

13/09/2023

Introduction to Power BI (Business Intelligence)

Power BI Data Sources

Before Power BI, there were various plugins:

- Power Query
- Power Pivot
- Power View
- Power Map

Power Query is a Data Transformation and Data Preparation tool included with Microsoft Excel and Microsoft Power BI.

Power Query streamlines the process of importing data from a variety of file types

Power Query editor uses M language.

Power BI Data Modelling

Data Profiling

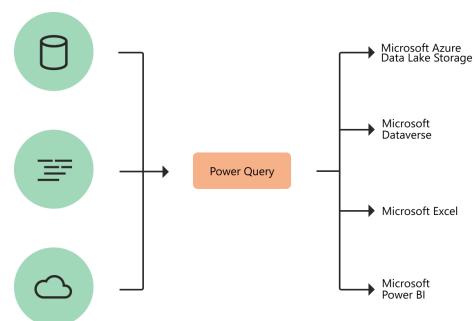
1.Column quality

2.Column distribution

3.Column profile

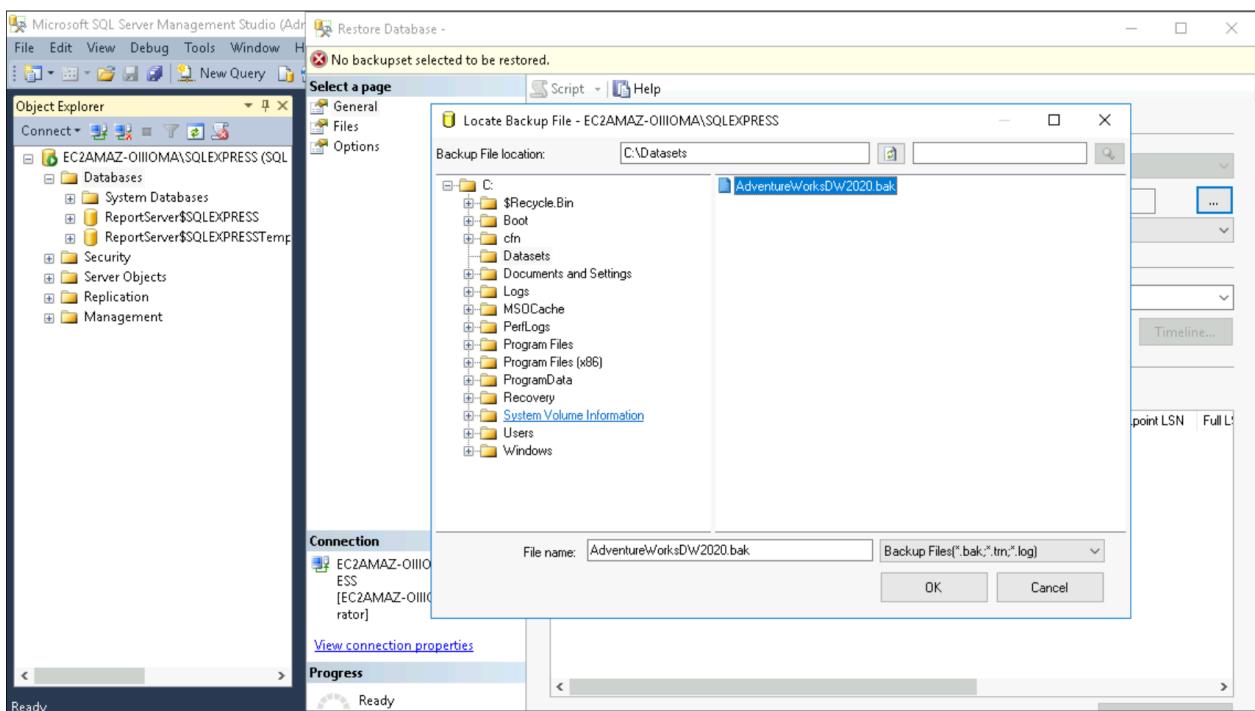
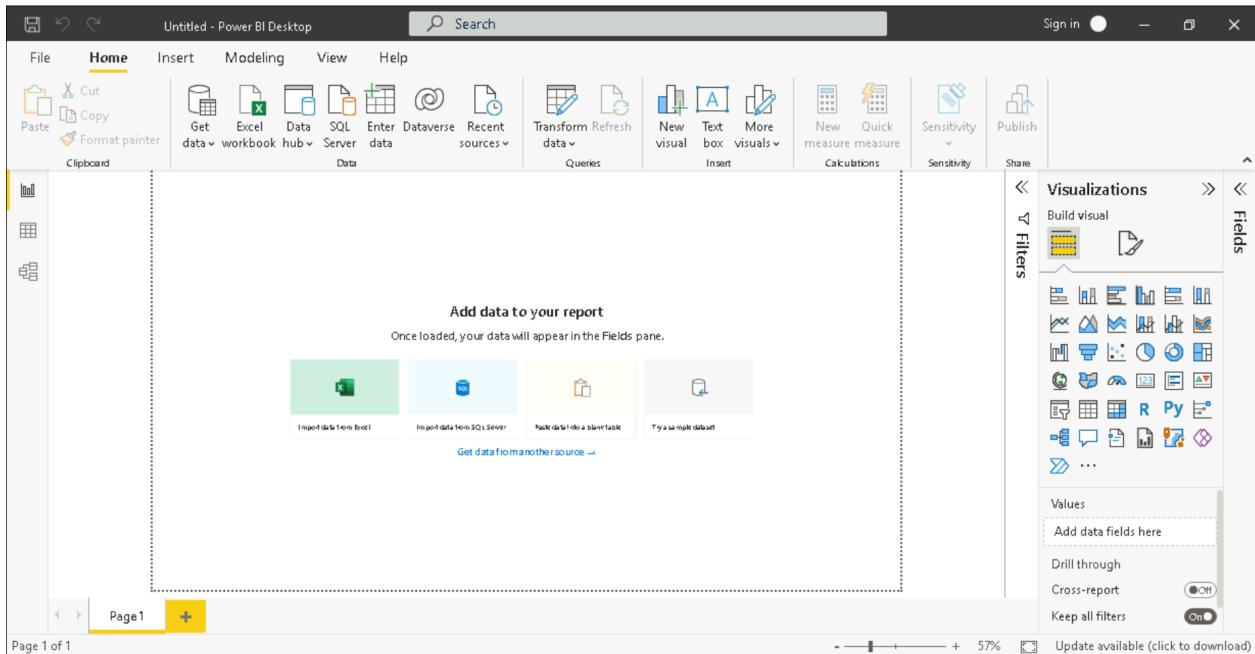
DAX - Data Analysis Expression

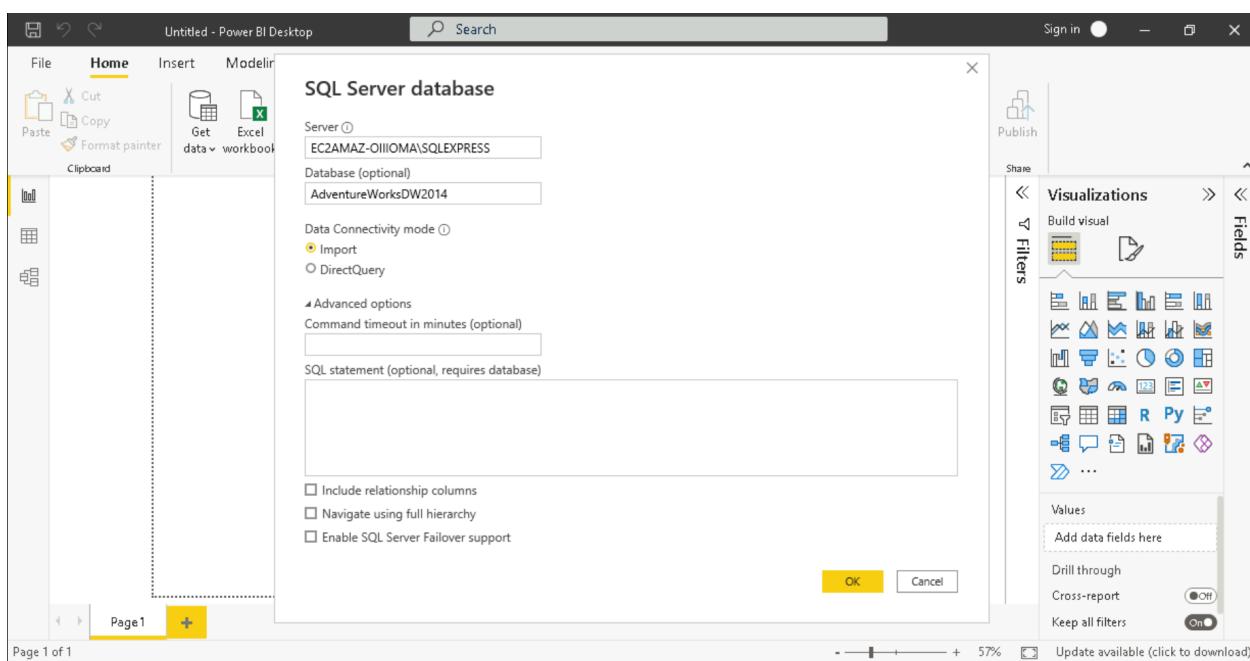
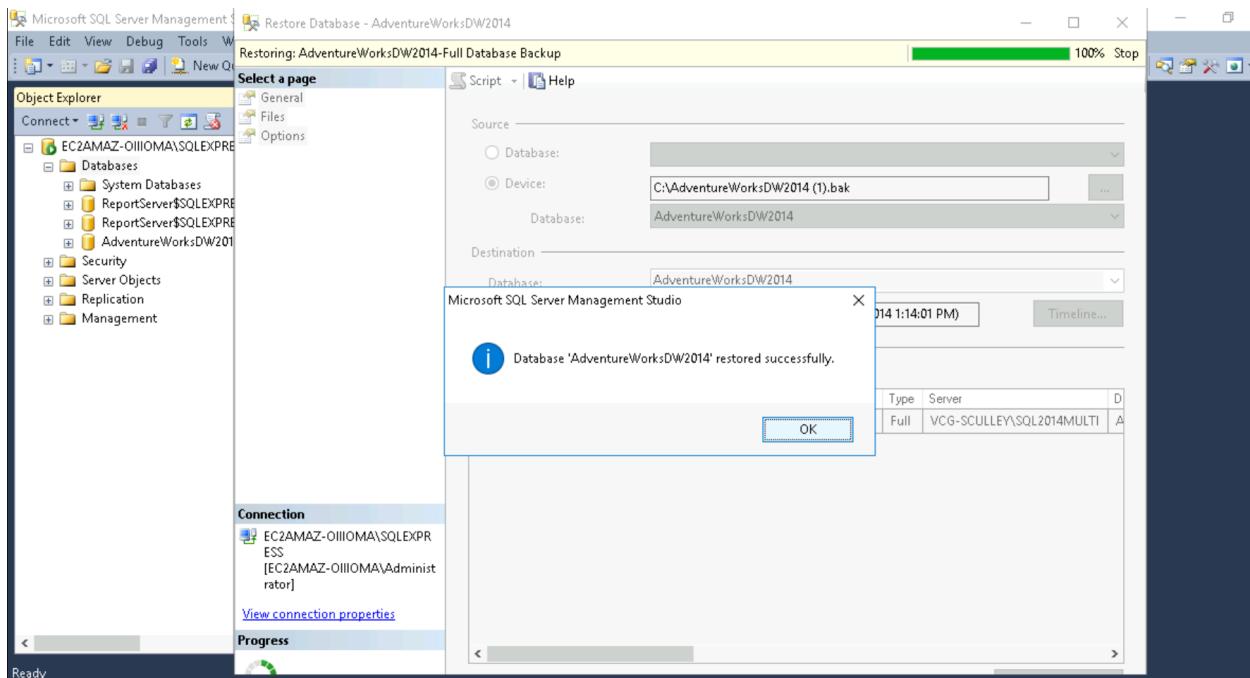
Row-level security



