# Hw14

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libname data '/courses/d649d56dba27fe300/STA5066';  
  
/\* 1 \*/  
title " Unique Customers and Salespersons for Retail Sale";  
  
proc freq data=data.orders nlevels;  
 where Order\_Type=1;  
 tables Customer\_ID Employee\_ID/noprint;  
run;  
title;  
  
title " Unique Customers for Catalog and Internet";  
  
proc freq data=data.orders nlevels;  
 where order\_Type ne 1;  
 tables Customer\_ID /noprint;  
run;  
title;

/\* 2 \*/  
proc format;  
 value ordertypes 1='Retail' 2='Catalog' 3='Internet';  
run;  
  
proc freq data=data.orders;  
 format Order\_Date YEAR4. Order\_Type ordertypes.;  
 tables Order\_Date;  
 tables Order\_Type/nocum nopercent;  
 tables Order\_Date\*Order\_Type/nocol norow nopercent;  
run;

/\* 3 \*/  
proc freq data=data.order\_fact;  
 tables Product\_ID/nocum out=freqcount;  
run;  
  
data proname;  
 merge freqcount   
 data.product\_list;  
 by Product\_ID;  
run;  
  
proc sort data=proname;  
 by descending COUNT;  
run;  
  
proc print data=proname(obs=10);run;

/\* 4 \*/

proc format;

value ordertypes 1='Retail' 2='Catalog' 3='Internet';

run;

title "Revenue (in U.S. Dollars) Earned from All Orders ";

proc means data=data.order\_fact sum;

var Total\_Retail\_Price;

class Order\_Date Order\_Type;

format Order\_Date YEAR4. Order\_Type ordertypes.;

run;

title;

/\* 5 \*/  
title " Number of Missing and Non-Missing Date Values";  
  
proc means data=data.staff nmiss n maxdec=0 nonobs;  
 var Birth\_Date Emp\_Hire\_Date Emp\_Term\_Date;  
 class Gender;  
run;  
title;

/\* 6 \*/  
proc means data=data.order\_fact sum;  
 var Total\_Retail\_Price;  
 class Product\_ID;  
 output out=TotalSum sum = sumPrice;  
run;  
  
data new;  
 merge TotalSum   
 data.product\_list;  
 by Product\_ID;  
run;  
  
proc sort data=new;  
 where \_TYPE\_=1;  
 by descending sumPrice;  
run;  
  
proc print data=new(obs=10);run;

/\* 7 \*/  
data work.AnalysisTmp;  
 set data.analysis;  
 keep seqn dmaracer dmarethn dmaethnr hssex hsageir;  
run;  
  
proc freq data=work.AnalysisTmp;  
 tables dmaracer dmarethn hssex/nocum nopercent;  
run;  
  
proc freq data=work.AnalysisTmp;  
 where hssex=2 and hsageir<50;  
 tables dmaracer dmarethn hssex/nocum nopercent;  
run;  
  
proc format;  
 value agef   
 low-<45='<45'   
 45-59='45-59'   
 60-high='60+';  
run;  
  
proc freq data=work.AnalysisTmp;  
 tables (dmaracer dmarethn hssex)\*hsageir;  
 format hsageir agef.;  
run;

/\* 8 \*/  
proc univariate data=sashelp.heart;  
 var cholesterol;  
 histogram cholesterol/normal;  
 inset mean(5.1) std(5.1) n /position=ne;  
 qqplot cholesterol/normal;  
 inset mean(5.1) std(5.1) n /position=tm;  
run;