```
OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
NOTE: ODS statements in the SAS Studio environment may disable some output features.
69
70
           *////*PROJECT 6*////*;
71
           *///*PROBLEM 1*///*;
72
73
           *Part 1*;
           %LET ClassAge = Pre-K 4;
74
75
76
           *Part 2*;
77
           DATA final:
               INFILE '/home/u63559709/sasuser.v94/Week 6/school 1 final.csv' DSD firstobs=2;
78
               INPUT ClassID ChildID Gender $ ClassAge $ Language $ f1 f2 f3 f4;
79
           RUN:
80
NOTE: The infile '/home/u63559709/sasuser.v94/Week 6/school 1 final.csv' is:
      Filename=/home/u63559709/sasuser.v94/Week 6/school 1 final.csv,
      Owner Name=u63559709, Group Name=oda,
      Access Permission=-rw-r--r--
      Last Modified=040ct2023:15:18:36,
      File Size (bytes)=1056
NOTE: 22 records were read from the infile '/home/u63559709/sasuser.v94/Week 6/school 1 final.csv'.
      The minimum record length was 36.
      The maximum record length was 45.
NOTE: The data set WORK.FINAL has 22 observations and 9 variables.
NOTE: DATA statement used (Total process time):
                          0.00 seconds
      real time
      user cpu time
                          0.01 seconds
      system cpu time
                          0.00 seconds
      memory
                          873.93k
      OS Memory
                          28580.00k
      Timestamp
                          10/08/2023 02:50:49 AM
      Step Count
                                         175 Switch Count 2
      Page Faults
                                         0
      Page Reclaims
                                         94
      Page Swaps
                                         0
      Voluntary Context Switches
                                        18
      Involuntary Context Switches
                                         0
      Block Input Operations
                                         a
      Block Output Operations
                                         272
81
           PROC PRINT DATA=final;
82
83
           TITLE "School Data";
84
           Run;
NOTE: There were 22 observations read from the data set WORK.FINAL.
NOTE: PROCEDURE PRINT used (Total process time):
      real time
                          0.02 seconds
      user cpu time
                          0.03 seconds
      system cpu time
                          0.00 seconds
      memory
                          1338.25k
      OS Memory
                          28580.00k
      Timestamp
                          10/08/2023 02:50:49 AM
      Step Count
                                        176 Switch Count 1
      Page Faults
                                         a
      Page Reclaims
                                        69
      Page Swaps
                                         0
      Voluntary Context Switches
                                         8
      Involuntary Context Switches
                                        0
      Block Input Operations
                                         0
      Block Output Operations
                                         8
85
86
           DATA ClassAge_final;
               INFILE '/home/u63559709/sasuser.v94/Week 6/school 1 final.csv' DSD firstobs=2;
87
88
               INPUT ClassID ChildID Gender $ ClassAge $ Language $ f1 f2 f3 f4;
               IF ClassAge = "&ClassAge";
89
90
           RUN;
NOTE: The infile '/home/u63559709/sasuser.v94/Week 6/school 1 final.csv' is:
      Filename=/home/u63559709/sasuser.v94/Week 6/school 1 final.csv,
      Owner Name=u63559709, Group Name=oda,
      Access Permission=-rw-r--r--
      Last Modified=040ct2023:15:18:36,
      File Size (bytes)=1056
```

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```
NOTE: 22 records were read from the infile '/home/u63559709/sasuser.v94/Week 6/school 1 final.csv'.
      The minimum record length was 36.
      The maximum record length was 45.
NOTE: The data set WORK.CLASSAGE_FINAL has 7 observations and 9 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
                          769.59k
      memory
      OS Memory
                          28580.00k
      Timestamp
                          10/08/2023 02:50:49 AM
      Step Count
                                         177 Switch Count 2
      Page Faults
      Page Reclaims
                                        93
      Page Swaps
                                         0
      Voluntary Context Switches
                                        17
      Involuntary Context Switches
                                         0
      Block Input Operations
                                         0
      Block Output Operations
                                        264
91
           PROC PRINT Data=ClassAge_final;
92
93
           TITLE "School Info";
           RUN;
NOTE: There were 7 observations read from the data set WORK.CLASSAGE FINAL.