Calculated columns and measures

Bidirectional filter





Navigator

Display Options ▾

- DimProduct
- DimProductCategory
- DimProductSubcategory
- DimPromotion
- DimReseller
- DimSalesReason
- DimSalesTerritory
- DimScenario
- FactAdditionalInternationalProductDes...
- FactCallCenter
- FactCurrencyRate
- FactFinance
- FactInternetSales
- FactInternetSalesReason
- FactProductInventory
- FactResellerSales
- FactSalesQuota

The data in the preview has been truncated due to size limits.

Load Transform Data Cancel

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Name: FactInternetSales

Table tools

Structure

Mark as date table v Calendars

Manage relationships Relationships

New Quick New measure column New table Calculations

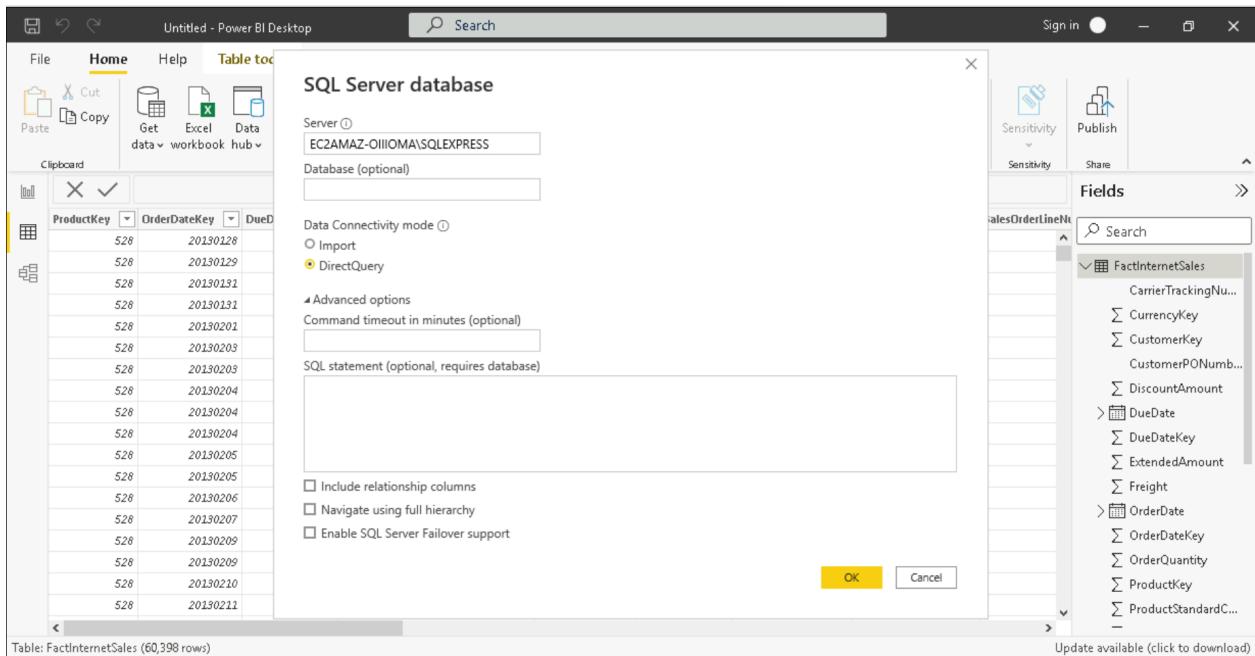
Fields

Search

Table: FactInternetSales (60,398 rows)

Update available (click to download)

ProductKey	OrderDateKey	DueDateKey	ShipDateKey	CustomerKey	PromotionKey	CurrencyKey	SalesTerritoryKey	SalesOrderNumber	SalesOrderLineNu...
528	20130128	20130209	20130204	14970	1	100	4	S051900	
528	20130129	20130210	20130205	15319	1	100	4	S051948	
528	20130131	20130212	20130207	16384	1	100	4	S052043	
528	20130131	20130212	20130207	15476	1	100	4	S052045	
528	20130201	20130213	20130208	15861	1	100	4	S052094	
528	20130203	20130215	20130210	26017	1	100	4	S052175	
528	20130203	20130215	20130210	14761	1	100	4	S052190	
528	20130204	20130216	20130211	22038	1	100	4	S052232	
528	20130204	20130216	20130211	22163	1	100	4	S052234	
528	20130204	20130216	20130211	16018	1	100	4	S052245	
528	20130205	20130217	20130212	25839	1	100	4	S052301	
528	20130205	20130217	20130212	11260	1	100	4	S052314	
528	20130206	20130218	20130213	23695	1	100	4	S052342	
528	20130207	20130219	20130214	15198	1	100	4	S052387	
528	20130209	20130221	20130216	15414	1	100	4	S052499	
528	20130209	20130221	20130216	15469	1	100	4	S052500	
528	20130210	20130222	20130217	14901	1	100	4	S052545	
528	20130211	20130223	20130218	17369	1	100	4	S052598	



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Navigator

Display Options: vTargetMail, vTimeSeries, AdventureWorksDWBuildVersion, DatabaseLog, DimAccount, DimCurrency, DimCustomer, DimDate, DimDepartmentGroup, DimEmployee, DimGeography, DimOrganization, DimProduct, DimProductCategory, DimProductSubcategory, DimPromotion, DimReseller, DimSalesReason

Selected: DimProductSubcategory

DimProductSubcategory

ProductSubcategoryKey	ProductSubcategoryAlternateKey	EnglishProductSubcategoryName
1		Mountain Bikes
2		Road Bikes
3		Touring Bikes
4		Handlebars
5		Bottom Brackets
6		Brakes
7		Chains
8		Cranksets
9		Deraileurs
10		Forks
11		Headsets
12		Mountain Frames
13		Pedals
14		Road Frames
15		Saddles
16		Touring Frames
17		Wheels
18		Bib-Shorts
19		Caps
20		Gloves

Load Transform Data Cancel

Table: FactInternetSales (60,398 rows)

Update available (click to download)

