

Screenshot of Microsoft Visual Studio IDE showing the SSIS Designer for the package `Load_DWH_ST...tsx [Design]`.

The **Execute SQL Task Editor** is open, displaying the **General** tab with the following configuration:

- Connection Type:** Execute SQL Task
- Connection:** MC6.BankDB
- SQL Statement Type:** Transact-SQL
- SQL Statement:** DELETE FROM STG.Withdrawal;
DELETE FROM STG.Payment;
DELETE FROM STG.Transfer;
DELETE FROM STG.Deposit;
DELETE FROM STG.Treasury_Products;
DELETE FROM STG.Transactions;
DELETE FROM STG.Transaction_Type;
DELETE FROM STG.Loan;
DELETE FROM STG.Account;
DELETE FROM STG.Customers;
DELETE FROM STG.Branch;

The **SSIS Designer** shows a workflow titled `Load Transactions` with the following steps:

```
graph TD; A[Get Last Update Data] --> B[Load STG]; B --> C[Load DWH]; C --> D[Update Last Data];
```

The **Solution Explorer** pane shows the project structure:

- DWH_Project**
 - Project.params
 - Connection Managers
 - DESKTOP-KAFQMC6.BankDB
 - SSIS Packages
 - Load_DWH_STG.dtsx
 - Load_Facts.dtsx
 - Package Parts
 - Control Flow
 - Miscellaneous
 - Linked Azure Resources
 - Azure-SSIS Integration Runtime
 - Azure Storage

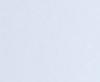
The **Properties** pane is open for the **Truncate** Task, showing the following settings:

ForcedExecution	Int32
ForceExecutionV	False
Identification	
Description	Execute SQL Task
ID	{F5BB0031-C842-4}
Name	Truncate
PackagePath	\Package\Truncate

Ready

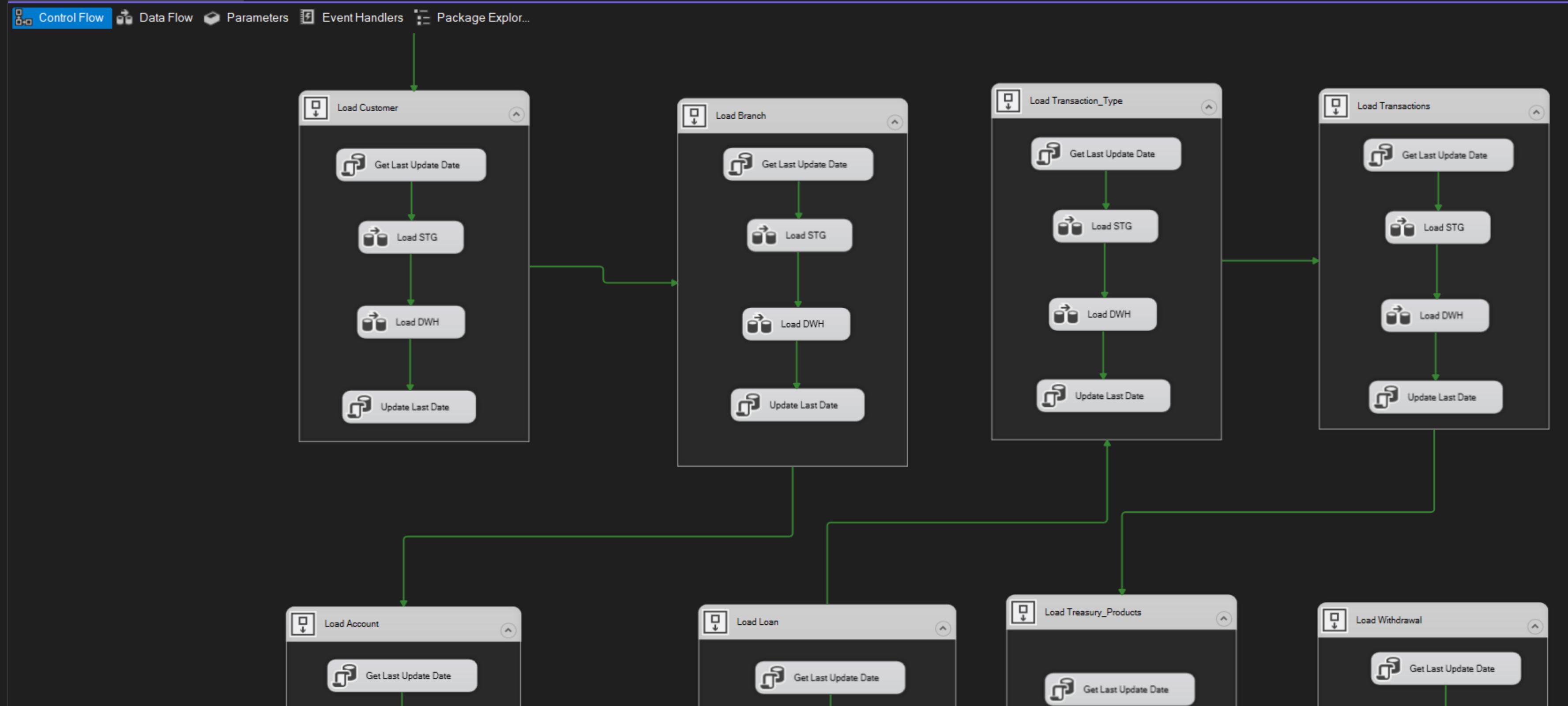


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Load_DWH_ST...tsx [Design]*



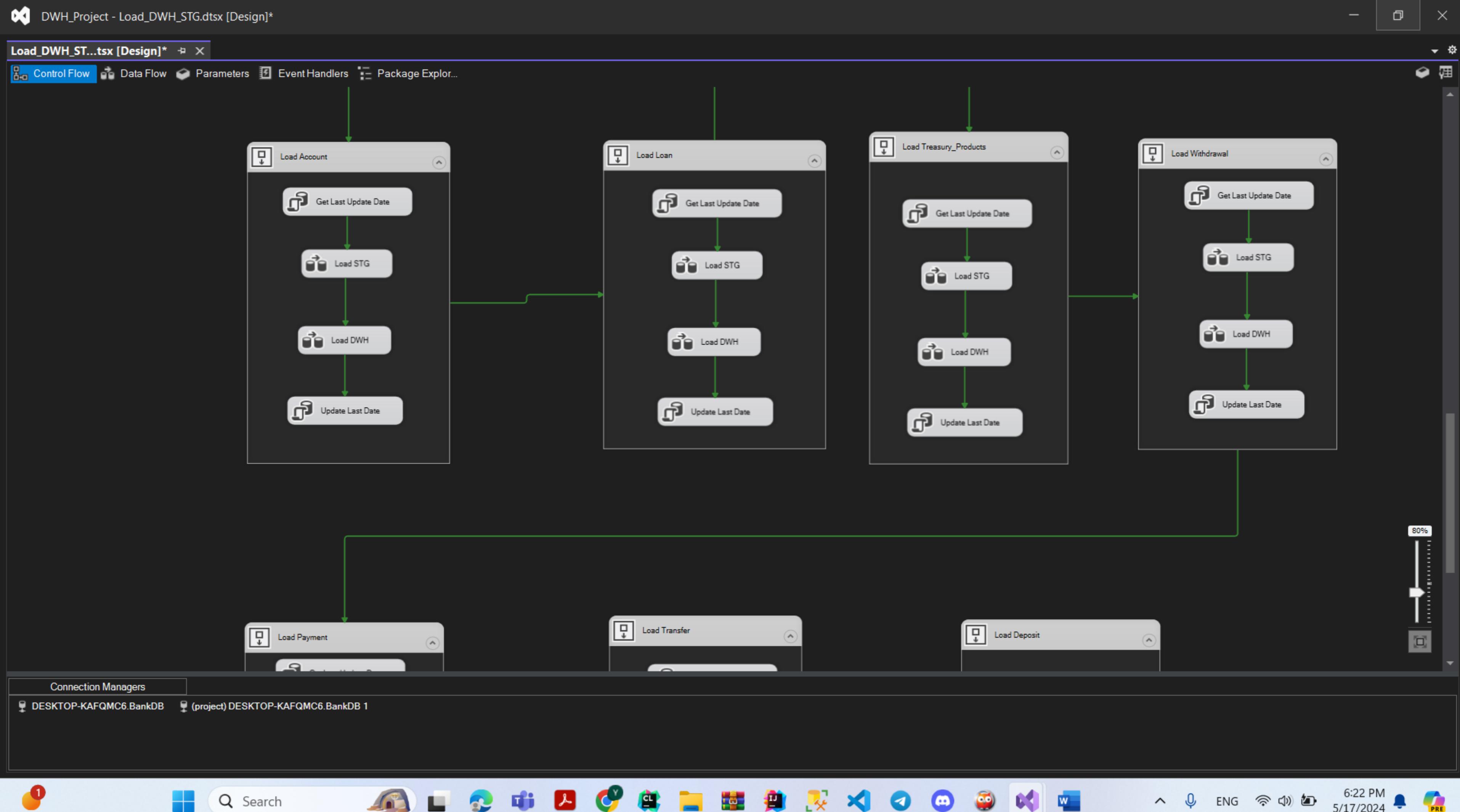
Connection Managers

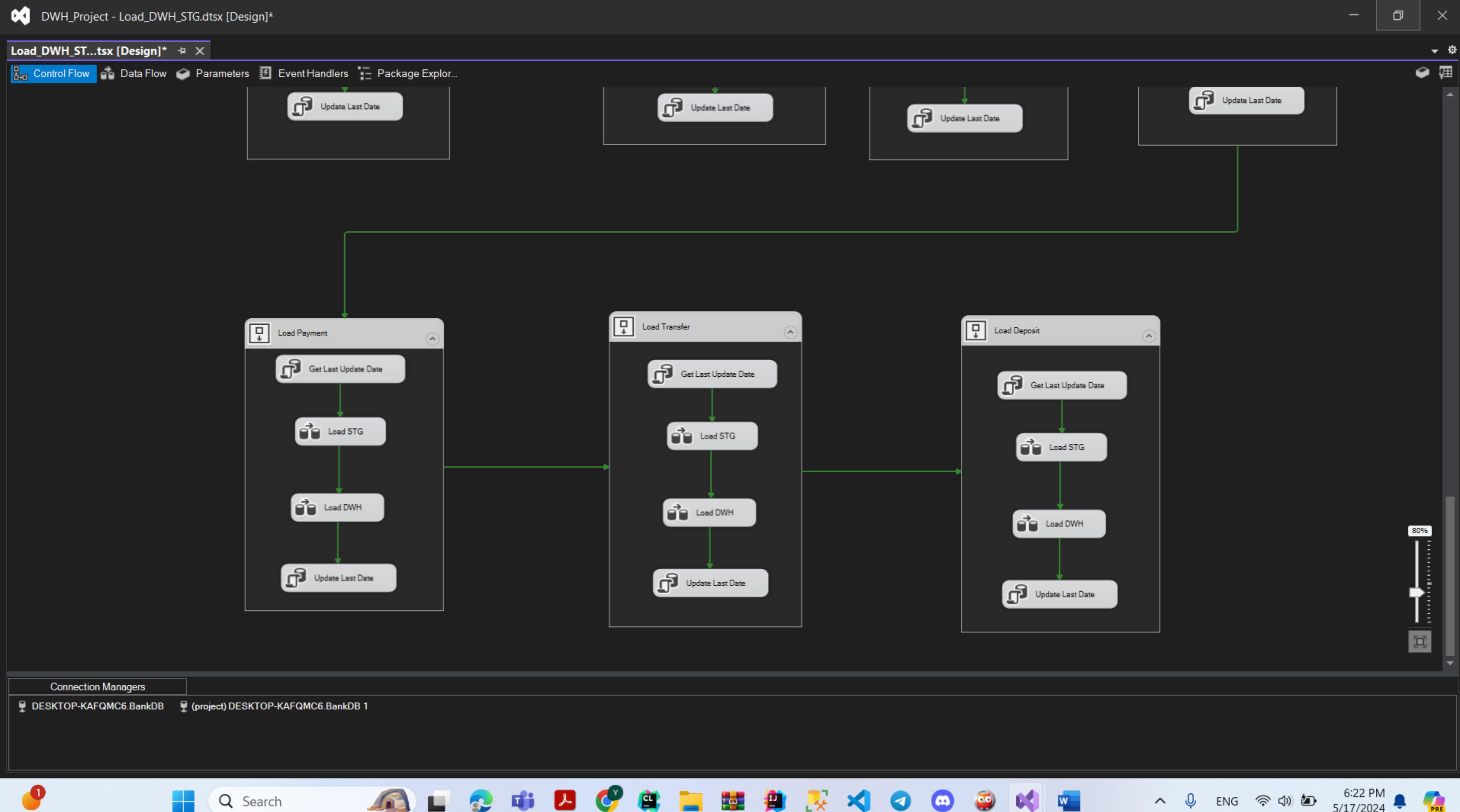
DESKTOP-KAFQMC6.BankDB (project) DESKTOP-KAFQMC6.BankDB 1

