

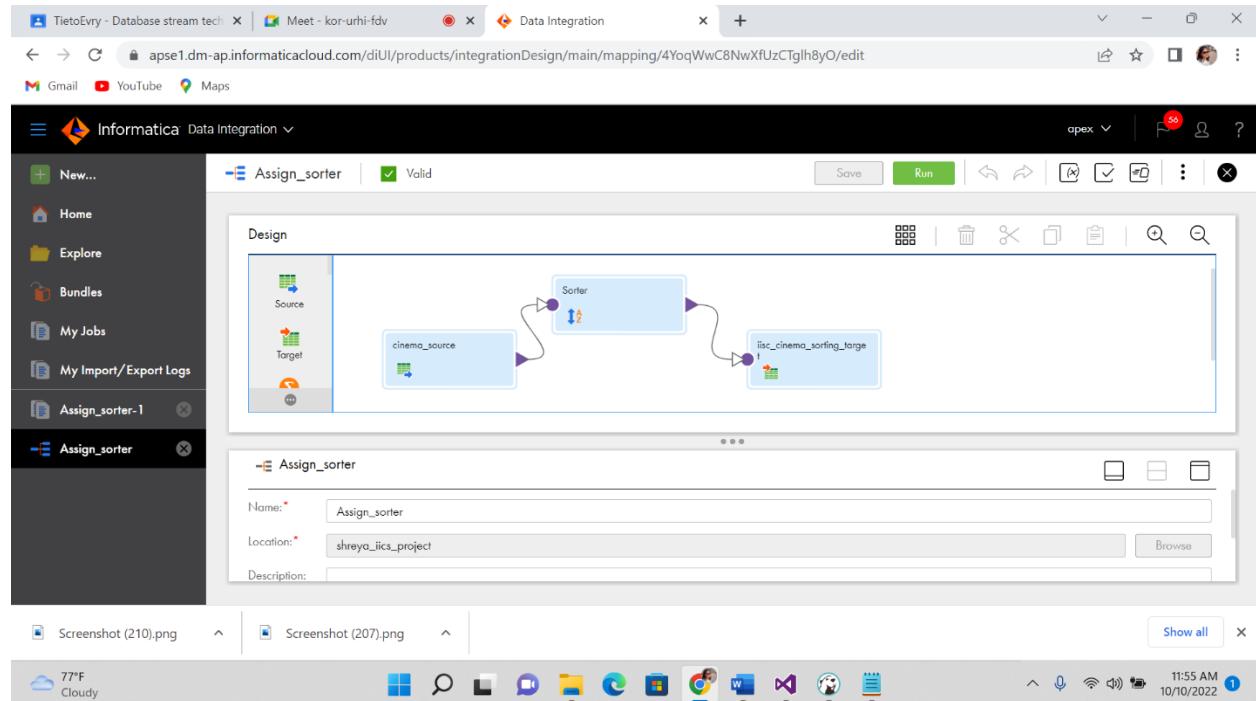
IICS

Module 4 IICS

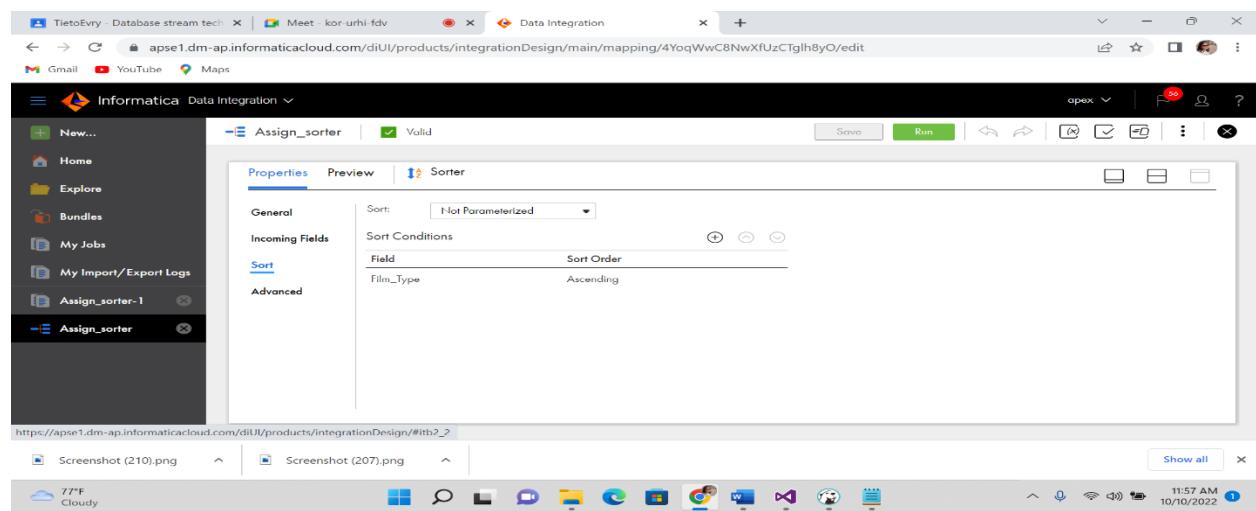
Entry criteria: Transactions tables created in Module 1, task 2

1. Make connection to different data source (Oracle DB, Flat file, SQL Server)
2. Extract
3. Transform
4. Load to new target system - SQL Server

SORTING



Sorting film_type attribute in ascending order ;



OUTPUT TARGET TABLE = **iisc_cinema_sorting_target (OLE DB DESTINATION);**

DBBeaver 22.2.0 - <shreya> Script-1.sql

File Edit Navigate Search SQL Editor Database Window Help

Database Navigator Projects > shreya > dbo:shreya > Auto > shreya > queries.sql > <shreya> Script... > <shreya> SSIS.sql > <shreya> Views.s... > Cinema_ASSIGN_da... > <shreya> IISC.sql > <shreya> DDLML...

