



INCREMENTAL DATA LOADING AND AUDIT PROJECT WITH SSIS

ENG. SILVA PARRAGUEZ MAXIMO

I. UNDERSTANDING THE DATA AND THE PROJECT

1. Data source:

A dataset containing information about sales, profits, discounts, and other data related to a fictional retail store was used. It includes data such as order date, product category, region, etc.

The data was obtained from the Kaggle repository : <https://www.kaggle.com/datasets/vivek468/superstore-dataset-final>

The purpose of this project, using SSIS, is to **integrate data from a source** (in this case, a CSV file) into the **SQL Server Ventas_Destino table without duplicating records** . Only new data will be inserted and **existing records will be updated in the event of changes in the source** . In addition, **a change audit will be implemented that will record, in the Ventas_Auditoria table** , essential details such as the update date, the previous value of the data, the modified column and, for example, the user along with their IP or the name of the computer that made the change.

2. Columns:

The dataset contains 21 columns which are detailed below:

No.	Column	Description
1	Row ID	Unique identification for each row.
2	Order ID	Unique order identification for each Customer.
3	Order Date	Product order date.
4	Ship Date	Product shipping date.
5	Ship Mode	Shipping method specified by the Customer.
6	Customer ID	Unique ID to identify each Client.
7	Customer Name	Client Name.
8	Segment	The segment to which the Customer belongs.
9	Country	Country of residence of the Client.
10	City	Client's city of residence.
11	State	Customer's state of residence.
12	Postal Code	Postal code of each Client.
13	Region	Region to which the Client belongs.
14	Product ID	Unique Product Identification.
15	Category	Category of the requested product.
16	Sub- Category	Subcategory of the requested product.
17	Product Name	Product Name
18	Sales	Product Sales.
19	Quantity	Product Quantity.
20	Discount	Discount granted.
21	Profit	Gain/Loss incurred.

II. PROJECT DEVELOPMENT

Step 1: Prepare the Database and Tables:

Three tables were created in a database:

- **Ventas_Origen** (simulates the table where the new data arrives).
- **Ventas_Destino** (stores consolidated data, without duplicates).
- **Ventas_Auditoria** (stores records that were modified for some reason and the details of that update).

```
CREATE DATABASE CARGA_INCREMENTAL;
USE CARGA_INCREMENTAL;

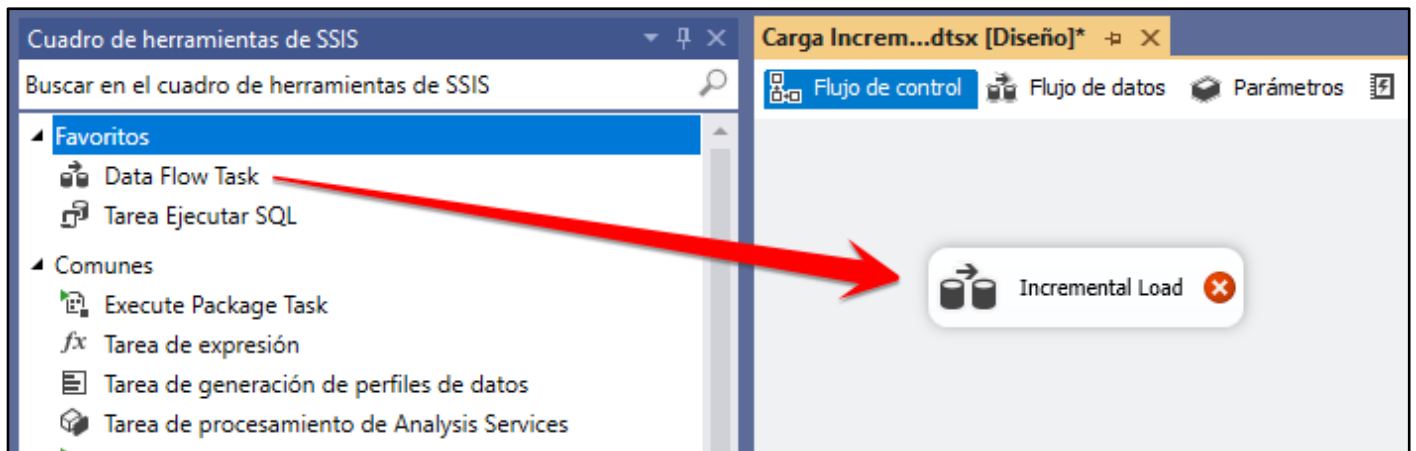
-- Tabla de origen (datos nuevos llegan aquí)
CREATE TABLE Ventas_Origen (
    Row_ID INT,
    Order_ID VARCHAR(50),
    Order_Date DATE,
    Ship_Date DATE,
    Ship_Mode VARCHAR(50),
    Customer_ID VARCHAR(50),
    Customer_Name VARCHAR(100),
    Segment VARCHAR(50),
    Country VARCHAR(50),
    City VARCHAR(100),
    State VARCHAR(100),
    Postal_Code VARCHAR(50),
    Region VARCHAR(50),
    Product_ID VARCHAR(50),
    Category VARCHAR(50),
    Sub_Category VARCHAR(50),
    Product_Name VARCHAR(255),
    Sales DECIMAL(18,2),
    Quantity INT,
    Discount DECIMAL(5,2),
    Profit DECIMAL(18,2),
    Date_Insert DATETIME DEFAULT GETDATE(),
);
```

```
-- Tabla de destino (solo almacena nuevos o actualizados)
CREATE TABLE Ventas_Destino (
    Row_ID INT PRIMARY KEY,
    Order_ID VARCHAR(50),
    Order_Date DATE,
    Ship_Date DATE,
    Ship_Mode VARCHAR(50),
    Customer_ID VARCHAR(50),
    Customer_Name VARCHAR(255),
    Segment VARCHAR(50),
    Country VARCHAR(50),
    City VARCHAR(255),
    State VARCHAR(255),
    Postal_Code VARCHAR(50),
    Region VARCHAR(50),
    Product_ID VARCHAR(50),
    Category VARCHAR(50),
    Sub_Category VARCHAR(50),
    Product_Name VARCHAR(255),
    Sales DECIMAL(18,2),
    Quantity INT,
    Discount DECIMAL(5,2),
    Profit DECIMAL(18,2),
    Date_Insert Datetime
);
```

```
-- Tabla de Auditoría (almacena detalles de modificaciones de algún registros)
CREATE TABLE Ventas_Auditoria (
    ID_Auditoria INT IDENTITY(1,1) PRIMARY KEY,
    Row_ID INT,
    Order_ID VARCHAR(50),
    Fecha_Actualizacion DATETIME DEFAULT GETDATE(),
    Columnas_Modificadas VARCHAR(255),
    Valores_Anteriores NVARCHAR(MAX),
    Usuario NVARCHAR(255) DEFAULT SUSER_NAME(), -- Usuario que hizo la modificación
    IP_Equipo NVARCHAR(50) DEFAULT HOST_NAME() -- IP o nombre del equipo que realizó la modificación
);
```

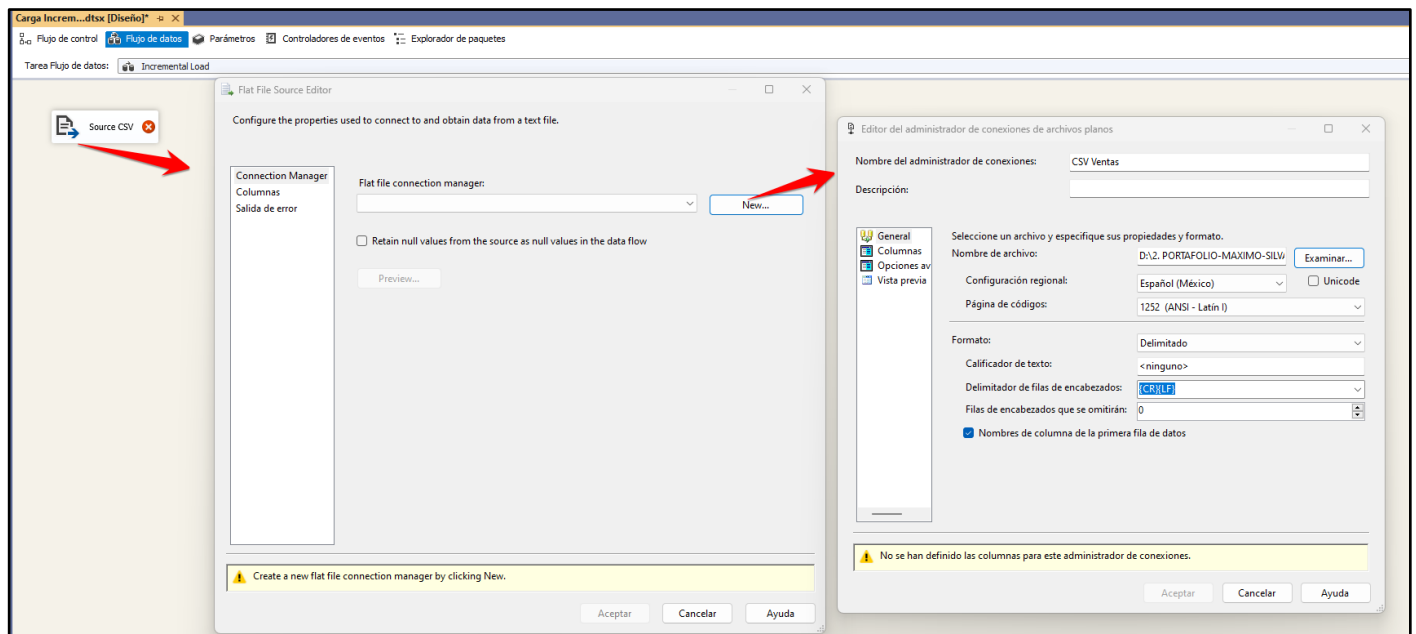
Step 2: Creating a project in SSIS.

Task component .



