```
1          OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
68
69         libname kaggle "/home/u64041734/Midterm project";
NOTE: Libref KAGGLE was successfully assigned as follows:
      Engine:        V9
      Physical Name: /home/u64041734/Midterm project
70
71         PROC IMPORT OUT= kaggle.diabetes
72             DATAFILE= "/home/u64041734/Midterm project/diabetes_binary_5050split_health_indicators_BRFSS2015.csv"
73             DBMS=CSV REPLACE;
74             GETNAMES=YES;
75             DATAROW=2;
76         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.
77          /*************************************************************************
78          *   PRODUCT:   SAS
79          *   VERSION:   9.4
80          *   CREATOR:   External File Interface
81          *   DATE:      02NOV24
82          *   DESC:      Generated SAS Datastep Code
83          *   TEMPLATE SOURCE:  (None Specified.)
84          *************************************************************************/
85             data KAGGLE.DIABETES    ;
86             %let _EFIERR_ = 0; /* set the ERROR detection macro variable */
87             infile '/home/u64041734/Midterm project/diabetes_binary_5050split_health_indicators_BRFSS2015.csv' delimiter = ','
87       ! MISSOVER DSD lrecl=32767 firstobs=2 ;
88                informat Diabetes_binary best32. ;
89                informat HighBP best32. ;
90                informat HighChol best32. ;
91                informat CholCheck best32. ;
92                informat BMI best32. ;
93                informat Smoker best32. ;
94                informat Stroke best32. ;
95                informat HeartDiseaseorAttack best32. ;
96                informat PhysActivity best32. ;
97                informat Fruits best32. ;
98                informat Veggies best32. ;
99                informat HvyAlcoholConsump best32. ;
100               informat AnyHealthcare best32. ;
101               informat NoDocbcCost best32. ;
102               informat GenHlth best32. ;
103               informat MentHlth best32. ;
104               informat PhysHlth best32. ;
105               informat DiffWalk best32. ;
106               informat Sex best32. ;
107               informat Age best32. ;
108               informat Education best32. ;
109               informat Income best32. ;
110               format Diabetes_binary best12. ;
111               format HighBP best12. ;
112               format HighChol best12. ;
113               format CholCheck best12. ;
114               format BMI best12. ;
115               format Smoker best12. ;
116               format Stroke best12. ;
117               format HeartDiseaseorAttack best12. ;
118               format PhysActivity best12. ;
119               format Fruits best12. ;
120               format Veggies best12. ;
121               format HvyAlcoholConsump best12. ;
122               format AnyHealthcare best12. ;
123               format NoDocbcCost best12. ;
124               format GenHlth best12. ;
125               format MentHlth best12. ;
126               format PhysHlth best12. ;
127               format DiffWalk best12. ;
128               format Sex best12. ;
129               format Age best12. ;
130               format Education best12. ;
131               format Income best12. ;
132            input
133                        Diabetes_binary
134                        HighBP
135                        HighChol
136                        CholCheck
137                        BMI
138                        Smoker
139                        Stroke
140                        HeartDiseaseorAttack
141                        PhysActivity
142                        Fruits
143                        Veggies
144                        HvyAlcoholConsump
145                        AnyHealthcare
146                        NoDocbcCost
147                        GenHlth
148                        MentHlth
```

```
149                         PhysHlth
150                         DiffWalk
151                         Sex
152                         Age
153                         Education
154                         Income
155             ;
156             if _ERROR_ then call symputx('_EFIERR_',1);  /* set ERROR detection macro variable */
157             run;

NOTE: The infile '/home/u64041734/Midterm project/diabetes_binary_5050split_health_indicators_BRFSS2015.csv' is:
      Filename=/home/u64041734/Midterm project/diabetes_binary_5050split_health_indicators_BRFSS2015.csv,
      Owner Name=u64041734,Group Name=oda,
      Access Permission=-rw-r--r--,
      Last Modified=22Oct2024:19:31:49,
      File Size (bytes)=6347570

NOTE: 70692 records were read from the infile '/home/u64041734/Midterm
      project/diabetes_binary_5050split_health_indicators_BRFSS2015.csv'.
