```
1
           OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
68
69
           /*Exploring data files*/
70
71
           PROC CONTENTS DATA=MYDATA.Listings; RUN;
NOTE: PROCEDURE CONTENTS used (Total process time):
      real time 0.07 seconds
      user cpu time
                         0.08 seconds
      system cpu time 0.00 seconds
                          3091.90k
      OS Memory
                          33456.00k
      Timestamp
                          04/20/2022 03:58:54 AM
      Step Count
                                         64 Switch Count 0
      Page Faults
      Page Reclaims
                                         295
      Page Swaps
      Voluntary Context Switches
                                        6
      Involuntary Context Switches
                                        0
      Block Input Operations
                                        0
      Block Output Operations
                                        32
72
73
           PROC FREQ DATA=MYDATA.Listings;
74
            TABLES neighbourhood_group_cleansed;
NOTE: There were 49056 observations read from the data set MYDATA.LISTINGS.
NOTE: PROCEDURE FREQ used (Total process time):
                  0.02 seconds
      real time
     user cpu time 0.02 seconds system cpu time 0.00 seconds memory 2188.34k
      OS Memory
                         33456.00k
      Timestamp
                         04/20/2022 03:58:54 AM
      Step Count
                                        65 Switch Count 5
      Page Faults
                                         a
      Page Reclaims
                                        338
      Page Swaps
                                        0
      Voluntary Context Switches
                                        23
      Involuntary Context Switches
                                        0
      Block Input Operations
                                        a
      Block Output Operations
                                        280
76
77
           PROC FREQ DATA=MYDATA.LISTINGS ORDER=FREQ;
78
           TABLES neighbourhood_group_cleansed;
79
           RUN;
NOTE: There were 49056 observations read from the data set MYDATA.LISTINGS.
NOTE: PROCEDURE FREQ used (Total process time):
      real time 0.02 seconds
      user cpu time 0.02 seconds system cpu time 0.01 seconds
                         2178.65k
      memory
      OS Memory
                         33456.00k
      Timestamp
                         04/20/2022 03:58:54 AM
      Step Count
                                         66 Switch Count 5
      Page Faults
                                         a
      Page Reclaims
                                         328
      Page Swaps
                                        a
      Voluntary Context Switches
                                        24
      Involuntary Context Switches
                                        0
      Block Input Operations
                                        0
      Block Output Operations
                                         264
```

```
80
81
          PROC FREQ DATA=MYDATA.LISTINGS ORDER=FREQ;
           TABLES neighbourhood_group_cleansed * room_type /
82
           NOCOL NOROW NOPERCENT OUT=room_freg;
83
84
NOTE: There were 49056 observations read from the data set MYDATA.LISTINGS.
NOTE: The data set WORK.ROOM_FREG has 16 observations and 4 variables.
NOTE: PROCEDURE FREQ used (Total process time):
                        0.04 seconds
     real time
                         0.04 seconds
     user cpu time
     system cpu time 0.01 seconds
                         2961.03k
     memory
     OS Memory
                         33976.00k
     Timestamp
                         04/20/2022 03:58:54 AM
     Step Count
                                       67 Switch Count 9
     Page Faults
                                       0
     Page Reclaims
                                       442
     Page Swaps
                                       0
     Voluntary Context Switches
                                       50
     Involuntary Context Switches
                                       44
     Block Input Operations
                                       a
     Block Output Operations
                                       792
85
          PROC UNIVARIATE DATA=MYDATA.LISTINGS;
86
          VAR Price;
87
          HISTOGRAM;
88
89
90
          RUN;
NOTE: PROCEDURE UNIVARIATE used (Total process time):
     real time 0.27 seconds
     user cpu time
                        0.13 seconds
     system cpu time 0.01 seconds
                        14157.40k
     memory
     OS Memory
                         44040.00k
     Timestamp
                        04/20/2022 03:58:54 AM
     Step Count
                                       68 Switch Count 3
     Page Faults
                                       0
     Page Reclaims
                                       3203
     Page Swaps
                                       0
     Voluntary Context Switches
                                       147
     Involuntary Context Switches
                                       0
     Block Input Operations
                                       0
     Block Output Operations
                                       672
91
92
           PROC MEANS DATA=MYDATA.LISTINGS;
93
           VAR price accommodates bathrooms;
NOTE: There were 49056 observations read from the data set MYDATA.LISTINGS.
NOTE: PROCEDURE MEANS used (Total process time):
      real time
                         0.04 seconds
     user cpu time
                         0.04 seconds
      system cpu time
                        0.01 seconds
                         7791.50k
     memory
     OS Memory
                         47552.00k
                         04/20/2022 03:58:54 AM
     Timestamp
      Step Count
                                       69 Switch Count 4
      Page Faults
                                       a
      Page Reclaims
                                       1557
      Page Swaps
                                       a
      Voluntary Context Switches
                                       39
```

