Ting Hu

%let path=/courses/d649d56dba27fe300/STA5067/SAS Data;  
libname orion "&path/orion";  
/\*\* 1.a \*\*/  
%macro emporders(idnum=121044);  
 proc print data=orion.order\_fact noobs;  
 var Order\_ID Order\_Type Order\_Date Delivery\_Date;  
 where Employee\_ID=&idnum;  
 title "Orders Received by Employee &idnum";  
 run;  
%mend emporders;  
%emporders()  
  
/\*\* 1.b \*\*/  
%macro emporders(idnum=121044);  
data \_null\_;  
set orion.employee\_addresses;  
where Employee\_ID=&idnum;  
call symputx('name',Employee\_Name);  
run;  
 proc print data=orion.order\_fact noobs;  
 var Order\_ID Order\_Type Order\_Date Delivery\_Date;  
 where Employee\_ID=&idnum;  
 title "Orders Received by Employee &idnum";  
 run;  
%mend emporders;  
/\*\* 1.c \*\*/  
%macro emporders(idnum=121044);  
data \_null\_;  
set orion.employee\_addresses;  
where Employee\_ID=&idnum;  
call symputx('name',Employee\_Name);  
run;  
 proc print data=orion.order\_fact noobs;  
 var Order\_ID Order\_Type Order\_Date Delivery\_Date;  
 where Employee\_ID=&idnum;  
 title "Orders Received by Employee &name";  
 run;  
%mend emporders;  
%emporders()  
  
/\*\* 1.d \*\*/  
%emporders(idnum=121066)  
  
/\*\* 2.a \*\*/  
proc means data=orion.order\_fact nway noprint;   
 var Total\_Retail\_Price;  
 class Customer\_ID;  
 output out=customer\_sum sum=CustTotalPurchase;  
run;  
  
proc sort data=customer\_sum;   
 by descending CustTotalPurchase;  
run;  
  
proc print data=customer\_sum(drop=\_type\_);  
run;  
/\*\* 2.b \*\*/  
proc sql;  
create table test as   
select distinct Customer\_ID,Order\_ID,Order\_Type,Order\_Date,Delivery\_Date  
from orion.order\_fact   
;  
quit;  
%let top =16;  
proc print data =work.test ;  
var Order\_ID Order\_Type Order\_Date Delivery\_Date;  
where Customer\_ID=&top;  
title "Orders for Customer &top-orion's top Customer";  
run;  
/\*\* 2.c \*\*/  
data \_null\_;  
set orion.customer\_dim;  
where Customer\_ID = &top;  
call symputx('name',Customer\_Name);  
run;  
proc print data =work.test ;  
var Order\_ID Order\_Type Order\_Date Delivery\_Date;  
where Customer\_ID=&top;  
title "Orders for Customer &name-orion's top Customer ";  
run;  
/\*\* 3.a \*\*/  
proc means data=orion.order\_fact nway noprint;   
 var Total\_Retail\_Price;  
 class Customer\_ID;  
 output out=customer\_sum sum=CustTotalPurchase;  
run;  
  
proc sort data=customer\_sum ;  
 by descending CustTotalPurchase;  
run;  
  
proc print data=customer\_sum(drop=\_type\_);  
run;  
  
