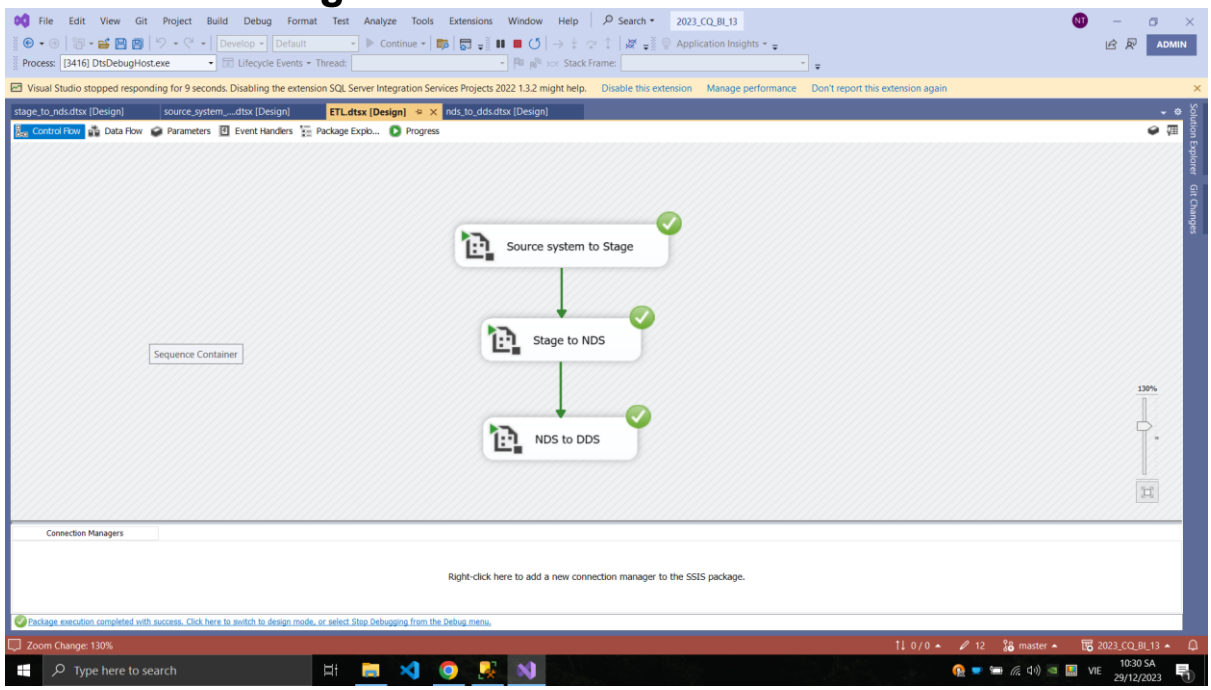
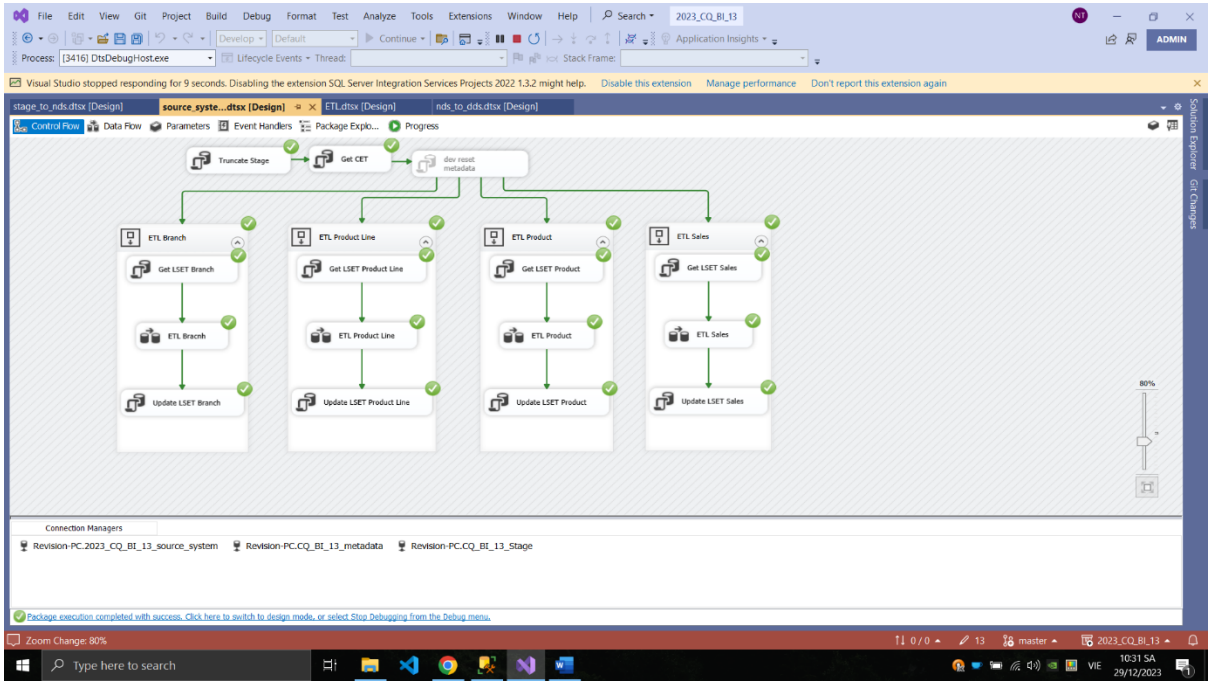
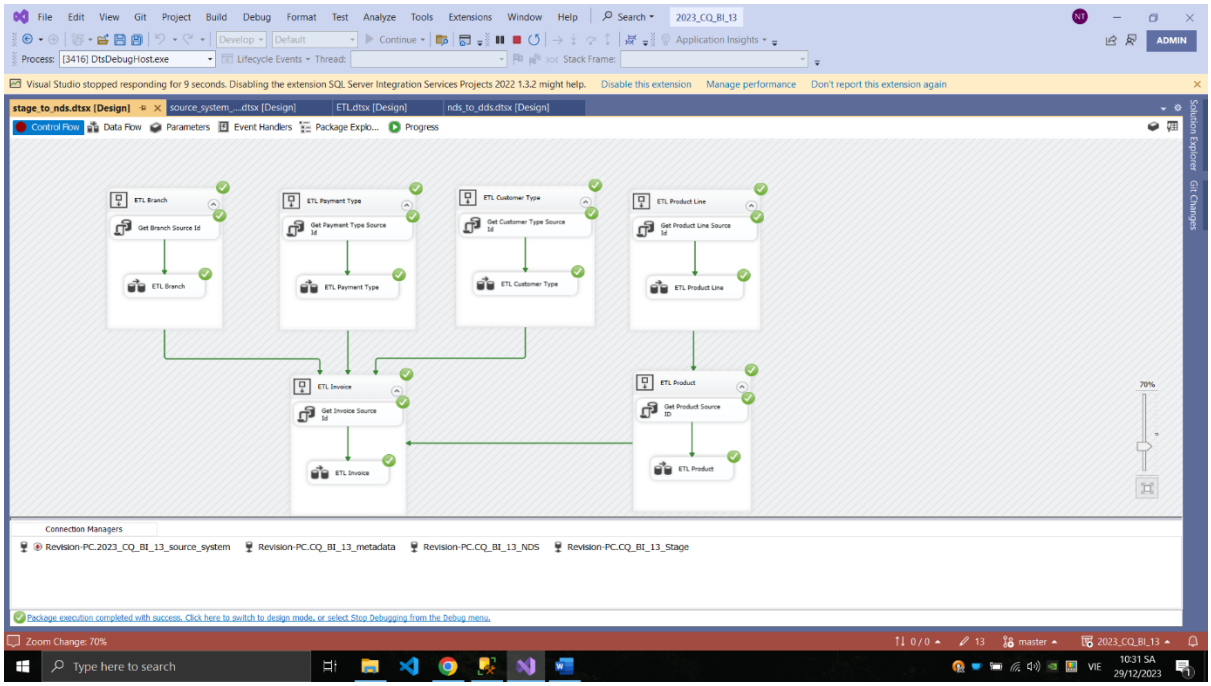
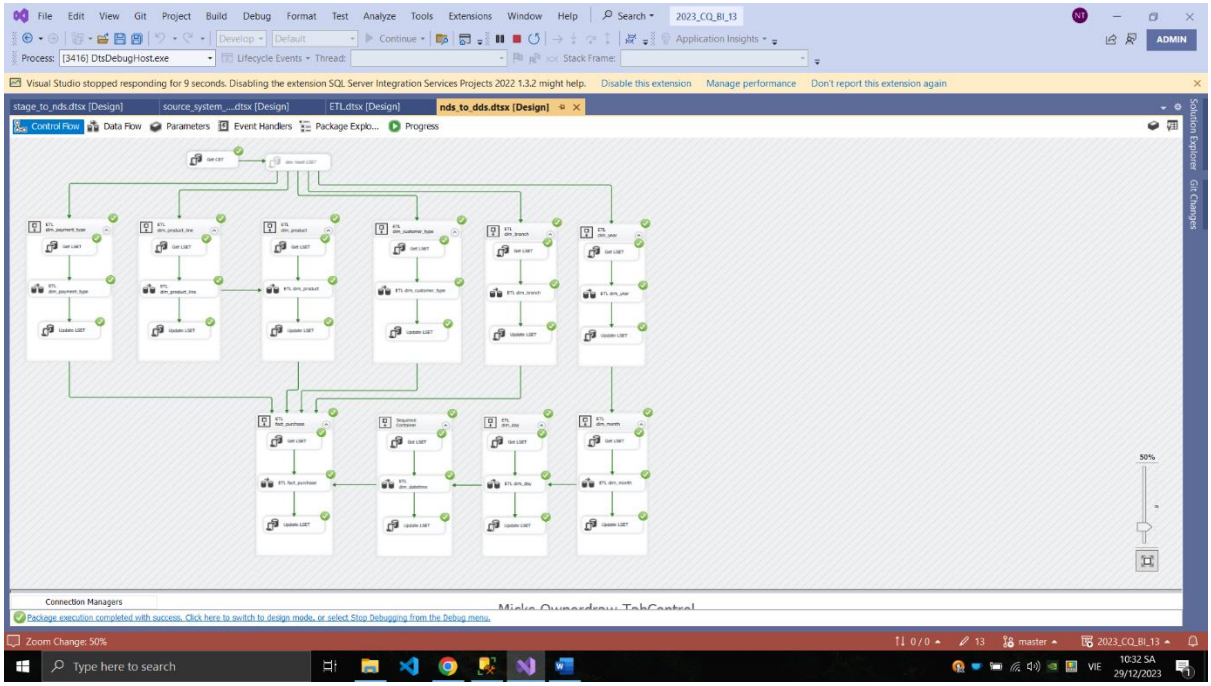
- **Package run:**

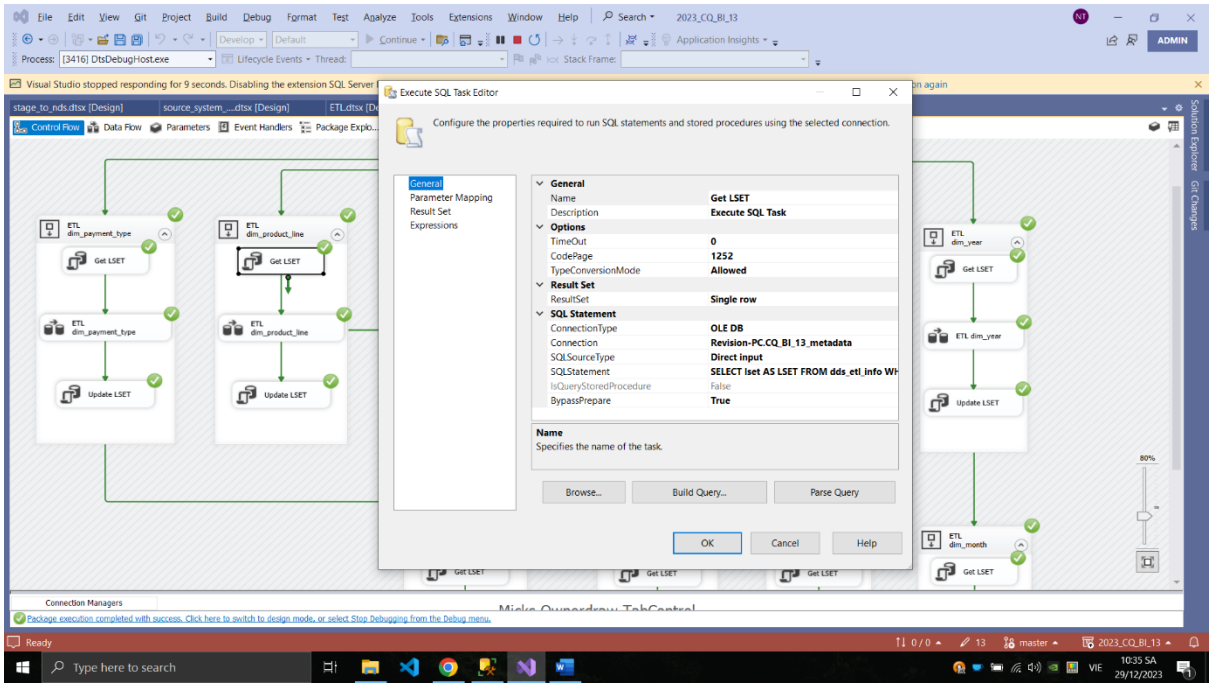

Source system to Stage
Stage to NDS
NDS to DDS
Sequence Container
Connection Managers
Right-click here to add a new connection manager to the SSIS package.

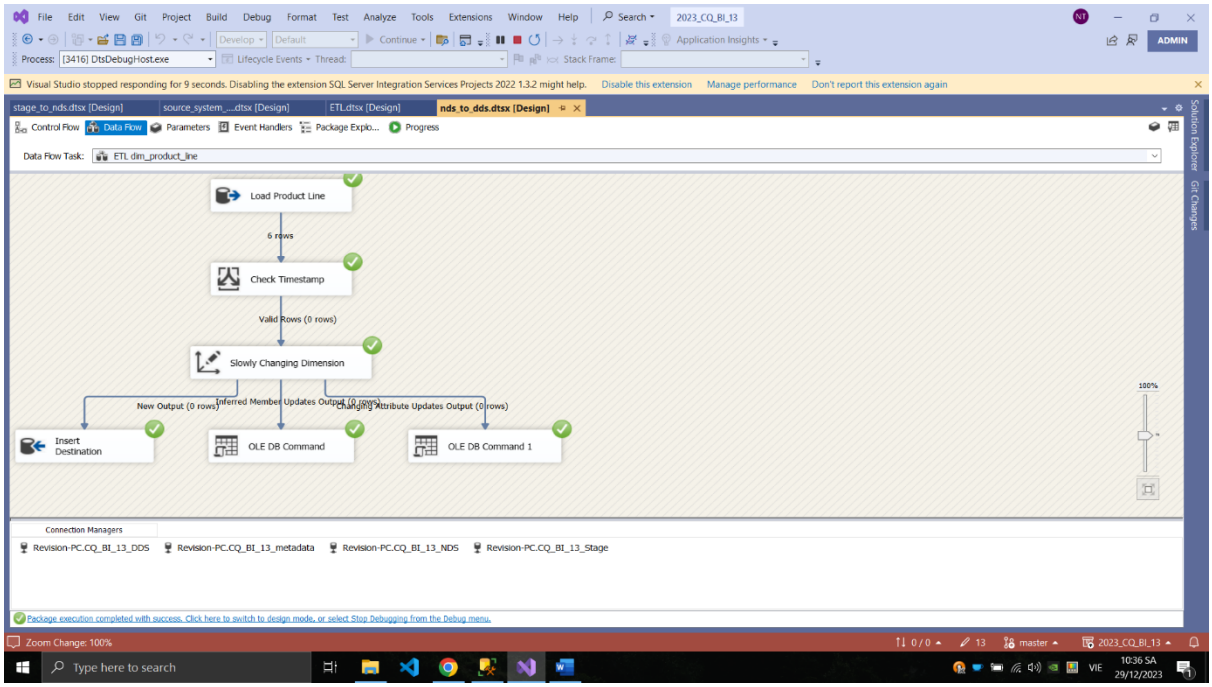

Truncate Stage
Get CET
dev reset metadata
ETL Branch
Get LSET Branch
ETL Branch
Update LSET Branch
ETL Product Line
Get LSET Product Line
ETL Product Line
Update LSET Product Line
ETL Product
Get LSET Product
ETL Product
Update LSET Product
ETL Sales
Get LSET Sales
ETL Sales
Update LSET Sales
Connection Managers
Revision-PC.2023_CQ_BI_13_source_system
Revision-PC.CQ_BI_13_metadata
Revision-PC.CQ_BI_13_Stage

