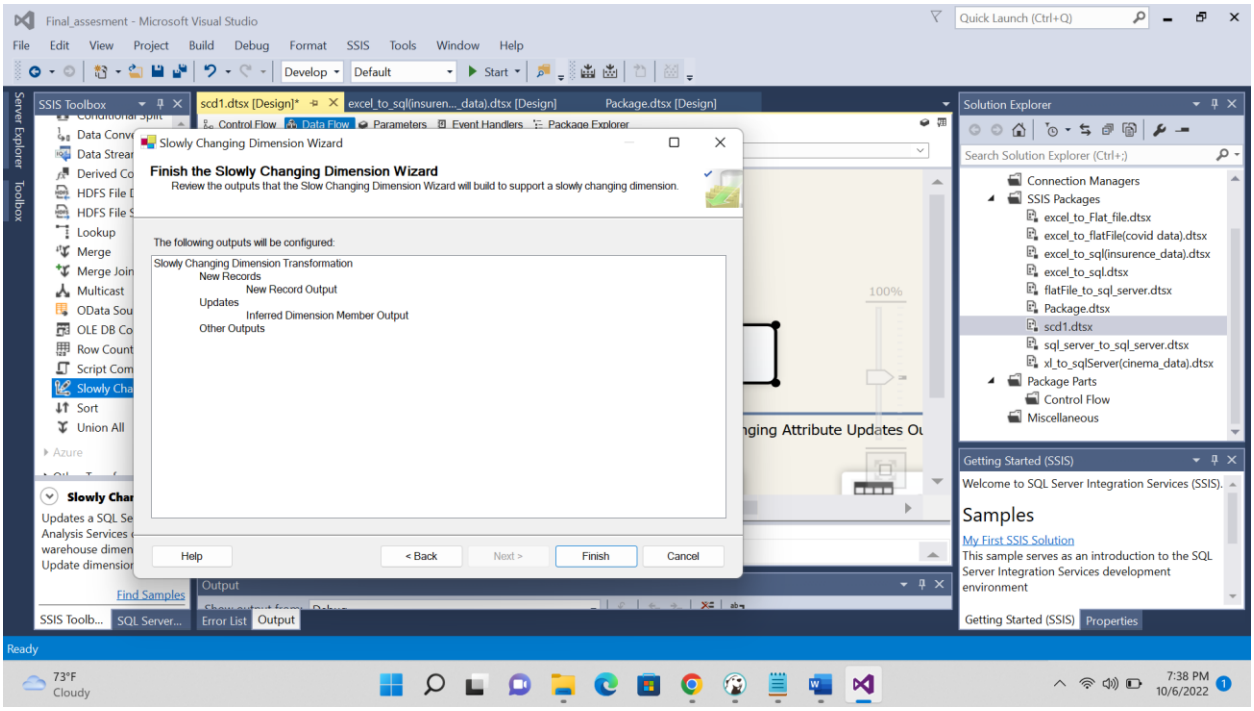
Step5: choose the business key from available column and click on next



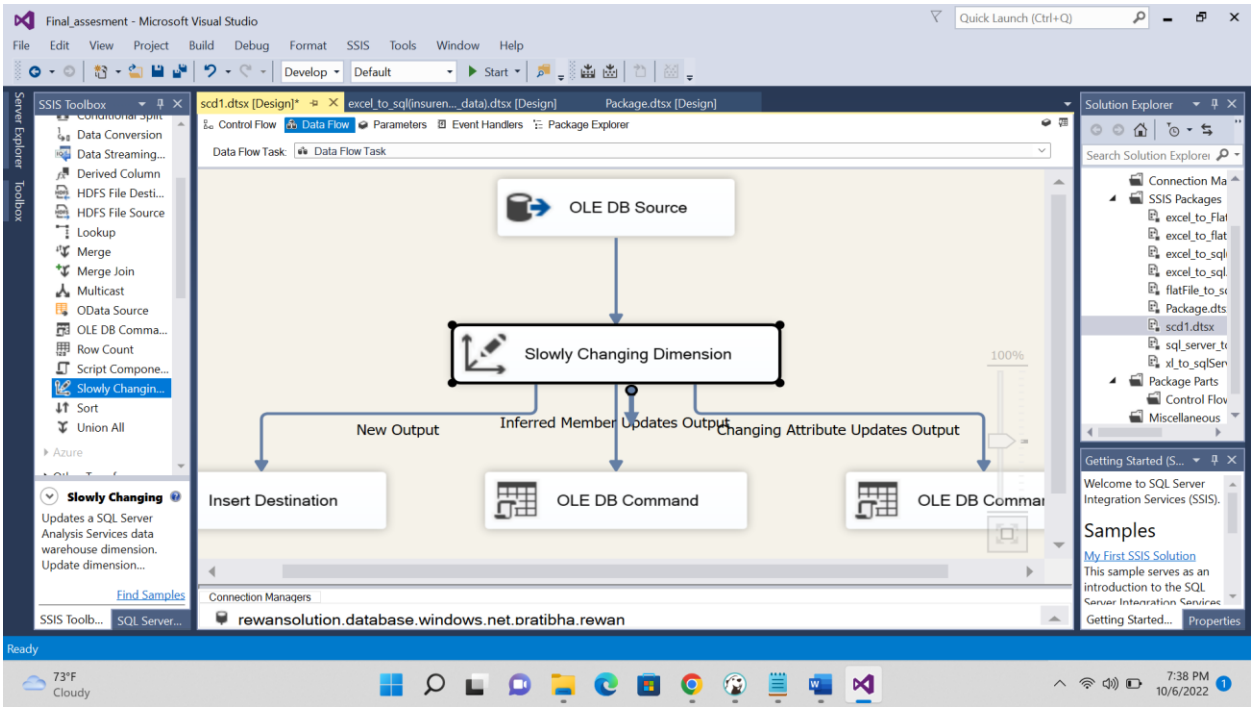
Step6: choose the changing attribute fixed attribute click on next