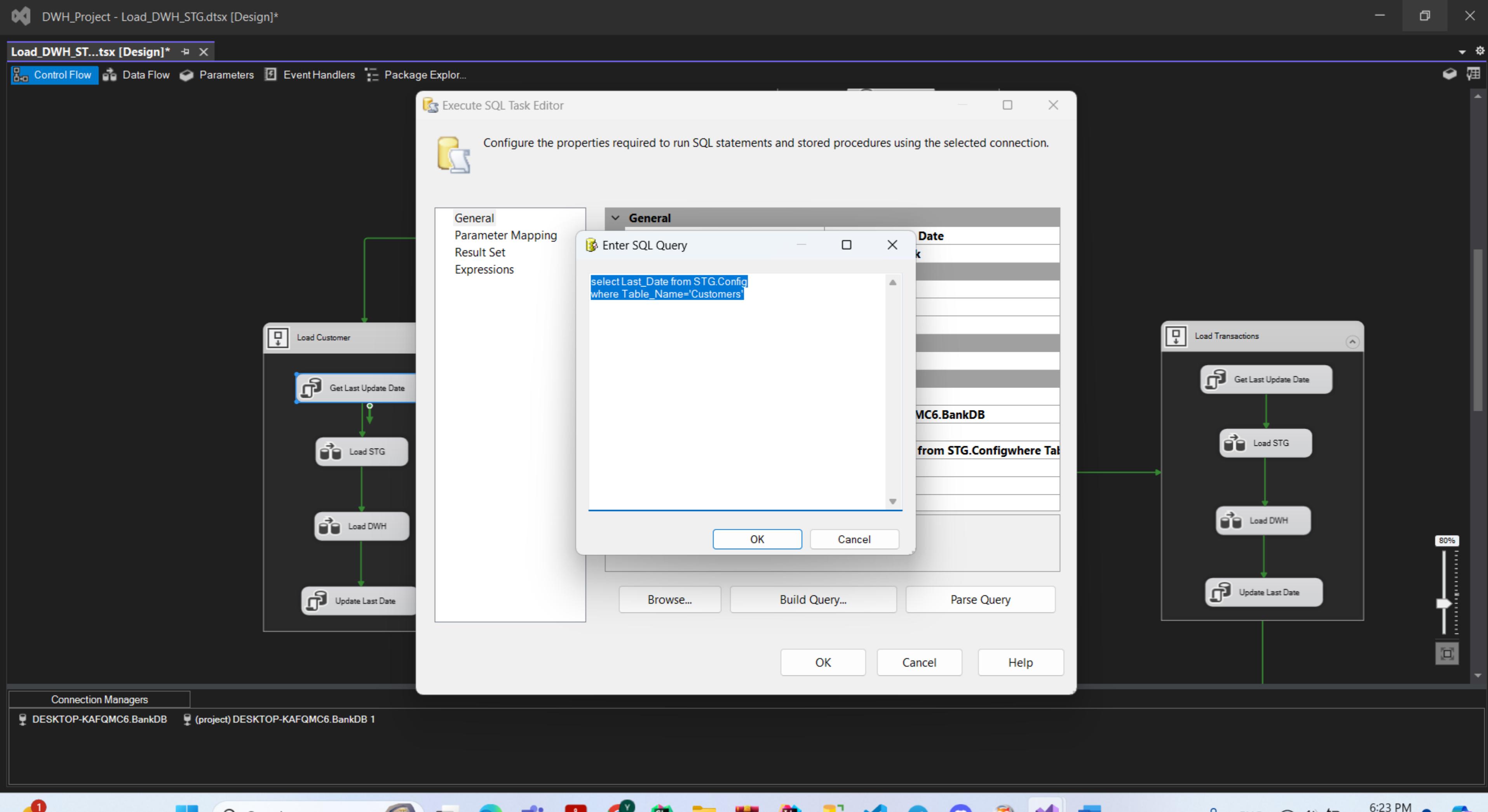


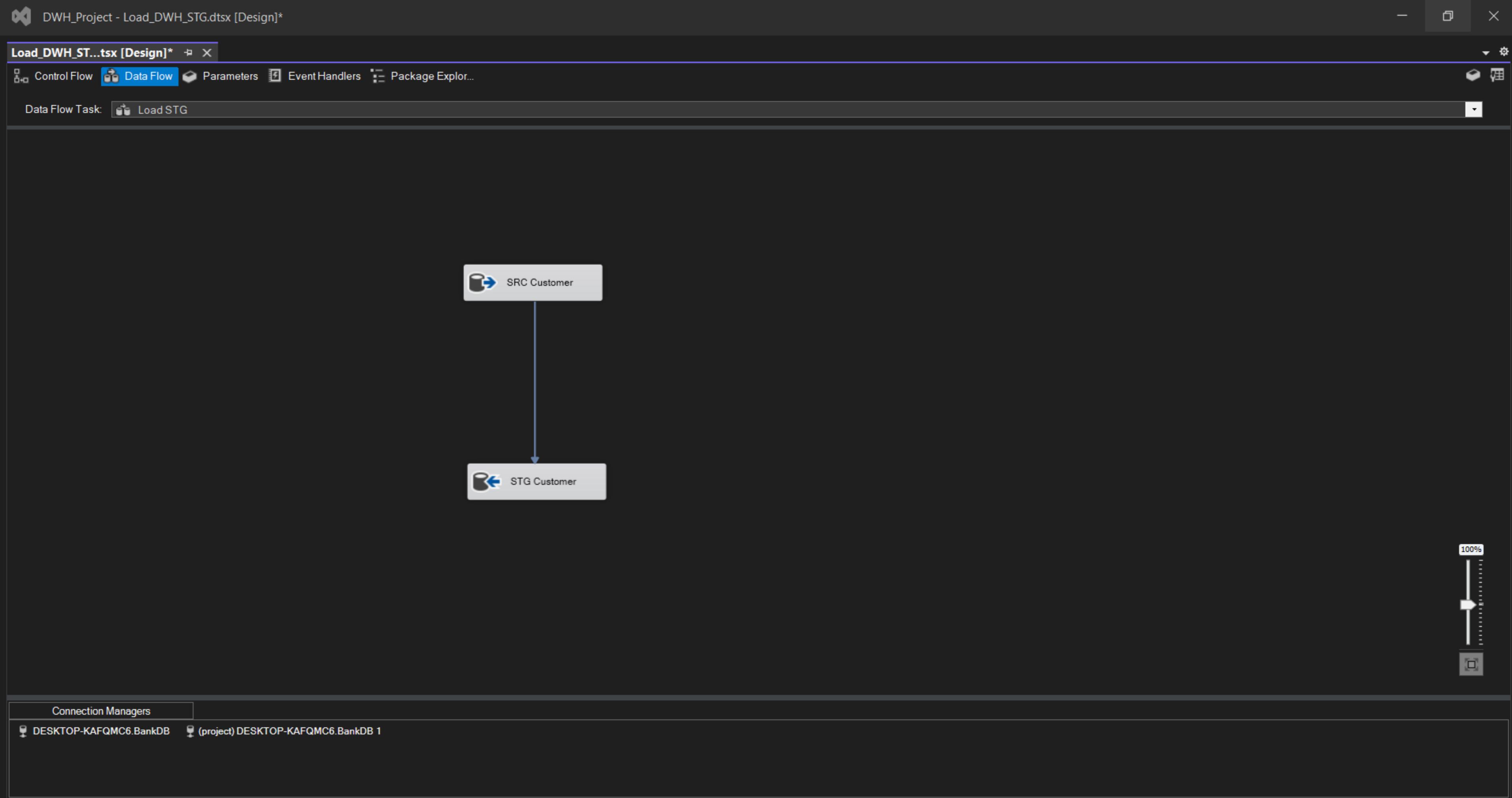
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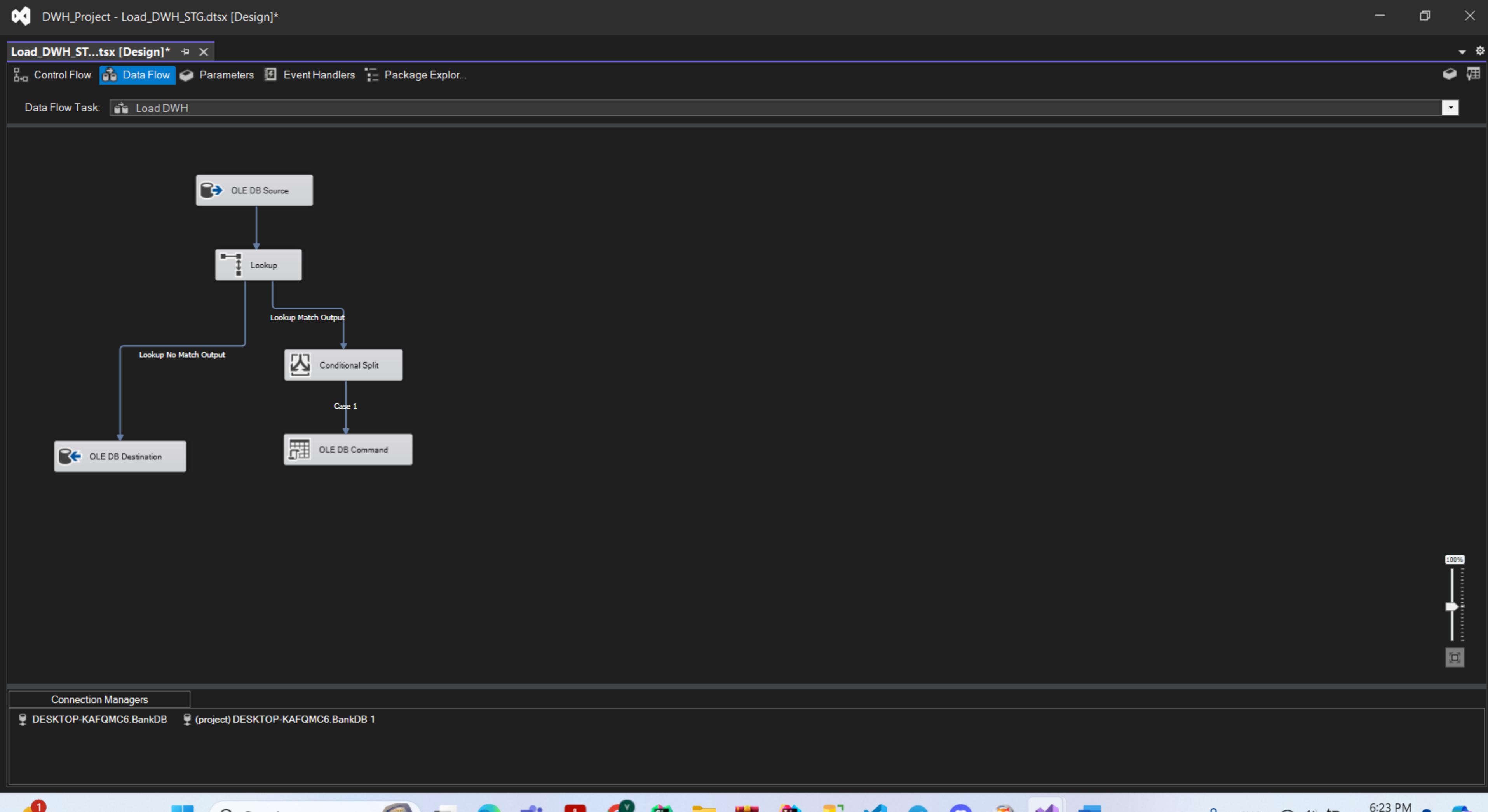


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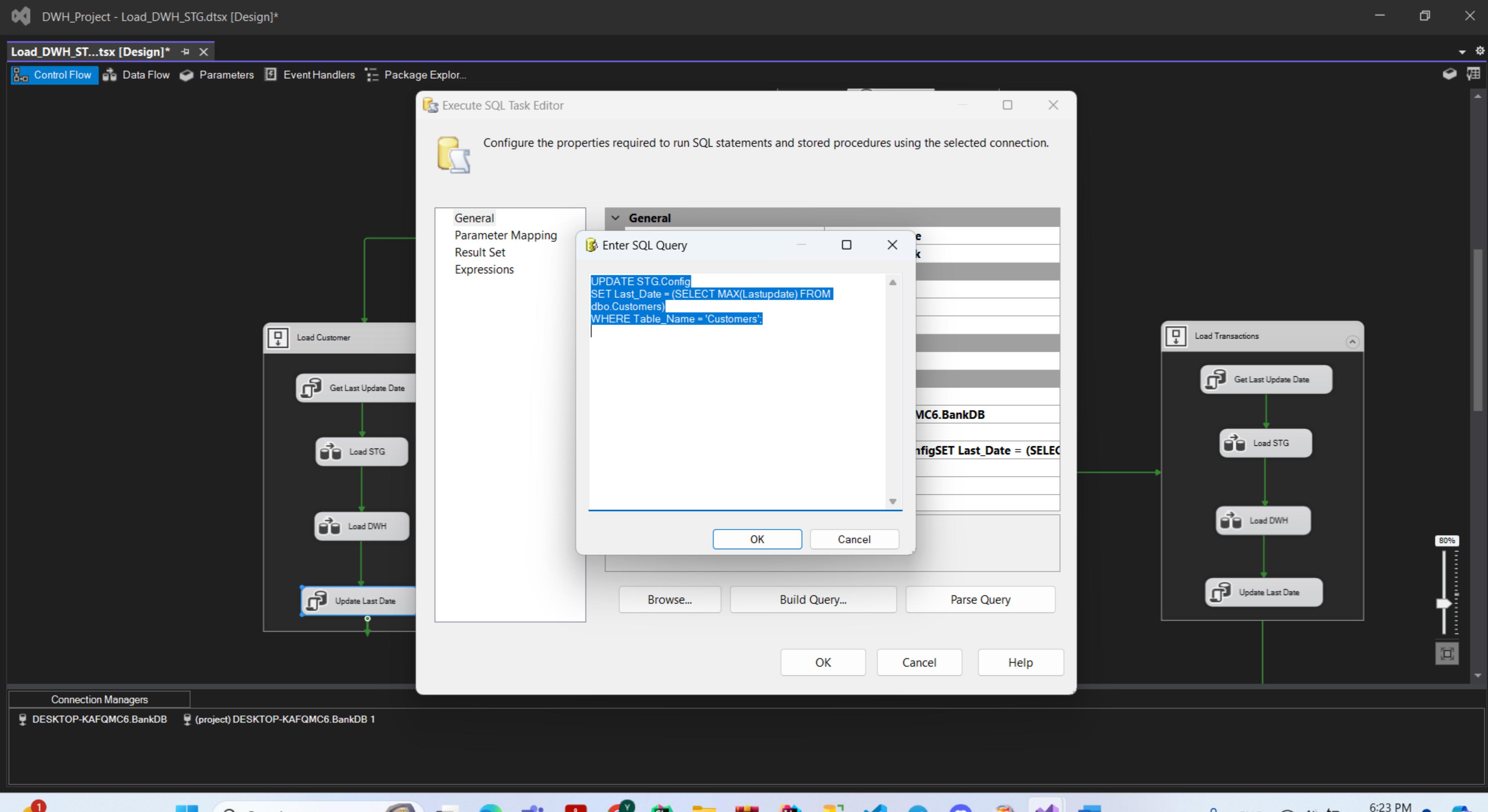




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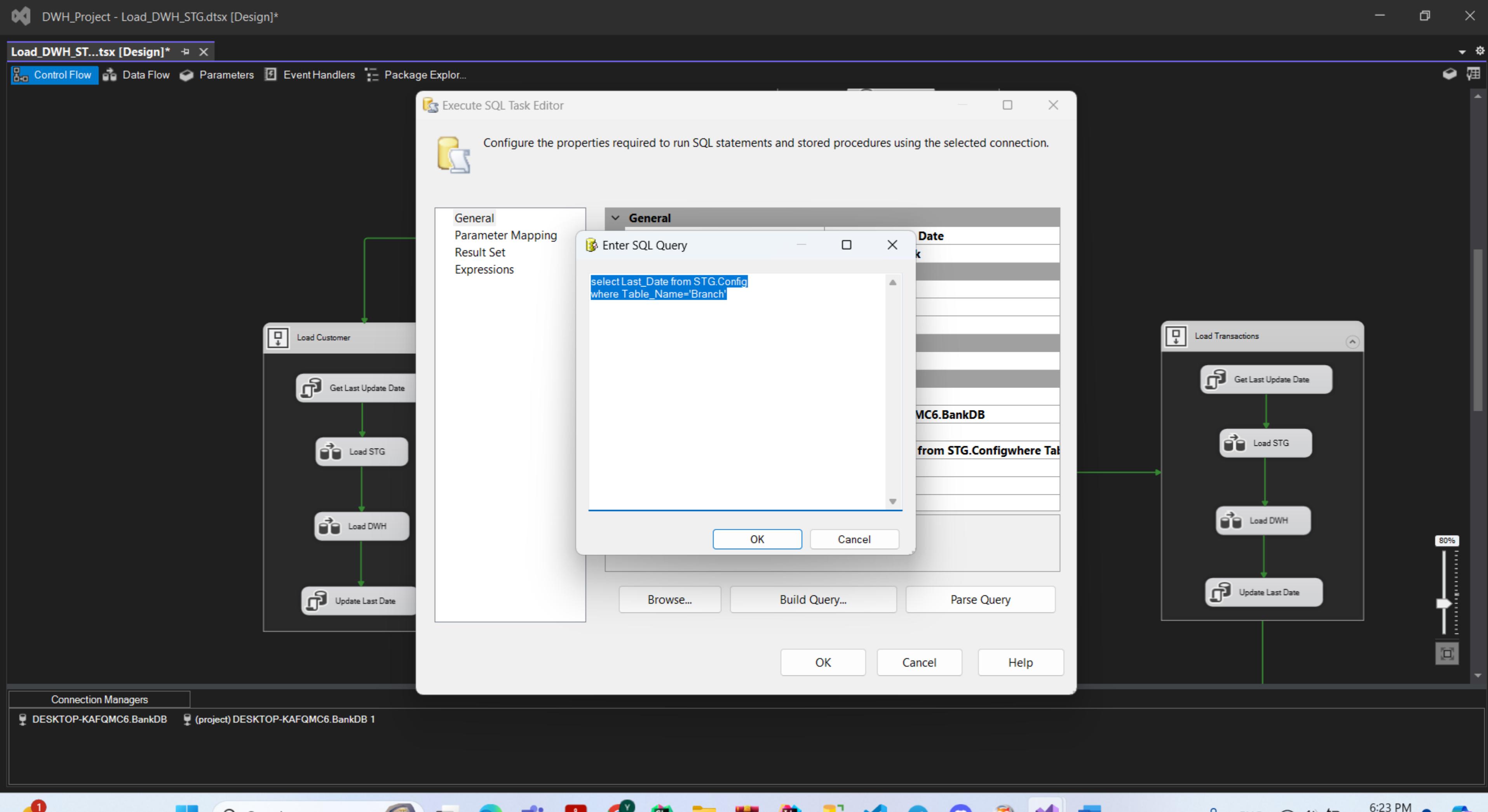
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DWH_Project - Load_DWH_STG.dtsx [Design]*

Load_DWH_ST...tsx [Design]*

Control Flow Data Flow Parameters Event Handlers Package Explor...

Data Flow Task: Load STG

Branch Src

STG Branch

Connection Managers

DESKTOP-KAFQMC6.BankDB (project) DESKTOP-KAFQMC6.BankDB 1

Snipping Tool

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```
graph TD; BranchSrc[Branch Src] --> LoadSTG[Load STG]; LoadSTG --> STGBranch[STG Branch]
```

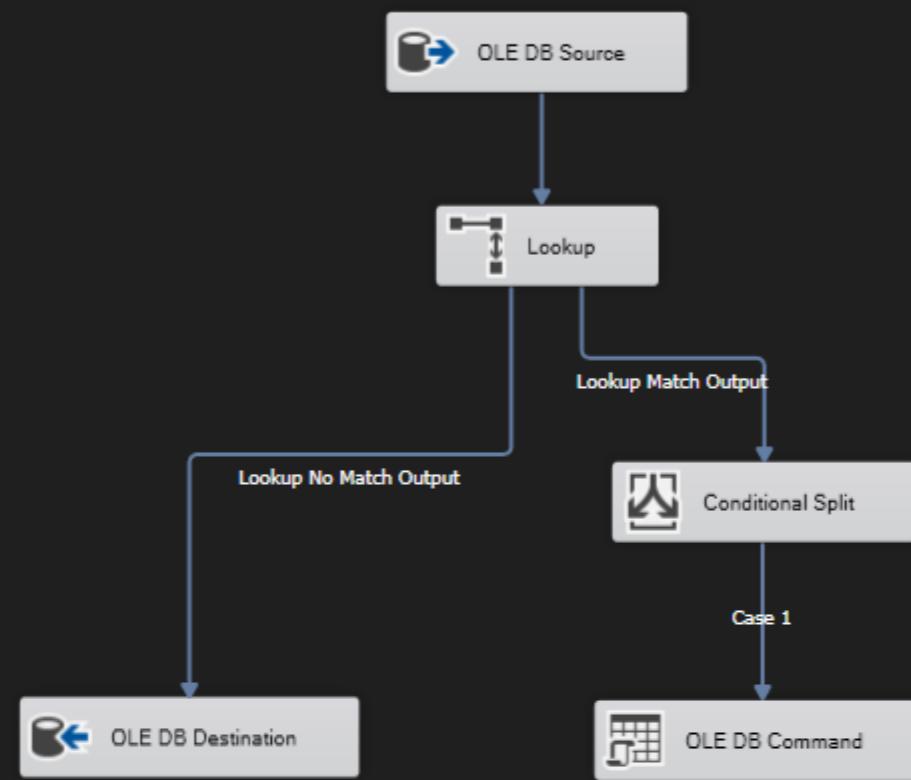


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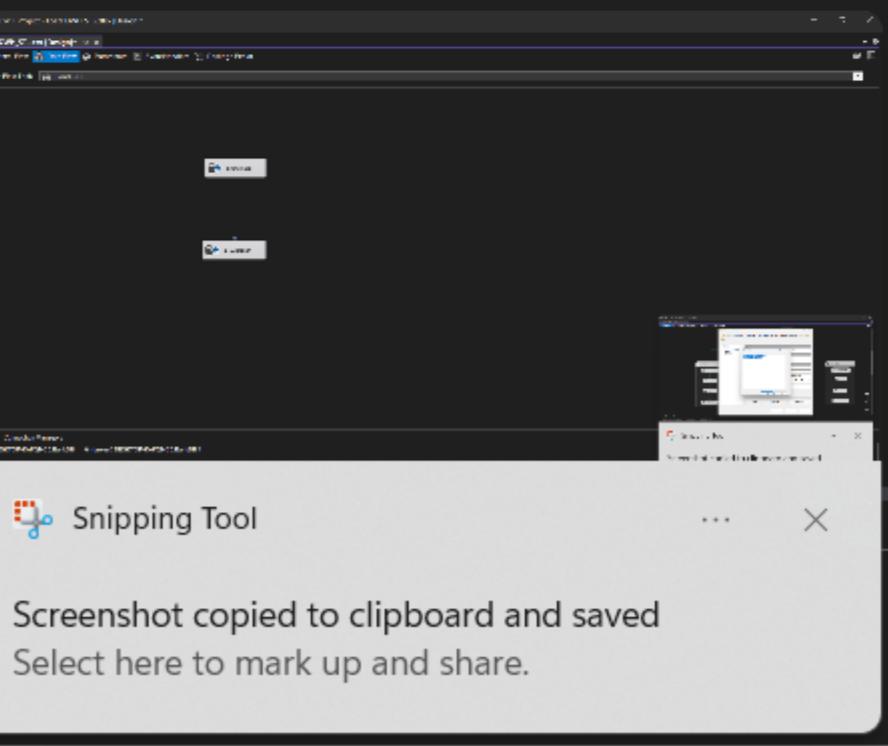


Load_DWH_ST...tsx [Design]*



Connection Managers

DESKTOP-KAFQMC6.BankDB (project) DESKTOP-KAFQMC6.BankDB 1



DWH_Project - Load_DWH_STG.dtsx [Design]*

Load_DWH_ST...tsx [Design]*

Control Flow Data Flow Parameters Event Handlers Package Explor...

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

Enter SQL Query

```
UPDATE STG.Config  
SET Last_Date = (SELECT MAX>Lastupdate) FROM  
dbo.Branch)  
WHERE Table_Name = 'Branch';
```

OK Cancel

Browse... Build Query... Parse Query

OK Cancel Help

Connection Managers

DESKTOP-KAFQMC6.BankDB (project) DESKTOP-KAFQMC6.BankDB 1

Snipping Tool

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```
graph TD; subgraph LoadCustomer [Load Customer]; A[Get Last Update Date] --> B[Load STG]; B --> C[Load DWH]; C --> D[Update Last Date]; end; subgraph LoadTransactions [Load Transactions]; E[Get Last Update Date] --> F[Load STG]; F --> G[Load DWH]; G --> H[Update Last Date]; end;
```

DWH_Project - Load_DWH_STG.dtsx [Design]*

Load_DWH_ST...tsx [Design]*

Control Flow Data Flow Parameters Event Handlers Package Explor...

