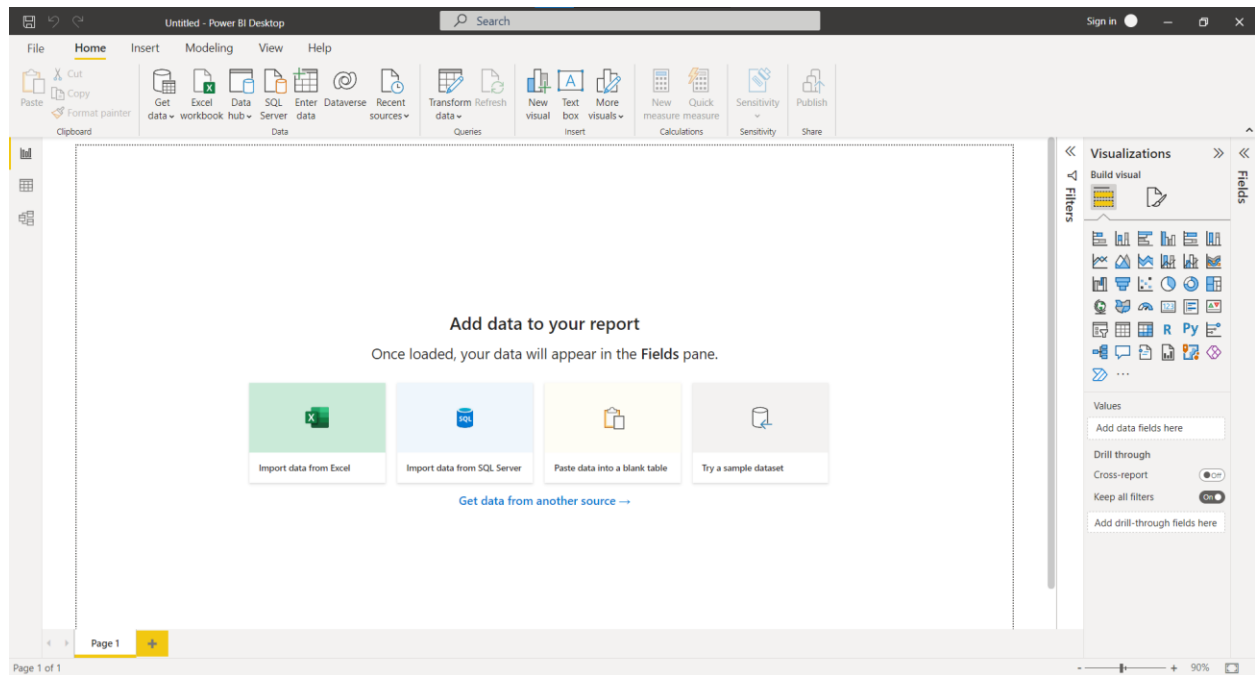


NAMA : Gideon Christ Gilberio Ginting

NIM : 191402133

## Tugas 1 PowerBI

### Tampilan PowerBI setelah di Install



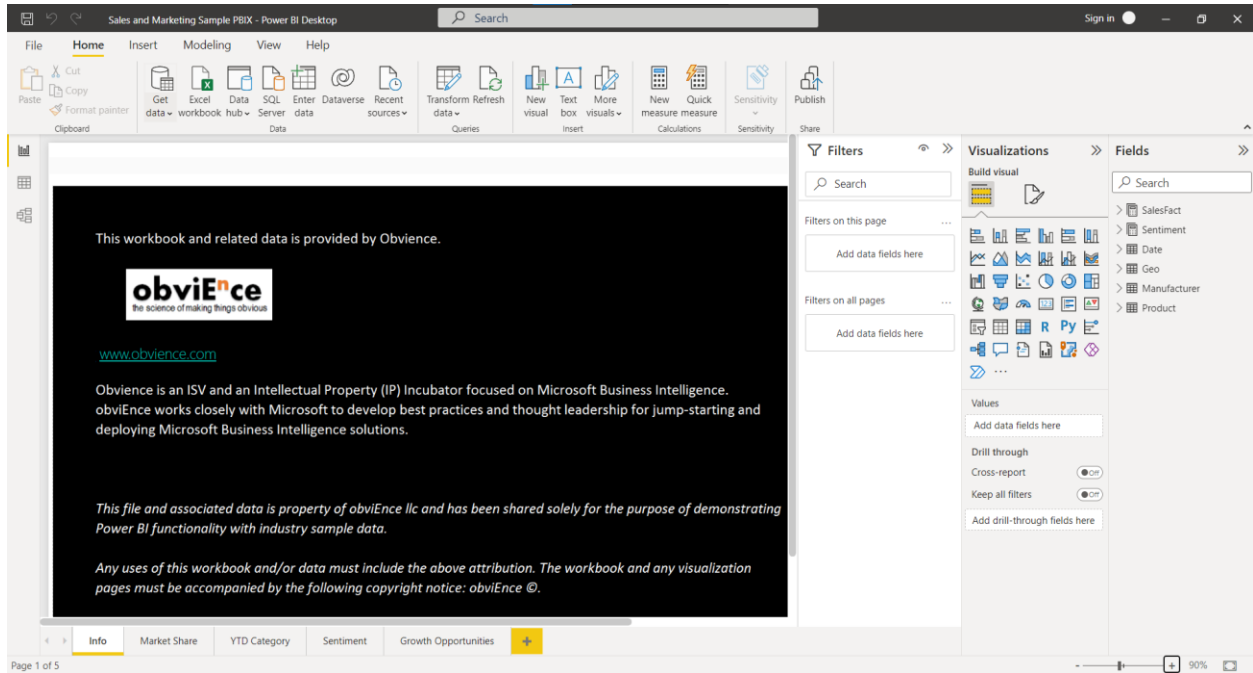
# 1. BUILDING BLOCKS OF PowerBI

## A.VISUALIZATION

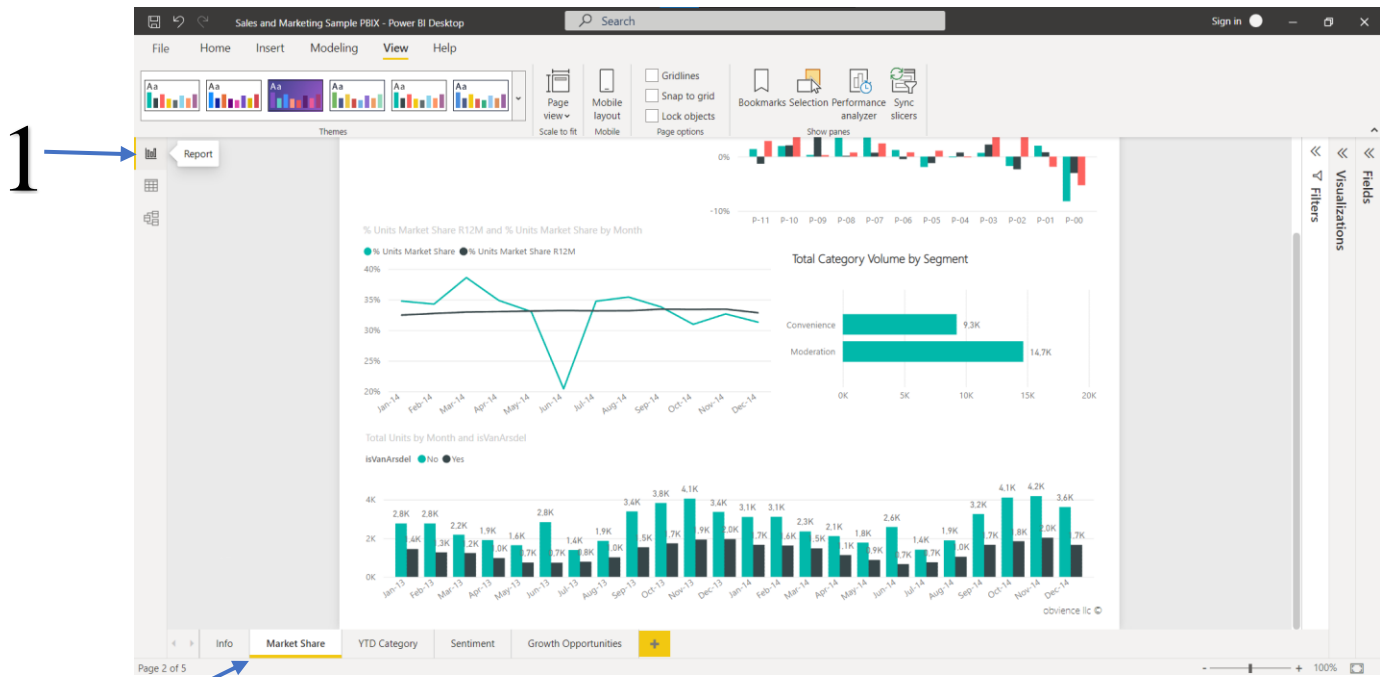
- Open Report file “Sales and Marketing Sample PBIX”

Dengan cara **File > Open Report > Browse reports > This PC** , lalu pilih filenya.

Kemudian akan beralih ke tampilan seperti berikut



- Pilih **Report** View pada bagian kiri interface PowerBI , dan pilih “**Market Share**” pada tab Report di bagian bawah. Kemudian Minimize “**Filters**”, “**Visualizations**” dan “**Fields**” agar bisa melihat data pada desktop secara fullscreen



## B. DATASETS

Pilih “**Data**” pada bagian kiri Interface powerBI , dan pada panel “**Fields**” di sebelah kanan, pilih tabel “**Product**” untuk menampilkan data pada tabel tersebut.