Results 1 x

Enter a part of object name here

> <shreya> - rewansolution.database.windows.net:1433

> <shreya> - oracle-88094-0.cloudclusters.net - oracle-88094

> <shreya> - rewansolution.database.windows.net:

SELECT * FROM iisc_cinema_sorting_target

Record	Film_Type	Copy_film_code	Copy_cinema_code	Copy_total_sales	Copy_tickets_sold	Copy_tickets_out	Copy_show_time	occu_pe
1	Action	1.482	448	298,553,998	2,015	0	12	80,019995
2	Action	1.482	34	186,360,000	1,553	0	6	57,520000
3	Action	1.482	163	186,120,000	1,380	0	9	68,790000
4	Action	1.482	304	179,250,000	1,200	0	8	77,670000
5	Action	1.482	182	154,640,000	1,933	0	5	75,099995
6	Action	1.482	344	118,650,000	793	0	4	74,459995
7	Action	1.482	518	115,080,000	1,152	1	12	77,109995
8	Action	1.482	71	113,400,000	769	0	3	70,230000
9	Action	1.482	89	112,200,000	748	0	6	37,490000
10	Action	1.482	195	91,200,000	1,140	0	13	49,140000
11	Action	1.482	141	87,600,000	595	0	6	68,120000
12	Action	1.482	396	80,600,000	806	0	4	65
13	Action	1.482	524	78,300,000	530	1	7	57,799995
14	Action	1.482	210	78,000,000	1,345	0	9	69,079995
15	Action	1.482	142	77,050,000	780	2	6	44,219995
16	Action	1.482	52	71,050,000	713	0	6	35,579995
17	Action	1.482	489	70,550,000	504	0	16	55,43
18	Action	1.482	390	67,800,000	819	0	10	92,609995
19	Action	1.482	450	66,900,000	450	0	4	92,980000
20	Action	1.482	70	63,000,000	630	0	14	12,33
21	Action	1.482	144	60,160,000	752	0	14	13,92
22	Action	1.482	262	59,000,000	594	0	3	61,880000
23	Action	1.482	417	58,700,000	605	0	5	30,960000

Record

Save Cancel Script | IST en Writable Smart Insert | 200 200+ Rows: 1 200 row(s) fetched - 170ms (29ms fetch), on 2022-11-10 11:57 AM 10/10/2022

Cloudy 77°F

5. Perform SCD 1 & SCD2 dimension table modelling

SCD-1

Setting

Source = T_FINAL_CARS_1000.

Expression = MD5(SupplierID || CarModelYear || CarPrice)

Lookup object = assign_iisc_cars_SCD1.

Lookup Condition as shown below.

TietoEvry - Database stream tech | Meet - kor-urhi-fdv | Data Integration

apse1.dm-ap.informaticacloud.com/diUI/products/integrationDesign/main/mapping/1Bg942AT0h3jhBhjk0fEJ/edit

Gmail YouTube Maps

Informatica Data Integration

ASSIGN_SCD1_cars Valid Save Run

Design

Properties Preview Lookup

Lookup Object: Simple

Lookup Conditions

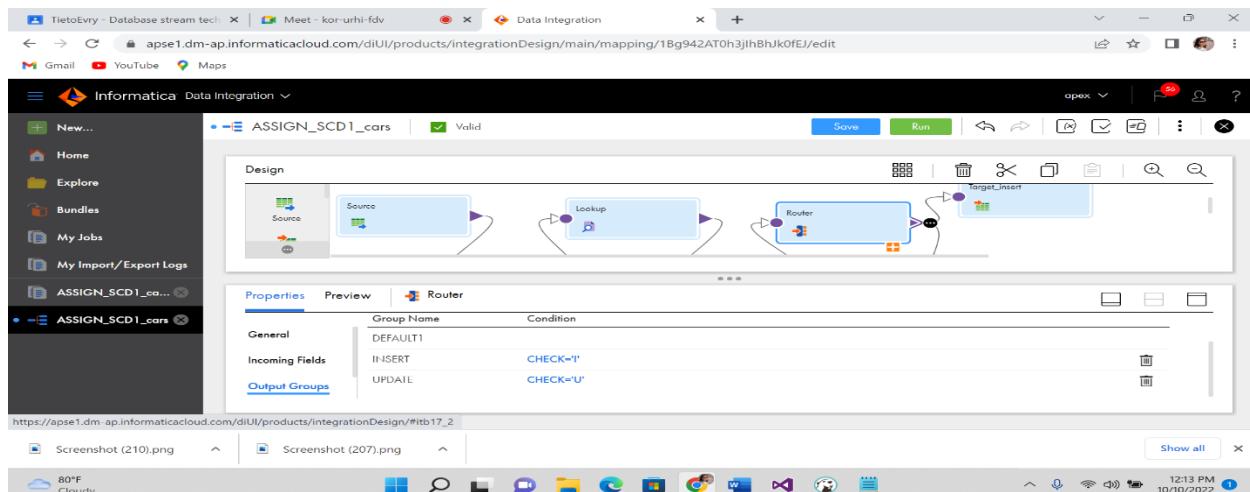
Return Fields	Lookup Field	Operator	Incoming Field
	tar_SupplierID	=	SupplierID