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

Enter SQL Query

General

Date

select Last_Date from STG.Config
where Table_Name='Transaction_Type'

OK Cancel

Browse... Build Query... Parse Query

OK Cancel Help

Connection Managers

DESKTOP-KAFQMC6.BankDB (project) DESKTOP-KAFQMC6.BankDB 1

Snipping Tool

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```
graph TD; subgraph LoadCustomer [Load Customer]; G1[Get Last Update Date] --> L1[Load STG]; L1 --> L2[Load DWH]; L2 --> U1[Update Last Date]; end; subgraph LoadTransactions [Load Transactions]; G2[Get Last Update Date] --> L3[Load STG]; L3 --> L4[Load DWH]; L4 --> U2[Update Last Date]; end;
```



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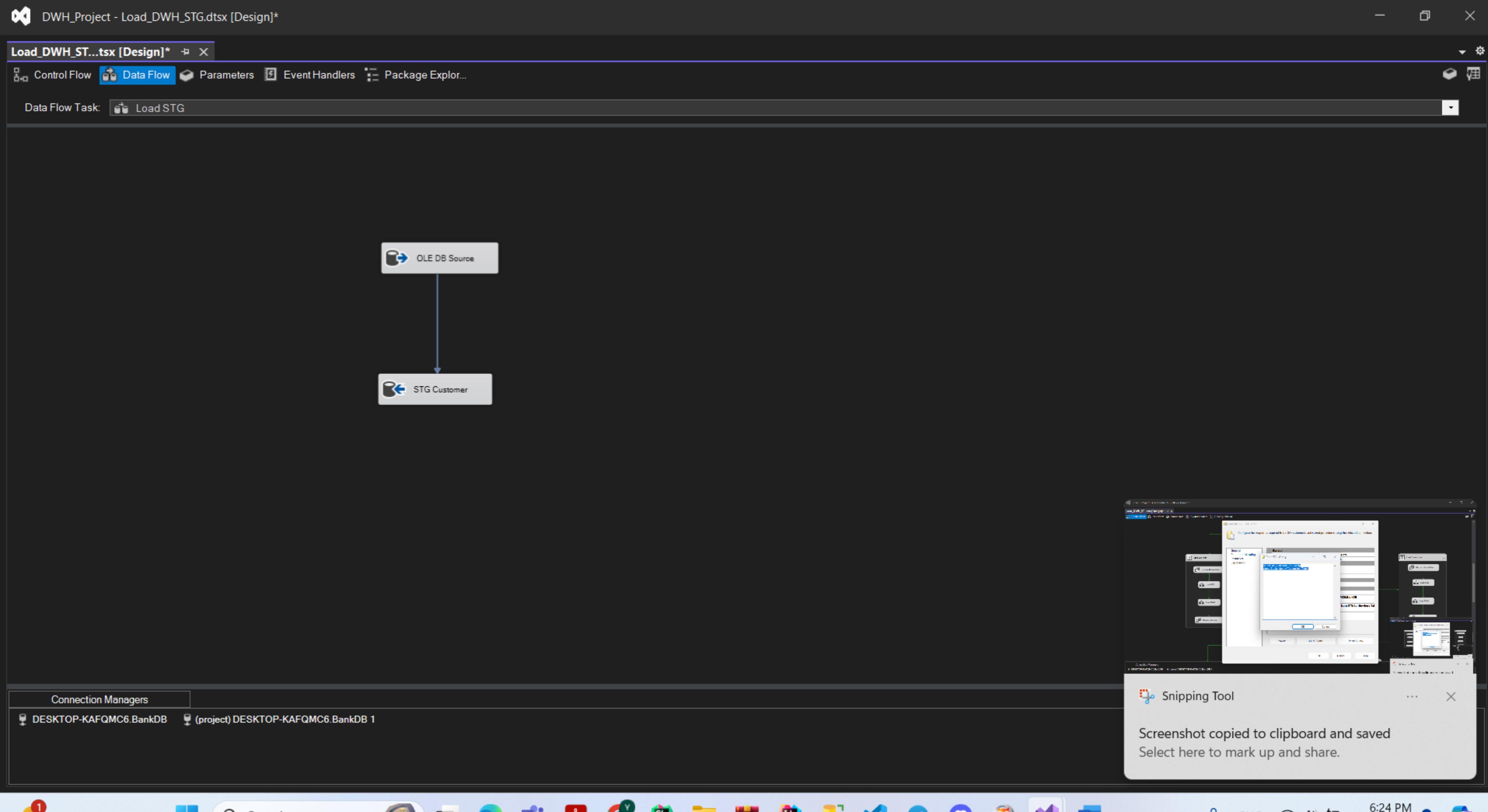


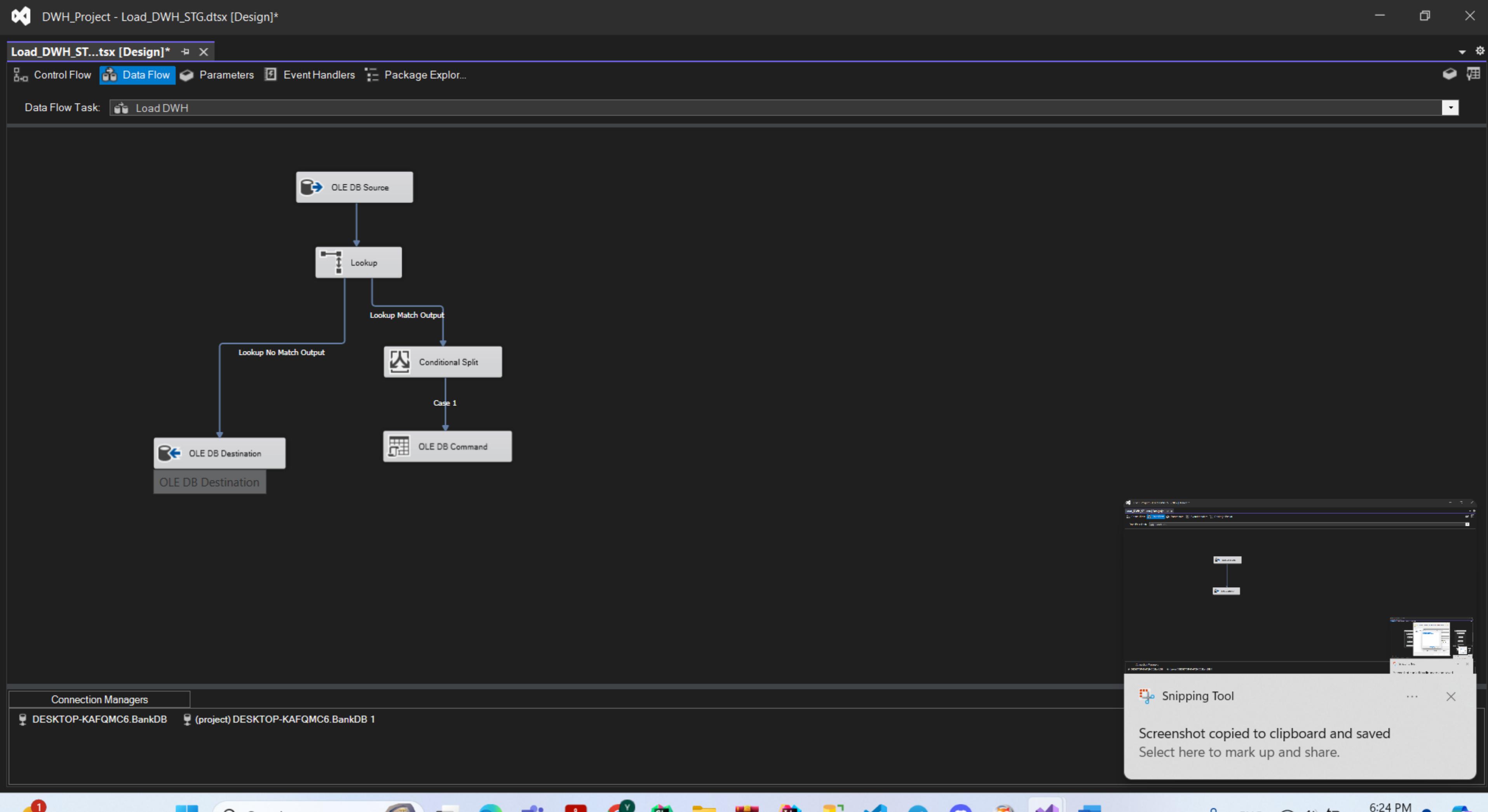
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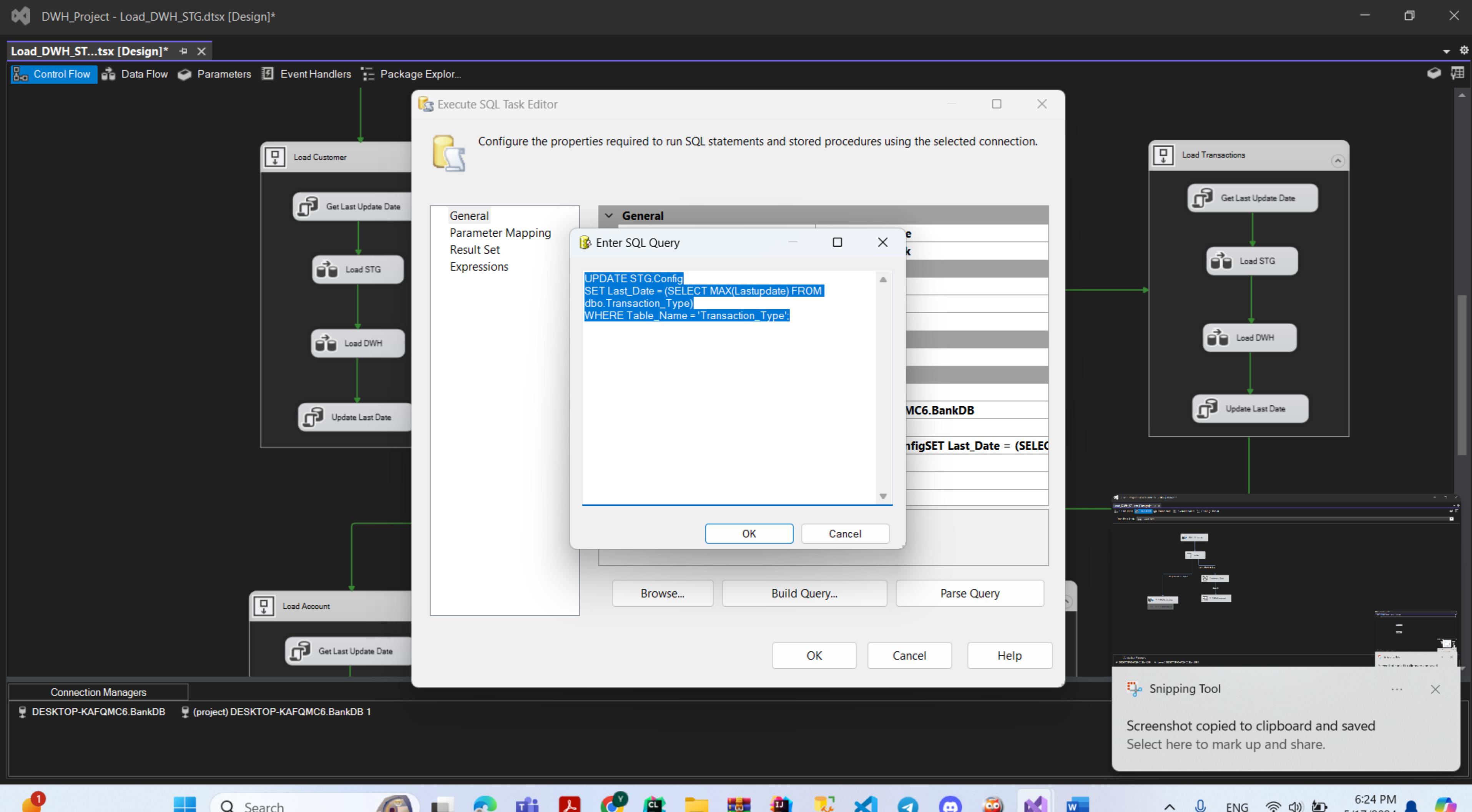


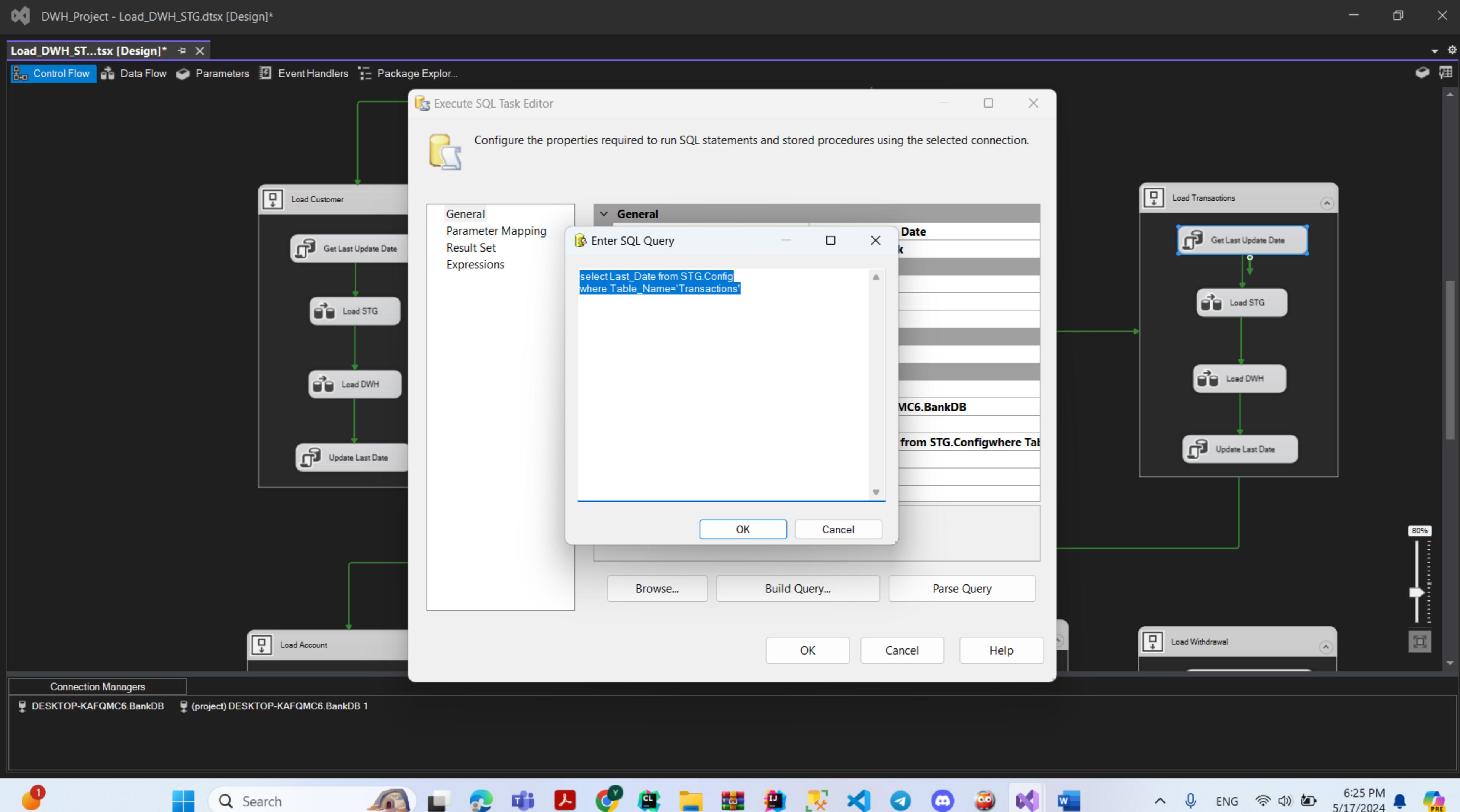


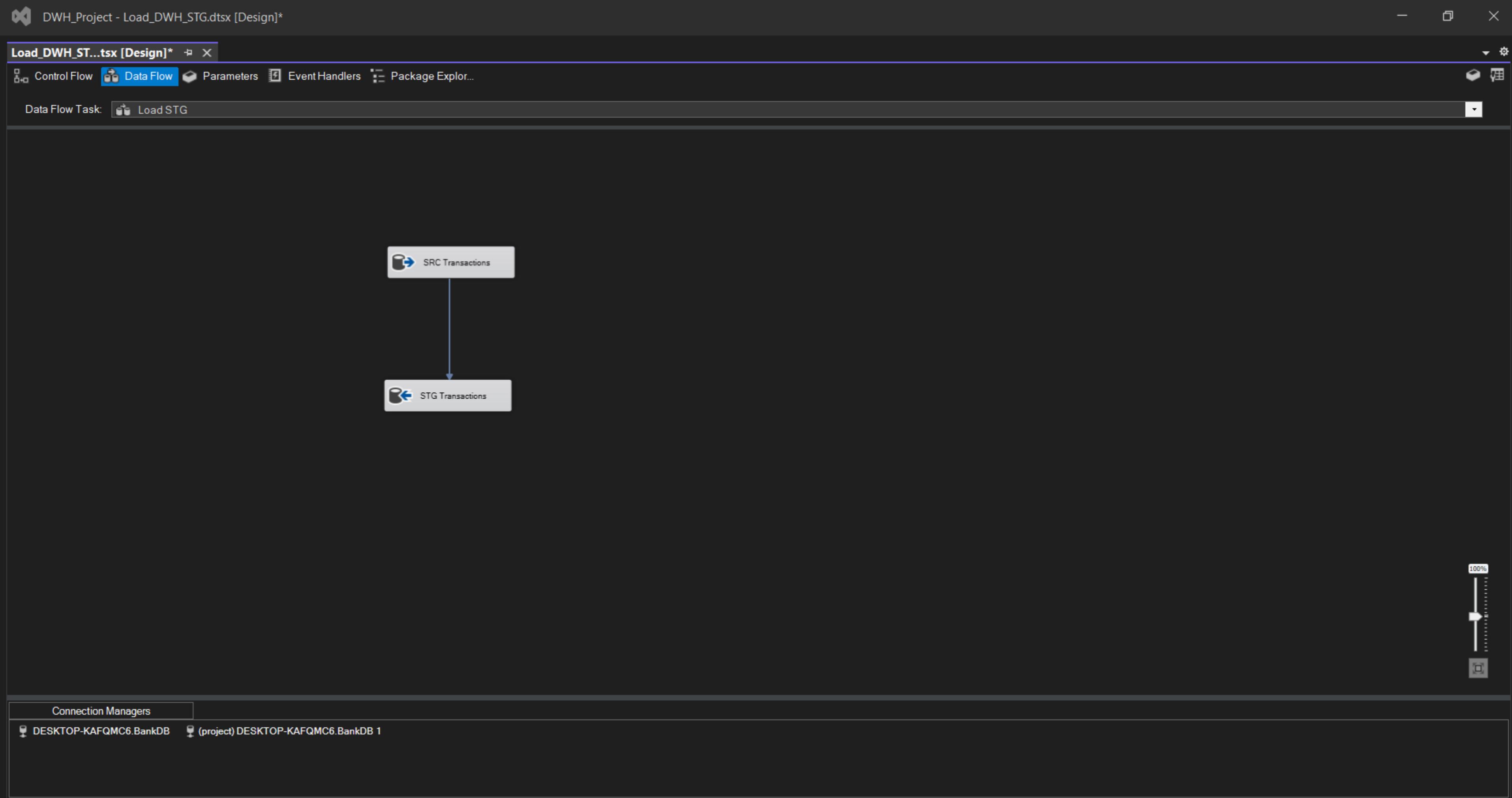
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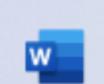








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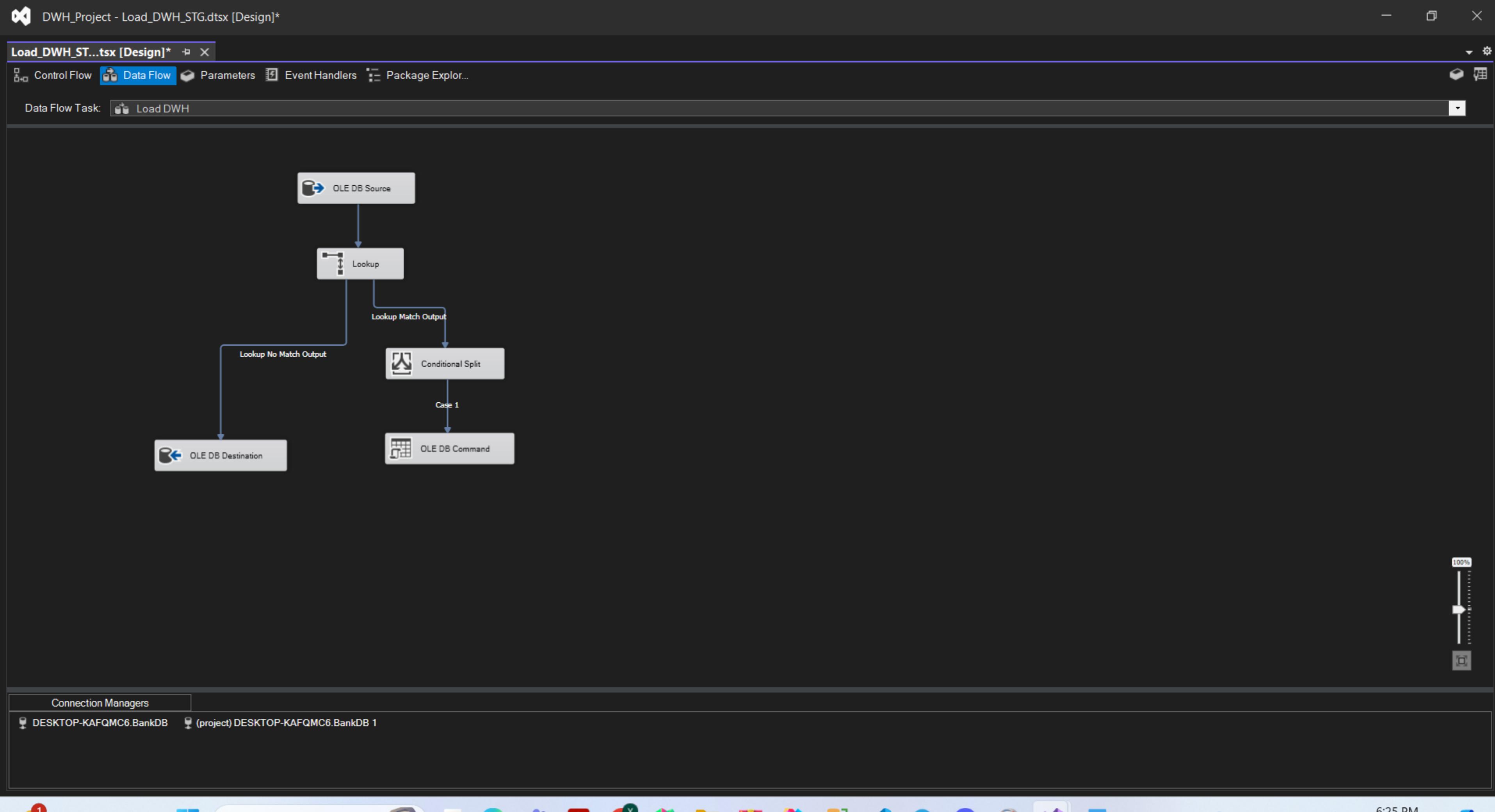


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Search

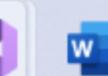
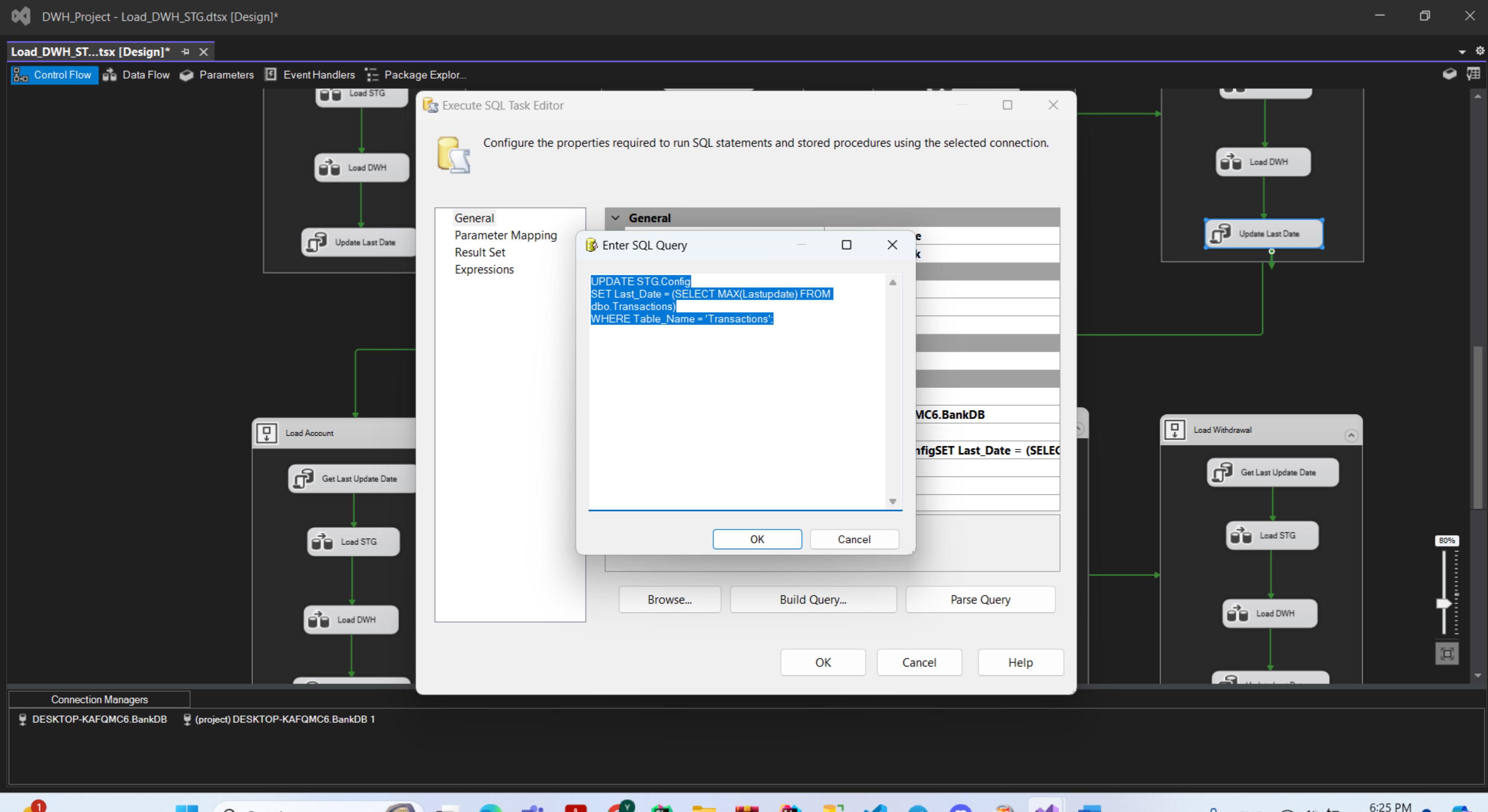


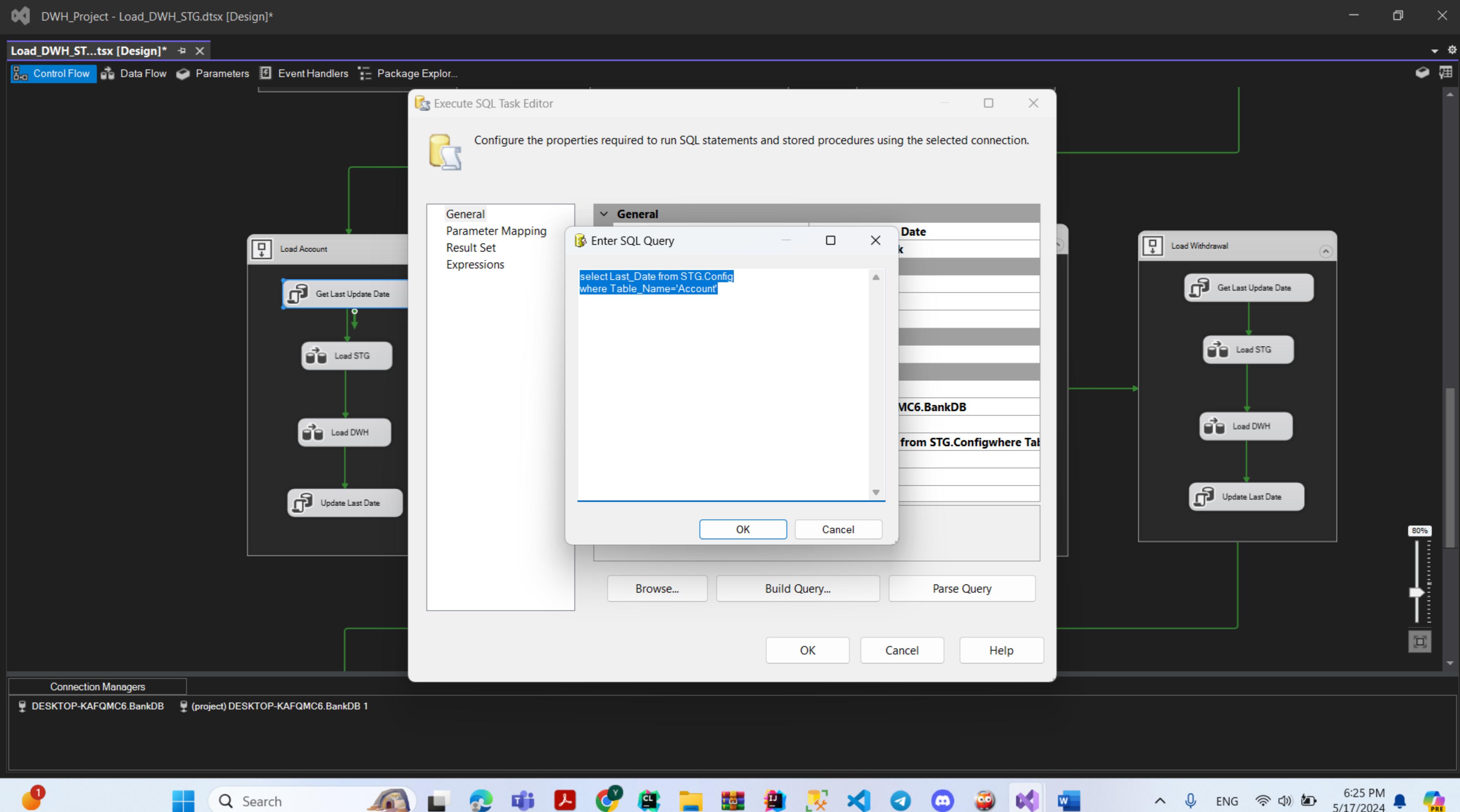
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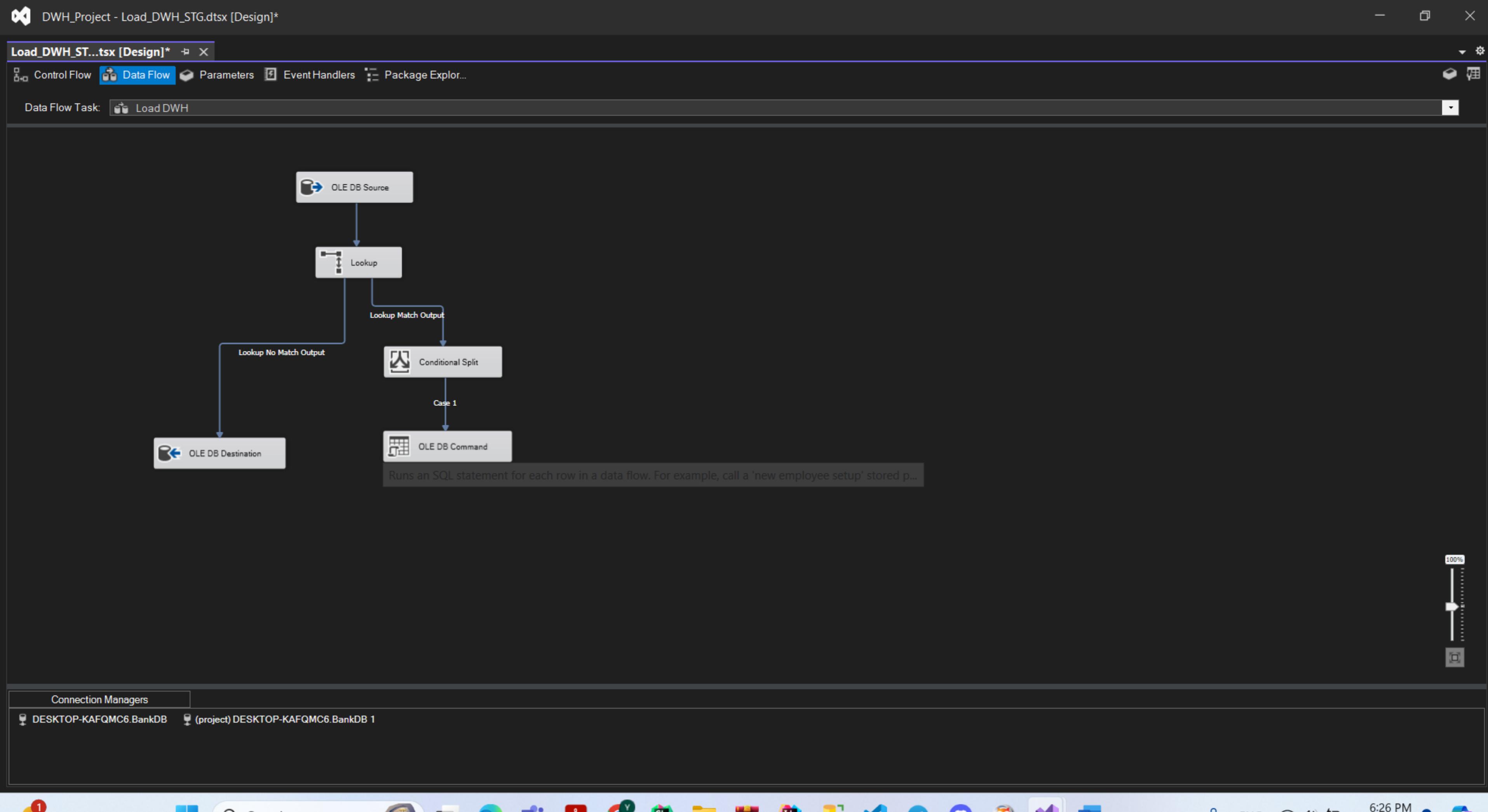


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DWH_Project - Load_DWH_STG.dtsx [Design]*

Load_DWH_ST...tsx [Design]*

Control Flow Data Flow Parameters Event Handlers Package Explor...

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

Enter SQL Query

