

Excel Pivot Tables and Power & Power Query

1. A Pivot Table allows you to get answers from the data without writing complex calculations.
 2. It is very fast to create a pivot table in excel.
 3. It helps you find relationships between the data.
 4. Visualize data with dynamic charts.

3 Simple Rules

1. Each column has a header.
2. There are no empty columns in between the first and last column.
3. There are no totals in the middle of your data set.

Pivot Table Raw Data

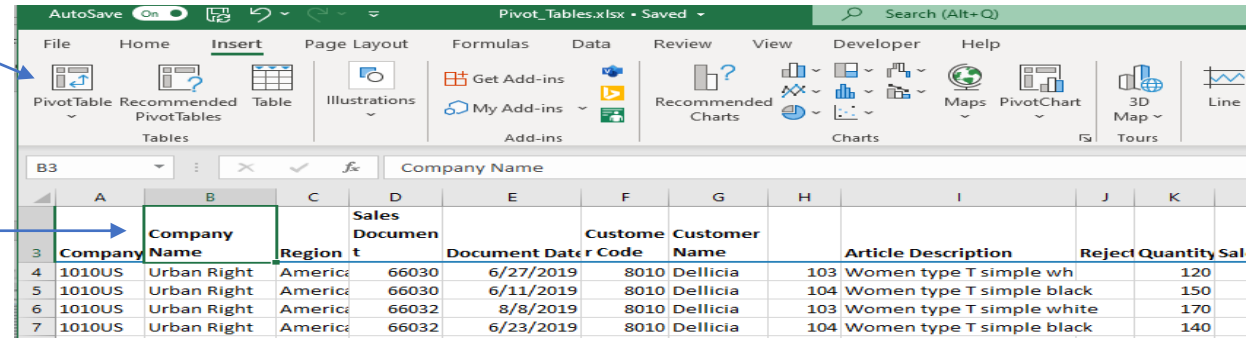
1	Raw Data for Pivot Table																				
2																					
3	Company Name	Company	Region	Sales Document	Document Date	Customer Code	Customer Name	Article Description	Reject	Quantity	Sales USD										
4	1010US	Urban Right	America	66030	6/27/2019	8010	Dellicia	103 Women type T simple wh		120	1440									Which company sells the most (volume)?	
5	1010US	Urban Right	America	66030	6/11/2019	8010	Dellicia	104 Women type T simple black		150	1800									Which company sells the most (USD)?	
6	1010US	Urban Right	America	66032	8/8/2019	8010	Dellicia	103 Women type T simple white		170	2040										
7	1010US	Urban Right	America	66032	6/23/2019	8010	Dellicia	104 Women type T simple black		140	1680										
8	1010US	Urban Right	America	66031	5/31/2019	8020	Erma	103 Women type T simple wh	1	140	1680										
9	1010US	Urban Right	America	66031	7/29/2019	8020	Erma	104 Women type T simple black		150	1800										
10	1010US	Urban Right	America	66031	7/6/2019	8020	Erma	105 Women crop top black		100	1000										
11	1010US	Urban Right	America	68112	8/19/2019	8010	Dellicia	104 Women type T simple bla	4	180	2160										
12	1010US	Urban Right	America	68112	9/2/2019	8010	Dellicia	105 Women crop top black		120	1200										
13	1010US	Urban Right	America	68116	9/17/2019	8020	Erma	104 Women type T simple black		150	1800										
14	1010US	Urban Right	America	68116	6/4/2019	8020	Erma	105 Women crop top black		190	1900										
15	1010US	Urban Right	America	68116	10/5/2019	8020	Erma	107 Women basics	2	160	800										
16	1010US	Urban Right	America	68116	10/2/2019	8010	Dellicia	104 Women type T simple black		160	1920										
17	1010US	Urban Right	America	68116	8/17/2019	8010	Dellicia	105 Women crop top black		190	1900										
18	1010US	Urban Right	America	65662	9/14/2019	8020	Erma	103 Women type T simple white		120	1440										

The data from A3 To L108 is called the Dataset.

