ST555 Homework 8

When you have completed this HW, submit via Moodle the following:

I. **Two SAS programs** (.sas), one for question 1) and a second SAS program for question 2). In each SAS program include the answers to the fill in the blanks as comments. Be sure to include the question number and letter for each comment.
II. Your SAS log for question 1)
III. Your Results for question 1), generate your results using ods as a .pdf or .rtf file

1) In this problem, you will use the raw data file 'Sales3.dat' which contains employee information for the Australian and US sales staff. Note that the information for each employee is in two lines of raw data and the record layouts are shown below:

Line 1 layout

Description	Starting Column	Length	Data Type
**Employee ID	1	6	Num
First Name	8	12	Char
**Last Name	21	18	Char
Gender	40	1	Char
**Job Title	43	20	Char

Line 2 layout for Australian employees

Description	Starting Column	Length	Data Type
**Salary	1	8	Num($100.000)
**Country	10	2	Char
Birth Date	13	10	Num(dd/mm/yyyy)
**Hire Date	24	10	Num(dd/mm/yyyy)

Line 2 layout for US employees

Description	Starting Column	Length	Data Type
**Salary	1	8	Num($100,000)
**Country	10	2	Char
Birth Date	13	10	Num(mm/dd/yyyy)
**Hire Date	24	10	Num(mm/dd/yyyy)

Notice that Salary and Hire Date have different formats for Australian and US employees.

a) Create a new SAS data sets called 'Sales' that contain the fields indicated by ** in the tables above. Format the Salary variable so that is displays the $ and comma, but no decimals, and format the Hire Date so that it dispays like 01APR2014.
   i. From the log, how many records were read from Sales3.dat? _____
   ii. How many observations are in Sales? _____

b) Create two new datasets called 'AUJobTotals' and 'USJobTotals' with the following:
   i. Calculate the total salary and number of employees of each job title in each country.
   ii. Output the US totals to 'USJobTotals' and output the Australian totals to 'AUJobTotals'. Only keep the job title, the total salary, and the total number of employees in each dataset.
   iii. Add the label 'Job Title' to the job title variable, and the label 'Number of Employees' to the total employees variable.
   iv. Format the total salary to display the $ and commas.

c) Print the two datasets in (b).
   i. What is the total salary paid to US Sales Rep. I's?_____
   ii. How many Australian Sales Managers are there?_____

d) Using the Sales dataset in (a), create a new dataset called “Reps4” that only contains employees whose Job Title is “Sales Rep. IV” with the following variables:
   i. Create a variable “Full Name” that combines each employee’s First Name and Last Name with a space in between.
   ii. Create a variable “Age” that gives the Age of each employee as of October 19, 2014.
   iii. Convert Hire Date to a character variable.

e) Provide a proc contents for Reps4 dataset created in d)
   i. How many employees are in the Reps4 dataset? _____

2) From your Group discussion post, read in the SAS dataset of the group member whose last name is alphabetically immediately after your last name. (If your last name is the last alphabetically in the group, then read in the SAS program for the first person in the group)

a) Provide a proc contents for the SAS dataset.
   i. How many observations are in the dataset? _____
   ii. How many variables are in the dataset? _____
b) Compare the SAS dataset that you posted to this group member’s dataset.
   i. If you have any variables in common, list them in a comment (it is OK if you and your group member named them differently)

ii. In a comment, list any variable that you included but your group member did not.

iii. In a comment, list any variable that your group member included but you did not.

c) Now open up the SAS program that corresponds to the SAS dataset of your group member whose last name is alphabetically immediately after yours.

i. Provide one comment that gives at least 1 specific thing you like about this program.

ii. Provide one comment that gives at least 1 way this program can be improved.