

TIETOEVRY – DATABASE – FINAL ASSESSMENT

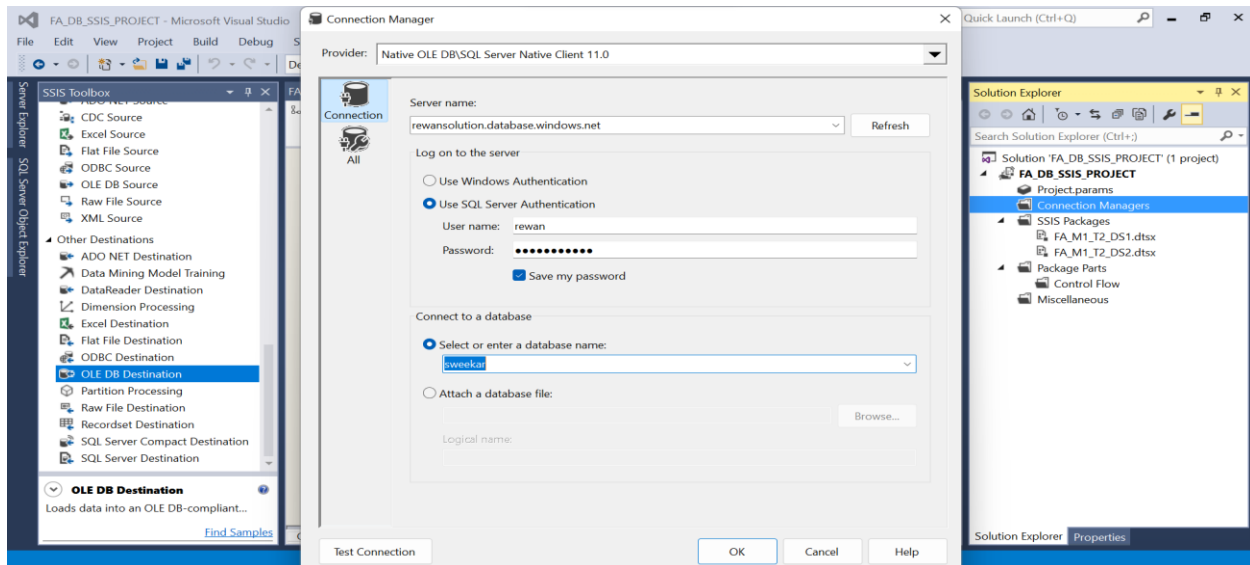
SWEEKAR K T/EI13047

Module 2 SSIS: 20 Points

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

1. Make connection to different data source (Oracle DB, Flat file, SQL Server)

First adding SQL server to oledb connections in SSIS



The screenshot shows a SQL IDE with a query editor containing the following SQL statement:

```
CREATE TABLE FA_DB_M2_Flat_to_DB(
    Film_Type varchar(50),
    film_code INT,
    cinema_code INT,
    total_sales INT,
    tickets_sold INT,
    tickets_out INT,
    show_time INT,
    occu_perc FLOAT,
    ticket_price INT,
    ticket_use INT,
    capacity INT,
    date_ INT,
    month_ INT,
    quarter_ INT,
    day_ INT
);
```

The bottom status bar indicates 'Statistics 1 x'.

Connection manager name:

Flat File Connection Manager 1

Description:

General
Columns
Advanced
Preview

Select a file and specify the file properties and the file format.

File name:

C:\TE_FA_DB_SWEEKAR\MI\TASK2\CinemaTicket_Re

Browse...

Locale:

English (United States)

☐ Unicode

Code page:

1252 (ANSI - Latin I)

Format:

Delimited

Text qualifier:

<none>

Header row delimiter:

{CR}{LF}

Header rows to skip:

0

☒ Column names in the first data row

OK

Cancel

Help

Flat File Connection Manager Editor

Connection manager name: Flat File Connection Manager

Description:

General
Columns
Advanced
Preview

Select a file and specify the file properties and the file format.

File name: C:\TE_FA_DB_SWEEKAR\M2\Flat_file_destination.txt Browse...

Locale: English (United States) ☐ Unicode

Code page: 1252 (ANSI - Latin I)

Format: Delimited

Text qualifier: <none>

Header row delimiter: [CR][LF]

Header rows to skip: 0

☐ Column names in the first data row

OK Cancel Help

2. Extract

Flat File Source Editor

Configure the properties used to connect to and obtain data from a text file.

Connection Manager

Columns

Error Output

New...

Data View

Sample data (up to first 200 rows)

| Film_T... | film_c... | cinema... | total_s... | tickets... | tickets... | show_t... | occu_p... | t |
|-----------|-----------|-----------|------------|------------|------------|-----------|-----------|---|
| Roma... | 1492 | 304 | 3900000 | 26 | 0 | 4 | 4.259... | |
| Roma... | 1492 | 352 | 3360000 | 42 | 0 | 5 | 8.080... | |
| Roma... | 1492 | 489 | 2560000 | 32 | 0 | 4 | 20 | |
| Roma... | 1492 | 429 | 1200000 | 12 | 0 | 1 | 11.01 | |
| Roma... | 1492 | 524 | 1200000 | 15 | 0 | 3 | 16.67... | |
| Roma... | 1492 | 71 | 1050000 | 7 | 0 | 3 | 0.979... | |
| Roma... | 1492 | 163 | 1020000 | 10 | 0 | 3 | 7.690... | |
| Roma... | 1492 | 450 | 750000 | 5 | 0 | 3 | 1.570... | |
| Roma... | 1492 | 51 | 750000 | 11 | 0 | 2 | 0.949... | |
| Roma... | 1492 | 522 | 600000 | 4 | 0 | 3 | 1.55 | |
| Roma... | 1492 | 43 | 480000 | 6 | 0 | 3 | 0.44 | |
| Roma... | 1492 | 529 | 480000 | 4 | 0 | 3 | 2.96 | |
| Roma... | 1492 | 82 | 400000 | 5 | 0 | 6 | 0.530... | |
| Roma... | 1492 | 344 | 300000 | 2 | 0 | 3 | 0.25 | |
| Roma... | 1492 | 73 | 240000 | 2 | 0 | 1 | 2.04 | |
| Roma... | 1492 | 304 | 16500... | 112 | 0 | 4 | 18.32... | |
| Roma... | 1492 | 352 | 13050 | 93 | 0 | 5 | 10.57 | |

Close

3. Transform

1 Data Conversion Transformation Editor

Configure the properties used to convert the data type of an input column to a different data type. Depending on the data type to which the column is converted, set the length, precision, scale, and code page of the column.

