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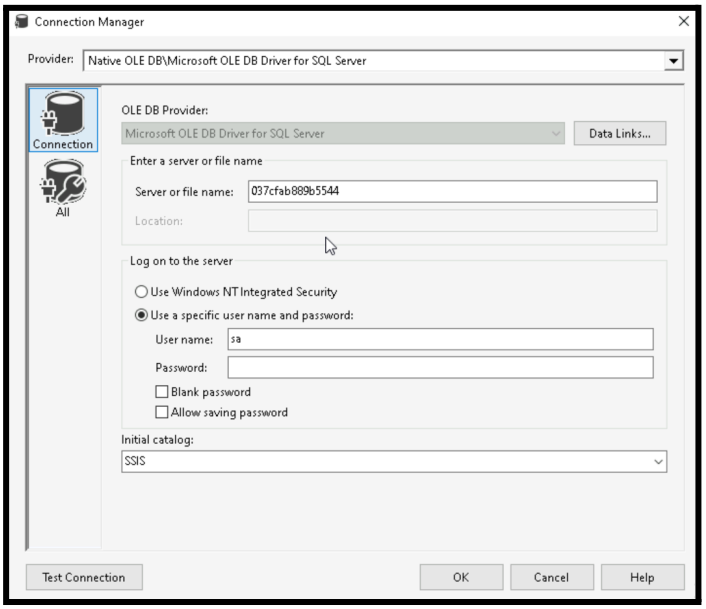
SSIS: Assignment

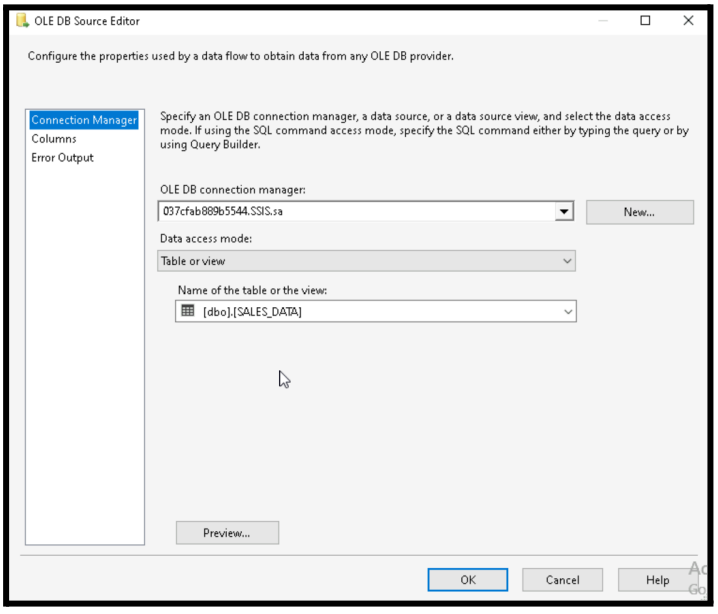
Task 1: Integration with ETL Data Warehouse (DWH)

Scenario: Your company has a data warehouse designed to consolidate data from various sources for analytical purposes. You need to create an SSIS package that extracts data from a transactional database and loads it into the data warehouse.

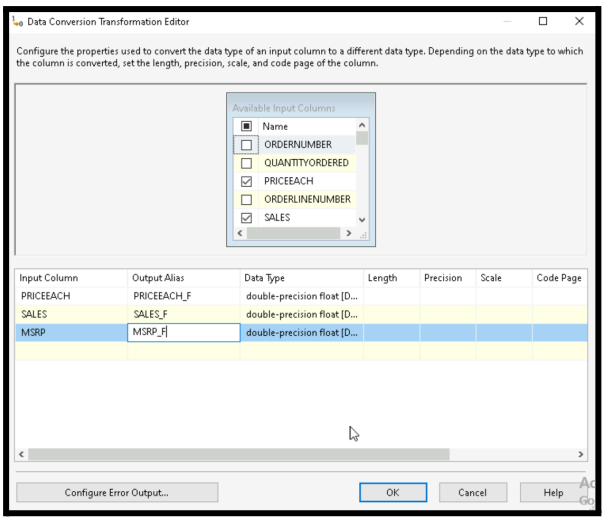
1. Create a Connection Manager to connect to the transactional database and the data warehouse.

