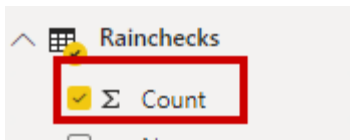


Sales data by Physical vs web store

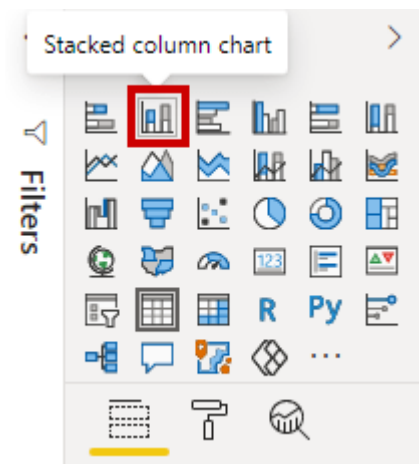
Click on the Name column under the Stores table to add a table



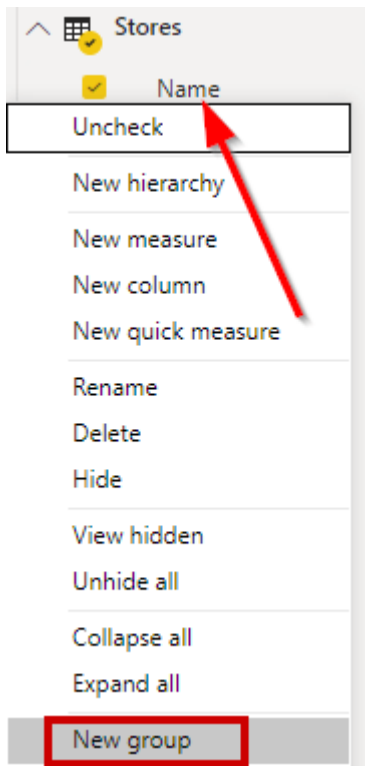
While having that same table select click the Count column under the Rainchecks table



While still having the table selected choose the Stacked Column chart



While still having the table selected right-click on the Name column under stores and select New group.



Select the following(18,16,4,17,13,20,19,2,5,11,3). Click on the Group button and rename to Online

Groups

Name Field

Group type

Ungrouped values

- Store1
- Store10
- Store12
- Store14
- Store15
- Store6
- Store7
- Store8
- Store9

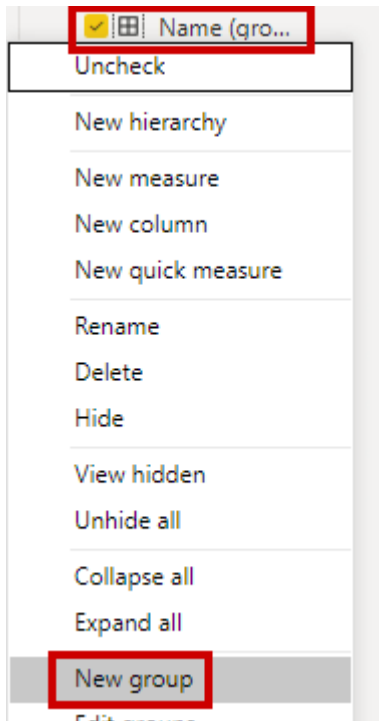
Groups and members

- Online**
 - Store11
 - Store13
 - Store16
 - Store17
 - Store18
 - Store19
 - Store2
 - Store20
 - Store2

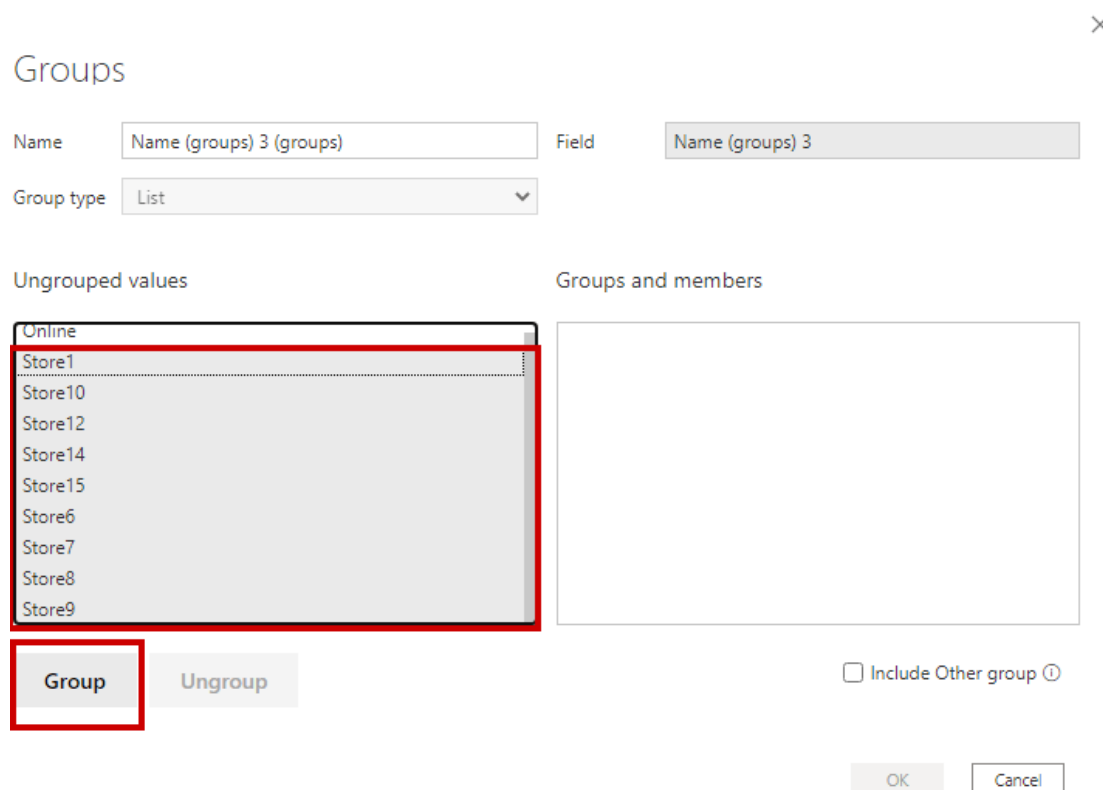
☐ Include Other group ⓘ

Then choose the new Name group created for the table.

Then right-click on the new group and select New group



Select the remaining stores and click the Group button (Exclude the Online group)



Double click the title to rename to Physical Store and click OK

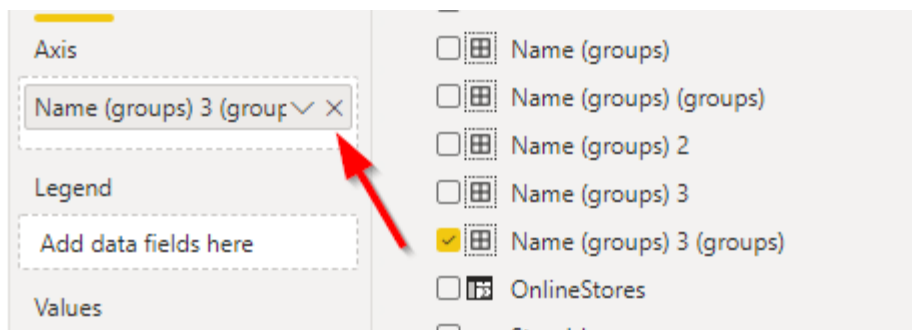
Groups and members



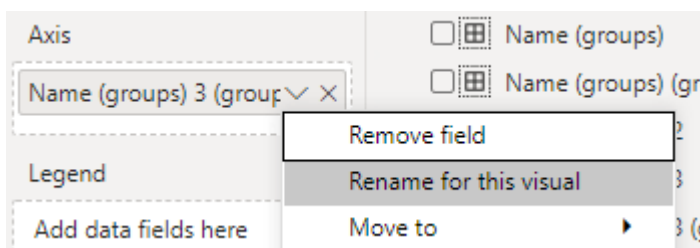
☐ Include Other group ⓘ



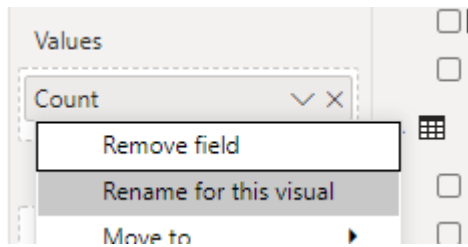
Finally choose the new grouped column for the Axis



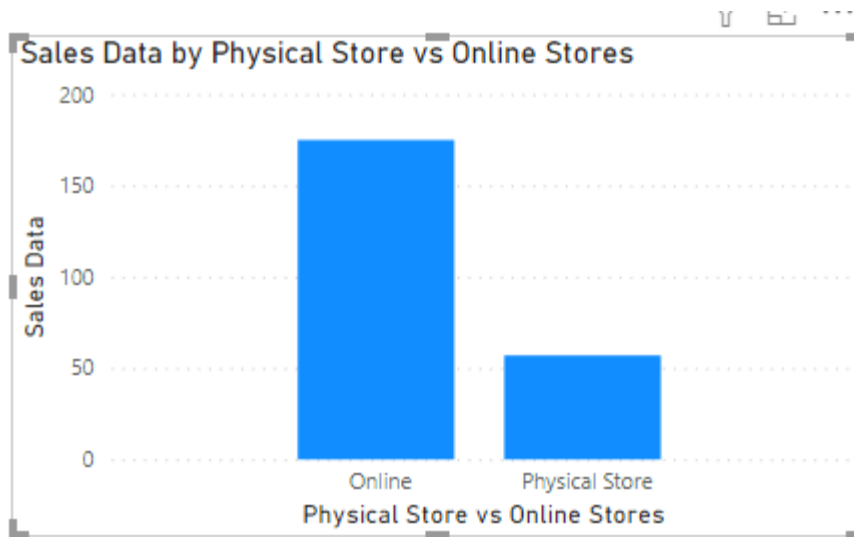
Right-click the Axis column and choose Rename for this visual. Rename to **Physical Store vs Online Stores**