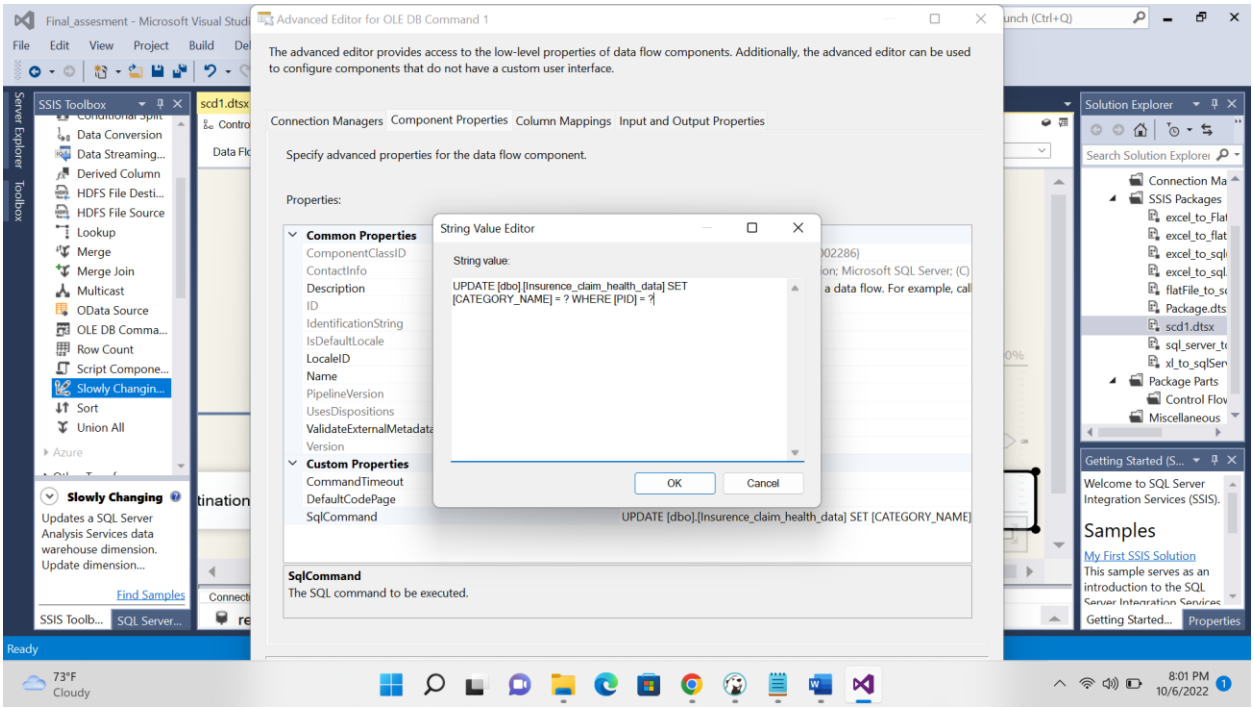
Step 7: click on finish



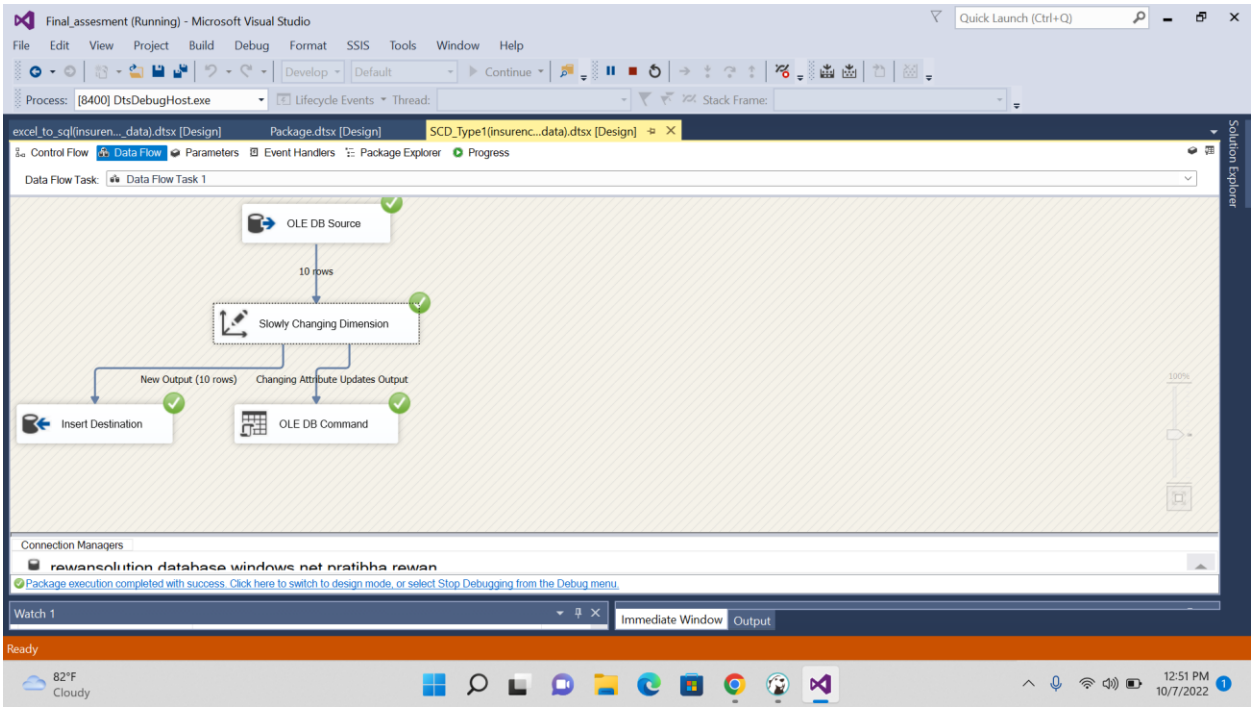
After performing these steps you will get connection as shown in the below snapshot



