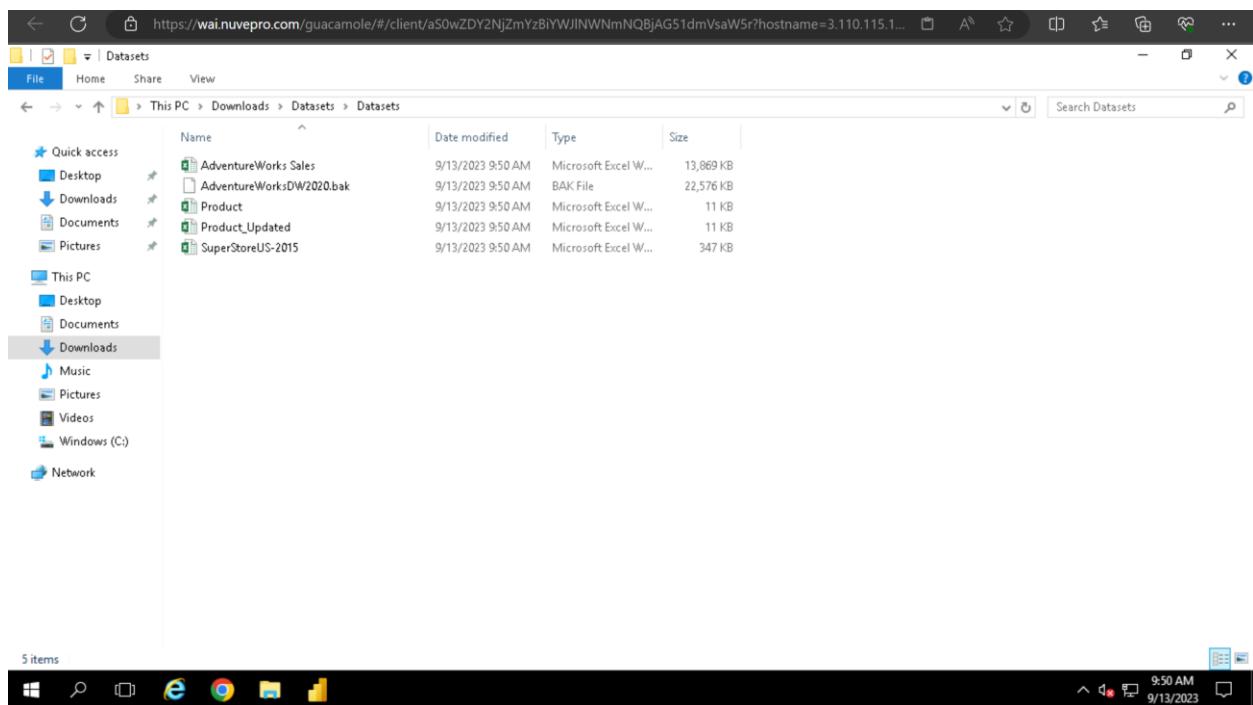
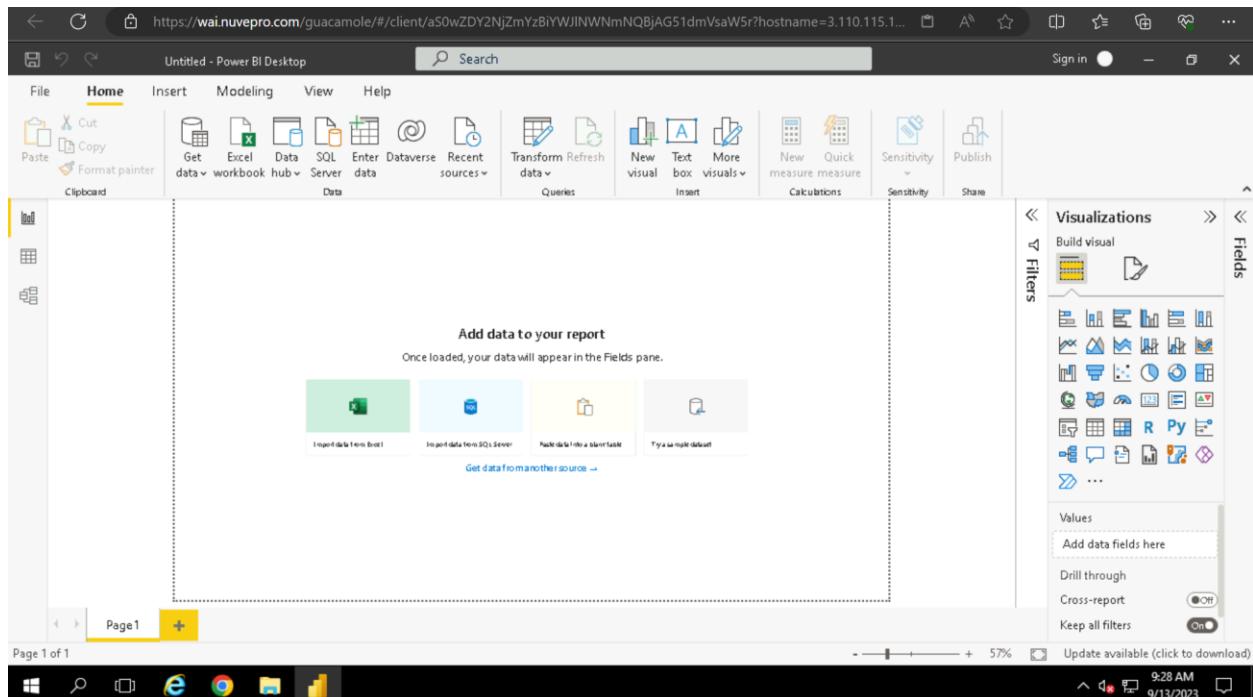