Available Input Columns

☒ Name

☐ Film_Type

☒ film_code

☒ cinema_code

☒ total_sales

☒ tickets_sold

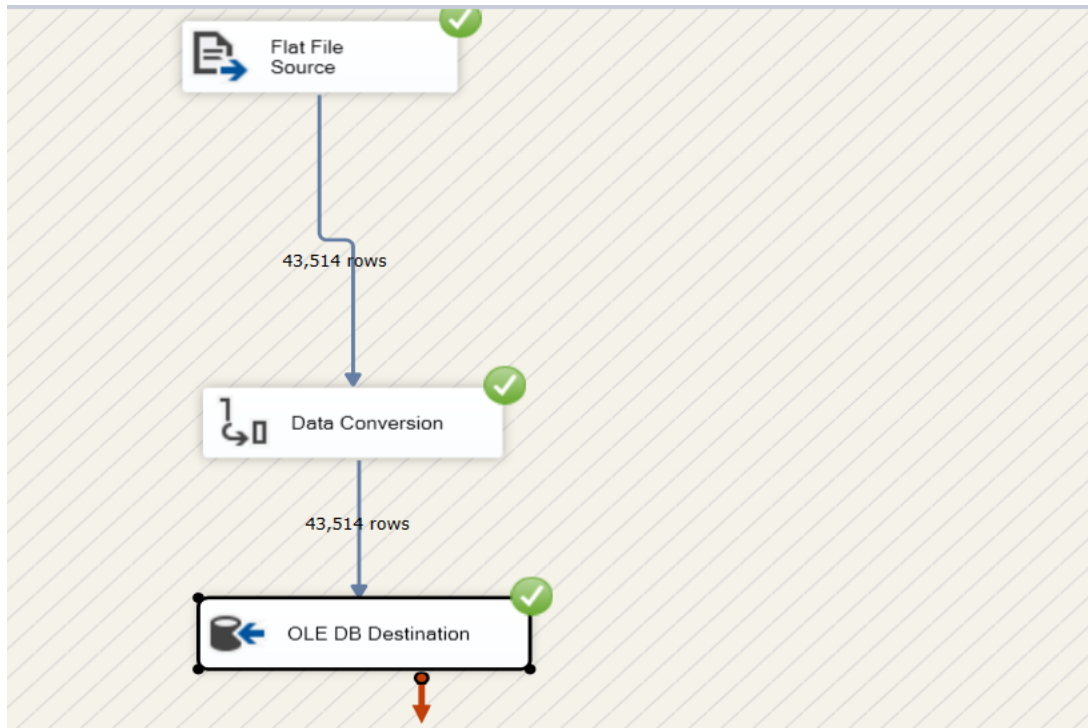
☒ tickets_out

☒ show_time

☒ occu_perc

| Input Column | Output Alias | Data Type | Length | Precision | Scale | Code Page |
|--------------|-----------------|---------------------------------|--------|-----------|-------|-----------|
| film_code | DC_film_code | four-byte signed integer [...] | | | | |
| cinema_code | DC_cinema_code | four-byte signed integer [...] | | | | |
| total_sales | DCtotal_sales | four-byte signed integer [...] | | | | |
| tickets_sold | DC_tickets_sold | four-byte signed integer [...] | | | | |
| tickets_out | DC_tickets_out | four-byte signed integer [...] | | | | |
| show_time | DC_show_time | four-byte signed integer [...] | | | | |
| occu_perc | DC_occu_perc | double-precision float [DT_...] | | | | |
| ticket_price | DC_ticket_price | four-byte signed integer [...] | | | | |
| ticket_use | DC_ticket_use | four-byte signed integer [...] | | | | |
| capacity | DC_capacity | four-byte signed integer [...] | | | | |
| date | DC_date | four-byte signed integer [...] | | | | |
| month | DC_month | four-byte signed integer [...] | | | | |

4. Load to new target system - SQL Server



SELECT * FROM FA_DB_M2_Flat_to_DB;

Results 1 x

SELECT * FROM FA_DB_M2_Flat_to_DB; Enter a SQL expression to filter results (use Ctrl+Space)

| | 123 Film_Type | 123 film_code | 123 cinema_code | 123 total_sales | 123 tickets_sold | 123 tickets_out | 123 show_time | 123 occu_perc | 123 ticket_price |
|----|---------------|---------------|-----------------|-----------------|------------------|-----------------|---------------|--------------------|------------------|
| 1 | Romance | 1,492 | 304 | 3,900,000 | 26 | 0 | 4 | 4.2599999999999998 | 150,000 |
| 2 | Romance | 1,492 | 352 | 3,360,000 | 42 | 0 | 5 | 8.0800000000000001 | 80,000 |
| 3 | Romance | 1,492 | 489 | 2,560,000 | 32 | 0 | 4 | 20 | 80,000 |
| 4 | Romance | 1,492 | 429 | 1,200,000 | 12 | 0 | 1 | 11.01 | 100,000 |
| 5 | Romance | 1,492 | 524 | 1,200,000 | 15 | 0 | 3 | 16.670000000000002 | 80,000 |
| 6 | Romance | 1,492 | 71 | 1,050,000 | 7 | 0 | 3 | 0.9799999999999998 | 150,000 |
| 7 | Romance | 1,492 | 163 | 1,020,000 | 10 | 0 | 3 | 7.6900000000000004 | 102,000 |
| 8 | Romance | 1,492 | 450 | 750,000 | 5 | 0 | 3 | 1.5700000000000001 | 150,000 |
| 9 | Romance | 1,492 | 51 | 750,000 | 11 | 0 | 2 | 0.9499999999999996 | 68,181 |
| 10 | Romance | 1,492 | 522 | 600,000 | 4 | 0 | 3 | 1.55 | 150,000 |

