Lab 5: Pivot a Field

In this lab, we're going to be learning pivoting a field. It means adding a dimension, but adding it as a column based dimension instead of a robie's dimension.

Let's go through an exercise.

Let's add `product name` and on the right hand side, let's add the `total sales`.

Explore

Sales ⓘ   ⊙

[Search]

All Fields   In Use

▸ Office

▾ Product   1

    DIMENSIONS
    Product Hourly Price
    Product ID
    Product Name

▾ Sales   1

    DIMENSIONS
    Customer ID
    Office ID
    Salesperson ID
    State
  ▸ Transaction Date
    Transaction ID

    MEASURES
    Average Hours
    Average Sales
    Count
    Hourly Price
    Total Hours
    Total Sales

▸ Salesperson

Click `Run` to get the results.

▸ Filters

▸ Visualization

▾ Data | Results | SQL | Row Limit 500 ☐ Totals

Product Product Name	Sales Total Sales
1 Compactor	
2 Bulldozer	
3 Dragline	
4 Skid-Steer	
5 Dump Truck	
6 Back Truck	
7 Grader	
8 Crawler	
9 Scraper	
10 Excavator	
11 Trencher	

Loading Data...

We can see what's the top product sold and the bottom product sold.

▾ Data | Results | SQL | Row Limit 500 ☐ Totals

Product Product Name	Sales Total Sales ↓
1 Excavator	$4,304,325
2 Crawler	$3,882,930
3 Scraper	$3,661,102
4 Dump Truck	$3,011,608
5 Skid-Steer	$3,007,482
6 Bulldozer	$2,542,298
7 Trencher	$2,524,058
8 Back Truck	$2,453,716
9 Dragline	$2,436,436
10 Compactor	$2,433,312
11 Grader	$2,146,500

But we also want to look at not only this, but also by the `Salesperson Level` too.

▾ Salesperson   1

　　DIMENSIONS

　　Office ID

　　Salesperson Age

　　Salesperson First Name

　　Salesperson Function

　　Salesperson ID

　　Salesperson Last Name

　　Salesperson Level

　　Salesperson Office Name

Click `Run` button to get the results. For the juniors, it looks like the `Excavator` is the top product and the seniors looks like the `Compactor` compactors the top product, which is actually very interesting, right?

	Product Product Name	Salesperson Salesperson Level	Sales Total Sales ↓
1	Excavator	Junior	$3,811,554
2	Crawler	Junior	$3,610,535
3	Scraper	Junior	$3,337,228
4	Dump Truck	Junior	$3,011,608
5	Skid-Steer	Junior	$2,659,596
6	Bulldozer	Junior	$2,379,249
7	Dragline	Junior	$2,341,722
8	Back Truck	Junior	$2,250,684
9	Trencher	Junior	$2,168,694
10	Grader	Junior	$2,053,750
11	Compactor	Junior	$1,932,560
12	Compactor	Senior	$500,752
13	Excavator	Senior	$492,771
14	Trencher	Senior	$355,364
15	Skid-Steer	Senior	$347,886
16	Scraper	Senior	$323,874
17	Crawler	Senior	$272,395
18	Back Truck	Senior	$203,032
19	Bulldozer	Senior	$163,049
20	Dragline	Senior	$94,714
21	Grader	Senior	$92,750

That could be interesting analysis that we have, and we could theoretically add more and more and more dimensions and cut up the data we could example.

Above are row based dimensions. Well, we might want to do, though, is have the `salesperson level` the column based, which means we will get the total sales for each salesperson level.

Well, how we do that is we can click this gear icon over here and click Pivot.

OK, now again, it just shows us the schema, which basically means that over here there'll be multiple columns, so let's click `run` and see what the data looks like now.

So instead of the `salesperson level` being a row wise dimension, now it's a column wise dimension instead.

Salesperson Salesperson Level >		Junior	Senior
	Product Product Name	Sales Total Sales ↓	Sales Total Sales
1	Excavator	$3,811,554	$492,771
2	Crawler	$3,610,535	$272,395
3	Scraper	$3,337,228	$323,874
4	Dump Truck	$3,011,608	ø
5	Skid-Steer	$2,659,596	$347,886
6	Bulldozer	$2,379,249	$163,049
7	Dragline	$2,341,722	$94,714
8	Back Truck	$2,250,684	$203,032
9	Trencher	$2,168,694	$355,364
10	Grader	$2,053,750	$92,750
11	Compactor	$1,932,560	$500,752

And over here, we quickly see, for example, for the excavator, juniors have sold 3.8 million, whereas seniors have sold 4.9 million.

And we can also add **row totals** and **totals** for good measure as well. We look at the entire view here.

Now, this shows us more information than what we had before it, before we had it at the product sales level.

We still have another product sales level, so if you tell me a product name and a sales of I can tell you what the sales was.

		Junior		Senior		Total	
Salesperson Salesperson Level >							
Product Product Name		Sales Total Sales ↓		Sales Total Sales		Sales Total Sales	
1 Excavator			$3,811,554		$492,771		$4,304,325
2 Crawler			$3,610,535		$272,395		$3,882,930
3 Scraper			$3,337,228		$323,874		$3,661,102
4 Dump Truck			$3,011,608		0		$3,011,608
5 Skid-Steer			$2,659,596		$347,886		$3,007,482
6 Bulldozer			$2,379,249		$163,049		$2,542,298
7 Dragline			$2,341,722		$94,714		$2,436,436
8 Back Truck			$2,250,684		$203,032		$2,453,716
9 Trencher			$2,168,694		$355,364		$2,524,058
10 Grader			$2,053,750		$92,750		$2,146,500
11 Compactor			$1,932,560		$500,752		$2,433,312
Total			$29,557,180		$2,846,587		$32,403,767

But in addition to that, we now get `totals` where we can see the total excavators $4.3 million or a crawler is $3.8 million and so on.

