```
1
          OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
68
69
          /* DATA EXPLORATION AND PREPROCESSING */
70
71
          /* Clearing log window */
72
          DM "log; clear; ";
73
74
          /* Data Loading */
75
          PROC IMPORT OUT=Nutrition
76
             DATAFILE="/home/u59360783/Nutrition.csv"
77
             DBMS=CSV
78
             REPLACE;
79
             GETNAMES=YES;
80
          RUN;
NOTE: Unable to open parameter catalog: SASUSER.PARMS.PARMS.SLIST in update mode. Temporary parameter values will be saved to
WORK.PARMS.PARMS.SLIST.
           81
82
              PRODUCT:
83
              VERSION: 9.4
84
              CREATOR: External File Interface
85
              DATE:
                        25JAN24
86
              DESC:
                        Generated SAS Datastep Code
87
              TEMPLATE SOURCE: (None Specified.)
           88
89
             data WORK.NUTRITION
90
             %let _EFIERR_ = 0; /* set the ERROR detection macro variable */
             infile '/home/u59360783/Nutrition.csv' delimiter = ',' MISSOVER DSD lrecl=32767 firstobs=2;
91
92
                informat YearStart best32.;
                informat YearEnd best32.;
93
94
                informat LocationAbbr $2.;
95
                informat LocationDesc $20.;
96
                informat Datasource $42.;
97
                informat Class $23.;
98
                informat Topic $28.;
99
                informat Question $245.;
100
                informat Data Value Unit $1.;
101
                informat Data Value Type $5.;
102
                informat Data Value best32.;
103
                informat Data Value Alt best32.;
104
                informat Data Value Footnote Symbol $1.;
105
                informat Data Value Footnote $55.;
106
                informat Low Confidence Limit best32.;
                informat High Confidence Limit best32.;
107
108
                informat Sample Size best32.;
109
                informat Total $1.;
                informat "Age(years)"N $7.;
110
```

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```
111
                 informat Education $21.;
112
                 informat Gender $1.;
113
                 informat Income $19.;
                 informat "Race/Ethnicity"N $29.;
114
115
                 informat GeoLocation $42.;
116
                 informat ClassID $3.;
117
                 informat TopicID $4.;
118
                 informat QuestionID $4.;
119
                 informat DataValueTypeID $5.;
120
                 informat LocationID best32.;
121
                 informat StratificationCategory1 $14.;
122
                 informat Stratification1 $29.;
123
                 informat StratificationCategoryId1 $5.;
124
                 informat StratificationID1 $9.;
125
                 format YearStart best12.;
126
                 format YearEnd best12. ;
127
                 format LocationAbbr $2.;
128
                 format LocationDesc $20.;
129
                 format Datasource $42.;
130
                 format Class $23.;
131
                 format Topic $28.;
132
                 format Question $245.;
133
                 format Data Value Unit $1.;
134
                 format Data Value Type $5.;
135
                 format Data Value best12.;
136
                 format Data Value Alt best12.;
137
                 format Data_Value_Footnote_Symbol $1.;
138
                 format Data Value Footnote $55.;
139
                 format Low Confidence Limit best12.;
140
                 format High Confidence Limit best12.;
141
                 format Sample Size best12.;
142
                 format Total $1.;
143
                 format "Age(years)"N $7.;
144
                 format Education $21.;
145
                 format Gender $1.;
                 format Income $19.;
146
                 format "Race/Ethnicity"N $29.;
147
148
                 format GeoLocation $42.;
149
                 format ClassID $3.;
150
                 format TopicID $4.;
151
                 format QuestionID $4.;
152
                 format DataValueTypeID $5.;
153
                 format LocationID best12.;
154
                 format StratificationCategory1 $14.;
155
                 format Stratification1 $29.;
156
                 format StratificationCategoryId1 $5.;
157
                 format StratificationID1 $9.;
158
               input
159
                          YearStart
```

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```
160
                           YearEnd
161
                           LocationAbbr $
162
                           LocationDesc $
163
                           Datasource $
164
                           Class $
165
                           Topic $
166
                           Question $
167
                           Data Value Unit $
168
                           Data Value Type $
169
                           Data Value
170
                           Data Value Alt
171
                           Data_Value_Footnote_Symbol $
172
                           Data Value Footnote $
173
                           Low Confidence Limit
174
                           High Confidence Limit
                           Sample Size
175
176
                           Total $
177
                           "Age(years)"N $
178
                           Education $
179
                           Gender $
180
                           Income $
181
                           "Race/Ethnicity"N $
182
                           GeoLocation $
183
                           ClassID $
184
                           TopicID $
185
                           QuestionID $
186
                           DataValueTypeID $
187
                           LocationID
188
                           StratificationCategory1 $
189
                           Stratification1 $
190
                           StratificationCategoryId1 $
191
                           StratificationID1 $
192
193
               if _ERROR_ then call symputx('_EFIERR_',1); /* set ERROR detection macro variable */
194
               run;
NOTE: The infile '/home/u59360783/Nutrition.csv' is:
      Filename=/home/u59360783/Nutrition.csv,
      Owner Name=u59360783, Group Name=oda,
      Access Permission=-rw-r--r--,
      Last Modified=19Jan2024:00:06:44,
      File Size (bytes)=34612740
NOTE: 93249 records were read from the infile '/home/u59360783/Nutrition.csv'.
