



Data Analysis and Dashboard Creation in Excel

Almaidah

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01

Introduction

Analisis Data Menggunakan Pivot Table di Excel




Introduction




MySkill is an online learning platform that offers various courses to enhance professional and technical skills. This data contains information related to product sales within the e-learning project on the MySkill platform



Objective

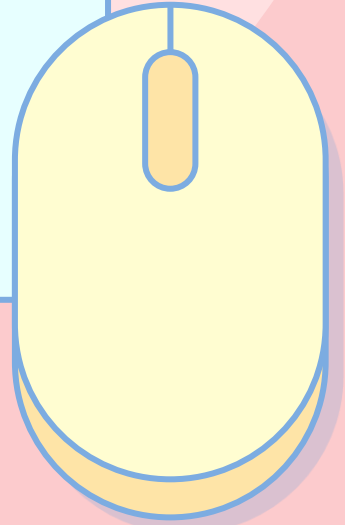


The objective of this analysis is to understand the sales performance and profitability of products within the e-learning platform MySkill. Additionally, it aims to gain deep insights to facilitate better business decision-making



02

Data Description





Data Source

E-Learning Modul on
MySkill

Data Summary

9995 baris dan 23
kolom

Primary COLUMNS

Sales, Profit, Quantity, Date,
Segment, Product Category,
Product Name, Region

File

Home

Insert

Page Layout

Formulas

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Developer

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Acrobat

Power Pivot

Tell me what you want to do

Arial

10

Wrap Text

General

Conditional Formatting

Format as Table

Cell Styles

Insert

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Format

Sort & Filter

Find & Select

Add-ins

Clipboard

Font

Alignment

Number

Styles

Cells

Editing

Add-ins

X18

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
1	Order ID	Order Date	Ship Date	Ship Mode	Customer ID	Customer Name	Segment	Country	City	State	Postal Code	Region	Product ID	Category	Sub-Category	Product Name	Sales	Quantity	Discount	Profit	Calendar Month	Year	
2	CA-2016-15211	11/8/2016	11/11/2016	Second Class	CG-12520	Claire Guter	Consumer	United States	Henderson	Kentucky	42420	South	FUR-BO-1001	Furniture	Bookcases	Bush Somerset	262	2	0	41.9	8 November	2016	
3	CA-2016-15211	11/8/2016	11/11/2016	Second Class	CG-12520	Claire Guter	Consumer	United States	Henderson	Kentucky	42420	South	FUR-CH-1001	Furniture	Chairs	Hon Deluxe Fat	731.9	3	0	220	8 November	2016	
4	CA-2016-13861	6/12/2016	6/16/2016	Second Class	DV-13045	Darrin Van Huf	Corporate	United States	Los Angeles	California	90036	West	OFF-LA-1001	Office Supplies	Labels	Self-Adhesive	14.62	2	0	6.87	12 June	2016	
5	US-2015-10891	10/11/2015	10/18/2015	Standard Class	SO-20335	Sean O'Donnell	Consumer	United States	Fort Lauderdale	Florida	33311	South	FUR-TA-1001	Furniture	Tables	Bretford CR450	957.6	5	0.45	-383	11 October	2015	
6	US-2015-10891	10/11/2015	10/18/2015	Standard Class	SO-20335	Sean O'Donnell	Consumer	United States	Fort Lauderdale	Florida	33311	South	OFF-ST-1001	Office Supplies	Storage	Eldon Fold N'R	22.37	2	0.2	2.52	11 October	2015	
7	CA-2014-11581	6/9/2014	6/14/2014	Standard Class	BH-11710	Brosina Hoffme	Consumer	United States	Los Angeles	California	90032	West	FUR-FU-1001	Furniture	Furnishings	Eldon Expressi	48.86	7	0	14.2	9 June	2014	
8	CA-2014-11581	6/9/2014	6/14/2014	Standard Class	BH-11710	Brosina Hoffme	Consumer	United States	Los Angeles	California	90032	West	OFF-AR-1001	Office Supplies	Art	Newell 322	7.28	4	0	1.97	9 June	2014	
9	CA-2014-11581	6/9/2014	6/14/2014	Standard Class	BH-11710	Brosina Hoffme	Consumer	United States	Los Angeles	California	90032	West	TEC-PH-1001	Technology	Phones	Mitel 5320 IP Ph	907.2	6	0.2	90.7	9 June	2014	
