

Lab 14: Table Calculations

In this lab, we will look into Table Calculations. Let's go ahead and get started with table calculations.

Let's do this, what we're going to do is look at salespeople and make a report for them.

We'll do `salesperson first name` , `salesperson last name` and we'll select `total sales` that they've made.

Sales ⓘ ⏪

All FieldsIn Use

Office ID

Sales

Salesperson ID

State

▶ Transaction Date

Transaction ID

MEASURES

Average Hours

Average Sales

Count

Hourly Price

Total Hours

Total Sales

▼ Salesperson2

DIMENSIONS

Office ID

Salesperson Age

Salesperson First Name

Salesperson Function

Salesperson ID

Salesperson Last Name

Salesperson Level

Salesperson Office Name

⌕ Evaluate

🔗 Data Task 1

Let's click **Run** on that.

100 rows · 2.8s · just now Run

Filters

Visualization

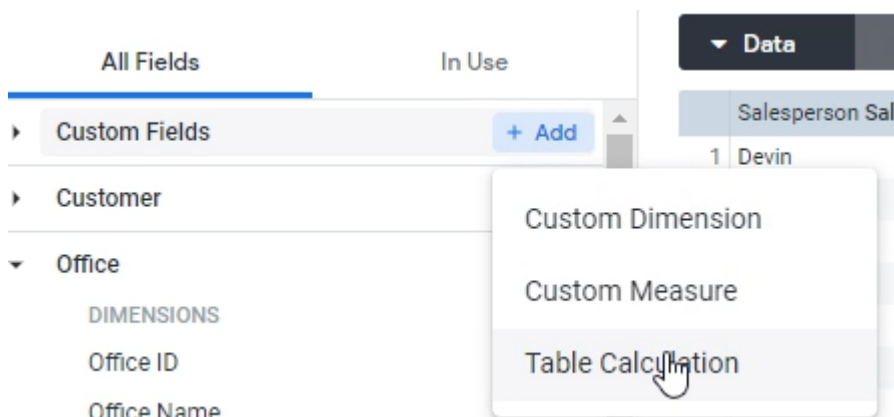
Data Results SQL

Row Limit 500 Totals Subtotals

Salesperson	Salesperson First Name	Salesperson Last Name	Sales Total Sales
1	Devin	Riccioppo	\$675,245
2	Blakeley	Oakhill	\$667,949
3	Doe	Vasler	\$632,838
4	Germana	Renehan	\$609,424
5	Grace	Eltringham	\$600,427
6	Tudor	Spenceley	\$577,555
7	Ambros	Scholz	\$572,398
8	Fanechka	Feamall	\$555,852
9	Roddy	Gellon	\$528,246
10	Theodosie	Jopling	\$528,149
11	Chern	Rudenhurst	\$526,680
12	Yvette	Raamers	\$523,740
13	Robbie	Jerman	\$508,718
14	Trueman	Greenan	\$506,781
15	Orthel	Oreigen	\$499,295
16	Ardella	Edelheit	\$481,548
17	Philly	Gounin	\$479,263
18	Tamara	Bedham	\$472,025
19	Erin	Salmoni	\$469,257
20	Hy	Brayshay	\$467,480
21	Chevalier	Goude	\$465,399
22	Catherin	Hulse	\$464,268
23	Cleopatra	Beese	\$458,128
24	Aymer	Mereweather	\$447,950
25	Remington	Dubois	\$420,592
26	Burt	Armor	\$414,870
27	Dall	Cosham	\$401,975
28	Nike	Menheritt	\$400,997
29	Flossy	Coolbear	\$400,654

Now, the first thing to know about table calculations is that they appear after you've run your query, so table calculations or calculations that are done after your query has been run. So this is post aggregation, that's another word for it.

And in order to actually create a table calculation, there are well, generally two ways the first way to do it is to go over custom fields like section and then click table calculation:



Once you're over here, it basically asks you a few things. First of all, what do you want the calculation to be called.

Calculation: Custom expression

Name: Full Name

Description: This is the sales person's first name.

`concat()` takes value one and value two, and it can customize it, concatenate them together so let's do that.

We're going to go over here and we're going to cut to values. The first value will be the salesperson first name. And then we probably need a space in between. So we are going to put the second argument as just a blank space. And then finally, the last name.

Edit table calculation

Calculation *

Custom expression

Expression *

1 concat({salesperson.salesperson_first_name}, " ", {salesperson.salesperson_last_name})

concat(value_1, value_2, ...)

Returns value_1, value_2, ..., value_n joined as one string

Format

Default formatting

Name *

Full Name

Description

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This is the salesperson's first name

Cancel



Let's click **Save** and there we go.

