

Report

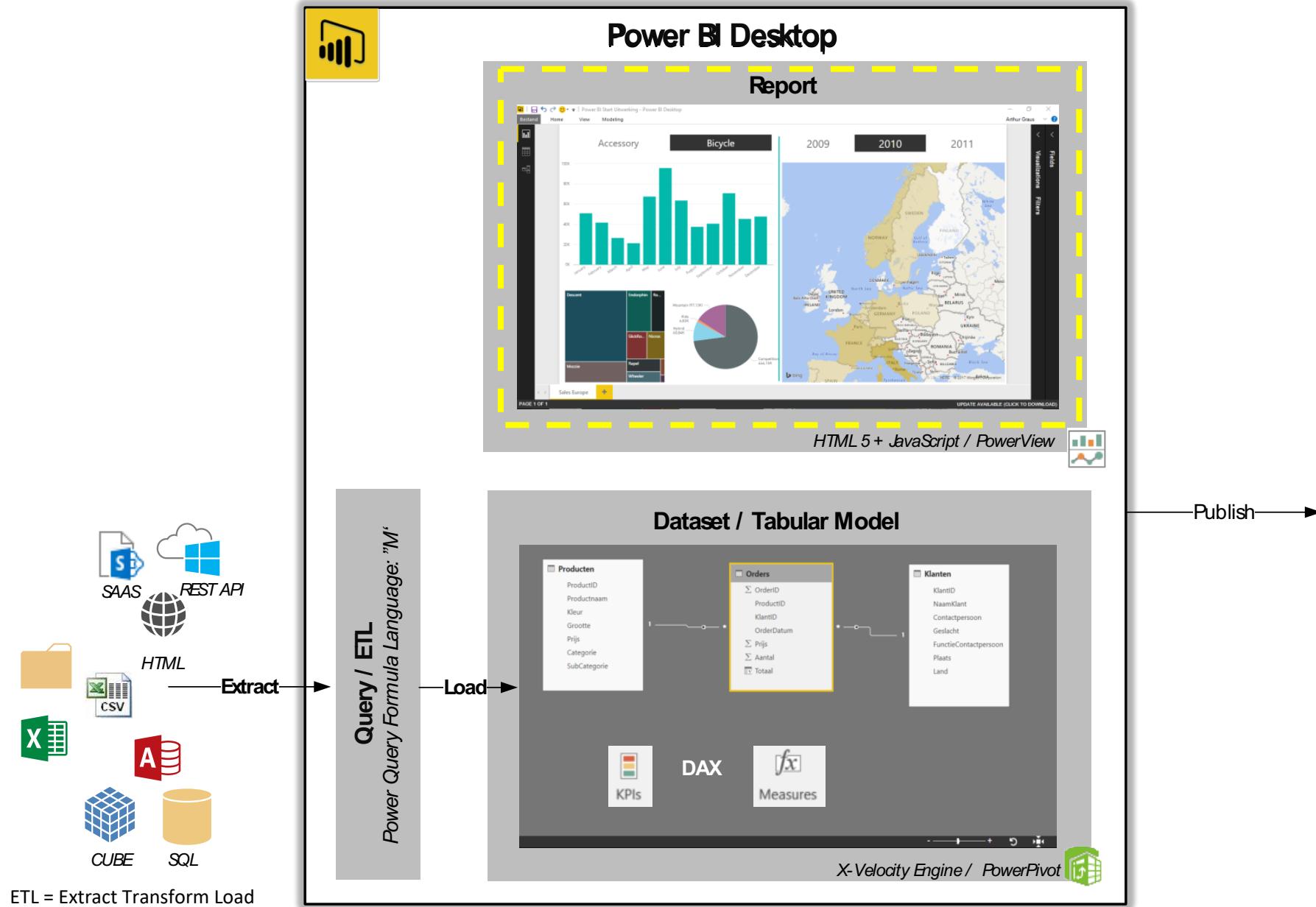


Table – Step by step

The screenshot shows the Power BI desktop interface with a 'Table' visualization selected in the Visualizations pane. The Fields pane on the right lists various fields from the 'Orders' table, with some checked (e.g., OrderID, LineTotal) and others unchecked (e.g., CustomerID, ProductID). A blue box labeled '3' is at the top left of the table, and another blue box labeled '2' is pointing to the 'OrderID' field in the Values section of the Fields pane. A blue box labeled '1' is over the Table icon in the Visualizations pane, and a blue box labeled '4' is over the Paint Roller icon in the Fields pane.

OrderID	Customer	OrderDate	Category	Productname	Quantity	Price
1	Chris Christianson	2-12-2017	Accessory	Triumph Pro Helmet	1	
1002	Ron Cunningham	2-12-2017	Bicycle	Mozzie	3	
1002	Ron Cunningham	2-12-2017	Accessory	Xtreme Adult Helmet	3	
1003	Pavel Ropoleski	2-12-2017	Accessory	Triumph Vertigo Helmet	3	
1003	Pavel Ropoleski	2-12-2017	Accessory	Xtreme Anatomic Ladies Saddle	3	
1004	Ian Kelly	2-12-2017	Bicycle	Micro Nicros	3	
1005	Claus Main	3-12-2017	Accessory	Active Outdoors Crochet Glove	2	
1006	Alex Smith	3-12-2017	Accessory	Active Outdoors Lycra Glove	1	
1006	Alex Smith	3-12-2017	Accessory	Xtreme Anatomic Ladies Saddle	1	
1006	Alex Smith	3-12-2017	Accessory	Xtreme Youth Helmet	1	
1007	Sheryl Rodgers	3-12-2017	Accessory	Active Outdoors Lycra Glove	3	
1008	Bill Carter	3-12-2017	Bicycle	Nicros	1	
1008	Bill Carter	3-12-2017	Bicycle	Rapel	1	
1008	Bill Carter	3-12-2017	Bicycle	SlickRock	2	