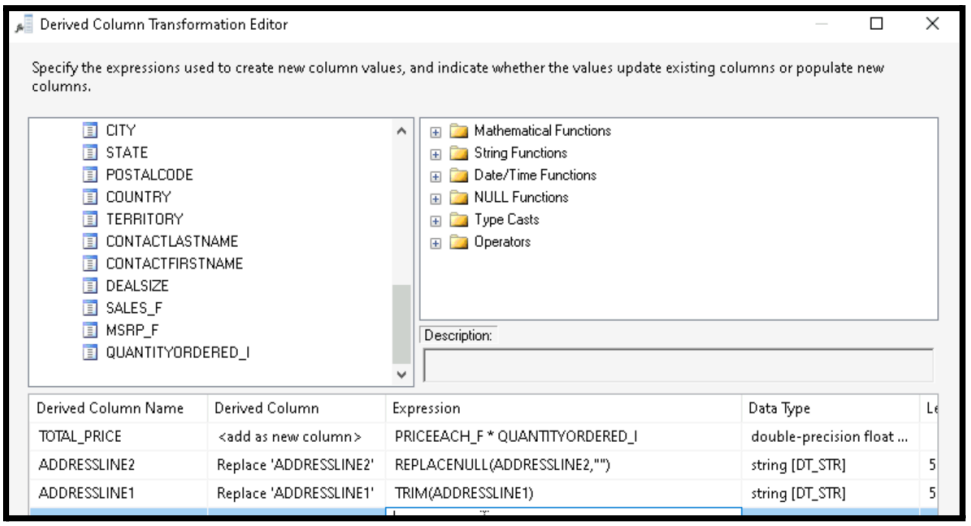


2. Extract Data from a transactional table (e.g., SalesData) using an OLE DB Source.

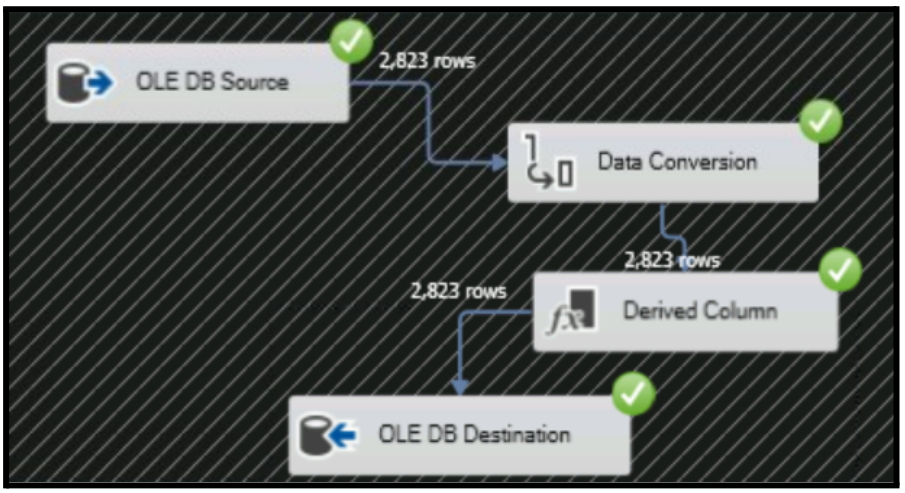


3. Transform Data: Apply necessary transformations such as data type conversions, data cleansing, and calculations.





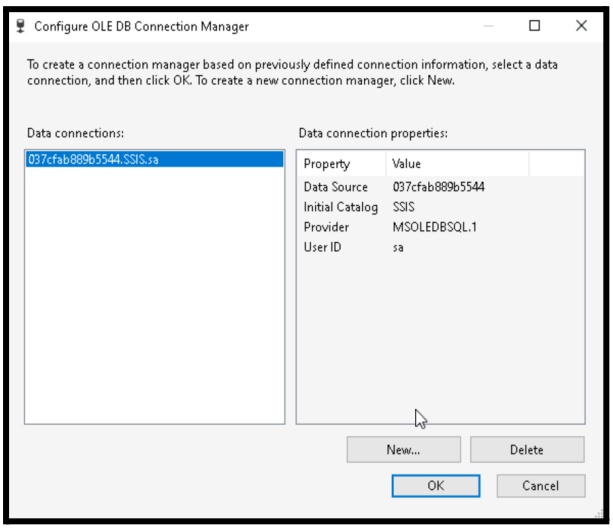
4. Load Data into the data warehouse (e.g., FactSales table).

