

Workshop2-A

Name: Parth Gadani.

Seneca ID: 158189191.

Section 4.10:

Problem 1:

Code:

The screenshot displays the SAS Studio interface. On the left, the 'Libraries' pane shows a tree structure under 'My Libraries' including 'LEARN', 'PERM', 'SASHELP', 'SASUSER', 'WEBWORK', and 'WORK'. The 'CODE' window on the right shows a SAS program named 'Prob4.10_1.sas' with the following code:

```
1 libname learn '/folders/myfolders/lectures';
2
3 data learn.Perm;
4 input ID : $3. Gender : $1. DOB : mmddyy10.
5 Height Weight;
6 label DOB = 'Date of Birth'
7 Height = 'Height in inches'
8 Weight = 'Weight in pounds';
9 format DOB date9.;
10
11 datalines;
12 001 M 10/21/1946 68 150
13 002 F 5/26/1950 63 122
14 003 M 5/11/1981 72 175
15 004 M 7/4/1983 70 128
16 005 F 12/25/2005 30 40
17 ;
18
19 Proc contents data=learn.perm;
20 title "Contents of library learn.perm";
21 run;
```

Result:

Contents of library learn.perm			
The CONTENTS Procedure			
Data Set Name	LEARN.PERM	Observations	5
Member Type	DATA	Variables	5
Engine	V9	Indexes	0
Created	01/30/2021 13:26:58	Observation Length	32
Last Modified	01/30/2021 13:26:58	Deleted Observations	0
Protection		Compressed	NO
Data Set Type		Sorted	NO
Label			
Data Representation	SOLARIS_X86_64, LINUX_X86_64, ALPHA_TRU64, LINUX_IA64		
Encoding	utf-8 Unicode (UTF-8)		

Engine/Host Dependent Information	
Data Set Page Size	65536
Number of Data Set Pages	1
First Data Page	1
Max Obs per Page	2038
Obs in First Data Page	5
Number of Data Set Repairs	0
Filename	/folders/myfolders/lectures/perm.sas7bdat
Release Created	9.0401M6
Host Created	Linux
Inode Number	73
Access Permission	rw-rw-r--
Owner Name	root
File Size	128KB
File Size (bytes)	131072

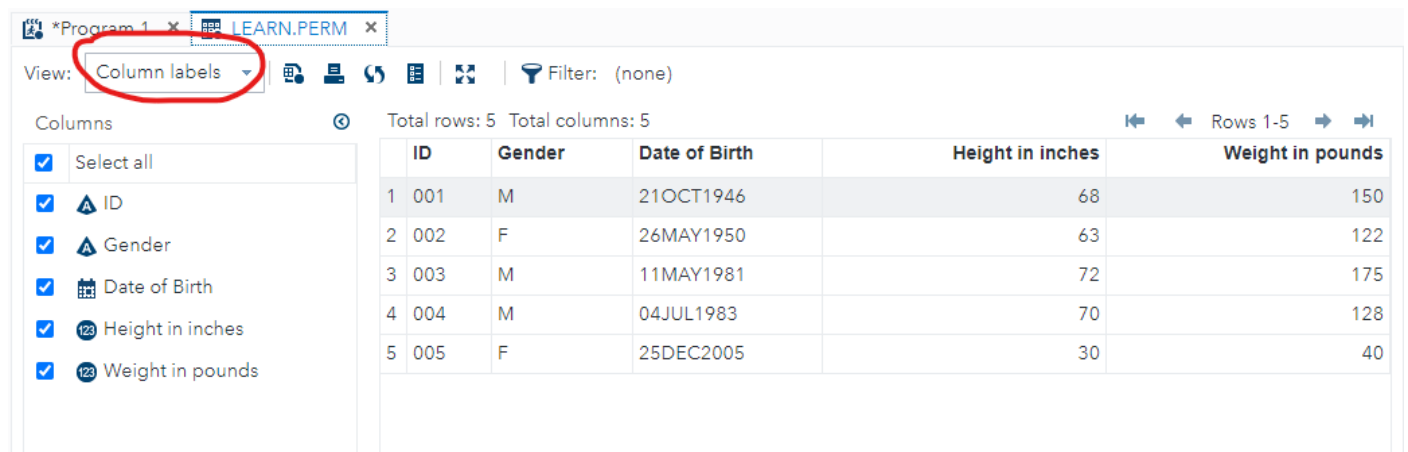
Alphabetic List of Variables and Attributes					
#	Variable	Type	Len	Format	Label
3	DOB	Num	8	DATE9.	Date of Birth
2	Gender	Char	1		
4	Height	Num	8		Height in inches
1	ID	Char	3		
5	Weight	Num	8		Weight in pounds