10	CA-2014-11581	6/9/2014	6/14/2014	Standard Class	BH-11710	Brosina Hoffme	Consumer	United States	Los Angeles	California	90032	West	OFF-BI-1000	Office Supplies	Binders	DXL Angle-Vie	18.5	3	0.2	5.78	9 June	2014	
11	CA-2014-11581	6/9/2014	6/14/2014	Standard Class	BH-11710	Brosina Hoffme	Consumer	United States	Los Angeles	California	90032	West	OFF-AP-1001	Office Supplies	Appliances	Belkin F5C206V	114.9	5	0	34.5	9 June	2014	
12	CA-2014-11581	6/9/2014	6/14/2014	Standard Class	BH-11710	Brosina Hoffme	Consumer	United States	Los Angeles	California	90032	West	FUR-TA-1001	Furniture	Tables	Chromcraft Re	1706	9	0.2	85.3	9 June	2014	
13	CA-2014-11581	6/9/2014	6/14/2014	Standard Class	BH-11710	Brosina Hoffme	Consumer	United States	Los Angeles	California	90032	West	TEC-PH-1001	Technology	Phones	Konftel 250 Co	911.4	4	0.2	68.4	9 June	2014	
14	CA-2017-11441	4/15/2017	4/20/2017	Standard Class	AA-10480	Andrew Allen	Consumer	United States	Concord	North Carolina	28027	South	OFF-PA-1001	Office Supplies	Paper	Xerox 1967	15.55	3	0.2	5.44	15 April	2017	
15	CA-2016-16131	12/5/2016	12/10/2016	Standard Class	IM-15070	Irene Maddox	Consumer	United States	Seattle	Washington	98103	West	OFF-BI-1000	Office Supplies	Binders	Fellowes PB20	408	3	0.2	133	5 December	2016	
16	US-2015-11891	11/22/2015	11/26/2015	Standard Class	HP-14815	Harold Pawlan	Home Office	United States	Fort Worth	Texas	76106	Central	OFF-AP-1001	Office Supplies	Appliances	Holmes Replac	68.81	5	0.8	-124	22 November	2015	
17	US-2015-11891	11/22/2015	11/26/2015	Standard Class	HP-14815	Harold Pawlan	Home Office	United States	Fort Worth	Texas	76106	Central	OFF-BI-1000	Office Supplies	Binders	Storex DuraTec	2.544	3	0.8	-3.8	22 November	2015	
18	CA-2014-10581	11/11/2014	11/18/2014	Standard Class	PK-19075	Pete Kriz	Consumer	United States	Madison	Wisconsin	53711	Central	OFF-ST-1001	Office Supplies	Storage	Stur-D-Stor Sh	665.9	6	0	13.3	11 November	2014	
19	CA-2014-16711	5/13/2014	5/15/2014	Second Class	AG-10270	Alejandro Grov	Consumer	United States	West	Utah	84084	West	OFF-ST-1001	Office Supplies	Storage	Fellowes Supe	55.5	2	0	9.99	13 May	2014	
20	CA-2014-14331	8/27/2014	9/1/2014	Second Class	ZD-21925	Zuschuss Doni	Consumer	United States	San Francisco	California	94109	West	OFF-AR-1001	Office Supplies	Art	Newell 341	8.56	2	0	2.48	27 August	2014	
			9/1/2014	Second Class	ZD-21925	Zuschuss Doni	Consumer	United States	San Francisco	California	94109	West	TEC-PH-1001	Technology	Phones	Cisco SPA 501	213.5	3	0.2	16	27 August	2014	
			9/1/2014	Second Class	ZD-21925	Zuschuss Doni	Consumer	United States	San Francisco	California	94109	West	OFF-BI-1000	Office Supplies	Binders	Wilson Jones H	22.72	4	0.2	7.38	27 August	2014	
			12/13/2016	Standard Class	KB-16585	Ken Black	Corporate	United States	Fremont	Nebraska	68025	Central	OFF-AR-1001	Office Supplies	Art	Newell 318	19.46	7	0	5.06	9 December	2016	
			12/13/2016	Standard Class	KB-16585	Ken Black	Corporate	United States	Fremont	Nebraska	68025	Central	OFF-AP-1001	Office Supplies	Appliances	Acco Six-Outlet	60.34	7	0	15.7	9 December	2016	
			7/18/2017	Second Class	SF-20065	Sandra Flanagan	Consumer	United States	Philadelphia	Pennsylvania	19140	East	FUR-CH-1001	Furniture	Chairs	Global Deluxe	71.37	2	0.3	1	16 July	2017	
			8/22/2015	Standard Class	SO-20335	Sean O'Donnell	Consumer	United States	Fort Lauderdale	Florida	33311	South	FUR-TA-1001	Furniture	Tables	Bretford CR450	957.6	5	0.45	-383	11 October	2015	

Data

Case Study

Praktik

Sheet2

[Click To Dataset](#)

03

“

Research Question

B

2

A

...