Sales for junior salespeople comprised $29 million, whereas for seniors, it was $28 million, probably because seniors don't just spend time selling deals to spend time administrating, training and doing other things.

You can also do it pivot directly from left menu, it's showing that `salesperson level` is pivoted right because there's a little little arrow diagonal thing over here.

If we in addition to this column, if we want to pivot another column, for example, Let's also pivot `salesperson function`. We **don't** actually click the column. Instead, we click this little pivot data instead.


Let's `Run` to see what this looks like.

Now we see that sales or the salesperson level and for the actual function as well.

We can see that junior closers pick up `5.2` million, you could also see junior closer by truck, for example, if you want to.

Over here, we can also order this to go, Senior/Junior. We can also make this, for example, Junior/Senior if we want as well.
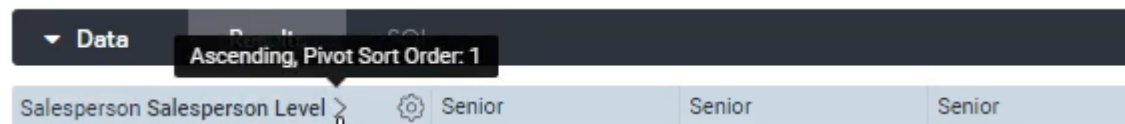
To **unpivot** it, you can just click this guy over here like on Pivot, and that brings it back to the row level.
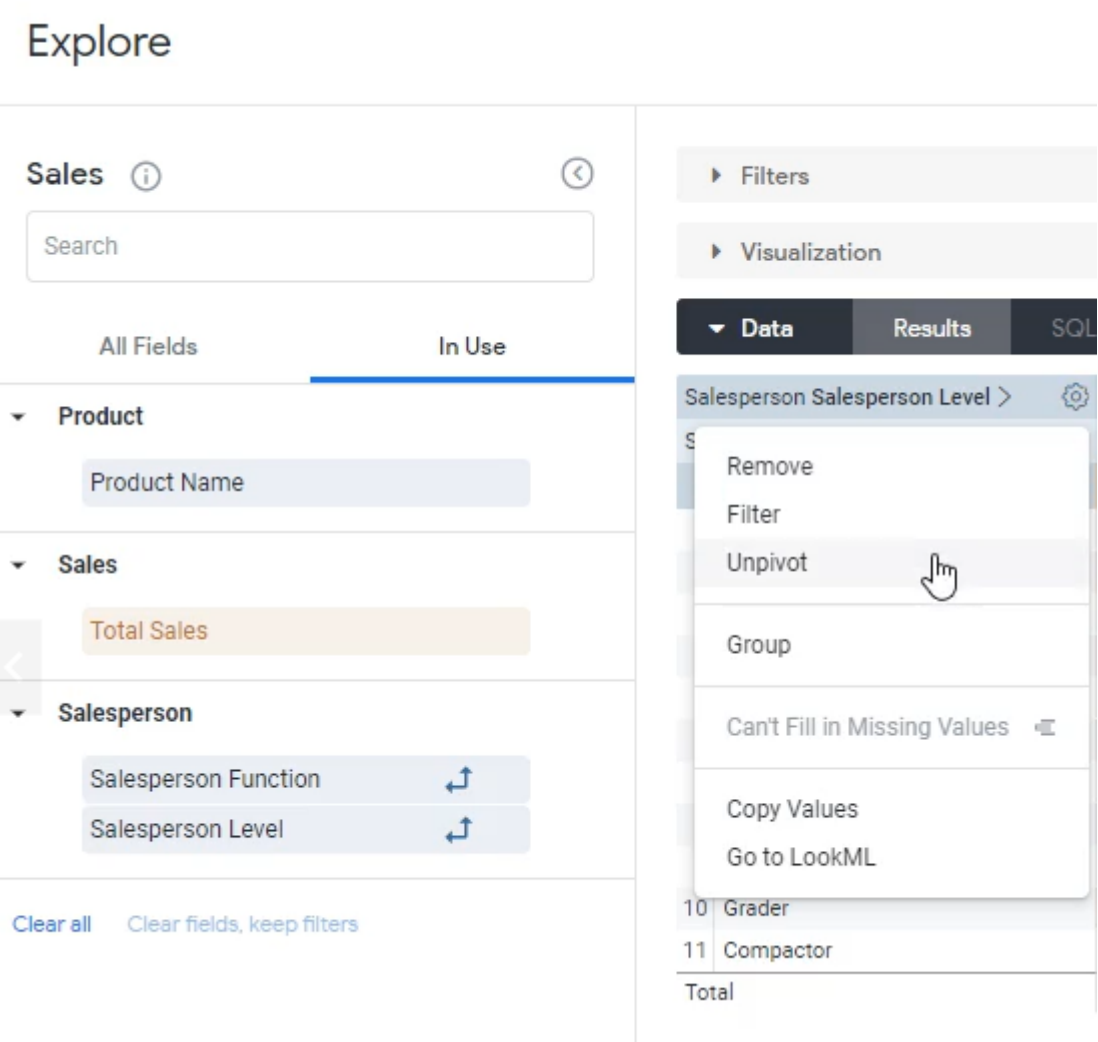
And that's how you pivot a dimension.