```
UPDATE STG.Config  
SET Last_Date = (SELECT MAX>Lastupdate) FROM  
dbo.Account)  
WHERE Table_Name = 'Account';
```

MC6.BankDB

configSET Last_Date = (SELECT MAX>Lastupdate) FROM
dbo.Account)
WHERE Table_Name = 'Account';

OK Cancel

Browse... Build Query... Parse Query

OK Cancel Help

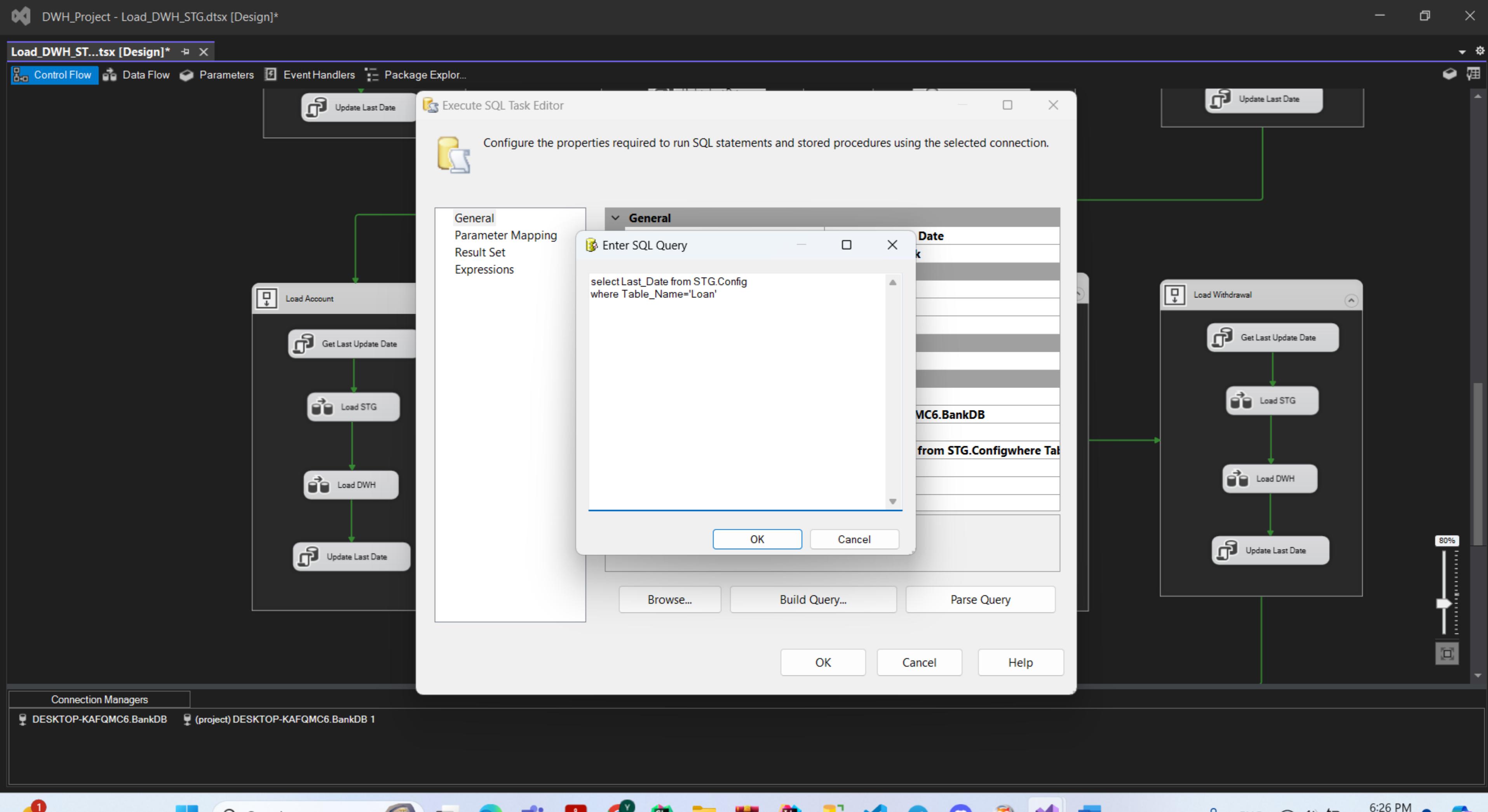
Connection Managers

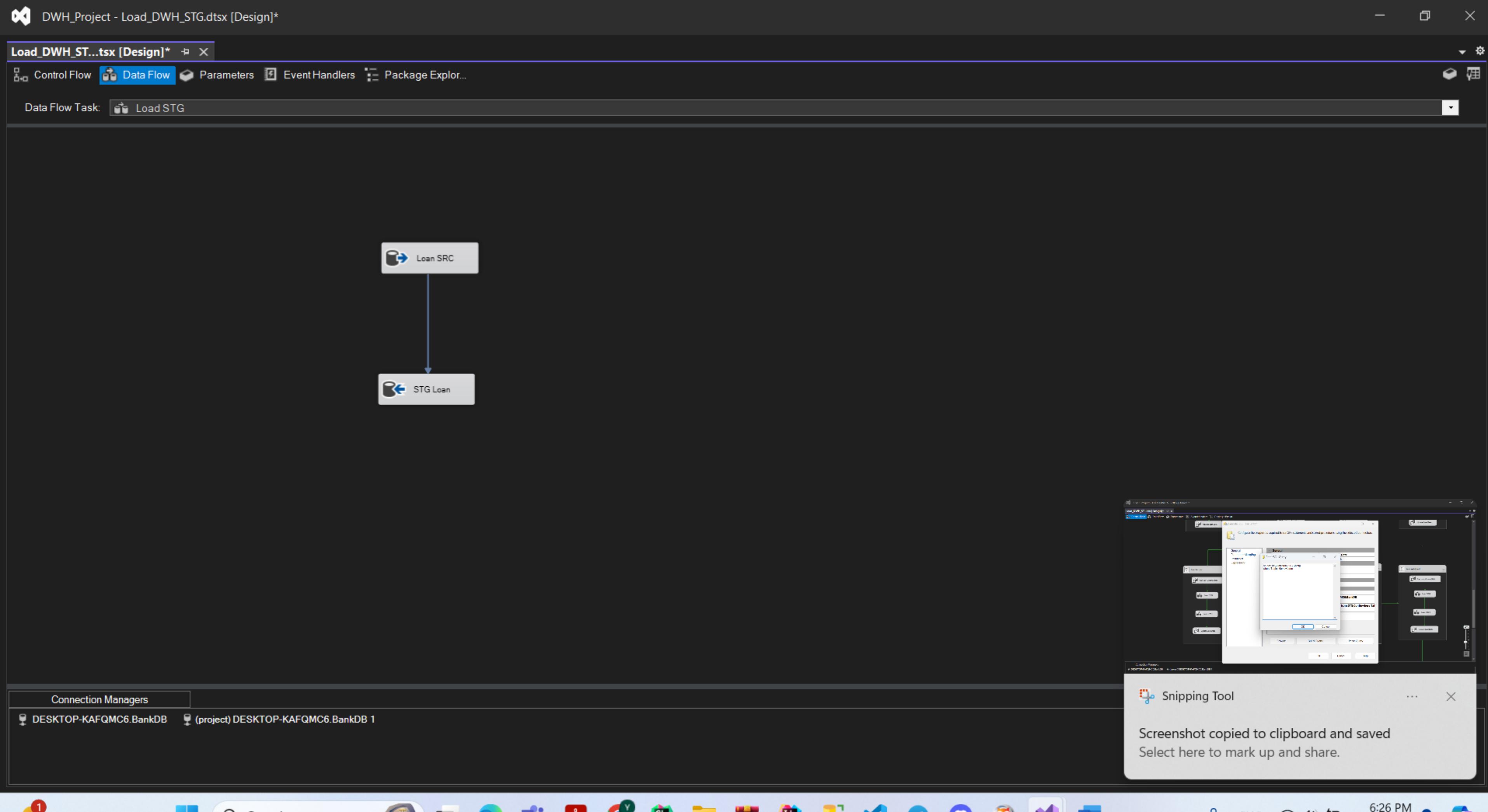
DESKTOP-KAFQMC6.BankDB (project) DESKTOP-KAFQMC6.BankDB 1

Snipping Tool

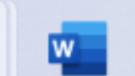
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```
graph TD; subgraph Load_Account [Load Account]; GetLastUpdateDate1[Get Last Update Date] --> LoadSTG1[Load STG]; LoadSTG1 --> LoadDWH1[Load DWH]; LoadDWH1 --> UpdateLastDate1[Update Last Date]; end; subgraph Load_Withdrawal [Load Withdrawal]; GetLastUpdateDate2[Get Last Update Date] --> LoadSTG2[Load STG]; LoadSTG2 --> LoadDWH2[Load DWH]; end;
```