List of Research Questions



Total sales, profit, quantity, and profit margin (sales/profit)



Monthly sales trends



Sales composition per segment



Top 10 product based on sales



Display a table showing product category, product name, sales, profit, and quantity



Show filters for month and slicer for date region





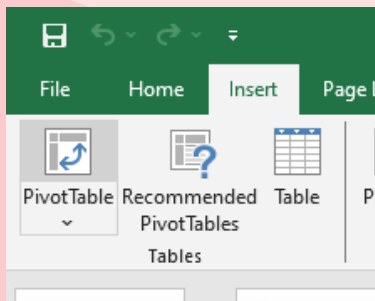
04

Pivot Table Analysis

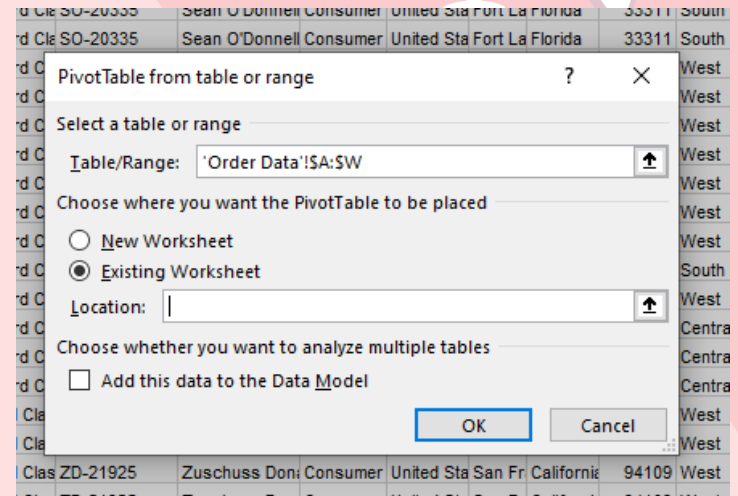
Create Pivot Table

Order ID	Order Date	Ship Date	Ship Mode	Customer ID	Customer Name	Segment	Country	City	State	Postal Co	Region	Product ID	Category	Sub-Category	Product Name	Sales	Quant	Discount	Profit	Calendar Month	Year
CA-2016-1521	11/8/2016	11/11/2016	Second Class	CG-12520	Clare Gule	Consumer	United States	Hendricks	Kentucky	42420	South	FUR-BO-100	Furniture	Bookcases	Bush Somerset	262	2	0	41.9	8 November 2016	2016
CA-2016-1521	11/8/2016	11/11/2016	Second Class	CG-12520	Clare Gule	Consumer	United States	Hendricks	Kentucky	42420	South	FUR-CH-100	Furniture	Chairs	Hon Deluxe Fat	731.9	3	0	220	8 November 2016	2016
CA-2018-1366	6/12/2016	6/16/2016	Second Class	DV-13045	Darin Van Huf	Corporate	United States	Los Angeles	California	90036	West	OFF-LA-100	Office Supplies	Labels	Self-Adhesive	14.62	2	0	6.87	12 June 2016	2016
JS-2015-10894	10/11/2015	10/16/2015	Standard Class	SO-20335	Sean O'Donnell	Consumer	United States	Fort Lauderdale	Florida	33311	South	FUR-TA-100	Furniture	Tables	Bretford CM45	997.5	5	0.45	-383	11 October 2015	2015
JS-2015-10894	10/11/2015	10/16/2015	Standard Class	SO-20335	Sean O'Donnell	Consumer	United States	Fort Lauderdale	Florida	33311	South	OFF-ST-100	Office Supplies	Storage	Eikon Fold N Roll	22.37	2	0.2	2.52	11 October 2015	2015
CA-2014-1158	6/9/2014	6/14/2014	Standard Class	BH-11710	Brosina Hoffman	Consumer	United States	Los Angeles	California	90032	West	FUR-FU-100	Furniture	Furnishings	Eikon Express	48.86	7	0	14.2	9 June 2014	2014
CA-2014-1158	6/9/2014	6/14/2014	Standard Class	BH-11710	Brosina Hoffman	Consumer	United States	Los Angeles	California	90032	West	OFF-AR-100	Office Supplies	Art	Newell 322	7.28	4	0	1.97	9 June 2014	2014
CA-2014-1158	6/9/2014	6/14/2014	Standard Class	BH-11710	Brosina Hoffman	Consumer	United States	Los Angeles	California	90032	West	TEC-PH-100	Technology	Phones	Mitel 5320 PPH	907.2	6	0.2	90.7	9 June 2014	2014
CA-2014-1158	6/9/2014	6/14/2014	Standard Class	BH-11710	Brosina Hoffman	Consumer	United States	Los Angeles	California	90032	West	OFF-BI-1000	Office Supplies	Binders	DXL Angle-Vue	18.5	3	0.2	5.78	9 June 2014	2014
CA-2014-1158	6/9/2014	6/14/2014	Standard Class	BH-11710	Brosina Hoffman	Consumer	United States	Los Angeles	California	90032	West	OFF-AP-100	Office Supplies	Appliances	Belkin F5C26V	114.9	5	0	34.5	9 June 2014	2014
