# Program Summary - Program 1.sas

## Execution Environment

| | |
|---|---|
| Author: | u63613043 |
| File: | /home/u63613043/Program 1.sas |
| SAS Platform: | Linux LIN X64 5.14.0-284.30.1.el9_2.x86_64 |
| SAS Host: | ODAWS02-USW2-2.ODA.SAS.COM |
| SAS Version: | 9.04.01M7P08062020 |
| SAS Locale: | en_US |
| Submission Time: | 3/20/2025, 3:08:01 PM |
| Browser Host: | 128.164.185.118 |
| User Agent: | Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/134.0.0.0 Safari/537.36 |
| Application Server: | ODAMID00-USW2-2.ODA.SAS.COM |

## Code: Program 1.sas

```
/*problem 1 part a*/
filename reffile '/home/u63613043/titanic.csv';

proc import datafile=reffile dbms=csv out=work.import replace;
   getnames=yes;
run;

proc contents data=work.import;
run;

libname mylib "/home/u63613043/mylib";

data mylib.titanic;
   set work.import;
run;

/* part b */
proc sql;
   select Total_Observations, Total_Variables from
      (select count(*) as Total_Observations from mylib.titanic) as
      Total_Observations, (select count(distinct name) as Total_Variables from
      dictionary.columns where libname="MYLIB" and memname="TITANIC") as
      Total_Variables;
quit;

/* part c */
proc sql;
   select name as Variable_Name,
      type as Data_Type,
      length as Variable_Length,
      format as Variable_Format,
      label as Variable_Label
   from dictionary.columns
   where libname = 'MYLIB' and memname = 'TITANIC';
quit;

/* part d */
data _null_;
   set sashelp.vcolumn end = last;
   where libname = 'MYLIB' and memname = 'TITANIC';
   if type='num' then numeric_count+1;
   else if type = 'char' then character_count+1;

   if last then do;
      file print;
      put "Numeric Variables = " numeric_count;
      put "Character Variables = " character_count;
   end;
run;

/* Problem 2 */
libname myfmt "/home/u63613043/myfmt";
proc format library=myfmt;
   value pclassf
      1 = 'Upper Class'
      2 = 'Middle Class'
      3 = 'Lower Class'
      other = 'Unknown'
   ;
   value $embarkf
      'C' = 'Cherbourg'
      'Q' = 'Queenstown'
      'S' = 'Southampton'
      other = 'Unknown'
```

```
    ;
run;
options fmtsearch=(myfmt);

/* Problem 3 */
options fmtsearch=(myfmt);

proc sort data = mylib.titanic out = work.titanic_sorted;
   by Pclass;
run;

data work.death_count;
   set work.titanic_sorted;
   by Pclass;
   retain Deaths 0;

   if first.Pclass then Deaths = 0;
   if Survived = 0 then Deaths +1;
   if last.Pclass then output;

   keep Pclass Deaths;
run;

proc print data = work.death_count noobs label;
   var Pclass Deaths;
   format Pclass pclassf.;

   label Pclass = "Passenger Class"
      Deaths = "Number of Deaths";

   title "Number of Deaths by Passenger Class";
run;

/* Problem 4 */
options fmtsearch = (myfmt);

proc sql;
   select pclass format = pclassf. as Passenger_Class,
      count(*) as Number_of_Passengers,
      sum (case when Survived = 0 then 1 else 0 end) as Number_of_Deaths,
      (calculated Number_of_Deaths / calculated Number_of_Passengers) * 1000
         as Deaths_per_1000
   from mylib.titanic
   group by pclass
   ;
quit;

/* Part 2 Problem 5 */
proc means data=sashelp.class noprint;
   var weight;
   output out = stats mean = mean_weight;
run;

data work.class_new;
   if _n_ = 1 then set stats;
   set sashelp.class;
   Weight_minus_MeanWeight = weight - mean_weight;
   drop _type_ _freq_;
run;

proc print data = work.class_new noobs;
   title "SASHELP.CLASS with Weight_minus_MeanWeight";
run;

/* Problem 6 */
data membership;
   infile datalines dsd truncover;
   length Member_ID $9 Gender $1;
   input Member_ID : $9.
      BeginEnroll : ?? date9.
      EndEnroll : ?? date9.
      DOB : ?? date9.
      Gender : $1.;
   format BeginEnroll EndEnroll DOB date9.;
datalines;
M00008501,5FEB2013,31Dec2013,14May1930, M
M00008502,30FEB2013,31Dec2013, 24May1930, F
M00008503,15JUL2013,31Nov2013,30Feb1930, F
M00008504,25AUG2013,31Dec2013,14May1930, M
M00008505,27EB2013,31Dec2013,14May1930, F
;
run;

proc print data = membership noobs;
   title "Membership Data Listing";
run;
```