Screenshot (210).png Screenshot (207).png Show all

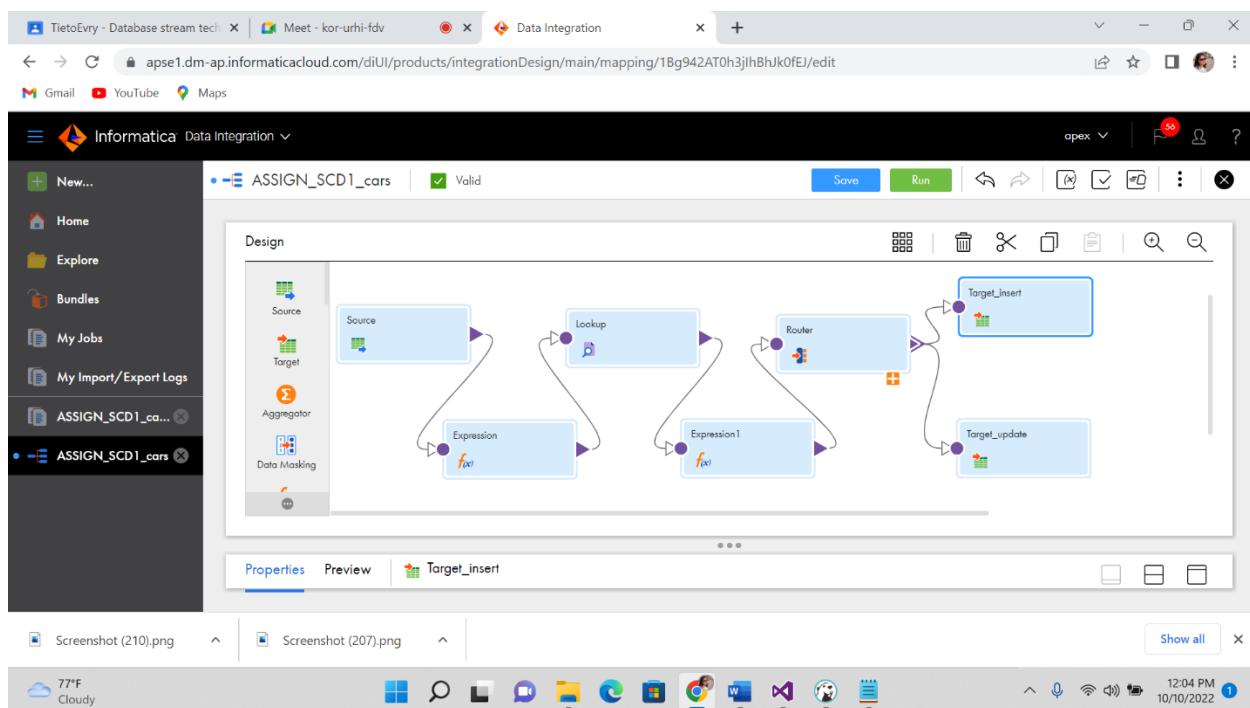
Cloudy 80°F

Expression1 = IIF(ISNULL(tar_SupplierID), 'I', IIF(Checksum!=tar_Checksum,'U')).

Router =



Setting the target and mapping the fields in both the target tables.



Run the package.

The screenshot shows the Informatica Data Integration interface with the "My Jobs" tab selected. The table lists 16 jobs, all of which have been updated to date. The columns include Instance Name, Location, Subtasks, Start Time, End Time, Rows Processed, and Status. Most jobs show a green checkmark indicating success, while one job, "Mapping33-1", shows a red X indicating failure.

Instance Name	Location	Subtasks	Start Time	End Time	Rows Processed	Status
Replication Task4-1	shreya_iics_pro...	1 task	Oct 7, 2022, 12:00 A...	Oct 7, 2022, 1...	0	Success
ASSIGN_SCD2_cars-2	shreya_iics_pro...	1 task	Oct 8, 2022, 5:43 A...	Oct 8, 2022, 5...	4	Success
ASSIGN_SCD2_cars_1	shreya_iics_pro...	1 task	Oct 8, 2022, 5:43 A...	Oct 8, 2022, 5...	1000	Success
ASSIGN_SCD1_cars-4	shreya_iics_pro...	1 task	Oct 8, 2022, 3:57 A...	Oct 8, 2022, 3...	1	Success
ASSIGN_SCD1_cars-3	shreya_iics_pro...	1 task	Oct 8, 2022, 3:39 A...	Oct 8, 2022, 3...	1000	Success
ASSIGN_SCD1_cars-2	shreya_iics_pro...	1 task	Oct 8, 2022, 3:05 A...	Oct 8, 2022, 3...	1000	Success
ASSIGN_SCD1_cars_1	shreya_iics_pro...	1 task	Oct 8, 2022, 2:26 A...	Oct 8, 2022, 2...	9	Success
Assign_sorter-1	shreya_iics_pro...	1 task	Oct 7, 2022, 11:27 A...	Oct 7, 2022, 1...	2000	Success
Mapping33-1	shreya_iics_pro...	1 task	Oct 1, 2022, 1:17 A...	Oct 1, 2022, 1...	0	Failed
Mapping31-1	shreya_iics_pro...	1 task	Sep 30, 2022, 5:50 P...	Sep 30, 2022, ...	13697	Success

Output in destination table.

Changing the attribute values carprice and carmodelyear in source.

Run the package.

The screenshot shows the Informatica Data Integration interface. On the left, there's a sidebar with options like 'New...', 'Home', 'Explore', 'Bundles', 'My Jobs' (which is selected), 'My Import/Export Logs', 'ASSIGN_SCD1_cars', and 'ASSIGN_SCD1_cars'. The main area is titled 'My Jobs' and shows a table of 17 jobs. The columns include 'Instance Name', 'Location', 'Subtasks', 'Start Time', 'End Time', 'Rows Processed', and 'Status'. Most jobs are marked as 'Success' with green checkmarks, except for two which are 'Warning' (yellow exclamation marks). The status bar at the bottom right indicates it's 12:26 PM on 10/10/2022.

The values has been updated in target table = **assign_iisc_cars_SCD1;**

The screenshot shows the DBBeaver 22.2.0 interface. A SQL query 'select * from assign_iisc_cars_SCD1;' is run against a database named 'shreya'. The results grid displays 21 rows of data. The columns are: tar_CarColor, tar_CarModelYear, tar_CarPrice, tar_CustomerID, tar_CustomerName, tar_Gender, tar_JobTitle, and tar_PhoneN. The data includes entries like 'Red', '2007', '111.111.1', '60760-224', 'Louie Hinsche', 'Male', 'Mechanical Systems Engineer', and '907-966-332'. The status bar at the bottom right indicates it's 12:27 PM on 10/10/2022.

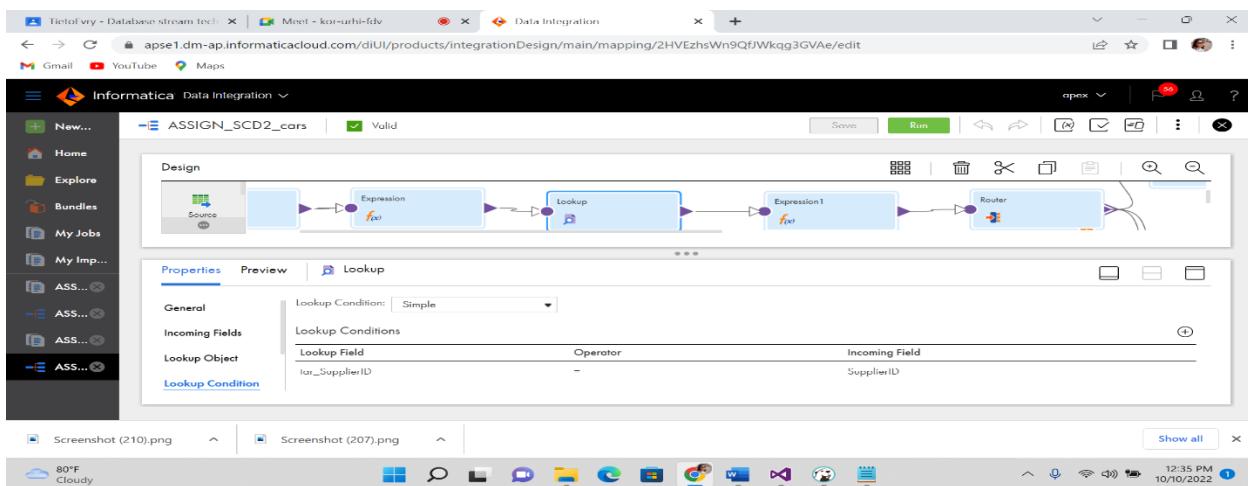
SCD-2

Source = T_FINAL_CARS_1000

Expression= MD5(SupplierID | CarModelYear | CarPrice)