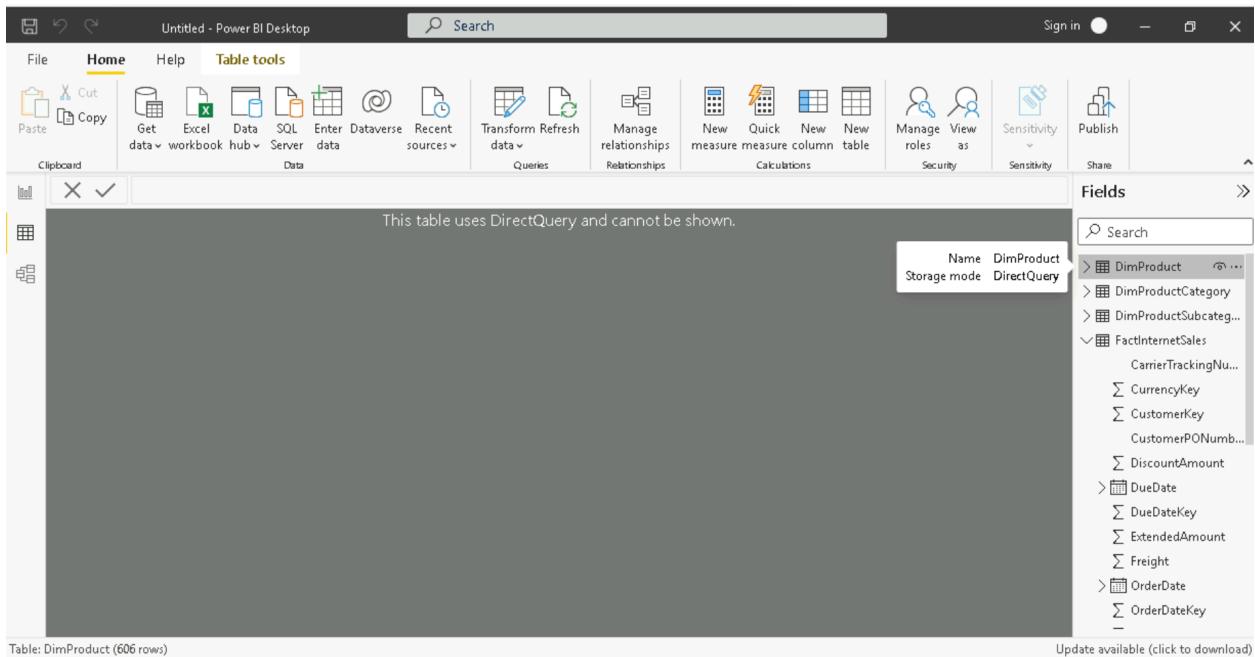
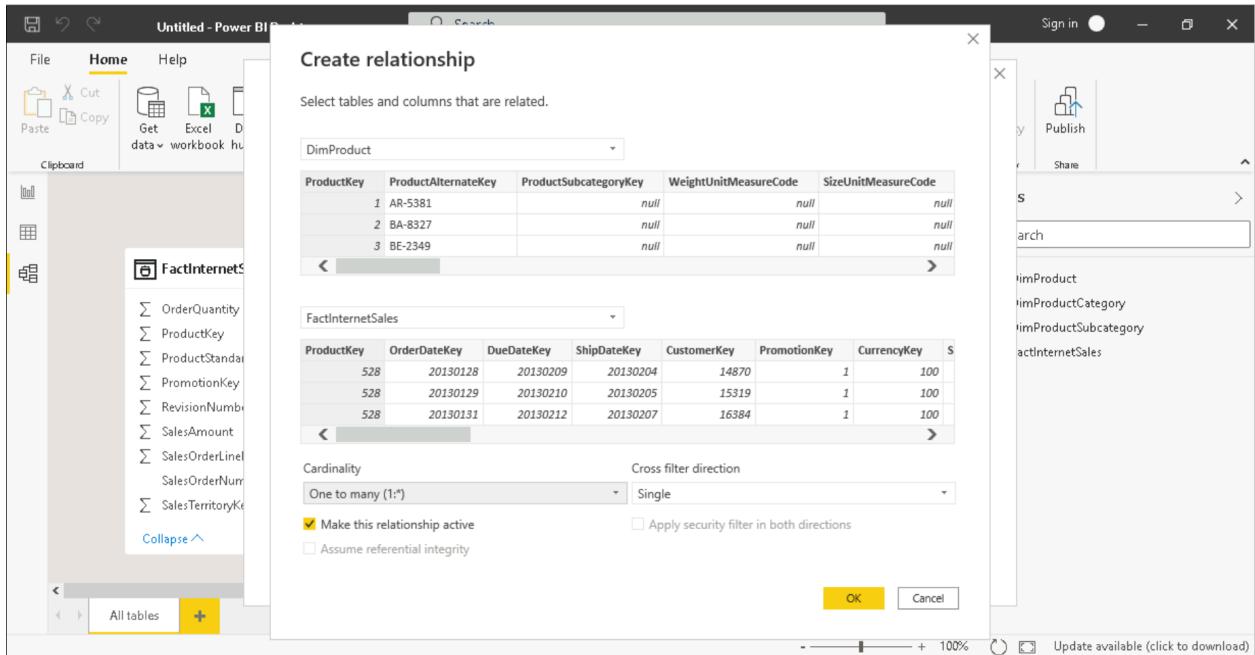


Table: DimProduct (606 rows)

Update available (click to download)



- + 100% Update available (click to download)

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Home

Clipboard

File Data Transform Refresh data Manage relationships Manage roles Security Q&A Language schema Sensitivity Publish

FactInternetSales

- OrderQuantity
- ProductKey
- ProductStandardCost
- PromotionKey
- RevisionNumber
- SalesAmount
- SalesOrderLineNumber
- SalesOrderNumber
- SalesTerritoryKey

DimProduct

- ArabicDescription
- ChineseDescription
- Class
- Color
- DaysToManufacture
- DealerPrice
- EndDate
- EnglishDescription
- EnglishProductName

Properties Fields

All tables +

Update available (click to download)

```
graph LR; FactInternetSales[FactInternetSales] --> DimProduct[DimProduct]
```

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Home

Clipboard

Create relationship

Select tables and columns that are related.

DimProduct

ProductKey	ProductAlternateKey	ProductSubcategoryKey	WeightUnitMeasureCode	SizeUnitMeasureCode
1	AR-5381	null	null	null
2	BA-8327	null	null	null
3	BE-2349	null	null	null

DimProductSubcategory

ProductSubcategoryKey	ProductSubcategoryAlternateKey	EnglishProductSubcategoryName	SpanishProductSubcategoryName
1		Mountain Bikes	Bicicleta de montaña
2		Road Bikes	Bicicleta de carretera
3		Touring Bikes	Bicicleta de paseo

Cardinality: Many to one (*:1) Cross filter direction: Single

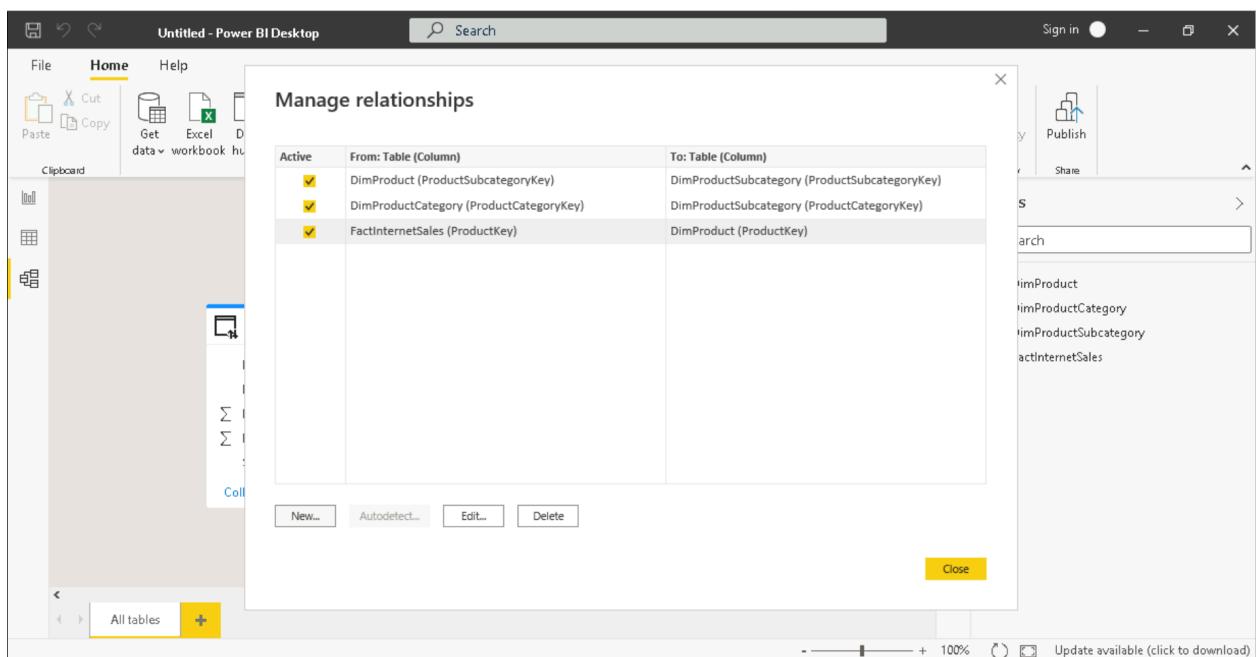
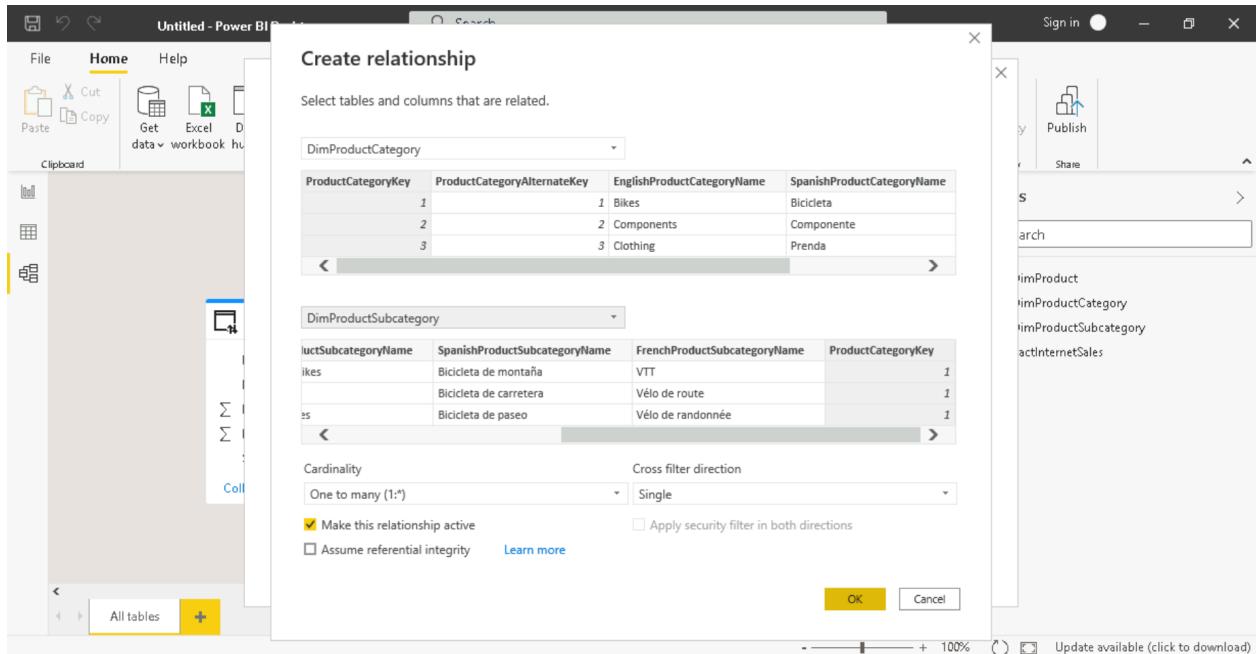
Make this relationship active Apply security filter in both directions Assume referential integrity [Learn more](#)