1

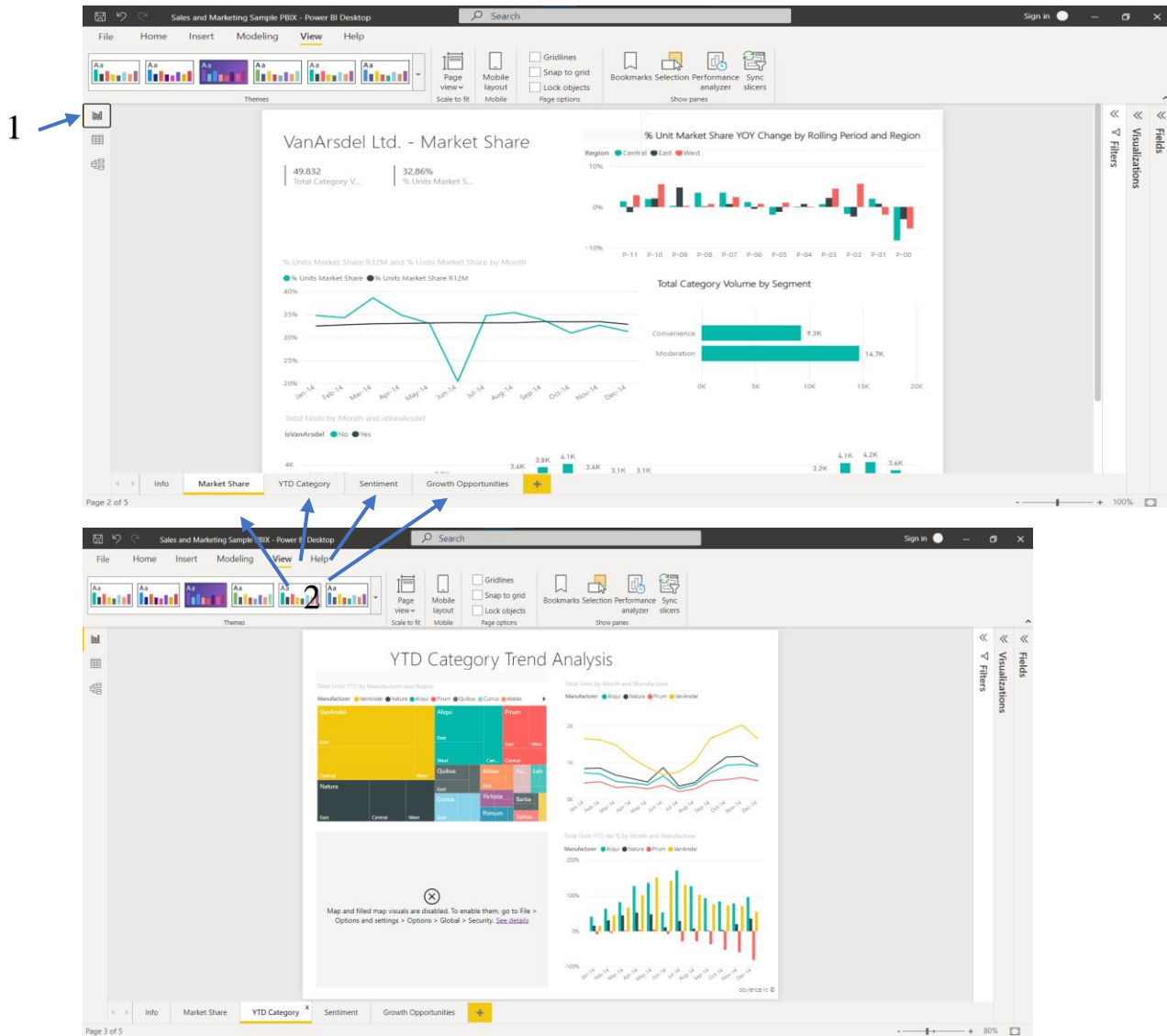
2

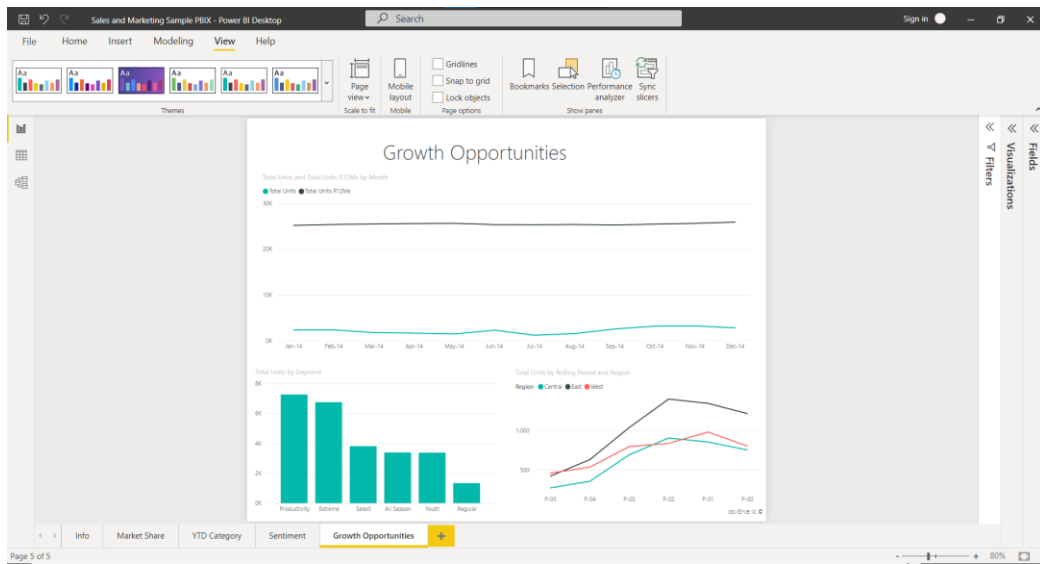
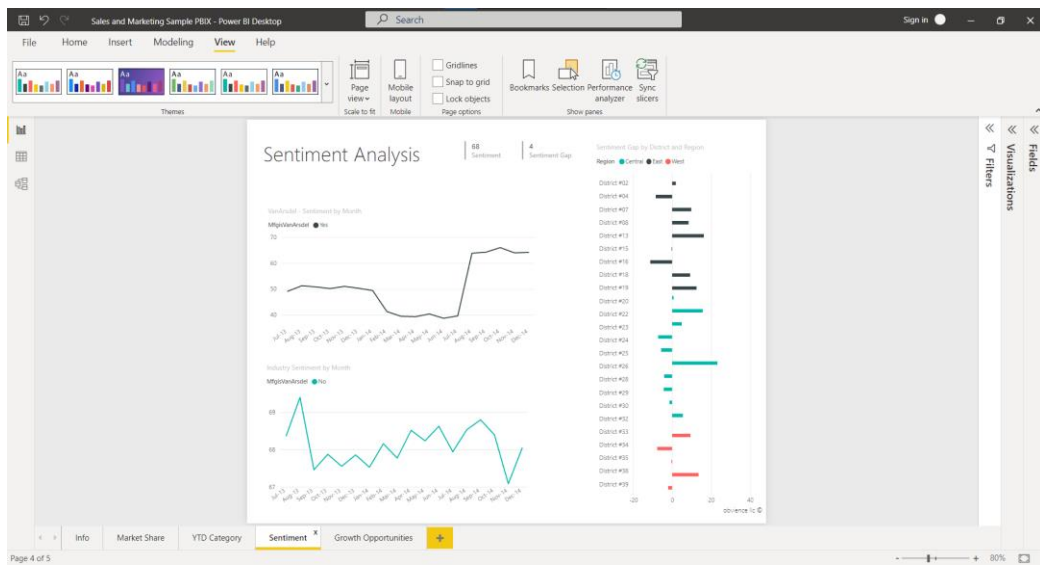
Manufacturer	Category	Segment	Product	ProductID	IsVanArsdel	IsCompeteHide	ManufacturerID	IsCompete
VanArsdel	Urban	Convenience	Maximus UC-01	536	Yes	N	7	No
VanArsdel	Urban	Convenience	Maximus UC-02	537	Yes	N	7	No
VanArsdel	Urban	Convenience	Maximus UC-03	538	Yes	N	7	No
VanArsdel	Urban	Convenience	Maximus UC-04	539	Yes	N	7	No
VanArsdel	Urban	Convenience	Maximus UC-05	540	Yes	N	7	No
VanArsdel	Urban	Convenience	Maximus UC-06	541	Yes	N	7	No
VanArsdel	Urban	Convenience	Maximus UC-07	542	Yes	N	7	No
VanArsdel	Urban	Convenience	Maximus UC-08	543	Yes	N	7	No
VanArsdel	Urban	Convenience	Maximus UC-09	544	Yes	N	7	No
VanArsdel	Urban	Convenience	Maximus UC-10	545	Yes	N	7	No
VanArsdel	Urban	Convenience	Maximus UC-11	546	Yes	N	7	No
VanArsdel	Urban	Convenience	Maximus UC-12	547	Yes	N	7	No
VanArsdel	Urban	Convenience	Maximus UC-13	548	Yes	N	7	No
VanArsdel	Urban	Convenience	Maximus UC-14	549	Yes	N	7	No
