

Module 4: IICS ----> Data Source 1: Inpatient_provdtr_Covid_Healthcare

SCD1

1. Mapping

The screenshot displays the Informatica Data Integration Designer interface. The top bar shows the Informatica logo and 'Data Integration'. The left sidebar contains navigation options: New..., Home, Explore, Bundles, My Jobs, My Import/Export Logs, and Covid_Healthcare_... (selected). The main workspace is titled 'Covid_Healthcare_SCD1' and shows a 'Design' view of a mapping workflow. The workflow starts with a 'Source' connector, followed by a 'Join' task, then a 'Filter' task, and finally a 'Router' task. The 'Router' task branches into two paths: one leading to a 'ProviderDetails_SCD1ICS_insert' task and another to a 'ProviderDetails_SCD1ICS_update' task. Both tasks are connected to a 'Target' connector. The bottom panel shows the properties for 'Covid_Healthcare_SCD1': Name: Covid_Healthcare_SCD1, Location: nehat, and Description: Slowly Changing Dimension-1 (SCD1) used to maintain only the new record by overwriting on to the existing record.

2. Run - Success

The screenshot shows the Informatica Data Integration Activity Log for the job 'MT_Covid_Healthcare_SCD1-1'. The top bar includes the Informatica logo and 'Data Integration'. The left sidebar shows navigation options: New..., Home, Explore, Bundles, My Jobs, My Import/Export Logs, m_DIM_EMPLOYEE..., Covid_Healthcare_..., MT_Covid_Healthc..., and MT_Covid_Healthc... (selected). The main workspace displays the 'Job Properties' and 'Results' for the job. The 'Job Properties' section shows: Task Name: MT_Covid_Healthcare_SCD1, Instance ID: 1, Task Type: Mapping Task, Started By: neha_11 through UI, Start Time: Oct 6, 2022 6:56:44 AM, End Time: Oct 6, 2022 6:57:13 AM, Duration: 29 seconds, and Runtime Environment: Informatica Cloud Hosted Agent. The 'Results' section shows: Status: Success, Success Rows: 30, Errors: 0, and a link to Download Session Log. Below this, the 'Individual Source/Target Results' table is displayed.

Name	Success Rows	Errors	Error Message	Actions
Source	30	0		
ProviderDetails_SCD1ICS_insert (ProviderDetails_SCD1ICS)	30	0		
ProviderDetails_SCD1ICS_update (ProviderDetails_SCD1ICS_1)	0	0		

3. Run - Update 1 row - Success

The screenshot shows the Informatica Data Integration console. The job 'MT_Covid_Healthcare_SCD1-2' is displayed. The 'Job Properties' section shows the task name, instance ID (2), task type (Mapping Task), and start/end times. The 'Results' section shows a successful status with 1 success row and 0 errors. The 'Individual Source/Target Results' table shows the following data:

Name	Success Rows	Errors	Error Message	Actions
Source	30	0		
ProviderDetailss_SCDIICS_insert (ProviderDetailss_SCDIICS)	0	0		
ProviderDetailss_SCDIICS_update (ProviderDetailss_SCDIICS_1)	1	0		

4. Updated the existing record

The screenshot shows the DBeaver SQL editor. The SQL script is as follows:

```
--(Covid Healthcare)
SELECT * FROM ProviderDetailss
CREATE TABLE ProviderDetailss_SCDIICS
(
    Provider_Key FLOAT,
    Provider_ID FLOAT,
    Drug_ID FLOAT,
    Provider_Name VARCHAR(50),
    Provider_Zip_Code FLOAT,
    Checksum VARCHAR(50)
)
SELECT * FROM ProviderDetailss_SCDIICS
DROP TABLE ProviderDetailss_SCDIICS
-- SCD1
--(Can be loaded and Updated)
UPDATE ProviderDetailss SET DRUG_ID=40 WHERE Provider_ID=10001
```

The 'Results' tab shows the following data:

Grid	Provider_Key	Provider_ID	Drug_ID	Provider_Name	Provider_Zip_Code	Checksum
1	1	10.001	40	SOUTHEAST	36.301	B11ED58357
2	2	10.005	39	MARSHALL M	35.957	295F7EE978
3	3	10.006	39	ELIZA COFF	36.200	DC68AC30EE
4	4	10.011	39	ST VINCENT	35.235	4A34A248D3
5	5	10.016	39	SHELBY BAP	35.007	5CA1ECD277