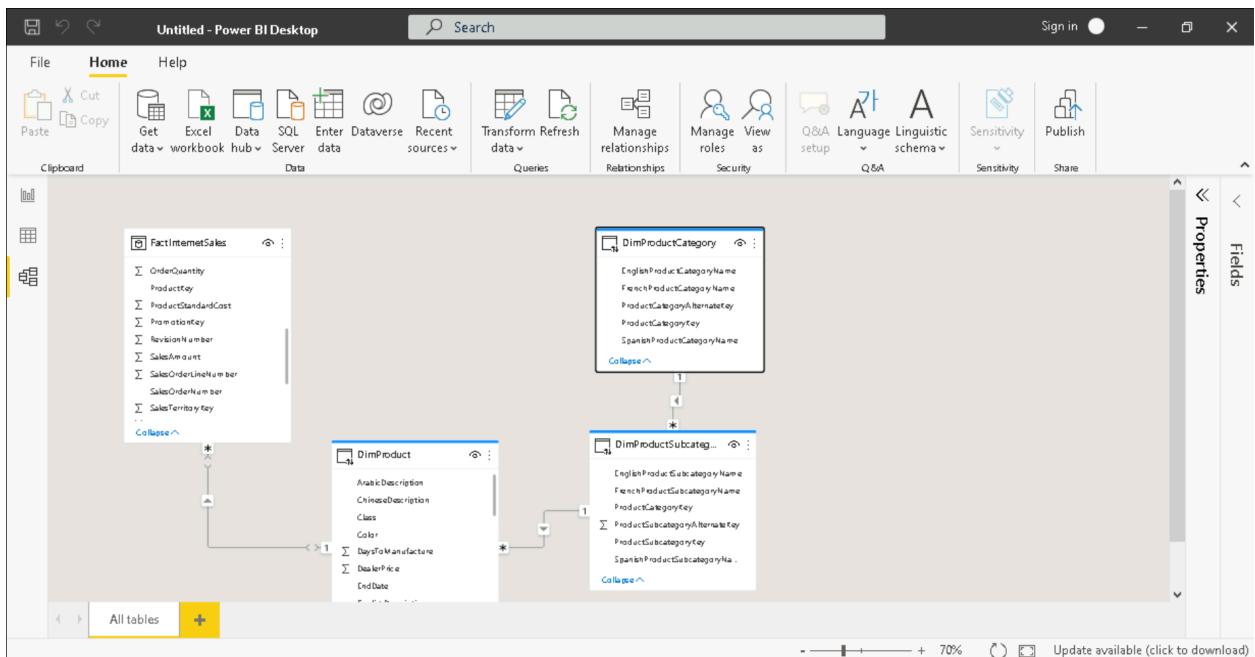
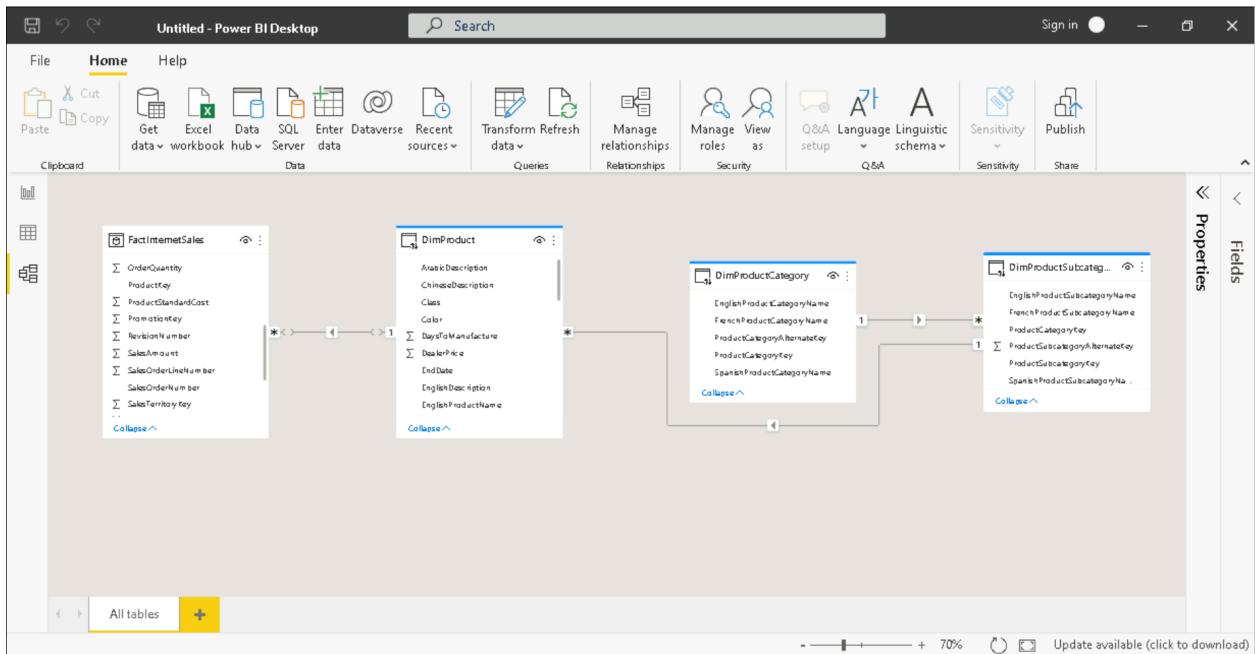
OK Cancel

All tables +

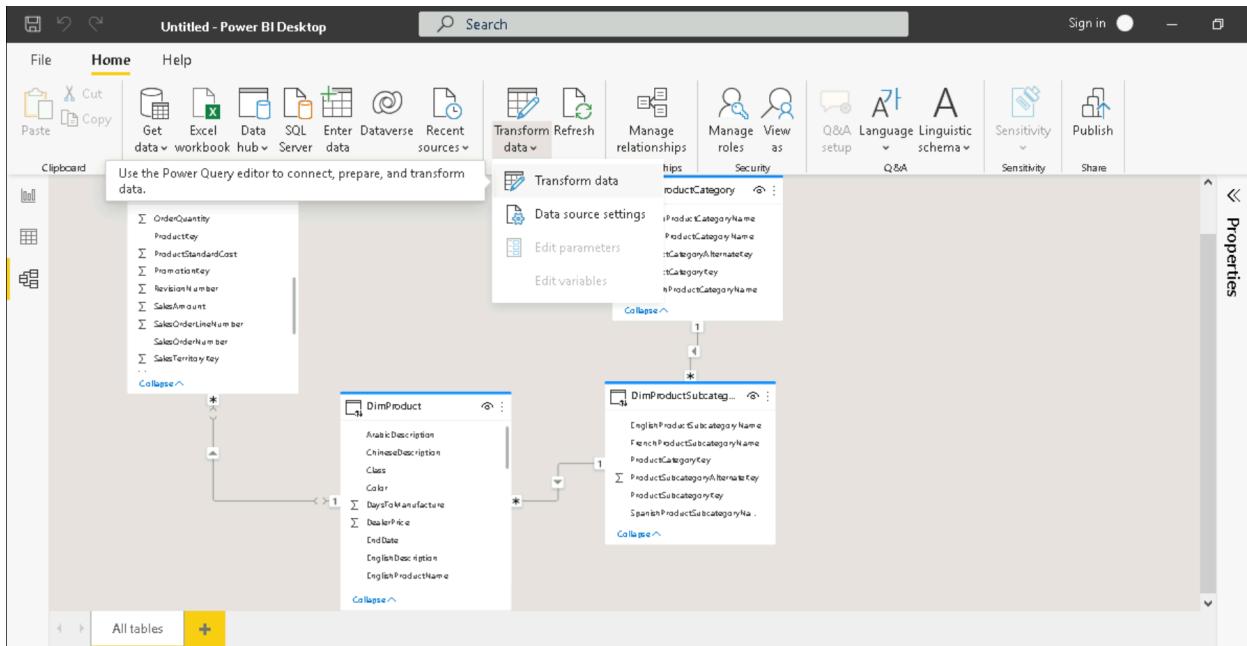
Update available (click to download)

```
graph LR; DimProduct --> DimProductSubcategory
```





Snowflake data structure schema



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File Home Transform Add Column View Tools Help

Queries [4]                

Source{[Schema="dbo",Item="FactInternetSales"]}[Data]

