# Program Summary - HW9.sas

## Execution Environment

| | |
|---|---|
| Author: | sasdemo |
| File: | /folders/myfolders/Homework/HW9/HW9.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: | 11/19/2018, 9:08:24 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/70.0.3538.102 Safari/537.36 |
| Application Server: | LOCALHOST.LOCALDOMAIN |

## Code: HW9.sas

```
/* HW 9 - Jonathan Wilson */
ods pdf file="/folders/myfolders/Homework/HW9/summary.pdf";

%let path=/folders/myfolders/Homework/HW9;
libname mydata "&path";

title1 'HW 9';

data employees_sales;
   input lname $ fname $ month $ sales;
   datalines;
Jones Ted Jan 28500
Jones Ted Feb 31200
Jones Ted Mar 14500
Jones Ted Apr 23000
Jones Ted May 42670
Jones Ted Jun 52000
Jones Ted Jul 1200
Jones Ted Aug 13000
Jones Ted Sep 19500
Jones Ted Oct 18430
Jones Ted Nov 19230
Jones Ted Dec 68201
Hall Kim Jan 12500
Hall Kim Feb 13400
Hall Kim Mar 17800
Hall Kim Apr 21200
Hall Kim May 23900
Hall Kim Jun 24100
Hall Kim Jul 25200
Hall Kim Aug 23950
Hall Kim Sep 22200
Hall Kim Oct 21090
Hall Kim Nov 18040
Hall Kim Dec 14210
Clark Guy Jan 32101
Clark Guy Feb 43001
Clark Guy Mar 29050
```

```
Clark Guy Apr 25010
Clark Guy May 22999
Clark Guy Jun 20500
Clark Guy Jul 21100
Clark Guy Aug 23400
Clark Guy Sep 27890
Clark Guy Oct 31090
Clark Guy Nov 52300
Clark Guy Dec 41230
Call Steve Jan 12090
Call Steve Feb 10901
Call Steve Mar 9080
Call Steve Apr 8541
Call Steve May 7521
Call Steve Jun 5300
Call Steve Jul 2510
Murphy Cori Jul 5700
Murphy Cori Aug 6900
Murphy Cori Sep 10200
Murphy Cori Oct 12050
Murphy Cori Nov 26800
Murphy Cori Dec 25963
Love Sue Jun 4800
Love Sue Jul 6900
Love Sue Aug 9500
Love Sue Sep 13420
Love Sue Oct 17890
Love Sue Nov 21090
Love Sue Dec 22500
;

/************Employees1 Dataset*************/

data mydata.employees9;
    set mydata.employees1;
    s="nos";
    b1= UPCASE(CAT(TRIM(boss),s));
    b2=tranwrd(b1, "NOS", "SON");
run;

proc sort data=mydata.employees9;
   by lname;
run;

proc print data=mydata.employees9 label noobs;
    label lname="Last Name" fname="First Name";
    format state $12.;
    var lname fname age job gender group state boss local s b1 b2;
    title2 'Employees1 Dataset';
run;

/************Employee Infomation and Sales Merged*************/
proc sort data=mydata.employees9;
   by lname;
run;

proc sort data=employees_sales;
   by lname;
run;
```

```
data salesmerged;
   merge mydata.employees9 employees_sales;
   by lname;
run;

proc print data=salesmerged noobs;
    var lname fname age job gender group state boss local s b1 b2 month sales;
    title2 'Employee Infomation and Sales Merged';
run;

/************Total Annual Sales for each Sales Rep*************/

proc means data=salesmerged sum nonobs nway noprint;
   var sales;
   class lname fname;
   ID job;
   format sales dollar10.;
   where job in ('SR2','SR1');
   output out=salessum sum=SalesSum;
run;

proc print data=salessum label noobs;
    var lname fname job SalesSum;
    label lname="Last Name" fname="First Name" job="Position" SalesSum="Total Sales";
    title2 'Total Annual Sales for each Sales Rep';
run;

ods pdf close;
```