      The minimum record length was 225.
      The maximum record length was 595.
NOTE: The data set WORK.NUTRITION has 93249 observations and 33 variables.
NOTE: DATA statement used (Total process time):
                          0.24 seconds
      real time
```

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0.22 seconds

user cpu time

```
system cpu time
                        0.03 seconds
                        12177.93k
     memory
     OS Memory
                        32544.00k
     Timestamp
                        01/25/2024 02:23:40 PM
     Step Count
                                      24 Switch Count 2
     Page Faults
                                      0
     Page Reclaims
                                      549
     Page Swaps
                                      0
     Voluntary Context Switches
                                      11
     Involuntary Context Switches
     Block Input Operations
                                      65656
     Block Output Operations
                                      124440
93249 rows created in WORK.NUTRITION from /home/u59360783/Nutrition.csv.
NOTE: WORK.NUTRITION data set was successfully created.
NOTE: The data set WORK.NUTRITION has 93249 observations and 33 variables.
NOTE: PROCEDURE IMPORT used (Total process time):
     real time
                        0.36 seconds
     user cpu time
                      0.32 seconds
     system cpu time
                      0.06 seconds
     memory
                        12177.93k
     OS Memory
                        33060.00k
     Timestamp
                        01/25/2024 02:23:40 PM
     Step Count
                                      24 Switch Count 8
     Page Faults
                                      0
     Page Reclaims
                                      8070
     Page Swaps
                                      0
     Voluntary Context Switches
                                      101
     Involuntary Context Switches
                                      0
     Block Input Operations
                                      67608
     Block Output Operations
                                      124536
195
196
          PROC IMPORT OUT=Region mapping
197
              DATAFILE="/home/u59360783/us regions.csv"
198
              DBMS=CSV
199
              REPLACE;
200
              GETNAMES=YES;
201
          RUN:
NOTE: Unable to open parameter catalog: SASUSER.PARMS.PARMS.SLIST in update mode. Temporary parameter values will be saved to
WORK.PARMS.PARMS.SLIST.
           202
```

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```
203
               PRODUCT:
                          SAS
204
               VERSION:
                          9.4
205
               CREATOR: External File Interface
206
               DATF:
                          25JAN24
207
               DESC:
                          Generated SAS Datastep Code
208
               TEMPLATE SOURCE: (None Specified.)
            **************
209
210
               data WORK.REGION MAPPING
211
              %let EFIERR = 0; /* set the ERROR detection macro variable */
212
               infile '/home/u59360783/us_regions.csv' delimiter = ',' MISSOVER DSD lrecl=32767 firstobs=2;
213
                  informat State $20. :
214
                  informat "State Code"N $2.;
215
                  informat Region $9.;
216
                  informat Division $18.;
217
                 format State $20.;
218
                 format "State Code"N $2.;
219
                 format Region $9.;
220
                 format Division $18.;
221
               input
222
                          State $
223
                          "State Code"N $
224
                          Region $
225
                          Division $
226
227
              if _ERROR_ then call symputx('_EFIERR_',1); /* set ERROR detection macro variable */
228
               run;
NOTE: The infile '/home/u59360783/us regions.csv' is:
      Filename=/home/u59360783/us regions.csv,
      Owner Name=u59360783, Group Name=oda,
      Access Permission=-rw-r--r-,
      Last Modified=24Jan2024:10:01:09,
      File Size (bytes)=1897
NOTE: 54 records were read from the infile '/home/u59360783/us_regions.csv'.
