

DATA MODELLING IN POWERBI



WHAT IS DATA MODELLING?

Data modeling in Power BI is about organizing your data so it's easy to analyze and create reports. It includes linking tables, creating new columns or calculations, and arranging data for better analysis. This helps turn raw data into useful insights for your Power BI reports and dashboards.

1.NORMALIZATION:

Normalization in data modeling is the process of organizing data in a way that reduces redundancy and improves data integrity. The goal is to structure the data into multiple related tables, rather than storing everything in one large table. This helps ensure that data is stored efficiently, and updates to data (like correcting information) are easier to manage.

KEY BENEFITS OF DATA NORMALIZATION:

- 1. Eliminate Redundancy:** Avoid storing the same data multiple times. For example, instead of repeating customer information in every transaction record, you store customer details in a separate table.
- 2. Minimize Anomalies:** Reduces the chances of data anomalies like update, insert, or delete anomalies, ensuring consistent data across tables.
- 3. Improve Efficiency:** By breaking down data into smaller tables, it's easier to manage and update, especially when dealing with large datasets.

2. FACT TABLE:

Purpose: Fact tables store the measurable data or key metrics you want to analyze, such as sales amounts, quantities, or revenue.

Example: The fact table might record

- **OrderDate:** Reference to when the sale happened.
- **Product Key:** Reference to the product sold.
- **Customer Key:** Reference to the customer who made the purchase.
- **Order Quantity:** Number of units sold.
- **StockDate:** The date stock was updated or an order was fulfilled.
- **TerritoryKey:** A unique identifier for a specific sales region or territory.

3.DIMENSION TABLE:

Purpose: Dimension tables store descriptive data that gives context to the facts. They help explain the "who," "what," "when," and "where" of the data.

- 1.Customer Lookup Table:** Includes customer details like customer key, name, address, and demographics.
- 2.Product Lookup Table:** Includes product details like productkey, name, category, and price.
- 3.Calendar Lookup Table:** Includes Date, Dayname, month, quarters, and years for time-based analysis.
- 4.Territory Lookup Table:** Includes country, region, Sales territory key

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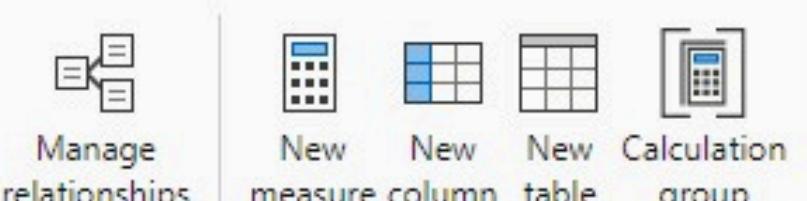
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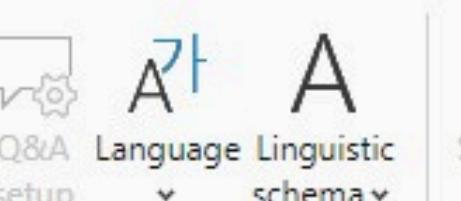
Data



Queries



Calculations



Share

Data

Territory Lookup	Customer Lookup	Calendar Lookup	Product Lookup	Product Categories Loo...	Product Subcategories Loo...
Continent	\sum AnnualIncome	Date	\sum Discount Price	CategoryName	\sum ProductCategoryKey
Country	BirthDate	Day Name	modelName	\sum ProductCategoryKey	\sum ProductSubcategoryKey
Region	\sum CustomerKey	\sum Month	ProductColor	SubcategoryName	SubcategoryName
\sum SalesTerritoryKey	Domain Name	Month Name	\sum ProductCost	Collapse ^	Collapse ^
Collapse ^	EducationLevel	Start of Month	ProductDescription		
	EmailAddress	Collapse ^	Collapse ^		
	FirstName				
	Full Name				
	Gender				
	Collapse ^				

Sales Data
\sum CustomerKey
OrderDate
\sum OrderLineItem
OrderNumber
Collapse ^

All tables +

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4. FOREIGN KEY:

Definition: A column (or a set of columns) in one table that refers to the primary key in another table.

Purpose: Establishes relationships between tables.

Columns in Sales Table:

- **Customerkey** : Foreign key linking to the Customer Lookup Table.
- **Productkey**: Foreign key linking to the Product Lookup Table.
- **OrderDate**: Foreign key linking to the Calendar Lookup Table.
- **Territory key**: Foreign key linking to the Territory Lookup Table.
- **OrderQuantity**:The number of items ordered in a transaction.
- **StockDate**:The date stock was updated or an order was fulfilled.
- **OrderNumber**:A unique identifier for each order.

5.PRIMARY KEY:

Definition: A column (or a set of columns) in a table that uniquely identifies each record in that table.

Purpose: Ensures that each row in the table is unique and can be referenced by other tables.

A. CUSTOMER LOOKUP TABLE:

Primary Key: CustomerKey

Other Columns: Anual income

Birthdate

FirstName

LastName

EmailAddress

Occupation etc...

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Transform Refresh data v

Manage relationships Relationships

New measure column New table Calculations

Calculation group

Manage roles Q&A La setup

Select a column with unique values

AnnualIncome BirthDate CustomerKey Domain Name EducationLevel EmailAddress FirstName FullName Gender HomeOwner LastName MaritalStatus

Select a column with unique values

Is hidden

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Edit

Territory Lookup	Customer Lookup	Calendar Lookup	Product Lookup	Product Categories Loo...
Continent	Σ AnnualIncome	Date	Σ Discount Price	CategoryName
Country	BirthDate	Day Name	modelName	Σ ProductCategoryKey
Region	Σ CustomerKey	Month	ProductColor	Collapse ^
SalesTerritoryKey	Domain Name	Month Name	Σ ProductCost	ProductDescription
Collapse ^	EducationLevel	Start of Month	Collapse ^	Collapse ^
	EmailAddress	Collapse ^		
	FirstName			
	Full Name			
	Gender			
	Collapse ^			

Sales Data
Σ CustomerKey
OrderDate
Σ OrderLineItem
OrderNumber
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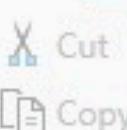
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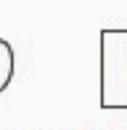
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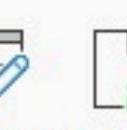
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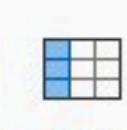
Manage relationships



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Calculation group



Manage roles



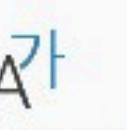
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Q&A setup



Language schema



Sensitivity



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Sensitivity



Publish

Properties

Synonyms

customer lookup, lookup

Row label

Select a row label

Key column

CustomerKey

Is hidden

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Edit

Territory Lookup

- Continent
- Country
- Region
- SalesTerritoryKey

Customer Lookup

- AnnualIncome
- BirthDate
- CustomerKey**
- Domain Name
- EducationLevel
- EmailAddress
- FirstName
- Full Name
- Gender

Calendar Lookup

- Date
- Day Name
- Month**
- Month Name
- Start of Month

Product Lookup

- Discount Price
- modelName
- ProductColor
- ProductCost**
- ProductDescription

Product Categories Loo...

- CategoryName
- ProductCategoryKey**

Sales Data

- CustomerKey
- OrderDate
- OrderLineItem**
- OrderNumber

All tables

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B. PRODUCT LOOKUP TABLE:

Primary Key: ProductKey

Other Columns: Product Name

Product Price

ProductSKU

ProductColor

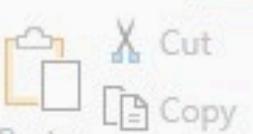
ProductStyle

ProductCost

ModelName

ProductSubcategorykey etc..

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Queries

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Relationships

New measure column New table Calculation group

Calculations

Manage roles View Q&A La setup

Security

Select a column with unique values

Discount Price
modelName
ProductColor
ProductCost

ProductDescription

ProductKey

ProductName

ProductPrice

ProductSKU

ProductStyle

ProductSubcategoryKey

SKUType

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Edit

Territory Lookup

Continent
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Region
SalesTerritoryKey
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Customer Lookup

AnnualIncome
BirthDate
CustomerKey
Domain Name
EducationLevel
EmailAddress
FirstName
Full Name
Gender
Collapse ^

Calendar Lookup

Date
Day Name
Month
Month Name
Start of Month
Collapse ^

Product Lookup

Discount Price
modelName
ProductColor
ProductCost
ProductDescription
ProductKey
ProductName
ProductPrice
Collapse ^

Product Categories Loo...

CategoryName
ProductCategoryKey
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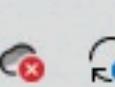
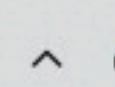
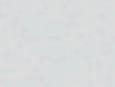
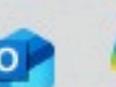
Sales Data

CustomerKey
OrderDate
OrderLineItem
OrderNumber
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All tables



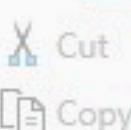
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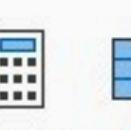
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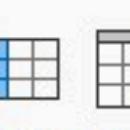
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New table



Calculation group



Manage roles



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Q&A setup



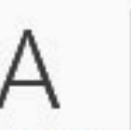
Language schema



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Sensitivity



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Territory Lookup

Continent

Country

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SalesTerritoryKey

Collapse ^

Customer Lookup

AnnualIncome

BirthDate

CustomerKey

Domain Name

EducationLevel

EmailAddress

FirstName

Full Name

Gender

Collapse ^

Calendar Lookup

Date

Day Name

Month

Month Name

Start of Month

Collapse ^

Product Lookup

Discount Price

modelName

ProductColor

ProductCost

ProductDescription

ProductKey

ProductName

ProductPrice

Collapse ^

Product Categories Loo...