CA-2014-1158	6/9/2014	6/14/2014	Standard Class	BH-11710	Brosina Hoffman	Consumer	United States	Los Angeles	California	90032	West	FUR-TA-100	Furniture	Tables	Chromcraft Rei	1708	9	0.2	85.3	9 June 2014	2014
CA-2014-1158	6/9/2014	6/14/2014	Standard Class	BH-11710	Brosina Hoffman	Consumer	United States	Los Angeles	California	90032	West	TEC-PH-100	Technology	Phones	Kentel 250 Col	911.4	4	0.2	68.4	9 June 2014	2014
CA-2017-1144	4/15/2017	4/20/2017	Standard Class	AA-10480	Andrew Allen	Consumer	United States	Concord	North Carolina	28027	South	OFF-PA-100	Office Supplies	Paper	Xerox 1967	15.55	3	0.2	5.44	15 April 2017	2017
CA-2016-1613	12/5/2016	12/10/2016	Standard Class	MI-15070	Irene Maddox	Consumer	United States	Seattle	Washington	98103	West	OFF-BI-1000	Office Supplies	Binders	Fellowes PB20	408	3	0.2	133	5 December 2016	2016
JS-2015-11894	11/22/2015	11/26/2015	Standard Class	HP-14815	Harold Pawlan	Home Office	United States	Fort Worth	Texas	76106	Central	OFF-AP-100	Office Supplies	Appliances	Holmes Reolco	68.81	5	0.8	-124	22 November 2015	2015
JS-2015-11894	11/22/2015	11/26/2015	Standard Class	HP-14815	Harold Pawlan	Home Office	United States	Fort Worth	Texas	76106	Central	OFF-BI-1000	Office Supplies	Binders	Storax DuraTel	2.544	3	0.8	-3.8	22 November 2015	2015
CA-2014-1058	11/11/2014	11/18/2014	Standard Class	PK-19075	Pete Kriz	Consumer	United States	Madison	Wisconsin	53711	Central	OFF-ST-100	Office Supplies	Storage	Stur-D-Stor Shi	685.9	6	0	13.3	11 November 2014	2014
CA-2014-1671	5/13/2014	5/15/2014	Second Class	AG-10270	Alejandro Grov	Consumer	United States	West	Utah	84084	West	OFF-ST-100	Office Supplies	Storage	Fellowes Supe	55.5	2	0	9.99	13 May 2014	2014
CA-2014-1433	8/27/2014	9/1/2014	Second Class	ZD-21925	Zuschuss Don	Consumer	United States	San Francisco	California	94109	West	OFF-AR-100	Office Supplies	Art	Newell 341	8.56	2	0	2.48	27 August 2014	2014
CA-2014-1433	8/27/2014	9/1/2014	Second Class	ZD-21925	Zuschuss Don	Consumer	United States	San Francisco	California	94109	West	TEC-PH-100	Technology	Phones	Cisco SPA 501	213.5	3	0.2	16	27 August 2014	2014
CA-2014-1433	8/27/2014	9/1/2014	Second Class	ZD-21925	Zuschuss Don	Consumer	United States	San Francisco	California	94109	West	OFF-BI-1000	Office Supplies	Binders	Wilson Jones H	22.72	4	0.2	7.38	27 August 2014	2014
CA-2016-1373	12/9/2016	12/13/2016	Standard Class	KB-16585	Ken Black	Corporate	United States	Fremont	Nebraska	68025	Central	OFF-AR-100	Office Supplies	Art	Newell 318	19.46	7	0	5.06	9 December 2016	2016
CA-2016-1373	12/9/2016	12/13/2016	Standard Class	KB-16585	Ken Black	Corporate	United States	Fremont	Nebraska	68025	Central	OFF-AP-100	Office Supplies	Appliances	Acco Six-Outlet	60.34	7	0	15.7	9 December 2016	2016
JS-2017-15	6/1/2017	6/1/2017	Standard Class	KB-16585	Ken Black	Corporate	United States	Fremont	Nebraska	68025	Central	OFF-CH-100	Furniture	Chairs	Global Deluxe S	71.37	2	0.3	-1	16 July 2017	2017

