

# How can I create pivot tables in SAS? Can you provide an example?

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## RECOMMENDED CITATION

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Creating pivot tables in SAS is a useful way to quickly summarize and analyze large data sets. With pivot tables, users can easily rearrange and group data to identify trends and patterns. To create a pivot table in SAS, one must first have a dataset in either a SAS data file or a Microsoft Excel file. Then, using the PROC SQL procedure, users can select the variables they want to include in the pivot table and specify any desired summarization functions. An example of creating a pivot table in SAS would be using the SUM function to calculate the total sales for each product category. This would allow for a clear visualization of which product categories are bringing in the most revenue. Overall, pivot tables in SAS are a powerful tool for data analysis and can aid in making informed business decisions.

## **Create Pivot Tables in SAS (With Example)**

**You can use PROC TABULATE in SAS to create pivot tables to summarize variables in a dataset.**

**This procedure uses the following basic syntax:**

```
proc tabulatedata=my_data;  
class var1;  
var var2 var3;  
table var1, var2 var3;  
run;
```

**The class statement specifies the variable to group by, the var statement specifies the numeric variables to summarize, and the table statement specifies the format of the pivot table.**

**The following example shows how to use this syntax in**

**practice.**

### **Example: Use Proc Tabulate to Create a Pivot Table in SAS**

**Suppose we have the following dataset in SAS that contains information about the number of sales and returns made at various grocery stores:**

```
/*create dataset*/  
data my_data;  
input store $ sales returns;  
datalines;  
A 10 2  
A 7 0  
A 7 1  
A 8 1  
A 6 0  
B 10 2  
B 14 5  
B 13 4  
B 9 0  
B 5 2  
C 12 1  
C 10 1  
C 10 3
```

**C 12 4**

**C 9 1**

**;**

**run;**

**/\*view dataset\*/**

**proc printdata=my\_data;**

Obs	store	sales	returns
1	A	10	2
2	A	7	0
3	A	7	1
4	A	8	1
5	A	6	0
6	B	10	2
7	B	14	5
8	B	13	4
9	B	9	0
10	B	5	2
11	C	12	1
12	C	10	1
13	C	10	3
14	C	12	4
15	C	9	1

**Now suppose that we would like to create a pivot table that summarizes the sum of sales and returns at each store.**

**We can use the following syntax to do so:**

```
/*create pivot table to summarize sum of sales and  
returns by store*/  
proc tabulatedata=my_data;  
class store;  
var sales returns;  
table store, sales returns;  
run;
```

	sales	returns
	Sum	Sum
store		
A	38.00	4.00
B	51.00	13.00
C	53.00	10.00

**The resulting pivot table shows the sum of sales and returns at each store.**

**For example, we can see:**

**The sum of sales made at store A is 38.**

**The sum of returns made at store A is 4.**

**The sum of sales made at store B is 51.**

The sum of returns made at store B is 13.

And so on.

However you can type \*Mean after each numeric variable to instead calculate the mean value:

```
/*create pivot table to summarize mean of sales and  
returns by store*/  
proc tabulatedata=my_data;  
class store;  
var sales returns;  
table store, sales*Mean returns*Mean;  
run;
```

	sales	returns
	Mean	Mean
store		
A	7.60	0.80
B	10.20	2.60
C	10.60	2.00

The resulting pivot table shows the mean of sales and returns at each store.

For example, we can see:

**The mean value of sales made at store A is 7.6.**

**The mean value of returns made at store A is 0.80.**

**The mean value of sales made at store B is 10.2.**

**The mean value of returns made at store B is 2.6.**

**And so on.**

**The following tutorials explain how to perform other common tasks in SAS:**

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