Step 8: view the update commands



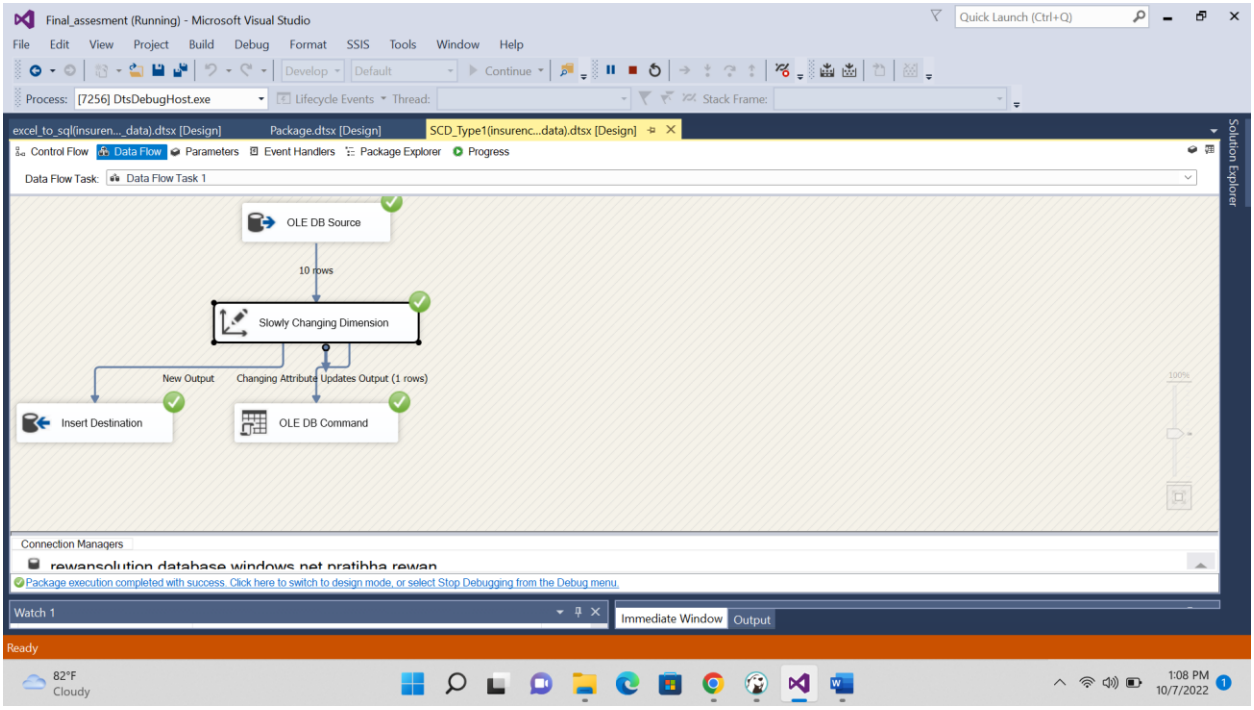
Step9: Run the package



Step 10: after execution update the source column

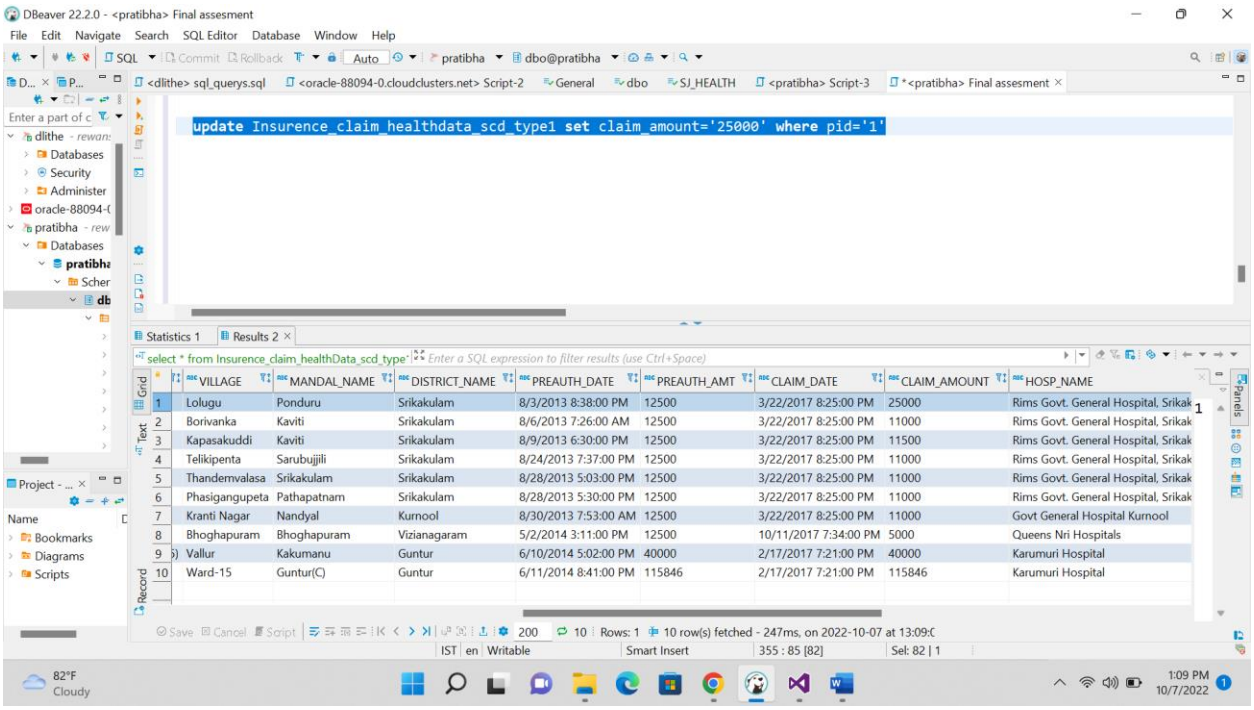
```
update Insurence_claim_healthdata_scd_type1 set claim_amount='25000'
where pid='1'
```

