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/*************************************************************************/

/* Program Name: HW10.sas */

/* Date Created: October 18 2017 */

/* Author: Dilip Lalwani */

/* Purpose: SAS and working with datasets */


/*#2 Create two libname statements*/


libname jobsdata '/folders/myfolders/jobsdata/' access=readonly;

libname hw10 '/folders/myfolders/HW10/';


/*#3 Specify a fileref for PDF output*/


filename hw10pdf '/folders/myfolders/HW10/hw10.pdf';


/*#4 Create a new data set using jobs2017 dataset*/


data hw10.newjobs2017;

        set jobsdata.jobs2017;

        /* a. Remove observations that have a missing State value */

        where State is not missing;


        /* b. Supply labels for all of the month variables so the full month name and the year will be
displayed like "August 2016". */

label Aug__2016='August 2016'

Sept__2016='September 2016'

Oct__2016='October 2016'

Nov__2016='November 2016'

Dec__2016='December 2016'
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```sas
            Jan__2017='January 2017'

            Feb__2017='February 2017'

            Mar__2017='March 2017'

            Apr__2017='April 2017'

            May_2017='May 2017'

            June_2017='June 2017'

            July_2017='July 2017'

            Aug__2017='August 2017';


        /* c. Create a new variable labeled Report Date  */


        reportdate =      '12OCT2017'd;

        FORMAT reportdate MMDDYY10.;

                LABEL reportdate = 'Report Date';


        /* d. Create a variable labeled Annual Change */

        annualchange = (Aug__2017-Aug__2016)/Aug__2016;

        FORMAT annualchange percent8.1;

                LABEL annualchange = 'Annual Change';


run;


/*#5 Create temporary dataset from enhanced dataset having an annual change of 5 percent or more
positive or negative*/


data work.BIGCHANGE;

set hw10.newjobs2017;

where annualchange ne . and ((annualchange*100 ge 5) or (annualchange*100 le -5));

keep reportdate annualchange State Sector Aug__2016 Aug__2017;
```

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run;


/*#6 Create temporary dataset for the number of jobs logic*/


data work.NEWJUMPS;

set hw10.newjobs2017;

where Aug__2017 ge July_2017+1 and July_2017 ne .;

keep Sector State Jan__2017 Feb__2017 Mar__2017 Apr__2017 May_2017 June_2017

July_2017 Aug__2017;

run;


/*#7 Create temporary dataset of service industries*/


data work.SERVICES;

set hw10.newjobs2017;

where annualchange ne . and Sector like '%SERVICES%';

keep State Aug__2016 Aug__2017 annualchange Sector reportdate;

format Aug__2016 Aug__2017 COMMA5.0;

run;


/*#8 Create temporary dataset of Southern States*/

data work.SOUTHERN;

set hw10.newjobs2017;

where ( (State in ('Texas', 'Oklahoma', 'Arkansas', 'Louisiana', 'Mississippi', 'Kentucky',

'Alabama', 'Florida', 'Georgia', 'South Carolina', 'North Carolina', 'Virginia'))or (State like

'District of Columbia%') or (State like 'Tennessee%') ) and Sector not contains 'GOVERNMENT';

keep Sector State annualchange Jan__2017 Feb__2017 Mar__2017 Apr__2017 May_2017 June_2017

July_2017 Aug__2017;

run;
```

```sas
/*#9 Open a PDF destination using the fileref above*/

ods pdf file=hw10pdf bookmarkgen=no;

/*#10 Print descriptor of cleaned up jobs dataset*/
proc contents data=hw10.newjobs2017;
title '#10. Descriptor Portion of Cleaned Jobs DataSet';
run;

/*#11 Print a listing of all temporary data sets excludes the details*/
proc contents data=work._all_ nods;
title '#11. List of Temporary Data Sets';
run;

/*#12 Print data portion of temporary dataset work.BIGCHANGE*/
proc print data=work.BIGCHANGE label noobs;
title '#12 Records with over 5% Annual Change';
var /*report_date*/ annualchange State Sector Aug__2017 Aug__2016;
run;

/*#13 Print data portion of temporary dataset work.NEWJUMPS*/
proc print data=work.NEWJUMPS label noobs;
title '#13 Records with Recently Monthly Increase';
var Sector State Jan__2017 Feb__2017 Mar__2017 Apr__2017 May_2017 June_2017 July_2017
Aug__2017;
run;

/*#13 Print data portion of temporary dataset work.SERVICES*/
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proc print data=work.SERVICES label;

title '#13 Services';

var State Aug__2016 Aug__2017 annualchange Sector reportdate;

run;


/*#13 Print data portion of temporary dataset work.SOUTHERN*/

proc print data=work.SOUTHERN label noobs;

title '#13 SOUTHERN States';

var Sector State Jan__2017 Feb__2017 Mar__2017 Apr__2017 May_2017 June_2017 July_2017
Aug__2017 annualchange;

run;


ods pdf close;
```