

```

1      OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
68
69      DATA course;
70          INFILE DATALINES;
71          INPUT Course_name $ Course_number $ days $ Credits;
72          DATALINES;

```

NOTE: The data set WORK.COURSE has 4 observations and 4 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	677.53k
OS Memory	21156.00k
Timestamp	09/07/2023 02:36:13 AM
Step Count	183 Switch Count 2
Page Faults	1
Page Reclaims	132
Page Swaps	0
Voluntary Context Switches	11
Involuntary Context Switches	0
Block Input Operations	128
Block Output Operations	264

```

77      ;
78      RUN;
79
80      PROC PRINT DATA=course;
81          TITLE 'Reading in Data from DATALINES - Space Delimiter';
82      RUN;

```

NOTE: There were 4 observations read from the data set WORK.COURSE.

NOTE: PROCEDURE PRINT used (Total process time):

real time	0.01 seconds
user cpu time	0.01 seconds
system cpu time	0.00 seconds
memory	1313.84k
OS Memory	21668.00k
Timestamp	09/07/2023 02:36:13 AM
Step Count	184 Switch Count 1
Page Faults	0
Page Reclaims	145
Page Swaps	0
Voluntary Context Switches	9
Involuntary Context Switches	0
Block Input Operations	0
Block Output Operations	8

```

83      DATA course;
84          INFILE DATALINES ;
85          INPUT Course_name $ 1-5 Course_number $ 6-8 Days $ 10-11 Credits 13-14;
86          DATALINES;

```

NOTE: The data set WORK.COURSE has 4 observations and 4 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	677.21k
OS Memory	21668.00k
Timestamp	09/07/2023 02:36:13 AM
Step Count	185 Switch Count 2
Page Faults	0
Page Reclaims	124
Page Swaps	0
Voluntary Context Switches	11
Involuntary Context Switches	0
Block Input Operations	0
Block Output Operations	272

```

91      ;
92      RUN;
93
94      PROC PRINT DATA=course;
95          TITLE 'Reading in Data from DATALINES - Column Input';
96      RUN;

```

WARNING: The TITLE statement is ambiguous due to invalid options or unquoted text.

NOTE: There were 4 observations read from the data set WORK.COURSE.

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	685.81k
OS Memory	21668.00k
Timestamp	09/07/2023 02:36:13 AM
Step Count	186 Switch Count 1
Page Faults	0
Page Reclaims	72
Page Swaps	0
Voluntary Context Switches	6
Involuntary Context Switches	0
Block Input Operations	0
Block Output Operations	0

```

97      DATA schedule;
98          INFILE DATALINES ;
99          INPUT @1 Course $9.
100             @10 Days $3.
101             @13 BeginDate mmddyy10.
102             @23 EndDate mmddyy10.;
103
104      DATALINES;

```

NOTE: The data set WORK.SCHEDULE has 4 observations and 4 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	670.31k
OS Memory	21668.00k
Timestamp	09/07/2023 02:36:13 AM
Step Count	187 Switch Count 2
Page Faults	0
Page Reclaims	95
Page Swaps	0
Voluntary Context Switches	18
Involuntary Context Switches	0
Block Input Operations	0
Block Output Operations	264

```

109      ;
110      RUN;
111
112      PROC PRINT DATA=schedule;
113          TITLE 'Reading in Data using Pointers/Informats';
114          FORMAT BeginDate mmddyy10. EndDate mmddyy10.;
115      RUN;

```

NOTE: There were 4 observations read from the data set WORK.SCHEDULE.

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	630.62k
OS Memory	21668.00k
Timestamp	09/07/2023 02:36:13 AM
Step Count	188 Switch Count 1
Page Faults	0
Page Reclaims	71
Page Swaps	0
Voluntary Context Switches	9
Involuntary Context Switches	0
Block Input Operations	0
Block Output Operations	0

```

116      DATA schedule;
117          INFILE DATALINES ;
118          INPUT Course : & $9.
119             Days : $3.
120             BeginDate : mmddyy10.
121             EndDate : mmddyy10.;
122
123      DATALINES;

```

NOTE: The data set WORK.SCHEDULE has 4 observations and 4 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	670.09k
OS Memory	21668.00k
Timestamp	09/07/2023 02:36:13 AM
Step Count	189 Switch Count 2
Page Faults	0
Page Reclaims	96
Page Swaps	0
Voluntary Context Switches	16
Involuntary Context Switches	0
Block Input Operations	0
Block Output Operations	264

```

128      ;
129      RUN;
130
131      PROC PRINT DATA=schedule;
132          TITLE 'Reading in Data using Modifiers';
133          FORMAT BeginDate mmddyy10. EndDate mmddyy10.;
134      RUN;

```

NOTE: There were 4 observations read from the data set WORK.SCHEDULE.

