

# Power BI SUMMARIZE

## Summarize Function in Power BI

The summary table is what end users would like to see from a large amount of data. With MS Excel users, we can use PivotTables to drag and drop the table fields to get the summary table. With Power BI, we can use visuals to get the summary table or visual, but one thing you need to learn in [Power BI is DAX formulas](#). One such formula is the SUMMARIZE DAX function. This article will take you through this SUMMARIZE DAX function in detail with practical examples.

## What Does SUMMARIZE Function Do in Power BI?

As the word itself says, SUMMARIZE will summarize the huge number of data rows into one table with a provided criteria column. For example, you may have multiple city sales values. Still, each city has multiple rows of transactions, so using the SUMMARIZE function, we can create a summary table where each city will have only one-row transactions with the summarized line.

Below is the syntax of the SUMMARIZE function in Power BI.

SUMMARIZE(  
|

SUMMARIZE(**Table**, [GroupBy\_ColumnName1], ..., [Name1], [Expression1], ...)

Creates a summary the input table grouped by the specified columns.

- **Table Name:** First we need to mention the table name that we are summarizing.
- **Group by Column Name1:** From the **Table**, we need to mention what is the column we are summarizing.
- **Group by Column Name2:** From the **Table**, we need to mention what is the second column we are summarizing.
- **Name 1:** What is the name for the summarizing column?
- **Expression 1:** What is the kind of summarization you want to do?? Whether you want to sum, whether you want to take the average of the column or some other kind of calculation.
- **Name 2:** What is the name for the second summarizing column?
- **Expression 2:** What is the kind of summarization you want to do for the second column??

These are [parameters of the power BI SUMMARIZE function](#).

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# Examples of SUMMARIZE Function in Power BI

Below are examples of the SUMMARIZE function in Power BI. You can download the workbook using the same file we used in this example.

You can download this Power BI SUMMARIZE Function Excel Template here – [Power BI SUMMARIZE Function Excel Template](#)

## *Example #1*

Below are examples of the SUMMARIZE function in Power BI.

1. **To demonstrate the SUMMARIZE DAX function, we will use the data table. You can download the Excel workbook to follow along with us.**

	A	B	C	D	E	F	G
1	Order Date	State	Region	Category	Qty	Price	Sales
2	08-Nov-2016	Kentucky	South	Furniture	128	\$ 15	\$ 1,920
3	08-Nov-2016	California	South	Furniture	664	\$ 58	\$ 38,512
4	12-Jun-2016	Florida	West	Office Supplies	188	\$ 30	\$ 5,640
5	11-Oct-2015	Washington	South	Furniture	619	\$ 47	\$ 29,093
6	11-Oct-2015	Texas	South	Office Supplies	789	\$ 69	\$ 54,441
7	09-Jun-2014	Kentucky	West	Furniture	277	\$ 36	\$ 9,972
8	09-Jun-2014	California	West	Office Supplies	210	\$ 33	\$ 6,930
9	09-Jun-2014	Florida	West	Technology	436	\$ 70	\$ 30,520
10	09-Jun-2014	Washington	West	Office Supplies	654	\$ 62	\$ 40,548
11	09-Jun-2014	Texas	West	Office Supplies	711	\$ 40	\$ 28,440
12	09-Jun-2014	Kentucky	West	Furniture	718	\$ 14	\$ 10,052
13	09-Jun-2014	California	West	Technology	104	\$ 69	\$ 7,176
14	05-Dec-2016	Florida	West	Office Supplies	532	\$ 13	\$ 6,916
15	22-Nov-2015	Washington	Central	Office Supplies	135	\$ 77	\$ 10,395
16	22-Nov-2015	Texas	Central	Office Supplies	784	\$ 47	\$ 36,848
17	11-Nov-2014	Kentucky	Central	Office Supplies	399	\$ 45	\$ 17,955