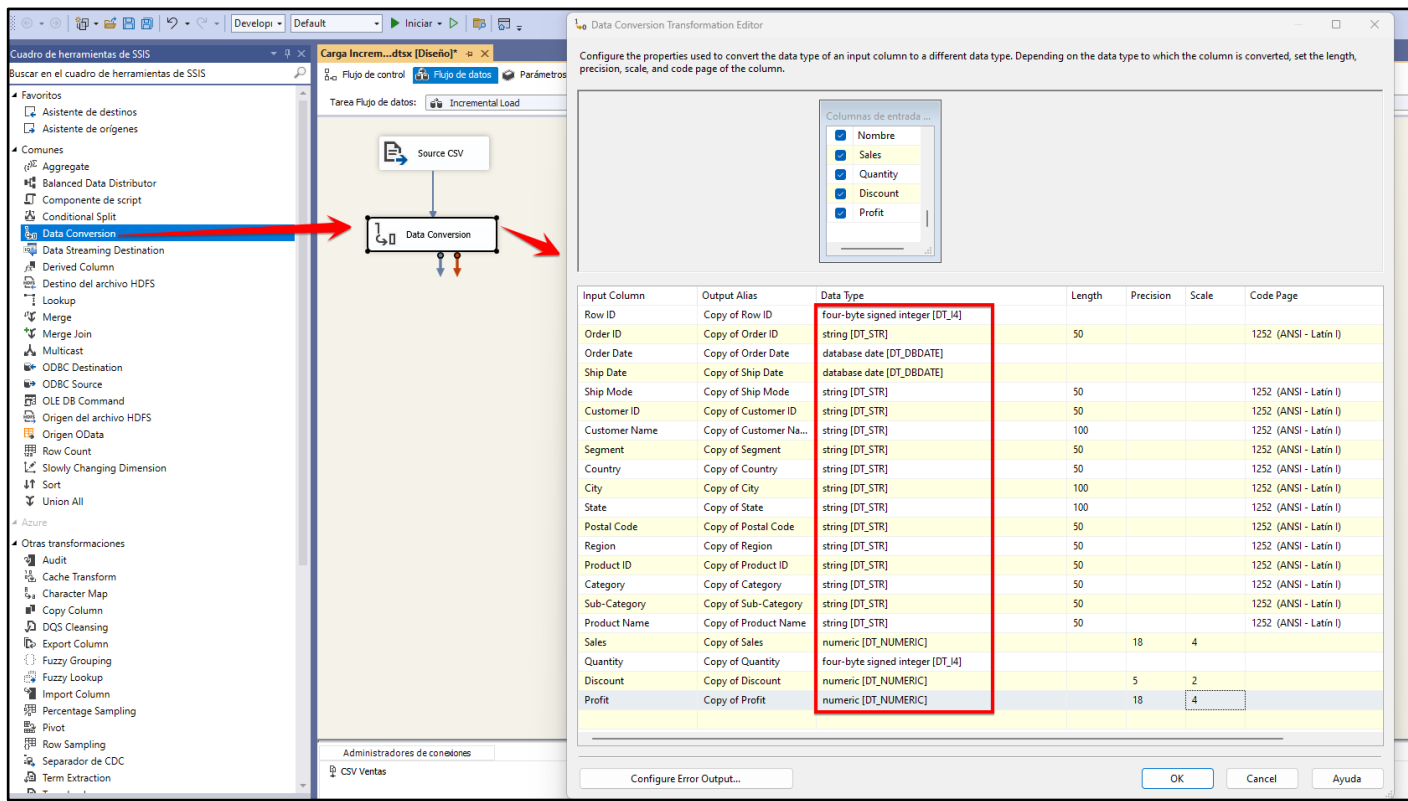
Step 3: Source CSV.

I set the Data Source from the dataset in CSV format:



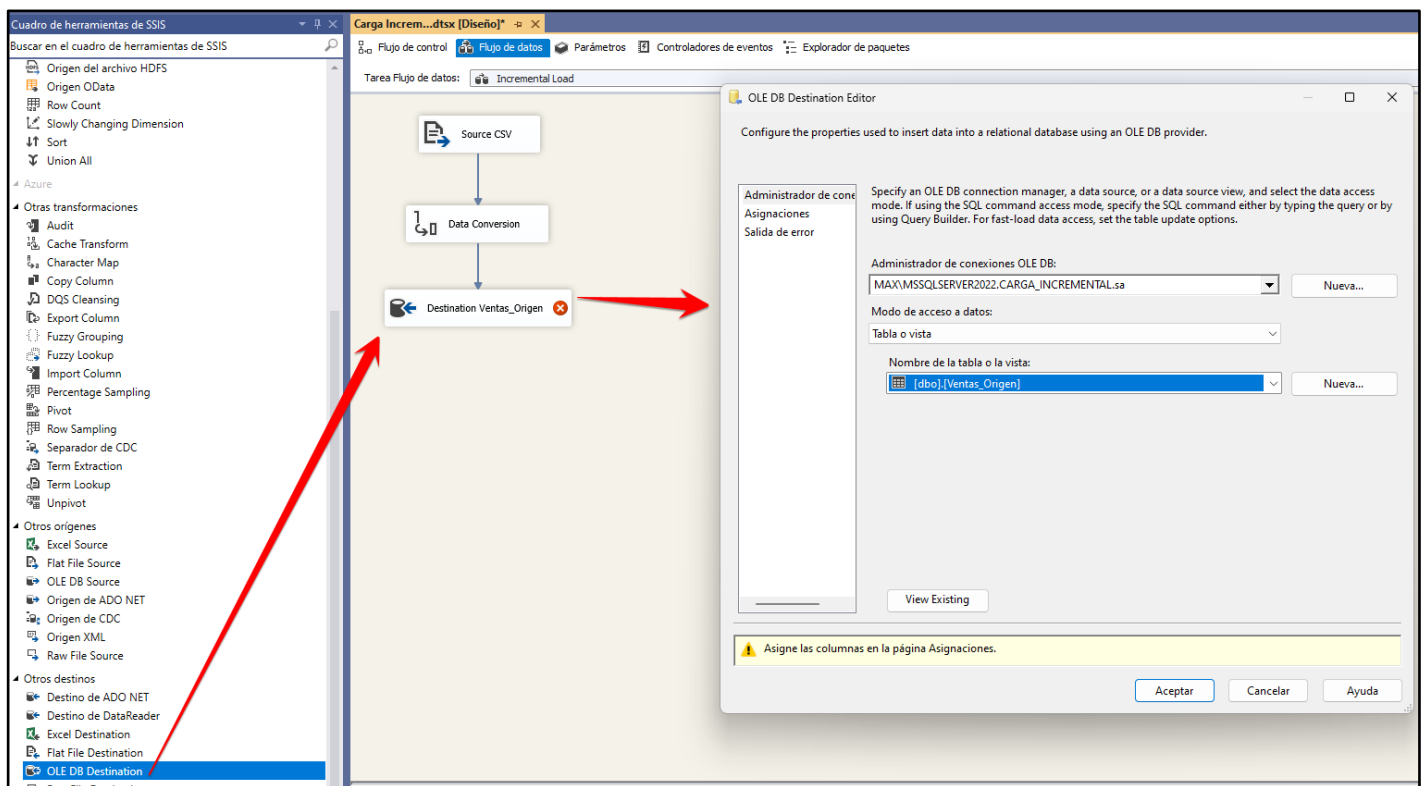
Step 4: Data Conversion Component .

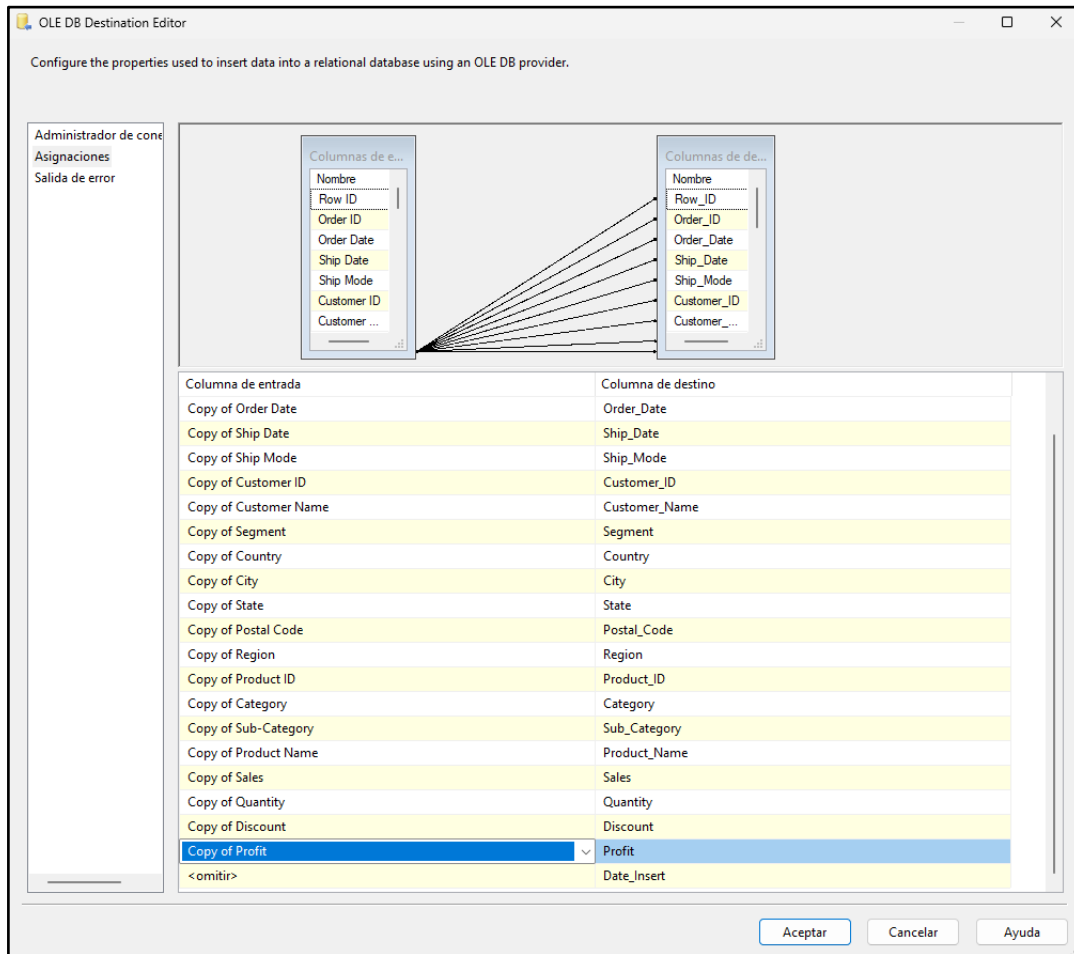
I will use the data conversion component depending on the data type in the DB.



