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**Program Summary - HW7.sas**


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**Execution Environment**

Author: sasdemo  
 File: /folders/myfolders/Homework/HW7/HW7.sas  
 SAS Platform: Linux LIN X64 2.6.32-696.20.1.el6.x86\_64  
 SAS Host: LOCALHOST  
 SAS Version: 9.04.01M5P09132017  
 SAS Locale: en\_US  
 Submission Time: 11/7/2018, 7:54:03 PM  
 Browser Host: 10.0.2.2  
 User Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/70.0.3538.77 Safari/537.36  
 Application Server: LOCALHOST.LOCALDOMAIN

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**Code: HW7.sas**

```

/*Jonathan Wilson HW 7 */

/*****#1 Read data from ftse17*****/

options validvarname=V7;

libname ftse17 xlsx "/folders/myfolders/Homework/HW7/FTSE_2017.xlsx";
libname ftse17 xlsx "/folders/myfolders/Homework/HW7/FTSE_2017.xlsx";

proc print data=ftse17.ftse noobs label;
  format Change percentn8.2 Date date11.;/*11 char spaces*/
  title1 'ftse17 file';
run;

/*****#2 Create a new csv from diamonds and put into a new lib called mydata*****/

%let path=/folders/myfolders/Homework/HW7;
libname mydata "&path";

data mydata.diamonds;
  infile "&path/Diamonds.csv" dlm=',' dsd firstobs=2;
  input NUMID WEIGHT COLOR $ CLARITY $ RATER $ PRICE $; /*Price is formatted correctly but the type is a char.*/
  drop RATER;
  title1 'Diamonds file';
run;

/*dsd: recognizes two consecutive delimiters as a missing value also will recognize that the comma in "George Bush, Jr." is
part of the name, and not a separator indicating a new variable.
*/
proc print data=mydata.diamonds noobs;
run;

/*****#3 Using datalines*****/

data mydata.employees;
  input lname $ fname $ age job $ gender $ group state $;
  datalines;
Smith Al 55 Man M 1 Texas
Jones Ted 38 SR2 M 2 Vermont
Hall Kim 22 SR1 M 2 Vermont
Jones Kim 19 Sec F 1 Maryland
Clark Guy 31 SR1 M 2
Grant Herbert 51 Jan M 3 Texas
Schmidt Henry 62 Mec M 4 Washington
Allen Joe 45 Man M 1 Vermont
Call Steve 43 SR2 M 2 Maryland
McCall Mac 26 Sec F 1 Texas
Sue Joe 25 Mec F 4
Murphy Cori 21 SR1 F 2 Washington
Love Sue 27 SR2 F 2 Washington
;

proc print data=mydata.employees label noobs;
  label lname="Last Name" fname="First Name";
  title1 'My employees';

```

run;

## Log: HW7.sas

Notes (21)

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1      OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
72
73      /*Jonthan Wilson HW 7 */
74
75      /*****#1 Read data from ftse17*****/
76
77      options validvarname=V7;
78
79      libname ftse17 xlsx "/folders/myfolders/Homework/HW7/FTSE_2017.xlsx";
NOTE: Libref FTSE17 was successfully assigned as follows:
      Engine:          XLSX
      Physical Name:   /folders/myfolders/Homework/HW7/FTSE_2017.xlsx
80      libname ftse17 xlsx "/folders/myfolders/Homework/HW7/FTSE_2017.xlsx";
NOTE: Libref FTSE17 was successfully assigned as follows:
      Engine:          XLSX
      Physical Name:   /folders/myfolders/Homework/HW7/FTSE_2017.xlsx
81
82
83      proc print data=ftse17.ftse noobs label;
NOTE: Variable Name Change. Price -> _Price
NOTE: Variable Name Change. Vol. -> Vol_
84      format Change percentn8.2 Date date11.;/*11 char spaces*/
85      title1 'ftse17 file';
86      run;

NOTE: The import data set has 49 observations and 7 variables.
NOTE: The import data set has 49 observations and 7 variables.
NOTE: There were 49 observations read from the data set FTSE17.ftse.
NOTE: PROCEDURE PRINT used (Total process time):
      real time          0.37 seconds
      cpu time           0.33 seconds