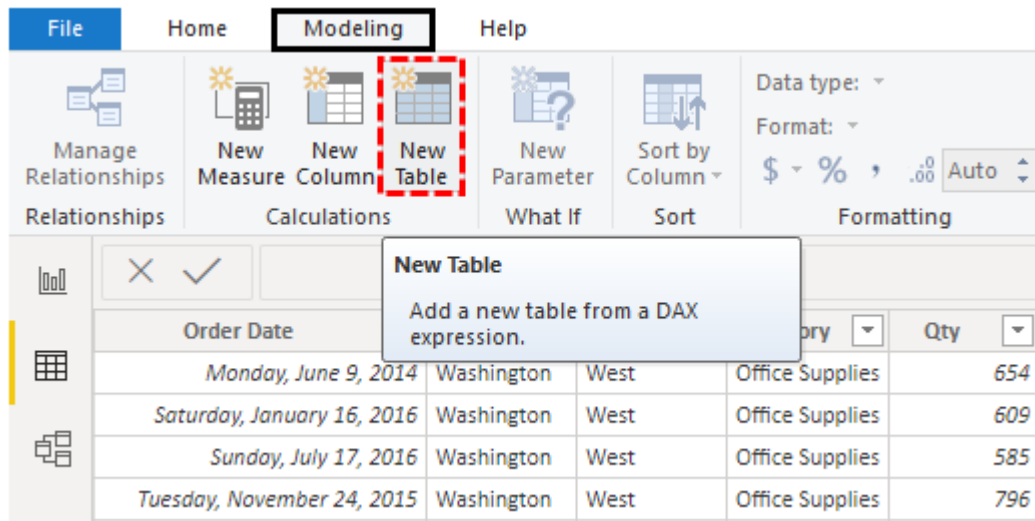
## 2. Upload the data table to the Power BI desktop file.

Order Date	State	Region	Category	Qty	Price	Sales
Monday, June 9, 2014	Washington	West	Office Supplies	654	62	40548
Saturday, January 16, 2016	Washington	West	Office Supplies	609	13	7917
Sunday, July 17, 2016	Washington	West	Office Supplies	585	35	20475
Tuesday, November 24, 2015	Washington	West	Office Supplies	796	33	26268
Sunday, October 12, 2014	Washington	West	Office Supplies	143	58	8294
Saturday, September 17, 2016	Washington	West	Office Supplies	697	45	31365
Thursday, October 13, 2016	Washington	West	Office Supplies	375	18	6750
Thursday, October 13, 2016	Washington	West	Office Supplies	799	22	17578
Wednesday, November 16, 2016	Washington	West	Office Supplies	617	40	24680
Tuesday, August 5, 2014	Washington	West	Office Supplies	658	65	42770
Sunday, August 3, 2014	Washington	West	Office Supplies	743	77	57211
Saturday, September 26, 2015	Washington	West	Office Supplies	646	65	41990
Monday, September 12, 2016	Washington	West	Office Supplies	564	53	29892
Friday, September 19, 2014	Washington	West	Office Supplies	238	35	8330
Friday, October 28, 2016	Washington	West	Office Supplies	684	19	12996
Sunday, November 9, 2014	Washington	West	Office Supplies	580	50	29000

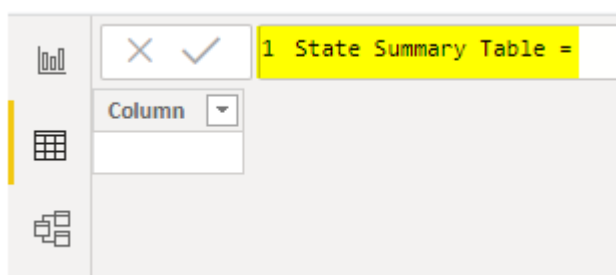
Everybody must remember that the "SUMMARIZE" function groups the data in a new table. Therefore, we can apply the

SUMMARIZE function only when we create a new table, so it cannot be used as a “NEW COLUMN” or “NEW MEASURE.”