1. Add a Table by clicking on the icon in the Visualizations pane
2. Drag fields from the Fields pane over into the Values section
3. Change the Sorting by clicking on a Column Header in the Table
4. Click on the Paint Roller icon to change all the formatting options

Table Sort on multiple columns – Step by step

1	2						
OrderID	Customer	OrderDate	Category	Productname	Quantity	Price	LineTotal
1	Chris Christianson	2-12-2017	Accessory	Triumph Pro Helmet	1	€ 41,905	€ 41,905
1002	Ron Cunningham	2-12-2017	Bicycle	Mozzie	3	€ 1.652,86	€ 4.958,58
1002	Ron Cunningham	2-12-2017	Accessory	Xtreme Adult Helmet	3	€ 33,9	€ 101,7
1003	Pavel Ropoleski	2-12-2017	Accessory	Triumph Vertigo Helmet	3	€ 48,51	€ 145,53
1003	Pavel Ropoleski	2-12-2017	Accessory	Xtreme Anatomic Ladies Saddle	3	€ 13,78	€ 41,34
1004	Ian Kelly	2-12-2017	Bicycle	Micro Nicros	3	€ 274,35	€ 823,05
1005	Claus Main	3-12-2017	Accessory	Active Outdoors Crochet Glove	2	€ 14,5	€ 29
1006	Alex Smith	3-12-2017	Accessory	Active Outdoors Lycra Glove	1	€ 16,5	€ 16,5
1006	Alex Smith	3-12-2017	Accessory	Xtreme Anatomic Ladies Saddle	1	€ 14,5	€ 14,5
1006	Alex Smith	3-12-2017	Accessory	Xtreme Youth Helmet	1	€ 33,9	€ 33,9
1007	Sheryl Rodgers	3-12-2017	Accessory	Active Outdoors Lycra Glove	3	€ 16,5	€ 49,5
1008	Bill Carter	3-12-2017	Bicycle	Nicros	1	€ 329,85	€ 329,85
1008	Bill Carter	3-12-2017	Bicycle	Rapel	1	€ 431,87	€ 431,87
1008	Bill Carter	3-12-2017	Bicycle	SlickRock	2	€ 726,61	€ 1.453,22

1. Click on the first column to sort on
2. With the SHIFT key pressed click on the second column to sort on

Field Formatting – Step by step

The screenshot shows the Power BI desktop interface. The ribbon at the top has the "Column tools" tab selected (highlighted in blue). The "Formatting" section of the ribbon is open, with a cursor hovering over the "Format" dropdown menu. The main area displays a table titled "Orders overview Table" with columns: OrderID, Customer, OrderDate, Category, Productname, Quantity, Price, and LineTotal. The "LineTotal" column is highlighted with a yellow background. To the right of the table is the "Fields" pane, which lists fields from three tables: Customers, Dates, and Orders. The "LineTotal" field from the Orders table is selected and highlighted with a blue border. A blue box labeled "1" is placed over the "LineTotal" field in the Fields pane. A blue box labeled "2" is placed over the "Column tools" tab in the ribbon. A blue box labeled "3" is placed over the "Format" dropdown in the ribbon.

OrderID	Customer	OrderDate	Category	Productname	Quantity	Price	LineTotal
1	Chris Christianson	2-12-2017	Accessory	Triumph Pro Helmet	1	€ 41,905	€ 41,91
1002	Ron Cunningham	2-12-2017	Bicycle	Mozzie	3	€ 1.652,86	€ 4.958,58
1002	Ron Cunningham	2-12-2017	Accessory	Xtreme Adult Helmet	3	€ 33,9	€ 101,70
1003	Pavel Ropoleski	2-12-2017	Accessory	Triumph Vertigo Helmet	3	€ 48,51	€ 145,53
1003	Pavel Ropoleski	2-12-2017	Accessory	Xtreme Anatomic Ladies Saddle	3	€ 13,78	€ 41,34
1004	Ian Kelly	2-12-2017	Bicycle	Micro Nicros	3	€ 274,35	€ 823,05
1005	Claus Main	3-12-2017	Accessory	Active Outdoors Crochet Glove	2	€ 14,5	€ 29,00
1006	Alex Smith	3-12-2017	Accessory	Active Outdoors Lycra Glove	1	€ 16,5	€ 16,50
1006	Alex Smith	3-12-2017	Accessory	Xtreme Anatomic Ladies Saddle	1	€ 14,5	€ 14,50
1006	Alex Smith	3-12-2017	Accessory	Xtreme Youth Helmet	1	€ 33,9	€ 33,90
1007	Sheryl Rodgers	3-12-2017	Accessory	Active Outdoors Lycra Glove	3	€ 16,5	€ 49,50
1008	Bill Carter	3-12-2017	Bicycle	Nicros	1	€ 329,85	€ 329,85
1008	Bill Carter	3-12-2017	Bicycle	Rapel	1	€ 431,87	€ 431,87
1008	Bill Carter	3-12-2017	Bicycle	SlickRock	2	€ 726,61	€ 1.453,22
1009	Zach Fabro	3-12-2017	Accessory	Active Outdoors Crochet Glove	2	€ 14,5	€ 29,00
1010	Scott Mueller	3-12-2017	Bicycle	Descent	5	€ 5.585,72	€ 14.111,29
1010	Scott Mueller	3-12-2017	Bicycle	Mini Nicros	3	€ 253,67	€ 761,01
1011	Victoria Ashworth	3-12-2017	Accessory	Active Outdoors Crochet Glove	2	€ 14,5	€ 29,00
1012	Georg Pipps	3-12-2017	Bicycle	Descent	3	€ 5.879,7	€ 8.819,55
1012	Georg Pipps	3-12-2017	Bicycle	Rapel	3	€ 479,85	€ 1.439,55
1013	Patricia Manon	3-12-2017	Accessory	Guardian Mini Lock	3	€ 20,81	€ 62,43
Total					7612	€ 1.982.630,905	€ 4.083.665,35