This is an invalid data set because Column H does not have a description.

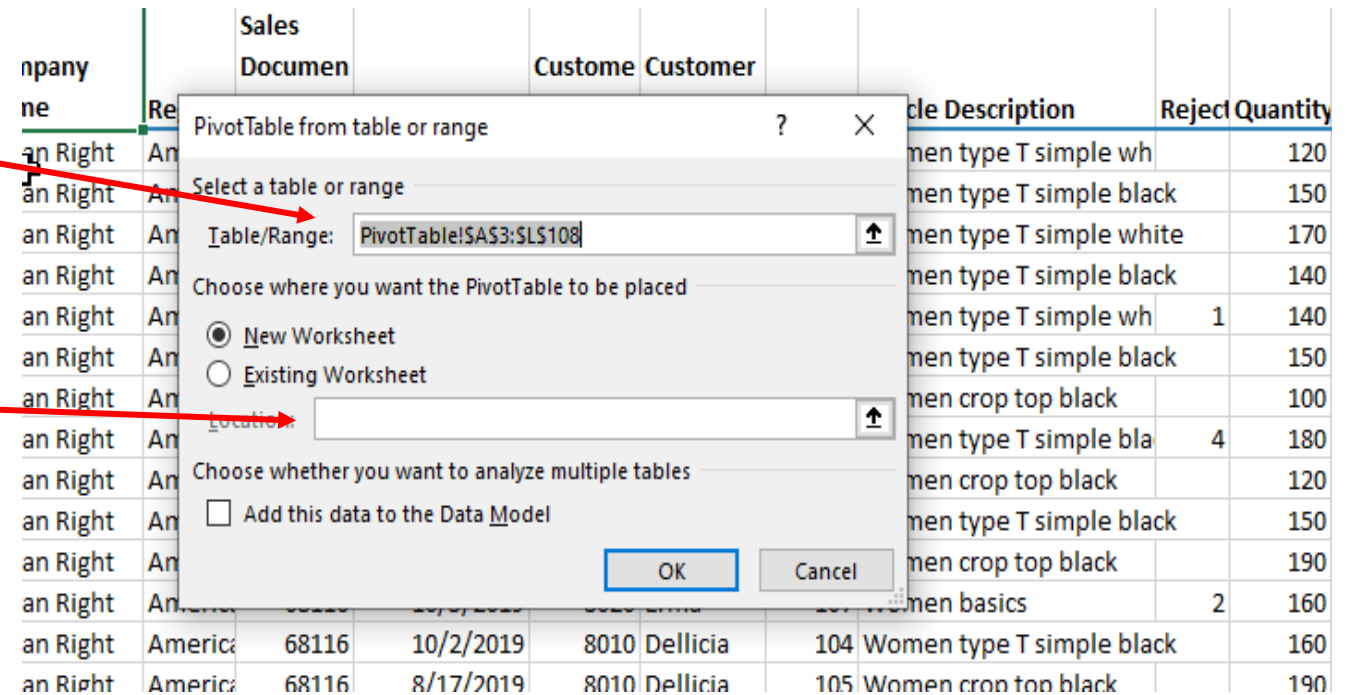
1. Go to insert on the menu and on the far left side click the Pivot Table option.

2. If you have a cell highlighted in the dataset when you press the button excel will attempt to determine what cells need to be included.