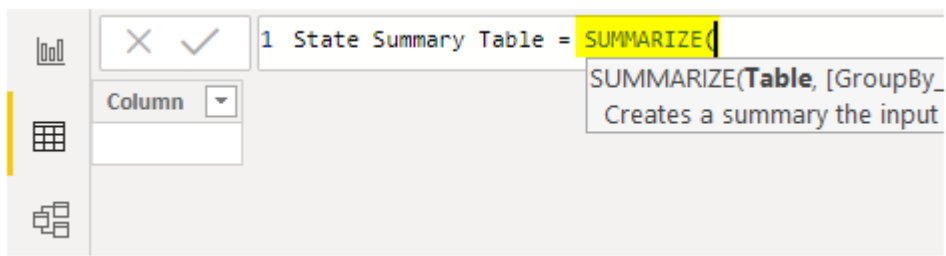
3. **From the above data, we need to summarize the data based on “State,” so go to the “Modeling” tab and choose the option of “New Table.”**



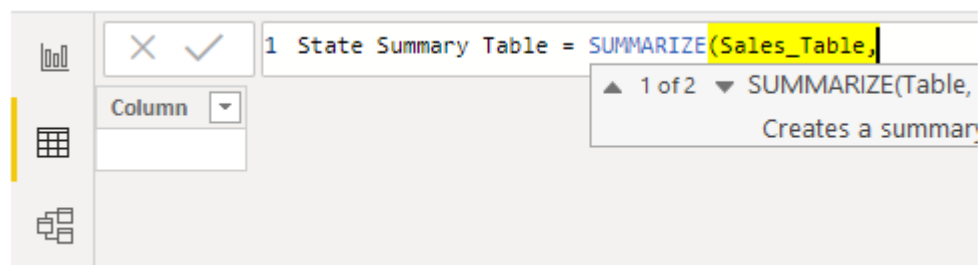
4. **It will ask you to name the table first, so name it “State Summary Table.”**



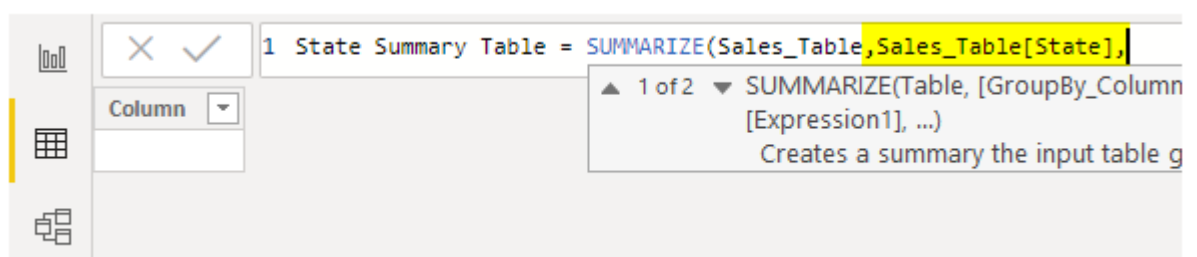
5. **Now, open the Power BI SUMMARIZE function.**



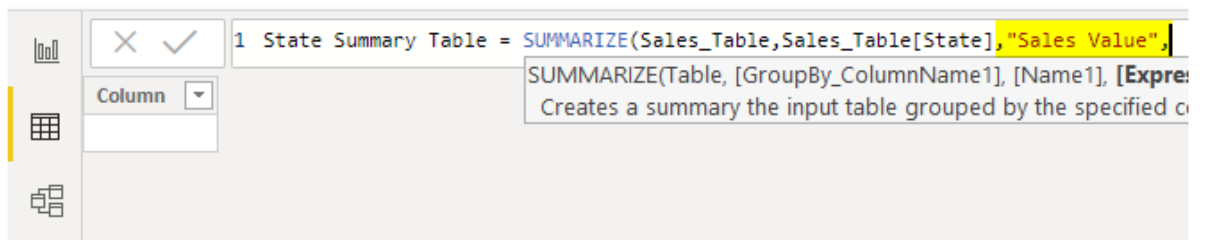
6. **First, we need to mention the "Table" we are trying to summarize. So, in this case, the table we are summarizing is "Sales\_Table," which is the same as the table name.**