NOTE: PROCEDURE PRINT used (Total process time):
      real time
                          0.01 seconds
                          0.02 seconds
      user cpu time
      system cpu time
                          0.00 seconds
                          813.34k
      memory
      OS Memory
                          28580.00k
      Timestamp
                          10/08/2023 02:50:49 AM
      Step Count
                                        178 Switch Count 1
      Page Faults
                                         a
      Page Reclaims
                                        64
      Page Swaps
                                         0
      Voluntary Context Switches
                                        7
      Involuntary Context Switches
                                         a
      Block Input Operations
                                         0
      Block Output Operations
                                         16
95
96
97
           %macro average(category, question, outdataset=averagescore);
98
99
           PROC MEANS DATA=final NOPRINT;
100
           BY &category;
101
           VAR &question;
102
           OUTPUT OUT=&outdataset MEAN=;
103
           RUN;
104
105
           %mend average;
106
           PROC SORT DATA=final;
107
108
               BY ClassAge;
109
NOTE: There were 22 observations read from the data set WORK.FINAL.
NOTE: The data set WORK.FINAL has 22 observations and 9 variables.
NOTE: PROCEDURE SORT used (Total process time):
      real time
                          0.00 seconds
      user cpu time
                          0.00 seconds
                          0.00 seconds
      system cpu time
                          938.31k
      memory
      OS Memory
                          28840.00k
                          10/08/2023 02:50:49 AM
      Timestamp
      Step Count
                                        179 Switch Count 2
      Page Faults
                                         0
      Page Reclaims
                                        115
      Page Swaps
                                         0
      Voluntary Context Switches
                                        12
      Involuntary Context Switches
                                         0
      Block Input Operations
                                         a
      Block Output Operations
                                         264
```

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```
111
           %average(ClassAge, f1);
NOTE: There were 22 observations read from the data set WORK.FINAL.
NOTE: The data set WORK.AVERAGESCORE has 3 observations and 4 variables.
NOTE: PROCEDURE MEANS used (Total process time):
      real time
                          0.00 seconds
                          0.00 seconds
      user cpu time
      system cpu time
                          0.00 seconds
                          1998.31k
      memory
      OS Memory
                          29868.00k
      Timestamp
                          10/08/2023 02:50:49 AM
      Step Count
                                         180 Switch Count 3
      Page Faults
                                         a
      Page Reclaims
                                         252
      Page Swaps
                                         0
      Voluntary Context Switches
                                         15
      Involuntary Context Switches
                                         0
      Block Input Operations
                                         0
      Block Output Operations
                                         264
112
113
           PROC PRINT DATA=averagescore;
              TITLE "Average of f1 by ClassAge";
114
115
NOTE: There were 3 observations read from the data set WORK.AVERAGESCORE.
NOTE: PROCEDURE PRINT used (Total process time):
                          0.00 seconds
      real time
      user cpu time
                          0.01 seconds
                          0.00 seconds
      system cpu time
      memory
                          839.81k
      OS Memory
                          28580.00k
                          10/08/2023 02:50:49 AM
      Timestamp
      Step Count
                                         181 Switch Count 1
      Page Faults
                                         0
      Page Reclaims
                                        66
      Page Swaps
                                         0
      Voluntary Context Switches
                                        9
      Involuntary Context Switches
                                         0
      Block Input Operations
                                         a
      Block Output Operations
                                         0
116
           *Part 4*;
117
118
           PROC SORT DATA=final;
119
           BY Gender;
120
           RUN;
NOTE: There were 22 observations read from the data set WORK.FINAL.
NOTE: The data set WORK.FINAL has 22 observations and 9 variables.
NOTE: PROCEDURE SORT used (Total process time):
      real time
                          0.00 seconds
      user cpu time
                          0.01 seconds
                          0.00 seconds
      system cpu time
                          938.43k
      memory
      OS Memory
                          28840.00k
      Timestamp
                          10/08/2023 02:50:49 AM
      Step Count
                                         182 Switch Count 2
      Page Faults
                                         0
      Page Reclaims
                                        116
      Page Swaps
                                         a
      Voluntary Context Switches
                                         14
      Involuntary Context Switches
                                         a
      Block Input Operations
                                         a
      Block Output Operations
                                         264
121
           %average(category=Gender, question=f1, outdataset=averagescore_Gender);
NOTE: There were 22 observations read from the data set WORK.FINAL.
NOTE: The data set WORK.AVERAGESCORE_GENDER has 2 observations and 4 variables.