CategoryName

ProductCategoryKey

Collapse ^

Properties

Synonyms

product lookup, lookup

Row label

Select a row label

Key column

ProductKey

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 No

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Edit

Sales Data

CustomerKey

OrderDate

OrderLineItem

OrderNumber

Collapse ^

All tables



C. CALENDAR LOOKUP TABLE:

Primary Key: Date

Other Columns:

DayName

Month

MonthName

StartofMonth

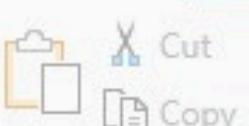
StartofQuarter

StartofWeek

StartofYear

Year

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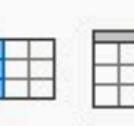
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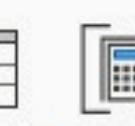
Manage relationships



New measure



New column



New table



Calculation group



Manage roles



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Q&A setup



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Select a column with unique values

Date

Day Name

Month

Month Name

Start of Month

Start of Quarter

Start of Week

Start of Year

Year

Select a column with unique values

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Enter data



Recent sources



Refresh data



Relationships



New measure



New column



New table



Calculation group



Manage roles



View as



Q&A setup



Language schema



Sensitivity



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Sensitivity



Publish

Territory Lookup

- Continent
- Country
- Region
- SalesTerritoryKey

Customer Lookup

- AnnualIncome
- BirthDate
- CustomerKey
- Domain Name
- EducationLevel
- EmailAddress
- FirstName
- Full Name
- Gender

Calendar Lookup

- Date
- Day Name
- Month
- Month Name
- Start of Month

Product Lookup

- Discount Price
- modelName
- ProductColor
- ProductCost
- ProductDescription

Product Categories Loo...

- CategoryName
- ProductCategoryKey

Sales Data

- CustomerKey
- OrderDate
- OrderLineItem
- OrderNumber

All tables



Properties

Synonyms

calendar lookup, lookup

Row label

Select a row label

Key column

Date

Is hidden

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D. TERRITORY LOOKUP TABLE:

Primary Key: SalesTerritoryKey

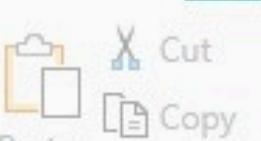
Other Columns:

Continet

Country

Region

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Transform Refresh data

Manage relationships New measure New column New table Calculation group

Manage roles View as

Q&A setup Language schema A Sensitivity

Sensitivity Publish

Clipboard



Territory Lookup

Continent
Country
Region
 \sum SalesTerritoryKey
Collapse ^

Customer Lookup

\sum AnnualIncome
BirthDate
 \sum CustomerKey
Domain Name
EducationLevel
EmailAddress
FirstName
Full Name
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Calendar Lookup

Date
Day Name
 \sum Month
Month Name
Start of Month
Collapse ^

Product Lookup

\sum Discount Price
modelName
ProductColor
 \sum ProductCost
ProductDescription
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Product Categories Loo...

CategoryName
 \sum ProductCategoryKey
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Sales Data

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OrderDate
 \sum OrderLineItem
OrderNumber
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Properties

Synonyms

territory lookup, lookup

Row label

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Key column

Select a column with unique values

Select a column with unique values

Continent

Country

Region

SalesTerritoryKey

All tables

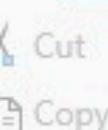


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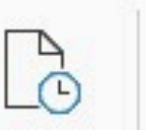
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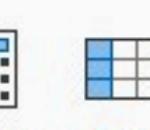
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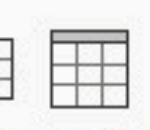
Manage relationships



New measure



New column



New table



Calculation group



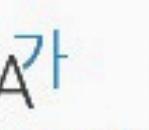
Manage roles



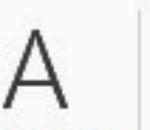
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Q&A setup



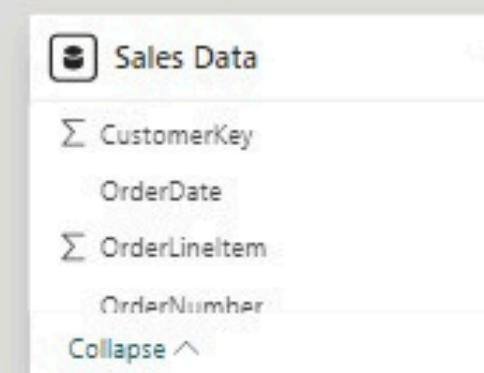
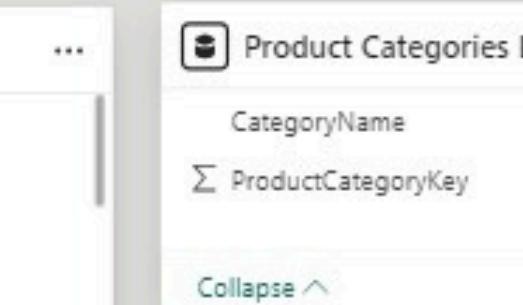
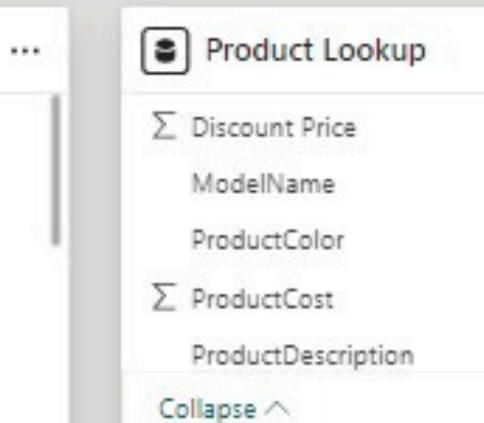
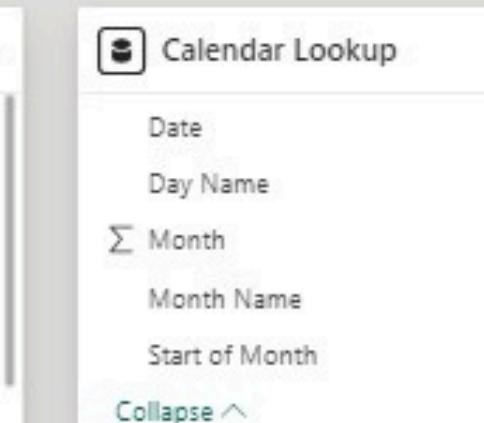
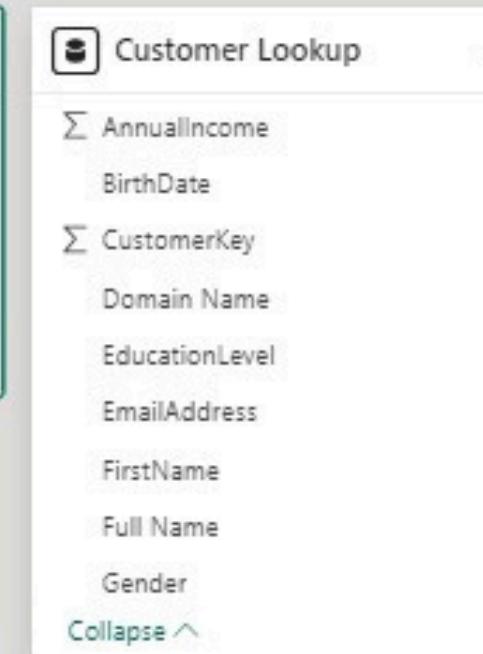
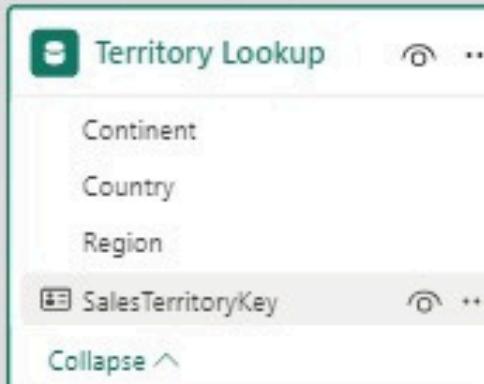
Language schema



Sensitivity



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Properties

Enter a description

Synonyms

territory lookup, lookup

Row label

Select a row label

Key column

SalesTerritoryKey

Is hidden

 No

Is featured table

 No

All tables +

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E. PRODUCT CATEGORIES LOOKUP TABLE:

Primary Key: ProductCategoryKey

Other Columns: CategoryName

F. PRODUCT SUB CATEGORIES LOOKUP TABLE:

Primary Key: ProductSubCategoryKey

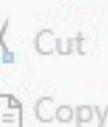
Other Columns: ProductCategoryKey

SubCategoryName

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New measure



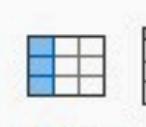
New column



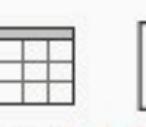
New table



Calculation group



Manage roles



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Q&A setup



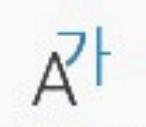
Language schema



Sensitivity



Sensitivity



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Customer Lookup

AnnualIncome

BirthDate

CustomerKey

Domain Name

EducationLevel

EmailAddress

FirstName

Full Name

Gender

Collapse ^

Calendar Lookup

Date

Day Name

Month

Month Name

Start of Month

Collapse ^

Product Lookup

Discount Price

modelName

ProductColor

ProductCost

ProductDescription

ProductKey

ProductName

ProductPrice

Collapse ^

Product Categories Loo...

CategoryName

ProductCategoryKey

SubcategoryName

Collapse ^

Product Subcategories Lookup

ProductCategoryKey

ProductSubcategoryKey

SubcategoryName

Collapse ^

Properties

Synonyms

product categories lookup, product category lookup, lookup, categories lookup, category lookup

Row label

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Key column

Select a column with unique values

Select a column with unique values

CategoryName

ProductCategoryKey

No

Edit

Sales Data

CustomerKey

OrderDate

OrderLineItem

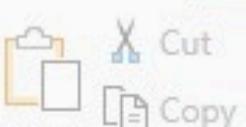
OrderNumber

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All tables



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Recent sources



Refresh data



New measure



New column



New table



Calculation group



Manage roles



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Customer Lookup

AnnualIncome

BirthDate

CustomerKey

Domain Name

EducationLevel

EmailAddress

FirstName

Full Name

Gender

Collapse ^

Calendar Lookup

Date

Day Name

Month

Month Name

Start of Month

Collapse ^

Product Lookup

Discount Price

modelName

ProductColor

ProductCost

ProductDescription

ProductKey

ProductName

ProductPrice

Collapse ^

Product Categories Loo...