SCD2

1. Mapping

The screenshot shows the Informatica Data Integration interface. The left sidebar contains navigation options: New..., Home, Explore, Bundles, My Jobs, My Import/Export Logs, and Covid_Healthcare_... (selected). The main area displays the 'Design' view for the task 'Covid_Healthcare_SCD2'. The task is marked as 'Valid'. The design canvas shows a flow starting from a 'Source' connector, followed by a 'Join' connector, then a 'Filter' connector, and finally a 'Router' connector. The 'Router' connector is configured with three output paths, each leading to a 'ProviderDetails_SCDIICS' target connector. The 'Router' connector is configured with three output paths, each leading to a 'ProviderDetails_SCDIICS' target connector. Below the design canvas, the 'Properties' pane for 'Covid_Healthcare_SCD2' is visible, showing the Name, Location (neha), and Description (Slowly Changing Dimension-2 (SCD2) used to maintain new record as well as the historical record in the table).

2. Run - Success

The screenshot shows the Informatica Data Integration interface displaying the 'Run - Success' results for the task 'MT_Covid_Healthcare_SCD2-1'. The left sidebar shows the task selected. The main area displays the 'Job Properties' and 'Results' sections.

Job Properties

- Task Name: MT_Covid_Healthcare_SCD2
- Instance ID: 1
- Task Type: Mapping Task
- Started By: neha_11 through UI
- Start Time: Oct 6, 2022 8:49:32 AM
- End Time: Oct 6, 2022 8:50:05 AM
- Duration: 33 seconds
- Runtime Environment: Informatica Cloud Hosted Agent

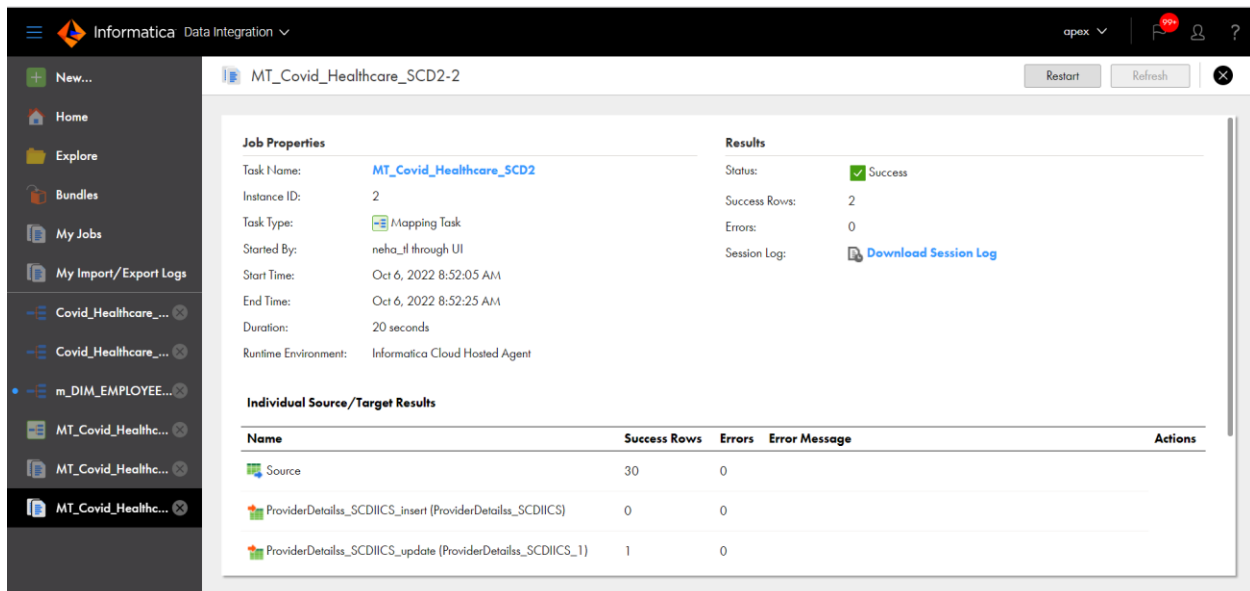
Results

- Status: Success
- Success Rows: 30
- Errors: 0
- Session Log: [Download Session Log](#)