	ProductKey	OrderDateKey	DueDateKey	ShipDateKey	CustomerKey
1	310	20101229	20110110	20110105	
2	346	20101229	20110110	20110105	
3	346	20101229	20110110	20110105	
4	336	20101229	20110110	20110105	
5	346	20101229	20110110	20110105	
6	311	20101230	20110111	20110106	
7	310	20101230	20110111	20110106	
8	351	20101230	20110111	20110106	
9	344	20101230	20110111	20110106	
10	312	20101231	20110112	20110107	
11	312	20101231	20110112	20110107	
12	330	20101231	20110112	20110107	
13	313	20101231	20110112	20110107	
14	314	20101231	20110112	20110107	
15	314	20110101	20110113	20110108	
16	311	20110101	20110113	20110108	
17	310	20110102	20110114	20110109	
18	311	20110102	20110114	20110109	
19	314	20110102	20110114	20110109	

26 COLUMNS, 999+ ROWS Column profiling based on top 1000 rows PREVIEW DOWNLOADED AT 11:21 AM

Query Settings

PROPERTIES
Name: FactInternetSales
[All Properties](#)

APPLIED STEPS
Source 

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Close & Apply New Source Recent Sources Enter Data Data source settings Manage Parameters Refresh Preview Advanced Editor Properties Manage Columns Manage Rows Sort Data Type: Whole Number Use First Row as Headers Split Column Group By Replace Values Transform

Queries [4]

- FactInternetSales
- DimProduct**
- DimProductCategory
- DimProductSubcategory

= AdventureWorksDW2014([Schema="dbo",Item="DimProduct"]){[Data]}

	ProductKey	ProductAlternateKey	ProductSubcategoryKey	WeightUnitMeasureCode	SizeUnitMeasureCode
1	AR-5381			null	null
2	BA-8327			null	null
3	BE-2349			null	null
4	BE-2908			null	null
5	BL-2036			null	null
6	CA-5965			null	null
7	CA-6738			null	null
8	CA-7457			null	null
9	CB-2903			null	null
10	CN-6137			null	null
11	CR-7833			null	null
12	CR-9981			null	null
13	CS-2812			null	null
14	DC-8732			null	null
15	DC-9824			null	null
16	DT-2377			null	null
17	EC-M092			null	null
18	EC-R098			null	null
19	FR-T004			null	null

36 COLUMNS, 606 ROWS Column profiling based on top 1000 rows

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Merge

Select a table and matching columns to create a merged table.

DimProduct

ProductKey	ProductAlternateKey	ProductSubcategoryKey	WeightUnitMeasureCode	SizeUnitMeasureCode
1 AR-5381			null	null
2 BA-8327			null	null
3 BE-2349			null	null
4 BE-2908			null	null
5 BL-2036			" "	" "

DimProductSubcategory

ProductSubcategoryKey	ProductSubcategoryAlternateKey	EnglishProductSubcategoryName	SpanishProductSubca
1		Mountain Bikes	Bicicleta de montaña
2		Road Bikes	Bicicleta de carretera
3		Touring Bikes	Bicicleta de paseo
4		Handlebars	Barra

Join Kind: Left Outer (all from first, matching from second)

Use fuzzy matching to perform the merge

Fuzzy matching options

The selection matches 397 of 606 rows from the first table.

OK Cancel

36 COLUMNS, 606 ROWS Column profiling based on top 1000 rows

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File Home Transform Add Column View Tools Help

Close & Apply New Source Recent Sources Enter Data Data source settings Manage Parameters Refresh Preview Manage Properties Advanced Editor Manage Columns Manage Rows Sort Data Type: Table Use First Row as Headers Split Column Group By Replace Values Transform Text Analytics Vision Azure Machine Learning AI Insights

Queries [4]

- FactInternetSales
- DimProduct
- DimProductCategory
- DimProductSubcategory

= Table.NestedJoin(dbo_DimProduct, {"ProductSubcategoryKey"}, DimProductSubcategory,

	Start Date	End Date	Status	DimProductSubcategory
1	null	7/1/2003 12:00:00 AM	null Current	Table
2	null	7/1/2003 12:00:00 AM	null Current	Table
3	null	7/1/2003 12:00:00 AM	null Current	Table
4	null	7/1/2003 12:00:00 AM	null Current	Table
5	null	7/1/2003 12:00:00 AM	null Current	Table
6	null	7/1/2003 12:00:00 AM	null Current	Table
7	null	7/1/2003 12:00:00 AM	null Current	Table
8	null	7/1/2003 12:00:00 AM	null Current	Table
9	null	7/1/2003 12:00:00 AM	null Current	Table
10	null	7/1/2003 12:00:00 AM	null Current	Table
11	null	7/1/2003 12:00:00 AM	null Current	Table
12	null	7/1/2003 12:00:00 AM	null Current	Table
13	null	7/1/2003 12:00:00 AM	null Current	Table
14	null	7/1/2003 12:00:00 AM	null Current	Table
15	null	7/1/2003 12:00:00 AM	null Current	Table
16	null	7/1/2003 12:00:00 AM	null Current	Table
17	null	7/1/2003 12:00:00 AM	null Current	Table
18	null	7/1/2003 12:00:00 AM	null Current	Table
19	null	7/1/2003 12:00:00 AM	null Current	Table

37 COLUMNS, 606 ROWS Column profiling based on top 1000 rows PREVIEW DOWNLOADED AT 11:29 AM

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Close & Apply New Source Recent Sources Enter Data Data source settings Manage Parameters Refresh Preview Manage Properties Advanced Editor Manage Columns Manage Rows Sort Data Type: Table Use First Row as Headers Split Column Group By Replace Values Transform Text Analytics Vision Azure Machine Learning AI Insights

Queries [4]

- FactInternetSales
- DimProduct
- DimProductCategory
- DimProductSubcategory

= Table.NestedJoin(dbo_DimProduct, {"ProductSubcategoryKey"}, DimProductSubcategory,

	Start Date	End Date	Status	DimProductSubcategory
1	null	7/1/2003 12:00:00 AM	null	Search Columns to Expand
2	null	7/1/2003 12:00:00 AM	null	<input type="checkbox"/>
3	null	7/1/2003 12:00:00 AM	null	<input type="checkbox"/>
4	null	7/1/2003 12:00:00 AM	null	<input type="checkbox"/>
5	null	7/1/2003 12:00:00 AM	null	<input type="checkbox"/>
6	null	7/1/2003 12:00:00 AM	null	<input type="checkbox"/>
7	null	7/1/2003 12:00:00 AM	null	<input type="checkbox"/>
8	null	7/1/2003 12:00:00 AM	null	<input type="checkbox"/>
9	null	7/1/2003 12:00:00 AM	null	<input type="checkbox"/>
10	null	7/1/2003 12:00:00 AM	null	<input type="checkbox"/>
11	null	7/1/2003 12:00:00 AM	null	<input type="checkbox"/>
12	null	7/1/2003 12:00:00 AM	null	<input type="checkbox"/>
13	null	7/1/2003 12:00:00 AM	null	<input type="checkbox"/>
14	null	7/1/2003 12:00:00 AM	null Current	Table
15	null	7/1/2003 12:00:00 AM	null Current	Table
16	null	7/1/2003 12:00:00 AM	null Current	Table
17	null	7/1/2003 12:00:00 AM	null Current	Table
18	null	7/1/2003 12:00:00 AM	null Current	Table
19	null	7/1/2003 12:00:00 AM	null Current	Table

37 COLUMNS, 606 ROWS Column profiling based on top 1000 rows PREVIEW DOWNLOADED AT 11:29 AM

Merge

Select a table and matching columns to create a merged table.

DimProduct

Description	StartDate	EndDate	Status	EnglishProductSubcategoryName	ProductCategoryKey
null	7/1/2003 12:00:00 AM	null	Current	null	null
null	7/1/2003 12:00:00 AM	null	Current	null	null
null	7/1/2003 12:00:00 AM	null	Current	null	null
null	7/1/2003 12:00:00 AM	null	Current	null	null

DimProductCategory

ProductCategoryKey	ProductCategoryAlternateKey	EnglishProductCategoryName	SpanishProductCategoryName
1		1 Bikes	Bicicleta
2		2 Components	Componente
3		3 Clothing	Prenda
4		4 Accessories	Accesorio

Join Kind: Left Outer (all from first, matching from second)

Use fuzzy matching to perform the merge

Fuzzy matching options

The selection matches 397 of 606 rows from the first table.

OK Cancel

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File Home Transform Add Column View Tools Help

Queries [4]

= Table.ExpandTableColumn(#"Merged Queries1", "DimProductCategory", {

Status	A ₁ EnglishProductSubcategoryName	1 ₂ 3 ProductCategoryKey	A ₁ EnglishProductCategoryName
282	null Road Frames	2	Components
283	null Road Frames	2	Components
284	rent Road Frames	2	Components
285	null Road Frames	2	Components
286	null Road Frames	2	Components
287	rent Road Frames	2	Components
288	null Mountain Frames	2	Components
289	null Mountain Frames	2	Components
290	rent Mountain Frames	2	Components
291	null Mountain Frames	2	Components
292	null Mountain Frames	2	Components
293	null Mountain Frames	2	Components
294	null Mountain Frames	2	Components
295	rent Mountain Frames	2	Components
296	null Mountain Frames	2	Components
297	null Mountain Frames	2	Components
298	rent Mountain Frames	2	Components
299	null Mountain Frames	2	Components
300	null Mountain Frames	2	Components

39 COLUMNS, 606 ROWS Column profiling based on top 1000 rows

PREVIEW DOWNLOADED AT 12:07 PM

The screenshot shows the Microsoft Power Query Editor interface. The ribbon menu includes File, Home, Transform, Add Column, View, Tools, and Help. The Home tab is selected. The ribbon also features sections for Close & Apply, New Source, Recent Sources, Data, Data source settings, Manage Parameters, Refresh, Advanced Editor, Properties, Manage Columns, Reduce Rows, Sort, Split Column, Group By, Data Type: Text, Use First Row as Headers, Transform, and a dropdown for Text Analytics, Vision, Azure Machine Learning, and AI Insights.