CategoryName

ProductCategoryKey

SubcategoryName

Collapse ^

Product Subcategories Lookup

ProductCategoryKey

ProductSubcategoryKey

SubcategoryName

Collapse ^

Sales Data

CustomerKey

OrderDate

OrderLineItem

OrderNumber

Collapse ^

Properties

Synonyms

product subcategories lookup, product subcategory lookup, lookup, subcategories lookup, subcategory lookup

Row label

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Key column

Select a column with unique values

Select a column with unique values

ProductCategoryKey

ProductSubcategoryKey

SubcategoryName

Edit

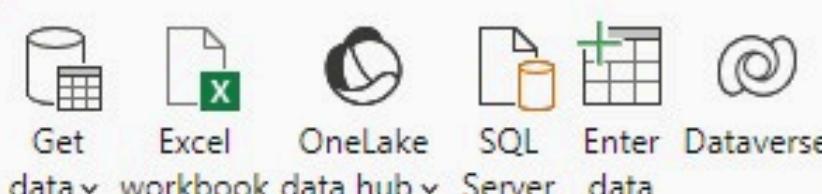
All tables



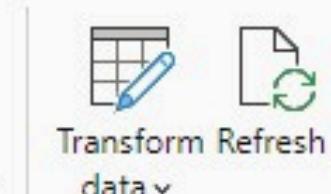
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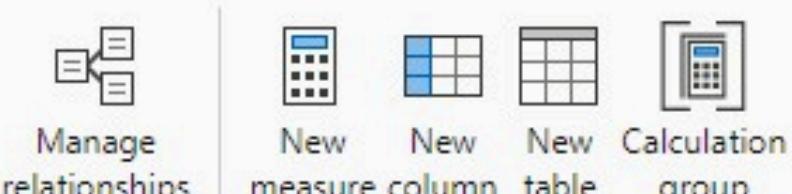
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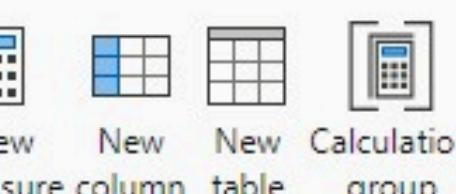
Data



Queries



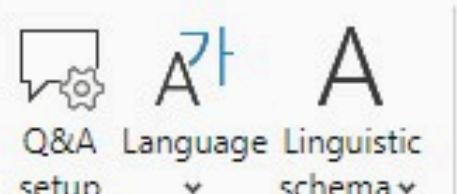
Relationships



Calculations



Security



Q&A



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Share



Customer Lookup ...

- CustomerKey
- Date
- DayName
- Month
- MonthName
- StartOfMonth

Collapse ^

Calendar Lookup ...

- Date
- DayName
- Month
- MonthName
- StartOfMonth

Collapse ^

Product Lookup ...

- DiscountPrice
- ModelName
- ProductColor
- ProductCost
- ProductDescription
- ProductKey
- ProductName
- ProductPrice

Collapse ^

Product Categories Look... ...

- CategoryName
- ProductCategoryKey

Collapse ^

Product Subcategories Lookup ...

- ProductCategoryKey
- ProductSubcategoryKey
- SubcategoryName

Collapse ^

Sales Data ...

- CustomerKey
- OrderDate
- OrderLineItem
- OrderNumber

Collapse ^

All tables +

Properties

Synonyms

product subcategories lookup, product subcategory lookup, lookup, subcategories lookup, subcategory lookup

Row label

Select a row label

Key column

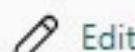
ProductSubcategoryKey

Is hidden

No

Is featured table

No



6. CREATING TABLE RELATIONSHIPS:

Creating table relationships involves linking tables in a database or Power BI model to enable meaningful data analysis. These relationships define how data in one table is connected to data in another, ensuring that the model is well-structured and easy to query.

Establish Relationships:

- **One-to-Many (1:M):** One record in the primary table matches multiple records in the other (example: one customer → many orders).
- **Many-to-Many (M:M):** Multiple records in both tables relate to each other (example: many products ↔ many orders).
- **One-to-One (1:1):** One record in one table matches one record in the other (example: one employee → one profile)

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Clipboard

Territory Lookup

- Continent
- Country
- Region

SalesTerritoryKey

Collapse ▲

All tables +

Manage relationships

+ New relationship Autodetect Edit Delete Filter

From: table (column) ↑ Relationship To: table (column) Status

There are no relationships defined yet.

Close

Sign in Share

Sensitivity Publish

category lookup, product lookup, lookup, subcategories category lookup

w label

categoryKey

table

Edit

22°C 10:31 PM
Partly cloudy ENG IN 09-12-2024

Search

Cloudy icon

Windows Start button

File Explorer icon

Microsoft Edge icon

OneDrive icon

Phone icon

Google Chrome icon

Power BI icon

Wi-Fi icon

Battery icon

Speaker icon

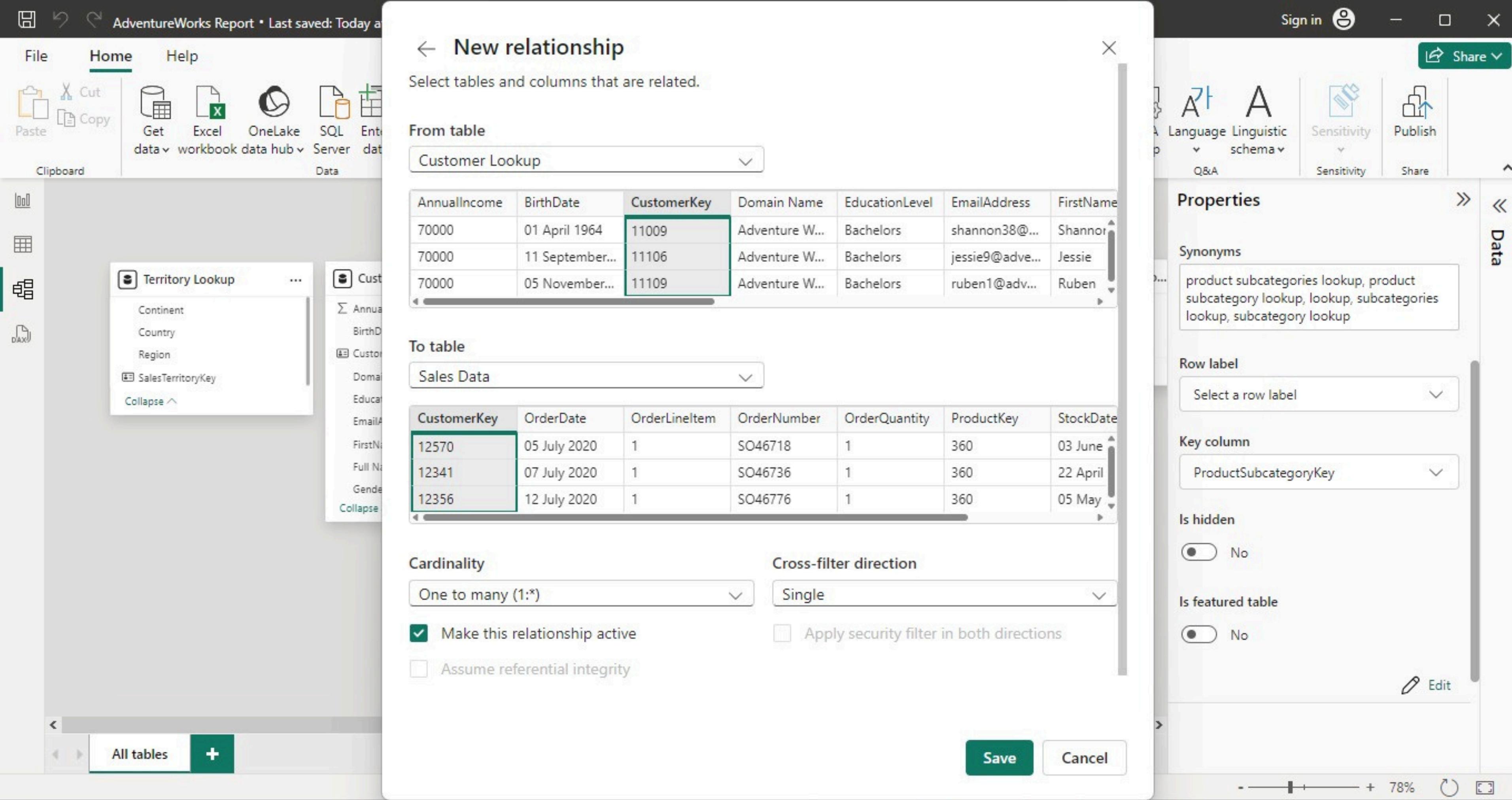
Screen rotation icon

Zoom in/out icon

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Data



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Territory Lookup

- Continent
- Country
- Region
- SalesTerritoryKey

All tables +

Manage relationships

+ New relationship Autodetect

Edit Delete Filter

From: table (column) ↑	Relationship	To: table (column)	Status
Sales Data (CustomerKey)		Customer Lookup (CustomerK...)	Active

CustomerKey

(*:1)

CustomerKey

relationship active

irection

filter in both directions

Apply changes

Open relationship editor

Close

78%

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Search

ENG IN

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Clipboard Data

Properties ><

Relationship

Territory Lookup ... Customer Lookup ... Calendar Lookup ... Product Lookup ... Product Categories Loo... Sales Data CustomerKey

Continent Country Region SalesTerritoryKey

AnnualIncome BirthDate Date Day Name Month Month Name Start of Month

CustomerKey Domain Name EducationLevel EmailAddress FirstName FullName Gender

Discount Price ModelName ProductColor ProductCost ProductDescription ProductKey ProductName ProductPrice

CategoryName ProductCategoryKey

Cardinality Many to one (*:1)

Customer Loo... CustomerKey

Make this relationship active Yes

Cross-filter direction Single

Apply security filter in both directions No

Apply changes Open relationship editor

All tables +

22°C Partly cloudy Search ENG IN 10:34 PM 09-12-2024

Diagram showing relationships between tables:

- Sales Data** (CustomerKey, OrderDate, OrderLineItem, OrderNumber) is connected to **Customer Lookup** (CustomerKey).
- Sales Data** (CustomerKey, OrderDate, OrderLineItem, OrderNumber) is connected to **Product Lookup** (ProductKey).
- Customer Lookup** (CustomerKey) is connected to **Territory Lookup** (SalesTerritoryKey).