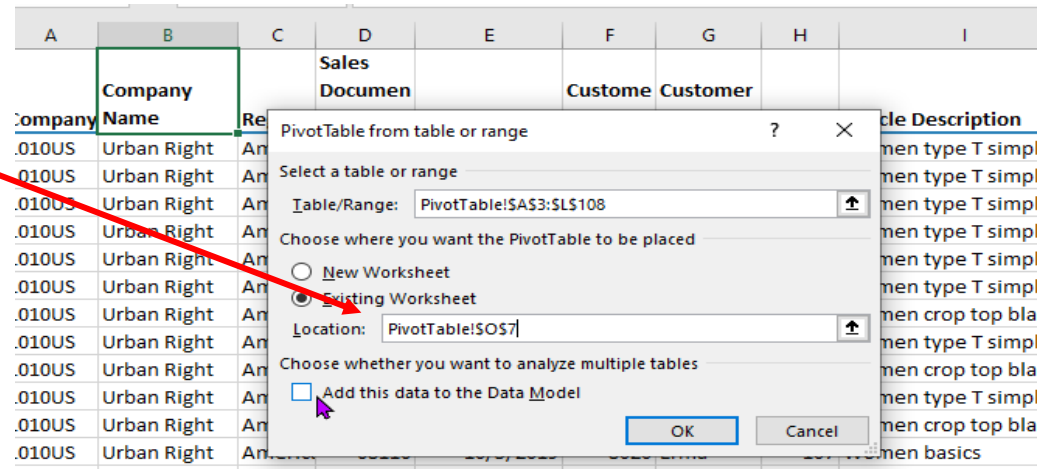


Excel automatically filled in the range.

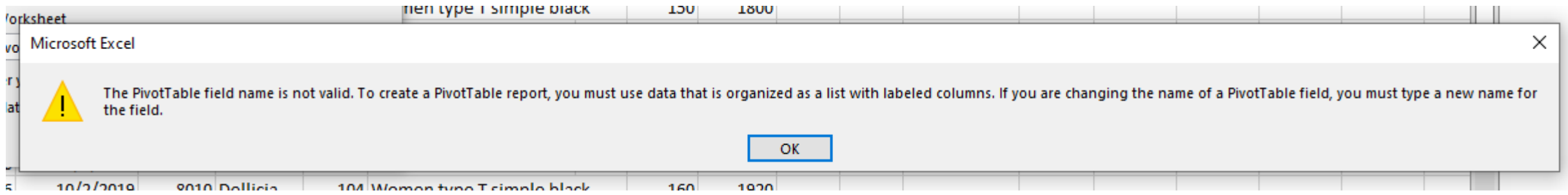
You can also choose where you would like your Pivot table to be placed.



I chose existing worksheet and clicked on cell \$O\$7



We get the following error because there is no description in column H.

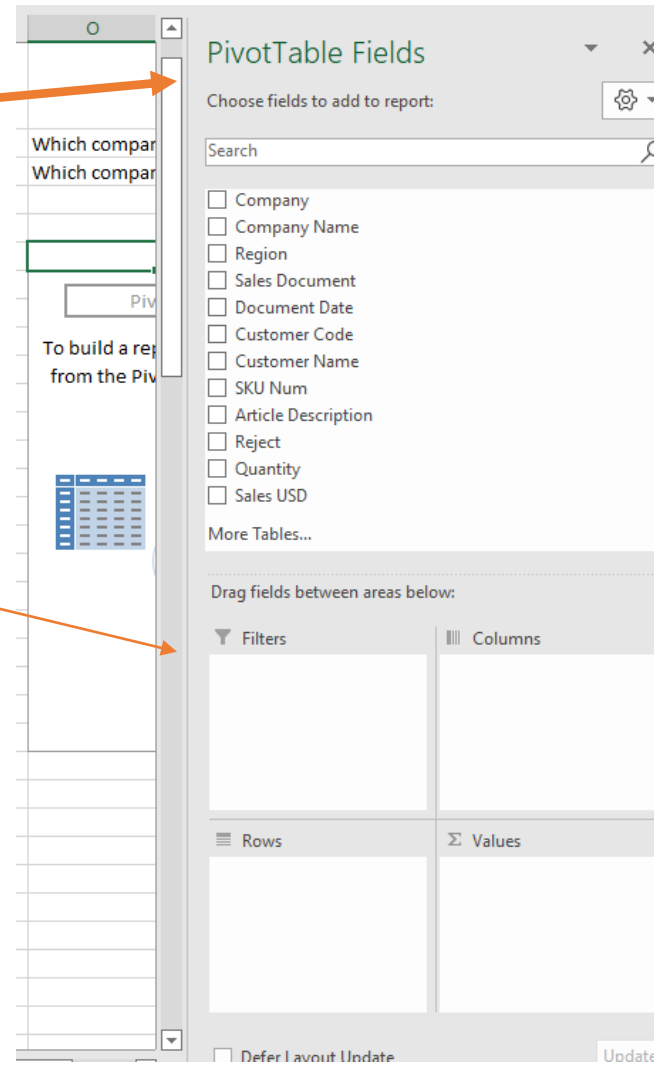
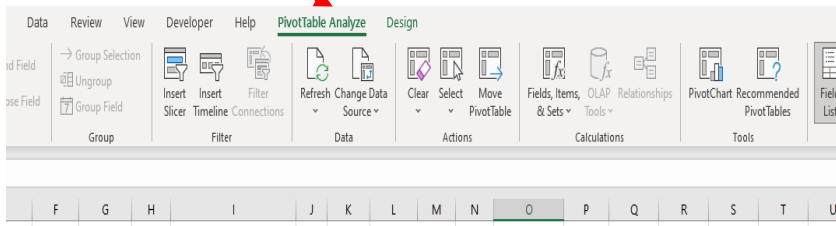


