

CLASS 5 NOTES

Program:

```
data a;
input acc bal;
if bal;
cards;
1 200
2 -20
3 0
4 2500
5 200
;
run;
```

→ 'If bal' means if this condition is true.
Means the value should not be zero.

OUTPUT

	acc	bal
1	1	200
2	2	-20
3	4	2500
4	5	200

Other case:

if not bal; } Balance should
↓ not be true }

Means the value of balance should be zero.

O/P

	acc	bal
1	3	0

Data Solutions Window Help		
	acc	bal
	1	200
1	2	-20
2	4	2500
3	5	200
4		

Other examples

I data a;
set sasuser. admit;
if age or sex IN ("11" "13" "M");
run;

"if age" → If age is true means the

value of age should not be zero or sex in (11 13 M) and sex only reads two values ("M" "f") so out of (11 13 M), it will read only M.

But, because of the 1st filter (if age), it is taking all the values so the whole data will be copied.

II data a;
set sasuser. admit;
if age IN(11 13) or sex in ("M");
run;

→ As there is no age value (11 13) in the data so all the male values will be copied.

Page No. :
III data a;
set sasuser.admit;
if age and sex in ("11" "13" "M");
run;

⇒ Value of age should not be zero and all males whose age is not zero will be copied.

Question : Write code where age is between 30-50.

I data a;
set sasuser.admit;
where age in (30:50);
run;

} for range use
colon(:)

II data a;
set sasuser.admit;
where age ge 30 and age le 50;
run;

III data a;
set sasuser.admit;
where $30 \leq \text{age} \leq 50$;
run;

IV data a;
set sasuser.admit;
where age between 30 and 50;
run;

① `proc print data = sasuser.admit;`
`run;`

The SAS System - (Default Title)

Obs	ID	Name	Sex	Age	Height	Weight	fee
1	245	Ram	M	34	152	72	85.2
2	246	Shyam	M	38	155	75	149.1
3	250	Seeta	f	42	177	55	152.2
4	254	Geeta	f	47	182	56	124.0
5	257	Haray	M	35	150	80	112.1
6	258	Johnson	M	57	118	66	118.1
7	286	Sonu	f	60	188	68	124.2
8	292	Monu	M	62	192	74	85.2



Output is called listing data.

List → The print of raw data is called list which is just a simple display of data and does not include formatting.

NEED OF PROC PRINT

1. Required for reporting.
2. If we want any data, just call it and it will display all the observations containing, you don't have to search for any data.

② proc print data = sasuser.admit;
var age name;
run;

The SAS System

Output

Obs	Age	Name
1	34	Ram
2	36	Shyam
3	25	Seeta
4	24	Geeta
5	18	Radha

It will only print variables 'Age' and 'Name'.
Working as 'KEEP'.

③ proc print data = sasuser.admit;
where age > 40;
run;

Obs	ID	Name	Sex	Age	Height	Weight	Fee
3	250	Seeta	F	42	177	55	12.2
4	254	Geeta	F	47	182	56	124.0
6	258	Johnson	M	57	118	66	118.1
7	286	Sonu	M	60	188	68	124.2
8	292	Monu	M	62	192	74	85.2

↓
observations are missing means in 1st two rows
age was not greater than '40'. It only gives
the obs. no. which is there in the data set.
Proper count like (1, 2, 3 - -) is not displayed

④ proc print data = sasuser.admit N;
 where age gt 40;
 run;

↓
 Adding 'N'
 will give the
 observation number.

The SAS System

Obs	ID	Name	Sex	Age	Height	Weight	fee
3	250	Seeta	f	42	177	55	112
4	254	Geeta	f	47	182	56	104
6	258	Johnson	M	57	188	66	118
7	286	Sonu	M	60	118	68	120
8	292	Manu	M	62	111	74	121

N = 5

⑤ proc print data = sasuser.admit N noobs;
 where age gt 40;
 run;

↓
 Adding noobs
 will remove
 the observation
 column.