step 11: again, run the package after updating



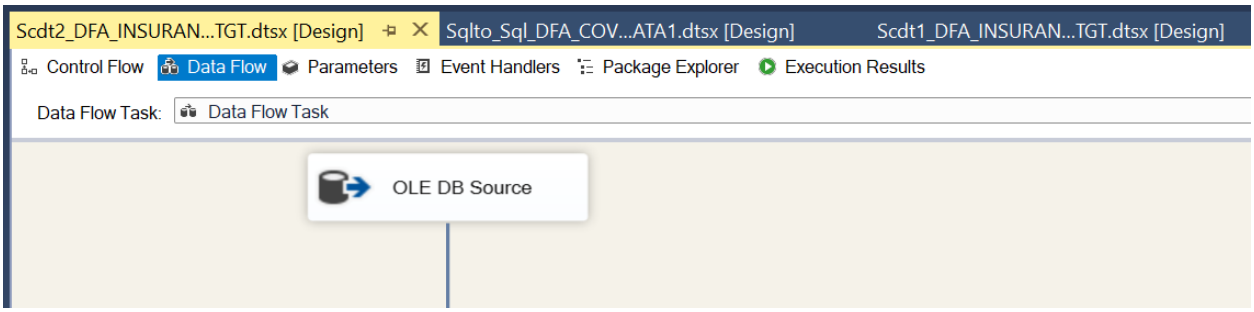
Step12: check the target table

below snap shot show the updated target table



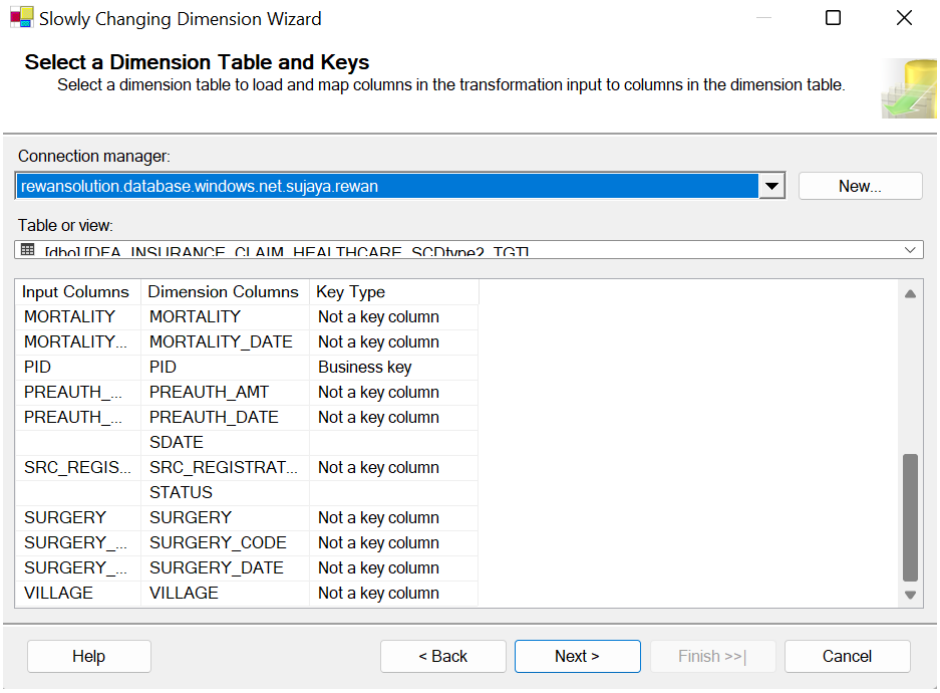
SCD-2

Step1:Drag and Drop the OLE DB source.

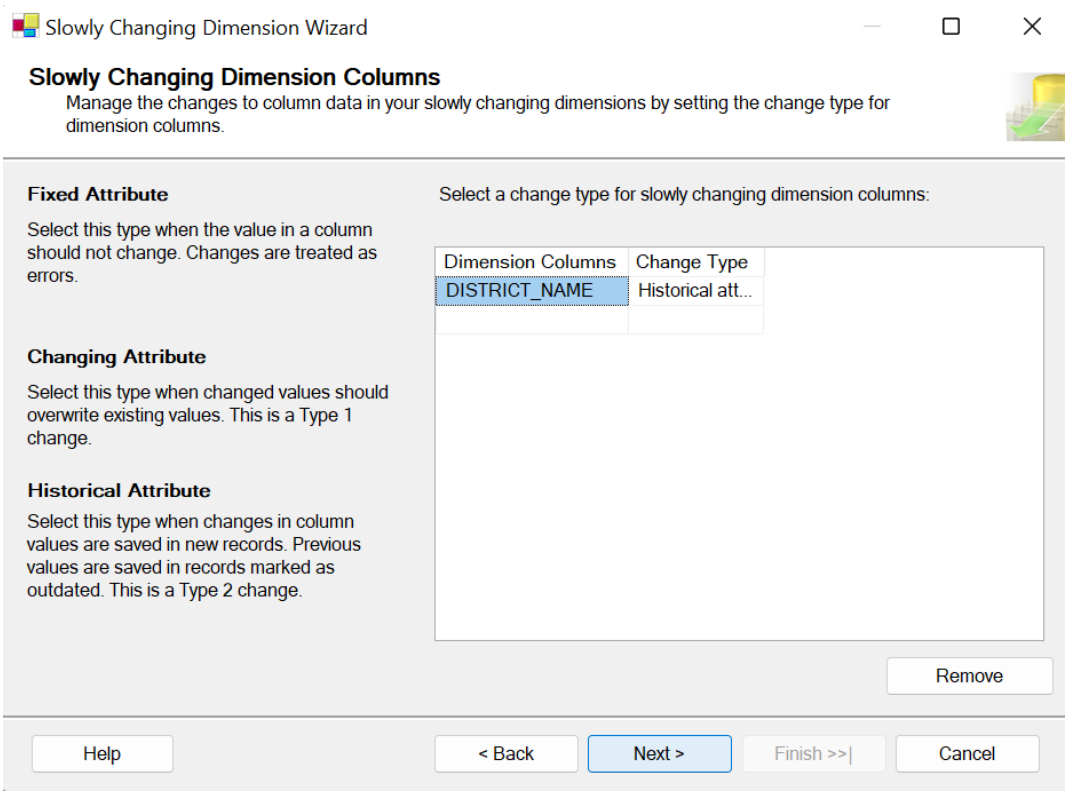


Step2:Double Click on OLB DB source and make the connection and select the source table in database.

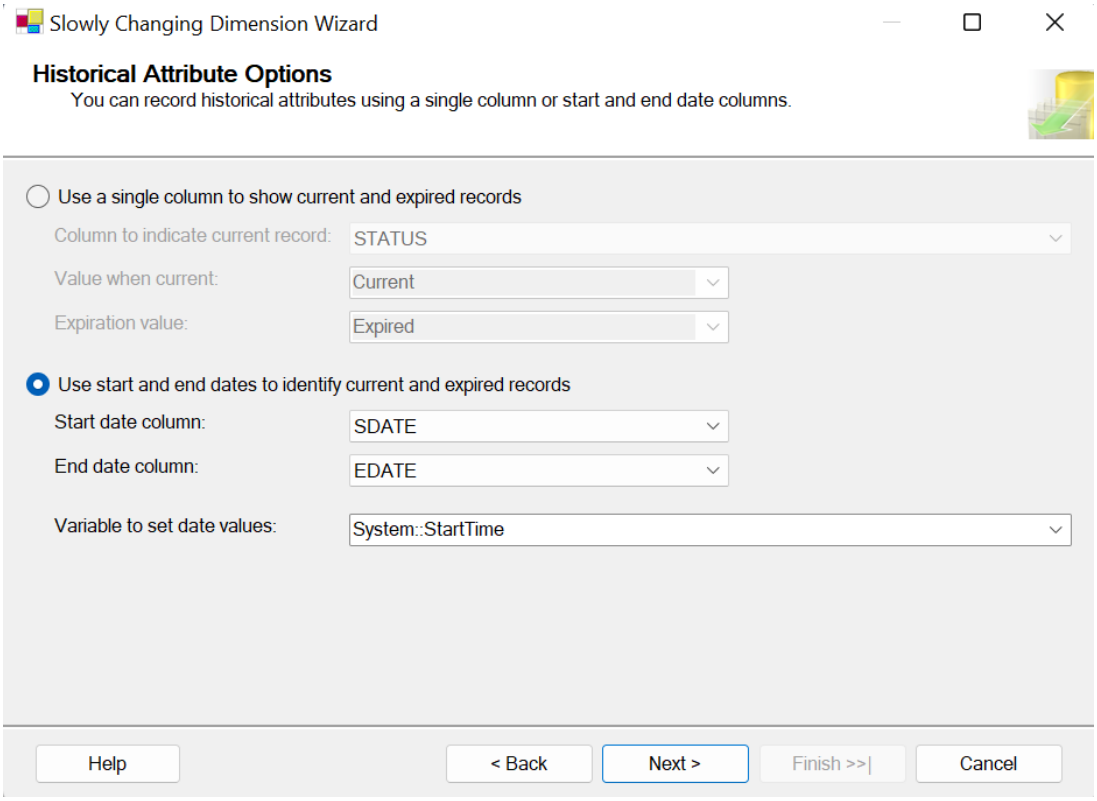
Step3: Drag and Drop the Slowly Changing Dimension and Connect the OLE DB to Scd and double click on Scd and Select the Target table and Business Key.