5. Perform SCD 1 & SCD2 dimension table modelling

SCD TYPE 1

| SupplierID | SupplierAddress | SupplierName | SupplierContactDetails | ProductID | CarMaker | CarModel | CarColor | CarModelYear | CarPrice | CustomerID | CustomerName |
|------------|------------------------|--------------|------------------------|-----------|---------------|--------------|------------|--------------|-----------|------------|--------------|
| 1 | 542 Dayton Center | Bubbltube | 871-57-6028 | 8893 | Dodge | Ram 2500 | Goldenrod | 2007 | 521963.45 | 60760-224 | Louie Hir |
| 2 | 0674 Springview Circle | Tagopia | 337-64-4060 | 9444 | Toyota | Tundra | Crimson | 2010 | 672222.04 | 67457-594 | Alexandr |
| 3 | 70 Autumn Leaf Center | Zoomdog | 218-19-1802 | 253 | GMC | Savana 1500 | Crimson | 2011 | 504465.72 | 58411-135 | Alvie We |
| 4 | 649 Corben Lane | Oozz | 635-15-3112 | 1283 | Volkswagen | Cabriolet | Fuscia | 1990 | 646077.11 | 0591-5307 | Flint Gun |
| 5 | 94 Namekagon Point | Kare | 849-23-6788 | 8905 | Mercury | Mariner | Teal | 2009 | 699890.24 | 51655-189 | Alyssa Fil |
| 6 | 46347 Dunning Drive | Rhynyx | 378-57-0118 | 8877 | Toyota | Land Cruiser | Crimson | 2005 | 694373.94 | 65811-0001 | Wiatt Pic |
| 7 | 85 Coleman Parkway | Roombo | 479-97-2408 | 101 | Subaru | Impreza | Indigo | 1999 | 546977.55 | 31722-328 | Findlay A |
| 8 | 30230 Westerfield Pass | Wordify | 371-69-6870 | 8854 | BMW | X6 | Purple | 2013 | 528353.8 | 54162-018 | Ottillie W |
| 9 | 4 Coleman Street | Skyvu | 717-19-7839 | 9043 | Mitsubishi | Galant | Orange | 2011 | 706964.35 | 44911-0060 | Kirsten C |
| 10 | 100 Anhalt Place | Feedfire | 634-55-4653 | 492 | Subaru | Justy | Crimson | 1988 | 798573.59 | 54868-5732 | Archer Li |
| 11 | 7 Esch Trail | Layo | 547-88-4825 | 9212 | Mercedes-Benz | M-Class | Mauv | 2002 | 722114.57 | 0955-1015 | Duff Dod |
| 12 | 6 Meadow Vale Center | Oyoyo | 440-82-9219 | 7891 | Ford | Taurus X | Crimson | 2008 | 761182.85 | 54838-101 | Barry De |
| 13 | 0972 Pepper Wood Lane | Quatz | 803-82-7568 | 3334 | Mercedes-Benz | CL-Class | Red | 2011 | 568015.89 | 49825-119 | Libbey D |
| 14 | 55262 Emmet Place | Gabvine | 854-30-4179 | 8898 | Dodge | Avenger | Turquoise | 2008 | 646591.02 | 54799-504 | Demetrie |
| 15 | 330 Pennsylvania Plaza | Jaxspan | 385-11-6886 | 4531 | Nissan | Pathfinder | Khaki | 2002 | 670304.84 | 43742-0059 | Creigh W |
| 16 | 428 Meadow Ridge Alley | Mybuzz | 632-59-2978 | 3327 | BMW | M3 | Turquoise | 2009 | 728986.85 | 68788-9728 | Erv Manv |
| 17 | 26 Stuart Court | Gabcube | 236-54-6347 | 7975 | Mercedes-Benz | R-Class | Puce | 2009 | 665854.24 | 0228-2672 | Mychal Z |
| 18 | 73 Beilfuss Road | Lazz | 329-80-2609 | 7029 | Honda | FCX Clarity | Yellow | 2012 | 707705.42 | 21695-215 | Jermain I |
| 19 | 9 Lukken Way | Buzzdog | 351-97-3917 | 2373 | Toyota | Corolla | Aquamarine | 2004 | 563380.63 | 37000-352 | Liuka Du |
| 20 | 411 Coleman Circle | Yodel | 298-99-8758 | 5839 | Ford | Tempo | Turquoise | 1988 | 686028.43 | 49288-0606 | Timmy D |
| 21 | 88 Katie Wav | Innoiam | 188-55-0225 | 1459 | Mercedes-Benz | SL-Class | Turquoise | 2009 | 526717.03 | 49693-1801 | Barbee C |

I have specified Supplier ID as the business key. Therefore, if the supplier ID changes then that row gets inserted into the destination.

Slowly Changing Dimension Wizard

Select a Dimension Table and Keys

Select a dimension table to load and map columns in the transformation input to columns in the dimension table.

Connection manager:
rewansolution.database.windows.net.sweekar.rewan 2

Table or view:
[dbo].[FA_M2_SCD1_CAR_SALES]

| Input Columns | Dimension Columns | Key Type |
|-----------------|----------------------|------------------|
| PostalCode | PostalCode | Not a key column |
| ProductID | ProductID | Not a key column |
| Quantity | Quantity | Not a key column |
| Sales | Sales | Not a key column |
| | ShipDate | |
| ShipMode | ShipMode | Not a key column |
| Shipping | Shipping | Not a key column |
| State | State | Not a key column |
| SupplierAddr... | SupplierAddress | Not a key column |
| SupplierCont... | SupplierContactDe... | Not a key column |
| SupplierID | SupplierID | Business key |
| SupplierName | SupplierName | Not a key column |

Help < Back Next > Finish >>| Cancel

I have given the columns in the below picture as changing attributed and if any of those values change for the existing supplier ID then the change gets updated.

Slowly Changing Dimension Wizard

Slowly Changing Dimension Columns

Manage the changes to column data in your slowly changing dimensions by setting the change type for dimension columns.

Fixed Attribute
Select this type when the value in a column should not change. Changes are treated as errors.

Changing Attribute
Select this type when changed values should overwrite existing values. This is a Type 1 change.

Historical Attribute
Select this type when changes in column values are saved in new records. Previous values are saved in records marked as outdated. This is a Type 2 change.

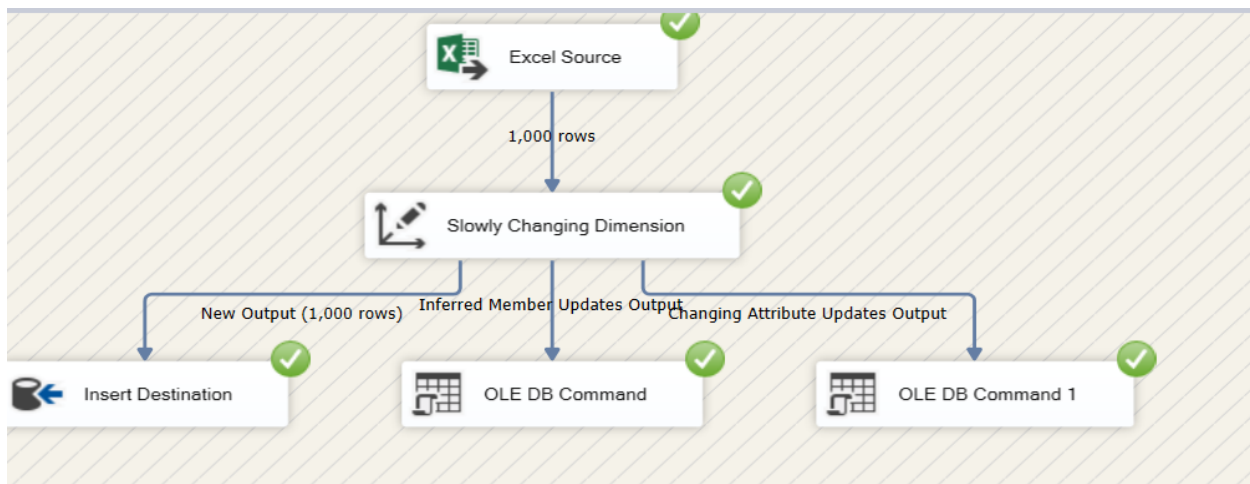
Select a change type for slowly changing dimension columns:

| Dimension Columns | Change Type |
|-------------------|-----------------|
| CarColor | Changing at... |
| CarMaker | Changing at... |
| CarModel | Changing at... |
| CarModelYear | Changing at... |
| CarPrice | Changing at... |
| CustomerID | Fixed attribute |

Remove

Help < Back Next > Finish >>| Cancel

As we can see below all the 1000 rows are transferred to the destination



SELECT * FROM FA_M2_SCD1_CAR_SALES;