Step 5: From Data Conversion to Sales_Source .

The Destination where the data will be stored is configured Initially , in the Ventas_Origen table .





Step 6: From Ventas_Origen to Ventas_Destino and Ventas_Auditoria .

I used a SQL query that consists of the following:

1. Create a Temporary Audit Table where audit records will be temporarily stored to be used for comparison later.
2. The records that have changed are recorded in the Temporary Table, that is, a comparison is made between the records in the Ventas_Destino table and the records in Ventas_Origen and if data is found that has changed, it is recorded in the Audit temporary table.
3. Ventas_Auditoria table are inserted from the Temporary table.
4. The data is updated, if any, in the Ventas_Destino table .
5. New data will be inserted if it does not exist in the Ventas_Destino table .

```

83  /*-----CONSULTA PARA LA LOGICA DEL PROYECTO-----*/
84
85
86  -- 1. Declaración de la tabla variable para almacenar los registros de auditoria
87  DECLARE @TempAuditoria TABLE (
88      Row_ID INT, -- Identificador de la fila
89      Order_ID VARCHAR(50), -- Identificador de la orden
90      Fecha_Actualizacion DATETIME, -- Fecha y hora en que se actualiza el registro
91      Columnas_Modificadas VARCHAR(255), -- Columnas que han sido modificadas
92      Valores_Anteriores NVARCHAR(MAX) -- Valores anteriores de las columnas modificadas
93  );
94
95  -- 2. Guardar en la variable de tabla los registros que han cambiado
96  INSERT INTO @TempAuditoria (Row_ID, Order_ID, Fecha_Actualizacion, Columnas_Modificadas, Valores_Anteriores)
97  SELECT
98      target.Row_ID,
99      target.Order_ID,
100      GETDATE() AS Fecha_Actualizacion,
101      STRING_AGG(CASE
102          WHEN target.Order_Date <> source.Order_Date THEN 'Order_Date'
103          WHEN target.Ship_Date <> source.Ship_Date THEN 'Ship_Date'
104          WHEN target.Ship_Mode <> source.Ship_Mode THEN 'Ship_Mode'
105          WHEN target.Customer_ID <> source.Customer_ID THEN 'Customer_ID'
106          WHEN target.Customer_Name <> source.Customer_Name THEN 'Customer_Name'
107          WHEN target.Segment <> source.Segment THEN 'Segment'
108          WHEN target.Country <> source.Country THEN 'Country'
109          WHEN target.City <> source.City THEN 'City'
110          WHEN target.State <> source.State THEN 'State'
111          WHEN target.Postal_Code <> source.Postal_Code THEN 'Postal_Code'
112          WHEN target.Region <> source.Region THEN 'Region'
113          WHEN target.Product_ID <> source.Product_ID THEN 'Product_ID'
114          WHEN target.Category <> source.Category THEN 'Category'
115          WHEN target.Sub_Category <> source.Sub_Category THEN 'Sub_Category'
116          WHEN target.Product_Name <> source.Product_Name THEN 'Product_Name'
117          WHEN target.Sales <> source.Sales THEN 'Sales'
118          WHEN target.Quantity <> source.Quantity THEN 'Quantity'
119          WHEN target.Discount <> source.Discount THEN 'Discount'
120          WHEN target.Profit <> source.Profit THEN 'Profit'
121      END, ', ') AS Columnas_Modificadas, -- Se concatena (separado por comas) los nombres de las columnas que han cambiado.
122      STRING_AGG(CASE
123          WHEN target.Order_Date <> source.Order_Date THEN 'Order_Date: ' + CAST(target.Order_Date AS NVARCHAR)
124          WHEN target.Ship_Date <> source.Ship_Date THEN 'Ship_Date: ' + CAST(target.Ship_Date AS NVARCHAR)
125          WHEN target.Ship_Mode <> source.Ship_Mode THEN 'Ship_Mode: ' + target.Ship_Mode
126          WHEN target.Customer_ID <> source.Customer_ID THEN 'Customer_ID: ' + target.Customer_ID
127          WHEN target.Customer_Name <> source.Customer_Name THEN 'Customer_Name: ' + target.Customer_Name
128          WHEN target.Segment <> source.Segment THEN 'Segment: ' + target.Segment
129          WHEN target.Country <> source.Country THEN 'Country: ' + target.Country
130          WHEN target.City <> source.City THEN 'City: ' + target.City
131          WHEN target.State <> source.State THEN 'State: ' + target.State
132          WHEN target.Postal_Code <> source.Postal_Code THEN 'Postal_Code: ' + target.Postal_Code

```

```

133 WHEN target.Region <> source.Region THEN 'Region: ' + target.Region
134 WHEN target.Product_ID <> source.Product_ID THEN 'Product_ID: ' + target.Product_ID
135 WHEN target.Category <> source.Category THEN 'Category: ' + target.Category
136 WHEN target.Sub_Category <> source.Sub_Category THEN 'Sub_Category: ' + target.Sub_Category
137 WHEN target.Product_Name <> source.Product_Name THEN 'Product_Name: ' + target.Product_Name
138 WHEN target.Sales <> source.Sales THEN 'Sales: ' + CAST(target.Sales AS NVARCHAR)
139 WHEN target.Quantity <> source.Quantity THEN 'Quantity: ' + CAST(target.Quantity AS NVARCHAR)
140 WHEN target.Discount <> source.Discount THEN 'Discount: ' + CAST(target.Discount AS NVARCHAR)
141 WHEN target.Profit <> source.Profit THEN 'Profit: ' + CAST(target.Profit AS NVARCHAR)
142 END, ';' ) AS Valores_Anteriores -- Se concatena (separado por punto y coma) el nombre de la columna y su valor anterior
143 FROM Ventas_Destino AS target
144 JOIN Ventas_Origen AS source
145 ON target.Row_ID = source.Row_ID
146 WHERE
147     target.Order_Date <> source.Order_Date OR
148     target.Ship_Date <> source.Ship_Date OR
149     target.Ship_Mode <> source.Ship_Mode OR
150     target.Customer_ID <> source.Customer_ID OR
151     target.Customer_Name <> source.Customer_Name OR
152     target.Segment <> source.Segment OR
153     target.Country <> source.Country OR
154     target.City <> source.City OR
155     target.State <> source.State OR
156     target.Postal_Code <> source.Postal_Code OR
157     target.Region <> source.Region OR
158     target.Product_ID <> source.Product_ID OR
159     target.Category <> source.Category OR
160     target.Sub_Category <> source.Sub_Category OR
161     target.Product_Name <> source.Product_Name OR
162     target.Sales <> source.Sales OR
163     target.Quantity <> source.Quantity OR
164     target.Discount <> source.Discount OR
165     target.Profit <> source.Profit
166 -- Se filtran los registros donde al menos una columna esta diferente entre origen y destino
167 GROUP BY target.Row_ID, target.Order_ID;
168
169 -- 3. Se inserta los cambios en la tabla de auditoría usando la variable de tabla
170 INSERT INTO Ventas_Auditoria (Row_ID, Order_ID, Fecha_Actualizacion, Columnas_Modificadas, Valores_Anteriores)
171 SELECT * FROM @TempAuditoria; -- Se transfiere los registros auditados a la tabla física Ventas_Auditoria
172
173 -- 4. Se realiza la actualización en Ventas_Destino usando MERGE
174 MERGE INTO Ventas_Destino AS target
175 USING Ventas_Origen AS source
176 ON target.Row_ID = source.Row_ID
177
178 -- Cuando se encuentra un registro en ambas tablas (MATCHED) y existe al menos una diferencia en alguno de los campos especificados,
179 -- se ejecuta la cláusula UPDATE.
180 WHEN MATCHED AND (
181     target.Order_Date <> source.Order_Date OR
182     target.Ship_Date <> source.Ship_Date OR

```



```

183 target.Ship_Mode <> source.Ship_Mode OR
184 target.Customer_ID <> source.Customer_ID OR
185 target.Customer_Name <> source.Customer_Name OR
186 target.Segment <> source.Segment OR
187 target.Country <> source.Country OR
188 target.City <> source.City OR
189 target.State <> source.State OR
190 target.Postal_Code <> source.Postal_Code OR
191 target.Region <> source.Region OR
192 target.Product_ID <> source.Product_ID OR
193 target.Category <> source.Category OR
194 target.Sub_Category <> source.Sub_Category OR
195 target.Product_Name <> source.Product_Name OR
196 target.Sales <> source.Sales OR
197 target.Quantity <> source.Quantity OR
198 target.Discount <> source.Discount OR
199 target.Profit <> source.Profit
200 )
201 THEN
202 UPDATE SET --Se actualizan los registros
203 target.Order_Date = source.Order_Date,
204 target.Ship_Date = source.Ship_Date,
205 target.Ship_Mode = source.Ship_Mode,
206 target.Customer_ID = source.Customer_ID,
207 target.Customer_Name = source.Customer_Name,
208 target.Segment = source.Segment,
209 target.Country = source.Country,
210 target.City = source.City,
211 target.State = source.State,
212 target.Postal_Code = source.Postal_Code,
213 target.Region = source.Region,
214 target.Product_ID = source.Product_ID,
215 target.Category = source.Category,
216 target.Sub_Category = source.Sub_Category,
217 target.Product_Name = source.Product_Name,
218 target.Sales = source.Sales,
219 target.Quantity = source.Quantity,
220 target.Discount = source.Discount,
221 target.Profit = source.Profit
222
223 -- 5. Se inserta los datos nuevos si no existen en la tabla destino
224
225 WHEN NOT MATCHED THEN
226 INSERT (Row_ID, Order_ID, Order_Date, Ship_Date, Ship_Mode, Customer_ID, Customer_Name,
227 Segment, Country, City, State, Postal_Code, Region, Product_ID,
228 Category, Sub_Category, Product_Name, Sales, Quantity, Discount, Profit, Date_Insert)
229 VALUES (source.Row_ID, source.Order_ID, source.Order_Date, source.Ship_Date, source.Ship_Mode, source.Customer_ID, source.Customer_Name,
230 source.Segment, source.Country, source.City, source.State, source.Postal_Code, source.Region, source.Product_ID,
231 source.Category, source.Sub_Category, source.Product_Name, source.Sales, source.Quantity, source.Discount, source.Profit, source.Date_Insert);
232

```

Step 7: Execute SQL Task Component.

