

MODULE 5

PIVOT TABLE AND CHART



Sort by :

Hamzah

L200154013

\

Informatics Study Program
Faculty of Communication and Informatics
Muhammadiyah University of Surakarta

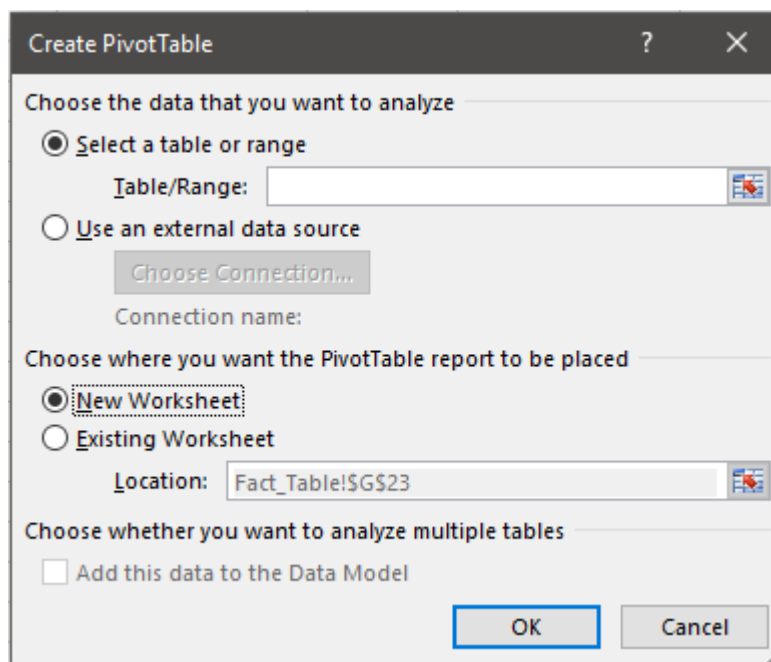
Praktikum Steps

Activity 1: Make a Pivot Table

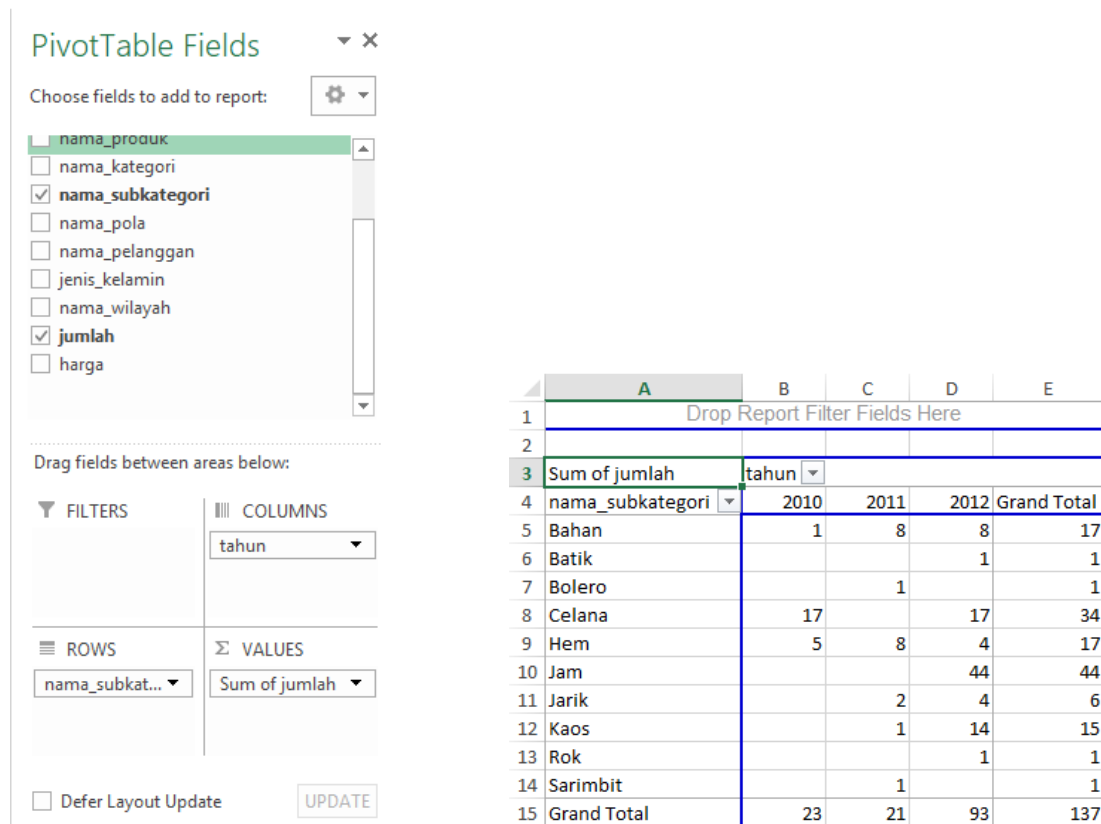
1. Using a file by name “Fakta_Penjualan.xls”.