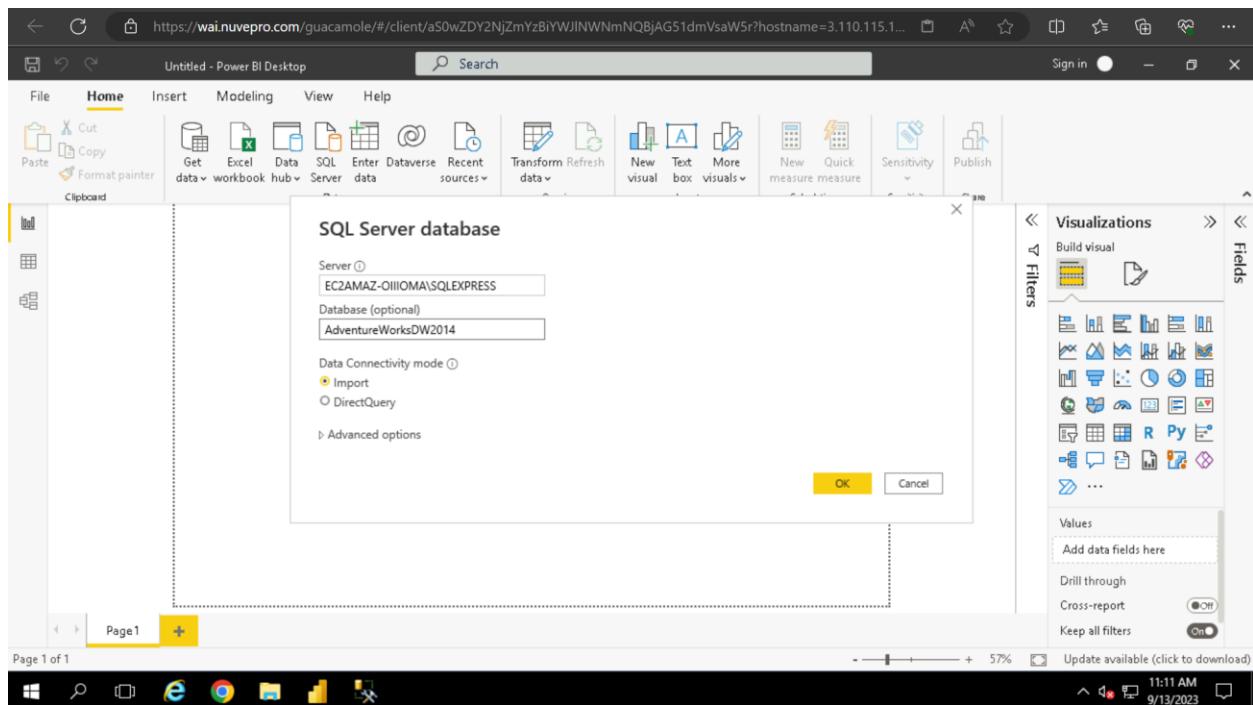