Add the SKU Num to column H.

You will get the following Pivot Tables Field List.

1. Here you can set up what you want the pivot table to look like.

You will also see two new menu items



As you check the fields you want in your Pivot Table you will see the table being built as each selection is completed. That is all there is to creating a Pivot Table.

The screenshot shows an Excel spreadsheet with a PivotTable. The PivotTable is located in columns O, P, and Q, and rows 10 through 19. The PivotTable has 'Company Name' as row labels and 'Sum of Quantity' and 'Sum of Sales USD' as values. The task pane on the right shows the 'PivotTable Fields' task pane with 'Company Name', 'Quantity', and 'Sales USD' selected. The spreadsheet data is as follows:

title Description	Reject	Quantity	Sales USD
'omen type T simple wh		120	1440
'omen type T simple black		150	1800
'omen type T simple white		170	2040
'omen type T simple black		140	1680
'omen type T simple wh		140	1680
'omen type T simple black		150	1800
'omen crop top black		100	1000
'omen type T simple bla	4	180	2160
'omen crop top black		120	1200
'omen type T simple black		150	1800
'omen crop top black		190	1900
'omen basics	2	160	800
'omen type T simple black		160	1920
'omen crop top black		190	1900
'omen type T simple white		120	1440

The PivotTable data is as follows:

Row Labels	Sum of Quantity	Sum of Sales USD
Lucas Basics	2610	104540
Meta Creations	1260	19640
Urban Right	6120	66100
Grand Total	9990	190280

Note: Excel Automatically placed the Company Name in the Rows and the numeric values in the Values Box. You can overwrite this if needed.

You can change the Format Of the Pivot Table by clicking Format Table on the Ribbon or by clicking the Design Menu Item.

The screenshot displays the Microsoft Excel interface with a PivotTable and the PivotTable Design ribbon. The PivotTable is a summary table with columns for Company Name, Region, Document Date, Customer Code, Customer Name, SKU, Article Description, Reject Quantity, and Sales USD. The Design ribbon is active, showing various table styles (Light, Medium, Dark) and a 'Format Table' button. The 'Design' menu item is also visible in the top ribbon. The PivotTable Fields task pane on the right shows the fields for the PivotTable, including Company Name, Region, Quantity, Sales Document, Sales USD, and SKU Num.