VanArsdel	Urban	Convenience	Maximus UC-15	550	Yes	N	7	No
VanArsdel	Urban	Convenience	Maximus UC-16	551	Yes	N	7	No
VanArsdel	Urban	Convenience	Maximus UC-17	552	Yes	N	7	No
VanArsdel	Urban	Convenience	Maximus UC-18	553	Yes	N	7	No
VanArsdel	Urban	Convenience	Maximus UC-19	554	Yes	N	7	No
VanArsdel	Urban	Convenience	Maximus UC-20	555	Yes	N	7	No
VanArsdel	Urban	Convenience	Maximus UC-21	556	Yes	N	7	No
VanArsdel	Urban	Convenience	Maximus UC-22	557	Yes	N	7	No
VanArsdel	Urban	Convenience	Maximus UC-23	558	Yes	N	7	No
VanArsdel	Urban	Convenience	Maximus UC-24	559	Yes	N	7	No
VanArsdel	Urban	Convenience	Maximus UC-25	560	Yes	N	7	No
VanArsdel	Urban	Convenience	Maximus UC-26	561	Yes	N	7	No
VanArsdel	Urban	Convenience	Maximus UC-27	562	Yes	N	7	No
VanArsdel	Urban	Convenience	Maximus UC-28	563	Yes	N	7	No

Table: Product (2,412 rows)

## C. REPORTS

Pilih “**Reports**” pada bagian kiri Interface powerBI , dan lakukan eksplorasi pada “content” yang tersedia di masing – masing report page yang ada.