1

a

Involuntary Context Switches

Block Input Operations

```
Block Output Operations
                                        0
95
           PROC MEANS DATA=MYDATA.LISTINGS N NMISS MIN MAX MEAN MEDIAN STDDEV;
96
97
           CLASS room_type;
           VAR price accommodates bathrooms;
98
99
           OUTPUT OUT=list_stats;
100
101
           RUN;
NOTE: There were 49056 observations read from the data set MYDATA.LISTINGS.
NOTE: The data set WORK.LIST STATS has 20 observations and 7 variables.
NOTE: PROCEDURE MEANS used (Total process time):
      real time
                        0.09 seconds
     user cpu time 0.11 seconds system cpu time 0.01 seconds memory 9395.51k
      OS Memory
                         48068.00k
      Timestamp
                        04/20/2022 03:58:54 AM
      Step Count
                                        70 Switch Count 6
      Page Faults
                                        0
                                        1709
      Page Reclaims
      Page Swaps
                                        a
      Voluntary Context Switches
                                        69
      Involuntary Context Switches
                                        29
      Block Input Operations
                                        0
      Block Output Operations
                                        264
102
           PROC SUMMARY DATA=MYDATA.LISTINGS;
103
104
           VAR price accommodates bathrooms;
           OUTPUT OUT=list_sum;
105
106
NOTE: There were 49056 observations read from the data set MYDATA.LISTINGS.
NOTE: The data set WORK.LIST_SUM has 5 observations and 6 variables.
NOTE: PROCEDURE SUMMARY used (Total process time):
      real time
                       0.03 seconds
                        0.01 seconds
      user cpu time
      system cpu time 0.01 seconds
                        8000.84k
      OS Memory
                         48068.00k
      Timestamp
                         04/20/2022 03:58:54 AM
      Step Count
                                        71 Switch Count 6
      Page Faults
                                        0
      Page Reclaims
                                        1601
      Page Swaps
                                        0
      Voluntary Context Switches
                                        43
      Involuntary Context Switches
                                        0
      Block Input Operations
                                        0
      Block Output Operations
                                        264
107
           PROC SORT DATA=MYDATA.LISTINGS OUT=list sort;
108
            BY host id;
109
            RUN;
NOTE: There were 49056 observations read from the data set MYDATA.LISTINGS.
NOTE: The data set WORK.LIST SORT has 49056 observations and 54 variables.
NOTE: PROCEDURE SORT used (Total process time):
                          0.06 seconds
      real time
      user cpu time
                         0.04 seconds
                      0.03 seconds
      system cpu time
      memory
                          25803.34k
      OS Memory
```