NOTE: PROCEDURE MEANS used (Total process time):
      real time
                          0.00 seconds
      user cpu time
                          0.00 seconds
      system cpu time
                          0.00 seconds
      memory
                          1998.31k
      OS Memory
                          29868.00k
      Timestamp
                          10/08/2023 02:50:49 AM
      Step Count
                                         183 Switch Count 3
```

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```
Page Faults
                                         0
      Page Reclaims
                                         250
      Page Swaps
                                         0
      Voluntary Context Switches
                                         18
      Involuntary Context Switches
                                         a
      Block Input Operations
                                         0
      Block Output Operations
                                         264
122
123
           *Part 5*;
           PROC SORT DATA=final;
124
125
           By ClassAge;
126
           RUN;
NOTE: There were 22 observations read from the data set WORK.FINAL.
NOTE: The data set WORK.FINAL has 22 observations and 9 variables.
NOTE: PROCEDURE SORT used (Total process time):
      real time
                          0.00 seconds
      user cpu time
                          0.00 seconds
      system cpu time
                          0.00 seconds
      memory
                          1050.56k
      OS Memory
                           28840.00k
                          10/08/2023 02:50:49 AM
      Timestamp
      Step Count
                                         184 Switch Count 2
      Page Faults
                                         a
      Page Reclaims
                                         117
      Page Swaps
                                         0
      Voluntary Context Switches
                                         14
      Involuntary Context Switches
                                         0
      Block Input Operations
                                         0
      Block Output Operations
                                         272
127
           %average(category= ClassAge, question=f3, outdataset=averagescore_ClassAge)
NOTE: There were 22 observations read from the data set WORK.FINAL.
NOTE: The data set WORK.AVERAGESCORE CLASSAGE has 3 observations and 4 variables.
NOTE: PROCEDURE MEANS used (Total process time):
      real time
                          0.00 seconds
      user cpu time
                          0.00 seconds
      system cpu time
                          0.00 seconds
      memory
                          1998.31k
      OS Memory
                          29868.00k
      Timestamp
                          10/08/2023 02:50:49 AM
      Step Count
                                         185 Switch Count 3
      Page Faults
                                         0
      Page Reclaims
                                         251
      Page Swaps
                                         0
      Voluntary Context Switches
                                         16
      Involuntary Context Switches
                                         0
      Block Input Operations
                                         0
      Block Output Operations
                                         264
128
129
           *Part 6*;
130
           %macro class(category);
131
132
           %IF &category = Gender %THEN %DO;
           PROC MEANS DATA=final NOPRINT;
133
134
           BY &category;
135
           VAR f1;
136
           OUTPUT OUT=meanscore gender MEAN=;
137
           RUN:
138
139
           PROC PRINT DATA=meanscore gender;
           TITLE "Average of f1 by Gender";
140
141
           RUN;
142
143
           %END;
144
           %ELSE %IF &category = ClassAge %THEN %DO;
145
           PROC MEANS DATA=final NOPRINT;
146
147
           BY &category;
148
           VAR f2;
149
           OUTPUT OUT=meanscore_classage MEAN=;
150
151
           PROC PRINT DATA=meanscore_classage;
152
           TITLE "Average of f2 by ClassAge";
153
```

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```
10/7/23, 10:51 PM
  154
             RUN;
  155
             %END;
  156
  157
  158
             %mend class;
  159
  160
              *Part 7*;
  161
             PROC SORT DATA=final;
                 BY Gender;
  162
  163
             RUN:
  NOTE: There were 22 observations read from the data set WORK.FINAL.
  NOTE: The data set WORK.FINAL has 22 observations and 9 variables.
  NOTE: PROCEDURE SORT used (Total process time):
                             0.00 seconds
        real time
        user cpu time
                             0.00 seconds
        system cpu time
                             0.00 seconds
        memory
                             938.31k
        OS Memory
                             28840.00k
        Timestamp
                             10/08/2023 02:50:49 AM
                                           186 Switch Count 2
        Step Count
        Page Faults
                                           0
        Page Reclaims
                                           116
        Page Swaps
                                           a
        Voluntary Context Switches
                                           10
        Involuntary Context Switches
                                           0
        Block Input Operations
                                           а
        Block Output Operations
                                           272
  164
             %class(category=Gender);
  NOTE: There were 22 observations read from the data set WORK.FINAL.