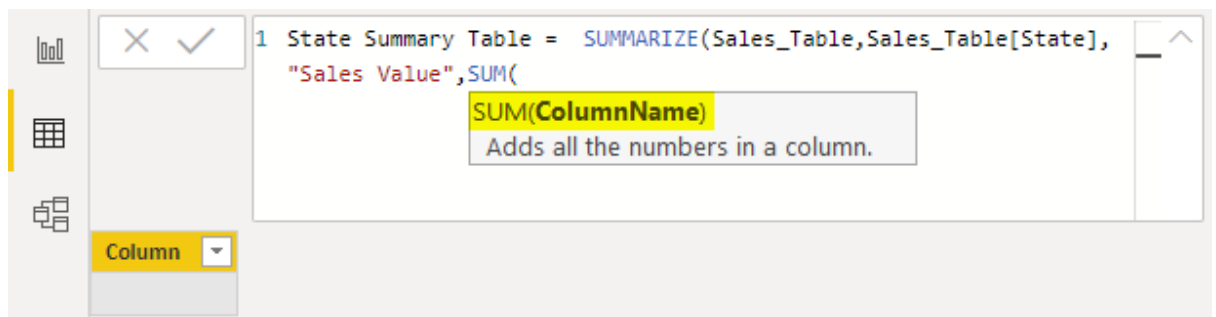
7. **We are trying to summarize this table based on the "State" column, so this will be our "GroupBy\_ColumnName1."**



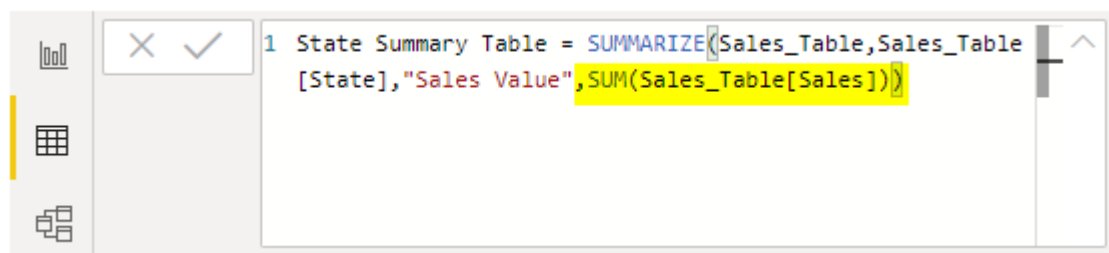
8. **Once the column name is specified to summarize, we need to give a name to the new column, "Sales Value."**



9. **"Expression 1" is nothing but how we need to summarize the mentioned column since we add sales values by state name. Open SUM function to add sales column values by each state.**



10. **The column name we need to SUM is the "Sales" column, so mention the same.**



11. **That is it. Close the brackets and press the "Enter" key to get the summarized table based on state names.**

The screenshot shows a data tool interface. At the top, a formula bar contains the following DAX formula: `1 State Summary Table = SUMMARIZE(Sales_Table, Sales_Table[State], "Sales Value", SUM(Sales_Table[Sales]))`. Below the formula bar, a table is displayed with two columns: "State" and "Sales Value". The table contains five rows of data.

State	Sales Value
Kentucky	26992002
California	26215457
Florida	26680611
Washington	27849486
Texas	27199116

As you can see, we have a new table together here. Thanks to the SUMMARIZE function.

## Example #2

Imagine summarizing the data based on the "State" and the "Category" columns. So, this is where we need to use multiple conditions of SUMMARIZE function.