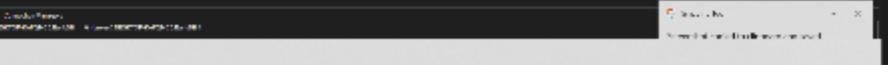
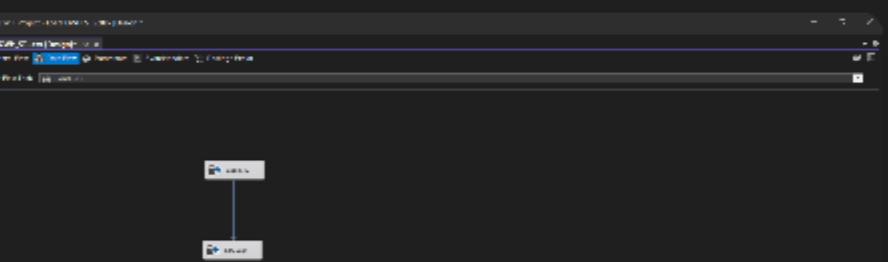
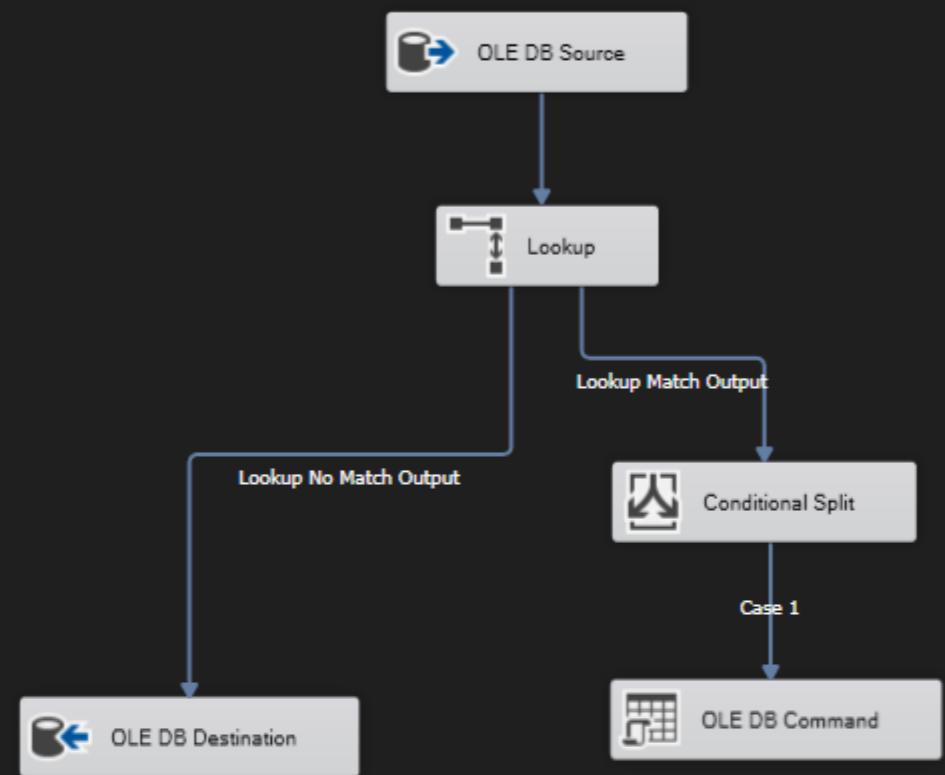


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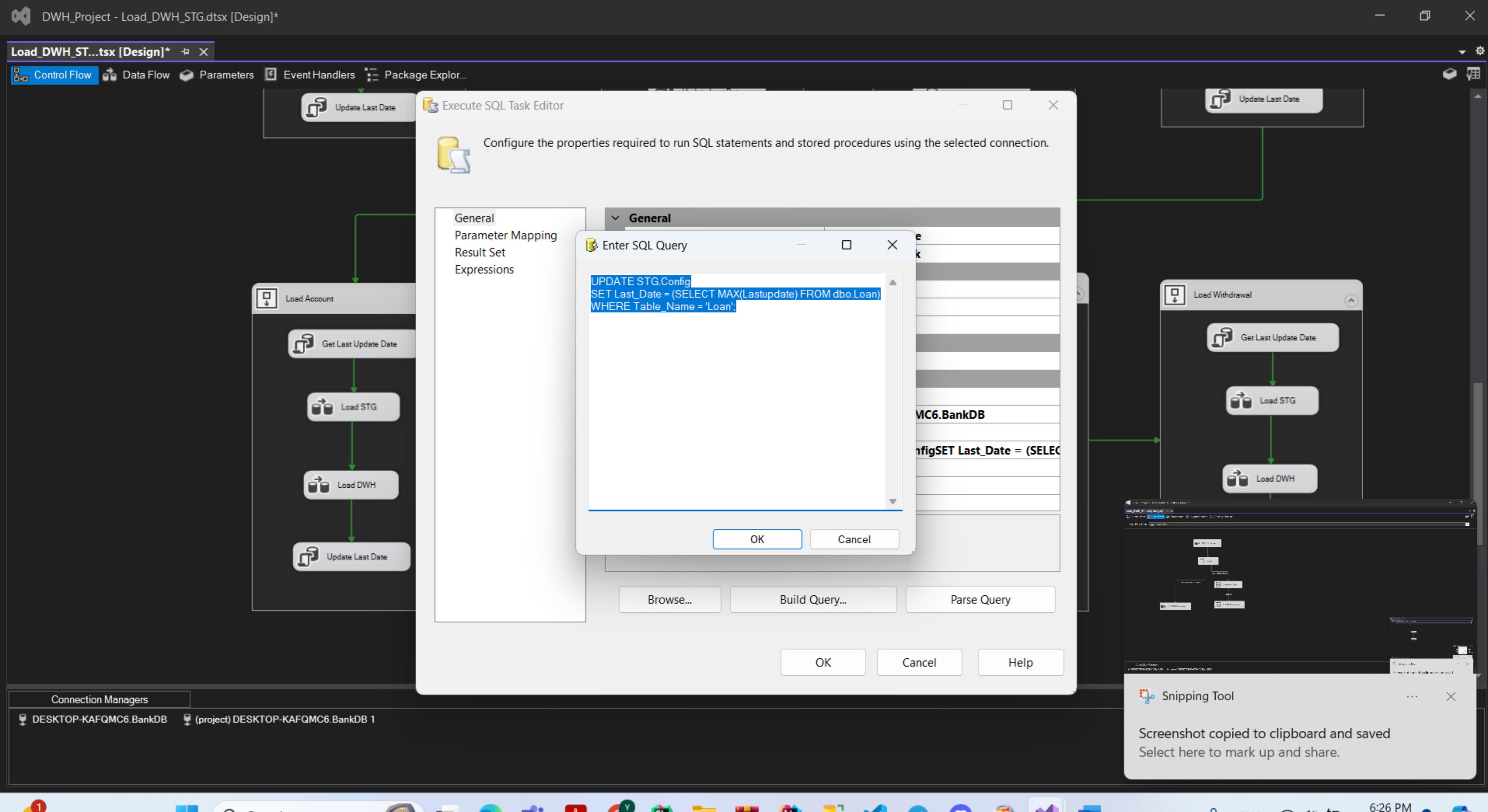
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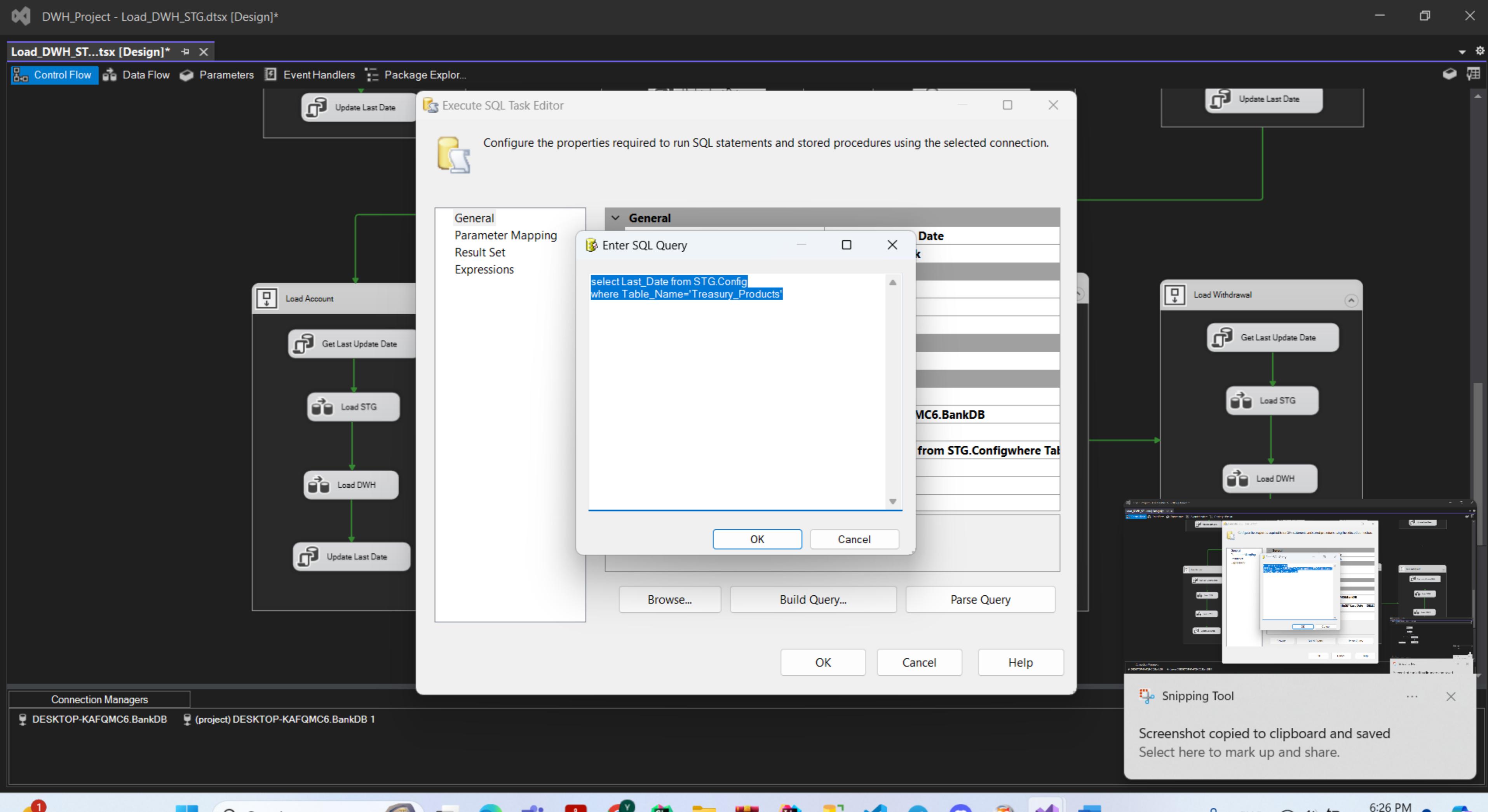
Load_DWH_ST...tsx [Design]*