Right-click the Count column and choose Rename. Rename to **Sales Data**

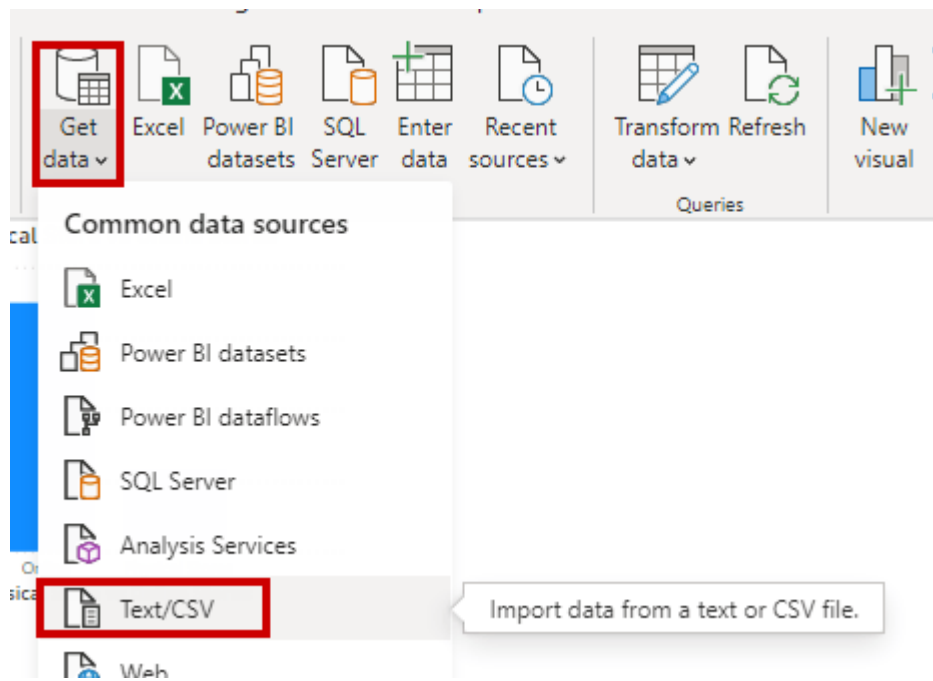


End result

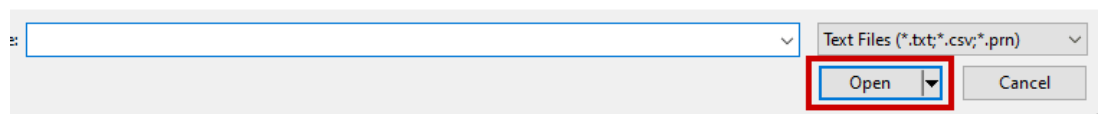
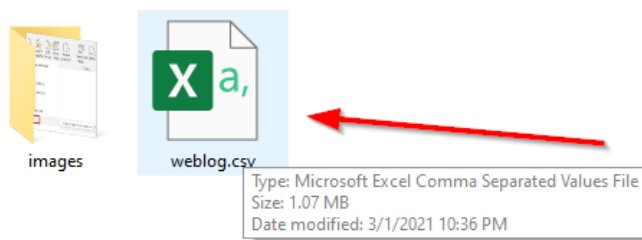


Weblog data

Select get data from Text/CSV in PowerBI



Select weblog.csv



Click on transform data

weblog.csv

File Origin: 1252: Western European (Windows) | Delimiter: Comma | Data Type Detection: Based on first 200 rows

IP	Time	URL	Status
10.128.2.1	[29/Nov/2017:06:58:55]	GET /login.aspx HTTP/1.1	200
10.128.2.1	[29/Nov/2017:06:59:02]	POST /process.aspx HTTP/1.1	302
10.128.2.1	[29/Nov/2017:06:59:03]	GET /home.aspx HTTP/1.1	200
10.131.2.1	[29/Nov/2017:06:59:04]	GET /js/vendor/moment.min.js HTTP/1.1	200
10.130.2.1	[29/Nov/2017:06:59:06]	GET /bootstrap-3.3.7/js/bootstrap.js HTTP/1.1	200
10.130.2.1	[29/Nov/2017:06:59:19]	GET /profile.aspx?user=bala HTTP/1.1	200
10.128.2.1	[29/Nov/2017:06:59:19]	GET /js/jquery.min.js HTTP/1.1	200
10.131.2.1	[29/Nov/2017:06:59:19]	GET /js/chart.min.js HTTP/1.1	200
10.131.2.1	[29/Nov/2017:06:59:30]	GET /edit.aspx?name=bala HTTP/1.1	200
10.131.2.1	[29/Nov/2017:06:59:37]	GET /logout.aspx HTTP/1.1	302
10.131.2.1	[29/Nov/2017:06:59:37]	GET /login.aspx HTTP/1.1	200
10.130.2.1	[29/Nov/2017:07:00:19]	GET /login.aspx HTTP/1.1	200
10.130.2.1	[29/Nov/2017:07:00:21]	GET /login.aspx HTTP/1.1	200
10.130.2.1	[29/Nov/2017:13:31:27]	GET / HTTP/1.1	302
10.130.2.1	[29/Nov/2017:13:31:28]	GET /login.aspx HTTP/1.1	200
10.129.2.1	[29/Nov/2017:13:38:03]	POST /process.aspx HTTP/1.1	302
10.131.0.1	[29/Nov/2017:13:38:04]	GET /home.aspx HTTP/1.1	200
10.131.0.1	[29/Nov/2017:13:38:07]	GET /contestproblem.aspx?name=RUET%20J%20Serv...	200
10.130.2.1	[29/Nov/2017:13:38:19]	GET / HTTP/1.1	302
10.131.2.1	[29/Nov/2017:13:38:20]	GET /login.aspx HTTP/1.1	200

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

Load Transform Data Cancel

Right-click on the URL column and choose Split Column → By Delimiter

The screenshot shows the Power Query editor with a table containing columns 'URL' and 'Status'. A right-click context menu is open over the 'URL' column. The 'Split Column' option is selected, and the 'By Delimiter...' sub-option is highlighted. The 'URL' column header is also highlighted in yellow.

Leave the defaults and click OK

Split Column by Delimiter

Specify the delimiter used to split the text column.

Select or enter delimiter

Space

Split at

- ☐ Left-most delimiter
- ☐ Right-most delimiter
- ☒ Each occurrence of the delimiter

Advanced options

Quote Character

"

