

Homework #2-SOLUTIONS

Part I:

1. Displaying orion.customer_dim with the PRINT Procedure

```
proc print data=orion.customer_dim noobs;  
  where Customer_Age between 30 and 40;  
  id Customer_ID;  
  var Customer_Name Customer_Age Customer_Type;  
run;
```

2. Sorting orion.employee_payroll and Displaying a Subset of the New Data Set

```
proc sort data=orion.employee_payroll out=work.sort_sal;  
  by Employee_Gender descending Salary;  
run;  
  
proc print data=work.sort_sal noobs;  
  by Employee_Gender;  
  sum Salary;  
  where Employee_Term_Date is missing and Salary>65000;  
  var Employee_ID Salary Marital_Status;  
run;
```

3. Writing an Enhanced Detail Report

```
proc sort data=orion.employee_addresses out=work.address;  
  where Country='US';  
  by State City Employee_Name;  
run;  
  
title "US Employees by State";  
proc print data=work.address noobs split=' ';  
  var Employee_ID Employee_Name City Postal_Code;  
  label Employee_ID='Employee ID'  
         Employee_Name='Name'  
         Postal_Code='Zip Code';  
  by State;  
run;
```

Part II:

1. Displaying Formatted Values in a Detail Report

```
title1 'US Sales Employees';
title2 'Earning Under $26,000';

proc print data=orion.sales label noobs;
  where Country='US' and Salary<26000;
  var Employee_ID First_Name Last_Name Job_Title Salary Hire_Date;
  label First_Name='First Name'
        Last_Name='Last Name'
        Job_Title='Title'
        Hire_Date='Date Hired';
  format Salary dollar10. Hire_Date monyy7.;
run;
title;
footnote;
```

2. Defining Ranges in User-Defined Formats

```
proc format;
  value $gender
    'F'='Female'
    'M'='Male'
    other='Invalid code';

  value salrange .='Missing salary'
    20000-<100000='Below $100,000'
    100000-500000='$100,000 or more'
    other='Invalid salary';
run;

title1 'Salary and Gender Values';
title2 'for Non-Sales Employees';

proc print data=orion.nonsales;
  var Employee_ID Job_Title Salary Gender;
  format Salary salrange. Gender $gender.;
run;
title;
```

Supplemental exercise for STAT 625 and Honors credit

1. Producing a Default Listing Report of orion.order_fact (SAS Windowing Environment)

```
options ls=max;

proc print data=orion.order_fact;
```

```
run;

options ls=96;

proc print data=orion.order_fact headings=v;
run;
```

- a. Submit a simple PROC PRINT step to produce a default listing report.
- b. What are the minimum and maximum values for the LINESIZE= option? **The minimum value for LINESIZE= is 64 and the maximum size is MAX.**

When you are finished, use the following statement to reset the line size to 96:

```
options ls=96;
```

- c. How do you specify vertical headings? **HEADINGS=V forces all column headings to be displayed vertically.**
How do you specify horizontal headings? **HEADINGS=H forces all column headings to be displayed horizontally.**

2. Retaining the First Observation of Each BY Group

```
proc sort data=orion.orders out=work.custorders nodupkey
          dupout=work.duplicates;
  by Customer_ID;
run;

title 'Unique Customers';
proc print data=work.custorders;
run;

title 'Duplicate Customer Observations';
proc print data=work.duplicates;
run;
title;
```

3. Exploring Formats by Category

```
proc print data=orion.sales noobs;
  var Employee_ID First_Name Last_Name Job_Title;
  format First_Name Last_Name $upcase. Job_Title $quote.;
run;
```

4. Exploring Format Storage Options

What option enables you to store the formats in a permanent library? **LIBRARY=**

What option causes SAS to look for formats in permanent libraries? **FMTSEARCH=**