The relationship between Sales Data and Customer Lookup is active and set to "Single" cross-filter direction.

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Territory Lookup ...

Continent Country Region SalesTerritoryKey

Customer L AnnualIncome BirthDate CustomerKey Domain Name EducationLevel EmailAddress FirstName Full Name Gender

Sales Data

Date	OrderLineItem	OrderNumber	OrderQuantity	ProductKey	StockDate	TerritoryKey
2020	1	SO46718	1	360	03 June 2020	9
2020	1	SO46736	1	360	22 April 2020	9
2020	1	SO46776	1	360	05 May 2020	9

To table Territory Lookup

Continent	Country	Region	SalesTerritor...
North America	United States	Northwest	1
North America	United States	Northeast	2
North America	United States	Central	3

Cardinality Many to one (*:1)

Cross-filter direction Single

Make this relationship active

Apply security filter in both directions

Assume referential integrity

Save Cancel

Properties

Name TerritoryKey

Description Enter a description

Synonyms territory key, TerritoryKey, key

Display folder Enter the display folder

Is hidden No

78% 10:36 PM 09-12-2024

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File Home Help

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Territory Lookup ...

Continent
Country
Region
SalesTerritoryKey
Collapse ^

Customer L

AnnualIncome
BirthDate
CustomerKey
Domain Name
EducationLevel
EmailAddress
FirstName
Full Name
Gender
Collapse ^

All tables +

New relationship

Select tables and columns that are related.

From table

Sales Data

CustomerKey	OrderDate	OrderLineItem	OrderNumber	OrderQuantity	ProductKey	StockDate
12570	05 July 2020	1	SO46718	1	360	03 June
12341	07 July 2020	1	SO46736	1	360	22 April
12356	12 July 2020	1	SO46776	1	360	05 May

To table

Calendar Lookup

Date	Day Name	Month	Month Name	Start of Month	Start of Quarter	Start of Year
01 July 2020	Wednesday	7	July	01 July 2020	01 July 2020	29-06-2020
02 July 2020	Thursday	7	July	01 July 2020	01 July 2020	29-06-2020
03 July 2020	Friday	7	July	01 July 2020	01 July 2020	29-06-2020

Cardinality

Many to one (*:1)

Make this relationship active

Assume referential integrity

Cross-filter direction

Single

Apply security filter in both directions

Save Cancel

Properties

Name OrderDate

Description Enter a description

Synonyms order date, OrderDate, date

Display folder Enter the display folder

Is hidden No

Language A

Sensitivity

Q&A

Sensitivity

Share

Sign in ENG IN

22°C Partly cloudy

Search

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Clipboard

Territory Lookup Customer L AnnualIncome BirthDate CustomerKey Domain Name EducationLevel EmailAddress FirstName Full Name Gender

Product Lookup

ModelName	ProductColor	ProductDescri...	ProductKey	ProductName	ProductSKU	ProductSt...
Sport-100	Black	Universal fit, ...	215	Sport-100 Hel...	HL-U509	N/A
LL Road Frame	Black	The LL Frame ...	253	LL Road Fram...	FR-R38B-58	U
LL Road Frame	Black	The LL Frame ...	256	LL Road Fram...	FR-R38B-60	U

Sales Data

CustomerKey	OrderDate	OrderLineItem	OrderNumber	OrderQuantity	ProductKey	StockDate
12570	05 July 2020	1	SO46718	1	360	03 June
12341	07 July 2020	1	SO46736	1	360	22 April
12356	12 July 2020	1	SO46776	1	360	05 May

New relationship

Select tables and columns that are related.

From table: Product Lookup

To table: Sales Data

Cardinality: One to many (1:*)

Cross-filter direction: Single

Make this relationship active

Assume referential integrity

Apply security filter in both directions

Save Cancel

Sign in Share

Language Sensitivity Publish

Properties

General

Name: ProductKey

Description: Enter a description

Synonyms: product key, ProductKey, key

Display folder: Enter the display folder

Is hidden: No

22°C Partly cloudy

Search

10:40 PM 09-12-2024

File Home Help



Paste



Cut



Copy



Get data



workbook



data hub



SQL Server



Enter data



Recent sources



Refresh



data



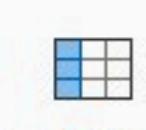
Relationships



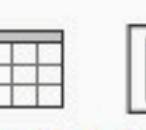
measure



column



table



group



roles



as



setup



schema



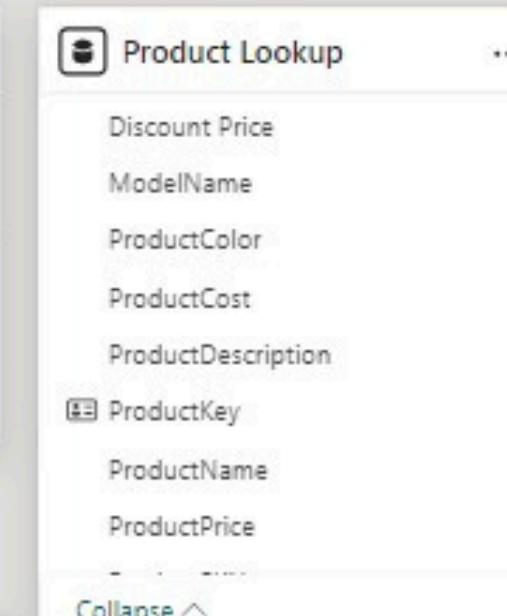
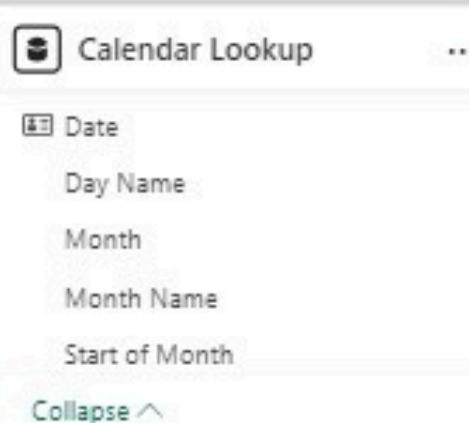
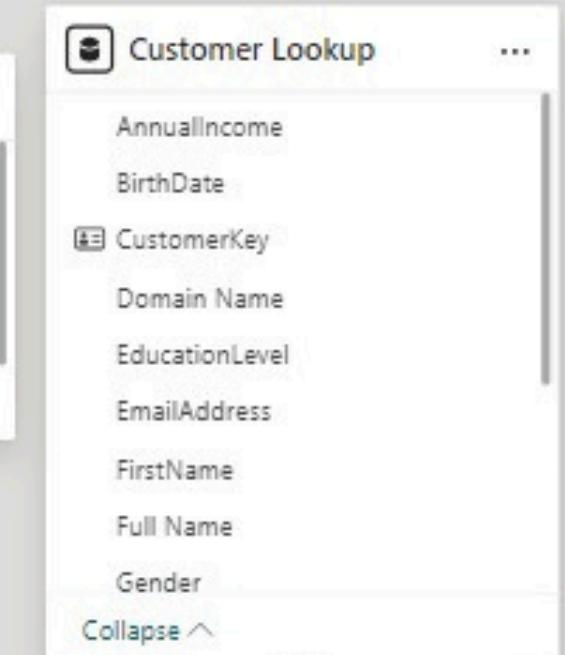
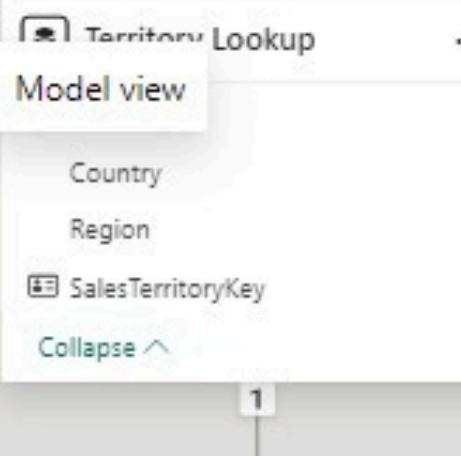
Sensitivity



Publish

Clipboard

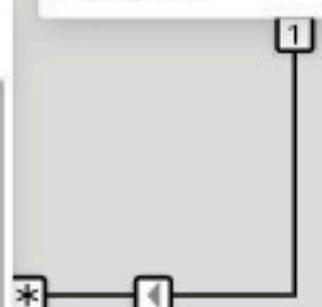
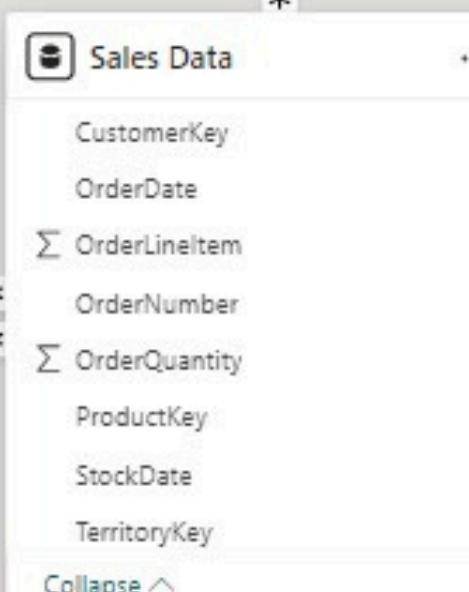
Model view