**Log: Program 1.sas**

Notes (46)

```
1          OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
68
69         /*problem 1 part a*/
70         filename reffile '/home/u63613043/titanic.csv';
71
72         proc import datafile=reffile dbms=csv out=work.import replace;
73         getnames=yes;
74         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.
75          /*************************************************************************
76          *   PRODUCT:   SAS
77          *   VERSION:   9.4
78          *   CREATOR:   External File Interface
79          *   DATE:      20MAR25
80          *   DESC:      Generated SAS Datastep Code
81          *   TEMPLATE SOURCE:  (None Specified.)
82          *************************************************************************/
83             data WORK.IMPORT    ;
84             %let _EFIERR_ = 0; /* set the ERROR detection macro variable */
85             infile REFFILE delimiter = ',' MISSOVER DSD  firstobs=2 ;
86                informat PassengerId best32. ;
87                informat Survived best32. ;
88                informat Pclass best32. ;
89                informat Name $57. ;
90                informat Sex $6. ;
91                informat Age best32. ;
92                informat SibSp best32. ;
93                informat Parch best32. ;
94                informat Ticket $16. ;
95                informat Fare best32. ;
96                informat Cabin $4. ;
```

```
97                informat Embarked $1. ;
98                informat WikiId best32. ;
99                informat Name_wiki $55. ;
100               informat Age_wiki best32. ;
101               informat Hometown $36. ;
102               informat Boarded $11. ;
103               informat Destination $41. ;
104               informat Lifeboat $3. ;
105               informat Body $5. ;
106               informat Class best32. ;
107               format PassengerId best12. ;
108               format Survived best12. ;
109               format Pclass best12. ;
110               format Name $57. ;
111               format Sex $6. ;
112               format Age best12. ;
113               format SibSp best12. ;
114               format Parch best12. ;
115               format Ticket $16. ;
116               format Fare best12. ;
117               format Cabin $4. ;
118               format Embarked $1. ;
119               format WikiId best12. ;
120               format Name_wiki $55. ;
121               format Age_wiki best12. ;
122               format Hometown $36. ;
123               format Boarded $11. ;
124               format Destination $41. ;
125               format Lifeboat $3. ;
126               format Body $5. ;
127               format Class best12. ;
128            input
129                        PassengerId
130                        Survived
131                        Pclass
132                        Name  $
133                        Sex  $
134                        Age
135                        SibSp
136                        Parch
137                        Ticket  $
138                        Fare
139                        Cabin  $
140                        Embarked  $
141                        WikiId
142                        Name_wiki  $
143                        Age_wiki
144                        Hometown  $
145                        Boarded  $
146                        Destination  $
147                        Lifeboat  $
148                        Body  $
149                        Class
150            ;
151            if _ERROR_ then call symputx('_EFIERR_',1);  /* set ERROR detection macro variable */
152            run;

NOTE: The infile REFFILE is:
      Filename=/home/u63613043/titanic.csv,
      Owner Name=u63613043,Group Name=oda,
      Access Permission=-rw-r--r--,
      Last Modified=18Mar2025:19:34:35,
      File Size (bytes)=227422

NOTE: 1309 records were read from the infile REFFILE.
      The minimum record length was 63.
      The maximum record length was 267.
NOTE: The data set WORK.IMPORT has 1309 observations and 21 variables.
NOTE: DATA statement used (Total process time):
      real time           0.00 seconds
      user cpu time       0.00 seconds
      system cpu time     0.00 seconds
      memory              9734.06k
      OS Memory           33312.00k
      Timestamp           03/20/2025 07:08:01 PM
      Step Count                        59  Switch Count  2
      Page Faults                       0
      Page Reclaims                     139
      Page Swaps                        0
      Voluntary Context Switches        15
      Involuntary Context Switches      0
      Block Input Operations            0
      Block Output Operations           1040


1309 rows created in WORK.IMPORT from REFFILE.
```

```
NOTE: WORK.IMPORT data set was successfully created.
NOTE: The data set WORK.IMPORT has 1309 observations and 21 variables.
NOTE: PROCEDURE IMPORT used (Total process time):
      real time           0.08 seconds
      user cpu time       0.04 seconds
      system cpu time     0.01 seconds
      memory              9734.06k
      OS Memory           33828.00k
      Timestamp           03/20/2025 07:08:01 PM