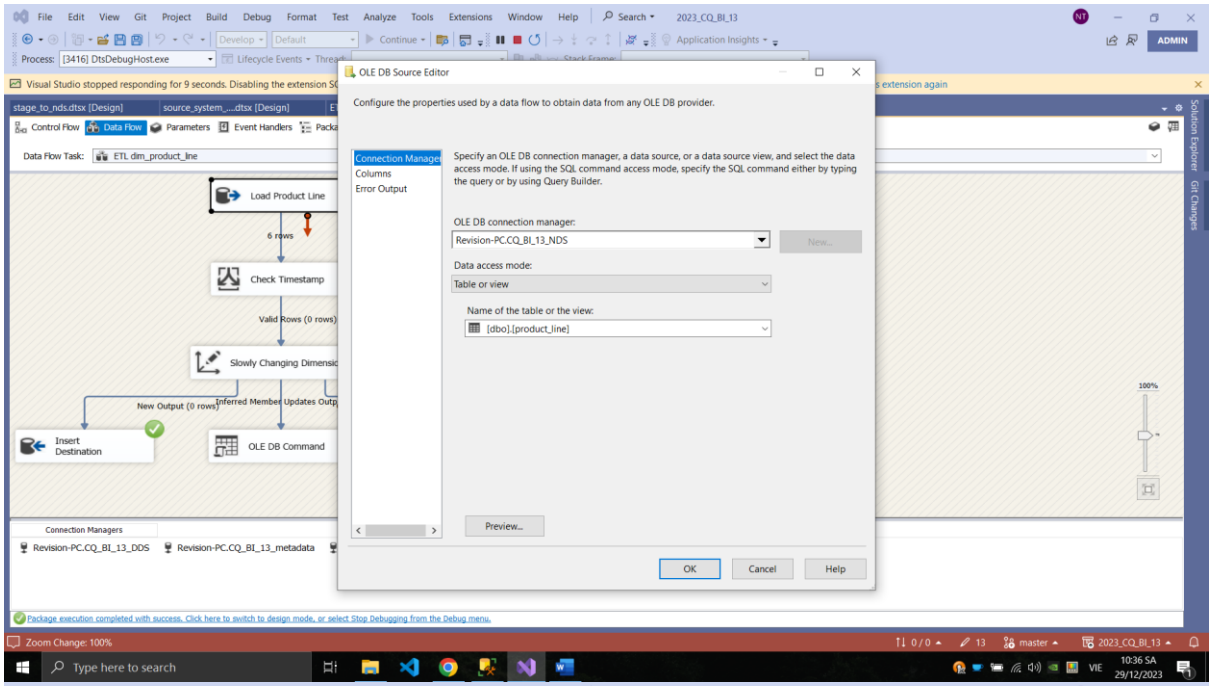


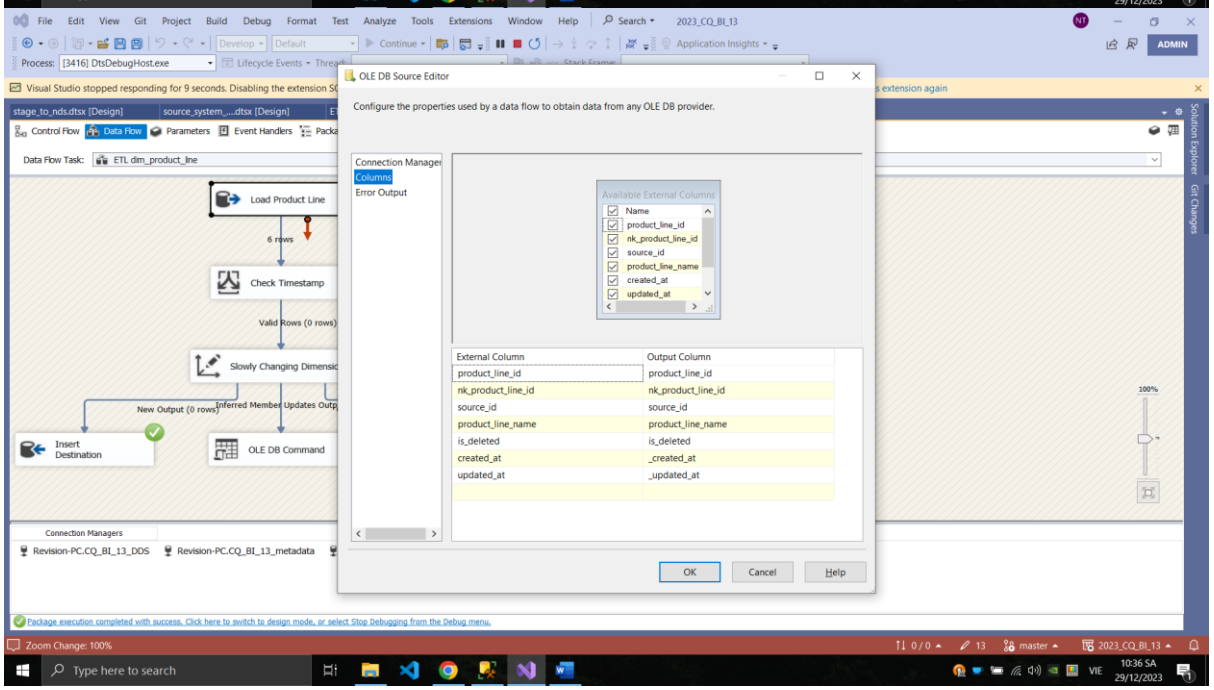


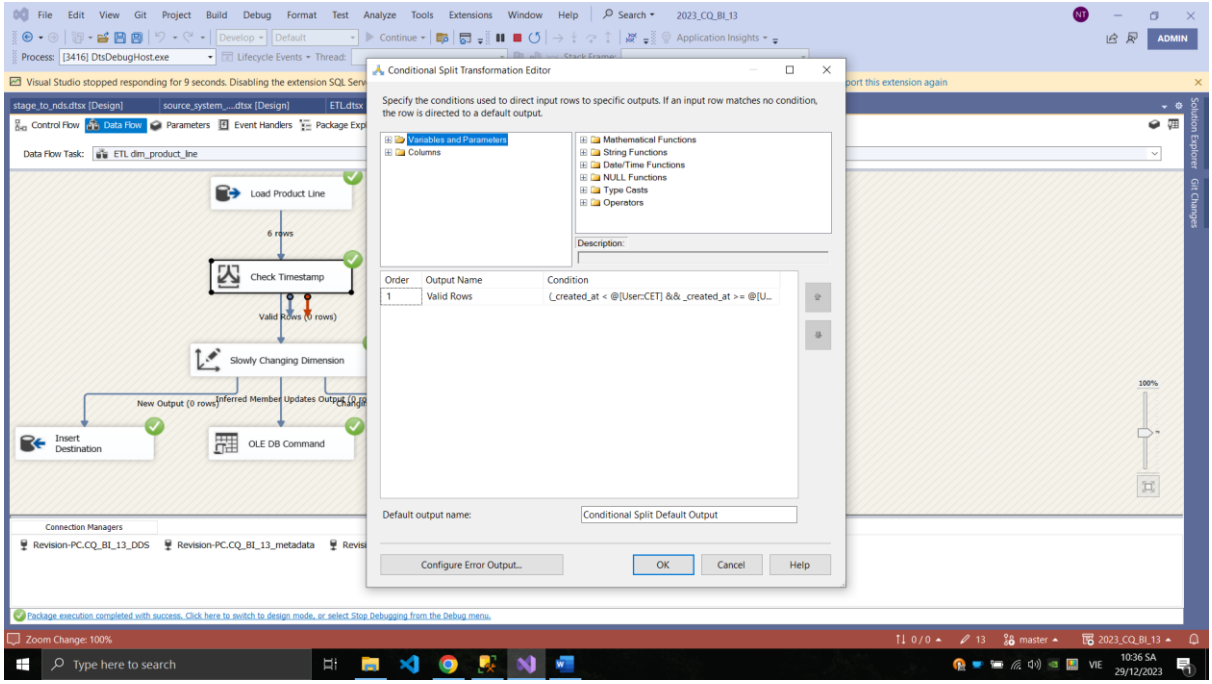
- **ETL bảng chiều product line:**

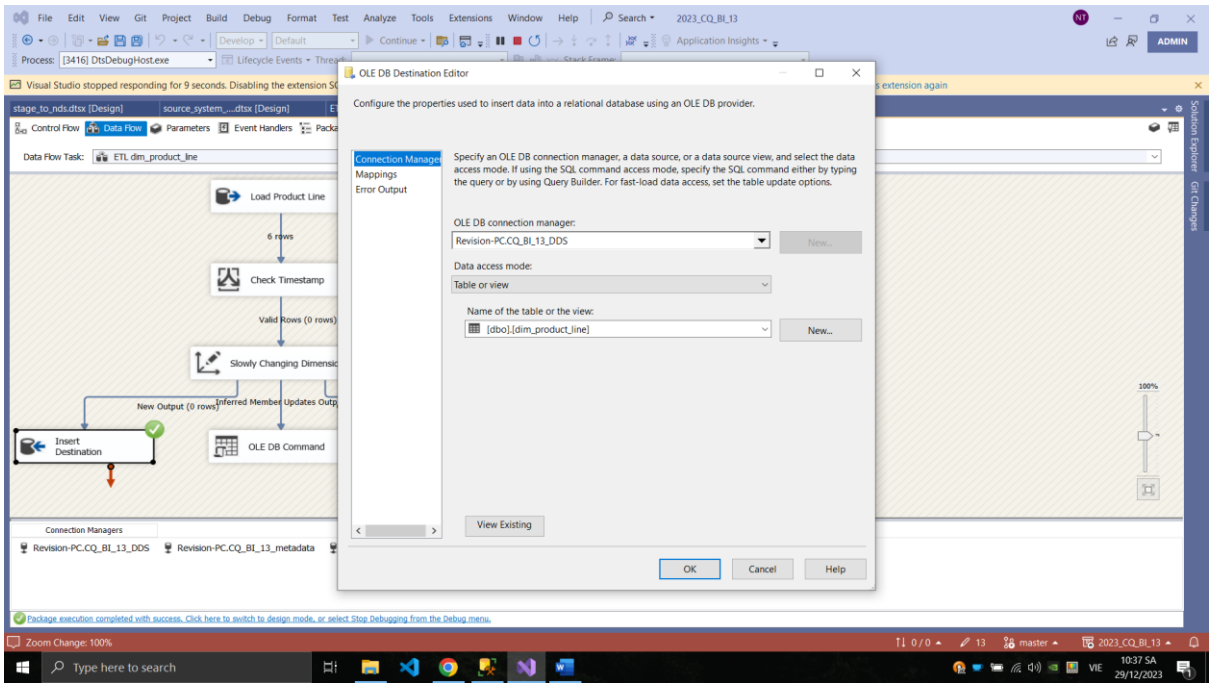

Execute SQL Task Editor
Configure the properties required to run SQL statements and stored procedures using the selected connection.
General
Parameter Mapping
Result Set
Expressions
General
Name
Get LSET
Description
Execute SQL Task
Options
TimeOut
0
CodePage
1252
TypeConversionMode
Allowed
Result Set
ResultSet
Single row
SQL Statement
ConnectionType
OLE DB
Connection
Revision-PC.CQ_BI_13_metadata
SQLSourceType
Direct input
SQLStatement
SELECT lset AS LSET FROM dds_etl_info WH
IsQueryStoredProcedure
False
BypassPrepare
True
Name
Specifies the name of the task.
Browse...
Build Query...
Parse Query
OK
Cancel
Help
Get LSET
Update LSET
Package execution completed with success. Click here to switch to design mode, or select Stop Debugging from the Debug menu.

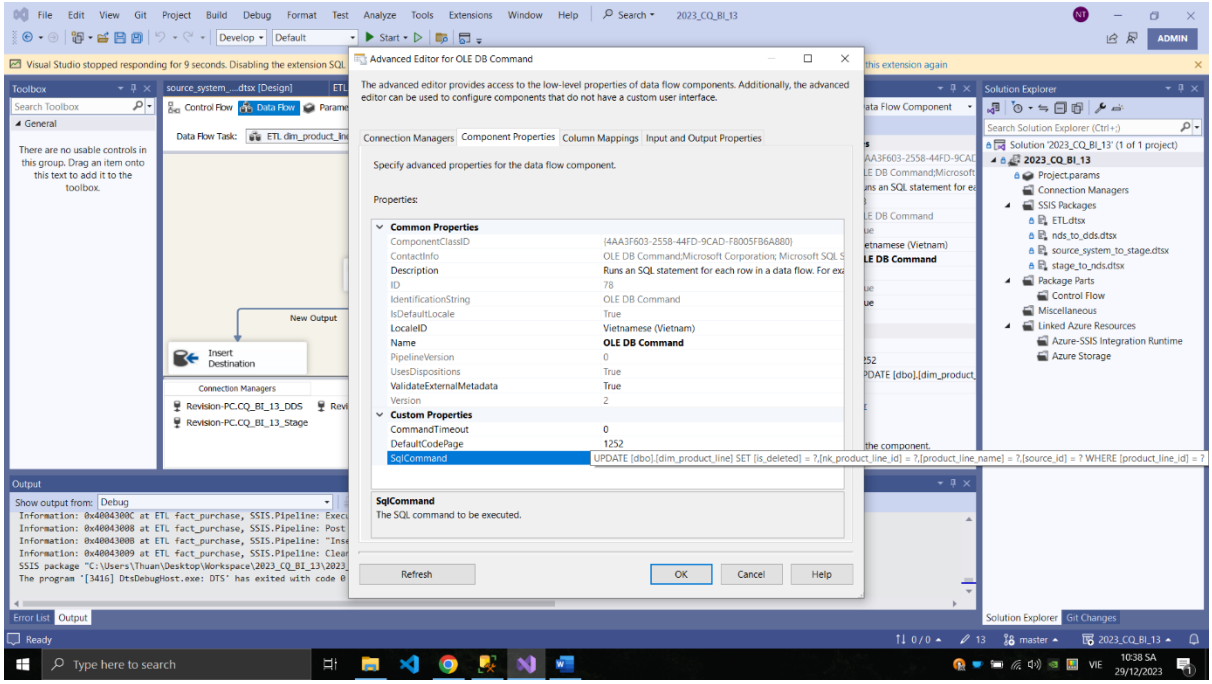

Data Flow Task: ETL dim_product_line
Load Product Line
6 rows
Check Timestamp
Valid Rows (0 rows)
Slowly Changing Dimension
New Output (0 rows)
Inferred Member Updates Output (0 rows)
Changing Attribute Updates Output (0 rows)
Insert Destination
OLE DB Command
OLE DB Command 1
Connection Managers
Revision-PC.CQ_BI_13_DDS
Revision-PC.CQ_BI_13_metadata
Revision-PC.CQ_BI_13_NDS
Revision-PC.CQ_BI_13_Stage
Package execution completed with success. Click here to switch to design mode, or select Stop Debugging from the Debug menu.

