

How can I use IF AND logic in SAS?

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IF AND logic in SAS is a method used to evaluate multiple conditions at the same time and perform certain actions based on the results. It involves using the logical operators "AND" to combine two or more conditions in a single IF statement. This allows for more complex decision-making in SAS programs, as it allows for the execution of specific code only when all the conditions are met. By using IF AND logic, users can efficiently analyze large datasets and make informed decisions based on multiple criteria. This logic is commonly used in data cleaning, data filtering, and data processing tasks in SAS. Overall, the use of IF AND logic in SAS helps to streamline data analysis processes and improve the accuracy and efficiency of data-driven decisions.

Use IF AND Logic in SAS

You can use the following basic syntax to use IF AND logic in SAS:

```
data new_data;  
set my_data;  
if team="Cavs" and points>20 then cavs_and_20 = 1;  
else cavs_and_20 = 0;  
run;
```

This particular example creates a new dataset with a column called `cavs_and_20` that takes on the following values:

1 if the value in the team column is equal to "Cavs" and if the value in the points column is greater than 20.0 if both conditions aren't met.

The following example shows how to use this syntax in practice.

Example: How to Use IF AND Logic in SAS

Suppose we have the following dataset in SAS that contains information about various basketball players:

```
/*create dataset*/  
data my_data;  
input team $ points;  
datalines;  
Cavs 12  
Cavs 24  
Warriors 15  
Cavs 26  
Warriors 14  
Celtics 36  
Celtics 19  
;  
run;  
  
/*view dataset*/  
proc printdata=my_data;
```

Obs	team	points
1	Cavs	12
2	Cavs	24
3	Warriors	15
4	Cavs	26
5	Warriors	14
6	Celtics	36
7	Celtics	19

Suppose we would like to create a new dataset with a column that takes on the following values:

1 if the value in the team column is equal to "Cavs" and if the value in the points column is greater than 20.0 if both conditions aren't is met.

We can use the following syntax to do so:

```
/*create new dataset*/  
data new_data;  
set my_data;  
if team="Cavs" and points>20 then cavs_and_20 = 1;  
else cavs_and_20 = 0;  
run;
```

```
/*view new dataset*/proc printdata=new_data;
```

Obs	team	points	cavs_and_20
1	Cavs	12	0
2	Cavs	24	1
3	Warriors	15	0
4	Cavs	26	1
5	Warriors	14	0
6	Celtics	36	0
7	Celtics	19	0

The new column called `cavs_and_20` uses IF AND logic to determine if each row in the dataset should have a value of 0 or 1.

We can see that there are two rows where the team name is **Cavs** and the points value is greater than 20.

Both of these rows receive a value of 1 in the new `cavs_and_20` column.

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