  NOTE: The data set WORK.MEANSCORE_GENDER has 2 observations and 4 variables.
  NOTE: PROCEDURE MEANS used (Total process time):
                            0.00 seconds
        real time
        user cpu time
                             0.00 seconds
        system cpu time
                             0.00 seconds
                             1993.53k
        memory
        OS Memory
                             29868.00k
                             10/08/2023 02:50:49 AM
        Timestamp
        Step Count
                                           187 Switch Count 3
        Page Faults
                                           0
        Page Reclaims
                                           252
        Page Swaps
                                           0
        Voluntary Context Switches
                                           15
        Involuntary Context Switches
                                           0
        Block Input Operations
                                           0
        Block Output Operations
                                           264
  NOTE: There were 2 observations read from the data set WORK.MEANSCORE_GENDER.
  NOTE: PROCEDURE PRINT used (Total process time):
        real time
                             0.00 seconds
        user cpu time
                             0.00 seconds
        system cpu time
                             0.00 seconds
        memory
                             683.15k
        OS Memory
                             28580.00k
        Timestamp
                             10/08/2023 02:50:49 AM
        Step Count
                                           188 Switch Count 1
        Page Faults
                                           0
        Page Reclaims
                                           65
        Page Swaps
                                           a
        Voluntary Context Switches
                                           5
        Involuntary Context Switches
                                           a
        Block Input Operations
                                           0
        Block Output Operations
  165
  166
             *Part 8*;
             PROC SORT DATA=final:
  167
  168
                 BY ClassAge;
  NOTE: There were 22 observations read from the data set WORK.FINAL.
  NOTE: The data set WORK.FINAL has 22 observations and 9 variables.
  NOTE: PROCEDURE SORT used (Total process time):
                            0.00 seconds
        real time
        user cpu time
                             0.00 seconds
                             0.00 seconds
        system cpu time
```

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```
memory
                          938.31k
      OS Memory
                          28840.00k
                          10/08/2023 02:50:50 AM
      Timestamp
      Step Count
                                         189 Switch Count 2
      Page Faults
                                         a
      Page Reclaims
                                         115
      Page Swaps
                                         0
      Voluntary Context Switches
                                         14
      Involuntary Context Switches
                                         0
      Block Input Operations
                                         a
      Block Output Operations
                                         264
           %class(category=ClassAge);
170
NOTE: There were 22 observations read from the data set WORK.FINAL.
NOTE: The data set WORK.MEANSCORE_CLASSAGE has 3 observations and 4 variables.
NOTE: PROCEDURE MEANS used (Total process time):
      real time
                          0.00 seconds
      user cpu time
                          0.00 seconds
      system cpu time
                          0.00 seconds
                          1994.03k
      memory
      OS Memory
                          29868.00k
                          10/08/2023 02:50:50 AM
      Timestamp
      Step Count
                                         190 Switch Count 3
      Page Faults
      Page Reclaims
                                        250
      Page Swaps
                                         0
      Voluntary Context Switches
                                        15
      Involuntary Context Switches
                                         0
      Block Input Operations
                                         0
      Block Output Operations
                                         264
NOTE: There were 3 observations read from the data set WORK.MEANSCORE_CLASSAGE.
NOTE: PROCEDURE PRINT used (Total process time):
                          0.00 seconds
      real time
      user cpu time
                          0.01 seconds
      system cpu time
                          0.00 seconds
      memory
                          571.53k
      OS Memory
                          28580.00k
      Timestamp
                          10/08/2023 02:50:50 AM
      Step Count
                                         191 Switch Count 1
      Page Faults
                                         a
      Page Reclaims
                                        66
      Page Swaps
                                         0
      Voluntary Context Switches
                                        4
      Involuntary Context Switches
                                         0
      Block Input Operations
                                         0
      Block Output Operations
171
           *///*PROBLEM 2*///*;
172
173
           *Part 1*;
           DATA death_count;
174
175
               INFILE '/home/u63559709/sasuser.v94/Week 6/2010-2015-Age65above Final Death Count.csv' DSD firstobs=2;
               INPUT year month gender $ age ICD10 $ death;
176
           RUN;
177
NOTE: The infile '/home/u63559709/sasuser.v94/Week 6/2010-2015-Age65above Final Death Count.csv' is:
      Filename=/home/u63559709/sasuser.v94/Week 6/2010-2015-Age65above Final Death Count.csv,
      Owner Name=u63559709, Group Name=oda,
      Access Permission=-rw-r--r-
      Last Modified=040ct2023:15:18:36,
      File Size (bytes)=631470
NOTE: 33264 records were read from the infile '/home/u63559709/sasuser.v94/Week 6/2010-2015-Age65above Final Death Count.csv'.