	A	B	C	D	E	F	G	H	I	J	K	L
1	bulan	kuartal	tahun	nama_produk	nama_kategori	nama_subkategori	nama_pola	nama_pelanggan	jenis_kelamin	nama_wilayah	jumlah	harga
2	12	4	2011	Jarik Standar Print Sogan	Standar	Jarik	Print	Bapak Ketut	Pria	Bali	2	225000
3	1	1	2012	Kaos Batik Cap Lukis	Batik	Kaos	Cap	Ibu Harini	Wanita	Jawa Timur	14	30000
4	4	2	2012	Jarik Standar Tulis Sarimbit	Standar	Jarik	Tulis	Ibu Harini	Wanita	Jawa Timur	4	40000
5	4	2	2011	Hem Katun Print Kawung	Katun	Hem	Print	Ibu Harini	Wanita	Jawa Timur	3	70000
6	9	3	2012	Batik Standar Cap Tumpal	Standar	Batik	Cap	Bapak Heru	Pria	Jawa Timur	1	150000
7	5	2	2012	Hem Katun Print Kelengan	Katun	Hem	Print	Bapak Totok	Pria	Jawa Timur	3	299000
8	12	4	2011	Bolero Standar Cap Sidomukti	Standar	Bolero	Cap	Ibu Hatamah	Wanita	Jawa Timur	1	225000
9	10	4	2011	Sarimbit Standar Print Lukis	Standar	Sarimbit	Print	Ibu Hatamah	Wanita	Jawa Timur	1	150000
10	1	1	2011	Kaos Katun Print Bola	Katun	Kaos	Print	Bapak Imron	Pria	Jawa Barat	1	60000
11	2	1	2012	Celana Standar Cap Warna	Standar	Celana	Cap	Ibu Hadi Sukarni	Wanita	Jawa Barat	17	55000
12	3	1	2010	Celana Standar Print Lasem	Standar	Celana	Print	Ibu Hadi Sukarni	Wanita	Jawa Barat	17	55000
13	3	1	2011	Bahan Standar Cap Lasem	Standar	Bahan	Cap	Ibu Siti Arya	Wanita	Jawa Barat	8	120000
14	12	4	2012	Rok Batik Print Kombinasi	Batik	Rok	Print	Ibu Siti Arya	Wanita	Jawa Barat	1	225000
15	1	1	2012	Jam Standar Print Lukis	Standar	Jam	Print	Ibu Siti Arya	Wanita	Jawa Barat	44	80000
16	9	3	2012	Hem Standar Cap Tumpal	Standar	Hem	Cap	Ibu Aini Kasmaji	Wanita	Jawa Tengah	1	100000
17	6	2	2012	Bahan Lawasan Tulis Tolet	Lawasan	Bahan	Tulis	Ibu Niken	Wanita	Jawa Tengah	1	130000
18	8	3	2011	Hem Standar Tulis Madura	Standar	Hem	Tulis	Ibu Atik	Wanita	Jawa Tengah	5	550000
19	4	2	2012	Bahan Standar Cap Garis	Standar	Bahan	Cap	Ibu Tyas	Wanita	Jawa Tengah	7	135000
20	6	2	2010	Bahan Beludru Cap Mahkota	Beludru	Bahan	Cap	Ibu Tyas	Wanita	Jawa Tengah	1	500000
21	11	4	2010	Hem Sutra Print Rama	Sutra	Hem	Print	Ibu Tyas	Wanita	Jawa Tengah	5	100000

2. Block the data table, then create a pivot table with Insert, select the PivotTable menu, create a new sheet by selecting it “New Worksheet”.