      The minimum record length was 11.
      The maximum record length was 44.
NOTE: The data set WORK.REGION MAPPING has 54 observations and 4 variables.
NOTE: DATA statement used (Total process time):
      real time
                         0.00 seconds
      user cpu time
                         0.01 seconds
      system cpu time
                         0.00 seconds
      memory
                         9363.31k
      OS Memory
                         31776.00k
      Timestamp
                         01/25/2024 02:23:40 PM
                                        25 Switch Count 2
      Step Count
      Page Faults
      Page Reclaims
                                       142
      Page Swaps
                                        0
```

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```
Voluntary Context Switches 12
Involuntary Context Switches 0
Block Input Operations 0
Block Output Operations 264
```

54 rows created in WORK.REGION MAPPING from /home/u59360783/us regions.csv.

```
NOTE: WORK.REGION MAPPING data set was successfully created.
NOTE: The data set WORK.REGION MAPPING has 54 observations and 4 variables.
NOTE: PROCEDURE IMPORT used (Total process time):
      real time
                          0.03 seconds
      user cpu time
                          0.03 seconds
      system cpu time
                          0.00 seconds
                          9363.31k
      memory
      OS Memory
                          32036.00k
      Timestamp
                          01/25/2024 02:23:40 PM
                                        25 Switch Count 8
      Step Count
                                        0
      Page Faults
      Page Reclaims
                                        2586
      Page Swaps
                                        0
      Voluntary Context Switches
                                        73
      Involuntary Context Switches
                                        0
      Block Input Operations
      Block Output Operations
                                        288
229
230
           /* Backing up master data */
231
           data Nutrition bkup;
232
           set Nutrition;
233
           run;
NOTE: There were 93249 observations read from the data set WORK.NUTRITION.
NOTE: The data set WORK.NUTRITION BKUP has 93249 observations and 33 variables.
NOTE: DATA statement used (Total process time):
      real time
                          0.05 seconds
      user cpu time
                          0.01 seconds
      system cpu time
                          0.05 seconds
      memory
                          3639.40k
      OS Memory
                          29616.00k
      Timestamp
                          01/25/2024 02:23:40 PM
      Step Count
                                        26 Switch Count 5
      Page Faults
                                        0
      Page Reclaims
                                        514
      Page Swaps
                                        0
      Voluntary Context Switches
                                        22
```

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```
Involuntary Context Switches
                                         0
      Block Input Operations
      Block Output Operations
                                        124424
234
235
           /* Displaying few Observations to Confirm Import */
236
           proc print data=Nutrition bkup(obs=5); /* Display the first 5 observations */
237
           run;
NOTE: There were 5 observations read from the data set WORK.NUTRITION_BKUP.
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
                          2876.56k
      OS Memory
                          27820.00k
      Timestamp
                          01/25/2024 02:23:40 PM
      Step Count
                                         27 Switch Count 0
      Page Faults
                                         0
      Page Reclaims
                                         505
      Page Swaps
                                         0
      Voluntary Context Switches
                                         0
      Involuntary Context Switches
                                         0
      Block Input Operations
                                         0
      Block Output Operations
                                         24
238
239
           /* Knowing more about Data Structures such as data types, length of each features */
240
           proc contents data=Nutrition bkup 2;
ERROR: File WORK.NUTRITION BKUP 2.DATA does not exist.
241
           run;
NOTE: Statements not processed because of errors noted above.
NOTE: PROCEDURE CONTENTS used (Total process time):
      real time
                          0.00 seconds
      user cpu time
                          0.00 seconds
      system cpu time
                          0.00 seconds
      memory
                          488.53k
      OS Memory
                          27052.00k
      Timestamp
                          01/25/2024 02:23:40 PM
      Step Count
                                         28 Switch Count 0
      Page Faults
                                         0
      Page Reclaims
                                         70
      Page Swaps
                                         0
      Voluntary Context Switches
                                         0
      Involuntary Context Switches
                                         0
      Block Input Operations
                                         0
```

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8

```
Block Output Operations
NOTE: The SAS System stopped processing this step because of errors.