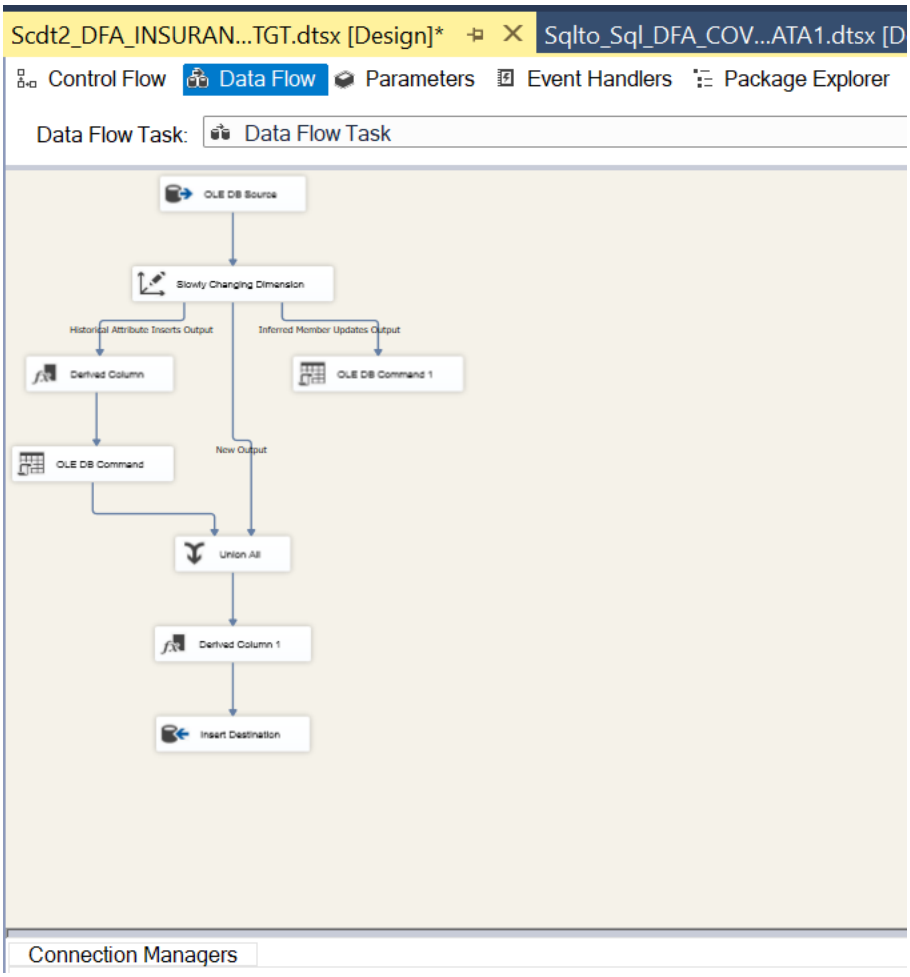
Step4:Select the Historical Attribute as change type for the column and give next.



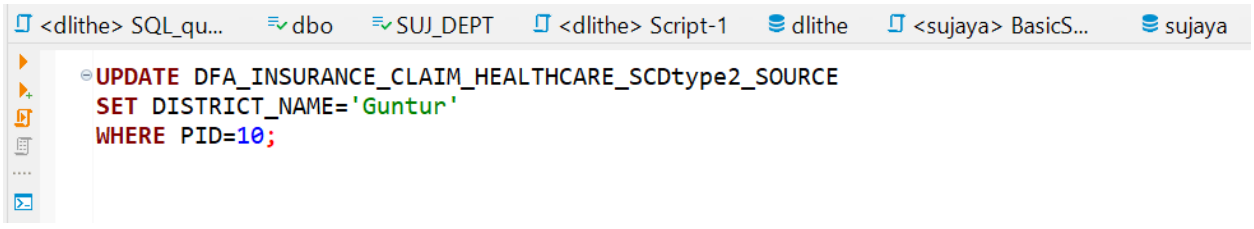
Step5:Select the Start Date and End Date column and set the date values and click Finish.

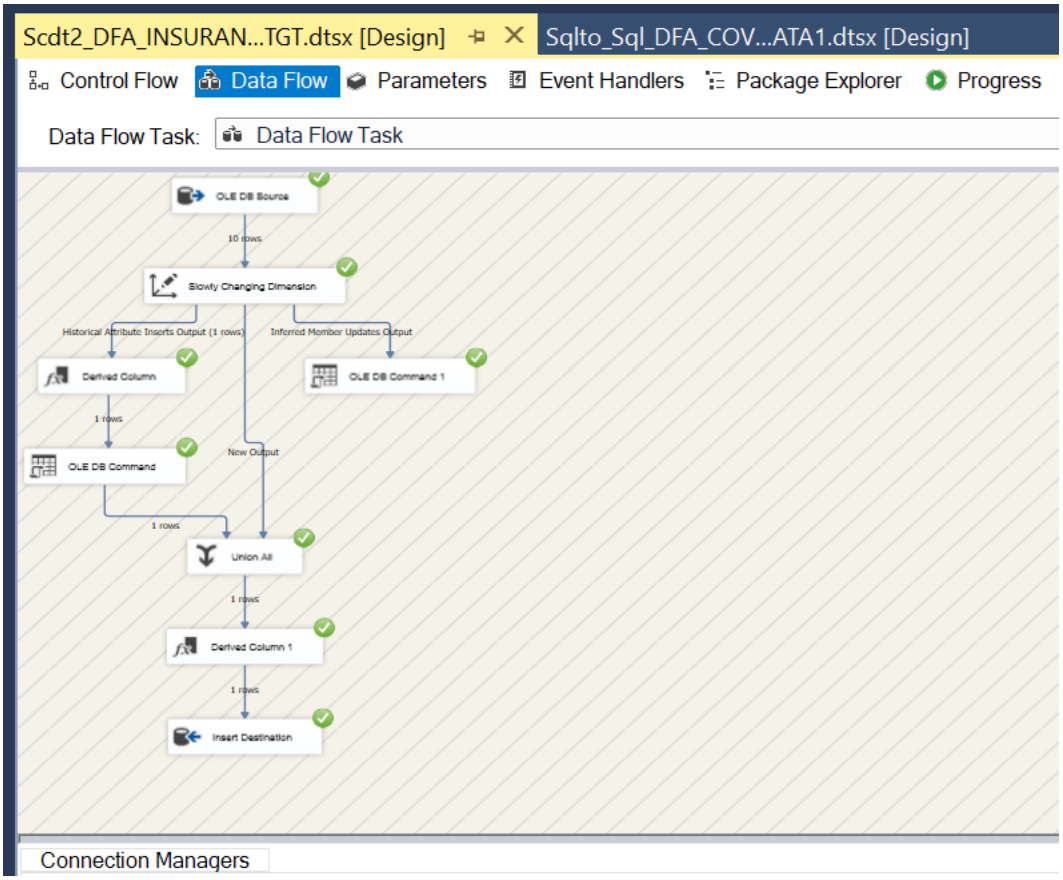


After performing these steps you will get connection as shown in the below snapshot. And save and run the package.