POWER Business Intelligence





The screenshot shows the Power BI Desktop interface with the 'Home' tab selected. The 'Navigator' pane on the left lists various tables from a data source, with 'FactInternetSales' selected. A preview of the 'FactInternetSales' table is displayed in the main area, showing columns: ProductKey, OrderDateKey, DueDateKey, ShipDateKey, CustomerKey, and Profit. The table contains several rows of data. A note at the bottom of the preview states: 'The data in the preview has been truncated due to size limits.' At the bottom right of the preview are 'Load', 'Transform Data', and 'Cancel' buttons. The right side of the screen features the 'Visualizations' pane, which includes sections for 'Build visual', 'Fields', 'Values', and 'Drill through'.

ProductKey	OrderDateKey	DueDateKey	ShipDateKey	CustomerKey	Profit
310	20101229	20110110	20110105	21768	
346	20101229	20110110	20110105	28389	
346	20101229	20110110	20110105	25863	
336	20101229	20110110	20110105	14501	
346	20101229	20110110	20110105	11003	
311	20101230	20110111	20110106	27645	
310	20101230	20110111	20110106	16624	
351	20101230	20110111	20110106	11005	
344	20101230	20110111	20110106	11011	
312	20101231	20110112	20110107	27621	
312	20101231	20110112	20110107	27616	
330	20101231	20110112	20110107	20042	
313	20101231	20110112	20110107	16351	
314	20101231	20110112	20110107	16517	

Create relationship

Select tables and columns that are related.

DimProduct

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

FactInternetSales

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

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**

Untitled - Power BI Desktop

Home

Relationships

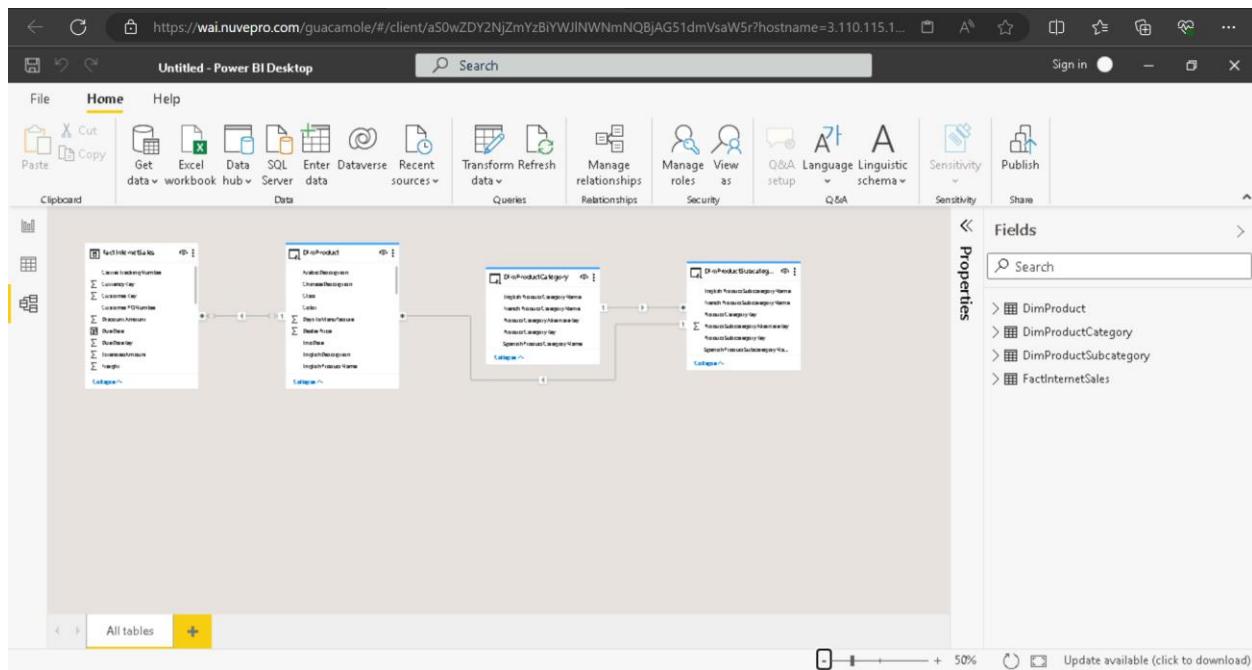
FactInternetSales **DimProduct**

Properties

Fields

DimProduct

- > DimProduct
- > DimProductCategory
- > DimProductSubcategory
- > FactInternetSales