CategoryName

ProductCategoryKey

Collapse ^



Properties

Relationship

Table Column

Sales Data ProductKey

Cardinality

Many to one (*:1)

Table Column

Product Lookup ProductKey

Make this relationship active

Yes

Cross-filter direction

Single

Apply security filter in both directions

No

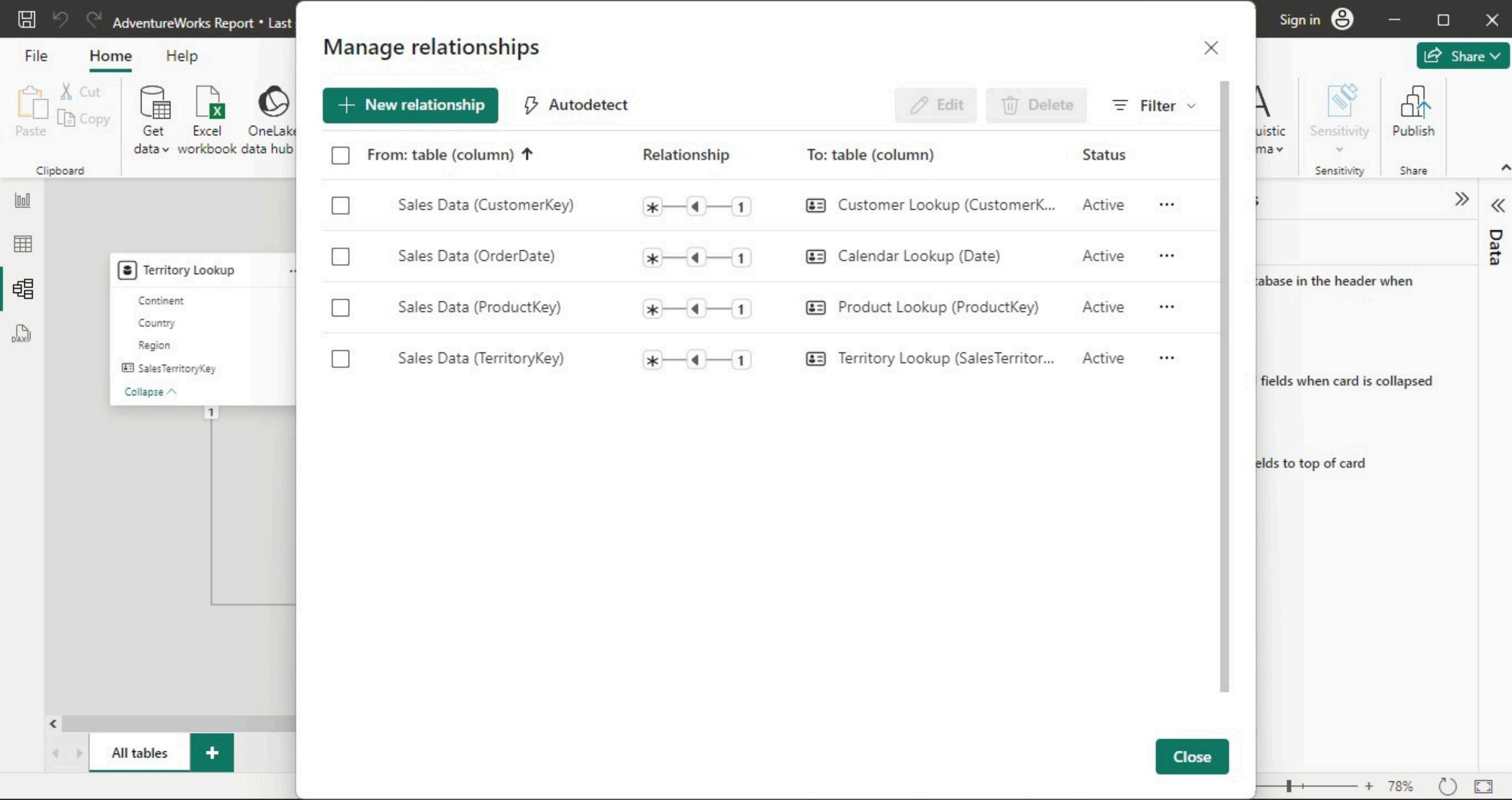
Apply changes

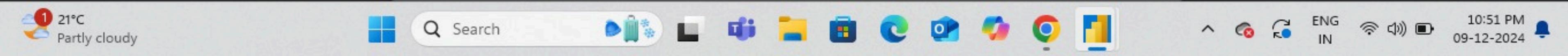
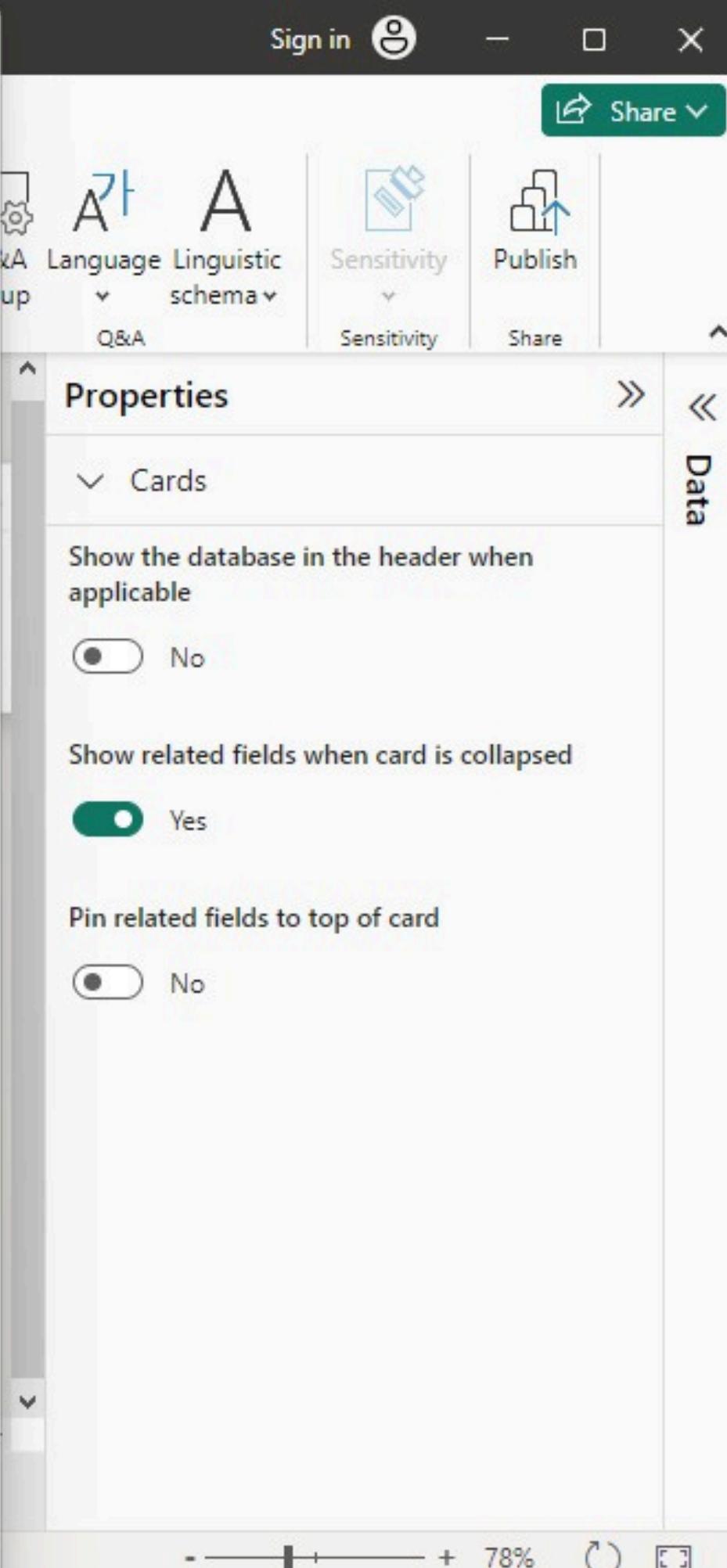
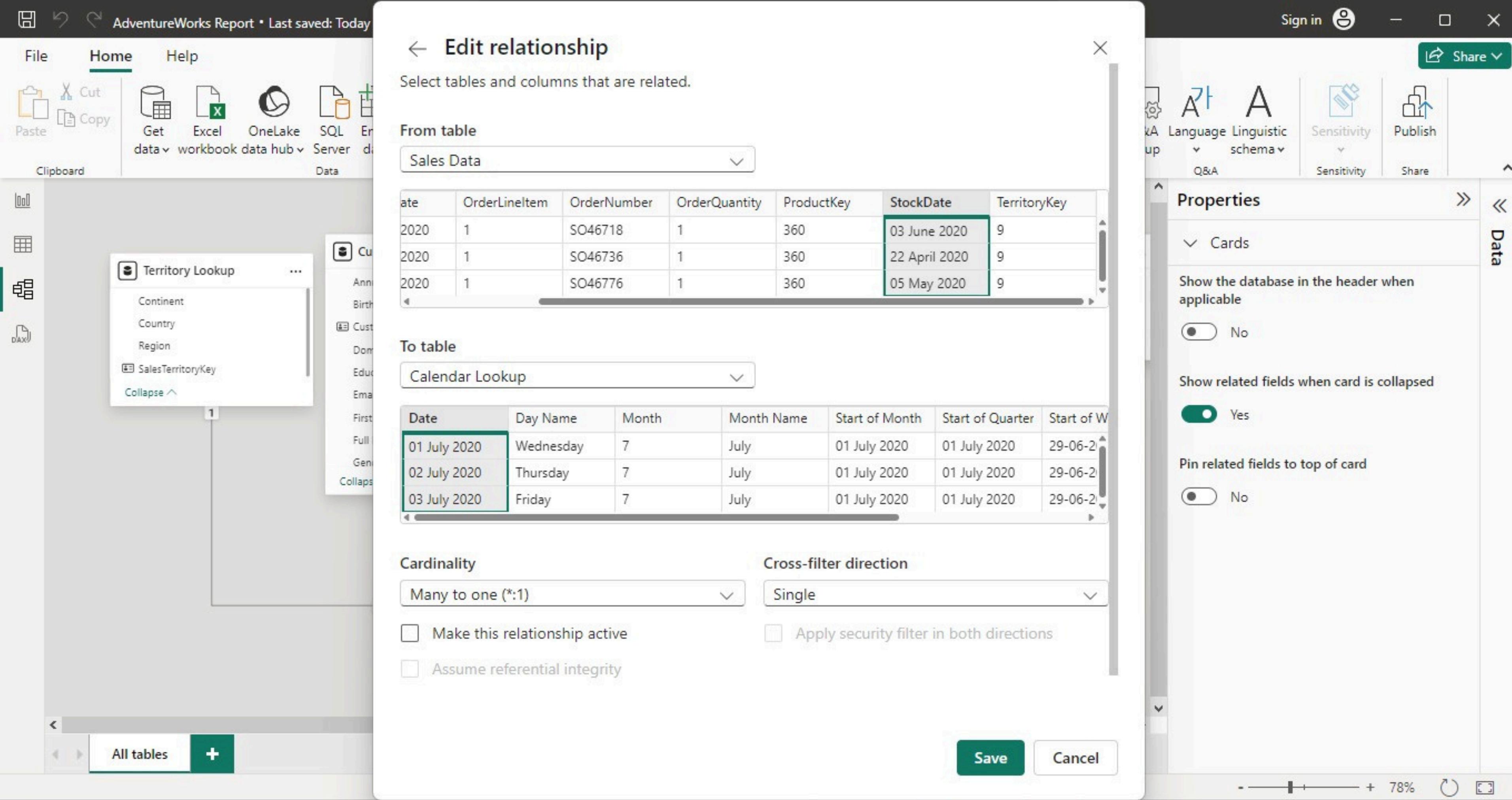
Open relationship editor