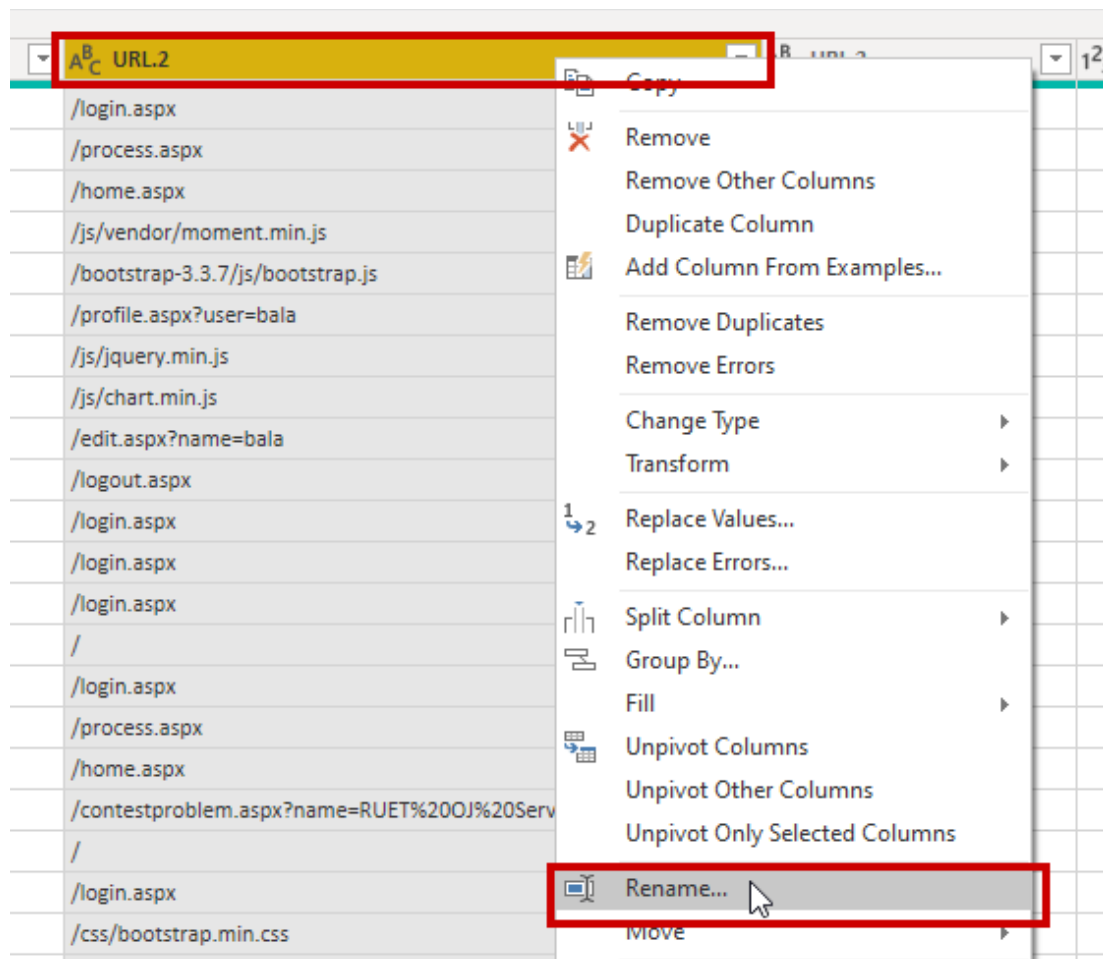
☐ Split using special characters

Insert special character

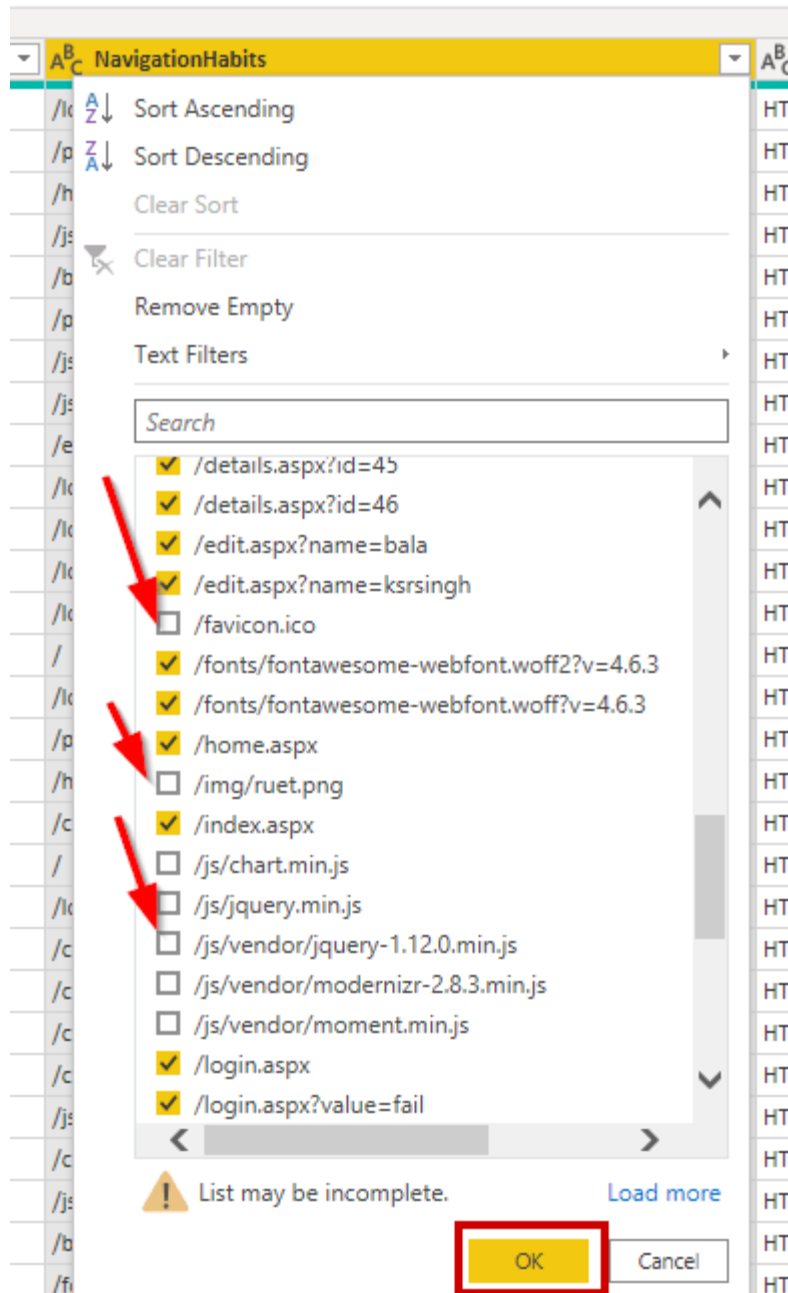
OK

Cancel

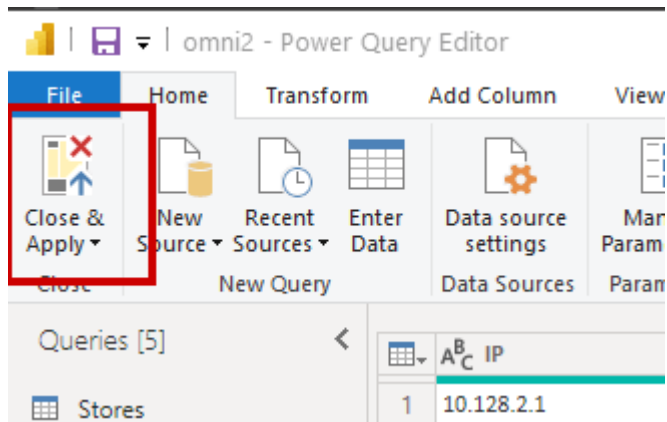
Right-click on the URL.2 column and choose rename to enter
NavigationHabits



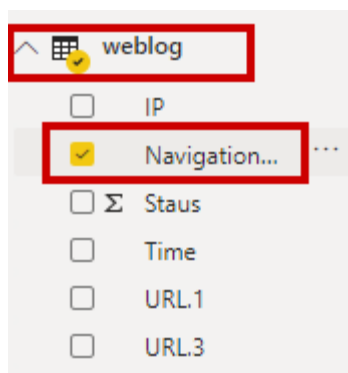
Click on the row sorting arrow and un-select any non aspx urls (eg. js, css, ico, png) then click OK



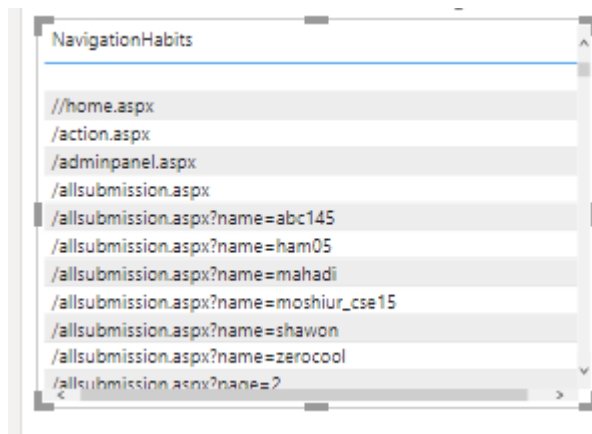
Click Close & Apply



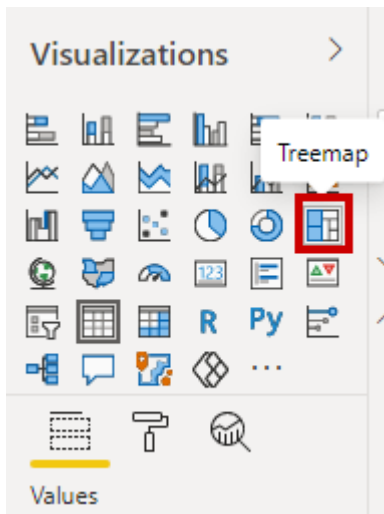
Expand the weblog data section and click the **NavigationHabits** column



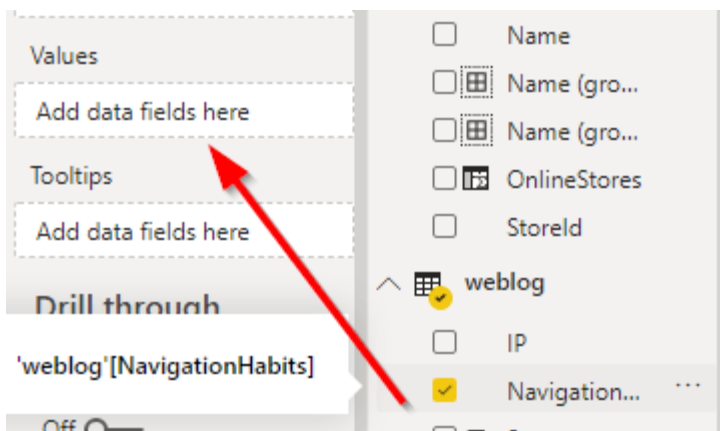
This will add a table to the display



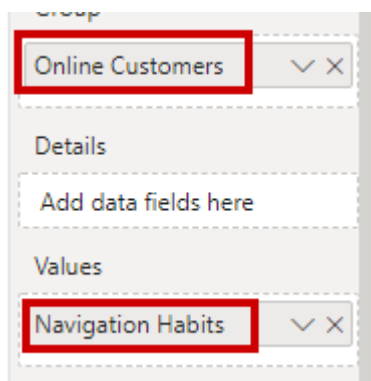
Click on the Treemap Visualization to convert the table to a treemap



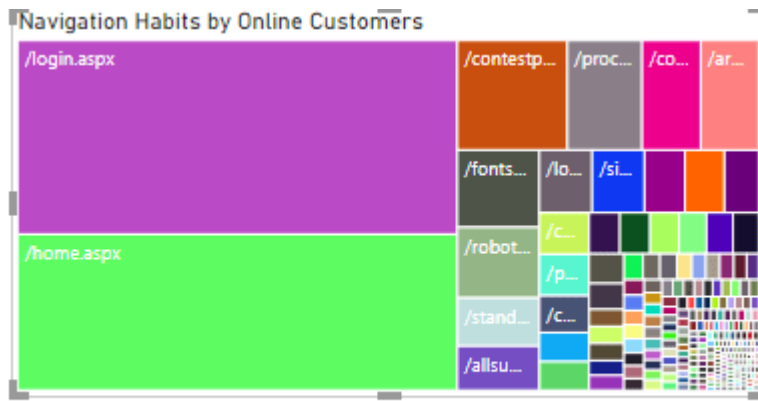
Drag the NavigationHabits column to the Values field of the treemap