The screenshot shows the Power Query Editor interface with a query named 'DimProduct' selected. The Home ribbon is selected, showing options like Close & Apply, New Source, Enter Data, Data Sources, Parameters, Refresh, Preview, Manage, Choose Columns, Remove Columns, Reduce Rows, Sort, Split Column, Group By, Replace Values, and Transform. The preview pane shows a table with 19 rows and columns: kishDescription, StartDate, EndDate, Status, and DimProductSubcategory. The status column contains values like 'null Current Table'. The Query Settings pane on the right shows properties for 'DimProduct' and applied steps for 'Merged Queries'.

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File Home Help

Clipboard

Get data from workbook hub Data SQL Server Enter data Dataverse Recent sources Data Transform data Refresh data Manage relationships Relationships Security Manage roles as Q&A Language setup Q&A Sensitivity Publish Share

Fields Properties

FactInternetSales DimProduct

CarrierTrackingNumber, CurrencyKey, CustomerKey, CustomerPONumber, DiscountAmount, DueDate, DueDateKey, ExtendedAmount, Freight

ArabicDescription, ChineseDescription, Class, Color, DaysToManufacture, DealerPrice, EndDate, EnglishDescription, EnglishProductCategoryName

All tables +

100% Update available (click to download) 12:15 PM 9/13/2023

Untitled - Power BI Desktop

File Home Help Table tools

Clipboard

Get data from workbook hub Data SQL Server Enter data Dataverse Recent sources Data Transform data Refresh data Manage relationships Relationships New measure Quick New measure column Calculations New table Manage roles as Security Sensitivity Publish Share

Fields

Search

DimProduct

FactInternetSales

CarrierTrackingNu...
CurrencyKey
CustomerKey
CustomerPONumb...
DiscountAmount
DueDate
DueDateKey
ExtendedAmount
Freight
OrderDate
OrderQuantity
ProductKey

Table: FactInternetSales (60,398 rows)

12:20 PM 9/13/2023

Untitled - Power Query Editor

File Home Transform Add Column View Tools Help

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

Queries [5]

FactInternetSales

DimProduct

DimProductCategory

DimProductSubcategory

DimDate

1 310 20101229 20110110 20110105 21
2 346 20101229 20110110 20110105 28
3 346 20101229 20110110 20110105 25
4 336 20101229 20110110 20110105 14
5 346 20101229 20110110 20110105 11
6 311 20101230 20110111 20110106 27
7 310 20101230 20110111 20110106 16
8 351 20101230 20110111 20110106 11
9 344 20101230 20110111 20110106 11
10 312 20101231 20110112 20110107 27
11 312 20101231 20110112 20110107 27
12 330 20101231 20110112 20110107 20
13 313 20101231 20110112 20110107 16
14 314 20101231 20110112 20110107 16
15 314 20110101 20110113 20110108 27
16 311 20110101 20110113 20110108 13
17 310 20110102 20110114 20110109 27
18 311 20110102 20110114 20110109 13
19 314 20110102 20110114 20110109 16

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

12:32 PM 9/13/2023

Untitled - Power BI Desktop

File Home Help

Paste Cut Copy Get data from workbook hub Data SQL Server Enter Dataverse Recent sources Transform Refresh data Relationships Manage roles Q&A setup Sensitivity Publish