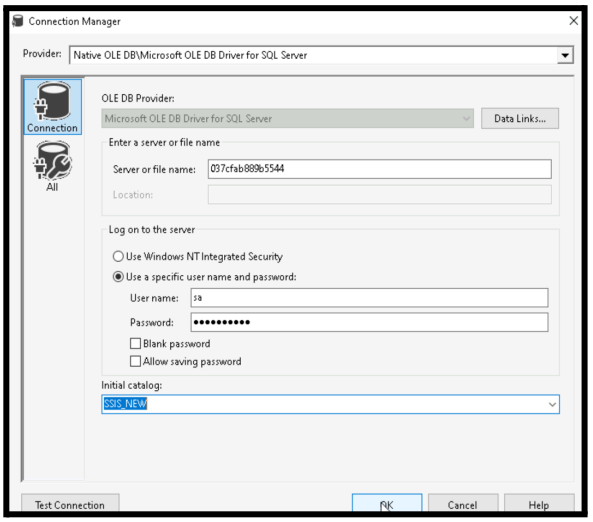


Task 2: Data Warehouse Migrations

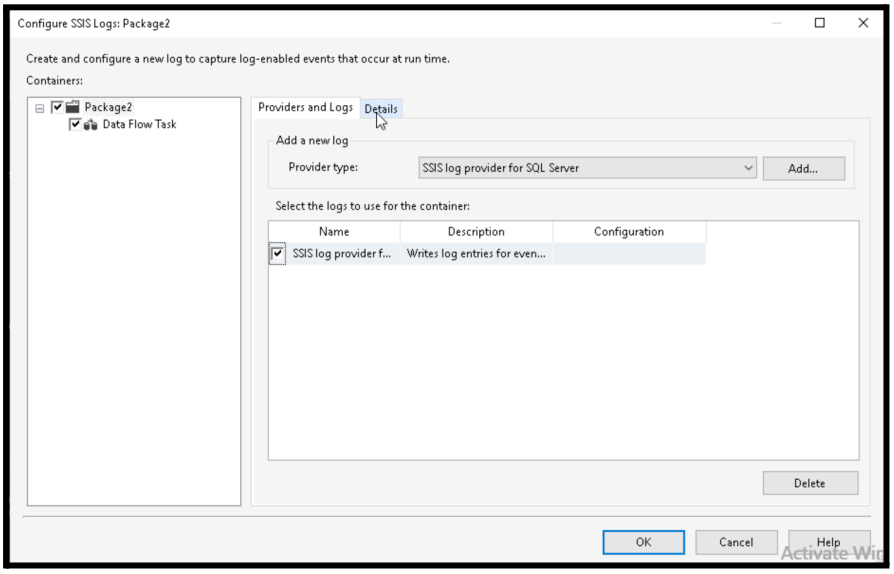
Scenario: Your organization is migrating its data warehouse from one server to another. You need to create an SSIS package that facilitates this migration.

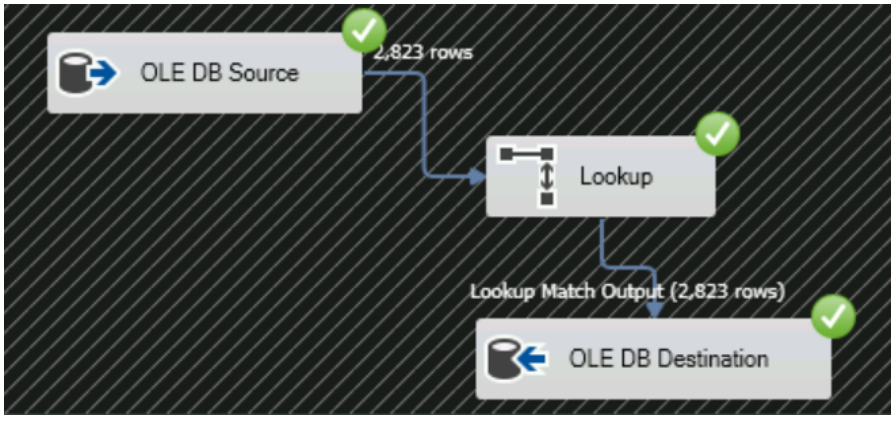
1. Create Connection Managers for both the source and destination data warehouses.





2. Transfer Data from the source data warehouse to the destination using the Data Flow Task. (Create Connection Managers for both the source and destination data warehouses, Transfer Data from the source data warehouse to the destination using the Data Flow Task.)