1. Select Field in the Fields Pane by clicking on it's name
2. Go to the "Column tools" Ribbon
3. Change the Formatting options of the Field

Excercise 02A – Reports – Table

- Create a table like this:

Orders overview Table

OrderID	Customer	OrderDate	Category	Productname	Quantity	Price	LineTotal
1	Chris Christianson	2-12-2017	Accessory	Triumph Pro Helmet	1	€ 41,91	€ 42
1002	Ron Cunningham	2-12-2017	Accessory	Xtreme Adult Helmet	3	€ 33,90	€ 102
1002	Ron Cunningham	2-12-2017	Bicycle	Mozzie	3	€ 1.652,86	€ 4.959
1003	Pavel Ropoleski	2-12-2017	Accessory	Triumph Vertigo Helmet	3	€ 48,51	€ 146
1003	Pavel Ropoleski	2-12-2017	Accessory	Xtreme Anatomic Ladies Saddle	3	€ 13,78	€ 41
1004	Ian Kelly	2-12-2017	Bicycle	Micro Nicros	3	€ 274,35	€ 823
1005	Claus Main	3-12-2017	Accessory	Active Outdoors Crochet Glove	2	€ 14,50	€ 29
1006	Alex Smith	3-12-2017	Accessory	Active Outdoors Lycra Glove	1	€ 16,50	€ 17
1006	Alex Smith	3-12-2017	Accessory	Xtreme Anatomic Ladies Saddle	1	€ 14,50	€ 15
1006	Alex Smith	3-12-2017	Accessory	Xtreme Youth Helmet	1	€ 33,90	€ 34
1007	Sheryl Rodgers	3-12-2017	Accessory	Active Outdoors Lycra Glove	3	€ 16,50	€ 50
1008	Bill Carter	3-12-2017	Bicycle	Nicros	1	€ 329,85	€ 330
1008	Bill Carter	3-12-2017	Bicycle	Rapel	1	€ 431,87	€ 432
1008	Bill Carter	3-12-2017	Bicycle	SlickRock	2	€ 726,61	€ 1.453
Total					7.612		€ 4.083.665

Matrix – Step by Step

The screenshot shows a Power BI interface with a Matrix visualization on the left and the Fields pane on the right.

Matrix Visualization:

Country	Female	Male
Turkey	2	2
Ukraine	2	1
United Arab Emirates		
USA	2095	3337
Atlanta	1	
Austin	103	
Baltimore	2	
Bangor		1
Blacklick		218
Brown Deer	123	
Champaign	100	
Charleston	1	
Clearwater		210
Columbia	2	
Total	2634	4976

Fields Pane:

- Visualizations:** Shows various chart icons. A blue box labeled **1** points to the matrix icon.
- Fields:** A search bar at the top. Below it, under the **Customers** section, **City** and **Country** are checked. Under the **Orders** section, **Quantity** is checked with a sum operator (Σ). Blue boxes labeled **2**, **3**, and **4** point to the **Rows**, **Values**, and **Columns** sections respectively.

1. Add a Matrix by clicking on the icon in the Visualizations pane
2. Drag fields from the Fields pane over into the 3 sections: Rows, Columns and Values. Use the Rows and Columns section for Dimension Fields. Fact Fields belong in the Values Section.
3. Use the Hierarchy buttons to Drilldown and up. This only works if you have at least 2 or more fields in the Rows or Columns Section.
4. Enable +/- Icons: Go to Paint Roller → Row Headers -> +/- Icons -> On

