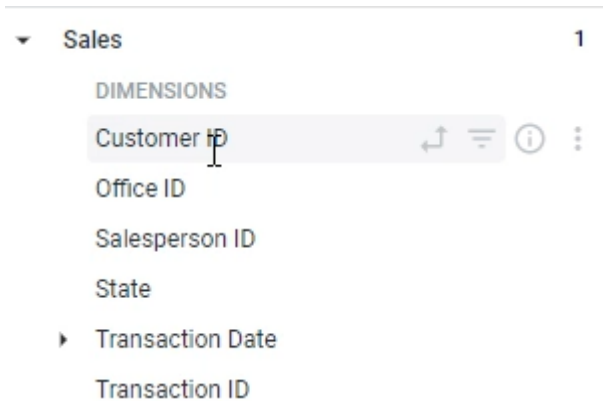


### Lab 3: Dimensions and Fields

In this lab, we'll be exploring dimensions and measures. Now, a dimension can be thought of a bucket or grouping of data.

For example, if we go to a `sales` table over here, we see a customer as a dimension, which means that the sales data can be grouped by customer.



In the **product** table, we see `Product Name`. Which means that the data can also be grouped by product name as well.

Measures, on the other hand, is information about that grouping.

So, for example, whereas `Product Name` tells you that the data can be grouped by product name.

`Total Sales` which is a measure, will tell you that you can get total sales by product name, you can get that information either dimension.

▼	Product	
	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	

And most times measures are quantitative values because they need to be information that you get about a group of data.

### Task: Dimensions & Measures

In this section, we're going to add in two dimensions and two measures.

#### Dimensions

▼ Office	1
DIMENSIONS	
Office ID	
Office Name	
Office Zip Code	
▼ Product	1
DIMENSIONS	
Product Hourly Price	
Product ID	
Product Name	

#### Measures

▼ Sales	2
DIMENSIONS	
Customer ID	
Office ID	
Salesperson ID	
State	
▶ Transaction Date	
Transaction ID	
MEASURES	
Average Hours	
Average Sales	
Count	
Hourly Price	
Total Hours	
Total Sales	

**Note:** Make sure that only above dimensions and two measures are selected before clicking `run` button.

Let's click run, and then we'll interpret those results as well.

But with this analysis gives us over here is we can now see that, for example, there are six sales or six transactions where the office was `Houston` and the product name was `Excavator`.

Looker

Explore

109 rows 2.9s just now Run

**Sales**

Search

All Fields In Use

Office Zip Code

Product

Product Hourly Price

Product ID

Product Name

Sales

Customer ID

Salesperson ID

State

Transaction Date

Transaction ID

Count

Hourly Price

Total Hours

Total Sales

Salesperson

32 fields Go to LookML

Filters

Visualization

Data Results SQL

Row Limit 500 Totals Subtotals

Office Office Name	Product Product Name	Sales Total Sales \$	Sales Count
1. Houston	Excavator	\$777,747	6
2. San Francisco	Scraper	\$732,578	7
3. Detroit	Crawler	\$695,300	7
4. Seattle	Excavator	\$619,427	4
5. Orlando	Skip Steer	\$591,858	6
6. Los Angeles	Excavator	\$562,836	5
7. Houston	Scraper	\$553,048	6
8. San Francisco	Excavator	\$548,183	7
9. Detroit	Excavator	\$548,183	4
10. New York City	Back Truck	\$529,864	10
11. Los Angeles	Trencher	\$514,791	7
12. New York City	Crawler	\$513,560	4
13. Detroit	Compactor	\$508,368	4
14. Houston	Bulldozer	\$501,811	4
15. Orlando	Dragline	\$501,331	6
16. Miami	Skip Steer	\$496,960	7
17. Miami	Scraper	\$495,712	5
18. Austin	Excavator	\$483,086	3
19. Austin	Bulldozer	\$460,653	6
20. Seattle	Crawler	\$458,640	4
21. Seattle	Dump Truck	\$453,894	5
22. Detroit	Dragline	\$452,341	6
23. Detroit	Bulldozer	\$446,406	5
24. Detroit	Dump Truck	\$440,248	4
25. Miami	Crawler	\$430,200	4
26. New York City	Skip Steer	\$424,692	5
27. New York City	Trencher	\$418,648	6
28. San Francisco	Crawler	\$418,135	5
29. Dallas	Crawler	\$416,400	5

So there are six sales that we made in this time period from the Houston office. That was like that rented out and an excavator.

So excavator and those six transactions gave us seven hundred and seventy seven thousand in revenue.

You look at row two. We can see the same thing over here, seven transactions from the San Francisco office.

Just like that, we created a very simple report using the Explore that we had, this explore consists of two dimensions and two measures, and the other cool thing about year two to differentiate between the two is dimensions are in blue and measures are in orange.

## Removing fields

In this module, we'll talk about dimension and measure manipulation.

The first thing that we can do over here is we can remove certain things. So let's say if we don't want to look at product name anymore, we want to look at office, same only.

Well, what we can do is remove product name in two ways.