      The minimum record length was 88.
      The maximum record length was 91.
NOTE: The data set KAGGLE.DIABETES has 70692 observations and 22 variables.
NOTE: DATA statement used (Total process time):
      real time           0.14 seconds
      user cpu time       0.08 seconds
      system cpu time     0.00 seconds
      memory              10593.50k
      OS Memory           33568.00k
      Timestamp           11/02/2024 05:57:50 AM
      Step Count                        43  Switch Count  1
      Page Faults                       0
      Page Reclaims                     263
      Page Swaps                        0
      Voluntary Context Switches        263
      Involuntary Context Switches      4
      Block Input Operations            0
      Block Output Operations           24592


70692 rows created in KAGGLE.DIABETES from /home/u64041734/Midterm
project/diabetes_binary_5050split_health_indicators_BRFSS2015.csv.



NOTE: KAGGLE.DIABETES data set was successfully created.
NOTE: The data set KAGGLE.DIABETES has 70692 observations and 22 variables.
NOTE: PROCEDURE IMPORT used (Total process time):
      real time           0.19 seconds
      user cpu time       0.13 seconds
      system cpu time     0.02 seconds
      memory              10593.50k
      OS Memory           34084.00k
      Timestamp           11/02/2024 05:57:50 AM
      Step Count                        43  Switch Count  9
      Page Faults                       0
      Page Reclaims                     1821
      Page Swaps                        0
      Voluntary Context Switches        348
      Involuntary Context Switches      6
      Block Input Operations            0
      Block Output Operations           24656


158
159         PROC IMPORT OUT= kaggle.heartdisease
160             DATAFILE= "/home/u64041734/Midterm project/heart_disease_health_indicators_BRFSS2015.csv"
161             DBMS=CSV REPLACE;
162             GETNAMES=YES;
163             DATAROW=2;
164         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.
165          /*************************************************************************
166          *   PRODUCT:   SAS
167          *   VERSION:   9.4
168          *   CREATOR:   External File Interface
169          *   DATE:      02NOV24
170          *   DESC:      Generated SAS Datastep Code
171          *   TEMPLATE SOURCE:  (None Specified.)
172          *************************************************************************/
173             data KAGGLE.HEARTDISEASE    ;
174             %let _EFIERR_ = 0; /* set the ERROR detection macro variable */
175             infile '/home/u64041734/Midterm project/heart_disease_health_indicators_BRFSS2015.csv' delimiter = ',' MISSOVER DSD
175       ! lrecl=32767 firstobs=2 ;
176                 informat HeartDiseaseorAttack best32. ;
177                 informat HighBP best32. ;
178                 informat HighChol best32. ;
179                 informat CholCheck best32. ;
180                 informat BMI best32. ;
181                 informat Smoker best32. ;
```

```
182               informat Stroke best32. ;
183               informat Diabetes best32. ;
184               informat PhysActivity best32. ;
185               informat Fruits best32. ;
186               informat Veggies best32. ;
187               informat HvyAlcoholConsump best32. ;
188               informat AnyHealthcare best32. ;
189               informat NoDocbcCost best32. ;
190               informat GenHlth best32. ;
191               informat MentHlth best32. ;
192               informat PhysHlth best32. ;
193               informat DiffWalk best32. ;
194               informat Sex best32. ;
195               informat Age best32. ;
196               informat Education best32. ;
197               informat Income best32. ;
198               format HeartDiseaseorAttack best12. ;
199               format HighBP best12. ;
200               format HighChol best12. ;
201               format CholCheck best12. ;
202               format BMI best12. ;
203               format Smoker best12. ;
204               format Stroke best12. ;
205               format Diabetes best12. ;
206               format PhysActivity best12. ;
207               format Fruits best12. ;
208               format Veggies best12. ;
209               format HvyAlcoholConsump best12. ;
210               format AnyHealthcare best12. ;
211               format NoDocbcCost best12. ;
212               format GenHlth best12. ;