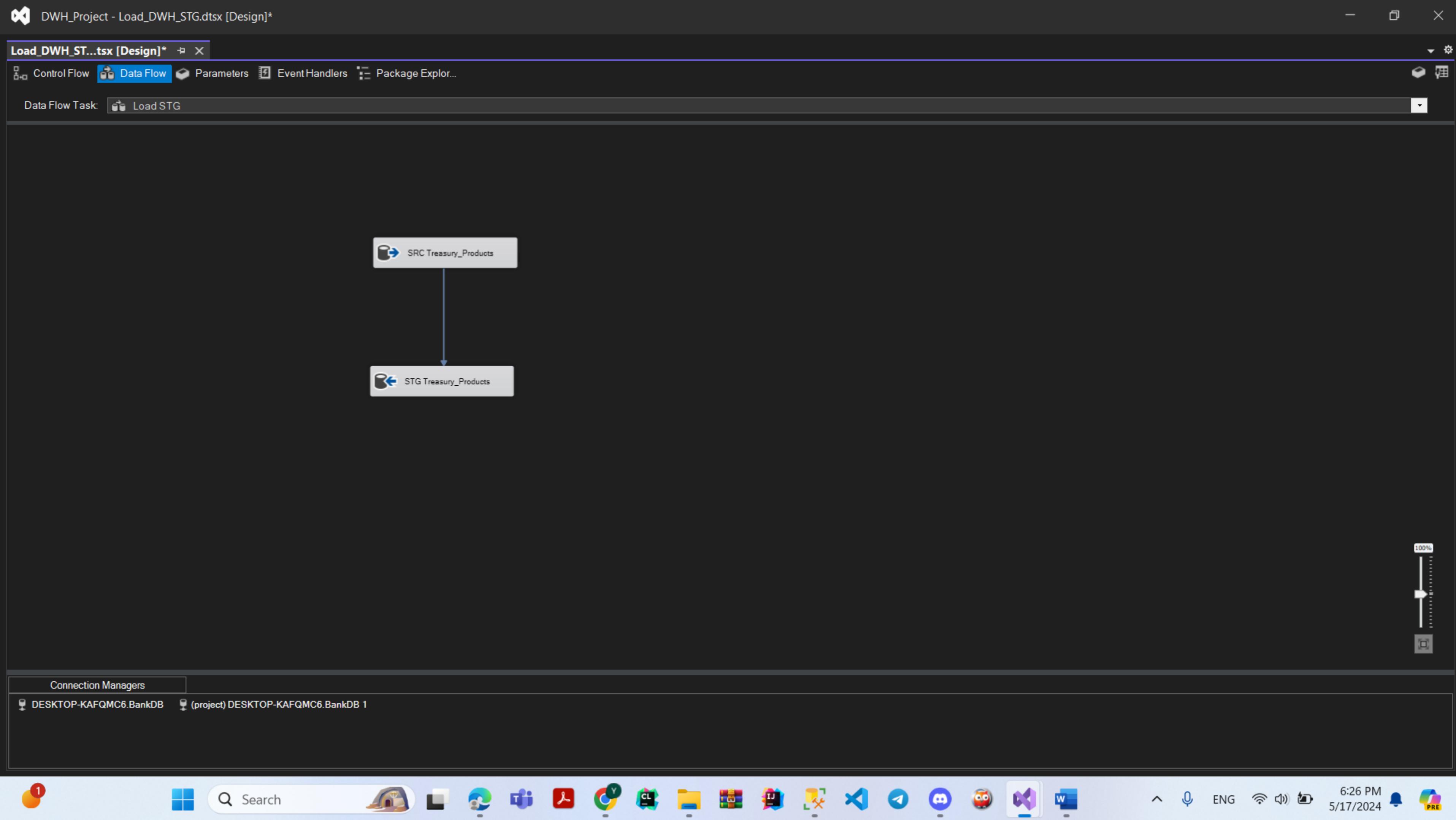


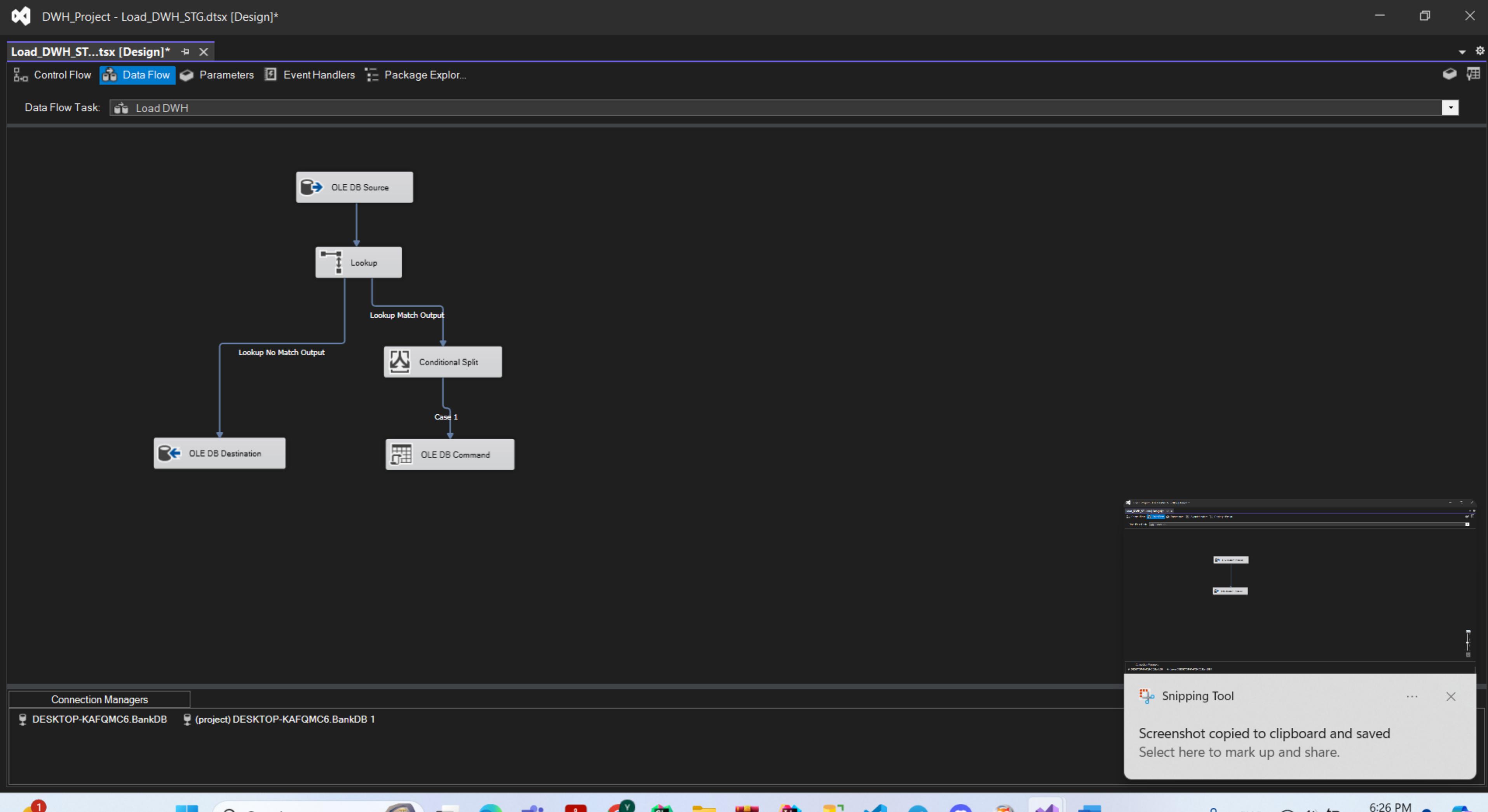
 Snipping Tool

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DWH_Project - Load_DWH_STG.dtsx [Design]*

Load_DWH_ST...tsx [Design]*

Control Flow Data Flow Parameters Event Handlers Package Explor...

Update Last Date

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

Enter SQL Query

MC6.BankDB

configSET Last_Date = (SELECT MAX>Lastupdate) FROM
dbo.Treasury_Products WHERE Table_Name = 'Treasury_Products';

OK Cancel

Browse... Build Query... Parse Query

OK Cancel Help

Load Account

Get Last Update Date

Load STG

Load DWH

Update Last Date

Load Withdrawal

Get Last Update Date

Load STG

Load DWH

Connection Managers

DESKTOP-KAFQMC6.BankDB (project) DESKTOP-KAFQMC6.BankDB 1

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Windows Start

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File Explorer

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Snipping Tool

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Up arrow

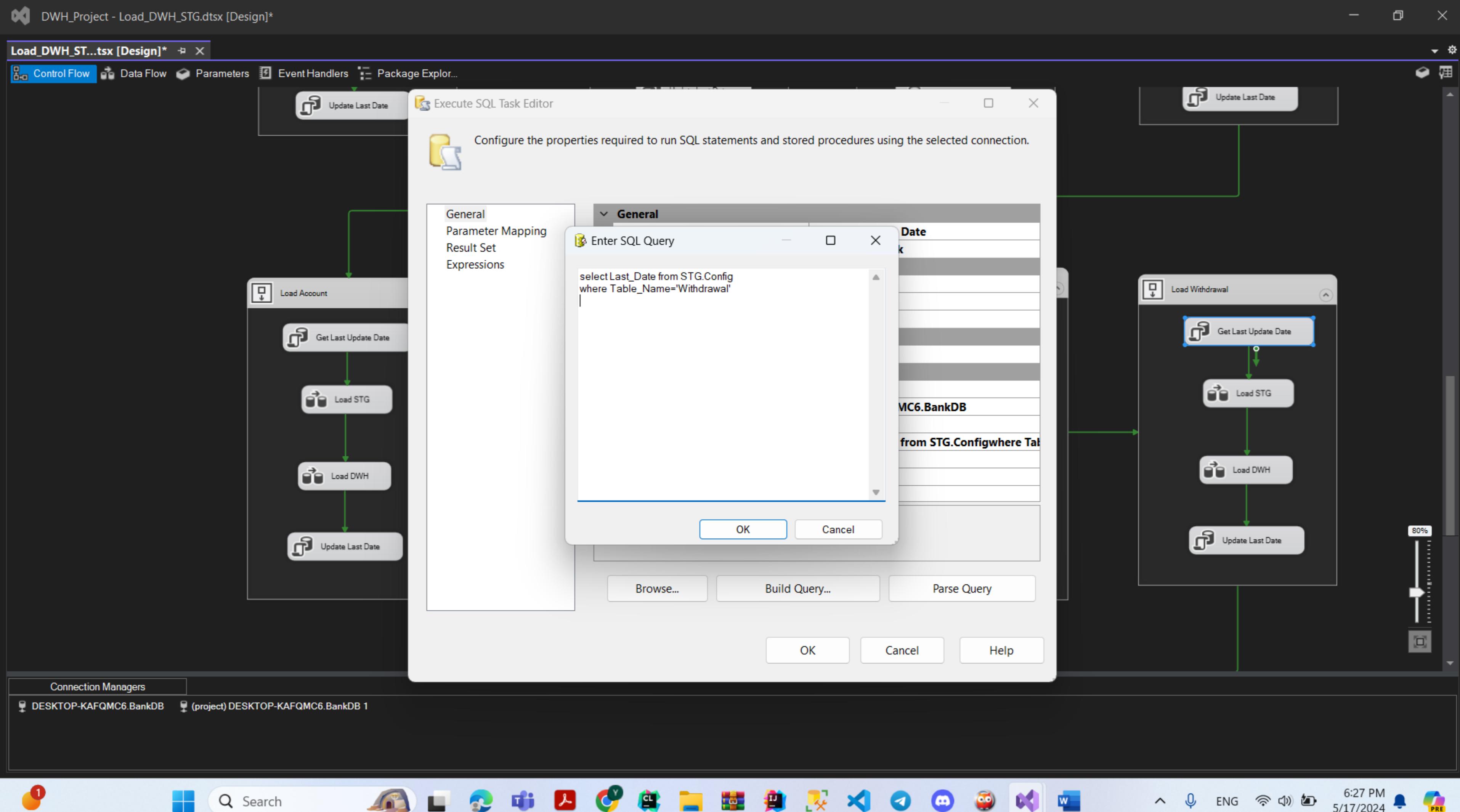
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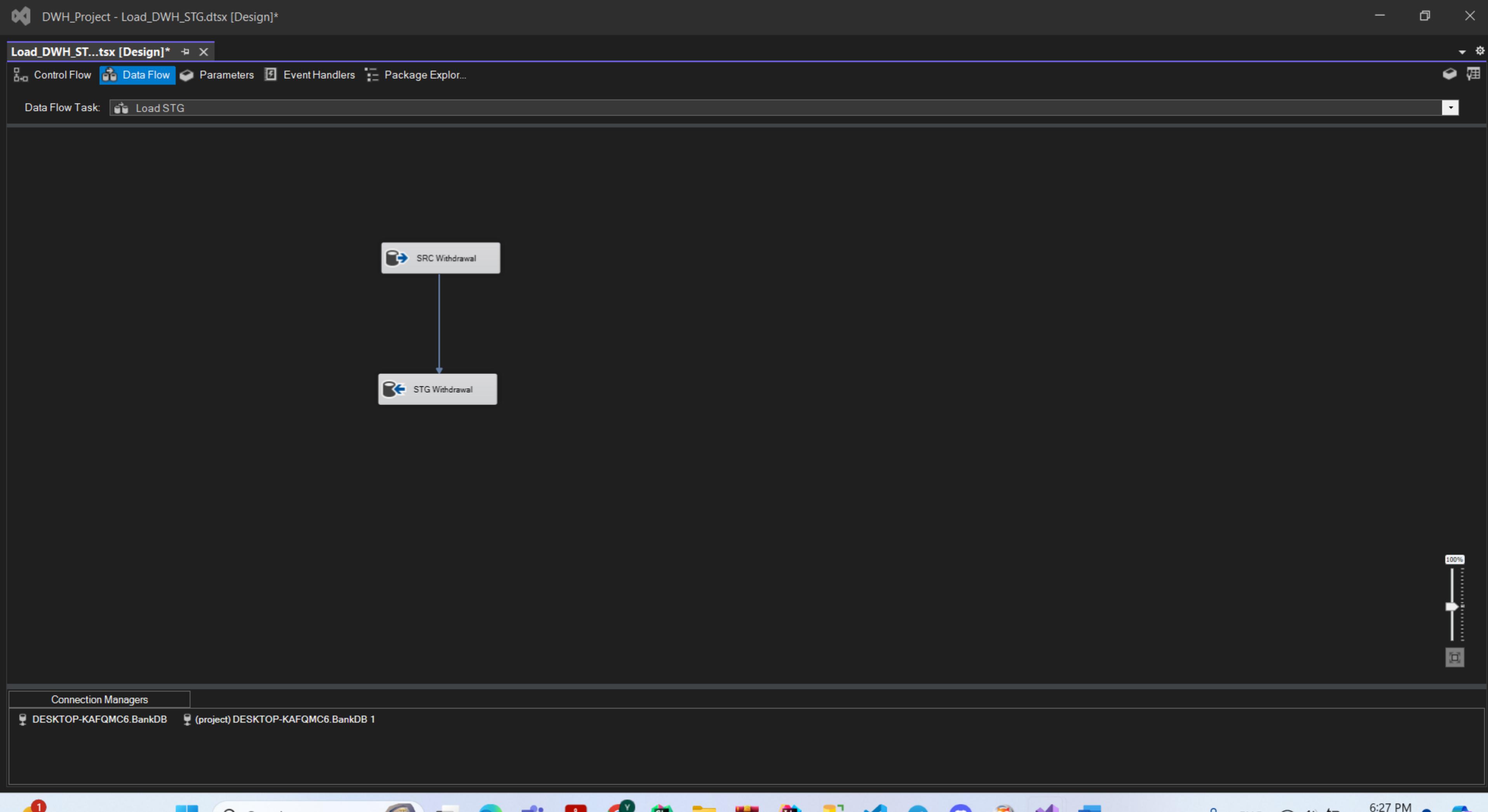
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ENG