---

### Log: HW9.sas

Notes (31)

```
1          OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
NOTE: ODS statements in the SAS Studio environment may disable some output features.
73
74         /* HW 9 - Jonathan Wilson */
75         ods pdf file="/folders/myfolders/Homework/HW9/summary.pdf";
NOTE: Writing ODS PDF output to DISK destination "/folders/myfolders/Homework/HW9/summary.pdf", printer "PDF".
76
77         %let path=/folders/myfolders/Homework/HW9;
78         libname mydata "&path";
NOTE: Libref MYDATA was successfully assigned as follows:
      Engine:        V9
      Physical Name: /folders/myfolders/Homework/HW9
79
80         title1 'HW 9';
81
82         data employees_sales;
83            input lname $ fname $ month $ sales;
84            datalines;

NOTE: The data set WORK.EMPLOYEES_SALES has 56 observations and 4 variables.
NOTE: DATA statement used (Total process time):
      real time           0.00 seconds
      cpu time            0.01 seconds


141        ;
142
143        /************Employees1 Dataset*************/
```

```
144
145         data mydata.employees9;
146         set mydata.employees1;
147         s="nos";
148         b1= UPCASE(CAT(TRIM(boss),s));
149         b2=tranwrd(b1, "NOS", "SON");
150         run;

NOTE: There were 13 observations read from the data set MYDATA.EMPLOYEES1.
NOTE: The data set MYDATA.EMPLOYEES9 has 13 observations and 12 variables.
NOTE: DATA statement used (Total process time):
      real time           0.06 seconds
      cpu time            0.02 seconds


151
152         proc sort data=mydata.employees9;
153            by lname;
154         run;

NOTE: There were 13 observations read from the data set MYDATA.EMPLOYEES9.
NOTE: The data set MYDATA.EMPLOYEES9 has 13 observations and 12 variables.
NOTE: PROCEDURE SORT used (Total process time):
      real time           0.05 seconds
      cpu time            0.02 seconds


155
156         proc print data=mydata.employees9 label noobs;
157         label lname="Last Name" fname="First Name";
158         format state $12.;
159         var lname fname age job gender group state boss local s b1 b2;
160         title2 'Employees1 Dataset';
161         run;

NOTE: There were 13 observations read from the data set MYDATA.EMPLOYEES9.
NOTE: PROCEDURE PRINT used (Total process time):
      real time           0.22 seconds
      cpu time            0.22 seconds


162
163         /************Employee Infomation and Sales Merged*************/
164         proc sort data=mydata.employees9;
165            by lname;
166         run;

NOTE: Input data set is already sorted, no sorting done.
NOTE: PROCEDURE SORT used (Total process time):
      real time           0.00 seconds
      cpu time            0.01 seconds


167
168         proc sort data=employees_sales;
169            by lname;
170         run;

NOTE: There were 56 observations read from the data set WORK.EMPLOYEES_SALES.
NOTE: The data set WORK.EMPLOYEES_SALES has 56 observations and 4 variables.
NOTE: PROCEDURE SORT used (Total process time):
      real time           0.00 seconds
      cpu time            0.01 seconds


171
172         data salesmerged;
```

```
173          merge mydata.employees9 employees_sales;
174          by lname;
175       run;

NOTE: MERGE statement has more than one data set with repeats of BY values.
NOTE: There were 13 observations read from the data set MYDATA.EMPLOYEES9.
NOTE: There were 56 observations read from the data set WORK.EMPLOYEES_SALES.
NOTE: The data set WORK.SALESMERGED has 62 observations and 14 variables.
NOTE: DATA statement used (Total process time):
      real time           0.01 seconds
      cpu time            0.01 seconds


176
177       proc print data=salesmerged noobs;
178       var lname fname age job gender group state boss local s b1 b2 month sales;
179       title2 'Employee Infomation and Sales Merged';
180       run;

NOTE: There were 62 observations read from the data set WORK.SALESMERGED.
NOTE: PROCEDURE PRINT used (Total process time):
      real time           0.51 seconds
      cpu time            0.52 seconds


181
182       /************Total Annual Sales for each Sales Rep*************/
183
184       proc means data=salesmerged sum nonobs nway noprint;
185          var sales;
186          class lname fname;
187          ID job;
188          format sales dollar10.;
189          where job in ('SR2','SR1');
190          output out=salessum sum=SalesSum;
191       run;

NOTE: There were 45 observations read from the data set WORK.SALESMERGED.
      WHERE job in ('SR1', 'SR2');
NOTE: The data set WORK.SALESSUM has 6 observations and 6 variables.
NOTE: PROCEDURE MEANS used (Total process time):
      real time           0.01 seconds
      cpu time            0.01 seconds


192
193       proc print data=salessum label noobs;
194       var lname fname job SalesSum;
195       label lname="Last Name" fname="First Name" job="Position" SalesSum="Total Sales";
196       title2 'Total Annual Sales for each Sales Rep';
197       run;

NOTE: There were 6 observations read from the data set WORK.SALESSUM.
NOTE: PROCEDURE PRINT used (Total process time):
      real time           0.07 seconds
      cpu time            0.07 seconds


198
199       ods pdf close;
NOTE: ODS PDF printed 4 pages to /folders/myfolders/Homework/HW9/summary.pdf.
200
201       OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
214
```