213               format MentHlth best12. ;
214               format PhysHlth best12. ;
215               format DiffWalk best12. ;
216               format Sex best12. ;
217               format Age best12. ;
218               format Education best12. ;
219               format Income best12. ;
220            input
221                        HeartDiseaseorAttack
222                        HighBP
223                        HighChol
224                        CholCheck
225                        BMI
226                        Smoker
227                        Stroke
228                        Diabetes
229                        PhysActivity
230                        Fruits
231                        Veggies
232                        HvyAlcoholConsump
233                        AnyHealthcare
234                        NoDocbcCost
235                        GenHlth
236                        MentHlth
237                        PhysHlth
238                        DiffWalk
239                        Sex
240                        Age
241                        Education
242                        Income
243            ;
244            if _ERROR_ then call symputx('_EFIERR_',1);  /* set ERROR detection macro variable */
245            run;

NOTE: The infile '/home/u64041734/Midterm project/heart_disease_health_indicators_BRFSS2015.csv' is:
      Filename=/home/u64041734/Midterm project/heart_disease_health_indicators_BRFSS2015.csv,
      Owner Name=u64041734,Group Name=oda,
      Access Permission=-rw-r--r--,
      Last Modified=22Oct2024:19:31:40,
      File Size (bytes)=22738147

NOTE: 253680 records were read from the infile '/home/u64041734/Midterm project/heart_disease_health_indicators_BRFSS2015.csv'.
      The minimum record length was 88.
      The maximum record length was 91.
NOTE: The data set KAGGLE.HEARTDISEASE has 253680 observations and 22 variables.
NOTE: DATA statement used (Total process time):
      real time           0.42 seconds
      user cpu time       0.29 seconds
      system cpu time     0.04 seconds
      memory              10599.87k
      OS Memory           33568.00k
      Timestamp           11/02/2024 05:57:51 AM
      Step Count                        44  Switch Count  1
      Page Faults                       0
      Page Reclaims                     267
      Page Swaps                        0
      Voluntary Context Switches        1078
      Involuntary Context Switches      2
      Block Input Operations            0
      Block Output Operations           87568
```

```
253680 rows created in KAGGLE.HEARTDISEASE from /home/u64041734/Midterm project/heart_disease_health_indicators_BRFSS2015.csv.


NOTE: KAGGLE.HEARTDISEASE data set was successfully created.
NOTE: The data set KAGGLE.HEARTDISEASE has 253680 observations and 22 variables.
NOTE: PROCEDURE IMPORT used (Total process time):
      real time           0.47 seconds
      user cpu time       0.33 seconds
      system cpu time     0.05 seconds
      memory              10599.87k
      OS Memory           34084.00k
      Timestamp           11/02/2024 05:57:51 AM
      Step Count                        44  Switch Count  9
      Page Faults                       0
      Page Reclaims                     1597
      Page Swaps                        0
      Voluntary Context Switches        1164
      Involuntary Context Switches      4
      Block Input Operations            0
      Block Output Operations           87584


246
247        proc sort data=kaggle.diabetes;
248            by Age;
249        run;

NOTE: There were 70692 observations read from the data set KAGGLE.DIABETES.
NOTE: The data set KAGGLE.DIABETES has 70692 observations and 22 variables.
NOTE: PROCEDURE SORT used (Total process time):
      real time           0.07 seconds
      user cpu time       0.02 seconds
      system cpu time     0.01 seconds
      memory              17422.12k
      OS Memory           43428.00k
      Timestamp           11/02/2024 05:57:51 AM
      Step Count                        45  Switch Count  2
      Page Faults                       0
      Page Reclaims                     3782
      Page Swaps                        0
      Voluntary Context Switches        332
      Involuntary Context Switches      2
      Block Input Operations            0
      Block Output Operations           24584


250
251        proc sort data=kaggle.heartdisease;
252            by Age;
253        run;

NOTE: There were 253680 observations read from the data set KAGGLE.HEARTDISEASE.