- A new sheet will appear with a PivotTable (PivotTable Box) placeholder. In the field on the right, select / drag “**nama_subkategori**” to row labels, “**tahun**” to the column labels and “**jumlah**” to values, and produce a table like in the picture.



The screenshot shows the PivotTable Fields task pane on the left and the resulting PivotTable on the right.

PivotTable Fields Task Pane:

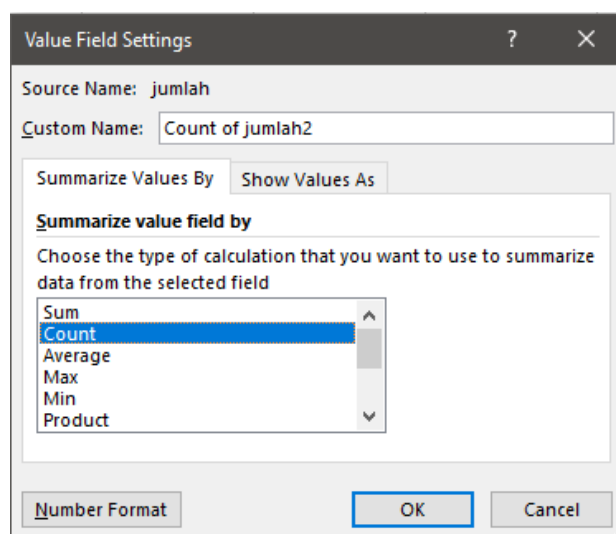
- Choose fields to add to report:** nama_produk, nama_kategori, ☒ nama_subkategori, nama_pola, nama_pelanggan, jenis_kelamin, nama_wilayah, ☒ jumlah, harga.
- Drag fields between areas below:**
 - FILTERS:** (Empty)
 - COLUMNS:** tahun
 - ROWS:** nama_subkat...
 - VALUES:** Sum of jumlah
- ☐ Defer Layout Update
- UPDATE

PivotTable:

	A	B	C	D	E
1	Drop Report Filter Fields Here				
2					
3	Sum of jumlah	tahun			
4	nama_subkategori	2010	2011	2012	Grand Total
5	Bahan	1	8	8	17
6	Batik			1	1
7	Bolero		1		1
8	Celana	17		17	34
9	Hem	5	8	4	17
10	Jam			44	44
11	Jarik		2	4	6
12	Kaos		1	14	15
13	Rok			1	1
14	Sarimbit		1		1
15	Grand Total	23	21	93	137

Activity 2: Add a New Summary Type

- Still continue with file “**Fakta_Penjualan.xls**”, add more number fields to the value but we change the value setting field to “**Count**”, as in the picture.



The screenshot shows the Value Field Settings dialog box with the following settings:

- Source Name:** jumlah
- Custom Name:** Count of jumlah2
- Summarize Values By:** Show Values As
- Summarize value field by:**
 - Choose the type of calculation that you want to use to summarize data from the selected field
 - Sum
 - Count**
 - Average
 - Max
 - Min
 - Product
- Number Format:** (Empty)
- OK
- Cancel

- Then it will produce 2 summary, namely, sum and count.

	A	B	C	D	E	F	G	H	I
1	Drop Report Filter Fields Here								
2									
3		tahun	Data						
4		2010		2011		2012		Total Sum of jumlah	Total Count of jumlah2
5	nama_subkategori	Sum of jumlah	Count of jumlah2	Sum of jumlah	Count of jumlah2	Sum of jumlah	Count of jumlah2		
6	Bahan	1	1	8	1	8	2	17	4
7	Batik					1	1	1	1
8	Bolero			1	1			1	1
9	Celana	17	1			17	1	34	2
10	Hem	5	1	8	2	4	2	17	5
11	Jam					44	1	44	1
12	Jarik			2	1	4	1	6	2
13	Kaos			1	1	14	1	15	2
14	Rok					1	1	1	1
15	Sarimbit			1	1			1	1
16	Grand Total	23	3	21	7	93	10	137	20

Activity 3: Calculated Field and Calculated Items on the Pivot Table

A. Calculated Field

- Still using the same file, click on the PivotTable box then select the analyze toolbar at the top, select **"Calculated Field"** on the **"Fields, Items & Sets"** menu. Fill the box that appears with **"Pendapatan"** in the Name and fill in **"= jumlah * harga"** in the Formula.