Rename Group to Online Customers and Valudes to Navigation Habits



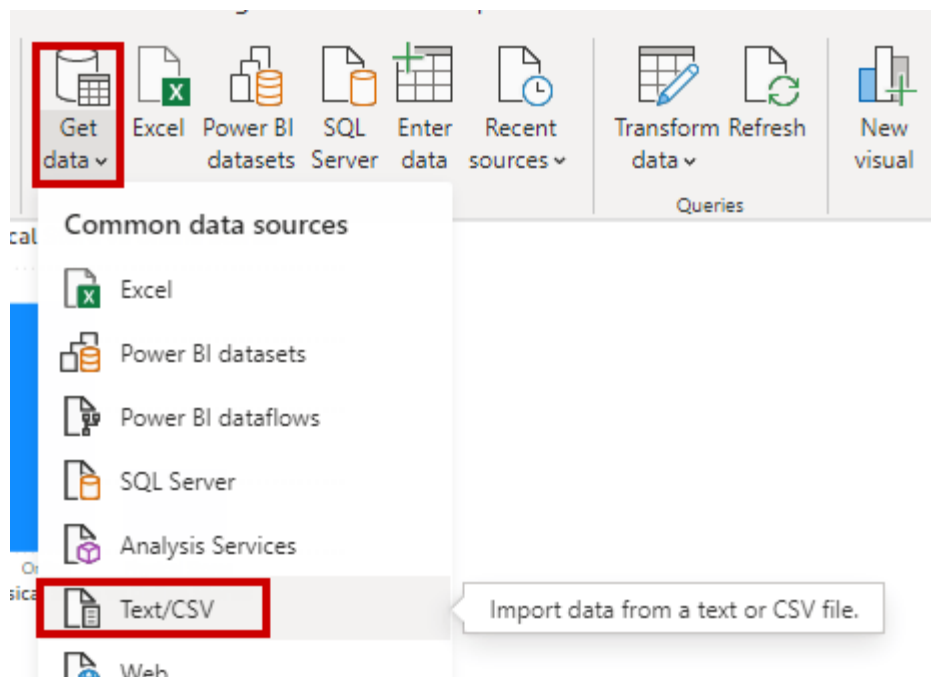
Final result



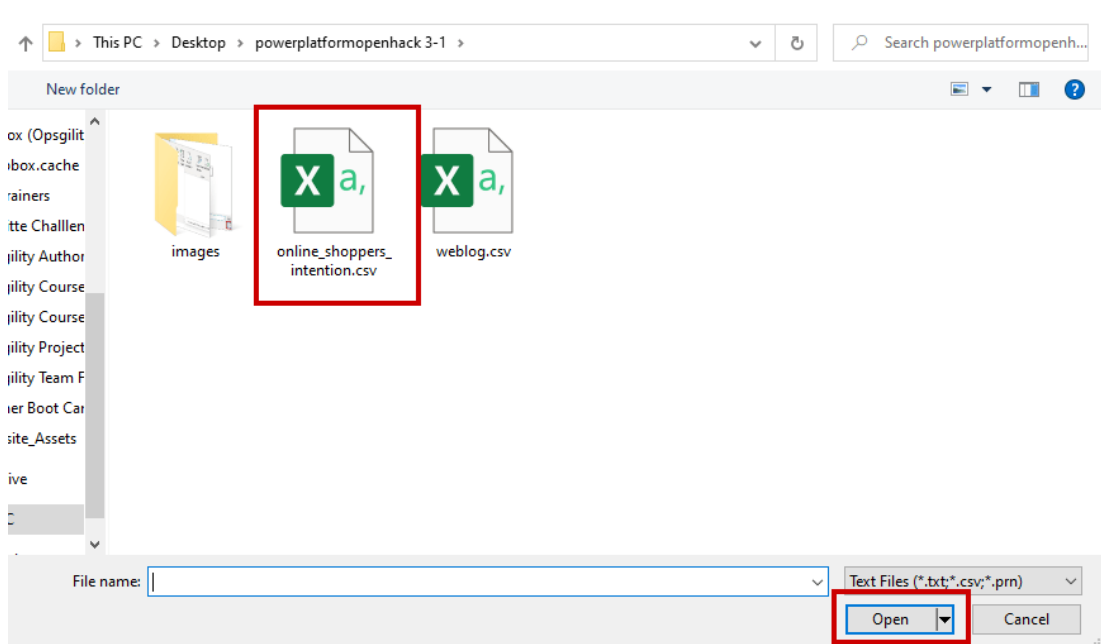
Purchase and view habits

Based off the amount of time that people view an item we will reference that price and display the total amount spent as the size of the ball in the Scatter plot.

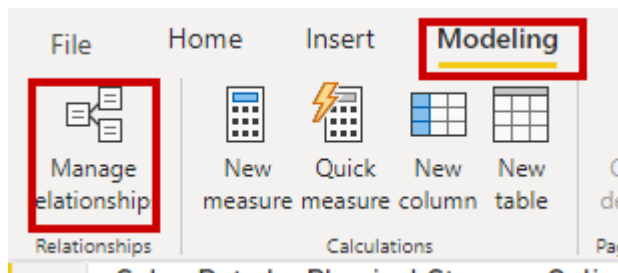
Select get data from Text/CSV in PowerBI



Choose online shoppers and click Open. Then click the Load button



In PowerBI select the Modeling tab then click on Manage Relationships



Click on the New button

Manage relationships

Active	From: Table (Column)	To: Table (Column)
<input checked="" type="checkbox"/>	Products (CategoryId)	Categories (CategoryId)
<input checked="" type="checkbox"/>	Rainchecks (ProductId)	Products (ProductId)
<input checked="" type="checkbox"/>	Rainchecks (StoreId)	Stores (StoreId)

In the first dropdown select the Products Table and highlight the ProductId column

Products

ProductId	SkuNumber	CategoryId	RecommendationId
1	LIG-0001	2	
2	LIG-0002	2	
3	LIG-0003	2	

In the second dropdown select online_shoppers_intention and then highlight the ProductRelated column.

online_shoppers_intention


Administrative	Administrative_Duration	Informational	Informational_Duration	ProductRelated	ProductRelated_Duration
0	0	0	0	2	
0	0	0	0	2	
0	0	0	0	2	

Change the Cardinality dropdown to Many to many. Leave the remaining as defaults and click the OK button

Cardinality: **Many to many (*:*)** Cross filter direction: **Single (Products filters online_shoppers_intention)**

☒ Make this relationship active ☐ Apply security filter in both directions

☐ Assume referential integrity

 This relationship has cardinality Many-Many. This should only be used if it is expected that neither column (online_shoppers_intention and Products) contains unique values, and that the significantly different behavior of Many-many relationships is understood. [Learn more](#)

OK **Cancel**

Then click the Close button

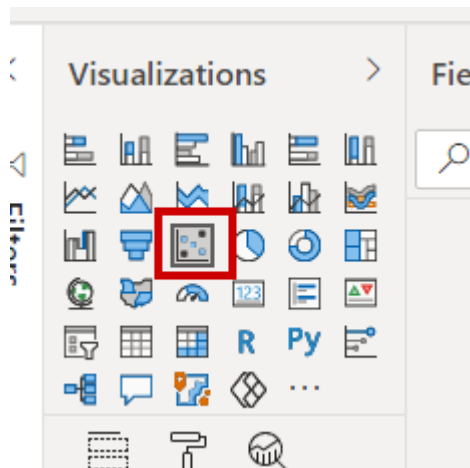
Manage relationships

Active	From: Table (Column)	To: Table (Column)
<input checked="" type="checkbox"/>	online_shoppers_intention (ProductRelated)	Products (ProductId)
<input checked="" type="checkbox"/>	Products (CategoryId)	Categories (CategoryId)
<input checked="" type="checkbox"/>	Rainchecks (ProductId)	Products (ProductId)
<input checked="" type="checkbox"/>	Rainchecks (StoreId)	Stores (StoreId)

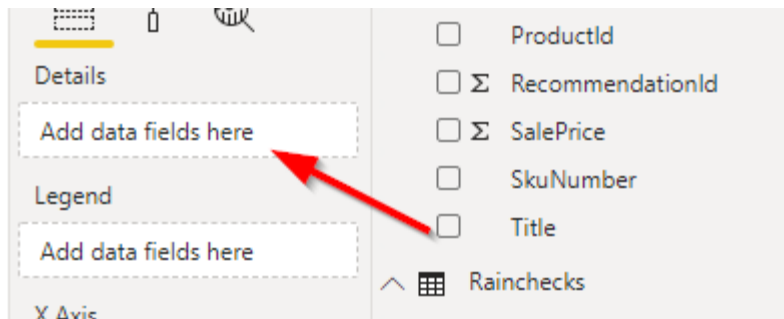
New... **Autodetect...** **Edit...** **Delete**