      Step Count                        59  Switch Count  10
      Page Faults                       0
      Page Reclaims                     1324
      Page Swaps                        0
      Voluntary Context Switches        89
      Involuntary Context Switches      3
      Block Input Operations            0
      Block Output Operations           1096


153
154        proc contents data=work.import;
155        run;

NOTE: PROCEDURE CONTENTS used (Total process time):
      real time           0.03 seconds
      user cpu time       0.04 seconds
      system cpu time     0.00 seconds
      memory              2149.68k
      OS Memory           28592.00k
      Timestamp           03/20/2025 07:08:01 PM
      Step Count                        60  Switch Count  0
      Page Faults                       0
      Page Reclaims                     156
      Page Swaps                        0
      Voluntary Context Switches        3
      Involuntary Context Switches      2
      Block Input Operations            0
      Block Output Operations           32


156
157        libname mylib "/home/u63613043/mylib";
NOTE: Libref MYLIB was successfully assigned as follows:
      Engine:        V9
      Physical Name: /home/u63613043/mylib
158
159        data mylib.titanic;
160        set work.import;
161        run;

NOTE: There were 1309 observations read from the data set WORK.IMPORT.
NOTE: The data set MYLIB.TITANIC has 1309 observations and 21 variables.
NOTE: DATA statement used (Total process time):
      real time           0.01 seconds
      user cpu time       0.00 seconds
      system cpu time     0.00 seconds
      memory              1760.34k
      OS Memory           28592.00k
      Timestamp           03/20/2025 07:08:01 PM
      Step Count                        61  Switch Count  1
      Page Faults                       0
      Page Reclaims                     153
      Page Swaps                        0
      Voluntary Context Switches        58
      Involuntary Context Switches      0
      Block Input Operations            0
      Block Output Operations           1032


162
163        /* part b */
164        proc sql;
165        select Total_Observations, Total_Variables from
166        (select count(*) as Total_Observations from mylib.titanic) as
167        Total_Observations, (select count(distinct name) as Total_Variables from
168        dictionary.columns where libname="MYLIB" and memname="TITANIC") as
169        Total_Variables;
NOTE: The execution of this query involves performing one or more Cartesian product joins that can not be optimized.
170        quit;
NOTE: PROCEDURE SQL used (Total process time):
      real time           0.01 seconds
      user cpu time       0.01 seconds
      system cpu time     0.00 seconds
      memory              6038.59k
      OS Memory           33456.00k
      Timestamp           03/20/2025 07:08:01 PM
      Step Count                        62  Switch Count  0
      Page Faults                       0
      Page Reclaims                     135
```

```
      Page Swaps                        0
      Voluntary Context Switches        11
      Involuntary Context Switches      0
      Block Input Operations            0
      Block Output Operations           8


171
172       /* part c */
173       proc sql;
174       select name as Variable_Name,
175       type as Data_Type,
176       length as Variable_Length,
177       format as Variable_Format,
178       label as Variable_Label
179       from dictionary.columns
180       where libname = 'MYLIB' and memname = 'TITANIC';
181       quit;
NOTE: PROCEDURE SQL used (Total process time):
      real time           0.02 seconds
      user cpu time       0.02 seconds
      system cpu time     0.00 seconds
      memory              5339.84k
      OS Memory           32940.00k
      Timestamp           03/20/2025 07:08:01 PM
      Step Count                        63  Switch Count  0
      Page Faults                       0
      Page Reclaims                     117
      Page Swaps                        0
      Voluntary Context Switches        7
      Involuntary Context Switches      2
      Block Input Operations            0
      Block Output Operations           0


182
183       /* part d */
184       data _null_;
185           set sashelp.vcolumn end = last;
186           where libname = 'MYLIB' and memname = 'TITANIC';
187           if type='num' then numeric_count+1;
188           else if type = 'char' then character_count+1;
189
190           if last then do;
191           file print;
192               put "Numeric Variables = " numeric_count;
193               put "Character Variables = " character_count;
194           end;
195       run;

NOTE: 2 lines were written to file PRINT.
NOTE: There were 21 observations read from the data set SASHELP.VCOLUMN.
      WHERE (libname='MYLIB') and (memname='TITANIC');
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              5545.25k
      OS Memory           32940.00k
      Timestamp           03/20/2025 07:08:01 PM
      Step Count                        64  Switch Count  0
      Page Faults                       0