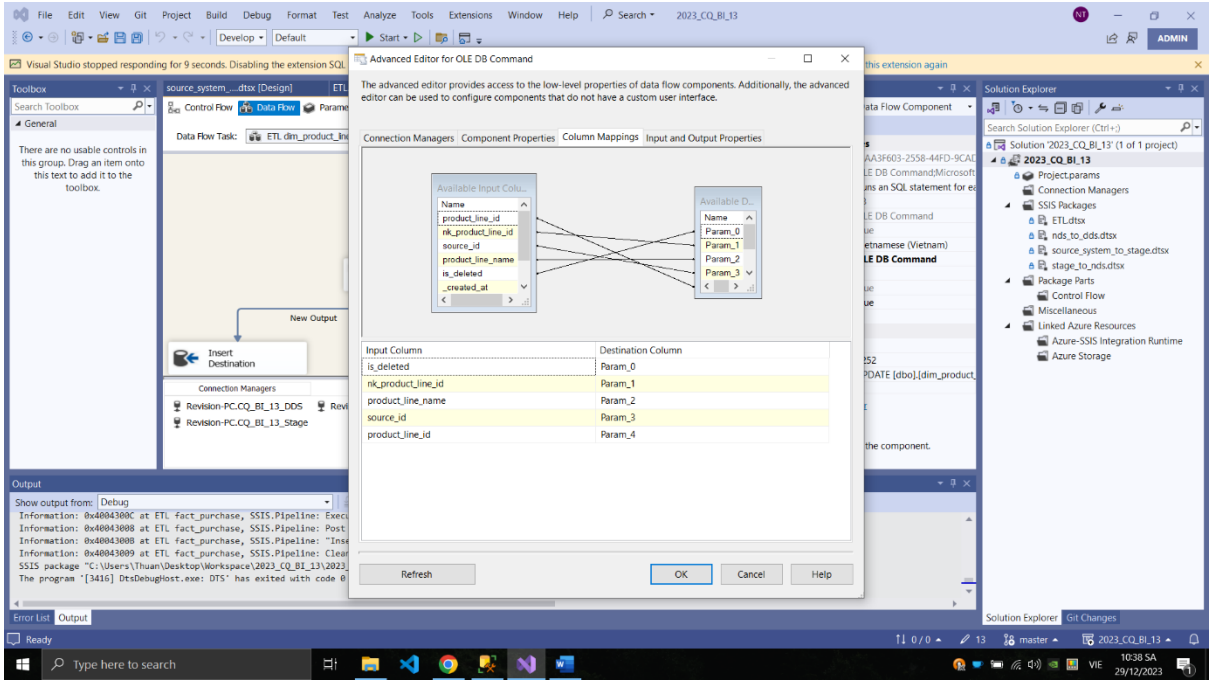

OLE DB Source Editor
Configure the properties used by a data flow to obtain data from any OLE DB provider.
Connection Manager
Columns
Error Output
Specify an OLE DB connection manager, a data source, or a data source view, and select the data access mode. If using the SQL command access mode, specify the SQL command either by typing the query or by using Query Builder.
OLE DB connection manager:
Revision-PC.CQ_BI_13_NDS
New...
Data access mode:
Table or view
Name of the table or the view:
[dbo].[product_line]
Preview...
OK
Cancel
Help
Data Flow Task:
ETL dim_product_line
Load Product Line
6 rows
Check Timestamp
Valid Rows (0 rows)
Slowly Changing Dimensio
New Output (0 rows)
Inferred Member Updates Outp
Insert Destination
OLE DB Command
Connection Managers
Revision-PC.CQ_BI_13_DDS
Revision-PC.CQ_BI_13_metadata

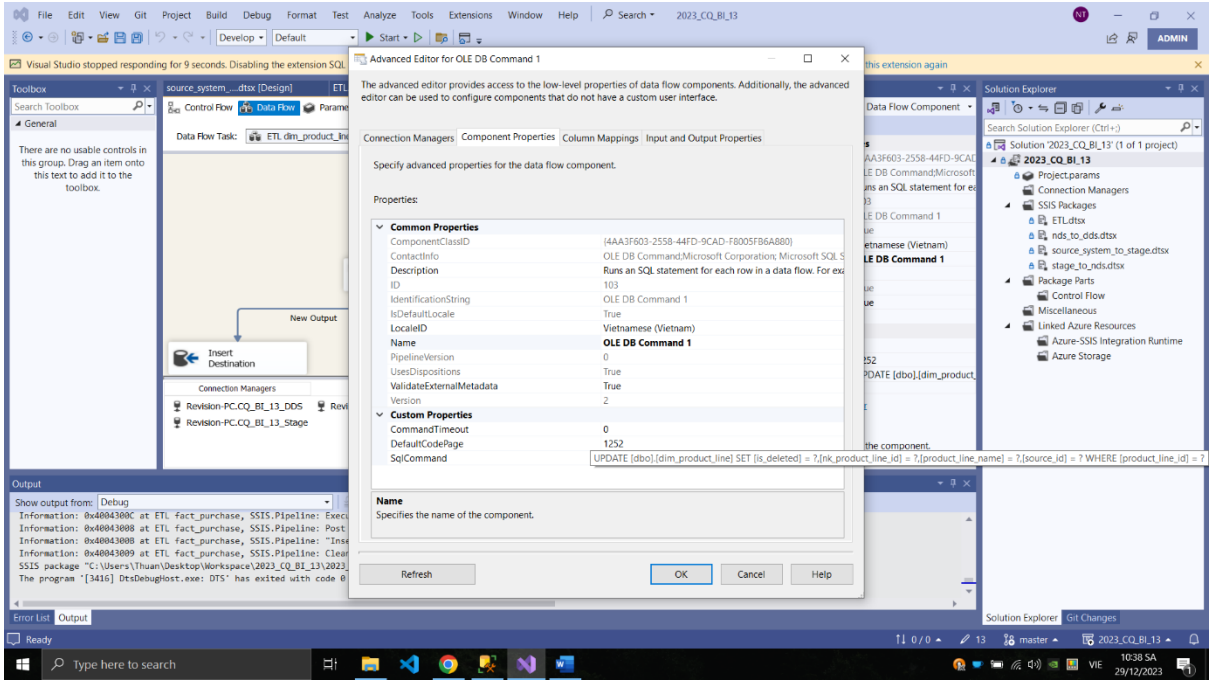

OLE DB Source Editor
Configure the properties used by a data flow to obtain data from any OLE DB provider.
Connection Manager
Columns
Error Output
Available External Columns
Name
product_line_id
nk_product_line_id
source_id
product_line_name
created_at
updated_at
External Column
Output Column
product_line_id
product_line_id
nk_product_line_id
nk_product_line_id
source_id
source_id
product_line_name
product_line_name
is_deleted
is_deleted
created_at
_created_at
updated_at
_updated_at
OK
Cancel
Help
Data Flow Task:
ETL dim_product_line
Load Product Line
6 rows
Check Timestamp
Valid Rows (0 rows)
Slowly Changing Dimensio
New Output (0 rows)
Inferred Member Updates Outp
Insert Destination
OLE DB Command
Connection Managers
Revision-PC.CQ_BI_13_DDS
Revision-PC.CQ_BI_13_metadata

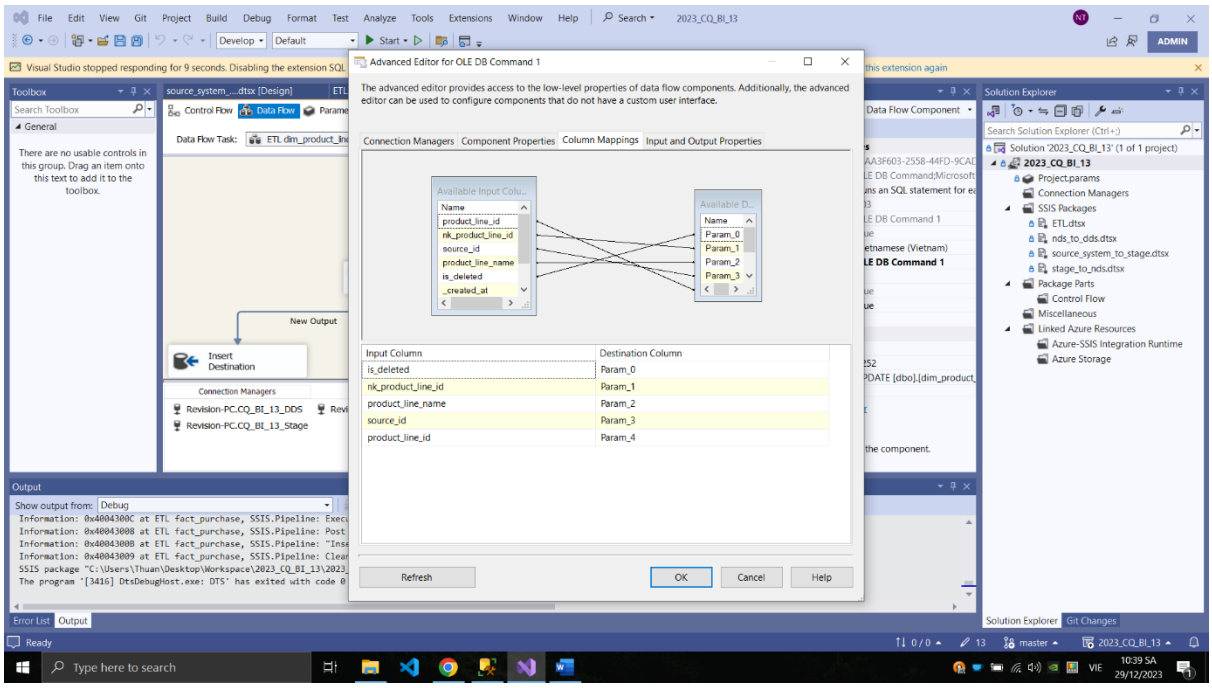

Conditional Split Transformation Editor
Specify the conditions used to direct input rows to specific outputs. If an input row matches no condition, the row is directed to a default output.
Variables and Parameters
Columns
Mathematical Functions
String Functions
Date/Time Functions
NULL Functions
Type Casts
Operators
Description:
Order
Output Name
Condition
1
Valid Rows
(_created_at < @[User::CET] && _created_at >= @[U...
Default output name:
Conditional Split Default Output
Configure Error Output...
OK
Cancel
Help
Load Product Line
6 rows
Check Timestamp
Valid Rows (0 rows)
Slowly Changing Dimension
New Output (0 rows)
Insert Destination
OLE DB Command
Data Flow Task:
ETL dim_product_line
Connection Managers
Revision-PC.CQ_BI_13_DDS
Revision-PC.CQ_BI_13_metadata


OLE DB Destination Editor
Configure the properties used to insert data into a relational database using an OLE DB provider.
Connection Manager
Mappings
Error Output
Specify an OLE DB connection manager, a data source, or a data source view, and select the data access mode. If using the SQL command access mode, specify the SQL command either by typing the query or by using Query Builder. For fast-load data access, set the table update options.
OLE DB connection manager:
Revision-PC.CQ_BI_13_DDS
New...
Data access mode:
Table or view
Name of the table or the view:
[dbo].[dim_product_line]
New...
View Existing
OK
Cancel
Help
Load Product Line
6 rows
Check Timestamp
Valid Rows (0 rows)
New Output (0 rows)
Insert Destination
OLE DB Command
Connection Managers
Revision-PC.CQ_BI_13_DDS
Revision-PC.CQ_BI_13_metadata

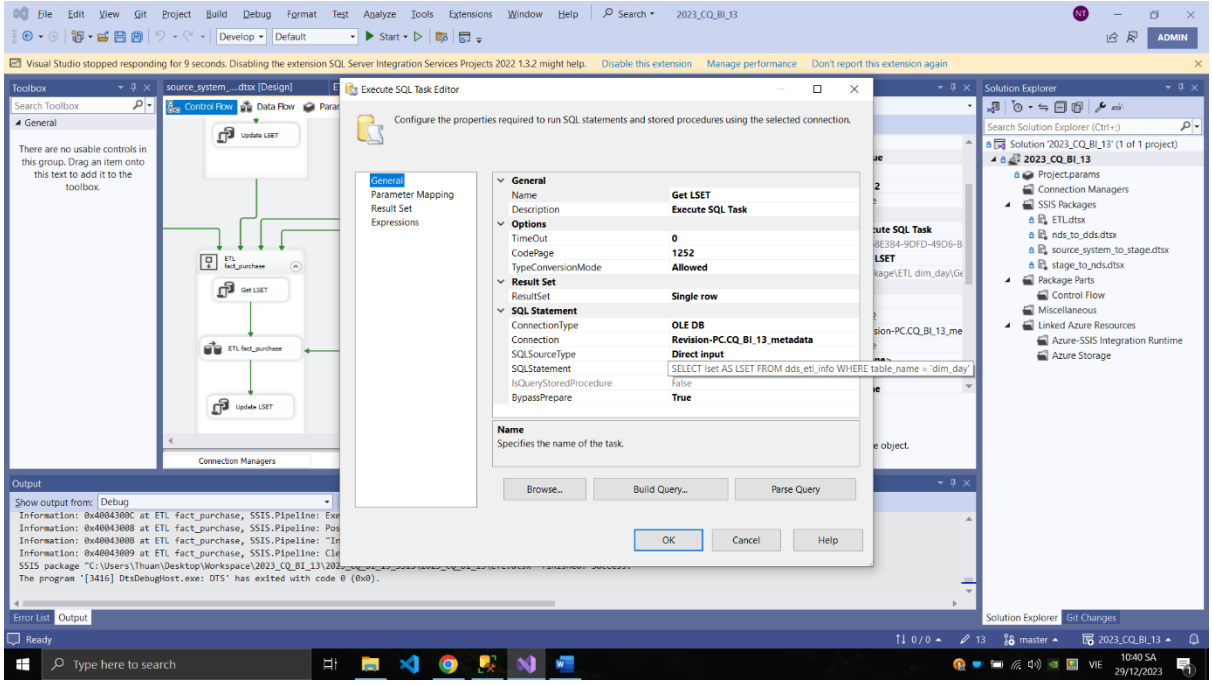

Advanced Editor for OLE DB Command
The advanced editor provides access to the low-level properties of data flow components. Additionally, the advanced editor can be used to configure components that do not have a custom user interface.
Connection Managers
Component Properties
Column Mappings
Input and Output Properties
Specify advanced properties for the data flow component.
Properties:
Common Properties
ComponentClassID
{4AA3F603-2558-44FD-9CAD-F8005FB6A880}
ContactInfo
OLE DB Command;Microsoft Corporation; Microsoft SQL S
Description
Runs an SQL statement for each row in a data flow. For exa
ID
78
IdentificationString
OLE DB Command
IsDefaultLocale
True
LocaleID
Vietnamese (Vietnam)
Name
OLE DB Command
PipelineVersion
0
UsesDispositions
True
ValidateExternalMetadata
True
Version
2
Custom Properties
CommandTimeout
0
DefaultCodePage
1252
SqlCommand
UPDATE [dbo].[dim_product_line] SET [is_deleted] = ?,[nk_product_line_id] = ?,[product_line_name] = ?,[source_id] = ? WHERE [product_line_id] = ?
SqlCommand
The SQL command to be executed.
Refresh
OK
Cancel
Help

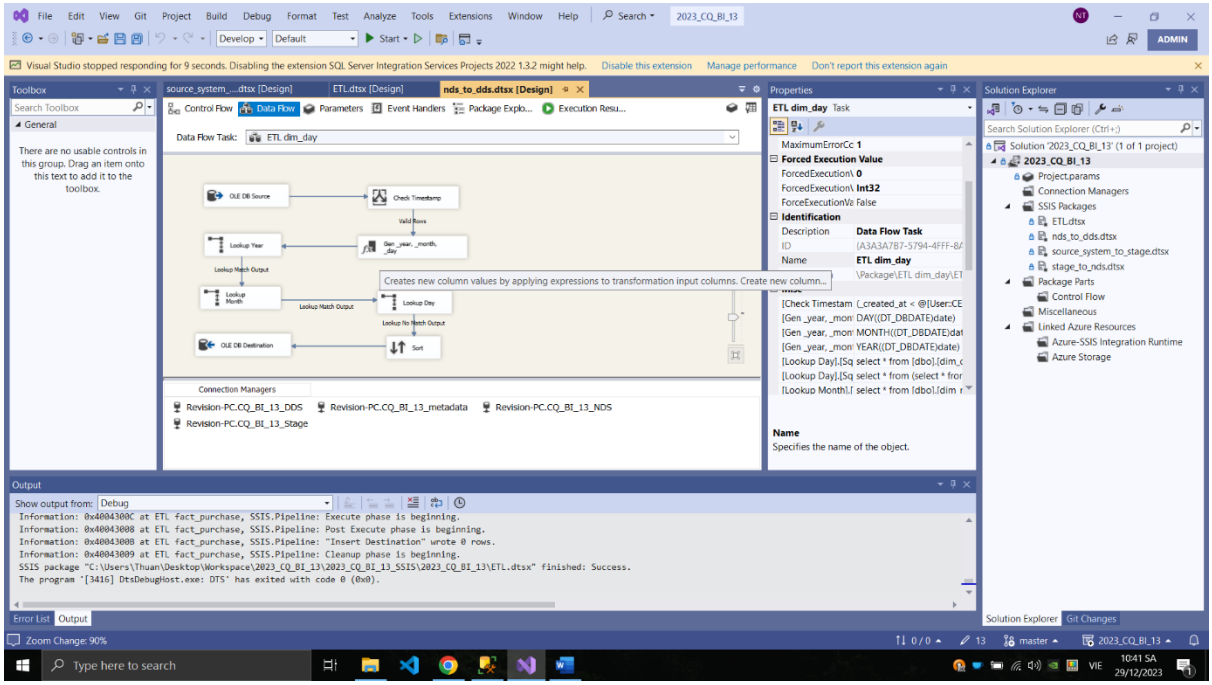

Advanced Editor for OLE DB Command
The advanced editor provides access to the low-level properties of data flow components. Additionally, the advanced editor can be used to configure components that do not have a custom user interface.
Connection Managers
Component Properties
Column Mappings
Input and Output Properties
Available Input Colu...
Name
product_line_id
nk_product_line_id
source_id
product_line_name
is_deleted
_created_at
Available D...
Name
Param_0
Param_1
Param_2
Param_3
Input Column
Destination Column
is_deleted
Param_0
nk_product_line_id
Param_1
product_line_name
Param_2
source_id
Param_3
product_line_id
Param_4
Refresh
OK
Cancel
Help