1. Select all data using Ctrl+A



2. Click insert -> Pivot Table



3. Select the location where you want to place the pivot table, you can also use a different sheet

1. Berapa total sales, profit, quantity dan juga profit margin (sales/profit)?

Drag fields between areas below:

Filters

Columns

1. Input Rows and Values as per the question

Rows

Σ Values

Σ Values

Jumlah Sales

Jumlah Profit

Jumlah Quantity

Sum of profit margin

Jawaban Pertanyaan 1	
Values	
Jumlah Sales	2.297.201
Jumlah Profit	286.397
Jumlah Quantity	37873
Sum of profit ma	12%

2. Pivot Table Result

Total Sales : 2.297.201
Total Profit: 286.397
Total Quantity:
37873
Profit Margin:
12%

2. Tren sales setiap bulan

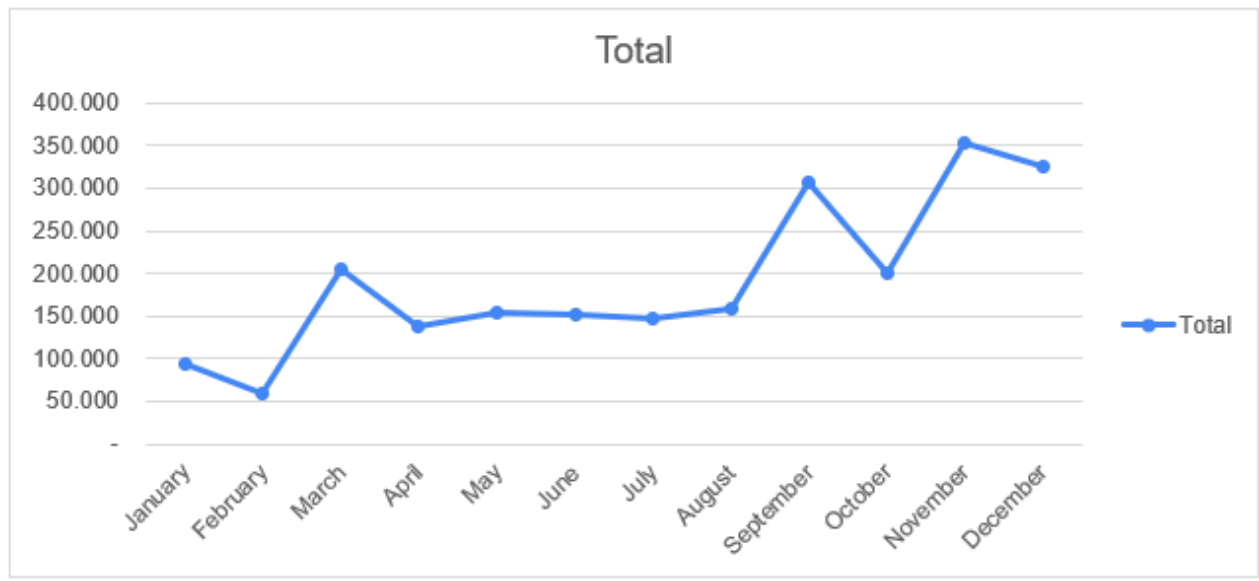
Jawaban Pertanyaan 2	
Row Labels	Sum of Sales
January	94.925
February	59.751
March	205.005
April	137.762
May	155.029
June	152.719
July	147.238
August	159.044
September	307.650
October	200.323
November	352.461
December	325.294

Rows	Values
Month	Sum of Sales

1. Input Rows and Values as per the question

2. Pivot Table Result

Lanjutan...