242
243
           /* Counting entries and Missing values */
244
           PROC MEANS DATA=Nutrition bkup NMISS;
245
           RUN;
NOTE: There were 93249 observations read from the data set WORK.NUTRITION BKUP.
NOTE: PROCEDURE MEANS used (Total process time):
      real time
                          0.03 seconds
      user cpu time
                          0.03 seconds
      system cpu time
                          0.02 seconds
                          7779.31k
      memory
      OS Memory
                          33472.00k
      Timestamp
                          01/25/2024 02:23:40 PM
      Step Count
                                        29 Switch Count 3
      Page Faults
                                        0
      Page Reclaims
                                        1800
      Page Swaps
                                        0
      Voluntary Context Switches
                                        77
      Involuntary Context Switches
                                        0
      Block Input Operations
                                        0
      Block Output Operations
                                        0
246
247
           /* Identifying Duplicate Records */
248
           proc sort data=Nutrition bkup
249
           out=data dup nodup;
250
           by _all_;
251
           run;
NOTE: There were 93249 observations read from the data set WORK.NUTRITION BKUP.
NOTE: 0 duplicate observations were deleted.
NOTE: The data set WORK.DATA DUP has 93249 observations and 33 variables.
NOTE: PROCEDURE SORT used (Total process time):
      real time
                          0.21 seconds
      user cpu time
                          0.12 seconds
      system cpu time
                          0.10 seconds
      memory
                          131294.31k
      OS Memory
                          157200.00k
      Timestamp
                          01/25/2024 02:23:41 PM
      Step Count
                                        30 Switch Count 7
      Page Faults
      Page Reclaims
                                        32328
      Page Swaps
                                        0
```

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27

```
Involuntary Context Switches
                                        2
      Block Input Operations
                                        0
                                        124432
      Block Output Operations
252
253
           data Nutrition bkup 1;
254
             set Nutrition bkup;
255
256
             /* Create a new variable to store the income category names */
257
             length income category $30;
258
             length Activity Category $30;
259
260
             /* Categorize income ranges and assign names */
261
             if income = "Data not reported" then income category = "Data not reported";
262
             else if income = "$75,000 or greater" then income category = "High Income";
263
             else if income = "$50,000 - $74,999" then income category = "Upper Middle Income";
264
             else if income = "$35,000 - $49,999" then income category = "Middle Income";
265
             else if income = "$25,000 - $34,999" then income category = "Lower Middle Income";
266
             else if income = "$15,000 - $24,999" then income category = "Low Income";
267
             else if income = "Less than $15,000" then income category = "Very Low Income";
268
             else income category = "Unknown";
269
270
             /* Create a new variable "Category" based on column names */
271
             if upcase(Question) eq 'PERCENT OF ADULTS WHO ENGAGE IN NO LEISURE-TIME PHYSICAL ACTIVITY' then
272
               Activity Category = 'Physical Inactivity';
273
             else if upcase(Question) eq 'PERCENT OF ADULTS AGED 18 YEARS AND OLDER WHO HAVE OBESITY' then
274
               Activity Category = 'Obesity':
275
             else if upcase(Question) eg 'PERCENT OF ADULTS AGED 18 YEARS AND OLDER WHO HAVE AN OVERWEIGHT CLASSIFICATION' then
276
               Activity Category = 'Overweight';
277
             else if upcase(Question) eq 'PERCENT OF ADULTS WHO ACHIEVE AT LEAST 300 MINUTES A WEEK OF MODERATE-INTENSITY AEROBIC
277
         ! PHYSICAL ACTIVITY OR 150 MINUTES A WEEK OF VIGOROUS-INTENSITY AEROBIC ACTIVITY (OR AN EQUIVALENT COMBINATION)' then
278
               Activity Category = 'Physical Activity 300min';
            else if upcase(Question) eq 'PERCENT OF ADULTS WHO ACHIEVE AT LEAST 150 MINUTES A WEEK OF MODERATE-INTENSITY AEROBIC
279
279
         ! PHYSICAL ACTIVITY OR 75 MINUTES A WEEK OF VIGOROUS-INTENSITY AEROBIC PHYSICAL ACTIVITY AND ENGAGE IN MUSCLE-STRENGTHENING
279
         ! ACTIVITIES ON 2 OR MORE DAYS A WEEK' then
280
               Activity Category = 'Physical_Activity_150min_and_Muscle_Strengthening';
281
             else if upcase(Question) eq 'PERCENT OF ADULTS WHO ACHIEVE AT LEAST 150 MINUTES A WEEK OF MODERATE-INTENSITY AEROBIC
281
         ! PHYSICAL ACTIVITY OR 75 MINUTES A WEEK OF VIGOROUS-INTENSITY AEROBIC ACTIVITY (OR AN EQUIVALENT COMBINATION)' then
282
               Activity Category = 'Physical Activity 150min';
283
