NOTE: Copyright (c) 2016 by SAS Institute Inc., Cary, NC, USA.

NOTE: SAS (r) Proprietary Software 9.4 (TS1M5)

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NOTE: This session is executing on the X64_10PRO platform.

NOTE: Updated analytical products:

SAS/STAT 14.3

SAS/ETS 14.3

SAS/OR 14.3

SAS/IML 14.3

SAS/QC 14.3

NOTE: Additional host information:

X64_10PRO WIN 10.0.17134 Workstation

NOTE: SAS initialization used:

real time 1.10 seconds

cpu time 0.90 seconds

```
1
/*=============================================================================
============

1  ! =*/

2   /*=========================================Exercise

2  ! 1=========================================*/
```

```
3
/*=============================================================================
============

3  ! =*/

4

5   /*Ex 1-1 */

6   /*

7   - Create a library call Lab1 with the data Nutrition

8   */

9

10
/*=============================================================================
============

10 ! =*/

11

12   /*Ex 1-2*/

13   title1 'Summary of Nutrition Dataset';

14   footnote1;

15   footnote2;

16   PROC CONTENTS data=Lab1.Nutrition;

NOTE: Writing HTML Body file: sashtml.htm

17   RUN;


NOTE: PROCEDURE CONTENTS used (Total process time):

     real time          0.50 seconds

     cpu time           0.31 seconds



18   /*

19   - Number of Variables: 31
```

```
20   - Number of Observations: 405
21   - Variables of char data type: GENDER, VIT_A, VIT_B6, VIT_B12, VIT_C, VIT_D, VIT_E, VIT_K
22   */
23
24
/*=============================================================================
============
24 ! =*/
25
26   /*Ex 1-3*/
27   title1 'Display of Whole Nutrition Dataset';
28   footnote1;
29   footnote2;
30   PROC PRINT data=Lab1.Nutrition;
31   RUN;

NOTE: There were 405 observations read from the data set LAB1.NUTRITION.
NOTE: PROCEDURE PRINT used (Total process time):
      real time          0.39 seconds
      cpu time           0.35 seconds



32   /*
33   - Char Variable "FOLATE" has no value, so the missing values are displayed as "."
34   - Num Variable "VIT_B12" has no value, so the missing values are displayed as " "
35   */
36
37
/*=============================================================================
============
```

```
37 ! =*/
38
39  /*Ex 1-4*/
40  OPTIONS linesize=128;
41  title1 'Display of Observations From 10 to 20';
42  footnote1;
43  footnote2;
44  PROC PRINT data=Lab1.Nutrition (firstobs=10 obs=20);
45  RUN;

NOTE: There were 11 observations read from the data set LAB1.NUTRITION.
NOTE: PROCEDURE PRINT used (Total process time):
    real time          0.03 seconds
    cpu time           0.03 seconds


46  /*
47  - set the linesize=128 to make the result look better
48  */
49
50
/*================================================================================
=============*/
51  /*=========================================Exercise
2=========================================*/
52
/*================================================================================
=============*/
53
54  DATA Lab1.males3000kcal;
```

```
55      Set Lab1.Nutrition;
56          Where GENDER = "M" AND KCAL >= 3000;
57   RUN;

NOTE: There were 49 observations read from the data set LAB1.NUTRITION.
      WHERE (GENDER='M') and (KCAL>=3000);
NOTE: The data set LAB1.MALES3000KCAL has 49 observations and 31 variables.
NOTE: DATA statement used (Total process time):
      real time          0.03 seconds
      cpu time           0.03 seconds


58   PROC SORT data=Lab1.males3000kcal;
59      by descending KCAL;
60   RUN;

NOTE: There were 49 observations read from the data set LAB1.MALES3000KCAL.
NOTE: The data set LAB1.MALES3000KCAL has 49 observations and 31 variables.
NOTE: PROCEDURE SORT used (Total process time):
      real time          0.02 seconds
      cpu time           0.03 seconds


61   title1 'Nutrition Data of Males With Calorie Intake Over 3000 Kcal';
62   footnote1 'Displayed Intake Variables: KCAL, VIT_A, VIT_D, FIBER, IRON, PROTEIN';
63   footnote2 'Displayed Value: first 15 by descending order';
64   PROC PRINT data=Lab1.males3000kcal (firstobs=1 obs=15);
65      var GENDER KCAL VIT_A VIT_D FIBER IRON PROTEIN;
66   RUN;
```

NOTE: There were 15 observations read from the data set LAB1.MALES3000KCAL.

NOTE: PROCEDURE PRINT used (Total process time):

real time 0.03 seconds

cpu time 0.01 seconds

67

68
/*==========*/

69 /*==========Exercise 3==========*/

70
/*==========*/

71

72 PROC SORT data=Lab1.Nutrition out=sorted_IRON_FIBER;

73 by descending IRON FIBER;

74 RUN;

NOTE: There were 405 observations read from the data set LAB1.NUTRITION.

NOTE: The data set WORK.SORTED_IRON_FIBER has 405 observations and 31 variables.

NOTE: PROCEDURE SORT used (Total process time):

real time 0.03 seconds

cpu time 0.00 seconds

75 title1 'Nutrition Data of Females With Iron Intake Less Than 4 and Fiber Intake Less Than 4';

76 footnote1 'Displayed Intake Variables: KCAL, VIT_A, VIT_D, FIBER, IRON, PROTEIN';

```
77   footnote2;
78   OPTIONS pagesize=20;
79   PROC PRINT data=sorted_IRON_FIBER;
80       var GENDER KCAL VIT_A VIT_D FIBER IRON PROTEIN;
81       Where GENDER = "F" AND IRON < 4 AND FIBER < 4;
82   RUN;

NOTE: There were 2 observations read from the data set WORK.SORTED_IRON_FIBER.
      WHERE (GENDER='F') and (IRON<4) and (FIBER<4);
NOTE: PROCEDURE PRINT used (Total process time):
      real time           0.03 seconds
      cpu time            0.00 seconds


83
84   /*
85   - Only 2 women meet these criteria
86   */
```