Insert Calculated Field

Name: Pendapatan

Add

Formula: = jumlah * harga

Delete

Fields:

nama_kategori

nama_subkategori

nama_pola

nama_pelanggan

jenis_kelamin

nama_wilayah

jumlah

harga

Insert Field

OK

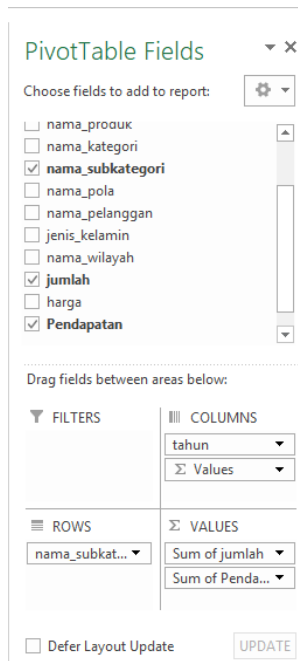
Close

- Then a new field will appear with a name **Sum of Pendapatan**.

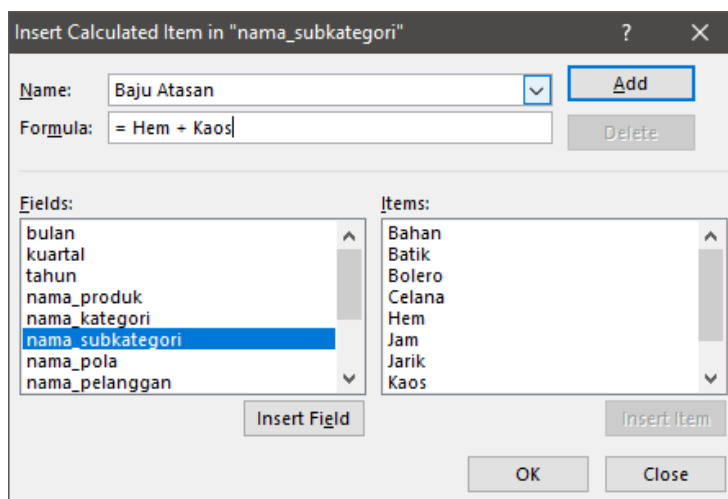
	A	B	C	D	E	F	G
1	Drop Report Filter Fields Here						
2							
3		tahun	Data				
4		2012			Total Sum of jumlah	Total Count of jumlah2	Total Sum of Pendapatan
5	nama_subkategori	Sum of jumlah	Count of jumlah2	Sum of Pendapatan			
6	Bahan	8	2	2120000	8	2	2120000
7	Batik	1	1	150000	1	1	150000
8	Celana	17	1	935000	17	1	935000
9	Hem	4	2	1596000	4	2	1596000
10	Jam	44	1	3520000	44	1	3520000
11	Jarik	4	1	160000	4	1	160000
12	Kaos	14	1	420000	14	1	420000
13	Rok	1	1	225000	1	1	225000
14	Grand Total	93	10	115692000	93	10	115692000

B. Calculated Item

1. Make a calculated item **“Baju Atasan”** which represents the number of products sold for the category **“Hem”** and **“Kaos”**. The steps taken are the same as the previous activities but, this time we selected "Calculated Item" on the menu **“Fields, Items, & Sets”**. Before starting to do calculated items, we first delete **“Total Count of jumlah 2”** because it will cause an error if not removed.



2. In the box calculated item we fill **“Name : Baju Atasan”** and **“Formula : = Hem + Kaos”**.



- The results of the calculated item, will be like in the picture below.

	A	B	C	D	E	F	G
1	Drop Report Filter Fields Here						
2							
3		tahun	Data				
4		2011		2012		Total Sum of jumlah	Total Sum of Pendapatan
5	nama_subkategori	Sum of jumlah	Sum of Pendapatan	Sum of jumlah	Sum of Pendapatan		
6	Bahan	8	960000	8	2120000	16	6160000
7	Batik		0	1	150000	1	150000
8	Bolero	1	225000		0	1	225000
9	Celana		0	17	935000	17	935000
10	Hem	8	4960000	4	1596000	12	12228000
11	Jam		0	44	3520000	44	3520000
12	Jarik	2	450000	4	160000	6	1590000
13	Kaos	1	60000	14	420000	15	1350000
14	Rok		0	1	225000	1	225000
15	Sarimbit	1	150000		0	1	150000
16	Baju Atasan	9	6120000	18	7722000	27	29943000
17	Grand Total	30	62400000	111	185703000	141	529173000

Activity 4: Roll Up and Drill Down Operations

Operations performed to see data in more detail and more generally based on cube (multidimensional).