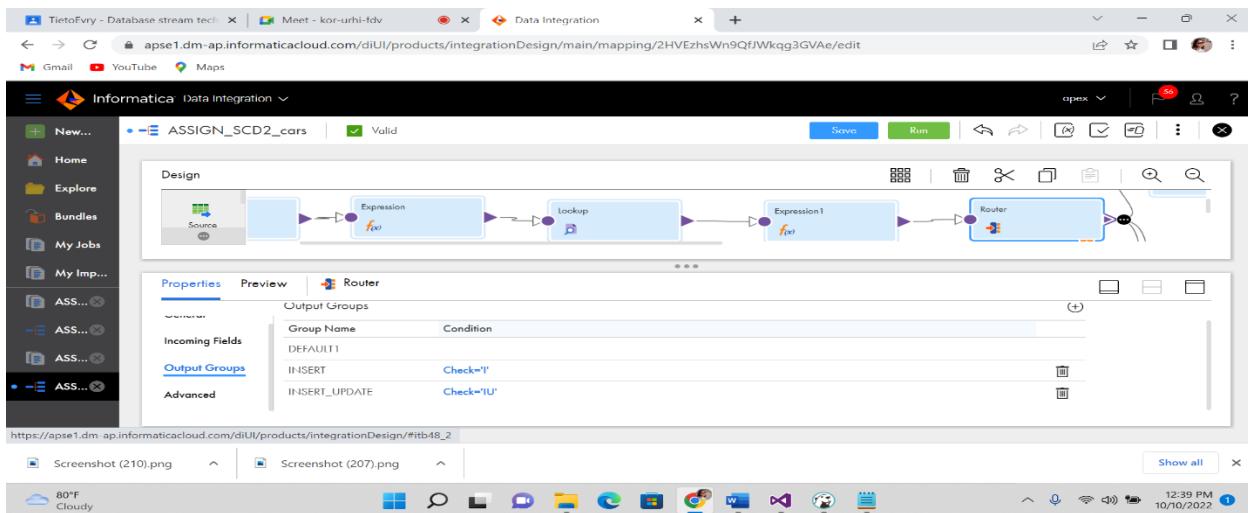
Lookup object = assign_iics_cars_SCD2

Lookup condition as shown below.

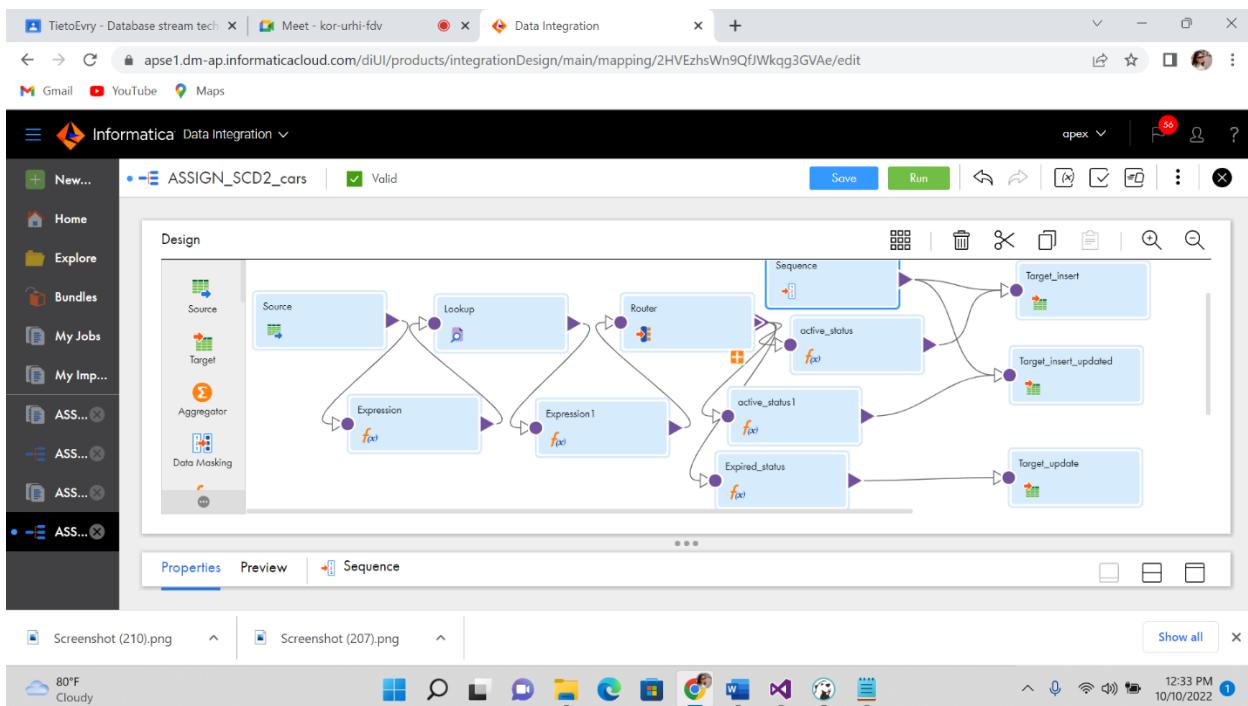


Expression1 = IIF(ISNULL(tar_SupplierID), 'I', IIF(Checksum!=tar_Checksum,'IU'))

Router



Set active_status,active_status1 , expired_status and sequence to the target tables.



Run the package.

