E X A M P L E   1

Listing Selected Observations

Featured Tools:

☐ PRINT procedure
☐ SORT procedure
☐ FORMAT procedure, VALUE
    statement
☐ WHERE statement
☐ FORMAT and LABEL statements

```
                    Selected Listing of Local Residential Properties                    1
                            Price Range $100,000 to $250,000

      ZONE            TYPE      ADDRESS                   PRICE   BEDROOM   BATH   SQFEET   AGE

      Roebuck         twostory  Lot 10 Red Coach Rd.    $225,000     4     2.5    3,446     0
      North Ridge     twostory  4000 Skipjack Ct.       $214,900     3     2.5    2,750     0
      Westend         twostory  5521 Horseshoe Circle   $199,200     3     2.5    2,863     7
      East Lake       split     7141 Eastridge          $198,000     4     2.5    2,600    10
      East Lake       ranch     9354 Sauls Rd.          $197,000     3     2.5    2,441     1
      East Lake       ranch     9356 Sauls Rd.          $197,000     3     2.5    2,441     1
      East Lake       twostory  1641 Pricewood Lane     $195,000     3     2.5    1,940     4
      Inside Beltline twostory  114 Grey Horse Dr.      $189,900     4     2.5    2,584     0
      Roebuck         twostory  2103 Carriage Way       $189,900     4     2.5    2,608     0
      Inside Beltline twnhouse  765 Crabtree Crossing   $184,000     3     2.0    1,471     1
      Inside Beltline split     101 Meadowglade Ln.     $179,950     3     2.0    2,004     0
      Inside Beltline twnhouse  108 Chattle Close       $179,900     3     2.5    2,080     4
      North Ridge     twostory  1800 Bridgeport         $169,900     4     2.5    2,700     7
      East Lake       twostory  211 Whitehall Way       $154,900     4     2.5    2,538     6
      North Ridge     twostory  6008 Brass Lantern Ct.  $144,500     3     2.5    2,416     6
      Inside Beltline twostory  100 Cumberland Green    $143,000     3     2.5    1,650     0
      East Lake       ranch     8122 Maude Steward Rd.  $129,900     3     3.0    2,400     2
      Roebuck         split     110 Skylark Way         $123,500     3     2.0    1,976    10
      Westend         twostory  1532 St. Mary's Rd.     $118,500     3     2.5    1,900     4
      Westend         split     603 Greentree Dr.       $117,800     3     2.0    1,533     5
      East Lake       ranch     6509 Orchard Knoll      $107,900     3     2.0    1,526     6
      Southside       twnhouse  154 Montrose            $102,000     2     2.0    1,595     6
      Mountain Brook  duplex    108 South Elm St.       $100,000     3     1.0    1,569    73
      North Ridge     split     6324 Lakeland, Lake Park $100,000    3     2.0    1,662    12
```

Overview

This report shows a partial listing of a data set that describes houses for sale. The listing contains information about houses within a certain price range.

Method

PROC SORT sorts the data set by the descending order of the sale price. PROC FORMAT creates a format that assigns a meaningful name for the geographic region of each house. PROC PRINT selects and prints observations based on the price of the house.

Key Steps

☐ Sort the data by the descending order of PRICE.

☐ Create a format that assigns a meaningful description for each value of ZONE.

☐ Select the observations to print.

☐ Print only selected variables.

The Program

Set options.

```
options nodate number pageno=1 linesize=132 pagesize=60;
```

Create the HOUSING data set.
HOUSING contains descriptive data about homes currently for sale. The INPUT statement reads two records to create each observation. Each value for ZONE represents a geographic area. The complete DATA step is in the appendix.

```
data housing;
   input zone $1. +1 type : $8. bedr bath sqfeet age
         schools : $15. / address & $25. price;
   cards;
4 twostory 4 2.5 2538 6 920:340/400/368
211 Whitehall Way  154900
1 twostory 4 2.5 2700 7 920:470/360/552
1800 Bridgeport  169900
3 twnhouse 2 2 1595 6 320:332/366/312
154 Montrose  102000
   .
   . more data lines
   .
1 twostory 3 2.5 2416 6 920:568/356/318
6008 Brass Lantern Ct.  144500
4 ranch 3 2.5 2441 1 920:540/512/436
9356 Sauls Rd.  197000
1 twostory 5 3.5 4850 3 920:540/512/436
9317 Sauls Rd.  339950
4 split 3 1.5 1225 18 920:328/312/316
6424 Old Jenks Rd.  81900
;
```

Sort the data values by the descending values of PRICE.

```
proc sort data=housing;
   by descending price;
run;
```

Create a format for ZONE that provides meaningful descriptions for geographic regions.

```
proc format;
   value $zonefmt '1'='North Ridge'
                  '2'='Inside Beltline'
                  '3'='Southside'
                  '4'='East Lake'
                  '5'='Westend'
                  '6'='Mountain Brook'
                  '7'='Ensley'
                  '8'='Roebuck';
run;
```

Print the sorted data set. UNIFORM formats all pages of a multipage report uniformly. LABEL uses variable labels as column headers. NOOBS suppresses the observation numbers.

```
proc print data=housing uniform label noobs;
```

Specify the observations and variables to print. The WHERE statement prints only those observations where PRICE is between 100000 and 250000, inclusive. The VAR statement specifies the variables to print and the order in which to print them.

```
where price between 100000 and 250000;
var zone type address price bedr bath sqfeet age;
```

Associate formats and labels with variables.

```
format sqfeet comma5. price dollar9. zone $zonefmt.;
label bedr='BEDROOM';
```

Specify titles.

```
title 'Selected Listing of Local Residential Properties';
title2 'Price Range $100,000 to $250,000';
run;
```

Where to Go from Here

☐ **PROC PRINT reference and usage information**. For complete reference documentation, see Chapter 27, "The PRINT Procedure," in the *SAS Procedures Guide, Version 6, Third Edition* and Chapter 32, "The PRINT Procedure," in SAS Technical Report P-222, *Changes and Enhancements to Base SAS Software, Release 6.07*. For more usage information, see Chapter 24, "Printing Detail Reports," in *SAS Language and Procedures: Usage, Version 6, First Edition.*

☐ **WHERE statement processing**. For more information, see Chapter 9, "SAS Language Statements," in *SAS Language: Reference, Version 6, First Edition* and Chapter 14, "Reporting on Subsets of SAS Data Sets," in *SAS Language and Procedures: Usage 2, Version 6, First Edition.*

☐ **Reading multiple records to create one observation**. For more information, see Chapter 3, "Starting with Raw Data," in *SAS Language and Procedures: Usage.*

☐ **Routing output**. For more information on routing SAS output, see the SAS companion for your operating system. You can use the following tools in SAS software: PROC PRINTTO or the display manager FILE command. You can also use operating system commands, options, and statements.