Close

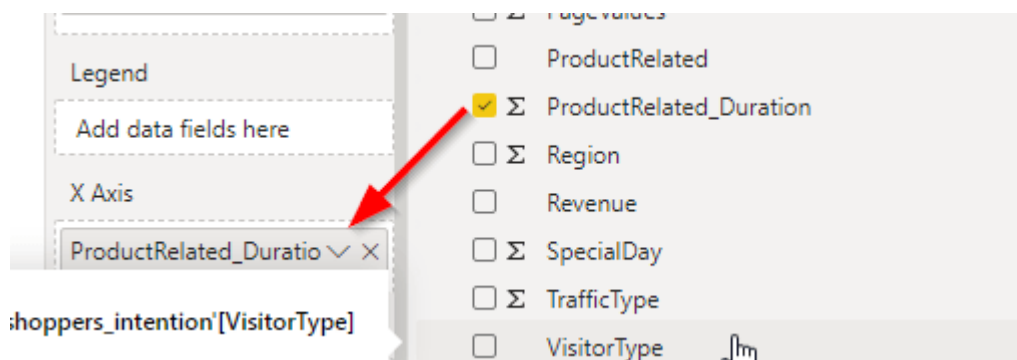
Add a Scatter plot Visualization



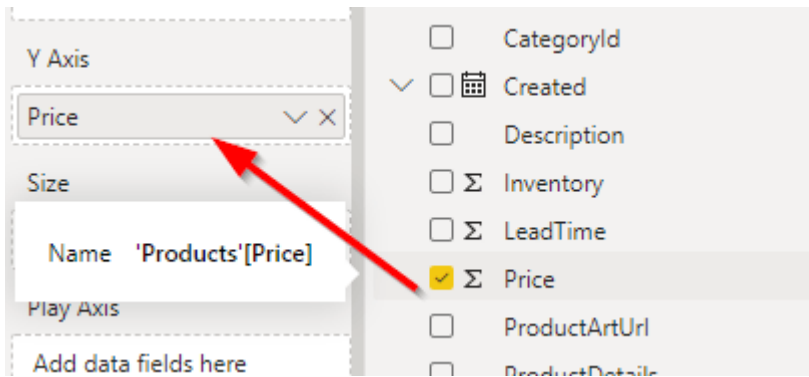
Set the Details field to the Title column under Products



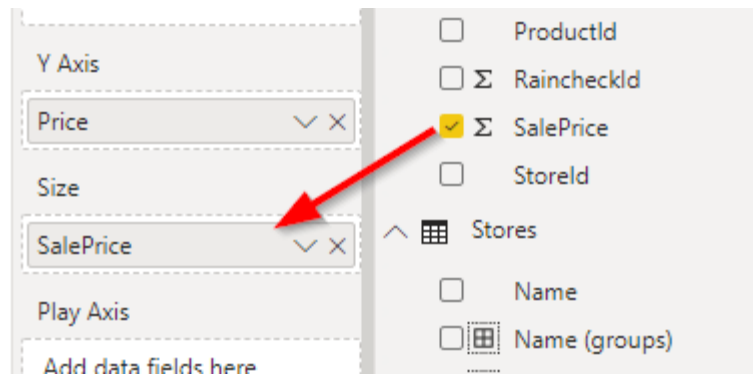
Set the X axis to ProductRelated_Duration from the online_shoppers_intention table



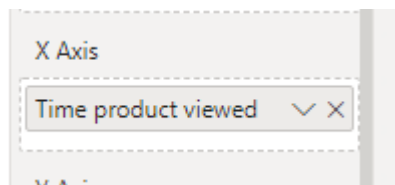
Set the Y axis to Price from the Products table



Finally choose the SalePrice from the Rainchecks table to Size

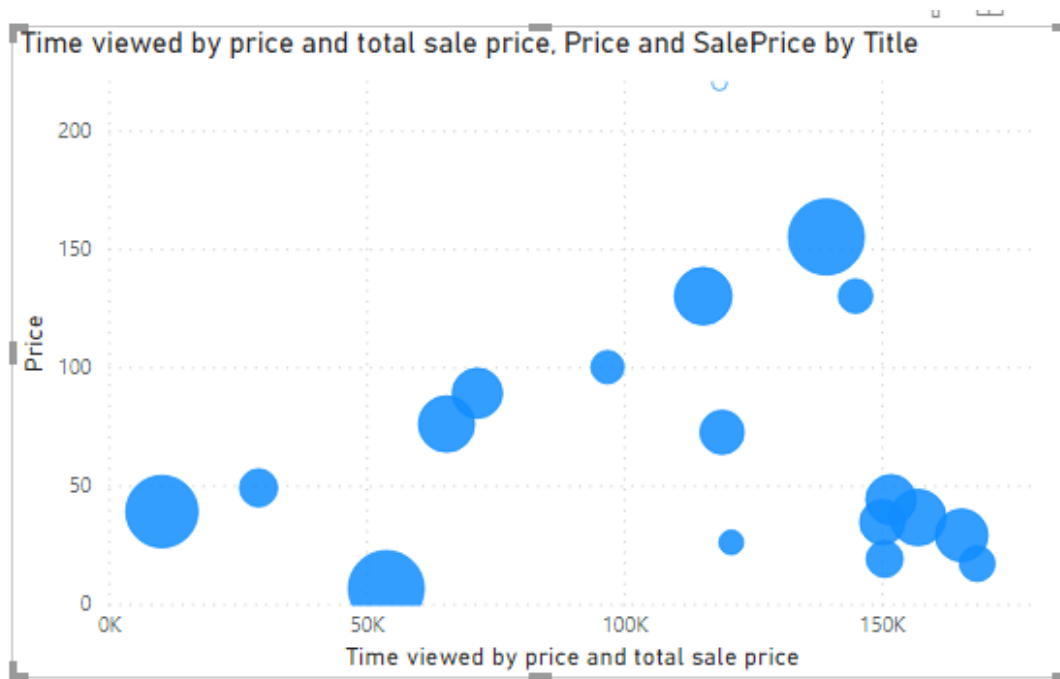


Rename the X axis to **Time product viewed**



Rename the Y axis to **Time viewed by price and total sale price**

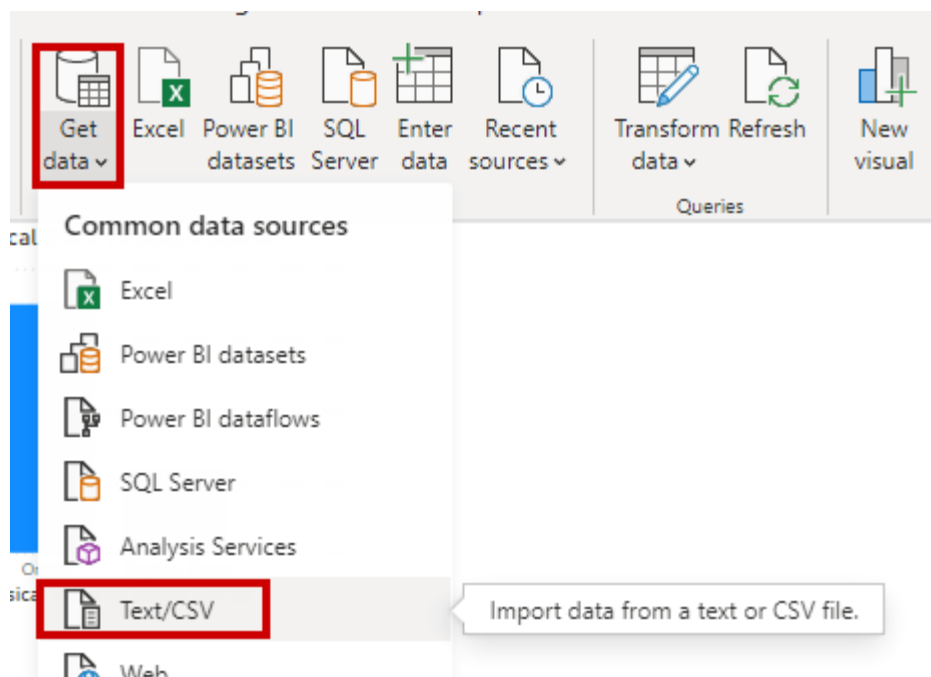
Final result



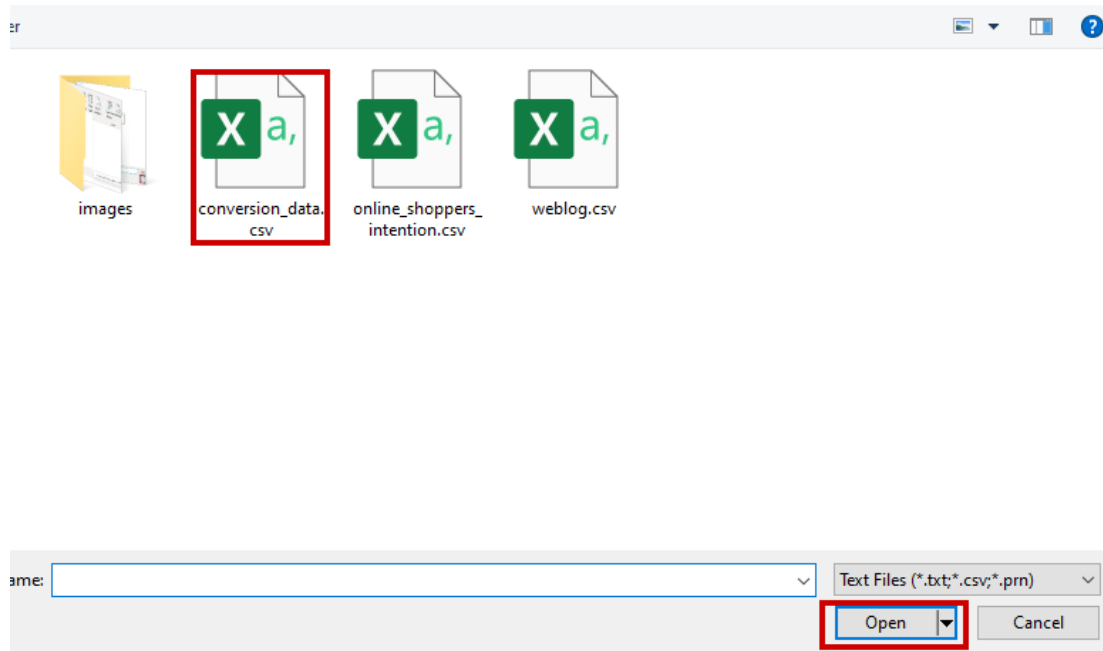
Digital Marketing effectiveness

In this scenario we want to see the how digital marketing campaigns effected online sales. So we will take a look at conversion data across different age groups and how much they spent based on how many impressions they received.

Select get data from Text/CSV in PowerBI



Choose conversion_data and click Open. Then click the Transform Data button



Click on the sort arrow for the Purchaseid column and uncheck (0, and all numbers higher than 18).