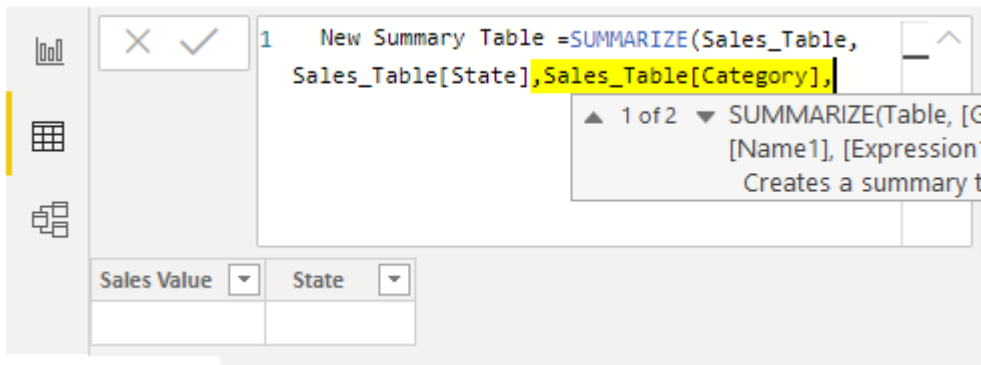
- First, mention the SUMMARIZE function in the new table and choose the column to be summarized and the first group by column as "State."

The screenshot shows a data tool interface. At the top, a formula bar contains the following DAX formula: `1 New Summary Table =SUMMARIZE(Sales_Table, Sales_Table[State],`. Below the formula bar, a table is displayed with two columns: "Sales Value" and "State". The table is currently empty.

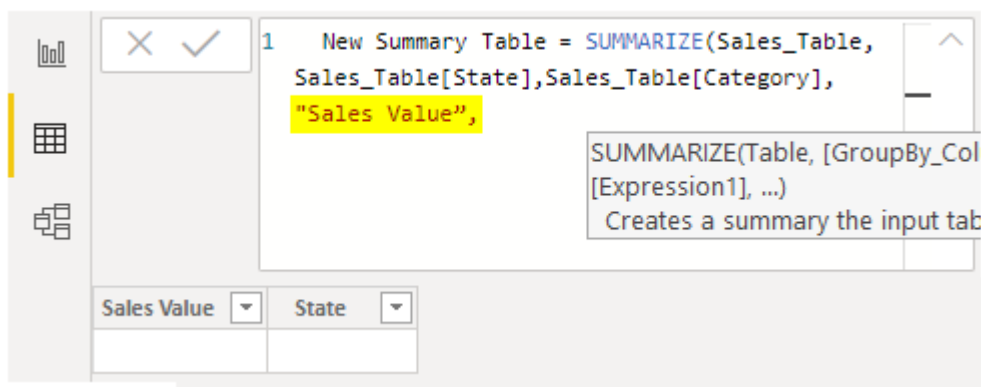
Sales Value	State

- As of now, we have mentioned the "GroupBy\_Column Name1" column. Now, mention the second-level group column name, i.e., the "**Category**" column.