I configured the Execute SQL Task component and placed the SQL code from the previous step.

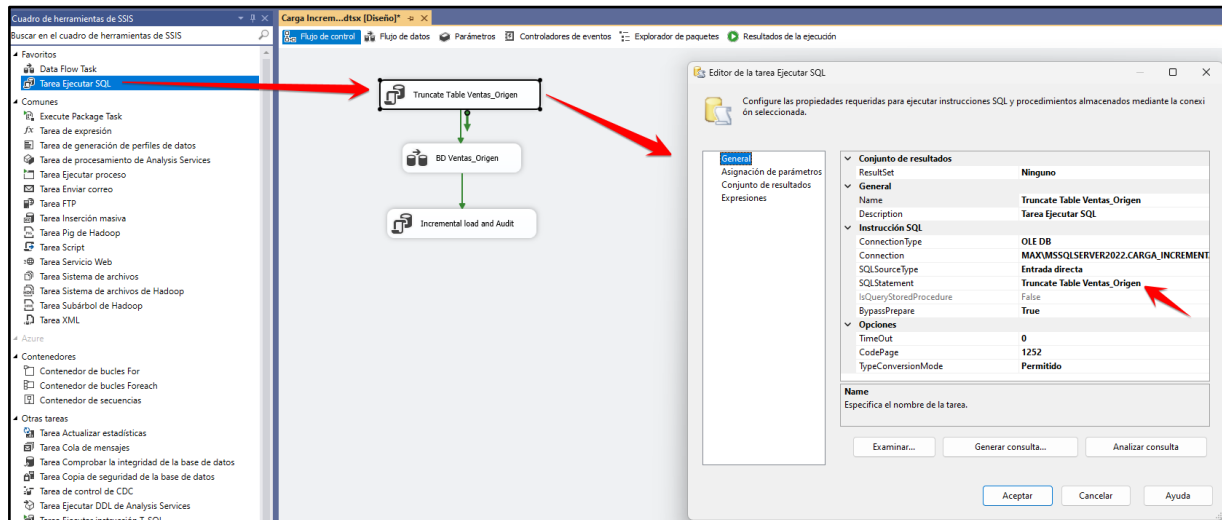
The screenshot displays the SQL Server Data Tools (SSDT) interface. On the left, the 'Cuadro de herramientas de SSIS' (SSIS Toolbox) is visible, showing various tasks. The 'Tarea Ejecutar SQL' (Execute SQL Task) is highlighted. In the center, the 'Carga Increm...dtss [Diseño]*' (Incremental Load...dtss [Design]) diagram shows a data source 'BD Ventas_Origen' connected to an 'Incremental load and Audit' task. On the right, the 'Editor de la tarea Ejecutar SQL' (Execute SQL Task Editor) is open, showing the configuration for the selected task. The 'General' tab is active, displaying the following properties:

Property	Value
Resultado de conjunto	Ninguno
General	
Name	Incremental load and Audit
Description	Tarea Ejecutar SQL
Instrucción SQL	
ConnectionType	OLE DB
Connection	MAXIMSSQLSERVER2022.CARGA_INCREMENTAL.sa
SQLSourceType	Entrada directa
SQLStatement	-- 1. Declaración de la tabla variable para almacenar los regi
IsQueryStoredProcedure	False
BypassPrepare	True
Opciones	
Timeout	0
CodePage	1252
TypeConversionMode	Permitido
Name	Especifica el nombre de la tarea.

Buttons at the bottom of the editor include 'Examinar...', 'Generar consulta...', 'Analizar consulta', 'Aceptar', 'Cancelar', and 'Ayuda'.

Step 8: Cleaning Ventas_Origen Table .

Using an Execute SQL Task component I will clean up the Ventas_Origen table , since it is a table that is only used to do the incremental load query.



Step 9: Running the project and verifying the data.

First I extracted 4140 records from the dataset, and we will pass that to the SSIS project.

The screenshot shows a Microsoft Excel spreadsheet with a dataset of 4140 records. The first row of data is highlighted in row 4141. The data includes columns for Order_ID, Order_Date, Ship_Date, Ship_Mode, Customer_ID, Customer_Name, Segment, County, City, State, Postal_Code, Region, Product_ID, Category, Sub_Category, Product_Name, Sales, Quantity, Discount, Profit, and Date_Insert.

Order_ID	Order_Date	Ship_Date	Ship_Mode	Customer_ID	Customer_Name	Segment	County	City	State	Postal_Code	Region	Product_ID	Category	Sub_Category	Product_Name	Sales	Quantity	Discount	Profit	Date_Insert
4131	CA-2014-115	11/18/2014	11/25/2014	Standard Cla	AB-10600	Ann Blume	Corporate	United State	Chicago	Illinois	60623	Central	OFF-BI-1000	Office Suppl	Binders	GBC White G	14.48	5	0.8	-23.892
4132	CA-2015-111	07/02/2015	07/09/2015	Standard Cla	KB-16315	Karl Braun	Consumer	United State	Hollywood	Florida	33021	South	OFF-PA-100C	Office Suppl	Paper	Easy-staple	11.952	3	0.2	4.0338
4133	CA-2015-111	07/02/2015	07/09/2015	Standard Cla	KB-16315	Karl Braun	Consumer	United State	Hollywood	Florida	33021	South	OFF-PA-100C	Office Suppl	Paper	Xerox 1957	15.552	3	0.2	5.6376
4134	CA-2014-128	09/08/2014	9/13/2014	Standard Cla	TT-21070	Ted Trevino	Consumer	United State	Chesapeake	Virginia	23320	South	OFF-FA-1000	Office Suppl	Fasteners	Advantus Pl	45	9	0	21.6
4135	CA-2014-128	09/08/2014	9/13/2014	Standard Cla	TT-21070	Ted Trevino	Consumer	United State	Chesapeake	Virginia	23320	South	TEC-MA-100	Technology	Machines	Epson Work	209.97	3	0	90.2871
4136	CA-2017-105	10/02/2017	10/08/2017	Standard Cla	PV-18985	Paul Van Hui	Home Office	United State	Los Angeles	California	90036	West	OFF-BI-1000	Office Suppl	Binders	Performers	112.12	5	0.2	42.045
4137	CA-2017-105	10/02/2017	10/08/2017	Standard Cla	PV-18985	Paul Van Hui	Home Office	United State	Los Angeles	California	90036	West	OFF-ST-1000	Office Suppl	Storage	Tennisco Dou	1575.14	7	0	204.7682
4138	CA-2017-110	11/19/2017	11/23/2017	Standard Cla	DD-13570	Dorothy Dick	Consumer	United State	Alexandria	Virginia	22304	South	OFF-FA-1000	Office Suppl	Fasteners	OIC Binder C	25.06	7	0	12.53
4139	CA-2016-117	12/30/2016	01/01/2017	First Class	KD-16495	Keith Dawkli	Corporate	United State	Deer Park	Texas	77536	Central	OFF-BI-1000	Office Suppl	Binders	Avery Bindir	6.924	6	0.8	-10.386
4140	CA-2017-127	12/01/2017	12/04/2017	First Class	RA-19285	Ralph Arnett	Consumer	United State	Philadelphia	Pennsylvania	19120	East	OFF-ST-1000	Office Suppl	Storage	Personal File	37.392	3	0.2	2.337

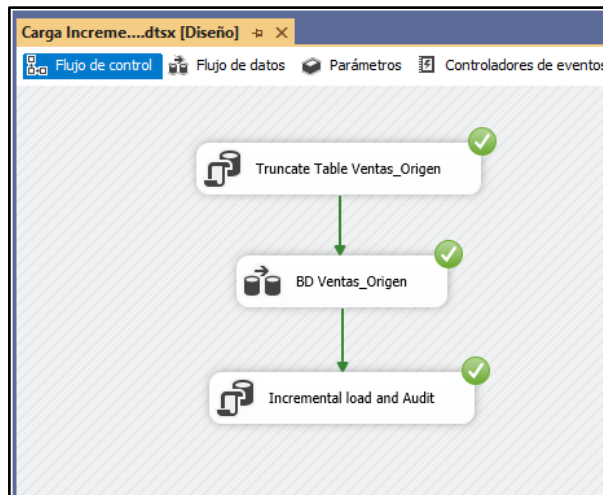
Secondly, we verify that there are no records in the tables in SQL:

The screenshot shows the SQL Server Enterprise Manager interface. A query window is open with the following SQL statement:

```
select * from Ventas_Origen;
select * from Ventas_Destino;
select * from Ventas_Auditoria;
```

The results pane shows 0 rows returned. The columns listed in the results pane are: Row_ID, Order_ID, Order_Date, Ship_Date, Ship_Mode, Customer_ID, Customer_Name, Segment, County, City, State, Postal_Code, Region, Product_ID, Category, Sub_Category, Product_Name, Sales, Quantity, Discount, Profit, Date_Insert.

Third, I execute the project.



Fourth, we check the records in the tables in SQL Server.