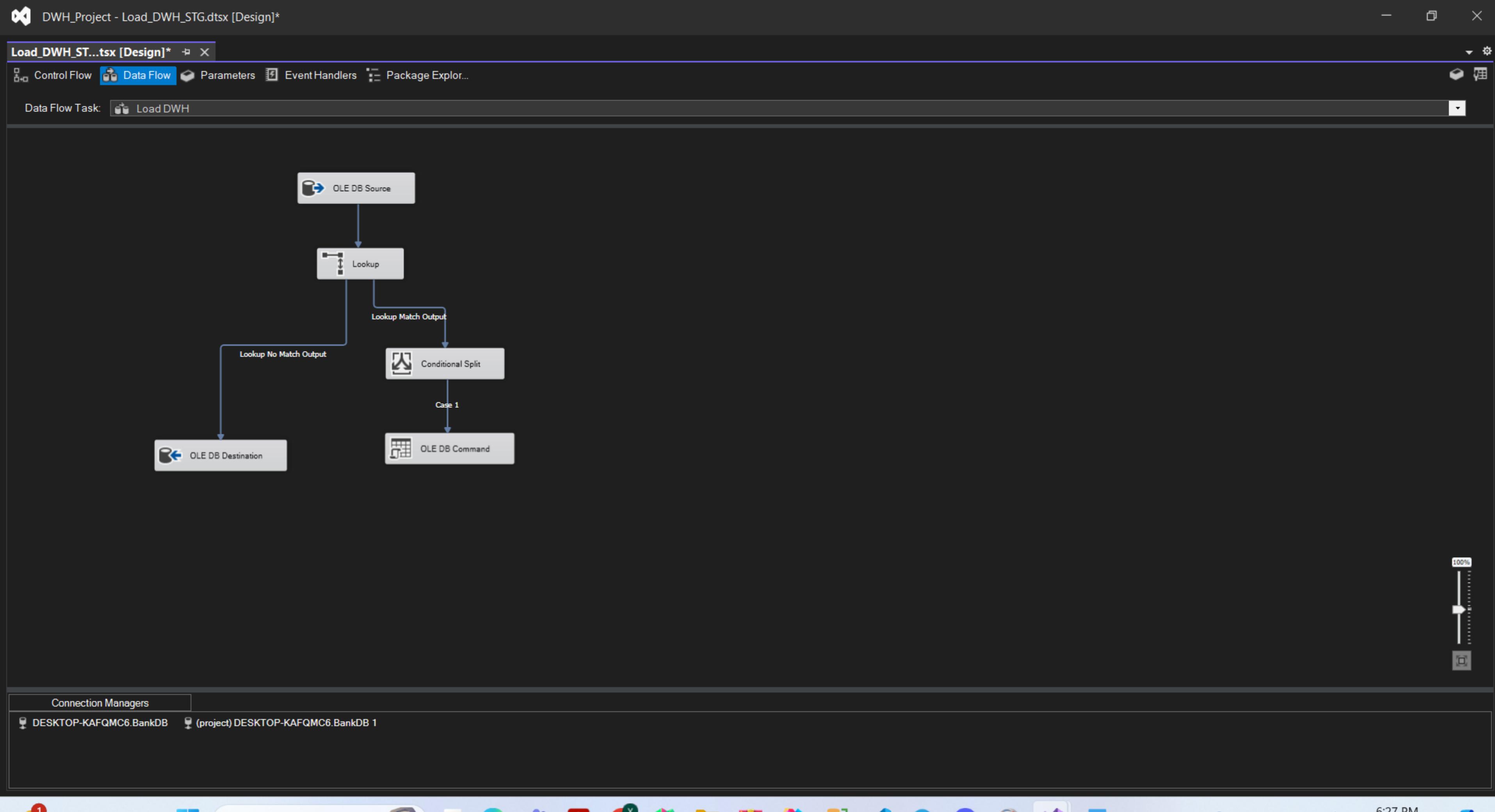


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Search



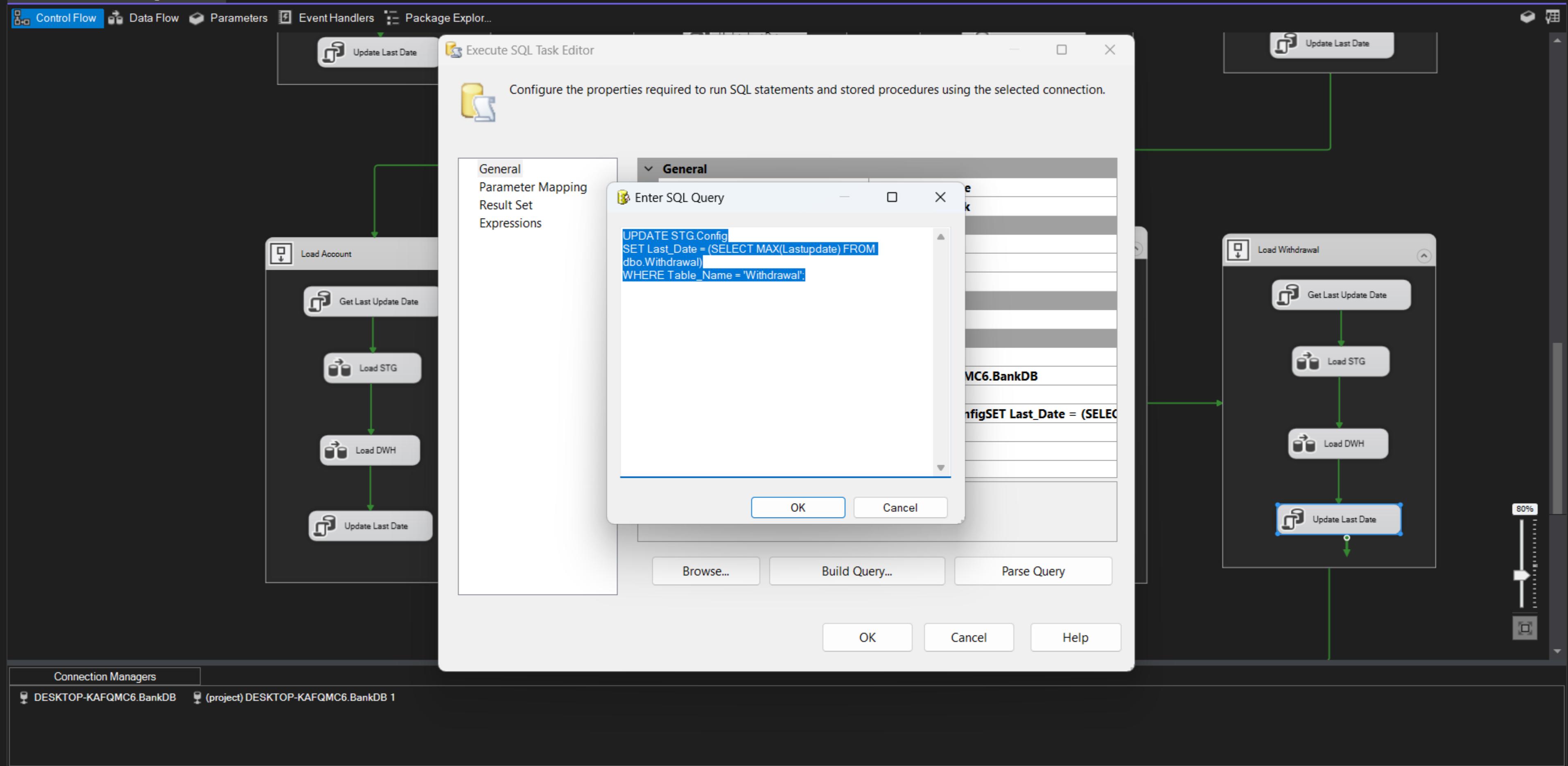
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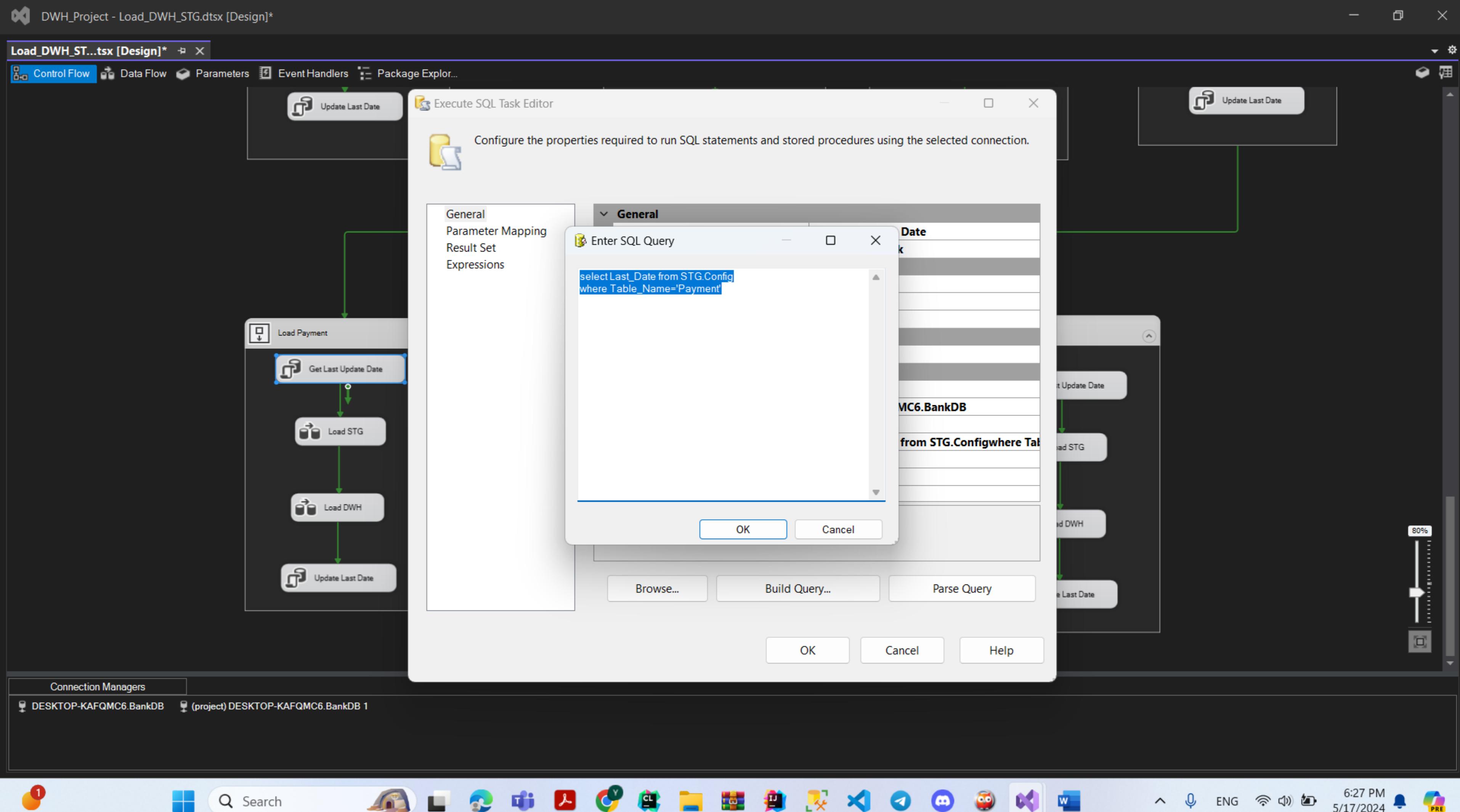


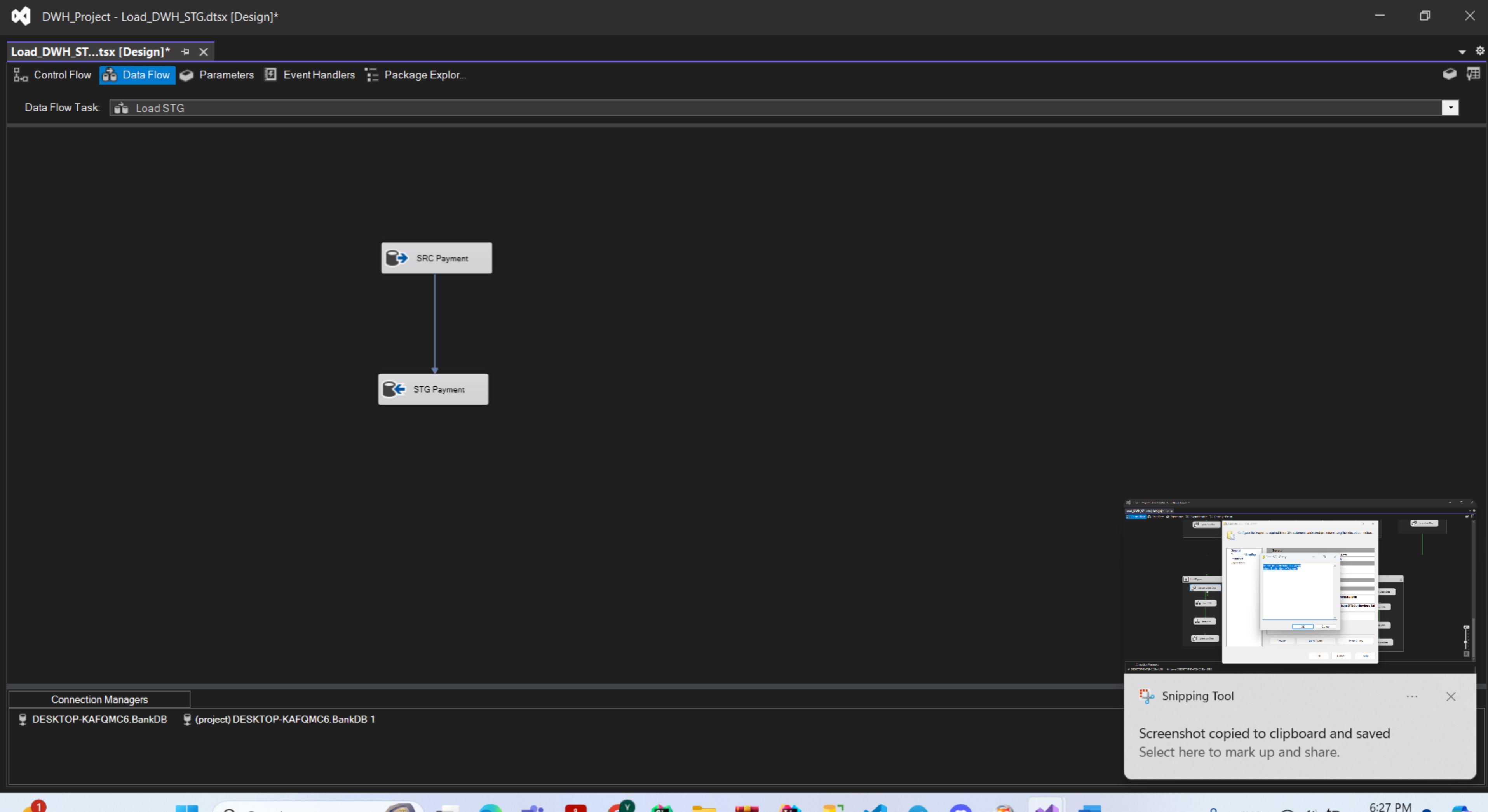
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Load_DWH_ST...tsx [Design]*







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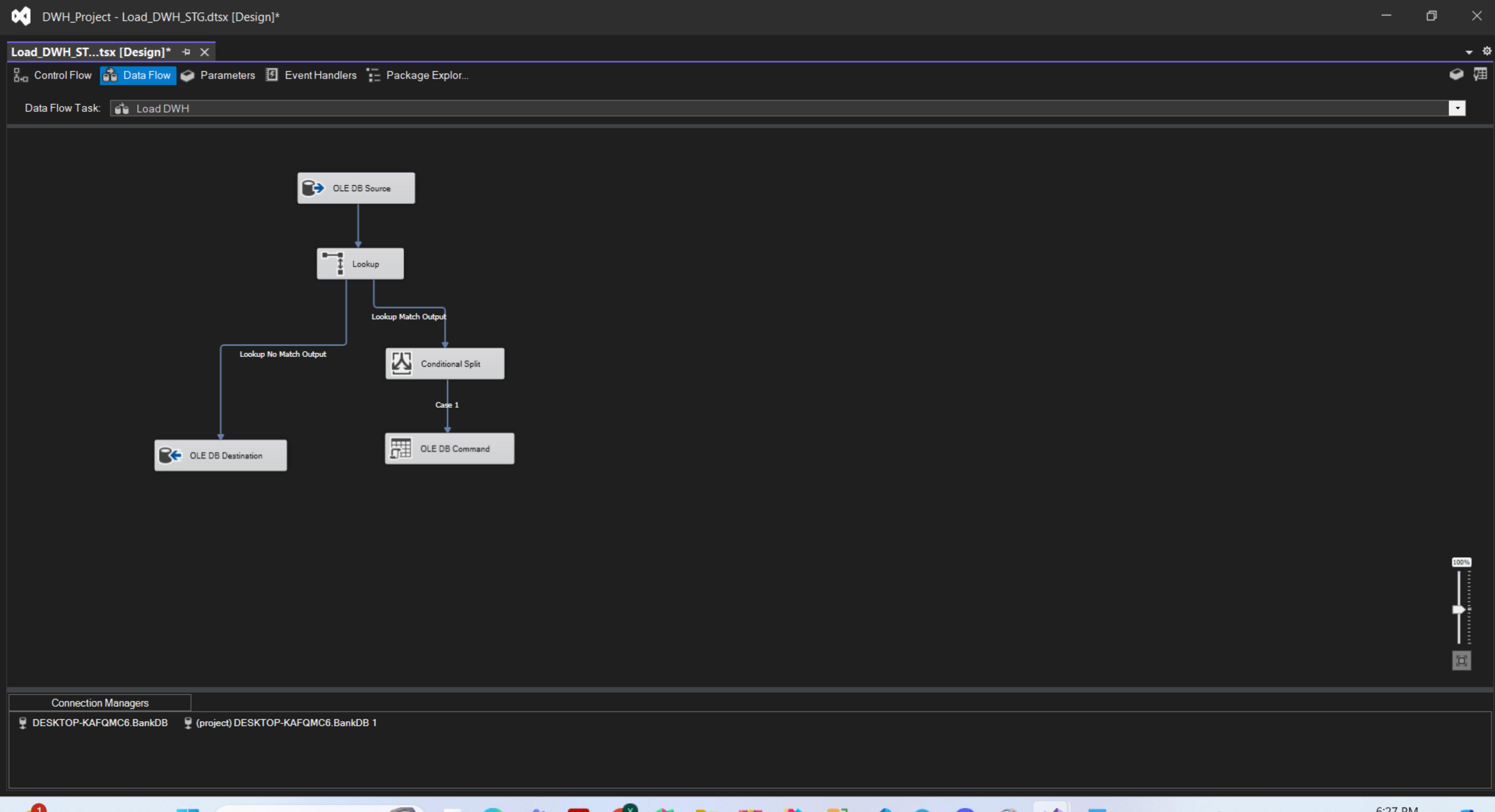


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DWH_Project - Load_DWH_STG.dtsx [Design]*

Load_DWH_ST...tsx [Design]*

Control Flow Data Flow Parameters Event Handlers Package Explor...

Update Last Date

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

Enter SQL Query

MC6.BankDB

configSET Last_Date =

```
UPDATE STG.Config  
SET Last_Date =  
(SELECT MAX>Lastupdate) AS Expr1  
FROM Payment)  
WHERE (Table_Name = 'Payment')
```

OK Cancel

Browse... Build Query... Parse Query

OK Cancel Help

Connection Managers

DESKTOP-KAFQMC6.BankDB (project) DESKTOP-KAFQMC6.BankDB 1

Snipping Tool

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```
graph TD; LoadPayment[Load Payment] --> GetLastUpdateDate[Get Last Update Date]; GetLastUpdateDate --> LoadSTG[Load STG]; LoadSTG --> LoadDWH[Load DWH]; LoadDWH --> UpdateLastDate[Update Last Date];
```

DWH_Project - Load_DWH_STG.dtsx [Design]*

Load_DWH_ST...tsx [Design]*

Control Flow Data Flow Parameters Event Handlers Package Explor...

Update Last Date

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

Enter SQL Query

select Last_Date from STG.Config where Table_Name='Transfer'

Date

MC6.BankDB

from STG.Config where Table_Name='Transfer'

OK Cancel

Browse... Build Query... Parse Query

OK Cancel Help

Connection Managers

DESKTOP-KAFQMC6.BankDB (project) DESKTOP-KAFQMC6.BankDB 1

Snipping Tool

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```
graph TD; LoadPayment[Load Payment] --> GetLastUpdateDate[Get Last Update Date]; GetLastUpdateDate --> LoadSTG[Load STG]; LoadSTG --> LoadDWH[Load DWH]; LoadDWH --> UpdateLastDate[Update Last Date];
```



Search



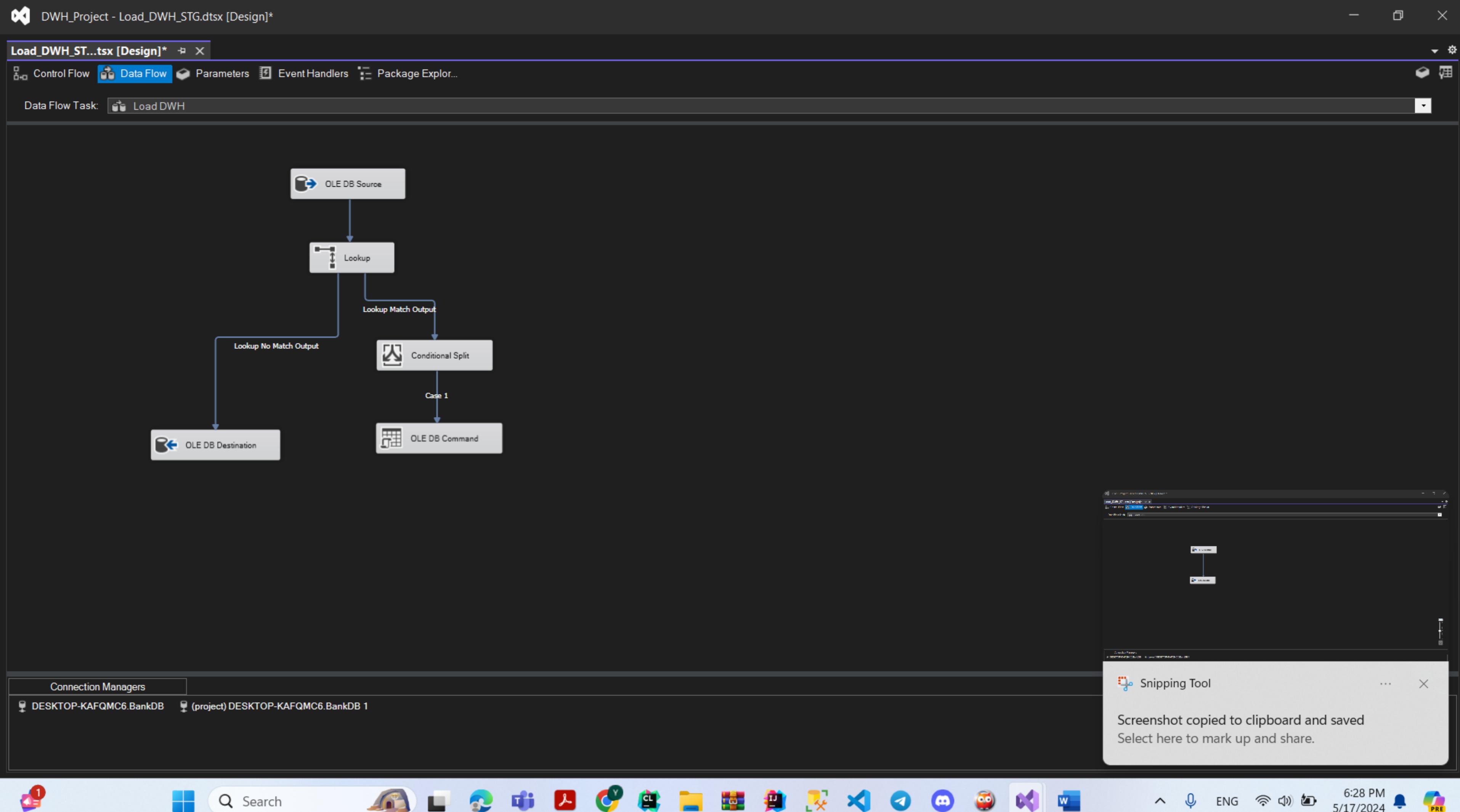
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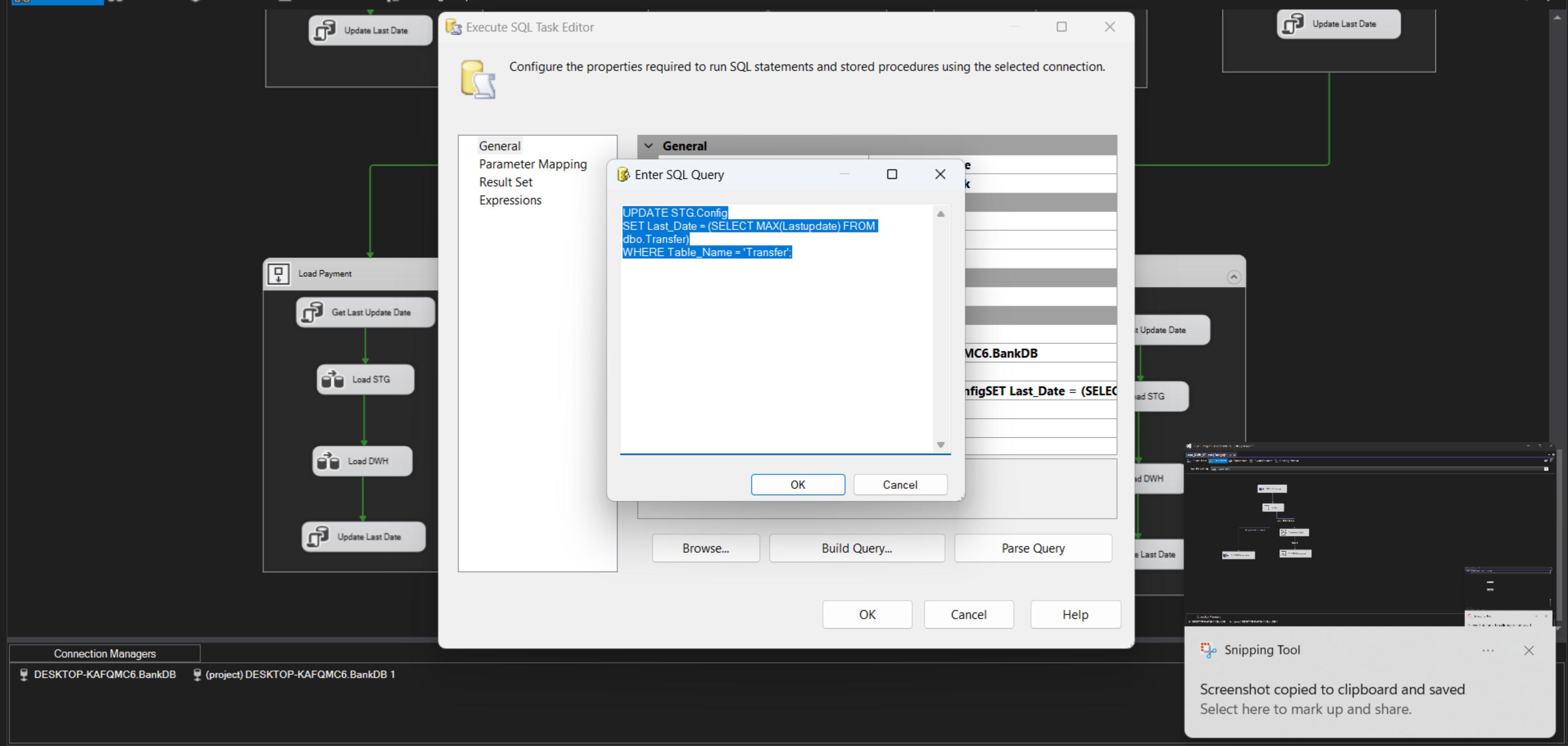