The main area displays a table titled "DimProductCategory" with columns: Status, EnglishProductSubcategoryName, ProductCategoryKey, and EnglishProductName. The table contains rows for various product categories like Road Frames, Components, and Mountain Frames.

The left sidebar lists other tables: FactInternetSales, DimProduct, DimProductCategory, and DimProductSubcategory.

The right sidebar shows "Query Settings" with properties for "DimProduct" and "All Properties". It also lists applied steps: "Source", "Navigation", "Merged Queries", "Expanded DimProductSubcat...", "Merged Queries1", and "Expanded DimProductCategory".

At the bottom, it says "39 COLUMNS, 606 ROWS" and "Column profiling based on top 1000 rows". A status bar at the bottom right indicates "PREVIEW DOWNLOADED AT 12:07 PM".

The screenshot shows the Microsoft Power Query Editor interface. The top ribbon has tabs for File, Home, Transform, Add Column, View, Tools, and Help. The Home tab is selected. The ribbon also includes sections for Close & Apply, New Source, Recent Sources, Enter Data, Data source settings, Manage Parameters, Refresh Preview, Properties, Advanced Editor, Manage Columns, Reduce Rows, Sort, Split Column, Group By, Replace Values, Data Type (set to Whole Number), Use First Row as Headers, and Transform. To the right of the ribbon are buttons for Text Analytics, Vision, Azure Machine Learning, and AI Insights. The main area shows a table titled "FactInternetSales" with columns: ProductKey, OrderDateKey, DueDateKey, ShipDateKey, and CustomerKey. The table contains 3 rows of data. A context menu is open over the first row, listing options: Copy, Paste, Delete, Rename, Enable load (checked), Include in report refresh (checked), Duplicate, Reference, Move To Group (with submenu: Move Up, Move Down), Create Function..., Convert To Parameter, Advanced Editor, and Properties... At the bottom left, it says "26 COLUMNS, 999+ RC". The bottom right says "PREVIEW DOWNLOADED AT 11:21 AM". On the right side, there are two panes: "Query Settings" and "APPLIED STEPS". The "Query Settings" pane shows the name "FactInternetSales" and "All Properties". The "APPLIED STEPS" pane shows "Source" and "Navigation".

Relationship Diagram View:

The screenshot shows the Power BI Relationships view. It displays two tables: FactInternetSales and DimProduct. The FactInternetSales table has fields like OrderQuantity, ProductKey, ProductStandardCost, PromotionKey, RevisionNumber, SalesAmount, SalesOrderLineNumber, SalesOrderNumber, and SalesTerritoryKey. The DimProduct table has fields like ArabicDescription, ChineseDescription, Class, Color, DayofManufacture, DealerPrice, EndDate, EnglishDescription, and EnglishProductCategoryName. A relationship is shown between ProductKey in FactInternetSales and ProductKey in DimProduct.

Data View:

The screenshot shows the Power BI Data view. It displays a table of sales data with the following columns and data:

ProductKey	OrderDateKey	DueDateKey	ShipDateKey	CustomerKey	PromotionKey	CurrencyKey	SalesTerritoryKey	SalesOrderNumber	SalesOrderLineNu
528	20130128	20130209	20130204	14870	1	100	4	\$051900	
528	20130129	20130210	20130205	15319	1	100	4	\$051948	
528	20130131	20130212	20130207	16384	1	100	4	\$052043	
528	20130131	20130212	20130207	15476	1	100	4	\$052045	
528	20130201	20130213	20130208	15861	1	100	4	\$052094	
528	20130203	20130215	20130210	26017	1	100	4	\$052175	
528	20130203	20130215	20130210	14761	1	100	4	\$052190	
528	20130204	20130216	20130211	22038	1	100	4	\$052232	
528	20130204	20130216	20130211	22163	1	100	4	\$052234	
528	20130204	20130216	20130211	16018	1	100	4	\$052245	
528	20130205	20130217	20130212	25839	1	100	4	\$052301	
528	20130205	20130217	20130212	11260	1	100	4	\$052314	
528	20130206	20130218	20130213	23695	1	100	4	\$052342	
528	20130207	20130219	20130214	15198	1	100	4	\$052387	
528	20130209	20130221	20130216	15414	1	100	4	\$052499	
528	20130209	20130221	20130216	15469	1	100	4	\$052500	
528	20130210	20130222	20130217	14901	1	100	4	\$052545	
528	20130211	20130223	20130218	17369	1	100	4	\$052593	

Navigator

Display Options

- vAssocSeqOrders
- vDMPrep
- vTargetMail
- vTimeSeries
- AdventureWorksDWBuildVersion
- DatabaseLog
- DimAccount
- DimCurrency
- DimCustomer
- DimDate**
- DimDepartmentGroup
- DimEmployee
- DimGeography
- DimOrganization
- DimProduct
- DimProductCategory
- DimProductSubcategory

Table: FactInternetSales (60,398)

Select Related Tables

DimDate

DateKey	FullDateAlternateKey	DayNumberOfWeek	EnglishDayNameOfWeek	SpanishDayNameOfWeek
20050101	1/1/2005	7	Saturday	Sábado
20050102	1/2/2005	1	Sunday	Domingo
20050103	1/3/2005	2	Monday	Lunes
20050104	1/4/2005	3	Tuesday	Martes
20050105	1/5/2005	4	Wednesday	Miércoles
20050106	1/6/2005	5	Thursday	Jueves
20050107	1/7/2005	6	Friday	Viernes
20050108	1/8/2005	7	Saturday	Sábado
20050109	1/9/2005	1	Sunday	Domingo
20050110	1/10/2005	2	Monday	Lunes
20050111	1/11/2005	3	Tuesday	Martes
20050112	1/12/2005	4	Wednesday	Miércoles
20050113	1/13/2005	5	Thursday	Jueves
20050114	1/14/2005	6	Friday	Viernes
20050115	1/15/2005	7	Saturday	Sábado
20050116	1/16/2005	1	Sunday	Domingo

The data in the preview has been truncated due to size limits.

Load Transform Data Cancel

Fields

Search

> DimProduct

> FactInternetSales

Create relationship

Select tables and columns that are related.

DimDate

DateKey	FullDateAlternateKey	DayNumberOfWeek	EnglishDayNameOfWeek	SpanishDayNameOfWeek
20050101	Saturday, January 1, 2005	7	Saturday	Sábado
20050102	Sunday, January 2, 2005	1	Sunday	Domingo
20050103	Monday, January 3, 2005	2	Monday	Lunes

FactInternetSales

ProductKey	OrderDateKey	DueDateKey	ShipDateKey	CustomerKey	PromotionKey	CurrencyKey
528	20130128	20130209	20130204	14870	1	100
528	20130129	20130210	20130205	15319	1	100
528	20130131	20130212	20130207	16384	1	100

Cardinality

One to many (1:n)

Cross filter direction

Single

Make this relationship active

Apply security filter in both directions

Assume referential integrity

OK Cancel

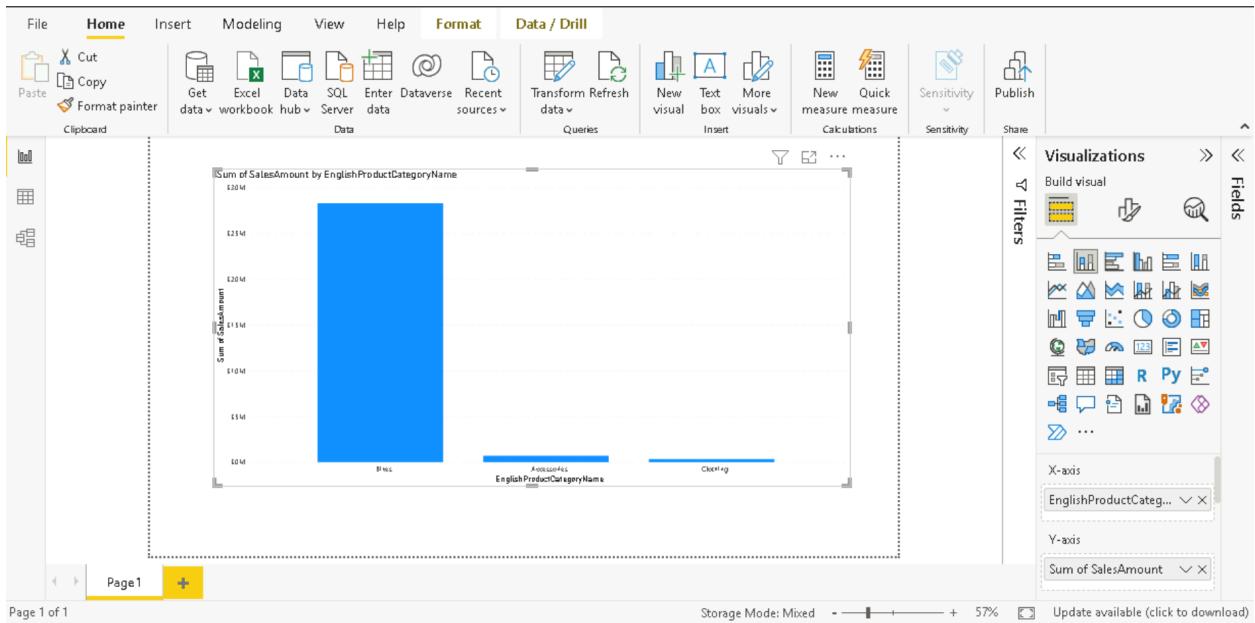
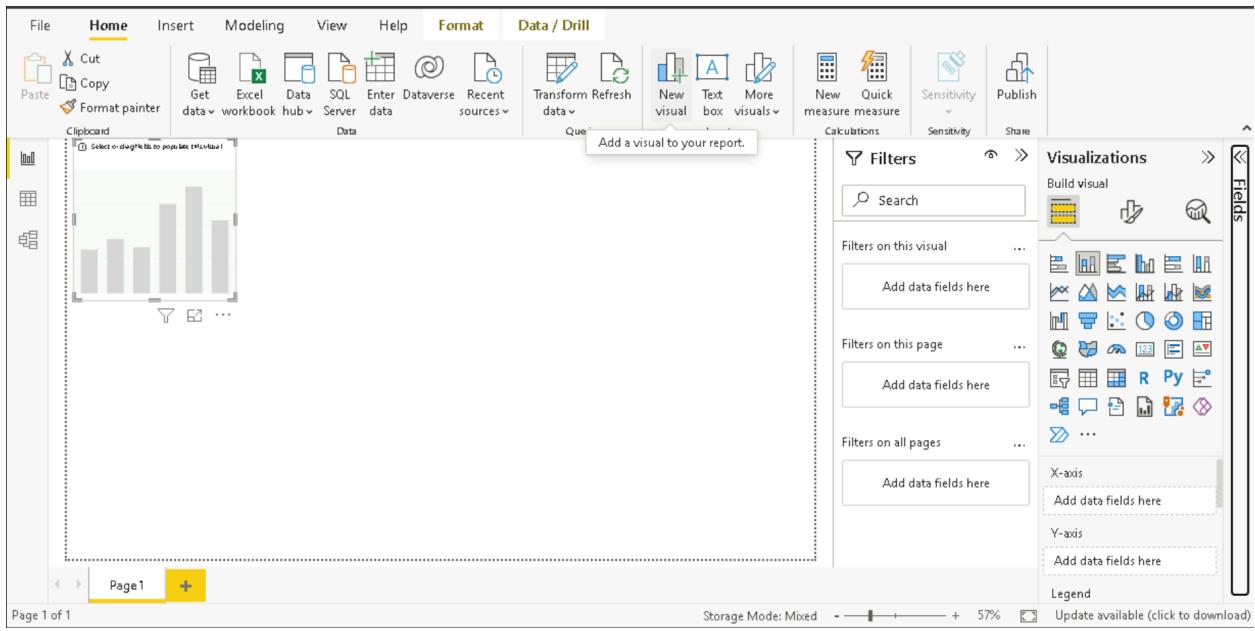
Fields