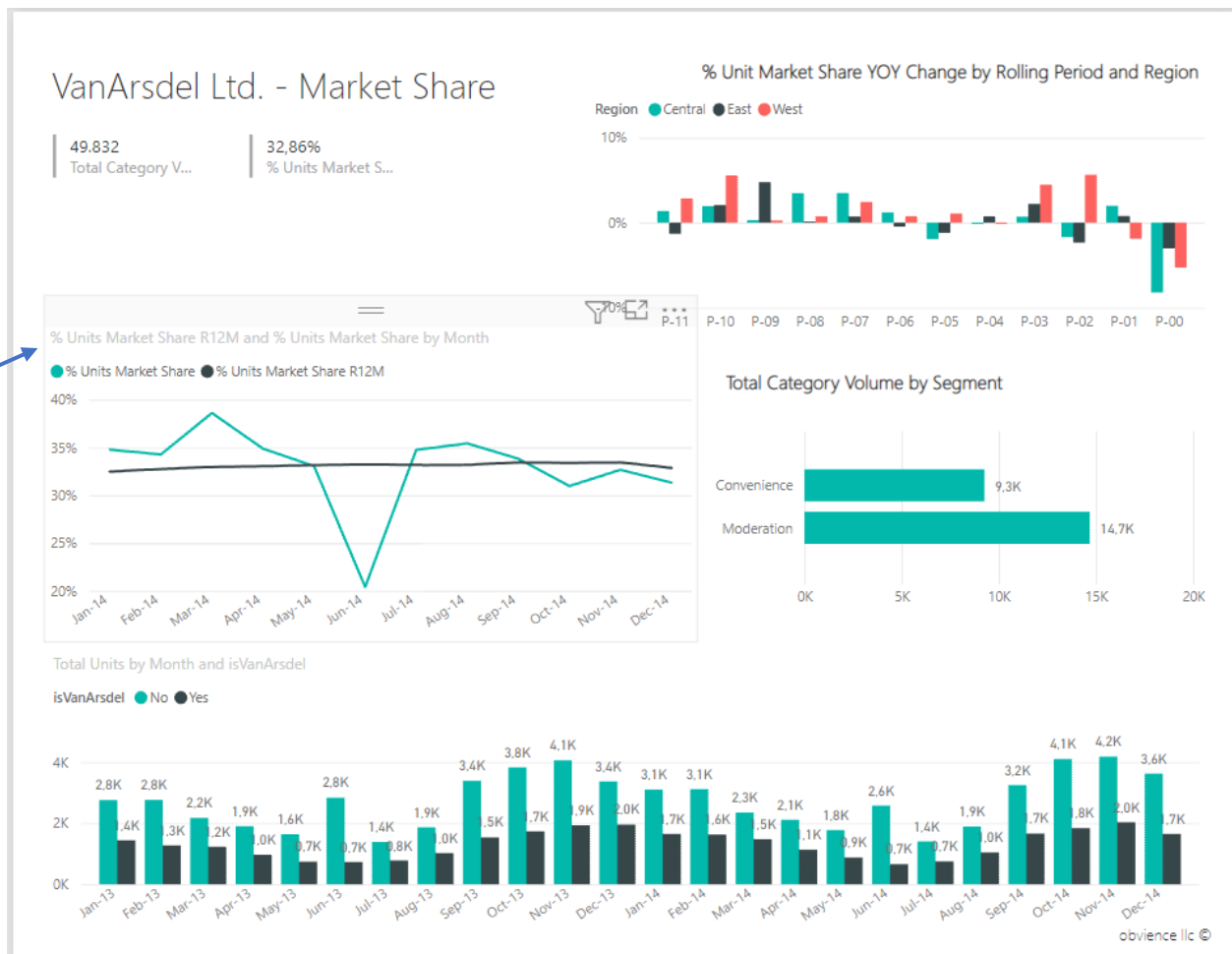




Pada setiap “**Report**” terdapat “**Dashboard**” dan “**Tiles**”, misalnya pada “**Market Share**” sebagai contoh, keseluruhan page Market Share disebut sebagai “**Dashboard**”, dan

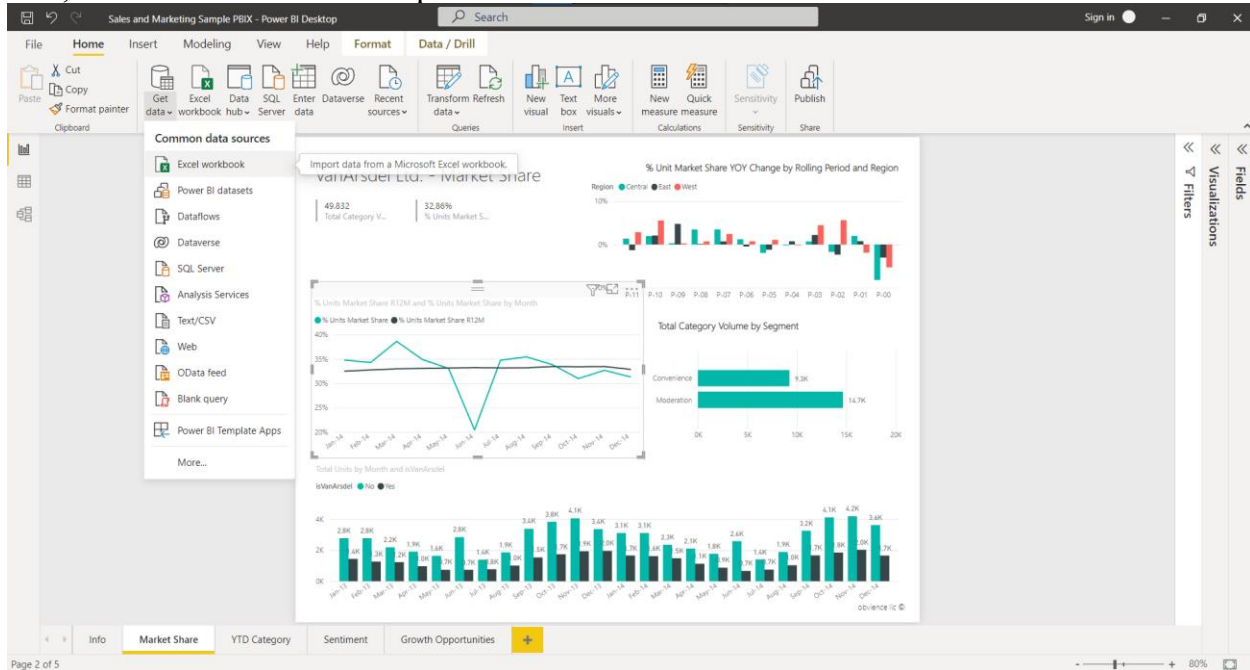
“Units Market Share R12M and % Units Market Share by Month” adalah contoh “**Tile**”