---

**Results: HW9.sas**

## HW 9
## Employees1 Dataset

| Last Name | First Name | age | job | gender | group | state | boss | local | s | b1 | b2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Allen | Joe | 45 | Man | M | 1 | Vermont | john | 22 | nos | JOHNNOS | JOHNSON |
| Call | Steve | 43 | SR2 | M | 2 | Maryland | carl | 44 | nos | CARLNOS | CARLSON |
| Clark | Guy | 31 | SR1 | M | 2 | Maryland | carl | 44 | nos | CARLNOS | CARLSON |
| Grant | Herbert | 51 | Jan | M | 3 | Texas | harold | 11 | nos | HAROLDNOS | HAROLDSON |
| Hall | Kim | 22 | SR1 | M | 2 | Vermont | carl | 22 | nos | CARLNOS | CARLSON |
| Jones | Ted | 38 | SR2 | M | 2 | Vermont | carl | 22 | nos | CARLNOS | CARLSON |
| Jones | Kim | 19 | Sec | F | 1 | Maryland | john | 44 | nos | JOHNNOS | JOHNSON |
| Love | Sue | 27 | SR2 | F | 2 | Washington | carl | 33 | nos | CARLNOS | CARLSON |
| McCall | Mac | 26 | Sec | F | 1 | Texas | john | 11 | nos | JOHNNOS | JOHNSON |
| Murphy | Cori | 21 | SR1 | F | 2 | Washington | carl | 33 | nos | CARLNOS | CARLSON |
| Schmidt | Henry | 62 | Mec | M | 4 | Washington | jacob | 33 | nos | JACOBNOS | JACOBSON |
| Smith | Al | 55 | Man | M | 1 | Texas | john | 11 | nos | JOHNNOS | JOHNSON |
| Sue | Joe | 25 | Mec | F | 4 | Texas | jacob | 11 | nos | JACOBNOS | JACOBSON |