Results 1 x

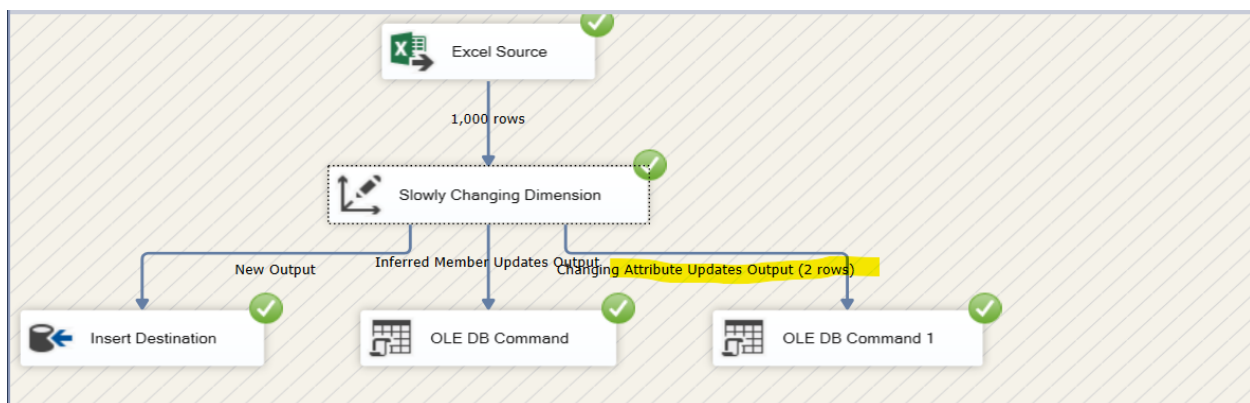
Enter a SQL expression to filter results (use Ctrl+Space)

| Grid | SupplierID | SupplierAddress | SupplierName | SupplierContactDetails | ProductID | CarMaker | CarModel | CarColor | CarModelYear | CarPrice | CustomerID |
|------|------------|------------------------|--------------|------------------------|-----------|------------|--------------|-----------|--------------|------------|------------|
| 1 | 1 | 542 Dayton Center | Bubbltube | 871-57-6028 | 8,893 | Dodge | Ram 2500 | Goldenrod | 2007 | 521,963.45 | 60760-224 |
| 2 | 2 | 0674 Springview Circle | Tagopia | 337-64-4060 | 9,444 | Toyota | Tundra | Crimson | 2010 | 672,222.04 | 67457-111 |
| 3 | 3 | 70 Autumn Leaf Center | Zoomdog | 218-19-1802 | 253 | GMC | Savana 1500 | Crimson | 2011 | 504,465.72 | 58411-135 |
| 4 | 4 | 649 Corben Lane | Oozz | 635-15-3112 | 1,283 | Volkswagen | Cabriolet | Fuscia | 1990 | 646,077.11 | 0591-5307 |
| 5 | 5 | 94 Namekagon Point | Kare | 849-23-6788 | 8,905 | Mercury | Mariner | Teal | 2,009 | 699,890.24 | 51655-189 |
| 6 | 6 | 46347 Dunning Drive | Rhynyx | 378-57-0118 | 8,877 | Toyota | Land Cruiser | Crimson | 2,005 | 694,373.94 | 65811-0001 |
| 7 | 7 | 85 Coleman Parkway | Roombo | 479-97-2408 | 101 | Subaru | Impreza | Indigo | 1,999 | 546,977.55 | 31722-321 |

Now I'll make some changes in the source

| A | B | C | D | E | F | G | H | I | J | K | L |
|------------|------------------------|--------------|------------------------|-----------|---------------|--------------|-----------|--------------|-----------|------------|------------------|
| SupplierID | SupplierAddress | SupplierName | SupplierContactDetails | ProductID | CarMaker | CarModel | CarColor | CarModelYear | CarPrice | CustomerID | CustomerName |
| 1 | 542 Dayton Center | Bubbltube | 871-57-6028 | 8893 | Dodge | Ram 2500 | Goldenrod | 2010 | 521963.45 | 60760-224 | Louie Hirsch |
| 2 | 0674 Springview Circle | Tagopia | 337-64-4060 | 9444 | Toyota | Tundra | Crimson | 2010 | 672222.04 | 67457-111 | Alexandros Manu |
| 3 | 70 Autumn Leaf Center | Zoomdog | 218-19-1802 | 253 | GMC | Savana 1500 | Crimson | 2011 | 555555.72 | 58411-135 | Alvie Weighell |
| 4 | 649 Corben Lane | Oozz | 635-15-3112 | 1283 | Volkswagen | Cabriolet | Fuscia | 1990 | 646077.11 | 0591-5307 | Flint Gunston |
| 5 | 94 Namekagon Point | Kare | 849-23-6788 | 8905 | Mercury | Mariner | Teal | 2009 | 699890.24 | 51655-189 | Alyssa Filpi |
| 6 | 46347 Dunning Drive | Rhynyx | 378-57-0118 | 8877 | Toyota | Land Cruiser | Crimson | 2005 | 694373.94 | 65811-0001 | Wiatt Piche |
| 7 | 85 Coleman Parkway | Roombo | 479-97-2408 | 101 | Subaru | Impreza | Indigo | 1999 | 546977.55 | 31722-328 | Findlay Alberti |
| 8 | 30230 Westerfield Pass | Wordify | 371-69-6870 | 8854 | BMW | X6 | Purple | 2013 | 528353.8 | 54162-018 | Ottillie Wittman |
| 9 | 4 Coleman Street | Skyvu | 717-19-7839 | 9043 | Mitsubishi | Galant | Orange | 2011 | 706964.35 | 44911-0060 | Kirsten W |
| 10 | 100 Anhalt Place | Feedfire | 634-55-4653 | 492 | Subaru | Justy | Crimson | 1988 | 798573.59 | 54868-5732 | Archer Li |
| 11 | 7 Esch Trail | Layo | 547-88-4825 | 9212 | Mercedes-Benz | M-Class | Mauv | 2002 | 722114.57 | 0955-1015 | Duff Dod |
| 12 | 6 Meadow Vale Center | Oyoyo | 440-82-9219 | 7891 | Ford | Taurus X | Crimson | 2008 | 761182.85 | 54838-101 | Barry De |
| 13 | 0972 Pepper Wood Lane | Quatz | 803-82-7568 | 3334 | Mercedes-Benz | CL-Class | Red | 2011 | 568015.89 | 49825-119 | Libbey De |
| 14 | 55262 Emmet Place | Gabvine | 854-30-4179 | 8898 | Dodge | Avenger | Turquoise | 2008 | 646591.02 | 54799-504 | Demetri |
| 15 | 330 Pennsylvania Plaza | Laxnan | 385-11-6886 | 4531 | Nissan | Pathfinder | Khaki | 2007 | 670304.84 | 43747-0059 | Creigh W |

I had made changes in 3 rows but only 2 rows got updated because I had specified that Customer ID as fixed attribute, so it won't get updated.