- In the "**PivotTable Field List**" on the right, fill in the columns below as shown below.

PivotTable Fields

Choose fields to add to report:

- ☒ bulan
- ☒ kuartal
- ☒ tahun
- ☒ nama_produk
- ☒ nama_kategori
- ☒ nama_subkategori
- ☐ nama_pola
- ☐ nama_pelanggan
- ☐ jenis_kelamin
- ☐ nama_wilayah

Drag fields between areas below:

<p>FILTERS</p>	<p>COLUMNS</p> <p>tahun</p> <p>kuartal</p> <p>bulan</p>
<p>ROWS</p> <p>nama_su...</p> <p>nama_kat...</p> <p>nama_pro...</p>	<p>VALUES</p> <p>Sum of Penda...</p>

☐ Defer Layout Update UPDATE

- Then the result will be a pivot table like the picture below.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T		
1																						
2																						
3	Sum of Pendapatan				tahun	kuarta	bulan															
4					2012															2012 Total	Grand Total	
5					1	2	3	4													4 Total	
6	nama_subkategori	nama_kategori	nama_produk																			
7	Bahan	Lawasan	Bahan Lawasan Tulis Toilet	0	130000	0	0	0	0	0	0	0	0	0	0	0	0	0	130000	130000		
8		Lawasan Total		0	130000	0	0	0	0	0	0	0	0	0	0	0	0	0	130000	130000		
9		Standar	Bahan Standar Cap Garis	0	945000	0	0	0	0	0	0	0	0	0	0	0	0	0	945000	945000		
10		Standar Total		0	945000	0	0	0	0	0	0	0	0	0	0	0	0	0	945000	945000		
11	Bahan Total			0	2120000	0	0	0	0	0	0	0	0	0	0	0	0	0	2120000	2120000		
12	Batik			0	150000	0	0	0	0	0	0	0	0	0	0	0	0	0	150000	150000		
13	Celana			935000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	935000	935000		
14	Hem			0	897000	100000	0	0	0	0	0	0	0	0	0	0	0	0	1596000	1596000		
15	Jam			3520000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3520000	3520000		
16	Jarik			0	160000	0	0	0	0	0	0	0	0	0	0	0	0	0	160000	160000		
17	Kaos			420000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	420000	420000		
18	Rok			0	0	0	0	0	0	0	0	0	0	0	0	0	2E+05	2E+05	225000	225000		
19	Baju Atasan			420000	897000	100000	0	0	0	0	0	0	0	0	0	0	0	0	7722000	7722000		
20	Grand Total			1,7E+07	1,6E+07	1E+06	0	0	0	0	0	0	0	0	0	0	2E+05	2E+05	1,86E+08	185703000		

Activity 5: Using the Pivot Chart

- To create a pivot chart, block the table in the "**Fact_Table**" sheet then select the insert toolbar listed above then select the "Pivot Chart" menu. Display the chart on the new page by selecting "**New Worksheet**".

?

×

Create PivotChart

Choose the data that you want to analyze

☒ Select a table or range

Table/Range:

Fact_Table!\$A\$1:\$L\$21

☐ Use an external data source

Choose Connection...

Connection name:

Choose where you want the PivotChart to be placed

☒ New Worksheet

☐ Existing Worksheet

Location:

Choose whether you want to analyze multiple tables

☐ Add this data to the Data Model

OK

Cancel

- In the pivotchart fields, drag **“tahun”** and **“kuartal”** into the Legend (Series) column. Drag **“nama_subkategori”** to the Axis column (Category) last drag **“Pendapatan”** to the values column.

PivotChart Fields

Choose fields to add to report:

☐ bulan
☒ **kuartal**
☒ **tahun**
☐ nama_produk
☐ nama_kategori
☒ **nama_subkategori**
☐ nama_pola
☐ nama_pelanggan
☐ jenis_kelamin
☐ nama_wilayah

Drag fields between areas below:

FILTERS

LEGEND (SERIES)

tahun
kuartal

AXIS (CATEG...)

nama_subkat...