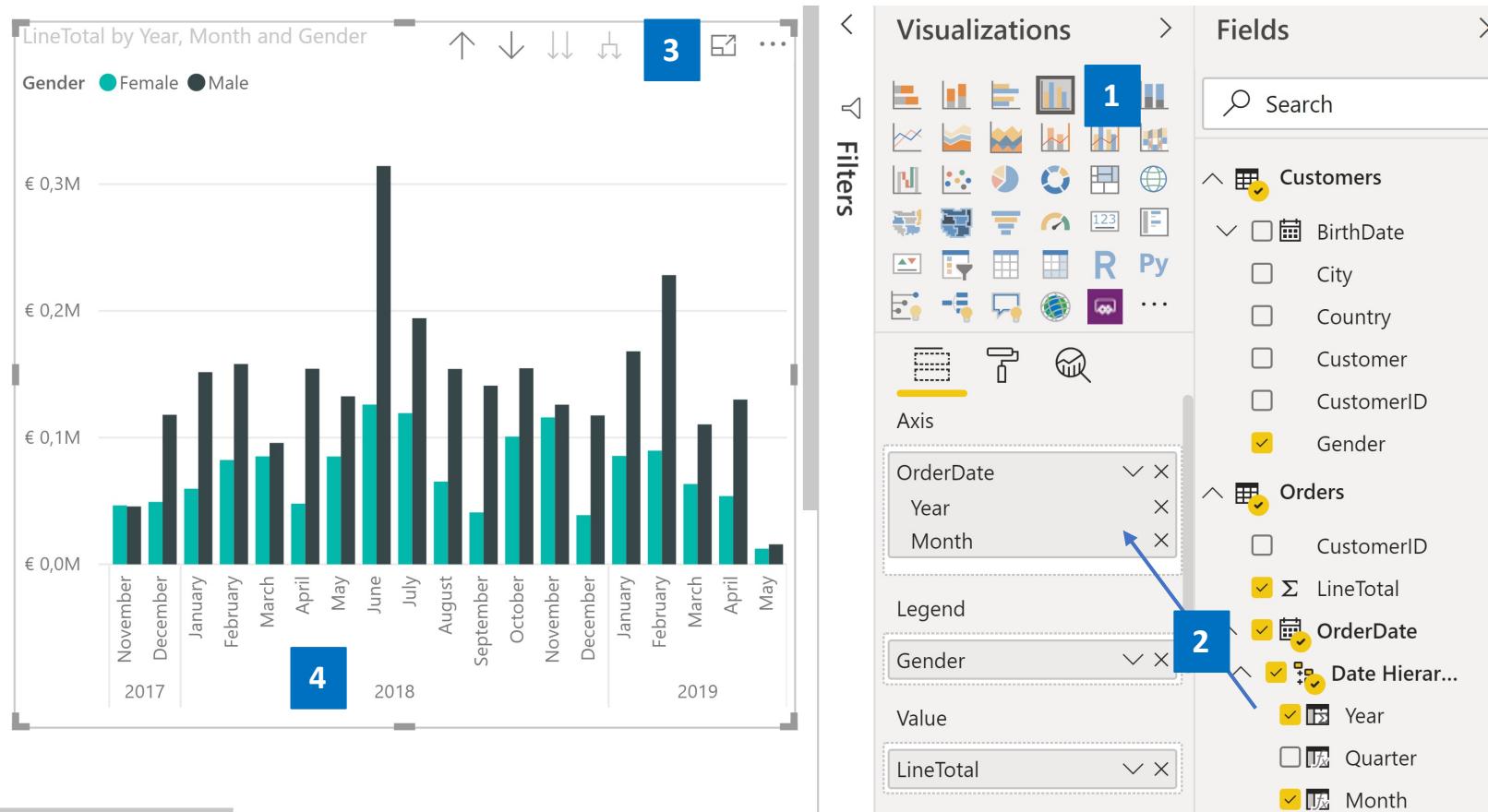
Excercise 02B – Reports – Matrix

- Create a matrix like this showing the units sold of each Product Category:

The screenshot shows a Microsoft Power BI matrix visualization. The columns represent product categories: 'Accessory' and 'Bicycle'. The rows are grouped by year (2017, 2018, 2019) and then by month (January to December). The data shows the number of units sold per month for each category. The matrix includes a total row at the bottom.

Year		Accessory	Bicycle
[+]	2017	320	277
[+]	2018	2836	2559
	January	257	184
	February	142	161
	March	109	211
	April	245	188
	May	230	181
	June	403	360
	July	187	278
	August	230	239
	September	247	153
	October	265	194
	November	236	288
	December	285	122
[+]	2019	810	810
	Total	3966	3646