      Page Reclaims                     130
      Page Swaps                        0
      Voluntary Context Switches        6
      Involuntary Context Switches      1
      Block Input Operations            0
      Block Output Operations           0


196
197       /* Problem 2 */
198       libname myfmt "/home/u63613043/myfmt";
NOTE: Libref MYFMT was successfully assigned as follows:
      Engine:        V9
      Physical Name: /home/u63613043/myfmt
199       proc format library=myfmt;
200
200     !  value pclassf
201       1 = 'Upper Class'
202               2 = 'Middle Class'
203               3 = 'Lower Class'
204               other = 'Unknown'
205           ;
NOTE: Format PCLASSF is already on the library MYFMT.FORMATS.
NOTE: Format PCLASSF has been written to MYFMT.FORMATS.
206           value $embarkf
207               'C' = 'Cherbourg'
208               'Q' = 'Queenstown'
```

```
209               'S' = 'Southampton'
210               other = 'Unknown'
211           ;
NOTE: Format $EMBARKF is already on the library MYFMT.FORMATS.
NOTE: Format $EMBARKF has been written to MYFMT.FORMATS.
212       run;

NOTE: PROCEDURE FORMAT used (Total process time):
      real time           0.00 seconds
      user cpu time       0.00 seconds
      system cpu time     0.00 seconds
      memory              246.81k
      OS Memory           27816.00k
      Timestamp           03/20/2025 07:08:01 PM
      Step Count                        65  Switch Count  0
      Page Faults                       0
      Page Reclaims                     14
      Page Swaps                        0
      Voluntary Context Switches        10
      Involuntary Context Switches      0
      Block Input Operations            0
      Block Output Operations           56


213       options fmtsearch=(myfmt);
214
215       /* Problem 3 */
216       options fmtsearch=(myfmt);
217
218       proc sort data = mylib.titanic out = work.titanic_sorted;
219       by Pclass;
220       run;

NOTE: There were 1309 observations read from the data set MYLIB.TITANIC.
NOTE: The data set WORK.TITANIC_SORTED has 1309 observations and 21 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              2703.31k
      OS Memory           29888.00k
      Timestamp           03/20/2025 07:08:01 PM
      Step Count                        66  Switch Count  2
      Page Faults                       0
      Page Reclaims                     261
      Page Swaps                        0
      Voluntary Context Switches        20
      Involuntary Context Switches      0
      Block Input Operations            0
      Block Output Operations           1040


221
222       data work.death_count;
223       set work.titanic_sorted;
224       by Pclass;
225       retain Deaths 0;
226
227       if first.Pclass then Deaths = 0;
228       if Survived = 0 then Deaths +1;
229       if last.Pclass then output;
230
231       keep Pclass Deaths;
232       run;

NOTE: There were 1309 observations read from the data set WORK.TITANIC_SORTED.
NOTE: The data set WORK.DEATH_COUNT has 3 observations and 2 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              1446.31k
      OS Memory           28592.00k
      Timestamp           03/20/2025 07:08:01 PM
      Step Count                        67  Switch Count  2
      Page Faults                       0
      Page Reclaims                     184
      Page Swaps                        0
      Voluntary Context Switches        12
      Involuntary Context Switches      0
      Block Input Operations            0
      Block Output Operations           264


233
234       proc print data = work.death_count noobs label;
235       var Pclass Deaths;
236       format Pclass pclassf.;
237
```

```
238        label Pclass = "Passenger Class"
239        Deaths = "Number of Deaths";
240
241        title "Number of Deaths by Passenger Class";
242        run;

NOTE: There were 3 observations read from the data set WORK.DEATH_COUNT.
NOTE: PROCEDURE PRINT used (Total process time):
      real time           0.00 seconds
      user cpu time       0.01 seconds
      system cpu time     0.00 seconds
      memory              716.68k
      OS Memory           28076.00k
      Timestamp           03/20/2025 07:08:01 PM
      Step Count                        68  Switch Count  1
      Page Faults                       0
      Page Reclaims                     89
      Page Swaps                        0
      Voluntary Context Switches        15
      Involuntary Context Switches      0
      Block Input Operations            0
      Block Output Operations           8


243
244        /* Problem 4 */
245        options fmtsearch = (myfmt);
246
247        proc sql;
248        select pclass format = pclassf. as Passenger_Class,
249        count(*) as Number_of_Passengers,
250        sum (case when Survived = 0 then 1 else 0 end) as Number_of_Deaths,
251        (calculated Number_of_Deaths / calculated Number_of_Passengers) * 1000
252        as Deaths_per_1000
253        from mylib.titanic
254        group by pclass
255        ;
256        quit;
NOTE: PROCEDURE SQL used (Total process time):
      real time           0.01 seconds