Individual Source/Target Results

Name	Success Rows	Errors	Error Message	Actions
Source	30	0		
ProviderDetails_SCDIICS_insert (ProviderDetails_SCDIICS)	30	0		
ProviderDetails_SCDIICS_update (ProviderDetails_SCDIICS_1)	0	0		

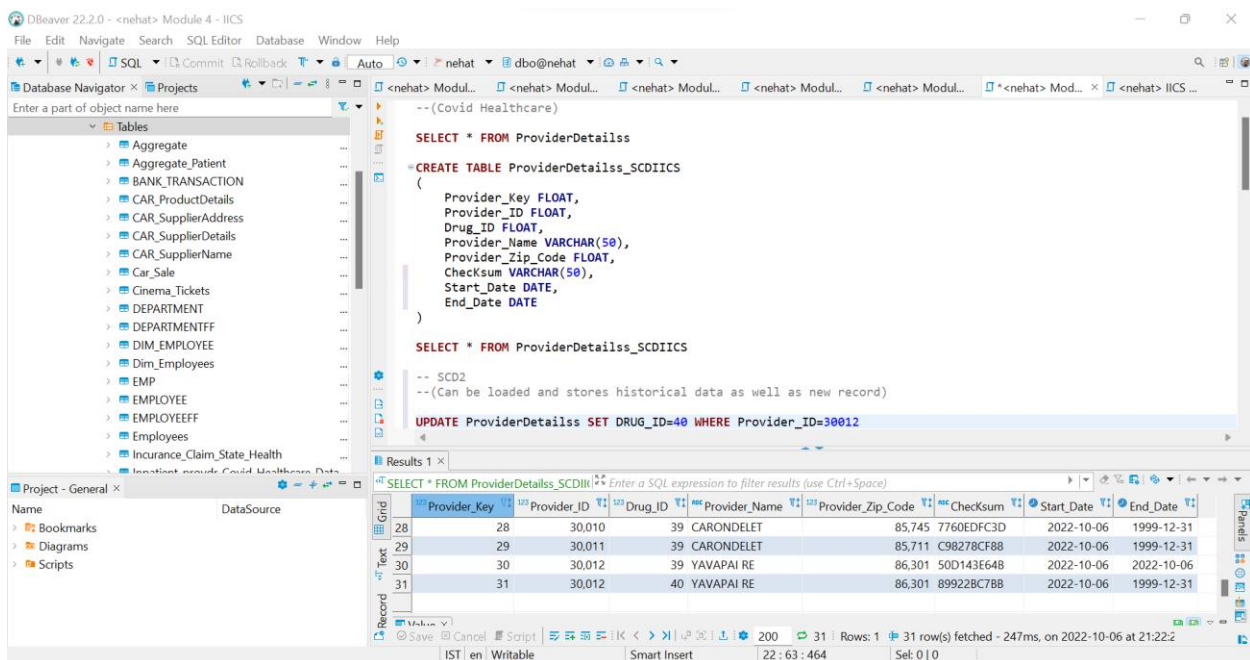
3. Run - Update new record and Stored Historical record- Success



The screenshot shows the Informatica Data Integration console for a job named 'MT_Covid_Healthcare_SCD2-2'. The job has completed successfully. The 'Job Properties' section shows the task name, instance ID, task type (Mapping Task), and start/end times. The 'Results' section shows a status of 'Success', 2 success rows, and 0 errors. The 'Individual Source/Target Results' table provides a detailed breakdown of the data flow.

Name	Success Rows	Errors	Error Message	Actions
Source	30	0		
ProviderDetailss_SCDIICS_insert (ProviderDetailss_SCDIICS)	0	0		
ProviderDetailss_SCDIICS_update (ProviderDetailss_SCDIICS_1)	1	0		