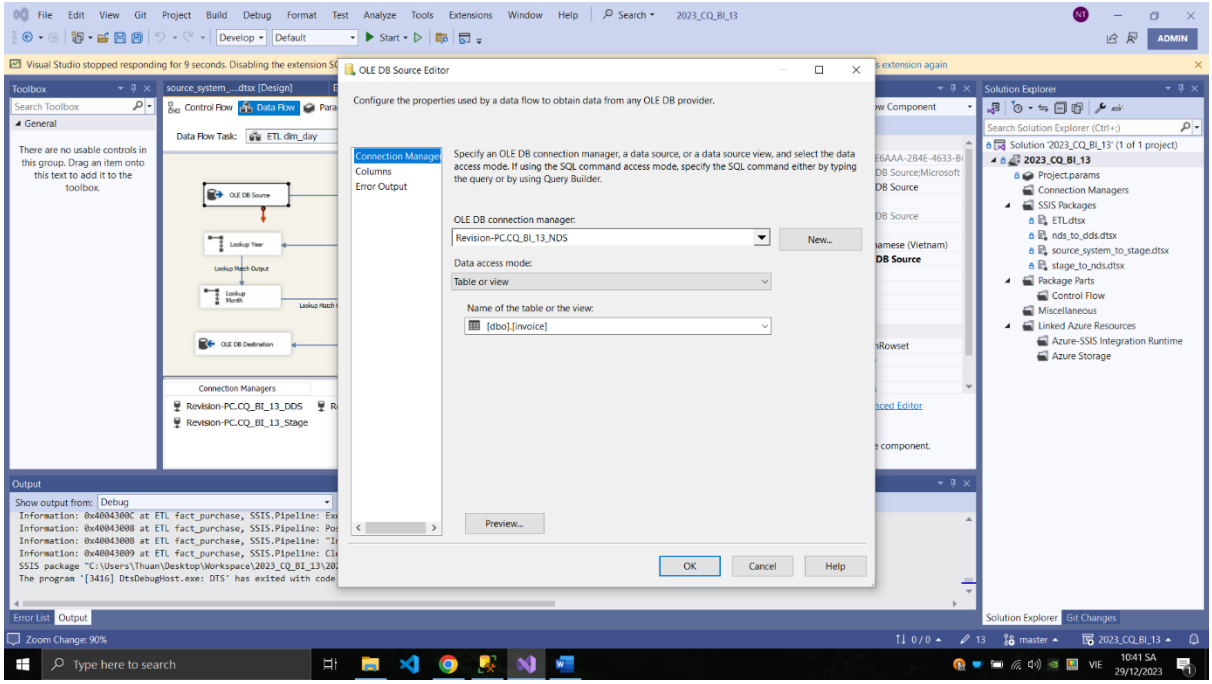

Advanced Editor for OLE DB Command 1
The advanced editor provides access to the low-level properties of data flow components. Additionally, the advanced editor can be used to configure components that do not have a custom user interface.
Connection Managers
Component Properties
Column Mappings
Input and Output Properties
Specify advanced properties for the data flow component.
Properties:
Common Properties
ComponentClassID
{4AA3F603-2558-44FD-9CAD-F8005FB6A880}
ContactInfo
OLE DB Command;Microsoft Corporation; Microsoft SQL S
Description
Runs an SQL statement for each row in a data flow. For exa
ID
103
IdentificationString
OLE DB Command 1
IsDefaultLocale
True
LocaleID
Vietnamese (Vietnam)
Name
OLE DB Command 1
PipelineVersion
0
UsesDispositions
True
ValidateExternalMetadata
True
Version
2
Custom Properties
CommandTimeout
0
DefaultCodePage
1252
SqlCommand
UPDATE [dbo].[dim_product_line] SET [is_deleted] = ?,[nk_product_line_id] = ?,[product_line_name] = ?,[source_id] = ? WHERE [product_line_id] = ?
Name
Specifies the name of the component.
Refresh
OK
Cancel
Help

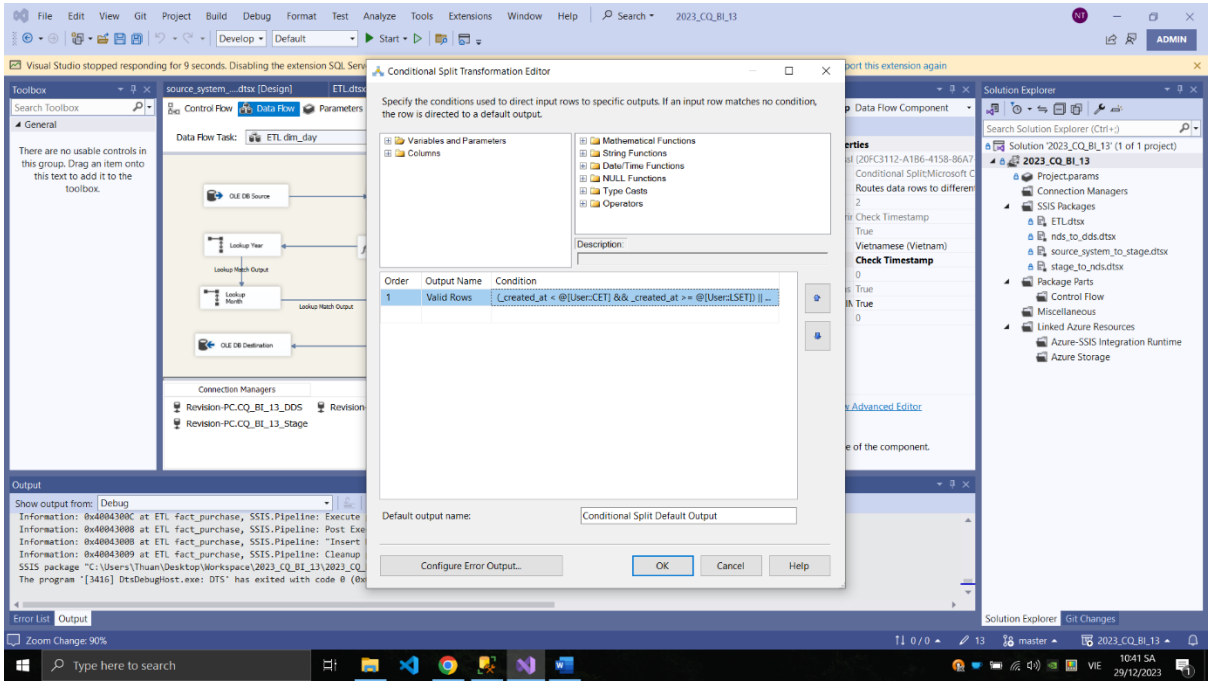

Advanced Editor for OLE DB Command 1
The advanced editor provides access to the low-level properties of data flow components. Additionally, the advanced editor can be used to configure components that do not have a custom user interface.
Connection Managers
Component Properties
Column Mappings
Input and Output Properties
Available Input Colu...
Name
product_line_id
nk_product_line_id
source_id
product_line_name
is_deleted
_created_at
Available D...
Name
Param_0
Param_1
Param_2
Param_3
Input Column
Destination Column
is_deleted
Param_0
nk_product_line_id
Param_1
product_line_name
Param_2
source_id
Param_3
product_line_id
Param_4
Refresh
OK
Cancel
Help

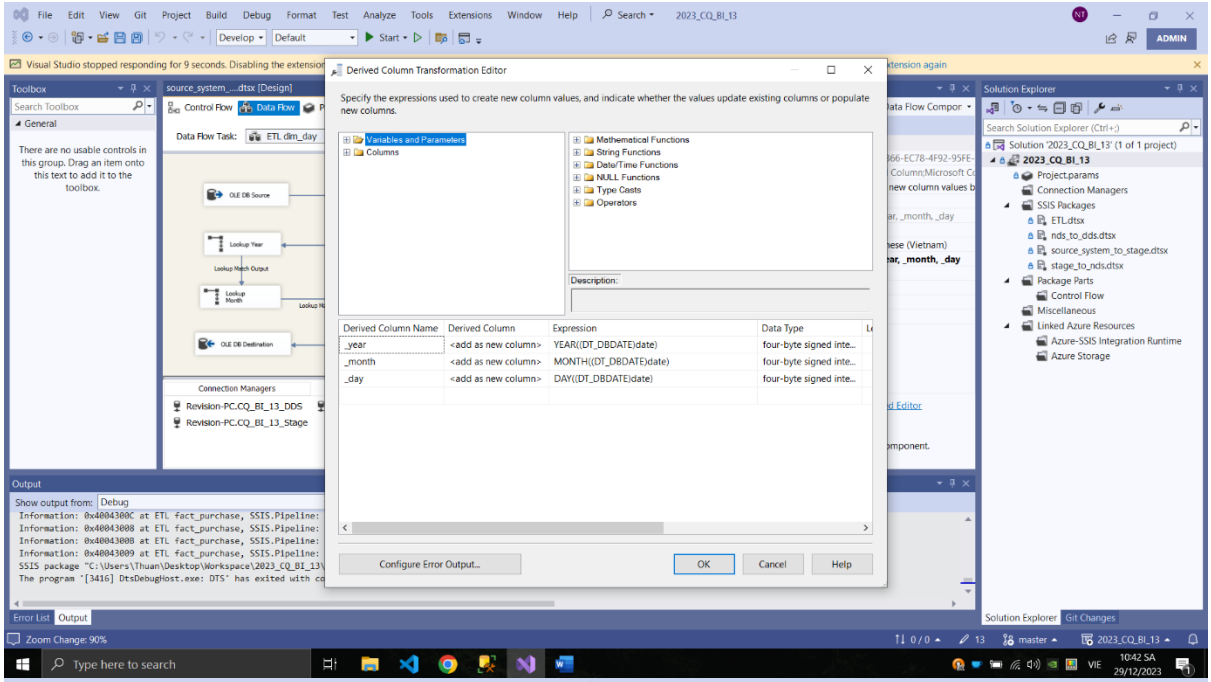
- ETL bảng chiều day

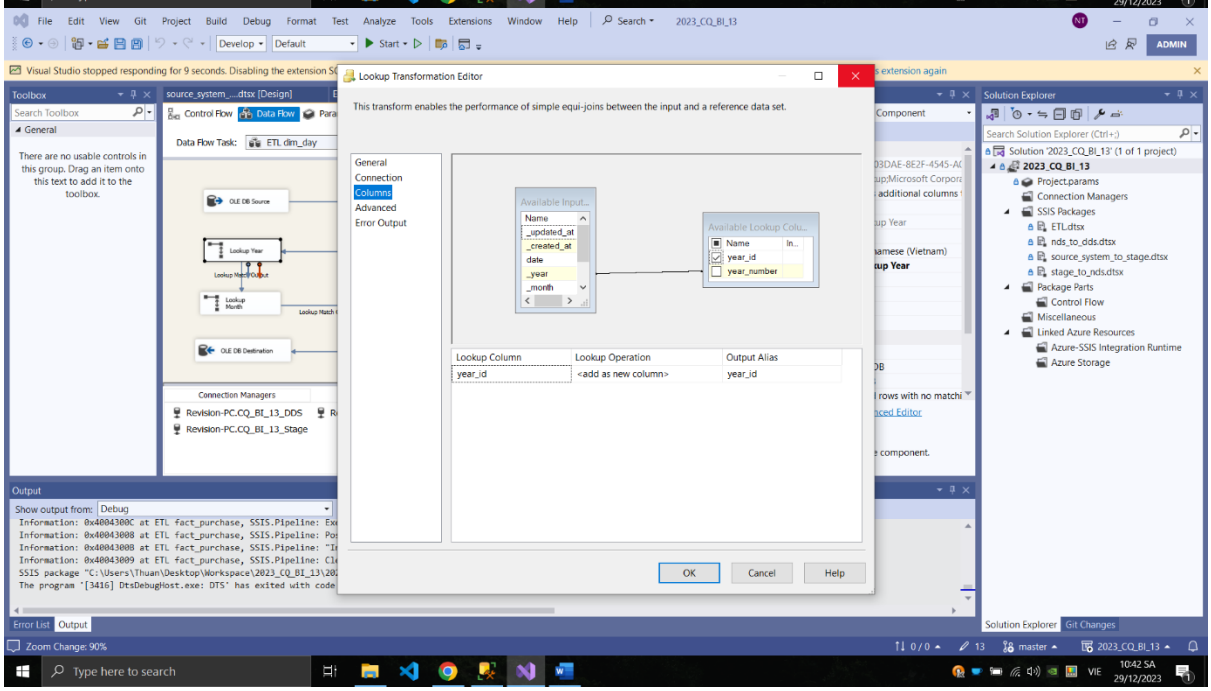


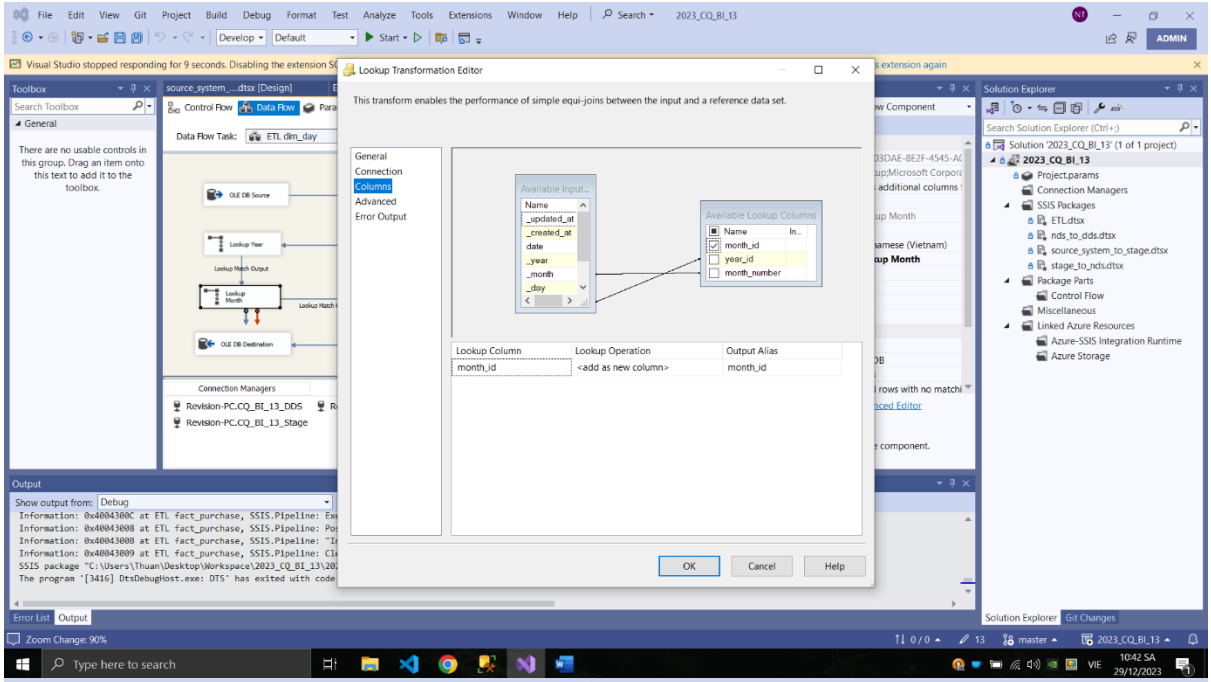


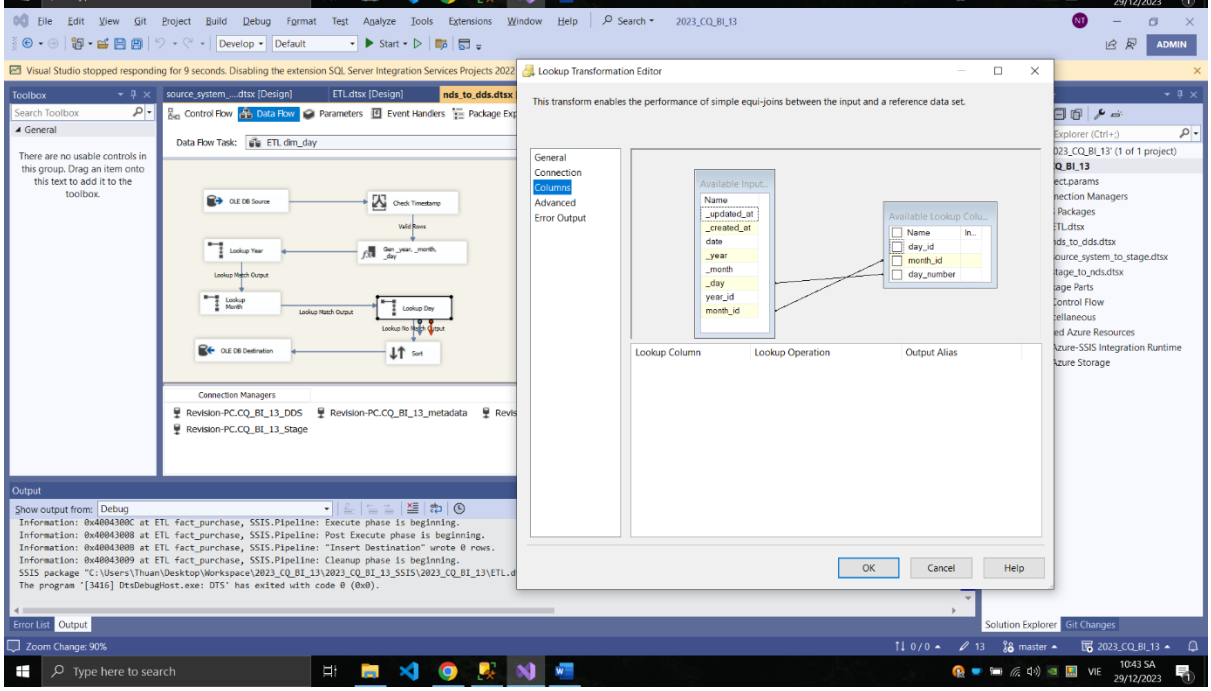

OLE DB Source Editor
Configure the properties used by a data flow to obtain data from any OLE DB provider.
Connection Manager
Columns
Error Output
Specify an OLE DB connection manager, a data source, or a data source view, and select the data access mode. If using the SQL command access mode, specify the SQL command either by typing the query or by using Query Builder.
OLE DB connection manager:
Revision-PC.CQ_BI_13_NDS
New...
Data access mode:
Table or view
Name of the table or the view:
[dbo].[invoice]
Preview...
OK
Cancel
Help