Clipboard Model FactInternetSales DimProduct DimDate

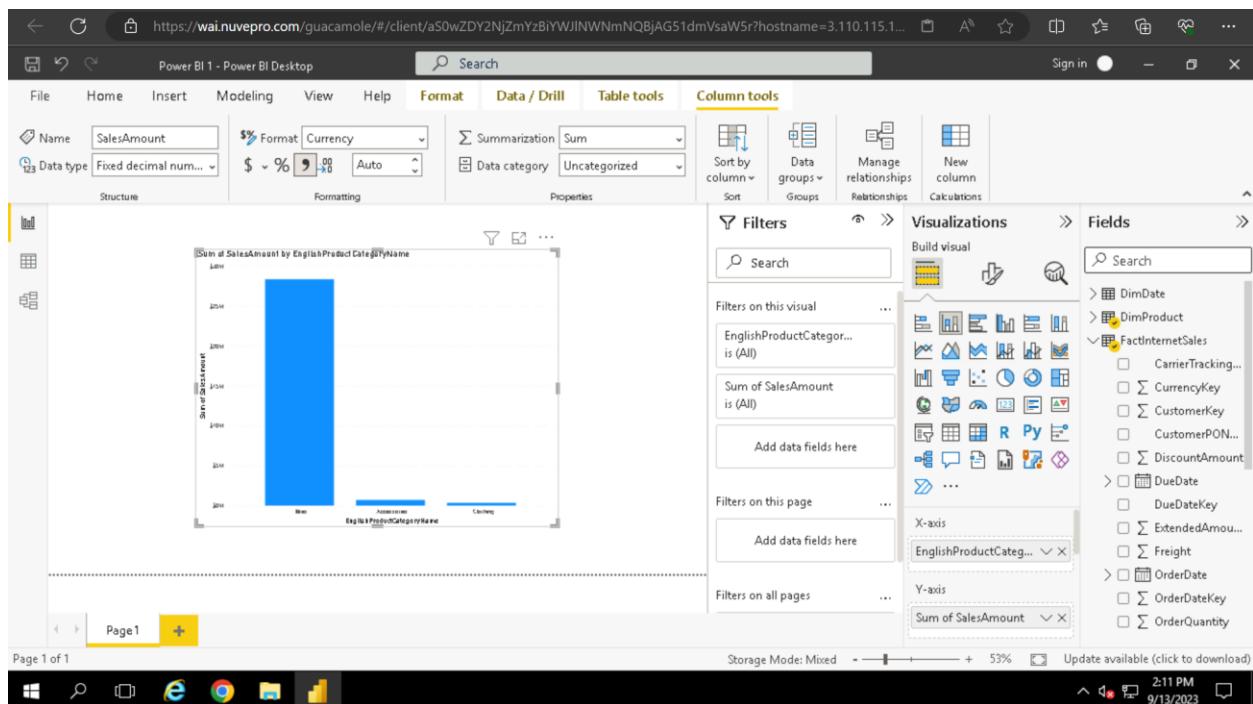
ArabicDescription ChineseDescription Class Color DaysToManufacture DealerPrice EndDate EnglishDescription EnglishProductCategoryName

EnglishDayNameOfWeek EnglishMonthName FiscalQuarter FiscalSemester FiscalYear FrenchDayNameOfWeek FrenchMonthName FullDateAlternateKey MonthNumberOfYear