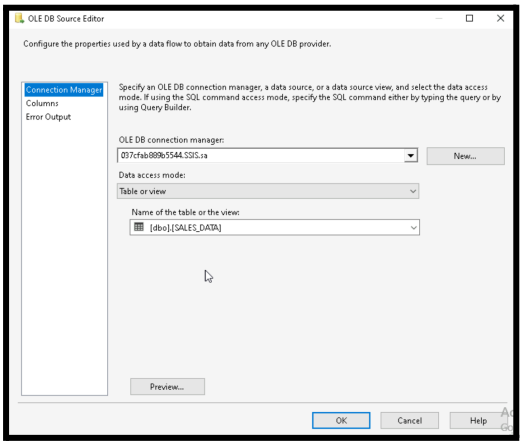




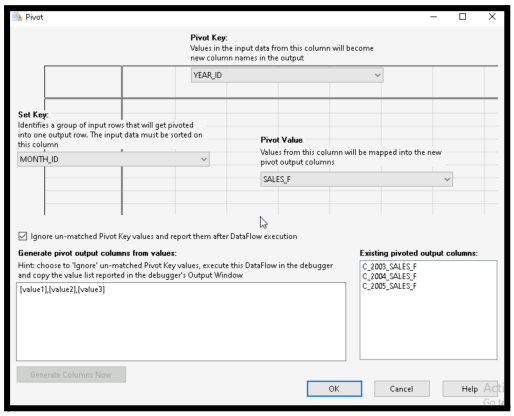
Task 3: Implementing a Pivot Transformation

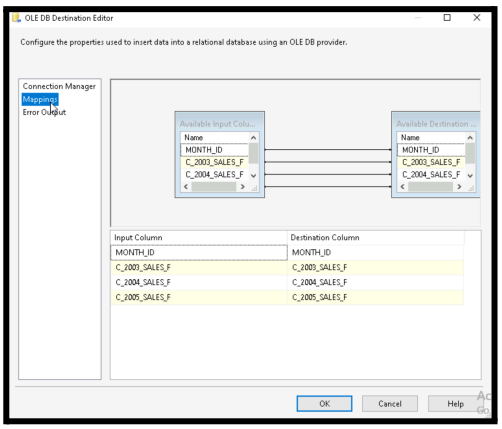
Scenario: You have data in a normalized format and need to pivot it for reporting purposes.

1. Extract Data from the source table using an OLE DB Source.

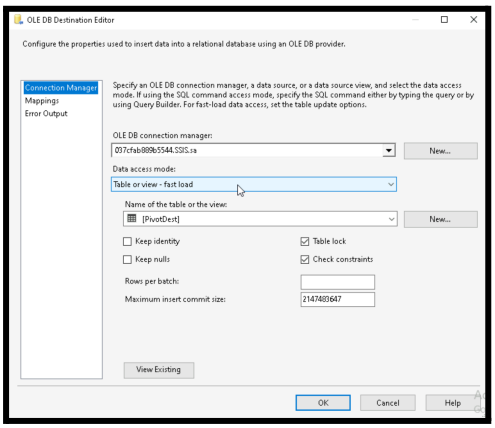


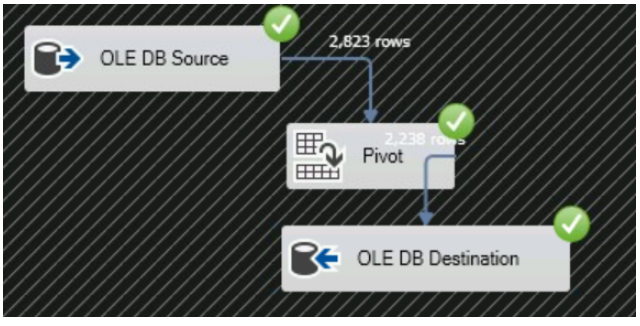
2. Apply a Pivot Transformation to transform the normalized data into a pivoted format.





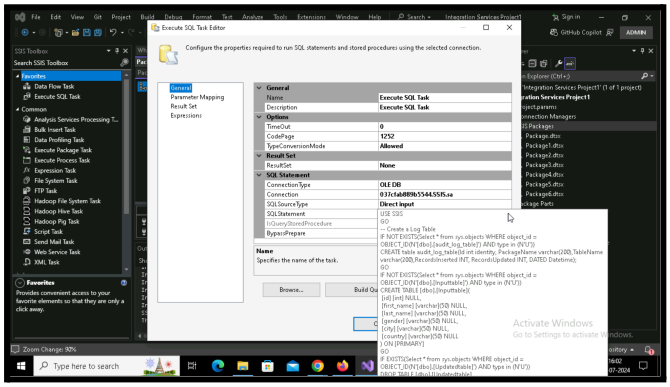
3. Load the Pivoted Data into a destination table.