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	630.46k
OS Memory	21668.00k
Timestamp	09/07/2023 02:36:13 AM
Step Count	190 Switch Count 1
Page Faults	0
Page Reclaims	64
Page Swaps	0
Voluntary Context Switches	6
Involuntary Context Switches	0
Block Input Operations	0
Block Output Operations	0

```

135
136      DATA schedule;
137      INFILE DATALINES;
138      INFORMAT Course $9. Days $3. BeginDate mmddyy10. EndDate mmddyy10.;
139      INPUT Course & $ Days $ BeginDate EndDate ;
140      DATALINES;

```

NOTE: The data set WORK.SCHEDULE has 4 observations and 4 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	671.18k
OS Memory	21668.00k
Timestamp	09/07/2023 02:36:13 AM
Step Count	191 Switch Count 2
Page Faults	0
Page Reclaims	96
Page Swaps	0
Voluntary Context Switches	15
Involuntary Context Switches	0
Block Input Operations	0
Block Output Operations	264

```

145      ;
146      RUN;
147
148      PROC PRINT DATA=schedule;
149          TITLE 'Reading in Data using Modifiers';
150          FORMAT BeginDate mmddyy10. EndDate mmddyy10.;
151      RUN;

```

NOTE: There were 4 observations read from the data set WORK.SCHEDULE.

NOTE: PROCEDURE PRINT used (Total process time):

real time	0.00 seconds
-----------	--------------

```

user cpu time      0.00 seconds
system cpu time    0.01 seconds
memory             623.34k
OS Memory          21668.00k
Timestamp          09/07/2023 02:36:13 AM
Step Count         192  Switch Count  1
Page Faults        0
Page Reclaims      64
Page Swaps         0
Voluntary Context Switches  8
Involuntary Context Switches 0
Block Input Operations  0
Block Output Operations  0

```

```

152      DATA semester;
153          INFILE '/home/u63559709/sasuser.v94/Week 1/class_schedule.csv' DSD FIRSTOBS = 2;
154          INPUT CourseName $ CourseNumber $ Days $ BeginDate EndDate Credits Tuition : dollar4.;
155          INFORMAT BeginDate mmddyy10. EndDate mmddyy10.;
156      RUN;

```

NOTE: The infile '/home/u63559709/sasuser.v94/Week 1/class_schedule.csv' is:
 Filename=/home/u63559709/sasuser.v94/Week 1/class_schedule.csv,
 Owner Name=u63559709,Group Name=oda,
 Access Permission=-rw-r--r--,
 Last Modified=28Aug2023:22:02:23,
 File Size (bytes)=237

NOTE: 4 records were read from the infile '/home/u63559709/sasuser.v94/Week 1/class_schedule.csv'.
 The minimum record length was 34.
 The maximum record length was 44.

NOTE: The data set WORK.SEMESTER has 4 observations and 7 variables.

NOTE: DATA statement used (Total process time):

```

real time          0.04 seconds
user cpu time      0.00 seconds
system cpu time    0.00 seconds
memory             760.28k
OS Memory          21668.00k
Timestamp          09/07/2023 02:36:13 AM
Step Count         193  Switch Count  2
Page Faults        1
Page Reclaims      115
Page Swaps         0
Voluntary Context Switches  27
Involuntary Context Switches 0
Block Input Operations  256
Block Output Operations  272

```

```

157
158      PROC PRINT DATA=semester;
159          TITLE 'Reading in Data from a CSV File using DATA step';
160          FORMAT BeginDate mmddyy10. EndDate mmddyy10. Tuition dollar8.;
161      RUN;

```

NOTE: There were 4 observations read from the data set WORK.SEMESTER.

NOTE: PROCEDURE PRINT used (Total process time):

```

real time          0.01 seconds
user cpu time      0.01 seconds
system cpu time    0.00 seconds
memory             692.62k
OS Memory          21668.00k
Timestamp          09/07/2023 02:36:13 AM
Step Count         194  Switch Count  1
Page Faults        1
Page Reclaims      85
Page Swaps         0
Voluntary Context Switches  11
Involuntary Context Switches 0
Block Input Operations  152
Block Output Operations  24

```

```

162
163      PROC IMPORT
164      DATAFILE='/home/u63559709/sasuser.v94/Week 1/class_schedule.xlsx'
165          OUT = semester DBMS = xlsx
166          REPLACE ;
167          GETNAMES = yes;
168      RUN;

```

NOTE: One or more variables were converted because the data type is not supported by the V9 engine. For more details, run with options MSGLEVEL=I.

NOTE: The import data set has 4 observations and 7 variables.

NOTE: WORK.SEMESTER data set was successfully created.

NOTE: PROCEDURE IMPORT used (Total process time):

real time	0.01 seconds	
user cpu time	0.01 seconds	
system cpu time	0.00 seconds	
memory	3340.43k	
OS Memory	24312.00k	
Timestamp	09/07/2023 02:36:13 AM	
Step Count	195	Switch Count 4
Page Faults	6	
Page Reclaims	898	
Page Swaps	0	
Voluntary Context Switches	43	
Involuntary Context Switches	0	
Block Input Operations	760	
Block Output Operations	280	

169

170 PROC PRINT DATA=semester;

171 TITLE 'Reading in Data from excel';

172 RUN;

NOTE: There were 4 observations read from the data set WORK.SEMESTER.

NOTE: PROCEDURE PRINT used (Total process time):

real time	0.01 seconds	
user cpu time	0.01 seconds	
system cpu time	0.00 seconds	
memory	690.25k	
OS Memory	21924.00k	
Timestamp	09/07/2023 02:36:13 AM	
Step Count	196	Switch Count 1
Page Faults	1	
Page Reclaims	80	
Page Swaps	0	
Voluntary Context Switches	9	
Involuntary Context Switches	0	
Block Input Operations	144	
Block Output Operations	16	

173

174 OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;

184