\*3.2

Level 1

A: orion.country has 7 observations

B: orion.country has 6 variables

C: last member of Orion is US\_SUPPLIERS;

Proc contents data=orion.\_all\_ nods;

run;

\*level 2

Orion.staff contains critical information about employees and includes salary, hiring dates, managers and job description as well as other information.

Challenge

-autoexec files run immediately when SAS initializes before any source statement

-they are created with a logic statement sas$init in the desired logic name table

-they are useful to create libraries and window environments that are required often or for specific jobs

4.1

Level 1;

proc print data=orion.order\_fact noobs;

id Customer\_ID;

sum Total\_Retail\_Price;

where Total\_Retail\_Price>500;

var Total\_Retail\_Price Order\_ID Order\_Type Quantity;

run;

\*Level 2;

proc print data=orion.customer\_dim noobs;

where Customer\_Age>30 and Customer\_Age<40;

id Customer\_ID;

var Customer\_Age Customer\_Type Customer\_Name;

run;

\*4.2

Level 1

5;

proc sort data=orion.employee\_payroll

out=sort\_payroll;

by Salary;

run;

proc print data=sort\_payroll;

run;

\*6;

proc sort data=orion.employee\_payroll

OUT=sort\_salary\_2;

by Employee\_Gender descending Salary;

run;

proc print data=sort\_salary\_2;

by Employee\_Gender;

run;

\*Level 2;

proc sort data=orion.employee\_payroll

OUT=sort\_sal;

by Employee\_Gender descending Salary;

run;

proc print data=sort\_sal noobs;

where Employee\_Term\_Date is null and Salary>65000;

by Employee\_Gender;

sum Salary;

var Employee\_ID Salary Marital\_Status;

run;

\*4.3

Level 1

9;

title1 'Australian Sales Employees';

title2 'Senior Sales Representatives';

footnote 'Job Title: Sales Rep. IV';

proc print data=orion.sales noobs;

where Country='AU' and Job\_Title contains 'Rep. IV';

var Employee\_ID First\_Name Last\_Name Gender Salary;

run;

title;

footnote;

\*10;

title 'Entry-level Sales Representatives';

footnote 'Job\_Title: Sales Rep. I';

proc print data=orion.sales noobs split=' ';

where Country='US' and Job\_Title='Sales Rep. I';

var Employee\_ID First\_Name Last\_Name Gender Salary;

label Employee\_ID='Employee ID' First\_Name='First Name' Last\_Name='Last Name' Salary='Anual Salary';

run;

title;

footnote;

\*Level 2;

proc sort data=orion.employee\_addresses

out=address\_sort;

by State City Employee\_Name;

run;

title1 'US Employees by State';

proc print data=address\_sort noobs split=' ';

where Country='US';

by State;

var Employee\_ID Employee\_Name City Postal\_Code;

label Employee\_ID='Empoyee ID'

Employee\_Name='Name'

City='City'

Postal\_Code='Zip Code';

run;

title;

\*5.1

Level 1;

proc print data=orion.employee\_payroll;

var Employee\_ID Salary Birth\_Date Employee\_Hire\_Date;

format Salary dollar8.

Birth\_Date mmddyy10.

Employee\_Hire\_Date date9.;

run;

\*Level 2;

title1 'US Sales Employees';

title2 'Earning Under $26,000';

proc print data=orion.sales noobs split=' ';

where Country='US' and Salary<26000;

var Employee\_ID

First\_Name

Last\_Name

Salary

Job\_Title

Hire\_Date;

label Employee\_ID='Employee ID'

First\_Name='First Name'

Last\_Name='Last Name'

Salary='Salary'

Job\_Title='Title'

Hire\_Date='Date Hired';

format Salary dollar8. Hire\_Date monyy7.;

run;

title;

\*5.2

Level 1;

data Q1Birthdays;

set orion.employee\_payroll;

BirthMonth=month(Birth\_Date);

if BirthMonth le 3;

run;

proc format;

value $gendera 'M'='Male'

'F'='Female'

other='undefined';

value mname 1='January'

2='February'

3='March';

run;

proc print data=Q1Birthdays;

var Employee\_ID Employee\_Gender BirthMonth;

format Employee\_Gender $gendera. BirthMonth mname.;

run;

\*Level 2;

proc format;

value $genderb 'F'='Female'