All tables +

7. MANAGING AND EDITING RELATIONSHIPS:

- Review the relationships between tables to ensure they are correct.
- Adjust keys or relationships if they are not working as expected.
- Check relationship types (example: one-to-Many, Many-to-Many) to ensure accurate data connections.
- Update table connections to maintain accurate and meaningful analysis.
- Test and validate the relationships after editing to confirm the data is linked properly.





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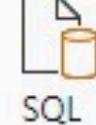
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data

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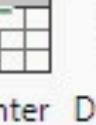
Data

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SQL

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Data

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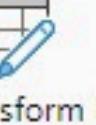
sources

[Transform](#) [Refresh](#) [data](#)

Transform

data

v

[Manage relationships](#) [New measure column](#) [New table](#) [Calculation group](#)

Manage

relationships

Relationships

[New measure column](#) [New table](#) [Calculation group](#)

New

measure column

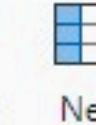
v

[Manage roles](#) [View as](#) [Q&A setup](#) [Language schema](#)

Manage

roles

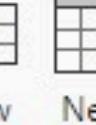
Security



View

as

v

[Sensitivity](#) [Linguistic schema](#) [Q&A](#) [Sensitivity](#)

Sensitivity

v

Sensitivity

[Publish](#) [Share](#)

Publish

v

Share

Properties

Relationship

Table	Column
Sales Data	StockDate

Cardinality
Many to one (*:1)

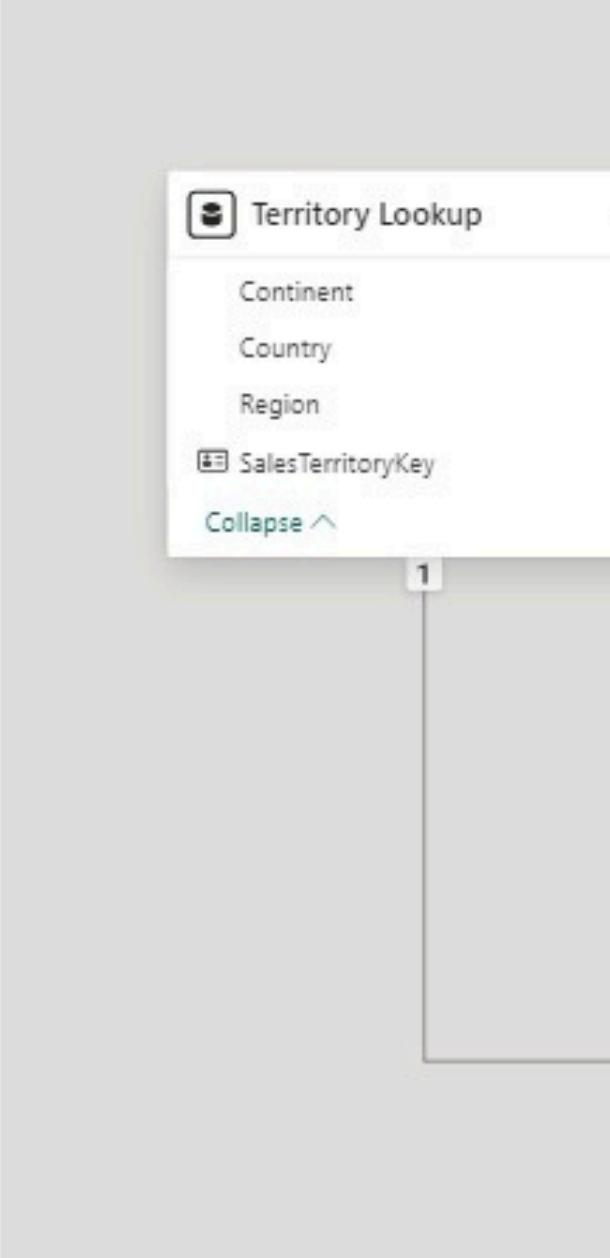
Table	Column
Calendar Look...	Date

Make this relationship active

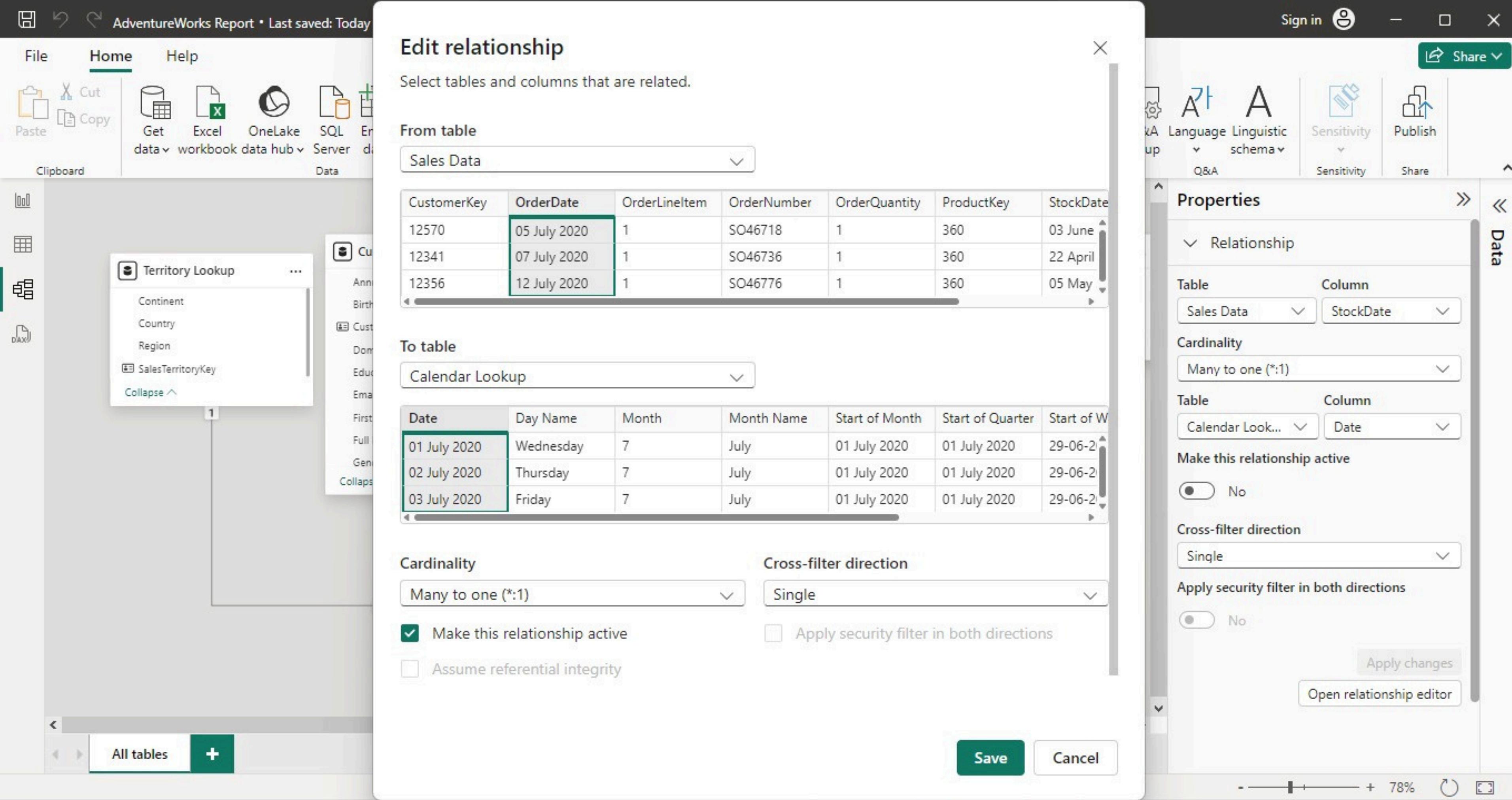
 No

Cross-filter direction

Apply security filter in both directions

 No[All tables](#) [+](#)