Company Name	Region	Document Date	Customer Code	Customer Name	SKU	Article Description	Reject Quantity	Sales USD
1010US	Urban Right	America	66030	6/27/2019	8010 Dellicia	103 Women type T simple wh	120	1440
1010US	Urban Right	America	66030	6/11/2019	8010 Dellicia	104 Women type T simple black	150	1800
1010US	Urban Right	America	66032	8/8/2019	8010 Dellicia	103 Women type T simple white	170	2040
1010US	Urban Right	America	66032	6/23/2019	8010 Dellicia	104 Women type T simple black	140	1680
1010US	Urban Right	America	66031	5/31/2019	8020 Erma	103 Women type T simple wh	1	140
1010US	Urban Right	America	66031	7/29/2019	8020 Erma	104 Women type T simple black	150	1800
1010US	Urban Right	America	66031	7/6/2019	8020 Erma	105 Women crop top black	100	1000
1010US	Urban Right	America	68112	8/19/2019	8010 Dellicia	104 Women type T simple bla	4	180
1010US	Urban Right	America	68112	9/2/2019	8010 Dellicia	105 Women crop top black	120	1200
1010US	Urban Right	America	68116	9/17/2019	8020 Erma	104 Women type T simple black	150	1800
1010US	Urban Right	America	68116	6/4/2019	8020 Erma	105 Women crop top black	190	1900
1010US	Urban Right	America	68116	10/5/2019	8020 Erma	107 Women basics	2	160
1010US	Urban Right	America	68116	10/2/2019	8010 Dellicia	104 Women type T simple black	160	1920
1010US	Urban Right	America	68116	8/17/2019	8010 Dellicia	105 Women crop top black	190	1900
1010US	Urban Right	America	65662	9/14/2019	8020 Erma	103 Women type T simple white	120	1440
1010US	Urban Right	America	65662	8/22/2019	8020 Erma	104 Women type T simple black	110	1320
1010US	Urban Right	America	65666	8/3/2019	8010 Dellicia	103 Women type T simple white	120	1440
1010US	Urban Right	America	65666	8/24/2019	8010 Dellicia	104 Women type T simple black	140	1680
1010US	Urban Right	America	65666	6/19/2019	8010 Dellicia	105 Women crop top black	160	1600
1010US	Urban Right	America	65666	6/13/2019	8020 Erma	107 Women basics	120	600
1010US	Urban Right	America	65666	8/12/2019	8020 Erma	103 Women type T simple white	200	2400
1010US	Urban Right	America	66015	10/3/2019	8010 Dellicia	103 Women type T simple white	140	1680
1010US	Urban Right	America	66015	6/10/2019	8010 Dellicia	104 Women type T simple black	140	1680
1010US	Urban Right	America	66017	5/29/2019	8010 Dellicia	103 Women type T simple white	140	1680
1010US	Urban Right	America	66017	6/28/2019	8010 Dellicia	104 Women type T simple black	140	1680
1010US	Urban Right	America	66016	5/31/2019	8020 Erma	103 Women type T simple white	120	1440
1010US	Urban Right	America	66016	7/23/2019	8020 Erma	104 Women type T simple black	130	1560
1010US	Urban Right	America	66016	10/1/2019	8020 Erma	105 Women crop top black	120	1200
1010US	Urban Right	America	68097	9/18/2019	8010 Dellicia	104 Women type T simple black	140	1680
1010US	Urban Right	America	68097	6/10/2019	8010 Dellicia	105 Women crop top black	130	1300
1010US	Urban Right	America	68099	8/19/2019	8020 Erma	104 Women type T simple black	120	1440
1010US	Urban Right	America	68099	9/4/2019	8020 Erma	105 Women crop top black	2	140
1010US	Urban Right	America	68099	8/3/2019	8020 Erma	107 Women basics	170	850
1010US	Urban Right	America	68101	10/5/2019	8010 Dellicia	104 Women type T simple black	190	2280
1010US	Urban Right	America	68101	8/10/2019	8010 Dellicia	105 Women crop top black	140	1400

When adjusting number formatting do not choose Format Cells inside the Pivot Table but choose the Number Formatting Option in the Formatting tool when you right click.