Tile

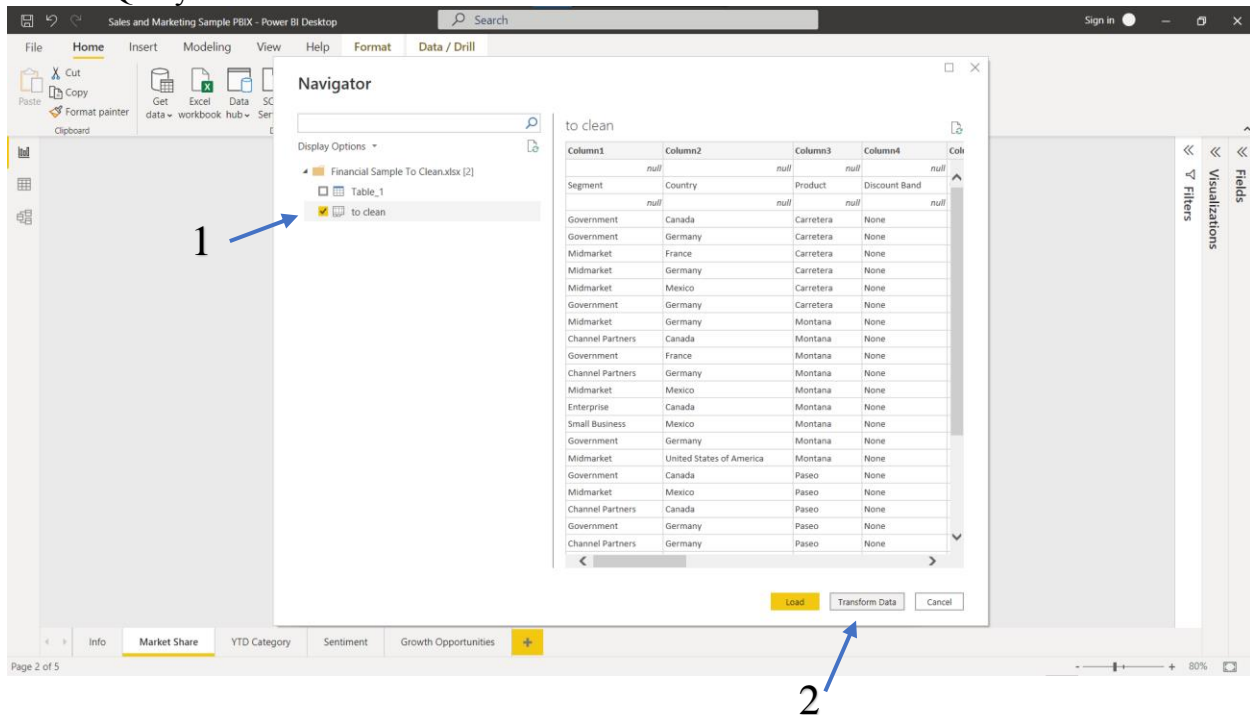


## 2. Load, Clean, and Transform Data in Power BI

Pada Tab “Home”, pilih “Get Data” > “Excel workbook”, kemudian pilih Home Folder Support files, dan Select “Financial Sample To Clean.xlsx”



Kemudian centang “to clean kemudian pilih “Transform Data” untuk melakukan load data ke “Power Query Editor”



File yang terlihat disini masih kurang rapi, Maka kita perlu membuat row 2 menjadi Headers.

Disebelah kiri “Column 1” Klik tanda panah dan pilih “Use First Row as Headers” dan ulangi lagi sampai row 2 sebelumnya , menjadi Headers.

Queries [1]

to clean

Source{[Item="to clean",Kind="Sheet"]}[Data]

Column1	Column2	Column3	Column4	Column5	Column6	Column7
		Product	Discount Band	Units Sold	Manufacturing Price	Sale Price
		Carretera	None	1618,5	3	
		Carretera	None	1321	3	
		Carretera	None	2178	3	
		Carretera	None	888	3	
		Carretera	None	2470	3	
		Carretera	None	1513	3	
		Montana	None	921	5	
		Montana	None	2518	5	
		Montana	None	1899	5	
		Montana	None	1545	5	
		Montana	None	2470	5	
		Montana	None	2665,5	5	
		Montana	None	958	5	
		Montana	None	2146	5	
		Montana	None	615	5	
		Paseo	None	292	10	
		Paseo	None	974	10	
		Paseo	None	2518	10	
		Paseo	None	1006	10	
		Paseo	None	367	10	
		Paseo	None	883	10	
		Paseo	None	2472	10	
		Paseo	None	1143	10	
		Paseo	None	1817	10	
		Paseo	None	1513	10	

17 COLUMNS, 999+ ROWS Column profiling based on top 1000 rows

Kemudian hasilnya seperti ini:

Table.TransformColumnTypes(#"Promoted Headers1",{{"Segment", type text}, {"Country", type text}, {"Product", type text}, {"Discount Band", type text}, {"Units Sold", type number}, {"Manufacturing Price", type number}, {"Sale Price", type number}})

Segment	Country	Product	Discount Band	Units Sold	Manufacturing Price	Sale Price
Government	Canada	Carretera	None	1618,5	3	
Government	Germany	Carretera	None	1321	3	
Midmarket	France	Carretera	None	2178	3	
Midmarket	Germany	Carretera	None	888	3	
Midmarket	Mexico	Carretera	None	2470	3	
Government	Germany	Carretera	None	1513	3	
Midmarket	Germany	Montana	None	921	5	
Channel Partners	Canada	Montana	None	2518	5	
Government	France	Montana	None	1899	5	
Channel Partners	Germany	Montana	None	1545	5	
Midmarket	Mexico	Montana	None	2470	5	
Enterprise	Canada	Montana	None	2665,5	5	
Small Business	Mexico	Montana	None	958	5	
Government	Germany	Montana	None	2146	5	
Midmarket	United States of America	Montana	None	615	5	
Government	Canada	Paseo	None	292	10	
Midmarket	Mexico	Paseo	None	974	10	
Channel Partners	Canada	Paseo	None	2518	10	
Government	Germany	Paseo	None	1006	10	
Channel Partners	Germany	Paseo	None	367	10	
Government	Mexico	Paseo	None	883	10	
Midmarket	Mexico	Paseo	None	2472	10	
Government	United States of America	Paseo	None	1143	10	
Government	Canada	Paseo	None	1817	10	
Government	Germany	Paseo	None	1513	10	
Government	Mexico	Velo	None	1493	120	
Enterprise	France	Velo	None	1804	120	