- + 78%



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workbook data hub v Enter data Recent sources v

Transform Refresh data v
data

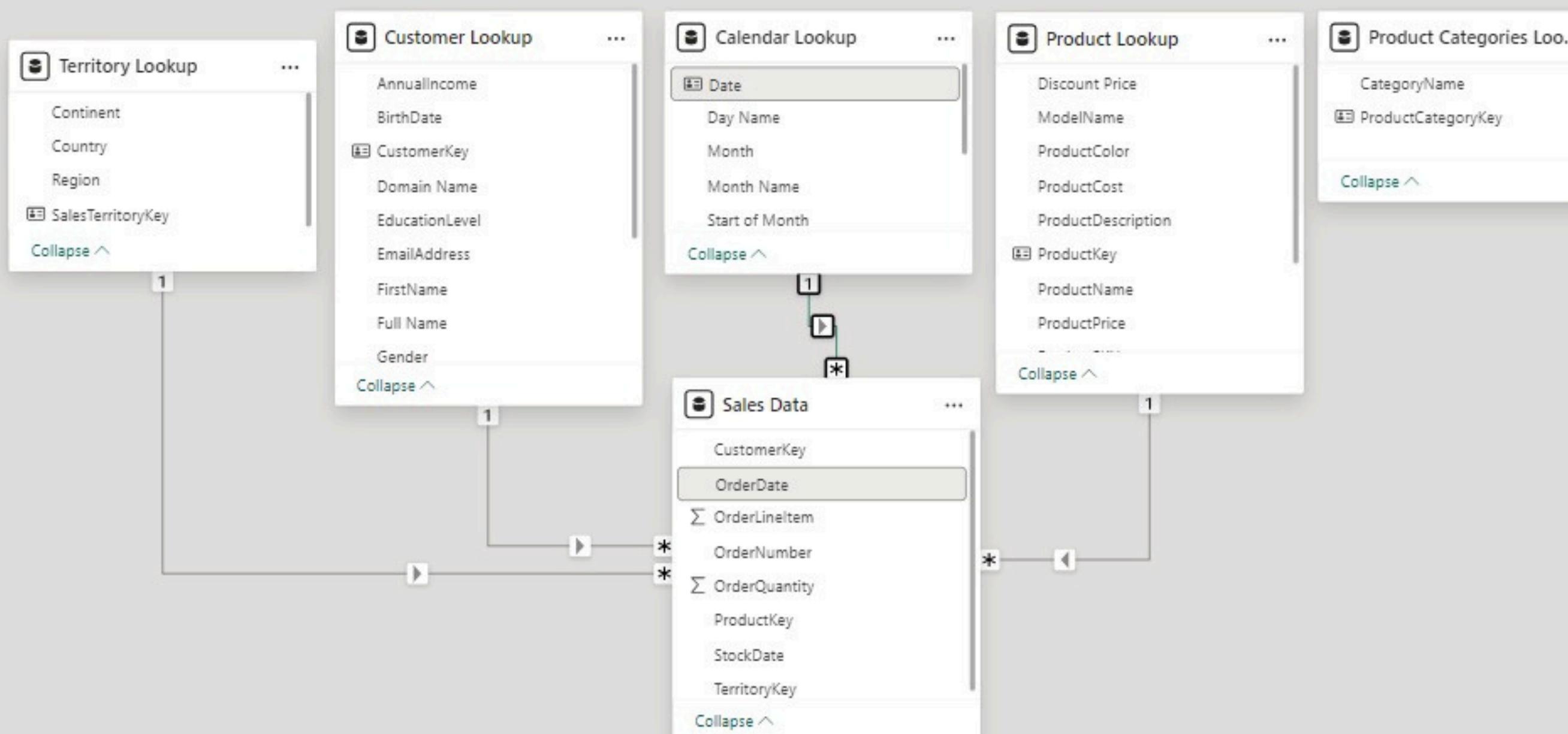
Manage relationships
New measure column New table Calculation group
Relationships Calculations

Manage roles View as
Security

Q&A setup Language schema v
Q&A

Sensitivity v
Sensitivity

Publish Share



Properties

Relationship

Table Column
Sales Data OrderDate

Cardinality
Many to one (*:1)

Table Column
Calendar Look... Date

Make this relationship active

Yes

Cross-filter direction

Single

Apply security filter in both directions

No

Apply changes

Open relationship editor

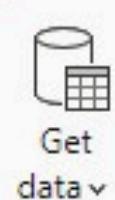
All tables +

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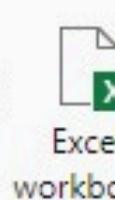
File Home Help



Clipboard



Get data



workbook



data hub



Server



data



Recent sources



Refresh data



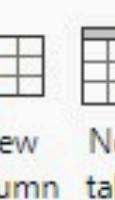
Relationships



column



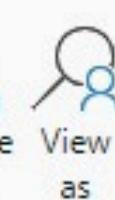
table



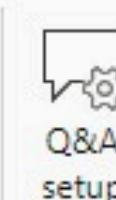
group



roles



Security



setup



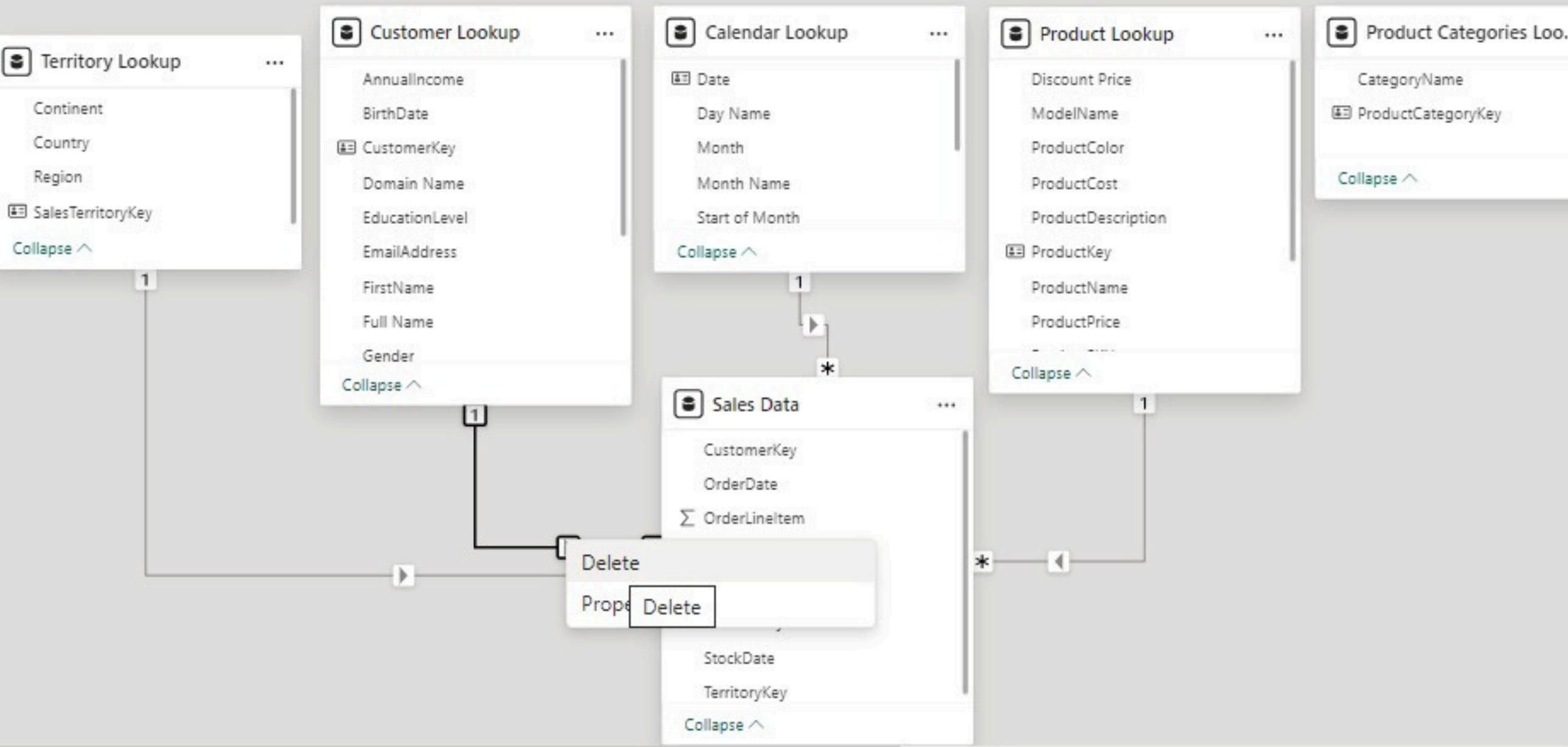
schema



Sensitivity



Share



Properties

Relationship

Table	Column
Sales Data	CustomerKey

Cardinality
Many to one (*:1)