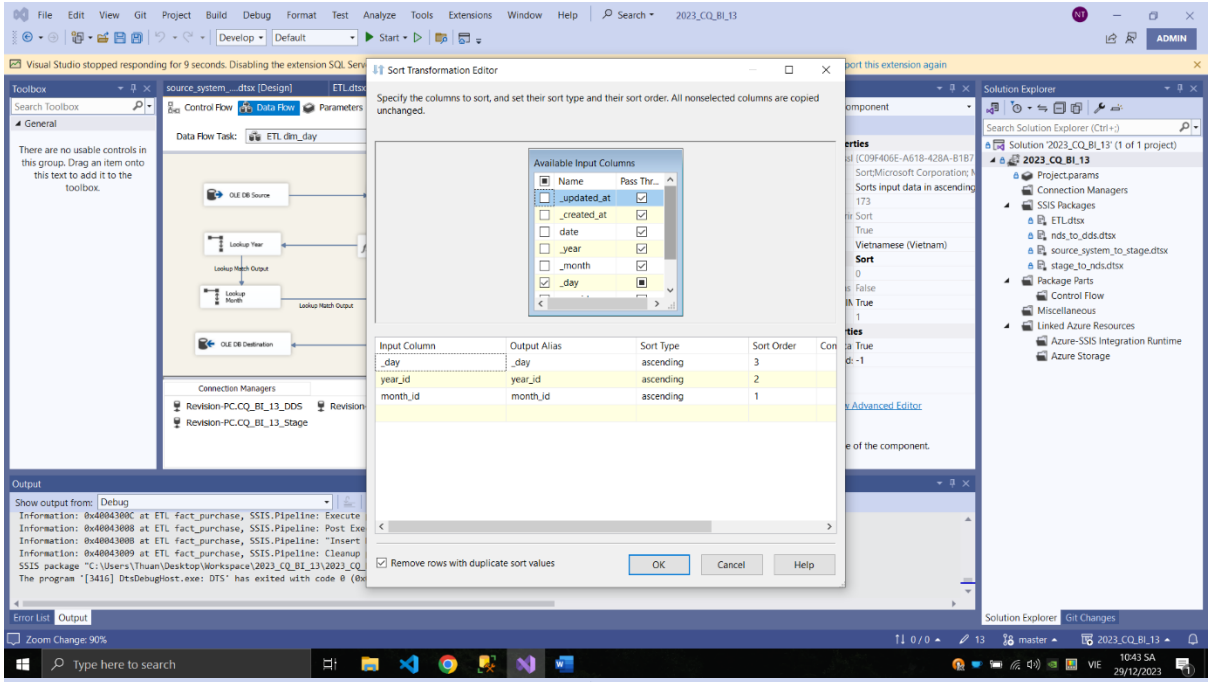

Conditional Split Transformation Editor
Specify the conditions used to direct input rows to specific outputs. If an input row matches no condition, the row is directed to a default output.
Variables and Parameters
Columns
Mathematical Functions
String Functions
Date/Time Functions
NULL Functions
Type Casts
Operators
Description:
Order
Output Name
Condition
1
Valid Rows
(_created_at < @[User::CET] && _created_at >= @[User::LSET]) || ...
Default output name:
Conditional Split Default Output
Configure Error Output...
OK
Cancel
Help

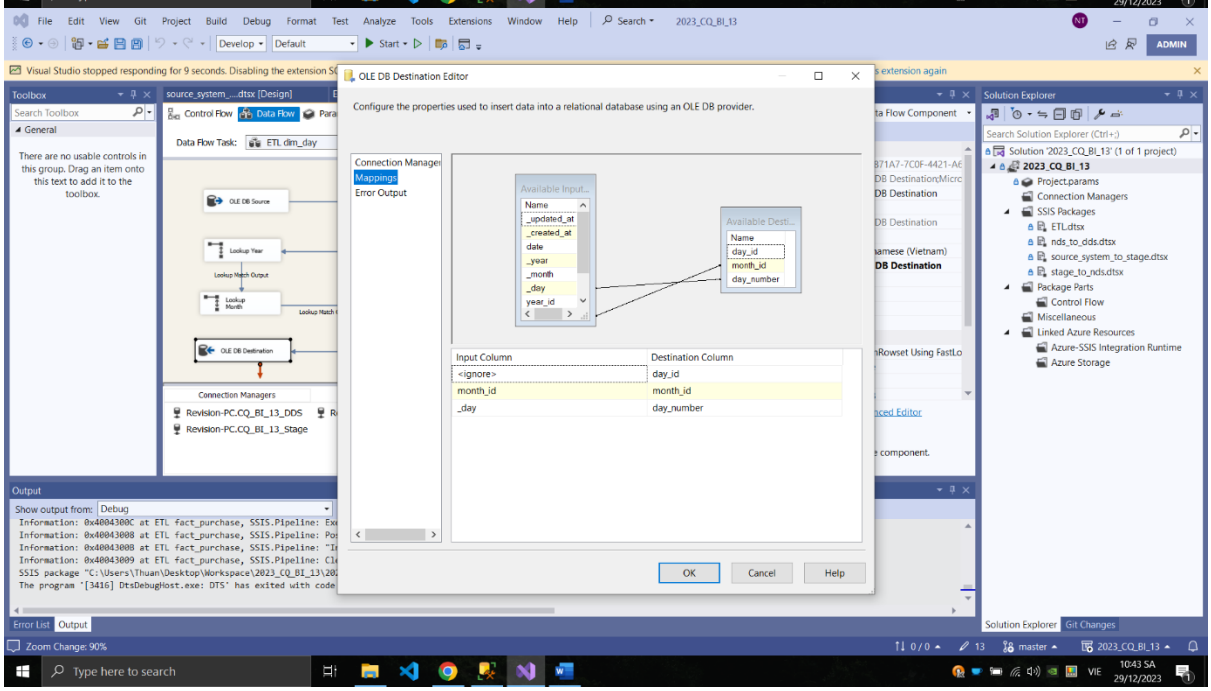

Derived Column Transformation Editor
Specify the expressions used to create new column values, and indicate whether the values update existing columns or populate new columns.
Variables and Parameters
Columns
Mathematical Functions
String Functions
Date/Time Functions
NULL Functions
Type Casts
Operators
Description:
Derived Column Name
Derived Column
Expression
Data Type
_year
<add as new column>
YEAR((DT_DBDATE)date)
four-byte signed inte...
_month
<add as new column>
MONTH((DT_DBDATE)date)
four-byte signed inte...
_day
<add as new column>
DAY((DT_DBDATE)date)
four-byte signed inte...
Configure Error Output...
OK
Cancel
Help


Lookup Transformation Editor
This transform enables the performance of simple equi-joins between the input and a reference data set.
General
Connection
Columns
Advanced
Error Output
Available Input...
Name
_updated_at
_created_at
date
_year
_month
Available Lookup Colu...
Name
In...
year_id
year_number
Lookup Column
Lookup Operation
Output Alias
year_id
<add as new column>
year_id
OK
Cancel
Help

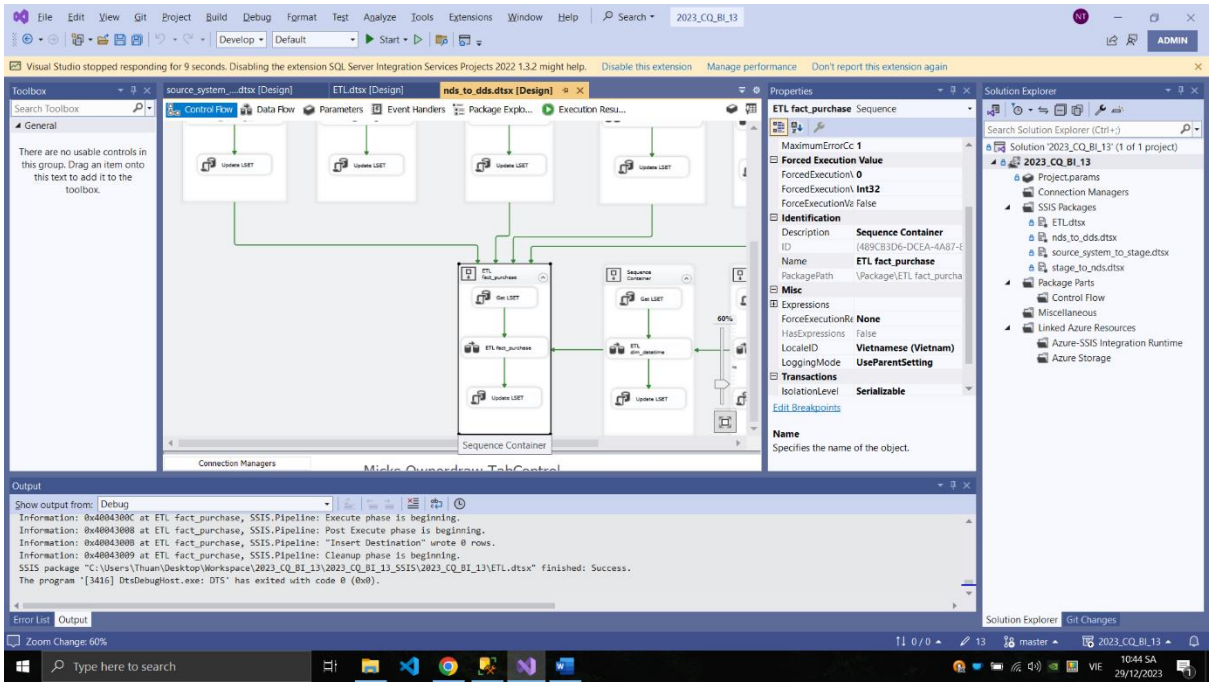

Lookup Transformation Editor
This transform enables the performance of simple equi-joins between the input and a reference data set.
General
Connection
Columns
Advanced
Error Output
Available Input...
Name
_updated_at
_created_at
date
_year
_month
_day
Available Lookup Columns
Name
month_id
year_id
month_number
Lookup Column
Lookup Operation
Output Alias
month_id
<add as new column>
month_id
OK
Cancel
Help

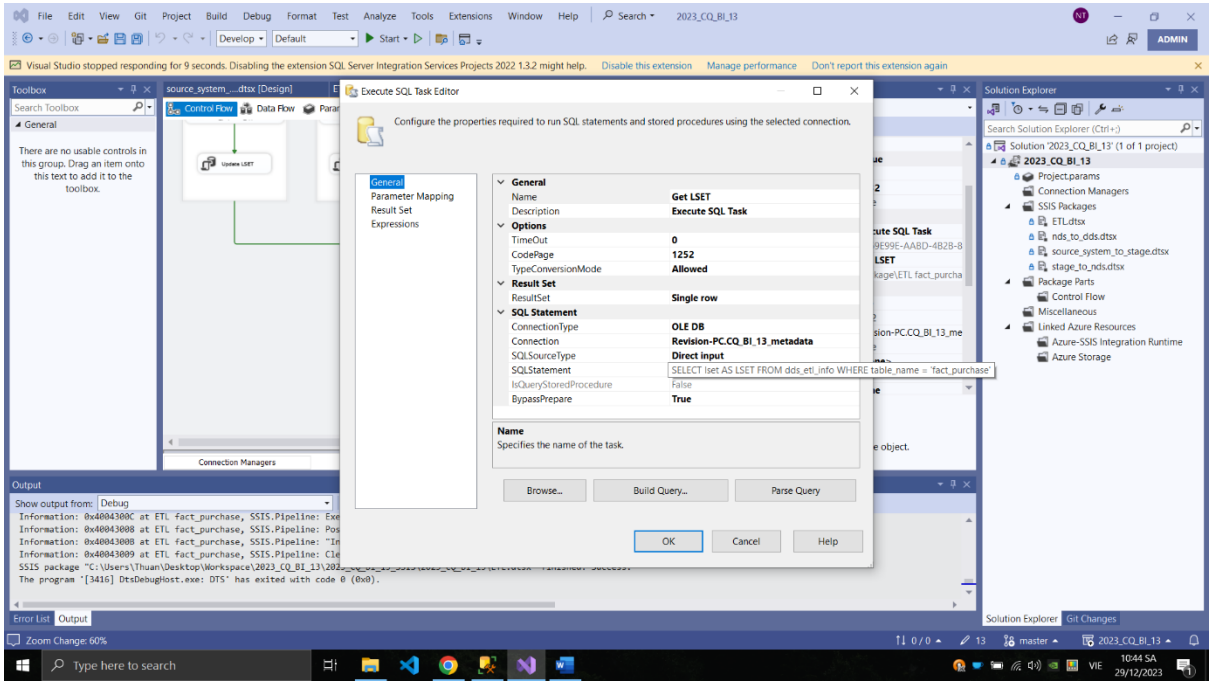

Lookup Transformation Editor
This transform enables the performance of simple equi-joins between the input and a reference data set.
General
Connection
Columns
Advanced
Error Output
Available Input...
Name
_updated_at
_created_at
date
_year
_month
_day
year_id
month_id
Available Lookup Colu...
Name
day_id
month_id
day_number
Lookup Column
Lookup Operation
Output Alias
OK
Cancel
Help

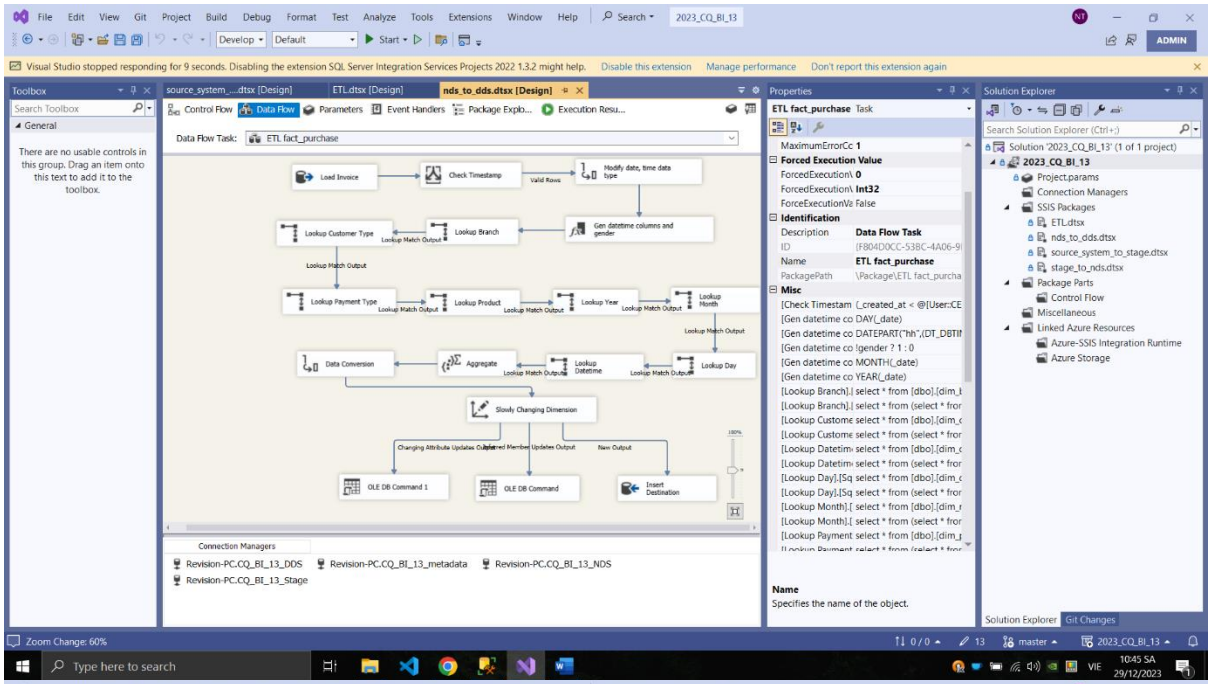

Sort Transformation Editor
Specify the columns to sort, and set their sort type and their sort order. All nonselected columns are copied unchanged.
Available Input Columns
Name
Pass Thr...
_updated_at
_created_at
date
_year
_month
_day
Input Column
Output Alias
Sort Type
Sort Order
_day
_day
ascending
3
year_id
year_id
ascending
2
month_id
month_id
ascending
1
Remove rows with duplicate sort values
OK
Cancel
Help