123 Impressions 123 Purchaseid 1.2

Sort Ascending
Sort Descending
Clear Sort

Clear Filter
Remove Empty
Number Filters

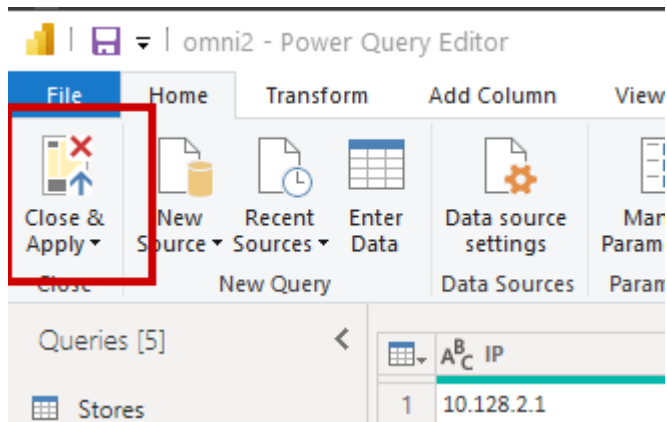
Search

- ☒ 4
- ☒ 5
- ☒ 6
- ☒ 7
- ☒ 8
- ☒ 9
- ☒ 10
- ☒ 11
- ☒ 12
- ☒ 13
- ☒ 14
- ☒ 15
- ☒ 16
- ☒ 17
- ☒ 18
- ☐ 19
- ☐ 20
- ☐ 21

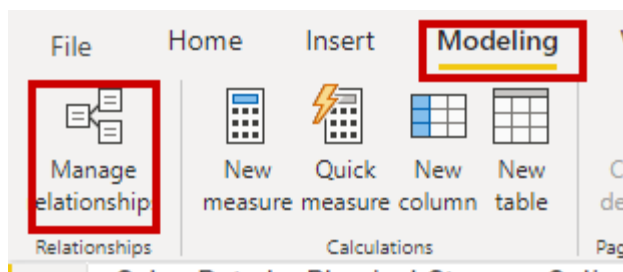
! List may be incomplete. [Load more](#)

OK Cancel

Click Close & Apply

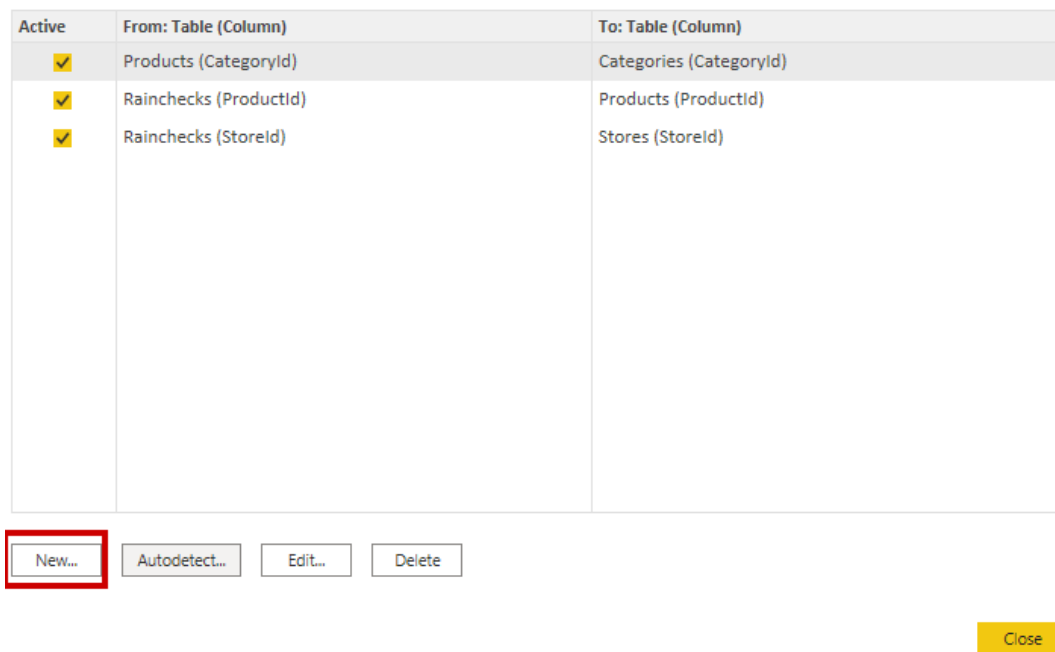


In PowerBI select the Modeling tab then click on Manage Relationships



Click on the New button

Manage relationships



In the first dropdown select the Products Table and highlight the ProductId column

Products			
ProductId	SkuNumber	CategoryId	RecommendationId
1	LIG-0001	2	
2	LIG-0002	2	
3	LIG-0003	2	

In the second dropdown choose conversion_data and choose Purchaseid as the column. Accept the defaults and click the OK button

conversion_data								
ad_id	insta_campaign_id	fb_campaign_id	age	gender	interest	Impressions	Purchaseid	Spe
708815	916	103928	30-34	M	28	4259	1	
708889	916	103940	30-34	M	15	15615	3	4.769
708953	916	103951	30-34	M	27	2355	1	

Cardinality

One to many (1:*)

Cross filter direction

Single

☒ Make this relationship active
 ☐ Apply security filter in both directions

☐ Assume referential integrity

OK

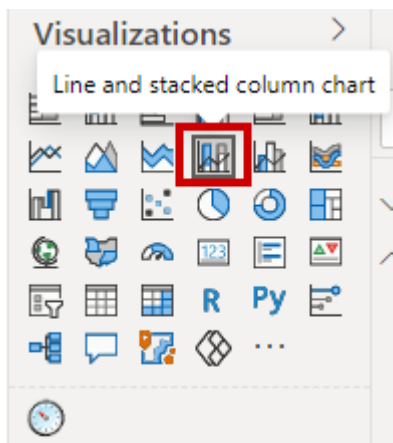
Cancel

Then click the Close button

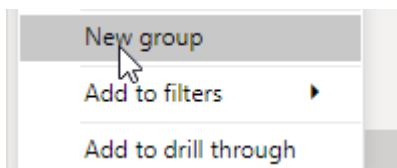
Manage relationships

Active	From: Table (Column)	To: Table (Column)
<input checked="" type="checkbox"/>	online_shoppers_intention (ProductRelated)	Products (ProductId)
<input checked="" type="checkbox"/>	Products (CategoryId)	Categories (CategoryId)
<input checked="" type="checkbox"/>	Rainchecks (ProductId)	Products (ProductId)
<input checked="" type="checkbox"/>	Rainchecks (StoreId)	Stores (StoreId)

Add a Line and stacked column chart



Right click on Price under Products and select New Group



Change the Group type to List

Groups

Name	<input type="text" value="Price (bins)"/>	Fi
Group type	<div>Bin</div>	N
Bin Type	<div>List</div> <div>Bin</div>	N

Binning splits numeric or date/time data into equally sized groups. T

Select all values less than \$100 and click the Group button

Ungrouped values	Gr
<div>34.49 36.49 38.99 43.99 48.99 72.49 75.99 88.99 99.99 129.99</div>	<div></div>
<div>Group</div>	<div>Ungroup</div>

Rename that group to Less than \$100

Groups and members



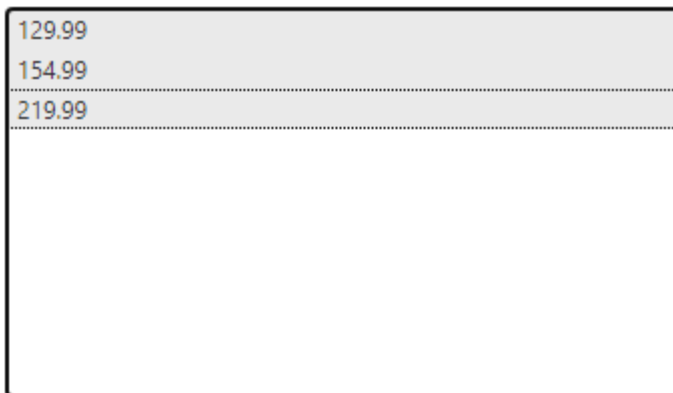
Less than \$100

- 6.49
- 16.99
- 18.99
- 25.99
- 28.99
- 34.49
- 36.49
- 38.99
- 42.00

☒ Include Other group ⓘ

Select the remaining values and click Group

Ungrouped values



129.99

154.99

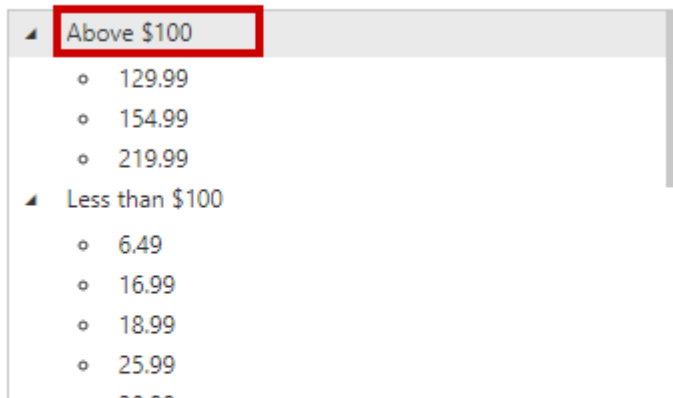
219.99

Group

Ungroup

Rename that to Above \$100 then click OK

Groups and members



- ▲ Above \$100
 - 129.99
 - 154.99
 - 219.99
- ▲ Less than \$100
 - 6.49
 - 16.99
 - 18.99
 - 25.99
 - 33.99

☒ Include Other group ⓘ

Set the Shared axis to age. The Column series to the new Price(group) just created and the Column values to Spent. The Line values will get the Impressions column