Table	Column
Customer Loo...	CustomerKey

Make this relationship active

 Yes

Cross-filter direction

Single

Apply security filter in both directions

 No

Apply changes

Open relationship editor

All tables +

- + 78%

File Home Help



Clipboard



Get data



workbook



data hub



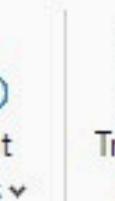
SQL Server



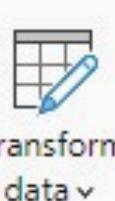
Enter data



Recent sources



Refresh data



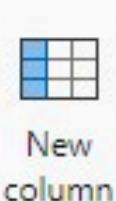
Relationships



measure column



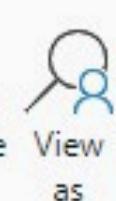
table



Calculation group



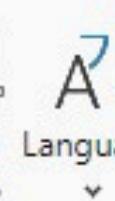
roles



Security



Q&A setup



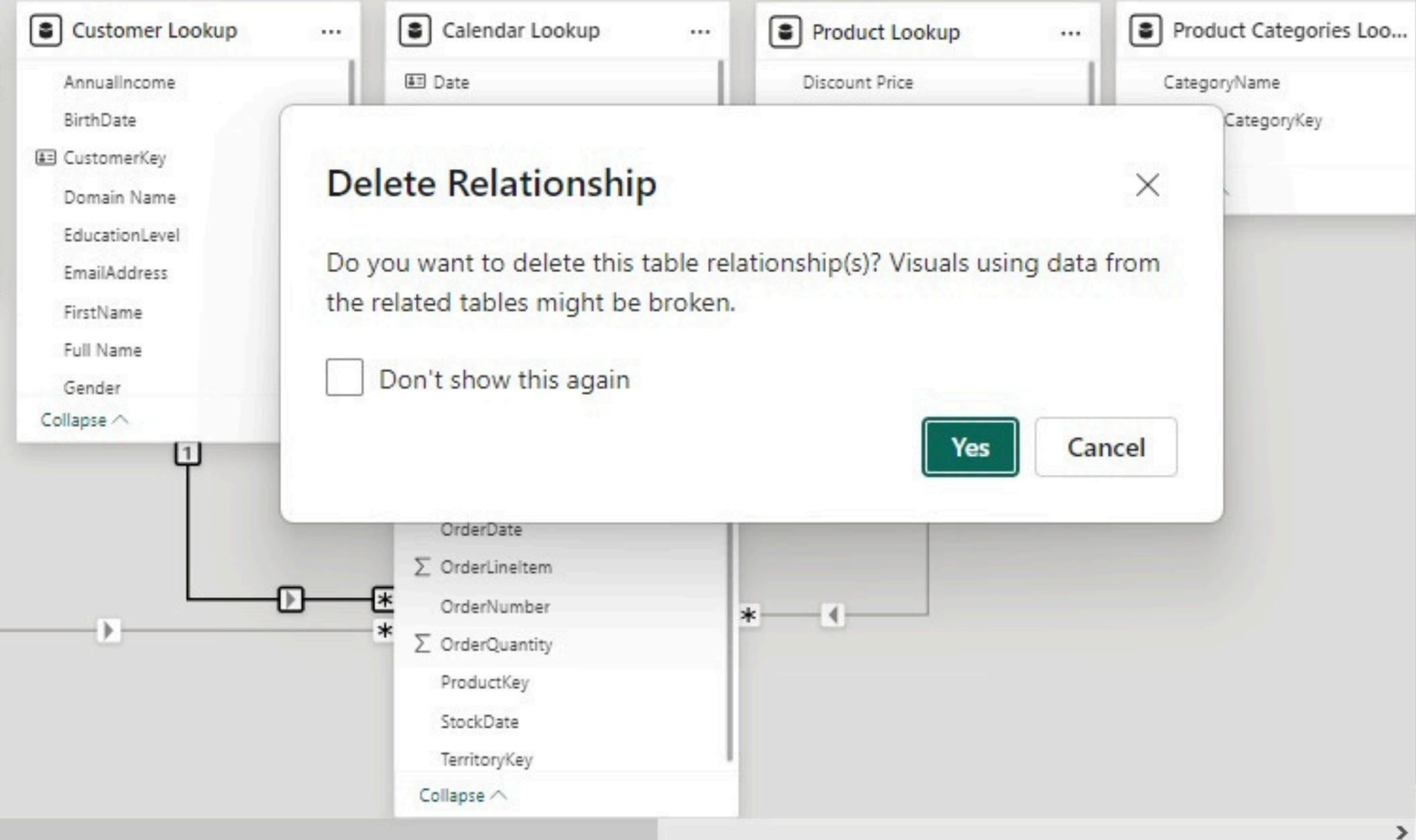
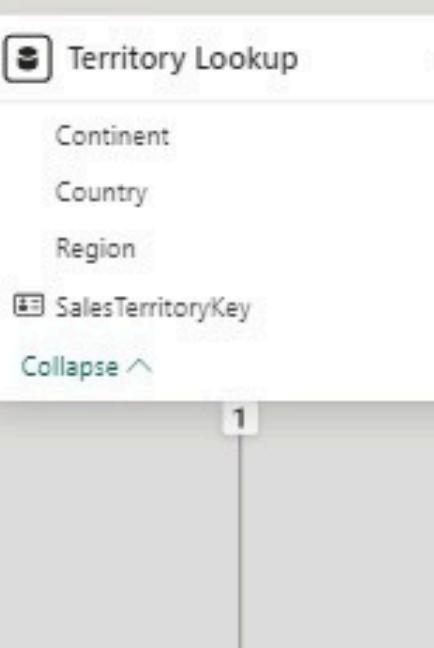
language schema



Sensitivity



Publish



Properties

Relationship

Table	Column
Sales Data	CustomerKey
Customer Loo...	CustomerKey

Cardinality	Many to one (*:1)
-------------	-------------------

Table	Column
Customer Loo...	CustomerKey

Make this relationship active

Yes

Cross-filter direction

Single

Apply security filter in both directions

No

Apply changes

Open relationship editor

All tables **+**

- + 78%

File Home Help



Get data v Excel OneLake SQL Server Data
workbook data hub v Enter data Recent sources v

Transform Refresh data v
Queries

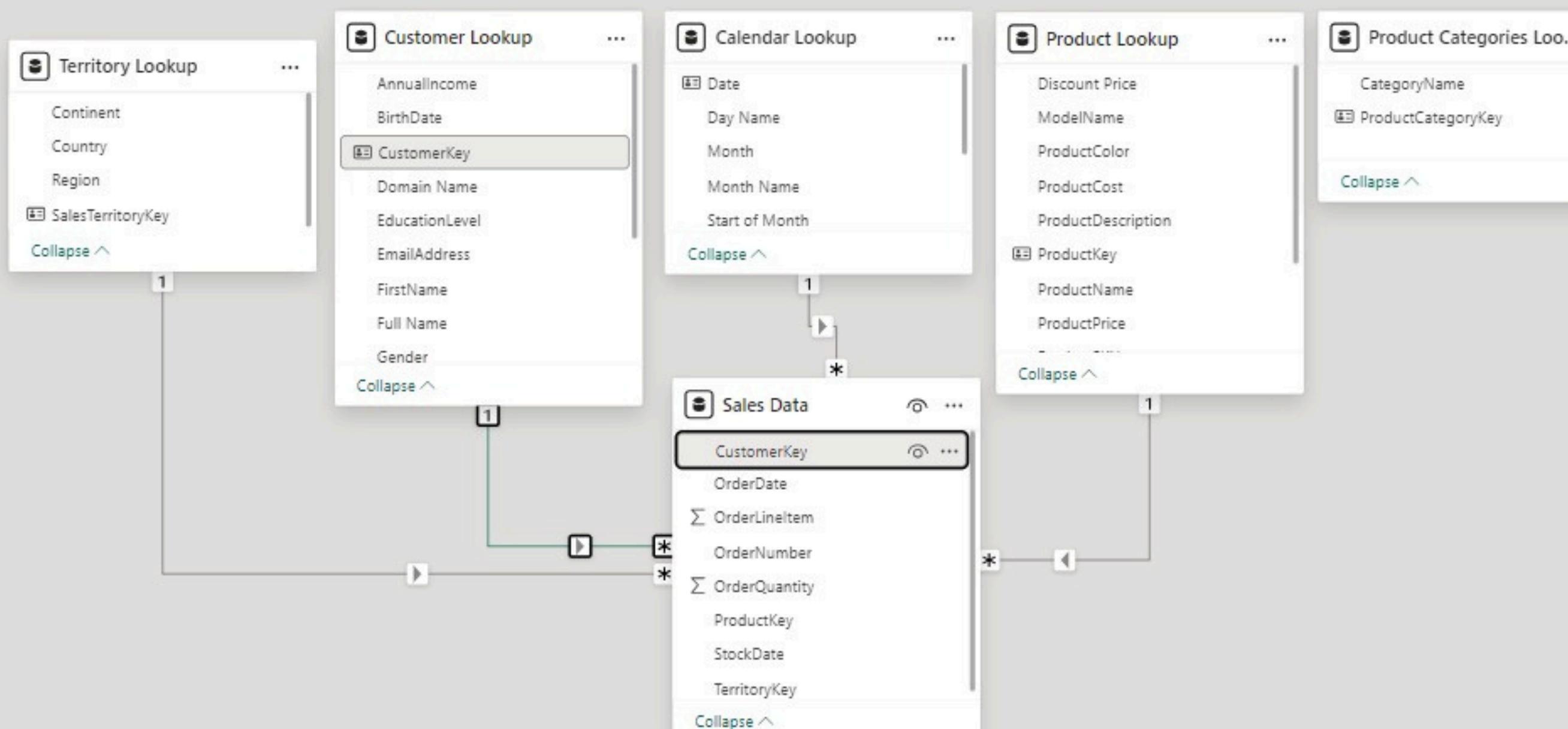
Manage relationships
Relationships

New measure column v
New table v
Calculation group

Manage roles v
View as
Security

Q&A setup v
Language schema v
Sensitivity v

Sensitivity v
Publish Share



Properties

Relationship

Table Column
Sales Data CustomerKey

Cardinality
Many to one (*:1)

Table Column
Customer Loo... CustomerKey

Make this relationship active

Yes

Cross-filter direction

Single

Apply security filter in both directions

No

Apply changes

Open relationship editor

All tables +

- + 78%

**THANK
YOU!**