             else if upcase(Question) eq 'PERCENT OF ADULTS WHO ENGAGE IN MUSCLE-STRENGTHENING ACTIVITIES ON 2 OR MORE DAYS A WEEK'
283
         ! then
284
               Activity Category = 'Muscle Strengthening':
285
             else if upcase(Question) eg 'PERCENT OF ADULTS WHO REPORT CONSUMING FRUIT LESS THAN ONE TIME DAILY' then
286
               Activity Category = 'Fruit Consumption';
287
             else if upcase(Question) eq 'PERCENT OF ADULTS WHO REPORT CONSUMING VEGETABLES LESS THAN ONE TIME DAILY' then
288
              Activity Category = 'Vegetable Consumption';
289
             else
```

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```
290
               Activity_Category = 'Other';
291
           run;
NOTE: There were 93249 observations read from the data set WORK.NUTRITION BKUP.
NOTE: The data set WORK.NUTRITION BKUP 1 has 93249 observations and 35 variables.
NOTE: DATA statement used (Total process time):
      real time
                          0.18 seconds
      user cpu time
                          0.15 seconds
      system cpu time
                          0.04 seconds
                          3722.75k
      memory
      OS Memory
                          30640.00k
      Timestamp
                          01/25/2024 02:23:41 PM
      Step Count
                                         31 Switch Count 5
      Page Faults
      Page Reclaims
                                         575
      Page Swaps
                                         0
      Voluntary Context Switches
                                         21
      Involuntary Context Switches
                                         0
      Block Input Operations
      Block Output Operations
                                        135696
292
293
           /* Display the result */
294
           proc print data=Nutrition bkup 1(obs=10);
295
           run;
NOTE: There were 10 observations read from the data set WORK.NUTRITION BKUP 1.
NOTE: PROCEDURE PRINT used (Total process time):
      real time
                          0.04 seconds
      user cpu time
                          0.04 seconds
      system cpu time
                          0.00 seconds
                          2295.03k
      memory
      OS Memory
                          28332.00k
      Timestamp
                          01/25/2024 02:23:41 PM
      Step Count
                                         32 Switch Count 0
                                         0
      Page Faults
      Page Reclaims
                                         270
      Page Swaps
                                         0
      Voluntary Context Switches
                                         0
      Involuntary Context Switches
                                         0
      Block Input Operations
                                         0
      Block Output Operations
                                         32
296
297
           /* Initialize macro variable */
298
           %let income Category values = ;
299
           %let Activity_Category_values = ;
```

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```
300
301
           /* Use PROC SQL to get distinct values and store in the macro variable */
302
           proc sql noprint;
303
             select distinct income Category
304
             into :income Category values separated by ','
305
             from Nutrition bkup 1;
306
             select distinct Activity Category
307
             into :Activity Category values separated by ','
308
             from Nutrition bkup 1;
309
           quit;
NOTE: PROCEDURE SQL used (Total process time):
      real time
                          0.08 seconds
      user cpu time
                          0.05 seconds
      system cpu time
                          0.05 seconds
                          12603.64k
      memory
      OS Memory
                          39624.00k
                          01/25/2024 02:23:41 PM
      Timestamp
      Step Count
                                         33 Switch Count 8
      Page Faults
                                         0
                                         4933
      Page Reclaims
                                         0
      Page Swaps
      Voluntary Context Switches
                                         63
      Involuntary Context Switches
                                         0
      Block Input Operations
      Block Output Operations
                                         10256
310
311
           /* Display the macro variable */
312
           %put &income Category values;
Data not reported, High Income, Low Income, Lower Middle Income, Middle Income, Unknown, Upper Middle Income, Very Low Income
313
           %put &Activity Category values;
Fruit Consumption, Muscle Strengthening, Obesity, Overweight, Physical_Activity_150min, Physical_Activity_150min_and_M, Physical_Activity_
300min, Physical Inactivity, Vegetable Consumption
314
315
           options validvarname=any;
316
           data Nutrition bkup 2(rename=("Age(years)"n=Age "Race/Ethnicity"n=Race Ethnicity));
317
           set Nutrition bkup 1;
318
           run;
NOTE: There were 93249 observations read from the data set WORK.NUTRITION BKUP 1.