Query Settings

PROPERTIES

Name

to clean

APPLIED STEPS

Source

Navigation

Changed Type

Promoted Headers

Changed Type1

Promoted Headers1

Changed Type2

mn profiling based on top 1000 rows

PREVIEW DOWNLOADED AT 10:46



Scroll kanan , ke kolom “Month Info” , rename Column name menjadi “Date”

ABC 123 Month Info	ABC 123 Date
Date	Date
1 Jan 2014	1 Jan 2014
1 Jan 2014	1 Jan 2014
1 Jun 2014	1 Jun 2014
1 Jun 2014	1 Jun 2014
1 Jun 2014	1 Jun 2014
1 Des 2014	1 Des 2014
1 Mar 2014	1 Mar 2014
1 Jun 2014	1 Jun 2014
1 Jun 2014	1 Jun 2014
1 Jun 2014	1 Jun 2014
1 Jun 2014	1 Jun 2014
1 Jul 2014	1 Jul 2014
1 Agu 2014	1 Agu 2014
1 Sep 2014	1 Sep 2014
1 Des 2014	1 Des 2014
1 Feb 2014	1 Feb 2014
1 Feb 2014	1 Feb 2014
1 Jun 2014	1 Jun 2014
1 Jun 2014	1 Jun 2014
1 Jul 2014	1 Jul 2014
1 Agu 2014	1 Agu 2014
	1 Sep 2014
	1 Okt 2014
	1 Des 2014
	1 Des 2014
	1 Jan 2014

Pada “Column16” juga, rename Column menjadi “Year”

[illegible][illegible]

Kemudian Remove Top Row, karena datanya “null”

Power Query Editor: Sales and Marketing Sample PBIX

Formula Bar: `= Table.RenameColumns(#"Changed Type2",{{"Month Info", "Year"}})`

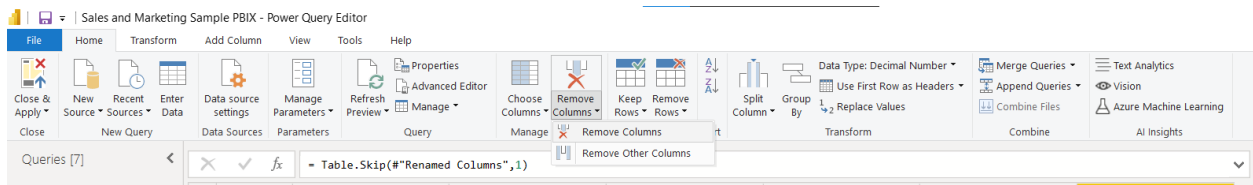
	Segment	Country	Product		1.2 Units Sold	1.2 Manufacturing Price	1.2 Sale Price
1		null	null				
2	Government	Canada	Carretera		1618,5	3	
3	Government	Germany	Carretera		1321	3	
4	Midmarket	France	Carretera		2178	3	
5	Midmarket	Germany	Carretera		888	3	
6	Midmarket	Mexico	Carretera		2470	3	
7	Government	Germany	Carretera		1513	3	
8	Midmarket	Germany	Montana		921	5	
9	Channel Partners	Canada	Montana		2518	5	
10	Government	France	Montana		1899	5	
11	Channel Partners	Germany	Montana		1545	5	
12	Midmarket	Mexico	Montana		2470	5	
13	Enterprise	Canada	Montana		2665,5	5	
14	Small Business	Mexico	Montana		958	5	
15	Government	Germany	Montana		2146	5	
16	Midmarket	United States of America	Montana		615	5	
17	Government	Canada	Paseo		292	10	

Hasilnya

Formula Bar: `= Table.Skip(#"Renamed Columns",1)`

	Segment	Country	Product	Discount Band	1.2 Units Sold	1.2 Manufacturing Price	1.2 Sale Price
1	Government	Canada	Carretera	None	1618,5	3	
2	Government	Germany	Carretera	None	1321	3	
3	Midmarket	France	Carretera	None	2178	3	
4	Midmarket	Germany	Carretera	None	888	3	
5	Midmarket	Mexico	Carretera	None	2470	3	
6	Government	Germany	Carretera	None	1513	3	
7	Midmarket	Germany	Montana	None	921	5	
8	Channel Partners	Canada	Montana	None	2518	5	
9	Government	France	Montana	None	1899	5	
10	Channel Partners	Germany	Montana	None	1545	5	
11	Midmarket	Mexico	Montana	None	2470	5	
12	Enterprise	Canada	Montana	None	2665,5	5	
13	Small Business	Mexico	Montana	None	958	5	
14	Government	Germany	Montana	None	2146	5	
15	Midmarket	United States of America	Montana	None	615	5	
16	Government	Canada	Paseo	None	292	10	
17	Midmarket	Mexico	Paseo	None	974	10	
18	Channel Partners	Canada	Paseo	None	2518	10	
19	Government	Germany	Paseo	None	1006	10	
20	Channel Partners	Germany	Paseo	None	367	10	
21	Government	Mexico	Paseo	None	883	10	
22	Midmarket	Mexico	Paseo	None	2472	10	
23	Government	United States of America	Paseo	None	1143	10	
24	Government	Canada	Paseo	None	1817	10	
25	Government	Germany	Paseo	None	1513	10	
26	Government	Mexico	Velo	None	1493	120	
27	Enterprise	France	Velo	None	1804	120	
28	Channel Partners	Germany	Velo	None	2161	120	