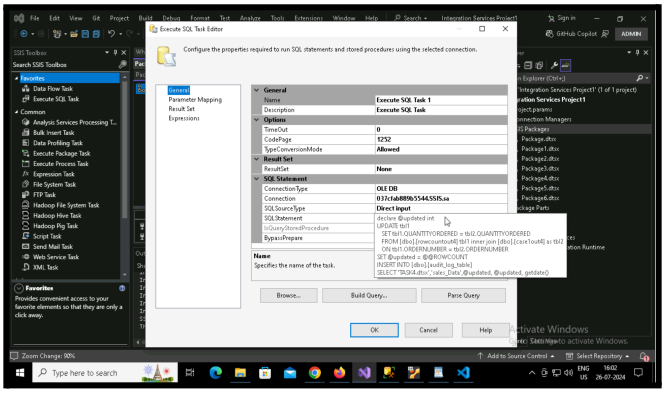


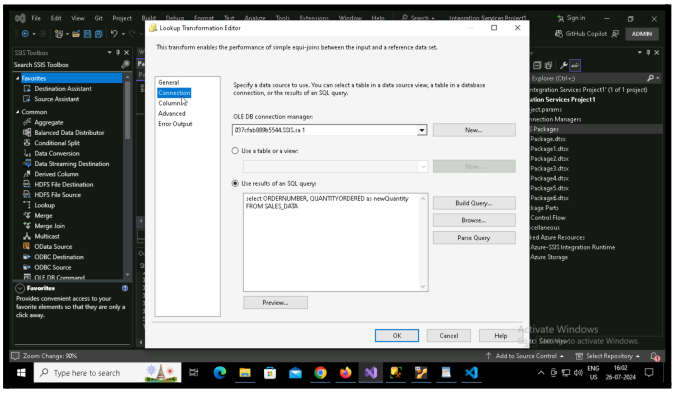


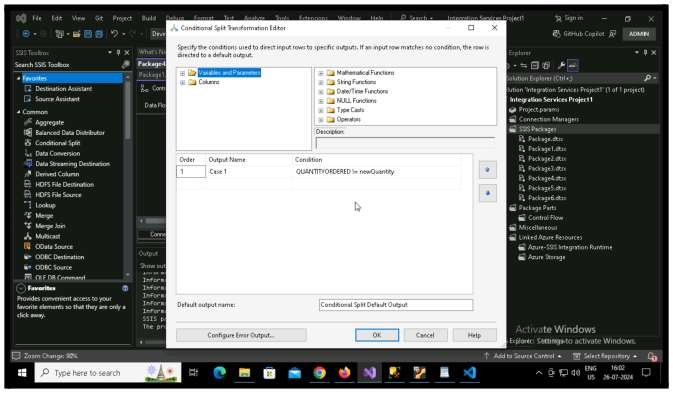
Task 4: Incremental Load

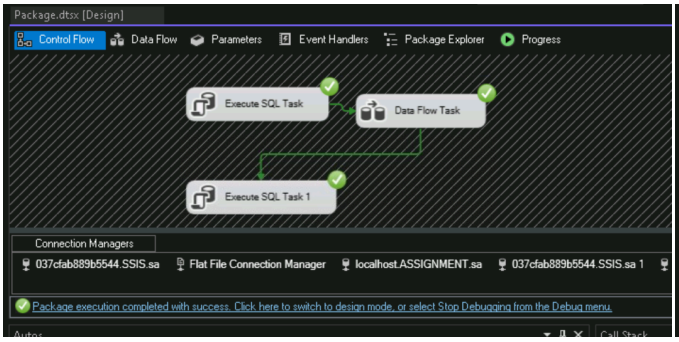
Scenario: To optimize ETL processes, you need to implement an incremental load to update only the changed data in the data warehouse.