Problem 2:

Using “Proc print” command:

Obs	ID	Gender	DOB	Height	Weight
1	001	M	21OCT1946	68	150
2	002	F	26MAY1950	63	122
3	003	M	11MAY1981	72	175
4	004	M	04JUL1983	70	128
5	005	F	25DEC2005	30	40

Using sas viewtable:



The screenshot shows the SAS ViewTable interface. The 'View' dropdown is set to 'Column labels', which is circled in red. The table displays 5 rows and 5 columns. The columns are labeled: ID, Gender, Date of Birth, Height in inches, and Weight in pounds. The data is as follows:

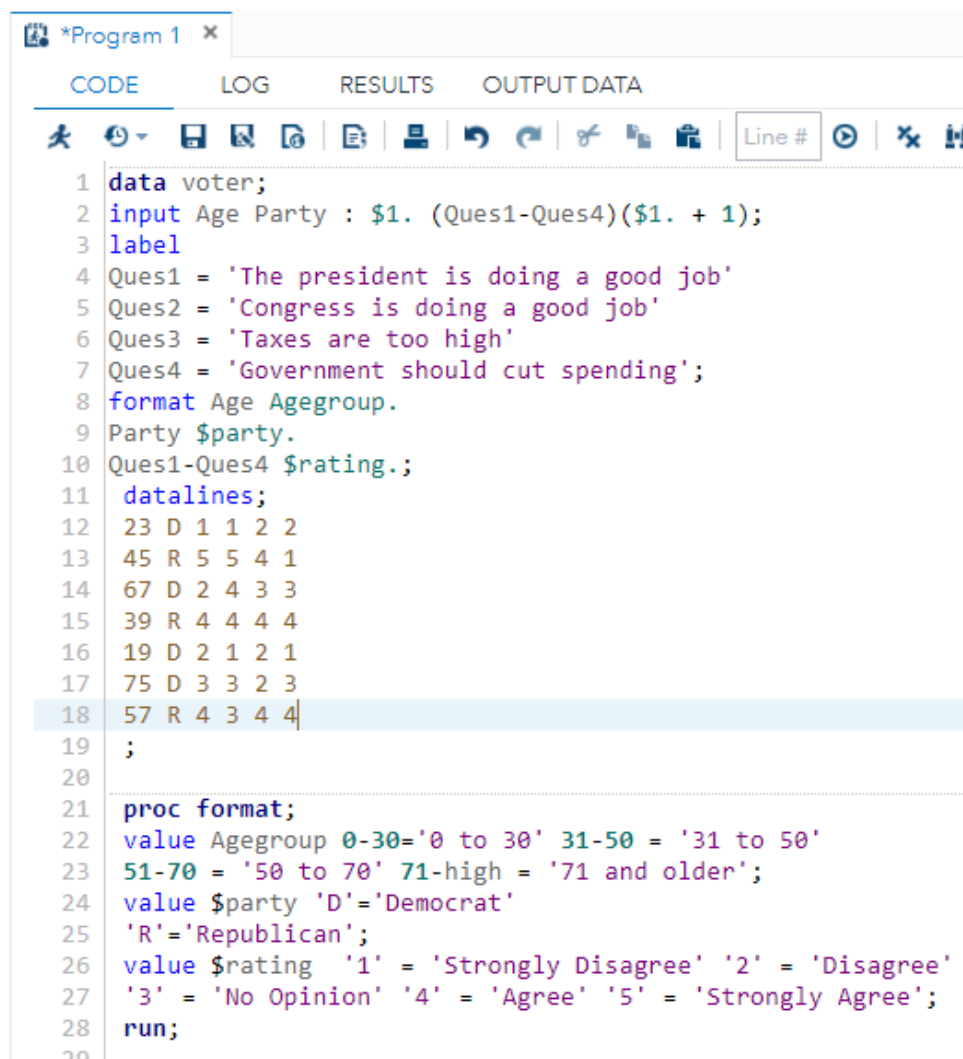
	ID	Gender	Date of Birth	Height in inches	Weight in pounds
1	001	M	21OCT1946	68	150
2	002	F	26MAY1950	63	122
3	003	M	11MAY1981	72	175
4	004	M	04JUL1983	70	128
5	005	F	25DEC2005	30	40