NOTE: The data set KAGGLE.HEARTDISEASE has 253680 observations and 22 variables.
NOTE: PROCEDURE SORT used (Total process time):
      real time           0.25 seconds
      user cpu time       0.08 seconds
      system cpu time     0.07 seconds
      memory              53976.40k
      OS Memory           79692.00k
      Timestamp           11/02/2024 05:57:51 AM
      Step Count                        46  Switch Count  4
      Page Faults                       0
      Page Reclaims                     12754
      Page Swaps                        0
      Voluntary Context Switches        1119
      Involuntary Context Switches      2
      Block Input Operations            0
      Block Output Operations           87560


254
255        proc contents data=kaggle.diabetes;
256        run;

NOTE: PROCEDURE CONTENTS used (Total process time):
      real time           0.04 seconds
      user cpu time       0.04 seconds
      system cpu time     0.01 seconds
      memory              3090.68k
      OS Memory           28336.00k
      Timestamp           11/02/2024 05:57:51 AM
      Step Count                        47  Switch Count  0
      Page Faults                       0
      Page Reclaims                     288
      Page Swaps                        0
      Voluntary Context Switches        9
      Involuntary Context Switches      3
      Block Input Operations            0
```

```
      Block Output Operations          32


257
258       proc contents data=kaggle.heartdisease;
259       run;

NOTE: PROCEDURE CONTENTS used (Total process time):
      real time           0.04 seconds
      user cpu time       0.04 seconds
      system cpu time     0.00 seconds
      memory              2328.93k
      OS Memory           28336.00k
      Timestamp           11/02/2024 05:57:51 AM
      Step Count                       48  Switch Count  0
      Page Faults                      0
      Page Reclaims                    298
      Page Swaps                       0
      Voluntary Context Switches       9
      Involuntary Context Switches     4
      Block Input Operations           0
      Block Output Operations          24


260
261       data merge_data;
262           merge kaggle.heartdisease kaggle.diabetes;
263           by age;
264       run;

NOTE: MERGE statement has more than one data set with repeats of BY values.
NOTE: There were 253680 observations read from the data set KAGGLE.HEARTDISEASE.
NOTE: There were 70692 observations read from the data set KAGGLE.DIABETES.
NOTE: The data set WORK.MERGE_DATA has 253680 observations and 23 variables.
NOTE: DATA statement used (Total process time):
      real time           0.10 seconds
      user cpu time       0.04 seconds
      system cpu time     0.05 seconds
      memory              5384.93k
      OS Memory           32180.00k
      Timestamp           11/02/2024 05:57:51 AM
      Step Count                       49  Switch Count  9
      Page Faults                      0
      Page Reclaims                    892
      Page Swaps                       0
      Voluntary Context Switches       510
      Involuntary Context Switches     2
      Block Input Operations           0
      Block Output Operations          91400


265
266       data new_merge;
267           set merge_data;
268           BMI_categories = input(bmi, $15.);
269           n_age = input(age, $15.);
270           Diabetes_01 = put(Diabetes_binary, 10.);
271           Heartdisease = put(heartdiseaseorattack, 10.);
272
273           if bmi < 18.5 then BMI_categories = 'Underweight';
274           else if bmi <= 24.9 and bmi >= 18.5 then BMI_categories = 'Healthy';
275           else if bmi <= 29.9 and bmi >= 25 then BMI_categories = 'Overweight';
276           else if bmi <= 39.9 and bmi >= 30 then BMI_categories = 'Obese';
277           else if bmi >= 40 then BMI_categories = 'Severely obese';
278
279           if age = '1' then n_age = '18-24';
280           else if age = '2' then n_age = '25-29';
281           else if age = '3' then n_age = '30-34';
282           else if age = '4' then n_age = '35-39';
283           else if age = '5' then n_age = '40-44';
284           else if age = '6' then n_age = '45-49';
285           else if age = '7' then n_age = '50-54';
286           else if age = '8' then n_age = '55-59';
287           else if age = '9' then n_age = '60-64';
288           else if age = '10' then n_age = '65-69';
289           else if age = '11' then n_age = '70-74';
290           else if age = '12' then n_age = '75-79';
291           else if age = '13' then n_age = '80 or Older';
292
293           if Diabetes_binary = '0' then Diabetes_01 = 'No';
294           else if Diabetes_binary = '1' then Diabetes_01 = 'Yes';
295
296           if heartdiseaseorattack = '0' then heartdisease = 'No';
297           else if heartdiseaseorattack = '1' then heartdisease = 'Yes';
298       run;

NOTE: Numeric values have been converted to character values at the places given by: (Line):(Column).