      The minimum record length was 15.
      The maximum record length was 22.
NOTE: The data set WORK.DEATH_COUNT has 33264 observations and 6 variables.
NOTE: DATA statement used (Total process time):
                          0.01 seconds
      real time
                          0.02 seconds
      user cpu time
                          0.00 seconds
      system cpu time
      memory
                          2174.31k
      OS Memory
                          29348.00k
      Timestamp
                          10/08/2023 02:50:50 AM
                                        192 Switch Count 2
      Step Count
      Page Faults
                                         a
                                        172
      Page Reclaims
```

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```
Page Swaps
                                         0
      Voluntary Context Switches
                                         18
      Involuntary Context Switches
                                         0
      Block Input Operations
                                         0
      Block Output Operations
                                         3336
178
179
           PROC PRINT DATA=death_count(OBS=10);
           TITLE "Death Count";
180
181
NOTE: There were 10 observations read from the data set WORK.DEATH_COUNT.
NOTE: PROCEDURE PRINT used (Total process time):
                           0.01 seconds
      real time
      user cpu time
                           0.01 seconds
                           0.00 seconds
      system cpu time
      memory
                           2144.84k
      OS Memory
                           29348.00k
      Timestamp
                           10/08/2023 02:50:50 AM
                                         193 Switch Count 1
      Step Count
      Page Faults
                                         9
      Page Reclaims
                                         258
      Page Swaps
                                         0
      Voluntary Context Switches
                                         6
      Involuntary Context Switches Block Input Operations
                                         0
                                         9
      Block Output Operations
                                         16
182
183
           *Part 2*;
184
           PROC SORT DATA=death count;
185
               BY year;
186
           RUN;
NOTE: There were 33264 observations read from the data set WORK.DEATH_COUNT.
NOTE: The data set WORK.DEATH COUNT has 33264 observations and 6 variables.
NOTE: PROCEDURE SORT used (Total process time):
      real time
                           0.00 seconds
      user cpu time
                           0.01 seconds
      system cpu time
                           0.01 seconds
      memory
                           5862.87k
      OS Memory
                           32960.00k
      Timestamp
                           10/08/2023 02:50:50 AM
      Step Count
                                         194 Switch Count 2
      Page Faults
                                         0
      Page Reclaims
                                         884
      Page Swaps
                                         0
      Voluntary Context Switches
                                         14
      Involuntary Context Switches
                                         0
      Block Input Operations
                                         0
      Block Output Operations
                                         3336
187
188
           PROC MEANS DATA=death_count NOPRINT;
189
               BY year;
190
               VAR death;
191
               OUTPUT OUT=yearly_death_sum SUM=total_death;
192
           RUN;
NOTE: There were 33264 observations read from the data set WORK.DEATH_COUNT.
NOTE: The data set WORK.YEARLY DEATH SUM has 6 observations and 4 variables.
NOTE: PROCEDURE MEANS used (Total process time):
      real time
                           0.00 seconds
                           0.01 seconds
      user cpu time
                           0.00 seconds
      system cpu time
                           3449.46k
      memory
      OS Memory
                           30636.00k
      Timestamp
                           10/08/2023 02:50:50 AM
      Step Count
                                         195 Switch Count 5
      Page Faults
                                         a
      Page Reclaims
                                         442
      Page Swaps
                                         9
      Voluntary Context Switches
                                         21
      Involuntary Context Switches
                                         0
      Block Input Operations
                                         0
      Block Output Operations
                                         264
```

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```
10/7/23, 10:51 PM
                                                                      Log: Project6.sas
  193
  194
             PROC PRINT DATA=yearly_death_sum;
                 TITLE "Death Chart";
  195
  196
  NOTE: There were 6 observations read from the data set WORK.YEARLY_DEATH_SUM.