The screenshot shows the Power BI interface. On the left, the 'Fields' pane is visible with the following sections and items:

- Shared axis: age
- Column series: Price (groups)
- Column values: Spent
- Line values: Impressions
- Tooltips: (empty)

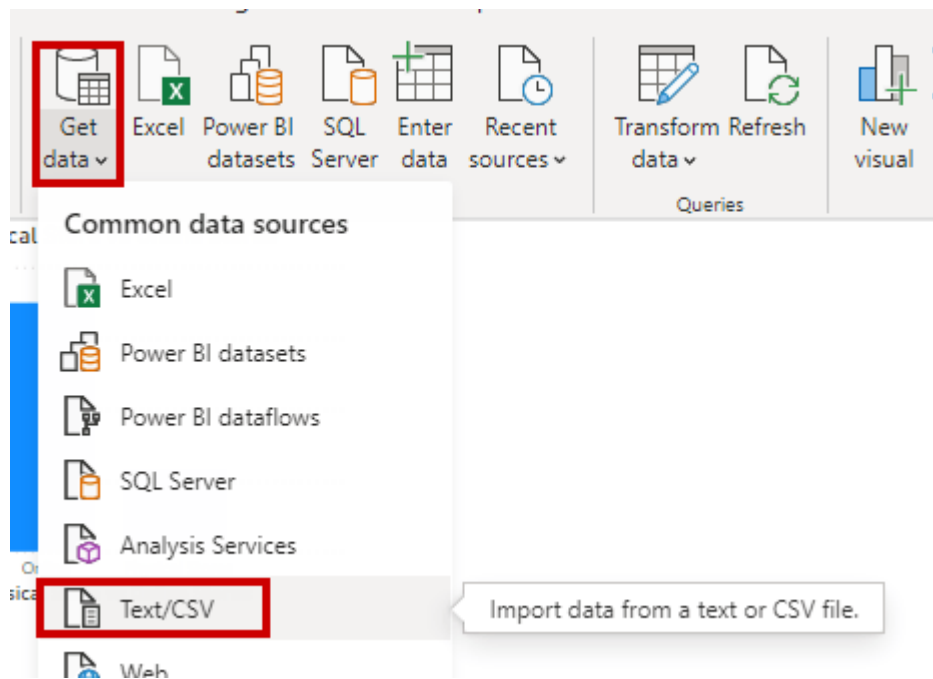
Below the Fields pane, the 'Create relationship' dialog is open. It contains the instruction 'Select tables and columns that are related.' and a dropdown menu showing 'olist_order_items_dataset'. Below the dropdown is a table with the following data:

order_id	order_item_id	product_id	seller_id
00c8be06a8029e300dabd52c7d4c6ad2	1	5d66715cc928aadd0074f61332698593	128639473a139ac0f3e5f5a
026054570865201773b27b2748af1217	1	fed5c40c27e1c88560a9e92d82ee0825	128639473a139ac0f3e5f5a
044cd7ffb6a41e6e5513c6595a2893ca	1	62c2b9bd44500d0305b1e50e2c9bd34d	002100f778ceb8431b7a102

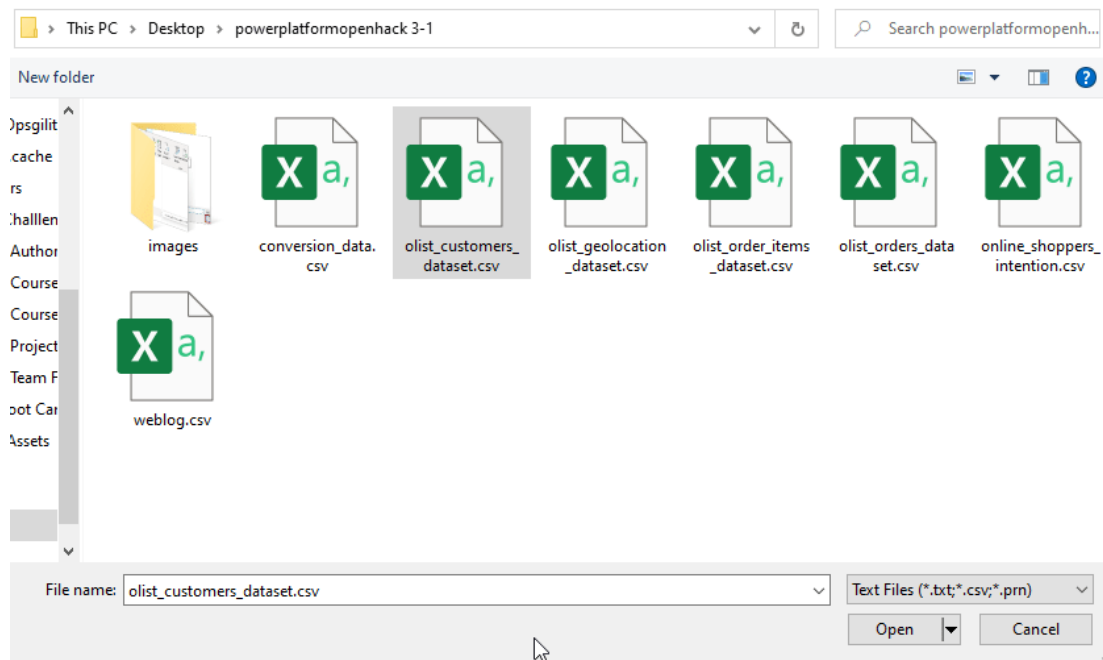
A red arrow points to the 'order_item_id' column in the table.

Next

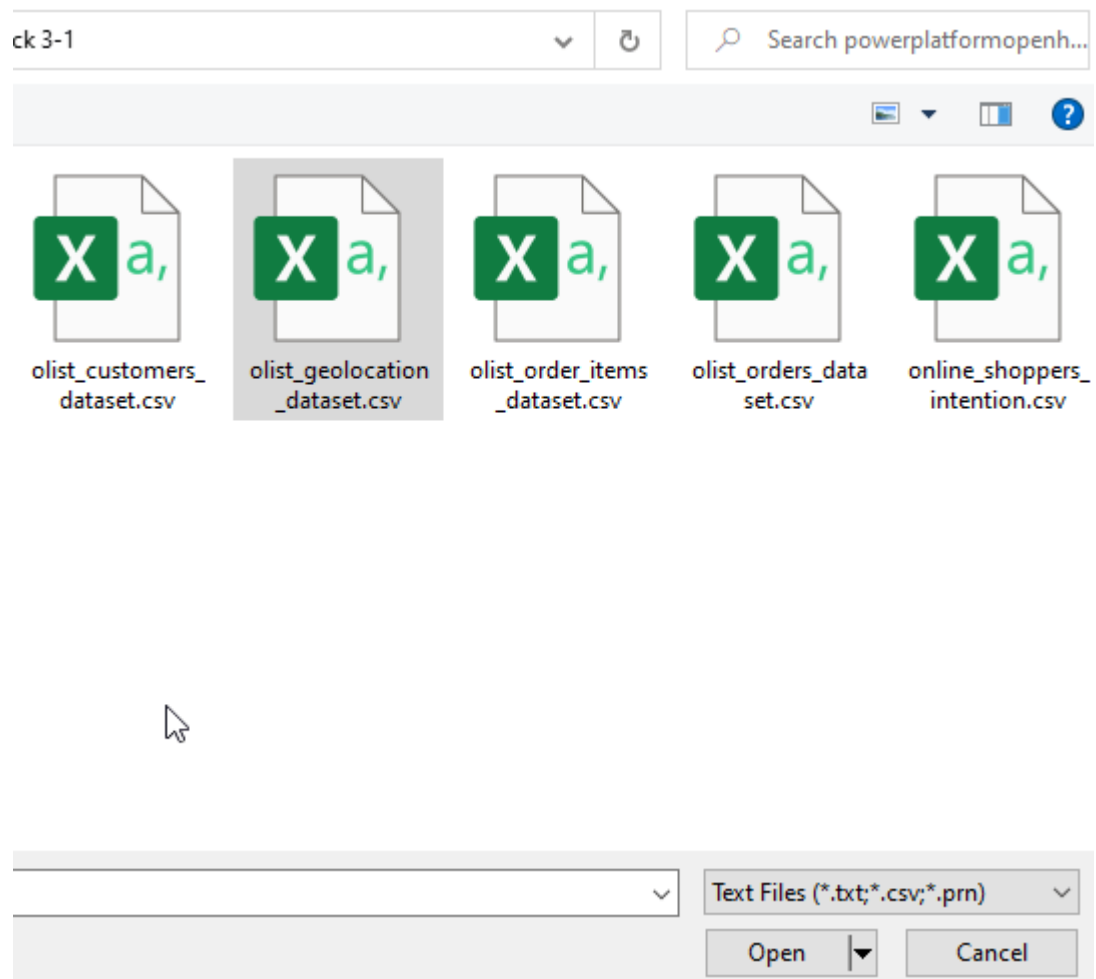
Select get data from Text/CSV in PowerBI



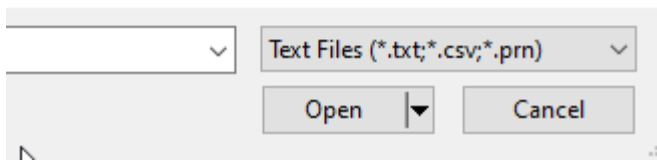
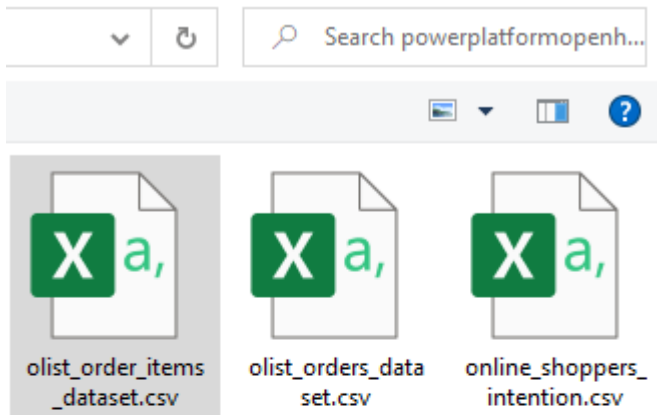
Choose olist_customers_dataset and click Open. Then click Load