3. Hasil Pivot Table Menggunakan Line Chart

Dari hasil Line Chart ditemukan bahwa Tren Sales Tertinggi pada bulan November, dan Tren Sales Terendah pada bulan February

3. Komposisi Sales per Segmen

1. Input Rows and Values
as per the wuestion

Rows	Values
Segment	Sum of Sales

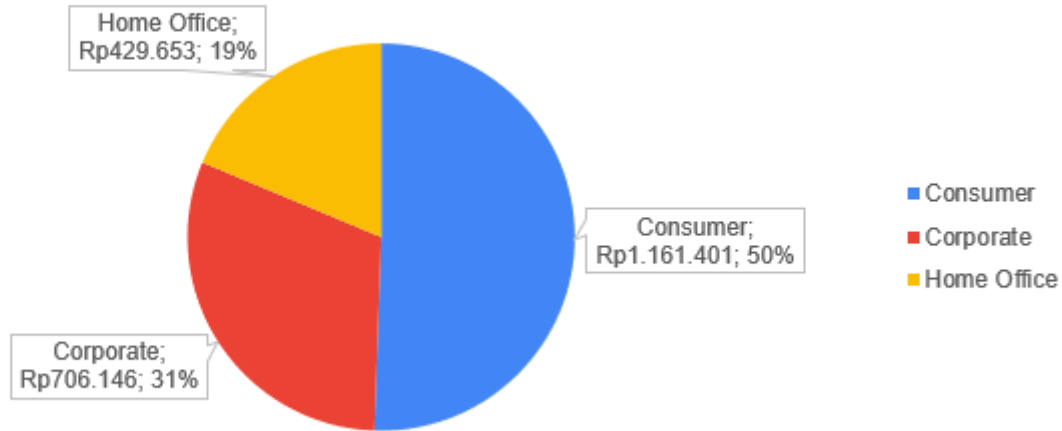
Jawaban Pertanyaan 3

Row Labels	Sum of Sales
Consumer	Rp1.161.401
Corporate	Rp706.146
Home Office	Rp429.653
Grand Total	Rp2.297.201

2. Pivot Table Result

3. Komposisi Sales per Segmen

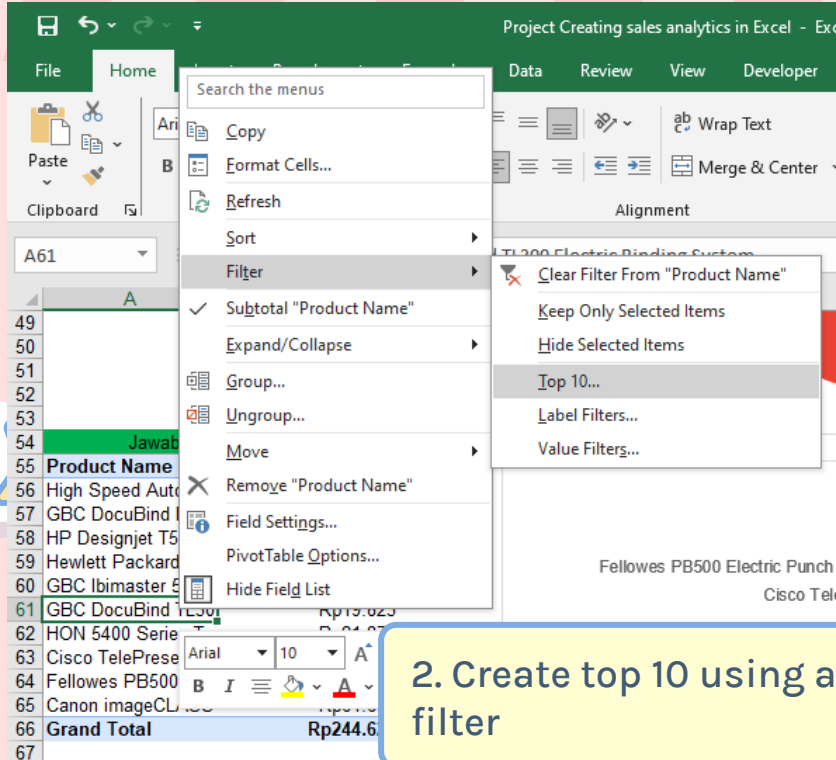
Komposisi penjualan di tiap Segmen



3. Pivot Table Result Using Pie Chart

From the data provided, it can be concluded that sales from the consumer segment are higher compared to Home Office and Corporate segments.

4. Top 10 Produk Berdasarkan Sales



The screenshot shows the Excel interface with a PivotTable. The 'Filter' menu is open, and the 'Top 10...' option is selected. The PivotTable shows the top 10 products by sales.