  NOTE: PROCEDURE PRINT used (Total process time):
        real time
                             0.00 seconds
                             0.01 seconds
        user cpu time
        system cpu time
                             0.00 seconds
        memory
                             838.31k
        OS Memory
                             28580,00k
        Timestamp
                             10/08/2023 02:50:50 AM
        Step Count
                                           196 Switch Count 1
        Page Faults
                                           a
        Page Reclaims
                                           66
        Page Swaps
                                           0
        Voluntary Context Switches
                                           9
        Involuntary Context Switches
                                           0
        Block Input Operations
                                           0
        Block Output Operations
                                           0
  197
  198
             PROC SGPLOT DATA=yearly_death_sum;
  199
                 HBAR year / RESPONSE=total_death;
                  TITLE "Total Deaths by Year";
  200
              RUN;
  201
  NOTE: Since no format is assigned, the numeric category variable will use the default of BEST6.
  NOTE: PROCEDURE SGPLOT used (Total process time):
        real time
                             0.06 seconds
                             0.03 seconds
        user cpu time
                             0.00 seconds
        system cpu time
        memory
                             7782.09k
        OS Memory
                             32140.00k
        Timestamp
                             10/08/2023 02:50:50 AM
        Step Count
                                           197 Switch Count 3
        Page Faults
                                           0
        Page Reclaims
                                           1187
        Page Swaps
                                           a
        Voluntary Context Switches
                                           153
                                           0
        Involuntary Context Switches
        Block Input Operations
                                           0
        Block Output Operations
                                           600
  NOTE: There were 6 observations read from the data set WORK.YEARLY_DEATH_SUM.
  202
  203
              *Part 3*;
              PROC SORT DATA=death_count;
  204
  205
                 BY ICD10;
  206
  NOTE: There were 33264 observations read from the data set WORK.DEATH_COUNT.
  NOTE: The data set WORK.DEATH_COUNT has 33264 observations and 6 variables.
  NOTE: PROCEDURE SORT used (Total process time):
        real time
                             0.01 seconds
        user cpu time
                             0.01 seconds
        system cpu time
                             0.00 seconds
        memory
                             5856.31k
        OS Memory
                             36032.00k
                             10/08/2023 02:50:50 AM
        Timestamp
        Step Count
                                           198 Switch Count 2
        Page Faults
                                           0
        Page Reclaims
                                           884
        Page Swaps
                                           0
        Voluntary Context Switches
                                           13
        Involuntary Context Switches
                                           0
        Block Input Operations
                                           a
        Block Output Operations
                                           3336
  207
  208
              PROC MEANS DATA=death_count NOPRINT;
  209
                  BY ICD10;
  210
                  VAR death;
                  OUTPUT OUT=ICD10_death_sum SUM=total_death;
  211
  212
```

NOTE: There were 33264 observations read from the data set WORK.DEATH_COUNT.

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```
NOTE: The data set WORK.ICD10_DEATH_SUM has 11 observations and 4 variables.
NOTE: PROCEDURE MEANS used (Total process time):
                          0.00 seconds
      real time
      user cpu time
                          0.00 seconds
                          0.00 seconds
      system cpu time
      memory
                          3345.28k
      OS Memory
                          33708.00k
      Timestamp
                          10/08/2023 02:50:50 AM
                                         199 Switch Count 5
      Step Count
      Page Faults
                                         a
      Page Reclaims
                                         452
                                         0
      Page Swaps
      Voluntary Context Switches
                                         18
      Involuntary Context Switches
                                         0
      Block Input Operations
                                         a
      Block Output Operations
                                         264
213
214
           ODS LISTING GPATH = '/home/u63559709/sasuser.v94/Week 6';
           ODS GRAPHICS / RESET
215
               IMAGENAME = 'Total Death by Death Code'
216
217
               OUTPUTFMT = PNG
               HEIGHT = 4IN WIDTH = 6IN;
218
219
220
           PROC SGPLOT DATA=ICD10_death_sum;
               SCATTER X=ICD10 Y=total_death / DATALABEL=ICD10;
221
               XAXIS LABEL='Death Code';
222
               YAXIS LABEL='Total Death';
223
224
               TITLE "Total Death by Death Code";
225
           RUN;
NOTE: PROCEDURE SGPLOT used (Total process time):
      real time
                          0.11 seconds
      user cpu time
                          0.05 seconds
      system cpu time
                          0.00 seconds
      memory
                          8382.65k
      OS Memory
                          38704.00k
                          10/08/2023 02:50:50 AM
      Timestamp
      Step Count
                                         200 Switch Count 2
      Page Faults
                                         a
      Page Reclaims
                                         1981
                                         0
      Page Swaps
      Voluntary Context Switches
                                         237
      Involuntary Context Switches
                                         0
      Block Input Operations
                                         a
      Block Output Operations
                                         528
NOTE: Listing image output written to /home/u63559709/sasuser.v94/Week 6/Total Death by Death Code.png.