87
88      /*****#2 Create a new csv from dimonds and put into a new lib called mydata*****/
89
90      %let path=/folders/myfolders/Homework/HW7;
91      libname mydata "&path";
NOTE: Libref MYDATA refers to the same physical library as _TEMP0.
NOTE: Libref MYDATA was successfully assigned as follows:
      Engine:          V9
      Physical Name:   /folders/myfolders/Homework/HW7
92
93      data mydata.diamonds;
94      infile "&path/Diamonds.csv" dlm=', ' dsd firstobs=2;
95      input NUMID WEIGHT COLOR $ CLARITY $ RATER $ PRICE $; /*Price is formatted correctly but the type is a char.*/
96      drop RATER;
97      title1 'Diamonds file';
98      run;

NOTE: The infile "/folders/myfolders/Homework/HW7/Diamonds.csv" is:
      Filename=/folders/myfolders/Homework/HW7/Diamonds.csv,
      Owner Name=root,Group Name=vboxsf,
      Access Permission=-rwxrwx---,
      Last Modified=02Nov2018:06:31:56,
      File Size (bytes)=2900

NOTE: 99 records were read from the infile "/folders/myfolders/Homework/HW7/Diamonds.csv".
      The minimum record length was 16.
      The maximum record length was 29.
NOTE: The data set MYDATA.DIAMONDS has 99 observations and 5 variables.
NOTE: DATA statement used (Total process time):
      real time          0.05 seconds
      cpu time           0.02 seconds

99
100     /*dsd: recognizes two consecutive delimiters as a missing value also will recognize that the comma in "George Bush, Jr."
100     ! is
101     part of the name, and not a separator indicating a new variable.
102     */
103     proc print data=mydata.diamonds noobs;
104     run;

NOTE: There were 99 observations read from the data set MYDATA.DIAMONDS.
NOTE: PROCEDURE PRINT used (Total process time):
      real time          0.32 seconds

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```
cpu time          0.31 seconds

105
106      /*****#3 Using datalines*****/
107
108      data mydata.employees;
109          input lname $ fname $ age job $ gender $ group state $;
110          datalines;

NOTE: SAS went to a new line when INPUT statement reached past the end of a line.
NOTE: The data set MYDATA.EMPLOYEES has 11 observations and 7 variables.
NOTE: DATA statement used (Total process time):
      real time          0.05 seconds
      cpu time           0.02 seconds
```

```
124      ;
125
126      proc print data=mydata.employees label noobs;
127          label lname="Last Name" fname="First Name";
128          title1 'My employees';
129      run;

NOTE: There were 11 observations read from the data set MYDATA.EMPLOYEES.
NOTE: PROCEDURE PRINT used (Total process time):
      real time          0.09 seconds
      cpu time           0.08 seconds
```