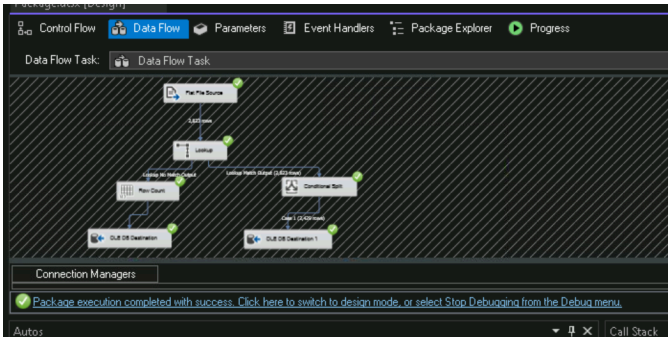






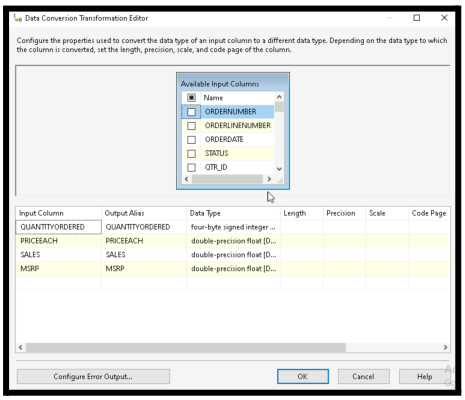


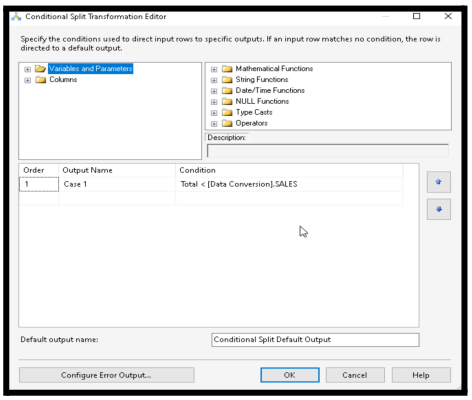


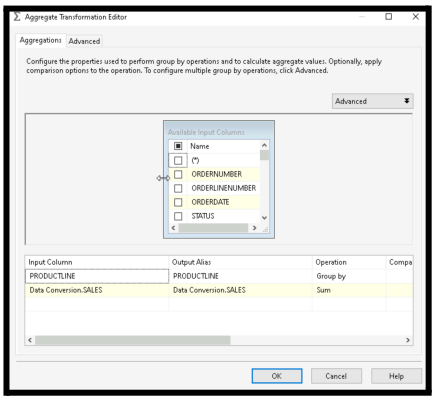


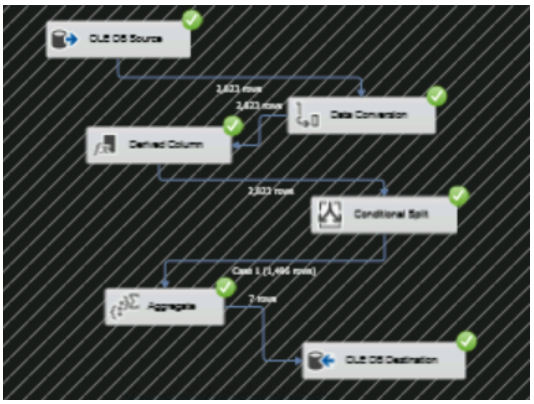
Task 5: Transformations

Scenario: Your company needs to transform raw data into a format suitable for reporting. You need to perform multiple transformations within an SSIS package.