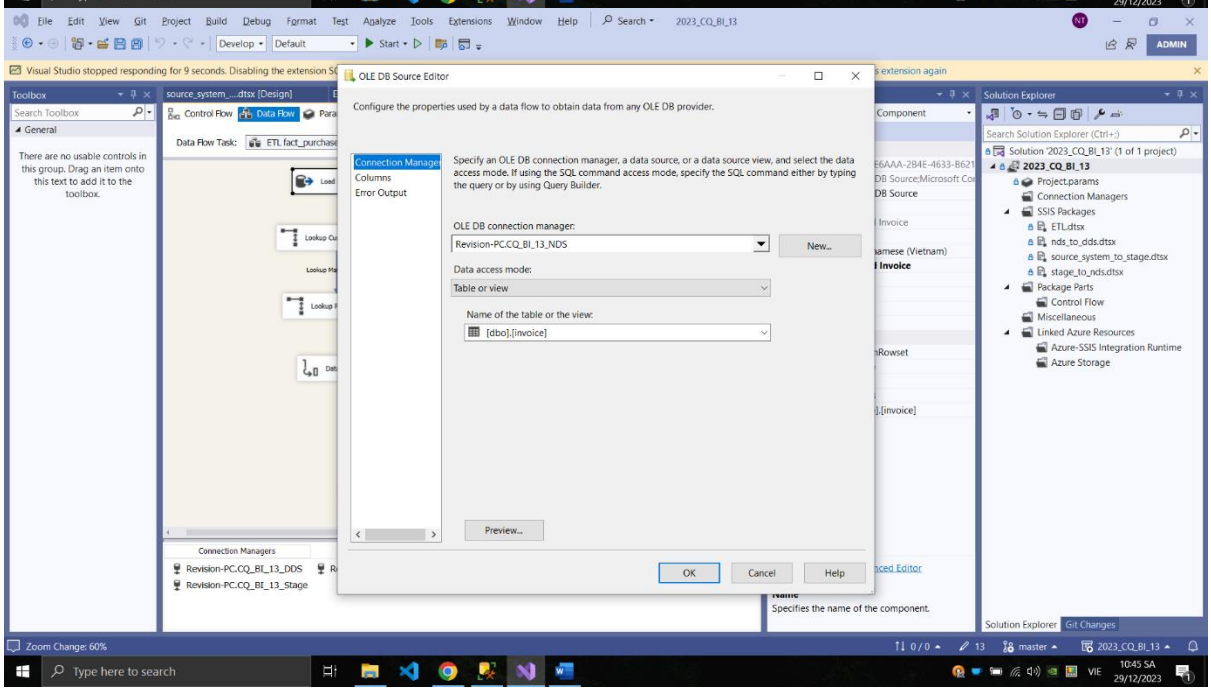

OLE DB Destination Editor
Configure the properties used to insert data into a relational database using an OLE DB provider.
Connection Manager
Mappings
Error Output
Available Input...
Name
_updated_at
_created_at
date
_year
_month
_day
year_id
Available Desti...
Name
day_id
month_id
day_number
Input Column
Destination Column
<ignore>
day_id
month_id
month_id
_day
day_number
OK
Cancel
Help

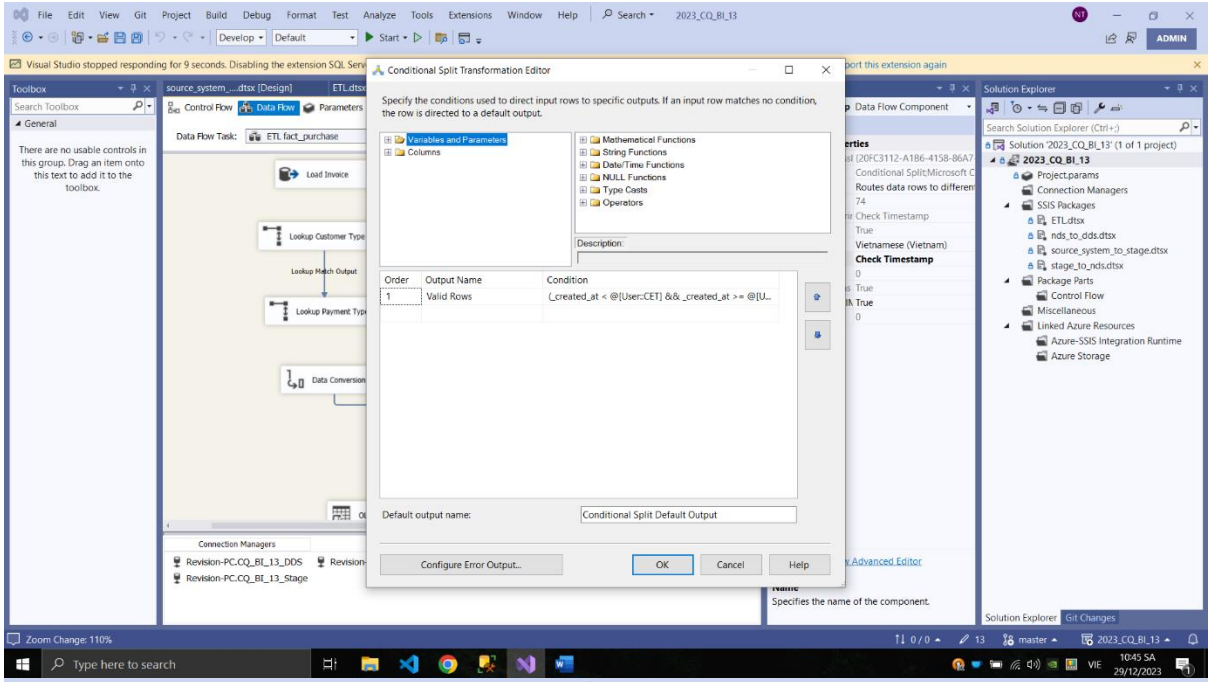
- ETL Fact

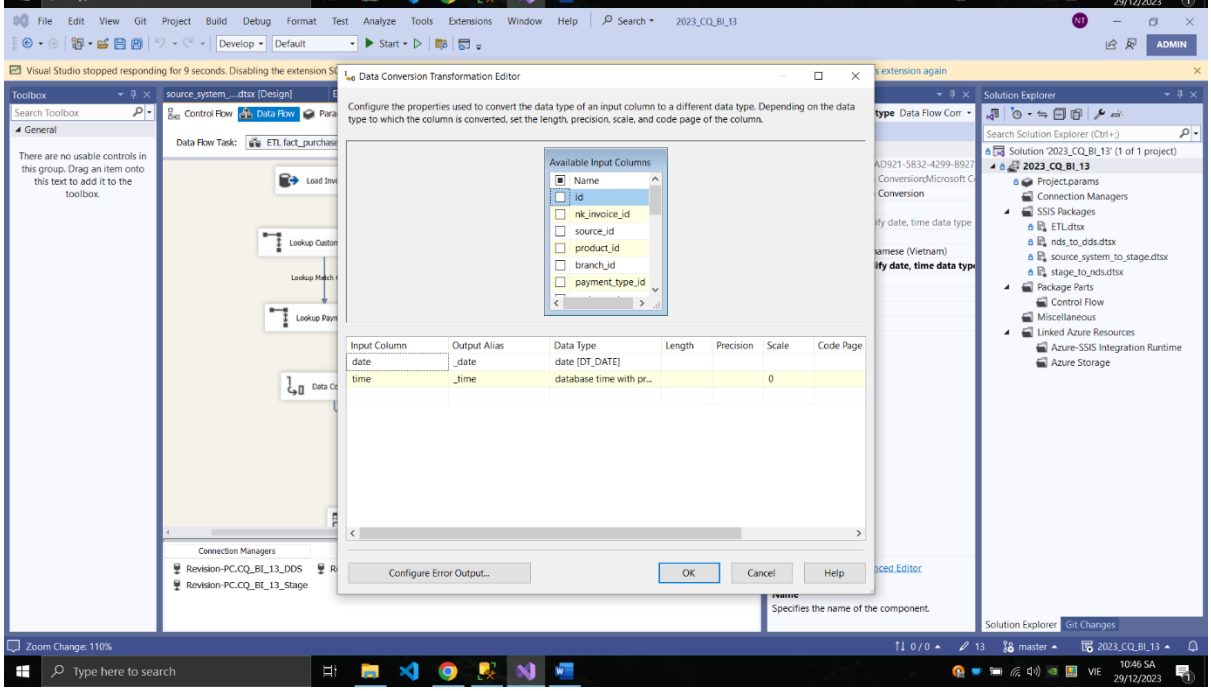

Control Flow
Data Flow
Parameters
Event Handlers
Package Explo...
Execution Resu...
Sequence Container
Connection Managers
Properties
ETL fact_purchase Sequence
Forced Execution Value
Identification
Description
Sequence Container
Name
ETL fact_purchase
Misc
Transactions
IsolationLevel
Serializable
Edit Breakpoints
Name
Specifies the name of the object.
Solution Explorer
Solution '2023_CQ_BI_13' (1 of 1 project)
2023_CQ_BI_13
Project.params
Connection Managers
SSIS Packages
ETL.dtsx
nds_to_dds.dtsx
source_system_to_stage.dtsx
stage_to_nds.dtsx
Package Parts
Control Flow
Miscellaneous
Linked Azure Resources
Azure-SSIS Integration Runtime
Azure Storage
Output
Show output from: Debug
Information: 0x4004300C at ETL fact_purchase, SSIS.Pipeline: Execute phase is beginning.
Information: 0x40043008 at ETL fact_purchase, SSIS.Pipeline: Post Execute phase is beginning.
Information: 0x40043008 at ETL fact_purchase, SSIS.Pipeline: "Insert Destination" wrote 0 rows.
Information: 0x40043009 at ETL fact_purchase, SSIS.Pipeline: Cleanup phase is beginning.
SSIS package "C:\Users\Thuan\Desktop\Workspace\2023_CQ_BI_13\2023_CQ_BI_13_SSIS\2023_CQ_BI_13\ETL.dtsx" finished: Success.
The program '[3416] DtsDebugHost.exe: DTS' has exited with code 0 (0x0).

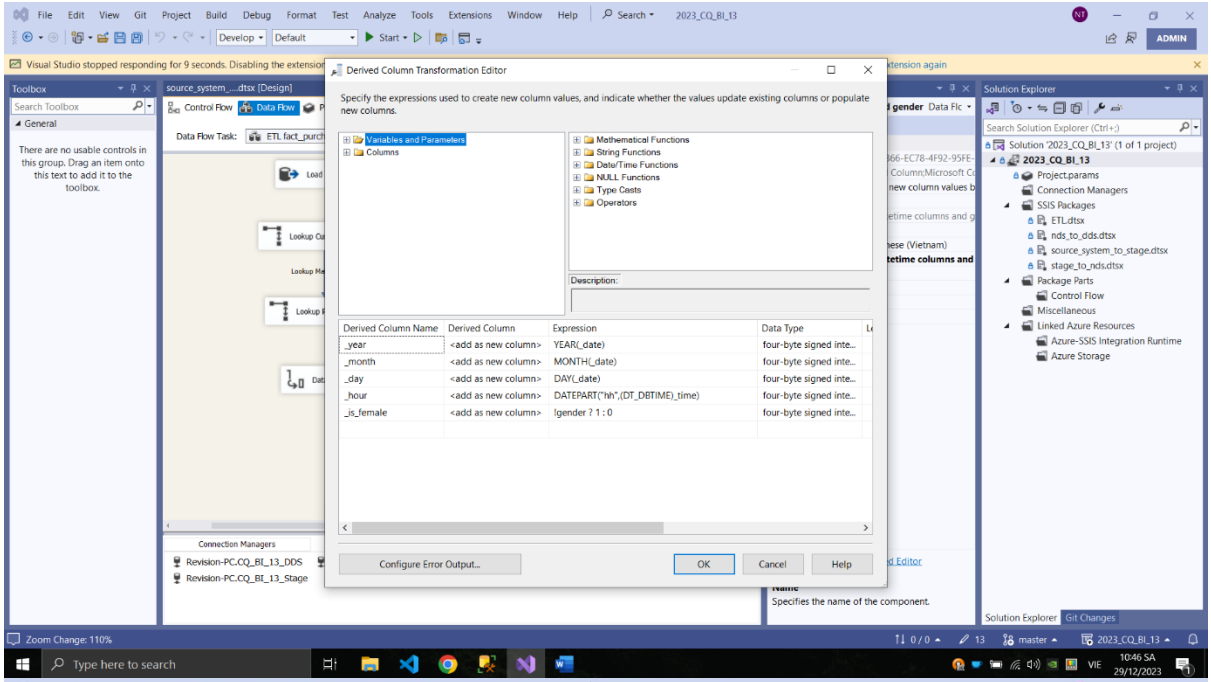

Execute SQL Task Editor
Configure the properties required to run SQL statements and stored procedures using the selected connection.
General
Parameter Mapping
Result Set
Expressions
General
Name
Get LSET
Description
Execute SQL Task
Options
TimeOut
0
CodePage
1252
TypeConversionMode
Allowed
Result Set
ResultSet
Single row
SQL Statement
ConnectionType
OLE DB
Connection
Revision-PC.CQ_BI_13_metadata
SQLSourceType
Direct input
SQLStatement
SELECT lset AS LSET FROM dds_etl_info WHERE table_name = 'fact_purchase'
IsQueryStoredProcedure
False
BypassPrepare
True
Name
Specifies the name of the task.
Browse...
Build Query...
Parse Query
OK
Cancel
Help