SELECT * FROM FA_M2_SCD1_CAR_SALES;

Results 1 x

Enter a SQL expression to filter results (use Ctrl+Space)

| Grid | SupplierName | SupplierContactDetails | ProductID | CarMaker | CarModel | CarColor | CarModelYear | CarPrice | CustomerID | CustomerName | Gender | JobTitle |
|------|--------------|------------------------|-----------|------------|--------------|-----------|--------------|------------|------------|------------------|--------|-----------|
| 1 | Bubbltube | 871-57-6028 | 8,893 | Dodge | Ram 2500 | Goldenrod | 2,010 | 521,963.45 | 60760-224 | Louie Hinsche | Male | Mechanics |
| 2 | Tagopia | 337-64-4060 | 9,444 | Toyota | Tundra | Crimson | 2,010 | 672,222.04 | 67457-594 | Alexandros Manue | Male | Structur |
| 3 | Zoomdog | 218-19-1802 | 253 | GMC | Savana 1500 | Crimson | 2,011 | 555,555.72 | 58411-135 | Alvie Weighell | Male | Systems |
| 4 | Oozz | 635-15-3112 | 1,283 | Volkswagen | Cabriolet | Fuscia | 1,990 | 646,077.11 | 0591-5307 | Flint Gunston | Male | Operato |
| 5 | Kare | 849-23-6788 | 8,905 | Mercury | Mariner | Teal | 2,009 | 699,890.24 | 51655-189 | Alyssa Filpi | Female | Softwar |
| 6 | Rhynyx | 378-57-0118 | 8,877 | Toyota | Land Cruiser | Crimson | 2,005 | 694,373.94 | 65811-0001 | Wiatt Piche | Male | Professc |
| 7 | Roombo | 479-97-2408 | 101 | Subaru | Impreza | Indigo | 1,999 | 546,977.55 | 31722-328 | Findlay Alberti | Male | Biostat |
| 8 | Wordify | 371-69-6870 | 8,854 | BMW | X6 | Purple | 2,013 | 528,353.8 | 54162-018 | Ottillie Wittman | Female | Adminis |

SCD TYPE 2

 Slowly Changing Dimension Wizard

Select a Dimension Table and Keys

Select a dimension table to load and map columns in the transformation input to columns in the dimension table.

Connection manager:

rewansolution.database.windows.net.sweekar.rewan

New...

Table or view:

Idho1FEA_M2_SCD2_CAR_SALES1

| Input Columns | Dimension Columns | Key Type |
|-----------------|----------------------|------------------|
| ProductID | ProductID | Not a key column |
| Quantity | Quantity | Not a key column |
| Sales | Sales | Not a key column |
| | ShipDate | |
| ShipMode | ShipMode | Not a key column |
| Shipping | Shipping | Not a key column |
| | Start_date | |
| State | State | Not a key column |
| SupplierAddr... | SupplierAddress | Not a key column |
| SupplierCont... | SupplierContactDe... | Not a key column |
| SupplierID | SupplierID | Business key |
| SupplierName | SupplierName | Not a key column |

Help

< Back

Next >

Finish >>|

Cancel

Slowly Changing Dimension Columns

Manage the changes to column data in your slowly changing dimensions by setting the change type for dimension columns.

**Fixed Attribute**

Select this type when the value in a column should not change. Changes are treated as errors.

Changing Attribute

Select this type when changed values should overwrite existing values. This is a Type 1 change.

Historical Attribute

Select this type when changes in column values are saved in new records. Previous values are saved in records marked as outdated. This is a Type 2 change.

Select a change type for slowly changing dimension columns:

| Dimension Columns | Change Type |
|-------------------|-------------------|
| CustomerAddress | Historical att... |
| CustomerName | Historical att... |
| PhoneNumber | Historical att... |
| | |

Remove

Help

< Back

Next >

Finish >>|

Cancel

I am using start date and time and end date and time to identify the current and expired records, if the end date is null then the row is active.

Slowly Changing Dimension Wizard

Historical Attribute Options
You can record historical attributes using a single column or start and end date columns.

☐ Use a single column to show current and expired records

Column to indicate current record:

Value when current:

Expiration value:

☒ Use start and end dates to identify current and expired records

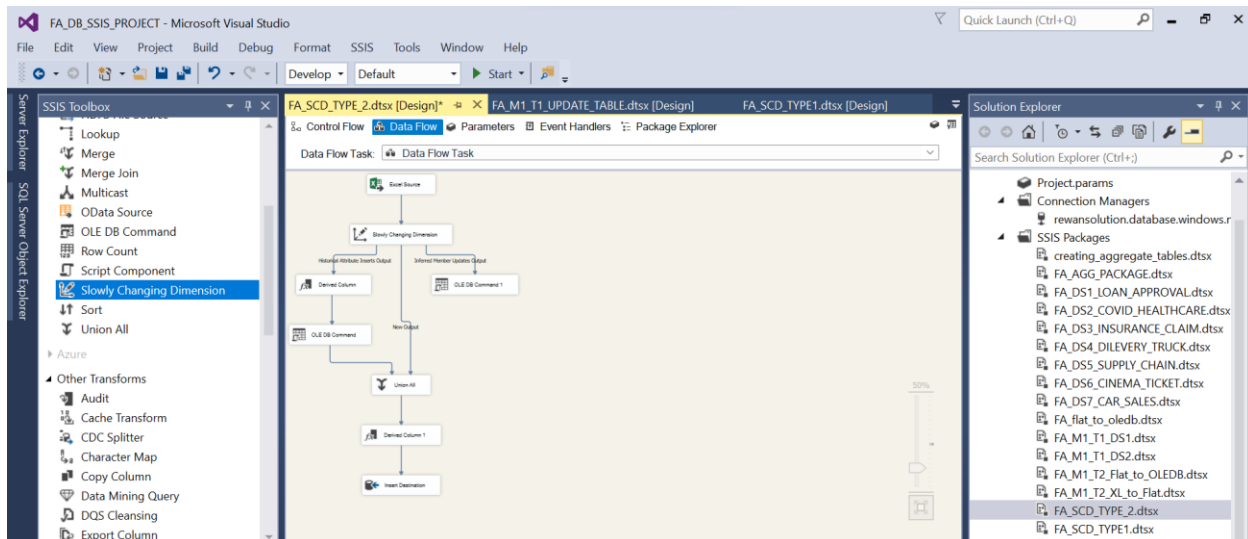
Start date column:

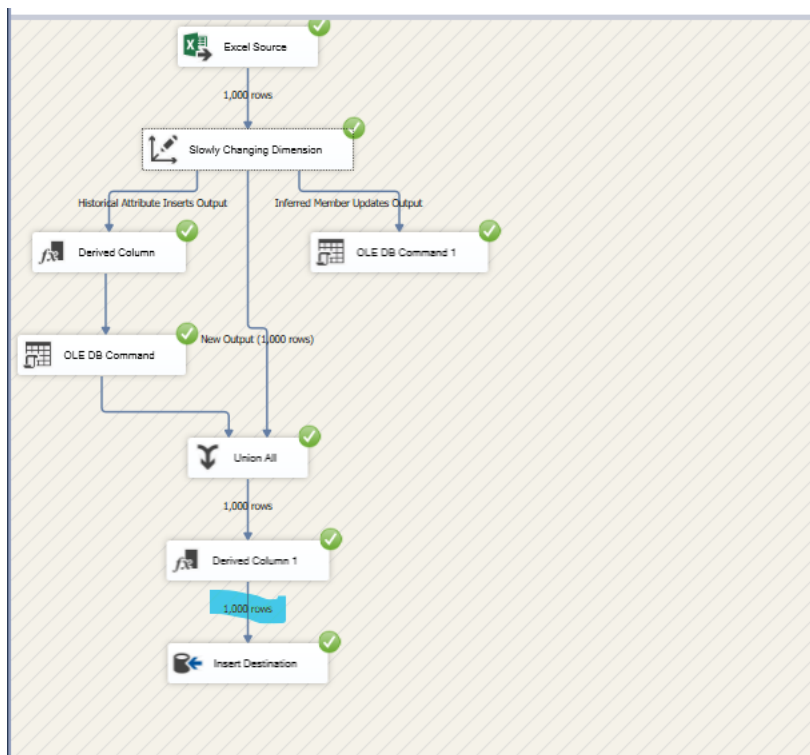
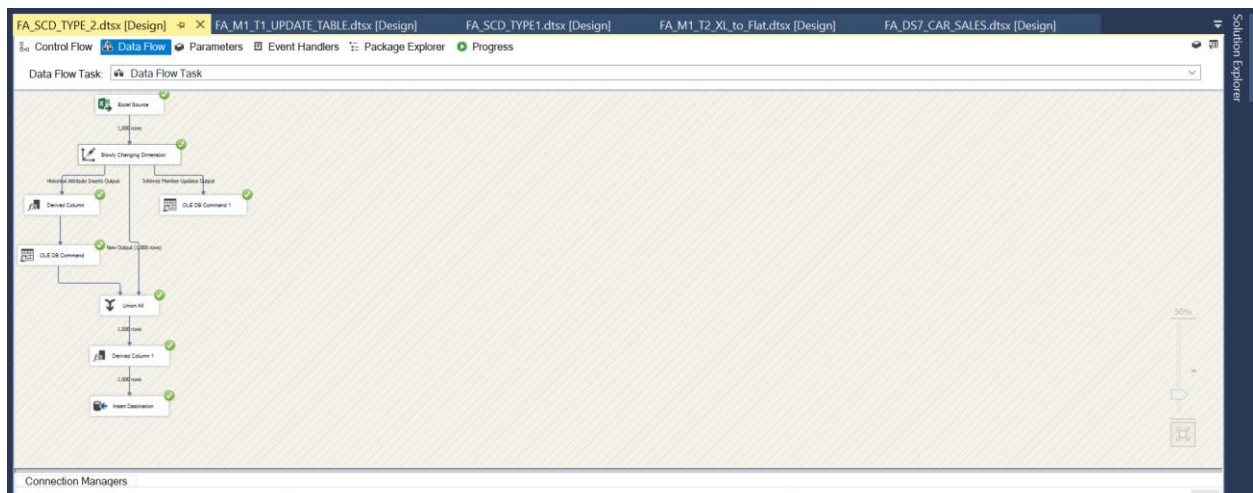
End date column:

Variable to set date values:

Buttons: Help, < Back, Next >, Finish >>, Cancel

The slowly changing dimension package builds itself according to our given inputs





```
SELECT * FROM FA_M2_SCD2_CAR_SALES;
```

Results 1 x

Enter a SQL expression to filter results (use Ctrl+Space)

| | Shipping | PostalCode | Sales | Quantity | Discount | CreditCardType | CreditCard | CustomerFeedback | Start_date | End_date |
|---|----------|------------|------------|----------|----------|-------------------------|-----------------|------------------|-------------------------|----------|
| 1 | uck | 99,522 | 744,796.41 | 1 | 0.83 | diners-club-carte-blanc | 408,000,000,000 | Bad | 2022-10-10 08:05:46.000 | [NULL] |
| 2 | uck | 56,398 | 794,773.17 | 1 | 0.79 | jcb | 220,000,000,000 | Good | 2022-10-10 08:05:46.000 | [NULL] |
| 3 | r | 60,674 | 968,244.9 | 1 | 0.28 | jcb | 160,000,000,000 | Okay | 2022-10-10 08:05:46.000 | [NULL] |
| 4 | uck | 32,885 | 942,213.82 | 2 | 0.76 | jcb | 910,000,000,000 | Very Bad | 2022-10-10 08:05:46.000 | [NULL] |
| 5 | r | 48,232 | 879,519.57 | 1 | 0.5 | china-unionpay | 240,000,000,000 | Bad | 2022-10-10 08:05:46.000 | [NULL] |
| 6 | r | 31,136 | 947,785.4 | 2 | 0.39 | laser | 250,000,000,000 | Good | 2022-10-10 08:05:46.000 | [NULL] |
| 7 | uck | 2,208 | 883,836.81 | 2 | 0.79 | diners-club-carte-blanc | 528,100,000,000 | Very Bad | 2022-10-10 08:05:46.000 | [NULL] |
| 8 | uck | 25,336 | 779,626.29 | 1 | 0.9 | jcb | 140,000,000,000 | Bad | 2022-10-10 08:05:46.000 | [NULL] |

AutoSave Off CarSalesShipmentDatasource - Compatibility Mode Search (Alt+Q) Sweekar Thimmappa