      268:28   269:19
NOTE: Character values have been converted to numeric values at the places given by: (Line):(Column).
      279:14   280:19   281:19   282:19   283:19   284:19   285:19   286:19   287:19   288:19   289:19   290:19   291:19   293:26
      294:31   296:31   297:36
```

```
NOTE: There were 253680 observations read from the data set WORK.MERGE_DATA.
NOTE: The data set WORK.NEW_MERGE has 253680 observations and 27 variables.
NOTE: DATA statement used (Total process time):
      real time           0.16 seconds
      user cpu time       0.12 seconds
      system cpu time     0.04 seconds
      memory              3677.75k
      OS Memory           30128.00k
      Timestamp           11/02/2024 05:57:51 AM
      Step Count                        50  Switch Count  9
      Page Faults                       0
      Page Reclaims                     526
      Page Swaps                        0
      Voluntary Context Switches        36
      Involuntary Context Switches      6
      Block Input Operations            0
      Block Output Operations           119312


299
300           if Diabetes_binary = '0' then Diabetes_01 = 'No';
              __
              180

ERROR 180-322: Statement is not valid or it is used out of proper order.

301           else if Diabetes_binary = '1' then Diabetes_01 = 'Yes';
              ____
              180

ERROR 180-322: Statement is not valid or it is used out of proper order.

302           if heartdiseaseorattack = '0' then heartdisease = 'No';
              __
              180

ERROR 180-322: Statement is not valid or it is used out of proper order.

303           else if heartdiseaseorattack = '1' then heartdisease = 'Yes';
              ____
              180

ERROR 180-322: Statement is not valid or it is used out of proper order.

304       run;
305
306
307       proc freq data=new_merge;
308       tables BMI_categories*Diabetes_01 / nocol norow;
309       tables BMI_categories*heartdisease/ nocol norow;
310       tables BMI_categories*diabetes_01*heartdisease/ nocol norow;
311       tables n_age*Diabetes_01/ nocol norow;
312       run;

NOTE: There were 253680 observations read from the data set WORK.NEW_MERGE.
NOTE: PROCEDURE FREQ used (Total process time):
      real time           0.18 seconds
      user cpu time       0.17 seconds
      system cpu time     0.02 seconds
      memory              2866.90k
      OS Memory           28852.00k
      Timestamp           11/02/2024 05:57:51 AM
      Step Count                        51  Switch Count  13
      Page Faults                       0
      Page Reclaims                     483
      Page Swaps                        0
      Voluntary Context Switches        50
      Involuntary Context Switches      4
      Block Input Operations            0
      Block Output Operations           576


313
314       proc freq data= new_merge;
315       tables BMI_categories/ CHISQ EXPECTED;
316       WEIGHT Diabetes_binary;
317       run;

NOTE: There were 253680 observations read from the data set WORK.NEW_MERGE.