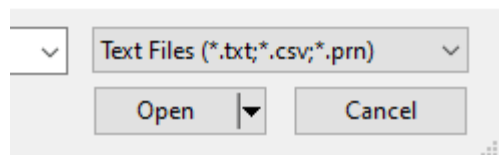
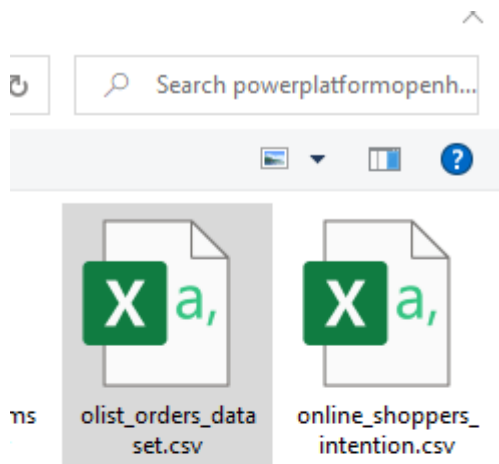
Choose olist_geolocation_dataset and click Open. Then click Load



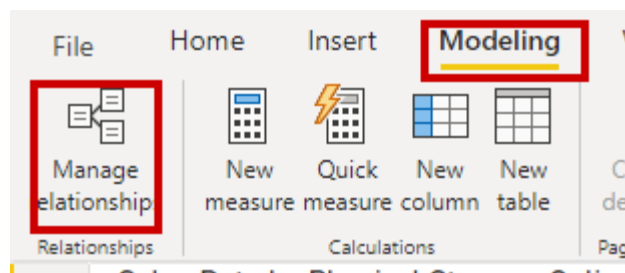
Choose olist_order_items_dataset and click Open. Then click Load



Choose olist_orders_dataset and click Open. Then click Load



In PowerBI select the Modeling tab then click on Manage Relationships



Click on the New button

Manage relationships

Active	From: Table (Column)	To: Table (Column)
<input checked="" type="checkbox"/>	Products (CategoryId)	Categories (CategoryId)
<input checked="" type="checkbox"/>	Rainchecks (ProductId)	Products (ProductId)
<input checked="" type="checkbox"/>	Rainchecks (StoreId)	Stores (StoreId)

New...

Autodetect...

Edit...

Delete

Close

In the first dropdown select olist_order_items_dataset and choose order_item_id column

Create relationship

Select tables and columns that are related.

olist_order_items_dataset

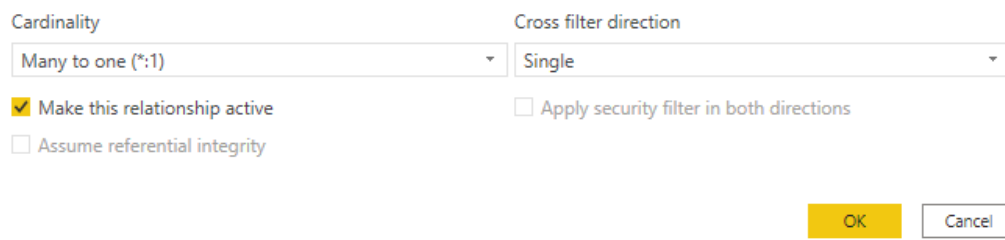
order_id	order_item_id	product_id	seller_id
00c8be06a8029e300dabd52c7d4c6ad2	1	5d66715cc928aadd0074f61332698593	128639473a139ac0f3e5f5a
026054570865201773b27b2748af1217	1	fed5c40c27e1c88560a9e92d82ee0825	128639473a139ac0f3e5f5a
044cd7ffb6a41e6e5513c6595a2893ca	1	62c2b9bd44500d0305b1e50e2c9bd34d	002100f778ceb8431b7a102

In the second dropdown select Products and choose the ProductId column

Products

ProductId	SkuNumber	CategoryId	RecommendationId	Title	Price
1	LIG-0001	2	1	Halogen Headlights (2 Pack)	38.95
2	LIG-0002	2	2	Bugeye Headlights (2 Pack)	48.95
3	LIG-0003	2	3	Turn Signal Light Bulb	6.45

Leave the defaults and click OK. Then click Close



Cardinality: Many to one (*:1)

Cross filter direction: Single

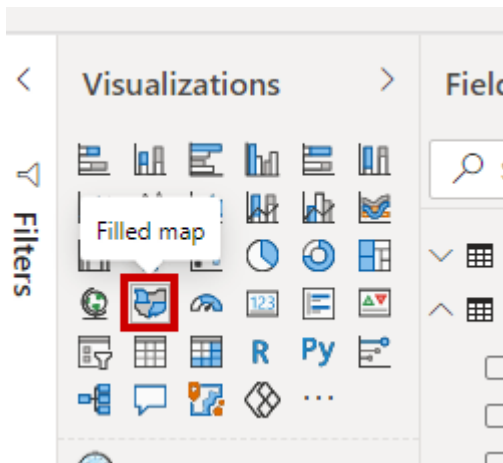
☒ Make this relationship active

☐ Assume referential integrity

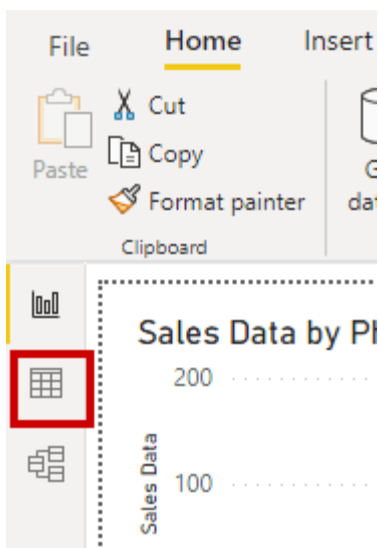
☐ Apply security filter in both directions

OK Cancel

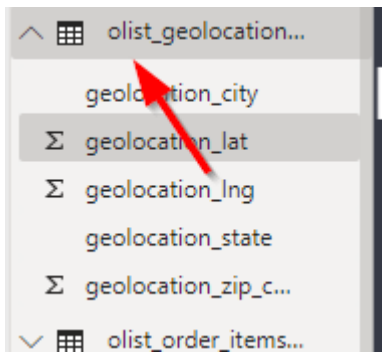
Make sure no visualization is selected then click the Filled Map visualization



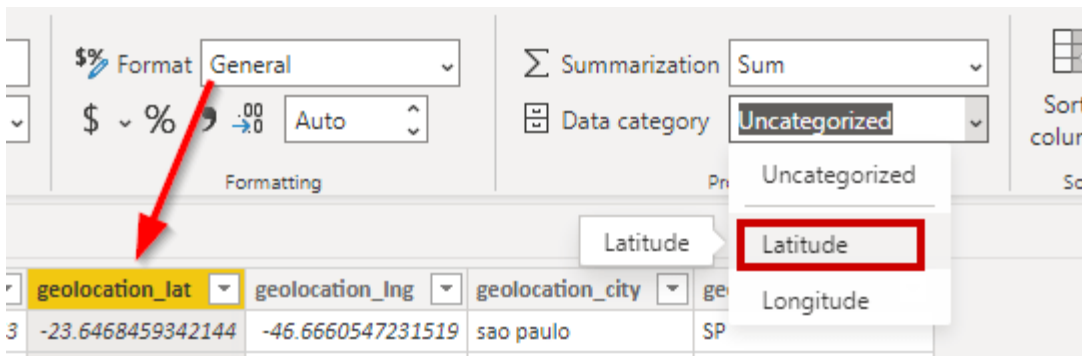
Select the Data tab on the far left edge



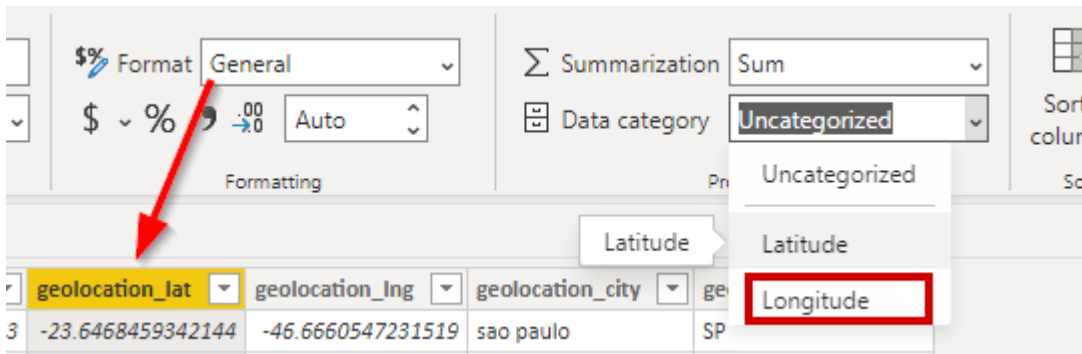
From the available tables select the olist_geolocation_dataset



Highlight the geolocation_lat column and change the Data Category to Latitude



Highlight the geolocation_long column and change the Data Category to Longitude






Click back on the Report tab on the left navigation

Name \$% For

123 Data type \$ v %

Structure

geolocation_zip_code_prefix	geolocation
4363	-23.646845.
4363	-23.646845.
4363	-23.647623.
4363	-23.647898
4363	-23.647938
4363	-23.648279.