Product Name	Total Penjualan
High Speed Automati	Rp17.030
GBC DocuBind P400	Rp17.965
HP Designjet T520 In	Rp18.375
Hewlett Packard Las	Rp18.840
GBC Ibimaster 500 M	Rp19.025
GBC DocuBind TL30	Rp19.823
HON 5400 Series Ta	Rp21.871
Cisco TelePresence	Rp22.638
Fellowes PB500 Elec	Rp27.453
Canon imageCLASS	Rp24.600
Grand Total	Rp244.600

2. Create top 10 using a filter

1. Input Rows and Values as per the question

Rows	Values
Product Name	Total Penjualan

Jawaban Pertanyaan 4	
Product Name	Total Penjualan
High Speed Automati	Rp17.030
GBC DocuBind P400	Rp17.965
HP Designjet T520 In	Rp18.375
Hewlett Packard Las	Rp18.840
GBC Ibimaster 500 M	Rp19.025
GBC DocuBind TL30	Rp19.823
HON 5400 Series Ta	Rp21.871
Cisco TelePresence	Rp22.638
Fellowes PB500 Elec	Rp27.453
Canon imageCLASS	Rp24.600
Grand Total	Rp244.600

3. Pivot Table Result

Lanjutan...



4. Pivot Table Result Using Bar Chart

Using the Bar Chart, we can conclude that the highest sales are from the Canon ImageCLASS 2200 Advanced Copie

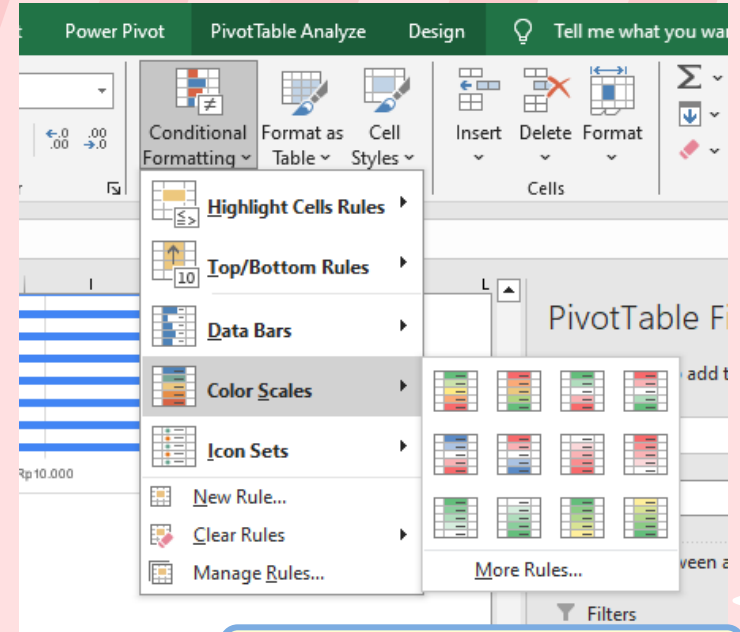
5. Tabel Produk (Kategori, Nama Produk, Sales, Profit, dan Quantity)

Drag fields between areas below:

Filters	Columns
	Σ Values

Rows	Σ Values
Category	Total Sales
Sub-Category	Total Profit
	Total Quantity

1. Input Rows and Values as per the question



2. Customize warna

5. Tabel Produk (Kategori, Nama Produk, Sales, Profit, dan Quantity)

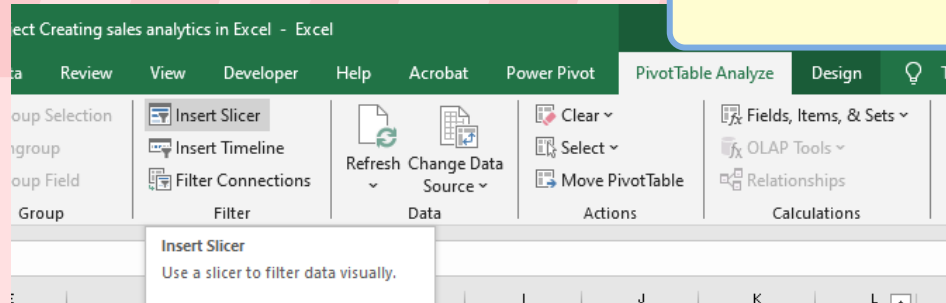
Jawaban Pertanyaan 5					
Kategori	Sub Kategori	Total Sales	Total Profit	Total Quantity	
Furniture	Bookcases	114879,9963	-3472,556	868	
	Chairs	328449,103	26590,1663	2356	
	Furnishings	91705,164	13059,1436	3563	
	Tables	206965,532	-17725,4811	1241	
Office Supplie	Appliances	107532,161	18138,0054	1729	
	Art	27118,792	6527,787	3000	
	Binders	203412,733	30221,7633	5974	
	Envelopes	16476,402	6964,1767	906	
	Fasteners	3024,28	949,5182	914	
	Labels	12486,312	5546,254	1400	
	Paper	78479,206	34053,5693	5178	
	Storage	223843,608	21278,8264	3158	
	Supplies	46673,538	-1189,0995	647	
Technology	Accessories	167380,318	41936,6357	2976	
	Copiers	149528,03	55617,8249	234	
	Machines	189238,631	3384,7569	440	
	Phones	330007,054	44515,7306	3289	