## HW 9
## Employee Infomation and Sales Merged

| lname | fname | age | job | gender | group | state | boss | local | s | b1 | b2 | month | sales |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Allen | Joe | 45 | Man | M | 1 | Vermont | john | 22 | nos | JOHNNOS | JOHNSON | | . |
| Call | Steve | 43 | SR2 | M | 2 | Maryland | carl | 44 | nos | CARLNOS | CARLSON | Jan | 12090 |
| Call | Steve | 43 | SR2 | M | 2 | Maryland | carl | 44 | nos | CARLNOS | CARLSON | Feb | 10901 |
| Call | Steve | 43 | SR2 | M | 2 | Maryland | carl | 44 | nos | CARLNOS | CARLSON | Mar | 9080 |
| Call | Steve | 43 | SR2 | M | 2 | Maryland | carl | 44 | nos | CARLNOS | CARLSON | Apr | 8541 |
| Call | Steve | 43 | SR2 | M | 2 | Maryland | carl | 44 | nos | CARLNOS | CARLSON | May | 7521 |
| Call | Steve | 43 | SR2 | M | 2 | Maryland | carl | 44 | nos | CARLNOS | CARLSON | Jun | 5300 |
| Call | Steve | 43 | SR2 | M | 2 | Maryland | carl | 44 | nos | CARLNOS | CARLSON | Jul | 2510 |
| Clark | Guy | 31 | SR1 | M | 2 | Maryland | carl | 44 | nos | CARLNOS | CARLSON | Jan | 32101 |
| Clark | Guy | 31 | SR1 | M | 2 | Maryland | carl | 44 | nos | CARLNOS | CARLSON | Feb | 43001 |
| Clark | Guy | 31 | SR1 | M | 2 | Maryland | carl | 44 | nos | CARLNOS | CARLSON | Mar | 29050 |
| Clark | Guy | 31 | SR1 | M | 2 | Maryland | carl | 44 | nos | CARLNOS | CARLSON | Apr | 25010 |
| Clark | Guy | 31 | SR1 | M | 2 | Maryland | carl | 44 | nos | CARLNOS | CARLSON | May | 22999 |
| Clark | Guy | 31 | SR1 | M | 2 | Maryland | carl | 44 | nos | CARLNOS | CARLSON | Jun | 20500 |
| Clark | Guy | 31 | SR1 | M | 2 | Maryland | carl | 44 | nos | CARLNOS | CARLSON | Jul | 21100 |
| Clark | Guy | 31 | SR1 | M | 2 | Maryland | carl | 44 | nos | CARLNOS | CARLSON | Aug | 23400 |
| Clark | Guy | 31 | SR1 | M | 2 | Maryland | carl | 44 | nos | CARLNOS | CARLSON | Sep | 27890 |
| Clark | Guy | 31 | SR1 | M | 2 | Maryland | carl | 44 | nos | CARLNOS | CARLSON | Oct | 31090 |
| Clark | Guy | 31 | SR1 | M | 2 | Maryland | carl | 44 | nos | CARLNOS | CARLSON | Nov | 52300 |
| Clark | Guy | 31 | SR1 | M | 2 | Maryland | carl | 44 | nos | CARLNOS | CARLSON | Dec | 41230 |
| Grant | Herbert | 51 | Jan | M | 3 | Texas | harold | 11 | nos | HAROLDNOS | HAROLDSON | | . |
| Hall | Kim | 22 | SR1 | M | 2 | Vermont | carl | 22 | nos | CARLNOS | CARLSON | Jan | 12500 |
| Hall | Kim | 22 | SR1 | M | 2 | Vermont | carl | 22 | nos | CARLNOS | CARLSON | Feb | 13400 |
| Hall | Kim | 22 | SR1 | M | 2 | Vermont | carl | 22 | nos | CARLNOS | CARLSON | Mar | 17800 |
| Hall | Kim | 22 | SR1 | M | 2 | Vermont | carl | 22 | nos | CARLNOS | CARLSON | Apr | 21200 |
| Hall | Kim | 22 | SR1 | M | 2 | Vermont | carl | 22 | nos | CARLNOS | CARLSON | May | 23900 |
| Hall | Kim | 22 | SR1 | M | 2 | Vermont | carl | 22 | nos | CARLNOS | CARLSON | Jun | 24100 |
| Hall | Kim | 22 | SR1 | M | 2 | Vermont | carl | 22 | nos | CARLNOS | CARLSON | Jul | 25200 |
| Hall | Kim | 22 | SR1 | M | 2 | Vermont | carl | 22 | nos | CARLNOS | CARLSON | Aug | 23950 |
| Hall | Kim | 22 | SR1 | M | 2 | Vermont | carl | 22 | nos | CARLNOS | CARLSON | Sep | 22200 |
| Hall | Kim | 22 | SR1 | M | 2 | Vermont | carl | 22 | nos | CARLNOS | CARLSON | Oct | 21090 |
| Hall | Kim | 22 | SR1 | M | 2 | Vermont | carl | 22 | nos | CARLNOS | CARLSON | Nov | 18040 |
| Hall | Kim | 22 | SR1 | M | 2 | Vermont | carl | 22 | nos | CARLNOS | CARLSON | Dec | 14210 |
| Jones | Ted | 38 | SR2 | M | 2 | Vermont | carl | 22 | nos | CARLNOS | CARLSON | Jan | 28500 |
| Jones | Ted | 19 | Sec | F | 1 | Maryland | john | 44 | nos | JOHNNOS | JOHNSON | Feb | 31200 |
| Jones | Ted | 19 | Sec | F | 1 | Maryland | john | 44 | nos | JOHNNOS | JOHNSON | Mar | 14500 |
| Jones | Ted | 19 | Sec | F | 1 | Maryland | john | 44 | nos | JOHNNOS | JOHNSON | Apr | 23000 |
| Jones | Ted | 19 | Sec | F | 1 | Maryland | john | 44 | nos | JOHNNOS | JOHNSON | May | 42670 |
| Jones | Ted | 19 | Sec | F | 1 | Maryland | john | 44 | nos | JOHNNOS | JOHNSON | Jun | 52000 |
| Jones | Ted | 19 | Sec | F | 1 | Maryland | john | 44 | nos | JOHNNOS | JOHNSON | Jul | 1200 |