Jobs (17) Up to date

Instance Name	Location	Subtasks	Start Time	End Time	Rows Processed	Status
Replication Task1	shreya_iics_project	1 task	Oct 9, 2022, 12:04 AM	Oct 9, 2022, 12:04 AM	0	Success
ASSIGN_SCD2_cars-2	shreya_iics_project	1 task	Oct 8, 2022, 5:43 AM	Oct 8, 2022, 5:43 AM	4	Success
ASSIGN_SCD2_cars-1	shreya_iics_project	1 task	Oct 8, 2022, 5:30 AM	Oct 8, 2022, 5:30 AM	1000	Success
ASSIGN_SCD1_cars-4	shreya_iics_project	1 task	Oct 8, 2022, 3:57 AM	Oct 8, 2022, 3:57 AM	1	Success
ASSIGN_SCD1_cars-3	shreya_iics_project	1 task	Oct 8, 2022, 3:39 AM	Oct 8, 2022, 3:40 AM	1000	Success
ASSIGN_SCD1_cars-2	shreya_iics_project	1 task	Oct 8, 2022, 3:05 AM	Oct 8, 2022, 3:06 AM	1000	Success
ASSIGN_SCD1_cars-1	shreya_iics_project	1 task	Oct 8, 2022, 2:26 AM	Oct 8, 2022, 2:26 AM	9	Success
Assign_sorter-1	shreya_iics_project	1 task	Oct 7, 2022, 11:27 PM	Oct 7, 2022, 11:27 PM	2000	Success
Mapping33_1	shreya_iics_project	1 task	Oct 1, 2022, 1:17 AM	Oct 1, 2022, 1:17 AM	0	Failed
Mapping31_1	shreya_iics_project	1 task	Sep 30, 2022, 5:50 AM	Sep 30, 2022, 5:50 AM	1369/	Success

Changing the attribute values carprice and carmodelyear in source.

```

SELECT * FROM T_FINAL_CARS_1000;
select * from Cinema_ASSIGN_data;
select * from Final_original_cars_data;
select DISTINCT film_type from TARGET_CINEMA_IICS;
select * from TARGET_CINEMA_IICS_FINAL;
select * from TARGET_CARS_IICS;

UPDATE T_FINAL_CARS_1000
SET CarPrice= '10000.3'
where SupplierID=2;

UPDATE T_FINAL_CARS_1000
SET CarModelYear = '2030'
where SupplierID=3;
-----FINAL-----

```

CarModel	CarColor	CarModelYear	CarPrice	CustomerID	CustomerName	Gender	JobTitle	PhoneNU
Ram 2500	Red	2.007	111,111.3	60760-224	Louie Hinsche	Male	Mechanical Systems Engineer	907-966-32
Tundra	Crimson	2.010	10,000.3	67457-594	Alexandros Manuel	Male	Structural Engineer	320-943-93
Savana 1500	Crimson	2.030	504,465.72	58411-135	Alvia Weighell	Male	Systems Administrator III	312-561-82
Cabriolet	Fuscia	1.990	646,077.11	0591-5307	Flint Gunston	Male	Operator	407-830-31
Mariner	Teal	2.009	699,890.24	51655-189	Alyssa Filipi	Female	Software Engineer III	313-870-72

Run the package.

Jobs (18) Updates available

Instance Name	Location	Subtasks	Start Time	End Time	Rows Processed	Status
ASSIGN_SCD2_cars-3	shreya_iics_project	1 task	Oct 10, 2022, 12:20 AM	Oct 10, 2022, 12:20 AM	6	Success
ASSIGN_SCD1_cars-3	shreya_iics_project	1 task	Oct 9, 2022, 11:57 PM	Oct 9, 2022, 11:57 PM	3	Success
Replication Task1	shreya_iics_project	34 tasks	Oct 9, 2022, 5:57 AM	Oct 9, 2022, 7:2...	31052	Success
ASSIGN_LAGGREGATE_C...	shreya_iics_project	1 task	Oct 9, 2022, 12:45 AM	Oct 9, 2022, 12:45 AM	54	Success
ASSOC_AGGREGATE_FIN...	shreya_iics_project	1 task	Oct 9, 2022, 12:38 AM	Oct 9, 2022, 12:38 AM	9	Success
IICS_aggregate_2	shreya_iics_project	1 task	Oct 9, 2022, 12:08 AM	Oct 9, 2022, 12:08 AM	9	Warning
IICS_aggregate_1	shreya_iics_project	1 task	Oct 9, 2022, 12:23 AM	Oct 9, 2022, 12:23 AM	9	Warning
Replication Task4-2	shreya_iics_project	1 task	Oct 9, 2022, 12:08 AM	Oct 9, 2022, 12:08 AM	305	Success
Replication Task4_1	shreya_iics_project	1 task	Oct 9, 2022, 12:04 AM	Oct 9, 2022, 12:04 AM	0	Success
ASSIGN_SCD2_cars-2	shreya_iics_project	1 task	Oct 8, 2022, 5:13 AM	Oct 8, 2022, 5:13 AM	4	Success
ASSIGN_SCD2_cars-1	shreya_iics_project	1 task	Oct 8, 2022, 5:03 AM	Oct 8, 2022, 5:03 AM	1000	Success

Output Target table = assign_iics_cars_SCD2.

The rows are successfully updated and status are changed to expired.

DBBeaver 22.2.0 - <shreya> Script-1.sql

File Edit Navigate Search SQL Editor Database Window Help

Database Navigator > Projects > <dilthe> queries.sql <shreya> Script-1... <shreya> SSIS.sql <shreya> Viewss.s... <Cinema_ASSIGN_data> <shreya> IISC.sql <shreya> DDL/DML...