      user cpu time       0.01 seconds
      system cpu time     0.01 seconds
      memory              6037.96k
      OS Memory           33456.00k
      Timestamp           03/20/2025 07:08:01 PM
      Step Count                        69  Switch Count  0
      Page Faults                       0
      Page Reclaims                     207
      Page Swaps                        0
      Voluntary Context Switches        17
      Involuntary Context Switches      1
      Block Input Operations            0
      Block Output Operations           16


257
258        /* Part 2 Problem 5 */
259        proc means data=sashelp.class noprint;
260        var weight;
261        output out = stats mean = mean_weight;
262        run;

NOTE: There were 19 observations read from the data set SASHELP.CLASS.
NOTE: The data set WORK.STATS has 1 observations and 3 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              6978.37k
      OS Memory           34768.00k
      Timestamp           03/20/2025 07:08:01 PM
      Step Count                        70  Switch Count  3
      Page Faults                       0
      Page Reclaims                     1636
      Page Swaps                        0
      Voluntary Context Switches        36
      Involuntary Context Switches      0
      Block Input Operations            0
      Block Output Operations           264


263
264        data work.class_new;
265        if _n_ = 1 then set stats;
266        set sashelp.class;
267        Weight_minus_MeanWeight = weight - mean_weight;
268        drop _type_ _freq_;
269        run;
```

```
NOTE: There were 1 observations read from the data set WORK.STATS.
NOTE: There were 19 observations read from the data set SASHELP.CLASS.
NOTE: The data set WORK.CLASS_NEW has 19 observations and 7 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              1186.65k
      OS Memory           28848.00k
      Timestamp           03/20/2025 07:08:01 PM
      Step Count                        71  Switch Count  2
      Page Faults                       0
      Page Reclaims                     119
      Page Swaps                        0
      Voluntary Context Switches        14
      Involuntary Context Switches      2
      Block Input Operations            0
      Block Output Operations           264


270
271        proc print data = work.class_new noobs;
272        title "SASHELP.CLASS with Weight_minus_MeanWeight";
273        run;

NOTE: There were 19 observations read from the data set WORK.CLASS_NEW.
NOTE: PROCEDURE PRINT used (Total process time):
      real time           0.02 seconds
      user cpu time       0.02 seconds
      system cpu time     0.00 seconds
      memory              656.62k
      OS Memory           28588.00k
      Timestamp           03/20/2025 07:08:01 PM
      Step Count                        72  Switch Count  1
      Page Faults                       0
      Page Reclaims                     64
      Page Swaps                        0
      Voluntary Context Switches        8
      Involuntary Context Switches      1
      Block Input Operations            0
      Block Output Operations           0


274
275        /* Problem 6 */
276        data membership;
277        infile datalines dsd truncover;
278        length Member_ID $9 Gender $1;
279        input Member_ID : $9.
280        BeginEnroll : ?? date9.
281        EndEnroll : ?? date9.
282        DOB : ?? date9.
283        Gender : $1.;
284        format BeginEnroll EndEnroll DOB date9.;
285        datalines;

NOTE: The data set WORK.MEMBERSHIP has 5 observations and 5 variables.
NOTE: DATA statement used (Total process time):
      real time           0.00 seconds
      user cpu time       0.00 seconds
      system cpu time     0.00 seconds
      memory              670.71k
      OS Memory           28588.00k
      Timestamp           03/20/2025 07:08:01 PM
      Step Count                        73  Switch Count  2
      Page Faults                       0
      Page Reclaims                     85
      Page Swaps                        0
      Voluntary Context Switches        14
      Involuntary Context Switches      0
      Block Input Operations            0
      Block Output Operations           264


291        ;
292        run;
293
294        proc print data = membership noobs;
295        title "Membership Data Listing";
296        run;

NOTE: There were 5 observations read from the data set WORK.MEMBERSHIP.
NOTE: PROCEDURE PRINT used (Total process time):
      real time           0.00 seconds
      user cpu time       0.01 seconds
      system cpu time     0.00 seconds
      memory              639.15k
      OS Memory           28588.00k
      Timestamp           03/20/2025 07:08:01 PM
```

```
Step Count                        74  Switch Count  1
Page Faults                       0
Page Reclaims                     62
Page Swaps                        0
Voluntary Context Switches        8
Involuntary Context Switches      0
Block Input Operations            0
Block Output Operations           0


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318        OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
328
```