4. Updated new record and Stored the Historical record



The screenshot shows the DBeaver SQL editor with a script for updating a record and storing its history. The script includes a SELECT statement to fetch data from 'ProviderDetailss', a CREATE TABLE statement for 'ProviderDetailss_SCDIICS', and an UPDATE statement to set 'DRUG_ID=40' for 'Provider_ID=30012'. The 'Results' pane shows the output of the SELECT statement, displaying columns like Provider_Key, Provider_ID, Drug_ID, Provider_Name, Provider_Zip_Code, Checksum, Start_Date, and End_Date.

```
--(Covid Healthcare)
SELECT * FROM ProviderDetailss

-- SCD2
--(Can be loaded and stores historical data as well as new record)
UPDATE ProviderDetailss SET DRUG_ID=40 WHERE Provider_ID=30012
```

Grid	Provider_Key	Provider_ID	Drug_ID	Provider_Name	Provider_Zip_Code	Checksum	Start_Date	End_Date
28	28	30.010	39	CARONDELET	85,745	7760EDFC3D	2022-10-06	1999-12-31
29	29	30.011	39	CARONDELET	85,711	C98278CF88	2022-10-06	1999-12-31
30	30	30.012	39	YAVAPAI RE	86,301	50D143E648	2022-10-06	2022-10-06
31	31	30.012	40	YAVAPAI RE	86,301	899228C7B8	2022-10-06	1999-12-31

AGGREGATE

1. Mapping

The screenshot shows the Informatica Data Integration Designer interface. The top bar indicates the user is logged in as 'apex'. The left sidebar contains navigation options: New..., Home, Explore, Bundles, My Jobs, My Import/Export Logs, and the selected job 'Covid_Healthcare_Aggregate'. The main design canvas displays a mapping job with three components: Source, Aggregator, and Target, connected in a linear sequence. The Properties pane on the right shows the job details: Name: Covid_Healthcare_Aggregate, Location: nehat, and Description: Perform Max of Provider_Zip_Code Group by Drug_ID.

2. Run - Success

The screenshot shows the Informatica Data Integration Designer interface displaying the results of a successful run for the 'Covid_Healthcare_Aggregate' job. The top bar indicates the user is logged in as 'apex'. The left sidebar contains navigation options: New..., Home, Explore, Bundles, My Jobs, My Import/Export Logs, and the selected job 'Covid_Healthcare_Aggregate'. The main results pane shows the following details:

Job Properties

- Task Name: Covid_Healthcare_Aggregate
- Instance ID: 1
- Task Type: Mapping
- Started By: neha_11 through UI
- Start Time: Oct 6, 2022 9:52:48 AM
- End Time: Oct 6, 2022 9:53:12 AM
- Duration: 24 seconds
- Runtime Environment: Informatica Cloud Hosted Agent

Results

- Status: Success
- Success Rows: 2
- Errors: 0
- Session Log: [Download Session Log](#)

Individual Source/Target Results

Name	Success Rows	Errors	Error Message	Actions
Source	30	0		
Target (Aggregate_ProviderSSIS)	2	0		

3. Max of Zip Code Group by Drug Id - Result

DBeaver 22.2.0 - <nehat> Module 4 - IICS

File Edit Navigate Search SQL Editor Database Window Help

Auto | nehat | dbo@nehat

Database Navigator | Projects

Enter a part of object name here

- Tables
 - Aggregate
 - Aggregate_Patient
 - BANK_TRANSACTION
 - CAR_ProductDetails
 - CAR_SupplierAddress
 - CAR_SupplierDetails
 - CAR_SupplierName
 - Car_Sale
 - Cinema_Tickets
 - DEPARTMENT
 - DEPARTMENTFF
 - DIM_EMPLOYEE
 - Dim_Employees
 - EMP
 - EMPLOYEE
 - EMPLOYEEFF
 - Employees
 - Insurance_Claim_State_Health
 - Insurant_pseudo Covid_Healthcare Data

Project - General

Name DataSource

- Bookmarks
- Diagrams
- Scripts

```
SELECT * FROM ProviderDetailss_SCDIICS
DROP TABLE ProviderDetailss_SCDIICS
-- SCD1
--(Can be loaded and Updated)
UPDATE ProviderDetailss SET DRUG_ID=40 WHERE Provider_ID=10001
-- SCD2
--(Can be loaded and stores historical data as well as new record)
UPDATE ProviderDetailss SET DRUG_ID=40 WHERE Provider_ID=30012
*****
--Aggregate
--Maximum of Provider_Zip_Code, Group by Drug_ID
SELECT * FROM Aggregate_ProviderSSIS
```