238select * from Ventas_Origen;

239select * from Ventas_Destino;

240select * from Ventas_Auditoria;

100%

Resultados

Messages

Row_ID	Order_ID	Order_Date	Ship_Date	Ship_Mode	Customer_ID	Customer_Name	Segment	Country	City	State	Postal_Code	Region	Product_ID	Category	Sub_Category	Product_Name	Sales	Quantity	Discount	Profit	Date_Inset
4130	CA-2015-121272	2015-03-29	2015-04-04	Standard Class	DO-13435	Denny Ordway	Consumer	United States	Seattle	Washington	98103	West	OFF-AP-10001947	Office Supplies	Appliances	Acco 6 Outlet Guardian Premium Plus Surge Suppressor	73.2800	4	0.00	21.2512	2025-02-07 00:04:22.187
4131	CA-2014-115336	2014-11-18	2014-11-25	Standard Class	AB-10809	Ann Blume	Corporate	United States	Chicago	Illinois	60623	Central	OFF-BI-10001107	Office Supplies	Binders	GBC White Glass Covers Plain Front	14.4800	5	0.00	-23.8520	2025-02-07 00:04:22.187
4132	CA-2015-111703	2015-02-07	2015-09-07	Standard Class	KB-16315	Karl Braun	Consumer	United States	Hollywood	Florida	33021	South	OFF-PA-10000349	Office Supplies	Paper	Easy-staple paper	11.9520	3	0.20	4.0338	2025-02-07 00:04:22.187
4133	CA-2015-111703	2015-02-07	2015-09-07	Standard Class	KB-16315	Karl Braun	Consumer	United States	Hollywood	Florida	33021	South	OFF-PA-10000349	Office Supplies	Paper	Xerox 1957	15.5520	3	0.20	5.6376	2025-02-07 00:04:22.190
4134	CA-2014-128839	2014-08-09	2014-09-13	Standard Class	TT-21070	Ted Trevino	Consumer	United States	Chesapeake	Virginia	23320	South	OFF-PA-10000280	Office Supplies	Fasteners	Advantus Plastic Paper Clips	45.0000	9	0.00	21.6000	2025-02-07 00:04:22.190
4135	CA-2014-128839	2014-08-09	2014-09-13	Standard Class	TT-21070	Ted Trevino	Consumer	United States	Chesapeake	Virginia	23320	South	TEC-MA-10000029	Technology	Machines	Epson WorkForce WF-2530 All-in-One Printer Copier Scanner	209.9700	3	0.00	90.2871	2025-02-07 00:04:22.190
4136	CA-2017-108914	2017-02-10	2017-09-10	Standard Class	PV-18985	Paul Van Hugh	Home Office	United States	Los Angeles	California	90036	West	OFF-BI-10002854	Office Supplies	Binders	Performers Binder/Pad Holder Black	112.1200	5	0.20	42.0450	2025-02-07 00:04:22.190
4137	CA-2017-108914	2017-02-10	2017-09-10	Standard Class	PV-18985	Paul Van Hugh	Home Office	United States	Los Angeles	California	90036	West	OFF-ST-10003716	Office Supplies	Storage	Tenex Double-Tier Lockers	1875.1400	7	0.00	204.7682	2025-02-07 00:04:22.190
4138	CA-2017-115526	2017-11-19	2017-11-23	Standard Class	DO-13570	Dorothy Dickinson	Consumer	United States	Alexandria	Virginia	22304	Central	OFF-PA-10000624	Office Supplies	Fasteners	OIC Binder Clips	25.0600	7	0.00	12.5300	2025-02-07 00:04:22.190
4139	CA-2016-117226	2016-12-30	2017-01-01	First Class	KD-16495	Keith Dawkins	Corporate	United States	Deer Park	Texas	77536	Central	OFF-BI-10004654	Office Supplies	Binders	Avery Binding System Hidden Tab Executive Style Index Sets	6.9240	6	0.80	-10.3860	2025-02-07 00:04:22.190
4140	CA-2017-127313	2017-01-12	2017-04-12	First Class	RA-19285	Ralph Arnett	Consumer	United States	Philadelphia	Pennsylvania	19120	East	OFF-ST-10001228	Office Supplies	Storage	Personal File Boxes with Fold-Down Carry Handle	37.3920	3	0.20	2.3370	2025-02-07 00:04:22.190

Row_ID	Order_ID	Order_Date	Ship_Date	Ship_Mode	Customer_ID	Customer_Name	Segment	Country	City	State	Postal_Code	Region	Product_ID	Category	Sub_Category	Product_Name	Sales	Quantity	Discount	Profit	Date_Inset
4130	CA-2015-121272	2015-03-29	2015-04-04	Standard Class	DO-13435	Denny Ordway	Consumer	United States	Seattle	Washington	98103	West	OFF-AP-10001947	Office Supplies	Appliances	Acco 6 Outlet Guardian Premium Plus Surge Suppressor	73.2800	4	0.00	21.2512	2025-02-07 00:04:22.187
4131	CA-2014-115336	2014-11-18	2014-11-25	Standard Class	AB-10809	Ann Blume	Corporate	United States	Chicago	Illinois	60623	Central	OFF-BI-10001107	Office Supplies	Binders	GBC White Glass Covers Plain Front	14.4800	5	0.00	-23.8520	2025-02-07 00:04:22.187
4132	CA-2015-111703	2015-02-07	2015-09-07	Standard Class	KB-16315	Karl Braun	Consumer	United States	Hollywood	Florida	33021	South	OFF-PA-10000349	Office Supplies	Paper	Easy-staple paper	11.9520	3	0.20	4.0338	2025-02-07 00:04:22.187
4133	CA-2015-111703	2015-02-07	2015-09-07	Standard Class	KB-16315	Karl Braun	Consumer	United States	Hollywood	Florida	33021	South	OFF-PA-10000349	Office Supplies	Paper	Xerox 1957	15.5520	3	0.20	5.6376	2025-02-07 00:04:22.190
4134	CA-2014-128839	2014-08-09	2014-09-13	Standard Class	TT-21070	Ted Trevino	Consumer	United States	Chesapeake	Virginia	23320	South	OFF-PA-10000280	Office Supplies	Fasteners	Advantus Plastic Paper Clips	45.0000	9	0.00	21.6000	2025-02-07 00:04:22.190
4135	CA-2014-128839	2014-08-09	2014-09-13	Standard Class	TT-21070	Ted Trevino	Consumer	United States	Chesapeake	Virginia	23320	South	TEC-MA-10000029	Technology	Machines	Epson WorkForce WF-2530 All-in-One Printer Copier Scanner	209.9700	3	0.00	90.2871	2025-02-07 00:04:22.190
4136	CA-2017-108914	2017-02-10	2017-09-10	Standard Class	PV-18985	Paul Van Hugh	Home Office	United States	Los Angeles	California	90036	West	OFF-BI-10002854	Office Supplies	Binders	Performers Binder/Pad Holder Black	112.1200	5	0.20	42.0450	2025-02-07 00:04:22.190
4137	CA-2017-108914	2017-02-10	2017-09-10	Standard Class	PV-18985	Paul Van Hugh	Home Office	United States	Los Angeles	California	90036	West	OFF-ST-10003716	Office Supplies	Storage	Tenex Double-Tier Lockers	1875.1400	7	0.00	204.7682	2025-02-07 00:04:22.190
4138	CA-2017-115526	2017-11-19	2017-11-23	Standard Class	DO-13570	Dorothy Dickinson	Consumer	United States	Alexandria	Virginia	22304	Central	OFF-PA-10000624	Office Supplies	Fasteners	OIC Binder Clips	25.0600	7	0.00	12.5300	2025-02-07 00:04:22.190
4139	CA-2016-117226	2016-12-30	2017-01-01	First Class	KD-16495	Keith Dawkins	Corporate	United States	Deer Park	Texas	77536	Central	OFF-BI-10004654	Office Supplies	Binders	Avery Binding System Hidden Tab Executive Style Index Sets	6.9240	6	0.80	-10.3860	2025-02-07 00:04:22.190
4140	CA-2017-127313	2017-01-12	2017-04-12	First Class	RA-19285	Ralph Arnett	Consumer	United States	Philadelphia	Pennsylvania	19120	East	OFF-ST-10001228	Office Supplies	Storage	Personal File Boxes with Fold-Down Carry Handle	37.3920	3	0.20	2.3370	2025-02-07 00:04:22.190

ID_Auditoria	Row_ID	Order_ID	Fecha_Actualizacion	Columnas_Modificadas	Valores_Anteriores	Usuario	IP_Emplo															
4137	CA-2017-127	12/01/2017	12/04/2017	First Class	RA-19285	Ralph Arnett	Consumer	United States	Philadelphia	Pennsylvania	19120	East	OFF-ST-10001228	Office Supplies	Storage	Personal File Boxes with Fold-Down Carry Handle	37.3920	3	0.20	2.3370	2025-02-07 00:04:22.190	
4138	CA-2017-108914	2017-02-10	2017-09-10	Standard Class	PV-18985	Paul Van Hugh	Home Office	United States	Los Angeles	California	90036	West	OFF-BI-10002854	Office Supplies	Binders	Performers Binder/Pad Holder Black	112.1200	5	0.20	42.0450	2025-02-07 00:04:22.190	
4139	CA-2017-110	11/19/2017	11/23/2017	Standard Class	DO-13570	Dorothy Dickinson	Consumer	United States	Alexandria	Virginia	22304	Central	OFF-PA-10000624	Office Supplies	Fasteners	OIC Binder Clips	25.0600	7	0.00	12.5300	2025-02-07 00:04:22.190	
4140	CA-2016-117	12/30/2016	01/01/2017	First Class	KD-16495	Max Silva	Corporate	United States	Deer Park	Texas	77536	Central	OFF-BI-10004654	Office Supplies	Binders	Avery Binding System Hidden Tab Executive Style Index Sets	6.9240	6	0.80	-10.3860	2025-02-07 00:04:22.190	
4141	CA-2017-127	12/01/2017	12/04/2017	First Class	RA-19285	Ralph Arnett	Consumer	United States	Philadelphia	Pennsylvania	19120	East	OFF-ST-10001228	Office Supplies	Storage	Personal File Boxes with Fold-Down Carry Handle	37.3920	3	0.20	2.3370	2025-02-07 00:04:22.190	
4142	CA-2017-127	12/01/2017	12/04/2017	First Class	RA-19285	Ralph Arnett	Consumer	United States	Philadelphia	Pennsylvania	19120	East	OFF-ST-10001228	Office Supplies	Storage	Personal File Boxes with Fold-Down Carry Handle	37.3920	3	0.20	2.3370	2025-02-07 00:04:22.190	
4143	CA-2016-136	11/28/2015	12/04/2015	Standard Class	TP-21415	Tom Prescott	Consumer	United States	Freeport	New York	11520	East	FUR-FU-1000 Furniture	Furnishings	Tenex Conte	322.59	3	0	64.518			
4144	US-2014-107	5/19/2014	5/23/2014	Standard Class	JH-15820	John Huston	Consumer	United States	Midland	Texas	79701	Central	OFF-BI-1000 Office Suppl Binders	Acco Flexiblr	9.762	3	0.8	-15.1311				
4145	CA-2017-100	09/07/2017	09/11/2017	Standard Class	CB-12025	Cassandra Brandon	Consumer	United States	Philadelphia	Pennsylvania	19134	East	OFF-LA-1000 Office Suppl Labels	Avery 519	29.24	5	0.2	9.8685				