The SAS system

ID	ID	Name	Sex	Height	Weight	fee	Age
3	250	Seeta	f	177	55	112	42
4	254	Geeta	f	182	56	104	47
6	258	John	M	188	66	118	57
7	286	Sonu	M	111	68	120	60

N = 4

⑥ proc print data = sasuser.admit N noobs;
sum age;
where age gt 40;
run;

The SAS System

ID	Name	Sex	Age	Height	Weight	Fee
250	Seeta	f	42	177	55	112
254	Geeta	f	47	182	56	104
258	Johnson	M	57	188	66	118
286	Sonu	M	60	118	68	120
292	Mona	M	62	111	74	121
286						

N=5

Note: The number of proc print we run will automatically be saved in results. Proc print shows and saves the output.

⑦ proc print data = sasuser.admit;
~~if~~ age gt 40;
run;

→ This code will show error.

If we want to put filter in proc then 'if' is not used because 'if' runs after buffer. As no buffer is created in proc because there is no data set, so 'if' is not used.

If we want to put filter in proc use 'where'.

{ Another difference between if and where }

Another example

```
proc print data = sasuser.admit N noobs;  
title1 "Data of patients";  
title2 "Max Hospital - GGM";  
footnote1 "Data created by B 82";  
footnote2 "Mentor : Amit";  
sum age;  
where age gt 40 and sex = "M";  
run;
```

OUTPUT

Data of patients
Max Hospital - GGM

ID	Name	Sex	Age	Date	Height
22	Ram	M	20	4	71
44	Shyam	M	21	5	72
55	Sita	M	22	6	73
66	Gita	M	23	7	74
			86		
			N=4		

Data created by B 82
Mentor : Amit

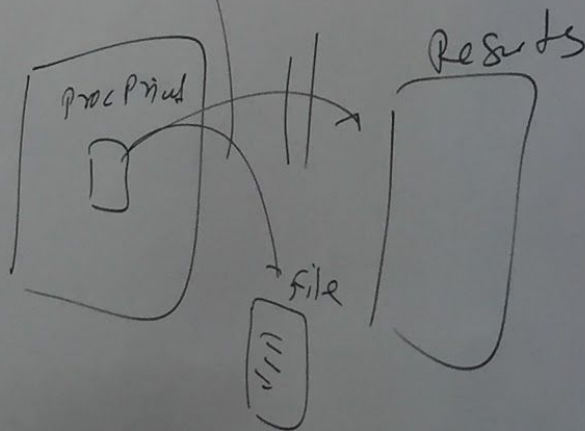
Note:

Max. title we can take = 10 } title 1 to title 10
* title is default title 1.

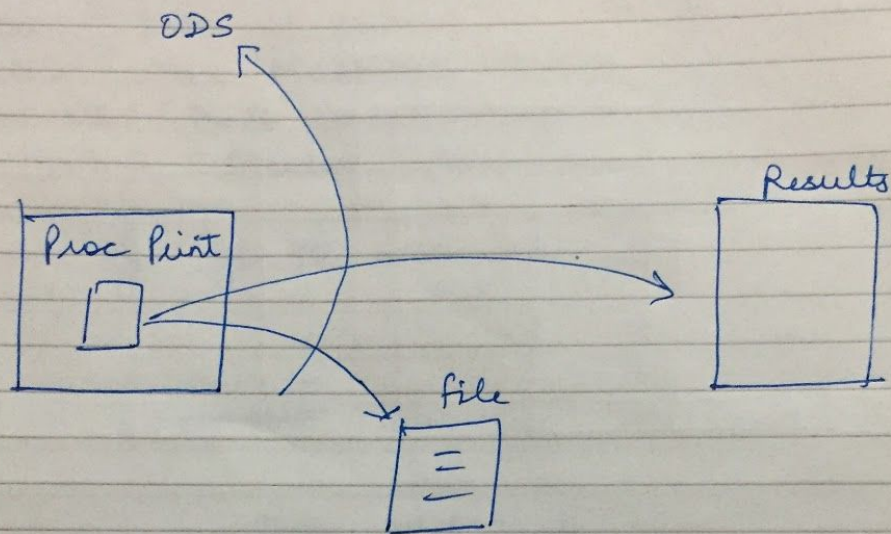
Max. footnote we can take = 10 } footnote 1 to footnote 10

ODS
Output Delivery System

S.A \rightarrow $\frac{A}{age}$
(30-10)



ODS : Output Delivery System



The output of proc print are saved in results.