The first way to do it is to go over here. Click this gear icon and click **Remove** :

Product	Product Name	Sales Total
	Skid-Steer	
	Excavator	
	Scraper	
	Excavator	
	Excavator	
	Back Truck	
	Trencher	
	Crawler	
	Compactor	
	Bulldozer	
	Dragline	
	Skid-Steer	
	Scraper	
	Excavator	
	Bulldozer	
	Crawler	
	Dump Truck	
	Dragline	
	Bulldozer	
	Dump Truck	
	Crawler	

- Remove
- Filter
- Pivot
- Group
- Hide from Visualization
- Can't Fill in Missing Values
- Copy Values
- Go to LookML

That simply removes this column from the actual data that we have now. Again, whenever we do this, what we always seem to do is click run. Otherwise, these results don't make sense.

We know the schema of the data will look like office name or wholesale sales count. But this is not correct data:

Office Office Name	Sales Total Sales 4	Sales Count
1 Houston		\$777,747
2 San Francisco		\$732,978
3 Detroit		\$659,300
4 Seattle		\$619,427
5 Orlando		\$591,858
6 Los Angeles		\$562,036
7 Houston		\$553,048
8 San Francisco		\$548,183
9 Detroit		\$548,183
10 New York City		\$529,864
11 Los Angeles		\$514,791
12 New York City		\$513,560
13 Detroit		\$508,368
14 Houston		\$501,811
15 Orlando		\$501,331
16 Miami		\$496,980
17 Miami		\$469,712
18 Austin		\$463,086
19 Austin		\$460,653
20 Seattle		\$458,040
21 Seattle		\$453,884
22 Detroit		\$452,341
23 Detroit		\$446,406
24 Detroit		\$440,248
25 Miami		\$430,280
26 New York City		\$424,692
27 New York City		\$418,648
28 San Francisco		\$418,135
29 Dallas		\$416,400

We have to actually click **Run** or it to now update.

We had 48 transactions in Detroit, 42 in Seattle, 44 in New York City, and so on and so forth.

10 rows · 1.8s · just now Run

Filters

Visualization

**Data** Results SQL Row Limit: 500 Totals

Office Office Name	Sales Total Sales	Sales Count
1 Detroit	\$4,089,204	48
2 Seattle	\$3,590,934	42
3 New York City	\$3,332,496	44
4 Houston	\$3,309,836	38
5 Orlando	\$3,278,829	43
6 San Francisco	\$3,169,788	37
7 Austin	\$3,144,345	41
8 Miami	\$3,059,605	37
9 Los Angeles	\$2,917,372	34
10 Dallas	\$2,511,358	36

Over here on the left hand side, we have office name and we have total sales and count.

It's a bit difficult to see, but the dimensions and measures that are used in our explorer are actually highlighted.

You can see that as highlighted blue, this is highlighted orange and orange.

If that was the case as well, you can see this number over here that tells you're using one dimension or measure from `office` and you're using two dimensions or measures from `sales`.

Office	1
Product	
Sales	2

The second way to take out a field is by going to that field and simply clicking it. So `Total Sales` has been selected, but if you click it again. It removes it.

▼ Sales 2

**DIMENSIONS**

- Customer ID
- Office ID
- Salesperson ID
- State
- ▶ Transaction Date
- Transaction ID

**MEASURES**

- Average Hours
- Average Sales
- Count
- Hourly Price
- Total Hours
- Total Sales

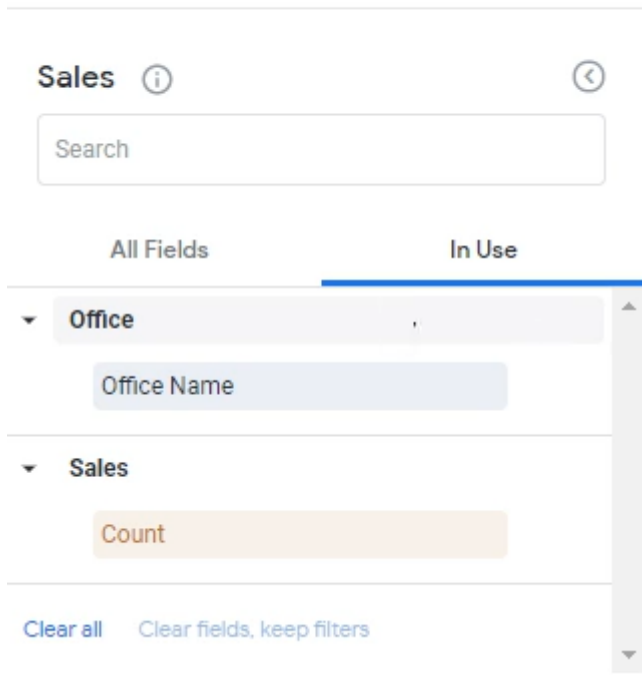
So let's click run, and now this will just show us the office and the count of sales.

▼ Data Results SQL			Row Limit 500	Totals
Office Office Name		Sales Count ↓		
1	Detroit	48		
2	New York City	44		
3	Orlando	43		
4	Seattle	42		
5	Austin	41		
6	Houston	38		
7	San Francisco	37		
8	Miami	37		
9	Dallas	36		
10	Los Angeles	34		

The second way again, going to this on the left hand side is you can also click the **In Use** tab, and this very quickly shows you what's being used and what's not being used.

You can also do a `Clear all`, for example, if you want to start over and start fresh, which will be doing a lot actually when we're creating our explorers.

# Explore



So those are the key ways you can remove dimensions and measures or fields as they're called from your current explorer.