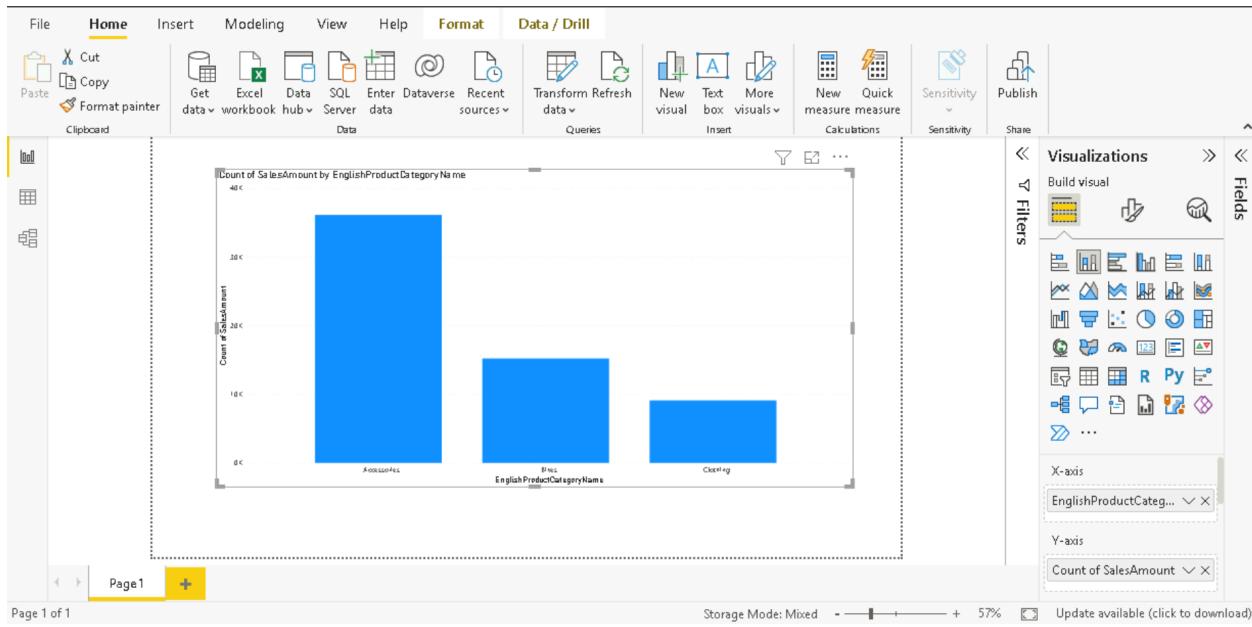
Search

> DimDate

- CalendarQuarter
- CalendarSemester
- CalendarYear
- DateKey
- DayNumberOfMonth
- DayNumberOfWeek
- DayNumberOfYear
- EnglishDayNameOfTheWeek
- EnglishMonthName
- FiscalQuarter
- FiscalSemester
- FiscalYear
- FrenchDayNameOfTheWeek
- FrenchMonthName

Update available (click to download)





Navigator

Display Options

- SuperStoreUS-2015.xlsx [3]
 - Orders
 - Returns
 - Users**

Column1	Column2
Region	Manager
Central	Chris
East	Erin
South	Sam
West	William

Visualizations >> Fields

Load Transform Data Cancel

Untitled - Power Query Editor

File Home Transform Add Column View Tools Help

Close & Apply New Source Recent Data Data source settings Manage Parameters Refresh Preview Advanced Editor Properties Manage Columns Reduce Rows Sort Data Type: Text Use First Row as Headers Split Column Group By Replace Values Transform Text Analytics Vision Azure Machine Learning AI Insights

Close New Query Data Sources Parameters Query

Queries [3]

Orders Returns Users

	Column1	Column2
1	Region	Manager
2	Central	Chris
3	East	Erin
4	South	Sam
5	West	William

Query Settings

PROPERTIES

Name: Users
All Properties

APPLIED STEPS

- Source
- Navigation
- Changed Type

2 COLUMNS, 5 ROWS Column profiling based on top 1000 rows PREVIEW DOWNLOADED AT 2:25 PM

File Home Help

Cut Copy Paste Get data workbook hub Data Server Enter Data Dataverse Recent sources Transform data Manage relationships Relationships Security Q&A Sensitivity Publish

Clipboard

Orders Returns Users

Properties

Fields Search

Orders

- City
- Country
- Customer ID
- Customer Name
- Customer Segment
- Discount
- Order Date
- Order ID
- Order Priority

Returns

- Order ID
- Status

Users

- Manager
- Region

All tables +

80% Update available (click to download)

File Home Help **Table tools**

Name **Structure**

Calendars **Relationships** **New measure** **New column** **New table** **Calculations**

Fields

Search > Calendar

1 Calendar = CALENDARAUTO()

Date

2/1/2015 12:00:00 AM
2/2/2015 12:00:00 AM
2/3/2015 12:00:00 AM
2/4/2015 12:00:00 AM
2/5/2015 12:00:00 AM
2/6/2015 12:00:00 AM
2/7/2015 12:00:00 AM
2/8/2015 12:00:00 AM
2/9/2015 12:00:00 AM
2/10/2015 12:00:00 AM
2/11/2015 12:00:00 AM
2/12/2015 12:00:00 AM
2/13/2015 12:00:00 AM
2/14/2015 12:00:00 AM
2/15/2015 12:00:00 AM
2/16/2015 12:00:00 AM
2/17/2015 12:00:00 AM
2/18/2015 12:00:00 AM
2/19/2015 12:00:00 AM

Table: Calendar (365 rows) Update available (click to download)

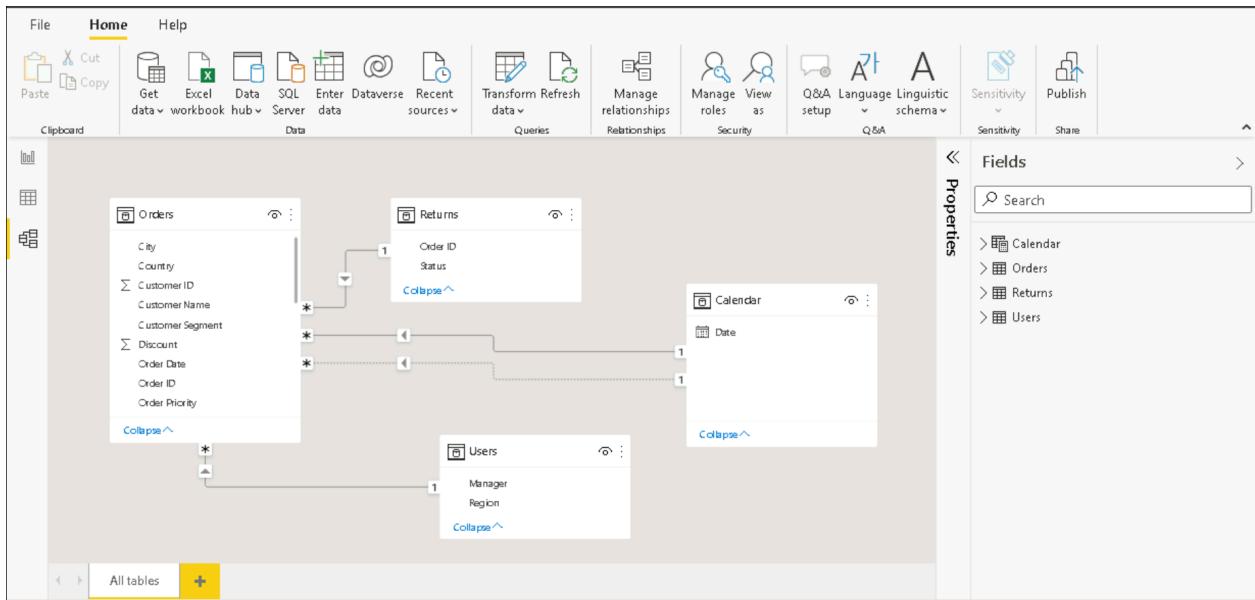


Table tools **Column tools**

Name: Order Date Format: Wednesday, March 2015
Data type: Date

Summarization: Don't summarize Data category: Uncategorized

Sort by column: Sort Data groups: Groups Manage relationships: Relationships New column: Calculations