Tabla Ventas, Origen
con 4140 registros

Tabla Ventas, Destino
con 4140 registros

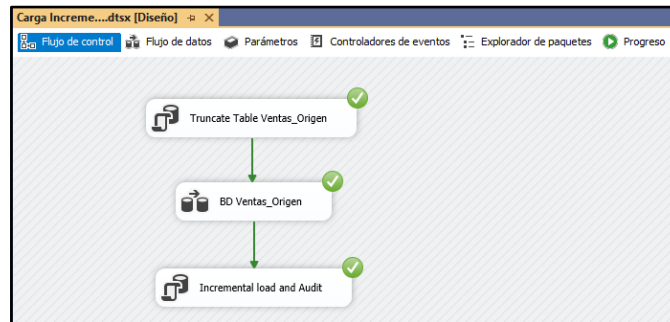
Tabla Ventas, Auditoria
0 registros ya que no hay
datos modificados

Fifth, I will add new data to the dataset, I will add 60 records to complete the 4200 records, and I will also modify the records with Row_ID :

- Customer Column Name , I will change "Keith Dawkins" to "Max Silva".
- Discount column , I will change "0.20" to "0.80".

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Sixth, we execute the project, where there should be a total of 4200 records in both the Ventas_Origen table and the Ventas_Destino table, and a total of 2 records in the Ventas_Auditoria table, since I made two modifications, and those changes should also be reflected in the Ventas_Destino table.



Seventh, we verify that indeed in the Ventas_Destino table there are a total of 4200 records where there are two modifications, those of ID 4139 and 4140, and in the Ventas_Audit table, the details of what was modified were inserted.