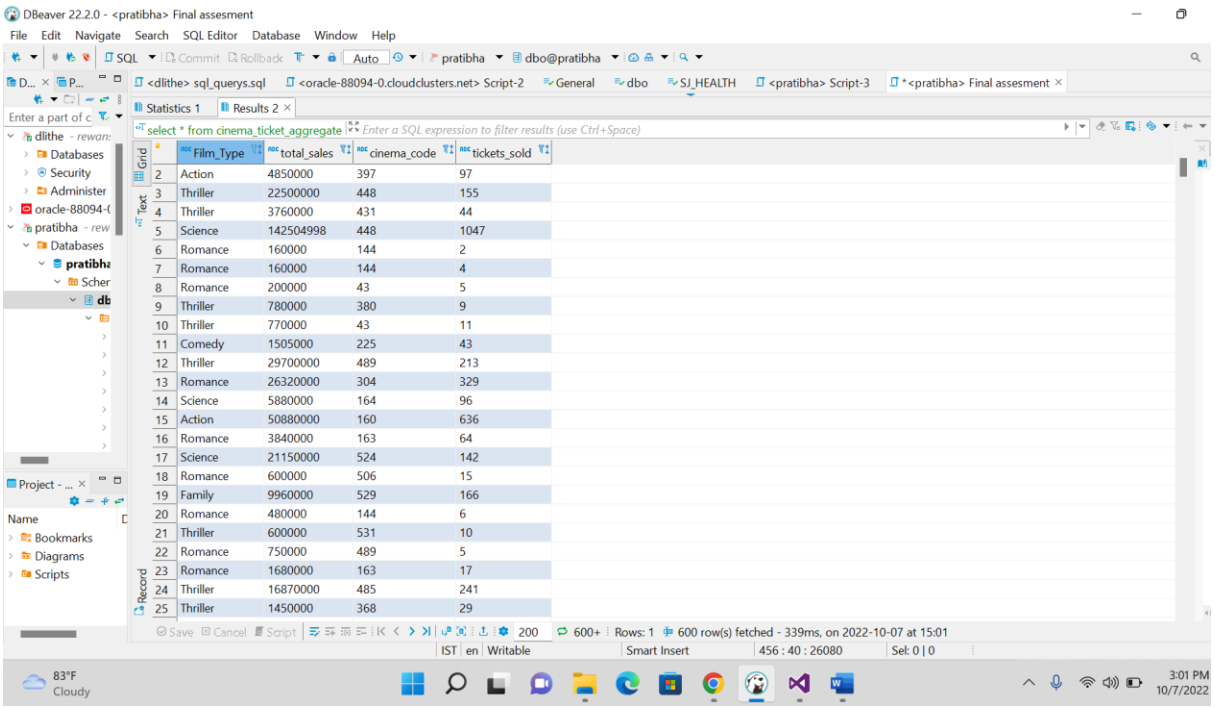


Step6: Go to database and update the source table and run the package again.



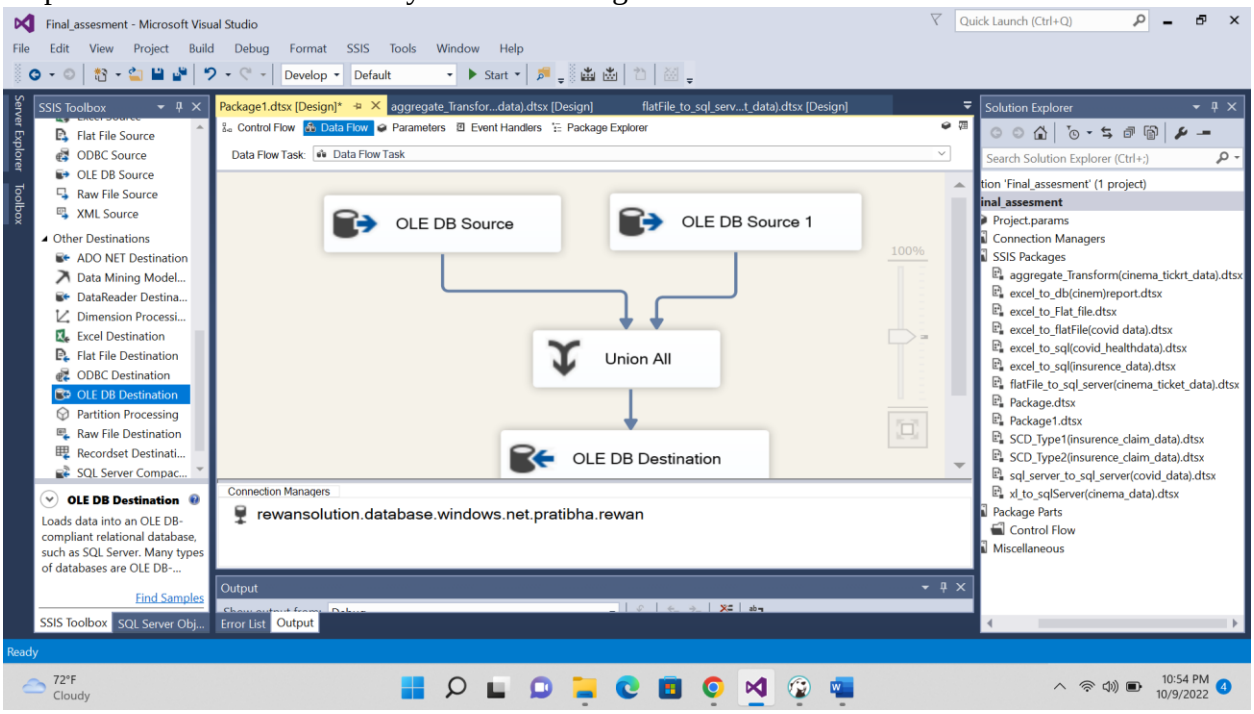


Step7:Check the target table to check whether the records are updated in the table.