NOTE: There were 11 observations read from the data set WORK.ICD10_DEATH_SUM.
226
227
           *Part 4*;
228
           DATA death_ICD52;
229
               SET death count;
               WHERE ICD10 = '52';
230
           RUN;
231
NOTE: There were 3024 observations read from the data set WORK.DEATH_COUNT.
      WHERE ICD10='52';
NOTE: The data set WORK.DEATH_ICD52 has 3024 observations and 6 variables.
NOTE: DATA statement used (Total process time):
      real time
                          0.00 seconds
      user cpu time
                          0.00 seconds
                          0.00 seconds
      system cpu time
      memory
                          2413.90k
      OS Memory
                          39080.00k
                          10/08/2023 02:50:50 AM
      Timestamp
      Step Count
                                         201 Switch Count 9
                                         a
      Page Faults
      Page Reclaims
                                         300
      Page Swaps
                                         0
      Voluntary Context Switches
                                         32
      Involuntary Context Switches
                                         a
      Block Input Operations
                                         a
      Block Output Operations
                                         520
232
233
           PROC SGPLOT DATA=death_ICD52;
               HISTOGRAM death;
234
```

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```
235
               TITLE "Histogram of Deaths with ICD=52";
           RUN;
236
NOTE: PROCEDURE SGPLOT used (Total process time):
      real time
                          0.09 seconds
      user cpu time
                          0.04 seconds
      system cpu time
                          0.00 seconds
      memory
                          2366.25k
      OS Memory
                          39216.00k
                          10/08/2023 02:50:50 AM
      Timestamp
      Step Count
                                        202 Switch Count 2
      Page Faults
                                        0
      Page Reclaims
                                        528
      Page Swaps
                                        0
      Voluntary Context Switches
                                        197
      Involuntary Context Switches
                                        0
      Block Input Operations
                                        0
      Block Output Operations
                                        456
NOTE: Listing image output written to /home/u63559709/sasuser.v94/Week 6/Total Death by Death Code1.png.
NOTE: There were 3024 observations read from the data set WORK.DEATH ICD52.
237
           *Part 5*:
238
239
           PROC SGPLOT DATA=death count;
240
               VBOX death / CATEGORY=gender;
               TITLE "Deaths by Gender";
241
           RUN;
242
NOTE: PROCEDURE SGPLOT used (Total process time):
                          0.64 seconds
      real time
      user cpu time
                          0.18 seconds
                          0.23 seconds
      system cpu time
                          5502.65k
      memory
      OS Memory
                          42796.00k
      Timestamp
                          10/08/2023 02:50:51 AM
      Step Count
                                        203 Switch Count 10
      Page Faults
                                        a
      Page Reclaims
                                        2070
      Page Swaps
      Voluntary Context Switches
                                        31264
      Involuntary Context Switches
      Block Input Operations
                                        0
      Block Output Operations
                                        5280
NOTE: Marker and line antialiasing has been disabled for at least one plot because the threshold has been reached. You can set
      ANTIALIASMAX=5200 in the ODS GRAPHICS statement to enable antialiasing for all plots.
NOTE: Marker and line antialiasing has been disabled for at least one plot because the threshold has been reached. You can set
      ANTIALIASMAX=5200 in the ODS GRAPHICS statement to enable antialiasing for all plots.
NOTE: Listing image output written to /home/u63559709/sasuser.v94/Week 6/Total Death by Death Code2.png.
NOTE: There were 33264 observations read from the data set WORK.DEATH_COUNT.