Chart – Step by step

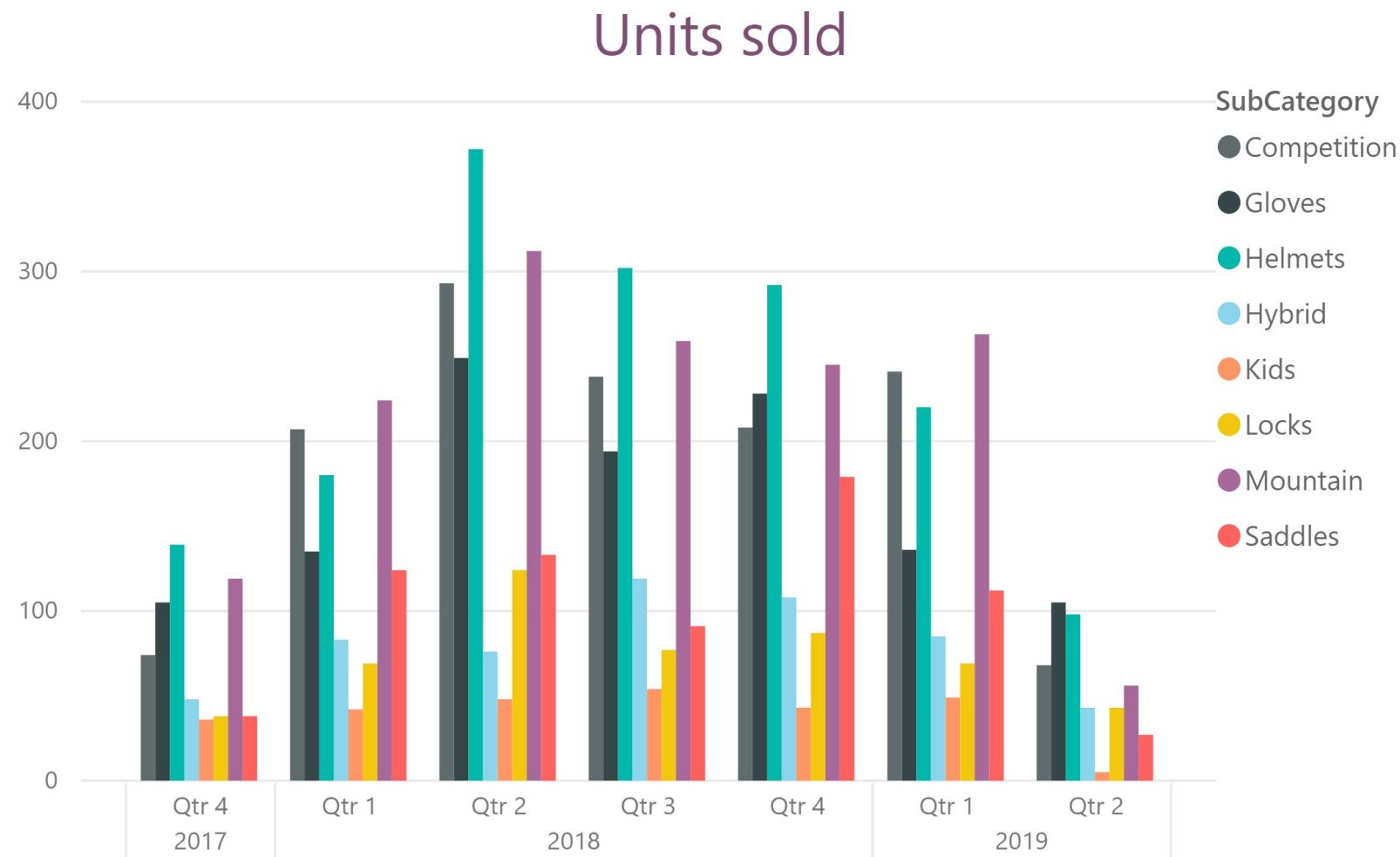


1. Add a Chart by clicking on the icon in the Visualizations pane
2. Drag fields from the Fields pane over into the 3 sections: Axis, Legend and Value. Use the Axis (x or y) and the Legend for Dimension Fields. Fact Fields belong in the Value Section.
3. Use the Hierarchy buttons to Drilldown and up. This only works if you have at least 2 or more fields in the Axis Section.
4. To group the Labels on the Axis: Go to Paint Roller -> X Axis -> Concatenate Labels -> Off

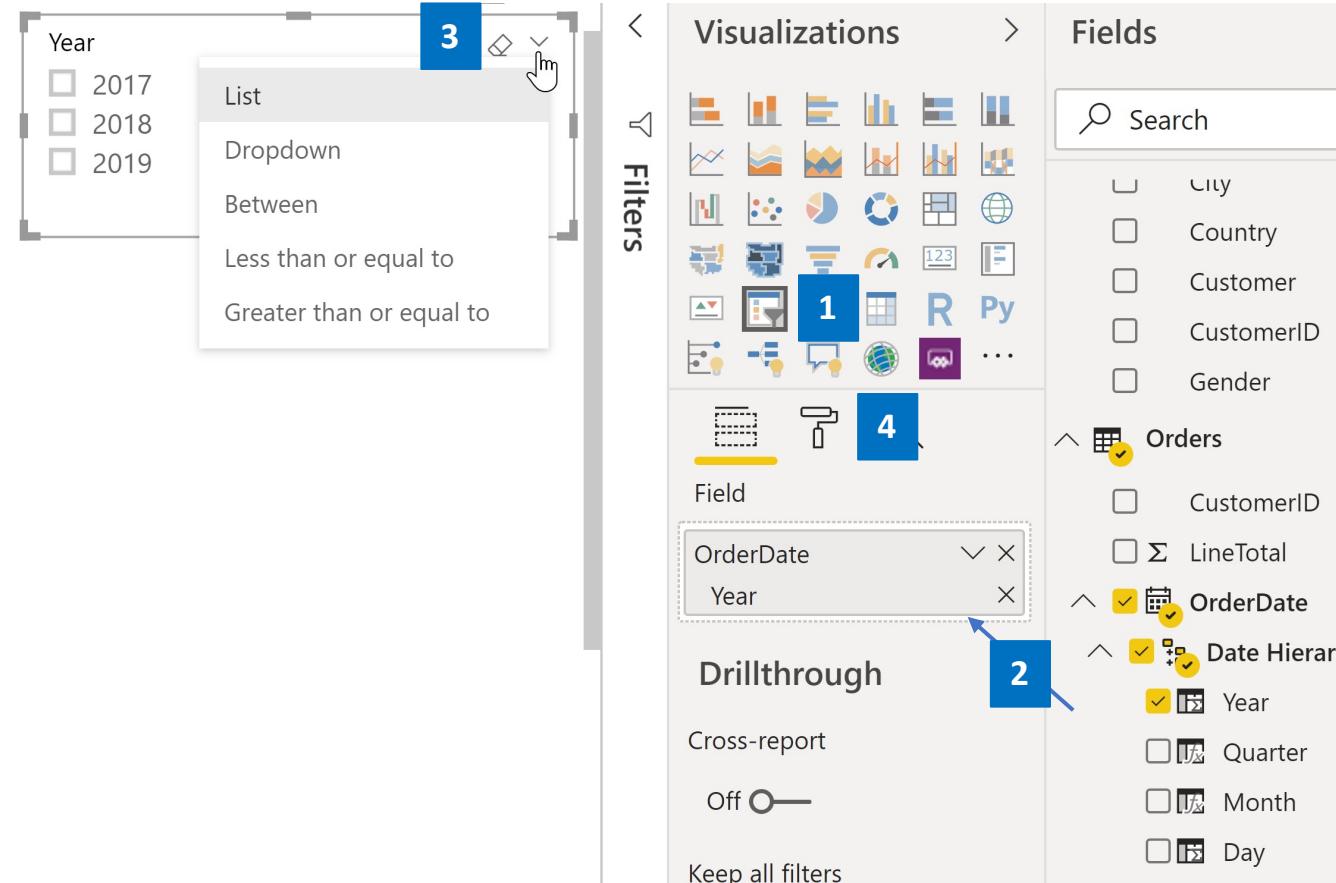
For more information about Charts, [click here](#).

Excercise 02C – Reports – Chart

- Create a chart like this showing the # of units sold per Product Sub Category:



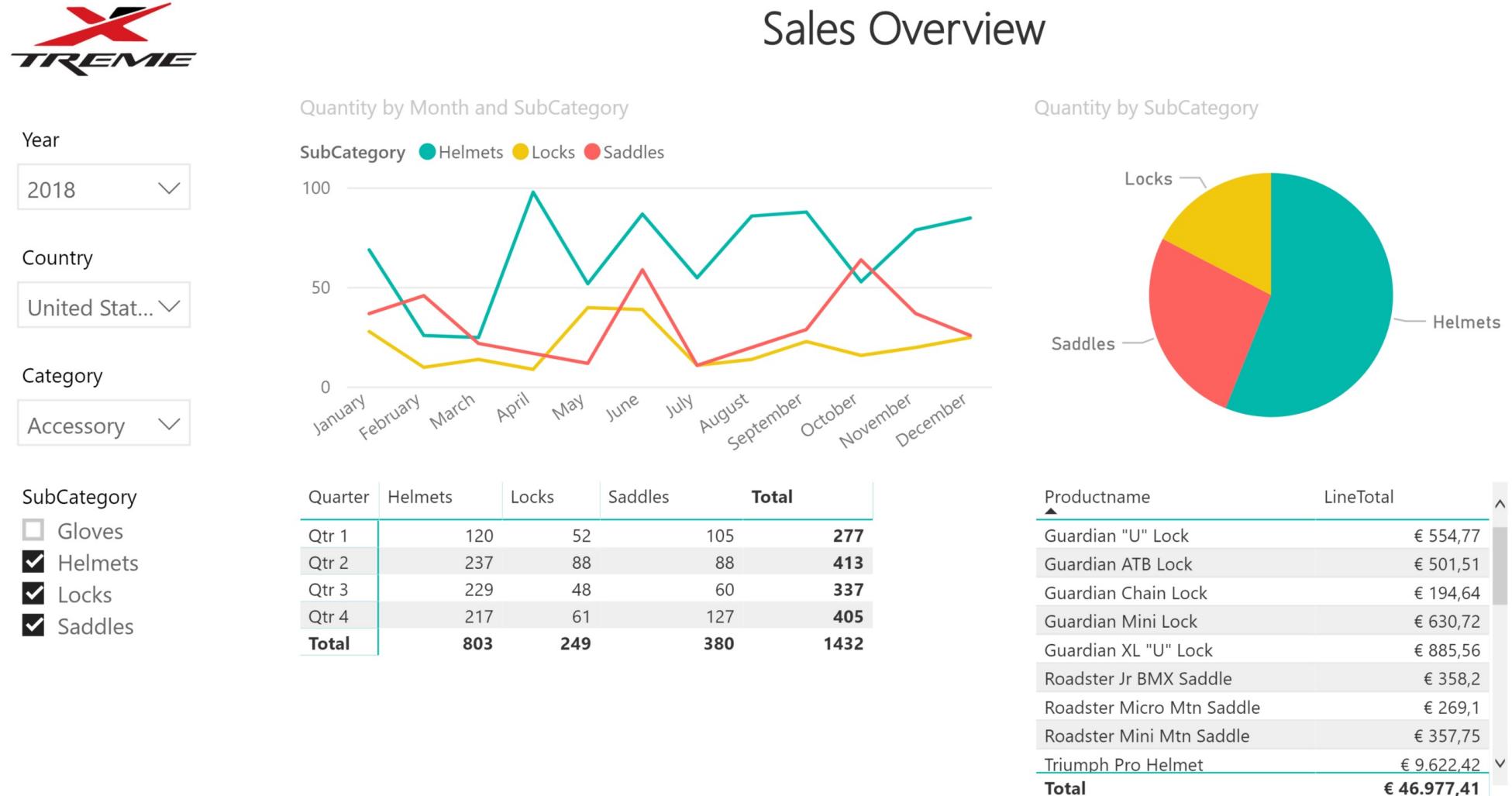
Slicers – Step by step



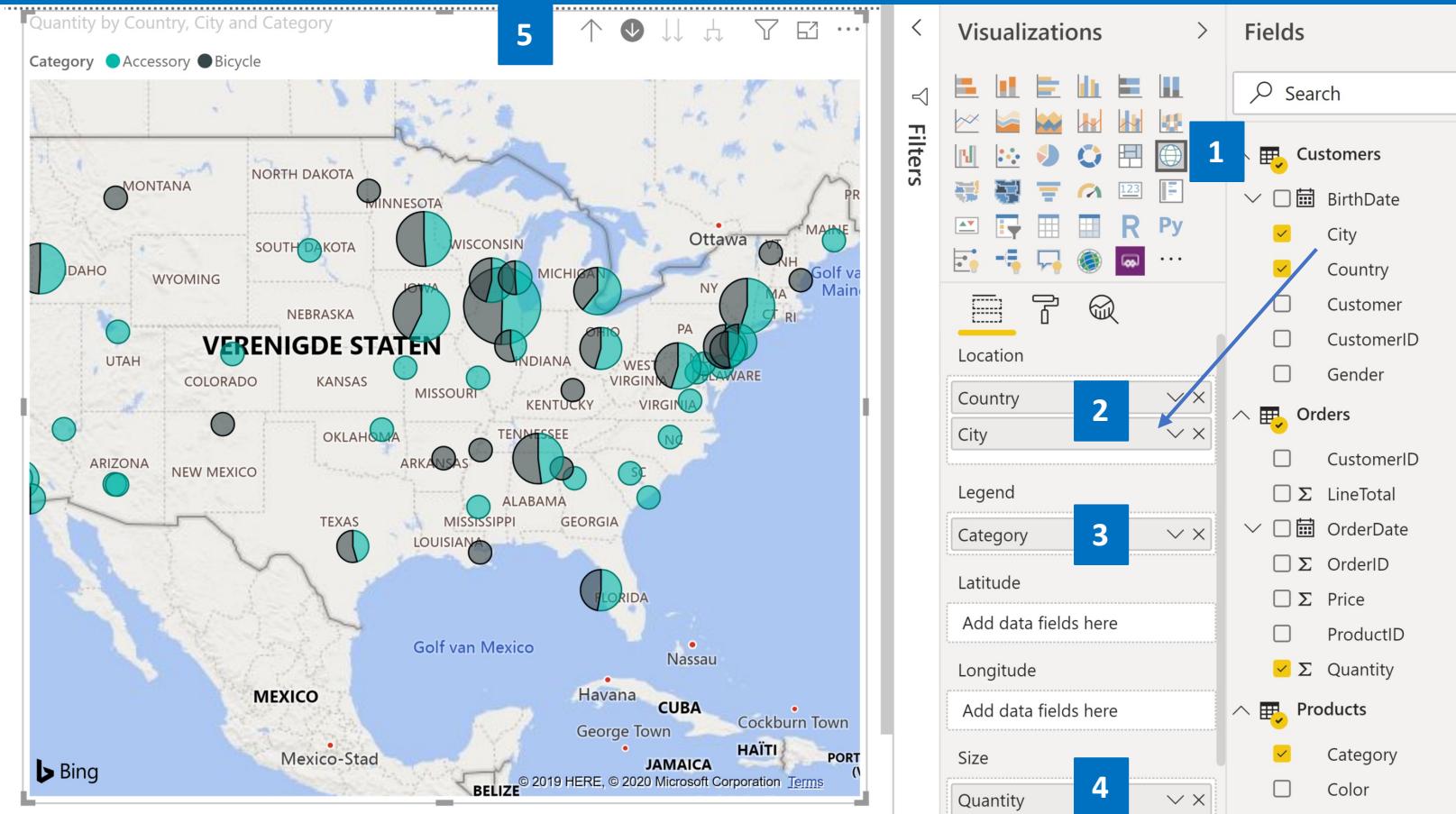
1. Add a Slicer by clicking on the icon in the Visualizations pane
2. Drag one field over into the Field Section.
3. Change the Type of the Slicer
4. Optionally, make Slicer multiple select: Paint Roller -> Selection Controls -> Multi-select with CTRL -> Off