All tables +

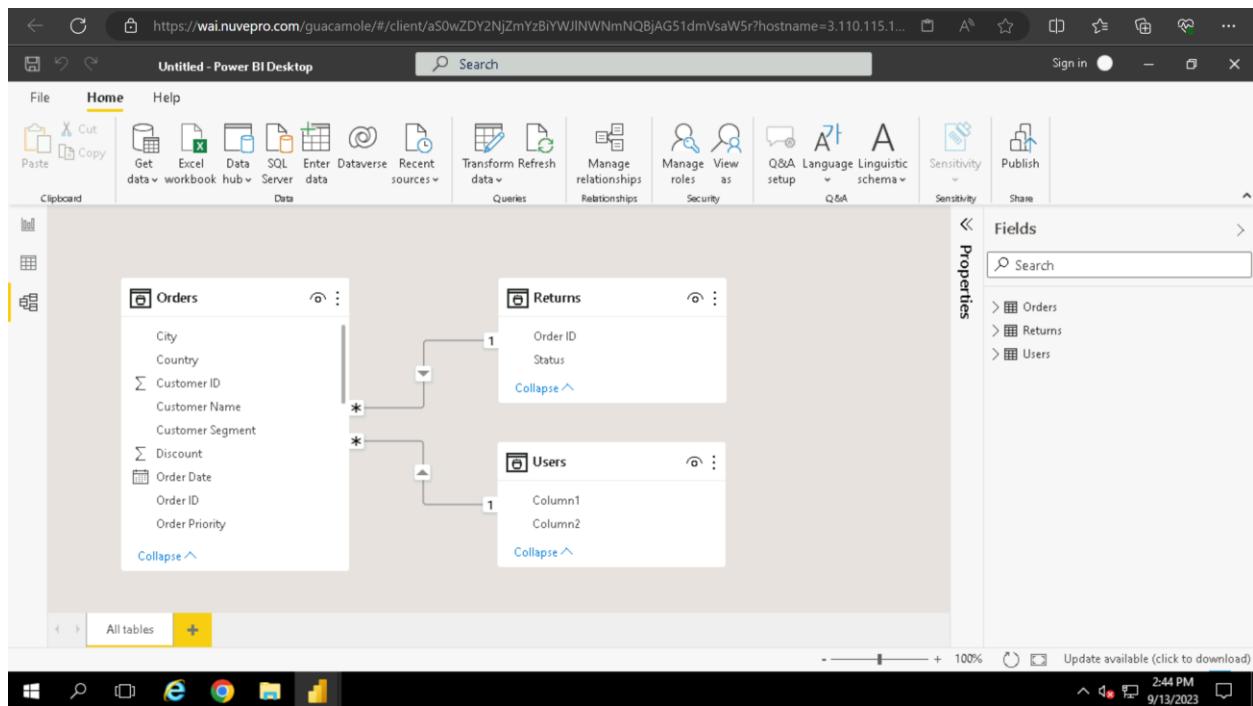
Properties

Update available (click to download)



Activity – 2

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



The screenshot shows the Power BI Desktop interface with the 'Table tools' ribbon selected. A table named 'Calendar' is currently being edited.

The 'Structure' view displays the following data:

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

The 'Fields' pane on the right shows the selected table 'Calendar'.

Untitled - Power BI Desktop

File Home Help

Cut Copy Paste Get data from workbook hub Clipboard

Search

Manage relationships

Active	From: Table (Column)	To: Table (Column)
<input checked="" type="checkbox"/>	Calendar (Date)	Orders (Order Date)
<input type="checkbox"/>	Calendar (Date)	Orders (Ship Date)
<input checked="" type="checkbox"/>	Orders (Order ID)	Returns (Order ID)
<input checked="" type="checkbox"/>	Orders (Region)	Users (Column1)

New... Autodetect... Edit... Delete Close

All tables +

Clipboard Publish Share Fields Search

Calendar Orders Returns Users

City Country Customer ID Customer Name Customer Segment Discount Order Date Order ID Order Priority Collapse ^

257 PM 9/13/2023

Untitled - Power BI Desktop

File Home Help

Cut Copy Paste Get data from workbook hub Data SQL Server data Enter Dataverse Recent sources Transform Refresh data Queries Manage relationships Relationships Manage roles as Security Q&A setup Language schema Q&A Sensitivity Publish Sensitivity Share

Model Returns Calendar

```

graph LR
    Returns -- "*" --> Users
    Returns -- "1" --> Calendar
    Users -- "1" --> Calendar
    
```

Fields Properties

Search

Calendar Orders Returns Users

City Country Customer ID Customer Name Customer Segment Discount Order Date Order ID Order Priority Collapse ^

257 PM 9/13/2023

<https://wai.nuvepro.com/guacamole/#/client/a50wZDY2NjZmYzBiYWJINWNmNQBjAG51dmVsW5r?hostname=3.110.115.1...>

Power BI 1 - Power BI Desktop

File Home Help

Clipboard

Get data → workbook hub Data

Search Sign in

Manage relationships

Active From: Table (Column)

To: Table (Column)

<input type="checkbox"/> Calendar (Date)	FactInternetSales (DueDate)
<input checked="" type="checkbox"/> Calendar (Date)	FactInternetSales (OrderDate)
<input type="checkbox"/> Calendar (Date)	FactInternetSales (ShipDate)
<input checked="" type="checkbox"/> FactInternetSales (DueDateKey)	DimDate (DateKey)
<input type="checkbox"/> FactInternetSales (OrderDateKey)	DimDate (DateKey)
<input checked="" type="checkbox"/> FactInternetSales (ProductKey)	DimProduct (ProductKey)
<input type="checkbox"/> FactInternetSales (ShipDateKey)	DimDate (DateKey)

New... Autodetect... Edit... Delete Close

All tables +

Clipboard

Fields Properties

Calendar Date

Collapse ^

Update available (click to download)

4:21 PM 9/13/2023

The screenshot shows the 'Manage relationships' dialog in Power BI Desktop. The 'From: Table (Column)' column lists columns from the 'netSales' table, and the 'To: Table (Column)' column lists columns from the 'FactInternetSales' table. Several relationships are listed, with some being checked (e.g., 'Calendar (Date)', 'FactInternetSales (DueDateKey)') and others unchecked. The 'Properties' pane on the right shows the 'Calendar' table with its 'Date' field highlighted.