Enter a part of object name here

```
> dilthe - rewansolution.database.windows.net:1433
> oracle-88094-0.cloudclusters.net - oracle-88094
> shreya - rewansolution.database.windows.net:
```

`SELECT * FROM iisc_cinema_sorting_target;`

`select * from assign_iisc_cars_SCD1;`

`select * from assign_iics_cars_SCD2;`

Results 1 >

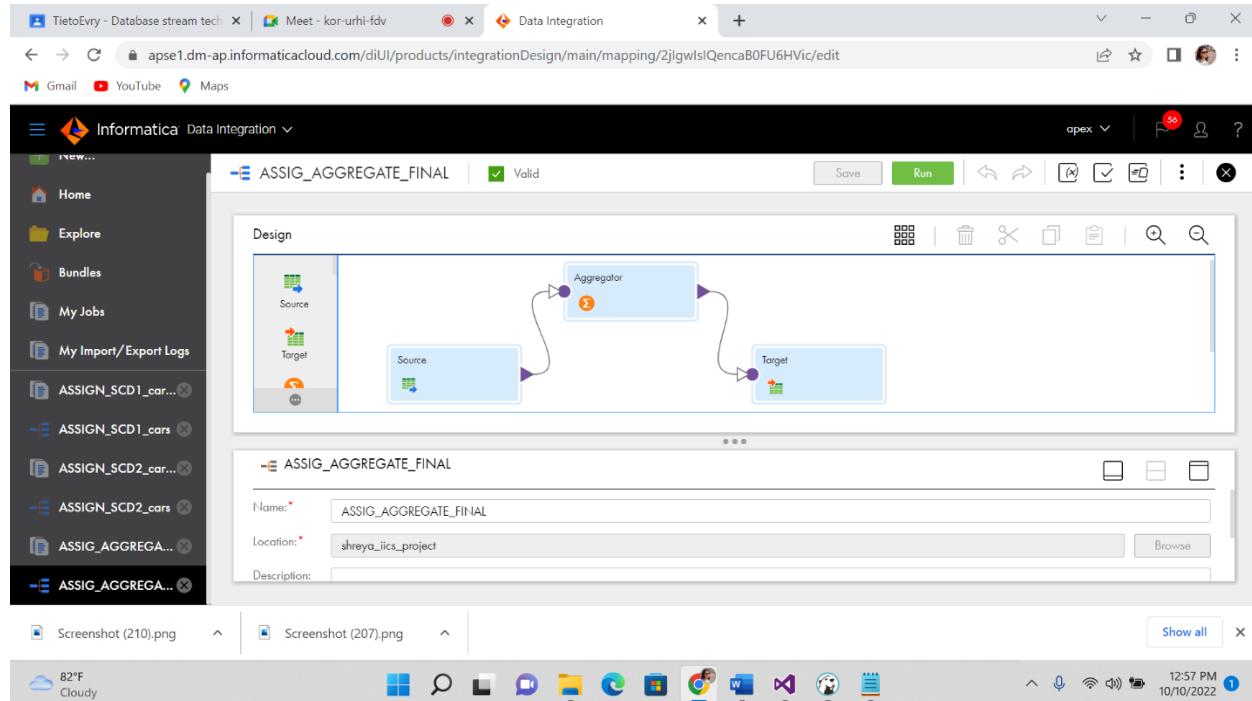
tar_Sales	tar_Quantity	tar_Discount	tar_CreditCardType	tar_CreditCard	tar_CustomerFeedback	tar_Checksum	tar_Status
744,796.41	1	0.83	diners-club-carte-blanche	30,408,000,000,000	Bad	4EE998476	EXPIRED
794,773.17	1	0.79	jcb	3,549,220,000,000,000	Good	92623DA575	EXPIRED
968,244.9	1	0.28	jcb	3,557,160,000,000,000	Okay	5A20F8F6BC	EXPIRED
942,213.82	2	0.76	jcb	3,529,910,000,000,000	Very Bad	89D7E3D767	ACTIVE
879,519.57	1	0.5	china-unionpay	5,602,240,000,000,000	Bad	D7CD3DADD6	ACTIVE
947,785.4	2	0.39	laser	6,706,250,000,000,000	Good	E268D0A423	ACTIVE
883,836.81	2	0.79	diners-club-carte-blanche	30,528,100,000,000,000	Very Bad	0CA11E5C3B	ACTIVE
779,626.29	1	0.9	jcb	3,589,140,000,000,000	Bad	FD1627C3E2	ACTIVE
818,364.32	2	0.5	jcb	3,557,050,000,000,000	Okay	B48668FB29	ACTIVE
902,866.47	1	0.61	jcb	3,534,730,000,000,000	Very Bad	BBF762E3AE	ACTIVE
932,957.69	1	0.62	diners-club-enroute	201,441,000,000,000	Very Bad	4D537A02FC	ACTIVE
743,643.26	2	0.61	jcb	3,558,310,000,000,000	Okay	B388D08137	ACTIVE
856,186.55	2	0.81	diners-club-enroute	201,524,000,000,000	Good	1C1985B58B	ACTIVE
703,359.96	1	0.88	jcb	3,542,460,000,000,000	Good	883A91B6FC	ACTIVE
832,581.18	2	0.44	jcb	3,547,070,000,000,000	Good	2DD85C5CD7	ACTIVE
948,098.46	2	0.84	visa	4,041,370,000,000	Good	7902680AAF	ACTIVE

Save Cancel Script | IST en Writable | Smart Insert | Rows: 1 | 200 row(s) fetched - 94ms (7ms fetch), on 2022-10-1 | 337 : 37 : 8631 | Sel: 0 | 0 | 12:50 PM 10/10/2022

6. Create aggregate table based on the particular column(ex: Country code). Refer to the different data source from target system.

AGGREGATE

Source table = Cinema_ASSIGN_data



Group by = film_type

The screenshot shows the Informatica Data Integration interface. On the left, there's a sidebar with various job options like Home, Explore, Bundles, My Jobs, and My Import/Export Logs. Below that is a list of existing jobs: ASSIG_SCD1_cars, ASSIG_SCD2_cars, ASSIG_AGGREGATE_FINAL, and ASSIG_AGGREGATE_FINAL. The main workspace shows a 'Design' view with a 'Source' node connected to an 'Aggregator' node. The 'Properties' panel for the Aggregator shows the 'Group By' field set to 'Not Parameterized' and the 'Field Name' set to 'Film_Type'. The Windows taskbar at the bottom indicates it's 12:58 PM on 10/10/2022.

Aggregate operation used = $\text{SUM}(\text{copy_tickets_sold})$

This screenshot is similar to the previous one but shows the 'Aggregate' tab in the Properties panel for the Aggregator component. It defines a single aggregate field named 'SUM_OF_SALES' with the expression 'SUM(Copy_tickets_sold)'. The Windows taskbar at the bottom indicates it's 12:58 PM on 10/10/2022.

Run the package.