```
130
131
132      OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
145
```

Results: HW7.sas

ftse17 file						
Date	Price	Open	High	Low	Vol.	Change
15-SEP-2017	\$7,215.47	7,295.39	7,295.39	7,196.58	1.46B	-1.10%
14-SEP-2017	\$7,295.39	7,379.70	7,390.70	7,287.73	1.26B	-1.14%
13-SEP-2017	\$7,379.70	7,400.69	7,401.30	7,336.23	870.09M	-0.28%
12-SEP-2017	\$7,400.69	7,413.59	7,435.84	7,386.98	768.76M	-0.17%
11-SEP-2017	\$7,413.59	7,377.60	7,434.07	7,377.60	633.81M	0.49%
08-SEP-2017	\$7,377.60	7,396.98	7,396.98	7,358.42	619.11M	-0.26%
07-SEP-2017	\$7,396.98	7,354.13	7,412.68	7,348.38	663.67M	0.58%
06-SEP-2017	\$7,354.13	7,372.92	7,372.92	7,322.42	697.15M	-0.25%
05-SEP-2017	\$7,372.92	7,411.47	7,437.51	7,369.58	558.08M	-0.52%
04-SEP-2017	\$7,411.47	7,438.50	7,438.50	7,404.05	398.67M	-0.36%
01-SEP-2017	\$7,438.50	7,430.62	7,460.52	7,430.06	552.91M	0.11%
31-AUG-2017	\$7,430.62	7,365.26	7,443.68	7,365.01	784.89M	0.89%
30-AUG-2017	\$7,365.26	7,337.43	7,381.33	7,337.43	686.61M	0.38%
29-AUG-2017	\$7,337.43	7,401.46	7,401.62	7,289.20	757.21M	-0.87%
25-AUG-2017	\$7,401.46	7,407.06	7,439.53	7,401.46	513.07M	-0.08%
24-AUG-2017	\$7,407.06	7,382.65	7,437.87	7,382.16	756.85M	0.33%
23-AUG-2017	\$7,382.65	7,381.74	7,394.52	7,360.33	611.96M	0.01%
22-AUG-2017	\$7,381.74	7,318.88	7,387.55	7,318.88	676.38M	0.86%
21-AUG-2017	\$7,318.88	7,323.98	7,331.95	7,296.80	552.91M	-0.07%
18-AUG-2017	\$7,323.98	7,387.87	7,387.87	7,302.47	741.56M	-0.86%
17-AUG-2017	\$7,387.87	7,433.03	7,433.74	7,382.16	593.94M	-0.61%
16-AUG-2017	\$7,433.03	7,383.85	7,444.98	7,383.85	586.26M	0.67%
15-AUG-2017	\$7,383.85	7,353.89	7,399.35	7,353.89	510.54M	0.41%
14-AUG-2017	\$7,353.89	7,309.96	7,377.66	7,309.96	553.29M	0.60%
11-AUG-2017	\$7,309.96	7,389.94	7,389.96	7,296.49	767.62M	-1.08%
10-AUG-2017	\$7,389.94	7,498.06	7,498.06	7,376.66	735.23M	-1.44%
09-AUG-2017	\$7,498.06	7,542.73	7,542.73	7,475.83	803.93M	-0.59%
08-AUG-2017	\$7,542.73	7,531.94	7,551.85	7,518.45	615.74M	0.14%
07-AUG-2017	\$7,531.94	7,511.71	7,533.74	7,511.71	632.19M	0.27%
04-AUG-2017	\$7,511.71	7,474.77	7,519.06	7,465.12	776.41M	0.49%
03-AUG-2017	\$7,474.77	7,411.43	7,484.53	7,384.22	819.30M	0.85%
02-AUG-2017	\$7,411.43	7,423.66	7,434.71	7,388.91	731.35M	-0.16%
01-AUG-2017	\$7,423.66	7,372.00	7,440.14	7,372.00	740.61M	0.70%
31-JUL-2017	\$7,372.00	7,368.37	7,425.52	7,367.86	927.04M	0.05%
28-JUL-2017	\$7,368.37	7,443.01	7,443.01	7,339.44	822.65M	-1.00%
27-JUL-2017	\$7,443.01	7,452.32	7,461.85	7,410.85	1.01B	-0.12%
26-JUL-2017	\$7,452.32	7,434.82	7,487.05	7,434.68	774.93M	0.24%
25-JUL-2017	\$7,434.82	7,377.73	7,453.74	7,377.73	798.83M	0.77%
24-JUL-2017	\$7,377.73	7,452.91	7,453.22	7,357.50	1.11B	-1.01%
21-JUL-2017	\$7,452.91	7,487.87	7,515.12	7,433.89	722.77M	-0.47%
20-JUL-2017	\$7,487.87	7,430.91	7,502.73	7,430.91	728.09M	0.77%
19-JUL-2017	\$7,430.91	7,390.22	7,442.84	7,379.33	660.42M	0.55%
18-JUL-2017	\$7,390.22	7,404.13	7,418.53	7,357.77	634.51M	-0.19%

Date	Price	Open	High	Low	Vol.	Change
17-JUL-2017	\$7,404.13	7,378.39	7,426.37	7,378.30	613.97M	0.35%