<https://wai.nuvepro.com/guacamole/#/client/a50wZDY2NjZmYzBiYWJINWNmNQBjAG51dmVsW5r?hostname=3.110.115.1...>

Power BI 1 - Power BI Desktop

File Home Help

Clipboard

Get data → workbook hub Data

Enter Data

SQL Server Data

Recent sources

Transform data → Queries

Relationships

Manage roles

View as

Q&A setup

Language schema

Sensitivity

Publish

Share

Clipboard

Fields Properties

DimProduct

DimDate

Calendar Date

Collapse ^

Update available (click to download)

4:22 PM 9/13/2023

The screenshot shows the 'Model' view in Power BI Desktop. It displays relationships between three tables: 'DimProduct', 'DimDate', and 'Calendar'. The 'DimProduct' table has columns like 'ArabicDescription', 'ChineseDescription', 'Class', etc. The 'DimDate' table has columns like 'CalendarQuarter', 'CalendarSemester', 'CalendarYear', etc. The 'Calendar' table has columns like 'Date', 'DayName', etc. The 'Properties' pane on the right shows the 'Calendar' table with its 'Date' field highlighted.

Power BI 1 - Power BI Desktop

File Home Insert Modeling View Help Format Data / Drill

Clipboard Data Queries Insert Calculations Sensitivity Share

Back to report

Month	Count of OrderDate	Count of ShipDate	Count of DueDate
January	4028	4028	4028
February	3857	3857	3857
March	4449	4449	4449
April	4355	4355	4355
May	4780	4780	4780
June	5573	5573	5573
July	5105	5105	5105
August	5352	5352	5352
September	5070	5070	5070
October	5834	5834	5834
November	5756	5756	5756
December	6239	6239	6239
Total	60398	60398	60398

Filters

Visualizations

Fields

Page 1 of 1

4:24 PM 9/13/2023

This screenshot shows a Power BI report with a table visualization titled 'Month' showing counts of OrderDate, ShipDate, and DueDate by month. The table has a total row. To the right, the 'Fields' pane is open, displaying a list of fields from the data source, with 'DueDate' and 'OrderDate' selected. The status bar at the bottom indicates the time as 4:24 PM on 9/13/2023.

Power BI 1 - Power BI Desktop

File Home Insert Modeling View Help Format Data / Drill

Clipboard Data Queries Insert Calculations Sensitivity Share

ProductKey

- 214
- 217
- 222
- 225
- 228
- 231
- 234
- 237
- 310

ProductKey

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

Filters

Visualizations

Fields

Page 2 of 2

4:45 PM 9/13/2023

This screenshot shows a Power BI report with a drill-through visualization. On the left, a dropdown menu for 'ProductKey' lists values 214, 217, 222, 225, 228, 231, 234, 237, and 310. On the right, a detailed view shows values 1 through 9 under 'ProductKey'. The 'Fields' pane is open, showing a list of product-related fields like FrenchDescription, GermanDescription, and ProductKey, with 'ProductKey' selected. The status bar at the bottom indicates the time as 4:45 PM on 9/13/2023.

https://wai.nuvepro.com/guacamole/#/client/a50wZDY2NjZmYzBiYWJINWNmNQbjAG51dmVsaW5r?hostname=3.110.115.1...

Power BI 1 - Power BI Desktop

File Home Insert Modeling View Help

Cut Copy Format painter Paste Get data Excel workbook hub Data SQL Enter Data Transform Refresh data New visual Text box More visual New measure Quick measure Calculations Queries

Transform Refresh data New visual Text box More visual New measure Quick measure Calculations

Sensitivity Share Publish

Filters Visualizations Fields

ProductKey ProductKey

- 214
- 217
- 222
- 225
- 228
- 231
- 234
- 237
- 310

Page 1 Page 2 +

Storage Mode: Mixed 80% Update available (click to download) 4:49 PM 9/13/2023

This screenshot shows the Power BI Desktop interface. The main area displays a list of ProductKeys (214, 217, 222, 225, 228, 231, 234, 237, 310). A filter has been applied to this list, specifically targeting ProductKey 234, which is highlighted with a black square. The interface includes a ribbon bar with Home selected, and various toolbars for file operations, data import, and visualization creation. The right side features the 'Fields' pane and the 'Visualizations' pane, which is currently empty. The status bar at the bottom indicates the storage mode is mixed, the page is 2 of 2, and the current time is 4:49 PM on 9/13/2023.

https://wai.nuvepro.com/guacamole/#/client/a50wZDY2NjZmYzBiYWJINWNmNQbjAG51dmVsaW5r?hostname=3.110.115.1...