Output Target table = TARGET_CINEMA_IICS_FINAL;

DBBeaver 22.2.0 - <shreya> Script-1.sql

```

File Edit Navigate Search SQL Editor Database Window Help
Auto_ Rollback T Auto_ shreya dbo@shreya Commit
Database Navigator Projects <dlithe> queries.sql <shreya> Script-1... <shreya> SSIS.sql <shreya> Viewss.s... Cinema_ASSIGN_data <shreya> IISC.sql <shreya> DDL/DML...
Enter a part of object name here
> <dlithe> - rewansolution.database.windows.net:1433
> oracle-88094-0.cloudclusters.net - oracle-88094
> shreya - rewansolution.database.windows.net:1433

select * from assign_iics_cars_SCD2;
--select * from target_FA_CARS_SCD1;

alter table assign_iisc_cars_SCD1;
drop column tar_status;
-----
SELECT * FROM T_FINAL_CARS_1000;

select * from Cinema_ASSIGN_data;

select * from Final_original_cars_data;

select DISTINCT film_type from TARGET_CINEMA_IICS;
select * from TARGET_CINEMA_IICS_FINAL;
select * from TARGET_CARS_IICS;

*UPDATE T_FINAL_CARS_1000

```

Results 1 ×

	Copy_ticket_price	Copy_ticket_use	capacity	Copy_date	Copy_month	Copy_quarter	Copy_day	SUM_OF_SALES
1	53,407	182 680	43,195	4	2	5	84,540	
2	80,000	19 168	43,225	5	2	5	5,905	
3	80,000	31 215	43,247	5	2	27	7,726	
4	99999997	60,000	9 194	43,230	5	2	10	32,056
5	00000001	120,000	218 279	43,192	4	2	2	30,254
6	98,571	42 552	43,218	4	2	28	27,380	
7	00000001	60,000	7 52	43,277	6	2	26	3,083

Save Cancel Script IST en Writable Smart Insert 351 : 1 [40] Sel: 40 | 1 82°F Cloudy 10:03 PM 10/10/2022

7. Create data replication task (single table and FULL DB)

REPLICATION OF SINGLE TABLE.

STEPS TO SET THE VALUES AS SHOWN BELOW

TietoEry - Database stream tech | Meet - kor-urhi-fdv Data Integration

apse1.dm.ap.informaticacloud.com/diUI/products/integrationDesign/main/drs/1SWycGkj57kGxuFHY6GAI

Gmail YouTube Maps

Informatica Data Integration

Edit Replication Task4

1 Source 2 Target 3 Field Exclusions 4 Data Filters 5 Schedule

Task Details

Task Name: Replication Task4

Location: shreya_iics_project

Description:

Source Details

Source Connection: shreya_sqlserver

Objects to Replicate:

- All Objects
- Include Objects Select... Final_original_cars_data

Save Next > Finish Cancel

Screenshot (210).png Screenshot (207).png Show all

82°F Cloudy 10:05 PM 10/10/2022

Edit Replication Task4

Target Details

Connection: * MSQL_REWAN View... New... ?

Target Prefix: SHRE_ ?

Enable Target Bulk Load: False ?

Replication Options

Load Type: Incremental loads after initial full load
 Incremental loads after initial partial load
Initial load: Rows created or modified after at

Full load each run
 Remove deleted columns and rows

Save Back Next > Finish Cancel

<https://apse1.dm-ap.informaticacloud.com/diUI/products/integrationDesign/#step-iwz3displayStep2>



Edit Replication Task4

Field Exclusions Exclude Fields... ?

There are no fields excluded for any object. All fields for all selected objects will be replicated.

Save Back Next > Finish Cancel

<https://apse1.dm-ap.informaticacloud.com/diUI/products/integrationDesign/#step-iwz3displayStep3>



Edit Replication Task4

Data Filters New... ?

Object Filter by Final_original_cars_data CarModelYear Greater Than 2005

Row Limit

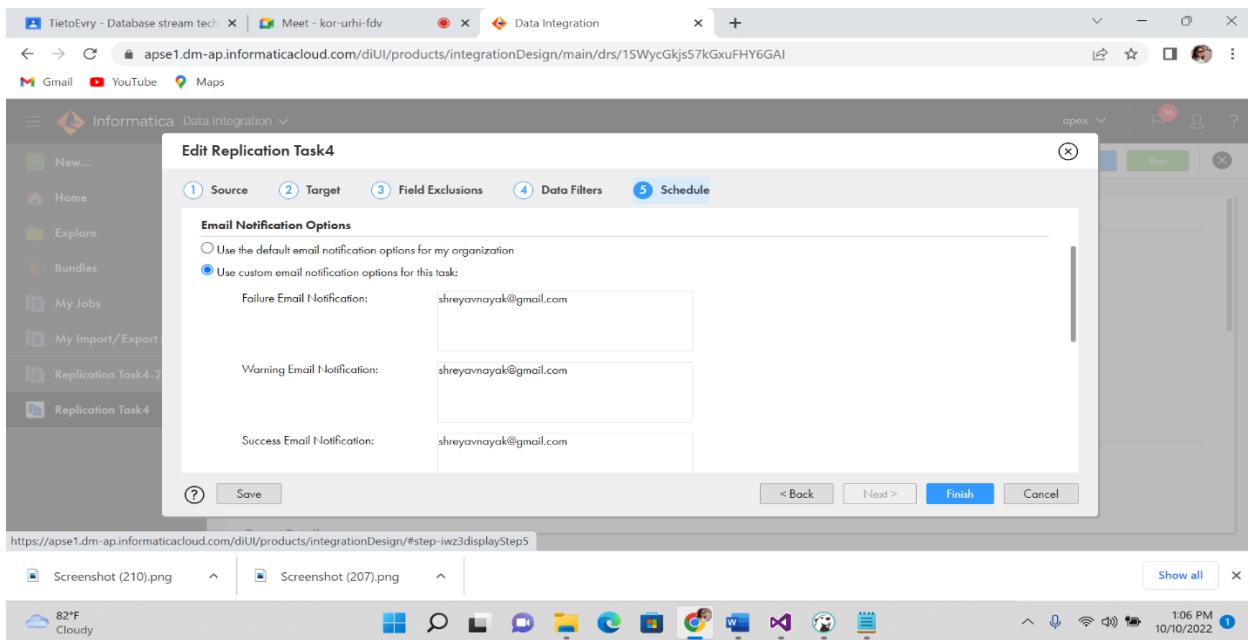
Process all rows
 Process only the first rows