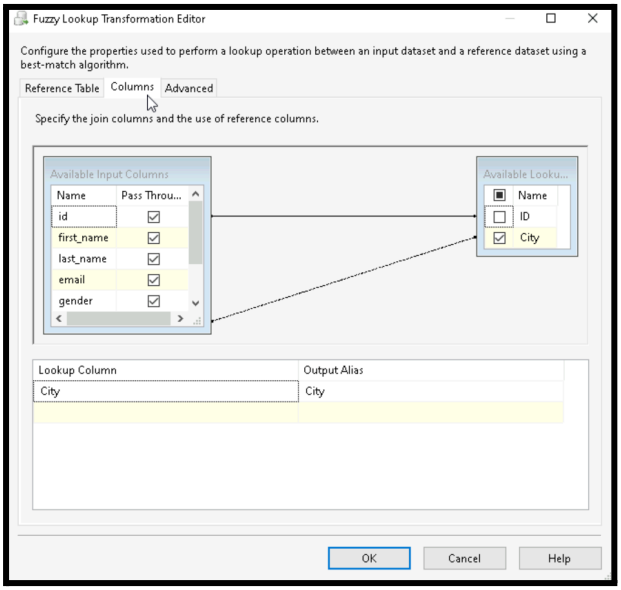


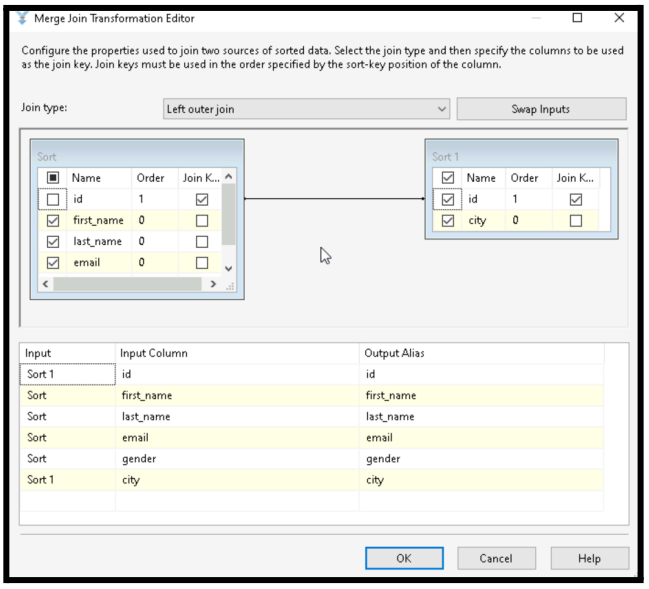


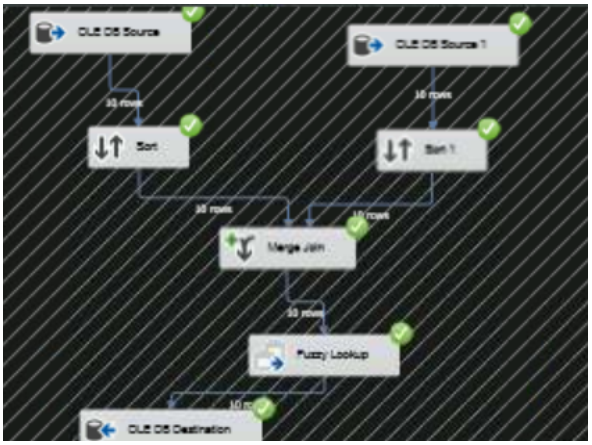


Task 6: MERGE & FUZZY LOOKUP

Scenario: You need to merge two datasets and use fuzzy matching to handle potential duplicates.