We can change the column names to column labels which we assigned in the 1st program.

Section 5.9:

Problem 1:

Code:



```
1 data voter;
2 input Age Party : $1. (Ques1-Ques4)($1. + 1);
3 label
4 Ques1 = 'The president is doing a good job'
5 Ques2 = 'Congress is doing a good job'
6 Ques3 = 'Taxes are too high'
7 Ques4 = 'Government should cut spending';
8 format Age Agegroup.
9 Party $party.
10 Ques1-Ques4 $rating.;
11 datalines;
12 23 D 1 1 2 2
13 45 R 5 5 4 1
14 67 D 2 4 3 3
15 39 R 4 4 4 4
16 19 D 2 1 2 1
17 75 D 3 3 2 3
18 57 R 4 3 4 4
19 ;
20
21 proc format;
22 value Agegroup 0-30='0 to 30' 31-50 = '31 to 50'
23 51-70 = '50 to 70' 71-high = '71 and older';
24 value $party 'D'='Democrat'
25 'R'='Republican';
26 value $rating '1' = 'Strongly Disagree' '2' = 'Disagree'
27 '3' = 'No Opinion' '4' = 'Agree' '5' = 'Strongly Agree';
28 run;
```

```

30 Proc print data=voter label;
31 title 'Voters';
32 run;
33
34 proc freq data=voter;
35 tables Ques1-Ques4;
36 run;

```

Result:

Proc Print with Label:

Voters						
Obs	Age	Party	The president is doing a good job	Congress is doing a good job	Taxes are too high	Government should cut spending
1	0 to 30	Democrat	Strongly Disagree	Strongly Disagree	Disagree	Disagree
2	31 to 50	Republican	Strongly Agree	Strongly Agree	Agree	Strongly Disagree
3	50 to 70	Democrat	Disagree	Agree	No Opinion	No Opinion
4	31 to 50	Republican	Agree	Agree	Agree	Agree
5	0 to 30	Democrat	Disagree	Strongly Disagree	Disagree	Strongly Disagree
6	71 and older	Democrat	No Opinion	No Opinion	Disagree	No Opinion
7	50 to 70	Republican	Agree	No Opinion	Agree	Agree

Proc Freq for all 4 Ques:

Voters				
The FREQ Procedure				
The president is doing a good job				
Ques1	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Strongly Disagree	1	14.29	1	14.29
Disagree	2	28.57	3	42.86
No Opinion	1	14.29	4	57.14
Agree	2	28.57	6	85.71
Strongly Agree	1	14.29	7	100.00

Taxes are too high				
Ques3	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Disagree	3	42.86	3	42.86
No Opinion	1	14.29	4	57.14
Agree	3	42.86	7	100.00

Congress is doing a good job				
Ques2	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Strongly Disagree	2	28.57	2	28.57
No Opinion	2	28.57	4	57.14
Agree	2	28.57	6	85.71
Strongly Agree	1	14.29	7	100.00