'M'='Male'

other='Invalid Code';

value salrange 20000-<100000='Below $100,000'

100000-500000='$100,000 or more'

.='Missing Salary'

other='Invalid Salary';

run;

proc print data=orion.nonsales;

var Employee\_ID Job\_Title Salary Gender;

title1 'Salary and Gender Values';

title2 'for Non-Sales Employees';

format Gender $genderb. Salary salrange.;

run;

\*6.2

Level 2;

data work.delays;

set orion.orders;

Order\_Month=month(Order\_Date);

where Employee\_ID=99999999;

if Delivery\_Date>(Order\_Date+4)and Order\_Month=8;

keep Employee\_ID

Customer\_ID

Order\_Date

Delivery\_Date

Order\_Month;

label Order\_Date='Date Ordered'

Delivery\_Date='Date Delivered'

Order\_Month='Month Ordered';

format Order\_Date mmddyy10. Delivery\_Date mmddyy10.;

run;

proc contents data=work.delays;

run;

proc print data=work.delays;

run;

\*9.1

Level 2;

data work.birthday;

set orion.customer;

Bday2012=mdy(month(Birth\_Date),day(Birth\_Date),2012);

BdayDOW2012=weekday(Bday2012);

Age2012=yrdif(Birth\_Date,Bday2012,'act/act');

keep Customer\_Name

Birth\_Date

Bday2012

BdayDOW2012

Age2012;

format Bday2012 date7. Age2012 3.;

run;

proc print data=work.birthday;

run;

\*9.2

Level 2

6;

data work.season;

set orion.customer\_dim;

length Promo $ 6 Promo2 $ 6;

if qtr(Customer\_BirthDate)=1

then Promo='Winter';

else if qtr(Customer\_BirthDate)=2

then Promo='Spring';

else if qtr(Customer\_BirthDate)=3

then Promo='Summer';

else if qtr(Customer\_BirthDate)=4

then Promo='Fall';

else Promo=.;

if Customer\_Age>18 and Customer\_Age<25

then Promo2='YA';

else if Customer\_Age>65

then Promo2='Senior';

else Promo2=.;

keep Customer\_FirstName

Customer\_LastName

Customer\_BirthDate

Customer\_Age

Promo

Promo2;

run;

proc print data=work.season;

run;

\*7;

data work.ordertype;

set orion.orders;

length Type $ 13 SaleAds $ 5;

DayOfWeek=weekday(Order\_Date);

if Order\_Type=1

then Type='Retail Sale';

else if Order\_Type=2

then do;

Type='Catalog Sale';

SaleAds='Mail';

end;

else if Order\_Type=3

then do;

Type='Internet Sale';

SaleAds='Email';

end;

else Type='Invalid Type';

drop Order\_Type

Employee\_ID

Customer\_ID;

run;

proc print data=work.ordertype;

run;

\*10.1

Level 2;

proc contents data=orion.charities;

run;

proc contents data=orion.us\_suppliers;

run;

proc contents data=orion.consultants;

run;

data work.contacts;

set orion.charities orion.us\_suppliers;

run;

proc contents data=work.contacts;

run;

\*in this data set the variable attibutes are assigned from orion.charities;

data work.contacts2;

set orion.us\_suppliers orion.charities;

run;

proc contents data=work.contacts2;

run;

\*in this data set the variables attributes are taken from orion.us\_suppliers;

data work.contacts3;

set orion.us\_suppliers orion.consultants;

run;

\*this concatianation fails because the contacttype is assigned as both a character value

and a numeric value, which produces an error;

\*10.3

Level 2;

proc sort data=orion.product\_list

out=work.product\_list;

by Product\_Level;

run;

data work.listlevel;

merge orion.product\_level work.product\_list;

by Product\_Level;

keep Product\_ID

Product\_Name

Product\_Level

Product\_Level\_Name;

run;

proc print data=work.listlevel noobs;

where Product\_Level=3;

run;

\*10.4

Level2;

proc sort data=orion.customer

out=work.customer;

by Country;

run;

data work.allcustomer;

merge work.customer(in=cust)

orion.lookup\_country(rename=(Start=Country Label=Country\_Name) in=count);

by Country;

if cust=1 and count=1;

keep Customer\_ID

Country

Customer\_Name

Country\_Name;

run;

proc print data=work.allcustomer;

run;