NOTE: The data set WORK.NUTRITION BKUP 2 has 93249 observations and 35 variables.
NOTE: DATA statement used (Total process time):
      real time
                          0.05 seconds
      user cpu time
                          0.02 seconds
      system cpu time
                          0.03 seconds
                          3659.25k
      memory
      OS Memory
                          32176.00k
      Timestamp
                          01/25/2024 02:23:41 PM
```

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```
Step Count
                                          34 Switch Count 5
      Page Faults
                                          548
      Page Reclaims
      Page Swaps
                                          0
      Voluntary Context Switches
                                          21
      Involuntary Context Switches
                                          0
      Block Input Operations
                                          0
      Block Output Operations
                                          135688
319
320
           /* Additional data processing */
321
           data Nutrition bkup 2;
322
           format Gender $10.;
323
           length Gender $10.;
324
           format Age $10.;
325
           length Age $10.;
326
           set Nutrition_bkup_2;
327
           Latitude = input(compress(tranwrd(scan(GeoLocation,1,','), '(', ''),' '), best12.);
Longitude = input(compress(tranwrd(scan(GeoLocation,2,','), ')', ''),' '), best12.);
328
329
330
331
           Data Value = Data Value/100;
332
           Data Value Alt = Data Value Alt/100;
333
           Low Confidence Limit = Low Confidence_Limit/100;
334
           High Confidence Limit = High Confidence Limit/100;
335
336
           /* Assign a default value if variable1 is blank or null */
           if Age="" or Age="." then Age="Others";
337
338
           if Gender="" then Gender="Others";
339
           if Education="" then Education="Others";
340
           if Race_Ethnicity="" then Race_Ethnicity="Others";
341
           if Data Value="" then Data Value=0;
342
           if Sample Size="" then Sample Size=0;
343
           run:
NOTE: Character values have been converted to numeric values at the places given by: (Line):(Column).
      341:15 342:16
NOTE: Missing values were generated as a result of performing an operation on missing values.
      Each place is given by: (Number of times) at (Line):(Column).
      9235 at 331:24 9235 at 332:32 9235 at 333:44 9235 at 334:46
NOTE: There were 93249 observations read from the data set WORK.NUTRITION BKUP 2.
NOTE: The data set WORK.NUTRITION BKUP 2 has 93249 observations and 37 variables.
NOTE: DATA statement used (Total process time):
      real time
                           0.12 seconds
      user cpu time
                           0.07 seconds
      system cpu time
                           0.05 seconds
                           3802.93k
      memory
      OS Memory
                           32176.00k
```

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```
Timestamp
                          01/25/2024 02:23:41 PM
      Step Count
                                         35 Switch Count 5
      Page Faults
                                         551
      Page Reclaims
      Page Swaps
                                         0
      Voluntary Context Switches
                                         22
      Involuntary Context Switches
                                        1
      Block Input Operations
      Block Output Operations
                                        140552
344
345
           proc freq data=Nutrition bkup 2;
346
             tables Education*Race Ethnicity / noprint out=DistinctValues(keep= Education Race Ethnicity );
347
           run;
NOTE: There were 93249 observations read from the data set WORK.NUTRITION_BKUP_2.
NOTE: The data set WORK.DISTINCTVALUES has 13 observations and 2 variables.
NOTE: PROCEDURE FREQ used (Total process time):
      real time
                          0.02 seconds
      user cpu time
                          0.02 seconds
      system cpu time
                          0.02 seconds
      memory
                          3327.53k
      OS Memory
                          31424.00k
      Timestamp
                          01/25/2024 02:23:41 PM
      Step Count
                                         36 Switch Count 10
      Page Faults
                                         0
      Page Reclaims
                                         669
      Page Swaps
                                         0
      Voluntary Context Switches
                                         51
      Involuntary Context Switches
                                         0
      Block Input Operations
                                         0
      Block Output Operations
                                        1320
348
349
           /* Sorting data before joining two tables */
350
           proc sort data=Nutrition bkup 2 out=Nutrition bkup 2;by LocationDesc;run;
NOTE: There were 93249 observations read from the data set WORK.NUTRITION BKUP 2.