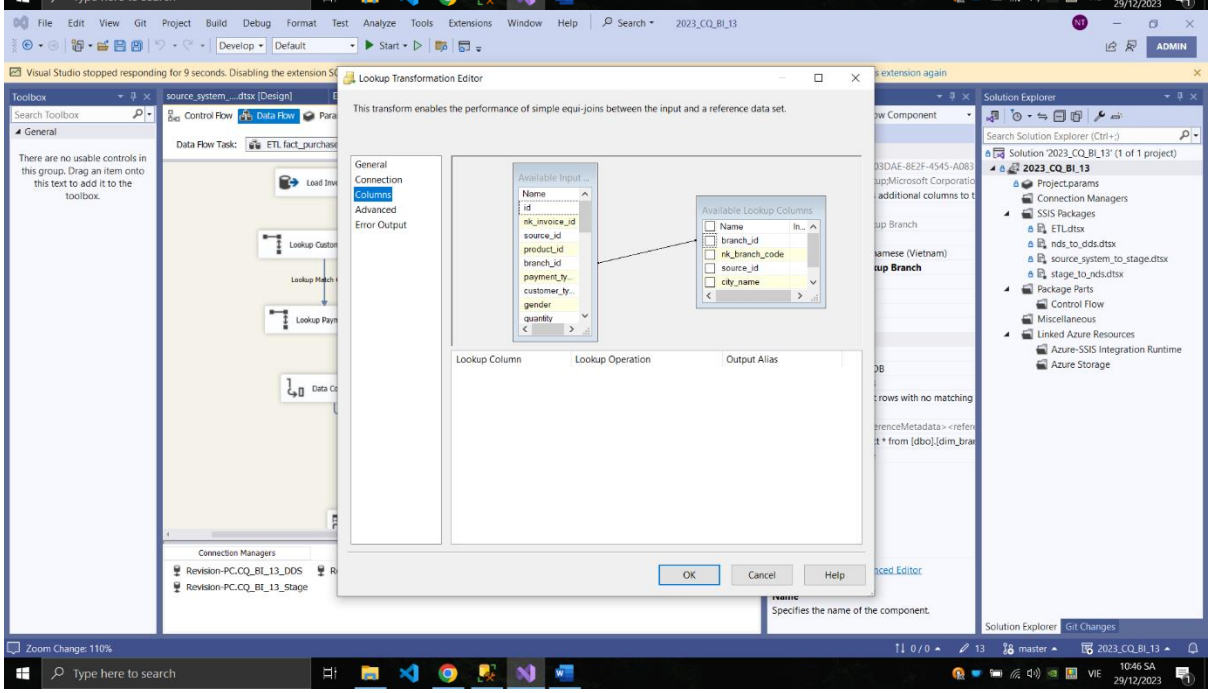

File Edit View Git Project Build Debug Format Test Analyze Tools Extensions Window Help
2023_CQ_BI_13
Visual Studio stopped responding for 9 seconds. Disabling the extension SQL Server Integration Services Projects 2022 1.3.2 might help.
Disable this extension
Manage performance
Don't report this extension again
Toolbox
source_system_...dtsx [Design]
ETL.dtsx [Design]
nds_to_dds.dtsx [Design]
Control Flow
Data Flow
Parameters
Event Handlers
Package Explo...
Execution Resu...
Data Flow Task:
ETL fact_purchase
Load Invoice
Check Timestamp
Valid Rows
Modify date, time data type
Lookup Customer Type
Lookup Branch
Gen datetime columns and gender
Lookup Match Output
Lookup Payment Type
Lookup Product
Lookup Year
Lookup Month
Lookup Day
Data Conversion
Aggregate
Lookup Datetime
Slowly Changing Dimension
OLE DB Command 1
OLE DB Command
Insert Destination
Connection Managers
Revision-PC.CQ_BI_13_DDS
Revision-PC.CQ_BI_13_metadata
Revision-PC.CQ_BI_13_NDS
Revision-PC.CQ_BI_13_Stage
Properties
ETL fact_purchase Task
Forced Execution Value
Identification
Description
Data Flow Task
Name
ETL fact_purchase
Misc
Name
Specifies the name of the object.
Solution Explorer
Solution '2023_CQ_BI_13' (1 of 1 project)
2023_CQ_BI_13
Project.params
Connection Managers
SSIS Packages
ETL.dtsx
nds_to_dds.dtsx
source_system_to_stage.dtsx
stage_to_nds.dtsx
Package Parts
Control Flow
Miscellaneous
Linked Azure Resources
Azure-SSIS Integration Runtime
Azure Storage
Zoom Change: 60%
Type here to search

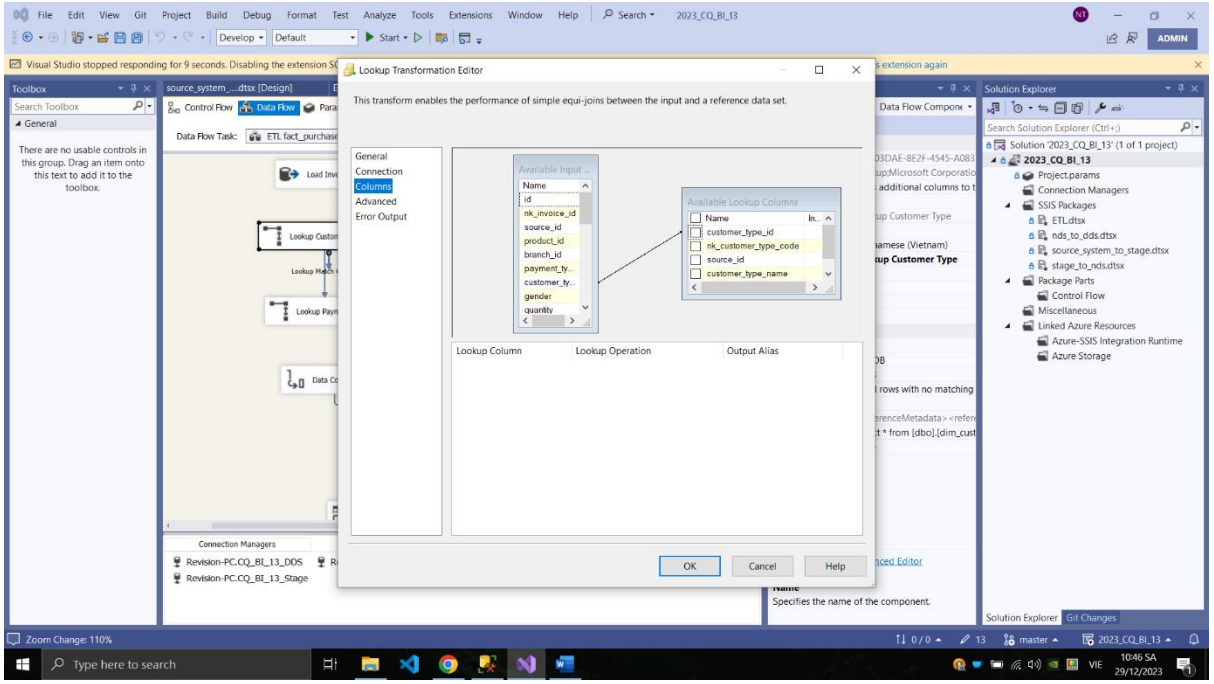

OLE DB Source Editor
Configure the properties used by a data flow to obtain data from any OLE DB provider.
Connection Manager
Columns
Error Output
Specify an OLE DB connection manager, a data source, or a data source view, and select the data access mode. If using the SQL command access mode, specify the SQL command either by typing the query or by using Query Builder.
OLE DB connection manager:
Revision-PC.CQ_BI_13_NDS
New...
Data access mode:
Table or view
Name of the table or the view:
[dbo].[invoice]
Preview...
OK
Cancel
Help
Specifies the name of the component.

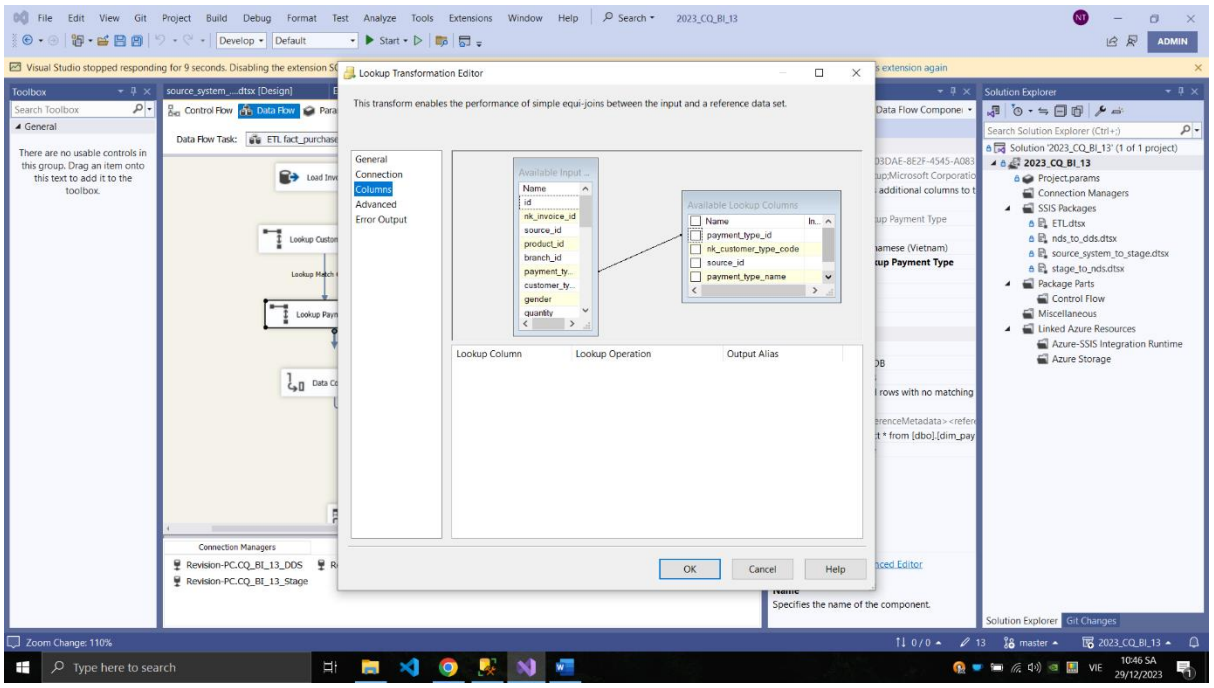

Conditional Split Transformation Editor
Specify the conditions used to direct input rows to specific outputs. If an input row matches no condition, the row is directed to a default output.
Variables and Parameters
Columns
Mathematical Functions
String Functions
Date/Time Functions
NULL Functions
Type Casts
Operators
Description:
Order
Output Name
Condition
1
Valid Rows
(_created_at < @[User::CET] && _created_at >= @[U...
Default output name:
Conditional Split Default Output
Configure Error Output...
OK
Cancel
Help

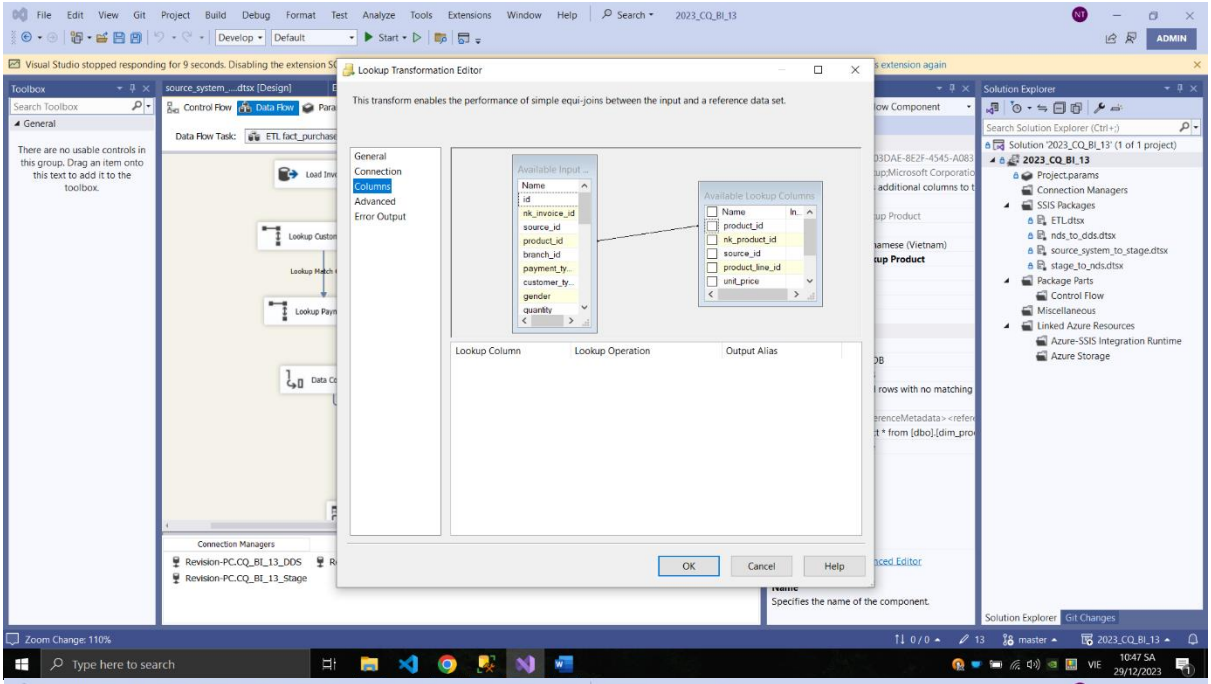

Data Conversion Transformation Editor
Configure the properties used to convert the data type of an input column to a different data type. Depending on the data type to which the column is converted, set the length, precision, scale, and code page of the column.
Available Input Columns
Name
id
nk_invoice_id
source_id
product_id
branch_id
payment_type_id
Input Column
Output Alias
Data Type
Length
Precision
Scale
Code Page
date
_date
date [DT_DATE]
time
_time
database time with pr...
0
Configure Error Output...
OK
Cancel
Help

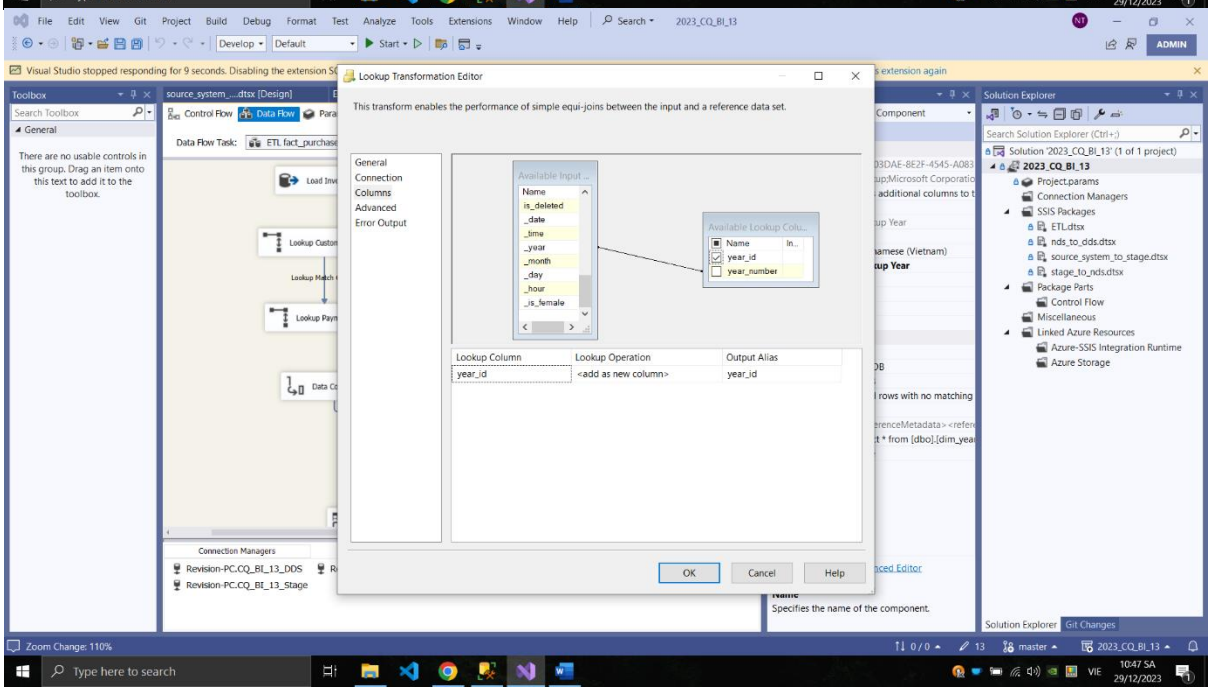

Derived Column Transformation Editor
Specify the expressions used to create new column values, and indicate whether the values update existing columns or populate new columns.
Variables and Parameters
Columns
Mathematical Functions
String Functions
Date/Time Functions
NULL Functions
Type Casts
Operators
Description:
Derived Column Name | Derived Column | Expression | Data Type
_year | <add as new column> | YEAR(_date) | four-byte signed inte...
_month | <add as new column> | MONTH(_date) | four-byte signed inte...
_day | <add as new column> | DAY(_date) | four-byte signed inte...
_hour | <add as new column> | DATEPART("hh",(DT_DBTIME)_time) | four-byte signed inte...
_is_female | <add as new column> | !gender ? 1 : 0 | four-byte signed inte...
Configure Error Output...
OK
Cancel
Help