Results 1 x

SELECT * FROM Aggregate_ProviderSSIS

Grid	Provider_ID	Drug_ID	Provider_Name	Provider_Zip_Code	Max_Provider_Zip_Code
1	30,012	40	YAVAPAI REGIONAL MEDICAL CENTER	86,301	86,301
2	30,011	39	CARONDELET ST JOSEPHS HOSPITAL	85,711	99,508

Record

Save Cancel Script

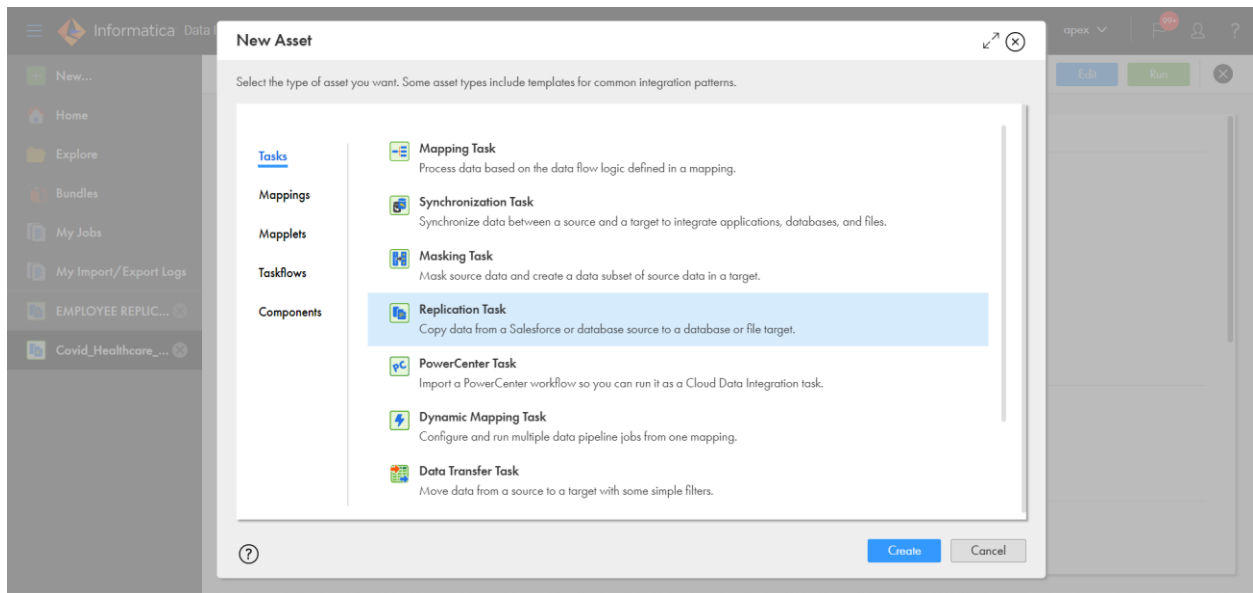
IST en Writable Smart Insert

200 2 Rows: 1 2 row(s) fetched - 442ms, on 2022-10-06 at 22:23:01

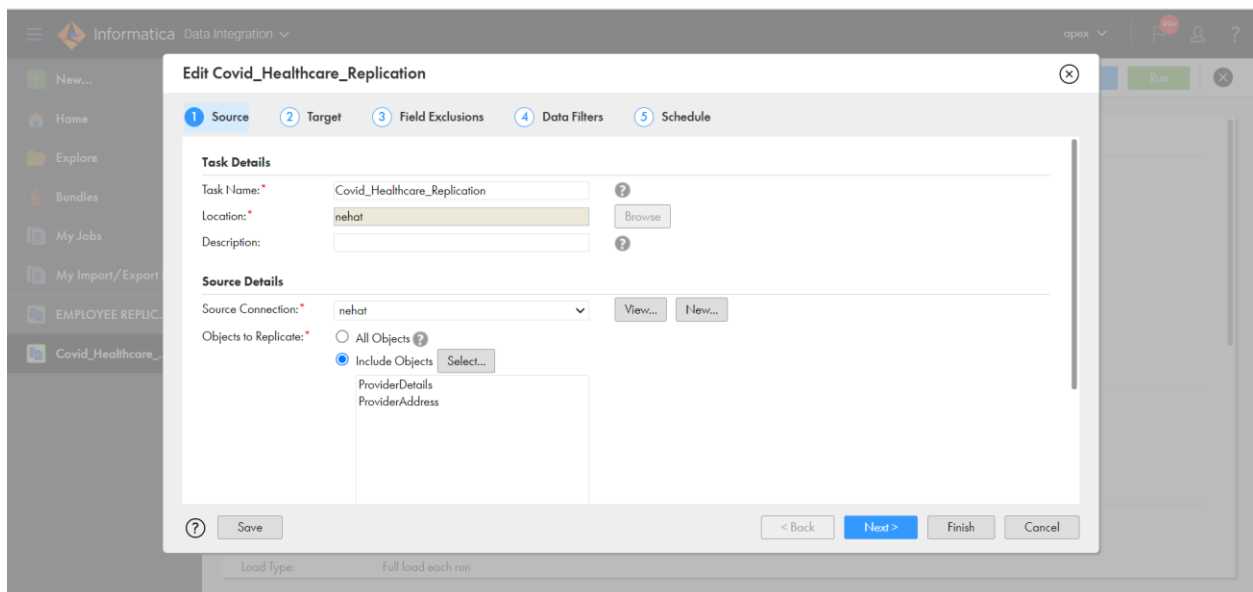
37:21:732 Set: 0 | 0

REPLICATION

Step 1 - Create Replication Task



Step 2 - Source Objects



Step 3 - Target Connection

The screenshot shows the 'Edit Covid_Healthcare_Replication' dialog box in the Informatica Data Integration interface. The 'Target' tab is selected, showing the following configuration:

- Target Details:**
 - Connection: nehat
 - Target Prefix: REP_
 - Enable Target Bulk Load: False
- Replication Options:**
 - Load Type: Full load each run
 - Delete Options: Remove deleted columns and rows
- Advanced Options:**
 - Commit size: 5 rows

Navigation buttons at the bottom include '< Back', 'Next >', 'Finish', and 'Cancel'. A 'Save' button is also present.

Step 4 - Data Filter

The screenshot shows the 'Edit Covid_Healthcare_Replication' dialog box in the Informatica Data Integration interface, now on the 'Data Filters' tab. The configuration is as follows:

- Row Limit:**
 - Process all rows
- Data Filters:**
 - Object: ProviderDetails
 - Filter by: Average_Medicare_Payments Greater Than 5000

Navigation buttons at the bottom include '< Back', 'Next >', 'Finish', and 'Cancel'. A 'Save' button is also present.

Step 5 - Schedule

Edit Covid_Healthcare_Replication

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

Schedule Details

☒ Do not run this task on a schedule ?

☐ Run this task on schedule: ?

Email Notification Options

☐ Use the default email notification options for my organization

☒ Use custom email notification options for this task:

Failure Email Notification:

Warning Email Notification:

Success Email Notification:

Load Type: Full load each run

Step 6 - Run

Covid_Healthcare_Replication

Task Details

Task Name: Covid_Healthcare_Replication

Location: nehat

Description:

Created On: Oct 6, 2022 10:21:49 AM

Updated On: Oct 6, 2022 10:23:37 AM

Created By: neha_tl

Updated By: neha_tl

Last Run:

Source Details

Source Connection: nehat

Included Objects: ProviderDetails, ProviderAddress

Stop on Error: Cancel processing the remaining objects

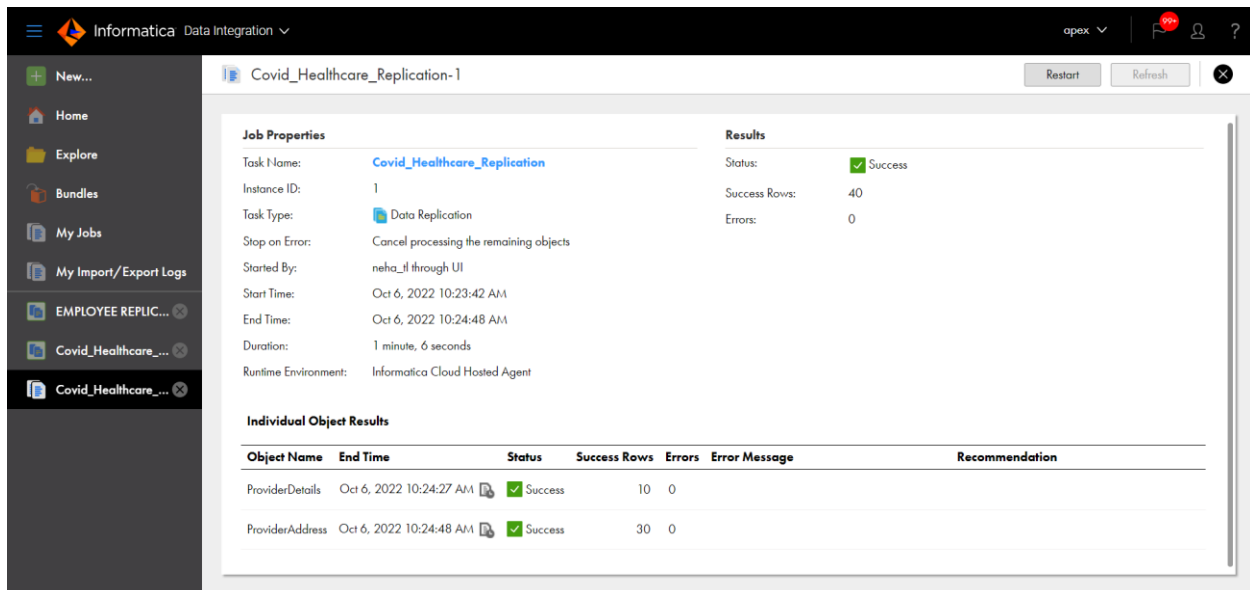
Target Details

Target Connection: nehat

Target Prefix: REP_

Load Type: Full load each run

Step 7 - Success



The screenshot shows the Informatica Data Integration console. The job 'Covid_Healthcare_Replication-1' is displayed with the following properties:

- Task Name:** Covid_Healthcare_Replication
- Instance ID:** 1
- Task Type:** Data Replication
- Stop on Error:** Cancel processing the remaining objects
- Started By:** neha_1 through UI
- Start Time:** Oct 6, 2022 10:23:42 AM
- End Time:** Oct 6, 2022 10:24:48 AM
- Duration:** 1 minute, 6 seconds
- Runtime Environment:** Informatica Cloud Hosted Agent

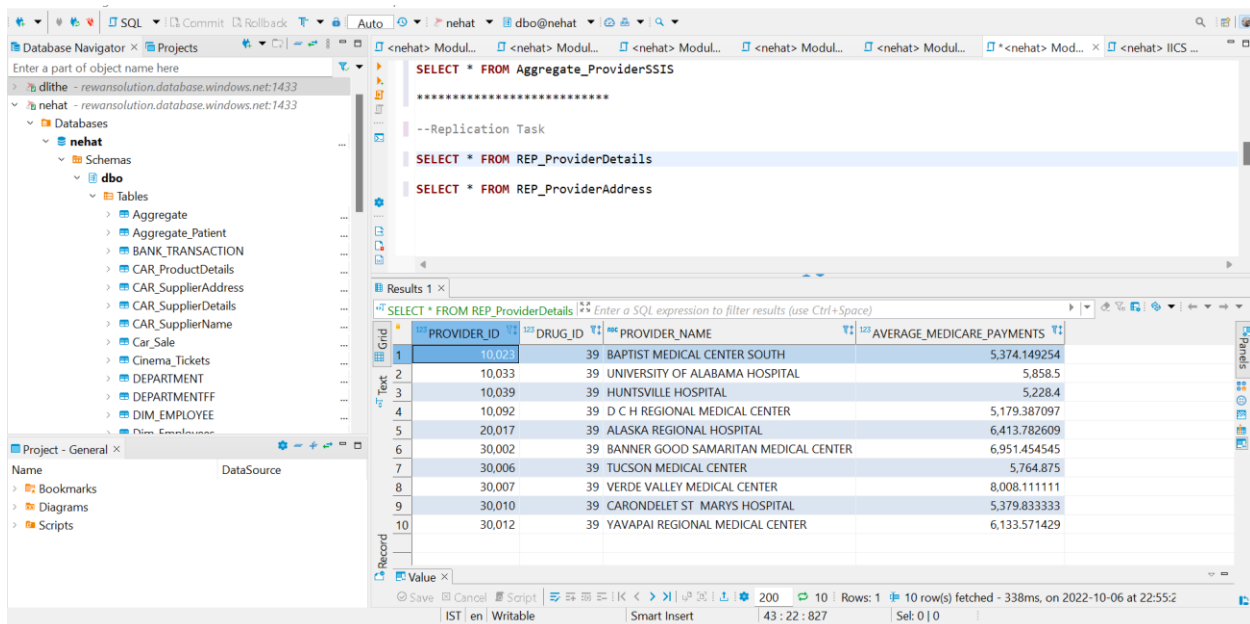
The **Results** section shows:

- Status:** Success
- Success Rows:** 40
- Errors:** 0

The **Individual Object Results** table is as follows:

Object Name	End Time	Status	Success Rows	Errors	Error Message	Recommendation
ProviderDetails	Oct 6, 2022 10:24:27 AM	Success	10	0		
ProviderAddress	Oct 6, 2022 10:24:48 AM	Success	30	0		

Step 8 - REP_ProviderDetails - Result



The screenshot shows a SQL Developer window with the following SQL query:

```
SELECT * FROM Aggregate_ProviderSSIS
--Replication Task
SELECT * FROM REP_ProviderDetails
SELECT * FROM REP_ProviderAddress
```

The results are displayed in a grid with the following columns:

PROVIDER_ID	DRUG_ID	PROVIDER_NAME	AVERAGE_MEDICARE_PAYMENTS
10,023	39	BAPTIST MEDICAL CENTER SOUTH	5,374.149254
10,033	39	UNIVERSITY OF ALABAMA HOSPITAL	5,858.5
10,039	39	HUNTSVILLE HOSPITAL	5,228.4
10,092	39	D C H REGIONAL MEDICAL CENTER	5,179.387097
20,017	39	ALASKA REGIONAL HOSPITAL	6,413.782609
30,002	39	BANNER GOOD SAMARITAN MEDICAL CENTER	6,951.454545
30,006	39	TUCSON MEDICAL CENTER	5,764.875
30,007	39	VERDE VALLEY MEDICAL CENTER	8,008.111111
30,010	39	CARONDELET ST MARY'S HOSPITAL	5,379.833333
30,012	39	YAVAPAI REGIONAL MEDICAL CENTER	6,133.571429

Step 9 - REP_ProviderAddress - Result

The screenshot displays the SQL Server Enterprise Manager interface. On the left, the Database Navigator shows the 'nehat' database structure, including tables like 'Aggregate', 'Aggregate_Patient', 'BANK_TRANSACTION', 'CAR_ProductDetails', 'CAR_SupplierAddress', 'CAR_SupplierDetails', 'CAR_SupplierName', 'Car_Sale', 'Cinema_Tickets', 'DEPARTMENT', 'DEPARTMENTFF', 'DIM_EMPLOYEE', and 'Dim_Employee'. The main window shows a query editor with the following SQL code:

```
SELECT * FROM Aggregate_ProvidersSIS
*****
--Replication Task
SELECT * FROM REP_ProviderDetails
SELECT * FROM REP_ProviderAddress
```

The 'Results 1' tab shows the data returned by the query. The table has two columns: 'PROVIDER_ID' and 'PROVIDER_STREET_ADDRESS'. The data is as follows:

PROVIDER_ID	PROVIDER_STREET_ADDRESS
10.011	50 MEDICAL PARK EAST DRIVE
10.016	1000 FIRST STREET NORTH
10.023	2105 EAST SOUTH BOULEVARD
10.029	2000 PEPPERELL PARKWAY
10.033	619 SOUTH 19TH STREET
10.039	101 SIVLEY RD
10.040	1007 GOODYEAR AVENUE
10.046	600 SOUTH THIRD STREET
10.055	4370 WEST MAIN STREET
10.056	810 ST VINCENTS DRIVE
10.078	400 EAST 10TH STREET
10.083	1613 NORTH MCKENZIE STREET

The status bar at the bottom indicates that 30 rows were fetched in 221ms on 2022-10-06 at 23:01:2. The interface also shows a 'Project - General' tab with 'Name' and 'DataSource' fields, and a 'Scripts' tab.