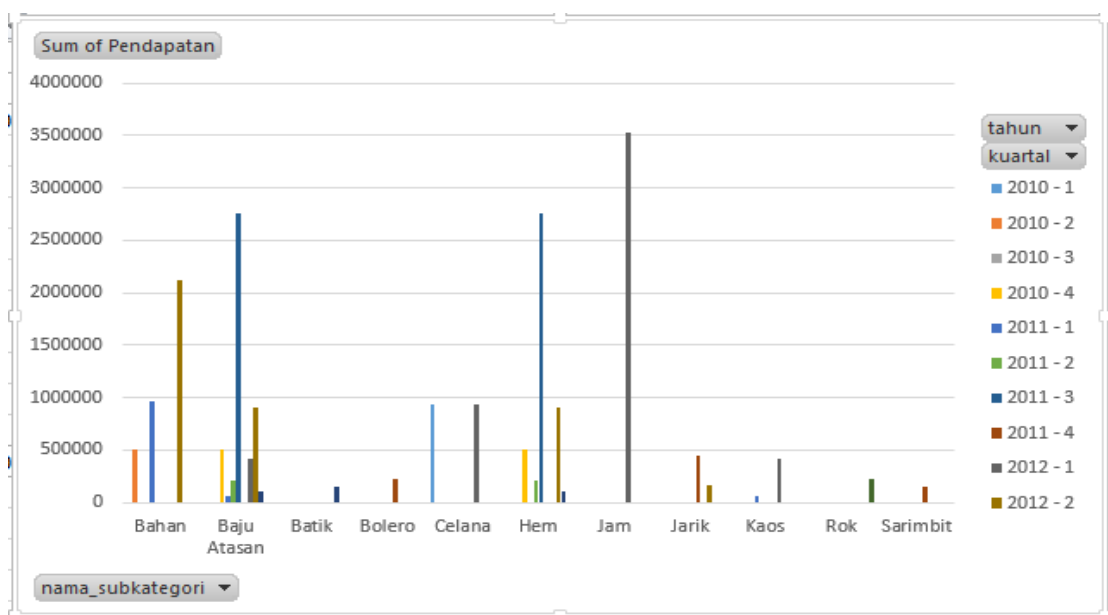
VALUES

Sum of Penda...

☐ Defer Layout Update

UPDATE

- Then the graph pivot table will appear. Graphic models use models **“Clustered Column”**.

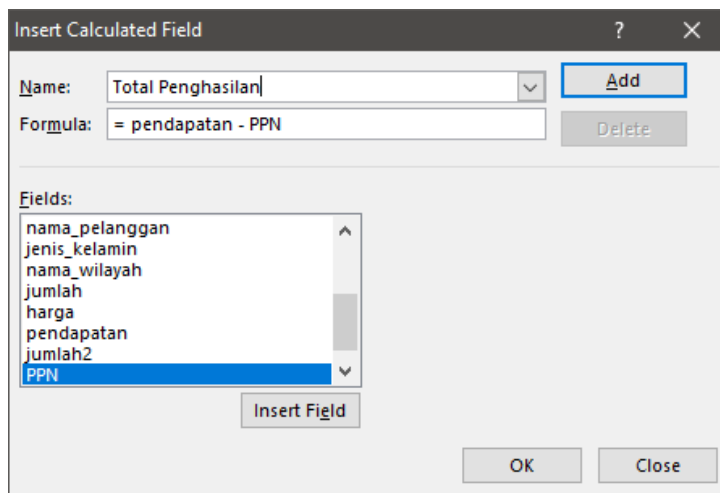
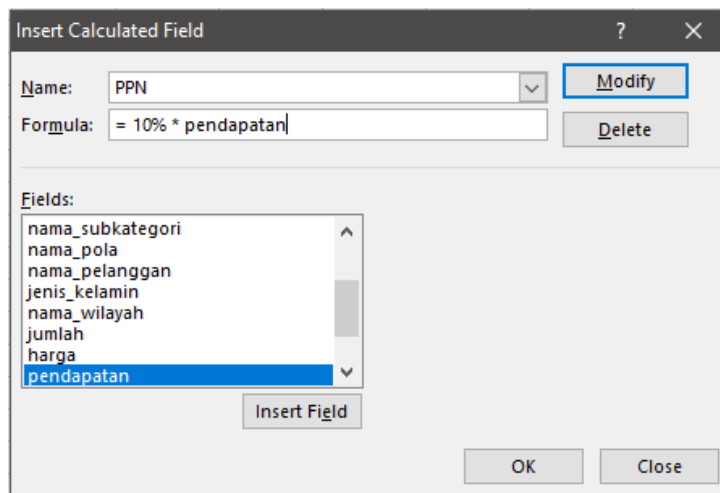


Task


- By using **PivotTable** on file “**Fakta_Penjualan.xls**” add 2 fields, i.e. :
 - PPN** (Pajak Pertambahan Nilai) by **10%** of each **Pendapatan** in the Pivot Table.
 - Total Penghasilan** which is calculated from **Pendapatan** minus the **PPN**.
- Make a PivotTable and PivotChart to see the **PPN** and **Total Penghasilan** during 2010 - 2012. What product categories provide the most income for the 3 years?