The screenshot shows an Excel PivotTable with the following data:

Company Name	Region	Document	Date	Code	Customer Name	SKU	Article Description	Reject	Quantity	Sales USD
Urban Right	America	66030	6/27/2019	8010	Dellicia	103	Women type T simple wh	120	1440	
Urban Right	America	66030	6/11/2019	8010	Dellicia	104	Women type T simple black	150	1800	
Urban Right	America	66032	8/8/2019	8010	Dellicia	103	Women type T simple white	170	2040	
Urban Right	America	66032	6/23/2019	8010	Dellicia	104	Women type T simple black	140	1680	
Urban Right	America	66031	5/31/2019	8020	Erma	103	Women type T simple wh	1	140	1680
Urban Right	America	66031	7/29/2019	8020	Erma	104	Women type T simple black	150	1800	
Urban Right	America	66031	7/6/2019	8020	Erma	105	Women crop top black	100	1000	
Urban Right	America	68112	8/19/2019	8010	Dellicia	104	Women type T simple bla	4	180	2160
Urban Right	America	68112	9/2/2019	8010	Dellicia	105	Women crop top black	120	1200	
Urban Right	America	68116	9/17/2019	8020	Erma	104	Women type T simple black	150	1800	
Urban Right	America	68116	6/4/2019	8020	Erma	105	Women crop top black	190	1900	
Urban Right	America	68116	10/5/2019	8020	Erma	107	Women basics	2	160	800
Urban Right	America	68116	10/2/2019	8010	Dellicia	104	Women type T simple black	160	1920	
Urban Right	America	68116	8/17/2019	8010	Dellicia	105	Women crop top black	190	1900	
Urban Right	America	65662	9/14/2019	8020	Erma	103	Women type T simple white	120	1440	
Urban Right	America	65662	8/22/2019	8020	Erma	104	Women type T simple black	110	1320	
Urban Right	America	65666	8/3/2019	8010	Dellicia	103	Women type T simple white	120	1440	
Urban Right	America	65666	8/24/2019	8010	Dellicia	104	Women type T simple black	140	1680	
Urban Right	America	65666	6/19/2019	8010	Dellicia	105	Women crop top black	160	1600	
Urban Right	America	65666	6/13/2019	8020	Erma	107	Women basics	120	600	
Urban Right	America	65666	8/12/2019	8020	Erma	103	Women type T simple white	200	2400	
Urban Right	America	66015	10/3/2019	8010	Dellicia	103	Women type T simple white	140	1680	
Urban Right	America	66015	6/10/2019	8010	Dellicia	104	Women type T simple black	140	1680	
Urban Right	America	66017	5/29/2019	8010	Dellicia	103	Women type T simple white	140	1680	
Urban Right	America	66017	6/28/2019	8010	Dellicia	104	Women type T simple black	140	1680	
Urban Right	America	66016	5/31/2019	8020	Erma	103	Women type T simple white	120	1440	
Urban Right	America	66016	7/23/2019	8020	Erma	104	Women type T simple black	130	1560	
Urban Right	America	66016	10/1/2019	8020	Erma	105	Women crop top black	120	1200	
Urban Right	America	68097	9/18/2019	8010	Dellicia	104	Women type T simple black	140	1680	
Urban Right	America	68097	6/10/2019	8010	Dellicia	105	Women crop top black	130	1300	
Urban Right	America	68099	8/19/2019	8020	Erma	104	Women type T simple black	120	1440	
Urban Right	America	68099	9/4/2019	8020	Erma	105	Women crop top black	2	140	1400
Urban Right	America	68099	8/3/2019	8020	Erma	107	Women basics	170	850	
Urban Right	America	68101	10/5/2019	8010	Dellicia	104	Women type T simple black	190	2280	
Urban Right	America	68101	8/10/2019	8010	Dellicia	105	Women crop top black	140	1400	

The PivotTable Fields task pane on the right shows the following configuration:

- Filters: (empty)
- Columns: Sum of Values
- Rows: Company Name, Sum of Quantity, Sum of Sales USD

The context menu for the 'Grand Total' cell includes the following options:

- Copy
- Format Cells...
- Number Format...
- Refresh
- Sort
- Remove "Sum of Quantity"
- Summarize Values By
- Show Values As
- Show Details
- Value Field Settings...
- PivotTable Options...
- Hide Field List

If you want to see the raw data you can double click a number
 And Excel will open a new spreadsheet with only that items data in it.