## Results: Program 1.sas

**The CONTENTS Procedure**

| | | | |
|---|---|---|---|
| **Data Set Name** | WORK.IMPORT | **Observations** | 1309 |
| **Member Type** | DATA | **Variables** | 21 |
| **Engine** | V9 | **Indexes** | 0 |
| **Created** | 03/20/2025 15:08:01 | **Observation Length** | 320 |
| **Last Modified** | 03/20/2025 15:08:01 | **Deleted Observations** | 0 |
| **Protection** | | **Compressed** | NO |
| **Data Set Type** | | **Sorted** | NO |
| **Label** | | | |
| **Data Representation** | SOLARIS_X86_64, LINUX_X86_64, ALPHA_TRU64, LINUX_IA64 | | |
| **Encoding** | utf-8 Unicode (UTF-8) | | |

| Engine/Host Dependent Information | |
|---|---|
| **Data Set Page Size** | 131072 |
| **Number of Data Set Pages** | 4 |
| **First Data Page** | 1 |
| **Max Obs per Page** | 409 |
| **Obs in First Data Page** | 395 |
| **Number of Data Set Repairs** | 0 |
| **Filename** | /saswork/SAS_work7D160000CB48_odaws02-usw2-2.oda.sas.com/SAS_work28BF0000CB48_odaws02-usw2-2.oda.sas.com/import.sas7bdat |
| **Release Created** | 9.0401M7 |
| **Host Created** | Linux |
| **Inode Number** | 2684363634 |
| **Access Permission** | rw-r--r-- |
| **Owner Name** | u63613043 |
| **File Size** | 640KB |
| **File Size (bytes)** | 655360 |

**Alphabetic List of Variables and Attributes**

| # | Variable | Type | Len | Format | Informat |
|---|---|---|---|---|---|
| **6** | Age | Num | 8 | BEST12. | BEST32. |
| **15** | Age_wiki | Num | 8 | BEST12. | BEST32. |
| **17** | Boarded | Char | 11 | $11. | $11. |
| **20** | Body | Char | 5 | $5. | $5. |
| **11** | Cabin | Char | 4 | $4. | $4. |
| **21** | Class | Num | 8 | BEST12. | BEST32. |
| **18** | Destination | Char | 41 | $41. | $41. |
| **12** | Embarked | Char | 1 | $1. | $1. |
| **10** | Fare | Num | 8 | BEST12. | BEST32. |
| **16** | Hometown | Char | 36 | $36. | $36. |
| **19** | Lifeboat | Char | 3 | $3. | $3. |
| **4** | Name | Char | 57 | $57. | $57. |
| **14** | Name_wiki | Char | 55 | $55. | $55. |
| **8** | Parch | Num | 8 | BEST12. | BEST32. |

| Alphabetic List of Variables and Attributes | | | | | |
|---|---|---|---|---|---|
| # | Variable | Type | Len | Format | Informat |
| 1 | PassengerId | Num | 8 | BEST12. | BEST32. |
| 3 | Pclass | Num | 8 | BEST12. | BEST32. |
| 5 | Sex | Char | 6 | $6. | $6. |
| 7 | SibSp | Num | 8 | BEST12. | BEST32. |
| 2 | Survived | Num | 8 | BEST12. | BEST32. |
| 9 | Ticket | Char | 16 | $16. | $16. |
| 13 | WikiId | Num | 8 | BEST12. | BEST32. |