File Home Insert Page Layout Formulas Data Review View Help

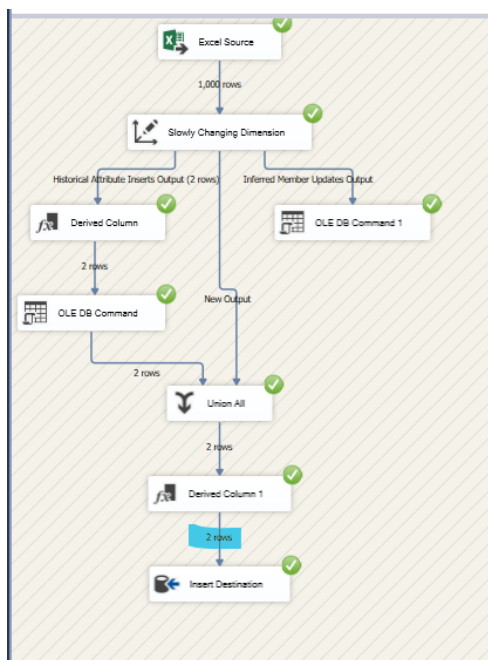
Calibri 11 Font Alignment Number Styles

Comments Share

U3 220 Lerdahl Alley

| | O | P | Q | R | S | T | U | V |
|----|--------------|------------------------------|--------------|---------------|-------------|----------------------|---------------------------|-----------|
| | PhoneNumber | EmailAddress | City | Country | CountryCode | State | CustomerAddress | OrderDate |
| 1 | 907-966-1212 | lhinsche0@comcast.net | Anchorage | United States | US | Alaska | 1 Independence Circle | 12/16/20 |
| 2 | 320-943-9301 | amanuel1@usnews.com | Saint Cloud | United States | US | Minnesota | 220 Lerdahl Alley | 2/13/201 |
| 3 | 312-561-8337 | aweighell2@nature.com | Chicago | United States | US | Illinois | 1803 Evergreen Trail | 8/16/201 |
| 4 | 407-830-3175 | fgunston3@mozilla.org | Orlando | United States | US | Florida | 9682 Warbler Terrace | 2/22/201 |
| 5 | 313-870-7247 | afilpi4@webs.com | Detroit | United States | US | Michigan | 5751 Tony Avenue | 9/6/2018 |
| 6 | 404-590-7068 | wpiche5@deviantart.com | Atlanta | United States | US | Georgia | 26066 Valley Edge Parkway | 8/16/201 |
| 7 | 617-524-1910 | falbert6@google.com.br | Boston | United States | US | Massachusetts | 60797 Rowland Pass | 3/16/201 |
| 8 | 304-526-4427 | owittman7@nps.gov | Charleston | United States | US | West Virginia | 0 Sachs Court | 6/30/201 |
| 9 | 623-594-6668 | kcalvey8@google.cn | Phoenix | United States | US | Arizona | 0 Maywood Center | 11/4/201 |
| 10 | 408-440-1522 | alandsborough9@chron.com | San Jose | United States | US | California | 04 Knutson Drive | 11/24/20 |
| 11 | 973-213-3415 | bdodgshuna@imgur.com | Newark | United States | US | New Jersey | 8104 Colorado Avenue | 5/23/201 |
| 12 | 315-420-4107 | bdvelsb@zimbio.com | Syracuse | United States | US | New York | 7265 Buell Trail | 12/2/201 |
| 13 | 304-984-5742 | ldivellc@blog.com | Charleston | United States | US | West Virginia | 26 Mitchell Center | 6/17/201 |
| 14 | 785-371-7195 | dhazelgroved@theatlantic.com | Topeka | United States | US | Kansas | 25 Dapin Lane | 8/25/201 |
| 15 | 202-159-8709 | cwreake9@mtv.com | Washington | United States | US | District of Columbia | 9 Nelson Parkway | 8/12/201 |
| 16 | 423-655-8690 | emanville@shareasale.com | Chattanooga | United States | US | Tennessee | 98287 Tennessee Place | 12/3/201 |
| 17 | 937-749-6041 | mzanettig@dropbox.com | Dayton | United States | US | Ohio | 68 Prairieview Way | 8/6/2018 |
| 18 | 920-861-3234 | jproudmanh@independent.co.uk | Appleton | United States | US | Wisconsin | 064 Everett Circle | 4/15/201 |
| 19 | 615-169-0681 | ldundini@hc360.com | Murfreesboro | United States | US | Tennessee | 8972 Rieder Terrace | 6/3/2015 |
| 20 | 410-914-0768 | tduckj@mapquest.com | Annapolis | United States | US | Maryland | 90 Mendota Park | 11/12/20 |
| 21 | 812-935-0173 | bcathelk@paonlinealle.it | Bloomington | United States | US | Indiana | 618 Buntine Court | 12/3/201 |

Car Sales & Shipment Datasource



SELECT * FROM FA_M2_SCD2_CAR_SALES;

Results 1 x

SELECT * FROM FA_M2_SCD2_CAR_SALES

| Grid | Shipping | PostalCode | Sales | Quantity | Discount | CreditCardType | CreditCard | Customer | Start_date | End_date |
|------|----------|------------|------------|----------|----------|-------------------------|-----------------|----------|-------------------------|-------------------------|
| 1 | ck | 99,522 | 744,796.41 | 1 | 0.83 | diners-club-carte-blanc | 408,000,000,000 | Bad | 2022-10-10 08:05:46.000 | 2022-10-10 08:12:39.000 |
| 2 | ck | 56,398 | 794,773.17 | 1 | 0.79 | jcb | 220,000,000,000 | Good | 2022-10-10 08:05:46.000 | 2022-10-10 08:12:39.000 |
| 3 | | 60,674 | 968,244.9 | 1 | 0.28 | jcb | 160,000,000,000 | Okay | 2022-10-10 08:05:46.000 | [NULL] |
| 4 | ck | 32,885 | 942,213.82 | 2 | 0.76 | jcb | 910,000,000,000 | Very Bad | 2022-10-10 08:05:46.000 | [NULL] |
| 5 | | 48,232 | 879,519.57 | 1 | 0.5 | china-unionpay | 240,000,000,000 | Bad | 2022-10-10 08:05:46.000 | [NULL] |
| 6 | | 31,136 | 947,785.4 | 2 | 0.39 | laser | 250,000,000,000 | Good | 2022-10-10 08:05:46.000 | [NULL] |
| 7 | ck | 2,208 | 883,836.81 | 2 | 0.79 | diners-club-carte-blanc | 528,100,000,000 | Very Bad | 2022-10-10 08:05:46.000 | [NULL] |
| 8 | ck | 25,336 | 779,626.29 | 1 | 0.9 | jcb | 140,000,000,000 | Bad | 2022-10-10 08:05:46.000 | [NULL] |

Save Cancel Script 200 200+ Rows: 1 200 row(s) fetched - 162ms, on 2022-10-10 at 08:13

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

Σ Aggregate Transformation Editor

Aggregations

Advanced

Configure the properties used to perform group by operations and to calculate aggregate values. Optionally, apply comparison options to the operation. To configure multiple group by operations, click Advanced.

Advanced

Available Input Columns

☒ Name

☒ CarMaker

☒ CarModel

☐ CarColor

☐ Column name: CarColor

☒ Data type: Unicode string [DT_WSTR]

☐ Length: 255

☐ Scale: 0

☐ Precision: 0

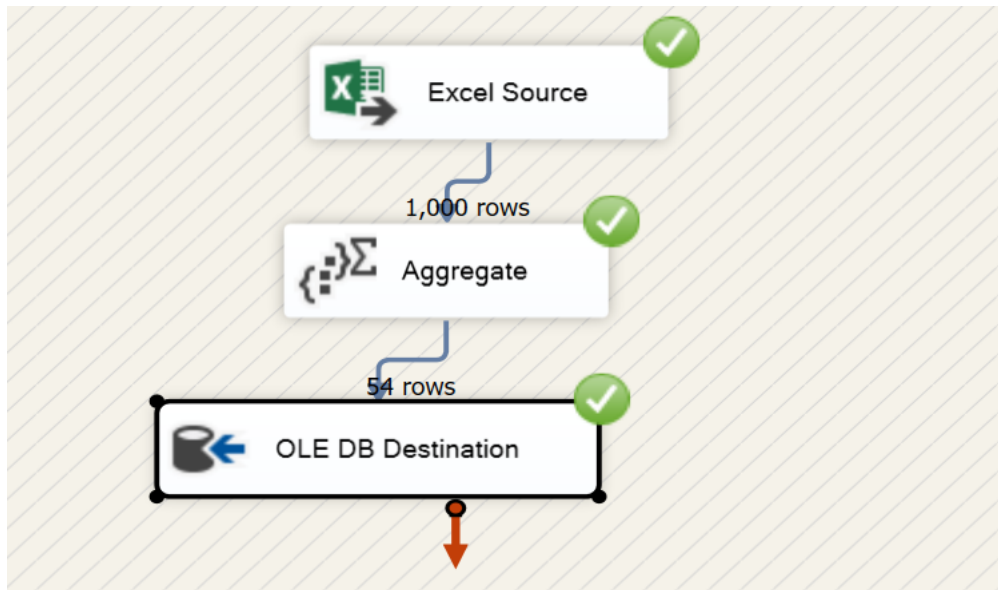
☐ Source Component: Excel Source

| Input Column | Output Alias | Operation | Com |
|--------------|--------------|-----------|-----|
| CarMaker | CarMaker | Group by | |
| CarPrice | Avg_CarPrice | Average | |
| CarModel | CarModel | Count | |
| | | | |
| | | | |
| | | | |

OK

Cancel

Help



SQL Query: `SELECT * FROM FA_AGG_CARMAKER;`

Results 1 x | Statistics 2

SQL Expression: `SELECT * FROM FA_AGG_CARMAKER` Enter a SQL expression to filter results (use Ctrl+Space)

| | CarMaker | Avg_CarPrice | CarModel |
|---|-----------|--------------------|----------|
| 1 | Mazda | 653,824.2518604654 | 40 |
| 2 | Honda | 666,820.732105263 | 19 |
| 3 | Isuzu | 670,861.4777777778 | 18 |
| 4 | Chevrolet | 638,869.9008433735 | 77 |
| 5 | Eagle | 649,742.5775 | 4 |
| 6 | Lexus | 614,979.4188888888 | 18 |
| 7 | Scion | 612,516.7466666667 | 3 |
| 8 | Acura | 666,380.7090909091 | 11 |
| 9 | Saturn | 551,125.0900000001 | 2 |

Save Cancel Script 200 54 Rows: 1 54 row(s) fetched - 165ms, on 2022-10-07 at 15:24:5

IST en Writable Smart Insert 103 : 31 : 2543 Sel: 0 | 0

Here I am creating aggregate tables based on Film type column using conditional split.