243
244
           PROC SGPLOT DATA=death_count;
245
               VBOX death / CATEGORY=gender;
               TITLE "Deaths by Gender (Without Outliers)";
246
247
               YAXIS MAX=200;
248
           RUN:
NOTE: PROCEDURE SGPLOT used (Total process time):
      real time
                          0.65 seconds
      user cpu time
                          0.16 seconds
      system cpu time
                          0.27 seconds
                          5285.21k
      memory
      OS Memory
                          42796,00k
      Timestamp
                          10/08/2023 02:50:51 AM
      Step Count
                                        204 Switch Count 10
      Page Faults
                                        а
      Page Reclaims
                                        1937
      Page Swaps
                                        a
      Voluntary Context Switches
                                        31249
      Involuntary Context Switches
                                        0
      Block Input Operations
                                        9
      Block Output Operations
                                        5280
NOTE: Marker and line antialiasing has been disabled for at least one plot because the threshold has been reached. You can set
      ANTIALIASMAX=5200 in the ODS GRAPHICS statement to enable antialiasing for all plots.
NOTE: Marker and line antialiasing has been disabled for at least one plot because the threshold has been reached. You can set
      ANTIALIASMAX=5200 in the ODS GRAPHICS statement to enable antialiasing for all plots.
NOTE: Listing image output written to /home/u63559709/sasuser.v94/Week 6/Total Death by Death Code3.png.
NOTE: There were 33264 observations read from the data set WORK.DEATH_COUNT.
```

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```
249
250
           *Part 6*;
           ODS LISTING GPATH ='/home/u63559709/sasuser.v94/Week 6';
251
           ODS GRAPHICS / RESET
252
253
               IMAGENAME = 'Death by Month'
               OUTPUTFMT = PNG
254
255
               HEIGHT = 3IN WIDTH = 6IN;
256
257
           proc sgplot data=death_count;
               title "Deaths by Month(Adjusted)";
258
               hbox death / category=month NOOUTLIERS;
259
260
               xaxis max=1000;
261
           run;
NOTE: Since no format is assigned, the numeric category variable will use the default of BEST6.
NOTE: PROCEDURE SGPLOT used (Total process time):
      real time
                          0.41 seconds
      user cpu time
                          0.15 seconds
      system cpu time
                          0.12 seconds
                          4908.31k
      memory
      OS Memory
                          42796,00k
      Timestamp
                          10/08/2023 02:50:52 AM
      Step Count
                                         205 Switch Count 10
      Page Faults
                                         0
      Page Reclaims
                                         1857
      Page Swaps
                                         а
      Voluntary Context Switches
                                         15936
      Involuntary Context Switches
                                         a
      Block Input Operations
                                         a
      Block Output Operations
                                         5328
NOTE: Marker and line antialiasing has been disabled for at least one plot because the threshold has been reached. You can set
      ANTIALIASMAX=5200 in the ODS GRAPHICS statement to enable antialiasing for all plots.
NOTE: Marker and line antialiasing has been disabled for at least one plot because the threshold has been reached. You can set
      ANTIALIASMAX=5200 in the ODS GRAPHICS statement to enable antialiasing for all plots.
NOTE: Listing image output written to /home/u63559709/sasuser.v94/Week 6/Death by Month.png.
NOTE: There were 33264 observations read from the data set WORK.DEATH_COUNT.
262
263
           proc sgplot data=death_count;
264
               title "Deaths by Month";
265
               hbox death / category=month;
266
           run;
NOTE: Since no format is assigned, the numeric category variable will use the default of BEST6.
NOTE: PROCEDURE SGPLOT used (Total process time):
                          0.40 seconds
      real time
      user cpu time
                          0.14 seconds
      system cpu time
                          0.13 seconds
      memory
                          4888.43k
      OS Memory
                          42796.00k
                          10/08/2023 02:50:52 AM
      Timestamp
      Step Count
                                         206 Switch Count 10
      Page Faults
                                         a
      Page Reclaims
                                         1850
      Page Swaps
                                         0
                                         15950
      Voluntary Context Switches
      Involuntary Context Switches
                                         0
      Block Input Operations
                                         a
      Block Output Operations
                                         5352
NOTE: Marker and line antialiasing has been disabled for at least one plot because the threshold has been reached. You can set
      ANTIALIASMAX=5200 in the ODS GRAPHICS statement to enable antialiasing for all plots.
NOTE: Marker and line antialiasing has been disabled for at least one plot because the threshold has been reached. You can set
      ANTIALIASMAX=5200 in the ODS GRAPHICS statement to enable antialiasing for all plots.
NOTE: Listing image output written to /home/u63559709/sasuser.v94/Week 6/Death by Month1.png.
NOTE: There were 33264 observations read from the data set WORK.DEATH_COUNT.
267
268
           OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
278
```

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