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DWH_Project - Load_DWH_STG.dtsx [Design]*

Load_DWH_ST...tsx [Design]*

Control Flow Data Flow Parameters Event Handlers Package Explor...

Update Last Date

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

Enter SQL Query

select Last_Date from STG.Config
where Table_Name='Deposit'

Date

MC6.BankDB

from STG.Config where Table_Name='Deposit'

OK Cancel

Browse... Build Query... Parse Query

OK Cancel Help

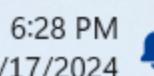
Connection Managers

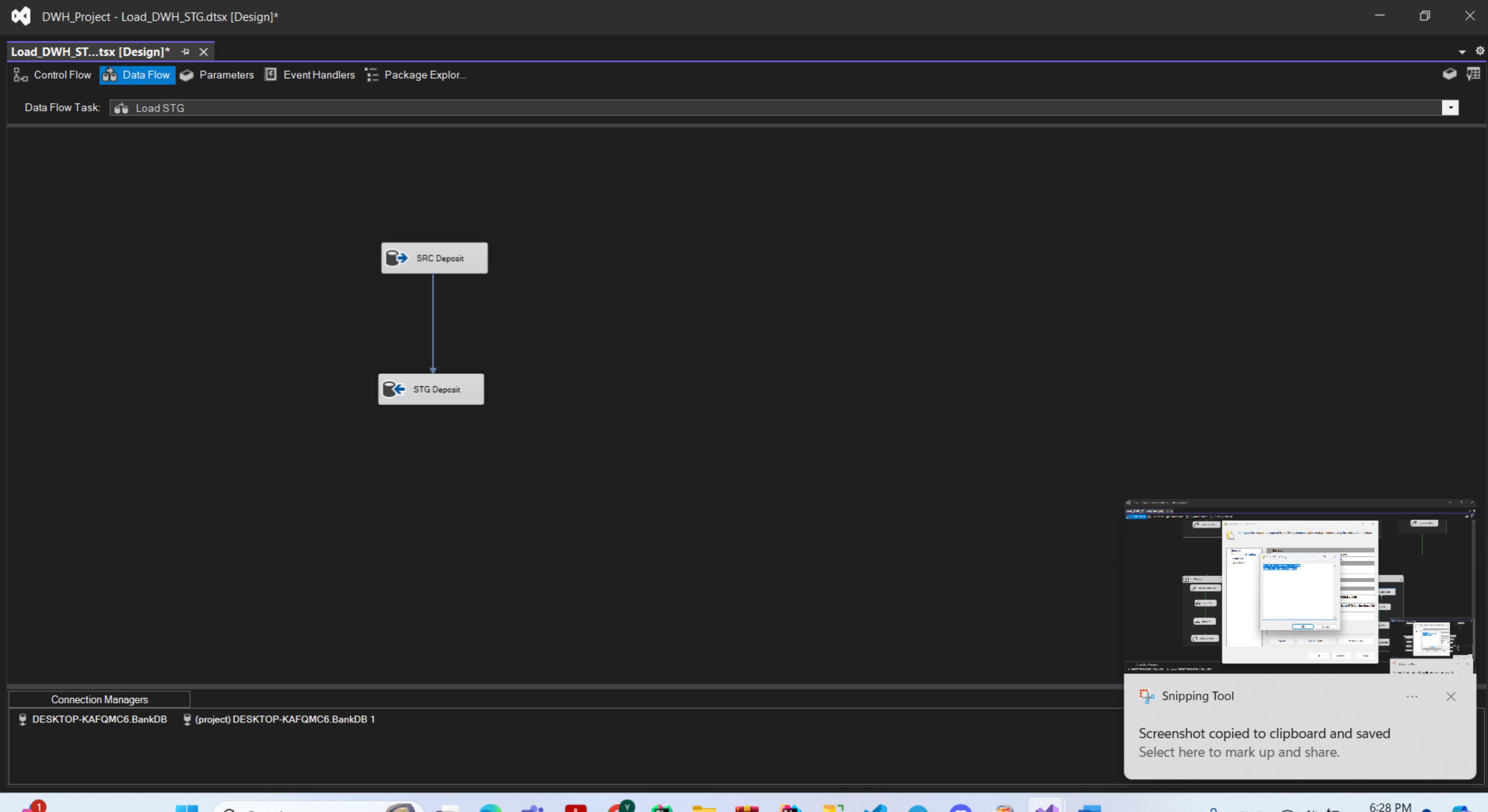
DESKTOP-KAFQMC6.BankDB (project) DESKTOP-KAFQMC6.BankDB 1

Snipping Tool

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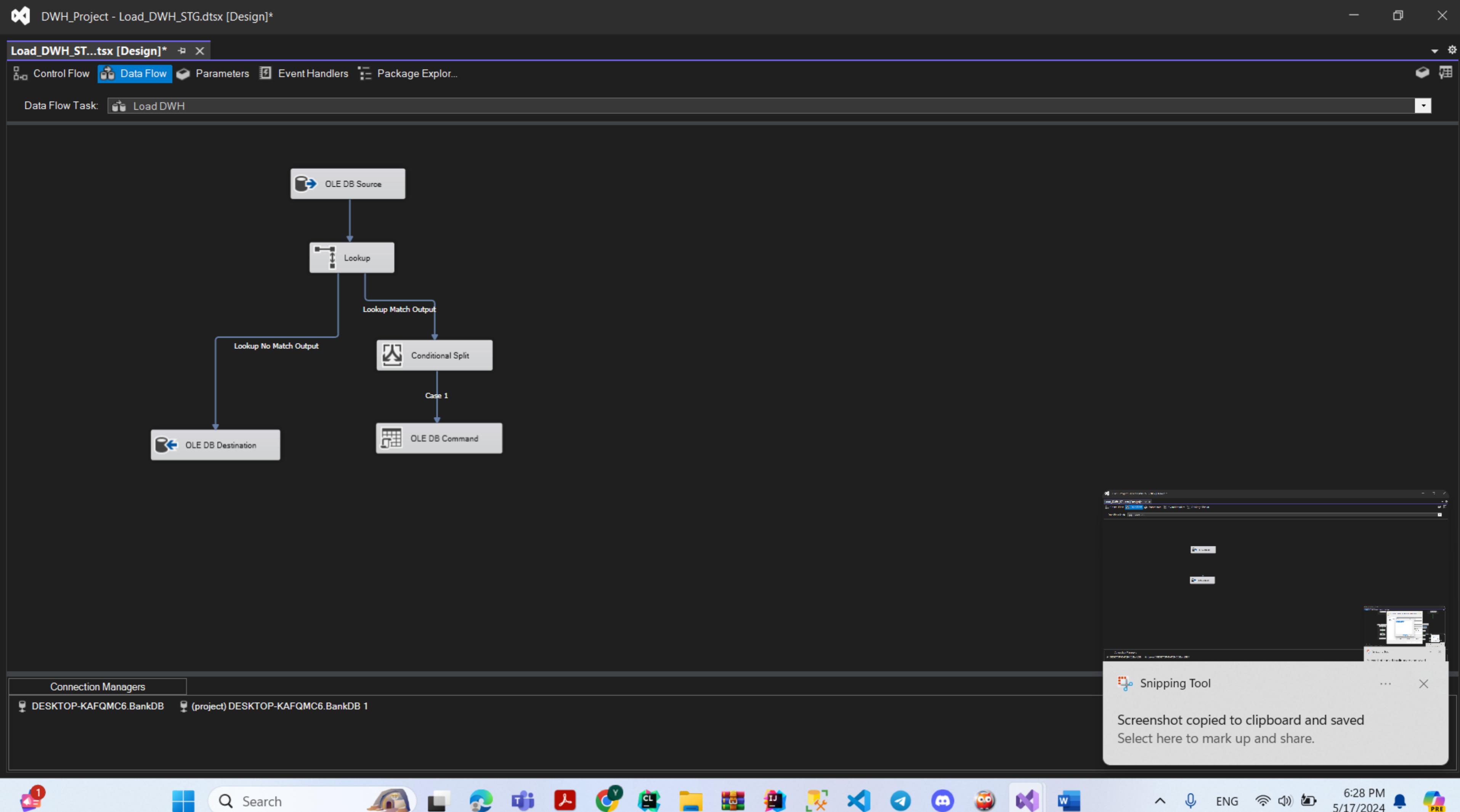
```
graph TD; Start(( )) --> GetLastUpdateDate[Get Last Update Date]; GetLastUpdateDate --> LoadSTG[Load STG]; LoadSTG --> LoadDWH[Load DWH]; LoadDWH --> UpdateLastDate[Update Last Date]; ExecuteSQLTask[Execute SQL Task] --- LoadSTG;
```





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DWH_Project - Load_DWH_STG.dtsx [Design]*

Load_DWH_ST...tsx [Design]*

Control Flow Data Flow Parameters Event Handlers Package Explor...

Update Last Date

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

Enter SQL Query

MC6.BankDB

configSET Last_Date = (SELECT MAX>Lastupdate) FROM
dbo.Deposit WHERE Table_Name = 'Deposit';

OK Cancel

Browse... Build Query... Parse Query

OK Cancel Help

Connection Managers

DESKTOP-KAFQMC6.BankDB (project) DESKTOP-KAFQMC6.BankDB 1

Snipping Tool

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5/17/2024



Screenshot of the Microsoft Visual Studio IDE showing the SSIS Designer for a package named "Load_Facts.dtsx".

The main window displays the Control Flow tab of the SSIS Designer. A sequence of tasks is connected:

- A "Call Load DWH_STG" task (represented by a play button icon) is at the top.
- An arrow points down to a "Load Facts" container (represented by a download icon).
- Inside the "Load Facts" container:
 - An "Execute Package Task" (represented by a cylinder icon) is labeled "LoanFact".
 - An arrow points down to a "Transaction Fact" task (represented by a cylinder icon).
 - An arrow points down to a "ProductsFact" task (represented by a cylinder icon).
 - An arrow points down to a "paymentFact" task (represented by a cylinder icon).

The "Solution Explorer" pane on the right shows the project structure:

- DWH_Project
- Project.params
- Connection Managers
- SSIS Packages
 - Load_DWH_STG.dtsx
 - Load_Facts.dtsx
- Package Parts
 - Control Flow
 - Miscellaneous
- Linked Azure Resources
 - Azure-SSIS Integration R
 - Azure Storage

The "Properties" pane on the far right shows the following details for "Package1":

- Identification**
 - CreationDate: 5/17/2024 12:12 AM
 - CreatorCompute: DESKTOP-KAFQMC6
 - CreatorName: DESKTOP-KAFQMC6
 - Description:
 - ID: {1AECD985-1CEC-4A8D-BE8B-000000000000}
 - Name: Package1
 - PackageType: DTSDesigner100
- Name**: Specifies the name of the object.

Toolbars and status bar:

- Top toolbar: File, Edit, View, Git, Project, Build, Debug, Format, Test, Analyze, Tools, Extensions, Window, Help, Search (Ctrl+Q), DWH_Project, Sign in, Live Share.
- Status bar: Ready, dell (untrusted), 6:29 PM, 5/17/2024.

Screenshot of the Microsoft Visual Studio IDE showing the SSIS Designer for the package **Load_Facts.dtsx**.

The **Control Flow** tab is selected in the Data Flow Task ribbon.

The Data Flow Task is named **LoanFact**.

The Data Flow diagram consists of the following components and flow:

- LOAN DWH** (OLE DB Destination) feeds into **BRANCH**.
- BRANCH** feeds into **DATE**.
- DATE** feeds into **Check Exists**.
- Check Exists** has two outputs:
 - Lookup No Match Output** feeds into **Fact Loan**.
 - Lookup Match Output** feeds into **Conditional Split**.
- Fact Loan** feeds into **OLE DB Command**.
- Conditional Split** has two cases:
 - Case 1** feeds into **OLE DB Command**.
 - The other case feeds into **OLE DB Command**.

The **Connection Managers** pane shows one connection manager:
DESKTOP-KAFQMC6.BankDB 1

The **Solution Explorer** pane shows the project structure:

- DWH_Project
- Project.params
- Connection Managers
- SSIS Packages
 - Load_DWH_STG.dtsx
 - Load_Facts.dtsx
- Package Parts
 - Control Flow
 - Miscellaneous
- Linked Azure Resources
 - Azure-SSIS Integration R
 - Azure Storage

The **Properties** pane displays the properties for the **LoanFact** Task:

ForcedExecution	Int32
ForceExecutionV	False
Identification	
Description	Data Flow Task
ID	{B888D2B2-CFDD}
Name	LoanFact
PackagePath	\Package\Load Fa

The **Name** property is described as "Specifies the name of the object".

Bottom status bar: Zoom Change: 90%, dell (untrusted), 6:30 PM, 5/17/2024

Screenshot of the Microsoft Visual Studio IDE showing the SSIS Designer for the package **Load_Facts.dtsx**.

The SSIS Toolbox is open on the left, displaying various components under the **Data Flow** tab.

The Data Flow Task is set to **Transaction Fact**.

The Data Flow diagram consists of the following components and connections:

- OLE DB Source** → **Type**
- Type** → **DATE**
- DATE** → **Check Exists**
- Check Exists** → **Conditional Split**
- Conditional Split** → **Case 1** (which leads to **OLE DB Command**)
- Check Exists** → **OLE DB Destination** (via **Lookup No Match Output**)
- Check Exists** → **Conditional Split** (via **Lookup Match Output**)
- Conditional Split** → **Case 1** (via **Lookup Match Output**)

The **Connection Managers** section shows one connection manager named **(project) DESKTOP-KAFQMC6.BankDB 1**.

The Solution Explorer on the right shows the project **DWH_Project** containing files like **Project.params**, **Connection Managers**, **SSIS Packages** (including **Load_DWH_STG.dtsx** and **Load_Facts.dtsx**), **Package Parts**, **Miscellaneous**, and **Linked Azure Resources**.

A Snipping Tool window is visible at the bottom right, indicating a screenshot was taken.

System tray icons include a battery icon with 1%, a Dell logo, and a date/time stamp of 6:30 PM on 5/17/2024.

Screenshot of the Microsoft Visual Studio IDE showing the SSIS Designer for the package **Load_Facts.dtsx**.

The **Control Flow** tab is selected in the Data Flow ribbon.

The Data Flow Task is set to **ProductsFact**.

The Data Flow diagram consists of the following components:

- product** (Source)
- Account** (Lookup)
- DATE** (Lookup)
- Lookup** (Lookup)
- OLE DB Destination** (Destination)
- Conditional Split** (Decision)
- OLE DB Command** (Script Task)

The flow starts with the **product** source, which feeds into the **Account** lookup. The **Account** lookup has two outputs:

- Lookup Match Output** feeds into the **DATE** lookup.
- Lookup No Match Output** feeds into the **OLE DB Destination**.

The **DATE** lookup also has two outputs:

- Lookup Match Output** feeds into the **Lookup** lookup.
- Lookup No Match Output** feeds into the **Conditional Split**.

The **Lookup** lookup has one output:

- Lookup Match Output** feeds into the **OLE DB Command**.
- Lookup No Match Output** feeds into the **Conditional Split**.

The **Conditional Split** has two cases:

- Case 1** feeds into the **OLE DB Command**.
- The other case feeds into the **OLE DB Destination**.

The **Properties** window shows the following settings for the **ProductsFact** task:

- ForcedExecution**: **Int32**
- ForceExecutionV**: **False**
- Identification**
 - Description**: **Data Flow Task**
 - ID**: **{CB43442F-A9DC-**
 - Name**: **ProductsFact**
 - PackagePath**: **\Package\Load Fa**

The **Information** section of the toolbox states: "Drag a toolbox item to SSIS Designer to use it."

The **Solution Explorer** shows the project structure:

- DWH_Project**
 - Project.params**
 - Connection Managers**
 - DESKTOP-KAFQMC6.BankDB 1**
 - SSIS Packages**
 - Load_DWH_STG.dtsx**
 - Load_Facts.dtsx** (selected)
 - Package Parts**
 - Control Flow**
 - Miscellaneous**
 - Linked Azure Resources**
 - Azure-SSIS Integration R**
 - Azure Storage**