Sales		Filters		Visualization		Row Limit 100 Totals Subtotals	
TABLE CALCULATIONS		Date	Results	SQL			
Salesperson Salesperson First Name	Salesperson Salesperson Last Name	Full Name	Sales Total Sales \$				
1 Owen	Riccioppo	Owen Riccioppo	\$175,345				
2 Elizabeth	Goldbl	Elizabeth Goldbl	\$627,649				
3 Doe	Viedler	Doe Viedler	\$632,838				
4 Germana	Reinehan	Germana Reinehan	\$609,424				
5 Grace	Ethingham	Grace Ethingham	\$600,427				
6 Tutor	Spancokley	Tutor Spancokley	\$577,555				
7 Ambros	Schoch	Ambros Schoch	\$572,398				
8 Faneczka	Feamall	Faneczka Feamall	\$555,852				
9 Roddy	Gellion	Roddy Gellion	\$528,246				
10 Theodora	Jopling	Theodora Jopling	\$528,149				
11 Clem	Rademhurst	Clem Rademhurst	\$526,540				
12 Vvette	Rejanes	Vvette Rejanes	\$523,740				
13 Robbie	Jarman	Robbie Jarman	\$508,718				
14 Truman	Greenan	Truman Greenan	\$506,781				
15 Gretel	Cringen	Gretel Cringen	\$499,310				
16 Ariella	Edelheit	Ariella Edelheit	\$481,546				
17 Philly	Sounin	Philly Sounin	\$479,263				
18 Tamara	Bedham	Tamara Bedham	\$472,025				
19 Erin	Salmoni	Erin Salmoni	\$449,237				
20 Hy	Brayshay	Hy Brayshay	\$447,480				
21 Chevalier	Goudie	Chevalier Goudie	\$445,399				
22 Catherine	Hulse	Catherine Hulse	\$444,268				
23 Cleopatra	Beese	Cleopatra Beese	\$454,128				
24 Aymer	Mattewweather	Aymer Mattewweather	\$447,950				
25 Remington	Dubois	Remington Dubois	\$430,392				
26 Burt	Amroy	Burt Amroy	\$414,870				
27 Dall	Cosham	Dall Cosham	\$401,975				
28 Nike	Menheritt	Nike Menheritt	\$400,997				
29 Floozy	Coolbear	Floozy Coolbear	\$400,654				

All we've done is we've created a new table calculation field that can concat two dimensions together. The columns in green are always the ones that are going to be custom columns.

Let's also do a table calculation on a measure. We're going to first add in `total hours`. Let's click Run on this.

Explore 100 rows · 2.5s just now Run

Sales

Search

All Fields In Use

- Office ID
- Sales
- Salesperson ID
- State
- Transaction Date
- Transaction ID
- MEASURES
- Average Hours
- Average Sales
- Count
- Hourly Price
- Total Hours
- Total Sales
- Salesperson
- Transactions
- Office ID
- Salesperson Age
- Salesperson First Name
- Salesperson Function
- Salesperson ID
- Salesperson Last Name
- Salesperson Level
- Salesperson Office Name

35 fields [Go to LookML](#)

Filters

Visualization

Data Results SQL

Salesperson Salesperson First Name	Salesperson Salesperson Last Name	Full Name	Sales Total Sales \$	Sales Total Hours
1 Devin	Riccioppo	Devin Riccioppo	\$675,245	376
2 Blakeley	Oakhill	Blakeley Oakhill	\$667,949	407
3 Doe	Vasler	Doe Vasler	\$632,839	391
4 Garmena	Radenhurst	Garmena Radenhurst	\$609,424	340
5 Grace	Eltringham	Grace Eltringham	\$605,427	357
6 Tudor	Spenceley	Tudor Spenceley	\$577,555	354
7 Ambros	Scholt	Ambros Scholt	\$572,398	412
8 Faneckla	Fearnall	Faneckla Fearnall	\$555,892	317
9 Rusty	Gallion	Rusty Gallion	\$523,246	318
10 Theodosis	Jopling	Theodosis Jopling	\$528,149	345
11 Clem	Radenhurst	Clem Radenhurst	\$526,680	331
12 Yvette	Reames	Yvette Reames	\$523,740	300
13 Robbie	Jerman	Robbie Jerman	\$508,718	297
14 Truman	Greenan	Truman Greenan	\$506,781	299
15 Gretel	Corgan	Gretel Corgan	\$499,295	330
16 Ardelia	Edelheit	Ardelia Edelheit	\$481,548	273
17 Philly	Gounin	Philly Gounin	\$479,263	279
18 Tamara	Bedham	Tamara Bedham	\$472,025	268
19 Erin	Salmon	Erin Salmon	\$469,357	280
20 Hy	Brayshay	Hy Brayshay	\$467,480	266
21 Chevalier	Goude	Chevalier Goude	\$465,399	262
22 Cathern	Hulze	Cathern Hulze	\$464,268	266
23 Cicquena	Beebe	Cicquena Beebe	\$458,128	257
24 Aymer	Mereweather	Aymer Mereweather	\$447,950	253
25 Remington	Dubois	Remington Dubois	\$420,592	265
26 Burt	Amor	Burt Amor	\$414,870	259
27 Dal	Cushman	Dal Cushman	\$401,975	255
28 Nike	Mechenitt	Nike Mechenitt	\$400,997	247
29 Flossy	Coolbear	Flossy Coolbear	\$400,654	260

Row Limit 100 Totals Subtotals

What we want over here is for each salesperson, we want the average hourly price that they're charging. That's `total sales` divided by `total hours`. Let's add a simple table calculation for that.