/\*\* 3.b \*\*/  
proc sort data=customer\_sum ;  
 by descending CustTotalPurchase;  
run;  
data a;   
set customer\_sum(obs=3) end=final;   
call symputx(cats('n',put(\_n\_,1.)),left(customer\_id));   
run;  
data \_null\_;  
set a;  
call symputx('Top3',catx(" ",&n1,&n2,&n3));  
run;  
%put \_user\_;  
/\*  
data \_null\_;   
set customer\_sum(obs=3) end=final;   
call symputx(cats('n',put(\_n\_,1.)),left(customer\_id));   
call symputx('Top3',catx(" ",&n1,&n2,&n3));   
 if final then call symputx('Top3',catx(" ",&n1,&n2,&n3));\*/  
/\*If use condition "IF", then will process IF first ,and cause worng at  
&n1,&n2,&n3.   
run;   
%put \_user\_;   
data \_null\_ ;  
retain count 0;  
set customer\_sum;  
by descending CustTotalPurchase;  
if first.CustTotalPurchase then count+1;  
if count <=3 then do;   
call symputx('top3'||left(count),Customer\_ID);  
if count >3 then stop;  
end;  
run;   
\*/  
/\*\* 3.c \*\*/  
proc print data=orion.customer\_dim;  
title "Top3 Customers";  
var Customer\_ID Customer\_Name Customer\_Type;  
where Customer\_ID = &n1  
or Customer\_ID = &n2  
or Customer\_ID = &n3;  
run;  
/\*\* 4.a \*\*/  
%macro memberlist(id=1020);  
 %put \_user\_;  
 title "A List of &id";  
 proc print data=orion.customer;  
 var Customer\_Name Customer\_ID Gender;  
 where Customer\_Type\_ID=&id;  
 run;  
%mend memberlist;  
%memberlist()  
/\*\* 4.b \*\*/  
data \_null\_ ;  
set orion.Customer\_type;  
call symputx('type'||left(Customer\_Type\_ID),Customer\_Type);  
run;  
/\*\* 4.c \*\*/  
  
%macro memberlist(id=1020);  
data \_null\_ ;  
set orion.Customer\_type;  
call symputx('type'||left(Customer\_Type\_ID),Customer\_Type);  
run;  
 title "A List of &&type&id";  
 proc print data=orion.customer;  
 var Customer\_Name Customer\_ID Gender;  
 where Customer\_Type\_ID=&id;  
 run;  
%mend memberlist;  
/\*\* 4.d \*\*/  
%memberlist(id=2030)  
  
/\*\* 5.a \*\*/  
data \_null\_;  
 set orion.customer\_type;  
 call symputx('type'||left(Customer\_Type\_ID), Customer\_Type);  
run;  
  
%put \_user\_;  
  
%macro memberlist(custtype);  
 proc print data=orion.customer\_dim;  
 var Customer\_Name Customer\_ID Customer\_Age\_Group;  
 where Customer\_Type="&custtype";  
 title "A List of &&type&custtupe";  
 run;  
%mend memberlist;/\*this is a wrong macro set\*\*/  
  
/\*\* 5.b \*\*/  
%macro memberlist(custtype);  
data \_null\_;  
 set orion.customer\_type;  
 call symputx('type'||left(Customer\_Type\_ID), Customer\_Type);  
run;  
 proc print data=orion.customer\_dim;  
 var Customer\_Name Customer\_ID Customer\_Age\_Group;  
 where Customer\_Type= "&&type&custtype";  
 title "A List of &&type&custtype";  
 run;  
%mend memberlist;  
%let Num = 2010;  
%memberlist(&Num);  
/\*\* 6.a \*\*/  
data \_NULL\_;  
set orion.country;  
call symputx('name'||left(Country),Country\_Name);  
run;  
%put \_user\_;  
/\*\* 6.b \*\*/  
%let code=AU;  
proc print data=Orion.Employee\_Addresses;  
 var Employee\_Name City;  
 where Country="&code";  
 title "A List of xxxxx Employees";  
run;  
/\*\* 6.c \*\*/  
%let code=AU;  
proc print data=Orion.Employee\_Addresses;  
 var Employee\_Name City;  
 where Country="&code";  
 title "A List of &&name&code Employees";  
run;  
/\*\* 7.a \*\*/  
data \_null\_;  
 set orion.customer\_type;  
 call symputx('type'||left(Customer\_Type\_ID), Customer\_Type);  
run;  
  
%put \_user\_;  
  
data us;  
 set orion.customer;  
 where Country="US";  
 keep Customer\_ID Customer\_Name Customer\_Type\_ID;  
run;  
  
proc print data=us noobs;  
 title "US Customers";  
run;  
/\*\* 7.b \*\*/  
%let CustType = symget('type'||left(Customer\_Type\_ID));  
data us;  
 set orion.customer;  
 where Country="US";  
 keep Customer\_ID Customer\_Name Customer\_Type\_ID Customer\_Type;  
 Customer\_Type=&CustType;  
run;  
  
proc print data=us noobs;  
 title "US Customers";  
run;