3. Pivot Table Result

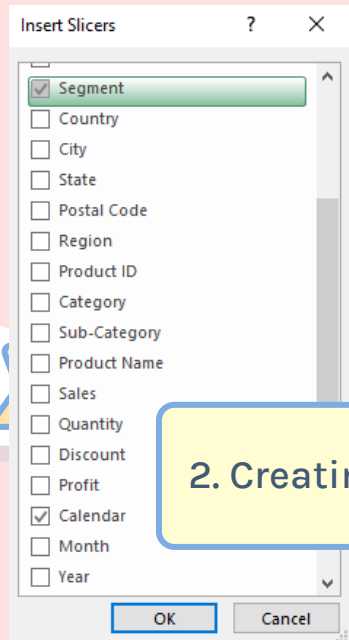
I have used color differentiation where brighter green indicates the highest figures. However, products with no profit are highlighted in red.

6. Filter Bulan dan Slicer Tanggal & Region

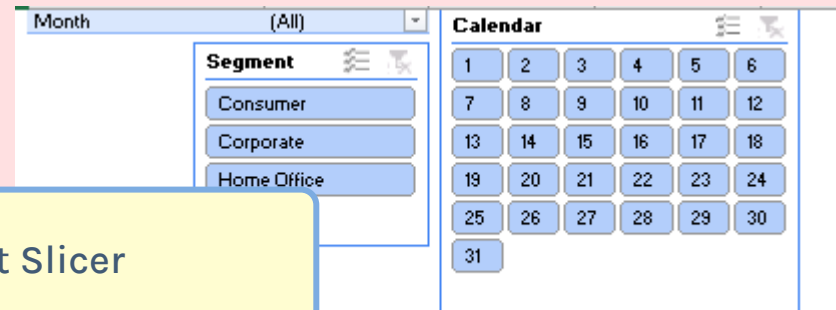
1. Insert Slicer



2. Creating Slicer



3 Result Slicer





05

Summary



Setelah Melakukan Pivot Table Hasilnya

1

Total Sales :

2.297.201

Total Profit:

286.397

Total Quantity:

37.873

Profit Margin:

12%

2

The hisghest sales trend is in November, while the lowest sales trend is in February

3

The Consumer segment iss the primary market that requires special attention to enchanche marketing strategies and services



Setelah Melakukan Pivot Table Hasilnya

4

Focusing on inventory management and promoting these products will help maintain and increase sales

5

Adjusting strategies for products in less popular categories in necessary to improve performance

6

The use of filters and slicers reveals sales variations based on time periods

The Dashboard created using Excel



Sales Dashboard

Total Profit
Rp286.397

Total Sales
Rp2.297.201

Quantity
37.873

Profit Margin
12.47%

Years	
2014	2015
2016	2017

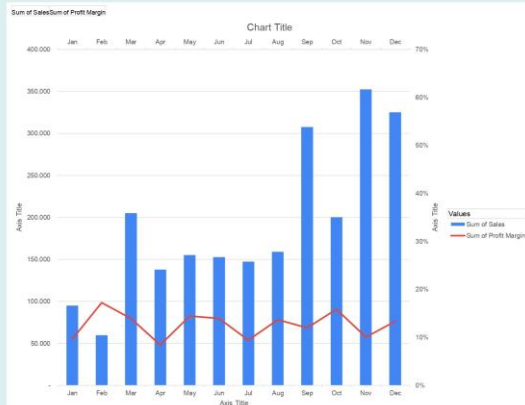
Month (All)

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Segment
Consumer Corporate Home Office

Region	
Central	East
South	West

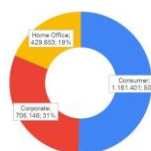
State		
Delaware	District of Colum...	Florida
Georgia	Idaho	Illinois
Indiana	Iowa	Kansas
Kentucky	Louisiana	Maine
Maryland	Massachusetts	Michigan
Minnesota	Mississippi	Missouri
Montana	Nevada	New Mexico
New Hampshire	New Jersey	New York
Ohio	North Carolina	North Dakota
Pennsylvania	Oklahoma	Oregon
	Rhode Island	South Carolina



Order Date

Sum of Sales

Composition of Sales in each Segment





6

Recomendaation

Recomendaation





Thanks!

Lets Connect !!!

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