236
237
238
239
240

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select * from Ventas_Origen;
select * from Ventas_Destino;
select * from Ventas_Auditoria;
  
```

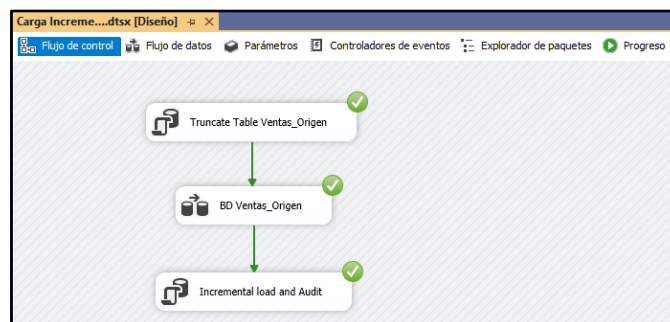
200 %

Row_ID	Order_ID	Order_Date	Ship_Date	Ship_Mode	Customer_ID	Customer_Name	Segment	Country	City	State	Postal_Code	Region	Product_ID	Category	Sub_Category	Product_Name	Sales	Quantity	Discount	Profit	Date_Insert
4138	CA-2017-112536	2017-05-18	2017-05-23	Standard Class	SS-20590	Susan Glenset	Corporate	United States	Moslen	Texas	78501	Central	OFF-BI-10002571	Office Supplies	Binders	*Avery Framed View Binder E2D Ring (Locking) Navy ...	19960	1	0.80	-3.2934	2025-02-07 00:55:57:673
4139	CA-2017-112536	2017-05-18	2017-05-23	Standard Class	SS-20590	Susan Glenset	Corporate	United States	Moslen	Texas	78501	Central	OFF-ST-10004026	Office Supplies	Storage	Plastic Stacking Crates 8 Cartons	83250	2	0.20	0.6666	2025-02-07 00:55:57:673
4140	CA-2016-157774	2016-09-26	2016-01-10	Second Class	CS-12178	Charles Swedden	Corporate	United States	Iowa City	Iowa	52240	Central	OFF-PA-10004022	Office Supplies	Paper	Hammermill Color Copier Paper (20lb. and 96 Bright)	93900	1	0.00	4.4956	2025-02-07 00:55:57:673
4191	CA-2017-166709	2017-11-17	2017-11-22	Standard Class	HL-15040	Hunter Lopez	Consumer	United States	Newark	Delaware	19711	East	TEC-CO-10004722	Technology	Copiers	Canon imageCLASS 2200 Advanced Copier	10499.9	3	0.00	5039.9056	2025-02-07 00:55:57:673
4192	CA-2015-125392	2015-08-07	2015-08-07	Same Day	DM-13015	Darin Martin	Consumer	United States	Houston	Texas	77070	Central	OFF-PA-10004248	Office Supplies	Paper	Xerox 1990	21.1200	5	0.20	6.6000	2025-02-07 00:55:57:673
4193	CA-2015-150875	2015-11-16	2015-11-20	Standard Class	HK-14390	Heather Kikland	Corporate	United States	Boise	Idaho	83704	West	FUR-TA-10000577	Furniture	Tables	Bretford CR4500 Series Slim Rectangular Table	696.4200	2	0.00	160.1766	2025-02-07 00:55:57:673
4194	CA-2015-150875	2015-11-16	2015-11-20	Standard Class	HK-14390	Heather Kikland	Corporate	United States	Boise	Idaho	83704	West	TEC-PH-10001254	Technology	Phones	Jabra B2 2300 Duo GO Duo Corded 1/4" x 1/4"	304.7700	3	0.20	22.8502	2025-02-07 00:55:57:673
4195	CA-2015-154200	2015-06-18	2015-06-22	Standard Class	BG-11740	Bruce Gold	Consumer	United States	San Diego	California	92105	West	OFF-AR-10001044	Office Supplies	Art	BOSTON Ranger #55 Pencil Sharpener Black	51.9800	2	0.00	15.0742	2025-02-07 00:55:57:677
4196	CA-2016-124233	2016-09-04	2016-04-14	Standard Class	CK-12595	Clyde Kelly	Consumer	United States	Los Angeles	California	90032	West	FUR-FU-10002597	Furniture	Furnishings	C-Line Magnetic Cubicle Keepers Clear Polycarbonate	24.7000	5	0.00	10.3740	2025-02-07 00:55:57:677
4197	US-2015-134271	2015-04-18	2015-04-23	Second Class	RF-19735	Caroline Field	Consumer	United States	New York City	New York	10024	East	OFF-AP-10000493	Office Supplies	Labels	Avery 486	21.9300	3	0.00	10.3071	2025-02-07 00:55:57:677
4198	US-2016-161883	2016-03-12	2016-08-12	Standard Class	CJ-12010	Caroline Jumper	Consumer	United States	Philadelphia	Pennsylvania	19134	East	OFF-AP-10001072	Office Supplies	Appliances	Honeywell Envirocure Portable HEPA Air Cleaner for up to ...	394.8160	4	0.20	93.7688	2025-02-07 00:55:57:677
4199	US-2016-161883	2016-03-12	2016-08-12	Standard Class	CJ-12010	Caroline Jumper	Consumer	United States	Philadelphia	Pennsylvania	19134	East	OFF-BI-10001072	Office Supplies	Binders	GBC Clear Cover 8-1/2 x 11 unpunched 25 covers per ...	18.1520	4	0.70	-14.5536	2025-02-07 00:55:57:677
4200	CA-2015-143109	2015-10-12	2015-10-12	Same Day	MA-17560	Matt Robinson	Home Office	United States	New York City	New York	10024	East	OFF-LA-10004093	Office Supplies	Labels	Avery 486	7.3100	1	0.00	3.4397	2025-02-07 00:55:57:677

Row_ID	Order_ID	Order_Date	Ship_Date	Ship_Mode	Customer_ID	Customer_Name	Segment	Country	City	State	Postal_Code	Region	Product_ID	Category	Sub_Category	Product_Name	Sales	Quantity	Discount	Profit	Date_Insert
4136	CA-2017-105914	2017-02-10	2017-08-10	Standard Class	PV-18985	Paul Van Hough	Home O...	United States	Los Angeles	California	90036	West	OFF-BI-10002854	Office Supplies	Binders	Performers Binder-Pad Holder Back	112.1200	5	0.20	42.0450	2025-02-07 00:04:22:190
4137	CA-2017-105914	2017-02-10	2017-08-10	Standard Class	PV-18985	Paul Van Hough	Home O...	United States	Los Angeles	California	90036	West	OFF-ST-10003716	Office Supplies	Storage	Tenneco Double-Tier Lockers	1575.1400	7	0.00	204.7682	2025-02-07 00:04:22:190
4138	CA-2017-110926	2017-02-19	2017-11-23	Standard Class	DO-13524	Dorothy Dickson	Consumer	United States	Alexandria	Virginia	22304	South	OFF-BI-10000624	Office Supplies	Fasteners	OIC Binder Clips	25.0600	7	0.00	12.5300	2025-02-07 00:04:22:190
4139	CA-2016-171728	2016-12-26	2017-07-27	First Class	RA-19285	Ralph Arnett	Consumer	United States	Deer Park	Texas	77536	Central	OFF-BI-10004654	Office Supplies	Binders	Avery Binding System Hidden Tab Executive Style L...	6.9240	6	0.80	-10.3860	2025-02-07 00:04:22:190
4140	CA-2016-136287	2016-06-17	2016-06-17	First Class	SS-20590	Sonia Sunley	Consumer	United States	Wichita	Kansas	67212	Central	OFF-LA-10003148	Office Supplies	Furnishings	Ultra Door Kickplate 8" H x 34" W	79.1200	5	0.20	13.9460	2025-02-07 00:55:57:653
4141	CA-2017-127313	2017-04-12	2017-04-12	First Class	SS-20590	Sonia Sunley	Consumer	United States	Wichita	Kansas	67212	Central	OFF-LA-10003148	Office Supplies	Furnishings	Avery 51	18.9000	3	0.00	8.6340	2025-02-07 00:55:57:653
4142	US-2014-107699	2014-05-19	2014-05-23	Standard Class	JH-15520	John Huston	Consumer	United States	Midland	Michigan	48640	Central	OFF-AR-10001249	Office Supplies	Binders	Avery Heavy Duty E2D View Binder with Locking R...	57.4200	9	0.00	26.4132	2025-02-07 00:55:57:653
4143	CA-2017-112725	2017-01-30	2017-05-02	Standard Class	EH-14125	Eugene Hildeb...	Home O...	United States	San Francisco	California	94110	West	OFF-AR-10003759	Office Supplies	Art	Crayola Anti-Dust Chalk 12/Pack	12.7400	7	0.00	5.7330	2025-02-07 00:55:57:657
4144	CA-2017-112725	2017-01-30	2017-05-02	Standard Class	EH-14125	Eugene Hildeb...	Home O...	United States	San Francisco	California	94110	West	OFF-AR-10001227	Office Supplies	Art	Newell 338	8.8200	3	0.00	2.3814	2025-02-07 00:55:57:657
4145	CA-2017-112725	2017-01-30	2017-05-02	Standard Class	EH-14125	Eugene Hildeb...	Home O...	United States	San Francisco	California	94110	West	FUR-CH-10000863	Furniture	Chairs	Norwex Survival Fabric Task Chair	120.7840	1	0.20	-13.5862	2025-02-07 00:55:57:657
4146	CA-2015-153196	2015-11-28	2015-04-12	Standard Class	TP-21415	Tom Prescott	Consumer	United States	Fresno	New York	11520	East	FUR-FU-10004017	Furniture	Furnishings	"Tense Contemporary Cover Chaise for Low and ...	322.5900	3	0.00	64.5180	2025-02-07 00:55:57:657
4147	CA-2017-106063	2017-10-23	2017-10-23	Standard Class	RB-19330	Randy Bradley	Consumer	United States	Austin	Texas	78745	Central	OFF-BI-10000952	Office Supplies	Binders	"Acco Flexible ACCOHIDE Square Ring Data Binder...	9.7620	3	0.80	-15.1311	2025-02-07 00:55:57:657

ID Auditoria	Row_ID	Order_ID	Fecha Actualizacion	Columnas Modificadas	Valores Anteriores	Valores Nuevos	IP Equipo
1	4139	CA-2016-117226	2025-02-07 00:55:58:060	Customer_Name	Customer Name: Keith Dawkins	sa	MAX
2	4140	CA-2017-127313	2025-02-07 00:55:58:060	Discount	Discount: 0.20	sa	MAX

Eighth, I will run the same project again to validate that no more values will be entered into the Ventas_Destino table, since they are the same ones that are already in it because this time I will not make any modifications.



235	select - from Ventas_Origen
236	select - from Ventas_Destino
237	select - from Ventas_Auditoria
238	
239	
240	

Row_ID	Order_ID	Order_Date	Ship_Date	Ship_Mode	Customer_ID	Customer_Name	Segment	Country	City	State	Postal_Code	Region	Product_ID	Category	Sub_Category	Product_Name	Sales	Quantity	Discount	Profit	Date_Insert
1	1	CA-2016-152156	2016-08-11	2016-11-11	CO-12520	Clare Gule	Consumer	United States	Henderson	Kentucky	42420	South	FUR-BO-10001798	Furniture	Bookcases	Bush Somerset Collection Bookcase	261.9600	2	0.00	41.9136	2025-02-07 01:01:54.790