Save Back Next > Finish Cancel

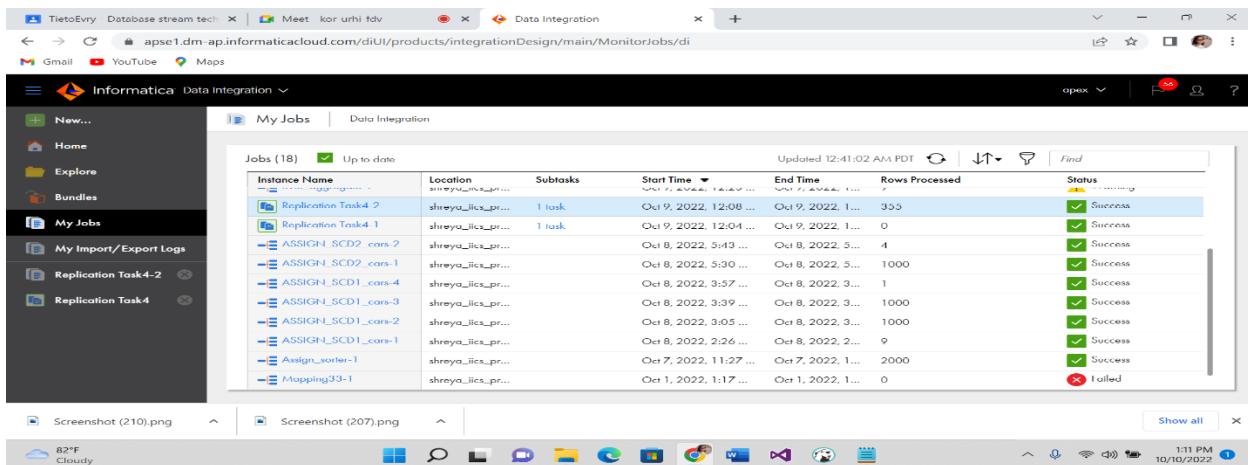
<https://apse1.dm-ap.informaticacloud.com/diUI/products/integrationDesign/#step-iwz3displayStep4>



Set your email address for notifications.

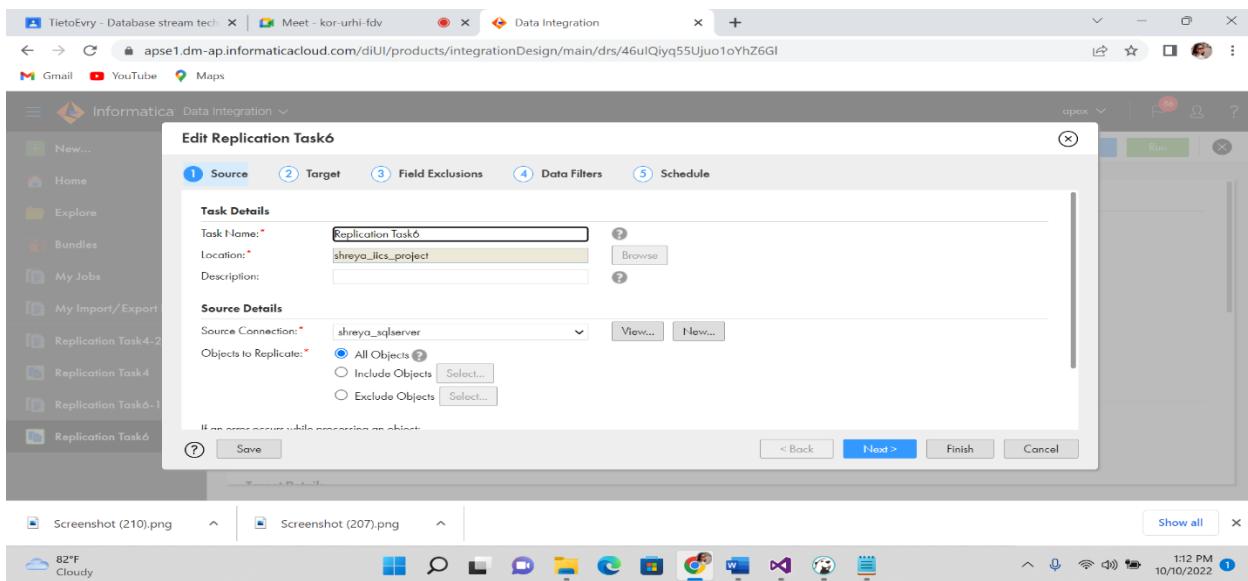


Run the package.



REPLICATION OF FULL DB

Check on 'All Objects' and set the field values accordingly.



Run the entire package.

34 tasks has successfully replicated from Shreya_db to dlithe_db.

The screenshot shows the Informatica Data Integration interface. On the left sidebar, under 'My Jobs', there are several replication tasks listed: 'Replication Task6-1', 'ASSIGN_AGGREGATE...', 'ASSIG_AGGREGATE...', 'IICS_aggregate-2', 'IICS_aggregate-1', 'Replication Task4-2', 'Replication Task4-1', 'ASSIGN_LSCD2_cars-2', 'ASSIGN_LSCD2_cars-1', 'ASSIGN_LSCD1_cars-4', and 'ASSIGN_LSCD1_cars-3'. The main panel displays a table titled 'Jobs (18)' with the status 'Up to date'. The table includes columns for 'Instance Name', 'Location', 'Subtasks', 'Start Time', 'End Time', 'Rows Processed', and 'Status'. Most jobs show a status of 'Success' with green checkmarks, except for two which are 'Warning' with yellow exclamation marks. The last row of the table is partially visible.

Dlithe_db

The screenshot shows the DBBeaver 22.2.0 interface. The top navigation bar includes File, Edit, Navigate, Search, SQL Editor, Database, Window, and Help. The database connection is set to 'shreya' and 'dbo@shreya'. The central area shows a 'Database Navigator' pane with a tree view of database objects. A SQL editor window is open with the following query:

```
select * from assign_iics_cars_SCD2  
--select * from target_FA_CARS_SCD1  
alter table assign_iisc_cars_SCD1;  
drop column tar_status;  
-----  
SELECT * FROM T_FINAL_CARS_1000;  
  
select * from Cinema_ASSIGN_data;  
  
select * from Final_original_cars_d  
  
select DISTINCT file_type from TARG  
select * from TARGET_CINEMA_IICS_F  
select * from TARGET_CARS_IICS;  
  
UPDATE T_FINAL_CARS_1000
```

The results pane shows a grid of data with 9 rows fetched. The system status bar at the bottom indicates it's 1:15 PM on 10/10/2022.