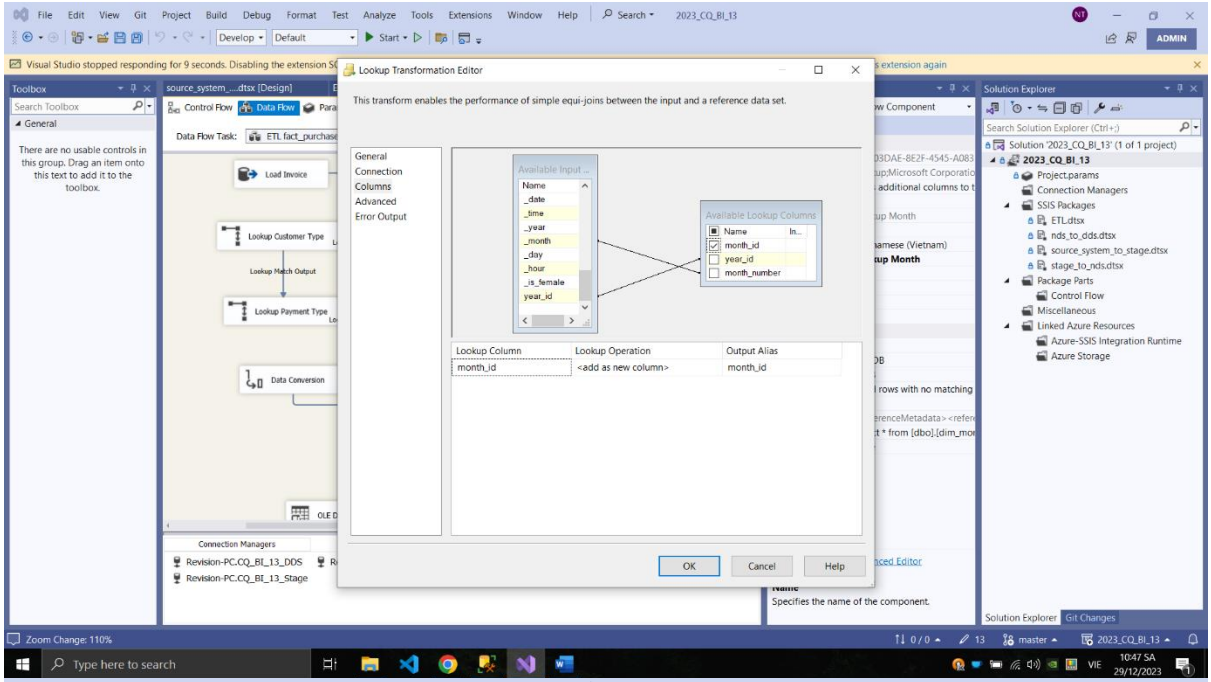

Lookup Transformation Editor
This transform enables the performance of simple equi-joins between the input and a reference data set.
General
Connection
Columns
Advanced
Error Output
Available Input ...
Available Lookup Columns
Lookup Column
Lookup Operation
Output Alias
OK
Cancel
Help

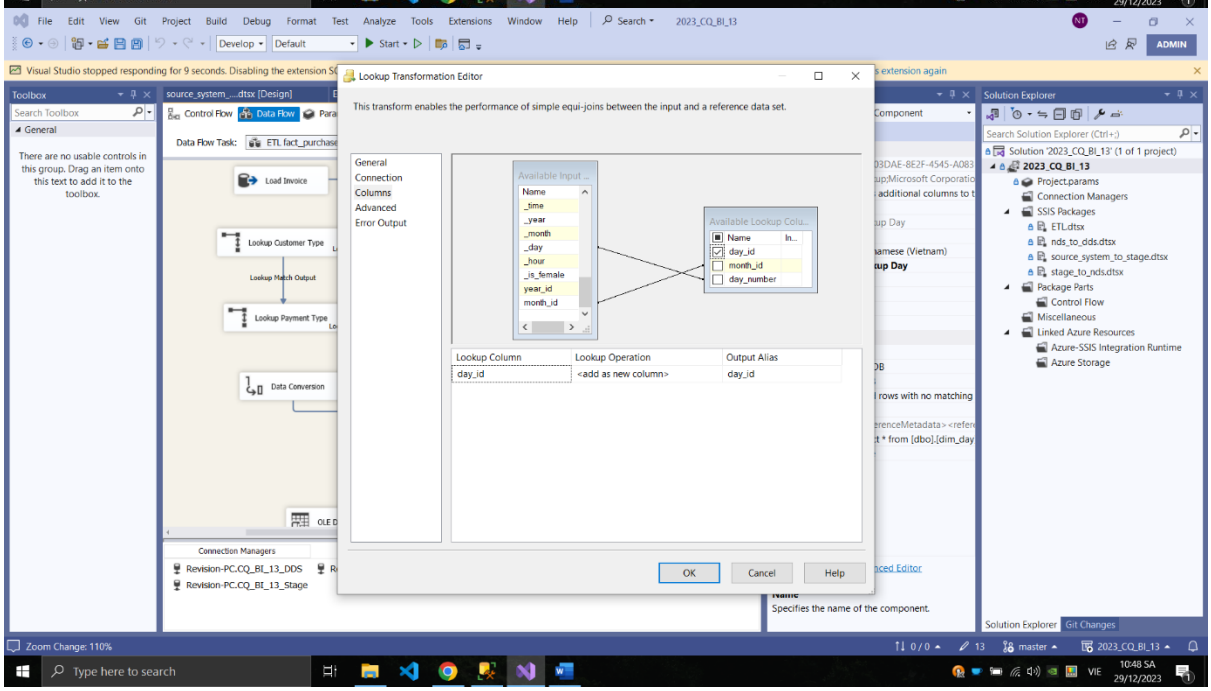

Lookup Transformation Editor
This transform enables the performance of simple equi-joins between the input and a reference data set.
General
Connection
Columns
Advanced
Error Output
Available Input ...
Name
id
nk_invoice_id
source_id
product_id
branch_id
payment_ty...
customer_ty...
gender
quantity
Available Lookup Columns
Name
customer_type_id
nk_customer_type_code
source_id
customer_type_name
Lookup Column
Lookup Operation
Output Alias
OK
Cancel
Help

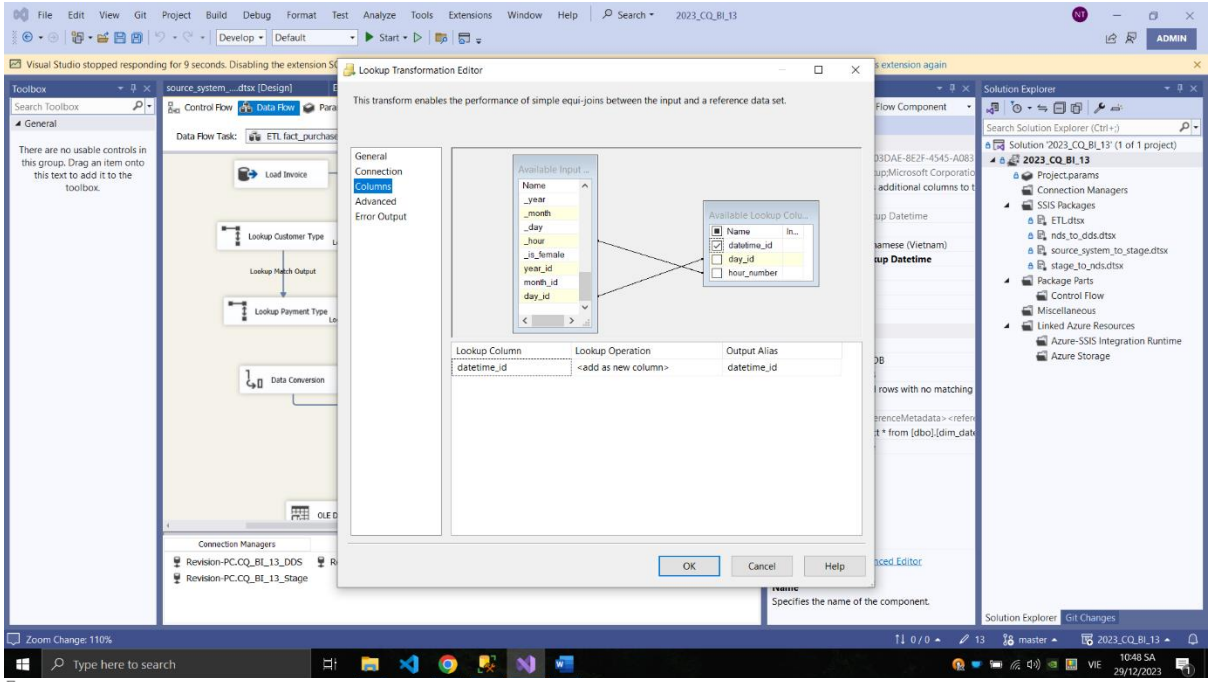

Lookup Transformation Editor
This transform enables the performance of simple equi-joins between the input and a reference data set.
General
Connection
Columns
Advanced
Error Output
Available Input ...
Name
id
nk_invoice_id
source_id
product_id
branch_id
payment_ty...
customer_ty...
gender
quantity
Available Lookup Columns
Name
payment_type_id
nk_customer_type_code
source_id
payment_type_name
Lookup Column
Lookup Operation
Output Alias
OK
Cancel
Help

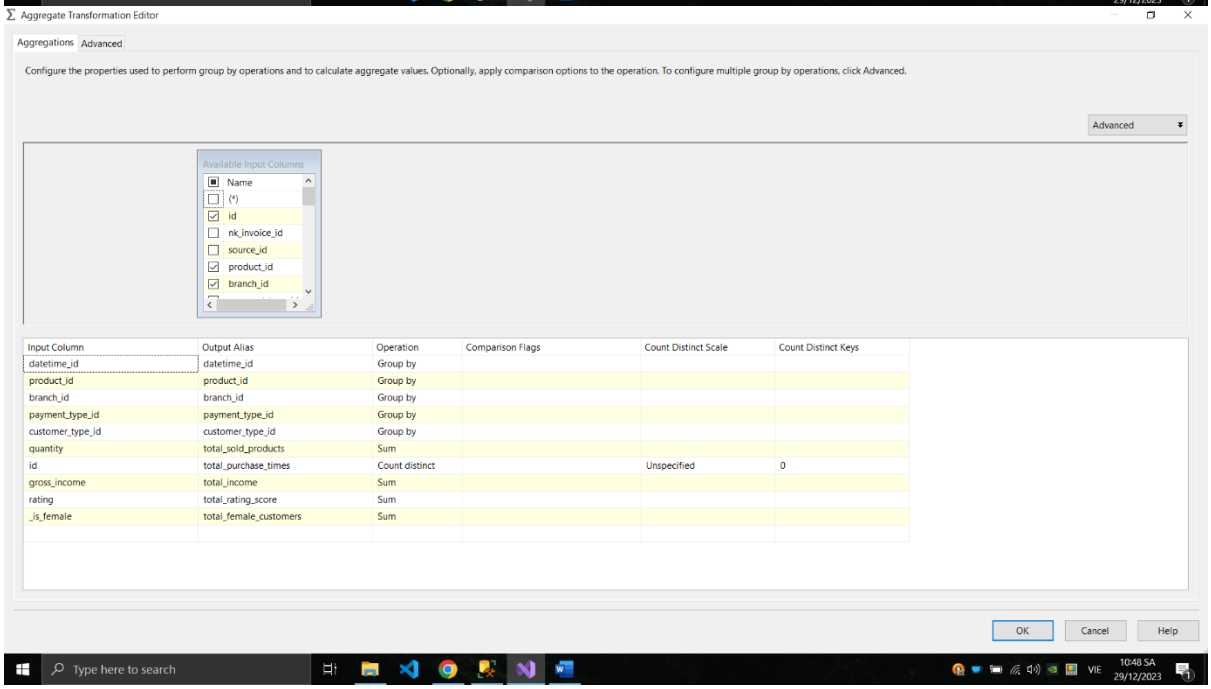

Lookup Transformation Editor
This transform enables the performance of simple equi-joins between the input and a reference data set.
General
Connection
Columns
Advanced
Error Output
Available Input ...
Name
id
nk_invoice_id
source_id
product_id
branch_id
payment_ty...
customer_ty...
gender
quantity
Available Lookup Columns
Name
product_id
nk_product_id
source_id
product_line_id
unit_price
Lookup Column
Lookup Operation
Output Alias
OK
Cancel
Help


Lookup Transformation Editor
This transform enables the performance of simple equi-joins between the input and a reference data set.
General
Connection
Columns
Advanced
Error Output
Available Input ...
Name
is_deleted
_date
_time
_year
_month
_day
_hour
_is_female
Available Lookup Colu...
Name
year_id
year_number
Lookup Column
Lookup Operation
Output Alias
year_id
<add as new column>
year_id
OK
Cancel
Help

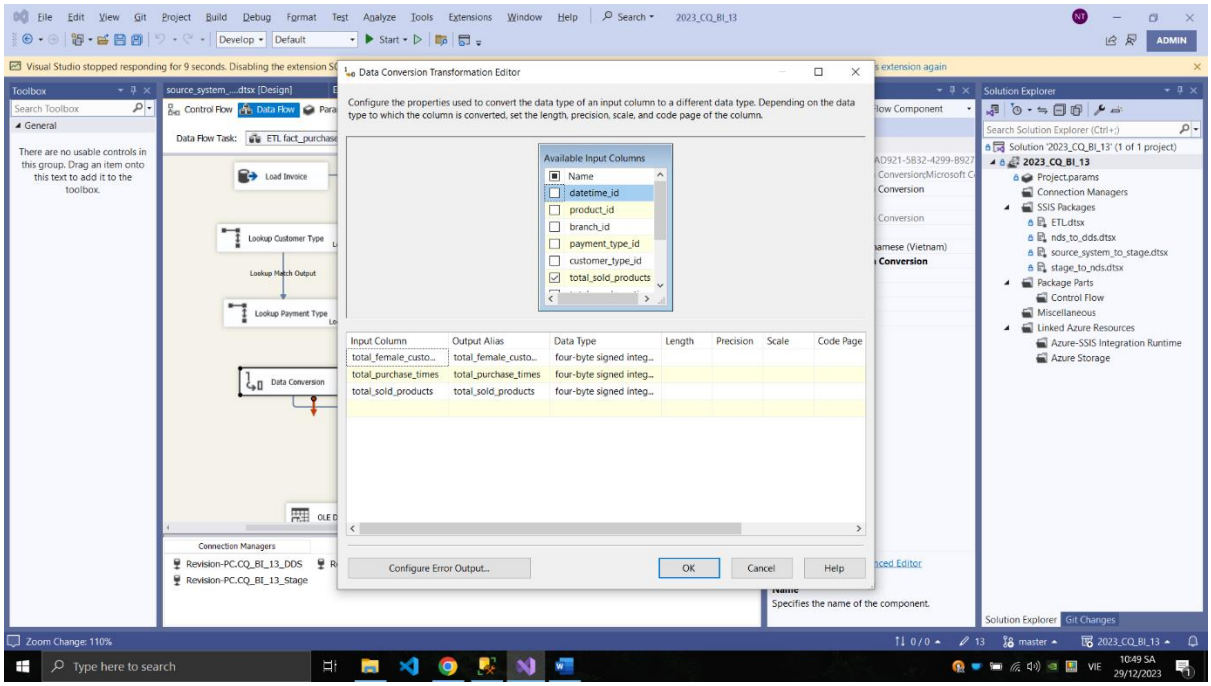

Lookup Transformation Editor
This transform enables the performance of simple equi-joins between the input and a reference data set.
General
Connection
Columns
Advanced
Error Output
Available Input ...
Name
_date
_time
_year
_month
_day
_hour
_is_female
year_id
Available Lookup Columns
Name
In...
month_id
year_id
month_number
Lookup Column
Lookup Operation
Output Alias
month_id
<add as new column>
month_id
OK
Cancel
Help


Lookup Transformation Editor
This transform enables the performance of simple equi-joins between the input and a reference data set.
General
Connection
Columns
Advanced
Error Output
Available Input ...
Name
_time
_year
_month
_day
_hour
_is_female
year_id
month_id
Available Lookup Colu...
Name
In...
day_id
month_id
day_number
Lookup Column
Lookup Operation
Output Alias
day_id
<add as new column>
day_id
OK
Cancel
Help





Input Column	Output Alias	Operation	Comparison Flags	Count Distinct Scale	Count Distinct Keys
datetime_id	datetime_id	Group by			
product_id	product_id	Group by			
branch_id	branch_id	Group by			
payment_type_id	payment_type_id	Group by			
customer_type_id	customer_type_id	Group by			
quantity	total_sold_products	Sum			
id	total_purchase_times	Count distinct		Unspecified	0
gross_income	total_income	Sum			
rating	total_rating_score	Sum			
_is_female	total_female_customers	Sum			


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
datetime_id
product_id
branch_id
payment_type_id
customer_type_id
total_sold_products
Input Column
Output Alias
Data Type
Length
Precision
Scale
Code Page
total_female_custo...
total_female_custo...
four-byte signed integ...
total_purchase_times
total_purchase_times
four-byte signed integ...
total_sold_products
total_sold_products
four-byte signed integ...
Configure Error Output...
OK
Cancel
Help
Specifies the name of the component.
Connection Managers
Revision-PC.CQ_BI_13_DDS
Revision-PC.CQ_BI_13_Stage
Solution Explorer
Solution '2023_CQ_BI_13' (1 of 1 project)
2023_CQ_BI_13
Project.params
Connection Managers
SSIS Packages
ETL.dtsx
nds_to_dds.dtsx
source_system_to_stage.dtsx
stage_to_nds.dtsx
Package Parts
Control Flow
Miscellaneous
Linked Azure Resources
Azure-SSIS Integration Runtime
Azure Storage
Toolbox
Load Invoice
Lookup Customer Type
Lookup Payment Type
Data Conversion
Zoom Change: 110%