Power BI 1 - Power BI Desktop

File Home Insert Modeling View Help Format Data / Drill

Cut Copy Format painter Paste Get data Excel workbook hub Data SQL Enter Data Transform Refresh data New visual Text box More visual New measure Quick measure Calculations Queries

Transform Refresh data New visual Text box More visual New measure Quick measure Calculations

Sensitivity Share Publish

Filters Visualizations Fields

ProductKey ProductKey

- 228

ProductKey

- 225
- 226
- 227
- 228
- 229
- 230
- 231
- 232

Page 1 Page 2 +

Storage Mode: Mixed 80% Update available (click to download) 4:50 PM 9/13/2023

This screenshot shows the Power BI Desktop interface, similar to the first one but with a different filter applied. The main area displays a list of ProductKeys (225, 226, 227, 228, 229, 230, 231, 232). A filter has been applied to this list, targeting ProductKey 228 and ProductKey 229, both of which are highlighted with black squares. The rest of the list is shown in gray. The interface elements, including the ribbon, toolbars, and right-hand panes, are identical to the first screenshot. The status bar at the bottom indicates the storage mode is mixed, the page is 2 of 2, and the current time is 4:50 PM on 9/13/2023.

Orders receiving in monthly basis:

The screenshot shows a Power BI Desktop interface with a table visualization titled "Month Count of Order ID". The table data is as follows:

Month	Count of Order ID
January	370
February	314
March	328
April	321
May	313
June	306
Total	1952

The Power BI ribbon is visible at the top, showing the Home tab is selected. The right side of the screen displays the "Fields" pane, which lists various data fields such as Customer Name, Order ID, and Order Priority. A "Filters" pane is also open, showing filters applied to the visual.

How many orders we are shipping in a month:

The screenshot shows the Power BI Desktop Data Model view. Two tables are connected: "Calendar" and "Ship". The "Calendar" table has a relationship named "Date" connecting to the "Ship" table's "Order Date" field. The "Ship" table contains fields like City, Country, Customer ID, and Order ID. The "Properties" pane on the right shows the relationship settings for the "Date" connection. The bottom navigation bar indicates "All tables" are selected.

Untitled - Power BI Desktop

File Home Insert Modeling View Help Format Data / Drill

Clipboard

Month Count of Order ID

Month	Count of Order ID
January	347
February	325
March	318
April	327
May	318
June	289
July	28
Total	1952

Filters

Visualizations

Fields

Page 1 of 1

3:23 PM 9/13/2023

This screenshot shows a Power BI report titled 'Untitled - Power BI Desktop'. The main area displays a table with monthly order counts. The 'Fields' pane on the right lists various data fields such as Customer ID, Order ID, and Product Name. The 'Visualizations' pane shows icons for different chart types.

Untitled - Power BI Desktop

File Home Insert Modeling View Help

Clipboard

Month Count of Order ID Month Count of Order ID Month Count of Order ID & Applied

Month	Count of Order ID	Month	Count of Order ID	Month	Count of Order ID & Applied
Jan-19	278	Feb-19	347	Mar-19	340
Feb-19	274	Mar-19	323	Apr-19	325
Mar-19	238	Apr-19	318	May-19	318
Apr-19	237	May-19	237	Jun-19	237
May-19	212	Jun-19	218	Jul-19	218
Jun-19	206	Jul-19	209	Aug-19	206
Total	1952	Total	1952	Total	1952

Filters

Visualizations

Fields

Page 1 of 1

4:09 PM 9/13/2023

This screenshot shows a more complex table visualization with three columns. The 'Fields' pane on the right includes a 'Calendar' section with hierarchical filters for Year, Quarter, Month, and Day, and an 'Orders' section with filters for City, Cost, Country, Customer ID, Customer Name, and Customer Segment.