Excercise 02D – Reports – Dashboard

- Create a Sales Overview page looking like this:



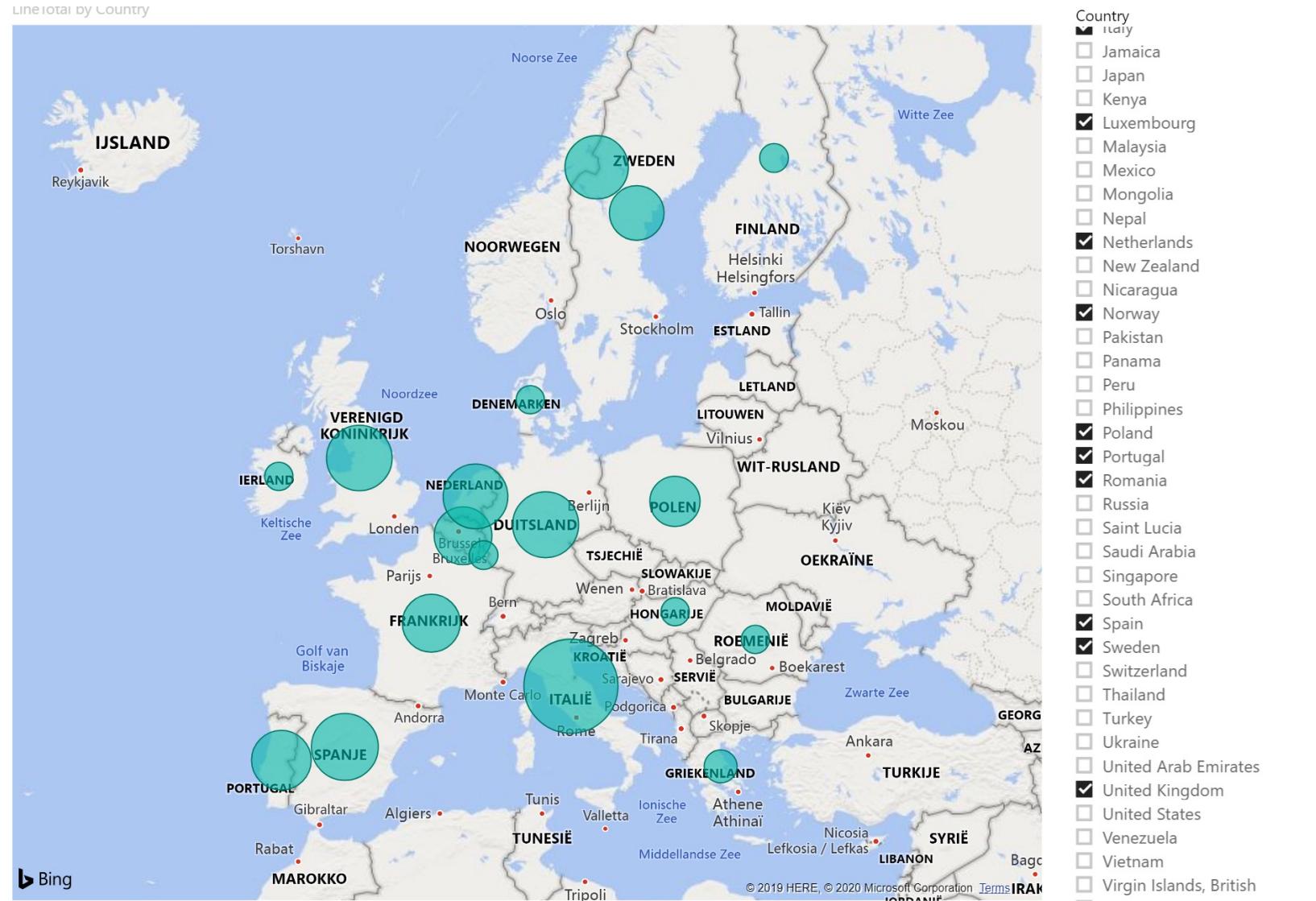
Maps – Step by Step



1. Add a Map by clicking on the icon in the Visualizations pane
2. Drag location fields (f.e. Country, Address, Postal Code or City) over into the Location Section.
Optionally:
3. Drag field in Legend to show Pie Chart per Location
4. Drag field from Fact Table in the Size Section to size the bubble
5. Use the Hierarchy buttons to Drilldown and up. This only works if you have at least 2 or more fields in the Location Section.