So again, it's going to be a custom expression, and it's simply going to be Total sales divided by the total hours.

All Fields

In Use

Custom Fields + Add

Customer

Office

DIMENSIONS

Office ID

Office Name

Data

Salesperson Sales

1 Devin

Custom Dimension

Custom Measure

Table Calculation

Calculation: `Custom expression`

Name: `Custom Hourly Price`

Description: `This is our custom hourly price.`

Format: `U.S. Dollars`

Decimals: `2`

Edit table calculation

Calculation *

Custom expression

Expression *

1 $\frac{\text{\$}\{\text{sales.total_sales}\}}{\text{\$}\{\text{sales.total_hours}\}}$

No Quick Help Available

Format

U.S. Dollars

Decimals

2

\$1,234.57

Name *

Custom Hourly Price

Description

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This is our custom hourly price

Cancel

Save

Let's click Save .

The screenshot shows the Tableau interface with a table calculation table. The table has columns for Salesperson (First Name, Last Name, Full Name), Sales Total Sales, Sales Total Hours, and Custom Hourly Price %. The table is sorted by Sales Total Sales in descending order. The Custom Hourly Price % column shows the result of the calculation $\frac{\text{Sales Total Sales}}{\text{Sales Total Hours}}$ for each salesperson.

Salesperson First Name	Salesperson Last Name	Full Name	Sales Total Sales	Sales Total Hours	Custom Hourly Price %
Devin	Riccioppo	Devin Riccioppo	\$678,245	376	\$1,795.86
Blaikley	Oakhill	Blaikley Oakhill	\$667,949	407	\$1,641.15
Doe	Vadler	Doe Vadler	\$632,838	391	\$1,618.51
Germann	Rosenhan	Germann Rosenhan	\$606,424	340	\$1,782.42
Grace	Ethingham	Grace Ethingham	\$600,427	357	\$1,681.87
Tudor	Spencelley	Tudor Spencelley	\$577,555	354	\$1,631.51
Ambros	Scholz	Ambros Scholz	\$572,398	412	\$1,389.32
Faneckla	Faenail	Faneckla Faenail	\$555,652	317	\$1,753.48
Roddy	Gellion	Roddy Gellion	\$528,346	318	\$1,661.15
Theodore	Jopling	Theodore Jopling	\$528,149	345	\$1,530.87
Clen	Radenhurst	Clen Radenhurst	\$526,680	331	\$1,591.18
Yvette	Reames	Yvette Reames	\$523,740	300	\$1,745.80
Robbie	Jarman	Robbie Jarman	\$508,718	297	\$1,712.86
Trueman	Greenan	Trueman Greenan	\$506,781	299	\$1,694.92
Guthel	Crigan	Guthel Crigan	\$499,295	330	\$1,513.02
Ardella	Edelheit	Ardella Edelheit	\$481,548	273	\$1,763.91
Philly	Gounin	Philly Gounin	\$479,263	279	\$1,717.79
Tamara	Belham	Tamara Belham	\$472,025	268	\$1,761.29
Elin	Salmon	Elin Salmon	\$469,237	280	\$1,675.92
Hy	Braythay	Hy Braythay	\$467,480	266	\$1,757.44
Chevalier	Goude	Chevalier Goude	\$465,399	262	\$1,776.33
Catherin	Hulse	Catherin Hulse	\$464,268	266	\$1,745.37
Chopina	Besse	Chopina Besse	\$458,128	267	\$1,715.84
Ajmer	Menevweather	Ajmer Menevweather	\$447,950	253	\$1,770.55
Remington	Dubois	Remington Dubois	\$420,592	245	\$1,597.14
Burt	Armor	Burt Armor	\$414,870	239	\$1,601.81
Daf	Couham	Daf Couham	\$407,975	245	\$1,516.89
Nike	Mechevitt	Nike Mechevitt	\$400,997	247	\$1,623.47
Flores	Coolbeer	Flores Coolbeer	\$400,654	240	\$1,540.98

Now, we've added another table calculation that simply the sales amount divided by the hours amount, which is the estimate hourly price. So, you can use these things to create as many table calculations as you want.

Again, the key difference being here is a table calculations or calculations that happen after you get these results. So, these formulas don't happen until after the results are made. They don't happen on the base data and happen on the output data.

So that's the that's a very easy way to add custom expressions as table calculations.