Row Labels	Sum of Quantity	Sum of Sales USD
Lucas Basics	\$2,610.00	104540
Meta Creations	\$1,260.00	19640
Urban Right	\$6,120.00	66100
Grand Total	\$9,990.00	190280

Now let's answer the following question:
 What were each Companies Sales By Date?

To answer this question I would need to get the information by Document Date and Sales Document. I can add them into my query.

Row Labels	Sum of Quantity	Sum of Sales USD
Lucas Basics	\$2,610.00	104540
Meta Creations	\$1,260.00	19640
Urban Right	\$6,120.00	66100
Grand Total	\$9,990.00	190280

Row Labels	Sum of Sales Document	Sum of Quantity	Sum of Sales USD
Lucas Basics	1925931	2610	104540
+ May	139000	180	8170
+ Jun	319161	410	21740
+ Jul	458110	600	26090
+ Aug	504811	710	25020
+ Sep	271046	390	12060
+ Oct	233803	320	11460
Meta Creations	543091	1260	19640
+ May	28112	10	280
+ Jun	125646	240	3940
+ Jul	104438	230	4080
+ Aug	56224	120	1600
+ Sep	204641	580	7500
+ Oct	24030	80	2240
Urban Right	2796883	6120	66100
+ May	198064	400	4800
+ Jun	728929	1540	16680
+ Jul	263709	570	5310
+ Aug	734848	1680	18030
+ Sep	403713	830	9440
+ Oct	467620	1100	11840
Grand Total	5265905	9990	190280

Choose fields to add to report: ⚙️

Search

- Company
- Company Name
- Region
- Sales Document
- Document Date
- Customer Code
- Customer Name
- SKU Num
- Article Description
- Reject
- Quantity
- Sales USD
- Months

More Tables...

Drag fields between areas below:

<p>Filters</p> <div style="border: 1px solid #ccc; height: 100px; width: 100%;"></div>	<p>Columns</p> <div style="border: 1px solid #ccc; padding: 5px;"> <p>Σ Values</p> </div>
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<p>Rows</p> <div style="border: 1px solid #ccc; padding: 5px;"> <p>Company Name</p> <p>Months</p> <p>Document Date</p> </div>	<p>Σ Values</p> <div style="border: 1px solid #ccc; padding: 5px;"> <p>Sum of Sales Document</p> <p>Sum of Quantity</p> <p>Sum of Sales USD</p> </div>
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You can drill down by double clicking any of the numbers in the table and Excel will open a new spreadsheet.

Here is the result of the new spreadsheet.

Which company sells the most (volume)?
Which company sells the most (USD)?

Row Labels	Sum of Quantity	Sum of Sales USD
Lucas Basics	2610	104540
Meta Creations	1260	19640
Urban Right	6120	66100
Grand Total	9990	190280