14-JUL-2017	\$7,378.39	7,413.44	7,419.81	7,363.77	852.44M	-0.47%
13-JUL-2017	\$7,413.44	7,416.93	7,428.24	7,403.75	970.71M	-0.05%
12-JUL-2017	\$7,416.93	7,329.76	7,439.08	7,329.76	821.52M	1.19%
11-JUL-2017	\$7,329.76	7,370.03	7,386.88	7,304.77	683.49M	-0.55%
10-JUL-2017	\$7,370.03	7,350.92	7,388.02	7,344.31	615.60M	0.26%

Diamonds file

NUMID	WEIGHT	COLOR	CLARITY	PRICE
1	0.30	D	VS2	\$1,302
2	0.30	E	VS1	\$1,510
3	0.30		VVS1	\$1,510
4	0.30	G	VS1	\$1,260
5	0.31	D	VS1	\$1,641
6	0.31	E	VS1	\$1,555
7	0.31	F	VS1	\$1,427
9	0.31	H	VS2	\$1,126
10	0.31	I	VS1	\$1,126
11	0.32	F	VS1	\$1,468
12	0.32	G		\$1,202
13	0.33	E	VS2	\$1,327
14	0.33	I	VS2	\$1,098
15	0.34	E	VS1	\$1,693
17	0.34	G	VS1	\$1,410
18	0.34	G	VS2	\$1,269
20	0.34	H	VS2	\$1,222
22	0.35	F	VS1	\$1,593
23	0.35	G	VS1	\$1,447
27	0.37	F	VS2	\$1,420
28	0.37	H	VS1	\$1,420
29	0.40	F	VS1	\$1,911
30	0.40	H	VS1	\$1,525
31	0.41	F	VS1	\$1,956
32	0.43	H	VVS2	\$1,747
35	0.48	G	VVS2	\$2,532
37	0.50	E	VS1	\$3,501
38	0.50	F	VVS2	\$3,501
39	0.50	F	VS1	\$3,293
41	0.51	F	VVS2	\$3,567
42	0.51	G	VS1	\$3,205
56	0.56	F	VS1	\$3,667
57	0.56	I	VVS2	\$2,892
60	0.60	F	VS1	\$4,291
63	0.64	G	VVS1	\$4,759
67	0.70		VVS2	\$5,122
69	0.71	F	VVS2	\$5,881
73	0.72	F	VS2	\$5,263
74	0.80	I	VVS2	\$5,441
78	0.86	H	VVS2	\$6,882
79	0.89	H	VS1	\$6,709
82	0.50	G	VVS1	\$3,432
83	0.51	F	VVS1	\$3,851
85	0.56	E	VS1	\$3,900
86	0.57	H	VVS1	\$3,415
87	0.60	H	IF	\$4,291
92	0.70	F	VS2	\$5,122
94	0.70	H	VVS2	\$5,122
123	1.00	F	VS2	\$9,480
124	1.00	G	VVS2	\$9,896
127	1.00	G	VS2	
129	1.00	I	VS1	\$8,095
130	1.00	I	VS2	\$7,818
133	1.01	E	VS2	\$9,853
134	1.01	F	VS1	\$10,272
135	1.01	F	VS2	\$9,573
152	0.18	F	VVS1	\$823
153	0.18		VVS2	\$765
154	0.18	G	IF	\$803
176	0.23	F	IF	\$1,147
177	0.23	G	IF	\$995
178	0.24	H	IF	\$1,108
198	0.31	F	VVS1	\$1,628
200	0.32	H	IF	\$1,462
201	0.33	H	IF	\$1,503
202	0.34	F	VVS1	\$1,773
204	0.35	F	VVS1	\$1,821
205	0.35		VVS2	\$1,540
208	0.41	I	VVS2	\$1,506

NUMID	WEIGHT	COLOR	CLARITY	PRICE
209	0.47	F	VVS2	\$2,651
210	0.48	F	VS1	\$2,383
213	0.51	F	VVS1	\$3,722
217	0.56	G	VVS2	\$3,470
219	0.58	F	VVS1	\$4,209
220	0.58	G	VVS1	\$3,821
222	0.70	G	VVS2	\$5,326
225	0.78	G	VVS2	\$5,937
227	1.01	G	VS1	\$9,713
228	1.01	H	VS2	\$8,873
230	0.50	F	VVS1	\$3,778
232	0.51	F	VVS1	\$3,851
244	0.60	G	VS2	\$3,421
245	0.60	H	VVS1	\$3,925
246	0.61	H	VVS2	\$3,616
247	0.62	I	VVS2	\$3,615
249	0.65	I	VVS2	\$3,643
251	0.70	E	VVS1	\$6,867
253	0.70	G	VVS1	\$5,800
255	0.70	H	VS2	\$4,346
257	0.71	H		\$5,193
260	0.73	G	VVS1	\$6,041
262	0.80	F	IF	\$8,611
263	0.80	F	VS1	\$6,905
265	0.80	H	VVS2	\$6,416
269	0.81	F	VS1	\$6,988
270	0.81	G	VS1	\$6,495
288	1.00	H	VS1	\$9,065
290	1.00	I	VVS1	\$8,788
293	1.00	I	VS2	\$7,818

My employees

Last Name	First Name	age	job	gender	group	state
Smith	Al	55	Man	M	1	Texas
Jones	Ted	38	SR2	M	2	Vermont
Hall	Kim	22	SR1	M	2	Vermont
Jones	Kim	19	Sec	F	1	Maryland
Clark	Guy	31	SR1	M	2	Grant
Schmidt	Henry	62	Mec	M	4	Washingt
Allen	Joe	45	Man	M	1	Vermont
Call	Steve	43	SR2	M	2	Maryland
McCall	Mac	26	Sec	F	1	Texas
Sue	Joe	25	Mec	F	4	Murphy
Love	Sue	27	SR2	F	2	Washingt