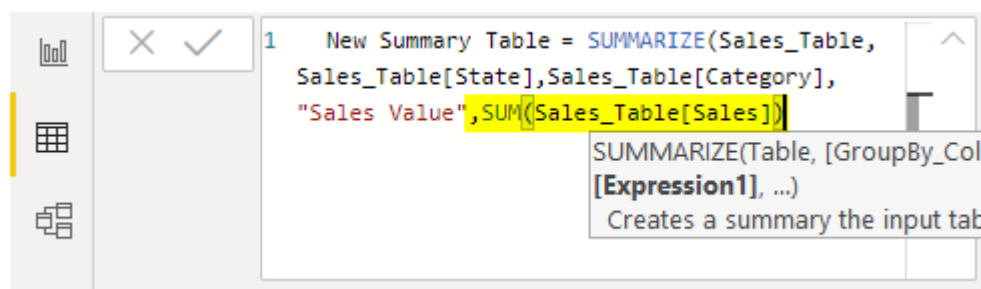




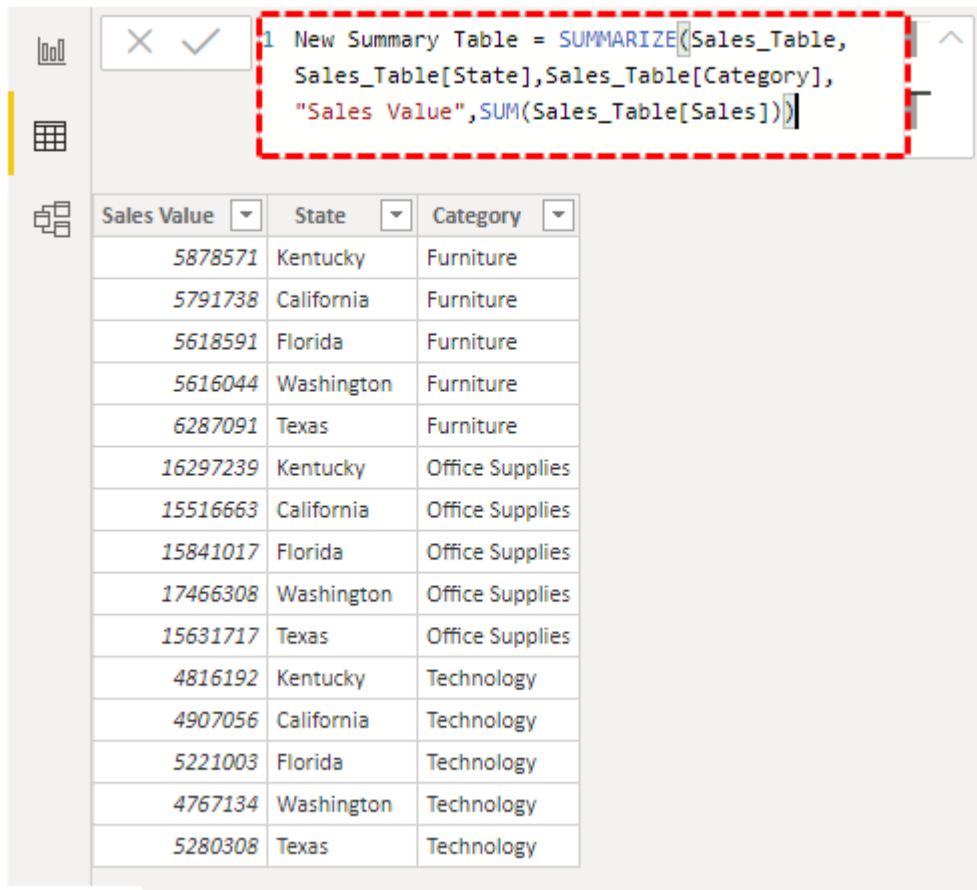
- Now, we have mentioned the two-level group by columns. Now, give a name for the new column as **"Sales Value."**



- **Expression1** will add all the sales values, so use the SUM function to summarize the "Sale Value" column.



- We are done. Close the bracket and press the "Enter" to get the new summarized table.



1 New Summary Table = SUMMARIZE(Sales\_Table, Sales\_Table[State], Sales\_Table[Category], "Sales Value", SUM(Sales\_Table[Sales]))

Sales Value	State	Category
5878571	Kentucky	Furniture
5791738	California	Furniture
5618591	Florida	Furniture
5616044	Washington	Furniture
6287091	Texas	Furniture
16297239	Kentucky	Office Supplies
15516663	California	Office Supplies
15841017	Florida	Office Supplies
17466308	Washington	Office Supplies
15631717	Texas	Office Supplies
4816192	Kentucky	Technology
4907056	California	Technology
5221003	Florida	Technology
4767134	Washington	Technology
5280308	Texas	Technology

Here, we have the new SUMMARIZED table, which we have summarized based on "State" and "Category."

**Note:** We can also download Power BI SUMMARIZED function file from the link below and view the final output.

You can download this Power BI SUMMARIZE Function Template here – [Power BI SUMMARIZE Function Template](#)

## Things to Remember Here

- We can only use the Power BI SUMMARIZE function to create a new table.
- If there is only one level summarization, we can move to the "Name1" argument after mentioning the GroupBy column directly.

- We can use all the [aggregate functions](#) in the **Expression** argument to decide the kind of summarization.

## Recommended Articles

This article has been a guide to Power BI SUMMARIZE. Here, we discuss using the SUMMARIZE function in Power BI to summarize a large amount of data into one table, along with examples.