| Total_Observations | Total_Variables |
|---|---|
| 1309 | 21 |

| Column Name | Column Type | Column Length | Column Format | Column Label |
|---|---|---|---|---|
| PassengerId | num | 8 | BEST12. | |
| Survived | num | 8 | BEST12. | |
| Pclass | num | 8 | BEST12. | |
| Name | char | 57 | $57. | |
| Sex | char | 6 | $6. | |
| Age | num | 8 | BEST12. | |
| SibSp | num | 8 | BEST12. | |
| Parch | num | 8 | BEST12. | |
| Ticket | char | 16 | $16. | |
| Fare | num | 8 | BEST12. | |
| Cabin | char | 4 | $4. | |
| Embarked | char | 1 | $1. | |
| WikiId | num | 8 | BEST12. | |
| Name_wiki | char | 55 | $55. | |
| Age_wiki | num | 8 | BEST12. | |
| Hometown | char | 36 | $36. | |
| Boarded | char | 11 | $11. | |
| Destination | char | 41 | $41. | |
| Lifeboat | char | 3 | $3. | |
| Body | char | 5 | $5. | |
| Class | num | 8 | BEST12. | |

```
Numeric Variables = 10
Character Variables = 11
```

### Number of Deaths by Passenger Class

| Passenger Class | Number of Deaths |
|---|---|
| Upper Class | 80 |
| Middle Class | 97 |
| Lower Class | 372 |

### Number of Deaths by Passenger Class

| Passenger_Class | Number_of_Passengers | Number_of_Deaths | Deaths_per_1000 |
|---|---|---|---|
| Upper Class | 323 | 80 | 247.678 |
| Middle Class | 277 | 97 | 350.1805 |
| Lower Class | 709 | 372 | 524.6827 |

### SASHELP.CLASS with Weight_minus_MeanWeight

| mean_weight | Name | Sex | Age | Height | Weight | Weight_minus_MeanWeight |
|---|---|---|---|---|---|---|
| 100.026 | Alfred | M | 14 | 69.0 | 112.5 | 12.4737 |
| 100.026 | Alice | F | 13 | 56.5 | 84.0 | -16.0263 |
| 100.026 | Barbara | F | 13 | 65.3 | 98.0 | -2.0263 |
| 100.026 | Carol | F | 14 | 62.8 | 102.5 | 2.4737 |
| 100.026 | Henry | M | 14 | 63.5 | 102.5 | 2.4737 |
| 100.026 | James | M | 12 | 57.3 | 83.0 | -17.0263 |
| 100.026 | Jane | F | 12 | 59.8 | 84.5 | -15.5263 |
| 100.026 | Janet | F | 15 | 62.5 | 112.5 | 12.4737 |
| 100.026 | Jeffrey | M | 13 | 62.5 | 84.0 | -16.0263 |
| 100.026 | John | M | 12 | 59.0 | 99.5 | -0.5263 |
| 100.026 | Joyce | F | 11 | 51.3 | 50.5 | -49.5263 |

| mean_weight | Name | Sex | Age | Height | Weight | Weight_minus_MeanWeight |
|---|---|---|---|---|---|---|
| 100.026 | Judy | F | 14 | 64.3 | 90.0 | -10.0263 |
| 100.026 | Louise | F | 12 | 56.3 | 77.0 | -23.0263 |
| 100.026 | Mary | F | 15 | 66.5 | 112.0 | 11.9737 |
| 100.026 | Philip | M | 16 | 72.0 | 150.0 | 49.9737 |
| 100.026 | Robert | M | 12 | 64.8 | 128.0 | 27.9737 |
| 100.026 | Ronald | M | 15 | 67.0 | 133.0 | 32.9737 |
| 100.026 | Thomas | M | 11 | 57.5 | 85.0 | -15.0263 |
| 100.026 | William | M | 15 | 66.5 | 112.0 | 11.9737 |

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**Membership Data Listing**

| Member_ID | Gender | BeginEnroll | EndEnroll | DOB |
|---|---|---|---|---|
| M00008501 | M | 05FEB2013 | 31DEC2013 | 14MAY1930 |
| M00008502 | F | . | 31DEC2013 | 24MAY1930 |
| M00008503 | F | 15JUL2013 | . | . |
| M00008504 | M | 25AUG2013 | 31DEC2013 | 14MAY1930 |
| M00008505 | F | . | 31DEC2013 | 14MAY1930 |