Kemudian pilih “Column17” , pada Home , pilih “Remove Columns”



Maka Column17 sudah tidak ada lagi pada data di Power Query Editor tersebut

A <sup>B</sup> <sub>C</sub> Month Name	A <sup>B</sup> <sub>C</sub> Year	1.2 Column17
January	2014	814028,68
January	2014	814028,68
June	2014	1473753,82
June	2014	1473753,82
June	2014	1473753,82
December	2014	2717329,98
March	2014	669866,87
June	2014	1473753,82
June	2014	1473753,82
June	2014	1473753,82
June	2014	1473753,82
July	2014	923865,68
August	2014	791066,42
September	2014	1786735,27
December	2014	2717329,98
February	2014	1148547,39
February	2014	1148547,39
June	2014	1473753,82
June	2014	1473753,82
July	2014	923865,68
August	2014	791066,42
September	2014	1786735,27
October	2014	3439781,02
December	2014	2717329,98
December	2014	null
January	2014	null
February	2014	null
March	2014	null



A <sup>B</sup> <sub>C</sub> Month Name	A <sup>B</sup> <sub>C</sub> Year
January	2014
January	2014
June	2014
June	2014
June	2014
December	2014
March	2014
June	2014
June	2014
June	2014
June	2014
July	2014
August	2014
September	2014
December	2014
February	2014
February	2014
June	2014
June	2014
July	2014
August	2014
September	2014
October	2014
December	2014
December	2014
January	2014
February	2014
March	2014

Sekarang dengan cara yang sama seperti sebelumnya Lakukan Remove Columns lagi, tapi sisakan 3 Column yaitu “Segment”, “Country” dan “Sales”.

	Segment	Country	1.2 Sales
1	Government	Canada	32370
2	Government	Germany	26420
3	Midmarket	France	32670
4	Midmarket	Germany	13320
5	Midmarket	Mexico	37050
6	Government	Germany	529550
7	Midmarket	Germany	13815
8	Channel Partners	Canada	30216
9	Government	France	37980
10	Channel Partners	Germany	18540
11	Midmarket	Mexico	37050
12	Enterprise	Canada	333187,5
13	Small Business	Mexico	287400
14	Government	Germany	15022
15	Midmarket	United States of America	9225
16	Government	Canada	5840
17	Midmarket	Mexico	14610
18	Channel Partners	Canada	30216
19	Government	Germany	352100
20	Channel Partners	Germany	4404
21	Government	Mexico	6181
22	Midmarket	Mexico	37080
23	Government	United States of America	8001
24	Government	Canada	36340
25	Government	Germany	529550
26	Government	Mexico	10451
27	Enterprise	France	225500
28	Channel Partners	Germany	25932

Kemudian pilih “Remove Blank Rows”

ng Sample PBIX - Power Query Editor

Add Column
View
Tools
Help

Data source settings
Manage Parameters
Refresh Preview
Properties
Advanced Editor
Manage
Choose Columns
Remove Columns
Keep Rows
Remove Rows
Split Column
Group By
Data Type: Text
Use First Row
Replace Value

= Table.SelectRows(#"Removed Errors", each not List.IsEmpty(Record))

Segment
Country
1.2 Sales

1 Government Canada
2 Government Germany
3 Midmarket France
4 Midmarket Germany
5 Midmarket Mexico

Remove Top Rows
Remove Bottom Rows
Remove Alternate Rows
Remove Duplicates
Remove Blank Rows
Remove Errors

Berikutnya Pilih/Highlight Column “Country” , dan Pada tab “Transform” pilih “Pivot Column”

The screenshot shows the Power Query Editor interface. The 'Transform' tab is active, and the 'Pivot Column' button is highlighted. A blue arrow points from this button to the 'Country' column in the data table. The data table has columns: Segment, Country, and Sales. The 'Country' column is highlighted in yellow.

	Segment	Country	Sales
1	Government	Canada	32370
2	Government	Germany	26420
3	Midmarket	France	32670
4	Midmarket	Germany	13320
5	Midmarket	Mexico	37050
6	Government	Germany	529550
7	Midmarket	Germany	13815
8	Channel Partners	Canada	30216
9	Government	France	37980
10	Channel Partners	Germany	18540

Pada tab berikut, Pilih “Sales” sebagai Values Column dan “Sum” sebagai Aggregate Value Function , kemudian OK.

The 'Pivot Column' dialog box is shown. It contains the following fields:

- Values Column:** A dropdown menu with 'Sales' selected.
- Advanced options:** A section containing an 'Aggregate Value Function' dropdown menu with 'Sum' selected.
- Buttons:** 'OK' and 'Cancel' buttons at the bottom right.

There is also a link that says 'Learn more about Pivot Column'.

Kemudian Hasilnya kita dapat melihat Total Sales dari setiap Segment, berdasarkan negara yang merupakan data dari Column “Country”.

✕ ✓ fx		= Table.Pivot(#"Removed Blank Rows", List.Distinct(#"Removed Blank Rows"[Country]), "Country", " Sales", List.Sum)						▼
AB	Segment	1.2 Canada	1.2 Germany	1.2 France	1.2 Mexico	1.2 United States of America		
1	Channel Partners	491164,14	336425,88	372090,36	234379,08	366534,18		
2	Enterprise	3967491,25	4086826,25	3890890,625	3315881,25	4350605		
3	Government	10741236,52	11452895,94	12127782,72	9791599,38	8390746,11		
4	Midmarket	510213,975	301344,75	593802,075	511136,4	465385,875		
5	Small Business	9177549	7327848	7369606,5	7096356	11456559		