Company	Company Name	Region	Sales Document	Document Date	Customer Code	Customer Name	SKU Num	Article Description	Reject	Quantity	Sales USD
1040DE	Lucas Basics	Europe	45431	7/22/2019	8050	Aida GmbH	108	Laptop bag black		60	1970
1040DE	Lucas Basics	Europe	45431	8/2/2019	8050	Aida GmbH	111	Smartphone case simple		60	1410
1040DE	Lucas Basics	Europe	45429	7/6/2019	8060	Liebher	110	Smartphone case diamond		50	3520
1040DE	Lucas Basics	Europe	45429	7/9/2019	8060	Liebher	109	Laptop bag red	2	80	2630
1040DE	Lucas Basics	Europe	45429	8/28/2019	8060	Liebher	108	Laptop bag black		80	2630
1040DE	Lucas Basics	Europe	45427	6/18/2019	8050	Aida GmbH	109	Laptop bag red		60	1970
1040DE	Lucas Basics	Europe	45427	9/26/2019	8050	Aida GmbH	108	Laptop bag black		70	2300
1040DE	Lucas Basics	Europe	48101	7/4/2019	8060	Liebher	110	Smartphone case diamond		50	3520
1040DE	Lucas Basics	Europe	48101	8/12/2019	8060	Liebher	109	Laptop bag red		60	1970
1040DE	Lucas Basics	Europe	48099	10/1/2019	8050	Aida GmbH	111	Smartphone case simple		60	1410
1040DE	Lucas Basics	Europe	48099	8/10/2019	8050	Aida GmbH	110	Smartphone case diamond		60	4230
1040DE	Lucas Basics	Europe	48099	7/20/2019	8050	Aida GmbH	109	Laptop bag red	1	60	1970
1040DE	Lucas Basics	Europe	48097	7/10/2019	8060	Liebher	110	Smartphone case diamond		70	4930
1040DE	Lucas Basics	Europe	48097	8/28/2019	8060	Liebher	109	Laptop bag red		60	1970
1040DE	Lucas Basics	Europe	44016	6/15/2019	8050	Aida GmbH	110	Smartphone case diamond		50	3520
1040DE	Lucas Basics	Europe	44016	9/22/2019	8050	Aida GmbH	109	Laptop bag red	1	60	1970
1040DE	Lucas Basics	Europe	44016	8/14/2019	8050	Aida GmbH	108	Laptop bag black		70	2300
1040DE	Lucas Basics	Europe	44017	9/14/2019	8060	Liebher	109	Laptop bag red		70	2300
1040DE	Lucas Basics	Europe	44017	6/17/2019	8060	Liebher	108	Laptop bag black		70	2300
1040DE	Lucas Basics	Europe	44015	7/1/2019	8060	Liebher	109	Laptop bag red		70	2300
1040DE	Lucas Basics	Europe	44015	8/13/2019	8060	Liebher	108	Laptop bag black		60	1970
1040DE	Lucas Basics	Europe	45446	7/3/2019	8050	Aida GmbH	108	Laptop bag black		50	1640
1040DE	Lucas Basics	Europe	45446	10/7/2019	8050	Aida GmbH	111	Smartphone case simple		80	1880
1040DE	Lucas Basics	Europe	45444	5/29/2019	8060	Liebher	110	Smartphone case diamond		60	4230
1040DE	Lucas Basics	Europe	45444	8/2/2019	8060	Liebher	109	Laptop bag red		70	2300
1040DE	Lucas Basics	Europe	45444	5/28/2019	8060	Liebher	108	Laptop bag black		60	1970
1040DE	Lucas Basics	Europe	45442	6/11/2019	8050	Aida GmbH	109	Laptop bag red	1	60	1970
1040DE	Lucas Basics	Europe	45442	9/28/2019	8050	Aida GmbH	108	Laptop bag black		50	1640
1040DE	Lucas Basics	Europe	48116	6/22/2019	8060	Liebher	110	Smartphone case diamond		60	4230
1040DE	Lucas Basics	Europe	48116	8/11/2019	8060	Liebher	109	Laptop bag red		60	1970
1040DE	Lucas Basics	Europe	48114	9/20/2019	8050	Aida GmbH	111	Smartphone case simple		80	1880
1040DE	Lucas Basics	Europe	48114	10/9/2019	8050	Aida GmbH	110	Smartphone case diamond		60	4230
1040DE	Lucas Basics	Europe	48114	10/11/2019	8050	Aida GmbH	109	Laptop bag red		60	1970
1040DE	Lucas Basics	Europe	48112	6/2/2019	8060	Liebher	110	Smartphone case dian		50	3520
1040DE	Lucas Basics	Europe	48112	5/30/2019	8060	Liebher	109	Laptop bag red		60	1970
1040DE	Lucas Basics	Europe	44031	6/1/2019	8050	Aida GmbH	110	Smartphone case dian		60	4230
1040DE	Lucas Basics	Europe	44031	7/10/2019	8050	Aida GmbH	109	Laptop bag red		50	1640