2	2	CA-2016-152156	2016-08-11	2016-11-11	CO-12520	Clare Gule	Consumer	United States	Henderson	Kentucky	42420	South	FUR-CH-10000454	Furniture	Chairs	Hon Deluxe Fabric Upholstered Stacking Chairs Round	731.9400	3	0.00	219.5820	2025-02-07 01:01:54.800
3	3	CA-2016-138688	2016-12-06	2016-06-16	DV-13945	Dawn Van Huff	Corporate	United States	Los Angeles	California	90036	West	OFF-PA-10002040	Office Supplies	Labels	Self Adhesive Address Labels for Typewriters by Universal	14.4200	2	0.00	6.8714	2025-02-07 01:01:54.800
4	4	US-2015-108966	2015-11-10	2015-10-18	SO-20335	Sean O'Donnell	Consumer	United States	Fort Lauderdale	Florida	33311	South	FUR-TA-10000577	Furniture	Tables	Bretford CH4500 Series Slim Rectangular Table	957.5775	5	0.45	383.0310	2025-02-07 01:01:54.800
5	5	US-2015-108966	2015-11-10	2015-10-18	SO-20335	Sean O'Donnell	Consumer	United States	Fort Lauderdale	Florida	33311	South	OFF-ST-10000760	Office Supplies	Storage	Eldon Fold 'N' Roll Cart System	22.3600	2	0.20	2.5164	2025-02-07 01:01:54.803
6	6	CA-2014-115812	2014-09-06	2014-06-14	BH-11710	Bronna Hoffman	Consumer	United States	Los Angeles	California	90032	West	FUR-FU-10001487	Furniture	Furnishings	Eldon Expressions Wood and Plastic Desk Accessories	48.8600	7	0.00	14.1694	2025-02-07 01:01:54.803
7	7	CA-2014-115812	2014-09-06	2014-06-14	BH-11710	Bronna Hoffman	Consumer	United States	Los Angeles	California	90032	West	OFF-AR-10002833	Office Supplies	Art	Newell 322	7.2800	4	0.00	1.9656	2025-02-07 01:01:54.803
8	8	CA-2014-115812	2014-09-06	2014-06-14	BH-11710	Bronna Hoffman	Consumer	United States	Los Angeles	California	90032	West	TEC-PH-10002275	Technology	Phones	Motor 5220 IP Phone VoIP phone	907.1520	6	0.20	90.7152	2025-02-07 01:01:54.803
9	9	CA-2014-115812	2014-09-06	2014-06-14	BH-11710	Bronna Hoffman	Consumer	United States	Los Angeles	California	90032	West	OFF-BI-10002910	Office Supplies	Binders	D/L Single View Binders with Locking Rings by Sani	18.5400	3	0.20	5.7825	2025-02-07 01:01:54.803
10	10	CA-2014-115812	2014-09-06	2014-06-14	BH-11710	Bronna Hoffman	Consumer	United States	Los Angeles	California	90032	West	OFF-AP-10002892	Office Supplies	Appliances	Bekins FSC206/TEL 6 Outlet Surge	114.9000	5	0.00	34.4700	2025-02-07 01:01:54.803
11	11	CA-2014-115812	2014-09-06	2014-06-14	BH-11710	Bronna Hoffman	Consumer	United States	Los Angeles	California	90032	West	FUR-TA-10001539	Furniture	Tables	Chromcraft Rectangular Conference Tables	1706.1840	9	0.20	85.3092	2025-02-07 01:01:54.803
12	12	CA-2014-115812	2014-09-06	2014-06-14	BH-11710	Bronna Hoffman	Consumer	United States	Los Angeles	California	90032	West	TEC-PH-10002033	Technology	Phones	Korhse 250 Conference Phone	911.4240	4	0.20	68.3568	2025-02-07 01:01:54.807
13	13	CA-2017-114412	2017-04-15	2017-04-20	AA-10480	Andrew Allen	Consumer	United States	Concord	North Carolina	28027	South	OFF-PA-10002365	Office Supplies	Paper	Xerox 1967	15.5520	3	0.20	5.4432	2025-02-07 01:01:54.807

Row_ID	Order_ID	Order_Date	Ship_Date	Ship_Mode	Customer_ID	Customer_Name	Segment	Country	City	State	Postal_Code	Region	Product_ID	Category	Sub_Category	Product_Name	Sales	Quantity	Discount	Profit	Date_Insert
4188	CA-2017-112536	2017-05-18	2017-05-23	Standard Class	SO-20890	Susan Glomert	Corporate	United States	Moulton	Texas	78051	Central	OFF-BI-10002571	Office Supplies	Binders	Avery Framed View Binder E-ZD Ring (Locking) N...	1.9960	1	0.00	-3.2534	2025-02-07 00:55:57.673
4189	CA-2017-112536	2017-05-18	2017-05-23	Standard Class	SO-20890	Susan Glomert	Corporate	United States	Moulton	Texas	78051	Central	OFF-ST-10004035	Office Supplies	Storage	Plastic Stacking Crates & Carters	8.9200	2	0.20	0.6696	2025-02-07 00:55:57.673
4190	CA-2016-157714	2016-09-26	2016-01-10	Standard Class	CS-12175	Charles Sheldon	Corporate	United States	Iowa City	Iowa	52240	Central	OFF-PA-10004022	Office Supplies	Paper	Hammermill Color Copier Paper (20lb. and 96 Bright)	9.9900	1	0.00	4.4955	2025-02-07 00:55:57.673
4191	CA-2017-166709	2017-11-17	2017-11-22	Standard Class	HL-15040	Hunter Lopez	Consumer	United States	Newark	Delaware	19711	East	TEC-CO-10004722	Technology	Copiers	Canon imageCLASS 2200 Advanced Copier	10499.9	3	0.00	5039.98	2025-02-07 00:55:57.673
4192	CA-2015-129392	2015-08-07	2015-08-07	Standard Class	DM-13015	Dawn Martin	Consumer	United States	Houston	Texas	77070	Central	OFF-PA-10004248	Office Supplies	Paper	Xerox 1950	21.1200	5	0.20	6.6000	2025-02-07 00:55:57.673
4193	CA-2015-150879	2015-11-18	2015-11-20	Standard Class	HK-14890	Heather Kikland	Corporate	United States	Boise	Idaho	83704	West	FUR-TA-10000577	Furniture	Tables	Bretford CH4500 Series Slim Rectangular Table	696.4200	2	0.00	160.1766	2025-02-07 00:55:57.673
4194	CA-2015-150879	2015-11-18	2015-11-20	Standard Class	HK-14890	Heather Kikland	Corporate	United States	Boise	Idaho	83704	West	TEC-PH-10001254	Technology	Phones	Jabra BIZ 2300 Duo QD Duo Corded 1/8" / 1/4"	304.7700	3	0.20	22.8552	2025-02-07 00:55:57.673
4195	CA-2015-154200	2015-11-18	2015-11-20	Standard Class	MA-17560	Bruce Kelly	Consumer	United States	San Diego	California	92105	West	OFF-AR-10001044	Office Supplies	Art	BOSTON Ranger #55 Pencil Sharpener - Black	51.9800	2	0.00	15.0742	2025-02-07 00:55:57.677
4196	CA-2016-124233	2016-03-12	2016-03-12	Standard Class	CU-12010	Cynthia Kelly	Consumer	United States	Los Angeles	California	90032	West	FUR-FU-10002697	Furniture	Furnishings	C-Line Magnetic Cubicle Keepers Clear Polypropylene	24.7000	5	0.00	10.3740	2025-02-07 00:55:57.677
4197	US-2015-114717	2015-11-17	2015-11-17	Standard Class	MA-17560	Roland Field	Consumer	United States	New York City	New York	10024	East	OFF-FU-10004093	Office Supplies	Labels	Avery 486	21.9300	3	0.00	10.3071	2025-02-07 00:55:57.677
4198	US-2016-161683	2016-03-12	2016-03-12	Standard Class	CU-12010	Caroline Jumper	Consumer	United States	Philadelphia	Pennsylvania	19134	East	OFF-AP-10000179	Office Supplies	Appliances	Honeywell Enviracare Portable HEPA Air Cleaner for...	394.8100	4	0.20	93.7688	2025-02-07 00:55:57.677
4199	US-2016-161683	2016-03-12	2016-03-12	Standard Class	CU-12010	Caroline Jumper	Consumer	United States	Philadelphia	Pennsylvania	19134	East	OFF-BI-10001072	Office Supplies	Binders	GBC Clear Cover 8-1/2 x 11 Unpunched 25 covers...	18.1520	4	0.70	14.5558	2025-02-07 00:55:57.677
4200	CA-2015-140105	2015-10-12	2015-10-12	Standard Class	MA-17560	Matt Reuben	Consumer	United States	New York City	New York	10024	East	OFF-PA-10004093	Office Supplies	Labels	Avery 486	7.3100	1	0.00	3.4357	2025-02-07 00:55:57.677

ID_Auditoria	Row_ID	Order_ID	Fecha_Actualizacion	Columnas_Modificadas	Valores_Anteriores	Usuario	IP_Escopo
1	4189	CA-2016-117226	2025-02-07 00:55:58.060	Customer_Name	Customer_Name Keith Dawkins	sa	MAX
2	4140	CA-2017-127313	2025-02-07 00:55:58.060	Discount	Discount: 0.20	sa	MAX

Step 10: Creating a scheduled task to run for example every 2 hours.

For this project, a scheduled task was configured to run the project automatically every 2 hours. To do this, we first implemented the SSIS project so that it appears in the catalog section in SQL Server, and then created a scheduled task.

INTEGRATION SERVICE IMPLEMENTATION:

Asistente para implementación de Integration Services

Seleccionar destino

Introducción

Seleccione origen

Seleccionar destino de implementación

Revisar

Resultados

Escriba el nombre del servidor de destino y la ubicación del proyecto en el catálogo de Integration Services.

Nombre del servidor: MAX-MSSQLSERVER2022

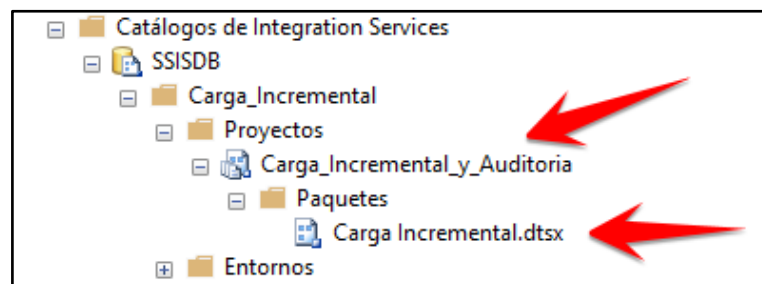
Autenticación: Windows Authentication

Nombre de usuario:

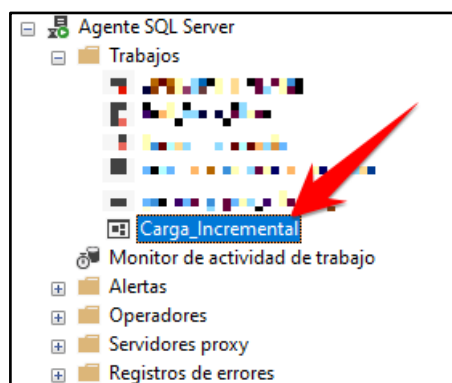
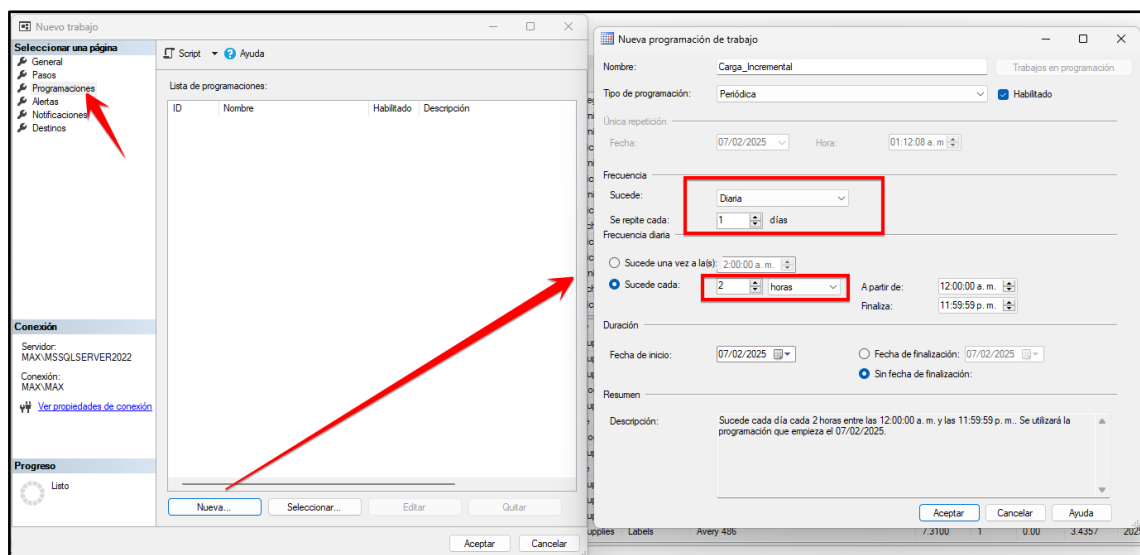
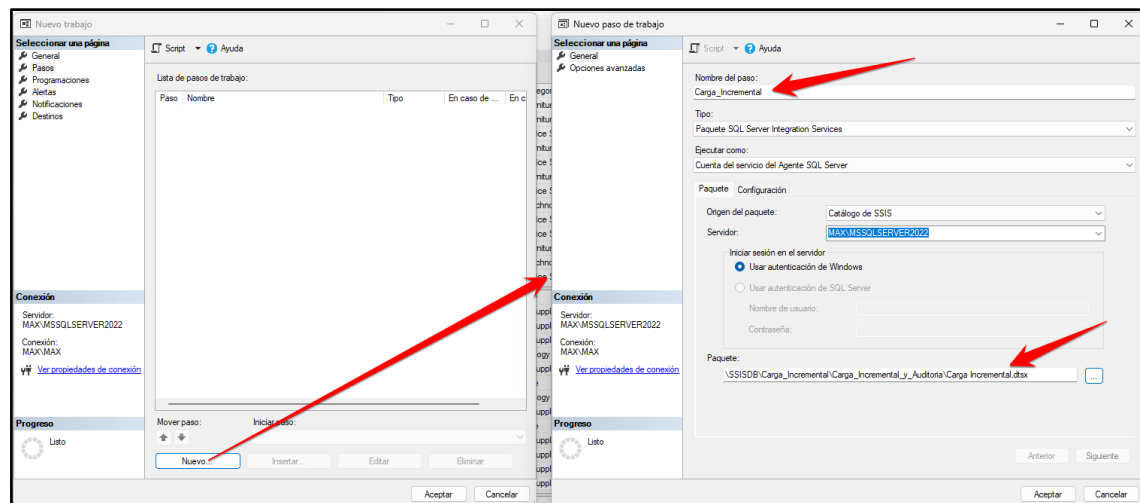
Contraseña:

Ruta de acceso: /SSISDB/Carga_Incremental/Carga_Incremental_y_Auditoria

< Previous Next > Implementar Cancelar



CREATING NEW WORK:



Finally, with this, this process will be done automatically every day every 2 hours, having as a source the CSV file that contains the dataset and final destination Ventas_Destino , but it can be done with any data source that is inserting data from time to time and thus have an audit of the records and their modifications as well as consistent, solid data that is not repeated in Ventas_Destino.