Excercise 03A – Reports – Map

- Create a Map showing the "Line Total" in region Europe:



Exercise 03B: Power Query Import Regions from WorldPopulation.xlsx

- Create a query to import a new Table Regions from WorldPopulation.xlsx.
- Rename the Query to Regions and remove all other columns!

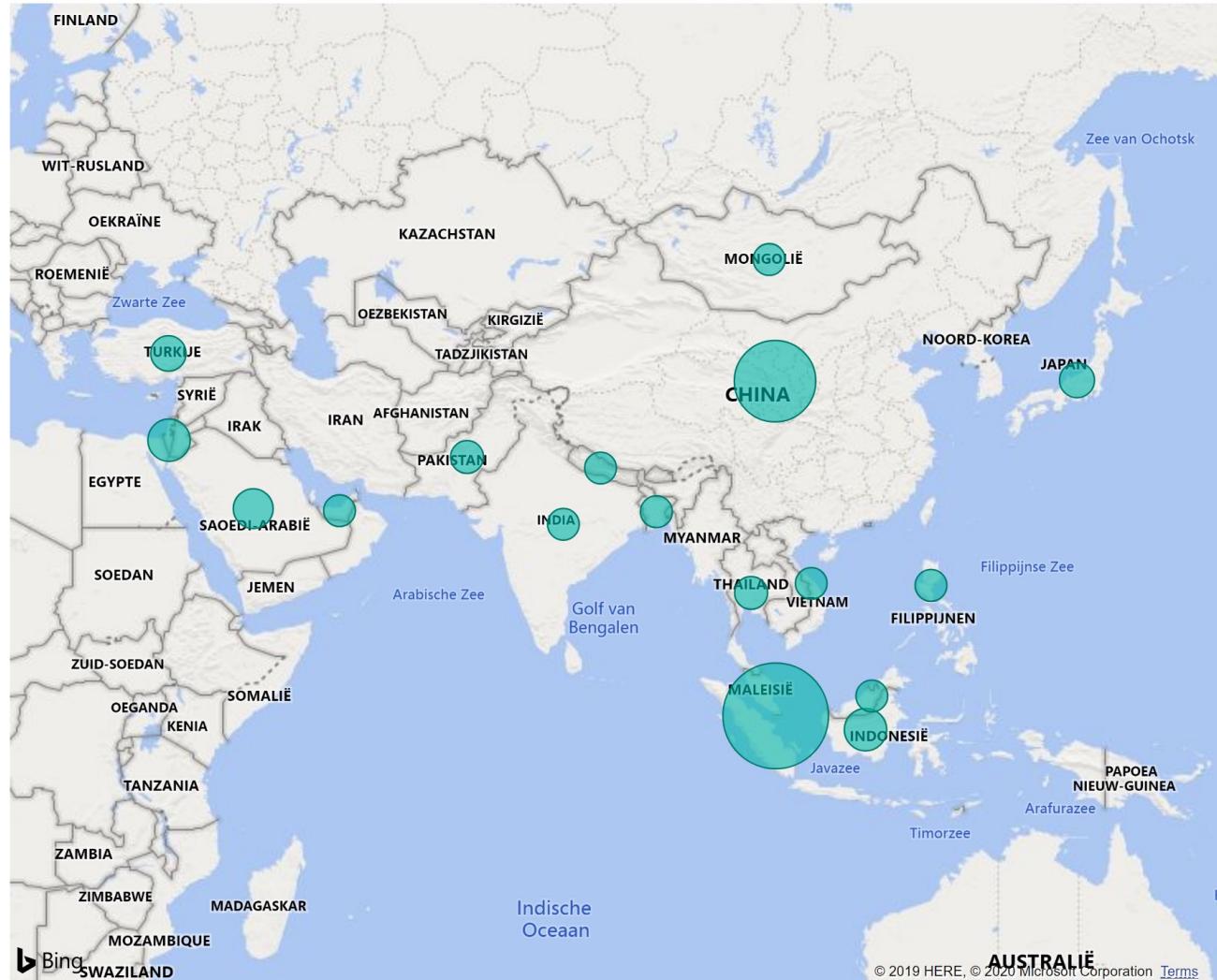
The screenshot shows the Power Query Editor interface. On the left, the 'Queries [4]' pane lists four queries: Customers, Products, Orders, and Regions. The 'Regions' query is selected and highlighted with a yellow background. The main area displays a table with two columns: 'Region' and 'Country'. The 'Region' column contains values like Asia, Europe, Africa, Oceania, and Latin America and the Caribbean. The 'Country' column contains corresponding country names. Above the table, the formula bar shows the formula: = Table.SelectRows(#"Removed Other Columns", Each Row). To the right of the table, the Data Model ribbon shows the 'Customers' table with the 'Country' column selected. A relationship is being established between the 'Regions' query and the 'Customers' table, indicated by a yellow line connecting the 'Region' column in the table to the 'Country' column in the ribbon. The 'Regions' query is also shown in the ribbon, with its 'Country' column selected.

Region	Country
1 Asia	Afghanistan
2 Europe	Albania
3 Africa	Algeria
4 Oceania	American Samoa
5 Europe	Andorra
6 Africa	Angola
7 Latin America and the Caribbean	Anguilla
8 Latin America and the Caribbean	Antigua and Barbuda
9 Latin America and the Caribbean	Argentina
10 Asia	Armenia
11 Latin America and the Caribbean	Aruba
12 Oceania	Australia
13 Europe	Austria

Excercise 03C – Reports – Map

- Add a Region filter to the map:

LineTotal by Country



Country

- Select all
- Bangladesh
- China
- India
- Indonesia
- Israel
- Japan
- Malaysia
- Mongolia
- Nepal
- Pakistan
- Philippines
- Saudi Arabia
- Singapore
- Thailand
- Turkey
- United Arab Emirates
- Vietnam

Region

- (Blank)
- Africa
- Asia
- Europe
- Latin America and the Caribbean
- Northern America
- Oceania