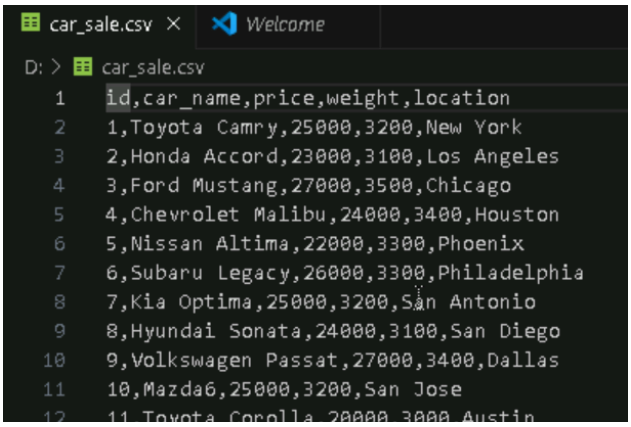


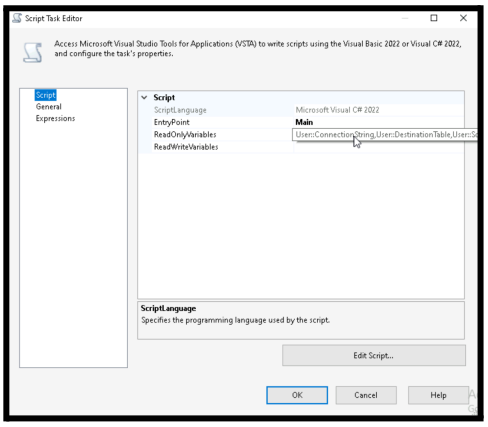


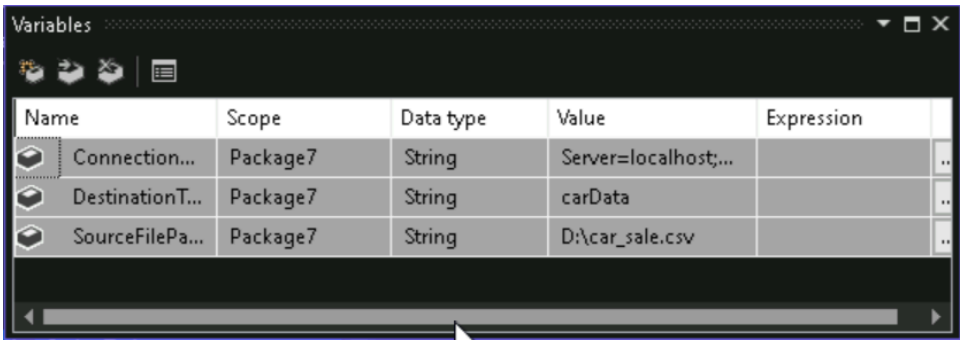


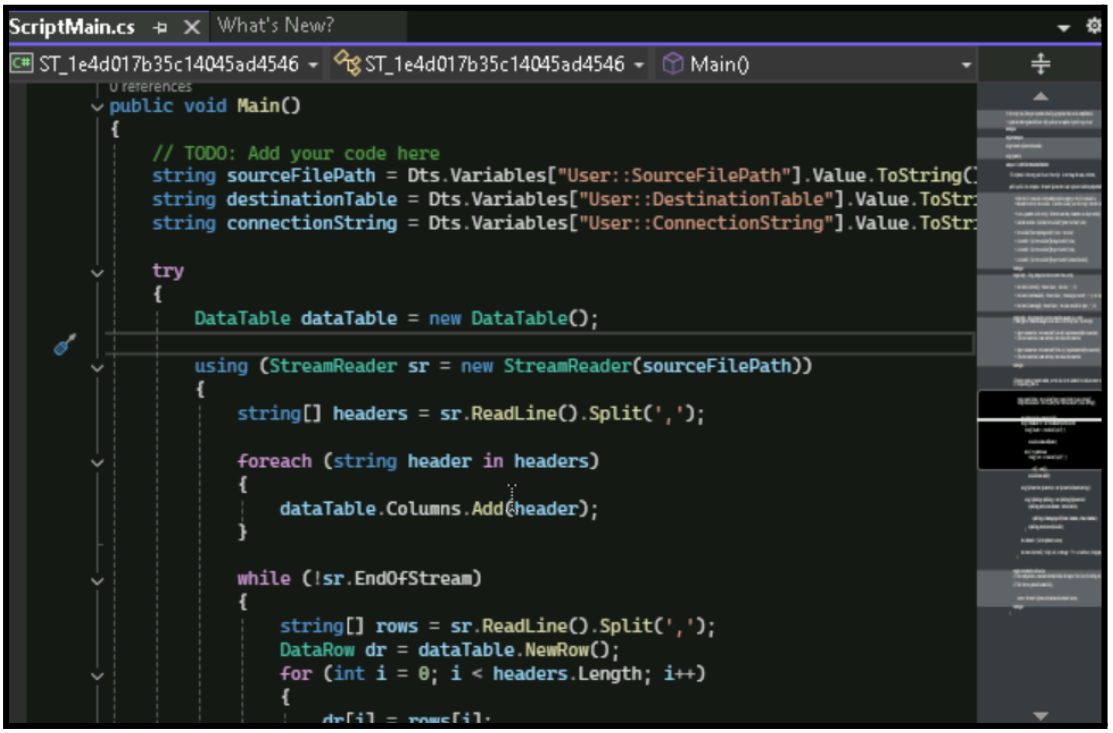
Task 7: Using Script Task

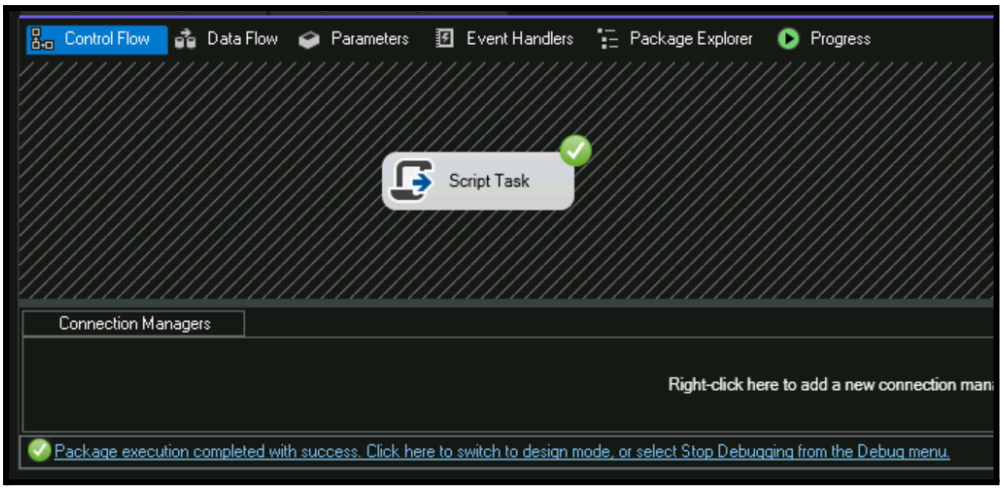
Scenario: You need to perform a complex data transformation that is not supported by the standard SSIS components. A Script Task can be used to achieve this.











Results Messages

	id	car_name	price	weight	location
1	1	Toyota Camry	25000.00	3200	New York
2	2	Honda Accord	23000.00	3100	Los Angeles
3	3	Ford Mustang	27000.00	3500	Chicago
4	4	Chevrolet Malibu	24000.00	3400	Houston
5	5	Nissan Altima	22000.00	3300	Phoenix
6	6	Subaru Legacy	26000.00	3300	Philadelphia
7	7	Kia Optima	25000.00	3200	San Antonio
8	8	Hyundai Sonata	24000.00	3100	San Diego
9	9	Volkswagen Passat	27000.00	3400	Dallas
10	10	Mazda6	25000.00	3200	San Jose