NOTE: PROCEDURE FREQ used (Total process time):
      real time           2.03 seconds
      user cpu time       0.08 seconds
      system cpu time     0.02 seconds
      memory              10386.34k
      OS Memory           35640.00k
      Timestamp           11/02/2024 05:57:54 AM
      Step Count                        52  Switch Count  11
      Page Faults                       0
      Page Reclaims                     2328
      Page Swaps                        0
      Voluntary Context Switches        345
```

```
      Involuntary Context Switches      3
      Block Input Operations            0
      Block Output Operations           848


318
319       proc freq data= new_merge;
320       tables BMI_categories/ CHISQ EXPECTED;
321       WEIGHT heartdiseaseorattack;
322       run;

NOTE: There were 253680 observations read from the data set WORK.NEW_MERGE.
NOTE: PROCEDURE FREQ used (Total process time):
      real time           0.18 seconds
      user cpu time       0.05 seconds
      system cpu time     0.02 seconds
      memory              4175.50k
      OS Memory           35640.00k
      Timestamp           11/02/2024 05:57:54 AM
      Step Count                        53  Switch Count  11
      Page Faults                       0
      Page Reclaims                     642
      Page Swaps                        0
      Voluntary Context Switches        182
      Involuntary Context Switches      2
      Block Input Operations            0
      Block Output Operations           576


323
324       proc means data=new_merge;
325       var BMI;
326       CLASS Diabetes_binary;
327       RUN;

NOTE: There were 253680 observations read from the data set WORK.NEW_MERGE.
NOTE: PROCEDURE MEANS used (Total process time):
      real time           0.03 seconds
      user cpu time       0.04 seconds
      system cpu time     0.02 seconds
      memory              10223.42k
      OS Memory           43200.00k
      Timestamp           11/02/2024 05:57:54 AM
      Step Count                        54  Switch Count  10
      Page Faults                       0
      Page Reclaims                     2309
      Page Swaps                        0
      Voluntary Context Switches        83
      Involuntary Context Switches      0
      Block Input Operations            0
      Block Output Operations           0


328
329       proc ttest data=new_merge;
330       var BMI;
331       class Diabetes_binary;
332       RUN;

NOTE: PROCEDURE TTEST used (Total process time):
      real time           6.77 seconds
      user cpu time       5.14 seconds
      system cpu time     0.55 seconds
      memory              30145.40k
      OS Memory           62188.00k
      Timestamp           11/02/2024 05:58:01 AM
      Step Count                        55  Switch Count  179
      Page Faults                       0
      Page Reclaims                     63007
      Page Swaps                        0
      Voluntary Context Switches        45405
      Involuntary Context Switches      97
      Block Input Operations            0
      Block Output Operations           603584


333       /*attempted to remove of outlier
334       BMI >= 50 DELETE observations
335       result is similar */
336
337       proc ttest data=new_merge;
338       var BMI;
339       class heartdiseaseorattack;
340       RUN;

NOTE: PROCEDURE TTEST used (Total process time):
      real time           6.62 seconds
      user cpu time       5.23 seconds
      system cpu time     0.55 seconds
      memory              31146.09k
      OS Memory           63980.00k
```

```
      Timestamp           11/02/2024 05:58:07 AM
      Step Count                        56  Switch Count  143
      Page Faults                       0
      Page Reclaims                     62188
      Page Swaps                        0
      Voluntary Context Switches        43731
      Involuntary Context Switches      62
      Block Input Operations            0
      Block Output Operations           619216


341
342
343         proc gbarline data=new_merge;
344         bar n_age;
345         plot /sumvar=diabetes_binary;
346         run;

347

NOTE: There were 253680 observations read from the data set WORK.NEW_MERGE.
NOTE: PROCEDURE GBARLINE used (Total process time):
      real time           0.20 seconds
      user cpu time       0.17 seconds
      system cpu time     0.03 seconds
      memory              20477.28k
      OS Memory           54704.00k
      Timestamp           11/02/2024 05:58:07 AM
      Step Count                        57  Switch Count  3
      Page Faults                       0
      Page Reclaims                     5079
      Page Swaps                        0
      Voluntary Context Switches        19
      Involuntary Context Switches      4
      Block Input Operations            0
      Block Output Operations           248


348         proc tabulate data=new_merge;
349         class n_age BMI_categories;
350         var diabetes_binary heartdiseaseorattack;
351         table n_age*BMI_categories,(diabetes_binary heartdiseaseorattack)*(mean='Percentage')/misstext='0.0%';
352         run;

NOTE: There were 253680 observations read from the data set WORK.NEW_MERGE.