| lname | fname | age | job | gender | group | state | boss | local | s | b1 | b2 | month | sales |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jones | Ted | 19 | Sec | F | 1 | Maryland | john | 44 | nos | JOHNNOS | JOHNSON | Aug | 13000 |
| Jones | Ted | 19 | Sec | F | 1 | Maryland | john | 44 | nos | JOHNNOS | JOHNSON | Sep | 19500 |
| Jones | Ted | 19 | Sec | F | 1 | Maryland | john | 44 | nos | JOHNNOS | JOHNSON | Oct | 18430 |
| Jones | Ted | 19 | Sec | F | 1 | Maryland | john | 44 | nos | JOHNNOS | JOHNSON | Nov | 19230 |
| Jones | Ted | 19 | Sec | F | 1 | Maryland | john | 44 | nos | JOHNNOS | JOHNSON | Dec | 68201 |
| Love | Sue | 27 | SR2 | F | 2 | Washington | carl | 33 | nos | CARLNOS | CARLSON | Jun | 4800 |
| Love | Sue | 27 | SR2 | F | 2 | Washington | carl | 33 | nos | CARLNOS | CARLSON | Jul | 6900 |
| Love | Sue | 27 | SR2 | F | 2 | Washington | carl | 33 | nos | CARLNOS | CARLSON | Aug | 9500 |
| Love | Sue | 27 | SR2 | F | 2 | Washington | carl | 33 | nos | CARLNOS | CARLSON | Sep | 13420 |
| Love | Sue | 27 | SR2 | F | 2 | Washington | carl | 33 | nos | CARLNOS | CARLSON | Oct | 17890 |
| Love | Sue | 27 | SR2 | F | 2 | Washington | carl | 33 | nos | CARLNOS | CARLSON | Nov | 21090 |
| Love | Sue | 27 | SR2 | F | 2 | Washington | carl | 33 | nos | CARLNOS | CARLSON | Dec | 22500 |
| McCall | Mac | 26 | Sec | F | 1 | Texas | john | 11 | nos | JOHNNOS | JOHNSON | | . |
| Murphy | Cori | 21 | SR1 | F | 2 | Washington | carl | 33 | nos | CARLNOS | CARLSON | Jul | 5700 |
| Murphy | Cori | 21 | SR1 | F | 2 | Washington | carl | 33 | nos | CARLNOS | CARLSON | Aug | 6900 |
| Murphy | Cori | 21 | SR1 | F | 2 | Washington | carl | 33 | nos | CARLNOS | CARLSON | Sep | 10200 |
| Murphy | Cori | 21 | SR1 | F | 2 | Washington | carl | 33 | nos | CARLNOS | CARLSON | Oct | 12050 |
| Murphy | Cori | 21 | SR1 | F | 2 | Washington | carl | 33 | nos | CARLNOS | CARLSON | Nov | 26800 |
| Murphy | Cori | 21 | SR1 | F | 2 | Washington | carl | 33 | nos | CARLNOS | CARLSON | Dec | 25963 |
| Schmidt | Henry | 62 | Mec | M | 4 | Washington | jacob | 33 | nos | JACOBNOS | JACOBSON | | . |
| Smith | Al | 55 | Man | M | 1 | Texas | john | 11 | nos | JOHNNOS | JOHNSON | | . |
| Sue | Joe | 25 | Mec | F | 4 | Texas | jacob | 11 | nos | JACOBNOS | JACOBSON | | . |

## HW 9
## Total Annual Sales for each Sales Rep

| Last Name | First Name | Position | Total Sales |
|---|---|---|---|
| Call | Steve | SR2 | $55,943 |
| Clark | Guy | SR1 | $369,671 |
| Hall | Kim | SR1 | $237,590 |
| Jones | Ted | SR2 | $28,500 |
| Love | Sue | SR2 | $96,100 |
| Murphy | Cori | SR1 | $87,613 |