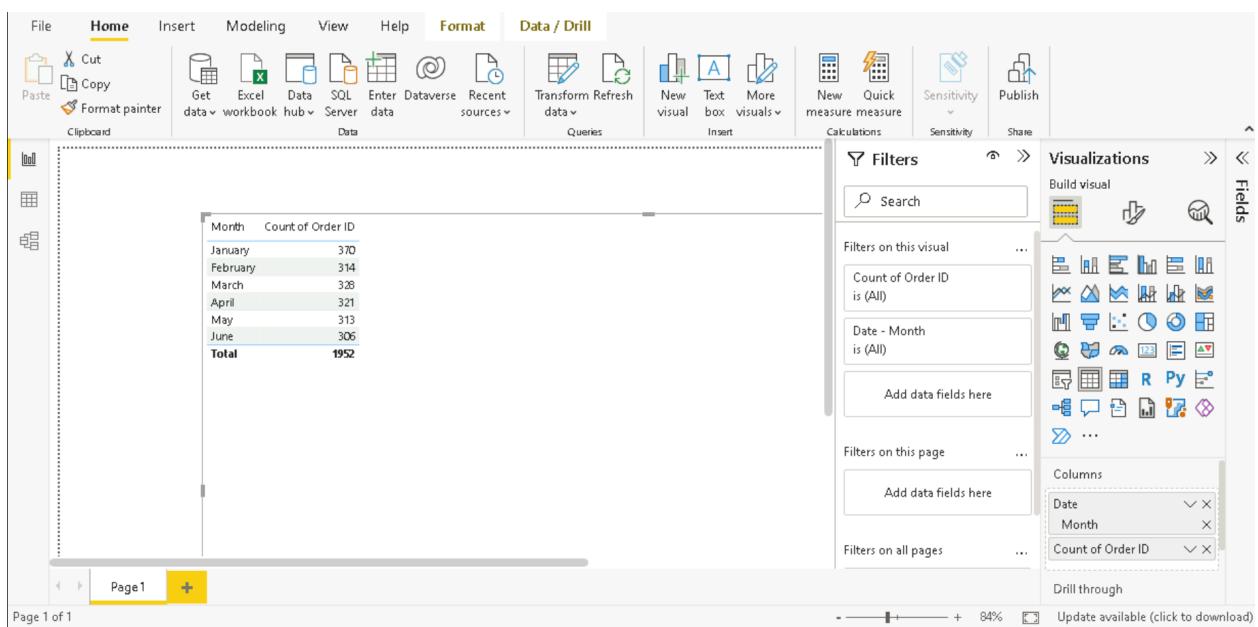
Fields

Search: Order Date

- Calendar
- Date
- Orders
 - City
 - Country
 - Customer ID
 - Customer Name
 - Customer Segment
- Discount
- Order Date
- Order ID
- Order Priority
- Postal Code
- Product Base Margin
- Product Category

Table: Orders (1,952 rows, 347 filtered rows) Column: Order Date (179 distinct values, 31 filtered distinct values)

Update available (click to download)



Navigator

File Home Insert

Clipboard

Display Options

SuperStoreUS-2015.xlsx [3]

- Orders
- Returns
- Users

Users

Column1	Column2
Region	Manager
Central	Chris
East	Erin
South	Sam
West	William

Visualizations >> Fields

Load Transform Data Cancel

Page 1 of 1

This screenshot shows the Power BI Navigator interface. On the left, there's a ribbon with File, Home, Insert tabs. Below it is a clipboard section. The main area is titled 'Navigator' and shows a file tree with 'SuperStoreUS-2015.xlsx'. Under this file, three items are listed: 'Orders', 'Returns', and 'Users'. A preview of the 'Users' table is shown, containing columns 'Column1' and 'Column2' with data for Region, Central, East, South, and West. To the right, there are sections for 'Visualizations' and 'Fields', and a preview of a visual showing a grid of data. At the bottom, there are 'Load', 'Transform Data', and 'Cancel' buttons.

File Home Insert Modeling View Help Format Data / Drill

Cut Copy Format painter Paste Get data from workbook hub Data Server Enter data Dataverse Recent sources Transform data Refresh data New visual Text box More visuals Insert Quick measure measure Sensitivity Calculations Sensitivity Publish Share

Month Count of Order Date Count of Ship Date

January	370	347
February	314	325
March	328	318
April	321	327
May	313	318
June	306	289
Total	1952	1952

Filters >> Visualizations >> Fields

Search

Filters on this visual

- Count of Order Date is (All)
- Count of Ship Date is (All)
- Date - Month is (All)

Add data fields here

Filters on this page

Add data fields here

Columns

- Date
- Month
- Count of Order Date
- Count of Ship Date

Page 1 of 1

This screenshot shows the Power BI canvas. At the top is a ribbon with File, Home, Insert, Modeling, View, Help, Format, and Data/Drill tabs. Below the ribbon is a toolbar with various icons for cutting, pasting, and transforming data. The main area contains a table visual with columns 'Month', 'Count of Order Date', and 'Count of Ship Date'. The table data is as follows:

January	370	347
February	314	325
March	328	318
April	321	327
May	313	318
June	306	289
Total	1952	1952

To the right of the table are several filter panes and a visualization pane. The first filter pane shows filters for 'Count of Order Date' and 'Count of Ship Date' both set to '(All)'. The second filter pane shows a filter for 'Date - Month' also set to '(All)'. Below these are sections for 'Filters on this page' and 'Add data fields here'. The visualization pane shows various chart and report icons. At the bottom, there are buttons for 'Load', 'Transform Data', and 'Cancel', along with a page navigation bar showing 'Page 1 of 1'.

Table tools **Column tools**

Name: Cost Format: General Summarization: Sum Data category: Uncategorized

Structure Formatting Properties Sort by column Data groups Manage relationships New column

Fields

Search: Cost

Calculated fields: Cost

Tables: Orders, Calendar, Returns, Ship, Users

Columns: Date, Month, Order ID, Sales, Profit, Quantity ordered new, Ship Date, Order Date, Postal Code, City, State or Province

Rows: 1,952 rows

Table: Orders (1,952 rows) Column: Cost (1,950 distinct values)

Update available (click to download)

Format **Data / Drill** **Table tools** **Measure tools**

Name: Measure Format: General Data category: Uncategorized

Home table: Calendar

Structure Formatting Properties Calculations

Visualizations

Build visual

Search: Date

Filters on this visual

- Count of Order Date is (All)
- Count of Ship Date is (All)
- Date - Month is (All)

Add data fields here

Filters on this page

Add data fields here

Fields

Search: Date

Calculated fields: Date

Tables: Orders, Calendar, Returns, Ship, Users

Columns: Date, Month, Count of Order Date, Count of Ship Date

Rows: 1,952 rows

Table: Orders (1,952 rows) Column: Measure (1,950 distinct values)

Update available (click to download)

Measure tools

Name: Count of Order Shipped | Format: Whole number | Data category: Uncategorized

Home table: Calendar

Structure:

Month	Count of Order Date	Count of Ship Date	Count of Order Shipped
January	370	347	347
February	314	325	325
March	328	318	318
April	321	327	327
May	313	318	318
June	306	289	289
Total	1952	1952	1952

Formatting:

Properties:

Calculations:

Count of Order Shipped = CALCULATE(COUNT(Orders[Order ID]), USERELATIONSHIP(Orders[Ship Date], 'Calendar'[Date]))

Fields

Visualizations

Count of Order Shipped

Count of Order Date

Count of Ship Date

Date - Month

Add data fields here

Filters on this visual

Count of Order Date is (All)

Count of Ship Date is (All)

Date - Month is (All)

Add data fields here

Filters on this page

Add data fields here

Page 1

70%

Update available (click to download)

Format

Paste | Cut | Copy | Format painter | Get data | Excel workbook hub | Data | SQL Server | Enter Data | Dataverse | Recent sources | Transform Refresh data | Queries | New visual | Text box | More visuals | Calculations | Sensitivity | Share | Publish

Clipboard

Month Count of Order Date Count of Ship Date Count of Order Shipped

Month	Count of Order Date	Count of Ship Date	Count of Order Shipped
January	370	347	347
February	314	325	325
March	328	318	318
April	321	327	327
May	313	318	318
June	306	289	289
Total	1952	1952	1952

Fields

Visualizations

Count of Order Shipped

Count of Order Date

Count of Ship Date

Date - Month

Add data fields here

Filters on this visual

Count of Order Date is (All)

Count of Order Shipped is (All)

Count of Ship Date is (All)

Date - Month is (All)

Add data fields here

Filters on this page

Page 1

110%

Update available (click to download)