Government should cut spending				
Ques4	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Strongly Disagree	2	28.57	2	28.57
Disagree	1	14.29	3	42.86
No Opinion	2	28.57	5	71.43
Agree	2	28.57	7	100.00

Problem 2:

Code:

```
Prob5.9(1).sas x prob5.9_2.sas x
CODE LOG RESULTS
1 Proc format;
2 value $newgroup '1','2' ='Generally Disagree'
3 '3'='No opinion'
4 '4','5'='Generally Agree';
5 run;
6
7 proc freq data=work.voter;
8 tables Ques1 Ques2 Ques3 Ques4;
9 format Ques1-Ques4 $newgroup.;
10 run;
11
```

Result:

The FREQ Procedure

The president is doing a good job				
Ques1	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Generally Disagree	3	42.86	3	42.86
No opinion	1	14.29	4	57.14
Generally Agree	3	42.86	7	100.00

Congress is doing a good job				
Ques2	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Generally Disagree	2	28.57	2	28.57
No opinion	2	28.57	4	57.14
Generally Agree	3	42.86	7	100.00

Taxes are too high				
Ques3	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Generally Disagree	3	42.86	3	42.86
No opinion	1	14.29	4	57.14
Generally Agree	3	42.86	7	100.00

Government should cut spending				
Ques4	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Generally Disagree	3	42.86	3	42.86
No opinion	2	28.57	5	71.43
Generally Agree	2	28.57	7	100.00

Problem 3:

Code:

```
Prob5.9_3.sas x
CODE LOG RESULTS OUTPUT DATA
1 data Colors;
2 input Color : $1. @@;
3 datalines;
4 R R B G Y Y . . B G R B G Y P O O V V B
5 ;
6 proc format;
7 value $colorgroup
8 'R','B','G' = 'Group 1'
9 'Y','O' = 'Group 2'
10 ' ' = 'Not Given'
11 Other = 'Group 3';
12
13 proc freq data=colors;
14 title 'Freq of Groups';
15 tables Color / missing;
16 format Color $colorgroup.;
17 run;
```

Result:

Freq of Groups

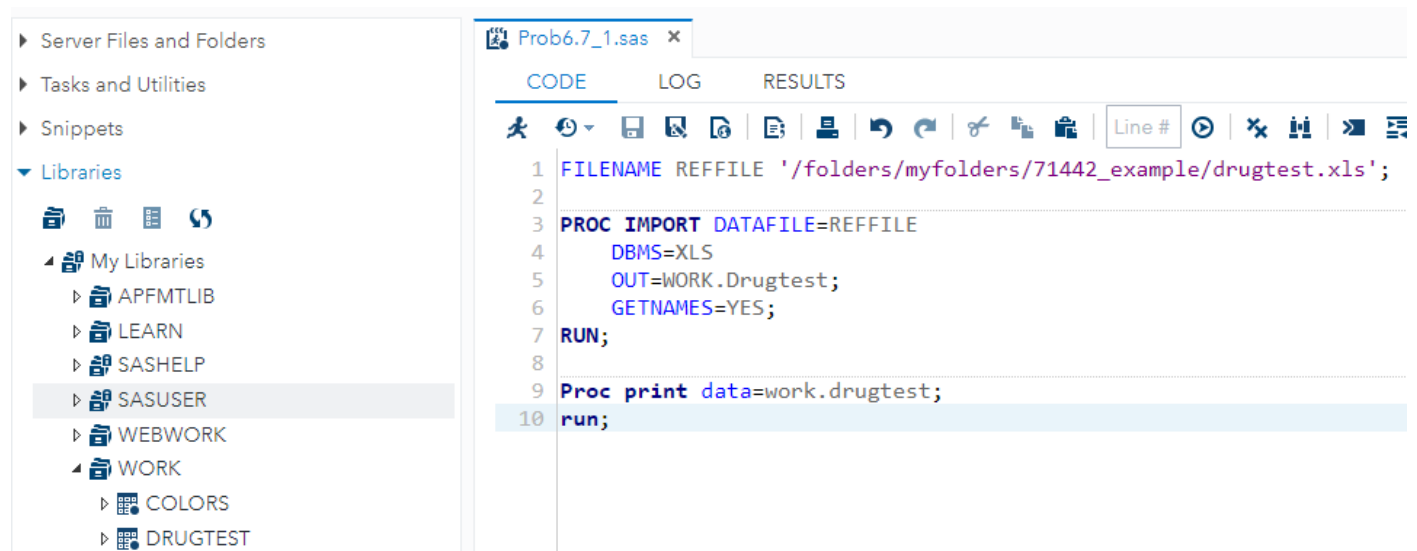
The FREQ Procedure

Color	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Not Given	2	10.00	2	10.00
Group 1	10	50.00	12	60.00
Group 2	5	25.00	17	85.00
Group 3	3	15.00	20	100.00

Section 6.7:

Problem 1:

Code:



The screenshot shows the SAS Studio interface. On the left is the 'Server Files and Folders' pane with a tree view under 'Libraries' including 'My Libraries', 'APFMTLIB', 'LEARN', 'SASHELP', 'SASUSER', 'WEBWORK', 'WORK', 'COLORS', and 'DRUGTEST'. The main area has a tab for 'Prob6.7_1.sas' with 'CODE', 'LOG', and 'RESULTS' sub-tabs. The 'CODE' tab is active, displaying the following SAS program:

```
1 FILENAME REFFILE '/folders/myfolders/71442_example/drugtest.xls';
2
3 PROC IMPORT DATAFILE=REFFILE
4     DBMS=XLS
5     OUT=WORK.Drugtest;
6     GETNAMES=YES;
7 RUN;
8
9 Proc print data=work.drugtest;
10 run;
```

Result:



Data of drugtest.xls					
Obs	Subj	Drug	Total_Cholesterol	LDL	HDL
1	1	Placebo	250	140	40
2	2	Active	200	110	54
3	3	Active	180	90	48
4	4	Placebo	233	127	34
5	5	Active	210	127	46
6	6	Placebo	260	150	59

Problem 2:

Code:

```
Prob6.7_2.sas x
CODE LOG RESULTS OUTPUT DATA
data Soccer;
input Team : $20. Wins Losses;
datalines;
Readington 20 3
Raritan 10 10
Branchburg 3 18
Somerville 5 18
;
options nodate nonumber;
title;
ods listing close;
ods csv file='/folders/myfolders/Soccer.csv';
proc print data=Soccer noobs;
run;
ods csv close;
ods listing;
```

Saved .csv to .xls file using excel:

 Soccer	30-01-2021 15:25	Microsoft Excel Comma Separated Values File
 Soccer	30-01-2021 15:41	Microsoft Excel 97-2003 Worksheet

Code for creating permanent SAS Dataset 'Soccer':

Server Files and Folders

Tasks and Utilities

Snippets

Libraries

- My Libraries
 - APFMTLIB
 - LEARN
 - PERMXLS
 - PERM
 - SOCER**
 - Losses
 - Team
 - Wins
 - SASHELP
 - SASUSER
 - WEBWORK
 - WORK

```
Prob6.7_2.sas x
CODE LOG RESULTS
data Soccer;
input Team : $20. Wins Losses;
datalines;
Readington 20 3
Raritan 10 10
Branchburg 3 18
Somerville 5 18
;
options nodate nonumber;
title;
ods listing close;
ods csv file='/folders/myfolders/Soccer.csv';
proc print data=Soccer noobs;
run;
ods csv close;
ods listing;

libname permXLS '/folders/myfolders/lectures';
FILENAME REFFILE '/folders/myfolders/Soccer.xls';
PROC IMPORT DATAFILE=REFFILE
DBMS=XLS
OUT=permxls.Soccer;
GETNAMES=YES;
RUN;
```