NOTE: PROCEDURE TABULATE used (Total process time):
      real time           0.06 seconds
      user cpu time       0.08 seconds
      system cpu time     0.02 seconds
      memory              9414.98k
      OS Memory           43212.00k
      Timestamp           11/02/2024 05:58:07 AM
      Step Count                        58  Switch Count  7
      Page Faults                       0
      Page Reclaims                     1944
      Page Swaps                        0
      Voluntary Context Switches        251
      Involuntary Context Switches      0
      Block Input Operations            0
      Block Output Operations           560


353
354         /*perform logistic regression because of binary data*/
355         proc logistic data=NEW_MERGE;
356             model Diabetes_binary(event='1') = BMI; /* Replace with actual variable names */
357             title "Logistic Regression of Diabetes on BMI";
358         run;

NOTE: PROC LOGISTIC is modeling the probability that Diabetes_binary='1'.
NOTE: Convergence criterion (GCONV=1E-8) satisfied.
NOTE: There were 253680 observations read from the data set WORK.NEW_MERGE.
NOTE: PROCEDURE LOGISTIC used (Total process time):
      real time           0.47 seconds
      user cpu time       0.41 seconds
      system cpu time     0.06 seconds
      memory              30202.28k
      OS Memory           66136.00k
      Timestamp           11/02/2024 05:58:08 AM
      Step Count                        59  Switch Count  14
      Page Faults                       0
      Page Reclaims                     5157
      Page Swaps                        0
      Voluntary Context Switches        51
      Involuntary Context Switches      4
      Block Input Operations            0
      Block Output Operations           46128


359
360         proc logistic data=NEW_MERGE;
```

```
361           model Diabetes_binary(event='1') = BMI age; /* Replace with actual variable names */
362           title "Logistic Regression of Diabetes with Multiple Predictors";
363       run;

NOTE: PROC LOGISTIC is modeling the probability that Diabetes_binary='1'.
NOTE: Convergence criterion (GCONV=1E-8) satisfied.
NOTE: There were 253680 observations read from the data set WORK.NEW_MERGE.
NOTE: PROCEDURE LOGISTIC used (Total process time):
      real time           0.49 seconds
      user cpu time       0.44 seconds
      system cpu time     0.05 seconds
      memory              32063.09k
      OS Memory           68120.00k
      Timestamp           11/02/2024 05:58:08 AM
      Step Count                        60  Switch Count  28
      Page Faults                       0
      Page Reclaims                     5093
      Page Swaps                        0
      Voluntary Context Switches        88
      Involuntary Context Switches      3
      Block Input Operations            0
      Block Output Operations           48688


364
365       proc logistic data=NEW_MERGE;
366           model heartdiseaseorattack(event='1') = BMI age; /* Replace with actual variable names */
367           title "Logistic Regression of Diabetes with Multiple Predictors";
368       run;

NOTE: PROC LOGISTIC is modeling the probability that HeartDiseaseorAttack='1'.
NOTE: Convergence criterion (GCONV=1E-8) satisfied.
NOTE: There were 253680 observations read from the data set WORK.NEW_MERGE.
NOTE: PROCEDURE LOGISTIC used (Total process time):
      real time           0.51 seconds
      user cpu time       0.46 seconds
      system cpu time     0.06 seconds
      memory              32062.81k
      OS Memory           68120.00k
      Timestamp           11/02/2024 05:58:09 AM
      Step Count                        61  Switch Count  28
      Page Faults                       0
      Page Reclaims                     5093
      Page Swaps                        0
      Voluntary Context Switches        88
      Involuntary Context Switches      4
      Block Input Operations            0
      Block Output Operations           48688


369
370       OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
380
```