66184.00k

```
Timestamp
                        04/20/2022 03:58:54 AM
     Step Count
                                        72 Switch Count 5
     Page Faults
                                        0
     Page Reclaims
                                        5862
     Page Swaps
                                        a
     Voluntary Context Switches
                                        24
     Involuntary Context Switches
                                        0
     Block Input Operations
                                        0
     Block Output Operations
                                        42512
110
111
          PROC SUMMARY DATA=list_sort;
112
           BY host id;
113
           VAR price accommodates bathrooms;
114
           OUTPUT OUT=list sum SUM=;
115
           RUN:
NOTE: There were 49056 observations read from the data set WORK.LIST_SORT.
NOTE: The data set WORK.LIST_SUM has 37511 observations and 6 variables.
NOTE: PROCEDURE SUMMARY used (Total process time):
     real time
                      0.08 seconds
     user cpu time 0.06 seconds system cpu time 0.03 seconds memory
                        4464.71k
     memory
     OS Memory
                         45492.00k
                         04/20/2022 03:58:54 AM
     Timestamp
     Step Count
                                        73 Switch Count 42
     Page Faults
                                        0
     Page Reclaims
                                        618
     Page Swaps
                                        0
     Voluntary Context Switches
                                        115
     Involuntary Context Switches
                                        0
     Block Input Operations
                                        0
     Block Output Operations
                                        3592
116
          DATA WORK.TEST;
117
118
           SET MYDATA.Listings;
           WHERE accommodates le 4;
119
120
           RUN;
NOTE: There were 42565 observations read from the data set MYDATA.LISTINGS.
     WHERE accommodates<=4;
NOTE: The data set WORK.TEST has 42565 observations and 54 variables.
NOTE: DATA statement used (Total process time):
     real time
                        0.03 seconds
     user cpu time
                        0.01 seconds
      system cpu time 0.02 seconds
                         3557.31k
     OS Memory
                         44464.00k
     Timestamp
                        04/20/2022 03:58:54 AM
     Step Count
                                        74 Switch Count 5
      Page Faults
                                        0
      Page Reclaims
                                        502
      Page Swaps
                                        0
     Voluntary Context Switches
                                        18
      Involuntary Context Switches
                                        1
     Block Input Operations
     Block Output Operations
121
          DATA WORK. TEST;
122
123
           SET MYDATA.LISTINGS;
124
           IF accommodates le 4;
125
           RUN;
```

```
NOTE: There were 49056 observations read from the data set MYDATA.LISTINGS.
NOTE: The data set WORK.TEST has 42565 observations and 54 variables.
NOTE: DATA statement used (Total process time):
                  0.03 seconds
      real time
      user cpu time 0.01 seconds system cpu time 0.03 seconds memory 3699.68k
      OS Memory
Timestamp
                         44464.00k
                          04/20/2022 03:58:54 AM
      Step Count
                                           75 Switch Count 5
      Page Faults
                                           0
      Page Reclaims
                                           494
      Page Swaps
                                           0
      Voluntary Context Switches
                                           21
      Involuntary Context Switches
                                           1
      Block Input Operations
      Block Output Operations
                                           36872
126
127
            /* Split data into TRAIN and TEST datasets at an 80/20 split */
128
           PROC SURVEYSELECT DATA=Mydata.listings SAMPRATE=0.20 SEED=42
           OUT=Full OUTALL METHOD=SRS;
129
130
           RUN;
NOTE: The data set WORK.FULL has 49056 observations and 55 variables.
NOTE: PROCEDURE SURVEYSELECT used (Total process time):
      real time 0.04 seconds user cpu time 0.02 seconds system cpu time 0.03 seconds memory 3617.62k
      OS Memory
Timestamp
                         44464.00k
04/20/2022 03:58:54 AM
      Step Count
                                           76 Switch Count 5
      Page Faults
                                           0
      Page Reclaims
                                           492
      Page Swaps
                                           0
      Voluntary Context Switches
                                           22
      Involuntary Context Switches
                                           0
      Block Input Operations
                                          0
      Block Output Operations
                                          43288
131
132
           DATA TRAIN TEST;
133
           SET FULL;
           IF SELECTED=0 THEN OUTPUT TRAIN; ELSE OUTPUT TEST;
134
135
           DROP Selected;
136
137
           OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
147
```