Answer :

- Add the PPN field and Total Penghasilan using the Calculated Field.



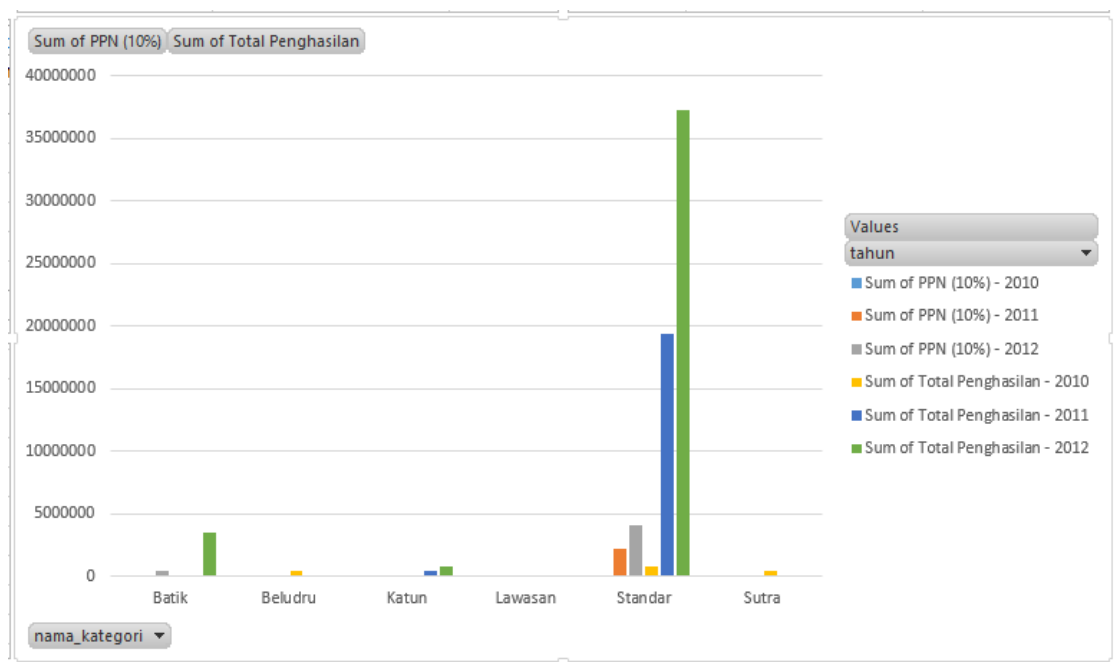
PivotTable Fields

Choose fields to add to report: 

- ☐ nama_peanggan
- ☐ jenis_kelamin
- ☐ nama_wilayah
- ☐ jumlah
- ☐ harga
- ☐ pendapatan
- ☐ jumlah2
- ☒ PPN
- ☒ Penghasilan

2. PivotTable and PivotChart for PPN and Total Penghasilan in 2010 – 2012.

	Data	tahun							
		Sum of PPN (10%)			Sum of Total Penghasilan			Total Sum of PPN (10%)	Total Sum of Total Penghasilan
nama_kategori	2010	2011	2012	2010	2011	2012			
Batik	0	0	382500	0	0	3442500		382500	3442500
Beludru	50000	0	0	450000	0	0		50000	450000
Katun	0	52000	89700	0	468000	807300		300300	2702700
Lawasan	0	0	13000	0	0	117000		13000	117000
Standar	93500	2159000	4144000	841500	19431000	37296000		20358000	183222000
Sutra	50000	0	0	450000	0	0		50000	450000
Grand Total	1506500	2940000	11569200	13558500	26460000	104122800		45196300	406766700



From the PivotTable and PivotChart above, it can be concluded that the category with the highest Total Penghasilan within 3 years (2010 - 2011) is the **Standard** category.