

```

1      OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
68
69      *AST 503
70      Program 11
71      Zainab Akinjobi
72      Macro in SAS.
73
74
75      * Create the macro ----- ;
76
77
78      %macro corrr( dataset , x1 , x2 , x3 , x4 , titl1 , titl2 ) ;
79
80      proc corr data = &dataset nosimple ;
81      var &x1 &x2 &x3 &x4 ;
82      title1 &titl1 ;
83
84
85      proc sgscatter data = &dataset ;
86      matrix &x1 &x2 &x3 &x4 ;
87      title1 &titl2 ;
88
89      %mend ;
90
91
92      * end of the macro ----- ;
93
94
95
96      * enter the first data set ;
97
98
99
100     data year2020 ;
101
102     seed = 17717 ;
103
104     input wt girth ;
105     length = 1.2* wt + 1.2*rannor(seed) ;
106     snout = 0.6* wt + 1.2*rannor(seed) ;
107
108     datalines ;

```

NOTE: The data set WORK.YEAR2020 has 9 observations and 5 variables.

NOTE: DATA statement used (Total process time):

real time	0.00 seconds
user cpu time	0.00 seconds
system cpu time	0.00 seconds
memory	691.50k
OS Memory	29348.00k
Timestamp	12/13/2021 03:32:59 AM
Step Count	133 Switch Count 2
Page Faults	0
Page Reclaims	91
Page Swaps	0
Voluntary Context Switches	11
Involuntary Context Switches	0
Block Input Operations	0
Block Output Operations	264

```

118      ;
119

```

```

120
121
122      *   enter the  2nd  data set   ;
123
124
125      data  data2  ;
126
127      seed  = 17717  ;
128
129      do  x  =  1 to 16  by  .5  ;
130      z1 =  x +  .8*rannor(seed) ;
131      z2 = 1.2* z1  +  1.4*rannor(seed) ;
132      z3 = 0.6* z2  +  1.2*rannor(seed) ;
133      z4 = -0.7* z2  +  1.5*rannor(seed) ;
134      if mod(  x, 6 )  = 0 then z4 = .;
135      output ;
136      end;
137
138
139      *   Call the macro twice,  with two different data sets  ;
140
141
142      %corr ( year2020 , wt , girth , length , snout , 'correl values' , 'corr graphs')

```

NOTE: The data set WORK.DATA2 has 31 observations and 6 variables.

NOTE: DATA statement used (Total process time):

real time	0.00 seconds
user cpu time	0.00 seconds
system cpu time	0.00 seconds
memory	694.31k
OS Memory	29348.00k
Timestamp	12/13/2021 03:32:59 AM
Step Count	134 Switch Count 2
Page Faults	0
Page Reclaims	90
Page Swaps	0
Voluntary Context Switches	14
Involuntary Context Switches	0
Block Input Operations	0
Block Output Operations	264

NOTE: PROCEDURE CORR used (Total process time):

real time	0.03 seconds
user cpu time	0.03 seconds
system cpu time	0.00 seconds
memory	1710.56k
OS Memory	29348.00k
Timestamp	12/13/2021 03:32:59 AM
Step Count	135 Switch Count 1
Page Faults	0
Page Reclaims	120
Page Swaps	0
Voluntary Context Switches	5
Involuntary Context Switches	0
Block Input Operations	0
Block Output Operations	8

```

143      %corr ( data2 , z1 , z2 , z3 , z4 , ' correl z values' , 'graph the z values')

```

NOTE: PROCEDURE SGSCATTER used (Total process time):

real time	0.26 seconds
user cpu time	0.05 seconds
system cpu time	0.01 seconds

```

memory          7734.03k
OS Memory       34648.00k
Timestamp       12/13/2021 03:33:00 AM
Step Count      136   Switch Count  2
Page Faults     0
Page Reclaims   1503
Page Swaps      0
Voluntary Context Switches 170
Involuntary Context Switches 0
Block Input Operations 0
Block Output Operations 496

```

NOTE: There were 9 observations read from the data set WORK.YEAR2020.

NOTE: PROCEDURE CORR used (Total process time):

```

real time       0.03 seconds
user cpu time    0.04 seconds
system cpu time  0.00 seconds
memory          936.71k
OS Memory       33444.00k
Timestamp       12/13/2021 03:33:00 AM
Step Count      137   Switch Count  1
Page Faults     0
Page Reclaims   77
Page Swaps      0
Voluntary Context Switches 6
Involuntary Context Switches 0
Block Input Operations 0
Block Output Operations 0

```

144

145 run;

NOTE: PROCEDURE SGSCATTER used (Total process time):

```

real time       0.25 seconds
user cpu time    0.04 seconds
system cpu time  0.00 seconds
memory          1877.75k
OS Memory       34648.00k
Timestamp       12/13/2021 03:33:00 AM
Step Count      138   Switch Count  2
Page Faults     0
Page Reclaims   411
Page Swaps      0
Voluntary Context Switches 168
Involuntary Context Switches 0
Block Input Operations 0
Block Output Operations 424

```

NOTE: Some of the tick values have been thinned.

NOTE: There were 31 observations read from the data set WORK.DATA2.

146

147

148 OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;

158