The ^{channel}OP of the proc print can be diverted and can be taken to external file. The agent used to do this is called ODS (Output Delivery System).

It is mostly used to format the OP data of a SAS program to more user friendly forms like .html, PDF, Word etc.

Example

ods pdf file = "C:\ --- physical path of file -
- -- \text.pdf";

↓
file name

```
proc print data = sasuser.admit noobs;  
title 1 "Data of patients";  
title 2 "Max Hospital";  
footnote 1 "Data created by B 82";  
footnote 2 "Mentor: Amit";  
sum age;  
where age gt 40 and sex = "M";  
run;
```

ods pdf close;

Date, Time,
page no. will
↓ also be
displayed

Data of patients
Max Hospital

08:45 Sunday
Feb 25, 2018

ID	Name	Sex	Age	Date
22	Ram	M	20	4
44	Shyam	M	21	5
55	Sonu	M	22	6
66	Mohu	M	23	7
			86	
			$N=4$	

Data created by B 82
Mentel: Amit

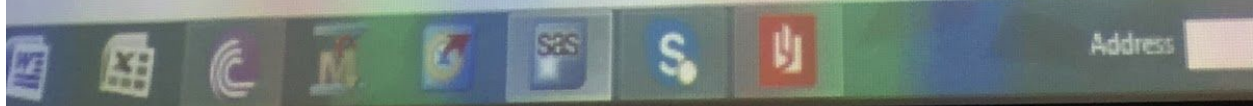
Note : Date can be hard coded.

**Data of patients
Max Hospital-GGM**

 $N = 4$


```
run;  
ods pdf close;  
  
*****;  
ods rtf file="C:\Users\amit\Desktop\reporting\test.rtf";  
proc print data=sasuser.admit N noobs;  
title1 "Data of patients";  
title2 "Max Hospital-GGM";  
footnote1 "Data created by B 82";  
footnote2 "Mentor: Amit";  
sum age;  
where age gt 40 AND sex="M";  
run;  
ods rtf close;
```

Output - (... Log - (Unt... Editor - U... Editor - U... Editor - U... Editor - U...



SAS - (Editor - Untitled1 *)

File Edit View Window Help

```
ods html file="C:\Users\amit\Desktop\reporting\test.html";  
proc print data=sasuser.admit N noobs;  
  title1 "Data of patients";  
  title2 "Max Hospital-GGM";  
  footnote1 "Data created by B 82";  
  footnote2 "Mentor: Amit";  
  sum age;  
  where age gt 40 AND sex="M";  
run;  
ods html close;
```

I

out - (Untitled) | Log - (Untitled) | Editor - Untitled1 * | Results Viewer

SAS - Editor

Run Solutions Window Help

```
ods html file="C:\Users\amit\Desktop\reporting\rep.html";  
proc print data=sasuser.admit N noobs;  
  title1 "Data of Male patients";  
  title2 "Max Hospital-GGM";  
  footnote1 "Data created by B 82";  
  footnote2 "Mentor: Amit";  
  sum age;  
  where sex="M";  
run;  
proc print data=sasuser.admit N noobs;  
  title1 "Data of Female patients";  
  title2 "Max Hospital-GGM";  
  footnote1 "Data created by B 82";  
  footnote2 "Mentor: Amit";  
  sum age;  
  where sex="F";  
run;  
ods html close;
```

Output - (Untitled) Log - (Untitled) Editor - Untitled1 * Results View