Conditional Split Transformation Editor

Specify the conditions used to direct input rows to specific outputs. If an input row matches no condition, the row is directed to a default output.

Variables and Parameters

Columns

Mathematical Functions

String Functions

Date/Time Functions

NULL Functions

Type Casts

Operators

Description:

| Order | Output Name | Condition |
|-------|-------------|------------------------|
| 1 | Horror | Film_Type == "Horror" |
| 2 | Science | Film_Type == "Science" |
| | | |

Default output name:

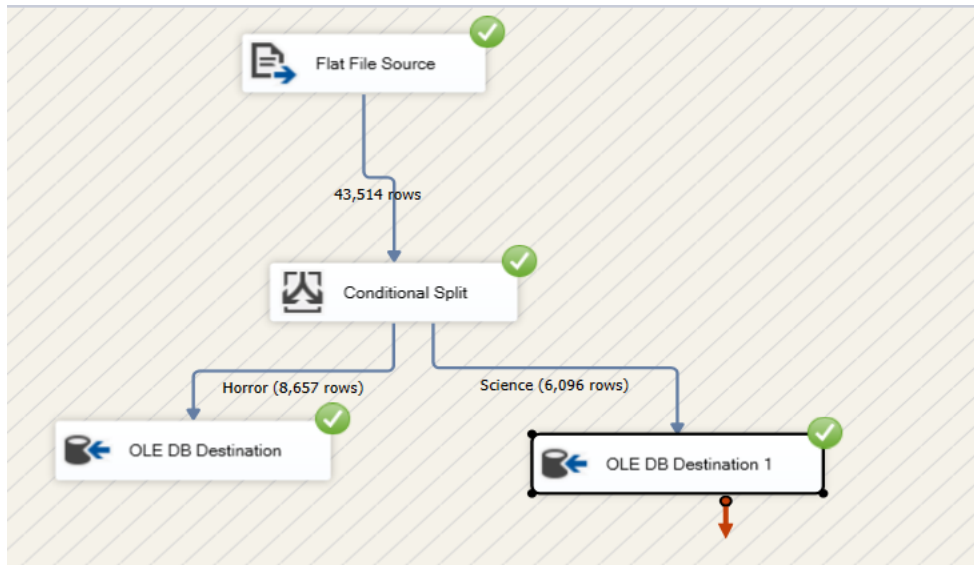
Conditional Split Default Output

Confirm Final Output

OK

Cancel

Help



SQL Query:

```
SELECT * FROM FA_AGG_TABLE_HORROR;
SELECT * FROM FA_AGG_TABLE_SCIENCE;
```

Results 1 × Results 1 (2)

SQL Query:

```
SELECT * FROM FA_AGG_TABLE_HORROR; SI Data filter is not supported
```

| Grid | Film_Type | film_code | cinema_code | total_sales | tickets_sold | tickets_out | show_time | occu_perc | ticket_price |
|------|-----------|-----------|-------------|-------------|--------------|-------------|-----------|--------------------|--------------------|
| 1 | Horror | 1484 | 448 | 121350000 | 814 | 0 | 10 | 30.969999999999999 | 149078.62409999999 |
| 2 | Horror | 1484 | 304 | 49920000 | 336 | 0 | 10 | 15.539999999999999 | 148571.42860000001 |
| 3 | Horror | 1484 | 186 | 47440000 | 593 | 0 | 7 | 16.739999999999998 | 80000 |
| 4 | Horror | 1484 | 163 | 46440000 | 487 | 0 | 7 | 40.920000000000002 | 95359.342919999996 |
| 5 | Horror | 1484 | 518 | 41220000 | 565 | 4 | 10 | 53.100000000000001 | 72955.752210000006 |
| 6 | Horror | 1484 | 183 | 38160000 | 477 | 0 | 7 | 15.140000000000001 | 80000 |
| 7 | Horror | 1484 | 141 | 31650000 | 221 | 0 | 6 | 20.969999999999999 | 143212.6697 |
| 8 | Horror | 1484 | 34 | 30200000 | 302 | 0 | 5 | 45.07 | 100000 |
| 9 | Horror | 1484 | 51 | 26450000 | 305 | 0 | 12 | 9.3599999999999994 | 86721.311480000004 |
| 10 | Horror | 1484 | 450 | 25200000 | 176 | 0 | 5 | 27.079999999999998 | 143181.81820000001 |

SQL Query:

```
SELECT * FROM FA_AGG_TABLE_HORROR;
SELECT * FROM FA_AGG_TABLE_SCIENCE;
```

Results 1 Results 1 (2) ×

SQL Query:

```
SELECT * FROM FA_AGG_TABLE_HORROR; SI Data filter is not supported
```

| Grid | Film_Type | film_code | cinema_code | total_sales | tickets_sold | tickets_out | show_time | occu_perc | ticket_price |
|------|-----------|-----------|-------------|-------------|--------------|-------------|-----------|--------------------|--------------------|
| 1 | Science | 1485 | 448 | 132449998 | 1656 | 0 | 10 | 87.159999999999997 | 79981.882849999995 |
| 2 | Science | 1485 | 304 | 58730000 | 707 | 0 | 7 | 61.799999999999997 | 83069.306930000006 |
| 3 | Science | 1485 | 352 | 57360000 | 724 | 0 | 5 | 70.159999999999997 | 79226.519339999999 |
| 4 | Science | 1485 | 71 | 51280000 | 643 | 1 | 3 | 66.359999999999999 | 79751.166410000005 |
| 5 | Science | 1485 | 344 | 50480000 | 636 | 0 | 5 | 48.07 | 79371.069180000006 |
| 6 | Science | 1485 | 489 | 47840000 | 608 | 0 | 16 | 64.170000000000002 | 78684.210529999997 |
| 7 | Science | 1485 | 72 | 46340000 | 775 | 0 | 15 | 56.710000000000001 | 59793.548390000004 |
| 8 | Science | 1485 | 39 | 43050000 | 865 | 0 | 3 | 96.650000000000006 | 49768.78613 |
| 9 | Science | 1485 | 452 | 42800000 | 535 | 0 | 5 | 73.790000000000006 | 80000 |
| 10 | Science | 1485 | 513 | 41820000 | 697 | 0 | 3 | 93.810000000000002 | 60000 |