NOTE: The data set WORK.NUTRITION BKUP 2 has 93249 observations and 37 variables.
NOTE: PROCEDURE SORT used (Total process time):
      real time
                          0.14 seconds
      user cpu time
                          0.05 seconds
      system cpu time
                          0.09 seconds
                          77373.78k
      memory
      OS Memory
                          105104.00k
      Timestamp
                          01/25/2024 02:23:41 PM
      Step Count
                                         37 Switch Count 5
```

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```
0
      Page Faults
      Page Reclaims
                                         18871
      Page Swaps
                                        0
      Voluntary Context Switches
                                        22
      Involuntary Context Switches
                                        0
      Block Input Operations
      Block Output Operations
                                        140560
351
           proc sort data=Region mapping out=Region mapping;by State;run;
NOTE: There were 54 observations read from the data set WORK.REGION MAPPING.
NOTE: The data set WORK.REGION MAPPING has 54 observations and 4 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
                          1218.31k
      memory
      OS Memory
                          29876.00k
      Timestamp
                          01/25/2024 02:23:41 PM
      Step Count
                                        38 Switch Count 2
      Page Faults
                                        0
      Page Reclaims
                                        150
      Page Swaps
                                        0
      Voluntary Context Switches
                                        14
      Involuntary Context Switches
                                        0
      Block Input Operations
                                        0
      Block Output Operations
                                        272
352
353
           /* Keeping relevant features */
354
           data Nutrition bkup 3;
355
           merge Nutrition bkup 2 (rename=(LocationDesc=State YearStart=Year) IN=X) Region mapping(IN=Y);
356
           by State;
357
           if X;
358
359
           drop YearEnd Datasource Class Topic Data_Value_Unit Data_Value_Type Data_Value_Alt
360
                Data Value Footnote SymbolData Value FootnoteLow Confidence Limit
361
                High Confidence Limit Total GeoLocation ClassID TopicID QuestionID
362
                DataValueTypeID LocationIDStratificationCategoryId1 StratificationID1 LocationAbbr;
363
           run;
NOTE: There were 93249 observations read from the data set WORK.NUTRITION BKUP 2.
NOTE: There were 54 observations read from the data set WORK.REGION MAPPING.
NOTE: The data set WORK.NUTRITION BKUP 3 has 93249 observations and 19 variables.
NOTE: DATA statement used (Total process time):
      real time
                          0.05 seconds
      user cpu time
                          0.02 seconds
```

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```
system cpu time
                          0.04 seconds
                          4102.31k
      memory
      OS Memory
                          32436.00k
                          01/25/2024 02:23:41 PM
      Timestamp
      Step Count
                                        39 Switch Count 5
      Page Faults
      Page Reclaims
                                        589
      Page Swaps
                                        0
      Voluntary Context Switches
                                        22
      Involuntary Context Switches
                                        0
      Block Input Operations
                                        0
      Block Output Operations
                                        96528
364
           /* Export final dataset to excel */
365
366
           proc export data=Nutrition bkup 3
367
             outfile='/home/u59360783/Nutrition_F.xlsx'
368
             dbms=xlsx
369
             replace;
370
             sheet="Nutrition";
371
           run;
NOTE: The export data set has 93249 observations and 19 variables.
NOTE: "/home/u59360783/Nutrition F.xlsx" file was successfully created.
NOTE: PROCEDURE EXPORT used (Total process time):
      real time
                          4.85 seconds
      user cpu time
                          4.83 seconds
      system cpu time
                          0.01 seconds
      memory
                          4818.53k
      OS Memory
                          32052.00k
      Timestamp
                          01/25/2024 02:23:46 PM
      Step Count
                                        40 Switch Count 5
      Page Faults
                                        0
      Page Reclaims
                                        926
      Page Swaps
                                        0
      Voluntary Context Switches
                                        82
      Involuntary Context Switches
                                        5
      Block Input Operations
                                        56
      Block Output Operations
                                        12952
372
373
           OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
383
```

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