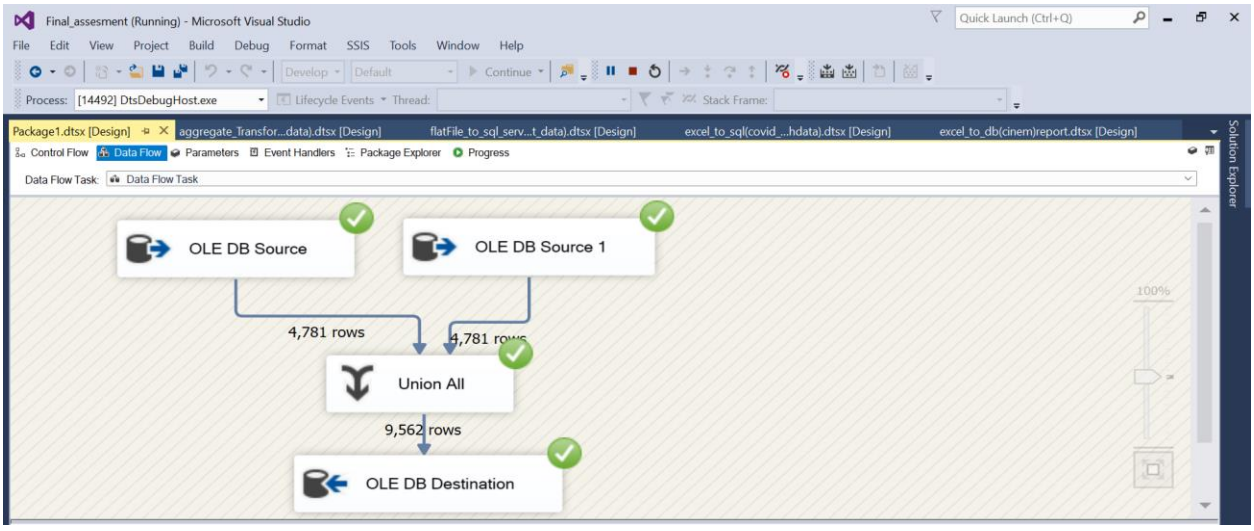
Using union all Transform

Step1: make connection as shown in below
Step 2: select the source table by double clicking OLE DB source

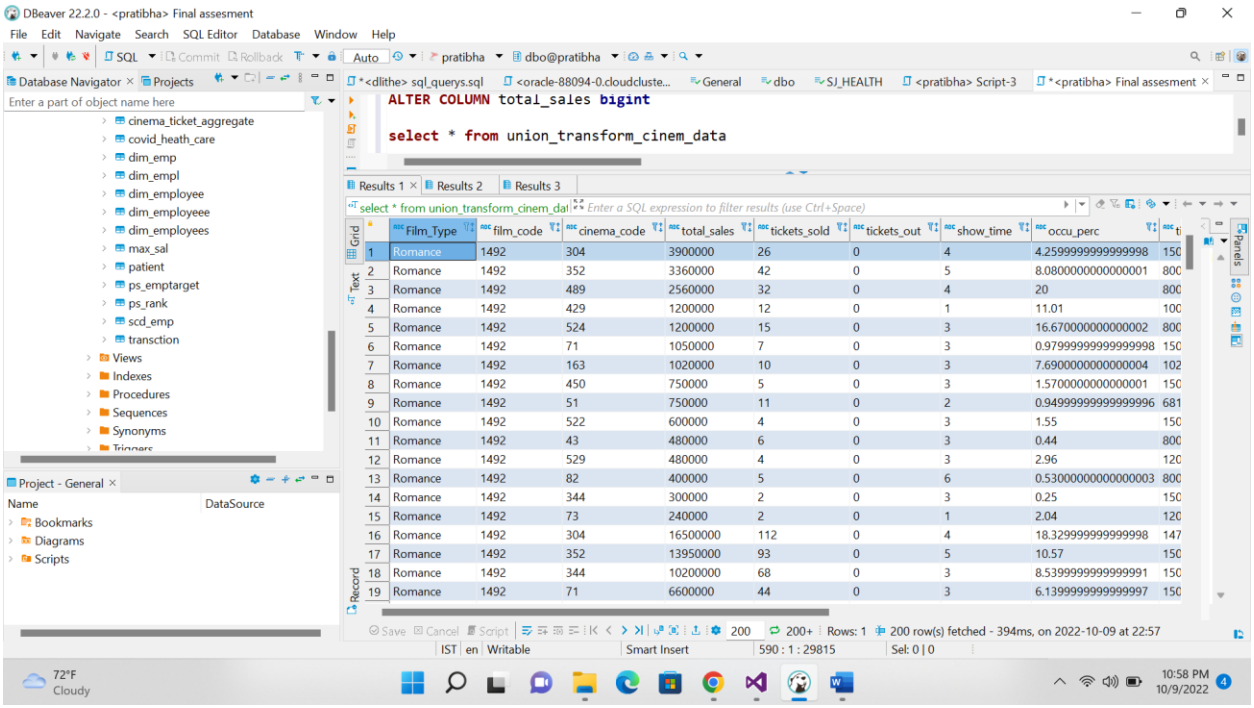


Step3: connect 2 sources to the union then connect to the destination

Step4 : run the package



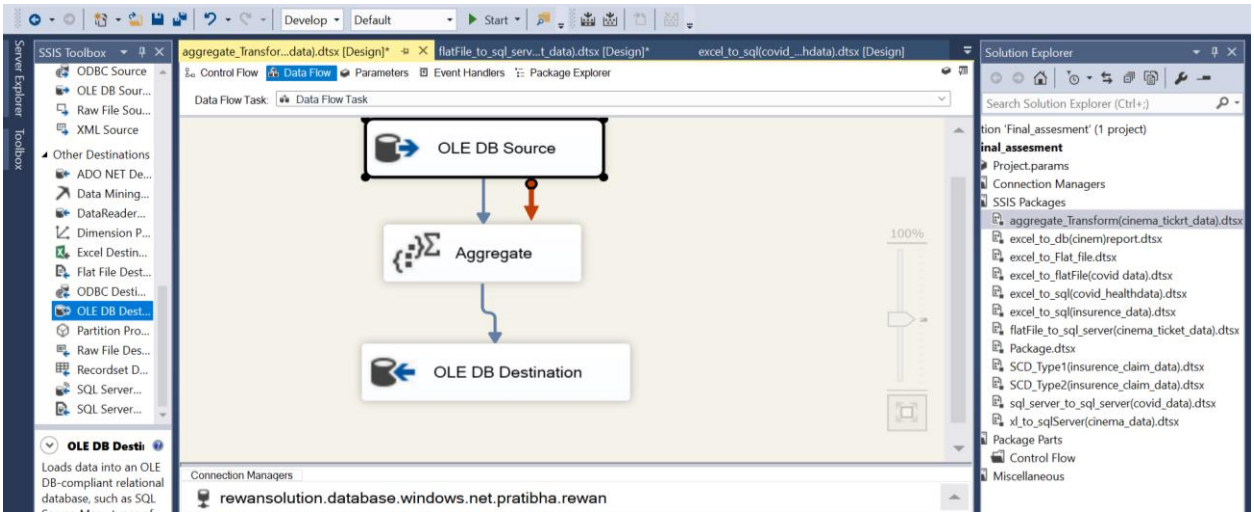
Below snapshot shows the resultant table



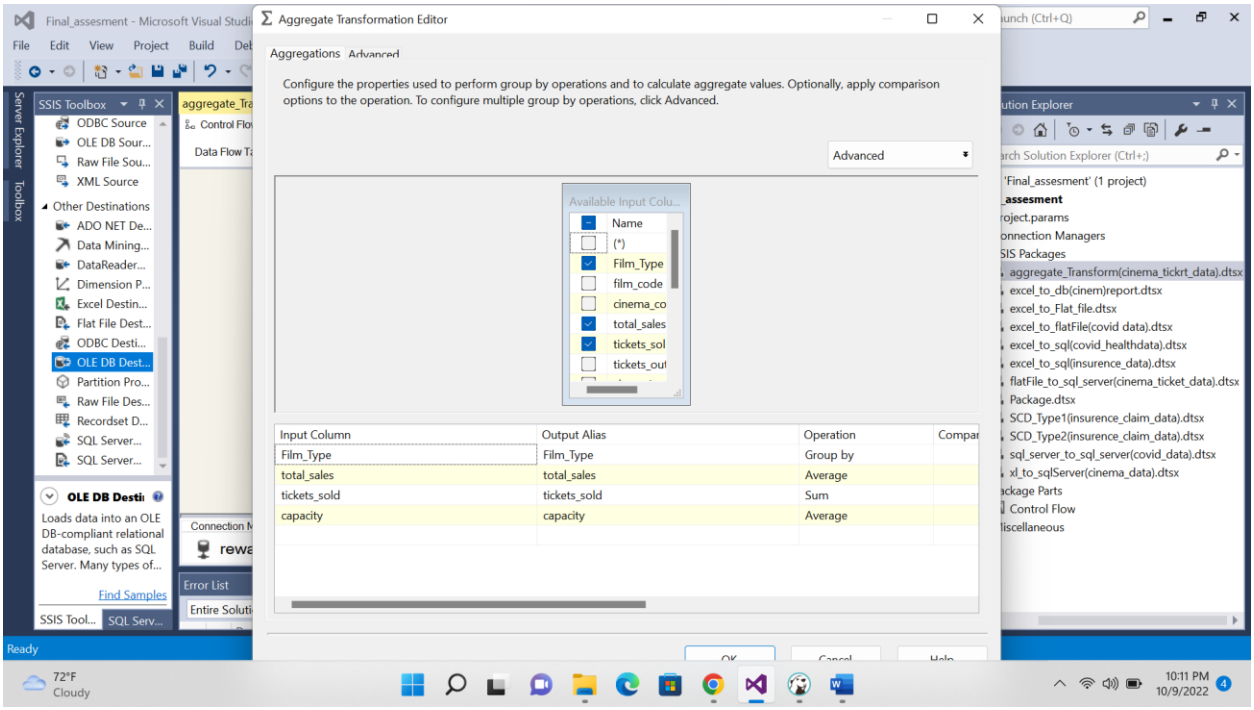
Create aggregate table based on the column

Step1: make connection shown below

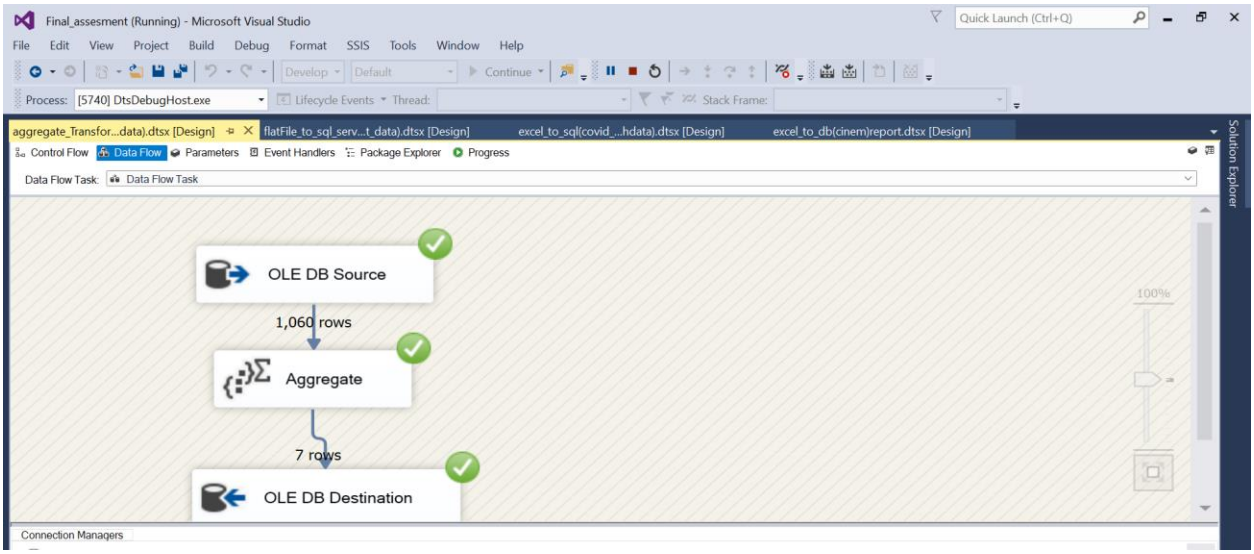
Step2: select source table



Step3: double click on aggregate transform and choose operation as we need



Step4: Run the package



Below snap shows the resultant tabel

```
ALTER COLUMN total_sales bigint

select * from aggreagte_function_cinema_data
```

Results 1 | Results 2 | Results 3

select * from aggreagte_function_cinema | Enter a SQL expression to filter results (use Ctrl+Space)

	Film_Type	total_sales	tickets_sold	capacity
1	Fiction	5,390,076.290076336	11,308	630.4
2	Action	34,796,898.887978144	148,362	1,143.5546448087
3	Science	5,134,899.302013422	8,731	727.2751677852
4	Romance	1,795,401.4598540147	2,154	445.6569343066
5	Thriller	5,069,605.263157895	10,771	754.7631578947
6	Drama	2,686,018.5185185187	1,700	326.0185185185
7	Comedy	1,598,484.8484848484	1,102	741.6060606061